

n78L	90	30	3495	CP	QPSK	Edge_1RB_Left	20.60
n78L	90	30	3495	CP	QPSK	Edge_1RB_Right	20.07
n78L	90	30	3495	CP	QPSK	Outer_Full	20.74
n78L	90	30	3495	CP	16QAM	Inner_Full	21.68
n78L	90	30	3495	CP	16QAM	Edge_1RB_Left	20.86
n78L	90	30	3495	CP	16QAM	Edge_1RB_Right	20.22
n78L	90	30	3495	CP	16QAM	Outer_Full	20.59
n78L	90	30	3495	CP	64QAM	Inner_Full	20.32
n78L	90	30	3495	CP	64QAM	Edge_1RB_Left	19.66
n78L	90	30	3495	CP	64QAM	Edge_1RB_Right	19.07
n78L	90	30	3495	CP	64QAM	Outer_Full	20.09
n78L	90	30	3495	CP	256QAM	Inner_Full	17.22
n78L	90	30	3495	CP	256QAM	Edge_1RB_Left	16.91
n78L	90	30	3495	CP	256QAM	Edge_1RB_Right	16.50
n78L	90	30	3495	CP	256QAM	Outer_Full	17.09
n78L	90	30	3500.01	DFT	pi/2 BPSK	Inner_Full	23.98
n78L	90	30	3500.01	DFT	pi/2 BPSK	Edge_1RB_Left	23.05
n78L	90	30	3500.01	DFT	pi/2 BPSK	Edge_1RB_Right	22.72
n78L	90	30	3500.01	DFT	pi/2 BPSK	Outer_Full	23.34
n78L	90	30	3500.01	DFT	QPSK	Inner_Full	23.96
n78L	90	30	3500.01	DFT	QPSK	Edge_1RB_Left	22.62
n78L	90	30	3500.01	DFT	QPSK	Edge_1RB_Right	22.17
n78L	90	30	3500.01	DFT	QPSK	Outer_Full	22.72
n78L	90	30	3500.01	DFT	16QAM	Inner_Full	23.00
n78L	90	30	3500.01	DFT	16QAM	Edge_1RB_Left	21.58
n78L	90	30	3500.01	DFT	16QAM	Edge_1RB_Right	21.24
n78L	90	30	3500.01	DFT	16QAM	Outer_Full	21.76
n78L	90	30	3500.01	DFT	64QAM	Inner_Full	21.49
n78L	90	30	3500.01	DFT	64QAM	Edge_1RB_Left	20.63
n78L	90	30	3500.01	DFT	64QAM	Edge_1RB_Right	20.27
n78L	90	30	3500.01	DFT	64QAM	Outer_Full	21.18
n78L	90	30	3500.01	DFT	256QAM	Inner_Full	19.46
n78L	90	30	3500.01	DFT	256QAM	Edge_1RB_Left	18.94
n78L	90	30	3500.01	DFT	256QAM	Edge_1RB_Right	18.58
n78L	90	30	3500.01	DFT	256QAM	Outer_Full	19.20
n78L	90	30	3500.01	CP	QPSK	Inner_Full	22.45
n78L	90	30	3500.01	CP	QPSK	Edge_1RB_Left	20.58
n78L	90	30	3500.01	CP	QPSK	Edge_1RB_Right	20.14
n78L	90	30	3500.01	CP	QPSK	Outer_Full	20.72
n78L	90	30	3500.01	CP	16QAM	Inner_Full	21.87
n78L	90	30	3500.01	CP	16QAM	Edge_1RB_Left	20.63

n78L	90	30	3500.01	CP	16QAM	Edge_1RB_Right	20.37
n78L	90	30	3500.01	CP	16QAM	Outer_Full	20.70
n78L	90	30	3500.01	CP	64QAM	Inner_Full	20.41
n78L	90	30	3500.01	CP	64QAM	Edge_1RB_Left	19.72
n78L	90	30	3500.01	CP	64QAM	Edge_1RB_Right	19.23
n78L	90	30	3500.01	CP	64QAM	Outer_Full	20.22
n78L	90	30	3500.01	CP	256QAM	Inner_Full	17.34
n78L	90	30	3500.01	CP	256QAM	Edge_1RB_Left	17.07
n78L	90	30	3500.01	CP	256QAM	Edge_1RB_Right	16.57
n78L	90	30	3500.01	CP	256QAM	Outer_Full	17.15
n78L	90	30	3504.99	DFT	pi/2 BPSK	Inner_Full	23.99
n78L	90	30	3504.99	DFT	pi/2 BPSK	Edge_1RB_Left	23.21
n78L	90	30	3504.99	DFT	pi/2 BPSK	Edge_1RB_Right	22.77
n78L	90	30	3504.99	DFT	pi/2 BPSK	Outer_Full	23.18
n78L	90	30	3504.99	DFT	QPSK	Inner_Full	23.94
n78L	90	30	3504.99	DFT	QPSK	Edge_1RB_Left	22.56
n78L	90	30	3504.99	DFT	QPSK	Edge_1RB_Right	22.25
n78L	90	30	3504.99	DFT	QPSK	Outer_Full	22.68
n78L	90	30	3504.99	DFT	16QAM	Inner_Full	23.00
n78L	90	30	3504.99	DFT	16QAM	Edge_1RB_Left	21.70
n78L	90	30	3504.99	DFT	16QAM	Edge_1RB_Right	21.48
n78L	90	30	3504.99	DFT	16QAM	Outer_Full	21.64
n78L	90	30	3504.99	DFT	64QAM	Inner_Full	21.48
n78L	90	30	3504.99	DFT	64QAM	Edge_1RB_Left	20.56
n78L	90	30	3504.99	DFT	64QAM	Edge_1RB_Right	20.47
n78L	90	30	3504.99	DFT	64QAM	Outer_Full	21.33
n78L	90	30	3504.99	DFT	256QAM	Inner_Full	19.37
n78L	90	30	3504.99	DFT	256QAM	Edge_1RB_Left	18.97
n78L	90	30	3504.99	DFT	256QAM	Edge_1RB_Right	18.71
n78L	90	30	3504.99	DFT	256QAM	Outer_Full	19.16
n78L	90	30	3504.99	CP	QPSK	Inner_Full	22.48
n78L	90	30	3504.99	CP	QPSK	Edge_1RB_Left	20.66
n78L	90	30	3504.99	CP	QPSK	Edge_1RB_Right	20.21
n78L	90	30	3504.99	CP	QPSK	Outer_Full	20.71
n78L	90	30	3504.99	CP	16QAM	Inner_Full	21.88
n78L	90	30	3504.99	CP	16QAM	Edge_1RB_Left	20.58
n78L	90	30	3504.99	CP	16QAM	Edge_1RB_Right	20.67
n78L	90	30	3504.99	CP	16QAM	Outer_Full	20.68
n78L	90	30	3504.99	CP	64QAM	Inner_Full	20.33
n78L	90	30	3504.99	CP	64QAM	Edge_1RB_Left	19.55
n78L	90	30	3504.99	CP	64QAM	Edge_1RB_Right	19.28



n78L	90	30	3504.99	CP	64QAM	Outer_Full	20.20
n78L	90	30	3504.99	CP	256QAM	Inner_Full	17.45
n78L	90	30	3504.99	CP	256QAM	Edge_1RB_Left	16.95
n78L	90	30	3504.99	CP	256QAM	Edge_1RB_Right	16.74
n78L	90	30	3504.99	CP	256QAM	Outer_Full	17.10

Note: The maximum value of expanded measurement uncertainty for this test item is  $U = 0.764$  dB,  $k = 2$ .

### A.1.3 Radiated

#### A.1.3.1 Description

This is the test for the maximum radiated power from the EUT.

**NR n5:** Rule Part 22.913(a) specifies "Mobile and portable stations are limited to 7 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications."

**NR n7/n38/n41:** Rule Part 27.50(h) (2) specifies "Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power. "

**NR Band 66:** Part 27.50(d)(4) specifies "Fixed, mobile, and portable(handheld) stations operating in the 1710–1755 MHz band and mobile and portable stations operating in the 1695–1710 MHz and 1755–1780 MHz bands are limited to 1 watt EIRP".

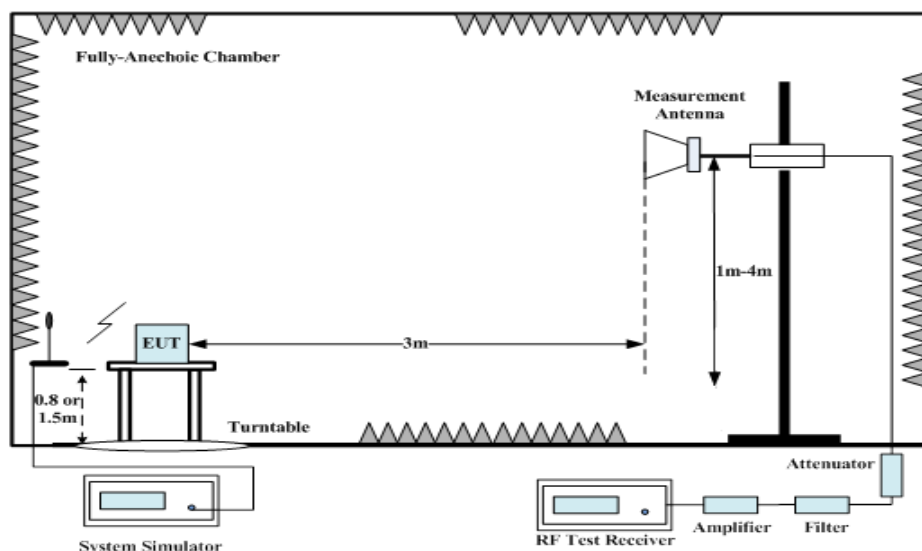
**NR Band 77L/78L:** Rule Part 27.50(k) (3) Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

**NR Band 77H:** Rule Part 27.50(j) (3) Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

#### A.1.3.2 Method of Measurement

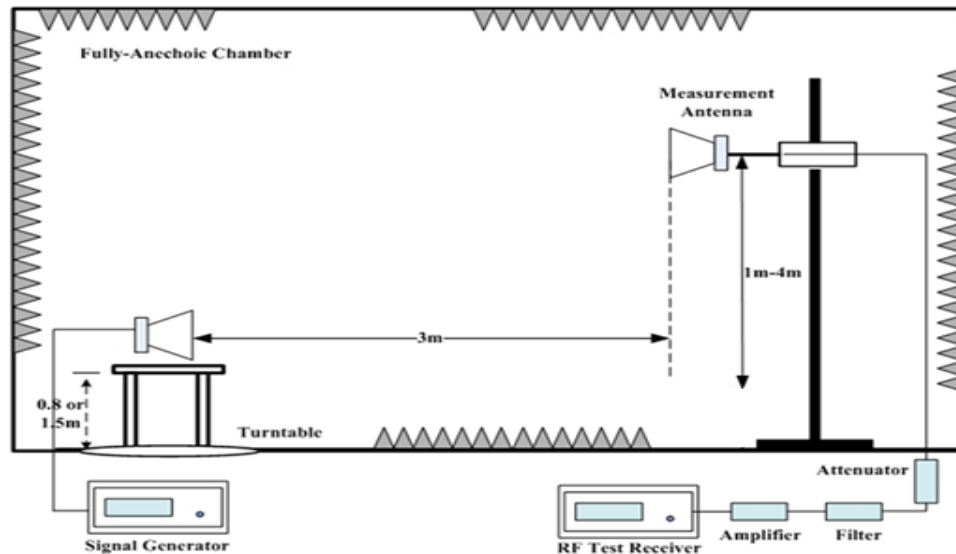
The measurements procedures in ANSI C63.26 are used.

1. EUT was placed on a 0.8/1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The receiving antenna shall be varied from 1 to 4m in height above the reference ground. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and the EUT is manipulated through all orthogonal planes representative of its typical use. The test is carried out with both vertical and horizontal polarization of the receiving antenna. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with rms detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).

3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power ( $P_{Mea}$ ) is applied to the input of the substitution antenna. Adjust the level of the signal generator output until the value of the receiver reaches the previously recorded ( $P_r$ ). The power of signal source ( $P_{Mea}$ ) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. An amplifier should be connected to the Signal Source output port. And the cable should be connected between the amplifier and the substitution antenna. The cable loss ( $P_{cl}$ ), the substitution antenna Gain ( $G_a$ ) and the amplifier Gain ( $P_{Ag}$ ) should be recorded after test.

The measurement results are obtained as described below:

$$\text{Power (EIRP)} = P_{Mea} + P_{Ag} - P_{cl} + G_a$$

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (unit dBi) and known input power.
6. ERP can be calculated from EIRP by subtracting the gain of the dipole,  $ERP = EIRP - 2.15$ .
7. For NR operation, all subcarrier spacing (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and worst case configuration results are reported in this section.

The antenna gain provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

### A.1.3.3 Measurement result

#### NR n5-ERP

Limits:  $\leq 38.45\text{dBm}$  (7W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	Correction (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	5MHz	826.50	-22.01	2.25	45.77	0.93	2.15	20.29	38.45	18.16	H
	5MHz	836.50	-20.07	2.26	45.66	0.82	2.15	22.00	38.45	16.45	H
	5MHz	846.50	-19.74	2.26	45.56	0.82	2.15	22.23	38.45	16.22	H
	10MHz	829.00	-21.46	2.25	45.77	0.90	2.15	20.81	38.45	17.64	H
	10MHz	836.50	-20.10	2.26	45.66	0.82	2.15	21.97	38.45	16.48	H
	10MHz	844.00	-20.35	2.26	45.59	0.82	2.15	21.65	38.45	16.80	H
	15MHz	831.50	-20.97	2.12	45.71	0.87	2.15	21.34	38.45	17.11	H
	15MHz	836.50	-20.11	2.26	45.66	0.82	2.15	21.96	38.45	16.49	H
	15MHz	841.50	-20.66	2.26	45.61	0.82	2.15	21.36	38.45	17.09	H
	20MHz	834.00	-20.50	2.20	45.69	0.85	2.15	21.68	38.45	16.77	H
	20MHz	836.50	-20.08	2.26	45.66	0.82	2.15	21.99	38.45	16.46	H
	20MHz	839.00	-21.04	2.26	45.64	0.82	2.15	21.01	38.45	17.44	H
QPSK	5MHz	826.50	-21.87	2.25	45.77	0.93	2.15	20.43	38.45	18.02	H
	5MHz	836.50	-19.91	2.26	45.66	0.82	2.15	22.16	38.45	16.29	H
	5MHz	846.50	-19.64	2.26	45.56	0.82	2.15	22.33	38.45	16.12	H
	10MHz	829.00	-21.37	2.25	45.77	0.90	2.15	20.90	38.45	17.55	H
	10MHz	836.50	-19.97	2.26	45.66	0.82	2.15	22.10	38.45	16.35	H
	10MHz	844.00	-20.04	2.26	45.59	0.82	2.15	21.96	38.45	16.49	H
	15MHz	831.50	-20.87	2.12	45.71	0.87	2.15	21.44	38.45	17.01	H
	15MHz	836.50	-19.97	2.26	45.66	0.82	2.15	22.10	38.45	16.35	H
	15MHz	841.50	-20.56	2.26	45.61	0.82	2.15	21.46	38.45	16.99	H
	20MHz	834.00	-20.38	2.20	45.69	0.85	2.15	21.80	38.45	16.65	H
	20MHz	836.50	-19.95	2.26	45.66	0.82	2.15	22.12	38.45	16.33	H
	20MHz	839.00	-20.86	2.26	45.64	0.82	2.15	21.19	38.45	17.26	H
16QAM	5MHz	826.50	-22.90	2.25	45.77	0.93	2.15	19.40	38.45	19.05	H
	5MHz	836.50	-20.97	2.26	45.66	0.82	2.15	21.10	38.45	17.35	H
	5MHz	846.50	-20.50	2.26	45.56	0.82	2.15	21.47	38.45	16.98	H
	10MHz	829.00	-22.35	2.25	45.77	0.90	2.15	19.92	38.45	18.53	H
	10MHz	836.50	-20.99	2.26	45.66	0.82	2.15	21.08	38.45	17.37	H
	10MHz	844.00	-21.00	2.26	45.59	0.82	2.15	21.04	38.45	17.41	H
	15MHz	831.50	-21.87	2.12	45.71	0.87	2.15	20.44	38.45	18.01	H
	15MHz	836.50	-20.98	2.26	45.66	0.82	2.15	21.09	38.45	17.36	H
	15MHz	841.50	-21.50	2.26	45.61	0.82	2.15	20.56	38.45	17.89	H
	20MHz	834.00	-21.41	2.20	45.69	0.85	2.15	20.77	38.45	17.68	H
	20MHz	836.50	-20.94	2.26	45.66	0.82	2.15	21.13	38.45	17.32	H
	20MHz	839.00	-21.90	2.26	45.64	0.82	2.15	20.17	38.45	18.28	H
64QAM	5MHz	846.50	-22.18	2.26	45.56	0.82	2.15	19.79	38.45	18.66	H
	10MHz	836.50	-22.49	2.26	45.66	0.82	2.15	19.58	38.45	18.87	H
	15MHz	836.50	-22.48	2.26	45.66	0.82	2.15	19.59	38.45	18.86	H
	20MHz	836.50	-22.43	2.26	45.66	0.82	2.15	19.64	38.45	18.81	H
256QAM	5MHz	846.50	-24.42	2.26	45.56	0.82	2.15	17.55	38.45	20.90	H
	10MHz	836.50	-24.80	2.26	45.66	0.82	2.15	17.27	38.45	21.18	H
	15MHz	836.50	-24.81	2.26	45.66	0.82	2.15	17.26	38.45	21.19	H
	20MHz	836.50	-24.76	2.26	45.66	0.82	2.15	17.31	38.45	21.14	H

**NR n7-EIRP**
**Limits:** ≤33 dBm (2W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	5MHz	2502.50	-24.16	3.58	45.68	6.10	24.04	33.00	8.96	H
	5MHz	2535.00	-23.08	3.63	44.82	6.16	24.27	33.00	8.73	H
	5MHz	2567.50	-23.58	3.65	44.92	6.22	23.91	33.00	9.09	H
	10MHz	2505.00	-24.08	3.59	45.64	6.11	24.08	33.00	8.92	H
	10MHz	2535.00	-23.09	3.63	44.82	6.16	24.26	33.00	8.74	H
	10MHz	2565.00	-23.42	3.65	44.97	6.22	24.12	33.00	8.88	H
	15MHz	2507.50	-23.61	3.59	44.92	6.11	23.83	33.00	9.17	H
	15MHz	2535.00	-23.29	3.63	44.82	6.16	24.06	33.00	8.94	H
	15MHz	2562.50	-24.29	3.65	45.67	6.21	23.94	33.00	9.06	H
	20MHz	2510.00	-24.06	3.58	45.36	6.12	23.84	33.00	9.16	H
	20MHz	2535.00	-23.18	3.63	44.82	6.16	24.17	33.00	8.83	H
20MHz	2560.00	-24.19	3.63	45.98	6.21	24.37	33.00	8.63	H	
QPSK	5MHz	2502.50	-23.97	3.58	45.68	6.10	24.23	33.00	8.77	H
	5MHz	2535.00	-22.99	3.63	44.82	6.16	24.36	33.00	8.64	H
	5MHz	2567.50	-23.38	3.65	44.92	6.22	24.11	33.00	8.89	H
	10MHz	2505.00	-24.02	3.59	45.64	6.11	24.14	33.00	8.86	H
	10MHz	2535.00	-23.01	3.63	44.82	6.16	24.34	33.00	8.66	H
	10MHz	2565.00	-23.26	3.65	44.97	6.22	24.28	33.00	8.72	H
	15MHz	2507.50	-23.55	3.59	44.92	6.11	23.89	33.00	9.11	H
	15MHz	2535.00	-23.12	3.63	44.82	6.16	24.23	33.00	8.77	H
	15MHz	2562.50	-24.17	3.65	45.67	6.21	24.06	33.00	8.94	H
	20MHz	2510.00	-23.94	3.58	45.36	6.12	23.96	33.00	9.04	H
	20MHz	2535.00	-23.04	3.63	44.82	6.16	24.31	33.00	8.69	H
20MHz	2560.00	-24.06	3.63	45.98	6.21	24.50	33.00	8.50	H	
16QAM	5MHz	2502.50	-25.02	3.58	45.68	6.10	23.18	33.00	9.82	H
	5MHz	2535.00	-24.21	3.63	44.82	6.16	23.14	33.00	9.86	H
	5MHz	2567.50	-24.34	3.65	44.92	6.22	23.15	33.00	9.85	H
	10MHz	2505.00	-25.01	3.59	45.64	6.11	23.15	33.00	9.85	H
	10MHz	2535.00	-23.93	3.63	44.82	6.16	23.42	33.00	9.58	H
	10MHz	2565.00	-24.25	3.65	44.97	6.22	23.29	33.00	9.71	H
	15MHz	2507.50	-24.51	3.59	44.92	6.11	22.93	33.00	10.07	H
	15MHz	2535.00	-24.10	3.63	44.82	6.16	23.25	33.00	9.75	H
	15MHz	2562.50	-25.14	3.65	45.67	6.21	23.09	33.00	9.91	H
	20MHz	2510.00	-24.92	3.58	45.36	6.12	22.98	33.00	10.02	H
	20MHz	2535.00	-24.03	3.63	44.82	6.16	23.32	33.00	9.68	H
20MHz	2560.00	-25.07	3.63	45.98	6.21	23.49	33.00	9.51	H	
64QAM	5MHz	2535.00	-25.51	3.63	44.82	6.16	21.84	33.00	11.16	H
	10MHz	2535.00	-25.46	3.63	44.82	6.16	21.89	33.00	11.11	H
	15MHz	2535.00	-25.66	3.63	44.82	6.16	21.69	33.00	11.31	H
	20MHz	2560.00	-26.60	3.63	45.98	6.21	21.96	33.00	11.04	H
256QAM	5MHz	2535.00	-27.86	3.63	44.82	6.16	19.49	33.00	13.51	H
	10MHz	2535.00	-27.81	3.63	44.82	6.16	19.54	33.00	13.46	H
	15MHz	2535.00	-28.05	3.63	44.82	6.16	19.30	33.00	13.70	H
	20MHz	2560.00	-29.06	3.63	45.98	6.21	19.50	33.00	13.50	H

**NR B5-n7-EIRP**
**Limits: ≤33 dBm (2W)**

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	5MHz	2502.50	-28.18	3.58	45.68	6.10	20.02	33.00	12.98	H
	5MHz	2535.00	-26.56	3.63	44.82	6.16	20.79	33.00	12.21	H
	5MHz	2567.50	-28.36	3.65	44.92	6.22	19.13	33.00	13.87	H
	10MHz	2505.00	-28.25	3.59	45.64	6.11	19.91	33.00	13.09	H
	10MHz	2535.00	-26.56	3.63	44.82	6.16	20.79	33.00	12.21	H
	10MHz	2565.00	-28.11	3.65	44.97	6.22	19.43	33.00	13.57	H
	15MHz	2507.50	-27.77	3.59	44.92	6.11	19.67	33.00	13.33	H
	15MHz	2535.00	-26.77	3.63	44.82	6.16	20.58	33.00	12.42	H
	15MHz	2562.50	-28.66	3.65	45.67	6.21	19.57	33.00	13.43	H
	20MHz	2510.00	-28.52	3.58	45.36	6.12	19.38	33.00	13.62	H
	20MHz	2535.00	-26.58	3.63	44.82	6.16	20.77	33.00	12.23	H
	20MHz	2560.00	-28.84	3.63	45.98	6.21	19.72	33.00	13.28	H
QPSK	5MHz	2502.50	-28.24	3.58	45.68	6.10	19.96	33.00	13.04	H
	5MHz	2535.00	-26.65	3.63	44.82	6.16	20.70	33.00	12.30	H
	5MHz	2567.50	-28.54	3.65	44.92	6.22	18.95	33.00	14.05	H
	10MHz	2505.00	-28.22	3.59	45.64	6.11	19.94	33.00	13.06	H
	10MHz	2535.00	-26.52	3.63	44.82	6.16	20.83	33.00	12.17	H
	10MHz	2565.00	-28.23	3.65	44.97	6.22	19.31	33.00	13.69	H
	15MHz	2507.50	-27.74	3.59	44.92	6.11	19.70	33.00	13.30	H
	15MHz	2535.00	-26.77	3.63	44.82	6.16	20.58	33.00	12.42	H
	15MHz	2562.50	-28.85	3.65	45.67	6.21	19.38	33.00	13.62	H
	20MHz	2510.00	-28.51	3.58	45.36	6.12	19.39	33.00	13.61	H
	20MHz	2535.00	-26.64	3.63	44.82	6.16	20.71	33.00	12.29	H
	20MHz	2560.00	-29.01	3.63	45.98	6.21	19.55	33.00	13.45	H
16QAM	5MHz	2502.50	-29.13	3.58	45.68	6.10	19.07	33.00	13.93	H
	5MHz	2535.00	-27.49	3.63	44.82	6.16	19.86	33.00	13.14	H
	5MHz	2567.50	-29.27	3.65	44.92	6.22	18.22	33.00	14.78	H
	10MHz	2505.00	-29.05	3.59	45.64	6.11	19.11	33.00	13.89	H
	10MHz	2535.00	-27.40	3.63	44.82	6.16	19.95	33.00	13.05	H
	10MHz	2565.00	-29.00	3.65	44.97	6.22	18.54	33.00	14.46	H
	15MHz	2507.50	-28.43	3.59	44.92	6.11	19.01	33.00	13.99	H
	15MHz	2535.00	-27.68	3.63	44.82	6.16	19.67	33.00	13.33	H
	15MHz	2562.50	-29.69	3.65	45.67	6.21	18.54	33.00	14.46	H
	20MHz	2510.00	-29.33	3.58	45.36	6.12	18.57	33.00	14.43	H
	20MHz	2535.00	-27.55	3.63	44.82	6.16	19.80	33.00	13.20	H
	20MHz	2560.00	-29.86	3.63	45.98	6.21	18.70	33.00	14.30	H
64QAM	5MHz	2535.00	-28.89	3.63	44.82	6.16	18.46	33.00	14.54	H
	10MHz	2535.00	-28.73	3.63	44.82	6.16	18.62	33.00	14.38	H
	15MHz	2535.00	-29.04	3.63	44.82	6.16	18.31	33.00	14.69	H
	20MHz	2535.00	-28.97	3.63	44.82	6.16	18.38	33.00	14.62	H
256QAM	5MHz	2535.00	-31.44	3.63	44.82	6.16	15.91	33.00	17.09	H
	10MHz	2535.00	-31.43	3.63	44.82	6.16	15.92	33.00	17.08	H
	15MHz	2535.00	-31.67	3.63	44.82	6.16	15.68	33.00	17.32	H
	20MHz	2535.00	-31.59	3.63	44.82	6.16	15.76	33.00	17.24	H



**NR n38-EIRP**
**Limits:** ≤33dBm (2W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	20MHz	2575.00	-31.31	3.66	44.92	6.23	23.18	33.00	9.82	H
	20MHz	2595.00	-31.08	3.69	44.91	6.27	23.41	33.00	9.59	H
	20MHz	2615.00	-31.46	3.68	44.94	6.31	23.11	33.00	9.89	H
	30MHz	2577.50	-31.22	3.66	44.92	6.23	23.27	33.00	9.73	H
	30MHz	2595.00	-30.91	3.69	44.91	6.27	23.58	33.00	9.42	H
	30MHz	2612.50	-31.39	3.68	44.94	6.30	23.17	33.00	9.83	H
	40MHz	2580.00	-31.21	3.67	44.92	6.24	23.28	33.00	9.72	H
	40MHz	2595.00	-31.16	3.69	44.91	6.27	23.33	33.00	9.67	H
QPSK	20MHz	2575.00	-31.43	3.66	44.92	6.23	23.06	33.00	9.94	H
	20MHz	2595.00	-31.17	3.69	44.91	6.27	23.32	33.00	9.68	H
	20MHz	2615.00	-31.54	3.68	44.94	6.31	23.03	33.00	9.97	H
	30MHz	2577.50	-31.12	3.66	44.92	6.23	23.37	33.00	9.63	H
	30MHz	2595.00	-31.01	3.69	44.91	6.27	23.48	33.00	9.52	H
	30MHz	2612.50	-31.51	3.68	44.94	6.30	23.05	33.00	9.95	H
	40MHz	2580.00	-31.29	3.67	44.92	6.24	23.20	33.00	9.80	H
	40MHz	2595.00	-30.92	3.69	44.91	6.27	23.57	33.00	9.43	H
16QAM	20MHz	2575.00	-33.36	3.66	44.92	6.23	21.13	33.00	11.87	H
	20MHz	2595.00	-33.26	3.69	44.91	6.27	21.23	33.00	11.77	H
	20MHz	2615.00	-33.46	3.68	44.94	6.31	21.11	33.00	11.89	H
	30MHz	2577.50	-32.98	3.66	44.92	6.23	21.51	33.00	11.49	H
	30MHz	2595.00	-33.17	3.69	44.91	6.27	21.32	33.00	11.68	H
	30MHz	2612.50	-33.46	3.68	44.94	6.30	21.10	33.00	11.90	H
	40MHz	2580.00	-33.18	3.67	44.92	6.24	21.31	33.00	11.69	H
	40MHz	2595.00	-33.03	3.69	44.91	6.27	21.46	33.00	11.54	H
64QAM	20MHz	2595.00	-35.25	3.69	44.91	6.27	19.24	33.00	13.76	H
	30MHz	2595.00	-35.14	3.69	44.91	6.27	19.35	33.00	13.65	H
	40MHz	2595.00	-35.21	3.69	44.91	6.27	19.28	33.00	13.72	H
256QAM	20MHz	2595.00	-37.15	3.69	44.91	6.27	17.34	33.00	15.66	H
	30MHz	2595.00	-37.02	3.69	44.91	6.27	17.47	33.00	15.53	H
	40MHz	2595.00	-36.87	3.69	44.91	6.27	17.62	33.00	15.38	H

**NR n41-EIRP**
**Limits:** ≤33dBm (2W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	20MHz	2506.02	-30.98	3.59	45.15	6.11	23.69	33.00	9.31	H
	20MHz	2592.99	-30.88	3.69	44.93	6.27	23.63	33.00	9.37	H
	20MHz	2679.99	-30.40	3.73	44.97	6.42	24.26	33.00	8.74	H
	30MHz	2511.00	-30.90	3.58	45.34	6.12	23.98	33.00	9.02	H
	30MHz	2592.99	-30.91	3.69	44.93	6.27	23.60	33.00	9.40	H
	30MHz	2674.98	-30.69	3.74	44.97	6.42	23.96	33.00	9.04	H
	40MHz	2516.01	-30.82	3.59	45.23	6.13	23.95	33.00	9.05	H
	40MHz	2592.99	-30.93	3.69	44.93	6.27	23.58	33.00	9.42	H
	40MHz	2670.00	-30.75	3.78	44.97	6.41	23.85	33.00	9.15	H
	50MHz	2521.02	-30.53	3.60	45.12	6.14	24.13	33.00	8.87	H
	50MHz	2592.99	-30.80	3.69	44.93	6.27	23.71	33.00	9.29	H
	50MHz	2664.99	-30.83	3.72	44.96	6.40	23.81	33.00	9.19	H
	60MHz	2526.00	-30.45	3.61	45.01	6.15	24.10	33.00	8.90	H
	60MHz	2592.99	-30.88	3.69	44.93	6.27	23.63	33.00	9.37	H
	60MHz	2659.98	-30.89	3.70	44.96	6.39	23.76	33.00	9.24	H
	80MHz	2536.02	-30.05	3.63	44.87	6.16	24.35	33.00	8.65	H
	80MHz	2592.99	-30.83	3.69	44.93	6.27	23.68	33.00	9.32	H
	80MHz	2649.99	-31.56	3.69	44.96	6.37	23.08	33.00	9.92	H
	90MHz	2541.00	-30.16	3.63	45.10	6.17	24.48	33.00	8.52	H
	90MHz	2592.99	-30.85	3.69	44.93	6.27	23.66	33.00	9.34	H
90MHz	2644.98	-31.50	3.68	44.96	6.36	23.14	33.00	9.86	H	
100MHz	2546.01	-30.49	3.62	45.33	6.18	24.40	33.00	8.60	H	
100MHz	2592.99	-30.94	3.69	44.93	6.27	23.57	33.00	9.43	H	
100MHz	2640.00	-31.84	3.68	44.96	6.35	22.79	33.00	10.21	H	
QPSK	20MHz	2506.02	-31.03	3.59	45.15	6.11	23.64	33.00	9.36	H
	20MHz	2592.99	-31.02	3.69	44.93	6.27	23.49	33.00	9.51	H
	20MHz	2679.99	-30.28	3.73	44.97	6.42	24.38	33.00	8.62	H
	30MHz	2511.00	-30.95	3.58	45.34	6.12	23.93	33.00	9.07	H
	30MHz	2592.99	-31.13	3.69	44.93	6.27	23.38	33.00	9.62	H
	30MHz	2674.98	-30.62	3.74	44.97	6.42	24.03	33.00	8.97	H
	40MHz	2516.01	-30.75	3.59	45.23	6.13	24.02	33.00	8.98	H
	40MHz	2592.99	-31.15	3.69	44.93	6.27	23.36	33.00	9.64	H
	40MHz	2670.00	-30.82	3.78	44.97	6.41	23.78	33.00	9.22	H
	50MHz	2521.02	-30.61	3.60	45.12	6.14	24.05	33.00	8.95	H
	50MHz	2592.99	-30.88	3.69	44.93	6.27	23.63	33.00	9.37	H
	50MHz	2664.99	-30.88	3.72	44.96	6.40	23.76	33.00	9.24	H
	60MHz	2526.00	-30.56	3.61	45.01	6.15	23.99	33.00	9.01	H
	60MHz	2592.99	-31.04	3.69	44.93	6.27	23.47	33.00	9.53	H
	60MHz	2659.98	-31.01	3.70	44.96	6.39	23.64	33.00	9.36	H
	80MHz	2536.02	-30.07	3.63	44.87	6.16	24.33	33.00	8.67	H
	80MHz	2592.99	-30.98	3.69	44.93	6.27	23.53	33.00	9.47	H
	80MHz	2649.99	-31.51	3.69	44.96	6.37	23.13	33.00	9.87	H
	90MHz	2541.00	-30.36	3.63	45.10	6.17	24.28	33.00	8.72	H
	90MHz	2592.99	-31.13	3.69	44.93	6.27	23.38	33.00	9.62	H

	90MHz	2644.98	-31.51	3.68	44.96	6.36	23.13	33.00	9.87	H
	100MHz	2546.01	-30.56	3.62	45.33	6.18	24.33	33.00	8.67	H
	100MHz	2592.99	-31.17	3.69	44.93	6.27	23.34	33.00	9.66	H
	100MHz	2640.00	-32.06	3.68	44.96	6.35	22.57	33.00	10.43	H
16QAM	20MHz	2506.02	-32.86	3.59	45.15	6.11	21.81	33.00	11.19	H
	20MHz	2592.99	-32.86	3.69	44.93	6.27	21.65	33.00	11.35	H
	20MHz	2679.99	-32.38	3.73	44.97	6.42	22.28	33.00	10.72	H
	30MHz	2511.00	-32.53	3.58	45.34	6.12	22.35	33.00	10.65	H
	30MHz	2592.99	-32.65	3.69	44.93	6.27	21.86	33.00	11.14	H
	30MHz	2674.98	-32.58	3.74	44.97	6.42	22.07	33.00	10.93	H
	40MHz	2516.01	-32.59	3.59	45.23	6.13	22.18	33.00	10.82	H
	40MHz	2592.99	-32.90	3.69	44.93	6.27	21.61	33.00	11.39	H
	40MHz	2670.00	-32.51	3.78	44.97	6.41	22.09	33.00	10.91	H
	50MHz	2521.02	-32.18	3.60	45.12	6.14	22.48	33.00	10.52	H
	50MHz	2592.99	-32.57	3.69	44.93	6.27	21.94	33.00	11.06	H
	50MHz	2664.99	-32.59	3.72	44.96	6.40	22.05	33.00	10.95	H
	60MHz	2526.00	-32.44	3.61	45.01	6.15	22.11	33.00	10.89	H
	60MHz	2592.99	-32.53	3.69	44.93	6.27	21.98	33.00	11.02	H
	60MHz	2659.98	-32.67	3.70	44.96	6.39	21.98	33.00	11.02	H
	80MHz	2536.02	-32.03	3.63	44.87	6.16	22.37	33.00	10.63	H
	80MHz	2592.99	-32.56	3.69	44.93	6.27	21.95	33.00	11.05	H
	80MHz	2649.99	-33.54	3.69	44.96	6.37	21.10	33.00	11.90	H
	90MHz	2541.00	-32.11	3.63	45.10	6.17	22.53	33.00	10.47	H
	90MHz	2592.99	-32.79	3.69	44.93	6.27	21.72	33.00	11.28	H
90MHz	2644.98	-33.40	3.68	44.96	6.36	21.24	33.00	11.76	H	
100MHz	2546.01	-32.24	3.62	45.33	6.18	22.65	33.00	10.35	H	
100MHz	2592.99	-32.65	3.69	44.93	6.27	21.86	33.00	11.14	H	
100MHz	2640.00	-33.83	3.68	44.96	6.35	20.80	33.00	12.20	H	
64QAM	20MHz	2679.99	-34.75	3.73	44.97	6.42	19.91	33.00	13.09	H
	30MHz	2511.00	-35.39	3.58	45.34	6.12	19.49	33.00	13.51	H
	40MHz	2516.01	-35.04	3.59	45.23	6.13	19.73	33.00	13.27	H
	50MHz	2521.02	-34.95	3.60	45.12	6.14	19.71	33.00	13.29	H
	60MHz	2526.00	-34.82	3.61	45.01	6.15	19.73	33.00	13.27	H
	80MHz	2536.02	-34.38	3.63	44.87	6.16	20.02	33.00	12.98	H
	90MHz	2541.00	-34.70	3.63	45.10	6.17	19.94	33.00	13.06	H
	100MHz	2546.01	-34.81	3.62	45.33	6.18	20.08	33.00	12.92	H
256QAM	20MHz	2679.99	-36.46	3.73	44.97	6.42	18.20	33.00	14.80	H
	30MHz	2511.00	-36.66	3.58	45.34	6.12	18.22	33.00	14.78	H
	40MHz	2516.01	-36.56	3.59	45.23	6.13	18.21	33.00	14.79	H
	50MHz	2521.02	-36.26	3.60	45.12	6.14	18.40	33.00	14.60	H
	60MHz	2526.00	-36.39	3.61	45.01	6.15	18.16	33.00	14.84	H
	80MHz	2536.02	-36.00	3.63	44.87	6.16	18.40	33.00	14.60	H
	90MHz	2541.00	-36.12	3.63	45.10	6.17	18.52	33.00	14.48	H
	100MHz	2546.01	-36.32	3.62	45.33	6.18	18.57	33.00	14.43	H

**NR n66-EIRP**
**Limits:** ≤30dBm (1W)

Mod.	Bandwidth (MHz)	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	5	1712.50	-29.92	3.66	44.10	5.12	22.96	30.00	7.04	V
		1745.00	-29.71	3.68	44.16	5.06	23.19	30.00	6.81	V
		1777.50	-28.60	3.04	44.04	5.01	23.49	30.00	6.51	V
	10	1715.00	-29.76	3.56	44.10	5.11	23.01	30.00	6.99	V
		1745.00	-29.75	3.68	44.16	5.06	23.15	30.00	6.85	V
		1775.00	-28.67	3.05	44.05	5.01	23.44	30.00	6.56	V
	15	1717.50	-22.75	3.47	44.11	5.11	23.00	30.00	7.00	V
		1745.00	-22.52	3.68	44.16	5.06	23.02	30.00	6.98	V
		1772.50	-22.76	3.05	44.06	5.01	23.26	30.00	6.74	V
	20	1720.00	-22.91	3.37	44.11	5.10	22.93	30.00	7.07	V
		1745.00	-22.60	3.68	44.16	5.06	22.94	30.00	7.06	V
		1770.00	-22.77	3.05	44.07	5.01	23.27	30.00	6.73	V
QPSK	5	1712.50	-29.79	3.66	44.10	5.12	23.09	30.00	6.91	V
		1745.00	-29.59	3.68	44.16	5.06	23.31	30.00	6.69	V
		1777.50	-28.51	3.04	44.04	5.01	23.58	30.00	6.42	V
	10	1715.00	-29.67	3.56	44.10	5.11	23.10	30.00	6.90	V
		1745.00	-29.67	3.68	44.16	5.06	23.23	30.00	6.77	V
		1775.00	-28.59	3.05	44.05	5.01	23.52	30.00	6.48	V
	15	1717.50	-22.65	3.47	44.11	5.11	23.10	30.00	6.90	V
		1745.00	-22.40	3.68	44.16	5.06	23.14	30.00	6.86	V
		1772.50	-22.67	3.05	44.06	5.01	23.35	30.00	6.65	V
	20	1720.00	-22.82	3.37	44.11	5.10	23.02	30.00	6.98	V
		1745.00	-22.45	3.68	44.16	5.06	23.09	30.00	6.91	V
		1770.00	-22.73	3.05	44.07	5.01	23.31	30.00	6.69	V
16QAM	5MHz	1712.50	-30.30	3.66	44.10	5.12	22.58	30.00	7.42	V
	5MHz	1745.00	-30.05	3.68	44.16	5.06	22.85	30.00	7.15	V
	5MHz	1777.50	-29.01	3.04	44.04	5.01	23.08	30.00	6.92	V
	10MHz	1715.00	-30.11	3.56	44.10	5.11	22.66	30.00	7.34	V
	10MHz	1745.00	-30.08	3.68	44.16	5.06	22.82	30.00	7.18	V
	10MHz	1775.00	-29.02	3.05	44.05	5.01	23.09	30.00	6.91	V
	15MHz	1717.50	-23.26	3.47	44.11	5.11	22.49	30.00	7.51	V
	15MHz	1745.00	-22.84	3.68	44.16	5.06	22.70	30.00	7.30	V
	15MHz	1772.50	-23.14	3.05	44.06	5.01	22.88	30.00	7.12	V
	20MHz	1720.00	-23.31	3.37	44.11	5.10	22.53	30.00	7.47	V
	20MHz	1745.00	-22.95	3.68	44.16	5.06	22.59	30.00	7.41	V
	20MHz	1770.00	-23.33	3.05	44.07	5.01	22.71	30.00	7.29	V
64QAM	5MHz	1777.50	-30.51	3.04	44.04	5.01	21.58	30.00	8.42	V
	10MHz	1775.00	-30.58	3.05	44.05	5.01	21.53	30.00	8.47	V
	15MHz	1772.50	-24.69	3.05	44.06	5.01	21.33	30.00	8.67	V
	20MHz	1770.00	-24.76	3.05	44.07	5.01	21.28	30.00	8.72	V
256QAM	5MHz	1777.50	-32.82	3.04	44.04	5.01	19.27	30.00	10.73	V
	10MHz	1775.00	-32.86	3.05	44.05	5.01	19.25	30.00	10.75	V
	15MHz	1772.50	-26.97	3.05	44.06	5.01	19.05	30.00	10.95	V
	20MHz	1770.00	-26.96	3.05	44.07	5.01	19.08	30.00	10.92	V

**NR B5-n66-EIRP**
**Limits:** ≤30dBm (1W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	5MHz	1712.50	-31.16	3.66	44.10	5.12	21.72	30.00	8.28	H
	5MHz	1745.00	-31.70	3.68	44.16	5.06	21.20	30.00	8.80	H
	5MHz	1777.50	-31.83	3.04	44.04	5.01	20.26	30.00	9.74	H
	10MHz	1715.00	-31.23	3.56	44.10	5.11	21.54	30.00	8.46	H
	10MHz	1745.00	-31.68	3.68	44.16	5.06	21.22	30.00	8.78	H
	10MHz	1775.00	-31.60	3.05	44.05	5.01	20.51	30.00	9.49	H
	15MHz	1717.50	-24.52	3.47	44.11	5.11	21.23	30.00	8.77	H
	15MHz	1745.00	-24.12	3.68	44.16	5.06	21.42	30.00	8.58	H
	15MHz	1772.50	-25.04	3.05	44.06	5.01	20.98	30.00	9.02	H
	20MHz	1720.00	-24.74	3.37	44.11	5.10	21.10	30.00	8.90	H
	20MHz	1745.00	-24.20	3.68	44.16	5.06	21.34	30.00	8.66	H
	20MHz	1770.00	-25.13	3.05	44.07	5.01	20.91	30.00	9.09	H
QPSK	5MHz	1712.50	-31.61	3.66	44.10	5.12	21.27	30.00	8.73	H
	5MHz	1745.00	-31.94	3.68	44.16	5.06	20.96	30.00	9.04	H
	5MHz	1777.50	-31.93	3.04	44.04	5.01	20.16	30.00	9.84	H
	10MHz	1715.00	-31.45	3.56	44.10	5.11	21.32	30.00	8.68	H
	10MHz	1745.00	-31.62	3.68	44.16	5.06	21.28	30.00	8.72	H
	10MHz	1775.00	-31.57	3.05	44.05	5.01	20.54	30.00	9.46	H
	15MHz	1717.50	-24.30	3.47	44.11	5.11	21.45	30.00	8.55	H
	15MHz	1745.00	-24.14	3.68	44.16	5.06	21.40	30.00	8.60	H
	15MHz	1772.50	-25.03	3.05	44.06	5.01	20.99	30.00	9.01	H
	20MHz	1720.00	-24.71	3.37	44.11	5.10	21.13	30.00	8.87	H
	20MHz	1745.00	-24.10	3.68	44.16	5.06	21.44	30.00	8.56	H
	20MHz	1770.00	-25.04	3.05	44.07	5.01	21.00	30.00	9.00	H
16QAM	5MHz	1712.50	-32.58	3.66	44.10	5.12	20.30	30.00	9.70	H
	5MHz	1745.00	-32.68	3.68	44.16	5.06	20.22	30.00	9.78	H
	5MHz	1777.50	-32.90	3.04	44.04	5.01	19.19	30.00	10.81	H
	10MHz	1715.00	-32.24	3.56	44.10	5.11	20.53	30.00	9.47	H
	10MHz	1745.00	-32.63	3.68	44.16	5.06	20.27	30.00	9.73	H
	10MHz	1775.00	-32.60	3.05	44.05	5.01	19.51	30.00	10.49	H
	15MHz	1717.50	-25.24	3.47	44.11	5.11	20.51	30.00	9.49	H
	15MHz	1745.00	-25.18	3.68	44.16	5.06	20.36	30.00	9.64	H
	15MHz	1772.50	-26.01	3.05	44.06	5.01	20.01	30.00	9.99	H
	20MHz	1720.00	-25.68	3.37	44.11	5.10	20.16	30.00	9.84	H
	20MHz	1745.00	-25.06	3.68	44.16	5.06	20.48	30.00	9.52	H
	20MHz	1770.00	-26.14	3.05	44.07	5.01	19.90	30.00	10.10	H
64QAM	5MHz	1712.50	-33.98	3.66	44.10	5.12	18.90	30.00	11.10	H
	10MHz	1715.00	-33.88	3.56	44.10	5.11	18.89	30.00	11.11	H
	15MHz	1745.00	-26.43	3.68	44.16	5.06	19.11	30.00	10.89	H
	20MHz	1745.00	-26.40	3.68	44.16	5.06	19.14	30.00	10.86	H
256QAM	5MHz	1712.50	-36.05	3.66	44.10	5.12	16.83	30.00	13.17	H
	10MHz	1715.00	-36.04	3.56	44.10	5.11	16.73	30.00	13.27	H
	15MHz	1745.00	-29.09	3.68	44.16	5.06	16.45	30.00	13.55	H
	20MHz	1745.00	-29.13	3.68	44.16	5.06	16.41	30.00	13.59	H

**NR n77L(3450MHz~3550MHz) - EIRP**
**Limits:** ≤30dBm (1W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	20MHz	3460.02	-26.03	4.23	43.80	8.10	21.64	30.00	8.36	V
	20MHz	3500.01	-27.43	4.29	44.92	8.20	21.40	30.00	8.60	V
	20MHz	3540.00	-25.22	4.31	43.85	8.22	22.54	30.00	7.46	V
	30MHz	3465.00	-26.19	4.23	44.04	8.12	21.74	30.00	8.26	V
	30MHz	3500.01	-27.37	4.29	44.92	8.20	21.46	30.00	8.54	V
	30MHz	3534.99	-24.81	4.31	43.39	8.22	22.49	30.00	7.51	V
	40MHz	3470.01	-25.84	4.23	43.82	8.13	21.88	30.00	8.12	V
	40MHz	3500.01	-27.17	4.29	44.92	8.20	21.66	30.00	8.34	V
	40MHz	3529.98	-25.32	4.32	43.74	8.22	22.31	30.00	7.69	V
	60MHz	3480.00	-25.13	4.24	43.16	8.15	21.94	30.00	8.06	V
	60MHz	3500.01	-27.04	4.29	44.92	8.20	21.79	30.00	8.21	V
	60MHz	3519.99	-26.13	4.32	44.13	8.21	21.89	30.00	8.11	V
	80MHz	3490.02	-25.97	4.25	43.78	8.18	21.73	30.00	8.27	V
	80MHz	3500.01	-26.95	4.29	44.92	8.20	21.88	30.00	8.12	V
80MHz	3510.00	-26.00	4.33	43.41	8.21	21.29	30.00	8.71	V	
QPSK	20MHz	3460.02	-26.07	4.23	43.80	8.10	21.60	30.00	8.40	V
	20MHz	3500.01	-27.47	4.29	44.92	8.20	21.36	30.00	8.64	V
	20MHz	3540.00	-25.07	4.31	43.85	8.22	22.69	30.00	7.31	V
	30MHz	3465.00	-26.06	4.23	44.04	8.12	21.87	30.00	8.13	V
	30MHz	3500.01	-27.52	4.29	44.92	8.20	21.31	30.00	8.69	V
	30MHz	3534.99	-24.92	4.31	43.39	8.22	22.38	30.00	7.62	V
	40MHz	3470.01	-25.95	4.23	43.82	8.13	21.77	30.00	8.23	V
	40MHz	3500.01	-27.32	4.29	44.92	8.20	21.51	30.00	8.49	V
	40MHz	3529.98	-25.47	4.32	43.74	8.22	22.16	30.00	7.84	V
	60MHz	3480.00	-25.23	4.24	43.16	8.15	21.84	30.00	8.16	V
	60MHz	3500.01	-26.94	4.29	44.92	8.20	21.89	30.00	8.11	V
	60MHz	3519.99	-26.04	4.32	44.13	8.21	21.98	30.00	8.02	V
	80MHz	3490.02	-25.91	4.25	43.78	8.18	21.79	30.00	8.21	V
	80MHz	3500.01	-27.04	4.29	44.92	8.20	21.79	30.00	8.21	V
80MHz	3510.00	-25.92	4.33	43.41	8.21	21.37	30.00	8.63	V	
16QAM	20MHz	3460.02	-28.21	4.23	43.80	8.10	19.46	30.00	10.54	V
	20MHz	3500.01	-29.56	4.29	44.92	8.20	19.27	30.00	10.73	V
	20MHz	3540.00	-27.61	4.31	43.85	8.22	20.15	30.00	9.85	V
	30MHz	3465.00	-28.21	4.23	44.04	8.12	19.72	30.00	10.28	V
	30MHz	3500.01	-29.61	4.29	44.92	8.20	19.22	30.00	10.78	V
	30MHz	3534.99	-27.12	4.31	43.39	8.22	20.18	30.00	9.82	V
	40MHz	3470.01	-27.91	4.23	43.82	8.13	19.81	30.00	10.19	V
	40MHz	3500.01	-29.39	4.29	44.92	8.20	19.44	30.00	10.56	V
	40MHz	3529.98	-27.48	4.32	43.74	8.22	20.15	30.00	9.85	V

	60MHz	3480.00	-27.43	4.24	43.16	8.15	19.64	30.00	10.36	V
	60MHz	3500.01	-29.28	4.29	44.92	8.20	19.55	30.00	10.45	V
	60MHz	3519.99	-28.53	4.32	44.13	8.21	19.49	30.00	10.51	V
	80MHz	3490.02	-28.00	4.25	43.78	8.18	19.70	30.00	10.30	V
	80MHz	3500.01	-29.03	4.29	44.92	8.20	19.80	30.00	10.20	V
	80MHz	3510.00	-28.13	4.33	43.41	8.21	19.16	30.00	10.84	V
64QAM	20MHz	3540.00	-28.78	4.31	43.85	8.22	18.98	30.00	11.02	V
	30MHz	3534.99	-28.23	4.31	43.39	8.22	19.07	30.00	10.93	V
	40MHz	3529.98	-28.88	4.32	43.74	8.22	18.75	30.00	11.25	V
	60MHz	3500.01	-30.34	4.29	44.92	8.20	18.49	30.00	11.51	V
	80MHz	3500.01	-30.65	4.29	44.92	8.20	18.18	30.00	11.82	V
256QAM	20MHz	3540.00	-29.92	4.31	43.85	8.22	17.84	30.00	12.16	V
	30MHz	3534.99	-29.49	4.31	43.39	8.22	17.81	30.00	12.19	V
	40MHz	3529.98	-29.88	4.32	43.74	8.22	17.75	30.00	12.25	V
	60MHz	3519.99	-30.62	4.32	44.13	8.21	17.40	30.00	12.60	V
	80MHz	3500.01	-31.35	4.29	44.92	8.20	17.48	30.00	12.52	V

**NR n77H(3700MHz~3980MHz) - EIRP**
**Limits:** ≤30dBm (1W)

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	20MHz	3710.01	-25.92	4.41	43.69	8.31	21.67	30.00	8.33	H
	20MHz	3840.00	-24.84	4.55	43.44	8.37	22.43	30.00	7.57	H
	20MHz	3969.99	-26.03	4.63	43.87	8.44	21.65	30.00	8.35	H
	30MHz	3715.02	-26.83	4.41	44.57	8.31	21.64	30.00	8.36	H
	30MHz	3840.00	-24.97	4.55	43.44	8.37	22.30	30.00	7.70	H
	30MHz	3964.98	-25.92	4.61	43.90	8.44	21.81	30.00	8.19	H
	40MHz	3720.00	-26.85	4.42	44.62	8.31	21.66	30.00	8.34	H
	40MHz	3840.00	-24.91	4.55	43.44	8.37	22.36	30.00	7.64	H
	40MHz	3960.00	-26.93	4.58	44.74	8.43	21.66	30.00	8.34	H
	60MHz	3730.02	-26.71	4.43	44.14	8.32	21.32	30.00	8.68	H
	60MHz	3840.00	-24.66	4.55	43.44	8.37	22.61	30.00	7.39	H
	60MHz	3949.98	-28.46	4.53	44.47	8.43	19.91	30.00	10.09	H
	80MHz	3740.01	-27.45	4.48	43.45	8.32	19.84	30.00	10.16	H
	80MHz	3840.00	-25.61	4.55	43.44	8.37	21.66	30.00	8.34	H
	80MHz	3939.99	-28.05	4.51	44.18	8.42	20.04	30.00	9.96	H
	100MHz	3750.00	-27.60	4.54	43.93	8.33	20.12	30.00	9.88	H
100MHz	3840.00	-25.83	4.55	43.44	8.37	21.44	30.00	8.56	H	
100MHz	3930.00	-28.06	4.49	44.53	8.42	20.40	30.00	9.60	H	
QPSK	20MHz	3710.01	-25.95	4.41	43.69	8.31	21.64	30.00	8.36	H
	20MHz	3840.00	-24.75	4.55	43.44	8.37	22.52	30.00	7.48	H
	20MHz	3969.99	-26.29	4.63	43.87	8.44	21.39	30.00	8.61	H
	30MHz	3715.02	-27.02	4.41	44.57	8.31	21.45	30.00	8.55	H
	30MHz	3840.00	-24.71	4.55	43.44	8.37	22.56	30.00	7.44	H
	30MHz	3964.98	-26.24	4.61	43.90	8.44	21.49	30.00	8.51	H
	40MHz	3720.00	-27.05	4.42	44.62	8.31	21.46	30.00	8.54	H
	40MHz	3840.00	-24.70	4.55	43.44	8.37	22.57	30.00	7.43	H
	40MHz	3960.00	-27.44	4.58	44.74	8.43	21.15	30.00	8.85	H
	60MHz	3730.02	-26.63	4.43	44.14	8.32	21.40	30.00	8.60	H
	60MHz	3840.00	-24.69	4.55	43.44	8.37	22.58	30.00	7.42	H
	60MHz	3949.98	-28.25	4.53	44.47	8.43	20.12	30.00	9.88	H
	80MHz	3740.01	-27.10	4.48	43.45	8.32	20.19	30.00	9.81	H
	80MHz	3840.00	-25.47	4.55	43.44	8.37	21.80	30.00	8.20	H
	80MHz	3939.99	-27.89	4.51	44.18	8.42	20.20	30.00	9.80	H
	100MHz	3750.00	-27.80	4.54	43.93	8.33	19.92	30.00	10.08	H
100MHz	3840.00	-25.72	4.55	43.44	8.37	21.55	30.00	8.45	H	
100MHz	3930.00	-27.96	4.49	44.53	8.42	20.50	30.00	9.50	H	
16QAM	20MHz	3710.01	-28.29	4.41	43.69	8.31	19.30	30.00	10.70	H
	20MHz	3840.00	-27.13	4.55	43.44	8.37	20.14	30.00	9.86	H
	20MHz	3969.99	-28.44	4.63	43.87	8.44	19.24	30.00	10.76	H



	30MHz	3715.02	-29.38	4.41	44.57	8.31	19.09	30.00	10.91	H
	30MHz	3840.00	-26.99	4.55	43.44	8.37	20.28	30.00	9.72	H
	30MHz	3964.98	-28.60	4.61	43.90	8.44	19.13	30.00	10.87	H
	40MHz	3720.00	-29.40	4.42	44.62	8.31	19.11	30.00	10.89	H
	40MHz	3840.00	-26.86	4.55	43.44	8.37	20.41	30.00	9.59	H
	40MHz	3960.00	-29.72	4.58	44.74	8.43	18.87	30.00	11.13	H
	60MHz	3730.02	-28.79	4.43	44.14	8.32	19.24	30.00	10.76	H
	60MHz	3840.00	-26.94	4.55	43.44	8.37	20.33	30.00	9.67	H
	60MHz	3949.98	-30.50	4.53	44.47	8.43	17.87	30.00	12.13	H
	80MHz	3740.01	-29.27	4.48	43.45	8.32	18.02	30.00	11.98	H
	80MHz	3840.00	-27.70	4.55	43.44	8.37	19.57	30.00	10.43	H
	80MHz	3939.99	-30.27	4.51	44.18	8.42	17.82	30.00	12.18	H
	100MHz	3750.00	-30.04	4.54	43.93	8.33	17.68	30.00	12.32	H
	100MHz	3840.00	-27.95	4.55	43.44	8.37	19.32	30.00	10.68	H
	100MHz	3930.00	-30.01	4.49	44.53	8.42	18.45	30.00	11.55	H
64QAM	20MHz	3840.00	-28.19	4.55	43.44	8.37	19.08	30.00	10.92	H
	30MHz	3840.00	-28.35	4.55	43.44	8.37	18.92	30.00	11.08	H
	40MHz	3840.00	-28.01	4.55	43.44	8.37	19.26	30.00	10.74	H
	60MHz	3840.00	-28.01	4.55	43.44	8.37	19.26	30.00	10.74	H
	80MHz	3840.00	-29.05	4.55	43.44	8.37	18.22	30.00	11.78	H
	100MHz	3840.00	-29.33	4.55	43.44	8.37	17.94	30.00	12.06	H
256QAM	20MHz	3840.00	-29.26	4.55	43.44	8.37	18.01	30.00	11.99	H
	30MHz	3840.00	-28.99	4.55	43.44	8.37	18.28	30.00	11.72	H
	40MHz	3840.00	-29.06	4.55	43.44	8.37	18.21	30.00	11.79	H
	60MHz	3840.00	-28.95	4.55	43.44	8.37	18.32	30.00	11.68	H
	80MHz	3840.00	-29.85	4.55	43.44	8.37	17.42	30.00	12.58	H
	100MHz	3840.00	-30.05	4.55	43.44	8.37	17.22	30.00	12.78	H

**NR n78L(3450MHz~3550MHz) - EIRP**
**Limits: ≤30dBm (1W)**

Mod.	Bandwidth	Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)	P <sub>Ag</sub> (dB)	G <sub>a</sub> (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Ant.Pol
pi/2 BPSK	20MHz	3460.02	-26.06	4.24	43.94	8.10	21.74	30.00	8.26	V
	20MHz	3500.01	-26.42	4.29	44.92	8.20	22.41	30.00	7.59	H
	20MHz	3540.00	-24.34	4.31	43.44	8.22	23.02	30.00	6.98	H
	30MHz	3465.00	-25.72	4.23	43.80	8.10	21.95	30.00	8.05	V
	30MHz	3500.01	-26.36	4.29	44.92	8.20	22.47	30.00	7.53	H
	30MHz	3534.99	-24.72	4.31	43.85	8.22	23.04	30.00	6.96	H
	40MHz	3470.01	-25.66	4.23	43.82	8.13	22.06	30.00	7.94	V
	40MHz	3500.01	-26.36	4.29	44.92	8.20	22.47	30.00	7.53	H
	40MHz	3529.98	-24.68	4.32	43.74	8.22	22.95	30.00	7.05	H
	50MHz	3475.02	-25.77	4.24	44.11	8.14	22.24	30.00	7.76	H
	50MHz	3500.01	-26.46	4.29	44.92	8.20	22.37	30.00	7.63	H
	50MHz	3525.00	-25.19	4.32	44.03	8.21	22.73	30.00	7.27	H
	60MHz	3480.00	-24.89	4.24	43.16	8.15	22.18	30.00	7.82	H
	60MHz	3500.01	-26.37	4.29	44.92	8.20	22.46	30.00	7.54	H
	60MHz	3519.99	-25.26	4.32	44.13	8.21	22.76	30.00	7.24	H
	70MHz	3485.01	-26.47	4.25	44.86	8.16	22.30	30.00	7.70	H
	70MHz	3500.01	-26.32	4.29	44.92	8.20	22.51	30.00	7.49	H
	70MHz	3514.98	-25.66	4.33	44.36	8.21	22.58	30.00	7.42	H
	80MHz	3490.02	-25.61	4.25	43.78	8.18	22.09	30.00	7.91	H
	80MHz	3500.01	-26.45	4.29	44.92	8.20	22.38	30.00	7.62	H
80MHz	3510.00	-24.64	4.33	43.41	8.21	22.65	30.00	7.35	H	
90MHz	3495.00	-25.31	4.27	43.69	8.19	22.30	30.00	7.70	H	
90MHz	3500.01	-26.56	4.29	44.92	8.20	22.27	30.00	7.73	H	
90MHz	3504.99	-26.08	4.31	44.84	8.20	22.65	30.00	7.35	H	
QPSK	20MHz	3460.02	-25.92	4.24	43.94	8.10	21.88	30.00	8.12	V
	20MHz	3500.01	-26.39	4.29	44.92	8.20	22.44	30.00	7.56	H
	20MHz	3540.00	-24.40	4.31	43.44	8.22	22.96	30.00	7.04	H
	30MHz	3465.00	-25.70	4.23	43.80	8.10	21.97	30.00	8.03	V
	30MHz	3500.01	-26.19	4.29	44.92	8.20	22.64	30.00	7.36	H
	30MHz	3534.99	-24.59	4.31	43.85	8.22	23.17	30.00	6.83	H
	40MHz	3470.01	-25.64	4.23	43.82	8.13	22.08	30.00	7.92	V
	40MHz	3500.01	-26.19	4.29	44.92	8.20	22.64	30.00	7.36	H
	40MHz	3529.98	-24.55	4.32	43.74	8.22	23.08	30.00	6.92	H
	50MHz	3475.02	-25.87	4.24	44.11	8.14	22.14	30.00	7.86	H
	50MHz	3500.01	-26.39	4.29	44.92	8.20	22.44	30.00	7.56	H
	50MHz	3525.00	-25.12	4.32	44.03	8.21	22.80	30.00	7.20	H
	60MHz	3480.00	-24.85	4.24	43.16	8.15	22.22	30.00	7.78	H
	60MHz	3500.01	-26.47	4.29	44.92	8.20	22.36	30.00	7.64	H
60MHz	3519.99	-25.36	4.32	44.13	8.21	22.66	30.00	7.34	H	

	70MHz	3485.01	-26.34	4.25	44.86	8.16	22.43	30.00	7.57	H
	70MHz	3500.01	-26.26	4.29	44.92	8.20	22.57	30.00	7.43	H
	70MHz	3514.98	-25.50	4.33	44.36	8.21	22.74	30.00	7.26	H
	80MHz	3490.02	-25.50	4.25	43.78	8.18	22.20	30.00	7.80	H
	80MHz	3500.01	-26.45	4.29	44.92	8.20	22.38	30.00	7.62	H
	80MHz	3510.00	-24.71	4.33	43.41	8.21	22.58	30.00	7.42	H
	90MHz	3495.00	-25.41	4.27	43.69	8.19	22.20	30.00	7.80	H
	90MHz	3500.01	-26.47	4.29	44.92	8.20	22.36	30.00	7.64	H
	90MHz	3504.99	-26.18	4.31	44.84	8.20	22.55	30.00	7.45	H
16QAM	20MHz	3460.02	-28.31	4.24	43.94	8.10	19.49	30.00	10.51	V
	20MHz	3500.01	-28.49	4.29	44.92	8.20	20.34	30.00	9.66	H
	20MHz	3540.00	-26.65	4.31	43.44	8.22	20.71	30.00	9.29	H
	30MHz	3465.00	-28.07	4.23	43.80	8.10	19.60	30.00	10.40	V
	30MHz	3500.01	-28.51	4.29	44.92	8.20	20.32	30.00	9.68	H
	30MHz	3534.99	-26.79	4.31	43.85	8.22	20.97	30.00	9.03	H
	40MHz	3470.01	-28.01	4.23	43.82	8.13	19.71	30.00	10.29	V
	40MHz	3500.01	-28.51	4.29	44.92	8.20	20.32	30.00	9.68	H
	40MHz	3529.98	-26.75	4.32	43.74	8.22	20.88	30.00	9.12	H
	50MHz	3475.02	-27.87	4.24	44.11	8.14	20.14	30.00	9.86	H
	50MHz	3500.01	-28.69	4.29	44.92	8.20	20.14	30.00	9.86	H
	50MHz	3525.00	-27.39	4.32	44.03	8.21	20.53	30.00	9.47	H
	60MHz	3480.00	-27.27	4.24	43.16	8.15	19.80	30.00	10.20	H
	60MHz	3500.01	-28.51	4.29	44.92	8.20	20.32	30.00	9.68	H
	60MHz	3519.99	-27.45	4.32	44.13	8.21	20.57	30.00	9.43	H
	70MHz	3485.01	-28.79	4.25	44.86	8.16	19.98	30.00	10.02	H
	70MHz	3500.01	-28.63	4.29	44.92	8.20	20.20	30.00	9.80	H
	70MHz	3514.98	-27.96	4.33	44.36	8.21	20.28	30.00	9.72	H
	80MHz	3490.02	-27.81	4.25	43.78	8.18	19.89	30.00	10.11	H
	80MHz	3500.01	-28.58	4.29	44.92	8.20	20.25	30.00	9.75	H
80MHz	3510.00	-26.87	4.33	43.41	8.21	20.42	30.00	9.58	H	
90MHz	3495.00	-27.64	4.27	43.69	8.19	19.97	30.00	10.03	H	
90MHz	3500.01	-28.83	4.29	44.92	8.20	20.00	30.00	10.00	H	
90MHz	3504.99	-28.32	4.31	44.84	8.20	20.41	30.00	9.59	H	
64QAM	20MHz	3540.00	-27.52	4.31	43.44	8.22	19.84	30.00	10.16	H
	30MHz	3534.99	-28.05	4.31	43.85	8.22	19.71	30.00	10.29	H
	40MHz	3529.98	-28.01	4.32	43.74	8.22	19.62	30.00	10.38	H
	50MHz	3525.00	-28.57	4.32	44.03	8.21	19.35	30.00	10.65	H
	60MHz	3519.99	-28.72	4.32	44.13	8.21	19.30	30.00	10.70	H
	70MHz	3514.98	-29.00	4.33	44.36	8.21	19.24	30.00	10.76	H
	80MHz	3510.00	-28.12	4.33	43.41	8.21	19.17	30.00	10.83	H
	90MHz	3504.99	-29.19	4.31	44.84	8.20	19.54	30.00	10.46	H
256QAM	20MHz	3540.00	-28.92	4.31	43.44	8.22	18.44	30.00	11.56	H
	30MHz	3534.99	-29.06	4.31	43.85	8.22	18.70	30.00	11.30	H

	40MHz	3529.98	-29.02	4.32	43.74	8.22	18.61	30.00	11.39	H
	50MHz	3525.00	-29.45	4.32	44.03	8.21	18.47	30.00	11.53	H
	60MHz	3519.99	-29.66	4.32	44.13	8.21	18.36	30.00	11.64	H
	70MHz	3514.98	-30.09	4.33	44.36	8.21	18.15	30.00	11.85	H
	80MHz	3510.00	-28.94	4.33	43.41	8.21	18.35	30.00	11.65	H
	90MHz	3504.99	-30.41	4.31	44.84	8.20	18.32	30.00	11.68	H

Note: The maximum value of expanded measurement uncertainty for this test item is  $U = 5.76$  dB,  $k = 2$ .

## A.2 Emission Limit

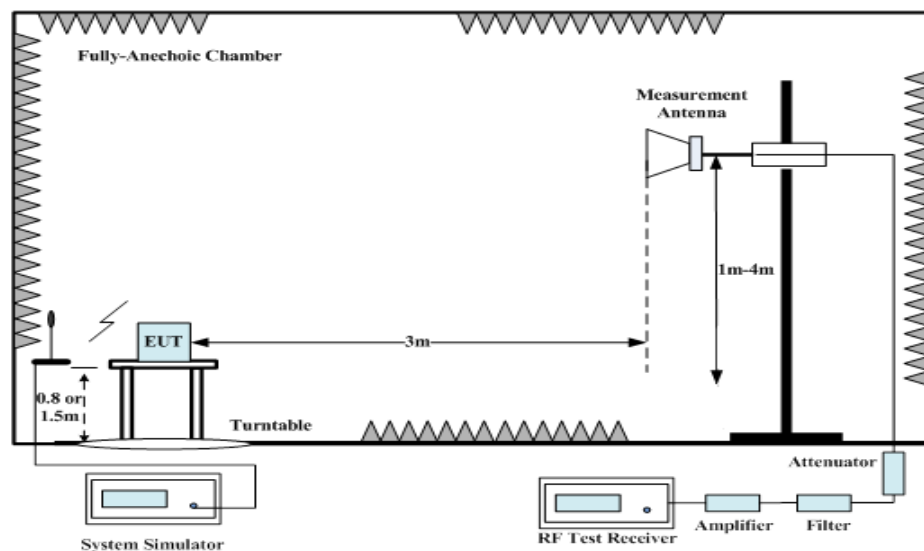
### **A.2.1 Measurement Method**

The measurement procedures in TIA-603E-2016 are used.

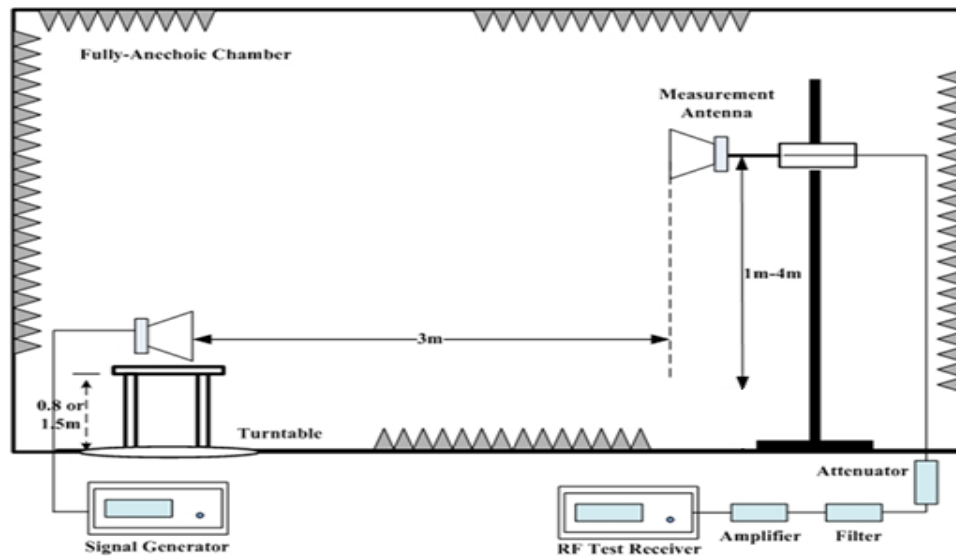
The spectrum was scanned from 9kHz to the lower of the 10th harmonic of the highest fundamental frequency and 40GHz. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of each NR Band.

#### **The procedure of radiated spurious emissions is as follows:**

For measurements performed at frequencies less than or equal to 1 GHz, the EUT was placed on a 80cm-high non-conductive support; For measurements performed at frequencies above 1GHz,EUT was placed on a 1.5-meter-high non-conductive support. A measurement antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. In the initial test, the height of the measurement antenna was varied from 1 m to 4 m for the relative positioning that produces the maximum radiated signal level. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector.



1. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
2. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. The height of measurement antenna varied between 1 m to 4 m to maximize the received signal amplitude for each emission that was detected and measured in the initial test. A power ( $P_{Mea}$ ) is applied to the input of the substitution antenna and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded ( $P_r$ ). The power of signal source ( $P_{Mea}$ ) is recorded. The test was performed with the measurement antenna in both vertical and horizontal polarization.

3. The Path loss ( $P_{pl}$ ) between the Signal Source and the Substitution Antenna and the Substitution Antenna Gain ( $G_a$ ) were recorded after test. A amplifier was connected in for the test. The Path loss ( $P_{pl}$ ) is the summation of the cable loss and the gain of the amplifier.
4. The measurement results are obtained as described below:

$$\text{Power (EIRP)} = P_{Mea} - P_{pl} + G_a$$

This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole,  $ERP = EIRP - 2.15\text{dBi}$ .

### A.2.2 Measurement Limit

**n5:** 22.917 specify that Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power ( $P$ ) by a factor of at least  $43 + 10 \log (P)$  dB.

**n7/n38/n41:** 27.53(m) (4) specifies " For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz

may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. "

**n66:** 27.53(h) specifies "AWS emission limits—(1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB"

**n77L/n78L:** Part 27.53(n) states 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

**n77H:** Part 27.53(l) states 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

### **A.2.3 Measurement Results**

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of each NR Band. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of each NR Band into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this.

For NR operation, all subcarrier spacing (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration.

Spurious emissions shown in this section measured while operating in EN-DC mode with sub 6GHz NR carrier as well as an LTE (anchor). Spurious emission from the NR carrier device is subject to the rules under which the NR carrier operates. Spurious emissions caused by the LTE carrier must meet the requirement of the rules under which the LTE carrier operates.

The range of evaluated frequency is from 9 kHz to 10th harmonic of the fundamental frequency of the transmitter. Measurement value showed only up to 6 maximum emissions noted.

**A.2.4 Measurement Results Table**

Frequency	Channel	Frequency Range	Result
NR Bands	Low	9kHz-40GHz	Pass
	Middle	9kHz-40GHz	Pass
	High	9kHz-40GHz	Pass

**A.2.5 Sweep Table**

Subrange	RBW	VBW
9~150 kHz	0.2kHz	0.6kHz
150kHz~30MHz	9kHz	27kHz
30MHz~1 GHz	100KHz	300KHz
1~40 GHz	1 MHz	3 MHz



### A.2.6 Measurement Result

#### NR n5, 5MHz, PI/2 BPSK, Channel 165300

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
1429.51	-58.80	3.27	7.86	2.15	-56.36	-13.00	43.36	H
2133.00	-52.51	4.23	8.36	2.15	-50.53	-13.00	37.53	V
2831.50	-49.93	4.95	10.63	2.15	-46.40	-13.00	33.40	H
3523.61	-64.00	5.56	10.60	2.15	-61.11	-13.00	48.11	V
4232.36	-60.37	6.26	10.56	2.15	-58.22	-13.00	45.22	H
4957.52	-60.77	6.68	11.22	2.15	-58.38	-13.00	45.38	H

#### NR n5, 5MHz, PI/2 BPSK, Channel 167300

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
1422.76	-58.47	3.26	7.85	2.15	-56.03	-13.00	43.03	H
2136.25	-53.62	4.23	8.41	2.15	-51.59	-13.00	38.59	H
2815.50	-48.75	4.93	10.56	2.15	-45.27	-13.00	32.27	H
3535.33	-64.33	5.67	10.60	2.15	-61.55	-13.00	48.55	V
4245.02	-60.55	6.24	10.59	2.15	-58.35	-13.00	45.35	V
4960.80	-61.07	6.67	11.22	2.15	-58.67	-13.00	45.67	V

#### NR n5, 5MHz, PI/2 BPSK, Channel 169300

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
1418.51	-58.93	3.26	7.84	2.15	-56.50	-13.00	43.50	H
2120.00	-53.24	4.21	8.18	2.15	-51.42	-13.00	38.42	V
2818.00	-48.62	4.94	10.57	2.15	-45.14	-13.00	32.14	H
3523.14	-64.09	5.56	10.60	2.15	-61.20	-13.00	48.20	V
4232.36	-49.11	6.26	10.56	2.15	-46.96	-13.00	33.96	H
4951.42	-60.16	6.69	11.20	2.15	-57.80	-13.00	44.80	V

**NR EN-DC B66-n5, 5MHz, PI/2 BPSK, Channel 165300**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3510.49	-58.39	5.54	10.60	2.15	-55.48	-13.00	42.48	V
5265.49	-47.78	6.99	11.67	2.15	-45.25	-13.00	32.25	H
7013.92	-55.09	8.28	10.43	2.15	-55.09	-13.00	42.09	H
8696.73	-53.41	8.36	11.30	2.15	-52.62	-13.00	39.62	V
10470.95	-51.77	9.70	12.17	2.15	-51.45	-13.00	38.45	H
12240.95	-51.89	10.03	13.52	2.15	-50.55	-13.00	37.55	H

**NR EN-DC B66-n5, 5MHz, PI/2 BPSK, Channel 167300**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3510.02	-59.10	5.54	10.60	2.15	-56.19	-13.00	43.19	H
5265.49	-49.81	6.99	11.67	2.15	-47.28	-13.00	34.28	H
7035.95	-56.34	8.25	10.47	2.15	-56.27	-13.00	43.27	V
8786.26	-53.12	8.62	11.30	2.15	-52.59	-13.00	39.59	H
10519.70	-50.68	9.58	12.20	2.15	-50.21	-13.00	37.21	H
12287.35	-53.18	10.00	13.66	2.15	-51.67	-13.00	38.67	H

**NR EN-DC B66-n5, 5MHz, PI/2 BPSK, Channel 169300**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3510.49	-59.87	5.54	10.60	2.15	-56.96	-13.00	43.96	H
5265.49	-48.96	6.99	11.67	2.15	-46.43	-13.00	33.43	H
6979.23	-55.20	8.14	10.40	2.15	-55.09	-13.00	42.09	H
8713.14	-52.77	8.40	11.30	2.15	-52.02	-13.00	39.02	V
10502.35	-51.66	9.64	12.20	2.15	-51.25	-13.00	38.25	H
12225.01	-52.62	10.04	13.48	2.15	-51.33	-13.00	38.33	H

**NR n7, 5MHz, PI/2 BPSK, Channel 500500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5004.85	-51.94	6.59	11.31	-47.22	-25.00	22.22	H
7498.60	-55.31	8.39	10.30	-53.40	-25.00	28.40	V
10018.13	-54.82	9.23	11.92	-52.13	-25.00	27.13	H
12510.00	-52.60	10.20	13.30	-49.50	-25.00	24.50	H
14989.22	-53.42	11.21	14.46	-50.17	-25.00	25.17	H
17487.66	-45.37	12.70	13.05	-45.02	-25.00	20.02	V

**NR n7, 5MHz, PI/2 BPSK, Channel 507000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5070.01	-60.11	6.69	11.44	-55.36	-25.00	30.36	H
7631.26	-56.01	8.11	10.46	-53.66	-25.00	28.66	H
10142.82	-54.62	9.39	12.00	-52.01	-25.00	27.01	V
12655.78	-53.29	10.37	13.19	-50.47	-25.00	25.47	V
15236.72	-54.62	11.35	14.94	-51.03	-25.00	26.03	H
17774.53	-47.57	12.59	13.53	-46.63	-25.00	21.63	H

**NR n7, 5MHz, PI/2 BPSK, Channel 513500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5135.16	-60.46	6.86	11.57	-55.75	-25.00	30.75	H
7689.85	-55.88	8.38	10.66	-53.60	-25.00	28.60	V
10267.51	-53.71	9.53	12.00	-51.24	-25.00	26.24	H
12850.32	-53.21	10.64	12.85	-51.00	-25.00	26.00	V
15384.38	-54.12	11.38	15.08	-50.42	-25.00	25.42	V
17992.50	-46.99	12.90	13.40	-46.49	-25.00	21.49	V

**NR EN-DC B5-n7, 5MHz, PI/2 BPSK, Channel 500500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5008.60	-62.94	6.59	11.32	-58.21	-25.00	33.21	V
7508.44	-56.43	8.36	10.30	-54.49	-25.00	29.49	V
10010.63	-55.27	9.21	11.91	-52.57	-25.00	27.57	V
12509.07	-52.67	10.20	13.30	-49.57	-25.00	24.57	H
15012.66	-53.25	11.23	14.51	-49.97	-25.00	24.97	H
17512.97	-46.66	12.77	13.04	-46.39	-25.00	21.39	H

**NR EN-DC B5-n7, 5MHz, PI/2 BPSK, Channel 507000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5068.13	-62.53	6.68	11.44	-57.77	-25.00	32.77	H
7605.01	-53.51	8.00	10.41	-51.10	-25.00	26.10	V
10138.13	-55.46	9.40	12.00	-52.86	-25.00	27.86	V
12674.53	-55.63	10.34	13.15	-52.82	-25.00	27.82	V
15211.88	-56.13	11.38	14.91	-52.60	-25.00	27.60	V
17737.97	-48.57	12.39	13.56	-47.40	-25.00	22.40	V

**NR EN-DC B5-n7, 5MHz, PI/2 BPSK, Channel 513500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5133.76	-61.40	6.86	11.57	-56.69	-25.00	31.69	H
7704.85	-56.07	8.42	10.70	-53.79	-25.00	28.79	V
10273.13	-54.23	9.55	12.00	-51.78	-25.00	26.78	H
12837.19	-54.05	10.67	12.86	-51.86	-25.00	26.86	V
15407.81	-55.72	11.40	15.12	-52.00	-25.00	27.00	V
17975.63	-47.91	12.90	13.40	-47.41	-25.00	22.41	V

**NR n38, 10MHz, PI/2 BPSK, Channel 515000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5140.79	-62.32	6.87	11.58	-57.61	-25.00	32.61	H
7740.01	-54.06	8.37	10.70	-51.73	-25.00	26.73	V
10348.60	-53.70	9.72	12.05	-51.37	-25.00	26.37	V
12901.88	-53.38	10.51	12.80	-51.09	-25.00	26.09	H
15450.47	-54.02	11.46	15.20	-50.28	-25.00	25.28	V
16765.31	-52.43	11.98	14.07	-50.34	-25.00	25.34	V

**NR n38, 10MHz, PI/2 BPSK, Channel 519000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5165.16	-63.14	6.91	11.63	-58.42	-25.00	33.42	H
7798.60	-56.11	8.29	10.89	-53.51	-25.00	28.51	H
10381.88	-53.92	9.77	12.08	-51.61	-25.00	26.61	H
12957.66	-53.28	10.48	12.74	-51.02	-25.00	26.02	V
15570.00	-55.05	11.50	15.37	-51.18	-25.00	26.18	H
16846.41	-51.43	12.06	14.05	-49.44	-25.00	24.44	V

**NR n38, 10MHz, PI/2 BPSK, Channel 523000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5227.98	-63.62	7.00	11.70	-58.92	-25.00	33.92	V
7830.01	-54.59	8.33	11.02	-51.90	-25.00	26.90	H
10448.44	-53.09	9.73	12.15	-50.67	-25.00	25.67	H
13051.41	-52.11	10.71	12.70	-50.12	-25.00	25.12	V
15681.56	-55.93	11.58	15.24	-52.27	-25.00	27.27	V
16952.81	-50.47	12.20	13.99	-48.68	-25.00	23.68	H

**NR n41, 20MHz, PI/2 BPSK, Channel 501204**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5004.85	-61.75	6.59	11.31	-57.03	-25.00	32.03	V
7531.41	-55.91	8.26	10.30	-53.87	-25.00	28.87	H
10048.13	-54.20	9.32	11.95	-51.57	-25.00	26.57	H
12536.25	-53.83	10.28	13.30	-50.81	-25.00	25.81	V
15010.31	-53.02	11.23	14.51	-49.74	-25.00	24.74	H
17531.25	-44.79	12.84	13.09	-44.54	-25.00	19.54	V

**NR n41, 20MHz, PI/2 BPSK, Channel 518598**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5185.79	-61.73	6.94	11.67	-57.00	-25.00	32.00	H
7770.48	-55.71	8.33	10.78	-53.26	-25.00	28.26	H
10372.97	-53.92	9.76	12.07	-51.61	-25.00	26.61	H
12974.07	-52.64	10.48	12.73	-50.39	-25.00	25.39	V
15542.35	-55.84	11.51	15.34	-52.01	-25.00	27.01	V
16882.97	-52.25	12.02	14.08	-50.19	-25.00	25.19	V

**NR n41, 20MHz, PI/2 BPSK, Channel 535998**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5354.54	-63.23	6.93	11.49	-58.67	-25.00	33.67	V
8047.98	-56.02	8.32	11.30	-53.04	-25.00	28.04	H
10710.94	-53.63	9.33	12.11	-50.85	-25.00	25.85	H
13405.32	-51.66	10.57	12.41	-49.82	-25.00	24.82	H
16075.78	-55.12	11.85	15.45	-51.52	-25.00	26.52	H
17418.75	-48.18	12.54	13.32	-47.40	-25.00	22.40	V

**NR EN-DC B66 -n41, 20MHz, PI/2 BPSK, Channel 501204**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
6477.66	-58.74	7.53	10.74	-55.53	-25.00	30.53	V
7773.76	-55.21	8.32	10.80	-52.73	-25.00	27.73	H
9089.54	-54.65	8.96	11.80	-51.81	-25.00	26.81	H
10365.94	-54.01	9.75	12.07	-51.69	-25.00	26.69	H
11697.19	-53.43	9.62	12.70	-50.35	-25.00	25.35	V
12958.13	-53.02	10.48	12.74	-50.76	-25.00	25.76	H

**NR EN-DC B 66-n41, 20MHz, PI/2 BPSK, Channel 518598**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
6464.07	-58.78	7.54	10.77	-55.55	-25.00	30.55	H
7794.85	-55.49	8.29	10.88	-52.90	-25.00	27.90	H
9094.69	-54.45	8.95	11.80	-51.60	-25.00	26.60	H
10344.38	-53.44	9.71	12.04	-51.11	-25.00	26.11	H
11658.29	-53.38	9.69	12.74	-50.33	-25.00	25.33	H
12994.22	-52.65	10.47	12.71	-50.41	-25.00	25.41	V

**NR EN-DC B 66-n41, 20MHz, PI/2 BPSK, Channel 535998**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
6506.73	-58.29	7.51	10.69	-55.11	-25.00	30.11	V
7805.63	-56.39	8.29	10.92	-53.76	-25.00	28.76	V
9050.16	-54.86	9.07	11.80	-52.13	-25.00	27.13	H
10345.32	-53.55	9.71	12.05	-51.21	-25.00	26.21	H
11660.63	-53.04	9.68	12.74	-49.98	-25.00	24.98	V
12957.66	-52.86	10.48	12.74	-50.60	-25.00	25.60	V

**NR n66, 5MHz, Channel 342500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3507.67	-74.59	5.53	10.60	-69.52	-13.00	56.52	V
5239.70	-72.04	7.00	11.70	-67.34	-13.00	54.34	V
6982.51	-67.23	8.16	10.40	-64.99	-13.00	51.99	V
8706.10	-64.60	8.38	11.30	-61.68	-13.00	48.68	H
10468.13	-63.24	9.70	12.17	-60.77	-13.00	47.77	V
12232.04	-63.79	10.04	13.50	-60.33	-13.00	47.33	H

**NR n66, 5MHz, Channel 349000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3489.85	-72.09	5.50	10.56	-67.03	-13.00	54.03	H
5235.01	-54.65	7.00	11.70	-49.95	-13.00	36.95	H
6972.19	-67.05	8.08	10.40	-64.73	-13.00	51.73	V
8739.85	-64.43	8.48	11.30	-61.61	-13.00	48.61	H
10470.01	-63.42	9.70	12.17	-60.95	-13.00	47.95	H
12207.19	-63.98	10.05	13.42	-60.61	-13.00	47.61	H

**NR n66, 5MHz, Channel 355500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3504.38	-74.97	5.53	10.60	-69.90	-13.00	56.90	V
5224.70	-72.35	7.00	11.70	-67.65	-13.00	54.65	V
6963.29	-67.19	8.02	10.40	-64.81	-13.00	51.81	V
8708.91	-64.72	8.39	11.30	-61.81	-13.00	48.81	H
10479.38	-63.29	9.68	12.18	-60.79	-13.00	47.79	V
12204.85	-63.63	10.06	13.41	-60.28	-13.00	47.28	H



**NR EN-DC B5–n66, 5MHz, Channel 342500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5229.85	-72.43	7.00	11.70	-67.73	-13.00	54.73	V
6965.63	-67.02	8.03	10.40	-64.65	-13.00	51.65	V
8707.51	-64.43	8.38	11.30	-61.51	-13.00	48.51	H
10458.76	-63.19	9.71	12.16	-60.74	-13.00	47.74	V
12196.41	-63.29	10.07	13.39	-59.97	-13.00	46.97	H
13961.72	-60.82	10.83	12.46	-59.19	-13.00	46.19	V

**NR EN-DC B5–n66, 5MHz, Channel 349000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5235.01	-62.53	7.00	11.70	-57.83	-13.00	44.83	H
6977.82	-66.86	8.13	10.40	-64.59	-13.00	51.59	V
8712.66	-64.53	8.40	11.30	-61.63	-13.00	48.63	V
10462.04	-63.14	9.71	12.16	-60.69	-13.00	47.69	H
12196.88	-63.46	10.07	13.39	-60.14	-13.00	47.14	H
13975.32	-60.59	10.84	12.48	-58.95	-13.00	45.95	H

**NR EN-DC B5–n66, 5MHz, Channel 355500**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
3549.85	-74.15	5.82	10.60	-69.37	-13.00	56.37	V
5325.48	-67.42	6.99	11.55	-62.86	-13.00	49.86	H
7098.76	-66.68	8.16	10.50	-64.34	-13.00	51.34	H
8872.51	-64.30	8.79	11.45	-61.64	-13.00	48.64	V
10666.41	-62.88	9.30	12.13	-60.05	-13.00	47.05	V
12444.38	-63.12	10.32	13.36	-60.08	-13.00	47.08	H

**NR n77L, 20MHz, PI/2 BPSK, Channel 630668**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
8628.00	-55.15	8.46	11.34	-52.27	-13.00	39.27	V
10385.00	-54.15	9.78	12.09	-51.84	-13.00	38.84	H
12092.00	-52.35	10.32	13.11	-49.56	-13.00	36.56	H
13819.00	-50.76	10.64	12.48	-48.92	-13.00	35.92	H
15545.00	-54.88	11.51	15.35	-51.04	-13.00	38.04	H
17324.00	-47.93	12.40	13.70	-46.63	-13.00	33.63	H

**NR n77L, 20MHz, PI/2 BPSK, Channel 633334**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
6992.00	-56.94	8.24	10.40	-54.78	-13.00	41.78	H
10504.00	-52.95	9.64	12.20	-50.39	-13.00	37.39	H
12228.00	-54.11	10.04	13.48	-50.67	-13.00	37.67	H
13993.00	-49.88	10.85	12.49	-48.24	-13.00	35.24	V
15743.00	-54.26	11.63	15.20	-50.69	-13.00	37.69	V
17508.00	-44.87	12.75	13.02	-44.60	-13.00	31.60	H

**NR n77L, 20MHz, PI/2 BPSK, Channel 636000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
7106.00	-56.33	8.16	10.50	-53.99	-13.00	40.99	H
10592.00	-53.55	9.31	12.20	-50.66	-13.00	37.66	H
12368.00	-54.31	10.30	13.50	-51.11	-13.00	38.11	H
14187.00	-51.45	10.90	12.69	-49.66	-13.00	36.66	V
15931.00	-53.94	11.68	15.46	-50.16	-13.00	37.16	V
17689.00	-47.78	12.29	13.57	-46.50	-13.00	33.50	H

**NR n77H, 20MHz, PI/2 BPSK, Channel 647334**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
7447.00	-53.97	8.25	10.19	-52.03	-13.00	39.03	V
9304.00	-55.22	9.15	11.61	-52.76	-13.00	39.76	V
11121.00	-52.29	9.74	12.72	-49.31	-13.00	36.31	V
13014.00	-52.47	10.53	12.70	-50.30	-13.00	37.30	V
14854.00	-53.55	11.16	13.92	-50.79	-13.00	37.79	H
16711.00	-51.54	11.77	14.18	-49.13	-13.00	36.13	V

**NR n77H, 20MHz, PI/2 BPSK, Channel 656000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
7519.00	-55.15	8.31	10.30	-53.16	-13.00	40.16	V
9388.00	-53.72	9.05	11.62	-51.15	-13.00	38.15	V
11235.00	-53.13	9.61	12.80	-49.94	-13.00	36.94	V
13151.00	-51.48	10.71	12.65	-49.54	-13.00	36.54	H
15021.00	-52.88	11.24	14.52	-49.60	-13.00	36.60	H
16896.00	-51.83	12.00	14.10	-49.73	-13.00	36.73	H

**NR n77H, 20MHz, PI/2 BPSK, Channel 664666**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
7917.00	-55.23	8.41	11.13	-52.51	-13.00	39.51	V
9916.00	-54.33	9.10	12.00	-51.43	-13.00	38.43	V
11903.00	-52.94	10.50	13.10	-50.34	-13.00	37.34	V
13913.00	-51.47	10.81	12.41	-49.87	-13.00	36.87	V
15882.00	-53.97	11.62	15.36	-50.23	-13.00	37.23	V
17836.00	-47.76	12.78	13.46	-47.08	-13.00	34.08	H

**NR n78L, 20MHz, PI/2 BPSK, Channel 630668**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
6898.00	-58.00	7.76	10.30	-55.46	-13.00	42.46	V
10354.00	-52.90	9.73	12.05	-50.58	-13.00	37.58	V
12099.00	-52.43	10.34	13.10	-49.67	-13.00	36.67	H
13814.00	-50.98	10.63	12.49	-49.12	-13.00	36.12	H
15562.00	-55.03	11.50	15.36	-51.17	-13.00	38.17	H
17287.00	-47.81	12.37	13.77	-46.41	-13.00	33.41	H

**NR n78L, 20MHz, PI/2 BPSK, Channel 633334**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
6998.00	-56.58	8.28	10.40	-54.46	-13.00	41.46	H
10499.00	-53.29	9.65	12.20	-50.74	-13.00	37.74	H
12276.00	-54.32	10.01	13.63	-50.70	-13.00	37.70	V
13983.00	-50.51	10.84	12.48	-48.87	-13.00	35.87	H
15755.00	-54.65	11.64	15.20	-51.09	-13.00	38.09	H
17503.00	-45.26	12.74	13.01	-44.99	-13.00	31.99	V

**NR n78L, 20MHz, PI/2 BPSK, Channel 636000**

Frequency (MHz)	P <sub>Mea</sub> (dBm)	P <sub>pl</sub> (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
7075.00	-57.10	8.19	10.50	-54.79	-13.00	41.79	H
10600.00	-54.37	9.28	12.20	-51.45	-13.00	38.45	V
12416.00	-54.60	10.40	13.38	-51.62	-13.00	38.62	H
14172.00	-52.03	10.93	12.67	-50.29	-13.00	37.29	H
15924.00	-54.06	11.66	15.45	-50.27	-13.00	37.27	V
17700.00	-48.01	12.19	13.60	-46.60	-13.00	33.60	H

Note: Peak EIRP (dBm) = P<sub>Mea</sub>(dBm) - Path Loss(dB) + Antenna Gain(dBi)

Note: The maximum value of expanded measurement uncertainty for this test item is U = 5.76 dB, k = 2.

## **A.3 Frequency Stability**

### **A.3.1 Method of Measurement**

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as  $F_L$  and  $F_H$  respectively.

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of MT8000A.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30°C.
3. With the EUT, powered via nominal voltage, connected to the MT8000A, and in a simulated call on middle channel for each NR band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50°C.
7. With the EUT, powered via nominal voltage, connected to the MT8000A and in a simulated call on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 °C decrements from +50°C to -30°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of the lower, higher and nominal voltage. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

### A.3.2 Measurement results

n5

#### Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	824.272	847.624		
50				-13.90	0.0166
40				-15.60	0.0186
30				-15.20	0.0182
10				-17.50	0.0209
0				-11.60	0.0139
-10				-6.00	0.0072
-20				-7.20	0.0086
-30				-12.90	0.0154

#### Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	824.272	847.624	-8.70	0.0104
4.4				-9.90	0.0118

n7

#### Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	2500.384	2568.512		
50				-6.10	0.0024
40				-1.40	0.0006
30				-15.30	0.0060
10				-0.70	0.0003
0				-3.90	0.0015
-10				-2.00	0.0008
-20				1.60	0.0006
-30				-4.20	0.0017

#### Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	2500.384	2568.512	-2.60	0.0010
4.4				-1.60	0.0006

**n38**
**Frequency Error vs Temperature**

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	2570.736	2617.040		
50				-9.70	0.0037
40				-10.40	0.0040
30				-6.70	0.0026
10				-12.20	0.0047
0				-9.00	0.0035
-10				-20.10	0.0077
-20				-22.60	0.0087
-30				-12.70	0.0049

**Frequency Error vs Voltage**

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	2570.736	2617.040	3.50	0.0013
4.4				-10.30	0.0040

**n41**
**Frequency Error vs Temperature**

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	2496.736	2688.144		
50				13.70	0.0053
40				-8.70	0.0034
30				11.10	0.0043
10				2.50	0.0010
0				11.30	0.0044
-10				11.50	0.0044
-20				9.60	0.0037
-30				-7.00	0.0027

**Frequency Error vs Voltage**

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	2496.736	2688.144	10.50	0.0040
4.4				2.70	0.0010

**n66**
**Frequency Error vs Temperature**

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	1710.272	1778.624		
50				-3.20	0.0018
40				-0.80	0.0005
30				-2.00	0.0011
10				-8.00	0.0046
0				-3.70	0.0021
-10				1.90	0.0011
-20				6.20	0.0036
-30				0.80	0.0005

**Frequency Error vs Voltage**

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	1710.272	1778.624	1.80	0.0010
4.4				0.90	0.0005

**n77L**
**Frequency Error vs Temperature**

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	3450.800	3548.832		
50				-8.80	0.0025
40				-0.10	0.0000
30				-0.90	0.0003
10				9.50	0.0027
0				-16.40	0.0047
-10				10.60	0.0030
-20				10.40	0.0030
-30				13.80	0.0039

**Frequency Error vs Voltage**

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	3450.800	3548.832	5.70	0.0016
4.4				6.40	0.0018



**n77H**
**Frequency Error vs Temperature**

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	3700.400	3978.448		
50				-19.30	0.0050
40				13.20	0.0034
30				22.80	0.0059
10				-1.20	0.0003
0				-0.10	0.0000
-10				7.30	0.0019
-20				-3.40	0.0009
-30				7.90	0.0021

**Frequency Error vs Voltage**

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	3700.400	3978.448	-11.90	0.0031
4.4				3.40	0.0009

**n78L**
**Frequency Error vs Temperature**

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	3450.752	3548.480		
50				1.10	0.0003
40				2.30	0.0007
30				7.50	0.0021
10				11.00	0.0031
0				12.70	0.0036
-10				2.20	0.0006
-20				-1.70	0.0005
-30				2.70	0.0008

**Frequency Error vs Voltage**

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.55	20	3450.752	3548.480	-1.20	0.0003
4.4				10.90	0.0031

Note: The maximum value of expanded measurement uncertainty for this test item is  $U = 0.047k$  Hz,  $k = 2$ .

#### **A.4 Occupied Bandwidth**

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the mid frequencies frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

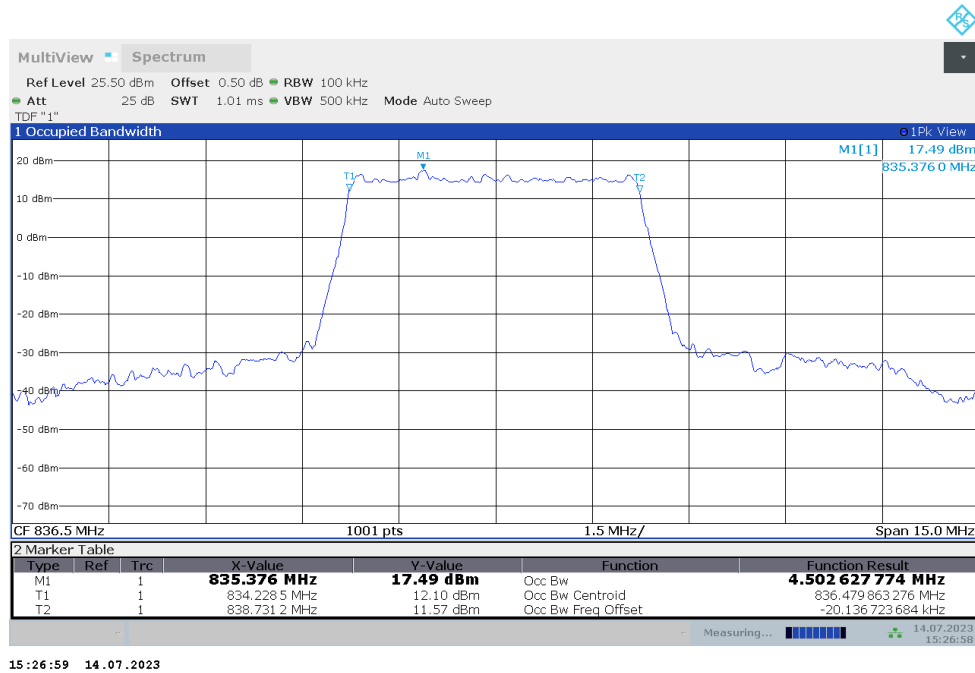
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set  $\geq 3 \times$  RBW.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) Set the detection mode to peak, and the trace mode to max-hold.

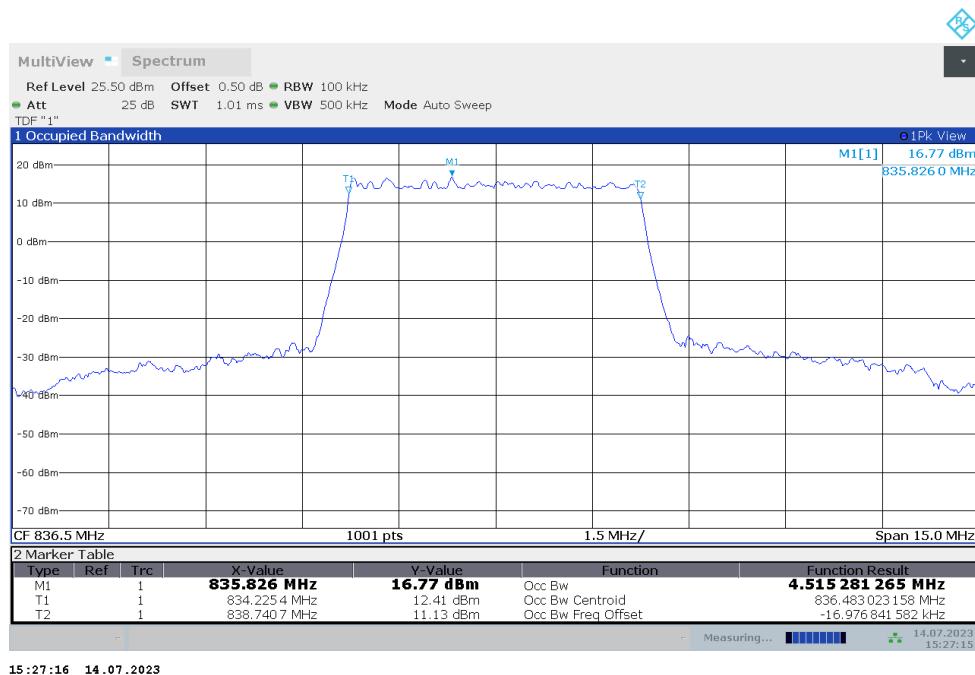
n5  
n5,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	4.503	4.515

n5,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n5,5MHz Bandwidth,DFT-s-QPSK (99% BW)

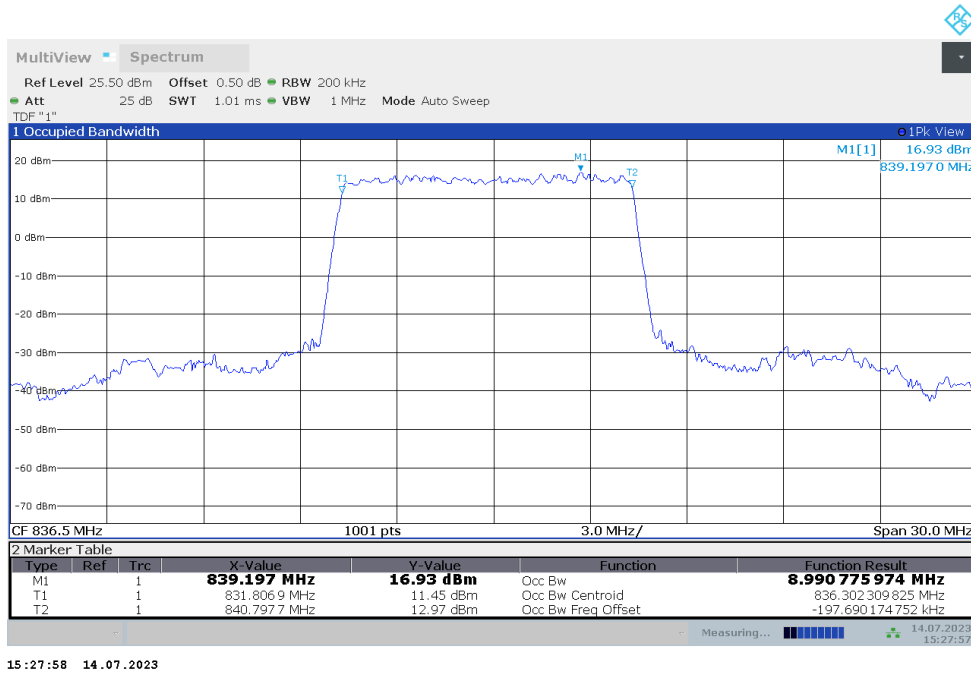


n5

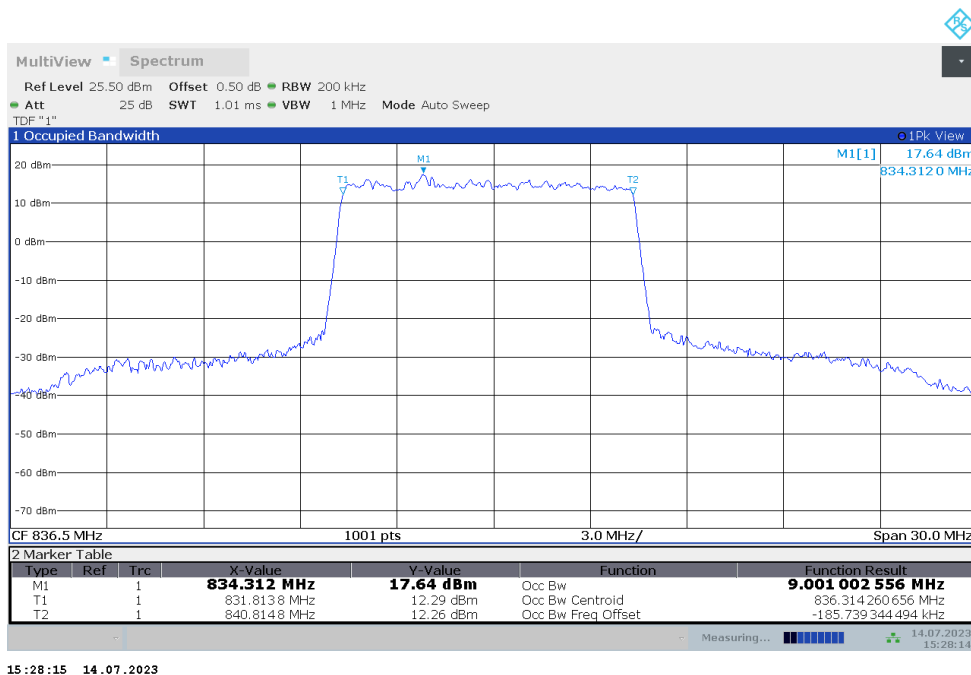
n5,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	8.991	9.001

n5,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



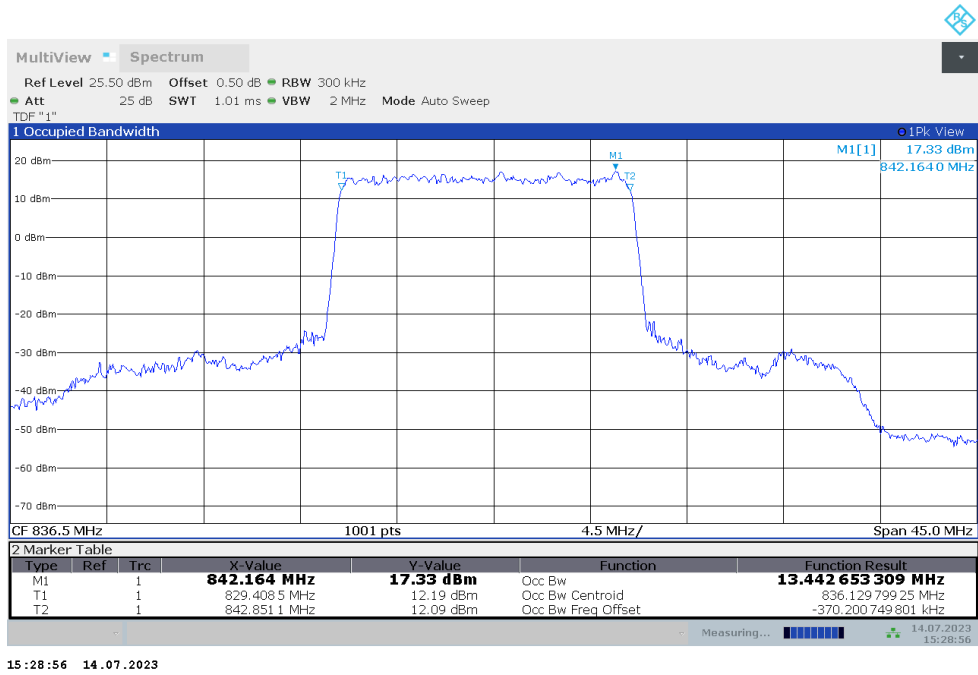
n5,10MHz Bandwidth,DFT-s-QPSK (99% BW)



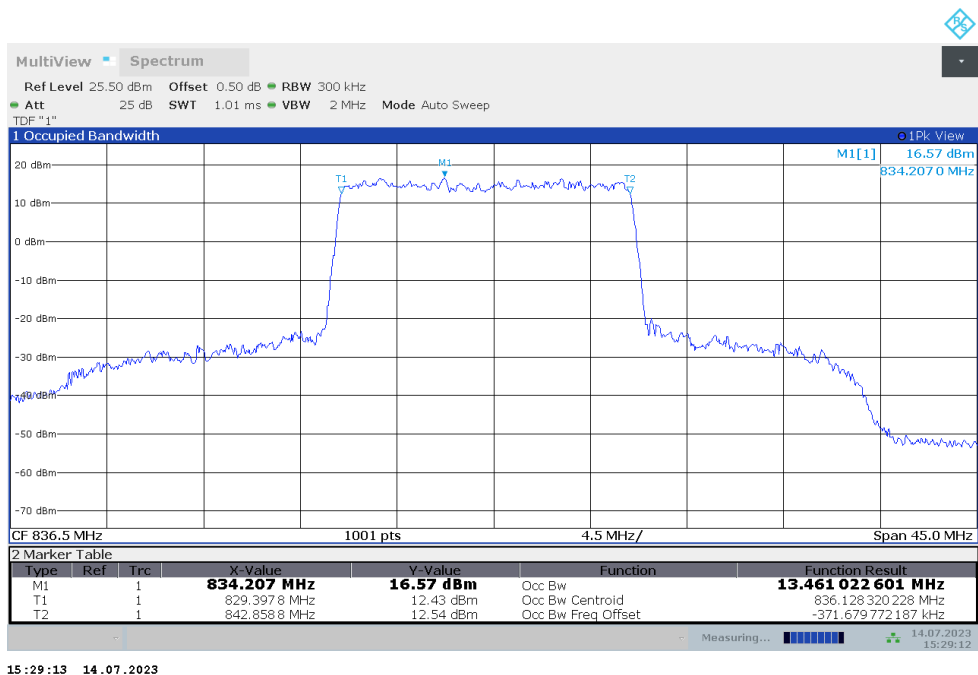
n5  
n5,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	13.443	13.461

n5,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



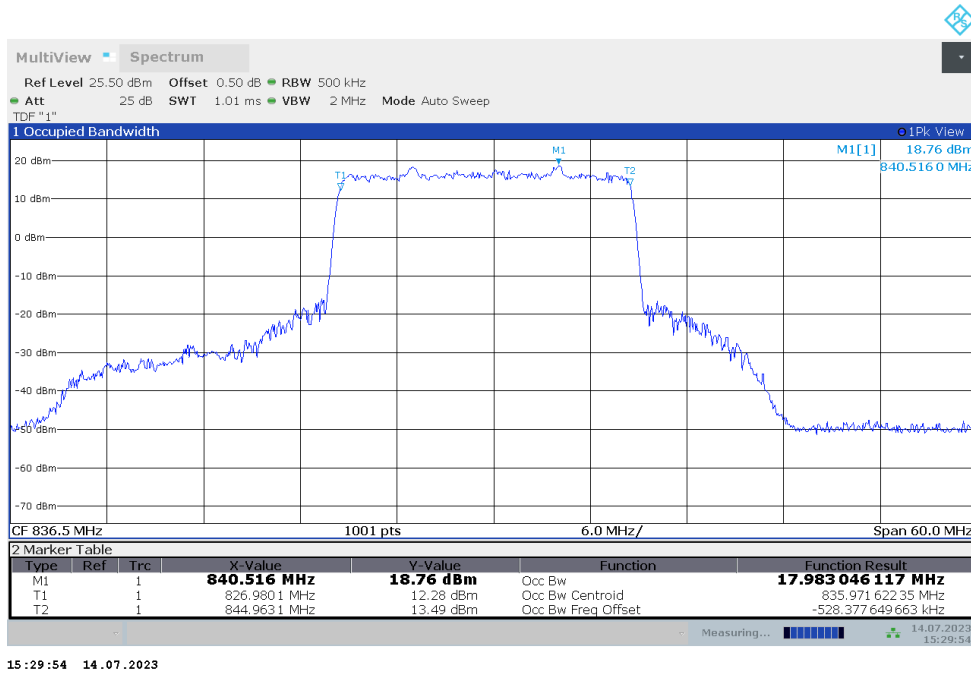
n5,15MHz Bandwidth,DFT-s-QPSK (99% BW)



n5  
n5,20MHz(99%)

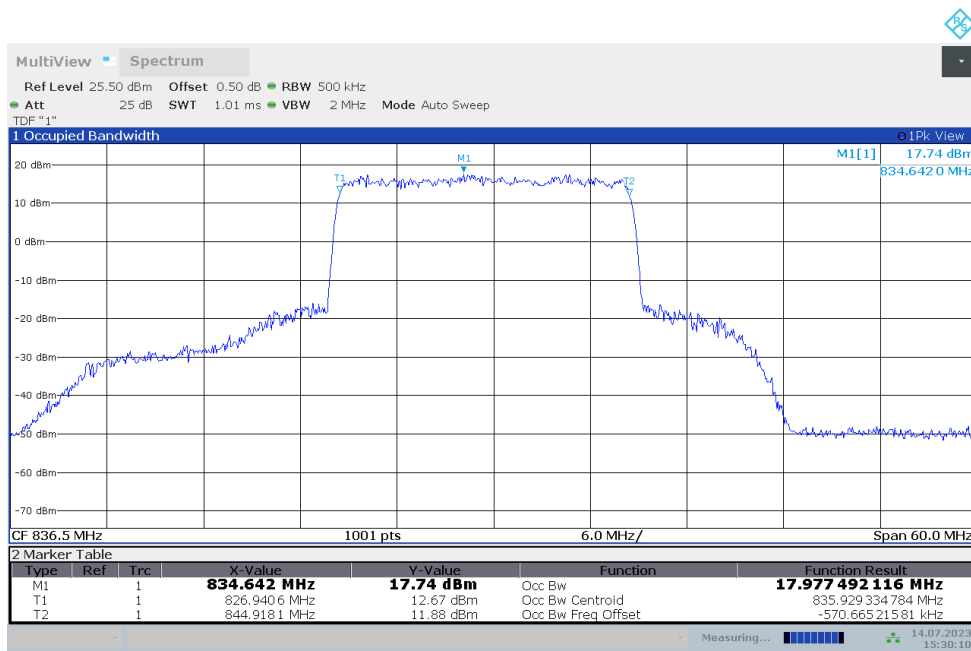
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	17.983	17.977

n5,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



15:29:54 14.07.2023

n5,20MHz Bandwidth,DFT-s-QPSK (99% BW)



15:30:11 14.07.2023