

Test Logs

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Test Model: PS1400-48I

Series Model: PS1400-48E

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1 CBSD Registration Process

1.1 WINNF.FT.D.REG.2

2025-06-25T06:34:14.054Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T06:34:14.056Z - INFO - the selected test from the user : WINNF.FT.D.REG.2 is starting now

2025-06-25T06:34:24.852Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T06:34:24.921Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

    }
  ]
}
2025-06-25T06:34:25.848Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T06:34:25.850Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T06:34:26.845Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ]
    }
  ]
}

```

```

    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
}
2025-06-25T06:34:26.907Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-06-25T06:34:28.070Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T06:34:28.070Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2025-06-25T06:40:51.164Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2025-06-25T06:40:51.164Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2025-06-25T06:40:53.126Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2025-06-25T06:40:53.760Z - INFO - The final result of the test : WINNF.FT.D.REG.2 is - passed

```

1.2 WINNF.FT.D.REG.4

2025-08-11T03:47:40.339Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-08-11T03:47:40.340Z - INFO - the selected test from the user : WINNF.FT.D.REG.4 is starting now

2025-08-11T03:47:52.045Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48E",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY202511002G",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "measCapability": [],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",

```

```

        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
        {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "measCapability": [],
    "userId": "PEGATRON"
    }
]
}
2025-08-11T03:47:52.116Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-08-11T03:47:53.356Z - INFO - arrived to nstep starting question answer session with the technician
2025-08-11T03:47:53.357Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2025-08-11T03:47:56.371Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2025-08-11T03:47:56.372Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2025-08-11T03:47:57.365Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2025-08-11T03:47:57.812Z - INFO - The final result of the test : WINNF.FT.D.REG.4 is - passed

```

1.3 WINNF.FT.D.REG.6

2025-08-11T03:58:01.338Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-08-11T03:58:01.341Z - INFO - the selected test from the user : WINNF.FT.D.REG.6 is starting now

2025-08-11T03:58:12.076Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR"

},

"callSign": "CB987",

"cbsdCategory": "A",

"cbsdInfo": {

"firmwareVersion": "v1.1.1.7_RC1",

"hardwareVersion": "1.0",

"model": "PS1400-48E",

"softwareVersion": "1.1.1.4",

"vendor": "Pegatron"

},

"cbsdSerialNumber": "PTY202511002G",

"cpiSignatureData": {

"digitalSignature":

"SyjzYNA9VXtHuVGjUL6rlaAVnPMLNWsZxkld33wxFsk8jPTc4p5KDCNmyDA0594Wptl-oL7GDizOZ4JQXiZl
s4VUwy-L4MBvWlirkyGNI5iptWTwwWTYe8G-xQ-iRhTiyhg106O90C8FnwGqDPdo1DF4pb5CLMP9cmNVAN
FJ564ey4WDliJaoE56T2txOrXe0uiZGz7J4C4Q3lpTA-1rrQ5oYuHM8QXE4NetrQ5X5gxNnURjjFIMOrl7Oi_tN
dymyKl1GxDg1Er0irNXAT_3d8ZgoVK3QPPX2KGtfJ-lb_bn7K_ekBoXcOuw09IYHJRojqc83G_tl7Q1dyHZ7H-
nZA",

"encodedCpiSignedData":

"eyJmY2NJZCI6IlZVSbTMTQwMC00OCIsImNic2RTZXJpYWxOdW1iZXliOiJWVUIQUzE0MDAtNDgiLCJp
bnN0YWxsYXRpb25QYXJhbSI6eyJsYXRpdHVkZSI6NDAAuMCwibG9uZ2l0dWRlljoxMC4wLCJoZWlnaHQiOiJ
MuMCwiaGVpZ2h0VHlwZSI6IkFHTCIsImhvcml6b250YWxBY2N1cmFjeSI6NDkuMCwidmVydGJjYWxBY2N1
cmFjeSI6MS4wLWJpbmRvb3JEZXBs3ltZW50ljp0cnVILCJhbnRlbn5hQXppbXV0aCI6MjQwLWJhbnRlbn5h
RG93bnRpbHQiOiJmSmFudGVubmFHYWluljo4LjAsImVpcnBDYXhYmlsaXR5IjozMCAwLWJhbnRlbn5hQm
VhbXdpZHRoljozNjAsImFudGVubmFNb2RlbnRlbn5hQmVhbXdpZHRoljozNjAsImFudGVubmFNb2RlbnRlbn5hQm
RhbGxlckRhdGEiOisiY3BpSWQlOiIxMjM0NTY3ODkiLCJjcGLOYW1lIjojUGVnYV9Cb2liLCJpbmN0YWxsQ2V
ydGlmaWNhdGlvblRpbWUiOiilyMDI1LTA4LTExVDAzOjU4OjA2WiJ9fQ",

"protectedHeader": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9"

},

"fccId": "VUIPS1400-48",

"groupingParam": [

{

"groupId": "group-1",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "PEGATRON"

},

{

"airInterface": {

"radioTechnology": "NR"

},

"callSign": "CB987",

"cbsdCategory": "A",

"cbsdInfo": {

"firmwareVersion": "v1.1.1.7_RC1",

```
2025-08-11T03:58:12.116Z - INFO - Registration message contains cpiSignatureData
2025-08-11T03:58:12.116Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}
2025-08-11T03:58:12.118Z - INFO - encodedCpiSignedData contents = {
  "installationParam": {
    "eirpCapability": 30.0,
    "antennaAzimuth": 240,
    "heightType": "AGL",
    "antennaModel": "C1335-510520-A",
    "longitude": 10.0,
    "height": 3.0,
    "indoorDeployment": true,
    "antennaBeamwidth": 360,
    "horizontalAccuracy": 49.0,
    "antennaDowntilt": 3,
    "latitude": 40.0,
    "antennaGain": 8.0,
    "verticalAccuracy": 1.0
  },
  "fccId": "VUIPS1400-48",
  "professionalInstallerData": {
    "cpiName": "Pega_Bob",
    "installCertificationTime": "2025-08-11T03:58:06Z",
```

```

    "cpild": "123456789"
  },
  "cbbsdSerialNumber": "VUIPS1400-48"
}
2025-08-11T03:58:12.184Z - INFO - verified signature on cpiSignatureData
2025-08-11T03:58:12.186Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2025-08-11T03:58:12.194Z - INFO - cpiSignatureData data successfully validated against jsonschema
2025-08-11T03:58:12.219Z - INFO - Registration message contains cpiSignatureData
2025-08-11T03:58:12.219Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}
2025-08-11T03:58:12.219Z - INFO - encodedCpiSignedData contents = {
  "installationParam": {
    "eirpCapability": 30.0,
    "antennaAzimuth": 240,
    "heightType": "AGL",
    "antennaModel": "C1335-510520-A",
    "longitude": 10.0,
    "height": 3.0,
    "indoorDeployment": true,
    "antennaBeamwidth": 360,
    "horizontalAccuracy": 49.0,
    "antennaDowntilt": 3,
    "latitude": 40.0,
    "antennaGain": 8.0,
    "verticalAccuracy": 1.0
  },
  "fcclId": "VUIPS1400-48",
  "professionalInstallerData": {
    "cpiName": "Pega_Bob",
    "installCertificationTime": "2025-08-11T03:58:08Z",
    "cpild": "123456789"
  },
  "cbbsdSerialNumber": "VUIPS1400-48"
}
2025-08-11T03:58:12.221Z - INFO - verified signature on cpiSignatureData
2025-08-11T03:58:12.221Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2025-08-11T03:58:12.226Z - INFO - cpiSignatureData data successfully validated against jsonschema
2025-08-11T03:58:12.228Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-08-11T03:58:13.355Z - INFO - arrived to nstep starting question answer session with the technician
2025-08-11T03:58:13.355Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :
2025-08-11T03:58:15.553Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n
2025-08-11T03:58:15.554Z - INFO - the question is : Were there RF transmissions from the CBSD1 during

```

the test? please choose one of the answers :

2025-08-11T03:58:16.291Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-08-11T03:58:16.746Z - INFO - The final result of the test : WINNF.FT.D.REG.6 is - passed

1.4 WINNF.FT.C.REG.9

2025-06-25T08:14:31.540Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T08:14:31.543Z - INFO - the selected test from the user : WINNF.FT.D.REG.9 is starting now

2025-06-25T08:14:40.883Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48E",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY202511002G",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 40.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-06-25T08:14:40.953Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "response": {
          "responseCode": 102
        }
      }
    ]
  }

```

2025-06-25T08:14:43.894Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]

```

2025-06-25T08:14:44.003Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]

```

2025-06-25T08:14:45.559Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T08:14:45.559Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2025-06-25T08:19:29.024Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2025-06-25T08:19:29.025Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-06-25T08:19:30.613Z - INFO - for the question : Were there RF transmissions from the CBSD1 during

the test? , the user choose n

2025-06-25T08:19:31.095Z - INFO - The final result of the test : WINNF.FT.D.REG.9 is - passed

1.5 WINNF.FT.C.REG.11

2025-06-25T08:19:56.040Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T08:19:56.042Z - INFO - the selected test from the user : WINNF.FT.D.REG.11 is starting now

2025-06-25T08:20:38.894Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

}
2025-06-25T08:20:38.982Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 200
    }
  }
]
```

}
2025-06-25T08:20:40.920Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48E",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY202511002G",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]

```

2025-06-25T08:20:40.986Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "response": {
        "responseCode": 200
      }
    }
  ]

```

2025-06-25T08:20:42.095Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T08:20:42.095Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-06-25T08:25:38.910Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-06-25T08:25:38.911Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2025-06-25T08:25:41.318Z - INFO - for the question : Were there RF transmissions from the CBSD2 during

the test? , the user choose n

2025-06-25T08:25:41.888Z - INFO - The final result of the test : WINNF.FT.D.REG.11 is - passed

1.6 WINNF.FT.C.REG.13

2025-06-25T08:26:19.050Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T08:26:19.051Z - INFO - the selected test from the user : WINNF.FT.D.REG.13 is starting now

2025-06-25T08:26:30.881Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T08:26:30.951Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

2025-06-25T08:26:31.876Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T08:26:31.877Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T08:26:31.895Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,

```

```

        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
}
]
}
2025-06-25T08:26:32.003Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "response": {
                "responseCode": 103
            }
        }
    ]
}
}
2025-06-25T08:26:33.068Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T08:26:33.068Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2025-06-25T08:32:39.376Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2025-06-25T08:32:39.376Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2025-06-25T08:32:41.251Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2025-06-25T08:32:41.866Z - INFO - The final result of the test : WINNF.FT.D.REG.13 is - passed

```

1.7 WINNF.FT.C.REG.15

2025-06-25T08:33:18.120Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T08:33:18.121Z - INFO - the selected test from the user : WINNF.FT.D.REG.15 is starting now

2025-06-25T08:33:31.889Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T08:33:31.960Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

2025-06-25T08:33:32.874Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T08:33:32.875Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T08:33:32.895Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,

```

```

        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
}
]
}
2025-06-25T08:33:32.980Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "response": {
                "responseCode": 101
            }
        }
    ]
}
2025-06-25T08:33:34.140Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T08:33:34.140Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2025-06-25T08:41:04.631Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2025-06-25T08:41:04.632Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2025-06-25T08:41:05.978Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2025-06-25T08:41:06.676Z - INFO - The final result of the test : WINNF.FT.D.REG.15 is - passed

```

1.8 WINNF.FT.C.REG.17

2025-06-25T08:41:40.780Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T08:41:40.780Z - INFO - the selected test from the user : WINNF.FT.D.REG.17 is starting now

2025-06-25T08:41:53.883Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T08:41:53.943Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 100
    }
  }
]
```

2025-06-25T08:41:55.875Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48E",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY202511002G",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]

```

2025-06-25T08:41:55.950Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "response": {
        "responseCode": 100
      }
    }
  ]

```

2025-06-25T08:41:57.801Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T08:41:57.801Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-06-25T08:50:56.912Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-06-25T08:50:56.913Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2025-06-25T08:50:58.111Z - INFO - for the question : Were there RF transmissions from the CBSD2 during

the test? , the user choose n

2025-06-25T08:50:58.681Z - INFO - The final result of the test : WINNF.FT.D.REG.17 is - passed

1.9 WINNF.FT.C.REG.19

2025-06-25T08:51:24.458Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T08:51:24.458Z - INFO - the selected test from the user : WINNF.FT.D.REG.19 is starting now

2025-06-25T08:51:38.874Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 40.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-06-25T08:51:38.933Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

```
2025-06-25T08:51:39.871Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T08:51:39.872Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T08:51:39.886Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,

```

```
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
}
]
}
2025-06-25T08:51:40.012Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 201
      }
    }
  ]
}
}
2025-06-25T08:51:41.478Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T08:51:41.478Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2025-06-25T08:58:23.263Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2025-06-25T08:58:23.263Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2025-06-25T08:58:24.080Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2025-06-25T08:58:24.523Z - INFO - The final result of the test : WINNF.FT.D.REG.19 is - passed
```

1.10 WINNF.FT.C.REG.20

2025-06-25T09:07:00.400Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T09:07:00.402Z - INFO - the selected test from the user : WINNF.FT.C.REG.20_1 is starting now

2025-06-25T09:07:32.869Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T09:07:32.951Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

2025-06-25T09:07:33.863Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T09:07:33.872Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T09:07:34.863Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T09:07:34.871Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T09:07:34Z",
      "grantId": "523119672",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T09:07:35.873Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T09:07:35.883Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:10:55Z"
    }
  ]
}
2025-06-25T09:07:43.863Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:07:43.864Z - INFO - Time interval between two heartbeat request messages is: 7.989598,
limit is: 65.0
2025-06-25T09:07:43.870Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:11:03Z"
    }
  ]
}
2025-06-25T09:08:43.864Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:08:43.866Z - INFO - Time interval between two heartbeat request messages is: 60.000871,
limit is: 65.0

```

```
2025-06-25T09:08:43.873Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:12:03Z"
    }
  ]
}
2025-06-25T09:09:43.863Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:09:43.865Z - INFO - Time interval between two heartbeat request messages is: 59.999526,
limit is: 65.0
2025-06-25T09:09:43.870Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:13:03Z"
    }
  ]
}
2025-06-25T09:10:43.862Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:10:43.864Z - INFO - Time interval between two heartbeat request messages is: 59.998238,
limit is: 65.0
2025-06-25T09:10:43.869Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:14:03Z"
    }
  ]
}
```

```

2025-06-25T09:11:43.870Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:11:43.881Z - INFO - Time interval between two heartbeat request messages is: 60.008341,
limit is: 65.0
2025-06-25T09:11:43.898Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "523119672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:15:03Z"
    }
  ]
}
2025-06-25T09:11:45.689Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T09:11:45.689Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2025-06-25T09:14:38.091Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n
2025-06-25T09:14:38.091Z - INFO - the question is : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? please choose one of the answers :
2025-06-25T09:14:39.218Z - INFO - for the question : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? , the user choose y
2025-06-25T09:14:39.832Z - INFO - The final result of the test : WINNF.FT.C.REG.20_1 is - passed

2025-06-25T09:21:21.607Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2025-06-25T09:21:21.608Z - INFO - the selected test from the user : WINNF.FT.C.REG.20_2 is starting now
2025-06-25T09:21:35.863Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY2025110032",
      "fccId": "VUIPS1400-48",

```

```

        "groupingParam": [
            {
                "groupId": "group-1",
                "groupType": "INTERFERENCE_COORDINATION"
            }
        ],
        "installationParam": {
            "antennaAzimuth": 240,
            "antennaBeamwidth": 360,
            "antennaDowntilt": 3,
            "antennaGain": 8,
            "antennaModel": "C1335-510520-A",
            "eirpCapability": 30,
            "height": 3.0,
            "heightType": "AGL",
            "horizontalAccuracy": 49.0,
            "indoorDeployment": true,
            "latitude": 41.0,
            "longitude": 10.0,
            "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
    }
]
}
2025-06-25T09:21:35.941Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-06-25T09:21:37.864Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-06-25T09:21:37.874Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    }
                }
            ],

```

```

        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
}
2025-06-25T09:21:39.859Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T09:21:39.865Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T09:21:39Z",
      "grantId": "357836029",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T09:21:41.859Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T09:21:41.865Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:25:01Z"
    }
  ]
}

```

```

}
2025-06-25T09:21:43.871Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:21:43.872Z - INFO - Time interval between two heartbeat request messages is: 2.012272,
limit is: 65.0
2025-06-25T09:21:43.877Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:25:03Z"
    }
  ]
}
2025-06-25T09:22:43.858Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:22:43.861Z - INFO - Time interval between two heartbeat request messages is: 59.987377,
limit is: 65.0
2025-06-25T09:22:43.865Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:26:03Z"
    }
  ]
}
2025-06-25T09:23:43.858Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:23:43.860Z - INFO - Time interval between two heartbeat request messages is: 59.999693,
limit is: 65.0

```

```

2025-06-25T09:23:43.864Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:27:03Z"
    }
  ]
}
2025-06-25T09:24:43.857Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:24:43.859Z - INFO - Time interval between two heartbeat request messages is: 59.999129,
limit is: 65.0
2025-06-25T09:24:43.864Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:28:03Z"
    }
  ]
}
2025-06-25T09:25:43.857Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:25:43.859Z - INFO - Time interval between two heartbeat request messages is: 59.99977,
limit is: 65.0
2025-06-25T09:25:43.865Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "357836029",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:29:03Z"
    }
  ]
}

```

2025-06-25T09:25:44.875Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T09:25:44.875Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
2025-06-25T09:28:19.059Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
2025-06-25T09:28:19.059Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
2025-06-25T09:28:20.232Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y
2025-06-25T09:28:20.675Z - INFO - The final result of the test : WINNF.FT.C.REG.20_2 is - passed

2 CBSD Spectrum Grant Process

2.1 WINNF.FT.C.GRA.1

2025-06-25T09:29:01.126Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T09:29:01.126Z - INFO - the selected test from the user : WINNF.FT.C.GRA.1 is starting now

2025-06-25T09:29:16.862Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY2025110032",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 41.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}
```

2025-06-25T09:29:16.938Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

    ]
  }
  2025-06-25T09:29:17.866Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "inquiredSpectrum": [
          {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          }
        ]
      }
    ]
  }
}
  2025-06-25T09:29:17.878Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
      {
        "availableChannel": [
          {
            "channelType": "GAA",
            "frequencyRange": {
              "highFrequency": 3700000000,
              "lowFrequency": 3550000000
            },
            "ruleApplied": "FCC_PART_96"
          }
        ],
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }
}
  2025-06-25T09:29:18.857Z - INFO - grant request from CBRS : {
    "grantRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "operationParam": {
          "maxEirp": 20.0,
          "operationFrequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3660000000
          }
        }
      }
    ]
  }
}
  2025-06-25T09:29:18.864Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 400
        }
      }
    ]
  }
}

```

}

2025-06-25T09:29:20.150Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T09:29:20.150Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-06-25T09:33:13.589Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-06-25T09:33:13.866Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed

2.2 WINNF.FT.C.GRA.2

2025-06-25T09:33:43.119Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T09:33:43.119Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now

2025-06-25T09:33:58.860Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 41.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T09:33:58.932Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

2025-06-25T09:33:59.855Z - INFO - spectrumInquiry request from CBRS : {

```

    "spectrumInquiryRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "inquiredSpectrum": [
          {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          }
        ]
      }
    ]
  }

```

2025-06-25T09:33:59.863Z - INFO - engine sent successfully, the response to CBRS : {

```

    "spectrumInquiryResponse": [
      {
        "availableChannel": [
          {
            "channelType": "GAA",
            "frequencyRange": {
              "highFrequency": 3700000000,
              "lowFrequency": 3550000000
            },
            "ruleApplied": "FCC_PART_96"
          }
        ],
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

2025-06-25T09:34:00.875Z - INFO - grant request from CBRS : {

```

    "grantRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "operationParam": {
          "maxEirp": 20.0,
          "operationFrequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3660000000
          }
        }
      }
    ]
  }

```

2025-06-25T09:34:00.892Z - INFO - engine sent successfully, the response to CBRS : {

```

    "grantResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 401
        }
      }
    ]
  }

```

2025-06-25T09:34:02.140Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T09:34:02.140Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-06-25T09:37:11.564Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-06-25T09:37:12.010Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed

3 CBSD Heart Beat Process

3.1 WINNF.FT.D.HBT.2

2025-06-25T09:38:08.611Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T09:38:08.614Z - INFO - the selected test from the user : WINNF.FT.D.HBT.2 is starting now

2025-06-25T09:38:25.861Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 41.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T09:38:25.955Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

    }
  ]
}
2025-06-25T09:38:26.878Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-06-25T09:38:26.886Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-06-25T09:38:27.865Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
}
2025-06-25T09:38:27.874Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T09:38:27Z",
      "grantId": "343035949",
      "heartbeatInterval": 60,

```

```

    "response": {
      "responseCode": 0
    }
  ]
}
2025-06-25T09:38:27.902Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}
2025-06-25T09:38:28.024Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2025-06-25T09:38:28.855Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T09:38:28.865Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:41:48Z"
    }
  ]
}
2025-06-25T09:38:28.879Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T09:38:28.897Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T09:38:29.877Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
```

```

    "operationParam": {
      "maxEirp": 20.0,
      "operationFrequencyRange": {
        "highFrequency": 3700000000,
        "lowFrequency": 3660000000
      }
    }
  }
]
}
2025-06-25T09:38:29.883Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T09:38:29Z",
      "grantId": "351465157",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T09:38:30.884Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T09:38:30.889Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:41:50Z"
    }
  ]
}
2025-06-25T09:38:43.897Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2025-06-25T09:38:43.902Z - INFO - Time interval between two heartbeat request messages is: 15.045248,
limit is: 65.0
2025-06-25T09:38:43.907Z - INFO - Time interval between two heartbeat request messages is: 13.01658,
limit is: 65.0
2025-06-25T09:38:43.914Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:42:03Z"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:42:03Z"
    }
  ]
}
2025-06-25T09:39:43.857Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:39:43.859Z - INFO - Time interval between two heartbeat request messages is: 59.957152,
limit is: 65.0
2025-06-25T09:39:43.864Z - INFO - Time interval between two heartbeat request messages is: 59.957152,
limit is: 65.0
2025-06-25T09:39:43.869Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:43:03Z"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2025-06-25T09:43:03Z"
  }
]
}
2025-06-25T09:40:43.870Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:40:43.872Z - INFO - Time interval between two heartbeat request messages is: 60.013234,
limit is: 65.0
2025-06-25T09:40:43.883Z - INFO - Time interval between two heartbeat request messages is: 60.013234,
limit is: 65.0
2025-06-25T09:40:43.890Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:44:03Z"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T09:44:03Z"
    }
  ]
}
2025-06-25T09:41:43.882Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "343035949",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "351465157",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T09:41:43.884Z - INFO - Time interval between two heartbeat request messages is: 60.011597,

```

limit is: 65.0

2025-06-25T09:41:43.892Z - INFO - Time interval between two heartbeat request messages is: 60.011597,

limit is: 65.0

2025-06-25T09:41:43.905Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "343035949",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T09:45:03Z"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "351465157",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T09:45:03Z"
  }
]
```

2025-06-25T09:42:43.866Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "351465157",
    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "343035949",
    "operationState": "AUTHORIZED"
  }
]
```

2025-06-25T09:42:43.882Z - INFO - Time interval between two heartbeat request messages is: 59.993944,
limit is: 65.0

2025-06-25T09:42:43.888Z - INFO - Time interval between two heartbeat request messages is: 59.993944,
limit is: 65.0

2025-06-25T09:42:43.895Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "351465157",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T09:46:03Z"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "343035949",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T09:46:03Z"
  }
]
```

}
]
}

2025-06-25T09:42:44.896Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T09:42:44.896Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
2025-06-25T10:00:18.587Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
2025-06-25T10:00:18.587Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
2025-06-25T10:00:22.396Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y
2025-06-25T10:00:22.396Z - INFO - the question is : Did CBSD2 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
2025-06-25T10:00:25.711Z - INFO - for the question : Did CBSD2 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
2025-06-25T10:00:25.711Z - INFO - the question is : Did CBSD2 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
2025-06-25T10:00:28.255Z - INFO - for the question : Did CBSD2 transmit only within the frequency range specified in its grantRequest message? , the user choose y
2025-06-25T10:00:28.986Z - INFO - The final result of the test : WINNF.FT.D.HBT.2 is - passed

3.2 WINNF.FT.C.HBT.3

2025-06-25T10:07:56.095Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:07:56.096Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2025-06-25T10:08:10.853Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-06-25T10:08:10.945Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

```

2025-06-25T10:08:12.846Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:08:12.854Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:08:13.846Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:08:13.853Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:08:13Z",
      "grantId": "926530013",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T10:08:14.854Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:08:14.860Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:11:34Z"
    }
  ]
}
2025-06-25T10:08:43.844Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:08:43.846Z - INFO - Time interval between two heartbeat request messages is: 28.990818,
limit is: 65.0
2025-06-25T10:08:43.851Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:12:03Z"
    }
  ]
}
2025-06-25T10:09:43.846Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:09:43.848Z - INFO - Time interval between two heartbeat request messages is: 60.001337,
limit is: 65.0

```

```
2025-06-25T10:09:43.852Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:13:03Z"
    }
  ]
}
2025-06-25T10:10:43.844Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:10:43.847Z - INFO - Time interval between two heartbeat request messages is: 59.99919,
limit is: 65.0
2025-06-25T10:10:43.853Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "926530013",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2025-06-25T10:10:43Z"
    }
  ]
}
2025-06-25T10:10:45.269Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T10:10:45.269Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 105? please choose one of the answers :
2025-06-25T10:13:47.255Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 105? , the user choose y
2025-06-25T10:13:47.668Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed
```

3.3 WINNF.FT.C.HBT.5

2025-06-25T10:14:23.814Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:14:23.814Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2025-06-25T10:14:39.847Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 41.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T10:14:39.937Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

2025-06-25T10:14:41.862Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:14:41.882Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:14:43.862Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:14:43.880Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:14:43Z",
      "grantId": "850289374",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T10:14:45.844Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "850289374",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:14:45.850Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "850289374",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-06-25T10:14:45Z"
    }
  ]
}
2025-06-25T10:15:43.842Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "850289374",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:15:43.845Z - INFO - Time interval between two heartbeat request messages is: 57.998136,
limit is: 65.0
2025-06-25T10:15:43.851Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "850289374",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-06-25T10:15:43Z"
    }
  ]
}
2025-06-25T10:15:44.925Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T10:15:44.925Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :
2025-06-25T10:18:25.647Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the
user choose n
2025-06-25T10:18:25.910Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed

```

3.4 WINNF.FT.C.HBT.6

2025-06-25T10:18:55.119Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:18:55.120Z - INFO - the selected test from the user : WINNF.FT.C.HBT.6 is starting now

2025-06-25T10:19:13.859Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 41.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T10:19:13.961Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

2025-06-25T10:19:15.841Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:19:15.850Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:19:17.842Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:19:17.850Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:19:17Z",
      "grantId": "746713858",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T10:19:19.856Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:19:19.862Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:22:39Z"
    }
  ]
}
2025-06-25T10:19:43.842Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:19:43.844Z - INFO - Time interval between two heartbeat request messages is: 23.986864,
limit is: 65.0
2025-06-25T10:19:43.849Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:23:03Z"
    }
  ]
}
2025-06-25T10:20:43.842Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:20:43.844Z - INFO - Time interval between two heartbeat request messages is: 59.999261,
limit is: 65.0

```

```
2025-06-25T10:20:43.848Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:24:03Z"
    }
  ]
}
2025-06-25T10:21:43.841Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:21:43.842Z - INFO - Time interval between two heartbeat request messages is: 59.998901,
limit is: 65.0
2025-06-25T10:21:43.847Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-06-25T10:21:43Z"
    }
  ]
}
2025-06-25T10:22:43.840Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:22:43.842Z - INFO - Time interval between two heartbeat request messages is: 59.999021,
limit is: 65.0
2025-06-25T10:22:43.849Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "746713858",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-06-25T10:22:43Z"
    }
  ]
}
```

2025-06-25T10:22:45.353Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T10:22:45.353Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? please choose one of the answers :
2025-06-25T10:24:53.166Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? , the user choose y
2025-06-25T10:24:53.515Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed

3.5 WINNF.FT.C.HBT.7

2025-06-25T10:25:24.939Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:25:24.940Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2025-06-25T10:25:39.843Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-06-25T10:25:39.927Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

```
2025-06-25T10:25:40.852Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:25:40.860Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:25:41.842Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:25:41.849Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:25:41Z",
      "grantId": "536750550",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

    }
  ]
}
2025-06-25T10:25:42.841Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:25:42.847Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:29:02Z"
    }
  ]
}
2025-06-25T10:26:43.861Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:26:43.862Z - INFO - Time interval between two heartbeat request messages is: 61.020309,
limit is: 65.0
2025-06-25T10:26:43.867Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:30:03Z"
    }
  ]
}
2025-06-25T10:27:43.840Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:27:43.842Z - INFO - Time interval between two heartbeat request messages is: 59.979139,
limit is: 65.0

```

```

2025-06-25T10:27:43.847Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:31:03Z"
    }
  ]
}
2025-06-25T10:28:43.840Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:28:43.842Z - INFO - Time interval between two heartbeat request messages is: 59.999828,
limit is: 65.0
2025-06-25T10:28:43.847Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2025-06-25T10:28:43Z"
    }
  ]
}
2025-06-25T10:28:45.857Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550"
    }
  ]
}
2025-06-25T10:28:45.873Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "536750550",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:28:47.145Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T10:28:47.145Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? please choose one of the answers :
2025-06-25T10:31:34.728Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds

```

of receiving Heartbeat response with responseCode = 502? , the user choose y
2025-06-25T10:31:35.061Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed

3.6 WINNF.FT.D.HBT.8

2025-06-25T10:32:04.561Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:32:04.564Z - INFO - the selected test from the user : WINNF.FT.D.HBT.8 is starting now

2025-06-25T10:32:18.842Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 41.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T10:32:18.923Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

2025-06-25T10:32:19.862Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:32:19.872Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:32:20.864Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:32:20.878Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:32:20Z",
      "grantId": "271043325",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T10:32:20.893Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}
2025-06-25T10:32:21.024Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:32:21.848Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

```

```

        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "271043325",
        "operationState": "GRANTED"
    }
]
}
2025-06-25T10:32:21.857Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "271043325",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T10:35:41Z"
        }
    ]
}
2025-06-25T10:32:21.874Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-06-25T10:32:21.891Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-06-25T10:32:22.837Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {

```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3660000000
      }
    }
  ]
}
2025-06-25T10:32:22.844Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:32:22Z",
      "grantId": "971036112",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:32:23.854Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "971036112",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:32:23.864Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "971036112",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:35:43Z"
    }
  ]
}
2025-06-25T10:32:43.863Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "971036112",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "271043325",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:32:43.864Z - INFO - Time interval between two heartbeat request messages is: 20.008834,
limit is: 65.0

```

2025-06-25T10:32:43.871Z - INFO - Time interval between two heartbeat request messages is: 22.015007, limit is: 65.0

2025-06-25T10:32:43.881Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "971036112",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-25T10:36:03Z"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "271043325",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-25T10:36:03Z"  
  }  
]
```

2025-06-25T10:33:43.841Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "971036112",  
    "operationState": "AUTHORIZED"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "271043325",  
    "operationState": "AUTHORIZED"  
  }  
]
```

2025-06-25T10:33:43.843Z - INFO - Time interval between two heartbeat request messages is: 59.97828, limit is: 65.0

2025-06-25T10:33:43.851Z - INFO - Time interval between two heartbeat request messages is: 59.97828, limit is: 65.0

2025-06-25T10:33:43.858Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "971036112",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-25T10:37:03Z"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "271043325",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-25T10:37:03Z"  
  }  
]
```

```

    ]
  }
2025-06-25T10:34:43.855Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "971036112",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "271043325",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:34:43.857Z - INFO - Time interval between two heartbeat request messages is: 60.014261,
limit is: 65.0
2025-06-25T10:34:43.863Z - INFO - Time interval between two heartbeat request messages is: 60.014261,
limit is: 65.0
2025-06-25T10:34:43.871Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "971036112",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2025-06-25T10:34:43Z"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "271043325",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:38:03Z"
    }
  ]
}
2025-06-25T10:34:45.730Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T10:34:45.731Z - INFO - the question is : Did the CBSD1 transmit power prior to AUTHORIZED
state (first successful HBT response)? please choose one of the answers :
2025-06-25T10:44:00.533Z - INFO - for the question : Did the CBSD1 transmit power prior to AUTHORIZED
state (first successful HBT response)? , the user choose n
2025-06-25T10:44:00.533Z - INFO - the question is : Did the CBSD2 stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 500? please choose one of the answers :
2025-06-25T10:44:03.943Z - INFO - for the question : Did the CBSD2 stop RF transmission within 60
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2025-06-25T10:44:04.675Z - INFO - The final result of the test : WINNF.FT.D.HBT.8 is - passed

```

3.7 WINNF.FT.C.HBT.9

2025-06-25T10:44:35.776Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:44:35.777Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2025-06-25T10:44:51.846Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-06-25T10:44:51.925Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

```

2025-06-25T10:44:52.847Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:44:52.890Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:44:53.845Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:44:53.855Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:44:53Z",
      "grantId": "314930895",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T10:44:54.840Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:45:25.840Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:45:25.841Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2025-06-25T10:45:56.835Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:45:56.835Z - INFO - request message received while HBT is absent, sleep 143 sec before
responding
2025-06-25T10:46:27.836Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:46:27.837Z - INFO - request message received while HBT is absent, sleep 112 sec before
responding
2025-06-25T10:46:58.854Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:46:58.854Z - INFO - request message received while HBT is absent, sleep 80 sec before
responding
2025-06-25T10:47:29.834Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [

```

```

    {
      "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:47:29.835Z - INFO - request message received while HBT is absent, sleep 50 sec before
responding
2025-06-25T10:48:08.837Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:48:08.838Z - INFO - request message received while HBT is absent, sleep 11 sec before
responding
2025-06-25T10:48:14.947Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "314930895",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-06-25T10:48:14Z"
    }
  ]
}
2025-06-25T10:48:16.023Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T10:48:16.023Z - INFO - the question is : Were there RF transmissions from the CBSD during the
test? please choose one of the answers :
2025-06-25T10:48:18.935Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-06-25T10:48:19.849Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-06-25T10:48:19.886Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-06-25T10:48:19.936Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-06-25T10:48:19.938Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-06-25T10:48:19.942Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-06-25T10:51:17.336Z - INFO - for the question : Were there RF transmissions from the CBSD during
the test? , the user choose n
2025-06-25T10:51:17.805Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed

```

3.8 WINNF.FT.C.HBT.10

2025-06-25T10:51:38.889Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:51:38.889Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2025-06-25T10:51:51.839Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY2025110032",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 41.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}

```

2025-06-25T10:51:51.941Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-06-25T10:51:52.848Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T10:51:52.864Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T10:51:53.832Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T10:51:53.838Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T10:51:53Z",
      "grantId": "758619756",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T10:51:54.832Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:51:54.838Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:55:14Z"
    }
  ]
}
2025-06-25T10:52:43.833Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:52:43.834Z - INFO - Time interval between two heartbeat request messages is: 49.000674,
limit is: 65.0
2025-06-25T10:52:43.839Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T10:56:03Z"
    }
  ]
}
2025-06-25T10:53:43.832Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:53:43.834Z - INFO - Time interval between two heartbeat request messages is: 59.999402,
limit is: 65.0

```

```

2025-06-25T10:53:43.836Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2025-06-25 10:52:43.833539
2025-06-25T10:54:14.852Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:54:14.853Z - INFO - request message received while HBT is absent, sleep 173 sec before
responding
2025-06-25T10:54:43.831Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:54:43.831Z - INFO - request message received while HBT is absent, sleep 145 sec before
responding
2025-06-25T10:55:15.846Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:55:15.847Z - INFO - request message received while HBT is absent, sleep 112 sec before
responding
2025-06-25T10:55:43.831Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T10:55:43.831Z - INFO - request message received while HBT is absent, sleep 85 sec before
responding
2025-06-25T10:56:15.834Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "758619756",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T10:56:15.834Z - INFO - request message received while HBT is absent, sleep 53 sec before
responding
2025-06-25T10:56:43.851Z - INFO - heartbeat request from CBRS : {

```

```

    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "758619756",
        "operationState": "GRANTED"
      }
    ]
  }

```

2025-06-25T10:56:43.855Z - INFO - request message received while HBT is absent, sleep 24 sec before responding

2025-06-25T10:57:03.941Z - INFO - engine sent successfully, the response to CBRS : {

```

    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "758619756",
        "response": {
          "responseCode": 501
        },
        "transmitExpireTime": "2025-06-25T10:57:03Z"
      }
    ]
  }

```

2025-06-25T10:57:05.223Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T10:57:05.223Z - INFO - the question is : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :

2025-06-25T10:57:07.880Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-06-25T10:57:07.947Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-06-25T10:57:07.954Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-06-25T10:57:08.887Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-06-25T10:57:08.917Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-06-25T10:57:08.931Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-06-25T10:59:15.300Z - INFO - for the question : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y

2025-06-25T10:59:15.726Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

3.9 WINNF.FT.C.HBT.11

2025-06-25T10:59:45.741Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T10:59:45.742Z - INFO - the selected test from the user : WINNF.FT.C.HBT.11 is starting now

2025-06-25T11:00:03.845Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-06-25T11:00:03.943Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-06-25T11:00:04.829Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T11:00:04.837Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T11:00:05.830Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T11:00:05.838Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-06-25T11:06:05Z",
      "grantId": "768467111",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T11:00:06.830Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-25T11:00:06.835Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T11:03:26Z"
    }
  ]
}
2025-06-25T11:00:43.847Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T11:00:43.851Z - INFO - Time interval between two heartbeat request messages is:
37.01765, limit is: 65.0
2025-06-25T11:00:43.856Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T11:04:03Z"
    }
  ]
}
2025-06-25T11:01:43.830Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T11:01:43.832Z - INFO - Time interval between two heartbeat request messages is: 59.9825,
limit is: 65.0

```

2025-06-25T11:01:43.836Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "768467111",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T11:05:03Z"
  }
]
```

}
2025-06-25T11:02:43.828Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "768467111",
    "operationState": "AUTHORIZED"
  }
]
```

}
2025-06-25T11:02:43.829Z - INFO - Time interval between two heartbeat request messages is: 59.997767, limit is: 65.0

2025-06-25T11:02:43.834Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "768467111",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T11:06:03Z"
  }
]
```

}
2025-06-25T11:03:43.829Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "768467111",
    "grantRenew": true,
    "operationState": "AUTHORIZED"
  }
]
```

}
2025-06-25T11:03:43.831Z - INFO - Time interval between two heartbeat request messages is: 60.001486, limit is: 65.0

2025-06-25T11:03:43.837Z - INFO - grantRenew received in HBT request message

2025-06-25T11:03:43.837Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantExpireTime": "2025-06-25T11:09:43Z",
    "grantId": "768467111",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-25T11:07:03Z"
  }
]
```

```

    }
  ]
}
2025-06-25T11:04:43.833Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T11:04:43.837Z - INFO - Time interval between two heartbeat request messages is:
60.004581, limit is: 65.0
2025-06-25T11:04:43.845Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "768467111",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T11:08:03Z"
    }
  ]
}
2025-06-25T11:04:45.046Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-25T11:04:45.046Z - INFO - the question is : Did the CBSD renew its grant successfully? please
choose one of the answers :
2025-06-25T11:07:21.838Z - INFO - for the question : Did the CBSD renew its grant successfully? , the
user choose y
2025-06-25T11:07:22.652Z - INFO - The final result of the test : WINNF.FT.C.HBT.11 is - passed

```

4 CBSD Relinquishment Process

4.1 WINNF.FT.D.RLQ.2

2025-06-30T02:03:36.567Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-30T02:03:36.568Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.2 is starting now

2025-06-30T02:03:50.106Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      },
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",

```

```

        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY202511002G",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
        {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
    }
]
}
2025-06-30T02:03:50.207Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-06-30T02:03:51.093Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
},

```

```

    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-30T02:03:51.118Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:03:52.099Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}

```

```

    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-30T02:03:52.119Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-07T02:03:52Z",
      "grantId": "641655841",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-07T02:03:52Z",
      "grantId": "95314696",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:03:53.091Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "641655841",
      "operationState": "GRANTED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "95314696",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-30T02:03:53.106Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "641655841",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2025-06-30T02:07:13Z"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "95314696",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-30T02:07:13Z"
  }
]
}
2025-06-30T02:04:44.090Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "95314696",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "641655841",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-30T02:04:44.091Z - INFO - Time interval between two heartbeat request messages is: 50.999345,
limit is: 65.0
2025-06-30T02:04:44.097Z - INFO - Time interval between two heartbeat request messages is: 50.999345,
limit is: 65.0
2025-06-30T02:04:44.104Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "95314696",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-30T02:08:04Z"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "641655841",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-30T02:08:04Z"
    }
  ]
}
2025-06-30T02:05:18.091Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "641655841"
    },
    {

```

```

    "cbstdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "95314696"
  }
]
}
2025-06-30T02:05:18.103Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "641655841",
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbstdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "95314696",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:05:19.671Z - INFO - arrived to nstep starting question answer session with the technician
2025-06-30T02:05:19.672Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2025-06-30T02:09:35.376Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2025-06-30T02:09:35.377Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2025-06-30T02:09:36.772Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2025-06-30T02:09:37.347Z - INFO - The final result of the test : WINNF.FT.D.RLQ.2 is - passed

```

4.2 WINNF.FT.D.RLQ.4

2025-06-30T02:15:35.262Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-30T02:15:35.263Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.4 is starting now

2025-06-30T02:15:48.933Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY2025110032",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 41.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}

```

2025-06-30T02:15:49.009Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2025-06-30T02:15:49.936Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-30T02:15:49.944Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:15:50.920Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-30T02:15:50.952Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-07T02:15:50Z",
      "grantId": "78715102",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

    }
  ]
}
2025-06-30T02:15:50.961Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}
2025-06-30T02:15:51.057Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:15:51.939Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {

```

```

    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ]
  }
}
2025-06-30T02:15:51.956Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:15:51.966Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "78715102",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-30T02:15:51.978Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "78715102",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-30T02:19:11Z"
    }
  ]
}
2025-06-30T02:15:52.924Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3660000000
      }
    }
  ]
}
2025-06-30T02:15:52.932Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-07T02:15:52Z",
      "grantId": "361071899",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:15:53.932Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "361071899",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-30T02:15:53.938Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "361071899",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-30T02:19:13Z"
    }
  ]
}
2025-06-30T02:16:00.939Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "78715102",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "361071899",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-30T02:16:00.949Z - INFO - Time interval between two heartbeat request messages is: 8.970744,
limit is: 65.0

```

2025-06-30T02:16:00.954Z - INFO - Time interval between two heartbeat request messages is: 7.006585, limit is: 65.0

2025-06-30T02:16:00.961Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "78715102",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-30T02:19:20Z"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "361071899",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-30T02:19:20Z"  
  }  
]
```

}
2025-06-30T02:17:00.935Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "361071899",  
    "operationState": "AUTHORIZED"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "78715102",  
    "operationState": "AUTHORIZED"  
  }  
]
```

}
2025-06-30T02:17:00.938Z - INFO - Time interval between two heartbeat request messages is: 59.996538, limit is: 65.0

2025-06-30T02:17:00.946Z - INFO - Time interval between two heartbeat request messages is: 59.996538, limit is: 65.0

2025-06-30T02:17:00.959Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "361071899",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-30T02:20:20Z"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "78715102",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-30T02:20:20Z"  
  }  
]
```

```

    ]
  }
  2025-06-30T02:17:12.916Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
      {
        "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "78715102"
      }
    ]
  }
  2025-06-30T02:17:12.921Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
      {
        "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "response": {
          "responseCode": 102,
          "responseData": [
            "grantId"
          ]
        }
      }
    ]
  }
  2025-06-30T02:17:13.932Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
      {
        "cbstdId": "VUIPS1400-48Mock-SASPTY202511002G",
        "grantId": "361071899"
      }
    ]
  }
  2025-06-30T02:17:13.951Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
      {
        "cbstdId": "VUIPS1400-48Mock-SASPTY202511002G",
        "response": {
          "responseCode": 102,
          "responseData": [
            "grantId"
          ]
        }
      }
    ]
  }
  2025-06-30T02:17:15.365Z - INFO - arrived to nstep starting question answer session with the technician
  2025-06-30T02:17:15.366Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
  Relinquishment Request by Test Harness? please choose one of the answers :
  2025-06-30T02:20:25.729Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
  Relinquishment Request by Test Harness? , the user choose y
  2025-06-30T02:20:25.730Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of
  Relinquishment Request by Test Harness? please choose one of the answers :
  2025-06-30T02:20:26.887Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of
  Relinquishment Request by Test Harness? , the user choose y
  2025-06-30T02:20:27.421Z - INFO - The final result of the test : WINNF.FT.D.RLQ.4 is - passed

```

4.3 WINNF.FT.D.RLQ.6

2025-06-30T02:20:47.527Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-30T02:20:47.527Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.6 is starting now

2025-06-30T02:21:04.937Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-06-30T02:21:05.030Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-06-30T02:21:06.918Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-30T02:21:06.958Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-30T02:21:06.960Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fcclId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,

```

```

        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
}
]
}
2025-06-30T02:21:07.073Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-06-30T02:21:07.917Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-06-30T02:21:07.929Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    ]
  }
  2025-06-30T02:21:07.939Z - INFO - grant request from CBRS : {
    "grantRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "operationParam": {
          "maxEirp": 20.0,
          "operationFrequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3660000000
          }
        }
      }
    ]
  }
  2025-06-30T02:21:07.959Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "channelType": "GAA",
        "grantExpireTime": "2025-07-07T02:21:07Z",
        "grantId": "150163117",
        "heartbeatInterval": 60,
        "response": {
          "responseCode": 0
        }
      }
    ]
  }
  2025-06-30T02:21:08.921Z - INFO - grant request from CBRS : {
    "grantRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
        "operationParam": {
          "maxEirp": 20.0,
          "operationFrequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3660000000
          }
        }
      }
    ]
  }
  2025-06-30T02:21:08.992Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
        "channelType": "GAA",
        "grantExpireTime": "2025-07-07T02:21:08Z",
        "grantId": "9924608",
        "heartbeatInterval": 60,
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

2025-06-30T02:21:09.044Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "150163117",
    "operationState": "GRANTED"
  }
]
```

}

 2025-06-30T02:21:09.075Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "150163117",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-30T02:24:29Z"
  }
]
```

}

 2025-06-30T02:21:09.928Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "9924608",
    "operationState": "GRANTED"
  }
]
```

}

 2025-06-30T02:21:09.935Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "9924608",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-30T02:24:29Z"
  }
]
```

}

 2025-06-30T02:22:00.918Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "150163117",
    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "9924608",
    "operationState": "AUTHORIZED"
  }
]
```

}

 2025-06-30T02:22:00.920Z - INFO - Time interval between two heartbeat request messages is:

 51.873203, limit is: 65.0

2025-06-30T02:22:00.926Z - INFO - Time interval between two heartbeat request messages is: 50.990181, limit is: 65.0

2025-06-30T02:22:00.935Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "150163117",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-30T02:25:20Z"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "9924608",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-30T02:25:20Z"
  }
]
```

2025-06-30T02:22:37.916Z - INFO - relinquishment request from CBRS : {

```
"relinquishmentRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "150163117"
  }
]
```

2025-06-30T02:22:37.922Z - INFO - engine sent successfully, the response to CBRS : {

```
"relinquishmentResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 103,
      "responseData": [
        "grantId"
      ]
    }
  }
]
```

2025-06-30T02:22:38.914Z - INFO - relinquishment request from CBRS : {

```
"relinquishmentRequest": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "grantId": "9924608"
  }
]
```

2025-06-30T02:22:38.919Z - INFO - engine sent successfully, the response to CBRS : {

```
"relinquishmentResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
    "response": {
      "responseCode": 103,
      "responseData": [

```

"grantId"

]

}

}

]

}

2025-06-30T02:22:40.644Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-30T02:22:40.644Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? please choose one of the answers :

2025-06-30T02:25:52.596Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? , the user choose y

2025-06-30T02:25:52.597Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of Relinquishment Request by Test Harness? please choose one of the answers :

2025-06-30T02:25:53.594Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of Relinquishment Request by Test Harness? , the user choose y

2025-06-30T02:25:54.149Z - INFO - The final result of the test : WINNF.FT.D.RLQ.6 is - passed

5 CBSD Deregistration Process

5.1 WINNF.FT.D.DRG.2

2025-06-26T05:14:04.361Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:14:04.361Z - INFO - the selected test from the user : WINNF.FT.D.DRG.2 is starting now

2025-06-26T05:14:17.091Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 41.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
```

```

        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY202511002G",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
        {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
    }
]
}
2025-06-26T05:14:17.216Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-06-26T05:14:18.094Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
},

```

```

    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-26T05:14:18.114Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-26T05:14:19.076Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}

```

```

    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-26T05:14:19.092Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-03T05:14:19Z",
      "grantId": "527156701",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-03T05:14:19Z",
      "grantId": "866774370",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-26T05:14:20.076Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "866774370",
      "operationState": "GRANTED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "527156701",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-26T05:14:20.088Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "866774370",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2025-06-26T05:17:40Z"
  },
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "grantId": "527156701",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-06-26T05:17:40Z"
  }
]
}
2025-06-26T05:14:45.086Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "527156701",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "866774370",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-26T05:14:45.087Z - INFO - Time interval between two heartbeat request messages is: 25.009501,
limit is: 65.0
2025-06-26T05:14:45.093Z - INFO - Time interval between two heartbeat request messages is: 25.009501,
limit is: 65.0
2025-06-26T05:14:45.098Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "527156701",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-26T05:18:05Z"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "866774370",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-26T05:18:05Z"
    }
  ]
}
2025-06-26T05:15:43.076Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032"
    }
  ]
}

```

2025-06-26T05:15:43.081Z - INFO - engine sent successfully, the response to CBRS : {

"deregistrationResponse": [

{

"cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",

"response": {

"responseCode": 0

}

}

]

}

2025-06-26T05:15:45.081Z - INFO - deregistration request from CBRS : {

"deregistrationRequest": [

{

"cbstdId": "VUIPS1400-48Mock-SASPTY202511002G"

}

]

}

2025-06-26T05:15:45.086Z - INFO - engine sent successfully, the response to CBRS : {

"deregistrationResponse": [

{

"cbstdId": "VUIPS1400-48Mock-SASPTY202511002G",

"response": {

"responseCode": 0

}

}

]

}

2025-06-26T05:15:46.466Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-26T05:15:46.466Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2025-06-26T05:18:53.795Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2025-06-26T05:18:53.795Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2025-06-26T05:18:56.314Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2025-06-26T05:18:56.776Z - INFO - The final result of the test : WINNF.FT.D.DRG.2 is - passed

5.2 WINNF.FT.D.DRG.4

2025-06-26T05:19:20.643Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:19:20.644Z - INFO - the selected test from the user : WINNF.FT.D.DRG.4 is starting now

2025-06-26T05:19:34.079Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-06-26T05:19:34.147Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-06-26T05:19:35.082Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-26T05:19:35.097Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-26T05:19:36.076Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-26T05:19:36.086Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-03T05:19:36Z",
      "grantId": "742661084",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-26T05:19:36.102Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48E",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY202511002G",
      "fcclId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}
2025-06-26T05:19:36.182Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-26T05:19:37.077Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

```

```

        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "742661084",
        "operationState": "GRANTED"
    }
]
}
2025-06-26T05:19:37.086Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "742661084",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-26T05:22:57Z"
        }
    ]
}
2025-06-26T05:19:37.097Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-06-26T05:19:37.113Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-06-26T05:19:38.080Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {

```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3660000000
      }
    }
  ]
}
2025-06-26T05:19:38.096Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-03T05:19:38Z",
      "grantId": "955188534",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-26T05:19:39.075Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "955188534",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-26T05:19:39.080Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "955188534",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-26T05:22:59Z"
    }
  ]
}
2025-06-26T05:19:45.074Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",
      "grantId": "955188534",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "742661084",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-26T05:19:45.076Z - INFO - Time interval between two heartbeat request messages is:
5.999807, limit is: 65.0

```

2025-06-26T05:19:45.081Z - INFO - Time interval between two heartbeat request messages is: 7.997848, limit is: 65.0

2025-06-26T05:19:45.085Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "955188534",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-26T05:23:05Z"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "742661084",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-26T05:23:05Z"  
  }  
]
```

2025-06-26T05:20:45.090Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "955188534",  
    "operationState": "AUTHORIZED"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "742661084",  
    "operationState": "AUTHORIZED"  
  }  
]
```

2025-06-26T05:20:45.095Z - INFO - Time interval between two heartbeat request messages is: 60.015355, limit is: 65.0

2025-06-26T05:20:45.100Z - INFO - Time interval between two heartbeat request messages is: 60.015355, limit is: 65.0

2025-06-26T05:20:45.104Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G",  
    "grantId": "955188534",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-26T05:24:05Z"  
  },  
  {  
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",  
    "grantId": "742661084",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2025-06-26T05:24:05Z"  
  }  
]
```

```

    ]
  }
  2025-06-26T05:20:59.144Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032"
      }
    ]
  }
  2025-06-26T05:20:59.149Z - INFO - engine sent successfully, the response to CBRS : {
    "deregistrationResponse": [
      {
        "response": {
          "responseCode": 102
        }
      }
    ]
  }

```

```

  }
  2025-06-26T05:21:01.077Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY202511002G"
      }
    ]
  }
  2025-06-26T05:21:01.082Z - INFO - engine sent successfully, the response to CBRS : {
    "deregistrationResponse": [
      {
        "response": {
          "responseCode": 102
        }
      }
    ]
  }

```

2025-06-26T05:21:02.750Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-26T05:21:02.750Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2025-06-26T05:23:15.244Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2025-06-26T05:23:15.245Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2025-06-26T05:23:16.784Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2025-06-26T05:23:17.467Z - INFO - The final result of the test : WINNF.FT.D.DRG.4 is - passed

5.3 WINNF.FT.C.DRG.5

2025-06-26T05:23:37.813Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:23:37.814Z - INFO - the selected test from the user : WINNF.FT.C.DRG.5 is starting now

2025-06-26T05:23:51.078Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 41.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-06-26T05:23:51.142Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-06-26T05:23:53.074Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-26T05:23:53.084Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-26T05:23:55.074Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-26T05:23:55.081Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-03T05:23:55Z",
      "grantId": "917680814",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-26T05:23:57.076Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "917680814",
      "operationState": "GRANTED"
    }
  ]
}
2025-06-26T05:23:57.082Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "917680814",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-26T05:27:17Z"
    }
  ]
}
2025-06-26T05:24:45.088Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "917680814",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-26T05:24:45.089Z - INFO - Time interval between two heartbeat request messages is:
48.011339, limit is: 65.0
2025-06-26T05:24:45.096Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "917680814",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-26T05:28:05Z"
    }
  ]
}
2025-06-26T05:25:15.074Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032"
    }
  ]
}
2025-06-26T05:25:15.078Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "response": {

```

```
"responseCode": 103,  
"responseData": [  
  "cbsdId"  
]  
}  
]  
}
```

2025-06-26T05:25:16.915Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-26T05:25:16.915Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2025-06-26T05:28:05.761Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2025-06-26T05:28:06.408Z - INFO - The final result of the test : WINNF.FT.C.DRG.5 is - passed

6 CBSD Security Validation

6.1 WINNF.FT.C.SCS.1

2025-06-25T07:12:11.209Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T07:12:11.211Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2025-06-25T07:28:03.905Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T07:28:03.974Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
]
}

2025-06-25T07:28:05.177Z - INFO - arrived to nstep starting question answer session with the technician

2025-06-25T07:28:05.177Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-06-25T07:39:11.810Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-06-25T07:39:12.681Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed

6.2 WINNF.FT.C.SCS.2

2025-06-26T05:30:25.367Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:30:25.367Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

6.3 WINNF.FT.C.SCS.3

2025-06-26T05:38:40.653Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:38:40.655Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

6.4 WINNF.FT.C.SCS.4

2025-06-26T05:45:09.966Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:45:09.966Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

6.5 WINNF.FT.C.SCS.5

2025-06-26T05:49:32.903Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-26T05:49:32.905Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

7 CBSD RF Power Measurement

7.1 WINNF.PT.C.HBT.1(Max Eirp = 2 dBm/MHz)

2025-06-25T06:19:46.501Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T06:19:46.501Z - INFO - Selected spectrum frequency is {'lowFrequency': 3660000000, 'highFrequency': 3700000000}

2025-06-25T06:19:46.501Z - INFO - Granted Spectrum Max Eirp = 2dBm/MHz

2025-06-25T06:19:46.501Z - INFO - the selected test from the user : PowerMeasTest is starting now

2025-06-25T06:20:39.882Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "v1.1.1.7_RC1",
          "hardwareVersion": "1.0",
          "model": "PS1400-48I",
          "softwareVersion": "1.1.1.4",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "PTY2025110032",
        "fccId": "VUIPS1400-48",
        "groupingParam": [
          {
            "groupId": "group-1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 360,
          "antennaDowntilt": 3,
          "antennaGain": 8,
          "antennaModel": "C1335-510520-A",
          "eirpCapability": 30,
          "height": 3.0,
          "heightType": "AGL",
          "horizontalAccuracy": 49.0,
          "indoorDeployment": true,
          "latitude": 40.0,
          "longitude": 10.0,
          "verticalAccuracy": 1.0
        },
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-06-25T06:20:39.990Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",

```

```

        "response": {
            "responseCode": 0
        }
    ]
}
2025-06-25T06:20:40.879Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-06-25T06:20:40.887Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-06-25T06:20:40.887Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3660000000
                    },
                    "maxEirp": 2,
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-06-25T06:20:41.849Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "operationParam": {
                "maxEirp": 2.0,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3660000000
                }
            }
        }
    ]
}
2025-06-25T06:20:41.855Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {

```

```

        "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "channelType": "GAA",
        "grantExpireTime": "2025-07-02T06:20:41Z",
        "grantId": "200010573",
        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    }
]
}
2025-06-25T06:20:42.862Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "200010573",
            "operationState": "GRANTED"
        }
    ]
}
2025-06-25T06:20:42.891Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "200010573",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:24:02Z"
        }
    ]
}
2025-06-25T06:21:43.849Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "200010573",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:21:43.856Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "200010573",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:25:03Z"
        }
    ]
}
2025-06-25T06:22:43.852Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "200010573",

```

```

        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:22:43.862Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "200010573",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:26:03Z"
      }
    ]
  }
  2025-06-25T06:23:43.850Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "200010573",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:23:43.858Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "200010573",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:27:03Z"
      }
    ]
  }
  2025-06-25T06:24:43.848Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "200010573",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:24:43.855Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "200010573",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:28:03Z"
      }
    ]
  }
}

```

```
2025-06-25T06:25:43.847Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:25:43.853Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:29:03Z"
    }
  ]
}
2025-06-25T06:26:43.886Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:26:43.895Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:30:03Z"
    }
  ]
}
2025-06-25T06:27:43.847Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:27:43.853Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

    },
    "transmitExpireTime": "2025-06-25T06:31:03Z"
  }
]
}
2025-06-25T06:28:43.855Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:28:43.862Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:32:03Z"
    }
  ]
}
2025-06-25T06:29:43.846Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:29:43.853Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "200010573",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:33:03Z"
    }
  ]
}

```

7.2 WINNF.PT.C.HBT.1(Max Eirp = 11 dBm/MHz)

2025-06-25T06:05:32.664Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T06:05:32.664Z - INFO - Selected spectrum frequency is {'lowFrequency': 3660000000, 'highFrequency': 3700000000}

2025-06-25T06:05:32.665Z - INFO - Granted Spectrum Max Eirp = 11dBm/MHz

2025-06-25T06:05:32.665Z - INFO - the selected test from the user : PowerMeasTest is starting now

2025-06-25T06:05:44.856Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "v1.1.1.7_RC1",
      "hardwareVersion": "1.0",
      "model": "PS1400-48I",
      "softwareVersion": "1.1.1.4",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "PTY2025110032",
    "fccId": "VUIPS1400-48",
    "groupingParam": [
      {
        "groupId": "group-1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 360,
      "antennaDowntilt": 3,
      "antennaGain": 8,
      "antennaModel": "C1335-510520-A",
      "eirpCapability": 30,
      "height": 3.0,
      "heightType": "AGL",
      "horizontalAccuracy": 49.0,
      "indoorDeployment": true,
      "latitude": 40.0,
      "longitude": 10.0,
      "verticalAccuracy": 1.0
    },
    "userId": "PEGATRON"
  }
]
```

2025-06-25T06:05:44.928Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

    }
  ]
}
2025-06-25T06:05:45.853Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T06:05:45.861Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-06-25T06:05:45.862Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3660000000
          },
          "maxEirp": 11,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T06:05:46.853Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 11.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T06:05:46.859Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T06:05:46Z",

```

```

        "grantId": "54770407",
        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    ]
}
2025-06-25T06:05:47.853Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "GRANTED"
        }
    ]
}
2025-06-25T06:05:47.860Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:09:07Z"
        }
    ]
}
2025-06-25T06:06:43.874Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:06:43.881Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:10:03Z"
        }
    ]
}
2025-06-25T06:07:43.859Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

}
2025-06-25T06:07:43.866Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "54770407",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:11:03Z"
    }
  ]
}
2025-06-25T06:08:47.860Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "54770407",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:08:47.866Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "54770407",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:12:07Z"
    }
  ]
}
2025-06-25T06:09:43.851Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "54770407",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T06:09:43.858Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "54770407",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:13:03Z"
    }
  ]
}
2025-06-25T06:10:43.860Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

```

```

        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",
        "operationState": "AUTHORIZED"
    }
]
}
2025-06-25T06:10:43.867Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:14:03Z"
        }
    ]
}
2025-06-25T06:11:43.858Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:11:43.864Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:15:03Z"
        }
    ]
}
2025-06-25T06:12:43.888Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:12:43.902Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:16:03Z"
        }
    ]
}

```

```

    ]
  }
  2025-06-25T06:13:43.851Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:13:43.858Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:17:03Z"
      }
    ]
  }
  2025-06-25T06:14:43.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:14:43.864Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:18:03Z"
      }
    ]
  }
  2025-06-25T06:15:43.851Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:15:43.857Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "54770407",

```

```

        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:19:03Z"
    }
}
2025-06-25T06:16:43.852Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:16:43.859Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:20:03Z"
        }
    ]
}
2025-06-25T06:17:43.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:17:43.863Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:21:03Z"
        }
    ]
}
2025-06-25T06:18:43.863Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "54770407",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```
2025-06-25T06:18:43.873Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "54770407",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:22:03Z"
    }
  ]
}
```

7.3 WINNF.PT.C.HBT.1(Max Eirp = 20 dBm/MHz)

2025-06-25T05:53:45.258Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-06-25T05:53:45.258Z - INFO - Selected spectrum frequency is {'lowFrequency': 3660000000, 'highFrequency': 3700000000}

2025-06-25T05:53:45.259Z - INFO - Granted Spectrum Max Eirp = 20dBm/MHz

2025-06-25T05:53:45.259Z - INFO - the selected test from the user : PowerMeasTest is starting now

2025-06-25T05:53:55.886Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "v1.1.1.7_RC1",
        "hardwareVersion": "1.0",
        "model": "PS1400-48I",
        "softwareVersion": "1.1.1.4",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "PTY2025110032",
      "fccId": "VUIPS1400-48",
      "groupingParam": [
        {
          "groupId": "group-1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 360,
        "antennaDowntilt": 3,
        "antennaGain": 8,
        "antennaModel": "C1335-510520-A",
        "eirpCapability": 30,
        "height": 3.0,
        "heightType": "AGL",
        "horizontalAccuracy": 49.0,
        "indoorDeployment": true,
        "latitude": 40.0,
        "longitude": 10.0,
        "verticalAccuracy": 1.0
      },
      "userId": "PEGATRON"
    }
  ]
}

```

2025-06-25T05:53:55.960Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-06-25T05:53:56.863Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-06-25T05:53:56.888Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-06-25T05:53:56.889Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3660000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-06-25T05:53:57.866Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3660000000
        }
      }
    }
  ]
}
2025-06-25T05:53:57.872Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "channelType": "GAA",
      "grantExpireTime": "2025-07-02T05:53:57Z",

```

```

        "grantId": "733641673",
        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    ]
}
2025-06-25T05:53:58.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "operationState": "GRANTED"
        }
    ]
}
2025-06-25T05:53:58.864Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T05:57:18Z"
        }
    ]
}
2025-06-25T05:54:43.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T05:54:43.864Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T05:58:03Z"
        }
    ]
}
2025-06-25T05:55:43.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

}
2025-06-25T05:55:43.864Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "733641673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T05:59:03Z"
    }
  ]
}
2025-06-25T05:56:43.874Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "733641673",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T05:56:43.881Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "733641673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:00:03Z"
    }
  ]
}
2025-06-25T05:57:43.856Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "733641673",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-06-25T05:57:43.863Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
      "grantId": "733641673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-06-25T06:01:03Z"
    }
  ]
}
2025-06-25T05:58:43.872Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

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```
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",
        "operationState": "AUTHORIZED"
    }
]
}
2025-06-25T05:58:43.879Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:02:03Z"
        }
    ]
}
2025-06-25T05:59:43.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T05:59:43.863Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:03:03Z"
        }
    ]
}
2025-06-25T06:00:43.893Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:00:43.900Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:04:03Z"
        }
    ]
}
```

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    ]
  }
  2025-06-25T06:01:43.855Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:01:43.862Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:05:03Z"
      }
    ]
  }
  2025-06-25T06:02:43.872Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:02:43.884Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:06:03Z"
      }
    ]
  }
  2025-06-25T06:03:43.868Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-06-25T06:03:43.875Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
        "grantId": "733641673",

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        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-06-25T06:07:03Z"
    }
]
}
2025-06-25T06:04:43.870Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-06-25T06:04:43.877Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPS1400-48Mock-SASPTY2025110032",
            "grantId": "733641673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-06-25T06:08:03Z"
        }
    ]
}
}
```