

TEST REPORT

FCC Sub6 n77(78) Test for TM18FNNABM0
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2506-FC071

DATE OF ISSUE
June 17, 2025

Tested by
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Technical Manager
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Accredited by KOLAS, Republic of KOREA

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Applicant

LG Electronics Inc.

128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea

Product Name

Telematics

Model Name

TM18FNNABM0

Date of Test

February 08, 2025 ~ June 13, 2025

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

FCC ID

2B03LTM18FNNABM0

FCC Classification

PCS Licensed Transmitter (PCB)

Test Standard Used

FCC Rule Part(s) : § 27

Test Results

PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	June 17, 2025	Initial Release

Notice

Content

The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S.C. 853(a)

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

This test report provides test result(s) under the scope accredited by the Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.
(KOLAS (KS Q ISO/IEC 17025) Accreditation No. KT197)

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MEASUREMENT REPORT

1.GENERAL INFORMATION

Applicant Name:	LG Electronics Inc.
Address:	128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea
FCC ID:	2BO3LTM18FNNABM0
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 27
EUT Type:	Telematics
Model(s):	TM18FNNABM0
Voltage:	4.2V
SCS(kHz):	30
Bandwidth(MHz):	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
Tx Frequency: (3450 MHz - 3550 MHz)	3455.01 MHz – 3544.99 MHz (Sub6 n77)(10 MHz)) 3457.50 MHz – 3542.50 MHz (Sub6 n77)(15 MHz)) 3460.02 MHz – 3540.00 MHz (Sub6 n77)(20 MHz)) 3462.50 MHz – 3537.50 MHz (Sub6 n77)(25 MHz)) 3465.00 MHz – 3534.99 MHz (Sub6 n77)(30 MHz)) 3470.01 MHz – 3529.98 MHz (Sub6 n77)(40 MHz)) 3475.02 MHz – 3525.00 MHz (Sub6 n77)(50 MHz)) 3480.00 MHz – 3519.99 MHz (Sub6 n77)(60 MHz)) 3485.01 MHz – 3514.98 MHz (Sub6 n77)(70 MHz)) 3490.02 MHz – 3510.00 MHz (Sub6 n77)(80 MHz)) 3495.00 MHz – 3504.99 MHz (Sub6 n77)(90 MHz)) 3500.01 MHz (Sub6 n77)(100 MHz))
Tx Frequency: (3700 MHz - 3980 MHz)	3705.00 MHz – 3975.00 MHz (Sub6 n77(78)(10 MHz)) 3707.51 MHz – 3972.48 MHz (Sub6 n77(78)(15 MHz)) 3710.01 MHz – 3969.99 MHz (Sub6 n77(78)(20 MHz)) 3712.50 MHz – 3967.50 MHz (Sub6 n77(78)(25 MHz)) 3715.02 MHz – 3964.98 MHz (Sub6 n77(78)(30 MHz)) 3720.00 MHz – 3960.00 MHz (Sub6 n77(78)(40 MHz)) 3725.10 MHz – 3954.99 MHz (Sub6 n77(78)(50 MHz)) 3730.02 MHz – 3949.98 MHz (Sub6 n77(78)(60 MHz)) 3735.00 MHz – 3945.00 MHz (Sub6 n77(78)(70 MHz)) 3740.01 MHz – 3939.99 MHz (Sub6 n77(78)(80 MHz)) 3745.02 MHz – 3934.98 MHz (Sub6 n77(78)(90 MHz)) 3750.00 MHz – 3930.00 MHz (Sub6 n77(78)(100 MHz))
Date(s) of Tests:	February 08, 2025 ~ June 13, 2025
EUT Serial number:	Radiated : BMW ICON-25SF Radiated #1 Conducted : BMW ICON-25SF Conducted #3
Antenna Information	Please refer to the Antenna Specification document.

1.1. SUPPORTED BANDS PER ANTENNA PORT

Antenna Port	Supported bands
MIMO 1	- WCDMA: B2, 5 - LTE: B2, 4, 5, 7, 12, 13, 17, 25, 66, 26, 38, 42, 48, 71 - NR: n2, 5, 7, 12, 25, 41, 48, 66, 71, 77, 78
MIMO 2	- LTE: B42, 48 - NR: n48, 77, 78
MIMO 3	Only RX
MIMO 4	Only RX
Int. BUA (Back Up Antenna)	- WCDMA: B2, 5 - LTE: B2, 4, 5, 7, 25, 26, 38, 66 - NR: n2, 5, 7, 25, 41, 66

Note:

1. Since the Int. BUA uses the same antenna port as MIMO1, only radiated testing was performed.

1.2 MAXIMUM OUTPUT POWER

MIMO1(3450 MHz - 3550 MHz)

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77 (10)	3455.01 – 3544.99	8M63G7D	PI/2 BPSK	0.377	25.76
		8M65G7D	QPSK	0.381	25.81
		8M61W7D	16QAM	0.292	24.66
		8M59W7D	64 QAM	0.216	23.34
		8M62W7D	256 QAM	0.136	21.34
Sub6 n77 (15)	3457.50 – 3542.50	12M9G7D	PI/2 BPSK	0.390	25.91
		12M9G7D	QPSK	0.403	26.05
		13M0W7D	16QAM	0.295	24.70
		12M9W7D	64 QAM	0.219	23.40
		12M9W7D	256 QAM	0.131	21.17
Sub6 n77 (20)	3460.02 – 3540.00	18M0G7D	PI/2 BPSK	0.394	25.95
		18M0G7D	QPSK	0.407	26.10
		17M9W7D	16QAM	0.300	24.77
		17M9W7D	64 QAM	0.225	23.53
		17M9W7D	256 QAM	0.139	21.42
Sub6 n77 (25)	3462.50 – 3537.50	23M0G7D	PI/2 BPSK	0.376	25.75
		22M9G7D	QPSK	0.388	25.89
		22M9W7D	16QAM	0.288	24.60
		22M9W7D	64 QAM	0.217	23.36
		22M9W7D	256 QAM	0.132	21.21
Sub6 n77 (30)	3465.00 – 3534.99	26M9G7D	PI/2 BPSK	0.394	25.96
		26M8G7D	QPSK	0.399	26.01
		26M9W7D	16QAM	0.305	24.84
		26M8W7D	64 QAM	0.228	23.58
		26M9W7D	256 QAM	0.139	21.43
Sub6 n77 (40)	3470.01 – 3529.98	35M9G7D	PI/2 BPSK	0.380	25.80
		35M9G7D	QPSK	0.385	25.86
		35M7W7D	16QAM	0.288	24.60
		35M7W7D	64 QAM	0.210	23.22
		35M8W7D	256 QAM	0.126	21.02
Sub6 n77 (50)	3475.02 – 3525.00	45M8G7D	PI/2 BPSK	0.375	25.74
		45M7G7D	QPSK	0.372	25.71
		45M7W7D	16QAM	0.272	24.35
		45M8W7D	64 QAM	0.201	23.03
		45M8W7D	256 QAM	0.122	20.87
Sub6 n77 (60)	3480.00 – 3519.99	57M9G7D	PI/2 BPSK	0.372	25.71
		57M7G7D	QPSK	0.374	25.73
		57M9W7D	16QAM	0.232	23.65
		58M2W7D	64 QAM	0.172	22.36
		57M8W7D	256 QAM	0.103	20.12
Sub6 n77 (70)	3485.01 – 3514.98	64M7G7D	PI/2 BPSK	0.368	25.66
		64M5G7D	QPSK	0.374	25.73
		64M7W7D	16QAM	0.239	23.79
		64M9W7D	64 QAM	0.179	22.53
		64M4W7D	256 QAM	0.110	20.40
Sub6 n77 (80)	3490.02 – 3510.00	77M6G7D	PI/2 BPSK	0.363	25.60
		77M3G7D	QPSK	0.378	25.77
		77M4W7D	16QAM	0.240	23.81
		77M3W7D	64 QAM	0.179	22.53
		77M3W7D	256 QAM	0.106	20.27
Sub6 n77 (90)	3495.00 – 3504.99	87M0G7D	PI/2 BPSK	0.361	25.58
		86M9G7D	QPSK	0.367	25.65
		87M0W7D	16QAM	0.246	23.91
		86M9W7D	64 QAM	0.187	22.71
		87M0W7D	256 QAM	0.108	20.35
Sub6 n77 (100)	3500.01	96M5G7D	PI/2 BPSK	0.367	25.65
		96M6G7D	QPSK	0.378	25.78
		96M4W7D	16QAM	0.251	24.00
		96M4W7D	64 QAM	0.186	22.70
		96M6W7D	256 QAM	0.114	20.56

MIMO1(3700 MHz - 3980 MHz)

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (10)	3705.00 – 3975.00	8M63G7D	PI/2 BPSK	0.342	25.34
		8M59G7D	QPSK	0.346	25.39
		8M61W7D	16QAM	0.260	24.15
		8M57W7D	64 QAM	0.193	22.86
		8M57W7D	256 QAM	0.120	20.79
Sub6 n77(78) (15)	3707.51 – 3972.48	13M0G7D	PI/2 BPSK	0.364	25.61
		12M8G7D	QPSK	0.363	25.60
		12M9W7D	16QAM	0.278	24.44
		12M9W7D	64 QAM	0.212	23.26
		12M9W7D	256 QAM	0.130	21.15
Sub6 n77(78) (20)	3710.01 – 3969.99	17M9G7D	PI/2 BPSK	0.369	25.67
		17M9G7D	QPSK	0.373	25.72
		17M9W7D	16QAM	0.279	24.45
		17M9W7D	64 QAM	0.209	23.21
		18M0W7D	256 QAM	0.129	21.10
Sub6 n77(78) (25)	3712.50 – 3967.50	23M0G7D	PI/2 BPSK	0.351	25.45
		22M9G7D	QPSK	0.355	25.50
		22M9W7D	16QAM	0.264	24.22
		22M9W7D	64 QAM	0.200	23.00
		23M0W7D	256 QAM	0.122	20.85
Sub6 n77(78) (30)	3715.02 – 3964.98	26M9G7D	PI/2 BPSK	0.353	25.48
		26M9G7D	QPSK	0.354	25.49
		26M9W7D	16QAM	0.266	24.25
		26M8W7D	64 QAM	0.200	23.00
		26M8W7D	256 QAM	0.125	20.98
Sub6 n77(78) (40)	3720.00 – 3960.00	35M9G7D	PI/2 BPSK	0.354	25.49
		35M8G7D	QPSK	0.356	25.51
		35M8W7D	16QAM	0.267	24.27
		35M8W7D	64 QAM	0.201	23.03
		35M8W7D	256 QAM	0.124	20.95
Sub6 n77(78) (50)	3725.10 – 3954.99	45M8G7D	PI/2 BPSK	0.352	25.46
		45M8G7D	QPSK	0.350	25.44
		45M7W7D	16QAM	0.267	24.27
		45M8W7D	64 QAM	0.200	23.01
		45M7W7D	256 QAM	0.121	20.81
Sub6 n77(78) (60)	3730.02 – 3949.98	58M1G7D	PI/2 BPSK	0.356	25.51
		57M8G7D	QPSK	0.350	25.44
		57M8W7D	16QAM	0.273	24.36
		57M9W7D	64 QAM	0.207	23.15
		57M8W7D	256 QAM	0.123	20.89
Sub6 n77(78) (70)	3735.00 – 3945.00	64M6G7D	PI/2 BPSK	0.362	25.59
		64M7G7D	QPSK	0.368	25.66
		64M5W7D	16QAM	0.281	24.49
		64M5W7D	64 QAM	0.214	23.30
		64M6W7D	256 QAM	0.130	21.15
Sub6 n77(78) (80)	3740.01 – 3939.99	77M5G7D	PI/2 BPSK	0.355	25.50
		77M3G7D	QPSK	0.357	25.53
		77M6W7D	16QAM	0.267	24.27
		77M5W7D	64 QAM	0.204	23.10
		77M3W7D	256 QAM	0.123	20.90
Sub6 n77(78) (90)	3745.02 – 3934.98	86M9G7D	PI/2 BPSK	0.353	25.48
		86M8G7D	QPSK	0.362	25.59
		87M0W7D	16QAM	0.267	24.27
		86M9W7D	64 QAM	0.205	23.11
		87M3W7D	256 QAM	0.125	20.97
Sub6 n77(78) (100)	3750.00 – 3930.00	96M8G7D	PI/2 BPSK	0.354	25.49
		96M7G7D	QPSK	0.352	25.46
		96M7W7D	16QAM	0.261	24.17
		97M1W7D	64 QAM	0.198	22.96
		96M8W7D	256 QAM	0.120	20.78

MIMO2(3450 MHz - 3550 MHz)

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77 (10)	3455.01 – 3544.99	8M60G7D	PI/2 BPSK	0.495	26.95
		8M68G7D	QPSK	0.502	27.01
		8M58W7D	16QAM	0.374	25.73
		8M57W7D	64 QAM	0.269	24.29
		8M58W7D	256 QAM	0.173	22.39
Sub6 n77 (15)	3457.50 – 3542.50	12M9G7D	PI/2 BPSK	0.499	26.98
		12M9G7D	QPSK	0.493	26.93
		13M0W7D	16QAM	0.385	25.85
		12M9W7D	64 QAM	0.272	24.35
		12M9W7D	256 QAM	0.173	22.37
Sub6 n77 (20)	3460.02 – 3540.00	17M9G7D	PI/2 BPSK	0.494	26.94
		17M9G7D	QPSK	0.490	26.90
		17M9W7D	16QAM	0.374	25.73
		18M0W7D	64 QAM	0.267	24.27
		18M0W7D	256 QAM	0.168	22.25
Sub6 n77 (25)	3462.50 – 3537.50	23M0G7D	PI/2 BPSK	0.474	26.76
		22M9G7D	QPSK	0.480	26.81
		23M0W7D	16QAM	0.357	25.53
		22M9W7D	64 QAM	0.255	24.06
		23M0W7D	256 QAM	0.161	22.06
Sub6 n77 (30)	3465.00 – 3534.99	26M9G7D	PI/2 BPSK	0.486	26.87
		26M9G7D	QPSK	0.485	26.86
		26M9W7D	16QAM	0.375	25.74
		26M9W7D	64 QAM	0.267	24.27
		27M0W7D	256 QAM	0.167	22.23
Sub6 n77 (40)	3470.01 – 3529.98	35M9G7D	PI/2 BPSK	0.473	26.75
		36M0G7D	QPSK	0.489	26.89
		35M9W7D	16QAM	0.362	25.59
		35M8W7D	64 QAM	0.261	24.16
		35M9W7D	256 QAM	0.165	22.18
Sub6 n77 (50)	3475.02 – 3525.00	45M8G7D	PI/2 BPSK	0.465	26.67
		45M6G7D	QPSK	0.463	26.66
		45M9W7D	16QAM	0.346	25.39
		45M9W7D	64 QAM	0.245	23.90
		45M7W7D	256 QAM	0.160	22.03
Sub6 n77 (60)	3480.00 – 3519.99	58M0G7D	PI/2 BPSK	0.468	26.70
		57M9G7D	QPSK	0.465	26.67
		57M9W7D	16QAM	0.327	25.15
		57M9W7D	64 QAM	0.230	23.61
		58M0W7D	256 QAM	0.144	21.58
Sub6 n77 (70)	3485.01 – 3514.98	64M5G7D	PI/2 BPSK	0.471	26.73
		64M6G7D	QPSK	0.471	26.73
		64M3W7D	16QAM	0.332	25.21
		64M6W7D	64 QAM	0.233	23.68
		64M7W7D	256 QAM	0.146	21.64
Sub6 n77 (80)	3490.02 – 3510.00	77M6G7D	PI/2 BPSK	0.474	26.76
		77M5G7D	QPSK	0.473	26.75
		77M6W7D	16QAM	0.333	25.23
		77M5W7D	64 QAM	0.235	23.71
		77M2W7D	256 QAM	0.148	21.70
Sub6 n77 (90)	3495.00 – 3504.99	87M1G7D	PI/2 BPSK	0.475	26.77
		87M1G7D	QPSK	0.469	26.71
		87M0W7D	16QAM	0.330	25.19
		87M1W7D	64 QAM	0.243	23.85
		86M9W7D	256 QAM	0.153	21.86
Sub6 n77 (100)	3500.01	96M8G7D	PI/2 BPSK	0.474	26.76
		96M8G7D	QPSK	0.472	26.74
		96M7W7D	16QAM	0.340	25.32
		96M7W7D	64 QAM	0.241	23.82
		96M8W7D	256 QAM	0.151	21.79

MIMO2(3700 MHz - 3980 MHz)

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (10)	3705.00 – 3975.00	8M60G7D	PI/2 BPSK	0.342	25.34
		8M58G7D	QPSK	0.429	26.32
		8M61W7D	16QAM	0.319	25.04
		8M58W7D	64 QAM	0.229	23.60
		8M65W7D	256 QAM	0.151	21.79
Sub6 n77(78) (15)	3707.51 – 3972.48	12M9G7D	PI/2 BPSK	0.429	26.32
		12M9G7D	QPSK	0.427	26.30
		12M9W7D	16QAM	0.324	25.10
		12M9W7D	64 QAM	0.229	23.60
		12M9W7D	256 QAM	0.152	21.82
Sub6 n77(78) (20)	3710.01 – 3969.99	17M9G7D	PI/2 BPSK	0.432	26.35
		17M9G7D	QPSK	0.432	26.35
		17M9W7D	16QAM	0.325	25.12
		17M9W7D	64 QAM	0.231	23.64
		17M9W7D	256 QAM	0.153	21.85
Sub6 n77(78) (25)	3712.50 – 3967.50	22M9G7D	PI/2 BPSK	0.416	26.19
		22M9G7D	QPSK	0.407	26.10
		22M9W7D	16QAM	0.314	24.97
		22M9W7D	64 QAM	0.220	23.42
Sub6 n77(78) (30)	3715.02 – 3964.98	23M0W7D	256 QAM	0.145	21.61
		26M9G7D	PI/2 BPSK	0.420	26.23
		26M9G7D	QPSK	0.413	26.16
		26M9W7D	16QAM	0.305	24.84
		26M9W7D	64 QAM	0.214	23.30
Sub6 n77(78) (40)	3720.00 – 3960.00	26M9W7D	256 QAM	0.142	21.52
		35M9G7D	PI/2 BPSK	0.419	26.22
		35M8G7D	QPSK	0.415	26.18
		35M8W7D	16QAM	0.306	24.86
		35M7W7D	64 QAM	0.219	23.40
Sub6 n77(78) (50)	3725.10 – 3954.99	35M8W7D	256 QAM	0.142	21.51
		45M8G7D	PI/2 BPSK	0.414	26.17
		45M7G7D	QPSK	0.413	26.16
		46M0W7D	16QAM	0.323	25.09
		45M8W7D	64 QAM	0.232	23.65
Sub6 n77(78) (60)	3730.02 – 3949.98	45M7W7D	256 QAM	0.149	21.72
		57M8G7D	PI/2 BPSK	0.424	26.27
		57M8G7D	QPSK	0.417	26.20
		57M7W7D	16QAM	0.330	25.19
		57M8W7D	64 QAM	0.237	23.75
Sub6 n77(78) (70)	3735.00 – 3945.00	57M9W7D	256 QAM	0.158	21.99
		64M5G7D	PI/2 BPSK	0.436	26.39
		64M6G7D	QPSK	0.428	26.31
		64M5W7D	16QAM	0.338	25.29
		64M6W7D	64 QAM	0.240	23.81
Sub6 n77(78) (80)	3740.01 – 3939.99	64M5W7D	256 QAM	0.157	21.97
		77M2G7D	PI/2 BPSK	0.413	26.16
		77M3G7D	QPSK	0.413	26.16
		77M3W7D	16QAM	0.299	24.75
		77M3W7D	64 QAM	0.213	23.29
Sub6 n77(78) (90)	3745.02 – 3934.98	77M3W7D	256 QAM	0.140	21.46
		87M1G7D	PI/2 BPSK	0.410	26.13
		87M0G7D	QPSK	0.413	26.16
		86M9W7D	16QAM	0.302	24.80
		87M2W7D	64 QAM	0.215	23.32
Sub6 n77(78) (100)	3750.00 – 3930.00	86M9W7D	256 QAM	0.144	21.59
		96M5G7D	PI/2 BPSK	0.413	26.16
		96M7G7D	QPSK	0.410	26.13
		96M8W7D	16QAM	0.308	24.89
		96M8W7D	64 QAM	0.218	23.39
		96M7W7D	256 QAM	0.142	21.53

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [3G] Test Report.

2.2. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

2.3. TEST FACILITY

The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the **74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea**

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Band Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Radiated Power	- ANSI C63.26-2015 – Section 5.2.4.4 - KDB 971168 D01 v03r01 – Section 5.8
Radiated Spurious and Harmonic Emissions	- ANSI C63.26-2015 – Section 5.5.3 - KDB 971168 D01 v03r01 – Section 5.8

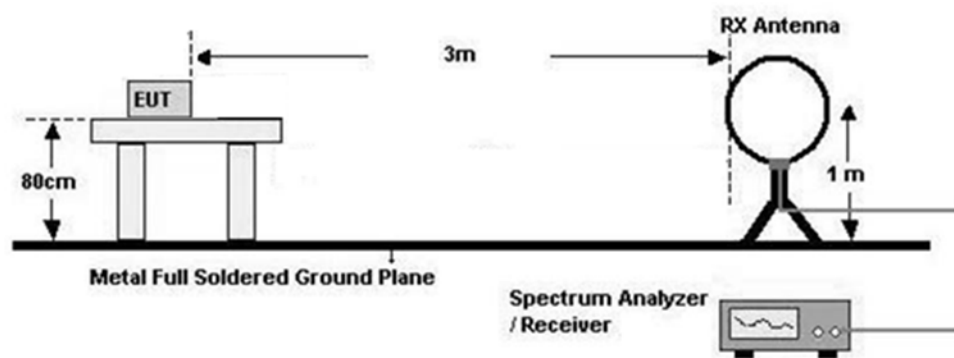
3.2 RADIATED POWER

Test Overview

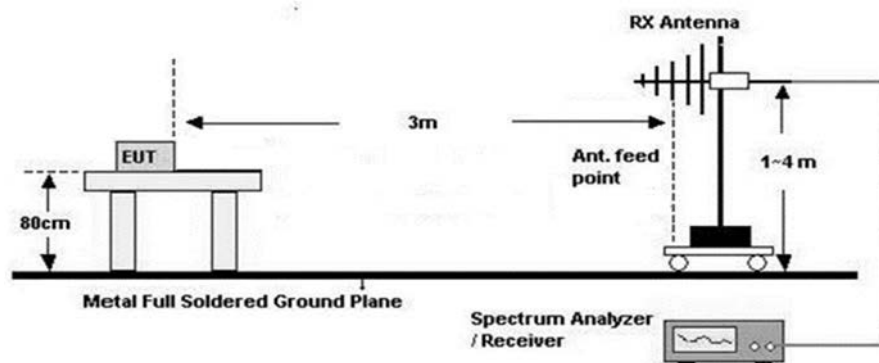
Radiated tests are performed in the semi-anechoic chamber. The equipment under test is placed on a non-conductive table on semi-anechoic chamber.

Test Configuration

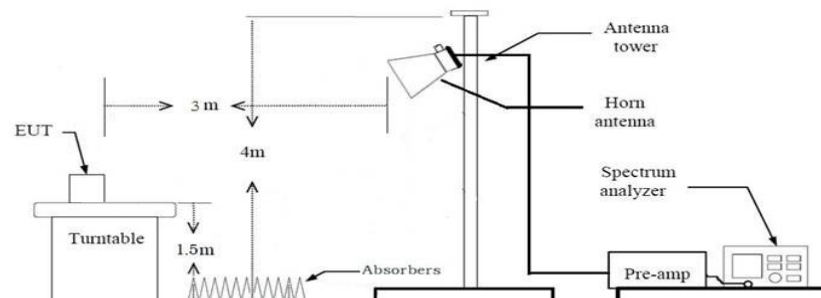
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5 % of the expected OBW, not to exceed 1 MHz
3. VBW $\geq$ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points > 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Note

1. The EUT is placed on a turntable, which is 0.8 m above ground plane. (Below 1 GHz)
2. The EUT is placed on a turntable, which is 1.5 m above ground plane. (Above 1 GHz)
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
5. EUT is set 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the highest emissions.
6. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.
7. $\text{Total(dB V/m)} = \text{Measured Value(dB V)} + \text{Cable Loss(dB)} + \text{Antenna Factor(dB/m)} + \text{Distance Factor(D.F)}$
8. EIRP (dBm)
 $= \text{Total (dB V/m)} + 20 \log D - 104.8$ (where D is the measurement distance in meters. D=3)
 $= \text{Total (dB V/m)} - 95.2(\text{dB})$
9. $\text{ERP(dBm)} = \text{EIRP(dBm)} - 2.15(\text{dB})$

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

1. RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $> 2 \times$ span / RBW
5. Detector = Peak
6. Trace mode = Max Hold
7. The trace was allowed to stabilize
8. Test channel : Low/ Middle/ High
9. Frequency range : We are performed all frequency to 10th harmonics from 9 kHz.

Test Note

1. Measurements value show only up to 3 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
2. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the test data
3. For spurious emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.

The spurious emissions is calculated by the following formula;

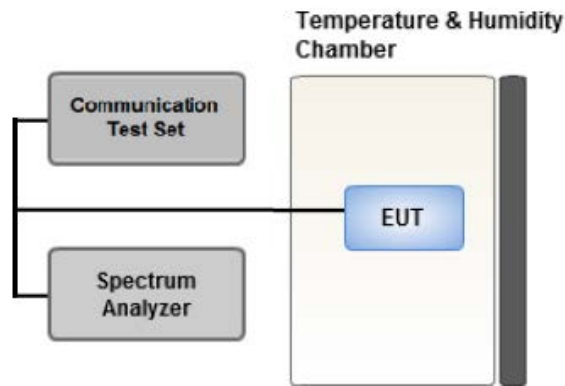
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

Where: P_g is the generator output power into the substitution antenna.

If the fundamental frequency is below 1 GHz, RF output power has been converted to EIRP.

$$\text{EIRP}_{(\text{dBm})} = \text{ERP}_{(\text{dBm})} + 2.15$$

3.4 PEAK- TO- AVERAGE RATIO



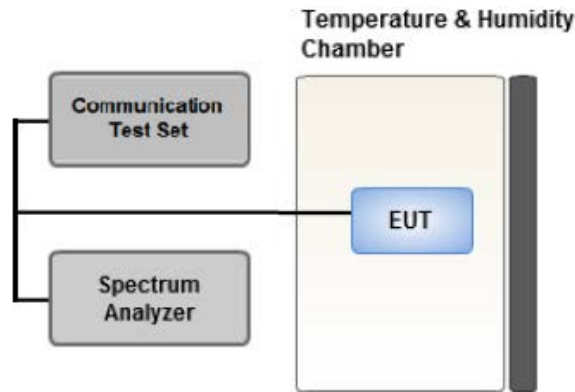
Test setup

CCDF Procedure for PAPR

Test Settings

1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Set the measurement interval as follows:
 - .- for continuous transmissions, set to 1 ms,
 - .- or burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
4. Record the maximum PAPR level associated with a probability of 0.1 %.

3.5 OCCUPIED BANDWIDTH.



Test setup

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

The EUT makes a call to the communication simulator.

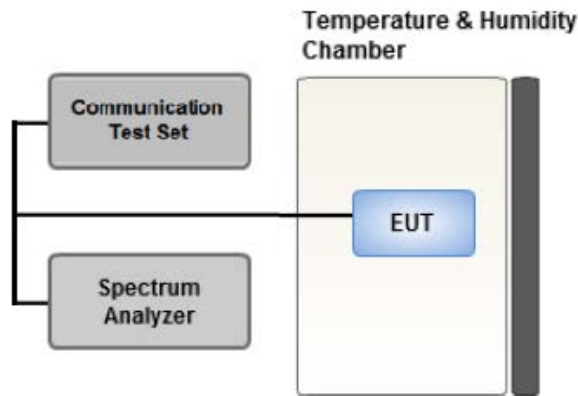
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99 % occupied bandwidth and the 26 dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5 % of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5 % of the 99 % occupied bandwidth observed in Step 7

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

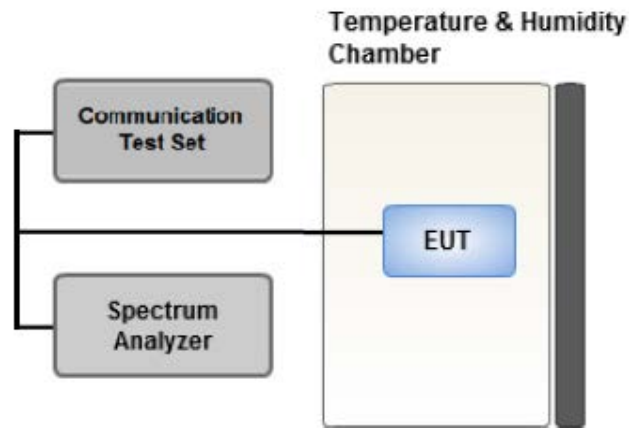
Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

1. RBW = 1 MHz
2. VBW $\geq$ 3 MHz
3. Detector = Peak
4. Trace Mode = Max Hold
5. Sweep time = auto
6. Number of points in sweep $\geq$ 2 x Span / RBW

3.7 BAND EDGE



Test setup

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW > 1 % of the emission bandwidth
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
7. Trace mode = trace average
8. Sweep time > Number of points in sweep Symbol period (i.e., the transmit on-time + the off-time)
9. The trace was allowed to stabilize

Test Notes

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

Compliance with this paragraph is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz.

In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

Measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

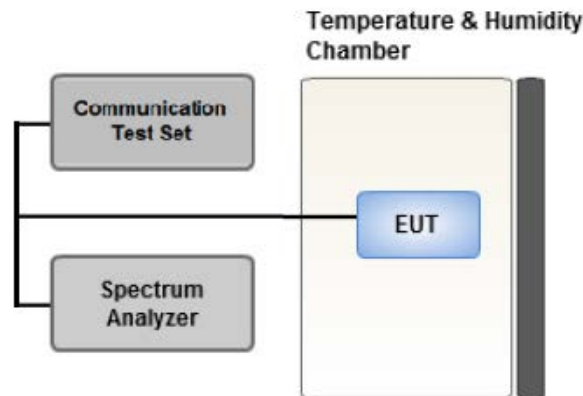
However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz.

In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. .

Where $\text{Margin} < 1$ dB the emission level is either corrected by $10 \log(1 \text{ MHz} / \text{RB})$ or the emission is integrated over a 1 MHz bandwidth to determine the final result. When using the integration method the integration window is either centered on the emission or, for emissions at the band edge, centered by an offset of 500 kHz from the block edge so that the integration window is the 1 MHz adjacent to the block edge.

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015.

The frequency stability of the transmitter is measured by:

1. Temperature: The temperature is varied from -30 °C to +50 °C in 10 °C increments using an environmental chamber.
2. Primary Supply Voltage:
 - Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value for other than hand carried battery equipment.
 - For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20 °C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter.

Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

3.9 WORST CASE(RADIATED TEST)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data.
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: SA, NSA (Worst case: SA)
- NR n77 (3450 – 3550 MHz / 3700 – 3980 MHz) overlaps the entire frequency range of NR n78 (3700 – 3800 MHz).
- All power classes were tested, and the results were reported for the worst case PC2(n77).
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).

All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.

The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.

- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported. Please refer to the table below.
- In the case of radiated spurious emissions, all bandwidth of operation were investigated and the worst case bandwidth results are reported.

Worst case:

1. 20 MHz(MIMO1, 3450 MHz - 3550 MHz)
2. 10 MHz(MIMO2, 3450 MHz - 3550 MHz)
3. 90 MHz(MIMO1, 3700 MHz - 3980 MHz)
4. 70 MHz(MIMO1, 3700 MHz - 3980 MHz)

- MIMO3 and MIMO4 have three types of Rx antennas. Operating modes were investigated for all Rx antennas, and the worst-case configuration results were reported.

(Worst-case: HKL antenna(Maximum gain: 5dBi))

[Worst case (MIMO1, 3450 MHz - 3550 MHz)]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 8.1		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		Z

[Worst case (MIMO1, 3700 MHz - 3980 MHz)]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 9.1		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		Z

[Worst case (MIMO2, 3450 MHz - 3550 MHz)]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 10.1		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 10.2		Z

[Worst case (MIMO2, 3700 MHz - 3980 MHz)]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 11.1		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 11.2		Y

3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported. (Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported. (Worst case: PI/2 BPSK)
- NR n77 (3450 – 3550 MHz / 3700 – 3980 MHz) overlaps the entire frequency range of NR n78 (3700 – 3800 MHz).
- All power classes were tested, and the results were reported for the worst case PC2(n77).
- All modes of operation were investigated and the worst case configuration results are reported.
Mode : SA, NSA. (Worst case : SA)
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- Both 85% and 115% conditions were measured for the Frequency Stability test, and results for the worst-case configuration (85%) were reported.
- In accordance with the customer's specification of 3.7V as the lowest operating voltage, testing was performed at 3.7V instead of 85% (3.57V).

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth,	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Band Edge	PI/2 BPSK	10	Low	1	0
			High	1	23
		15	Low	1	0
			High	1	37
		20	Low	1	0
			High	1	50
		25	Low	1	0
			High	1	64
		30	Low	1	0
			High	1	77
		40	Low	1	0
			High	1	105
		50	Low	1	0
			High	1	132
		60	Low	1	0
			High	1	161
		70	Low	1	0
			High	1	188
		80	Low	1	0
			High	1	216
		90	Low	1	0
			High	1	244
		100	Low	1	0
			High	1	272
		10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1

4. LIST OF TEST EQUIPMENT

[Radiated]

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
RF Switch System	FBSR-04C(3G HPF+LNA)	TNM System	S4L1	03/12/2026	Annual
RF Switch System	FBSR-04C(7G HPF+LNA)	TNM System	S4L5	03/12/2026	Annual
RF Switch System	FBSR-04C(LNA)	TNM System	S4L4	03/12/2026	Annual
RF Switch System	FBSR-04C(Thru)	TNM System	S4L6	03/12/2026	Annual
Antenna Position Tower	MA4640	Innco systems	S4AM	08/07/2025	Annual
Turn Table	DS2000-S	Innco systems	N/A	N/A	-
Controller (Antenna mast & Turn Table)	CO3000	Innco systems	CO3000/1251/48920320/P	N/A	-
Amp & Filter Bank Switch Controller	FBSM-01B	TNM system	TM20090002	N/A	-
RF Switching System	Switch box(1 G HPF+LNA)	HCT CO., LTD.,	F2L2	12/12/2025	Annual
RF Switching System	Switch box(3 G HPF+LNA)	HCT CO., LTD.,	F2L3	12/12/2025	Annual
RF Switching System	Switch box(LNA)	HCT CO., LTD.,	F2L5	12/12/2025	Annual
RF Switching System	Switch box(6 G HPF+LNA)	HCT CO., LTD.,	F2L14	12/12/2025	Annual
HIGHPASS FILTER	WHKX10-900-1000-15000-40SS	WAINWRIGHT INSTRUMENTS	16	07/24/2025	Annual
LOW NOISE AMPLIFIER	310N	SONOMA Instrument	186169	02/05/2026	Annual
LOW NOISE AMPLIFIER	TK-PA1840H	TESTEK	170011-L	10/11/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/10/2026	Annual
DC Power Supply	E3632A	Agilent	MY40010147	08/06/2025	Annual
Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Dipole Antenna	UHAP	Schwarzbeck	01288	08/07/2026	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03197	11/28/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03201	11/28/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120	Schwarzbeck	937	02/07/2027	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	ROHDE & SCHWARZ	101733	09/19/2025	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/04/2026	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/27/2026	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Trilog Broadband Antenna	VULB 9168	Schwarzbeck	9168-0895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	08/19/2026	Biennial
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/14/2026	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6272613402	08/28/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
Automation Software	FCC LTE Radiated	HCT CO., LTD	-	-	-
Automation Software	FCC NR Radiated	HCT CO., LTD	-	-	-

[Conducted]

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Power Splitter (DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/10/2026	Annual
DC Power Supply	E3632A	Agilent	MY40010147	08/06/2025	Annual
Chamber	SU-642	ESPEC	93008124	02/11/2026	Annual
ATTENUATOR (20 dB)	8493C	Hewlett Packard	17280	04/10/2026	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262094331	11/13/2025	Annual
UXM 5G Wireless Test Platform	E7515B	KEYSIGHT	MY60101126	02/10/2026	Annual
Signal Analyzer (2 Hz ~ 50.0 GHz)	N9030B	KEYSIGHT	MY56320554	02/03/2026	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.	-	-	-
Automation Software	FCC 2G/3G/4G Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC NR Conducted	HCT CO., LTD	-	-	-

Note:

1. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
2. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

5. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014.

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty ($\pm$ kHz)
Occupied Bandwidth	95 (Confidence level about 95 %, $k=2$)
Frequency stability	28 (Confidence level about 95 %, $k=2$)

Parameter	Expanded Uncertainty ($\pm$ dB)
Block Edge	0.70 (Confidence level about 95 %, $k=2$)
Conducted Spurious Emissions	1.18 (Confidence level about 95 %, $k=2$)
Peak- to- Average Ratio	0.68 (Confidence level about 95 %, $k=2$)
Radiated Power	4.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.68 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.75 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.82 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, $k=2$)

6. SUMMARY OF TEST RESULTS

- The decision rule applies 'simple acceptance'

6.1 Test Condition : Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(n)(2), § 27.53(l)(2)	< -13 dBm	PASS
Conducted Output Power	§ 2.1046	N/A	Note ¹
Peak- to- Average Ratio	§ 27.50(k)(4), § 27.50(j)(4)	< 13 dB	PASS
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

Note:

1. Refer to the SAR report.
2. All conducted tests were tested using 5G Wireless Tester.

6.2 Test Condition : Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§ 27.50(k)(3), § 27.50(j)(3)	< 1 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1051, § 27.53(n)(2), § 27.53(l)(2)	< -13 dBm	PASS

Note:

1. Radiated tests were tested using 5G Wireless Tester.

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol.	ERP	
channel	Freq.(MHz)						W	dBm
128	824.20	-21.37	38.40	-10.61	0.95	H	0.483	26.84

$$\text{ERP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

- 1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
- 2) During the test, the turn table is rotated until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power.

7.2 EIRP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	EIRP	
channel	Freq.(MHz)						W	dBm
20175	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

$$\text{EIRP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

- 1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
- 2) During the test, the turn table is rotated until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of equivalent isotropic radiated power.

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW

GSM BW = 249 kHz

G = Phase Modulation

X = Cases not otherwise covered

W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W

GSM BW = 249 kHz

G = Phase Modulation

7 = Quantized/Digital Info

W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W

WCDMA BW = 4.17 MHz

F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D

LTE BW = 4.48 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

8. TEST DATA (MIMO1, 3450 MHz - 3550 MHz)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3455.01	Sub6 n77/ 10 MHz [30 kHz]	PI/2 BPSK	79.96	30.80	5.43	116.19	H	< 1.00	0.126	20.99	1	1
		QPSK	79.55	30.80	5.43	115.78	H		0.114	20.58		
		16-QAM	79.04	30.80	5.43	115.27	H		0.102	20.07		
		64-QAM	79.04	30.80	5.43	115.27	H		0.102	20.07		
		256-QAM	78.14	30.80	5.43	114.37	H		0.083	19.17		
3500.01		PI/2 BPSK	81.14	31.10	5.45	117.69	H		0.177	22.49	1	12
		QPSK	81.04	31.10	5.45	117.59	H		0.173	22.39		
		16-QAM	80.62	31.10	5.45	117.17	H		0.157	21.97		
		64-QAM	79.76	31.10	5.45	116.31	H		0.129	21.11		
		256-QAM	80.43	31.10	5.45	116.98	H		0.151	21.78		
3544.99		PI/2 BPSK	80.69	31.50	5.51	117.70	H		0.178	22.50	1	12
		QPSK	80.54	31.50	5.51	117.55	H		0.172	22.35		
		16-QAM	80.40	31.50	5.51	117.41	H		0.166	22.21		
		64-QAM	79.96	31.50	5.51	116.97	H		0.150	21.77		
		256-QAM	79.13	31.50	5.51	116.14	H		0.124	20.94		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3457.50	Sub6 n77/ 15 MHz [30 kHz]	PI/2 BPSK	79.07	30.80	5.43	115.30	H	< 1.00	0.102	20.10	1	36
		QPSK	78.47	30.80	5.43	114.70	H		0.089	19.50		
		16-QAM	77.55	30.80	5.43	113.78	H		0.072	18.58		
		64-QAM	78.24	30.80	5.43	114.47	H		0.085	19.27		
		256-QAM	77.38	30.80	5.43	113.61	H		0.069	18.41		
3500.01		PI/2 BPSK	81.61	31.10	5.45	118.16	H		0.198	22.96	1	19
		QPSK	81.53	31.10	5.45	118.08	H		0.194	22.88		
		16-QAM	80.64	31.10	5.45	117.19	H		0.158	21.99		
		64-QAM	80.33	31.10	5.45	116.88	H		0.147	21.68		
		256-QAM	79.92	31.10	5.45	116.47	H		0.134	21.27		
3542.50		PI/2 BPSK	80.72	31.50	5.51	117.73	H		0.179	22.53	1	36
		QPSK	80.05	31.50	5.51	117.06	H		0.153	21.86		
		16-QAM	79.99	31.50	5.51	117.00	H		0.151	21.80		
		64-QAM	80.49	31.50	5.51	117.50	H		0.170	22.30		
		256-QAM	80.02	31.50	5.51	117.03	H		0.152	21.83		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3460.02	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	79.49	30.80	5.43	115.72	H	< 1.00	0.113	20.52	1	25
		QPSK	78.07	30.80	5.43	114.30	H		0.081	19.10		
		16-QAM	78.60	30.80	5.43	114.83	H		0.092	19.63		
		64-QAM	78.59	30.80	5.43	114.82	H		0.092	19.62		
		256-QAM	78.57	30.80	5.43	114.80	H		0.091	19.60		
3500.01		PI/2 BPSK	81.33	31.10	5.45	117.88	H		0.185	22.68	1	25
		QPSK	80.88	31.10	5.45	117.43	H		0.167	22.23		
		16-QAM	81.11	31.10	5.45	117.66	H		0.176	22.46		
		64-QAM	81.28	31.10	5.45	117.83	H		0.183	22.63		
		256-QAM	81.05	31.10	5.45	117.60	H		0.174	22.40		
3540.00		PI/2 BPSK	81.26	31.50	5.51	118.27	H		0.203	23.07	1	49
		QPSK	80.05	31.50	5.51	117.06	H		0.153	21.86		
		16-QAM	80.88	31.50	5.51	117.89	H		0.186	22.69		
		64-QAM	80.32	31.50	5.51	117.33	H		0.163	22.13		
		256-QAM	79.74	31.50	5.51	116.75	H		0.143	21.55		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3462.50	Sub6 n77/ 25 MHz [30 kHz]	PI/2 BPSK	79.03	30.80	5.43	115.26	H	< 1.00	0.101	20.06	1	1
		QPSK	78.95	30.80	5.43	115.18	H		0.100	19.98		
		16-QAM	79.01	30.80	5.43	115.24	H		0.101	20.04		
		64-QAM	78.80	30.80	5.43	115.03	H		0.096	19.83		
		256-QAM	78.30	30.80	5.43	114.53	H		0.086	19.33		
3500.01		PI/2 BPSK	80.52	31.10	5.45	117.07	H		0.154	21.87	1	63
		QPSK	79.36	31.10	5.45	115.91	H		0.118	20.71		
		16-QAM	80.51	31.10	5.45	117.06	H		0.153	21.86		
		64-QAM	80.28	31.10	5.45	116.83	H		0.146	21.63		
		256-QAM	80.05	31.10	5.45	116.60	H		0.138	21.40		
3537.50		PI/2 BPSK	80.20	31.50	5.51	117.21	H		0.159	22.01	1	1
		QPSK	80.07	31.50	5.51	117.08	H		0.154	21.88		
		16-QAM	79.81	31.50	5.51	116.82	H		0.145	21.62		
		64-QAM	79.21	31.50	5.51	116.22	H		0.126	21.02		
		256-QAM	79.88	31.50	5.51	116.89	H		0.148	21.69		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3465.00	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	79.57	30.80	5.43	115.80	H	< 1.00	0.115	20.60	1	1
		QPSK	78.80	30.80	5.43	115.03	H		0.096	19.83		
		16-QAM	79.01	30.80	5.43	115.24	H		0.101	20.04		
		64-QAM	78.40	30.80	5.43	114.63	H		0.088	19.43		
		256-QAM	78.06	30.80	5.43	114.29	H		0.081	19.09		
3500.01		PI/2 BPSK	80.77	31.10	5.45	117.32	H		0.163	22.12	1	39
		QPSK	80.26	31.10	5.45	116.81	H		0.145	21.61		
		16-QAM	80.38	31.10	5.45	116.93	H		0.149	21.73		
		64-QAM	80.55	31.10	5.45	117.10	H		0.155	21.90		
		256-QAM	78.58	31.10	5.45	115.13	H		0.098	19.93		
3534.99		PI/2 BPSK	80.56	31.50	5.51	117.57	H		0.173	22.37	1	39
		QPSK	79.61	31.50	5.51	116.62	H		0.139	21.42		
		16-QAM	80.07	31.50	5.51	117.08	H		0.154	21.88		
		64-QAM	79.86	31.50	5.51	116.87	H		0.147	21.67		
		256-QAM	79.74	31.50	5.51	116.75	H		0.143	21.55		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3470.01	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	80.28	30.80	5.43	116.51	H	< 1.00	0.135	21.31	1	104
		QPSK	79.54	30.80	5.43	115.77	H		0.114	20.57		
		16-QAM	79.65	30.80	5.43	115.88	H		0.117	20.68		
		64-QAM	79.85	30.80	5.43	116.08	H		0.122	20.88		
		256-QAM	77.74	30.80	5.43	113.97	H		0.075	18.77		
3500.01		PI/2 BPSK	81.33	31.10	5.45	117.88	H		0.185	22.68	1	53
		QPSK	80.58	31.10	5.45	117.13	H		0.156	21.93		
		16-QAM	80.39	31.10	5.45	116.94	H		0.149	21.74		
		64-QAM	79.23	31.10	5.45	115.78	H		0.114	20.58		
		256-QAM	79.77	31.10	5.45	116.32	H		0.129	21.12		
3529.98		PI/2 BPSK	80.57	31.50	5.51	117.58	H		0.173	22.38	1	1
		QPSK	80.30	31.50	5.51	117.31	H		0.163	22.11		
		16-QAM	79.97	31.50	5.51	116.98	H		0.151	21.78		
		64-QAM	80.27	31.50	5.51	117.28	H		0.161	22.08		
		256-QAM	78.88	31.50	5.51	115.89	H		0.117	20.69		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3475.02	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	81.09	30.80	5.43	117.32	H	< 1.00	0.163	22.12	1	131
		QPSK	80.08	30.80	5.43	116.31	H		0.129	21.11		
		16-QAM	80.43	30.80	5.43	116.66	H		0.140	21.46		
		64-QAM	80.07	30.80	5.43	116.30	H		0.129	21.10		
		256-QAM	79.90	30.80	5.43	116.13	H		0.124	20.93		
3500.01		PI/2 BPSK	80.99	31.10	5.45	117.54	H		0.171	22.34	1	66
		QPSK	79.58	31.10	5.45	116.13	H		0.124	20.93		
		16-QAM	80.74	31.10	5.45	117.29	H		0.162	22.09		
		64-QAM	79.69	31.10	5.45	116.24	H		0.127	21.04		
		256-QAM	80.15	31.10	5.45	116.70	H		0.141	21.50		
3525.00		PI/2 BPSK	80.62	31.50	5.51	117.63	H		0.175	22.43	1	1
		QPSK	80.11	31.50	5.51	117.12	H		0.156	21.92		
		16-QAM	80.10	31.50	5.51	117.11	H		0.155	21.91		
		64-QAM	79.39	31.50	5.51	116.40	H		0.132	21.20		
		256-QAM	79.69	31.50	5.51	116.70	H		0.141	21.50		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3480.00	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	80.39	30.80	5.43	116.62	H	< 1.00	0.139	21.42	1	82
		QPSK	80.36	30.80	5.43	116.59	H		0.138	21.39		
		16-QAM	79.47	30.80	5.43	115.70	H		0.112	20.50		
		64-QAM	78.65	30.80	5.43	114.88	H		0.093	19.68		
		256-QAM	78.79	30.80	5.43	115.02	H		0.096	19.82		
3500.01		PI/2 BPSK	80.92	31.10	5.45	117.47	H		0.169	22.27	1	82
		QPSK	79.65	31.10	5.45	116.20	H		0.126	21.00		
		16-QAM	80.83	31.10	5.45	117.38	H		0.165	22.18		
		64-QAM	80.29	31.10	5.45	116.84	H		0.146	21.64		
		256-QAM	79.69	31.10	5.45	116.24	H		0.127	21.04		
3519.99		PI/2 BPSK	80.49	31.50	5.51	117.50	H		0.170	22.30	1	82
		QPSK	80.12	31.50	5.51	117.13	H		0.156	21.93		
		16-QAM	79.22	31.50	5.51	116.23	H		0.127	21.03		
		64-QAM	79.40	31.50	5.51	116.41	H		0.132	21.21		
		256-QAM	78.62	31.50	5.51	115.63	H		0.110	20.43		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3485.01	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	80.52	30.80	5.43	116.75	H	< 1.00	0.143	21.55	1	187
		QPSK	79.64	30.80	5.43	115.87	H		0.117	20.67		
		16-QAM	78.77	30.80	5.43	115.00	H		0.096	19.80		
		64-QAM	79.44	30.80	5.43	115.67	H		0.111	20.47		
		256-QAM	79.07	30.80	5.43	115.30	H		0.102	20.10		
3500.01		PI/2 BPSK	81.36	31.10	5.45	117.91	H		0.187	22.71	1	94
		QPSK	80.31	31.10	5.45	116.86	H		0.147	21.66		
		16-QAM	81.32	31.10	5.45	117.87	H		0.185	22.67		
		64-QAM	79.96	31.10	5.45	116.51	H		0.135	21.31		
		256-QAM	79.38	31.10	5.45	115.93	H		0.118	20.73		
3514.98		PI/2 BPSK	80.83	31.50	5.51	117.84	H		0.184	22.64	1	94
		QPSK	80.73	31.50	5.51	117.74	H		0.179	22.54		
		16-QAM	79.92	31.50	5.51	116.93	H		0.149	21.73		
		64-QAM	79.79	31.50	5.51	116.80	H		0.145	21.60		
		256-QAM	78.48	31.50	5.51	115.49	H		0.107	20.29		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3490.02	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	80.46	30.80	5.43	116.69	H	< 1.00	0.141	21.49	1	215
		QPSK	79.42	30.80	5.43	115.65	H		0.111	20.45		
		16-QAM	79.64	30.80	5.43	115.87	H		0.117	20.67		
		64-QAM	78.67	30.80	5.43	114.90	H		0.093	19.70		
		256-QAM	79.80	30.80	5.43	116.03	H		0.121	20.83		
3500.01		PI/2 BPSK	81.24	31.10	5.45	117.79	H		0.182	22.59	1	108
		QPSK	79.88	31.10	5.45	116.43	H		0.133	21.23		
		16-QAM	80.51	31.10	5.45	117.06	H		0.153	21.86		
		64-QAM	80.99	31.10	5.45	117.54	H		0.171	22.34		
		256-QAM	79.32	31.10	5.45	115.87	H		0.117	20.67		
3510.00		PI/2 BPSK	80.26	31.50	5.51	117.27	H		0.161	22.07	1	108
		QPSK	79.97	31.50	5.51	116.98	H		0.151	21.78		
		16-QAM	80.07	31.50	5.51	117.08	H		0.154	21.88		
		64-QAM	79.95	31.50	5.51	116.96	H		0.150	21.76		
		256-QAM	79.96	31.50	5.51	116.97	H		0.150	21.77		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3495.00	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	80.66	30.80	5.43	116.89	H	< 1.00	0.148	21.69	1	122
		QPSK	80.17	30.80	5.43	116.40	H		0.132	21.20		
		16-QAM	80.58	30.80	5.43	116.81	H		0.145	21.61		
		64-QAM	80.23	30.80	5.43	116.46	H		0.134	21.26		
		256-QAM	79.91	30.80	5.43	116.14	H		0.124	20.94		
3500.01		PI/2 BPSK	80.96	31.10	5.45	117.51	H		0.170	22.31	1	122
		QPSK	80.94	31.10	5.45	117.49	H		0.169	22.29		
		16-QAM	80.64	31.10	5.45	117.19	H		0.158	21.99		
		64-QAM	80.93	31.10	5.45	117.48	H		0.169	22.28		
		256-QAM	79.96	31.10	5.45	116.51	H		0.135	21.31		
3504.99		PI/2 BPSK	81.03	31.50	5.51	118.04	H		0.192	22.84	1	243
		QPSK	78.85	31.50	5.51	115.86	H		0.116	20.66		
		16-QAM	79.59	31.50	5.51	116.60	H		0.138	21.40		
		64-QAM	79.89	31.50	5.51	116.90	H		0.148	21.70		
		256-QAM	79.85	31.50	5.51	116.86	H		0.147	21.66		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3500.01	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	80.52	31.10	5.45	117.07	H	< 1.00	0.154	21.87	1	271
		QPSK	79.90	31.10	5.45	116.45	H		0.133	21.25		
		16-QAM	79.99	31.10	5.45	116.54	H		0.136	21.34		
		64-QAM	79.47	31.10	5.45	116.02	H		0.121	20.82		
		256-QAM	79.14	31.10	5.45	115.69	H		0.112	20.49		

8.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>N77</u>
■ Bandwidth:	<u>20 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>30 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
630668 (3460.02)	6 920.04	-55.43	11.19	-57.94	4.39	V	-51.14	-13.00	1	25
	10 380.06	-56.05	11.68	-55.57	5.56	V	-49.45	-13.00		
	13 840.08	-61.96	13.35	-50.60	6.53	V	-43.78	-13.00		
	17 300.10	-70.50	17.76	-49.68	7.42	H	-39.34	-13.00		
633334 (3500.01)	7 000.02	-54.90	11.14	-57.50	4.45	V	-50.81	-13.00	1	25
	10 500.03	-52.17	11.71	-52.58	5.64	H	-46.51	-13.00		
	14 000.04	-62.58	13.09	-50.66	6.55	H	-44.12	-13.00		
	17 500.05	-71.08	17.36	-46.03	7.42	H	-36.09	-13.00		
636000 (3540.00)	7 080.00	-55.01	10.90	-57.18	4.49	V	-50.77	-13.00	1	49
	10 620.00	-55.57	11.62	-56.23	5.65	H	-50.26	-13.00		
	14 160.00	-64.22	13.01	-50.61	6.51	V	-44.11	-13.00		
	17 700.00	-71.94	16.62	-43.97	7.49	H	-34.84	-13.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77	10 MHz	3500.01	BPSK	Full RB	0	4.62
			QPSK			5.64
			16-QAM			6.26
			64-QAM			6.50
			256-QAM			6.64
	15 MHz		BPSK			5.14
			QPSK			5.89
			16-QAM			6.64
			64-QAM			6.61
			256-QAM			6.54
	20 MHz		BPSK			5.43
			QPSK			5.84
			16-QAM			6.45
			64-QAM			6.44
			256-QAM			6.69
	25 MHz		BPSK			4.33
			QPSK			5.64
			16-QAM			6.59
			64-QAM			6.40
			256-QAM			6.73
	30 MHz		BPSK			4.45
			QPSK			5.65
			16-QAM			6.30
			64-QAM			6.59
			256-QAM			6.55
	40 MHz		BPSK			5.73
			QPSK			6.03
			16-QAM			6.26
			64-QAM			6.45
			256-QAM			6.74
	50 MHz		BPSK			4.48
			QPSK			5.51
			16-QAM			6.29
			64-QAM			6.45
			256-QAM			6.57
	60 MHz		BPSK			4.65
			QPSK			5.59
			16-QAM			6.25
			64-QAM			6.38
			256-QAM			6.52
	70 MHz		BPSK			4.48
			QPSK			5.65
			16-QAM			6.40
			64-QAM			6.42
			256-QAM			6.52
	80 MHz		BPSK			4.66
			QPSK			5.53

			16-QAM			6.34
			64-QAM			6.60
			256-QAM			6.62
	90 MHz		BPSK			4.71
			QPSK			5.57
			16-QAM			6.30
			64-QAM			6.48
			256-QAM			6.67
	100 MHz		BPSK			4.99
			QPSK			5.62
			16-QAM			6.31
			64-QAM			6.48
			256-QAM			6.59

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 159 ~ 218.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77	10 MHz	3500.01	BPSK	Full RB	0	8.6323
			QPSK			8.6461
			16-QAM			8.6113
			64-QAM			8.5927
			256-QAM			8.6150
	15 MHz		BPSK			12.918
			QPSK			12.929
			16-QAM			12.958
			64-QAM			12.895
			256-QAM			12.887
	20 MHz		BPSK			17.960
			QPSK			17.964
			16-QAM			17.905
			64-QAM			17.863
			256-QAM			17.930
	25 MHz		BPSK			22.959
			QPSK			22.930
			16-QAM			22.919
			64-QAM			22.943
			256-QAM			22.904
	30 MHz		BPSK			26.867
			QPSK			26.801
			16-QAM			26.930
			64-QAM			26.840
			256-QAM			26.909
	40 MHz		BPSK			35.866
			QPSK			35.879
			16-QAM			35.672
			64-QAM			35.696
			256-QAM			35.746
	50 MHz		BPSK			45.780
			QPSK			45.697
			16-QAM			45.722
			64-QAM			45.758
			256-QAM			45.747
	60 MHz		BPSK			57.935
			QPSK			57.736
			16-QAM			57.940
			64-QAM			58.178
			256-QAM			57.834
	70 MHz		BPSK			64.661
			QPSK			64.511
			16-QAM			64.658
			64-QAM			64.859
			256-QAM			64.393
	80 MHz		BPSK			77.610
			QPSK			77.281

			16-QAM			77.392
			64-QAM			77.252
			256-QAM			77.291
	90 MHz		BPSK			86.979
			QPSK			86.901
			16-QAM			86.989
			64-QAM			86.930
			256-QAM			87.039
	100 MHz		BPSK			96.530
			QPSK			96.607
			16-QAM			96.400
			64-QAM			96.413
			256-QAM			96.606

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 219 ~ 278.

8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77	10	3455.010	8.0858	28.980	-61.678	-32.698	-13.00
		3500.010	10.0000	28.980	-61.750	-32.770	
		3544.980	7.1885	28.980	-61.560	-32.580	
	15	3457.500	4.5664	28.370	-62.225	-33.855	
		3500.010	4.9053	28.370	-61.992	-33.622	
		3542.490	4.8854	28.370	-61.766	-33.396	
	20	3460.020	5.4936	28.980	-62.421	-33.441	
		3500.010	4.9851	28.370	-61.595	-33.225	
		3540.000	4.9352	28.370	-62.590	-34.220	
	25	3462.510	4.2673	28.370	-62.001	-33.631	
		3500.010	4.9053	28.370	-61.584	-33.214	
		3537.480	8.3350	28.980	-62.696	-33.716	
	30	3465.000	9.8405	28.980	-62.446	-33.466	
		3500.010	4.8555	28.370	-62.408	-34.038	
		3534.990	5.4836	28.980	-62.313	-33.333	
	40	3470.010	6.0419	28.980	-62.524	-33.544	
		3500.010	4.9652	28.370	-62.118	-33.748	
		3529.980	5.1945	28.980	-63.005	-34.025	
	50	3475.020	5.4836	28.980	-62.354	-33.374	
		3500.010	9.9402	28.980	-62.074	-33.094	
		3525.000	6.0519	28.980	-61.719	-32.739	
	60	3480.000	8.3250	28.980	-62.875	-33.895	
		3500.010	6.0319	28.980	-62.236	-33.256	
		3519.990	9.1526	28.980	-62.808	-33.828	
	70	3485.010	8.4148	28.980	-62.273	-33.293	
		3500.010	9.2024	28.980	-62.072	-33.092	
		3514.980	5.7129	28.980	-60.480	-31.500	
	80	3490.020	5.2443	28.980	-61.919	-32.939	
		3500.010	8.0858	28.980	-61.278	-32.298	
		3510.000	8.0758	28.980	-61.699	-32.719	
	90	3495.000	4.9452	28.370	-61.215	-32.845	
		3500.010	5.1945	28.980	-62.087	-33.107	
		3504.990	9.7208	28.980	-61.086	-32.106	
	100	3500.010	6.0120	28.980	-61.582	-32.602	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 279 ~ 346.
2. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
3. Result(dBm) = Reading + Factor

Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.670
1 – 5	28.370
5 – 10	28.980
10 – 15	29.520
15 – 20	29.890
Above 20	30.530

8.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 347 ~ 490.
2. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.990

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3455.010	100 %	+20(Ref)	3455 009 978	0.0	0.000 000	0.000
	100 %	-30	3455 009 966	-11.9	0.000 000	-0.003
	100 %	-20	3455 009 966	-12.4	0.000 000	-0.004
	100 %	-10	3455 009 965	-12.8	0.000 000	-0.004
	100 %	0	3455 009 965	-13.4	0.000 000	-0.004
	100 %	+10	3455 009 964	-14.3	0.000 000	-0.004
	100 %	+30	3455 009 962	-16.3	0.000 000	-0.005
	100 %	+40	3455 009 963	-14.9	0.000 000	-0.004
	100 %	+50	3455 009 962	-16.5	0.000 000	-0.005
	Lowest voltage	+20	3455 009 964	-14.6	0.000 000	-0.004
3544.980	100 %	+20(Ref)	3544 979 989	0.0	0.000 000	0.000
	100 %	-30	3544 979 983	-6.4	0.000 000	-0.002
	100 %	-20	3544 979 976	-13.8	0.000 000	-0.004
	100 %	-10	3544 979 979	-10.6	0.000 000	-0.003
	100 %	0	3544 979 974	-15.3	0.000 000	-0.004
	100 %	+10	3544 979 976	-13.6	0.000 000	-0.004
	100 %	+30	3544 979 976	-13.9	0.000 000	-0.004
	100 %	+40	3544 979 972	-17.8	-0.000 001	-0.005
	100 %	+50	3544 979 977	-12.3	0.000 000	-0.003
	Lowest voltage	+20	3544 979 976	-13.3	0.000 000	-0.004

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3457.500	100 %	+20(Ref)	3457 499 989	0.0	0.000 000	0.000
	100 %	-30	3457 499 977	-11.7	0.000 000	-0.003
	100 %	-20	3457 499 976	-12.7	0.000 000	-0.004
	100 %	-10	3457 499 979	-9.4	0.000 000	-0.003
	100 %	0	3457 499 979	-9.1	0.000 000	-0.003
	100 %	+10	3457 499 983	-5.7	0.000 000	-0.002
	100 %	+30	3457 499 982	-6.4	0.000 000	-0.002
	100 %	+40	3457 499 979	-9.3	0.000 000	-0.003
	100 %	+50	3457 499 979	-9.9	0.000 000	-0.003
	Lowest voltage	+20	3457 499 980	-8.6	0.000 000	-0.002
3542.490	100 %	+20(Ref)	3542 489 990	0.0	0.000 000	0.000
	100 %	-30	3542 489 974	-15.5	0.000 000	-0.004
	100 %	-20	3542 489 977	-12.9	0.000 000	-0.004
	100 %	-10	3542 489 971	-18.5	-0.000 001	-0.005
	100 %	0	3542 489 976	-14.1	0.000 000	-0.004
	100 %	+10	3542 489 977	-13.1	0.000 000	-0.004
	100 %	+30	3542 489 973	-17.3	0.000 000	-0.005
	100 %	+40	3542 489 968	-21.9	-0.000 001	-0.006
	100 %	+50	3542 489 981	-8.5	0.000 000	-0.002
	Lowest voltage	+20	3542 489 972	-17.9	-0.000 001	-0.005

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3460.020	100 %	+20(Ref)	3460 019 990	0.0	0.000 000	0.000
	100 %	-30	3460 019 980	-10.0	0.000 000	-0.003
	100 %	-20	3460 019 986	-3.9	0.000 000	-0.001
	100 %	-10	3460 019 986	-4.2	0.000 000	-0.001
	100 %	0	3460 019 980	-10.3	0.000 000	-0.003
	100 %	+10	3460 019 984	-6.0	0.000 000	-0.002
	100 %	+30	3460 019 976	-14.6	0.000 000	-0.004
	100 %	+40	3460 019 978	-11.8	0.000 000	-0.003
	100 %	+50	3460 019 982	-7.9	0.000 000	-0.002
	Lowest voltage	+20	3460 019 983	-7.5	0.000 000	-0.002
3540.000	100 %	+20(Ref)	3539 999 994	0.0	0.000 000	0.000
	100 %	-30	3539 999 989	-5.6	0.000 000	-0.002
	100 %	-20	3539 999 986	-7.8	0.000 000	-0.002
	100 %	-10	3539 999 985	-8.8	0.000 000	-0.002
	100 %	0	3539 999 986	-7.8	0.000 000	-0.002
	100 %	+10	3539 999 984	-10.3	0.000 000	-0.003
	100 %	+30	3539 999 985	-9.6	0.000 000	-0.003
	100 %	+40	3539 999 986	-8.4	0.000 000	-0.002
	100 %	+50	3539 999 986	-8.4	0.000 000	-0.002
	Lowest voltage	+20	3539 999 984	-10.1	0.000 000	-0.003

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3462.510	100 %	+20(Ref)	3462 509 985	0.0	0.000 000	0.000
	100 %	-30	3462 509 976	-9.0	0.000 000	-0.003
	100 %	-20	3462 509 975	-9.6	0.000 000	-0.003
	100 %	-10	3462 509 974	-10.7	0.000 000	-0.003
	100 %	0	3462 509 974	-10.7	0.000 000	-0.003
	100 %	+10	3462 509 969	-15.8	0.000 000	-0.005
	100 %	+30	3462 509 972	-13.4	0.000 000	-0.004
	100 %	+40	3462 509 980	-5.1	0.000 000	-0.001
	100 %	+50	3462 509 981	-4.3	0.000 000	-0.001
	Lowest voltage	+20	3462 509 977	-8.5	0.000 000	-0.002
3537.480	100 %	+20(Ref)	3537 479 987	0.0	0.000 000	0.000
	100 %	-30	3537 479 974	-13.5	0.000 000	-0.004
	100 %	-20	3537 479 973	-14.5	0.000 000	-0.004
	100 %	-10	3537 479 979	-8.6	0.000 000	-0.002
	100 %	0	3537 479 975	-12.5	0.000 000	-0.004
	100 %	+10	3537 479 978	-9.9	0.000 000	-0.003
	100 %	+30	3537 479 973	-14.5	0.000 000	-0.004
	100 %	+40	3537 479 974	-13.2	0.000 000	-0.004
	100 %	+50	3537 479 969	-18.9	-0.000 001	-0.005
	Lowest voltage	+20	3537 479 974	-13.5	0.000 000	-0.004

- BandWidth: 30 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3465.000	100 %	+20(Ref)	3464 999 988	0.0	0.000 000	0.000
	100 %	-30	3464 999 976	-12.4	0.000 000	-0.004
	100 %	-20	3464 999 977	-11.1	0.000 000	-0.003
	100 %	-10	3464 999 975	-13.3	0.000 000	-0.004
	100 %	0	3464 999 976	-12.3	0.000 000	-0.004
	100 %	+10	3464 999 973	-15.1	0.000 000	-0.004
	100 %	+30	3464 999 978	-10.2	0.000 000	-0.003
	100 %	+40	3464 999 979	-9.5	0.000 000	-0.003
	100 %	+50	3464 999 979	-9.6	0.000 000	-0.003
	Lowest voltage	+20	3464 999 977	-11.5	0.000 000	-0.003
3534.990	100 %	+20(Ref)	3534 989 989	0.0	0.000 000	0.000
	100 %	-30	3534 989 982	-7.7	0.000 000	-0.002
	100 %	-20	3534 989 976	-13.6	0.000 000	-0.004
	100 %	-10	3534 989 978	-11.6	0.000 000	-0.003
	100 %	0	3534 989 970	-19.3	-0.000 001	-0.005
	100 %	+10	3534 989 976	-13.3	0.000 000	-0.004
	100 %	+30	3534 989 975	-14.1	0.000 000	-0.004
	100 %	+40	3534 989 975	-14.2	0.000 000	-0.004
	100 %	+50	3534 989 974	-15.9	0.000 000	-0.005
	Lowest voltage	+20	3534 989 976	-13.4	0.000 000	-0.004

- BandWidth: 40 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3470.010	100 %	+20(Ref)	3470 009 991	0.0	0.000 000	0.000
	100 %	-30	3470 009 985	-5.9	0.000 000	-0.002
	100 %	-20	3470 009 980	-11.3	0.000 000	-0.003
	100 %	-10	3470 009 979	-11.9	0.000 000	-0.003
	100 %	0	3470 009 982	-9.2	0.000 000	-0.003
	100 %	+10	3470 009 978	-13.2	0.000 000	-0.004
	100 %	+30	3470 009 981	-10.7	0.000 000	-0.003
	100 %	+40	3470 009 980	-11.0	0.000 000	-0.003
	100 %	+50	3470 009 984	-7.2	0.000 000	-0.002
	Lowest voltage	+20	3470 009 980	-11.3	0.000 000	-0.003
3529.980	100 %	+20(Ref)	3529 979 986	0.0	0.000 000	0.000
	100 %	-30	3529 979 974	-12.3	0.000 000	-0.003
	100 %	-20	3529 979 970	-16.2	0.000 000	-0.005
	100 %	-10	3529 979 976	-10.7	0.000 000	-0.003
	100 %	0	3529 979 969	-17.2	0.000 000	-0.005
	100 %	+10	3529 979 973	-13.0	0.000 000	-0.004
	100 %	+30	3529 979 972	-14.1	0.000 000	-0.004
	100 %	+40	3529 979 972	-14.5	0.000 000	-0.004
	100 %	+50	3529 979 974	-12.3	0.000 000	-0.003
	Lowest voltage	+20	3529 979 977	-9.4	0.000 000	-0.003

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3475.020	100 %	+20(Ref)	3475 019 984	0.0	0.000 000	0.000
	100 %	-30	3475 019 972	-11.9	0.000 000	-0.003
	100 %	-20	3475 019 971	-13.0	0.000 000	-0.004
	100 %	-10	3475 019 965	-19.1	-0.000 001	-0.006
	100 %	0	3475 019 973	-11.5	0.000 000	-0.003
	100 %	+10	3475 019 973	-11.2	0.000 000	-0.003
	100 %	+30	3475 019 965	-18.8	-0.000 001	-0.005
	100 %	+40	3475 019 977	-7.5	0.000 000	-0.002
	100 %	+50	3475 019 971	-13.0	0.000 000	-0.004
	Lowest voltage	+20	3475 019 971	-13.6	0.000 000	-0.004
3525.000	100 %	+20(Ref)	3524 999 988	0.0	0.000 000	0.000
	100 %	-30	3524 999 980	-8.1	0.000 000	-0.002
	100 %	-20	3524 999 974	-14.2	0.000 000	-0.004
	100 %	-10	3524 999 975	-12.6	0.000 000	-0.004
	100 %	0	3524 999 976	-11.6	0.000 000	-0.003
	100 %	+10	3524 999 975	-12.3	0.000 000	-0.004
	100 %	+30	3524 999 978	-10.3	0.000 000	-0.003
	100 %	+40	3524 999 972	-15.9	0.000 000	-0.005
	100 %	+50	3524 999 974	-13.8	0.000 000	-0.004
	Lowest voltage	+20	3524 999 976	-12.1	0.000 000	-0.003

- BandWidth: 60 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3480.000	100 %	+20(Ref)	3479 999 986	0.0	0.000 000	0.000
	100 %	-30	3479 999 974	-11.7	0.000 000	-0.003
	100 %	-20	3479 999 966	-20.2	-0.000 001	-0.006
	100 %	-10	3479 999 979	-7.5	0.000 000	-0.002
	100 %	0	3479 999 980	-6.2	0.000 000	-0.002
	100 %	+10	3479 999 978	-7.8	0.000 000	-0.002
	100 %	+30	3479 999 976	-10.2	0.000 000	-0.003
	100 %	+40	3479 999 980	-6.1	0.000 000	-0.002
	100 %	+50	3479 999 979	-7.4	0.000 000	-0.002
	Lowest voltage	+20	3479 999 973	-13.4	0.000 000	-0.004
3519.990	100 %	+20(Ref)	3519 989 986	0.0	0.000 000	0.000
	100 %	-30	3519 989 969	-17.3	0.000 000	-0.005
	100 %	-20	3519 989 972	-13.4	0.000 000	-0.004
	100 %	-10	3519 989 966	-20.0	-0.000 001	-0.006
	100 %	0	3519 989 970	-15.8	0.000 000	-0.004
	100 %	+10	3519 989 972	-13.6	0.000 000	-0.004
	100 %	+30	3519 989 970	-15.6	0.000 000	-0.004
	100 %	+40	3519 989 968	-18.3	-0.000 001	-0.005
	100 %	+50	3519 989 967	-18.7	-0.000 001	-0.005
	Lowest voltage	+20	3519 989 968	-17.5	0.000 000	-0.005

- BandWidth: 70 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3485.010	100 %	+20(Ref)	3485 009 998	0.0	0.000 000	0.000
	100 %	-30	3485 009 995	-2.8	0.000 000	-0.001
	100 %	-20	3485 009 995	-3.1	0.000 000	-0.001
	100 %	-10	3485 009 999	1.6	0.000 000	0.000
	100 %	0	3485 009 997	-1.3	0.000 000	0.000
	100 %	+10	3485 009 996	-1.5	0.000 000	0.000
	100 %	+30	3485 009 999	1.6	0.000 000	0.000
	100 %	+40	3485 009 991	-7.3	0.000 000	-0.002
	100 %	+50	3485 009 989	-9.0	0.000 000	-0.003
	Lowest voltage	+20	3485 009 998	0.2	0.000 000	0.000
3514.980	100 %	+20(Ref)	3514 979 984	0.0	0.000 000	0.000
	100 %	-30	3514 979 967	-16.5	0.000 000	-0.005
	100 %	-20	3514 979 969	-15.4	0.000 000	-0.004
	100 %	-10	3514 979 972	-12.5	0.000 000	-0.004
	100 %	0	3514 979 972	-12.0	0.000 000	-0.003
	100 %	+10	3514 979 968	-16.5	0.000 000	-0.005
	100 %	+30	3514 979 970	-14.0	0.000 000	-0.004
	100 %	+40	3514 979 974	-10.3	0.000 000	-0.003
	100 %	+50	3514 979 969	-14.9	0.000 000	-0.004
	Lowest voltage	+20	3514 979 972	-11.9	0.000 000	-0.003

- BandWidth: 80 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3490.020	100 %	+20(Ref)	3490 019 988	0.0	0.000 000	0.000
	100 %	-30	3490 019 976	-12.3	0.000 000	-0.004
	100 %	-20	3490 019 974	-14.4	0.000 000	-0.004
	100 %	-10	3490 019 973	-14.8	0.000 000	-0.004
	100 %	0	3490 019 975	-13.5	0.000 000	-0.004
	100 %	+10	3490 019 980	-8.4	0.000 000	-0.002
	100 %	+30	3490 019 975	-13.5	0.000 000	-0.004
	100 %	+40	3490 019 977	-10.7	0.000 000	-0.003
	100 %	+50	3490 019 976	-11.8	0.000 000	-0.003
	Lowest voltage	+20	3490 019 978	-9.7	0.000 000	-0.003
3510.000	100 %	+20(Ref)	3509 999 982	0.0	0.000 000	0.000
	100 %	-30	3509 999 972	-10.1	0.000 000	-0.003
	100 %	-20	3509 999 965	-16.8	0.000 000	-0.005
	100 %	-10	3509 999 971	-10.5	0.000 000	-0.003
	100 %	0	3509 999 970	-12.0	0.000 000	-0.003
	100 %	+10	3509 999 967	-15.1	0.000 000	-0.004
	100 %	+30	3509 999 965	-17.0	0.000 000	-0.005
	100 %	+40	3509 999 970	-11.7	0.000 000	-0.003
	100 %	+50	3509 999 966	-15.5	0.000 000	-0.004
	Lowest voltage	+20	3509 999 971	-10.8	0.000 000	-0.003

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3495.000	100 %	+20(Ref)	3494 999 988	0.0	0.000 000	0.000
	100 %	-30	3494 999 980	-8.3	0.000 000	-0.002
	100 %	-20	3494 999 977	-11.6	0.000 000	-0.003
	100 %	-10	3494 999 973	-15.6	0.000 000	-0.004
	100 %	0	3494 999 976	-11.9	0.000 000	-0.003
	100 %	+10	3494 999 980	-8.6	0.000 000	-0.002
	100 %	+30	3494 999 978	-10.1	0.000 000	-0.003
	100 %	+40	3494 999 977	-11.9	0.000 000	-0.003
	100 %	+50	3494 999 981	-7.6	0.000 000	-0.002
	Lowest voltage	+20	3494 999 978	-10.4	0.000 000	-0.003
3504.990	100 %	+20(Ref)	3504 989 996	0.0	0.000 000	0.000
	100 %	-30	3504 989 992	-4.0	0.000 000	-0.001
	100 %	-20	3504 989 989	-7.3	0.000 000	-0.002
	100 %	-10	3504 989 985	-11.2	0.000 000	-0.003
	100 %	0	3504 989 985	-10.8	0.000 000	-0.003
	100 %	+10	3504 989 989	-7.2	0.000 000	-0.002
	100 %	+30	3504 989 979	-16.7	0.000 000	-0.005
	100 %	+40	3504 989 982	-13.7	0.000 000	-0.004
	100 %	+50	3504 989 985	-10.4	0.000 000	-0.003
	Lowest voltage	+20	3504 989 987	-9.3	0.000 000	-0.003

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3500.010	100 %	+20(Ref)	3500 009 988	0.0	0.000 000	0.000
	100 %	-30	3500 009 982	-5.7	0.000 000	-0.002
	100 %	-20	3500 009 981	-7.4	0.000 000	-0.002
	100 %	-10	3500 009 986	-2.3	0.000 000	-0.001
	100 %	0	3500 009 982	-5.7	0.000 000	-0.002
	100 %	+10	3500 009 976	-11.6	0.000 000	-0.003
	100 %	+30	3500 009 982	-6.1	0.000 000	-0.002
	100 %	+40	3500 009 983	-4.6	0.000 000	-0.001
	100 %	+50	3500 009 978	-10.5	0.000 000	-0.003
	Lowest voltage	+20	3500 009 985	-3.0	0.000 000	-0.001

9. TEST DATA (MIMO1, 3700 MHz - 3980 MHz)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3705.00	Sub6 n77(78)/ 10 MHz [30 kHz]	PI/2 BPSK	79.91	31.40	5.73	117.04	H	< 1.00	0.153	21.84	1	12
		QPSK	79.35	31.40	5.73	116.48	H		0.134	21.28		
		16-QAM	79.79	31.40	5.73	116.92	H		0.149	21.72		
		64-QAM	78.05	31.40	5.73	115.18	H		0.100	19.98		
		256-QAM	77.76	31.40	5.73	114.89	H		0.093	19.69		
3840.00		PI/2 BPSK	81.33	31.80	5.84	118.97	H		0.238	23.77	1	22
		QPSK	80.00	31.80	5.84	117.64	H		0.175	22.44		
		16-QAM	80.14	31.80	5.84	117.78	H		0.181	22.58		
		64-QAM	80.33	31.80	5.84	117.97	H		0.189	22.77		
		256-QAM	79.43	31.80	5.84	117.07	H		0.154	21.87		
3975.00		PI/2 BPSK	79.39	31.90	5.90	117.19	H		0.158	21.99	1	22
		QPSK	78.39	31.90	5.90	116.19	H		0.126	20.99		
		16-QAM	79.29	31.90	5.90	117.09	H		0.155	21.89		
		64-QAM	78.84	31.90	5.90	116.64	H		0.139	21.44		
		256-QAM	77.42	31.90	5.90	115.22	H		0.100	20.02		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3707.51	Sub6 n77(78)/ 15 MHz [30 kHz]	PI/2 BPSK	79.18	31.40	5.73	116.31	H	< 1.00	0.129	21.11	1	19
		QPSK	78.60	31.40	5.73	115.73	H		0.113	20.53		
		16-QAM	78.33	31.40	5.73	115.46	H		0.106	20.26		
		64-QAM	78.04	31.40	5.73	115.17	H		0.099	19.97		
		256-QAM	77.59	31.40	5.73	114.72	H		0.090	19.52		
3840.00		PI/2 BPSK	80.79	31.80	5.84	118.43	H		0.210	23.23	1	1
		QPSK	79.44	31.80	5.84	117.08	H		0.154	21.88		
		16-QAM	80.02	31.80	5.84	117.66	H		0.176	22.46		
		64-QAM	79.80	31.80	5.84	117.44	H		0.167	22.24		
		256-QAM	77.79	31.80	5.84	115.43	H		0.105	20.23		
3972.48		PI/2 BPSK	79.47	31.90	5.90	117.27	H		0.161	22.07	1	36
		QPSK	79.37	31.90	5.90	117.17	H		0.157	21.97		
		16-QAM	79.14	31.90	5.90	116.94	H		0.149	21.74		
		64-QAM	78.70	31.90	5.90	116.50	H		0.135	21.30		
		256-QAM	78.04	31.90	5.90	115.84	H		0.116	20.64		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3710.01		PI/2 BPSK	79.04	31.40	5.73	116.17	H	< 1.00	0.125	20.97	1	25
		QPSK	78.35	31.40	5.73	115.48	H		0.107	20.28		
		16-QAM	78.14	31.40	5.73	115.27	H		0.102	20.07		
		64-QAM	77.95	31.40	5.73	115.08	H		0.097	19.88		
		256-QAM	78.18	31.40	5.73	115.31	H		0.103	20.11		
3840.00	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	81.37	31.80	5.84	119.01	H		0.240	23.81	1	49
		QPSK	80.38	31.80	5.84	118.02	H		0.191	22.82		
		16-QAM	80.27	31.80	5.84	117.91	H		0.187	22.71		
		64-QAM	80.58	31.80	5.84	118.22	H		0.200	23.02		
		256-QAM	78.83	31.80	5.84	116.47	H		0.134	21.27		
3969.99		PI/2 BPSK	79.41	31.90	5.90	117.21	H	< 1.00	0.159	22.01	1	49
		QPSK	78.55	31.90	5.90	116.35	H		0.130	21.15		
		16-QAM	78.96	31.90	5.90	116.76	H		0.143	21.56		
		64-QAM	77.29	31.90	5.90	115.09	H		0.098	19.89		
		256-QAM	78.57	31.90	5.90	116.37	H		0.131	21.17		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3712.50	Sub6 n77(78)/ 25 MHz [30 kHz]	PI/2 BPSK	79.06	31.40	5.73	116.19	H	< 1.00	0.126	20.99	1	32
		QPSK	78.36	31.40	5.73	115.49	H		0.107	20.29		
		16-QAM	78.27	31.40	5.73	115.40	H		0.105	20.20		
		64-QAM	78.70	31.40	5.73	115.83	H		0.116	20.63		
		256-QAM	76.62	31.40	5.73	113.75	H		0.072	18.55		
3840.00		PI/2 BPSK	79.96	31.80	5.84	117.60	H		0.174	22.40	1	63
		QPSK	79.88	31.80	5.84	117.52	H		0.171	22.32		
		16-QAM	79.63	31.80	5.84	117.27	H		0.161	22.07		
		64-QAM	79.83	31.80	5.84	117.47	H		0.169	22.27		
		256-QAM	79.51	31.80	5.84	117.15	H		0.157	21.95		
3967.50		PI/2 BPSK	78.86	31.90	5.90	116.66	H	< 1.00	0.140	21.46	1	32
		QPSK	78.81	31.90	5.90	116.61	H		0.138	21.41		
		16-QAM	78.85	31.90	5.90	116.65	H		0.140	21.45		
		64-QAM	77.86	31.90	5.90	115.66	H		0.111	20.46		
		256-QAM	77.59	31.90	5.90	115.39	H		0.104	20.19		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3715.02	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	79.21	31.40	5.73	116.34	H	< 1.00	0.130	21.14	1	39
		QPSK	77.53	31.40	5.73	114.66	H		0.088	19.46		
		16-QAM	78.56	31.40	5.73	115.69	H		0.112	20.49		
		64-QAM	78.76	31.40	5.73	115.89	H		0.117	20.69		
		256-QAM	78.10	31.40	5.73	115.23	H		0.101	20.03		
3840.00		PI/2 BPSK	80.66	31.80	5.84	118.30	H		0.204	23.10	1	39
		QPSK	78.83	31.80	5.84	116.47	H		0.134	21.27		
		16-QAM	79.90	31.80	5.84	117.54	H		0.171	22.34		
		64-QAM	79.66	31.80	5.84	117.30	H		0.162	22.10		
		256-QAM	78.96	31.80	5.84	116.60	H		0.138	21.40		
3964.98		PI/2 BPSK	78.08	31.90	5.90	115.88	H	0.117	20.68	1	1	
		QPSK	76.90	31.90	5.90	114.70	H	0.089	19.50			
		16-QAM	77.71	31.90	5.90	115.51	H	0.107	20.31			
		64-QAM	76.52	31.90	5.90	114.32	H	0.082	19.12			
		256-QAM	77.01	31.90	5.90	114.81	H	0.091	19.61			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3720.00	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	79.79	31.40	5.73	116.92	H	< 1.00	0.149	21.72	1	104
		QPSK	79.25	31.40	5.73	116.38	H		0.131	21.18		
		16-QAM	78.59	31.40	5.73	115.72	H		0.113	20.52		
		64-QAM	78.26	31.40	5.73	115.39	H		0.104	20.19		
		256-QAM	78.71	31.40	5.73	115.84	H		0.116	20.64		
3840.00		PI/2 BPSK	80.87	31.80	5.84	118.51	H		0.214	23.31	1	53
		QPSK	80.01	31.80	5.84	117.65	H		0.176	22.45		
		16-QAM	79.70	31.80	5.84	117.34	H		0.164	22.14		
		64-QAM	79.54	31.80	5.84	117.18	H		0.158	21.98		
		256-QAM	79.91	31.80	5.84	117.55	H		0.172	22.35		
3960.00		PI/2 BPSK	78.85	31.90	5.90	116.65	H		0.140	21.45	1	53
		QPSK	77.99	31.90	5.90	115.79	H		0.115	20.59		
		16-QAM	78.80	31.90	5.90	116.60	H		0.138	21.40		
		64-QAM	78.07	31.90	5.90	115.87	H		0.117	20.67		
		256-QAM	78.13	31.90	5.90	115.93	H		0.118	20.73		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3725.10	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	80.08	31.40	5.73	117.21	H	< 1.00	0.159	22.01	1	131
		QPSK	78.81	31.40	5.73	115.94	H		0.119	20.74		
		16-QAM	79.33	31.40	5.73	116.46	H		0.134	21.26		
		64-QAM	79.16	31.40	5.73	116.29	H		0.129	21.09		
		256-QAM	77.57	31.40	5.73	114.70	H		0.089	19.50		
3840.00		PI/2 BPSK	80.60	31.80	5.84	118.24	H		0.201	23.04	1	66
		QPSK	80.54	31.80	5.84	118.18	H		0.199	22.98		
		16-QAM	79.48	31.80	5.84	117.12	H		0.156	21.92		
		64-QAM	80.21	31.80	5.84	117.85	H		0.184	22.65		
		256-QAM	79.22	31.80	5.84	116.86	H		0.147	21.66		
3954.99		PI/2 BPSK	79.39	31.90	5.90	117.19	H		0.158	21.99	1	66
		QPSK	79.03	31.90	5.90	116.83	H		0.146	21.63		
		16-QAM	77.83	31.90	5.90	115.63	H		0.110	20.43		
		64-QAM	78.36	31.90	5.90	116.16	H		0.125	20.96		
		256-QAM	76.57	31.90	5.90	114.37	H		0.083	19.17		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3730.02	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	78.39	31.40	5.73	115.52	H	< 1.00	0.108	20.32	1	160
		QPSK	77.65	31.40	5.73	114.78	H		0.091	19.58		
		16-QAM	78.11	31.40	5.73	115.24	H		0.101	20.04		
		64-QAM	77.47	31.40	5.73	114.60	H		0.087	19.40		
		256-QAM	78.02	31.40	5.73	115.15	H		0.099	19.95		
3840.00		PI/2 BPSK	80.56	31.80	5.84	118.20	H		0.200	23.00	1	82
		QPSK	79.95	31.80	5.84	117.59	H		0.173	22.39		
		16-QAM	79.45	31.80	5.84	117.09	H		0.155	21.89		
		64-QAM	80.42	31.80	5.84	118.06	H		0.193	22.86		
		256-QAM	80.18	31.80	5.84	117.82	H		0.183	22.62		
3949.98		PI/2 BPSK	79.40	31.90	5.90	117.20	H	0.158	22.00	1	1	
		QPSK	79.18	31.90	5.90	116.98	H	0.151	21.78			
		16-QAM	78.91	31.90	5.90	116.71	H	0.142	21.51			
		64-QAM	78.45	31.90	5.90	116.25	H	0.127	21.05			
		256-QAM	79.25	31.90	5.90	117.05	H	0.153	21.85			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3735.00	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	80.27	31.40	5.73	117.40	H	< 1.00	0.166	22.20	1	94
		QPSK	79.14	31.40	5.73	116.27	H		0.128	21.07		
		16-QAM	79.16	31.40	5.73	116.29	H		0.129	21.09		
		64-QAM	78.73	31.40	5.73	115.86	H		0.116	20.66		
		256-QAM	78.13	31.40	5.73	115.26	H		0.101	20.06		
3840.00		PI/2 BPSK	81.32	31.80	5.84	118.96	H		0.238	23.76	1	187
		QPSK	81.19	31.80	5.84	118.83	H		0.231	23.63		
		16-QAM	80.55	31.80	5.84	118.19	H		0.199	22.99		
		64-QAM	80.11	31.80	5.84	117.75	H		0.180	22.55		
		256-QAM	79.76	31.80	5.84	117.40	H		0.166	22.20		
3945.00	PI/2 BPSK	80.60	31.90	5.90	118.40	H	0.209	23.20	1	1		
	QPSK	80.32	31.90	5.90	118.12	H	0.196	22.92				
	16-QAM	79.15	31.90	5.90	116.95	H	0.150	21.75				
	64-QAM	80.00	31.90	5.90	117.80	H	0.182	22.60				
	256-QAM	78.88	31.90	5.90	116.68	H	0.141	21.48				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3740.01	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	79.19	31.40	5.73	116.32	H	< 1.00	0.129	21.12	1	108
		QPSK	78.98	31.40	5.73	116.11	H		0.123	20.91		
		16-QAM	78.90	31.40	5.73	116.03	H		0.121	20.83		
		64-QAM	79.02	31.40	5.73	116.15	H		0.124	20.95		
		256-QAM	77.89	31.40	5.73	115.02	H		0.096	19.82		
3840.00		PI/2 BPSK	80.99	31.80	5.84	118.63	H		0.220	23.43	1	108
		QPSK	80.14	31.80	5.84	117.78	H		0.181	22.58		
		16-QAM	79.44	31.80	5.84	117.08	H		0.154	21.88		
		64-QAM	79.70	31.80	5.84	117.34	H		0.164	22.14		
		256-QAM	79.46	31.80	5.84	117.10	H		0.155	21.90		
3939.99	PI/2 BPSK	80.17	31.90	5.90	117.97	H	0.189	22.77	1	1		
	QPSK	79.03	31.90	5.90	116.83	H	0.146	21.63				
	16-QAM	80.00	31.90	5.90	117.80	H	0.182	22.60				
	64-QAM	79.30	31.90	5.90	117.10	H	0.155	21.90				
	256-QAM	79.56	31.90	5.90	117.36	H	0.164	22.16				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	79.13	31.40	5.73	116.26	H	< 1.00	0.128	21.06	1	122
		QPSK	77.75	31.40	5.73	114.88	H		0.093	19.68		
		16-QAM	77.89	31.40	5.73	115.02	H		0.096	19.82		
		64-QAM	78.24	31.40	5.73	115.37	H		0.104	20.17		
		256-QAM	77.76	31.40	5.73	114.89	H		0.093	19.69		
3840.00		PI/2 BPSK	81.72	31.80	5.84	119.36	H		0.261	24.16	1	243
		QPSK	80.83	31.80	5.84	118.47	H		0.212	23.27		
		16-QAM	79.99	31.80	5.84	117.63	H		0.175	22.43		
		64-QAM	80.28	31.80	5.84	117.92	H		0.187	22.72		
		256-QAM	79.64	31.80	5.84	117.28	H		0.161	22.08		
3934.98		PI/2 BPSK	80.68	31.90	5.90	118.48	H	< 1.00	0.213	23.28	1	1
		QPSK	80.20	31.90	5.90	118.00	H		0.191	22.80		
		16-QAM	80.20	31.90	5.90	118.00	H		0.191	22.80		
		64-QAM	80.51	31.90	5.90	118.31	H		0.205	23.11		
		256-QAM	79.27	31.90	5.90	117.07	H		0.154	21.87		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3750.00	Sub6 n77(78)/ 100 MHz [30 kHz]	PI/2 BPSK	79.23	31.40	5.73	116.36	H	< 1.00	0.131	21.16	1	136
		QPSK	79.12	31.40	5.73	116.25	H		0.127	21.05		
		16-QAM	78.68	31.40	5.73	115.81	H		0.115	20.61		
		64-QAM	79.11	31.40	5.73	116.24	H		0.127	21.04		
		256-QAM	78.92	31.40	5.73	116.05	H		0.122	20.85		
3840.00		PI/2 BPSK	80.46	31.80	5.84	118.10	H		0.195	22.90	1	271
		QPSK	79.96	31.80	5.84	117.60	H		0.174	22.40		
		16-QAM	79.61	31.80	5.84	117.25	H		0.160	22.05		
		64-QAM	79.20	31.80	5.84	116.84	H		0.146	21.64		
		256-QAM	80.13	31.80	5.84	117.77	H		0.181	22.57		
3930.00		PI/2 BPSK	80.89	31.90	5.90	118.69	H		0.223	23.49	1	1
		QPSK	80.81	31.90	5.90	118.61	H		0.219	23.41		
		16-QAM	80.53	31.90	5.90	118.33	H		0.206	23.13		
		64-QAM	80.64	31.90	5.90	118.44	H		0.211	23.24		
		256-QAM	80.18	31.90	5.90	117.98	H		0.190	22.78		

9.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>N77(78)</u>
■ Bandwidth:	<u>90 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>30 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
649668 (3745.02)	7 490.04	-51.69	11.53	-54.47	4.61	V	-47.55	-13.00	1	122
	11 235.06	-51.48	12.28	-51.63	5.82	H	-45.17	-13.00		
	14 980.08	-66.68	14.18	-49.34	6.79	V	-41.95	-13.00		
656000 (3840.00)	7 680.00	-48.50	11.60	-50.96	4.70	H	-44.06	-13.00	1	243
	11 520.00	-55.06	12.51	-54.68	5.87	H	-48.04	-13.00		
	15 360.00	-68.08	15.21	-48.46	6.88	H	-40.13	-13.00		
662332 (3934.98)	7 869.96	-47.48	11.20	-48.59	4.75	H	-42.14	-13.00	1	1
	11 804.94	-55.22	13.02	-54.62	5.97	H	-47.57	-13.00		
	15 739.92	-67.19	16.05	-49.55	6.93	V	-40.43	-13.00		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	5.34
			QPSK			5.83
			16-QAM			6.19
			64-QAM			6.40
			256-QAM			6.21
	15 MHz		BPSK			4.61
			QPSK			5.48
			16-QAM			6.51
			64-QAM			6.63
			256-QAM			6.65
	20 MHz		BPSK			5.36
			QPSK			5.68
			16-QAM			6.10
			64-QAM			6.59
			256-QAM			6.75
	25 MHz		BPSK			5.28
			QPSK			5.73
			16-QAM			6.34
			64-QAM			6.53
			256-QAM			6.49
	30 MHz		BPSK			4.43
			QPSK			5.62
			16-QAM			6.12
			64-QAM			6.55
			256-QAM			6.74
	40 MHz		BPSK			4.33
			QPSK			5.61
			16-QAM			6.30
			64-QAM			6.50
			256-QAM			6.64
	50 MHz		BPSK			4.44
			QPSK			5.65
			16-QAM			6.39
			64-QAM			6.62
			256-QAM			6.77
	60 MHz		BPSK			4.44
			QPSK			5.54
			16-QAM			6.28
			64-QAM			6.48
			256-QAM			6.53
	70 MHz		BPSK			4.59
			QPSK			5.60
			16-QAM			6.36
			64-QAM			6.40
			256-QAM			6.65
	80 MHz		BPSK			4.45
			QPSK			5.60

					16-QAM	6.21
					64-QAM	6.48
					256-QAM	6.72
	90 MHz				BPSK	5.54
					QPSK	5.82
					16-QAM	6.37
					64-QAM	6.40
					256-QAM	6.56
	100 MHz				BPSK	4.47
					QPSK	5.61
					16-QAM	6.29
					64-QAM	6.37
					256-QAM	6.65

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 491 ~ 550.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	8.6248
			QPSK			8.5886
			16-QAM			8.6097
			64-QAM			8.5722
			256-QAM			8.5717
	15 MHz		BPSK			12.946
			QPSK			12.831
			16-QAM			12.883
			64-QAM			12.941
			256-QAM			12.920
	20 MHz		BPSK			17.895
			QPSK			17.880
			16-QAM			17.859
			64-QAM			17.872
			256-QAM			17.947
	25 MHz		BPSK			22.957
			QPSK			22.913
			16-QAM			22.938
			64-QAM			22.922
			256-QAM			22.945
	30 MHz		BPSK			26.864
			QPSK			26.929
			16-QAM			26.878
			64-QAM			26.837
			256-QAM			26.826
	40 MHz		BPSK			35.862
			QPSK			35.837
			16-QAM			35.786
			64-QAM			35.790
			256-QAM			35.787
	50 MHz		BPSK			45.752
			QPSK			45.806
			16-QAM			45.696
			64-QAM			45.791
			256-QAM			45.711
	60 MHz		BPSK			58.092
			QPSK			57.819
			16-QAM			57.763
			64-QAM			57.912
			256-QAM			57.843
	70 MHz		BPSK			64.552
			QPSK			64.682
			16-QAM			64.523
			64-QAM			64.480
			256-QAM			64.625
	80 MHz		BPSK			77.468
			QPSK			77.260

			16-QAM			77.614
			64-QAM			77.522
			256-QAM			77.278
	90 MHz		BPSK			86.919
			QPSK			86.828
			16-QAM			86.984
			64-QAM			86.885
			256-QAM			87.332
	100 MHz		BPSK			96.783
			QPSK			96.734
			16-QAM			96.656
			64-QAM			97.081
256-QAM		96.771				

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 551 ~ 610.

9.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77(78)	10	3705.000	5.1845	28.980	-62.362	-33.382	-13.00
		3840.000	8.3151	28.980	-62.657	-33.677	
		3975.000	6.0220	28.980	-60.683	-31.703	
	15	3707.520	7.9960	28.980	-62.666	-33.686	
		3840.000	4.8954	28.370	-62.063	-33.693	
		3972.480	4.9851	28.370	-62.250	-33.880	
	20	3710.010	4.9053	28.370	-60.574	-32.204	
		3840.000	7.4377	28.980	-62.233	-33.253	
		3969.990	7.7867	28.980	-62.825	-33.845	
	25	3712.500	4.9452	28.370	-61.962	-33.592	
		3840.000	7.4975	28.980	-61.942	-32.962	
		3967.500	7.2483	28.980	-62.443	-33.463	
	30	3715.020	5.1745	28.980	-62.026	-33.046	
		3840.000	8.6042	28.980	-62.426	-33.446	
		3964.980	5.1745	28.980	-62.655	-33.675	
	40	3720.000	6.6202	28.980	-61.686	-32.706	
		3840.000	8.6341	28.980	-62.617	-33.637	
		3960.000	8.6142	28.980	-61.749	-32.769	
	50	3725.010	9.7707	28.980	-62.072	-33.092	
		3840.000	4.9253	28.370	-61.893	-33.523	
		3954.990	9.1625	28.980	-62.308	-33.328	
	60	3730.020	4.9552	28.370	-61.633	-33.263	
		3840.000	4.9253	28.370	-61.935	-33.565	
		3949.980	5.2343	28.980	-61.900	-32.920	
	70	3735.000	8.3849	28.980	-62.272	-33.292	
		3840.000	5.2144	28.980	-61.554	-32.574	
		3945.000	5.4936	28.980	-62.125	-33.145	
	80	3740.010	5.9921	28.980	-62.670	-33.690	
		3840.000	6.2712	28.980	-61.617	-32.637	
		3939.990	7.2283	28.980	-61.573	-32.593	
	90	3745.020	9.4417	28.980	-62.449	-33.469	
		3840.000	5.1945	28.980	-61.639	-32.659	
		3934.980	8.0758	28.980	-62.013	-33.033	
	100	3750.000	4.9352	28.370	-61.860	-33.490	
		3840.000	5.7229	28.980	-62.456	-33.476	
		3930.000	4.9253	28.370	-61.955	-33.585	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 611 ~ 682.
2. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
3. Result(dBm) = Reading + Factor

Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.670
1 – 5	28.370
5 – 10	28.980
10 – 15	29.520
15 – 20	29.890
Above 20	30.530

9.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 683 ~ 826.
2. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.990

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3705.000	100 %	+20(Ref)	3704 999 989	0.0	0.000 000	0.000
	100 %	-30	3704 999 974	-15.4	0.000 000	-0.004
	100 %	-20	3704 999 980	-8.6	0.000 000	-0.002
	100 %	-10	3704 999 979	-10.0	0.000 000	-0.003
	100 %	0	3704 999 973	-16.2	0.000 000	-0.004
	100 %	+10	3704 999 976	-12.8	0.000 000	-0.003
	100 %	+30	3704 999 971	-17.7	0.000 000	-0.005
	100 %	+40	3704 999 976	-13.2	0.000 000	-0.004
	100 %	+50	3704 999 979	-9.7	0.000 000	-0.003
	Lowest voltage	+20	3704 999 983	-5.8	0.000 000	-0.002
3975.000	100 %	+20(Ref)	3974 999 990	0.0	0.000 000	0.000
	100 %	-30	3974 999 982	-8.5	0.000 000	-0.002
	100 %	-20	3974 999 979	-11.9	0.000 000	-0.003
	100 %	-10	3974 999 977	-13.6	0.000 000	-0.003
	100 %	0	3974 999 981	-9.5	0.000 000	-0.002
	100 %	+10	3974 999 981	-9.6	0.000 000	-0.002
	100 %	+30	3974 999 977	-13.2	0.000 000	-0.003
	100 %	+40	3974 999 985	-5.0	0.000 000	-0.001
	100 %	+50	3974 999 983	-7.7	0.000 000	-0.002
	Lowest voltage	+20	3974 999 979	-11.9	0.000 000	-0.003

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3707.520	100 %	+20(Ref)	3707 519 986	0.0	0.000 000	0.000
	100 %	-30	3707 519 976	-9.1	0.000 000	-0.002
	100 %	-20	3707 519 974	-11.2	0.000 000	-0.003
	100 %	-10	3707 519 971	-14.2	0.000 000	-0.004
	100 %	0	3707 519 974	-11.5	0.000 000	-0.003
	100 %	+10	3707 519 978	-7.1	0.000 000	-0.002
	100 %	+30	3707 519 972	-13.4	0.000 000	-0.004
	100 %	+40	3707 519 971	-14.2	0.000 000	-0.004
	100 %	+50	3707 519 975	-10.6	0.000 000	-0.003
	Lowest voltage	+20	3707 519 973	-12.8	0.000 000	-0.003
3972.480	100 %	+20(Ref)	3972 479 984	0.0	0.000 000	0.000
	100 %	-30	3972 479 970	-13.5	0.000 000	-0.003
	100 %	-20	3972 479 967	-16.2	0.000 000	-0.004
	100 %	-10	3972 479 970	-13.7	0.000 000	-0.003
	100 %	0	3972 479 969	-14.6	0.000 000	-0.004
	100 %	+10	3972 479 966	-17.1	0.000 000	-0.004
	100 %	+30	3972 479 974	-9.0	0.000 000	-0.002
	100 %	+40	3972 479 965	-18.5	0.000 000	-0.005
	100 %	+50	3972 479 967	-16.9	0.000 000	-0.004
	Lowest voltage	+20	3972 479 974	-9.1	0.000 000	-0.002

- BandWidth: 20 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3710.010	100 %	+20(Ref)	3710 009 984	0.0	0.000 000	0.000
	100 %	-30	3710 009 974	-10.5	0.000 000	-0.003
	100 %	-20	3710 009 968	-16.0	0.000 000	-0.004
	100 %	-10	3710 009 971	-12.7	0.000 000	-0.003
	100 %	0	3710 009 974	-10.1	0.000 000	-0.003
	100 %	+10	3710 009 977	-6.8	0.000 000	-0.002
	100 %	+30	3710 009 967	-16.6	0.000 000	-0.004
	100 %	+40	3710 009 970	-13.5	0.000 000	-0.004
	100 %	+50	3710 009 969	-15.4	0.000 000	-0.004
	Lowest voltage	+20	3710 009 971	-13.1	0.000 000	-0.004
3969.990	100 %	+20(Ref)	3969 989 994	0.0	0.000 000	0.000
	100 %	-30	3969 989 984	-9.7	0.000 000	-0.002
	100 %	-20	3969 989 981	-12.8	0.000 000	-0.003
	100 %	-10	3969 989 983	-11.4	0.000 000	-0.003
	100 %	0	3969 989 989	-5.3	0.000 000	-0.001
	100 %	+10	3969 989 985	-8.6	0.000 000	-0.002
	100 %	+30	3969 989 990	-3.6	0.000 000	-0.001
	100 %	+40	3969 989 983	-11.2	0.000 000	-0.003
	100 %	+50	3969 989 981	-12.7	0.000 000	-0.003
	Lowest voltage	+20	3969 989 983	-10.8	0.000 000	-0.003

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3712.500	100 %	+20(Ref)	3712 499 993	0.0	0.000 000	0.000
	100 %	-30	3712 499 983	-10.8	0.000 000	-0.003
	100 %	-20	3712 499 984	-9.1	0.000 000	-0.002
	100 %	-10	3712 499 984	-9.0	0.000 000	-0.002
	100 %	0	3712 499 985	-8.0	0.000 000	-0.002
	100 %	+10	3712 499 985	-8.4	0.000 000	-0.002
	100 %	+30	3712 499 986	-7.3	0.000 000	-0.002
	100 %	+40	3712 499 985	-8.2	0.000 000	-0.002
	100 %	+50	3712 499 984	-9.1	0.000 000	-0.002
	Lowest voltage	+20	3712 499 986	-7.2	0.000 000	-0.002
3967.500	100 %	+20(Ref)	3967 499 982	0.0	0.000 000	0.000
	100 %	-30	3967 499 976	-6.2	0.000 000	-0.002
	100 %	-20	3967 499 978	-4.2	0.000 000	-0.001
	100 %	-10	3967 499 967	-15.4	0.000 000	-0.004
	100 %	0	3967 499 971	-11.1	0.000 000	-0.003
	100 %	+10	3967 499 969	-13.4	0.000 000	-0.003
	100 %	+30	3967 499 971	-10.8	0.000 000	-0.003
	100 %	+40	3967 499 978	-4.2	0.000 000	-0.001
	100 %	+50	3967 499 980	-1.8	0.000 000	0.000
	Lowest voltage	+20	3967 499 973	-9.1	0.000 000	-0.002

- BandWidth: 30 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3715.020	100 %	+20(Ref)	3715 019 982	0.0	0.000 000	0.000
	100 %	-30	3715 019 966	-16.3	0.000 000	-0.004
	100 %	-20	3715 019 969	-12.8	0.000 000	-0.003
	100 %	-10	3715 019 971	-11.3	0.000 000	-0.003
	100 %	0	3715 019 966	-16.4	0.000 000	-0.004
	100 %	+10	3715 019 964	-18.4	0.000 000	-0.005
	100 %	+30	3715 019 963	-19.6	-0.000 001	-0.005
	100 %	+40	3715 019 962	-20.0	-0.000 001	-0.005
	100 %	+50	3715 019 969	-13.2	0.000 000	-0.004
	Lowest voltage	+20	3715 019 979	-3.4	0.000 000	-0.001
3964.980	100 %	+20(Ref)	3964 979 986	0.0	0.000 000	0.000
	100 %	-30	3964 979 962	-23.2	-0.000 001	-0.006
	100 %	-20	3964 979 968	-17.4	0.000 000	-0.004
	100 %	-10	3964 979 972	-13.7	0.000 000	-0.003
	100 %	0	3964 979 969	-16.4	0.000 000	-0.004
	100 %	+10	3964 979 984	-1.2	0.000 000	0.000
	100 %	+30	3964 979 978	-7.9	0.000 000	-0.002
	100 %	+40	3964 979 976	-9.7	0.000 000	-0.002
	100 %	+50	3964 979 974	-11.4	0.000 000	-0.003
	Lowest voltage	+20	3964 979 977	-8.9	0.000 000	-0.002

- BandWidth: 40 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3720.000	100 %	+20(Ref)	3719 999 987	0.0	0.000 000	0.000
	100 %	-30	3719 999 978	-9.0	0.000 000	-0.002
	100 %	-20	3719 999 975	-11.7	0.000 000	-0.003
	100 %	-10	3719 999 978	-8.4	0.000 000	-0.002
	100 %	0	3719 999 975	-11.8	0.000 000	-0.003
	100 %	+10	3719 999 968	-18.7	-0.000 001	-0.005
	100 %	+30	3719 999 971	-16.0	0.000 000	-0.004
	100 %	+40	3719 999 976	-11.0	0.000 000	-0.003
	100 %	+50	3719 999 971	-15.9	0.000 000	-0.004
	Lowest voltage	+20	3719 999 971	-15.9	0.000 000	-0.004
3960.000	100 %	+20(Ref)	3959 999 982	0.0	0.000 000	0.000
	100 %	-30	3959 999 966	-16.0	0.000 000	-0.004
	100 %	-20	3959 999 966	-16.7	0.000 000	-0.004
	100 %	-10	3959 999 976	-6.3	0.000 000	-0.002
	100 %	0	3959 999 971	-11.7	0.000 000	-0.003
	100 %	+10	3959 999 973	-8.9	0.000 000	-0.002
	100 %	+30	3959 999 974	-8.6	0.000 000	-0.002
	100 %	+40	3959 999 972	-10.5	0.000 000	-0.003
	100 %	+50	3959 999 972	-10.3	0.000 000	-0.003
	Lowest voltage	+20	3959 999 970	-12.5	0.000 000	-0.003

- BandWidth: 50 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3725.010	100 %	+20(Ref)	3725 009 991	0.0	0.000 000	0.000
	100 %	-30	3725 009 981	-9.3	0.000 000	-0.003
	100 %	-20	3725 009 985	-5.1	0.000 000	-0.001
	100 %	-10	3725 009 984	-7.0	0.000 000	-0.002
	100 %	0	3725 009 978	-12.7	0.000 000	-0.003
	100 %	+10	3725 009 978	-12.6	0.000 000	-0.003
	100 %	+30	3725 009 978	-12.3	0.000 000	-0.003
	100 %	+40	3725 009 983	-7.2	0.000 000	-0.002
	100 %	+50	3725 009 979	-12.0	0.000 000	-0.003
	Lowest voltage	+20	3725 009 981	-9.8	0.000 000	-0.003
3954.990	100 %	+20(Ref)	3954 989 988	0.0	0.000 000	0.000
	100 %	-30	3954 989 977	-11.1	0.000 000	-0.003
	100 %	-20	3954 989 978	-9.9	0.000 000	-0.003
	100 %	-10	3954 989 972	-16.2	0.000 000	-0.004
	100 %	0	3954 989 976	-11.7	0.000 000	-0.003
	100 %	+10	3954 989 975	-13.3	0.000 000	-0.003
	100 %	+30	3954 989 978	-9.5	0.000 000	-0.002
	100 %	+40	3954 989 974	-13.4	0.000 000	-0.003
	100 %	+50	3954 989 975	-13.2	0.000 000	-0.003
	Lowest voltage	+20	3954 989 973	-14.5	0.000 000	-0.004

- BandWidth: 60 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3730.020	100 %	+20(Ref)	3730 019 991	0.0	0.000 000	0.000
	100 %	-30	3730 019 980	-11.1	0.000 000	-0.003
	100 %	-20	3730 019 974	-16.4	0.000 000	-0.004
	100 %	-10	3730 019 975	-15.5	0.000 000	-0.004
	100 %	0	3730 019 976	-15.1	0.000 000	-0.004
	100 %	+10	3730 019 975	-15.9	0.000 000	-0.004
	100 %	+30	3730 019 981	-10.0	0.000 000	-0.003
	100 %	+40	3730 019 980	-11.1	0.000 000	-0.003
	100 %	+50	3730 019 977	-14.2	0.000 000	-0.004
	Lowest voltage	+20	3730 019 973	-17.4	0.000 000	-0.005
3949.980	100 %	+20(Ref)	3949 979 988	0.0	0.000 000	0.000
	100 %	-30	3949 979 974	-14.6	0.000 000	-0.004
	100 %	-20	3949 979 978	-9.9	0.000 000	-0.003
	100 %	-10	3949 979 976	-11.9	0.000 000	-0.003
	100 %	0	3949 979 978	-10.1	0.000 000	-0.003
	100 %	+10	3949 979 975	-13.3	0.000 000	-0.003
	100 %	+30	3949 979 976	-12.8	0.000 000	-0.003
	100 %	+40	3949 979 973	-15.5	0.000 000	-0.004
	100 %	+50	3949 979 975	-13.0	0.000 000	-0.003
	Lowest voltage	+20	3949 979 975	-13.6	0.000 000	-0.003

- BandWidth: 70 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3735.000	100 %	+20(Ref)	3734 999 985	0.0	0.000 000	0.000
	100 %	-30	3734 999 965	-19.3	-0.000 001	-0.005
	100 %	-20	3734 999 972	-12.9	0.000 000	-0.003
	100 %	-10	3734 999 974	-10.7	0.000 000	-0.003
	100 %	0	3734 999 978	-6.5	0.000 000	-0.002
	100 %	+10	3734 999 976	-8.3	0.000 000	-0.002
	100 %	+30	3734 999 971	-13.3	0.000 000	-0.004
	100 %	+40	3734 999 975	-10.1	0.000 000	-0.003
	100 %	+50	3734 999 979	-6.1	0.000 000	-0.002
	Lowest voltage	+20	3734 999 970	-14.4	0.000 000	-0.004
3945.000	100 %	+20(Ref)	3944 999 989	0.0	0.000 000	0.000
	100 %	-30	3944 999 981	-7.4	0.000 000	-0.002
	100 %	-20	3944 999 976	-13.0	0.000 000	-0.003
	100 %	-10	3944 999 977	-11.3	0.000 000	-0.003
	100 %	0	3944 999 976	-12.1	0.000 000	-0.003
	100 %	+10	3944 999 977	-11.8	0.000 000	-0.003
	100 %	+30	3944 999 984	-4.3	0.000 000	-0.001
	100 %	+40	3944 999 977	-12.0	0.000 000	-0.003
	100 %	+50	3944 999 983	-5.4	0.000 000	-0.001
	Lowest voltage	+20	3944 999 988	-0.6	0.000 000	0.000

- BandWidth: 80 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3740.010	100 %	+20(Ref)	3740 009 989	0.0	0.000 000	0.000
	100 %	-30	3740 009 977	-12.5	0.000 000	-0.003
	100 %	-20	3740 009 984	-5.5	0.000 000	-0.001
	100 %	-10	3740 009 978	-11.0	0.000 000	-0.003
	100 %	0	3740 009 982	-7.9	0.000 000	-0.002
	100 %	+10	3740 009 980	-9.7	0.000 000	-0.003
	100 %	+30	3740 009 984	-5.5	0.000 000	-0.001
	100 %	+40	3740 009 978	-11.2	0.000 000	-0.003
	100 %	+50	3740 009 983	-6.2	0.000 000	-0.002
	Lowest voltage	+20	3740 009 979	-10.1	0.000 000	-0.003
3939.990	100 %	+20(Ref)	3939 989 986	0.0	0.000 000	0.000
	100 %	-30	3939 989 969	-16.8	0.000 000	-0.004
	100 %	-20	3939 989 972	-14.0	0.000 000	-0.004
	100 %	-10	3939 989 971	-15.4	0.000 000	-0.004
	100 %	0	3939 989 968	-18.2	0.000 000	-0.005
	100 %	+10	3939 989 977	-9.4	0.000 000	-0.002
	100 %	+30	3939 989 971	-14.9	0.000 000	-0.004
	100 %	+40	3939 989 971	-14.6	0.000 000	-0.004
	100 %	+50	3939 989 972	-13.9	0.000 000	-0.004
	Lowest voltage	+20	3939 989 968	-17.6	0.000 000	-0.004

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3745.020	100 %	+20(Ref)	3745 019 991	0.0	0.000 000	0.000
	100 %	-30	3745 019 979	-12.1	0.000 000	-0.003
	100 %	-20	3745 019 981	-9.9	0.000 000	-0.003
	100 %	-10	3745 019 974	-17.5	0.000 000	-0.005
	100 %	0	3745 019 983	-8.0	0.000 000	-0.002
	100 %	+10	3745 019 978	-13.0	0.000 000	-0.003
	100 %	+30	3745 019 977	-14.2	0.000 000	-0.004
	100 %	+40	3745 019 982	-9.5	0.000 000	-0.003
	100 %	+50	3745 019 978	-13.2	0.000 000	-0.004
	Lowest voltage	+20	3745 019 983	-8.0	0.000 000	-0.002
3934.980	100 %	+20(Ref)	3934 979 989	0.0	0.000 000	0.000
	100 %	-30	3934 979 981	-8.2	0.000 000	-0.002
	100 %	-20	3934 979 985	-3.9	0.000 000	-0.001
	100 %	-10	3934 979 982	-7.6	0.000 000	-0.002
	100 %	0	3934 979 985	-4.6	0.000 000	-0.001
	100 %	+10	3934 979 980	-9.2	0.000 000	-0.002
	100 %	+30	3934 979 979	-10.9	0.000 000	-0.003
	100 %	+40	3934 979 975	-14.0	0.000 000	-0.004
	100 %	+50	3934 979 985	-4.6	0.000 000	-0.001
	Lowest voltage	+20	3934 979 980	-9.5	0.000 000	-0.002

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3750.000	100 %	+20(Ref)	3749 999 991	0.0	0.000 000	0.000
	100 %	-30	3749 999 979	-12.2	0.000 000	-0.003
	100 %	-20	3749 999 980	-11.0	0.000 000	-0.003
	100 %	-10	3749 999 984	-7.4	0.000 000	-0.002
	100 %	0	3749 999 982	-9.4	0.000 000	-0.003
	100 %	+10	3749 999 985	-5.6	0.000 000	-0.001
	100 %	+30	3749 999 980	-10.8	0.000 000	-0.003
	100 %	+40	3749 999 981	-10.2	0.000 000	-0.003
	100 %	+50	3749 999 979	-11.8	0.000 000	-0.003
	Lowest voltage	+20	3749 999 976	-15.1	0.000 000	-0.004
3930.000	100 %	+20(Ref)	3929 999 996	0.0	0.000 000	0.000
	100 %	-30	3929 999 992	-4.8	0.000 000	-0.001
	100 %	-20	3929 999 989	-7.1	0.000 000	-0.002
	100 %	-10	3929 999 991	-5.0	0.000 000	-0.001
	100 %	0	3929 999 986	-10.2	0.000 000	-0.003
	100 %	+10	3929 999 990	-6.3	0.000 000	-0.002
	100 %	+30	3929 999 991	-5.7	0.000 000	-0.001
	100 %	+40	3929 999 990	-6.6	0.000 000	-0.002
	100 %	+50	3929 999 987	-9.3	0.000 000	-0.002
	Lowest voltage	+20	3929 999 989	-7.1	0.000 000	-0.002

10. TEST DATA (MIMO2, 3450 MHz - 3550 MHz)

10.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3455.01	Sub6 n77/ 10 MHz [30 kHz]	PI/2 BPSK	81.22	30.80	5.43	117.45	H	< 1.00	0.168	22.25	1	22
		QPSK	80.23	30.80	5.43	116.46	H		0.134	21.26		
		16-QAM	80.76	30.80	5.43	116.99	H		0.151	21.79		
		64-QAM	80.73	30.80	5.43	116.96	H		0.150	21.76		
		256-QAM	79.19	30.80	5.43	115.42	H		0.105	20.22		
3500.01		PI/2 BPSK	80.66	31.10	5.45	117.21	H		0.159	22.01	1	12
		QPSK	80.33	31.10	5.45	116.88	H		0.147	21.68		
		16-QAM	80.10	31.10	5.45	116.65	H		0.140	21.45		
		64-QAM	80.21	31.10	5.45	116.76	H		0.143	21.56		
		256-QAM	80.65	31.10	5.45	117.20	H		0.158	22.00		
3544.99		PI/2 BPSK	82.08	31.50	5.51	119.09	H		0.245	23.89	1	22
		QPSK	81.73	31.50	5.51	118.74	H		0.226	23.54		
		16-QAM	81.51	31.50	5.51	118.52	H		0.215	23.32		
		64-QAM	81.58	31.50	5.51	118.59	H		0.218	23.39		
		256-QAM	80.93	31.50	5.51	117.94	H		0.188	22.74		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3457.50	Sub6 n77/ 15 MHz [30 kHz]	PI/2 BPSK	80.79	30.80	5.43	117.02	H	< 1.00	0.152	21.82	1	1
		QPSK	80.24	30.80	5.43	116.47	H		0.134	21.27		
		16-QAM	80.09	30.80	5.43	116.32	H		0.129	21.12		
		64-QAM	79.70	30.80	5.43	115.93	H		0.118	20.73		
		256-QAM	79.63	30.80	5.43	115.86	H		0.116	20.66		
3500.01		PI/2 BPSK	81.98	31.10	5.45	118.53	H		0.215	23.33	1	36
		QPSK	81.46	31.10	5.45	118.01	H		0.191	22.81		
		16-QAM	81.74	31.10	5.45	118.29	H		0.204	23.09		
		64-QAM	79.32	31.10	5.45	115.87	H		0.117	20.67		
		256-QAM	80.64	31.10	5.45	117.19	H		0.158	21.99		
3542.50		PI/2 BPSK	81.84	31.50	5.51	118.85	H		0.232	23.65	1	36
		QPSK	80.63	31.50	5.51	117.64	H		0.175	22.44		
		16-QAM	81.38	31.50	5.51	118.39	H		0.208	23.19		
		64-QAM	81.79	31.50	5.51	118.80	H		0.229	23.60		
		256-QAM	81.22	31.50	5.51	118.23	H		0.201	23.03		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3460.02	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	80.73	30.80	5.43	116.96	H	< 1.00	0.150	21.76	1	25
		QPSK	80.34	30.80	5.43	116.57	H		0.137	21.37		
		16-QAM	80.12	30.80	5.43	116.35	H		0.130	21.15		
		64-QAM	79.46	30.80	5.43	115.69	H		0.112	20.49		
		256-QAM	80.66	30.80	5.43	116.89	H		0.148	21.69		
3500.01		PI/2 BPSK	80.47	31.10	5.45	117.02	H		0.152	21.82	1	1
		QPSK	80.23	31.10	5.45	116.78	H		0.144	21.58		
		16-QAM	79.96	31.10	5.45	116.51	H		0.135	21.31		
		64-QAM	80.34	31.10	5.45	116.89	H		0.148	21.69		
		256-QAM	79.95	31.10	5.45	116.50	H		0.135	21.30		
3540.00		PI/2 BPSK	81.90	31.50	5.51	118.91	H		0.235	23.71	1	49
		QPSK	81.10	31.50	5.51	118.11	H		0.195	22.91		
		16-QAM	80.19	31.50	5.51	117.20	H		0.158	22.00		
		64-QAM	80.75	31.50	5.51	117.76	H		0.180	22.56		
		256-QAM	81.48	31.50	5.51	118.49	H		0.213	23.29		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3462.50	Sub6 n77/ 25 MHz [30 kHz]	PI/2 BPSK	80.63	30.80	5.43	116.86	H	< 1.00	0.147	21.66	1	32
		QPSK	79.39	30.80	5.43	115.62	H		0.110	20.42		
		16-QAM	79.59	30.80	5.43	115.82	H		0.115	20.62		
		64-QAM	79.35	30.80	5.43	115.58	H		0.109	20.38		
		256-QAM	79.73	30.80	5.43	115.96	H		0.119	20.76		
3500.01		PI/2 BPSK	79.85	31.10	5.45	116.40	H		0.132	21.20	1	1
		QPSK	79.51	31.10	5.45	116.06	H		0.122	20.86		
		16-QAM	79.84	31.10	5.45	116.39	H		0.132	21.19		
		64-QAM	79.76	31.10	5.45	116.31	H		0.129	21.11		
		256-QAM	79.06	31.10	5.45	115.61	H		0.110	20.41		
3537.50		PI/2 BPSK	80.74	31.50	5.51	117.75	H		0.180	22.55	1	1
		QPSK	79.59	31.50	5.51	116.60	H		0.138	21.40		
		16-QAM	79.94	31.50	5.51	116.95	H		0.150	21.75		
		64-QAM	80.41	31.50	5.51	117.42	H		0.167	22.22		
		256-QAM	79.61	31.50	5.51	116.62	H		0.139	21.42		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3465.00	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	80.24	30.80	5.43	116.47	H	< 1.00	0.134	21.27	1	76
		QPSK	79.62	30.80	5.43	115.85	H		0.116	20.65		
		16-QAM	79.58	30.80	5.43	115.81	H		0.115	20.61		
		64-QAM	79.31	30.80	5.43	115.54	H		0.108	20.34		
		256-QAM	80.19	30.80	5.43	116.42	H		0.132	21.22		
3500.01		PI/2 BPSK	80.66	31.10	5.45	117.21	H		0.159	22.01	1	1
		QPSK	80.07	31.10	5.45	116.62	H		0.139	21.42		
		16-QAM	79.78	31.10	5.45	116.33	H		0.130	21.13		
		64-QAM	80.17	31.10	5.45	116.72	H		0.142	21.52		
		256-QAM	79.92	31.10	5.45	116.47	H		0.134	21.27		
3534.99		PI/2 BPSK	80.97	31.50	5.51	117.98	H		0.190	22.78	1	1
		QPSK	80.44	31.50	5.51	117.45	H		0.168	22.25		
		16-QAM	80.29	31.50	5.51	117.30	H		0.162	22.10		
		64-QAM	79.27	31.50	5.51	116.28	H		0.128	21.08		
		256-QAM	79.68	31.50	5.51	116.69	H		0.141	21.49		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3470.01	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	80.44	30.80	5.43	116.67	H	< 1.00	0.140	21.47	1	104
		QPSK	80.14	30.80	5.43	116.37	H		0.131	21.17		
		16-QAM	78.75	30.80	5.43	114.98	H		0.095	19.78		
		64-QAM	79.30	30.80	5.43	115.53	H		0.108	20.33		
		256-QAM	79.27	30.80	5.43	115.50	H		0.107	20.30		
3500.01		PI/2 BPSK	81.20	31.10	5.45	117.75	H		0.180	22.55	1	104
		QPSK	80.18	31.10	5.45	116.73	H		0.142	21.53		
		16-QAM	79.82	31.10	5.45	116.37	H		0.131	21.17		
		64-QAM	80.75	31.10	5.45	117.30	H		0.162	22.10		
		256-QAM	79.91	31.10	5.45	116.46	H		0.134	21.26		
3529.98		PI/2 BPSK	81.28	31.50	5.51	118.29	H		0.204	23.09	1	104
		QPSK	80.59	31.50	5.51	117.60	H		0.174	22.40		
		16-QAM	80.38	31.50	5.51	117.39	H		0.166	22.19		
		64-QAM	80.93	31.50	5.51	117.94	H		0.188	22.74		
		256-QAM	81.05	31.50	5.51	118.06	H		0.193	22.86		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3475.02	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	81.07	30.80	5.43	117.30	H	< 1.00	0.162	22.10	1	66
		QPSK	79.50	30.80	5.43	115.73	H		0.113	20.53		
		16-QAM	80.19	30.80	5.43	116.42	H		0.132	21.22		
		64-QAM	80.53	30.80	5.43	116.76	H		0.143	21.56		
		256-QAM	80.65	30.80	5.43	116.88	H		0.147	21.68		
3500.01		PI/2 BPSK	80.48	31.10	5.45	117.03	H		0.152	21.83	1	131
		QPSK	80.48	31.10	5.45	117.03	H		0.152	21.83		
		16-QAM	80.42	31.10	5.45	116.97	H		0.150	21.77		
		64-QAM	80.22	31.10	5.45	116.77	H		0.144	21.57		
		256-QAM	79.32	31.10	5.45	115.87	H		0.117	20.67		
3525.00		PI/2 BPSK	80.80	31.50	5.51	117.81	H		0.182	22.61	1	131
		QPSK	80.56	31.50	5.51	117.57	H		0.173	22.37		
		16-QAM	80.44	31.50	5.51	117.45	H		0.168	22.25		
		64-QAM	79.21	31.50	5.51	116.22	H		0.126	21.02		
		256-QAM	80.27	31.50	5.51	117.28	H		0.161	22.08		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3480.00	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	81.32	30.80	5.43	117.55	H	< 1.00	0.172	22.35	1	160
		QPSK	80.00	30.80	5.43	116.23	H		0.127	21.03		
		16-QAM	79.07	30.80	5.43	115.30	H		0.102	20.10		
		64-QAM	79.75	30.80	5.43	115.98	H		0.120	20.78		
		256-QAM	80.05	30.80	5.43	116.28	H		0.128	21.08		
3500.01		PI/2 BPSK	80.74	31.10	5.45	117.29	H		0.162	22.09	1	82
		QPSK	79.95	31.10	5.45	116.50	H		0.135	21.30		
		16-QAM	80.08	31.10	5.45	116.63	H		0.139	21.43		
		64-QAM	79.86	31.10	5.45	116.41	H		0.132	21.21		
		256-QAM	79.18	31.10	5.45	115.73	H		0.113	20.53		
3519.99		PI/2 BPSK	80.05	31.50	5.51	117.06	H		0.153	21.86	1	1
		QPSK	80.05	31.50	5.51	117.06	H		0.153	21.86		
		16-QAM	79.82	31.50	5.51	116.83	H		0.146	21.63		
		64-QAM	79.90	31.50	5.51	116.91	H		0.148	21.71		
		256-QAM	79.99	31.50	5.51	117.00	H		0.151	21.80		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3485.01	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	80.31	30.80	5.43	116.54	H	< 1.00	0.136	21.34	1	94
		QPSK	79.63	30.80	5.43	115.86	H		0.116	20.66		
		16-QAM	79.19	30.80	5.43	115.42	H		0.105	20.22		
		64-QAM	79.53	30.80	5.43	115.76	H		0.114	20.56		
		256-QAM	79.35	30.80	5.43	115.58	H		0.109	20.38		
3500.01		PI/2 BPSK	80.94	31.10	5.45	117.49	H		0.169	22.29	1	187
		QPSK	80.07	31.10	5.45	116.62	H		0.139	21.42		
		16-QAM	79.04	31.10	5.45	115.59	H		0.109	20.39		
		64-QAM	80.69	31.10	5.45	117.24	H		0.160	22.04		
		256-QAM	79.64	31.10	5.45	116.19	H		0.126	20.99		
3514.98		PI/2 BPSK	81.32	31.50	5.51	118.33	H		0.206	23.13	1	187
		QPSK	80.80	31.50	5.51	117.81	H		0.182	22.61		
		16-QAM	80.10	31.50	5.51	117.11	H		0.155	21.91		
		64-QAM	79.96	31.50	5.51	116.97	H		0.150	21.77		
		256-QAM	80.83	31.50	5.51	117.84	H		0.184	22.64		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3490.02	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	80.61	30.80	5.43	116.84	H	< 1.00	0.146	21.64	1	1
		QPSK	80.01	30.80	5.43	116.24	H		0.127	21.04		
		16-QAM	78.95	30.80	5.43	115.18	H		0.100	19.98		
		64-QAM	80.27	30.80	5.43	116.50	H		0.135	21.30		
		256-QAM	79.37	30.80	5.43	115.60	H		0.110	20.40		
3500.01		PI/2 BPSK	80.71	31.10	5.45	117.26	H		0.161	22.06	1	215
		QPSK	80.51	31.10	5.45	117.06	H		0.153	21.86		
		16-QAM	79.48	31.10	5.45	116.03	H		0.121	20.83		
		64-QAM	80.31	31.10	5.45	116.86	H		0.147	21.66		
		256-QAM	79.16	31.10	5.45	115.71	H		0.112	20.51		
3510.00		PI/2 BPSK	80.17	31.50	5.51	117.18	H		0.158	21.98	1	108
		QPSK	79.51	31.50	5.51	116.52	H		0.136	21.32		
		16-QAM	80.15	31.50	5.51	117.16	H		0.157	21.96		
		64-QAM	77.81	31.50	5.51	114.82	H		0.092	19.62		
		256-QAM	79.30	31.50	5.51	116.31	H		0.129	21.11		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3495.00	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	79.97	30.80	5.43	116.20	H	< 1.00	0.126	21.00	1	1
		QPSK	78.94	30.80	5.43	115.17	H		0.099	19.97		
		16-QAM	79.93	30.80	5.43	116.16	H		0.125	20.96		
		64-QAM	79.74	30.80	5.43	115.97	H		0.119	20.77		
		256-QAM	79.63	30.80	5.43	115.86	H		0.116	20.66		
3500.01		PI/2 BPSK	80.86	31.10	5.45	117.41	H		0.166	22.21	1	1
		QPSK	79.09	31.10	5.45	115.64	H		0.111	20.44		
		16-QAM	79.83	31.10	5.45	116.38	H		0.131	21.18		
		64-QAM	79.27	31.10	5.45	115.82	H		0.115	20.62		
		256-QAM	80.71	31.10	5.45	117.26	H		0.161	22.06		
3504.99		PI/2 BPSK	81.00	31.50	5.51	118.01	H		0.191	22.81	1	122
		QPSK	80.85	31.50	5.51	117.86	H		0.184	22.66		
		16-QAM	80.58	31.50	5.51	117.59	H		0.173	22.39		
		64-QAM	79.97	31.50	5.51	116.98	H		0.151	21.78		
		256-QAM	79.99	31.50	5.51	117.00	H		0.151	21.80		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3500.01	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	81.54	31.10	5.45	118.09	H	< 1.00	0.195	22.89	1	271
		QPSK	81.30	31.10	5.45	117.85	H		0.184	22.65		
		16-QAM	80.92	31.10	5.45	117.47	H		0.169	22.27		
		64-QAM	81.20	31.10	5.45	117.75	H		0.180	22.55		
		256-QAM	80.01	31.10	5.45	116.56	H		0.137	21.36		

10.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N77</u>
Bandwidth:	<u>10 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>1 meters</u>
SCS:	<u>30 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
630334 (3455.01)	6,910.02	-54.72	11.19	-57.16	4.39	H	-50.36	-13.00	1	22
	10,365.03	-55.59	11.66	-54.90	5.55	V	-48.79	-13.00		
	13,820.04	-62.38	13.35	-50.92	6.55	H	-44.12	-13.00		
	17,275.05	-68.59	17.79	-48.13	7.44	V	-37.78	-13.00		
633334 (3500.01)	7,000.02	-55.06	11.14	-57.66	4.45	V	-50.97	-13.00	1	12
	10,500.03	-55.07	11.71	-55.48	5.64	H	-49.41	-13.00		
	14,000.04	-62.34	13.09	-50.42	6.55	H	-43.88	-13.00		
	17,500.05	-72.16	17.36	-47.11	7.42	V	-37.17	-13.00		
636322 (3544.99)	7,089.98	-54.85	10.88	-57.03	4.48	H	-50.63	-13.00	1	22
	10,634.97	-53.88	11.62	-54.45	5.62	V	-48.45	-13.00		
	14,179.96	-63.86	13.04	-50.29	6.56	H	-43.81	-13.00		
	17,724.95	-70.54	16.48	-41.64	7.48	V	-32.64	-13.00		

10.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77	10 MHz	3500.01	BPSK	Full RB	0	4.39
			QPSK			5.48
			16-QAM			6.10
			64-QAM			6.33
			256-QAM			6.62
	15 MHz		BPSK			4.23
			QPSK			5.39
			16-QAM			6.47
			64-QAM			6.57
			256-QAM			6.53
	20 MHz		BPSK			4.29
			QPSK			5.68
			16-QAM			6.43
			64-QAM			6.53
			256-QAM			6.58
	25 MHz		BPSK			4.35
			QPSK			5.59
			16-QAM			6.40
			64-QAM			6.41
			256-QAM			6.53
	30 MHz		BPSK			4.43
			QPSK			5.56
			16-QAM			6.27
			64-QAM			6.56
			256-QAM			6.58
	40 MHz		BPSK			4.92
			QPSK			5.65
			16-QAM			6.20
			64-QAM			6.50
			256-QAM			6.60
	50 MHz		BPSK			4.44
			QPSK			5.53
			16-QAM			6.39
			64-QAM			6.41
			256-QAM			6.59
	60 MHz		BPSK			4.82
			QPSK			5.62
			16-QAM			6.16
			64-QAM			6.57
			256-QAM			6.71
	70 MHz		BPSK			4.80
			QPSK			5.56
			16-QAM			6.23
			64-QAM			6.43
			256-QAM			6.62
	80 MHz		BPSK			4.41
			QPSK			5.60

			16-QAM			6.29
			64-QAM			6.55
			256-QAM			6.67
	90 MHz		BPSK			4.39
			QPSK			5.52
			16-QAM			6.41
			64-QAM			6.52
			256-QAM			6.55
	100 MHz		BPSK			4.51
			QPSK			5.64
			16-QAM			6.37
			64-QAM			6.52
			256-QAM			6.68

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 828 ~ 887.

10.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77	10 MHz	3500.01	BPSK	Full RB	0	8.6027
			QPSK			8.6830
			16-QAM			8.5814
			64-QAM			8.5692
			256-QAM			8.5815
	15 MHz		BPSK			12.940
			QPSK			12.926
			16-QAM			12.984
			64-QAM			12.911
			256-QAM			12.886
	20 MHz		BPSK			17.924
			QPSK			17.893
			16-QAM			17.915
			64-QAM			18.028
			256-QAM			17.952
	25 MHz		BPSK			23.037
			QPSK			22.937
			16-QAM			22.965
			64-QAM			22.927
			256-QAM			22.953
	30 MHz		BPSK			26.907
			QPSK			26.879
			16-QAM			26.905
			64-QAM			26.877
			256-QAM			26.960
	40 MHz		BPSK			35.873
			QPSK			35.968
			16-QAM			35.888
			64-QAM			35.761
			256-QAM			35.847
	50 MHz		BPSK			45.793
			QPSK			45.631
			16-QAM			45.868
			64-QAM			45.934
			256-QAM			45.671
	60 MHz		BPSK			58.011
			QPSK			57.907
			16-QAM			57.905
			64-QAM			57.890
			256-QAM			58.001
	70 MHz		BPSK			64.478
			QPSK			64.563
			16-QAM			64.343
			64-QAM			64.551
			256-QAM			64.659
	80 MHz		BPSK			77.640
			QPSK			77.461

			16-QAM			77.553
			64-QAM			77.538
			256-QAM			77.152
	90 MHz		BPSK			87.124
			QPSK			87.100
			16-QAM			86.946
			64-QAM			87.088
			256-QAM			86.866
	100 MHz		BPSK			96.801
			QPSK			96.754
			16-QAM			96.667
			64-QAM			96.676
			256-QAM			96.804

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 888 ~ 947.

10.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77	10	3455.010	4.8954	28.370	-61.768	-33.398	-13.00
		3500.010	6.0220	28.980	-61.932	-32.952	
		3544.980	4.5165	28.370	-62.005	-33.635	
	15	3457.500	4.9552	28.370	-62.380	-34.010	
		3500.010	5.4637	28.980	-62.342	-33.362	
		3542.490	4.9652	28.370	-61.901	-33.531	
	20	3460.020	4.9851	28.370	-61.228	-32.858	
		3500.010	8.9930	28.980	-62.304	-33.324	
		3540.000	8.8734	28.980	-61.857	-32.877	
	25	3462.510	5.2044	28.980	-62.721	-33.741	
		3500.010	9.4716	28.980	-62.020	-33.040	
		3537.480	4.9053	28.370	-60.713	-32.343	
	30	3465.000	4.8954	28.370	-62.801	-34.431	
		3500.010	4.9153	28.370	-61.507	-33.137	
		3534.990	9.1326	28.980	-62.361	-33.381	
	40	3470.010	7.1286	28.980	-62.329	-33.349	
		3500.010	4.9452	28.370	-62.696	-34.326	
		3529.980	4.9851	28.370	-61.766	-33.396	
	50	3475.020	5.4736	28.980	-62.290	-33.310	
		3500.010	8.0060	28.980	-62.821	-33.841	
		3525.000	6.8993	28.980	-62.222	-33.242	
	60	3480.000	5.9821	28.980	-62.416	-33.436	
		3500.010	6.0718	28.980	-62.311	-33.331	
		3519.990	4.8954	28.370	-62.080	-33.710	
	70	3485.010	9.1725	28.980	-62.133	-33.153	
		3500.010	5.2144	28.980	-62.044	-33.064	
		3514.980	9.3320	28.980	-61.374	-32.394	
	80	3490.020	9.7208	28.980	-62.139	-33.159	
		3500.010	8.2752	28.980	-62.375	-33.395	
		3510.000	8.3250	28.980	-62.549	-33.569	
	90	3495.000	4.9253	28.370	-62.406	-34.036	
		3500.010	5.1745	28.980	-62.165	-33.185	
		3504.990	5.9622	28.980	-62.156	-33.176	
	100	3500.010	4.9851	28.370	-62.773	-34.403	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 948 ~ 1015.
2. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
3. Result(dBm) = Reading + Factor

Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.670
1 – 5	28.370
5 – 10	28.980
10 – 15	29.520
15 – 20	29.890
Above 20	30.530

10.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 1016 ~ 1159.
2. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.990

10.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3455.010	100 %	+20(Ref)	3455 009 989	0.0	0.000 000	0.000
	100 %	-30	3455 009 977	-12.4	0.000 000	-0.004
	100 %	-20	3455 009 979	-10.4	0.000 000	-0.003
	100 %	-10	3455 009 975	-13.8	0.000 000	-0.004
	100 %	0	3455 009 977	-12.3	0.000 000	-0.004
	100 %	+10	3455 009 982	-6.8	0.000 000	-0.002
	100 %	+30	3455 009 983	-6.3	0.000 000	-0.002
	100 %	+40	3455 009 984	-4.9	0.000 000	-0.001
	100 %	+50	3455 009 976	-12.8	0.000 000	-0.004
	Lowest voltage	+20	3455 009 981	-7.8	0.000 000	-0.002
3544.980	100 %	+20(Ref)	3544 979 987	0.0	0.000 000	0.000
	100 %	-30	3544 979 973	-14.2	0.000 000	-0.004
	100 %	-20	3544 979 973	-13.9	0.000 000	-0.004
	100 %	-10	3544 979 972	-14.7	0.000 000	-0.004
	100 %	0	3544 979 969	-18.0	-0.000 001	-0.005
	100 %	+10	3544 979 972	-15.2	0.000 000	-0.004
	100 %	+30	3544 979 976	-10.6	0.000 000	-0.003
	100 %	+40	3544 979 977	-10.0	0.000 000	-0.003
	100 %	+50	3544 979 974	-13.1	0.000 000	-0.004
	Lowest voltage	+20	3544 979 974	-12.6	0.000 000	-0.004

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3457.500	100 %	+20(Ref)	3457 499 994	0.0	0.000 000	0.000
	100 %	-30	3457 499 981	-12.9	0.000 000	-0.004
	100 %	-20	3457 499 989	-5.3	0.000 000	-0.002
	100 %	-10	3457 499 986	-8.3	0.000 000	-0.002
	100 %	0	3457 499 981	-12.6	0.000 000	-0.004
	100 %	+10	3457 499 983	-10.6	0.000 000	-0.003
	100 %	+30	3457 499 990	-4.1	0.000 000	-0.001
	100 %	+40	3457 499 993	-0.8	0.000 000	0.000
	100 %	+50	3457 499 987	-7.5	0.000 000	-0.002
	Lowest voltage	+20	3457 499 989	-5.3	0.000 000	-0.002
3542.490	100 %	+20(Ref)	3542 489 988	0.0	0.000 000	0.000
	100 %	-30	3542 489 973	-14.6	0.000 000	-0.004
	100 %	-20	3542 489 972	-15.8	0.000 000	-0.004
	100 %	-10	3542 489 971	-16.8	0.000 000	-0.005
	100 %	0	3542 489 975	-12.5	0.000 000	-0.004
	100 %	+10	3542 489 970	-17.5	0.000 000	-0.005
	100 %	+30	3542 489 978	-9.6	0.000 000	-0.003
	100 %	+40	3542 489 972	-15.9	0.000 000	-0.004
	100 %	+50	3542 489 972	-15.8	0.000 000	-0.004
	Lowest voltage	+20	3542 489 978	-10.3	0.000 000	-0.003

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3460.020	100 %	+20(Ref)	3460 019 988	0.0	0.000 000	0.000
	100 %	-30	3460 019 979	-9.7	0.000 000	-0.003
	100 %	-20	3460 019 979	-9.7	0.000 000	-0.003
	100 %	-10	3460 019 979	-9.3	0.000 000	-0.003
	100 %	0	3460 019 977	-11.7	0.000 000	-0.003
	100 %	+10	3460 019 973	-15.1	0.000 000	-0.004
	100 %	+30	3460 019 982	-6.4	0.000 000	-0.002
	100 %	+40	3460 019 981	-7.6	0.000 000	-0.002
	100 %	+50	3460 019 975	-13.1	0.000 000	-0.004
	Lowest voltage	+20	3460 019 982	-6.2	0.000 000	-0.002
3540.000	100 %	+20(Ref)	3539 999 995	0.0	0.000 000	0.000
	100 %	-30	3539 999 987	-8.0	0.000 000	-0.002
	100 %	-20	3539 999 985	-10.7	0.000 000	-0.003
	100 %	-10	3539 999 984	-11.3	0.000 000	-0.003
	100 %	0	3539 999 987	-8.7	0.000 000	-0.002
	100 %	+10	3539 999 988	-7.5	0.000 000	-0.002
	100 %	+30	3539 999 981	-14.5	0.000 000	-0.004
	100 %	+40	3539 999 990	-4.9	0.000 000	-0.001
	100 %	+50	3539 999 982	-13.2	0.000 000	-0.004
	Lowest voltage	+20	3539 999 987	-8.7	0.000 000	-0.002

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3462.510	100 %	+20(Ref)	3462 509 991	0.0	0.000 000	0.000
	100 %	-30	3462 509 981	-10.2	0.000 000	-0.003
	100 %	-20	3462 509 979	-12.0	0.000 000	-0.003
	100 %	-10	3462 509 983	-7.8	0.000 000	-0.002
	100 %	0	3462 509 981	-10.6	0.000 000	-0.003
	100 %	+10	3462 509 983	-8.6	0.000 000	-0.002
	100 %	+30	3462 509 980	-11.0	0.000 000	-0.003
	100 %	+40	3462 509 983	-8.5	0.000 000	-0.002
	100 %	+50	3462 509 987	-3.9	0.000 000	-0.001
	Lowest voltage	+20	3462 509 986	-5.7	0.000 000	-0.002
3537.480	100 %	+20(Ref)	3537 479 993	0.0	0.000 000	0.000
	100 %	-30	3537 479 990	-2.8	0.000 000	-0.001
	100 %	-20	3537 479 981	-12.1	0.000 000	-0.003
	100 %	-10	3537 479 980	-12.7	0.000 000	-0.004
	100 %	0	3537 479 984	-9.1	0.000 000	-0.003
	100 %	+10	3537 479 980	-12.8	0.000 000	-0.004
	100 %	+30	3537 479 983	-9.7	0.000 000	-0.003
	100 %	+40	3537 479 984	-8.7	0.000 000	-0.002
	100 %	+50	3537 479 982	-10.8	0.000 000	-0.003
	Lowest voltage	+20	3537 479 981	-11.5	0.000 000	-0.003

- BandWidth: 30 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3465.000	100 %	+20(Ref)	3464 999 995	0.0	0.000 000	0.000
	100 %	-30	3464 999 985	-9.9	0.000 000	-0.003
	100 %	-20	3464 999 983	-11.5	0.000 000	-0.003
	100 %	-10	3464 999 982	-12.4	0.000 000	-0.004
	100 %	0	3464 999 986	-9.0	0.000 000	-0.003
	100 %	+10	3464 999 988	-6.8	0.000 000	-0.002
	100 %	+30	3464 999 985	-10.2	0.000 000	-0.003
	100 %	+40	3464 999 987	-8.1	0.000 000	-0.002
	100 %	+50	3464 999 988	-6.4	0.000 000	-0.002
	Lowest voltage	+20	3464 999 982	-12.4	0.000 000	-0.004
3534.990	100 %	+20(Ref)	3534 989 999	0.0	0.000 000	0.000
	100 %	-30	3534 989 998	-0.8	0.000 000	0.000
	100 %	-20	3534 989 995	-4.2	0.000 000	-0.001
	100 %	-10	3534 989 994	-4.8	0.000 000	-0.001
	100 %	0	3534 989 997	-1.3	0.000 000	0.000
	100 %	+10	3534 989 995	-4.1	0.000 000	-0.001
	100 %	+30	3534 989 998	-0.4	0.000 000	0.000
	100 %	+40	3534 989 995	-3.3	0.000 000	-0.001
	100 %	+50	3534 989 996	-2.6	0.000 000	-0.001
	Lowest voltage	+20	3534 990 000	0.9	0.000 000	0.000

- BandWidth: 40 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3470.010	100 %	+20(Ref)	3470 009 994	0.0	0.000 000	0.000
	100 %	-30	3470 009 987	-6.8	0.000 000	-0.002
	100 %	-20	3470 009 986	-7.7	0.000 000	-0.002
	100 %	-10	3470 009 990	-3.8	0.000 000	-0.001
	100 %	0	3470 009 985	-9.0	0.000 000	-0.003
	100 %	+10	3470 009 990	-3.7	0.000 000	-0.001
	100 %	+30	3470 009 983	-10.6	0.000 000	-0.003
	100 %	+40	3470 009 981	-13.0	0.000 000	-0.004
	100 %	+50	3470 009 982	-12.4	0.000 000	-0.004
	Lowest voltage	+20	3470 009 985	-9.5	0.000 000	-0.003
3529.980	100 %	+20(Ref)	3529 979 989	0.0	0.000 000	0.000
	100 %	-30	3529 979 980	-9.4	0.000 000	-0.003
	100 %	-20	3529 979 980	-9.5	0.000 000	-0.003
	100 %	-10	3529 979 973	-16.3	0.000 000	-0.005
	100 %	0	3529 979 979	-10.3	0.000 000	-0.003
	100 %	+10	3529 979 978	-11.4	0.000 000	-0.003
	100 %	+30	3529 979 981	-8.2	0.000 000	-0.002
	100 %	+40	3529 979 981	-8.4	0.000 000	-0.002
	100 %	+50	3529 979 977	-12.4	0.000 000	-0.004
	Lowest voltage	+20	3529 979 977	-11.9	0.000 000	-0.003

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3475.020	100 %	+20(Ref)	3475 019 991	0.0	0.000 000	0.000
	100 %	-30	3475 019 979	-12.3	0.000 000	-0.004
	100 %	-20	3475 019 977	-14.9	0.000 000	-0.004
	100 %	-10	3475 019 978	-13.2	0.000 000	-0.004
	100 %	0	3475 019 977	-14.6	0.000 000	-0.004
	100 %	+10	3475 019 982	-9.8	0.000 000	-0.003
	100 %	+30	3475 019 978	-13.8	0.000 000	-0.004
	100 %	+40	3475 019 976	-15.3	0.000 000	-0.004
	100 %	+50	3475 019 980	-11.6	0.000 000	-0.003
	Lowest voltage	+20	3475 019 980	-11.3	0.000 000	-0.003
3525.000	100 %	+20(Ref)	3524 999 984	0.0	0.000 000	0.000
	100 %	-30	3524 999 969	-14.6	0.000 000	-0.004
	100 %	-20	3524 999 969	-15.3	0.000 000	-0.004
	100 %	-10	3524 999 973	-10.6	0.000 000	-0.003
	100 %	0	3524 999 974	-10.0	0.000 000	-0.003
	100 %	+10	3524 999 973	-10.5	0.000 000	-0.003
	100 %	+30	3524 999 972	-12.5	0.000 000	-0.004
	100 %	+40	3524 999 973	-10.9	0.000 000	-0.003
	100 %	+50	3524 999 972	-11.5	0.000 000	-0.003
	Lowest voltage	+20	3524 999 973	-11.0	0.000 000	-0.003

- BandWidth: 60 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3480.000	100 %	+20(Ref)	3479 999 992	0.0	0.000 000	0.000
	100 %	-30	3479 999 984	-7.7	0.000 000	-0.002
	100 %	-20	3479 999 983	-9.4	0.000 000	-0.003
	100 %	-10	3479 999 985	-7.3	0.000 000	-0.002
	100 %	0	3479 999 987	-5.4	0.000 000	-0.002
	100 %	+10	3479 999 986	-5.6	0.000 000	-0.002
	100 %	+30	3479 999 982	-9.6	0.000 000	-0.003
	100 %	+40	3479 999 986	-6.2	0.000 000	-0.002
	100 %	+50	3479 999 985	-7.4	0.000 000	-0.002
	Lowest voltage	+20	3479 999 978	-13.5	0.000 000	-0.004
3519.990	100 %	+20(Ref)	3519 989 987	0.0	0.000 000	0.000
	100 %	-30	3519 989 971	-15.3	0.000 000	-0.004
	100 %	-20	3519 989 976	-10.9	0.000 000	-0.003
	100 %	-10	3519 989 978	-8.9	0.000 000	-0.003
	100 %	0	3519 989 978	-8.4	0.000 000	-0.002
	100 %	+10	3519 989 971	-15.5	0.000 000	-0.004
	100 %	+30	3519 989 975	-11.8	0.000 000	-0.003
	100 %	+40	3519 989 972	-14.5	0.000 000	-0.004
	100 %	+50	3519 989 974	-13.0	0.000 000	-0.004
	Lowest voltage	+20	3519 989 978	-9.0	0.000 000	-0.003

- BandWidth: 70 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3485.010	100 %	+20(Ref)	3485 009 989	0.0	0.000 000	0.000
	100 %	-30	3485 009 981	-7.8	0.000 000	-0.002
	100 %	-20	3485 009 979	-9.8	0.000 000	-0.003
	100 %	-10	3485 009 983	-5.5	0.000 000	-0.002
	100 %	0	3485 009 975	-13.5	0.000 000	-0.004
	100 %	+10	3485 009 978	-11.0	0.000 000	-0.003
	100 %	+30	3485 009 980	-8.9	0.000 000	-0.003
	100 %	+40	3485 009 979	-9.7	0.000 000	-0.003
	100 %	+50	3485 009 979	-10.3	0.000 000	-0.003
	Lowest voltage	+20	3485 009 986	-3.4	0.000 000	-0.001
3514.980	100 %	+20(Ref)	3514 979 984	0.0	0.000 000	0.000
	100 %	-30	3514 979 972	-12.3	0.000 000	-0.003
	100 %	-20	3514 979 975	-9.0	0.000 000	-0.003
	100 %	-10	3514 979 972	-12.3	0.000 000	-0.004
	100 %	0	3514 979 973	-10.8	0.000 000	-0.003
	100 %	+10	3514 979 978	-6.0	0.000 000	-0.002
	100 %	+30	3514 979 976	-7.8	0.000 000	-0.002
	100 %	+40	3514 979 970	-14.3	0.000 000	-0.004
	100 %	+50	3514 979 970	-13.4	0.000 000	-0.004
	Lowest voltage	+20	3514 979 973	-10.4	0.000 000	-0.003

- ▣ BandWidth: 80 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3490.020	100 %	+20(Ref)	3490 019 988	0.0	0.000 000	0.000
	100 %	-30	3490 019 982	-6.4	0.000 000	-0.002
	100 %	-20	3490 019 976	-11.9	0.000 000	-0.003
	100 %	-10	3490 019 980	-8.1	0.000 000	-0.002
	100 %	0	3490 019 979	-9.3	0.000 000	-0.003
	100 %	+10	3490 019 985	-3.7	0.000 000	-0.001
	100 %	+30	3490 019 975	-12.9	0.000 000	-0.004
	100 %	+40	3490 019 978	-9.9	0.000 000	-0.003
	100 %	+50	3490 019 983	-5.2	0.000 000	-0.001
	Lowest voltage	+20	3490 019 976	-11.9	0.000 000	-0.003
3510.000	100 %	+20(Ref)	3509 999 992	0.0	0.000 000	0.000
	100 %	-30	3509 999 982	-10.1	0.000 000	-0.003
	100 %	-20	3509 999 984	-8.9	0.000 000	-0.003
	100 %	-10	3509 999 986	-6.1	0.000 000	-0.002
	100 %	0	3509 999 984	-8.6	0.000 000	-0.002
	100 %	+10	3509 999 983	-9.8	0.000 000	-0.003
	100 %	+30	3509 999 982	-10.0	0.000 000	-0.003
	100 %	+40	3509 999 981	-11.3	0.000 000	-0.003
	100 %	+50	3509 999 987	-5.1	0.000 000	-0.001
	Lowest voltage	+20	3509 999 986	-6.3	0.000 000	-0.002

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3495.000	100 %	+20(Ref)	3494 999 986	0.0	0.000 000	0.000
	100 %	-30	3494 999 978	-7.6	0.000 000	-0.002
	100 %	-20	3494 999 978	-7.4	0.000 000	-0.002
	100 %	-10	3494 999 974	-11.6	0.000 000	-0.003
	100 %	0	3494 999 975	-10.8	0.000 000	-0.003
	100 %	+10	3494 999 975	-10.8	0.000 000	-0.003
	100 %	+30	3494 999 969	-16.4	0.000 000	-0.005
	100 %	+40	3494 999 975	-10.3	0.000 000	-0.003
	100 %	+50	3494 999 970	-15.9	0.000 000	-0.005
	Lowest voltage	+20	3494 999 973	-12.2	0.000 000	-0.003
3504.990	100 %	+20(Ref)	3504 989 991	0.0	0.000 000	0.000
	100 %	-30	3504 989 981	-9.6	0.000 000	-0.003
	100 %	-20	3504 989 985	-6.3	0.000 000	-0.002
	100 %	-10	3504 989 983	-8.4	0.000 000	-0.002
	100 %	0	3504 989 979	-12.4	0.000 000	-0.004
	100 %	+10	3504 989 984	-6.8	0.000 000	-0.002
	100 %	+30	3504 989 981	-10.0	0.000 000	-0.003
	100 %	+40	3504 989 982	-9.5	0.000 000	-0.003
	100 %	+50	3504 989 982	-9.4	0.000 000	-0.003
	Lowest voltage	+20	3504 989 978	-13.0	0.000 000	-0.004

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3500.010	100 %	+20(Ref)	3500 009 994	0.0	0.000 000	0.000
	100 %	-30	3500 009 984	-10.0	0.000 000	-0.003
	100 %	-20	3500 009 984	-10.4	0.000 000	-0.003
	100 %	-10	3500 009 988	-5.8	0.000 000	-0.002
	100 %	0	3500 009 987	-7.1	0.000 000	-0.002
	100 %	+10	3500 009 984	-10.3	0.000 000	-0.003
	100 %	+30	3500 009 984	-10.4	0.000 000	-0.003
	100 %	+40	3500 009 981	-12.9	0.000 000	-0.004
	100 %	+50	3500 009 982	-12.0	0.000 000	-0.003
	Lowest voltage	+20	3500 009 983	-11.2	0.000 000	-0.003

11. TEST DATA (MIMO2, 3700 MHz - 3980 MHz)

11.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3705.00	Sub6 n77(78)/ 10 MHz [30 kHz]	PI/2 BPSK	80.10	31.40	5.73	117.23	H	< 1.00	0.160	22.03	1	22
		QPSK	79.57	31.40	5.73	116.70	H		0.141	21.50		
		16-QAM	78.27	31.40	5.73	115.40	H		0.105	20.20		
		64-QAM	78.70	31.40	5.73	115.83	H		0.116	20.63		
		256-QAM	79.44	31.40	5.73	116.57	H		0.137	21.37		
3840.00		PI/2 BPSK	80.47	31.80	5.84	118.11	H		0.195	22.91	1	22
		QPSK	79.31	31.80	5.84	116.95	H		0.150	21.75		
		16-QAM	79.73	31.80	5.84	117.37	H		0.165	22.17		
		64-QAM	79.64	31.80	5.84	117.28	H		0.161	22.08		
		256-QAM	79.01	31.80	5.84	116.65	H		0.140	21.45		
3975.00		PI/2 BPSK	77.42	31.90	5.90	115.22	H	< 1.00	0.100	20.02	1	1
		QPSK	76.90	31.90	5.90	114.70	H		0.089	19.50		
		16-QAM	76.78	31.90	5.90	114.58	H		0.087	19.38		
		64-QAM	77.08	31.90	5.90	114.88	H		0.093	19.68		
		256-QAM	77.04	31.90	5.90	114.84	H		0.092	19.64		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3707.51	Sub6 n77(78)/ 15 MHz [30 kHz]	PI/2 BPSK	79.97	31.40	5.73	117.10	H	< 1.00	0.155	21.90	1	19
		QPSK	78.49	31.40	5.73	115.62	H		0.110	20.42		
		16-QAM	79.56	31.40	5.73	116.69	H		0.141	21.49		
		64-QAM	79.05	31.40	5.73	116.18	H		0.125	20.98		
		256-QAM	78.79	31.40	5.73	115.92	H		0.118	20.72		
3840.00		PI/2 BPSK	79.81	31.80	5.84	117.45	H		0.168	22.25	1	36
		QPSK	78.74	31.80	5.84	116.38	H		0.131	21.18		
		16-QAM	78.04	31.80	5.84	115.68	H		0.112	20.48		
		64-QAM	78.55	31.80	5.84	116.19	H		0.126	20.99		
		256-QAM	78.84	31.80	5.84	116.48	H		0.134	21.28		
3972.48		PI/2 BPSK	77.31	31.90	5.90	115.11	H	< 1.00	0.098	19.91	1	1
		QPSK	76.57	31.90	5.90	114.37	H		0.083	19.17		
		16-QAM	77.08	31.90	5.90	114.88	H		0.093	19.68		
		64-QAM	76.91	31.90	5.90	114.71	H		0.089	19.51		
		256-QAM	76.64	31.90	5.90	114.44	H		0.084	19.24		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3710.01	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	80.98	31.40	5.73	118.11	H	< 1.00	0.195	22.91	1	49
		QPSK	79.89	31.40	5.73	117.02	H		0.152	21.82		
		16-QAM	80.46	31.40	5.73	117.59	H		0.173	22.39		
		64-QAM	79.74	31.40	5.73	116.87	H		0.147	21.67		
		256-QAM	79.28	31.40	5.73	116.41	H		0.132	21.21		
3840.00		PI/2 BPSK	80.74	31.80	5.84	118.38	H		0.208	23.18	1	49
		QPSK	80.30	31.80	5.84	117.94	H		0.188	22.74		
		16-QAM	79.40	31.80	5.84	117.04	H		0.153	21.84		
		64-QAM	79.31	31.80	5.84	116.95	H		0.150	21.75		
		256-QAM	78.64	31.80	5.84	116.28	H		0.128	21.08		
3969.99		PI/2 BPSK	77.62	31.90	5.90	115.42	H	0.105	20.22	1	1	
		QPSK	76.94	31.90	5.90	114.74	H	0.090	19.54			
		16-QAM	75.82	31.90	5.90	113.62	H	0.070	18.42			
		64-QAM	76.34	31.90	5.90	114.14	H	0.078	18.94			
		256-QAM	77.11	31.90	5.90	114.91	H	0.094	19.71			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3712.50	Sub6 n77(78)/ 25 MHz [30 kHz]	PI/2 BPSK	80.39	31.40	5.73	117.52	H	< 1.00	0.171	22.32	1	63
		QPSK	80.16	31.40	5.73	117.29	H		0.162	22.09		
		16-QAM	79.53	31.40	5.73	116.66	H		0.140	21.46		
		64-QAM	79.25	31.40	5.73	116.38	H		0.131	21.18		
		256-QAM	79.75	31.40	5.73	116.88	H		0.147	21.68		
3840.00		PI/2 BPSK	79.12	31.80	5.84	116.76	H		0.143	21.56	1	1
		QPSK	78.86	31.80	5.84	116.50	H		0.135	21.30		
		16-QAM	78.81	31.80	5.84	116.45	H		0.133	21.25		
		64-QAM	78.68	31.80	5.84	116.32	H		0.129	21.12		
		256-QAM	77.89	31.80	5.84	115.53	H		0.108	20.33		
3967.50		PI/2 BPSK	76.78	31.90	5.90	114.58	H	0.087	19.38	1	32	
		QPSK	76.24	31.90	5.90	114.04	H	0.077	18.84			
		16-QAM	75.65	31.90	5.90	113.45	H	0.067	18.25			
		64-QAM	75.87	31.90	5.90	113.67	H	0.070	18.47			
		256-QAM	75.98	31.90	5.90	113.78	H	0.072	18.58			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3715.02	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	79.84	31.40	5.73	116.97	H	< 1.00	0.150	21.77	1	39
		QPSK	78.79	31.40	5.73	115.92	H		0.118	20.72		
		16-QAM	77.77	31.40	5.73	114.90	H		0.093	19.70		
		64-QAM	78.14	31.40	5.73	115.27	H		0.102	20.07		
		256-QAM	76.15	31.40	5.73	113.28	H		0.064	18.08		
3840.00		PI/2 BPSK	79.42	31.80	5.84	117.06	H		0.153	21.86	1	1
		QPSK	78.71	31.80	5.84	116.35	H		0.130	21.15		
		16-QAM	79.04	31.80	5.84	116.68	H		0.141	21.48		
		64-QAM	78.73	31.80	5.84	116.37	H		0.131	21.17		
		256-QAM	77.44	31.80	5.84	115.08	H		0.097	19.88		
3964.98		PI/2 BPSK	76.78	31.90	5.90	114.58	H		0.087	19.38	1	39
		QPSK	75.41	31.90	5.90	113.21	H		0.063	18.01		
		16-QAM	76.25	31.90	5.90	114.05	H		0.077	18.85		
		64-QAM	76.40	31.90	5.90	114.20	H		0.079	19.00		
		256-QAM	75.55	31.90	5.90	113.35	H		0.065	18.15		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3720.00	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	80.29	31.40	5.73	117.42	H	< 1.00	0.167	22.22	1	53
		QPSK	79.47	31.40	5.73	116.60	H		0.138	21.40		
		16-QAM	79.04	31.40	5.73	116.17	H		0.125	20.97		
		64-QAM	78.56	31.40	5.73	115.69	H		0.112	20.49		
		256-QAM	79.06	31.40	5.73	116.19	H		0.126	20.99		
3840.00		PI/2 BPSK	79.89	31.80	5.84	117.53	H		0.171	22.33	1	53
		QPSK	79.49	31.80	5.84	117.13	H		0.156	21.93		
		16-QAM	78.34	31.80	5.84	115.98	H		0.120	20.78		
		64-QAM	78.84	31.80	5.84	116.48	H		0.134	21.28		
		256-QAM	79.43	31.80	5.84	117.07	H		0.154	21.87		
3960.00		PI/2 BPSK	76.72	31.90	5.90	114.52	H	< 1.00	0.086	19.32	1	53
		QPSK	75.90	31.90	5.90	113.70	H		0.071	18.50		
		16-QAM	76.23	31.90	5.90	114.03	H		0.076	18.83		
		64-QAM	75.45	31.90	5.90	113.25	H		0.064	18.05		
		256-QAM	75.73	31.90	5.90	113.53	H		0.068	18.33		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3725.10	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	80.26	31.40	5.73	117.39	H	< 1.00	0.166	22.19	1	66
		QPSK	79.57	31.40	5.73	116.70	H		0.141	21.50		
		16-QAM	79.60	31.40	5.73	116.73	H		0.142	21.53		
		64-QAM	78.66	31.40	5.73	115.79	H		0.115	20.59		
		256-QAM	79.42	31.40	5.73	116.55	H		0.136	21.35		
3840.00		PI/2 BPSK	79.54	31.80	5.84	117.18	H		0.158	21.98	1	66
		QPSK	78.79	31.80	5.84	116.43	H		0.133	21.23		
		16-QAM	79.16	31.80	5.84	116.80	H		0.145	21.60		
		64-QAM	79.37	31.80	5.84	117.01	H		0.152	21.81		
		256-QAM	79.09	31.80	5.84	116.73	H		0.142	21.53		
3954.99		PI/2 BPSK	76.37	31.90	5.90	114.17	H	< 1.00	0.079	18.97	1	66
		QPSK	76.27	31.90	5.90	114.07	H		0.077	18.87		
		16-QAM	76.36	31.90	5.90	114.16	H		0.079	18.96		
		64-QAM	76.32	31.90	5.90	114.12	H		0.078	18.92		
		256-QAM	75.42	31.90	5.90	113.22	H		0.063	18.02		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3730.02	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	80.57	31.40	5.73	117.70	H	< 1.00	0.178	22.50	1	82
		QPSK	80.24	31.40	5.73	117.37	H		0.165	22.17		
		16-QAM	79.91	31.40	5.73	117.04	H		0.153	21.84		
		64-QAM	80.18	31.40	5.73	117.31	H		0.163	22.11		
		256-QAM	79.04	31.40	5.73	116.17	H		0.125	20.97		
3840.00		PI/2 BPSK	80.33	31.80	5.84	117.97	H		0.189	22.77	1	82
		QPSK	79.58	31.80	5.84	117.22	H		0.159	22.02		
		16-QAM	79.17	31.80	5.84	116.81	H		0.145	21.61		
		64-QAM	77.73	31.80	5.84	115.37	H		0.104	20.17		
		256-QAM	78.69	31.80	5.84	116.33	H		0.130	21.13		
3949.98		PI/2 BPSK	76.27	31.90	5.90	114.07	H		0.077	18.87	1	82
		QPSK	75.73	31.90	5.90	113.53	H		0.068	18.33		
		16-QAM	75.32	31.90	5.90	113.12	H		0.062	17.92		
		64-QAM	75.85	31.90	5.90	113.65	H		0.070	18.45		
		256-QAM	75.58	31.90	5.90	113.38	H		0.066	18.18		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3735.00	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	81.25	31.40	5.73	118.38	H	< 1.00	0.208	23.18	1	94
		QPSK	80.63	31.40	5.73	117.76	H		0.180	22.56		
		16-QAM	80.90	31.40	5.73	118.03	H		0.192	22.83		
		64-QAM	80.34	31.40	5.73	117.47	H		0.169	22.27		
		256-QAM	80.49	31.40	5.73	117.62	H		0.175	22.42		
3840.00		PI/2 BPSK	79.02	31.80	5.84	116.66	H		0.140	21.46	1	94
		QPSK	78.50	31.80	5.84	116.14	H		0.124	20.94		
		16-QAM	78.51	31.80	5.84	116.15	H		0.124	20.95		
		64-QAM	78.23	31.80	5.84	115.87	H		0.117	20.67		
		256-QAM	78.83	31.80	5.84	116.47	H		0.134	21.27		
3945.00		PI/2 BPSK	76.23	31.90	5.90	114.03	H		0.076	18.83	1	94
		QPSK	75.26	31.90	5.90	113.06	H		0.061	17.86		
		16-QAM	75.98	31.90	5.90	113.78	H		0.072	18.58		
		64-QAM	74.90	31.90	5.90	112.70	H		0.056	17.50		
		256-QAM	74.45	31.90	5.90	112.25	H		0.051	17.05		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3740.01	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	80.36	31.40	5.73	117.49	H	< 1.00	0.169	22.29	1	108
		QPSK	78.55	31.40	5.73	115.68	H		0.112	20.48		
		16-QAM	78.55	31.40	5.73	115.68	H		0.112	20.48		
		64-QAM	79.70	31.40	5.73	116.83	H		0.146	21.63		
		256-QAM	78.70	31.40	5.73	115.83	H		0.116	20.63		
3840.00		PI/2 BPSK	76.77	31.80	5.84	114.41	H		0.083	19.21	1	215
		QPSK	76.58	31.80	5.84	114.22	H		0.080	19.02		
		16-QAM	76.46	31.80	5.84	114.10	H		0.078	18.90		
		64-QAM	75.75	31.80	5.84	113.39	H		0.066	18.19		
		256-QAM	74.90	31.80	5.84	112.54	H		0.054	17.34		
3939.99		PI/2 BPSK	77.01	31.90	5.90	114.81	H		0.091	19.61	1	108
		QPSK	76.42	31.90	5.90	114.22	H		0.080	19.02		
		16-QAM	75.92	31.90	5.90	113.72	H		0.071	18.52		
		64-QAM	75.79	31.90	5.90	113.59	H		0.069	18.39		
		256-QAM	75.50	31.90	5.90	113.30	H		0.065	18.10		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	79.14	31.40	5.73	116.27	H	< 1.00	0.128	21.07	1	122
		QPSK	78.31	31.40	5.73	115.44	H		0.106	20.24		
		16-QAM	78.85	31.40	5.73	115.98	H		0.120	20.78		
		64-QAM	79.02	31.40	5.73	116.15	H		0.124	20.95		
		256-QAM	77.17	31.40	5.73	114.30	H		0.081	19.10		
3840.00		PI/2 BPSK	77.62	31.80	5.84	115.26	H		0.101	20.06	1	122
		QPSK	77.47	31.80	5.84	115.11	H		0.098	19.91		
		16-QAM	76.73	31.80	5.84	114.37	H		0.083	19.17		
		64-QAM	77.56	31.80	5.84	115.20	H		0.100	20.00		
		256-QAM	76.11	31.80	5.84	113.75	H		0.072	18.55		
3934.98		PI/2 BPSK	76.42	31.90	5.90	114.22	H	0.080	19.02	1	1	
		QPSK	76.15	31.90	5.90	113.95	H	0.075	18.75			
		16-QAM	75.87	31.90	5.90	113.67	H	0.070	18.47			
		64-QAM	74.87	31.90	5.90	112.67	H	0.056	17.47			
		256-QAM	75.99	31.90	5.90	113.79	H	0.072	18.59			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured (dBμV/m)	Ant. Factor + Dis. Factor(dB)	Cable loss(dB)	Total (dBμV/m)	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3750.00	Sub6 n77(78)/ 100 MHz [30 kHz]	PI/2 BPSK	79.48	31.40	5.73	116.61	H	< 1.00	0.138	21.41	1	136
		QPSK	78.80	31.40	5.73	115.93	H		0.118	20.73		
		16-QAM	77.76	31.40	5.73	114.89	H		0.093	19.69		
		64-QAM	77.43	31.40	5.73	114.56	H		0.086	19.36		
		256-QAM	78.00	31.40	5.73	115.13	H		0.098	19.93		
3840.00		PI/2 BPSK	78.63	31.80	5.84	116.27	H		0.128	21.07	1	136
		QPSK	77.55	31.80	5.84	115.19	H		0.100	19.99		
		16-QAM	77.58	31.80	5.84	115.22	H		0.100	20.02		
		64-QAM	77.36	31.80	5.84	115.00	H		0.096	19.80		
		256-QAM	77.24	31.80	5.84	114.88	H		0.093	19.68		
3930.00		PI/2 BPSK	77.00	31.90	5.90	114.80	H	0.091	19.60	1	1	
		QPSK	76.50	31.90	5.90	114.30	H	0.081	19.10			
		16-QAM	76.46	31.90	5.90	114.26	H	0.081	19.06			
		64-QAM	76.13	31.90	5.90	113.93	H	0.075	18.73			
		256-QAM	75.82	31.90	5.90	113.62	H	0.070	18.42			

11.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>N77(78)</u>
■ Bandwidth:	<u>70 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>30 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
649000 (3735.00)	7 470.00	-51.33	11.45	-54.05	4.61	V	-47.21	-13.00	1	94
	11 205.00	-54.68	12.31	-54.84	5.84	H	-48.37	-13.00		
	14 940.00	-65.44	14.04	-48.44	6.73	H	-41.13	-13.00		
656000 (3840.00)	7 680.00	-50.17	11.60	-52.63	4.70	H	-45.73	-13.00	1	94
	11 520.00	-55.28	12.51	-54.90	5.87	V	-48.26	-13.00		
	15 360.00	-67.73	15.21	-48.11	6.88	H	-39.78	-13.00		
663000 (3945.00)	7 890.00	-52.40	11.18	-53.73	4.74	H	-47.29	-13.00	1	94
	11 835.00	-53.12	13.01	-51.62	5.95	V	-44.56	-13.00		
	15 780.00	-67.68	16.06	-49.27	6.92	V	-40.13	-13.00		

11.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	4.64
			QPSK			5.67
			16-QAM			6.54
			64-QAM			6.42
			256-QAM			6.60
	15 MHz		BPSK			4.46
			QPSK			5.52
			16-QAM			6.24
			64-QAM			6.35
			256-QAM			6.49
	20 MHz		BPSK			4.47
			QPSK			5.70
			16-QAM			6.54
			64-QAM			6.67
			256-QAM			6.37
	25 MHz		BPSK			4.54
			QPSK			5.87
			16-QAM			6.36
			64-QAM			6.70
			256-QAM			6.67
	30 MHz		BPSK			4.61
			QPSK			5.87
			16-QAM			6.29
			64-QAM			6.45
			256-QAM			6.59
	40 MHz		BPSK			5.81
			QPSK			6.06
			16-QAM			6.41
			64-QAM			6.67
			256-QAM			6.74
	50 MHz		BPSK			4.44
			QPSK			5.52
			16-QAM			6.39
			64-QAM			6.53
			256-QAM			6.66
	60 MHz		BPSK			4.49
			QPSK			5.67
			16-QAM			6.42
			64-QAM			6.47
			256-QAM			6.61
	70 MHz		BPSK			4.65
			QPSK			5.75
			16-QAM			6.42
			64-QAM			6.39
			256-QAM			6.47
	80 MHz		BPSK			5.05
			QPSK			5.59

			16-QAM			6.45
			64-QAM			6.52
			256-QAM			6.66
	90 MHz		BPSK			4.80
			QPSK			5.65
			16-QAM			6.43
			64-QAM			6.49
			256-QAM			6.70
	100 MHz		BPSK			4.54
			QPSK			5.64
			16-QAM			6.49
			64-QAM			6.48
			256-QAM			6.73

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 1160 ~ 1219.

11.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	8.5995
			QPSK			8.5805
			16-QAM			8.6131
			64-QAM			8.5830
			256-QAM			8.6522
	15 MHz		BPSK			12.903
			QPSK			12.893
			16-QAM			12.890
			64-QAM			12.908
			256-QAM			12.899
	20 MHz		BPSK			17.914
			QPSK			17.856
			16-QAM			17.904
			64-QAM			17.914
			256-QAM			17.911
	25 MHz		BPSK			22.858
			QPSK			22.932
			16-QAM			22.938
			64-QAM			22.943
			256-QAM			22.984
	30 MHz		BPSK			26.912
			QPSK			26.907
			16-QAM			26.896
			64-QAM			26.856
			256-QAM			26.925
	40 MHz		BPSK			35.874
			QPSK			35.822
			16-QAM			35.787
			64-QAM			35.711
			256-QAM			35.789
	50 MHz		BPSK			45.842
			QPSK			45.723
			16-QAM			45.985
			64-QAM			45.752
			256-QAM			45.695
	60 MHz		BPSK			57.842
			QPSK			57.809
			16-QAM			57.698
			64-QAM			57.806
			256-QAM			57.845
	70 MHz		BPSK			64.499
			QPSK			64.573
			16-QAM			64.495
			64-QAM			64.609
			256-QAM			64.520
	80 MHz		BPSK			77.159
			QPSK			77.292

			16-QAM			77.260
			64-QAM			77.256
			256-QAM			77.272
	90 MHz		BPSK			87.085
			QPSK			86.966
			16-QAM			86.893
			64-QAM			87.157
			256-QAM			86.913
	100 MHz		BPSK			96.457
			QPSK			96.671
			16-QAM			96.765
			64-QAM			96.811
			256-QAM			96.693

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 1220 ~ 1279.

11.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77(78)	10	3705.000	9.1725	28.980	-62.365	-33.385	-13.00
		3840.000	4.9253	28.370	-61.422	-33.052	
		3975.000	4.9652	28.370	-61.942	-33.572	
	15	3707.520	7.1984	28.980	-61.776	-32.796	
		3840.000	4.9352	28.370	-62.077	-33.707	
		3972.480	8.8335	28.980	-61.994	-33.014	
	20	3710.010	4.9153	28.370	-61.272	-32.902	
		3840.000	7.5075	28.980	-62.405	-33.425	
		3969.990	9.1625	28.980	-62.314	-33.334	
	25	3712.500	9.6112	28.980	-62.296	-33.316	
		3840.000	4.9153	28.370	-62.632	-34.262	
		3967.500	9.8205	28.980	-61.866	-32.886	
	30	3715.020	4.8954	28.370	-60.264	-31.894	
		3840.000	4.9253	28.370	-62.645	-34.275	
		3964.980	7.1685	28.980	-62.361	-33.381	
	40	3720.000	7.1386	28.980	-61.978	-32.998	
		3840.000	7.4477	28.980	-62.403	-33.423	
		3960.000	8.0459	28.980	-62.344	-33.364	
	50	3725.010	4.9652	28.370	-61.437	-33.067	
		3840.000	5.6830	28.980	-62.193	-33.213	
		3954.990	7.0888	28.980	-62.546	-33.566	
	60	3730.020	5.6631	28.980	-62.946	-33.966	
		3840.000	4.9452	28.370	-61.056	-32.686	
		3949.980	4.5364	28.370	-62.800	-34.430	
	70	3735.000	8.6441	28.980	-61.806	-32.826	
		3840.000	7.7867	28.980	-62.561	-33.581	
		3945.000	5.9721	28.980	-62.776	-33.796	
	80	3740.010	6.0419	28.980	-62.317	-33.337	
		3840.000	6.0220	28.980	-61.946	-32.966	
		3939.990	6.0619	28.980	-62.468	-33.488	
	90	3745.020	7.4577	28.980	-62.243	-33.263	
		3840.000	4.9253	28.370	-62.165	-33.795	
		3934.980	6.4108	28.980	-62.490	-33.510	
	100	3750.000	4.9851	28.370	-61.292	-32.922	
		3840.000	7.2283	28.980	-61.919	-32.939	
		3930.000	4.9652	28.370	-61.892	-33.522	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 1280 ~ 1351.
2. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
3. Result(dBm) = Reading + Factor

Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.670
1 – 5	28.370
5 – 10	28.980
10 – 15	29.520
15 – 20	29.890
Above 20	30.530

11.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 1352 ~ 1495.
2. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.990

11.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3705.000	100 %	+20(Ref)	3704 999 988	0.0	0.000 000	0.000
	100 %	-30	3704 999 968	-19.7	-0.000 001	-0.005
	100 %	-20	3704 999 969	-19.2	-0.000 001	-0.005
	100 %	-10	3704 999 976	-12.0	0.000 000	-0.003
	100 %	0	3704 999 971	-17.2	0.000 000	-0.005
	100 %	+10	3704 999 972	-15.8	0.000 000	-0.004
	100 %	+30	3704 999 969	-19.0	-0.000 001	-0.005
	100 %	+40	3704 999 977	-11.5	0.000 000	-0.003
	100 %	+50	3704 999 970	-18.1	0.000 000	-0.005
	Lowest voltage	+20	3704 999 973	-15.1	0.000 000	-0.004
3975.000	100 %	+20(Ref)	3974 999 993	0.0	0.000 000	0.000
	100 %	-30	3974 999 987	-5.7	0.000 000	-0.001
	100 %	-20	3974 999 986	-6.6	0.000 000	-0.002
	100 %	-10	3974 999 980	-12.9	0.000 000	-0.003
	100 %	0	3974 999 980	-12.2	0.000 000	-0.003
	100 %	+10	3974 999 979	-13.3	0.000 000	-0.003
	100 %	+30	3974 999 978	-14.3	0.000 000	-0.004
	100 %	+40	3974 999 979	-13.6	0.000 000	-0.003
	100 %	+50	3974 999 975	-17.4	0.000 000	-0.004
	Lowest voltage	+20	3974 999 979	-13.8	0.000 000	-0.003

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3707.520	100 %	+20(Ref)	3707 519 986	0.0	0.000 000	0.000
	100 %	-30	3707 519 966	-20.2	-0.000 001	-0.005
	100 %	-20	3707 519 970	-15.9	0.000 000	-0.004
	100 %	-10	3707 519 968	-18.0	0.000 000	-0.005
	100 %	0	3707 519 978	-8.5	0.000 000	-0.002
	100 %	+10	3707 519 974	-12.3	0.000 000	-0.003
	100 %	+30	3707 519 974	-11.9	0.000 000	-0.003
	100 %	+40	3707 519 970	-15.8	0.000 000	-0.004
	100 %	+50	3707 519 973	-13.4	0.000 000	-0.004
	Lowest voltage	+20	3707 519 968	-17.6	0.000 000	-0.005
3972.480	100 %	+20(Ref)	3972 479 991	0.0	0.000 000	0.000
	100 %	-30	3972 479 980	-11.5	0.000 000	-0.003
	100 %	-20	3972 479 982	-9.8	0.000 000	-0.002
	100 %	-10	3972 479 979	-12.6	0.000 000	-0.003
	100 %	0	3972 479 979	-12.1	0.000 000	-0.003
	100 %	+10	3972 479 983	-8.9	0.000 000	-0.002
	100 %	+30	3972 479 981	-10.1	0.000 000	-0.003
	100 %	+40	3972 479 983	-8.1	0.000 000	-0.002
	100 %	+50	3972 479 982	-9.2	0.000 000	-0.002
	Lowest voltage	+20	3972 479 984	-7.9	0.000 000	-0.002

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Lowest voltage: 3.700 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3710.010	100 %	+20(Ref)	3710 009 980	0.0	0.000 000	0.000
	100 %	-30	3710 009 963	-17.2	0.000 000	-0.005
	100 %	-20	3710 009 966	-13.4	0.000 000	-0.004
	100 %	-10	3710 009 963	-16.8	0.000 000	-0.005
	100 %	0	3710 009 957	-22.8	-0.000 001	-0.006
	100 %	+10	3710 009 960	-19.9	-0.000 001	-0.005
	100 %	+30	3710 009 961	-18.9	-0.000 001	-0.005
	100 %	+40	3710 009 955	-24.4	-0.000 001	-0.007
	100 %	+50	3710 009 960	-20.2	-0.000 001	-0.005
	Lowest voltage	+20	3710 009 958	-21.8	-0.000 001	-0.006
3969.990	100 %	+20(Ref)	3969 989 986	0.0	0.000 000	0.000
	100 %	-30	3969 989 976	-9.9	0.000 000	-0.002
	100 %	-20	3969 989 977	-8.8	0.000 000	-0.002
	100 %	-10	3969 989 978	-8.0	0.000 000	-0.002
	100 %	0	3969 989 974	-12.1	0.000 000	-0.003
	100 %	+10	3969 989 972	-13.8	0.000 000	-0.003
	100 %	+30	3969 989 971	-15.1	0.000 000	-0.004
	100 %	+40	3969 989 979	-6.6	0.000 000	-0.002
	100 %	+50	3969 989 980	-5.7	0.000 000	-0.001
	Lowest voltage	+20	3969 989 978	-7.4	0.000 000	-0.002

- BandWidth: 25 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3712.500	100 %	+20(Ref)	3712 499 985	0.0	0.000 000	0.000
	100 %	-30	3712 499 968	-17.3	0.000 000	-0.005
	100 %	-20	3712 499 966	-18.9	-0.000 001	-0.005
	100 %	-10	3712 499 966	-19.7	-0.000 001	-0.005
	100 %	0	3712 499 964	-21.6	-0.000 001	-0.006
	100 %	+10	3712 499 974	-11.3	0.000 000	-0.003
	100 %	+30	3712 499 972	-12.9	0.000 000	-0.003
	100 %	+40	3712 499 975	-10.6	0.000 000	-0.003
	100 %	+50	3712 499 974	-11.2	0.000 000	-0.003
	Lowest voltage	+20	3712 499 969	-16.6	0.000 000	-0.004
3967.500	100 %	+20(Ref)	3967 499 999	0.0	0.000 000	0.000
	100 %	-30	3967 499 996	-3.1	0.000 000	-0.001
	100 %	-20	3967 499 999	-0.4	0.000 000	0.000
	100 %	-10	3967 499 995	-4.2	0.000 000	-0.001
	100 %	0	3967 499 994	-5.5	0.000 000	-0.001
	100 %	+10	3967 499 997	-1.6	0.000 000	0.000
	100 %	+30	3967 499 990	-8.7	0.000 000	-0.002
	100 %	+40	3967 499 988	-10.7	0.000 000	-0.003
	100 %	+50	3967 500 001	2.4	0.000 000	0.001
	Lowest voltage	+20	3967 499 998	-0.7	0.000 000	0.000

- BandWidth: 30 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3715.020	100 %	+20(Ref)	3715 019 986	0.0	0.000 000	0.000
	100 %	-30	3715 019 969	-16.9	0.000 000	-0.005
	100 %	-20	3715 019 969	-16.8	0.000 000	-0.005
	100 %	-10	3715 019 970	-15.9	0.000 000	-0.004
	100 %	0	3715 019 966	-20.3	-0.000 001	-0.005
	100 %	+10	3715 019 973	-13.1	0.000 000	-0.004
	100 %	+30	3715 019 964	-22.5	-0.000 001	-0.006
	100 %	+40	3715 019 972	-14.2	0.000 000	-0.004
	100 %	+50	3715 019 969	-17.3	0.000 000	-0.005
	Lowest voltage	+20	3715 019 968	-18.2	0.000 000	-0.005
3964.980	100 %	+20(Ref)	3964 979 991	0.0	0.000 000	0.000
	100 %	-30	3964 979 987	-4.2	0.000 000	-0.001
	100 %	-20	3964 979 979	-12.1	0.000 000	-0.003
	100 %	-10	3964 979 983	-8.1	0.000 000	-0.002
	100 %	0	3964 979 984	-6.7	0.000 000	-0.002
	100 %	+10	3964 979 980	-11.1	0.000 000	-0.003
	100 %	+30	3964 979 976	-14.5	0.000 000	-0.004
	100 %	+40	3964 979 984	-7.4	0.000 000	-0.002
	100 %	+50	3964 979 982	-9.0	0.000 000	-0.002
	Lowest voltage	+20	3964 979 987	-3.5	0.000 000	-0.001

- BandWidth: 40 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3720.000	100 %	+20(Ref)	3719 999 982	0.0	0.000 000	0.000
	100 %	-30	3719 999 962	-20.1	-0.000 001	-0.005
	100 %	-20	3719 999 963	-19.3	-0.000 001	-0.005
	100 %	-10	3719 999 961	-21.3	-0.000 001	-0.006
	100 %	0	3719 999 964	-18.4	0.000 000	-0.005
	100 %	+10	3719 999 969	-12.8	0.000 000	-0.003
	100 %	+30	3719 999 964	-18.4	0.000 000	-0.005
	100 %	+40	3719 999 965	-17.0	0.000 000	-0.005
	100 %	+50	3719 999 965	-17.0	0.000 000	-0.005
	Lowest voltage	+20	3719 999 961	-20.9	-0.000 001	-0.006
3960.000	100 %	+20(Ref)	3959 999 994	0.0	0.000 000	0.000
	100 %	-30	3959 999 982	-11.9	0.000 000	-0.003
	100 %	-20	3959 999 985	-9.6	0.000 000	-0.002
	100 %	-10	3959 999 981	-13.6	0.000 000	-0.003
	100 %	0	3959 999 984	-9.9	0.000 000	-0.003
	100 %	+10	3959 999 979	-14.9	0.000 000	-0.004
	100 %	+30	3959 999 988	-6.4	0.000 000	-0.002
	100 %	+40	3959 999 987	-7.7	0.000 000	-0.002
	100 %	+50	3959 999 986	-8.7	0.000 000	-0.002
	Lowest voltage	+20	3959 999 986	-8.8	0.000 000	-0.002

- BandWidth: 50 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3725.010	100 %	+20(Ref)	3725 009 982	0.0	0.000 000	0.000
	100 %	-30	3725 009 964	-17.8	0.000 000	-0.005
	100 %	-20	3725 009 964	-17.6	0.000 000	-0.005
	100 %	-10	3725 009 961	-20.6	-0.000 001	-0.006
	100 %	0	3725 009 962	-19.4	-0.000 001	-0.005
	100 %	+10	3725 009 961	-20.8	-0.000 001	-0.006
	100 %	+30	3725 009 962	-19.9	-0.000 001	-0.005
	100 %	+40	3725 009 964	-17.9	0.000 000	-0.005
	100 %	+50	3725 009 963	-19.2	-0.000 001	-0.005
	Lowest voltage	+20	3725 009 962	-19.3	-0.000 001	-0.005
3954.990	100 %	+20(Ref)	3954 989 989	0.0	0.000 000	0.000
	100 %	-30	3954 989 979	-9.9	0.000 000	-0.003
	100 %	-20	3954 989 979	-9.9	0.000 000	-0.002
	100 %	-10	3954 989 972	-17.1	0.000 000	-0.004
	100 %	0	3954 989 975	-13.9	0.000 000	-0.004
	100 %	+10	3954 989 982	-7.1	0.000 000	-0.002
	100 %	+30	3954 989 975	-13.6	0.000 000	-0.003
	100 %	+40	3954 989 981	-7.6	0.000 000	-0.002
	100 %	+50	3954 989 977	-11.6	0.000 000	-0.003
	Lowest voltage	+20	3954 989 978	-10.6	0.000 000	-0.003

- BandWidth: 60 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3730.020	100 %	+20(Ref)	3730 019 977	0.0	0.000 000	0.000
	100 %	-30	3730 019 961	-15.5	0.000 000	-0.004
	100 %	-20	3730 019 963	-13.8	0.000 000	-0.004
	100 %	-10	3730 019 960	-17.2	0.000 000	-0.005
	100 %	0	3730 019 961	-16.0	0.000 000	-0.004
	100 %	+10	3730 019 959	-17.6	0.000 000	-0.005
	100 %	+30	3730 019 957	-19.8	-0.000 001	-0.005
	100 %	+40	3730 019 958	-18.8	-0.000 001	-0.005
	100 %	+50	3730 019 957	-20.3	-0.000 001	-0.005
	Lowest voltage	+20	3730 019 960	-17.1	0.000 000	-0.005
3949.980	100 %	+20(Ref)	3949 979 986	0.0	0.000 000	0.000
	100 %	-30	3949 979 971	-15.0	0.000 000	-0.004
	100 %	-20	3949 979 972	-13.8	0.000 000	-0.004
	100 %	-10	3949 979 975	-10.7	0.000 000	-0.003
	100 %	0	3949 979 974	-11.3	0.000 000	-0.003
	100 %	+10	3949 979 974	-12.0	0.000 000	-0.003
	100 %	+30	3949 979 976	-10.2	0.000 000	-0.003
	100 %	+40	3949 979 976	-9.4	0.000 000	-0.002
	100 %	+50	3949 979 975	-11.2	0.000 000	-0.003
	Lowest voltage	+20	3949 979 973	-13.2	0.000 000	-0.003

- BandWidth: 70 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3735.000	100 %	+20(Ref)	3734 999 988	0.0	0.000 000	0.000
	100 %	-30	3734 999 973	-14.6	0.000 000	-0.004
	100 %	-20	3734 999 972	-16.0	0.000 000	-0.004
	100 %	-10	3734 999 970	-18.0	0.000 000	-0.005
	100 %	0	3734 999 968	-19.2	-0.000 001	-0.005
	100 %	+10	3734 999 967	-20.6	-0.000 001	-0.006
	100 %	+30	3734 999 970	-17.5	0.000 000	-0.005
	100 %	+40	3734 999 970	-18.1	0.000 000	-0.005
	100 %	+50	3734 999 971	-16.4	0.000 000	-0.004
	Lowest voltage	+20	3734 999 972	-15.8	0.000 000	-0.004
3945.000	100 %	+20(Ref)	3944 999 991	0.0	0.000 000	0.000
	100 %	-30	3944 999 981	-9.5	0.000 000	-0.002
	100 %	-20	3944 999 978	-12.4	0.000 000	-0.003
	100 %	-10	3944 999 982	-8.8	0.000 000	-0.002
	100 %	0	3944 999 975	-15.5	0.000 000	-0.004
	100 %	+10	3944 999 980	-10.8	0.000 000	-0.003
	100 %	+30	3944 999 980	-10.5	0.000 000	-0.003
	100 %	+40	3944 999 980	-10.2	0.000 000	-0.003
	100 %	+50	3944 999 977	-13.5	0.000 000	-0.003
	Lowest voltage	+20	3944 999 981	-9.6	0.000 000	-0.002

- BandWidth: 80 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3740.010	100 %	+20(Ref)	3740 009 998	0.0	0.000 000	0.000
	100 %	-30	3740 009 991	-7.2	0.000 000	-0.002
	100 %	-20	3740 009 993	-5.7	0.000 000	-0.002
	100 %	-10	3740 009 986	-12.3	0.000 000	-0.003
	100 %	0	3740 009 994	-4.3	0.000 000	-0.001
	100 %	+10	3740 009 995	-3.7	0.000 000	-0.001
	100 %	+30	3740 009 999	1.0	0.000 000	0.000
	100 %	+40	3740 009 993	-4.7	0.000 000	-0.001
	100 %	+50	3740 009 995	-2.9	0.000 000	-0.001
	Lowest voltage	+20	3740 009 994	-4.3	0.000 000	-0.001
3939.990	100 %	+20(Ref)	3939 989 992	0.0	0.000 000	0.000
	100 %	-30	3939 989 979	-12.1	0.000 000	-0.003
	100 %	-20	3939 989 984	-8.0	0.000 000	-0.002
	100 %	-10	3939 989 986	-5.8	0.000 000	-0.001
	100 %	0	3939 989 986	-5.8	0.000 000	-0.001
	100 %	+10	3939 989 980	-11.3	0.000 000	-0.003
	100 %	+30	3939 989 980	-11.3	0.000 000	-0.003
	100 %	+40	3939 989 972	-19.1	0.000 000	-0.005
	100 %	+50	3939 989 980	-11.1	0.000 000	-0.003
	Lowest voltage	+20	3939 989 979	-12.7	0.000 000	-0.003

- BandWidth: 90 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3745.020	100 %	+20(Ref)	3745 019 993	0.0	0.000 000	0.000
	100 %	-30	3745 019 980	-12.5	0.000 000	-0.003
	100 %	-20	3745 019 979	-13.8	0.000 000	-0.004
	100 %	-10	3745 019 978	-14.5	0.000 000	-0.004
	100 %	0	3745 019 973	-20.2	-0.000 001	-0.005
	100 %	+10	3745 019 977	-15.6	0.000 000	-0.004
	100 %	+30	3745 019 981	-12.3	0.000 000	-0.003
	100 %	+40	3745 019 978	-15.0	0.000 000	-0.004
	100 %	+50	3745 019 978	-14.3	0.000 000	-0.004
	Lowest voltage	+20	3745 019 982	-11.1	0.000 000	-0.003
3934.980	100 %	+20(Ref)	3934 979 983	0.0	0.000 000	0.000
	100 %	-30	3934 979 968	-14.9	0.000 000	-0.004
	100 %	-20	3934 979 975	-7.5	0.000 000	-0.002
	100 %	-10	3934 979 973	-10.2	0.000 000	-0.003
	100 %	0	3934 979 968	-14.4	0.000 000	-0.004
	100 %	+10	3934 979 972	-10.8	0.000 000	-0.003
	100 %	+30	3934 979 972	-10.8	0.000 000	-0.003
	100 %	+40	3934 979 970	-12.5	0.000 000	-0.003
	100 %	+50	3934 979 966	-16.6	0.000 000	-0.004
	Lowest voltage	+20	3934 979 972	-10.6	0.000 000	-0.003

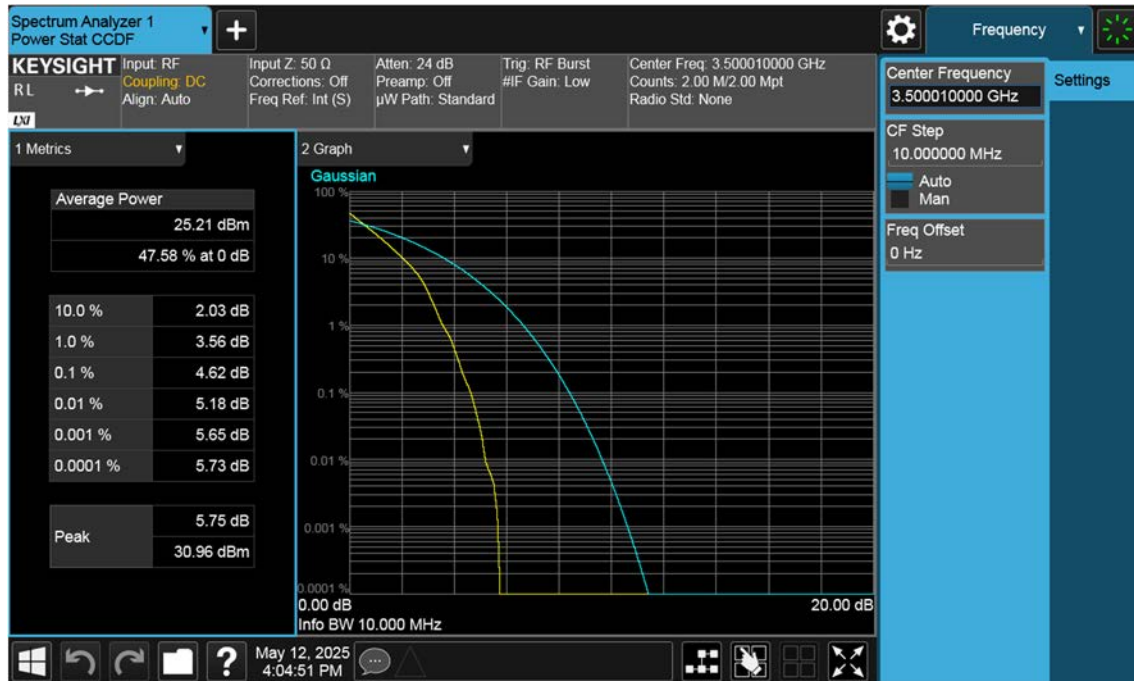
- BandWidth: 100 MHz
- Voltage(100 %): 4.200 VDC
- Lowest voltage: 3.700 VDC
- LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3750.000	100 %	+20(Ref)	3749 999 983	0.0	0.000 000	0.000
	100 %	-30	3749 999 975	-8.3	0.000 000	-0.002
	100 %	-20	3749 999 966	-16.8	0.000 000	-0.004
	100 %	-10	3749 999 970	-13.3	0.000 000	-0.004
	100 %	0	3749 999 970	-13.4	0.000 000	-0.004
	100 %	+10	3749 999 970	-13.4	0.000 000	-0.004
	100 %	+30	3749 999 972	-11.3	0.000 000	-0.003
	100 %	+40	3749 999 970	-12.9	0.000 000	-0.003
	100 %	+50	3749 999 972	-11.1	0.000 000	-0.003
	Lowest voltage	+20	3749 999 972	-11.2	0.000 000	-0.003
3930.000	100 %	+20(Ref)	3929 999 978	0.0	0.000 000	0.000
	100 %	-30	3929 999 960	-17.2	0.000 000	-0.004
	100 %	-20	3929 999 963	-15.0	0.000 000	-0.004
	100 %	-10	3929 999 961	-16.7	0.000 000	-0.004
	100 %	0	3929 999 962	-16.0	0.000 000	-0.004
	100 %	+10	3929 999 957	-21.1	-0.000 001	-0.005
	100 %	+30	3929 999 958	-19.5	0.000 000	-0.005
	100 %	+40	3929 999 960	-17.9	0.000 000	-0.005
	100 %	+50	3929 999 960	-18.1	0.000 000	-0.005
	Lowest voltage	+20	3929 999 965	-12.3	0.000 000	-0.003

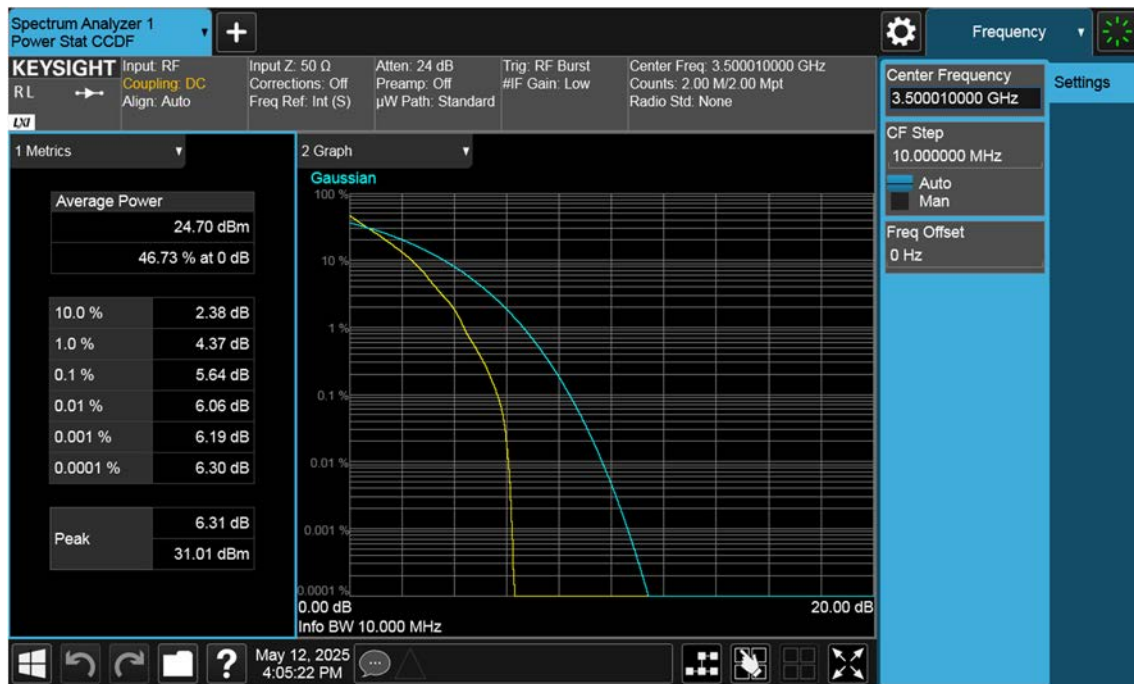
12. TEST PLOTS (MIMO1)

12.1 3450 MHz - 3550 MHz

n77(3450~3550 MHz)_10 M_PAR_Mid_BPSK_FullRB



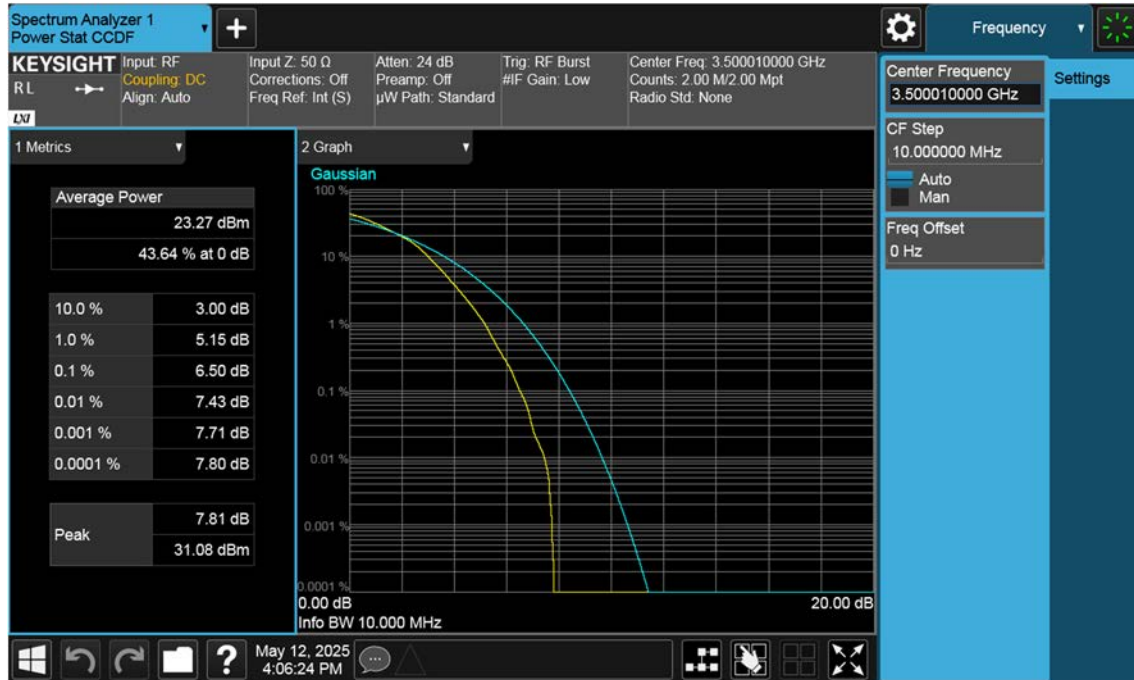
n77(3450~3550 MHz)_10 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_10 M_PAR_Mid_16QAM_FullRB



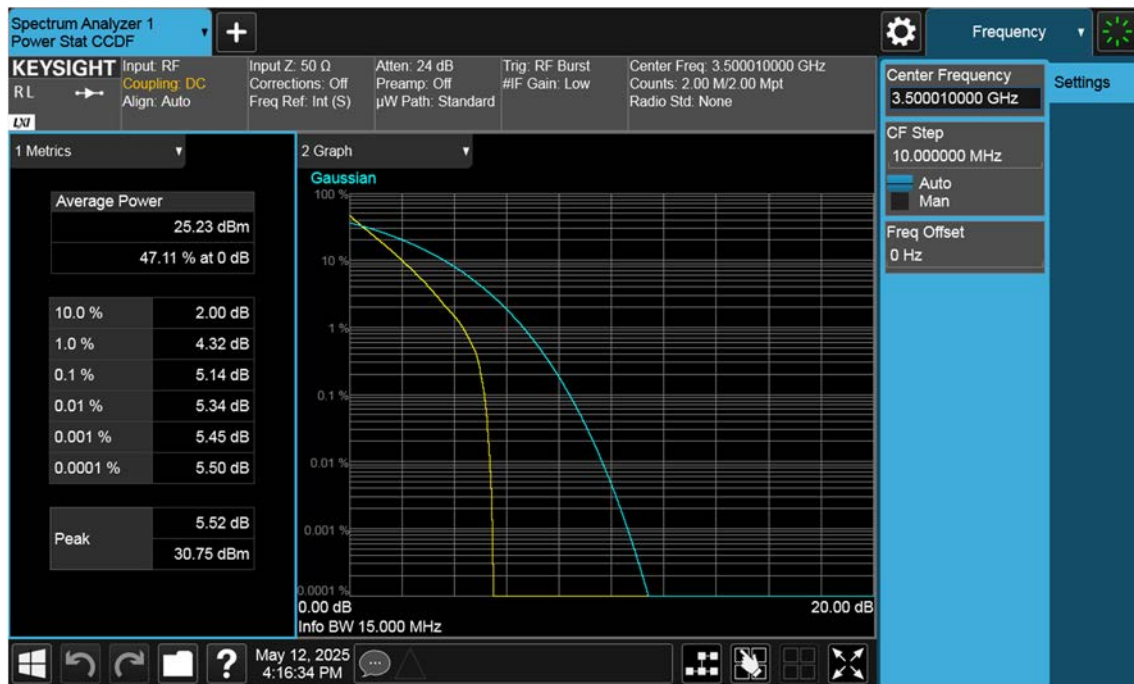
n77(3450~3550 MHz)_10 M_PAR_Mid_64QAM_FullRB



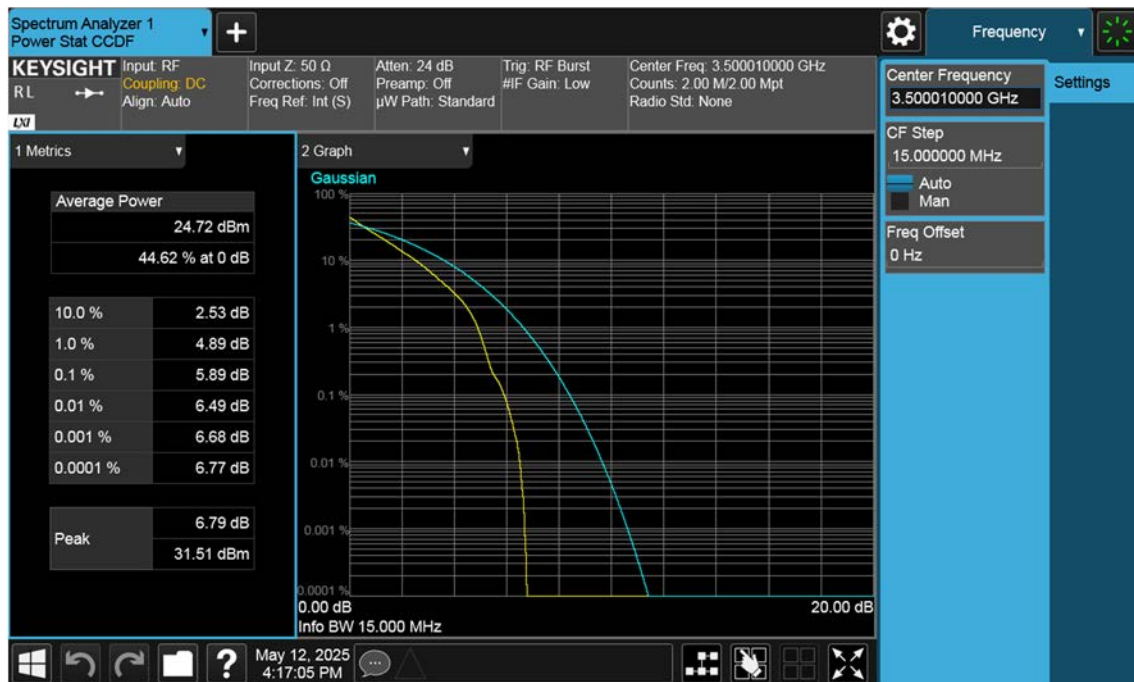
n77(3450~3550 MHz)_10 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_15 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_15 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_15 M_PAR_Mid_16QAM_FullRB



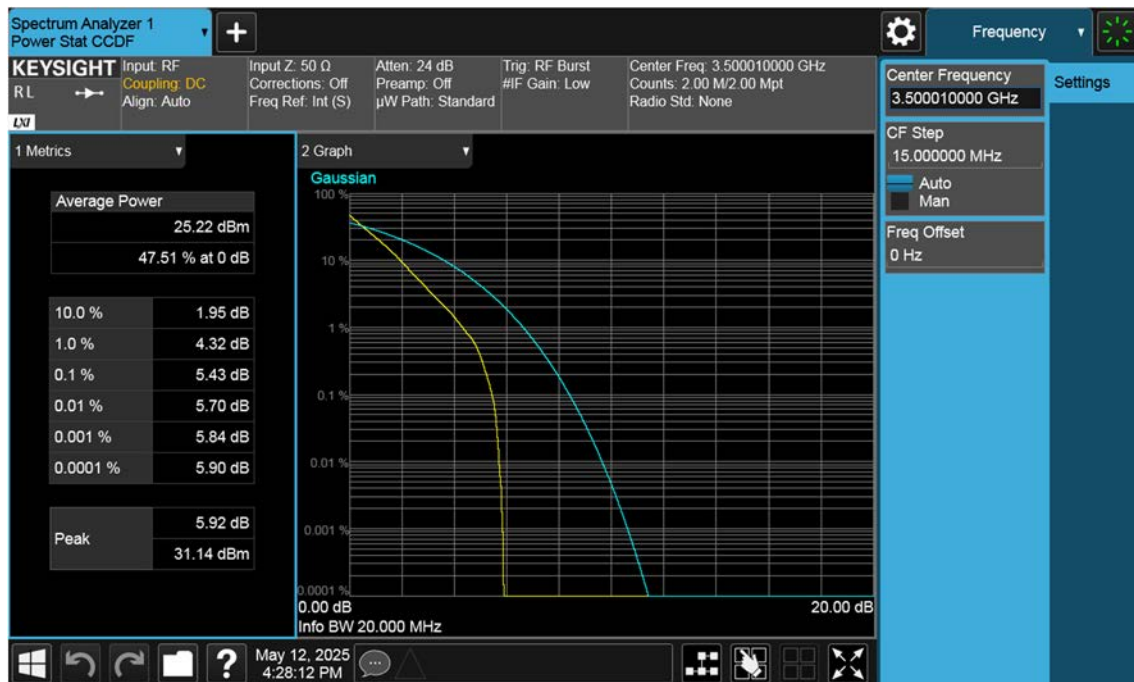
n77(3450~3550 MHz)_15 M_PAR_Mid_64QAM_FullRB



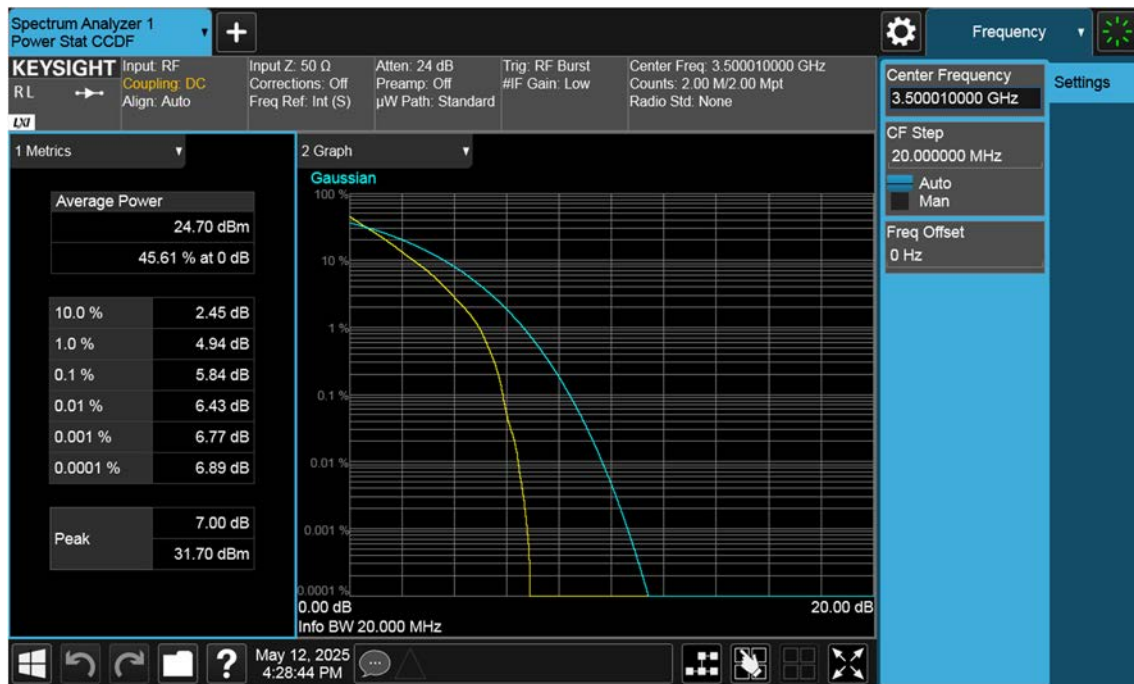
n77(3450~3550 MHz)_15 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_20 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_20 M_PAR_Mid_QPSK_FullRB



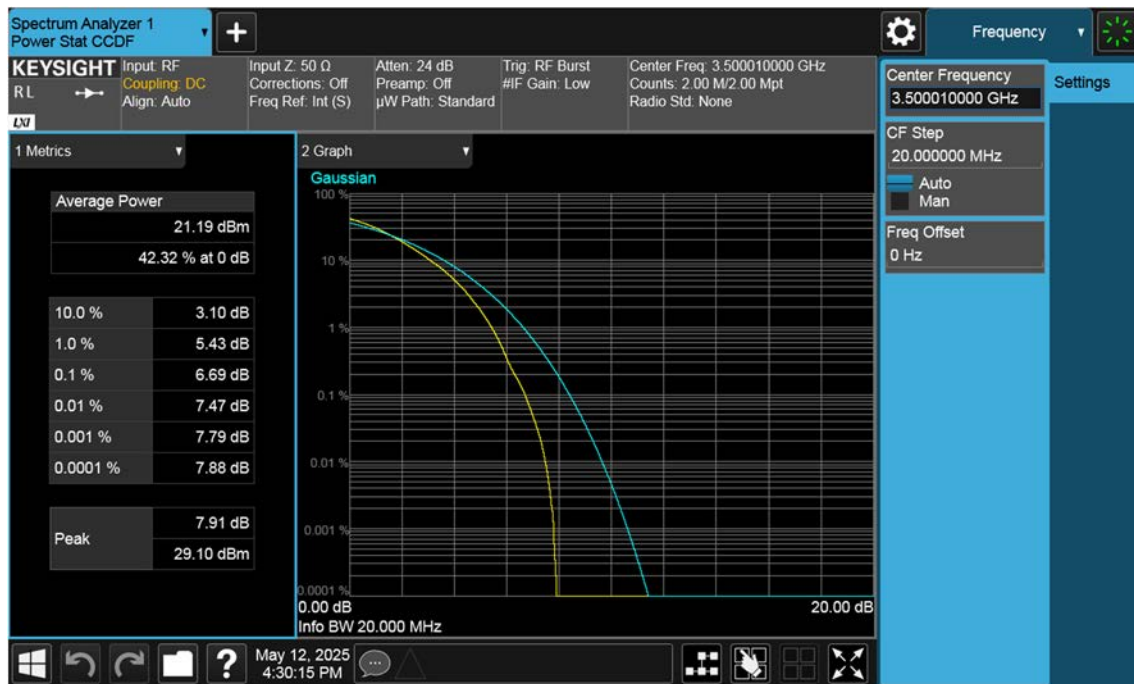
n77(3450~3550 MHz)_20 M_PAR_Mid_16QAM_FullRB



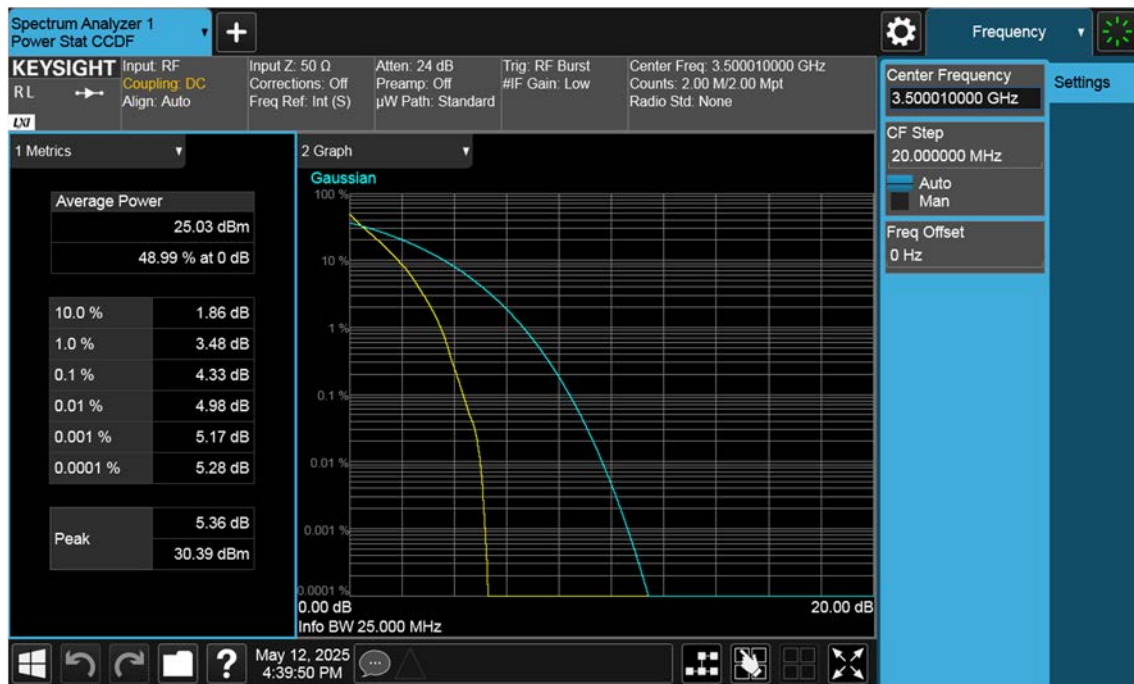
n77(3450~3550 MHz)_20 M_PAR_Mid_64QAM_FullRB



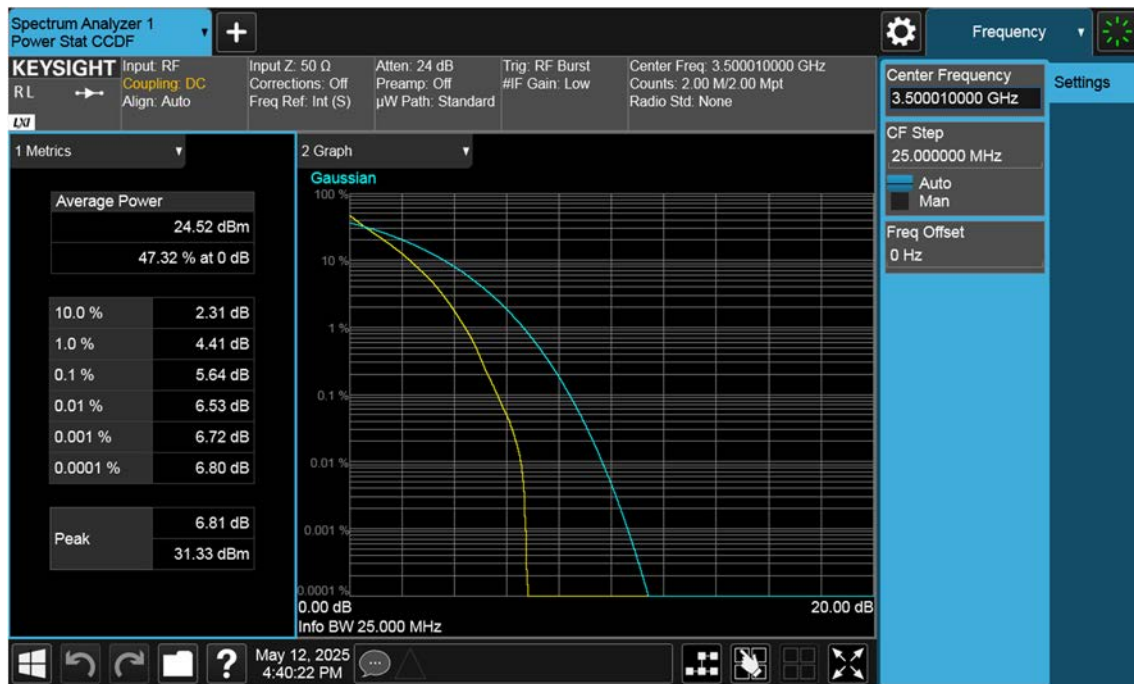
n77(3450~3550 MHz)_20 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_25 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_25 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_25 M_PAR_Mid_16QAM_FullRB



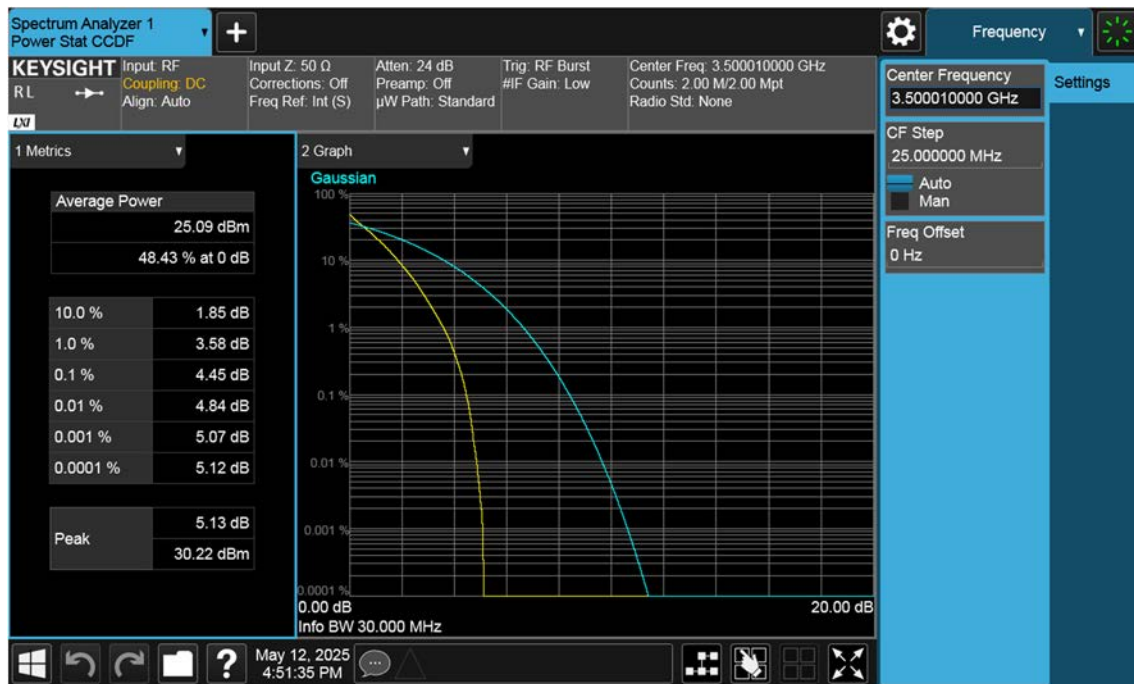
n77(3450~3550 MHz)_25 M_PAR_Mid_64QAM_FullRB



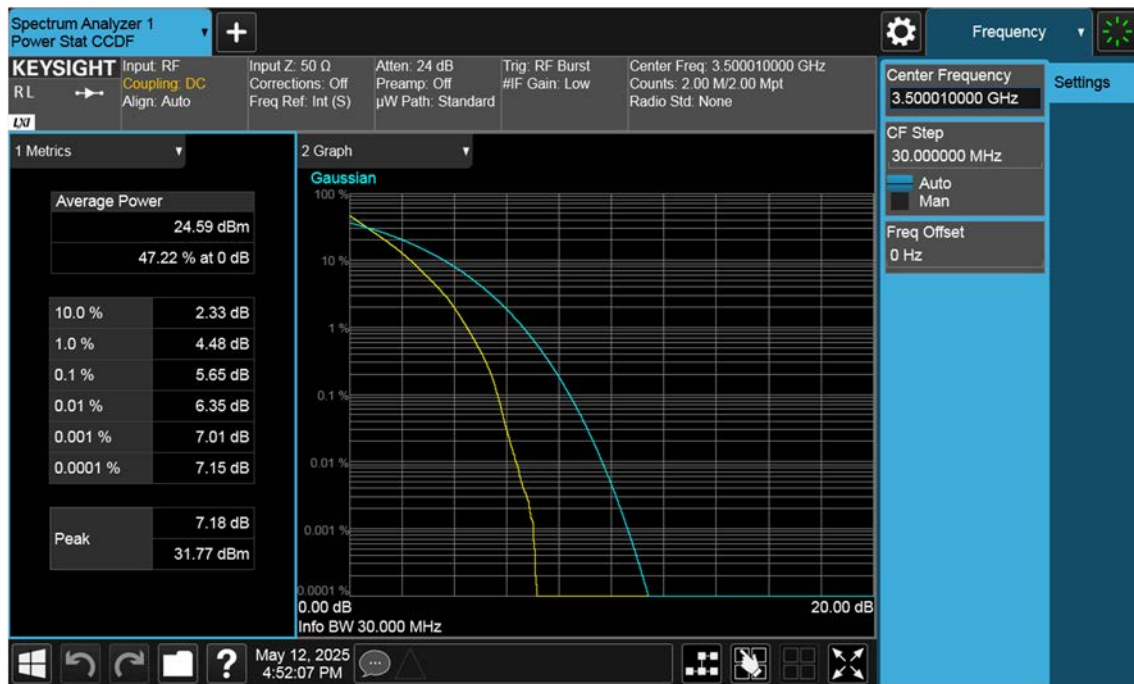
n77(3450~3550 MHz)_25 M_PAR_Mid_256QAM_FullRB



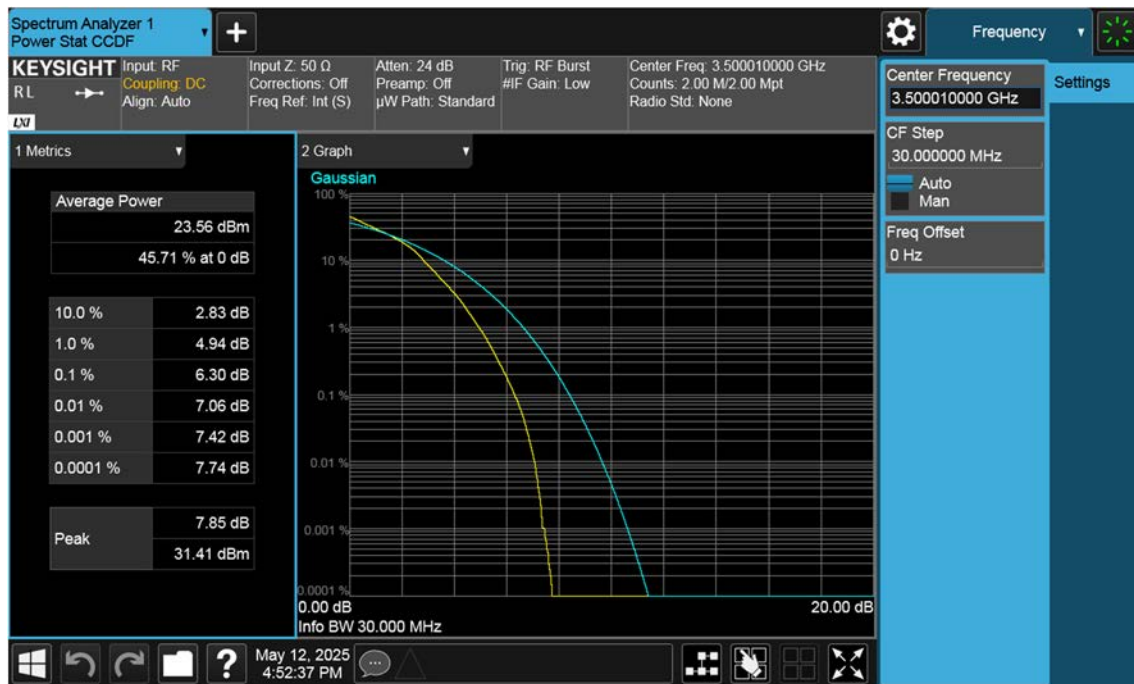
n77(3450~3550 MHz)_30 M_PAR_Mid_BPSK_FullRB



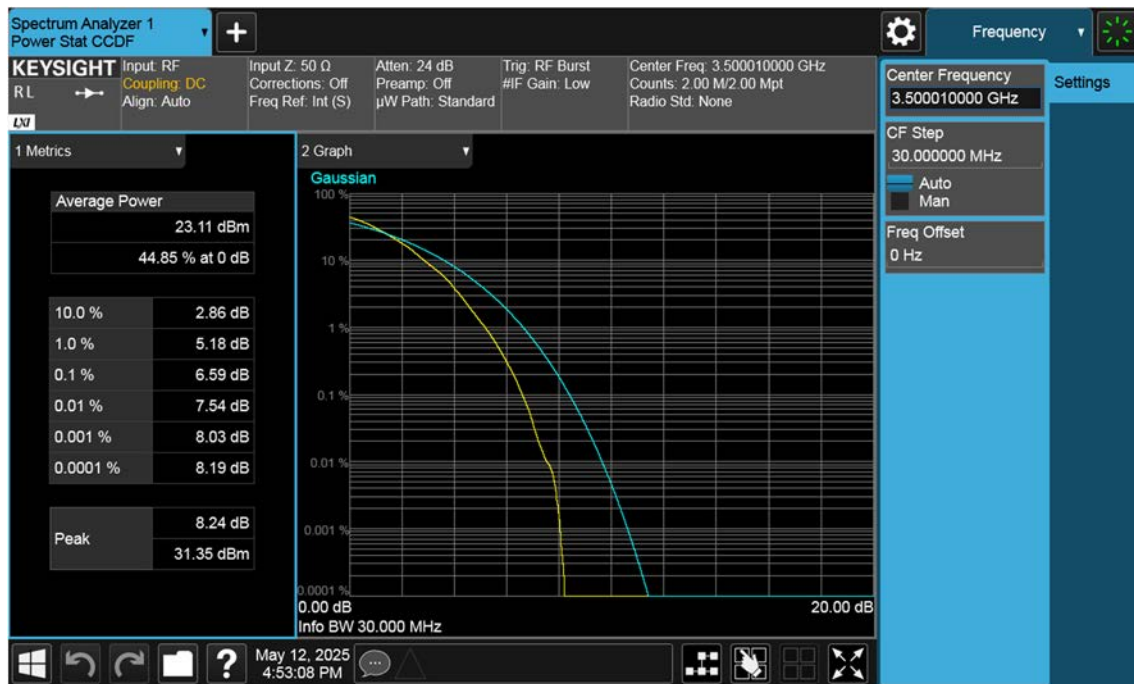
n77(3450~3550 MHz)_30 M_PAR_Mid_QPSK_FullRB



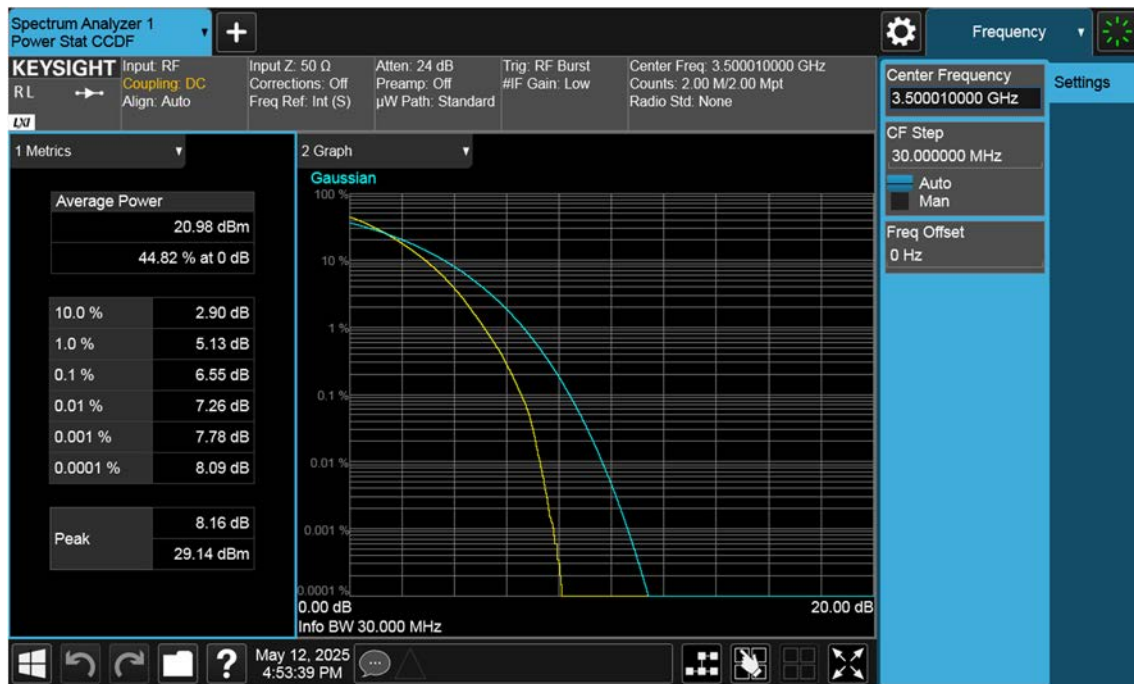
n77(3450~3550 MHz)_30 M_PAR_Mid_16QAM_FullRB



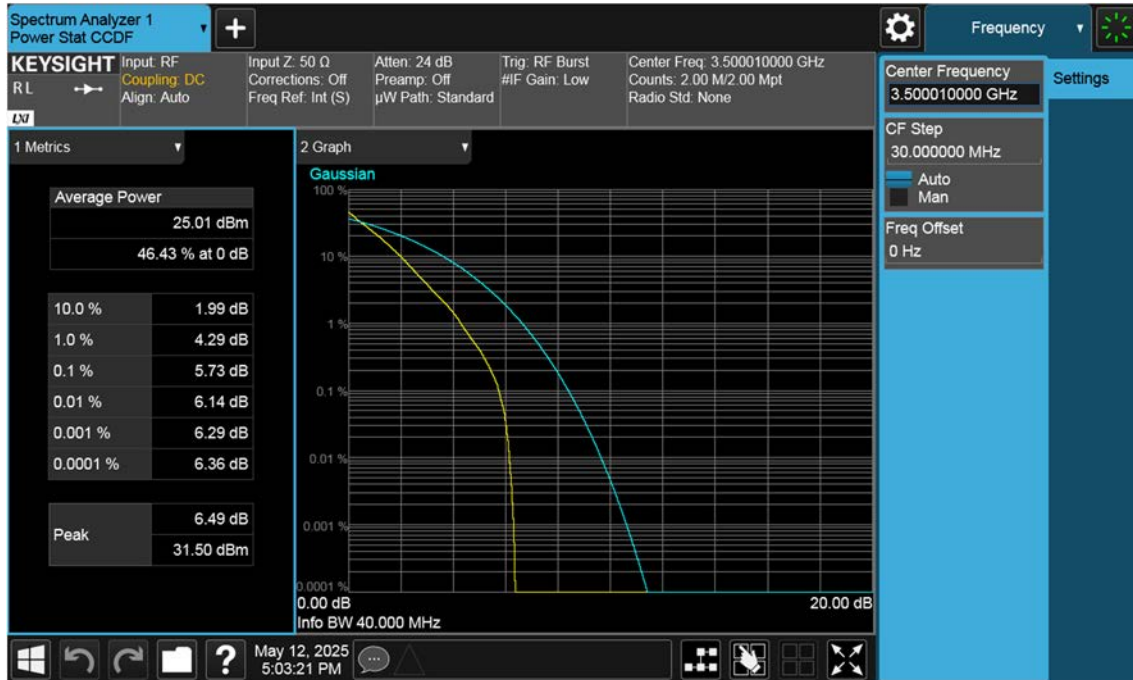
n77(3450~3550 MHz)_30 M_PAR_Mid_64QAM_FullRB



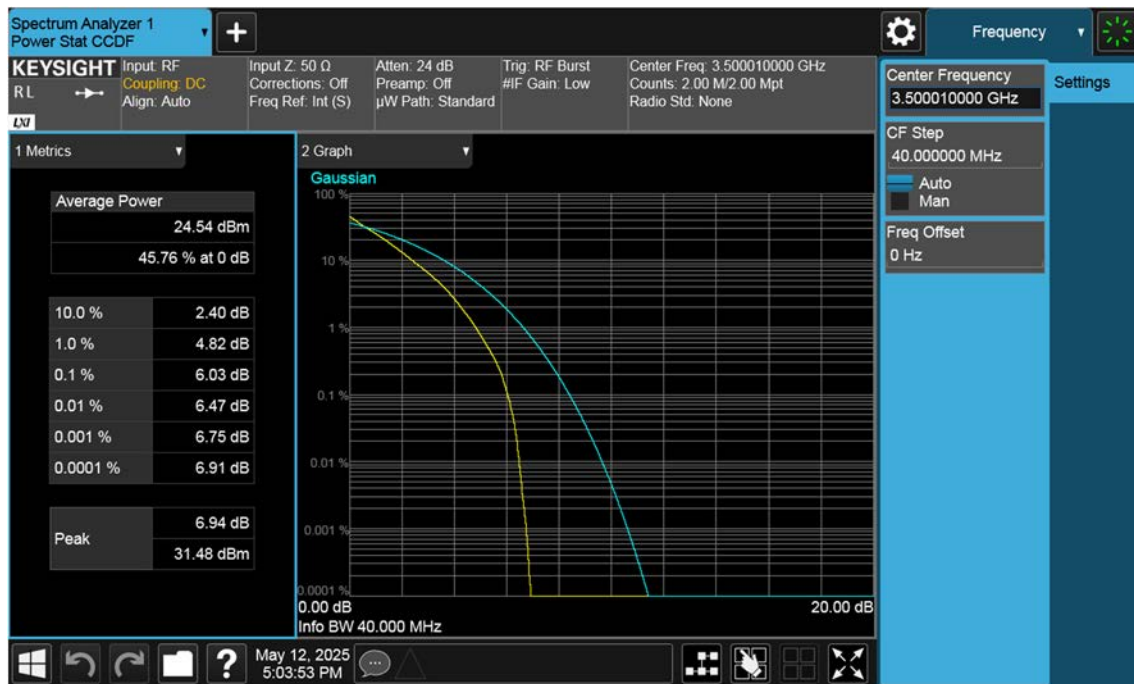
n77(3450~3550 MHz)_30 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_40 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_40 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_40 M_PAR_Mid_16QAM_FullRB



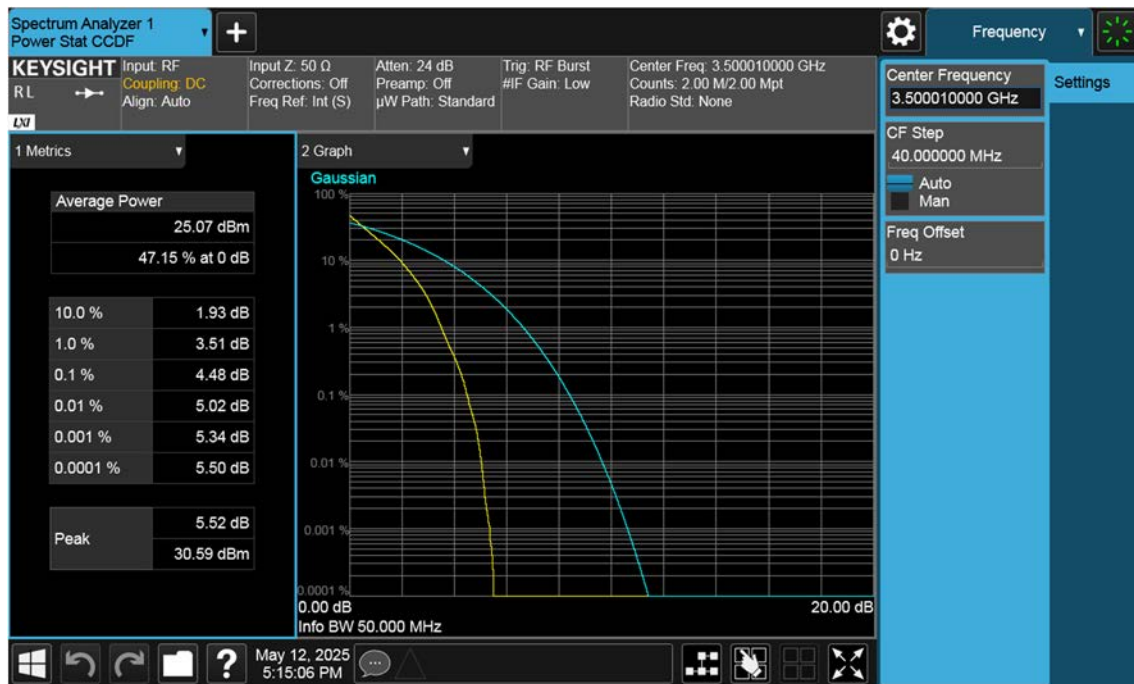
n77(3450~3550 MHz)_40 M_PAR_Mid_64QAM_FullRB



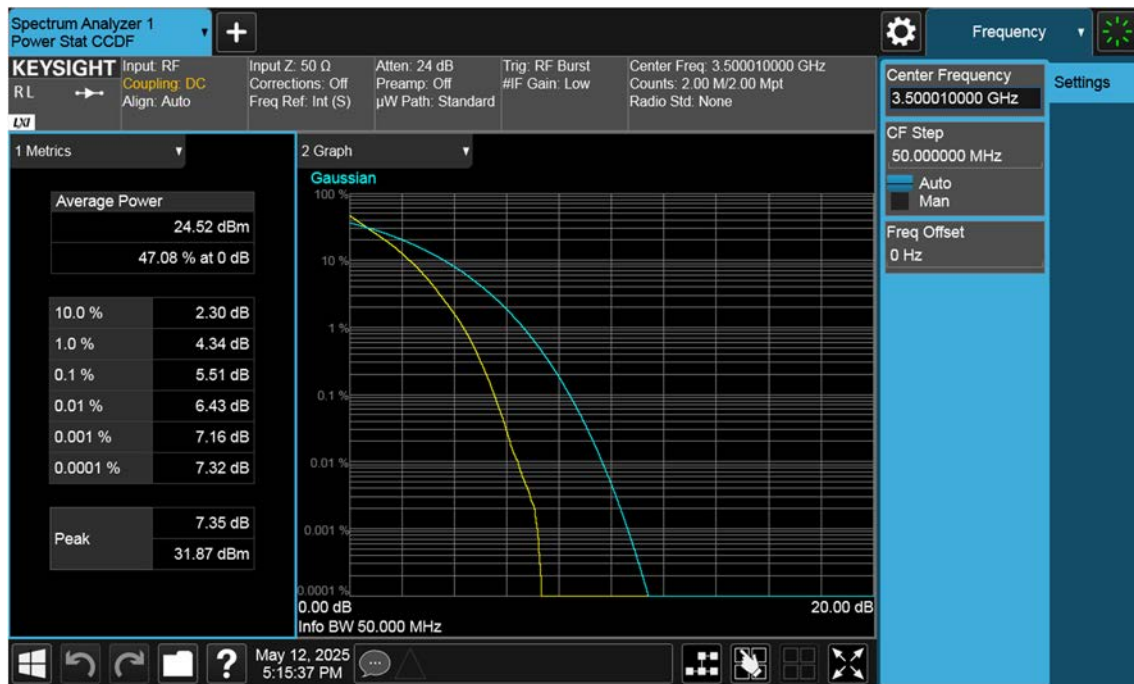
n77(3450~3550 MHz)_40 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_16QAM_FullRB



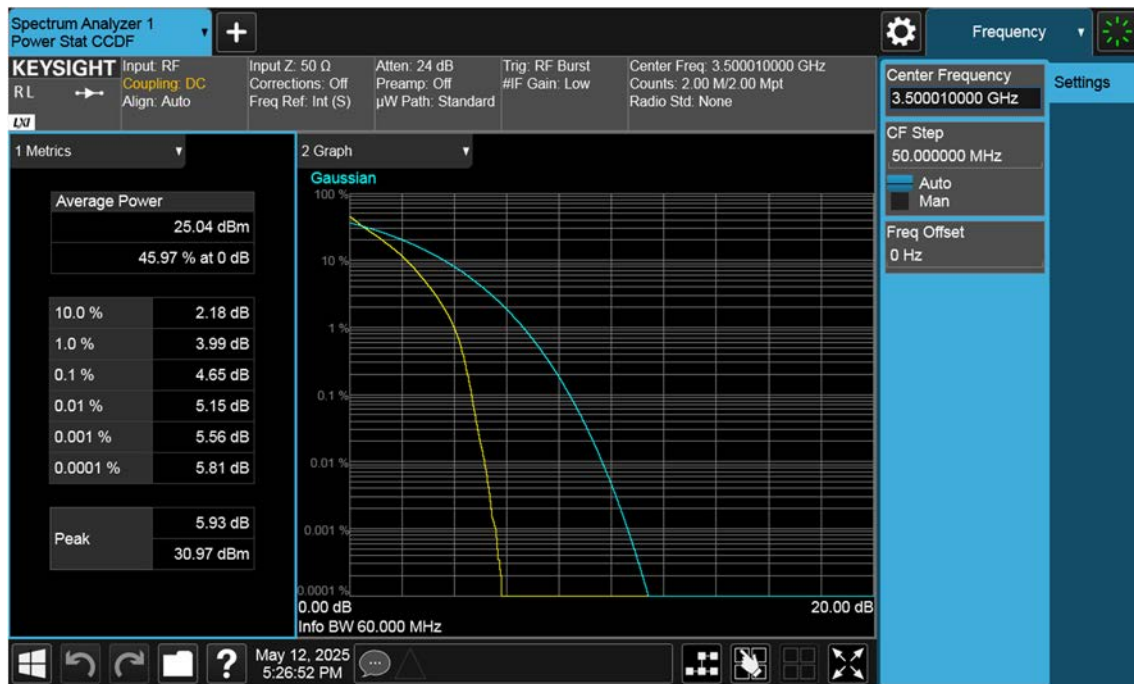
n77(3450~3550 MHz)_50 M_PAR_Mid_64QAM_FullRB



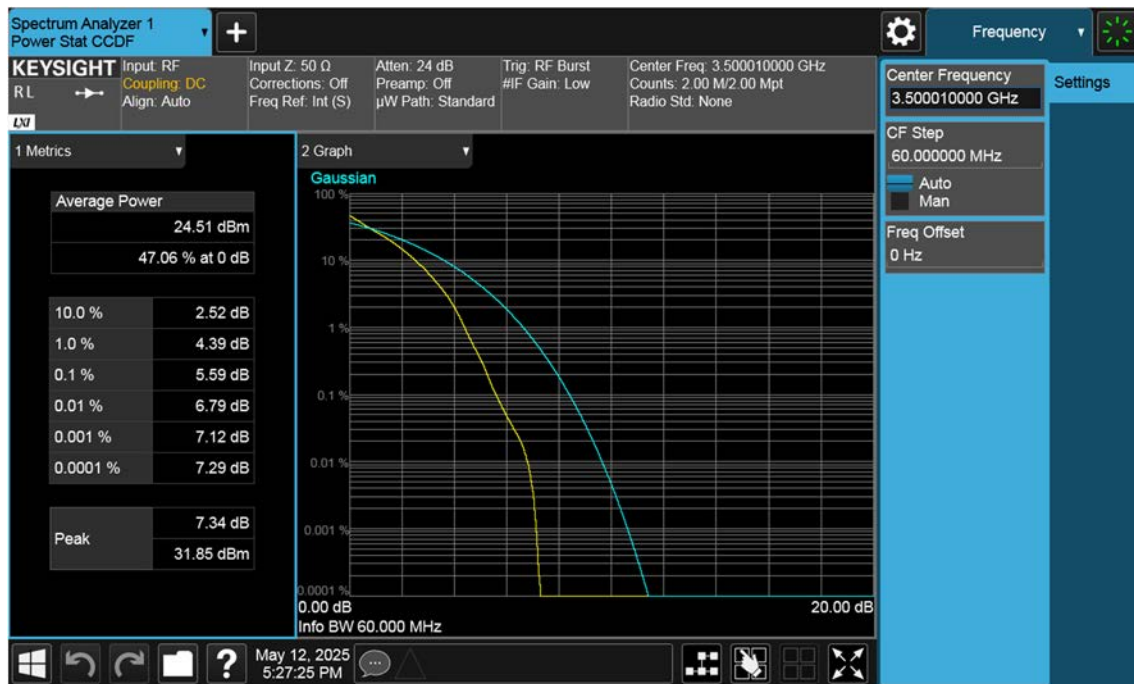
n77(3450~3550 MHz)_50 M_PAR_Mid_256QAM_FullRB



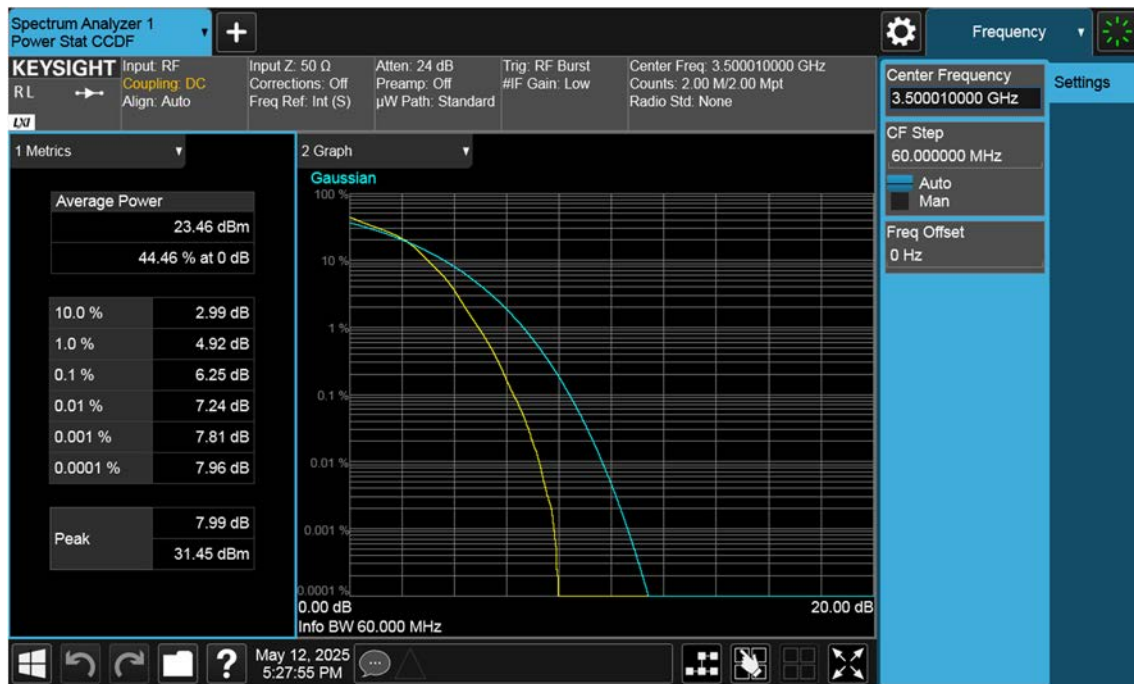
n77(3450~3550 MHz)_60 M_PAR_Mid_BPSK_FullRB



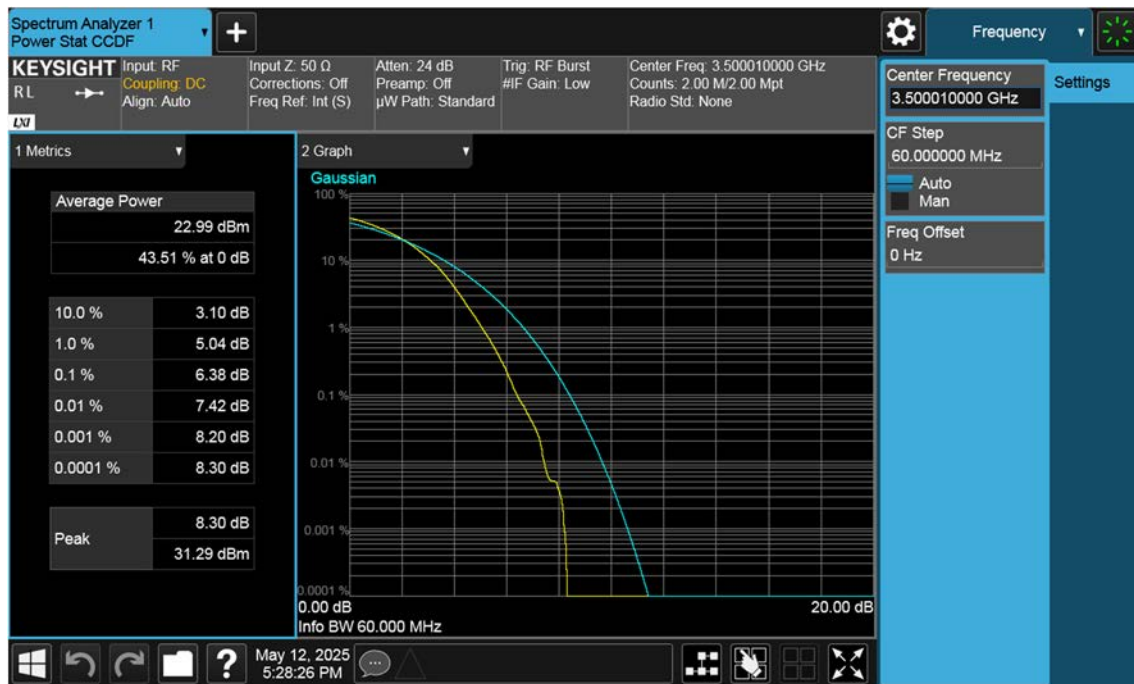
n77(3450~3550 MHz)_60 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_60 M_PAR_Mid_16QAM_FullRB



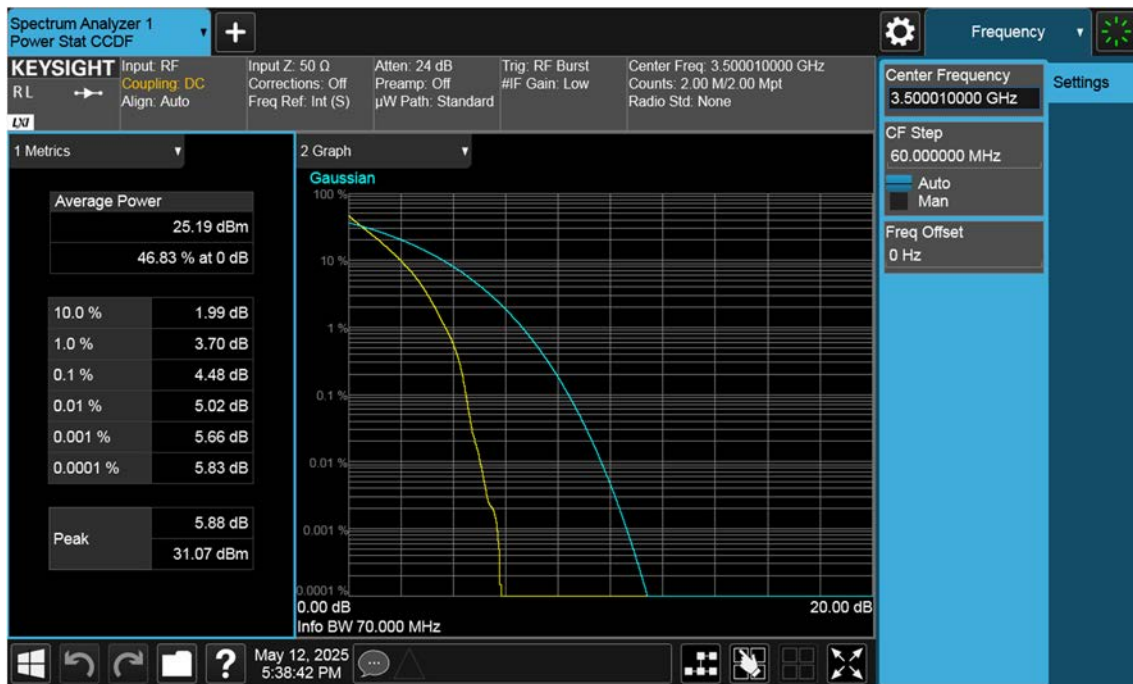
n77(3450~3550 MHz)_60 M_PAR_Mid_64QAM_FullRB



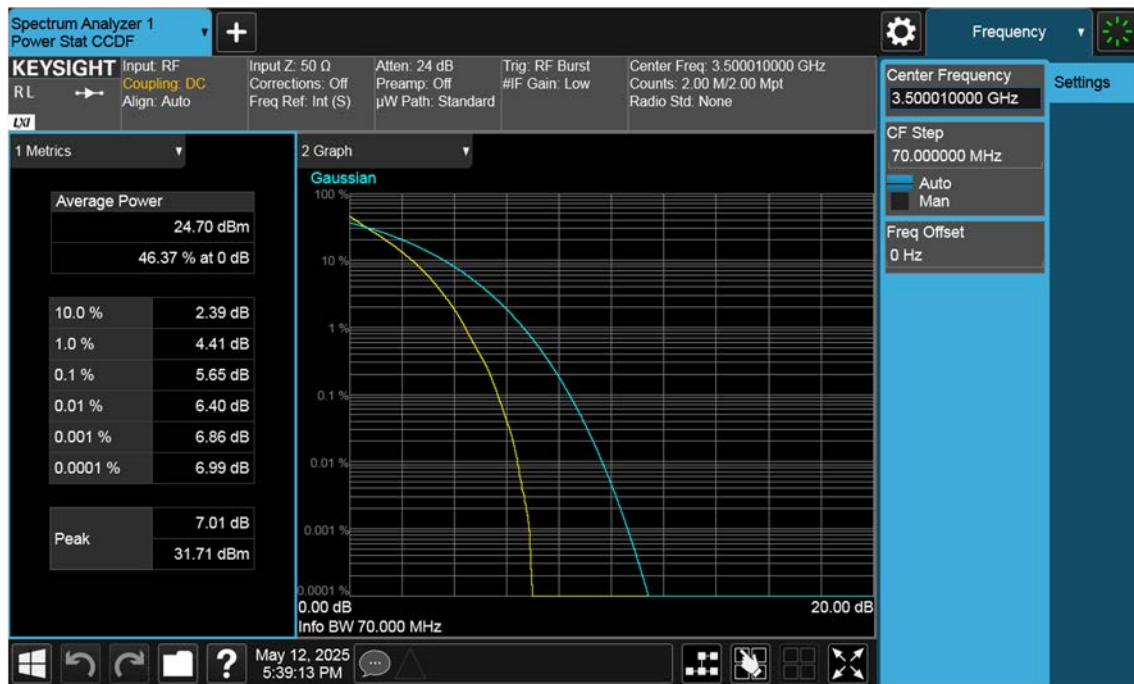
n77(3450~3550 MHz)_60 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_16QAM_FullRB



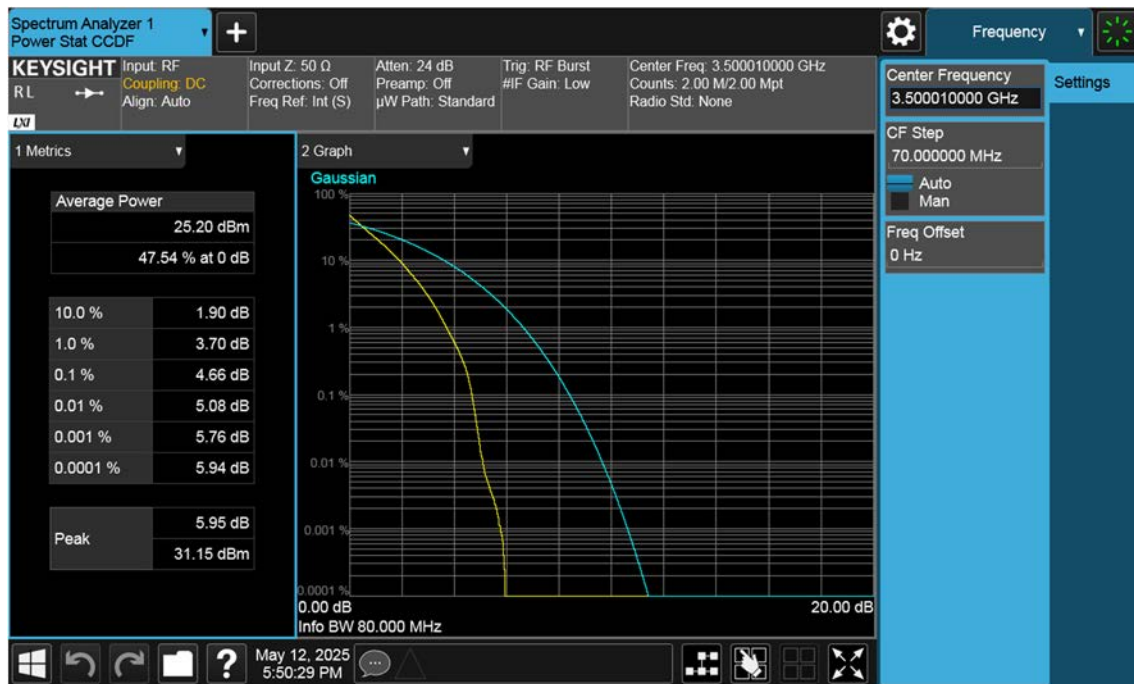
n77(3450~3550 MHz)_70 M_PAR_Mid_64QAM_FullRB



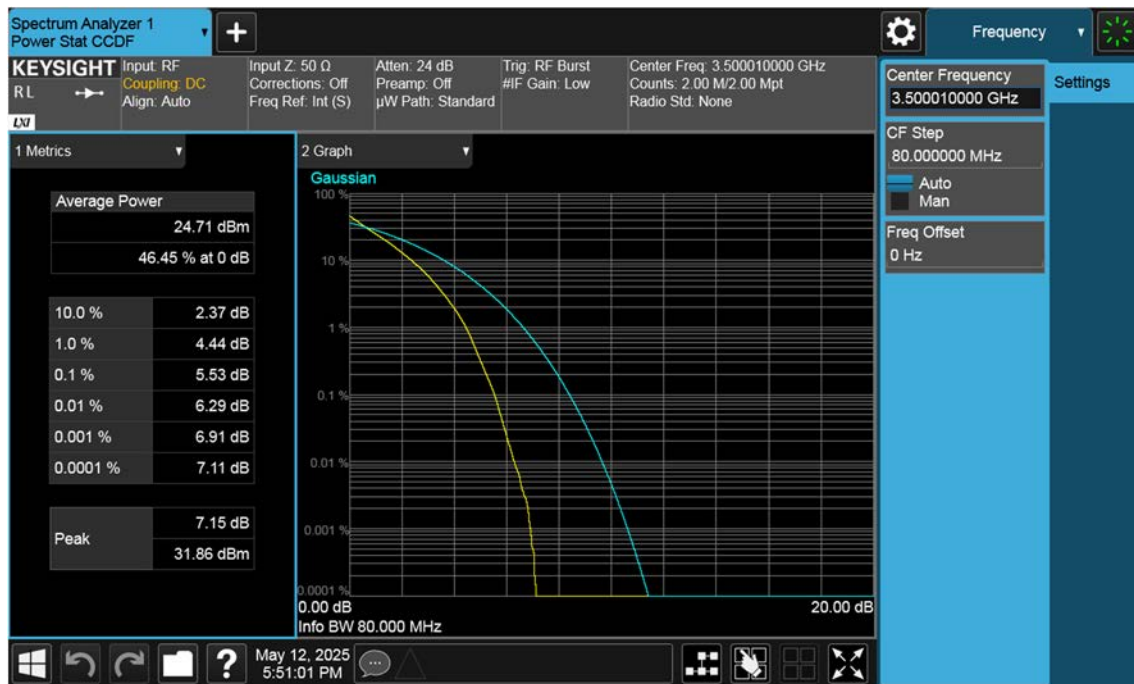
n77(3450~3550 MHz)_70 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_80 M_PAR_Mid_BPSK_FullRB



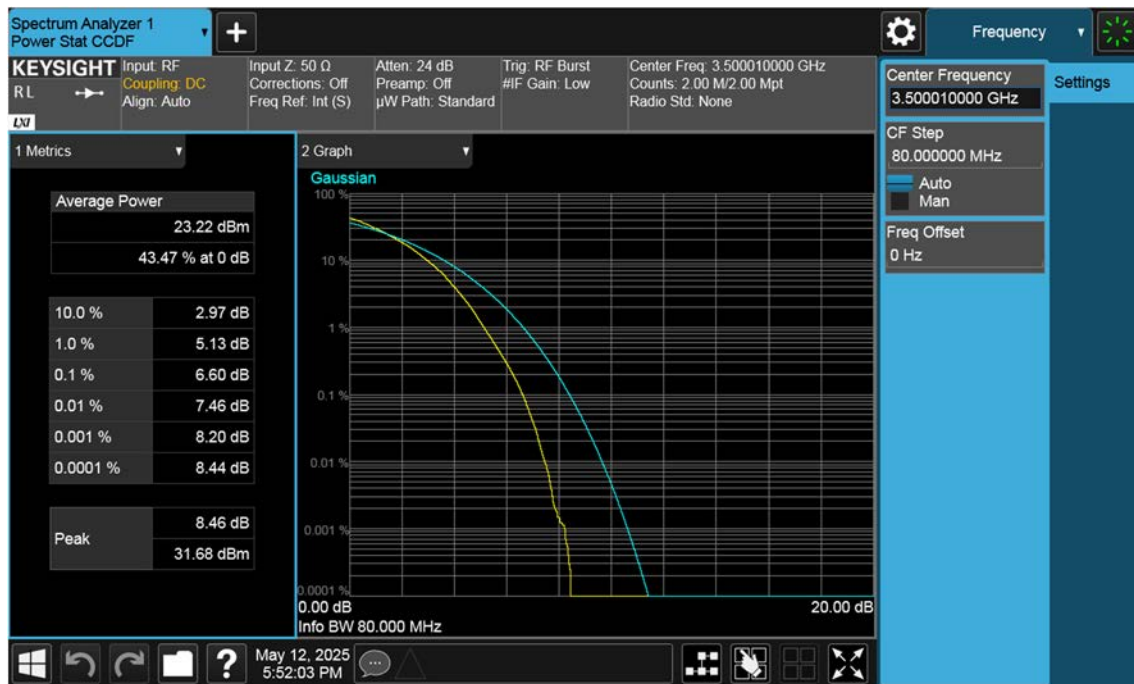
n77(3450~3550 MHz)_80 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_80 M_PAR_Mid_16QAM_FullRB



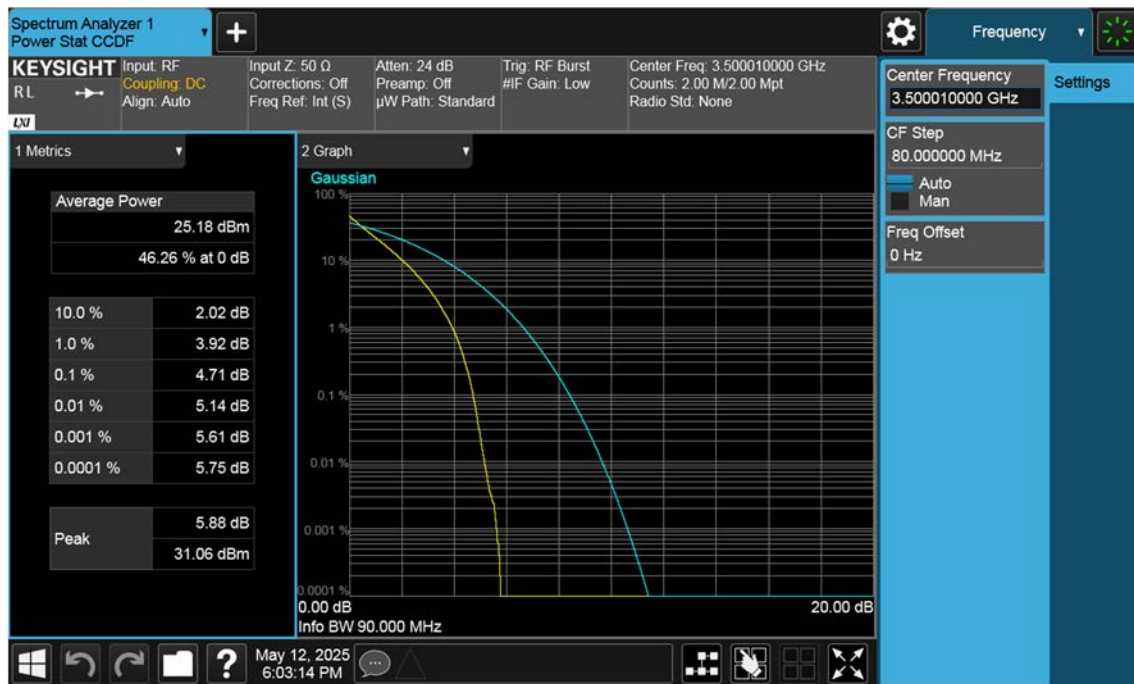
n77(3450~3550 MHz)_80 M_PAR_Mid_64QAM_FullRB



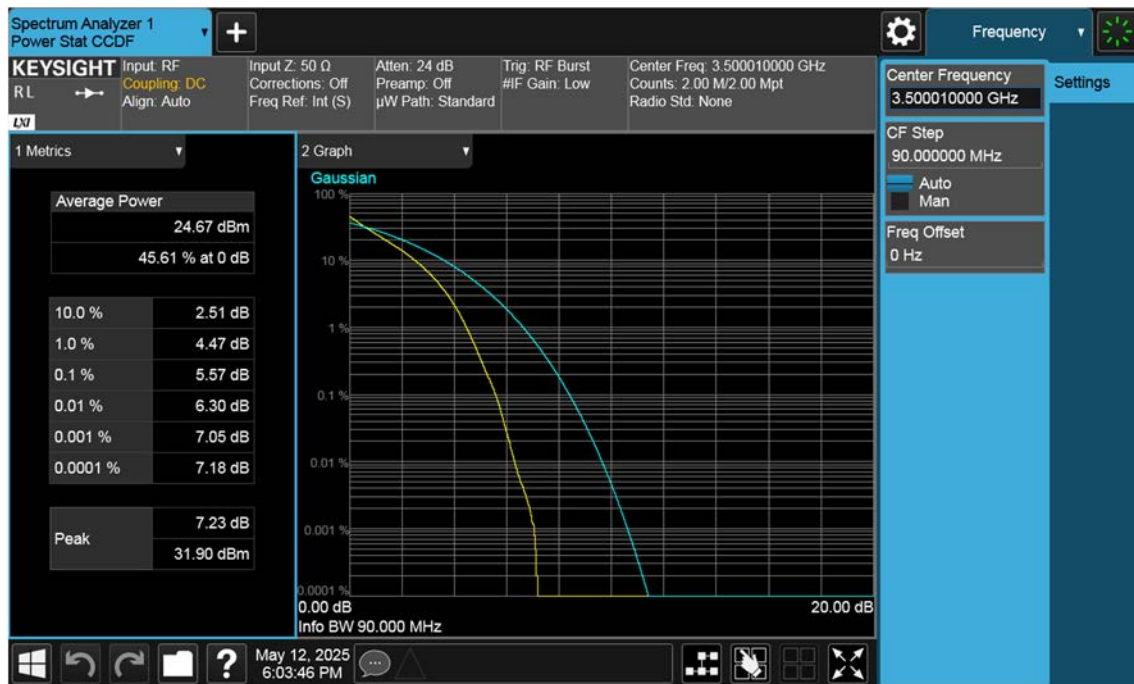
n77(3450~3550 MHz)_80 M_PAR_Mid_256QAM_FullRB



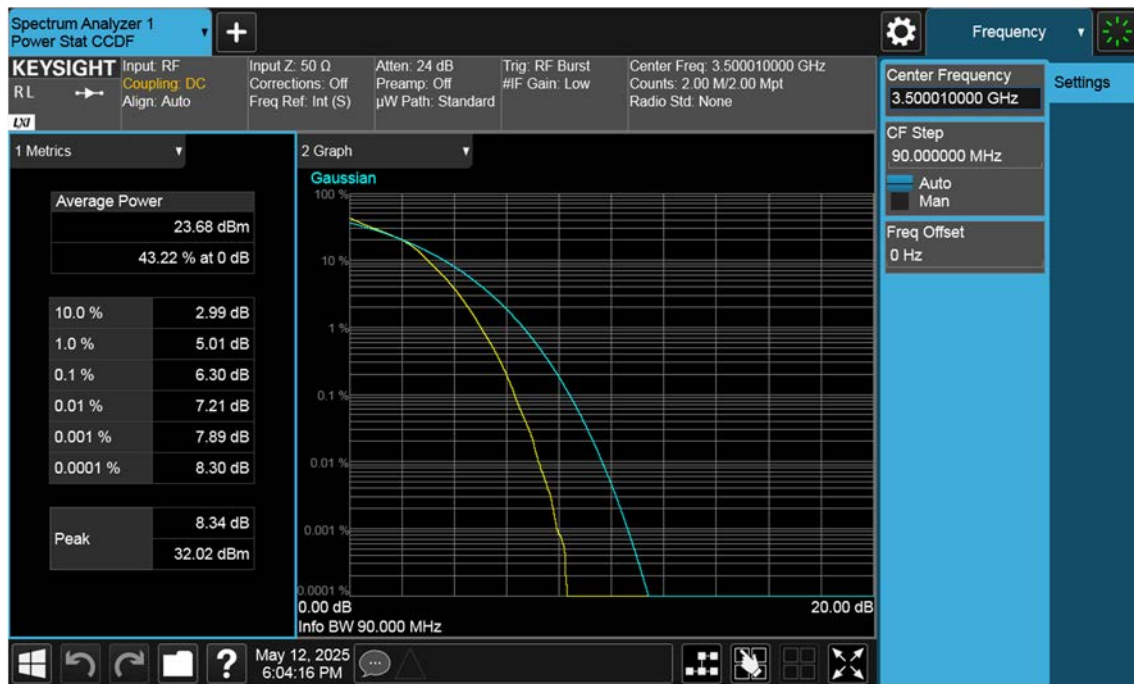
n77(3450~3550 MHz)_90 M_PAR_Mid_BPSK_FullRB



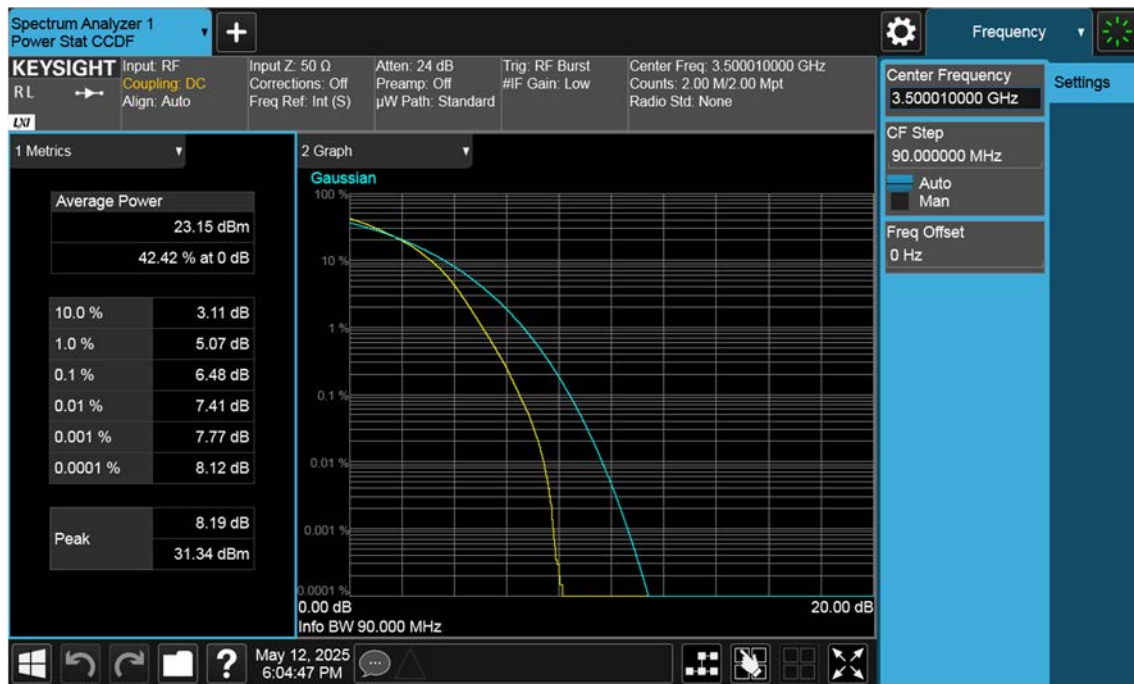
n77(3450~3550 MHz)_90 M_PAR_Mid_QPSK_FullRB



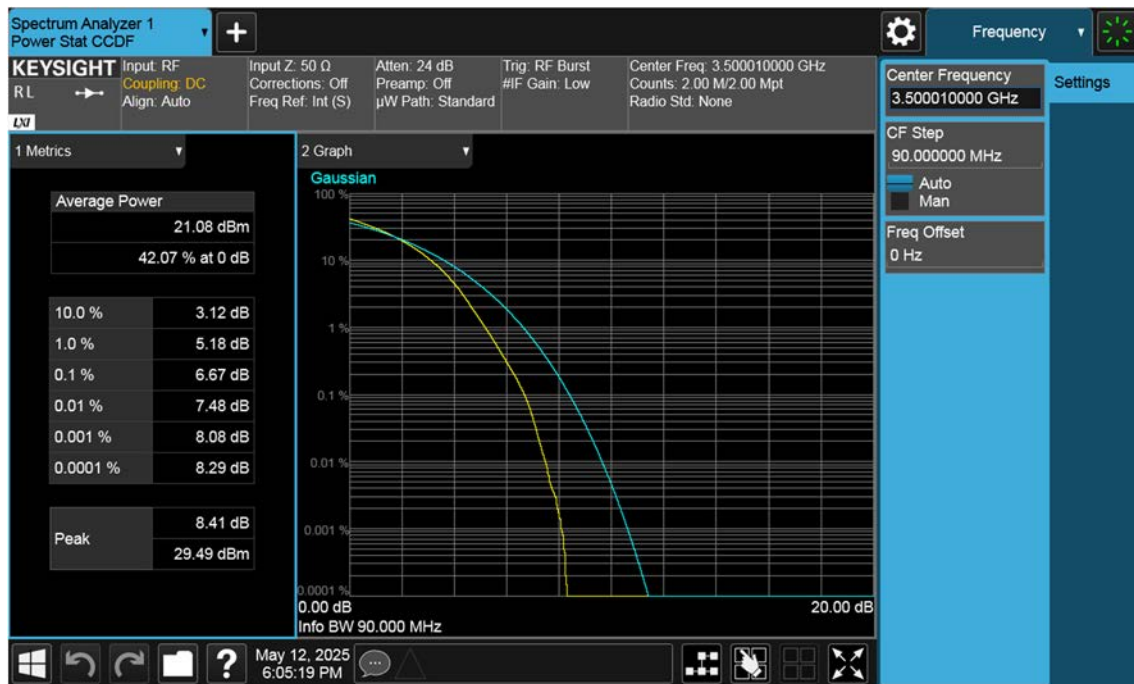
n77(3450~3550 MHz)_90 M_PAR_Mid_16QAM_FullRB



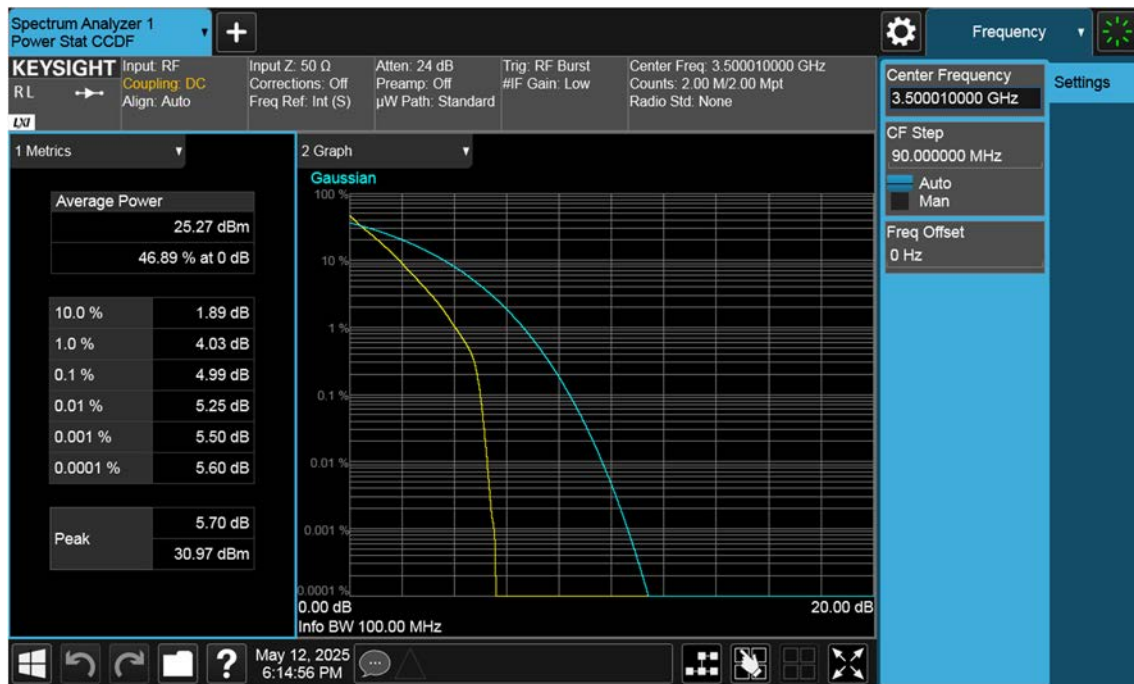
n77(3450~3550 MHz)_90 M_PAR_Mid_64QAM_FullRB



n77(3450~3550 MHz)_90 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_100 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_100 M_PAR_Mid_QPSK_FullRB

