

RF Test Report

Applicant : Askey Computer Corp
Product Name : 5G Small Cell
Trade Name : ASKEY
Model Number : NR xCell 46116A1F
Applicable Standard : FCC 47 CFR PART 27
ANSI C63.26 2015
Received Date : Apr. 09, 2025
Test Period : Apr. 22, 2025 ~ Jun. 20, 2025
Issued Date : Jul. 15, 2025

Issued by

Eurofins E&E Wireless Taiwan Co., Ltd.
No. 140-1, Changan Street, Bade District,
Taoyuan City, Taiwan (R.O.C.)
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Taiwan Accreditation Foundation accreditation number: 1330
Frequency Range: 9 kHz to 40 GHz
Bade test site :
Test Firm Registration Number: 226252
Test Firm Designation Number: TW0010
Wugu test site :
Test Firm Registration Number: 191812
Test Firm Designation Number: TW0034

Note:

1. The test results are valid only for samples provided by customers and under the test conditions described in this report.
2. This report shall not be reproduced except in full, without the written approval of Eurofins E&E Wireless Taiwan Co., Ltd.
3. The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.

Revision History

Rev.	Issued Date	Description	Revised by
00	Jul. 15, 2025	Initial Issue	Snow Wang

Verification of Compliance

Applicant : Askey Computer Corp

Product Name : 5G Small Cell

Trade Name : ASKEY

Model Number : NR xCell 46116A1F

FCC ID : H8NSCU2140

Applicable Standard : FCC 47 CFR PART 27
ANSI C63.26 2015

Test Result : Complied

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Taiwan Accreditation Foundation accreditation number: 1330



Eurofins E&E Wireless Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Eurofins E&E Wireless Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : _____

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1 General Information

1.1. Summary of Test Result

FCC Rule	Description	Result
§2.1046	Conducted Output Power	Reference
§27. 50	Equivalent Isotropic Radiated Power	Pass
§2.1055 §27. 54	Frequency Stability	Pass
§2.1049	Emission Bandwidth & Occupied Bandwidth	Reference
§27.50	Peak to Average Power Ratio	Pass
§2.1051 §27.53	Band Edge	Pass
§2.1051 §27.53	Conducted Spurious Emissions	Pass
§2.1053 §27.53	Radiated Spurious Emissions	Pass

Decision Rule

- ☒ Uncertainty is not included.
☐ Uncertainty is included.

1.2. Testing Location

Lab Name: Eurofins E&E Wireless Taiwan Co., Ltd.

Site Address: ☐ No. 140-1, Changan Street, Bade District, Taoyuan City, Taiwan (R.O.C.)

Site Address: ☒ No. 2, Wuquan 5th Rd. Wugu Dist., New Taipei City, Taiwan (R.O.C.)

1.3. Measurement Uncertainty

Parameter	Uncertainty				
	BD		WG		
Conducted Output Power	1.1 dB		1.1 dB		
Equivalent Isotropic Radiated Power	1.1 dB		1.1 dB		
Frequency Stability	1.3 x 10 ⁻⁷ x fc (Hz)		1.3 x 10 ⁻⁷ x fc (Hz)		
Emission Bandwidth & Occupied Bandwidth	4.4 %		4.4 %		
Peak to Average Power Ratio	1.1 dB		1.1 dB		
Band Edge	1.1 dB		1.1 dB		
Conducted Spurious Emission	1.1 dB		1.1 dB		
Parameter	Uncertainty				
	96601-BD	96603-BD	96602-WG	96603-WG	96604-WG
Radiated Emission	6.3 dB	6.3 dB	6.3 dB	6.3 dB	6.3 dB

1.4. Test Site Environment

Items	Required (IEC 68-1)	Interval(*)
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	45-75

(*)The measurement ambient temperature is within this range.

2 EUT Description

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Applicant	Askey Computer Corp 10F, No. 119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, Taiwan
Product Name	5G Small Cell
Trade Name	ASKEY
Model Number	NR xCell 46116A1F
FCC ID	H8NSCU2140
Operate Temp. Range	-30 ~ 55 °C
EUT Power Rating	90~290 VAC

5G NR				
Operation Band (NR):	☐ n2	☐ n5	☐ n7	☐ n12
	☐ n13	☐ n14	☐ n25	☐ n26
	☐ n30	☐ n38	☐ n41	☐ n48
	☐ n66	☐ n70	☐ n71	☒ n77
	☐ n78			
Support type:	☒ Standalone	☐ EN-DC		
	☐ CA-UL	☐ CA-DL	☒ MIMO-UL	
Modulation type:	QPSK, 64QAM, 256QAM			
Note: Detail Power information shall refer to power table.				

Testing Sample No.	
Test Item	Sample Number
Radiation	C254105_A001 / A003
Conducted	C254105_A004

NR n77 (3700-3980)	QPSK			64QAM / 256QAM		
BW(MHz)	Occupied Bandwidth (MHz)	Emission Desigator	Maximum ERP/EIRP(W)	Occupied Bandwidth (MHz)	Emission Desigator	Maximum ERP/EIRP(W)
40 MHz	37.8899	37M9G7D	13.4586	37.9578	38M0W7D	13.1220
50 MHz	47.4775	47M5G7D	13.6144	47.4857	47M5W7D	13.4276
60 MHz	57.8821	57M9G7D	13.5207	58.1906	58M2W7D	13.2130
70 MHz	67.4522	67M5G7D	13.6773	67.6664	67M7W7D	13.6773
80 MHz	77.4401	77M4G7D	13.6773	77.5664	77M6W7D	13.4586
90 MHz	87.5077	87M5G7D	13.6773	87.5457	87M6W7D	13.1522
100 MHz	97.358	97M4G7D	13.7088	97.3587	97M4W7D	13.2434

2.1. Product Specification of Equipment Under Test

Antenna information				
ANT	Model	Type	Max. Gain (dBi)	
Antenna 1	1415-01RMH00	Directional Antenna	n77	11.34
Antenna 2	1415-01RMH00	Directional Antenna	n77	11.40

Channel Bandwidth:

5G FR1 Bands																	
FCC																	
Bands	Support Power Class	Support Mode	Support / Non supportive	SCS (kHz)	Channel bandwidth (MHz)												
					5	10	15	20	25	30	40	50	60	70	80	90	100
n77	3	SA	N/A	15	X	X	X	X	X	X	X	X	X	X	X	X	X
			Support	30	X	X	X	X	X	X	V	V	V	V	V	V	V
			N/A	60	X	X	X	X	X	X	X	X	X	X	X	X	X

2.2. Mode of Operation

Three channels had been tested for each channel bandwidth.

5G NR n77 (3700-3980)						
Channel Bandwidth	40 MHz		50 MHz		60 MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	648000	3720	648334	3725.01	648668	3730.02
Middle CH	656000	3840	656000	3840	656000	3840
High CH	664000	3960	663666	3954.99	663332	3949.98
Channel Bandwidth	70 MHz		80 MHz		90 MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	649000	3735	649334	3740.01	649668	3745.02
Middle CH	656000	3840	656000	3840	656000	3840
High CH	663000	3945	662666	3939.99	662332	3934.98
Channel Bandwidth	100 MHz		-		-	
	Channel	Frequency (MHz)	-	-	-	-
Low CH	650000	3750	-	-	-	-
Middle CH	656000	3840	-	-	-	-
High CH	662000	3930	-	-	-	-

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

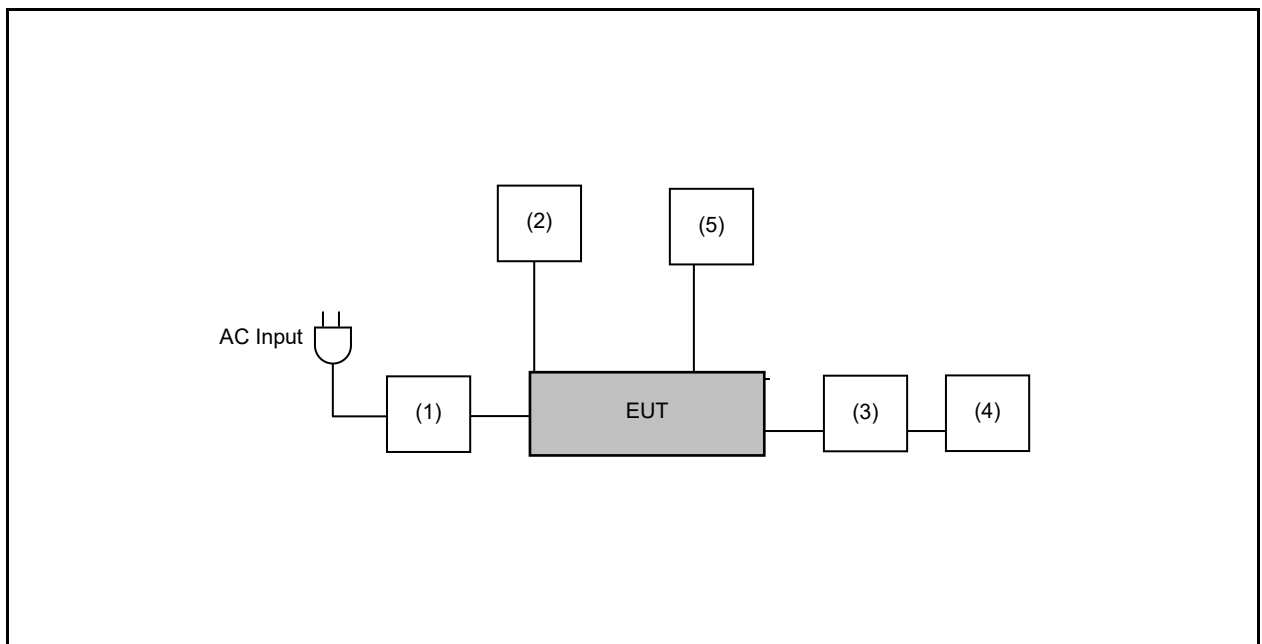
During all testing, EUT is in engineering mode at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Test Item	NR Band	bandwidth (MHz)														Modulation			RB Config.	Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	QPSK	64 QAM	256 QAM	100 %	L	M	H	
Max. output Power	n77							V	V	V	V	V	V	V	V	V	V	V	V	V	V	
E.R.P / E.I.R.P	n77							V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Peak-to-Average-Ratio	n77							V							V	V	V	V		V		
26dB and 99% Bandwidth	n77							V	V	V	V	V	V	V	V	V	V	V		V		
Conducted Band Edge	n77							V			V			V	V	V	V	V	V		V	
Conducted Spurious Emission	n77							V			V			V	V			V	V	V	V	
Frequency Stability Radiated Spurious Emission	n77							V							V			V	V		V	
Radiation Spurious Emission	n77							V						V	V			V	V	V	V	

2.3. EUT Test Step

1	Setup the EUT shown on "Configuration of Test System Details".
2	Turn on the power of all equipment.
3	EUT run test program test.

2.4. Configuration of Test System Details



	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Adapter	TOPOW	TPA187-62480-T3	---	---
(2)	GPS ANT	---	---	231301938	---
(3)	Fixture	Transend	---	---	---
(4)	GPS Disciplined Oscillator	---	BG7TBL	---	---
(5)	Notebook	Lenovo	L14	---	---

2.5. Test Instruments

For Conducted

Test Period: Apr. 22, 2025 ~ Jun. 20, 2025

Testing Engineer: Ethan Hsu

Test Site		RF01-WG				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Spectrum Analyzer (10 Hz~44 GHz)	R&S	FSV3044	101416	Oct. 29, 2024	1 year
☒	Humidity/Temp. Meter	Giant Force	GTH-408-40-CP-SD	MAA2202-001	Jan. 02, 2025	1 year

Note: N.C.R. = No Calibration Request.

For Radiated Emissions
Test Period: Jun. 19 ~ Jun. 20, 2025
Testing Engineer: Jason Yeh

Radiation test sites		Semi Anechoic Room 96603-WG				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	LOOP Antenna (9 kHz~30 MHz)	Schwarzbeck Mess-Elektronik	FMZB 1513-60	00031	Mar. 06, 2025	1 year
☒	Trilog Broadband Antenna (30 MHz~1 GHz)	Schwarzbeck Mess-Elektronik	VULB9168	1276	Jan. 20, 2025	1 year
☒	Broadband Horn Antenna (1 GHz~18 GHz)	RF SPIN	DRH18-E	210307A18ES	Dec. 10, 2024	1 year
☒	Broadband Horn Antenna (15 GHz~40 GHz)	Schwarzbeck Mess-Elektronik	BBHA9170	1133	Nov. 01, 2024	1 year
☒	Spectrum Analyzer (2 Hz~50 GHz)	KEYSIGHT	N9030B	MY57143537	Mar. 10, 2025	1 year
☒	Pre-Amplifier	EMCI	EMC001330	980859	Nov. 27, 2024	1 year
☒	Pre-Amplifier	EMCI	EMC118A45SE	980818	Dec. 12, 2024	1 year
☒	Pre-Amplifier	EMCI	EMC184045SE	980861	Dec. 18, 2024	1 year
☒	Coaxial Cable (9 kHz~1000 MHz)	EMCI	EMCCFD400-NM-NM-2000	211009	Oct. 24, 2024	1 year
☒	Coaxial Cable (9 kHz~1000 MHz)	EMCI	EMCCFD400-NM-NM-2000	211010	Oct. 24, 2024	1 year
☒	Coaxial Cable (9 kHz~1000 MHz)	EMCI	EMCCFD400-NM-NM-6000	211018	Oct. 24, 2024	1 year
☒	Coaxial Cable (1 GHz~18 GHz)	EMCI	EMC104-SM-SM-1000	211029	Oct. 24, 2024	1 year
☒	Coaxial Cable (1 GHz~18 GHz)	EMCI	EMC104-SM-SM-2000	211033	Oct. 24, 2024	1 year
☒	Coaxial Cable (1 GHz~18 GHz)	EMCI	EMC104-SM-SM-8000	211038	Oct. 24, 2024	1 year
☒	Coaxial Cable (18 GHz~40 GHz)	EMCI	EMC101G-KM-KM-600	211211	Jan. 15, 2025	1 year
☒	Coaxial Cable (18 GHz~40 GHz)	EMCI	EMC101G-KM-KM-2000	211210	Jan. 15, 2025	1 year
☒	Coaxial Cable (18 GHz~40 GHz)	EMCI	EMC101G-KM-KM-6000	211209	Jan. 15, 2025	1 year
☒	Highpass Filter	Warison	WFIL-H6000-26500F	WR4BBFWC4B1	Oct. 24, 2024	1 year
☒	Software	R_RAM	V1.3	N/A	N.C.R.	---

Note: N.C.R. = No Calibration Request

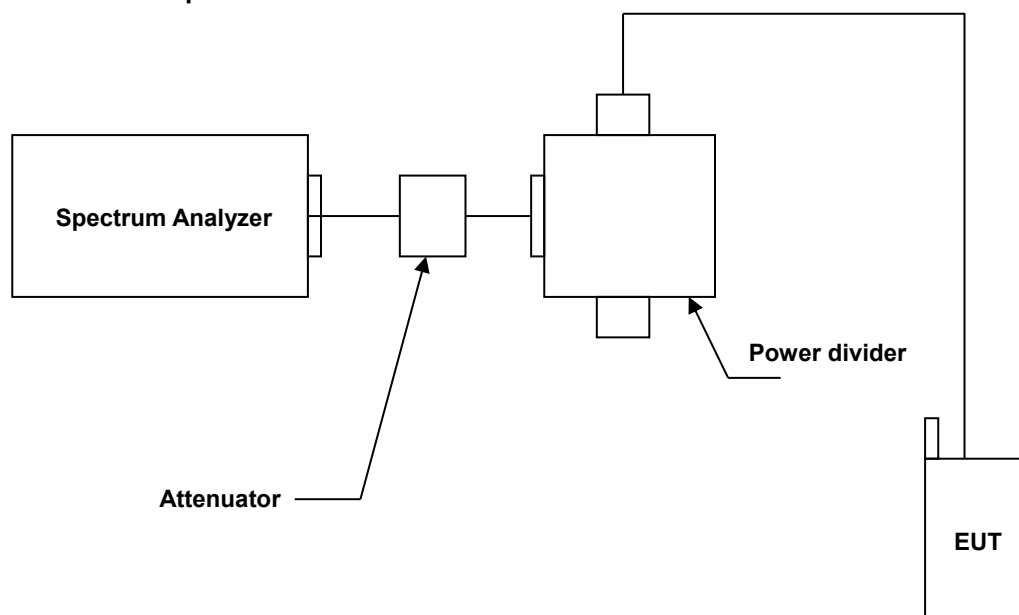
3 Measurement Procedure

3.1. Conducted Output Power Test

■ Limit

N/A

■ Test Setup



■ Test Procedure

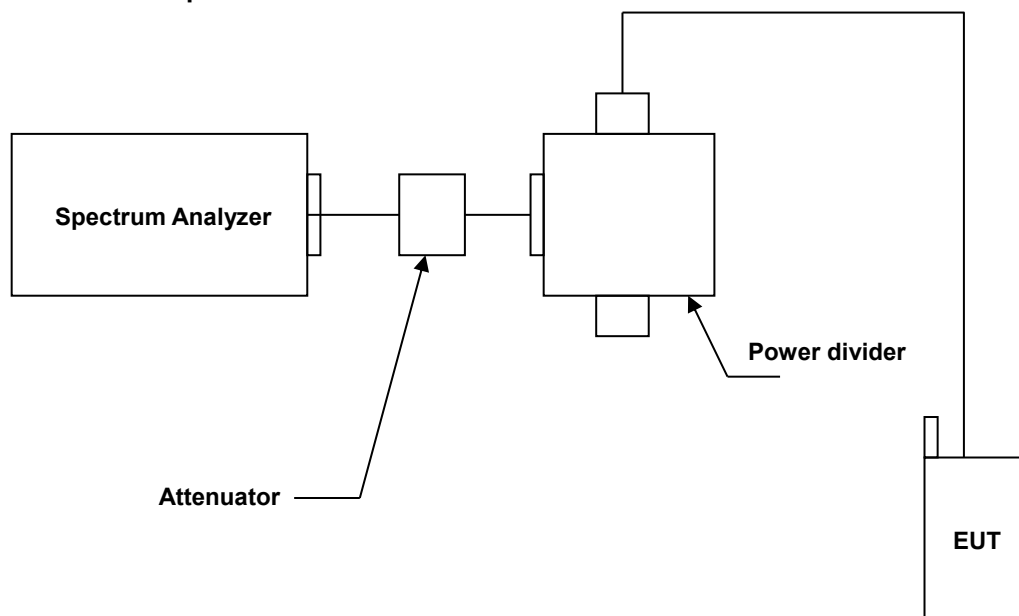
- The EUT was set up for the maximum power by test software to set data modulation and using WWAN technology and link to spectrum analyzer measurements.
- Set the EUT to transmit under low, middle and high channel and record the power level shown on spectrum analyzer. Power measurements use detector average (rms).

3.2. Equivalent Isotropic Radiated Power Test

■ Limit

§27: The power of each fixed or base station transmitting in the 3700-3980 MHz band, located in any geographic location other than that described under FCC Part 27.50(j)(1), with an EIRP limit of 1640 W/MHz. This limit applies to the total power of all antenna elements in any given sector of the base station.

■ Test Setup



■ Test Procedure

- a. The EUT was set up for the maximum power with WWAN data modulation. The power was measured with spectrum analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- b. The relevant equation for determining the maximum ERP or EIRP from measured RF output power is given in Equation as follows:

$$\text{EIRP} = P_T + G_T - L_C, \text{ E.R.P.} = \text{E.I.R.P.} - 2.15 \text{ dB, where}$$

P_T = transmitter output power, expressed in dBm

G_T = gain of the transmitting antenna, in dBi

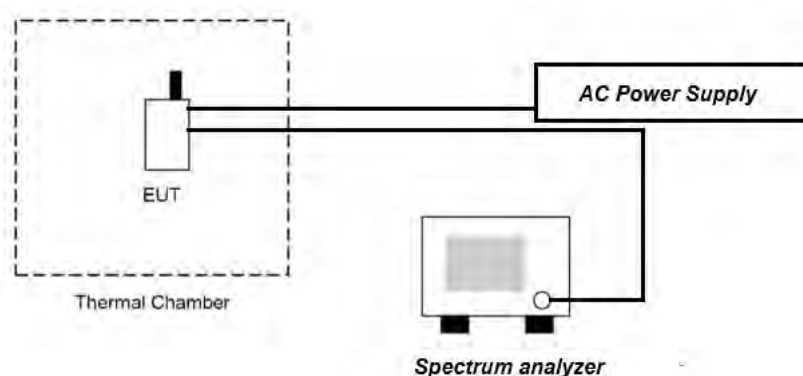
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB

3.3. Frequency Stability Test

■ Limit

According to the FCC and IC rule shall be tested the frequency stability. The rule is defined that" The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation. The test extreme voltage is according to the 2.1055(d)(1) and Section 6.11 of RSS-Gen Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with the 2.1055(a)(1) and Section 6.11 of RSS-Gen -30 °C ~ 50 °C.

■ Setup



■ Test Procedure

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30 °C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10 °C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The EUT was placed in a temperature chamber at 25 ± 5 °C and connected as the following section.
5. The power supply voltage to the EUT was varied from BEP to 115 % of the nominal value measured at the input to the EUT.
6. The temperature tests were performed for the worst case.
7. Test data was recorded.

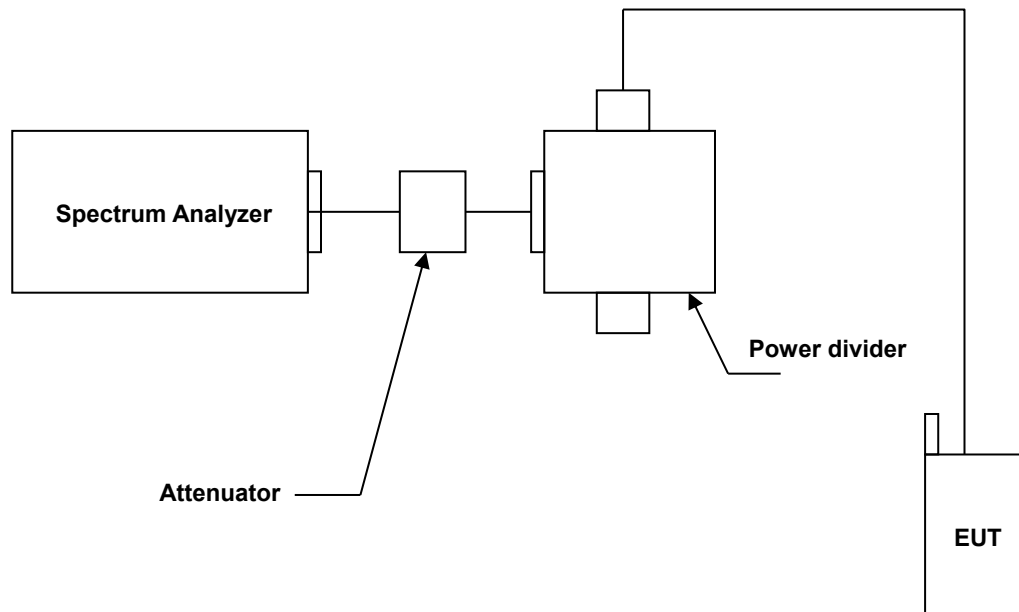
3.4. Emission Bandwidth & Occupied Bandwidth Test

■ Limit

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 emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

■ Setup



■ Test Procedure

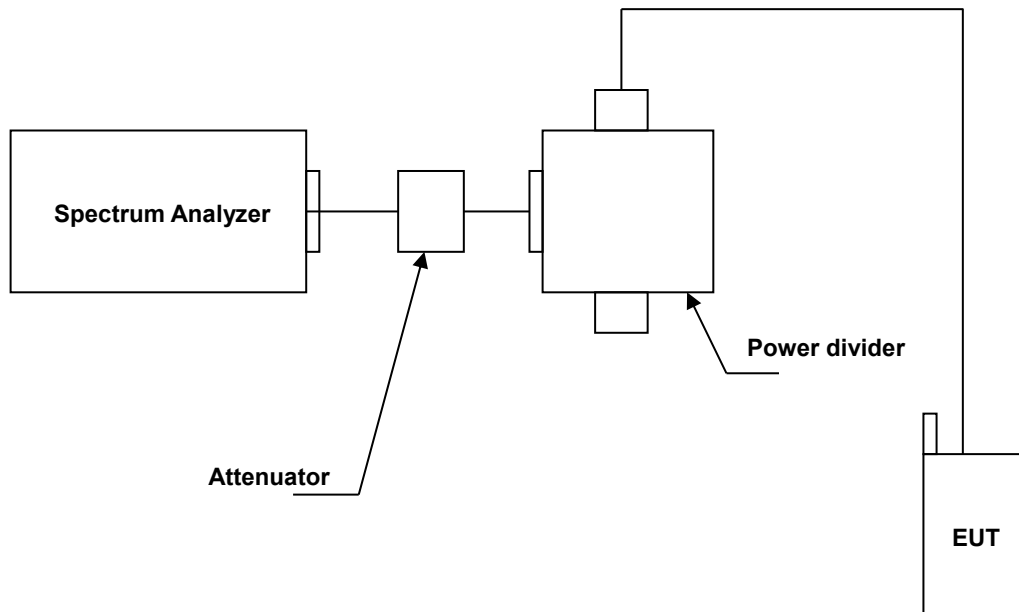
- The EUT was connected to spectrum analyzer via a power divider.
- The conducted occupied bandwidth used the power splitter via EUT RF power connected to spectrum analyzer.
- The EUT was configured by test software to set data modulation and maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % or 26 dB occupied bandwidth.

3.5. Peak to Average Power Ratio Test

■ Limit

In measuring transmissions in this band using an average power technique, the peak to-average power ratio (PAPR) of the transmission may not exceed 13 dB.

■ Setup



■ Test Procedure

- Set resolution/measurement bandwidth signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1 %.

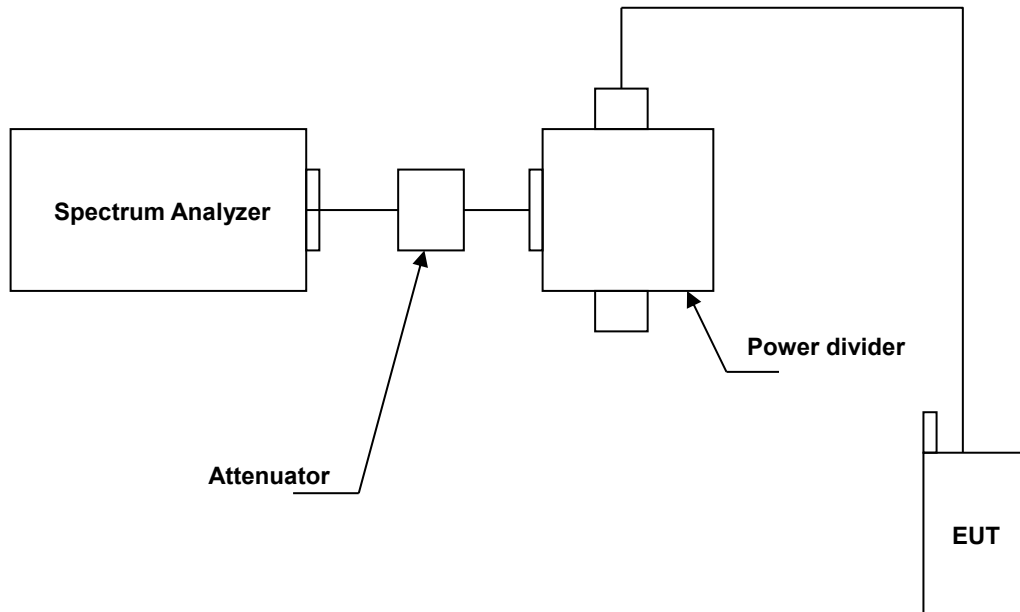
3.6. Band Edge Test

■ Limit

(For NR n77):)

§27.53(l)(1): For base station 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. 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. 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.

■ Setup



■ Test Procedure

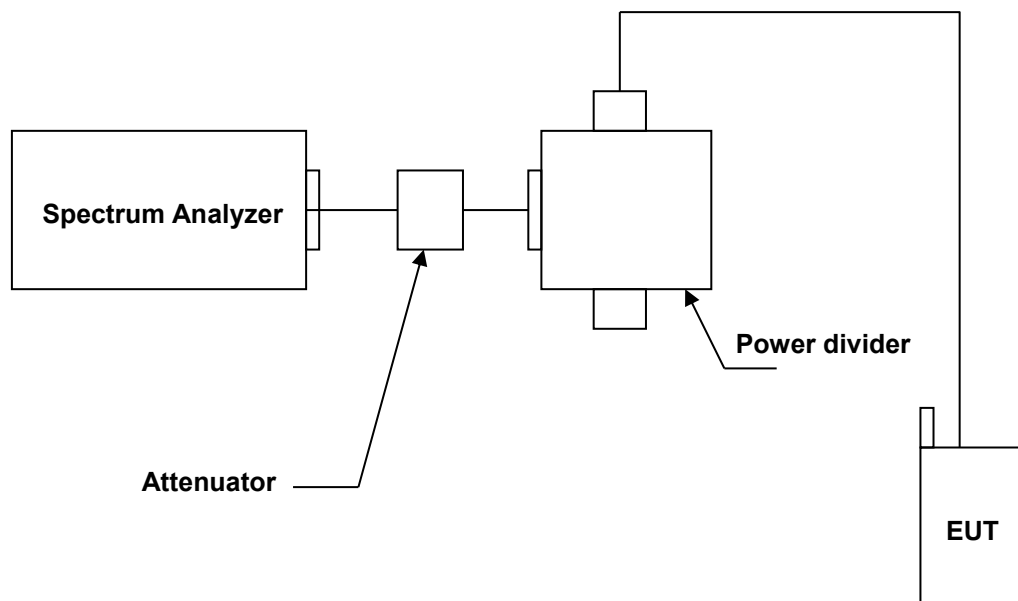
- The EUT was set up for the maximum peak power with WWAN data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.)
- The band edge measurement used the power splitter connected to spectrum analyzer. This splitter loss and cable loss are the worst loss in the transmitted path track.
- Record the max trace plot into the test report.

3.7. Conducted Spurious Emission Test

■ Limit

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13 dBm.

■ Setup



■ Test Procedure

- a. The EUT was set up for the maximum peak power with WWAN data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range.).
- b. The conducted spurious emission used the power splitter via EUT RF power connected to spectrum analyzer.
- c. Record the max trace plot into the test report.

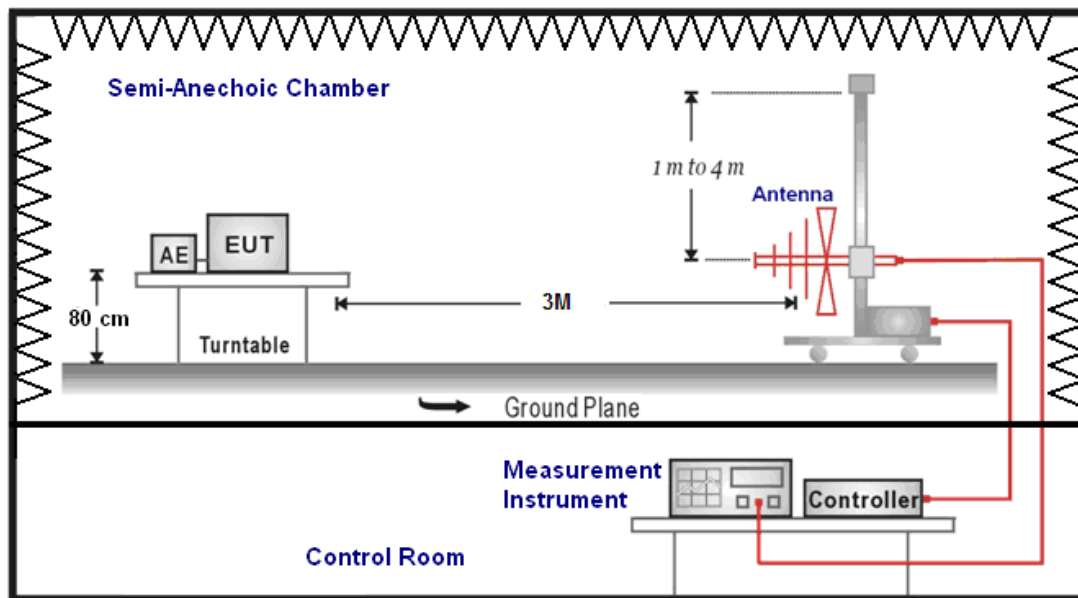
3.8. Radiated Emission Test

■ Limit

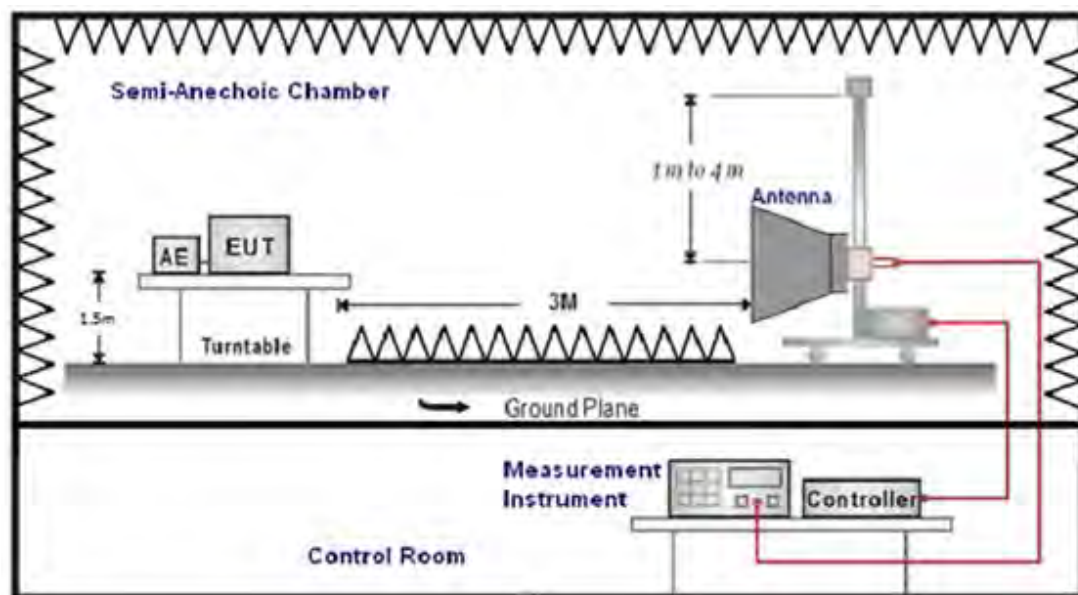
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13 dBm.

■ Setup

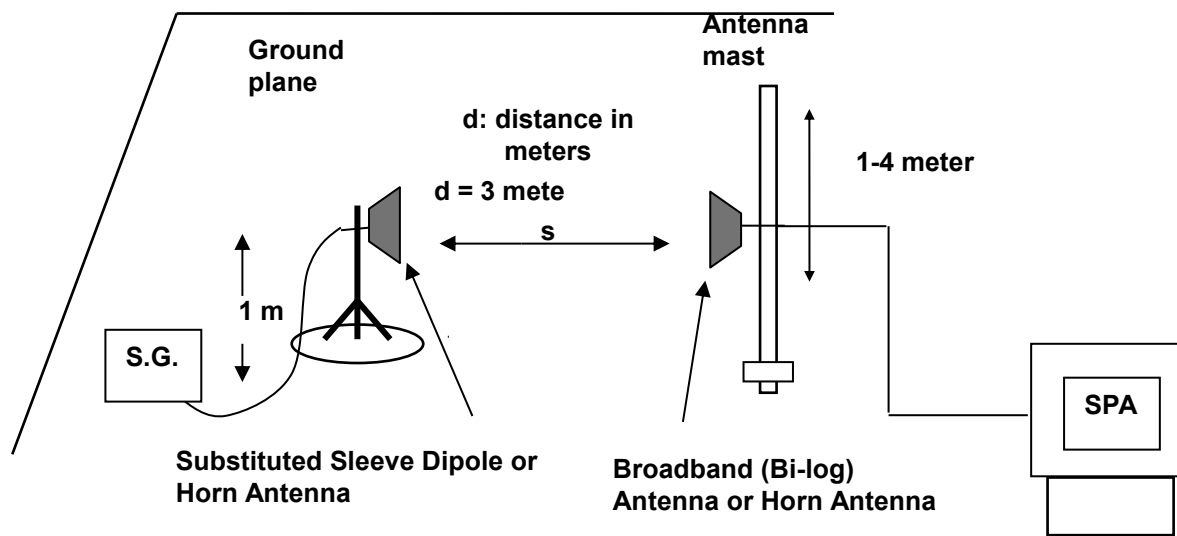
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



■ Test Procedure

- The EUT was set up for the maximum power with WWAN data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- Radiation Emission measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (1.5 m for above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- E.I.R.P. = Output power level of S.G - TX cable loss + Antenna gain of substitution horn
- E.R.P. = E.I.R.P- 2.15 dB

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenna

4 Test Results

4.1. Conducted Output Power and Equivalent Isotropic Radiated Power

NR Band	BandWidth	Arfcn	Freq(MHz)	Modulation	Setting	ANT1 Power(dBm)	ANT2 Power(dBm)	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	40	648000	3720	QPSK	245	23.99	23.81	26.91	41.29	13.4586
77	40	648000	3720	64 QAM	240	23.59	23.08	26.35	40.73	11.8304
77	40	648000	3720	256 QAM	240	23.56	23.14	26.37	40.75	11.8850
77	40	656000	3840	QPSK	240	23.92	23.59	26.77	41.15	13.0317
77	40	656000	3840	64 QAM	240	23.80	23.51	26.67	41.05	12.7350
77	40	656000	3840	256 QAM	240	23.98	23.09	26.57	40.95	12.4451
77	40	664000	3960	QPSK	235	22.81	23.53	26.20	40.58	11.4288
77	40	664000	3960	64 QAM	240	23.61	23.96	26.80	41.18	13.1220
77	40	664000	3960	256 QAM	235	23.14	23.71	26.45	40.83	12.1060
77	50	648334	3725.01	QPSK	250	23.77	23.70	26.75	41.13	12.9718
77	50	648334	3725.01	64 QAM	245	23.65	23.25	26.46	40.84	12.1339
77	50	648334	3725.01	256 QAM	245	23.86	23.21	26.56	40.94	12.4165
77	50	656000	3840	QPSK	245	23.94	23.96	26.96	41.34	13.6144
77	50	656000	3840	64 QAM	245	23.89	23.89	26.90	41.28	13.4276
77	50	656000	3840	256 QAM	245	23.95	23.67	26.82	41.2	13.1826
77	50	663666	3954.99	QPSK	240	23.12	23.88	26.52	40.9	12.3027
77	50	663666	3954.99	64 QAM	240	23.12	23.80	26.48	40.86	12.1899
77	50	663666	3954.99	256 QAM	240	23.80	23.84	26.83	41.21	13.2130
77	60	648668	3730.02	QPSK	245	23.92	23.91	26.93	41.31	13.5207
77	60	648668	3730.02	64 QAM	245	23.94	23.70	26.83	41.21	13.2130
77	60	648668	3730.02	256 QAM	245	23.99	23.56	26.79	41.17	13.0918
77	60	656000	3840	QPSK	240	23.78	23.39	26.60	40.98	12.5314
77	60	656000	3840	64 QAM	240	23.92	23.57	26.76	41.14	13.0017
77	60	656000	3840	256 QAM	240	23.84	22.89	26.40	40.78	11.9674
77	60	663332	3949.98	QPSK	235	23.06	23.80	26.45	40.83	12.1060
77	60	663332	3949.98	64 QAM	235	23.02	23.72	26.39	40.77	11.9399
77	60	663332	3949.98	256 QAM	235	23.36	23.61	26.50	40.88	12.2462
77	70	649000	3735	QPSK	245	23.53	23.63	26.59	40.97	12.5026
77	70	649000	3735	64 QAM	245	23.92	23.72	26.83	41.21	13.2130
77	70	649000	3735	256 QAM	245	23.98	23.96	26.98	41.36	13.6773
77	70	656000	3840	QPSK	245	23.96	23.98	26.98	41.36	13.6773
77	70	656000	3840	64 QAM	240	23.99	23.56	26.79	41.17	13.0918
77	70	656000	3840	256 QAM	240	23.88	23.48	26.69	41.07	12.7938
77	70	663000	3945	QPSK	240	23.83	23.89	26.87	41.25	13.3352
77	70	663000	3945	64 QAM	235	23.40	23.83	26.63	41.01	12.6183
77	70	663000	3945	256 QAM	235	23.54	23.46	26.51	40.89	12.2744

NR Band	BandWidth	Arfcn	Freq(MHz)	Modulation	Setting	ANT1 Power(dBm)	ANT2 Power(dBm)	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	80	649334	3740.01	QPSK	250	23.98	23.95	26.98	41.36	13.6773
77	80	649334	3740.01	64 QAM	245	23.68	23.84	26.77	41.15	13.0317
77	80	649334	3740.01	256 QAM	245	23.83	23.55	26.70	41.08	12.8233
77	80	656000	3840	QPSK	240	23.82	23.24	26.55	40.93	12.3880
77	80	656000	3840	64 QAM	245	23.93	23.88	26.91	41.29	13.4586
77	80	656000	3840	256 QAM	240	23.92	23.21	26.59	40.97	12.5026
77	80	662666	3939.99	QPSK	240	23.73	23.95	26.85	41.23	13.2739
77	80	662666	3939.99	64 QAM	235	23.59	23.88	26.75	41.13	12.9718
77	80	662666	3939.99	256 QAM	235	23.55	23.95	26.76	41.14	13.0017
77	90	649668	3745.02	QPSK	250	23.94	23.93	26.95	41.33	13.5831
77	90	649668	3745.02	64 QAM	245	23.87	23.69	26.79	41.17	13.0918
77	90	649668	3745.02	256 QAM	245	23.84	23.75	26.81	41.19	13.1522
77	90	656000	3840	QPSK	245	23.99	23.95	26.98	41.36	13.6773
77	90	656000	3840	64 QAM	235	23.74	23.05	26.42	40.8	12.0226
77	90	656000	3840	256 QAM	240	23.93	23.32	26.64	41.02	12.6474
77	90	662332	3934.98	QPSK	235	23.58	23.99	26.80	41.18	13.1220
77	90	662332	3934.98	64 QAM	235	23.40	23.98	26.71	41.09	12.8529
77	90	662332	3934.98	256 QAM	235	23.67	23.92	26.81	41.19	13.1522
77	100	650000	3750	QPSK	240	23.75	23.24	26.51	40.89	12.2744
77	100	650000	3750	64 QAM	245	24.00	23.65	26.84	41.22	13.2434
77	100	650000	3750	256 QAM	240	23.72	23.25	26.50	40.88	12.2462
77	100	656000	3840	QPSK	240	23.99	23.97	26.99	41.37	13.7088
77	100	656000	3840	64 QAM	240	23.98	23.54	26.77	41.15	13.0317
77	100	656000	3840	256 QAM	240	23.81	23.62	26.72	41.1	12.8825
77	100	662000	3930	QPSK	240	23.77	23.80	26.79	41.17	13.0918
77	100	662000	3930	64 QAM	230	22.95	23.68	26.34	40.72	11.8032
77	100	662000	3930	256 QAM	235	23.53	23.98	26.77	41.15	13.0317

4.2. Emission Bandwidth & Occupied Bandwidth / Peak to Average Ratio / Band Edge / Conducted Spurious Emission

The equipment passed the requirement of this clause, the detail results refer to Appendix A. Test Results_Band n77

26dB and 99% Bandwidth

NR n77 (ANT 1)				
Modulation	Channel Bandwidth	Frequency	26dB Bandwidth	Occupied Bandwidth
		(MHz)	(MHz)	(MHz)
QPSK	40 MHz	3840	42.04	37.8899
	50 MHz	3840	50.95	47.4492
	60 MHz	3840	61.98	57.8575
	70 MHz	3840	71.75	67.3996
	80 MHz	3840	83.92	77.4313
	90 MHz	3840	91.35	87.5077
	100 MHz	3840	101.3	97.2791
64QAM	40 MHz	3840	39.96	37.9080
	50 MHz	3840	49.85	47.4574
	60 MHz	3840	61.98	58.1906
	70 MHz	3840	70.77	67.6664
	80 MHz	3840	81.04	77.5543
	90 MHz	3840	90.99	87.4695
	100 MHz	3840	100.9	97.3305
256QAM	40 MHz	3840	40.84	37.8431
	50 MHz	3840	49.85	47.3979
	60 MHz	3840	61.98	57.8936
	70 MHz	3840	70.77	67.4616
	80 MHz	3840	83.12	77.4594
	90 MHz	3840	92.07	87.5254
	100 MHz	3840	102.5	97.3277

NR n77 (ANT 2)				
Modulation	Channel Bandwidth	Frequency	26dB Bandwidth	Occupied Bandwidth
		(MHz)	(MHz)	(MHz)
QPSK	40 MHz	3840	42.04	37.9101
	50 MHz	3840	50.05	47.4775
	60 MHz	3840	61.74	57.8821
	70 MHz	3840	71.05	67.4522
	80 MHz	3840	80.56	77.4401
	90 MHz	3840	91.35	87.5069
	100 MHz	3840	101.9	97.3580
64QAM	40 MHz	3840	40.84	37.9578
	50 MHz	3840	50.85	47.4857
	60 MHz	3840	61.38	57.9710
	70 MHz	3840	73.43	67.5067
	80 MHz	3840	80.88	77.5664
	90 MHz	3840	90.99	87.4682
	100 MHz	3840	101.1	97.3587
256QAM	40 MHz	3840	40.84	37.8429
	50 MHz	3840	49.85	47.3901
	60 MHz	3840	62.22	57.8918
	70 MHz	3840	70.77	67.4786
	80 MHz	3840	80.72	77.5610
	90 MHz	3840	92.07	87.5457
	100 MHz	3840	101.5	97.3199

4.3. Frequency Stability

Frequency Stability (Temperature Variation)

QPSK	NR Band 77_BW 40MHz	Fq(MHz) : 3720
Temperature (°C)	Deviation (ppm)	
-30	-0.21	
-20	0.15	
-10	-0.5	
0	0	
10	-0.22	
20	-0.55	
30	0.15	
40	-0.42	
50	1.07	

Frequency Stability vs. Voltage

QPSK	NR Band 77_BW 40MHz	Fq(MHz) : 3720
Voltage(V)	Deviation (ppm)	
VN (120V)	-1.16	
VL (102V)	0.02	
VH (138V)	-0.44	

Frequency Stability (Temperature Variation)

QPSK	NR Band 77_BW 40MHz	Fq(MHz) : 3960
Temperature (°C)	Deviation (ppm)	
-30	-1.06	
-20	-0.7	
-10	-0.67	
0	-0.47	
10	-0.23	
20	0.11	
30	0.08	
40	0.35	
50	-0.54	

Frequency Stability vs. Voltage

QPSK	NR Band 77_BW 40MHz	Fq(MHz) : 3960
Voltage(V)	Deviation (ppm)	
VN (120V)	-0.27	
VL (102V)	-0.46	
VH (138V)	-0.1	

4.4. Radiated Emission

Indoor

Test Site:	96603 - WG	Standard:	Part27
Test Mode:	Transmit mode		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	75.59	-50.38	-15.35	-65.73	-13	-52.73	PEAK
2	280.26	-44.72	-11.69	-56.41	-13	-43.41	PEAK
3	320.03	-47.13	-10.64	-57.77	-13	-44.77	PEAK
4	480.08	-40.10	-6.96	-47.06	-13	-34.06	PEAK
5	500.45	-49.21	-6.73	-55.94	-13	-42.94	PEAK
6	874.87	-63.20	-1.08	-64.28	-13	-51.28	PEAK

Test Site:	96603 - WG	Standard:	Part27
Test Mode:	Transmit mode		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	75.59	-44.80	-15.35	-60.15	-13	-47.15	PEAK
2	280.26	-48.63	-11.69	-60.32	-13	-47.32	PEAK
3	459.71	-51.11	-7.08	-58.19	-13	-45.19	PEAK
4	480.08	-42.60	-6.96	-49.56	-13	-36.56	PEAK
5	500.45	-53.83	-6.73	-60.56	-13	-47.56	PEAK
6	874.87	-61.35	-1.08	-62.43	-13	-49.43	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3720 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7440.00	-57.85	7.82	-50.03	-13.00	37.03	PEAK
2	11160.00	-67.75	8.56	-59.19	-13.00	-46.19	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3720 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7440.00	-59.13	7.85	-51.28	-13.00	-38.28	PEAK
2	11160.00	-67.24	8.56	-58.68	-13.00	-45.68	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3840 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-56.65	7.33	-49.32	-13.00	-36.32	PEAK
2	11520.00	-66.30	8.80	-57.50	-13.00	-44.5	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3840 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-55.15	7.33	-47.82	-13.00	-34.82	PEAK
2	11520.00	-66.92	8.80	-58.12	-13.00	-45.12	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3960 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7920.00	-64.96	7.21	-57.76	-13.00	-44.76	PEAK
2	11800.00	-67.85	8.94	-58.91	-13.00	-45.91	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3960 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7920.00	-62.42	7.21	-55.21	-13.00	-42.21	PEAK
2	11800.00	-68.20	8.94	-59.26	-13.00	-46.26	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3750 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7500.00	-62.98	7.85	-55.13	-13.00	-42.13	PEAK
2	11250.00	-67.01	8.70	-58.31	-13.00	-45.31	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3750 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7500.00	-63.92	7.85	-56.07	-13.00	-43.07	PEAK
2	11250.00	-67.40	8.70	-58.70	-13.00	-45.7	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3840 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-59.69	7.33	-52.36	-13.00	-39.36	PEAK
2	11520.00	-67.01	8.80	-58.21	-13.00	-45.21	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3840 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-58.88	7.33	-51.55	-13.00	-38.55	PEAK
2	11520.00	-67.04	8.80	-58.24	-13.00	-45.24	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3930 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7860.00	-65.31	7.13	-58.18	-13.00	-45.18	PEAK
2	11790.00	-67.38	8.93	-58.45	-13.00	-45.45	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3930 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7860.00	-63.14	7.13	-56.01	-13.00	-43.01	PEAK
2	11790.00	-67.70	8.93	-58.77	-13.00	-45.77	PEAK

Outdoor

Test Site:	96603 - WG	Standard:	Part27
Test Mode:	Transmit mode		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	77.53	-50.97	-16.01	-66.98	-13	-53.98	PEAK
2	310.33	-45.65	-10.86	-56.51	-13	-43.51	PEAK
3	320.03	-45.16	-10.64	-55.80	-13	-42.8	PEAK
4	380.17	-49.64	-9.05	-58.70	-13	-45.7	PEAK
5	480.08	-48.91	-6.96	-55.87	-13	-42.87	PEAK
6	874.87	-62.60	-1.08	-63.68	-13	-50.68	PEAK

Test Site:	96603 - WG	Standard:	Part27
Test Mode:	Transmit mode		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	42.61	-46.31	-11.92	-58.23	-13	-45.23	PEAK
2	269.59	-47.54	-12.24	-59.78	-13	-46.78	PEAK
3	280.26	-45.45	-11.69	-57.14	-13	-44.14	PEAK
4	480.08	-47.82	-6.96	-54.78	-13	-41.78	PEAK
5	500.45	-54.82	-6.73	-61.55	-13	-48.55	PEAK
6	874.87	-62.04	-1.08	-63.12	-13	-50.12	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3720 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7440.00	-62.55	7.82	-54.73	-13.00	-41.73	PEAK
2	11160.00	-67.63	8.56	-59.07	-13.00	-46.07	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3720 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7440.00	-65.24	7.82	-57.42	-13.00	-44.42	PEAK
2	11160.00	-67.32	8.56	-58.76	-13.00	-45.76	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3840 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-58.83	7.33	-51.50	-13.00	-38.5	PEAK
2	11520.00	-67.50	8.80	-58.70	-13.00	-45.7	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M 3840 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-58.33	7.33	-51.00	-13.00	-38	PEAK
2	11520.00	-67.57	8.80	-58.77	-13.00	-45.77	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3960 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7920.00	-64.94	7.21	-57.73	-13.00	-44.73	PEAK
2	11880.00	-66.58	9.12	-57.46	-13.00	-44.46	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK BW:40M		
	3960 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7920.00	-63.96	7.21	-56.75	-13.00	-43.75	PEAK
2	11880.00	-65.79	9.12	-56.68	-13.00	-43.68	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3750 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7500.00	-64.93	7.85	-57.08	-13.00	-44.08	PEAK
2	11250.00	-68.01	8.70	-59.31	-13.00	-46.31	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3750 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7500.00	-67.84	7.85	-59.99	-13.00	-46.99	PEAK
2	11250.00	-67.55	8.70	-58.85	-13.00	-45.85	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3840 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-62.78	7.33	-55.45	-13.00	-42.45	PEAK
2	11520.00	-67.36	8.80	-58.56	-13.00	-45.56	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3840 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7680.00	-63.78	7.33	-56.45	-13.00	-43.45	PEAK
2	11520.00	-66.64	8.80	-57.84	-13.00	-44.84	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3930 MHz		
Polarization:	Horizontal		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7860.00	-67.49	7.13	-60.36	-13.00	-47.36	PEAK
2	11790.00	-68.46	8.93	-59.53	-13.00	-46.53	PEAK

Test Site:	96603 - WG	Standard:	Part 27
Test Mode:	n77 NR 30k QPSK		
	BW:100M 3930 MHz		
Polarization:	Vertical		
Remark:			

ID	Frequency MHz	Reading dBm	Correct Factor dB/m	Result dBm	Limit dBm	Margin dB	Remark
1	7860.00	-67.28	7.13	-60.15	-13.00	-47.15	PEAK
2	11790.00	-68.42	8.93	-59.49	-13.00	-46.49	PEAK

--- END---