TEST REPORT

Application No.:	SZCR2407002912MO
Applicant:	Fibocom Wireless Inc.
Address of Applicant:	1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan,,Shenzhen, China
Manufacturer:	Fibocom Wireless Inc.
Address of Manufacturer:	1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan,,Shenzhen, China
Equipment Under Test (EUT):	
EUT Name:	5G Module
Model No.:	FG131-NA
Trade Mark:	Fibocom
FCC ID:	ZMOFG131NA
Standard(s) :	FCC Part 96.47 FCC KDB 940660 D01 Part 96 CBRS Eqpt v03 WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines
Date of Receipt:	2024-07-25
Date of Test:	2024-08-26 to 2024-08-26
Date of Issue:	2024-08-27
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2024-08-27		Original

Authorized for issue by:				
		Donjon Huang/Project Engineer		
		Eric Fu/Reviewer		

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2 Test Summary

Item	Standard	Test Case ID	Result
End User Device additional requirement	96.47	/	Pass

The UUT is an End User Device. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:
FCC Part 96.47
FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification
WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines

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3 Contents

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4 General Information

4.1 Details of E.U.T.

Power supply:	3.8V
Sample Type:	5G Module
CBSD Class:	End User device
Hardware Version:	V1.1
Software Version:	89170.1000.00.01.04.04
Transmitter Frequency Band:	LTE: LTE Band 42, LTE Band 43, LTE Band 48 5G NR: NR Band n48
Transmitter Frequency Range:	3550~3700MHz
Antenna Gain:	-4.13 dBi (Provided by manufacturer)
Antenna Type:	☒ External, ☐ Integrated

4.2 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	± 7.25 x 10^{-8}
2	RF conducted power	± 0.75dB
3	Temperature test	± 1°C
4	Humidity test	± 3%
5	Supply voltages	± 1.5%
6	Time	± 3%

Remark:
The Ulab (lab Uncertainty) is less than Ucispr/ETSI (CISPR/ETSI Uncertainty), so the test results
– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mother board*	Fibocom	ADP-FG131-NA-00-00_V1.0	/
USB cable*	Ugreen	6A	/
Adapter*	Apple	A1443	/
LTE Base Station	Baicells	mBS31010 (FCC ID: 2AG32MBS31010)	120300010220B6B0002
5G NR Base station	Baicells	BSC7048A243 (FCC ID: 2AG32BSC7048A243)	1202000577233VB0002

*Remark: The above the information of table are provided by client.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

5 Equipment List

Test Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Laptop (With SAS Test hamess)	Lenovo	T14	/	/	/
Spectrum Analyzer	Keysight	N9020B	SEM004-9	2024-03-27	2025-03-26
Shield Room	SAEMC	MSR433	SEM001-11	2024-03-13	2027-03-12
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-11	2025-07-10
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Splitter	MACOM	2090-6214-00	N/A	N/A	N/A
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2024-07-24	2025-07-23

6 Test Method and Environment

6.1 End User Device Conformance and Performance

Test Requirement: FCC Part 96.47

Test Method: WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines

6.2 Test Environment

Environmental Conditions: 25deg. C, 65%RH

6.3 Test Requirement

FCC Part 96.47

a). End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

b). An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

6.4 Test Procedure

For NR:

Following procedure can be done by applying WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified Base station CBSD (FCC ID: 2AG32MBS31010) as companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

1. Setup with frequency 3590-3610MHz and power level 18dBm/MHz;
2. Enable CBSD service ;
3. Check EUD Tx Frequency and power;
4. Disable CBSD service ;
5. Check EUD stops transmission within 10seconds;

6. Setup with frequency 3610-3630MHz and power level 10dBm/MHz;
7. Enable CBSD service;
8. Check EUD Tx Frequency and power;
9. Disable CBSD service;
10. Check EUD stops transmission within 10seconds.

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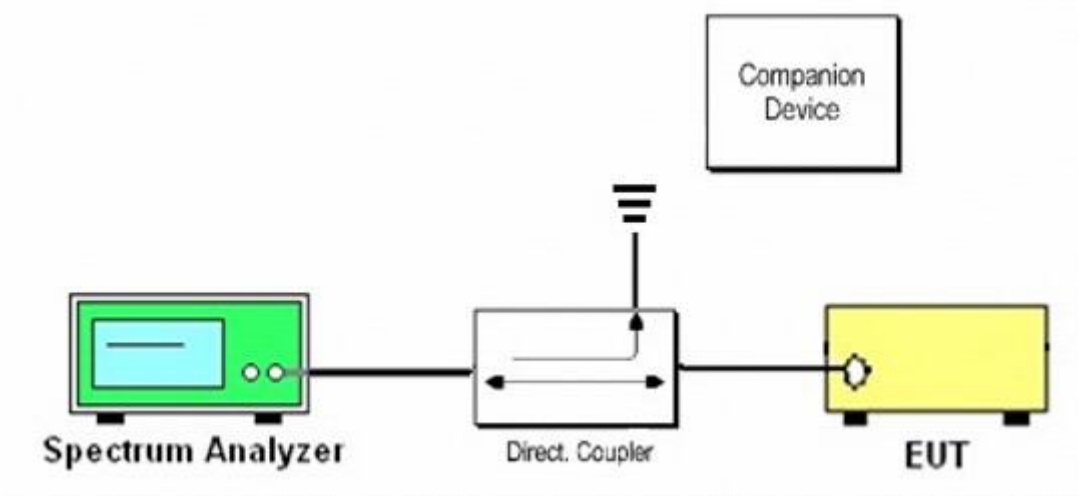
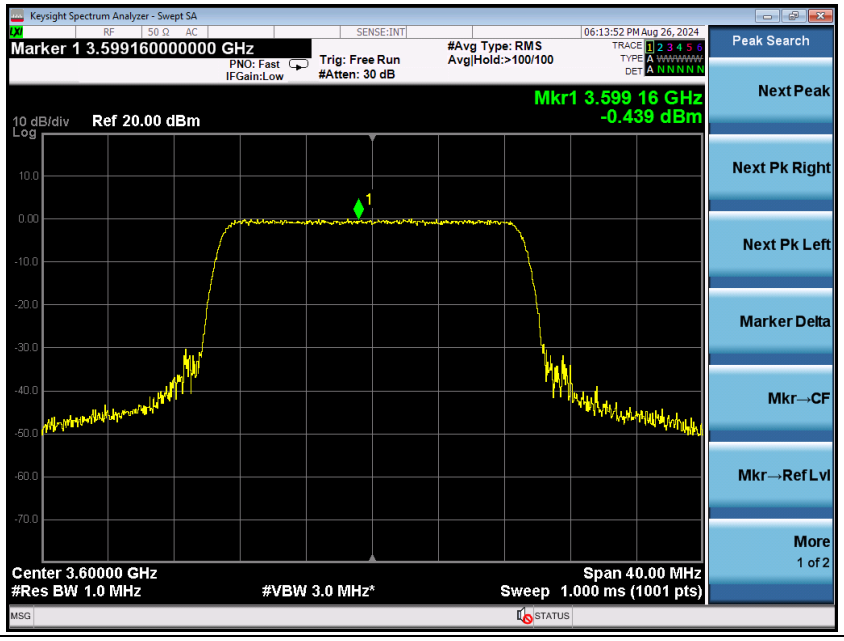
6.5 Test Setup



End User Device as UUT, the companion device is certified CBSD

6.6 Test Result

LTE
[Step 1] Setup with frequency 3590-3610MHz and power level 18dBm/MHz
[Step 3] Check EUD Tx Frequency and power

EIRP PSD=-0.439-4.13+5.0=0.431dBm/MHz, loss of Cable and Splitter is 5.0dB, Antenna gain is -4.13dBi
[Step 5] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.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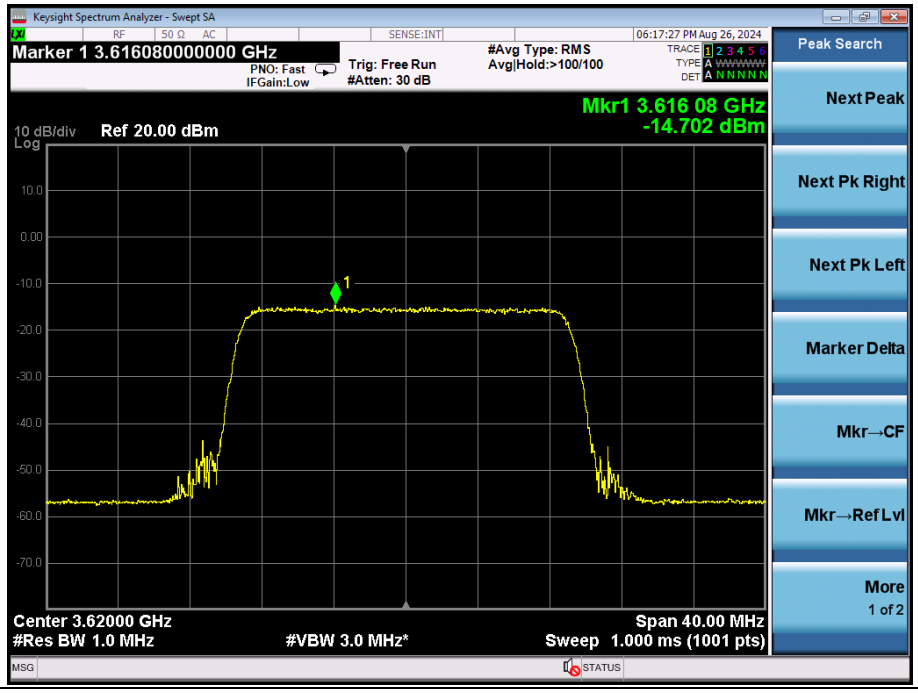
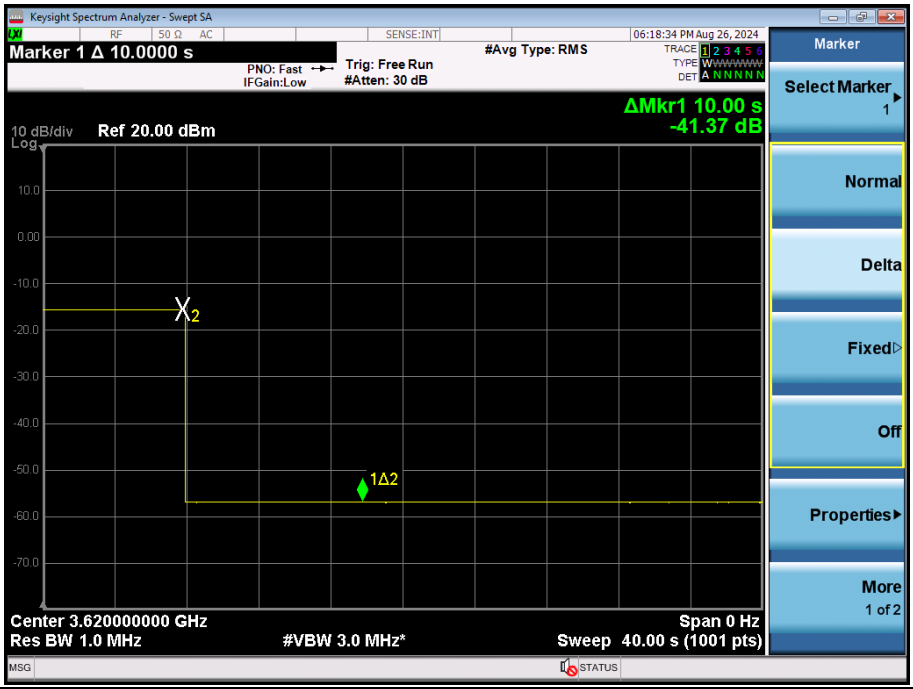
[Step 6] Setup with frequency 3610-3630MHz and power level 5dBm/MHz

[Step 8] Check EUD Tx Frequency and power



EIRP PSD=-14.702-4.13+5.0=-13.832dBm/MHz, loss of Cable and Splitter is 5.0dB, Antenna gain is -4.13dBi

[Step 10] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.



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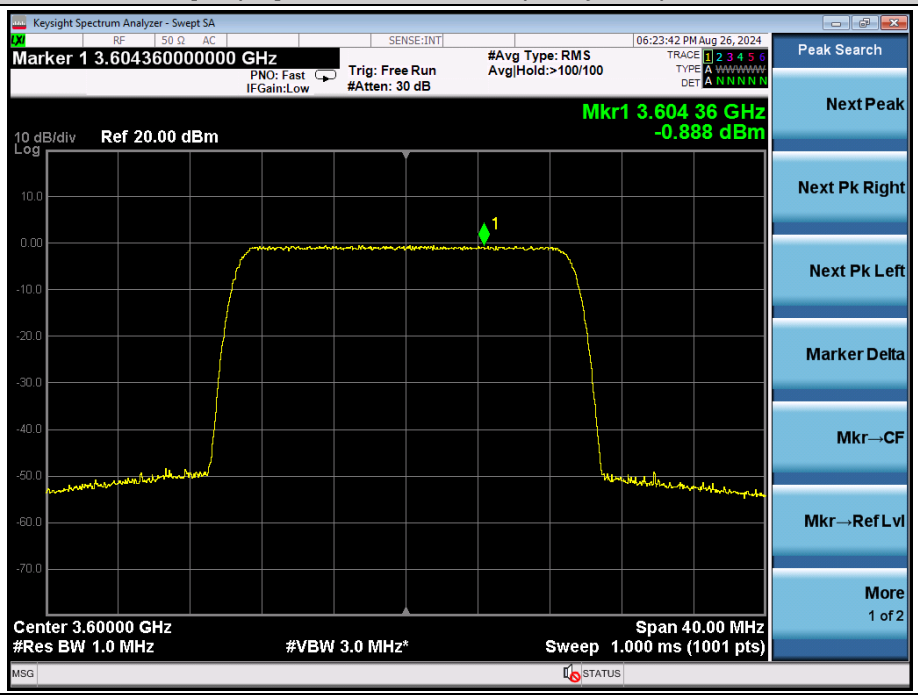
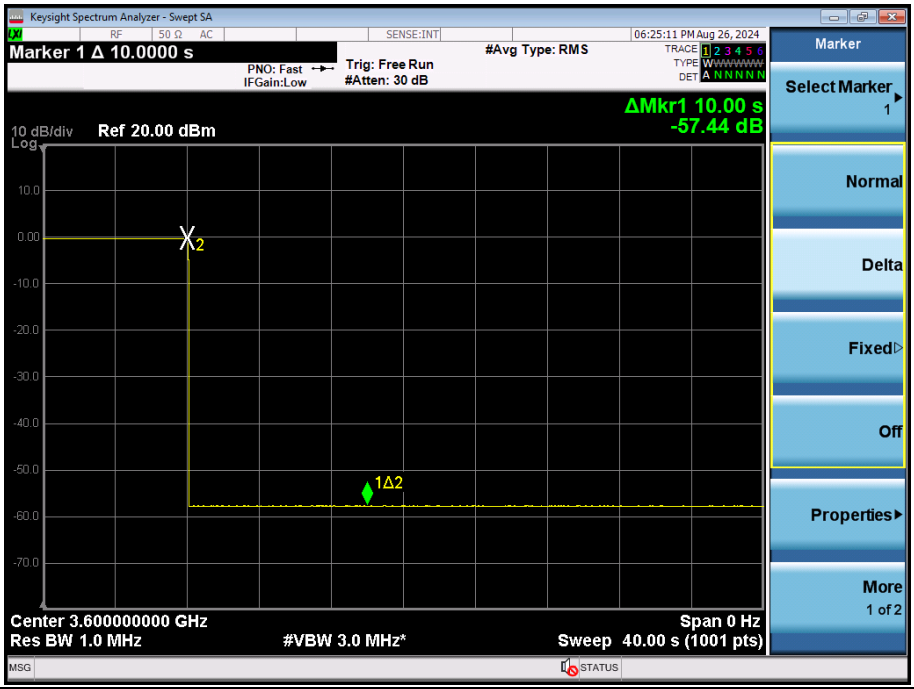
NR
[Step 1] Setup with frequency 3590-3610MHz and power level 18dBm/MHz
[Step 3] Check EUD Tx Frequency and power



EIRP PSD=-0.888-4.13+5.0=-0.018dBm/MHz, loss of Cable and Splitter is 5.0dB, Antenna gain is -4.13dBi
[Step 5] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.



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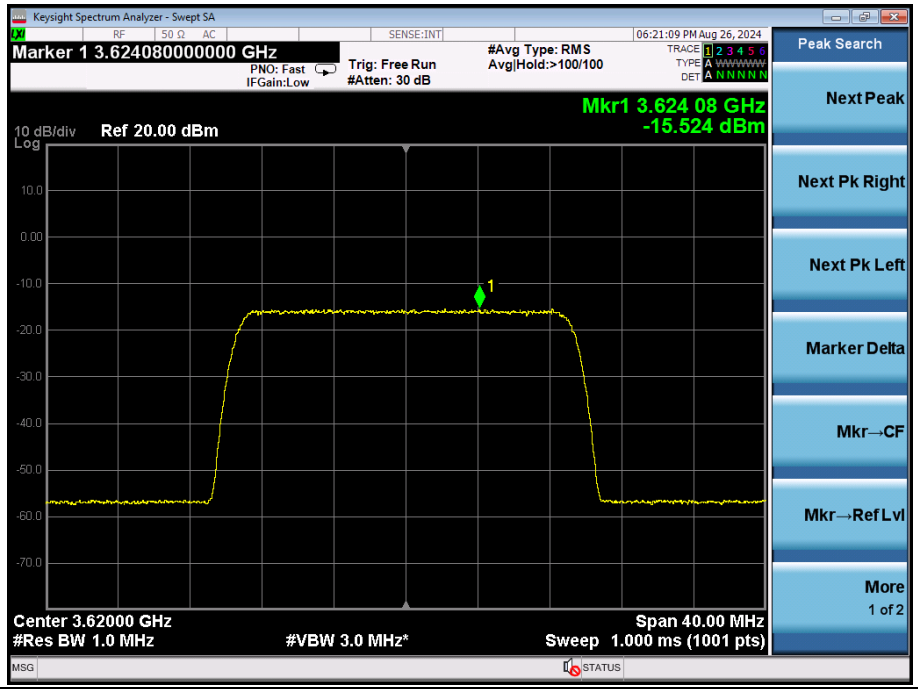
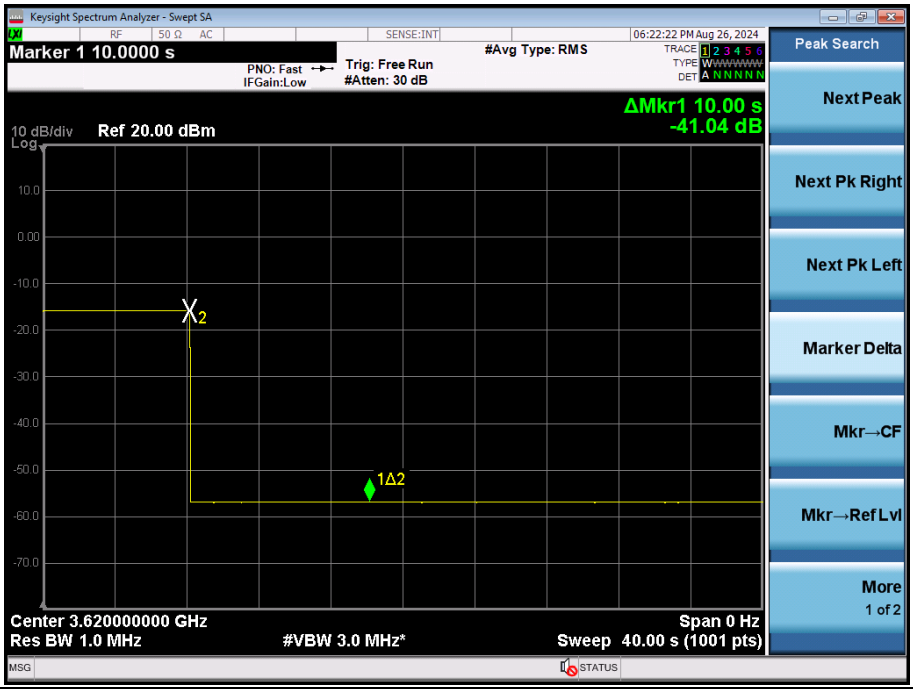
[Step 6] Setup with frequency 3610-3630MHz and power level 5dBm/MHz

[Step 8] Check EUD Tx Frequency and power



EIRP PSD=-15.524-4.13+5.0=-14.654dBm/MHz, loss of Cable and Splitter is 5.0dB, Antenna gain is -4.13dBi

[Step 10] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.



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7 Photographs

7.1 EUT Constructional Details (EUT Photos)

Please Refer to external and internal photos for details.

- End of the Report -

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