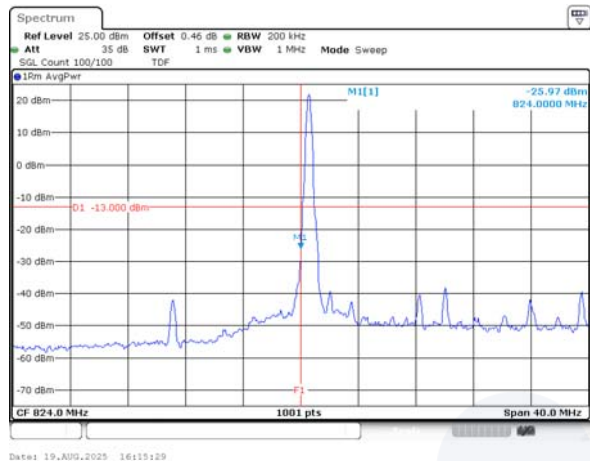
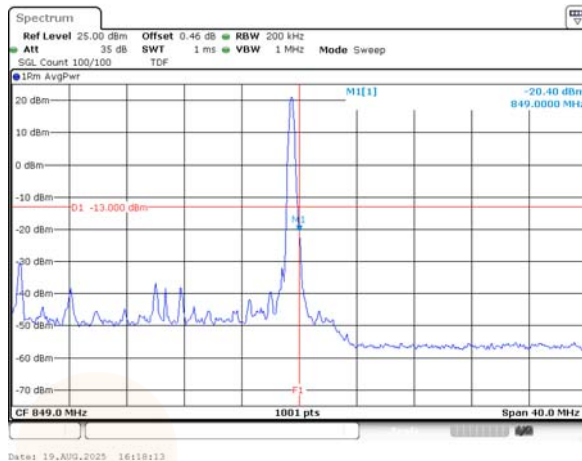


20M BW QPSK

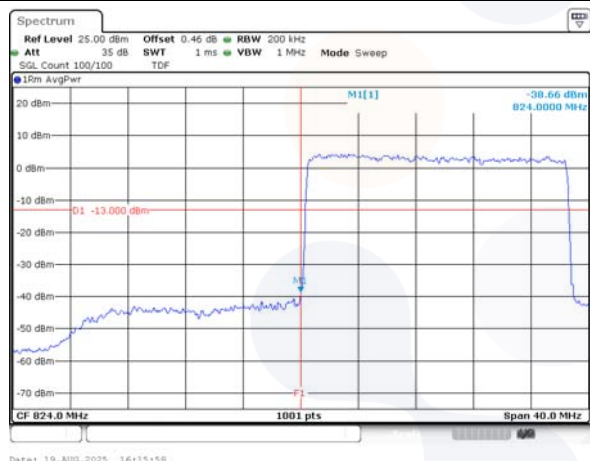
Low channel 1RB



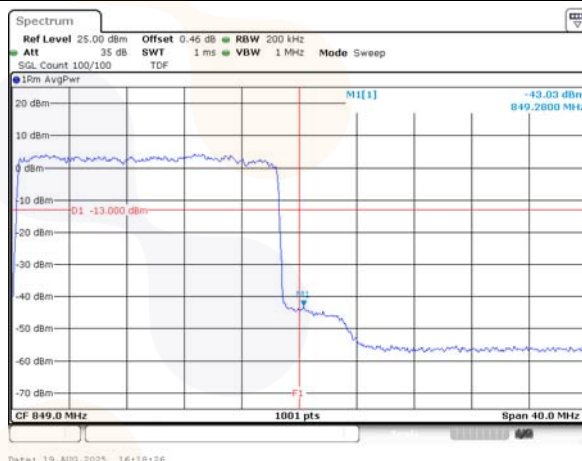
High channel 1RB



Low channel FRB



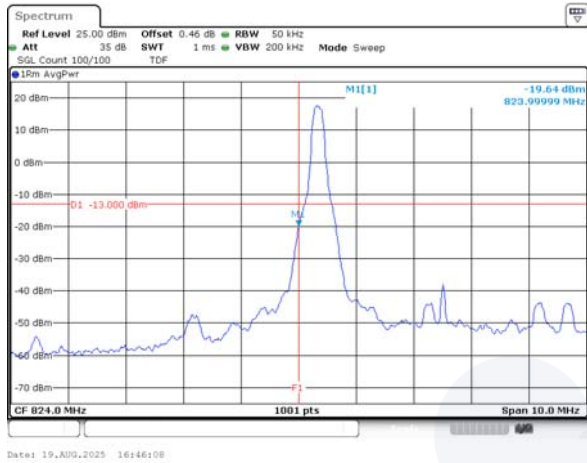
High channel FRB



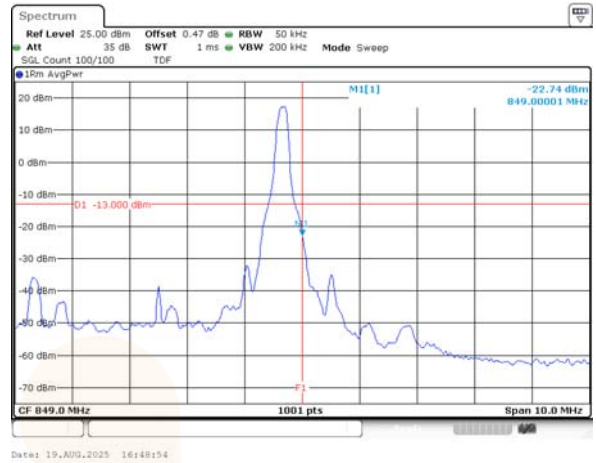
Test mode: 5G NR n26 DFT-s OFDM

5M BW QPSK

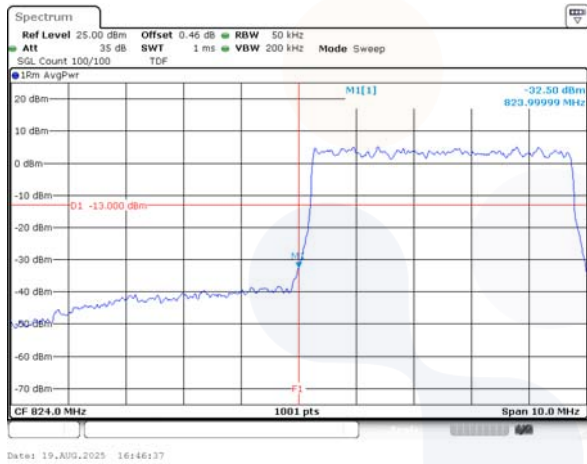
Low channel 1RB



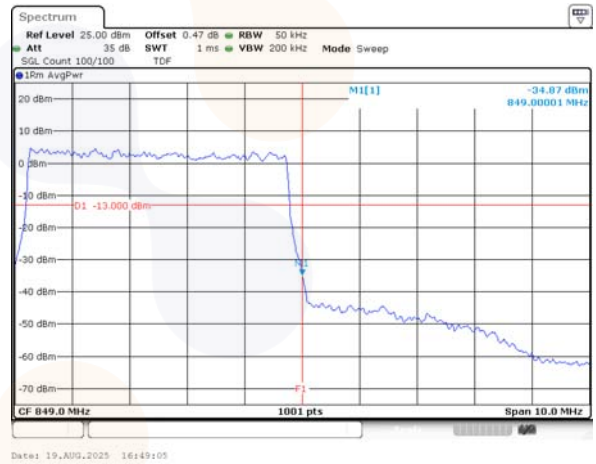
High channel 1RB



Low channel FRB

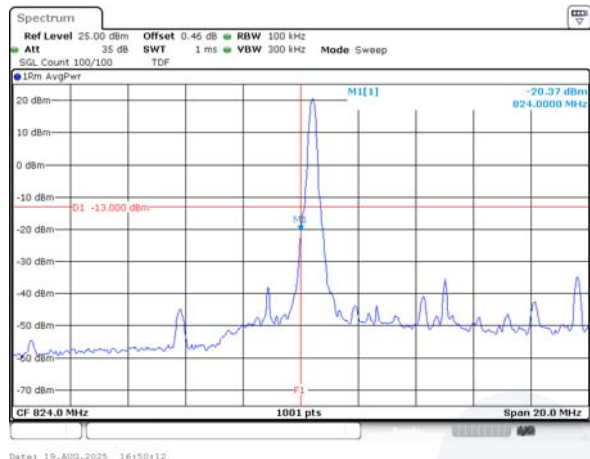


High channel FRB

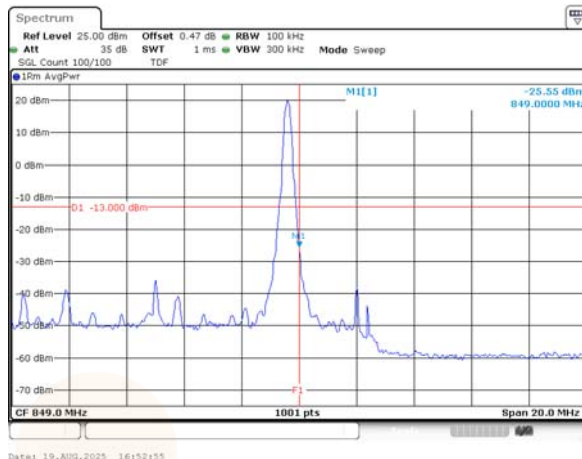


10M BW QPSK

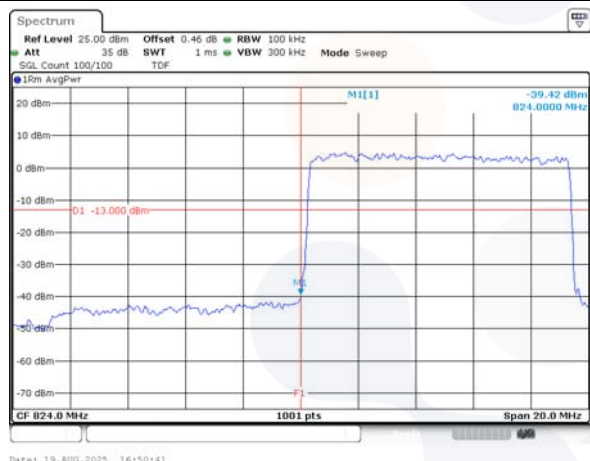
Low channel 1RB



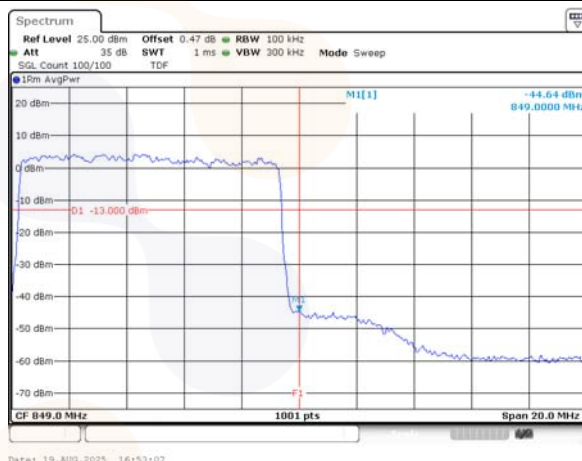
High channel 1RB



Low channel FRB

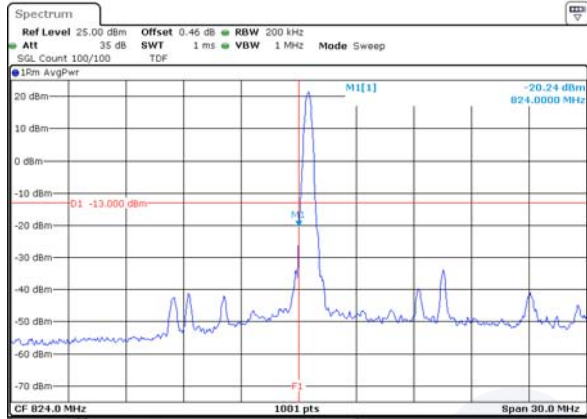


High channel FRB



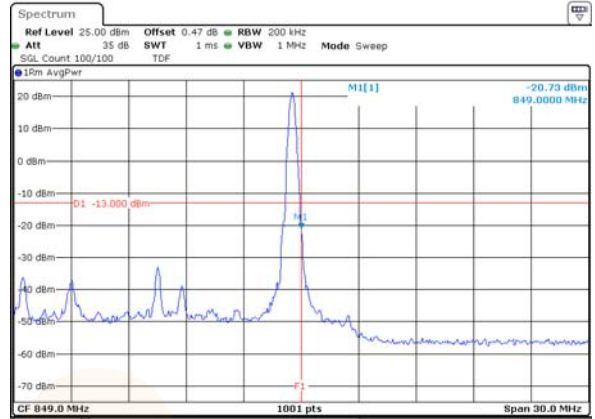
15M BW QPSK

Low channel 1RB



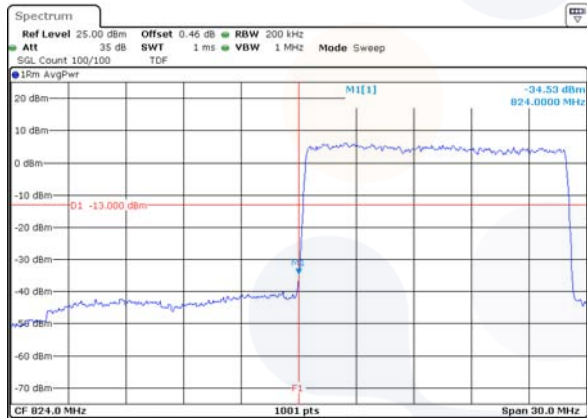
Date: 19_AUG.2025 16:54:14

High channel 1RB



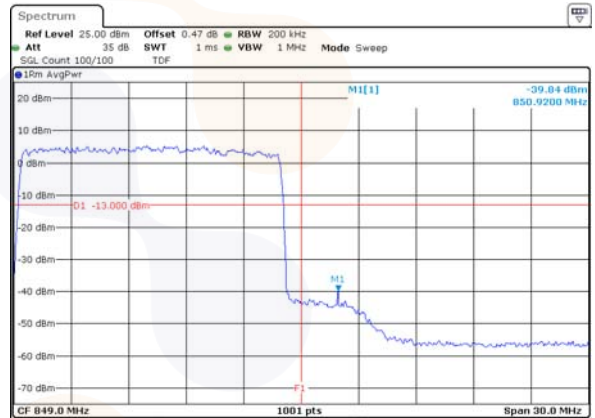
Date: 19_AUG.2025 16:56:58

Low channel FRB



Date: 19_AUG.2025 16:54:44

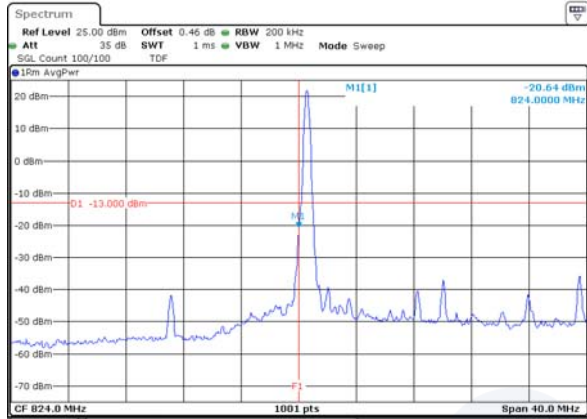
High channel FRB



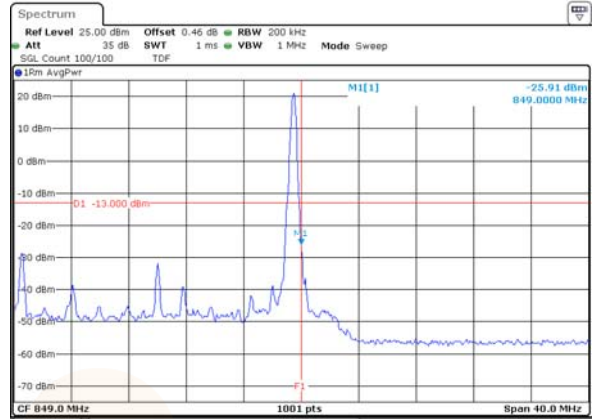
Date: 19_AUG.2025 16:57:10

20M BW QPSK

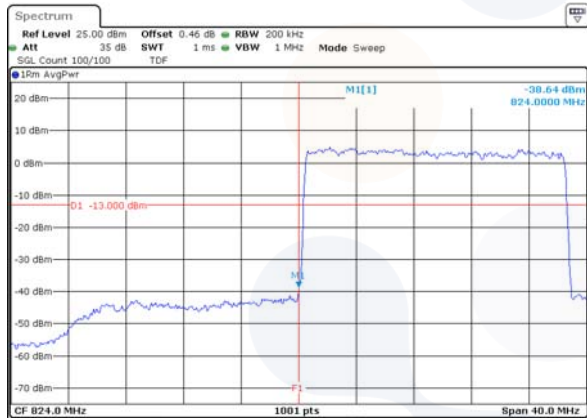
Low channel 1RB



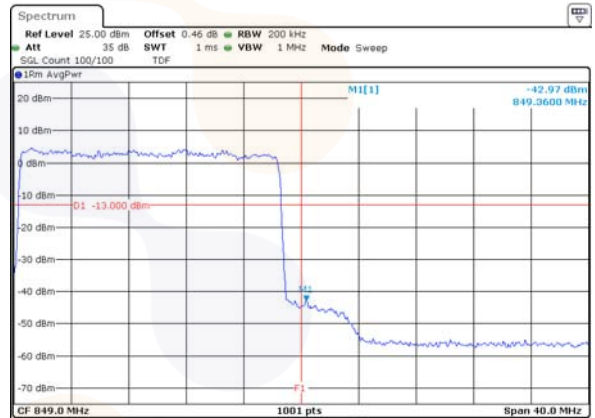
High channel 1RB



Low channel FRB

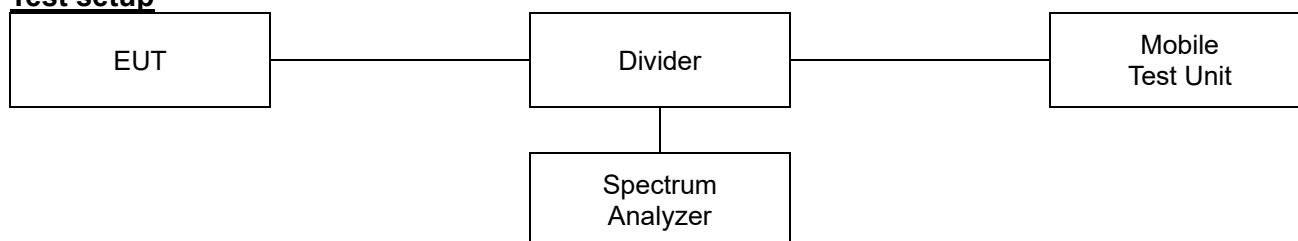


High channel FRB



7.4. Spurious Emissions at Antenna Terminal

Test setup



Limit

According to §22.917(a),

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.

Test procedure

971168 D01 v03r01 - Section 6
 ANSI 63.26-2015 – Section 5.7

Test settings

- 1) Start frequency was set to 30 MHz and stop frequency was set to at least 10th the fundamental frequency.
- 2) Detector = RMS
- 3) Sweep time = auto couple.
- 4) Trace mode = trace average
- 5) Allow trace to fully stabilize.
- 6) Please see test notes below RBW and VBW settings.

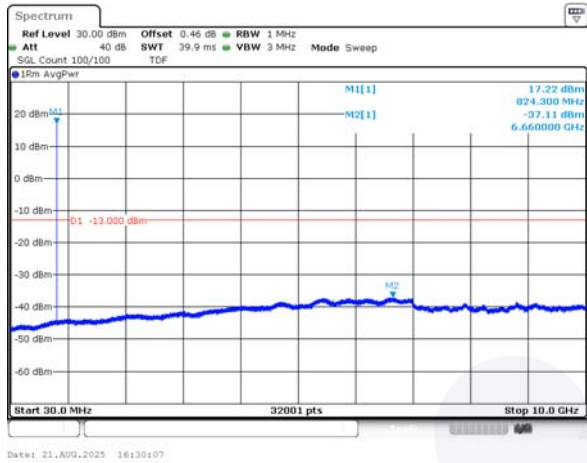
Notes:

1. Per 22.917(b), In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). 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.
2. All modes of operation were investigated and the worst-case configuration results are reported.

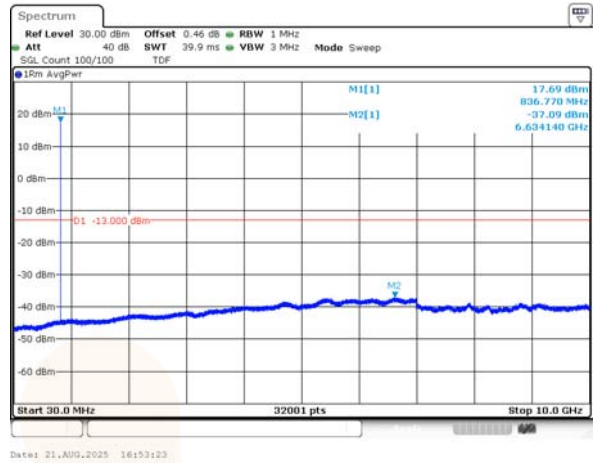
Test mode: GSM 850

EDGE

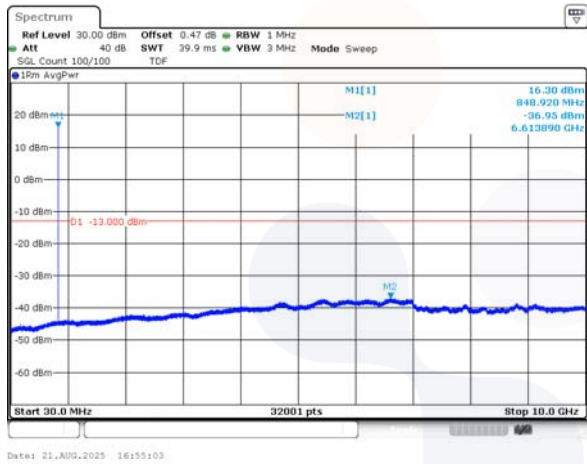
Low channel (30 MHz ~ 10 GHz)



Middle channel (30 MHz ~ 10 GHz)



High channel (30 MHz ~ 10 GHz)

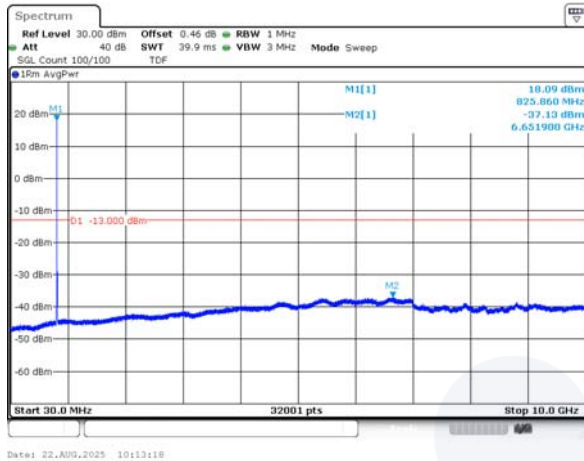


Blank

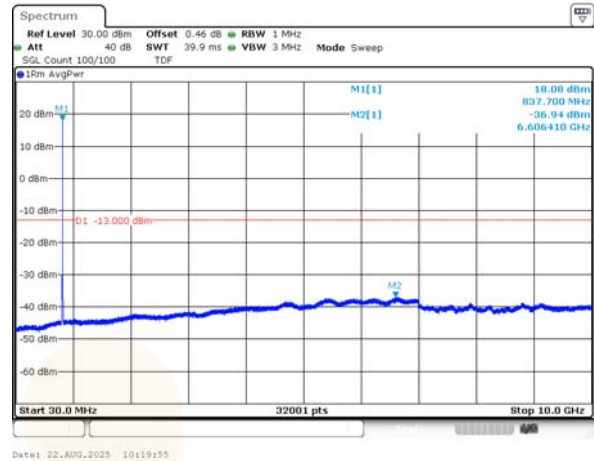
Test mode: WCDMA 850

RMC

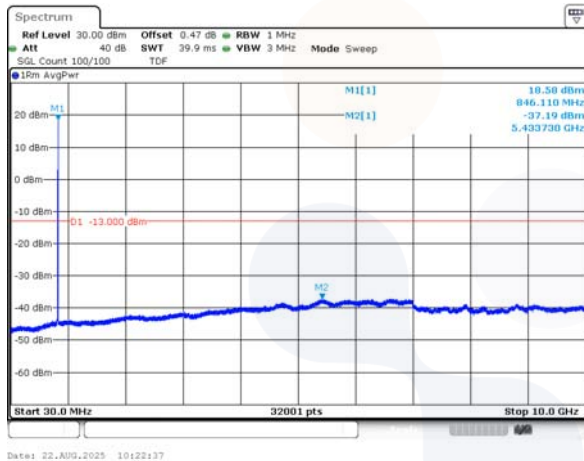
Low channel (30 MHz ~ 10 GHz)



Middle channel (30 MHz ~ 10 GHz)

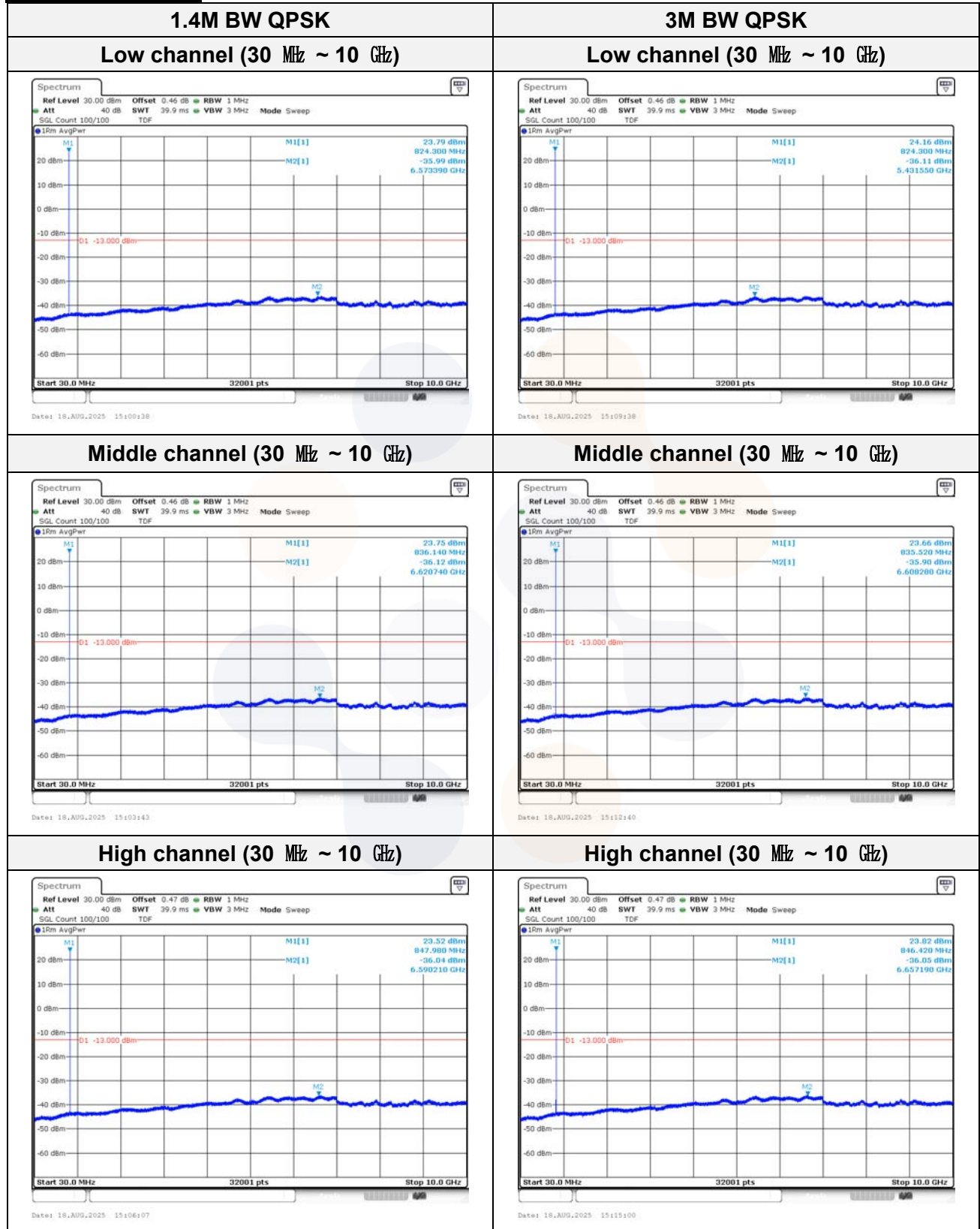


High channel (30 MHz ~ 10 GHz)



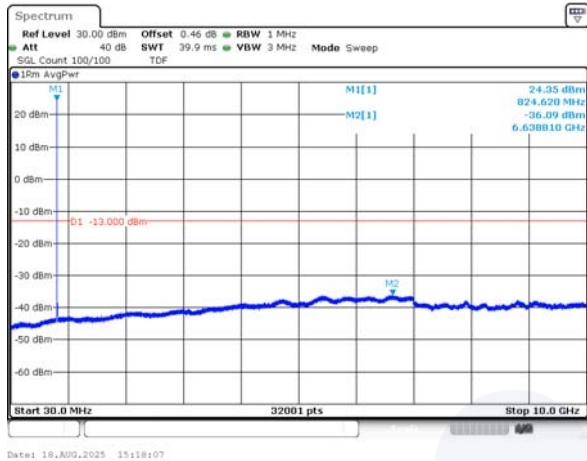
Blank

Test mode: LTE B5



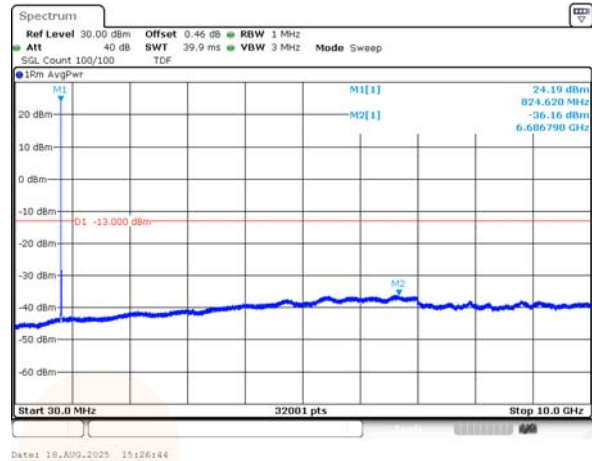
5M BW QPSK

Low channel (30 MHz ~ 10 GHz)

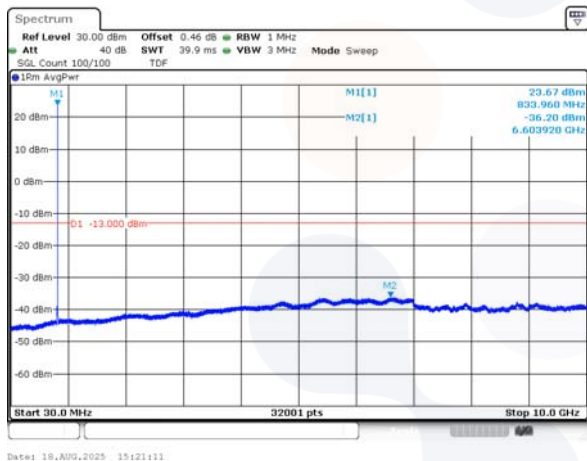


10M BW QPSK

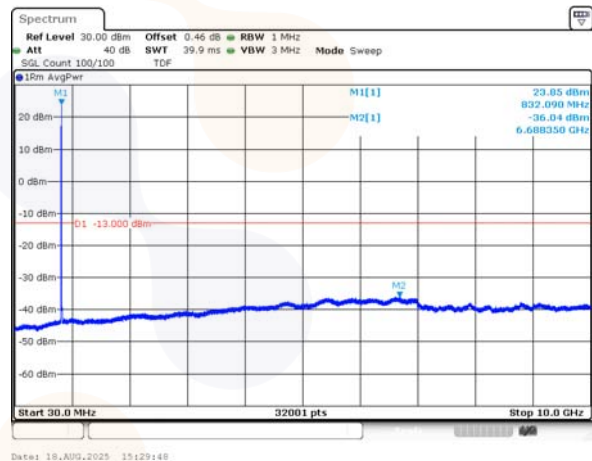
Low channel (30 MHz ~ 10 GHz)



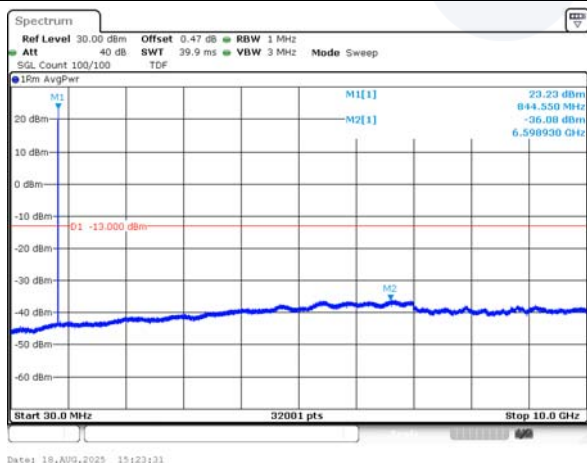
Middle channel (30 MHz ~ 10 GHz)



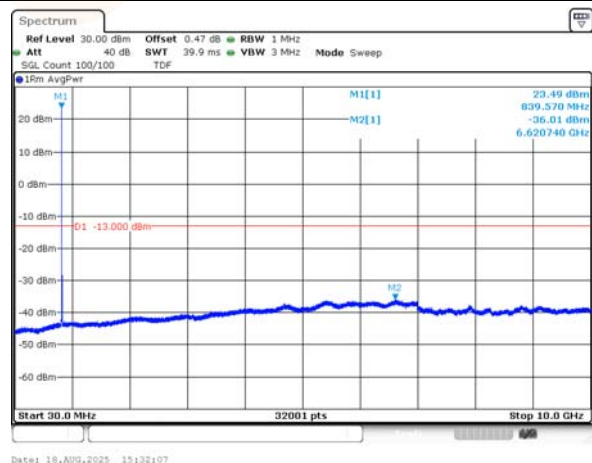
Middle channel (30 MHz ~ 10 GHz)



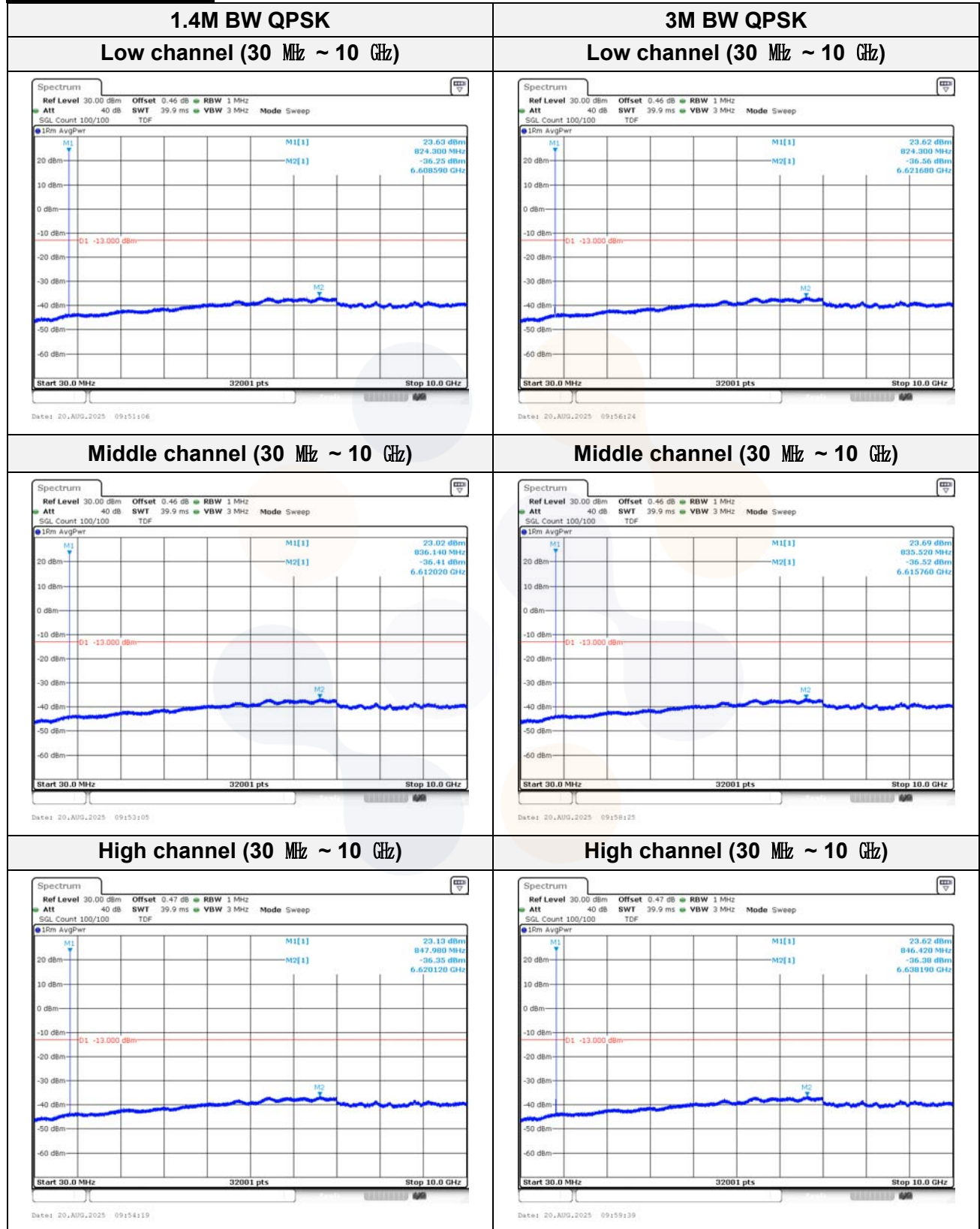
High channel (30 MHz ~ 10 GHz)



High channel (30 MHz ~ 10 GHz)

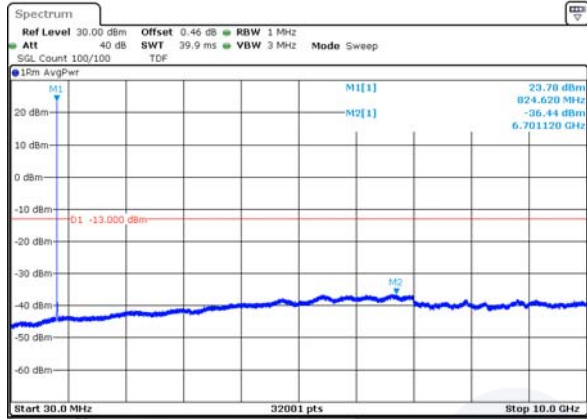


Test mode: LTE B26



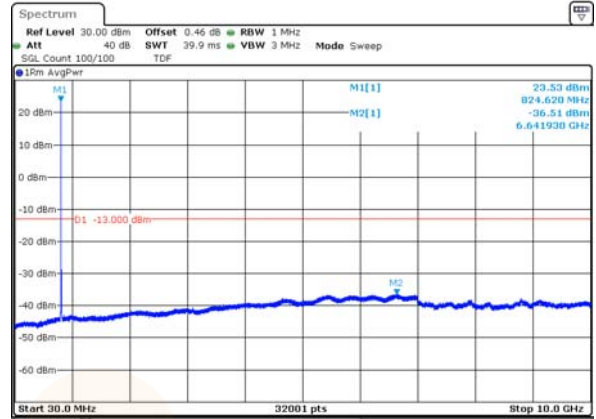
5M BW QPSK

Low channel (30 MHz ~ 10 GHz)

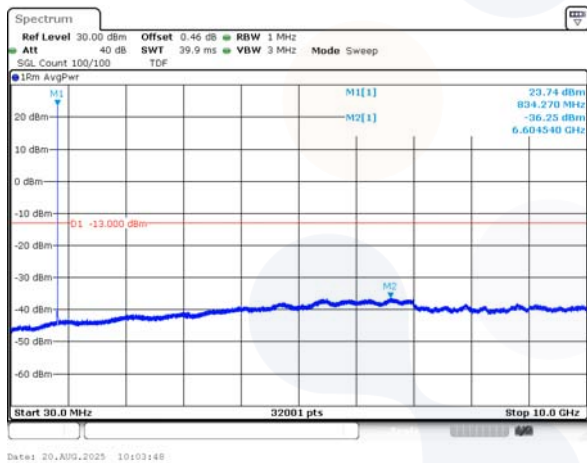


10M BW QPSK

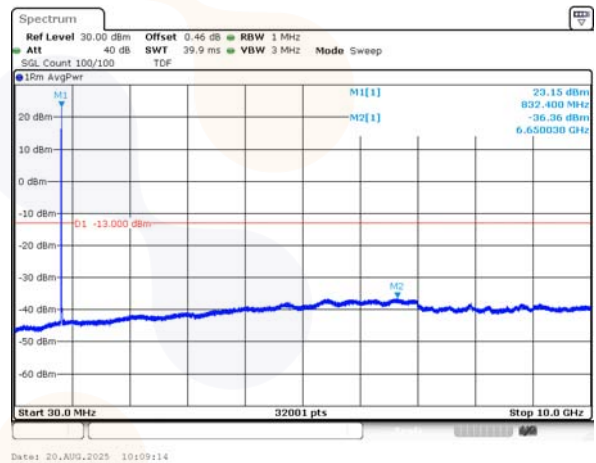
Low channel (30 MHz ~ 10 GHz)



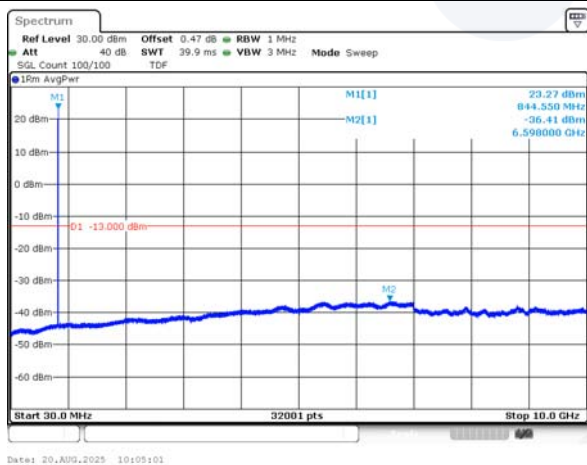
Middle channel (30 MHz ~ 10 GHz)



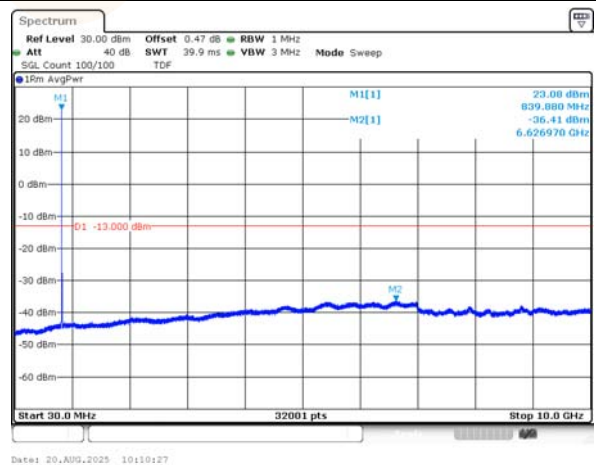
Middle channel (30 MHz ~ 10 GHz)



High channel (30 MHz ~ 10 GHz)

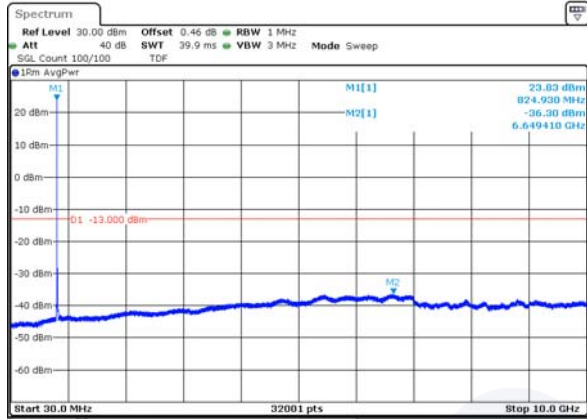


High channel (30 MHz ~ 10 GHz)



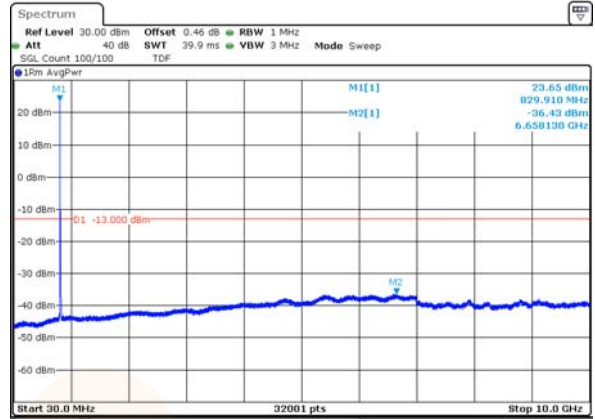
15M BW QPSK

Low channel (30 MHz ~ 10 GHz)



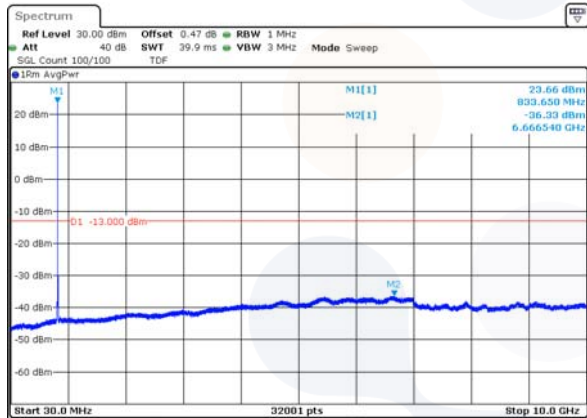
Date: 20.AUG.2025 10:12:42

Middle channel (30 MHz ~ 10 GHz)



Date: 20.AUG.2025 10:14:51

High channel (30 MHz ~ 10 GHz)

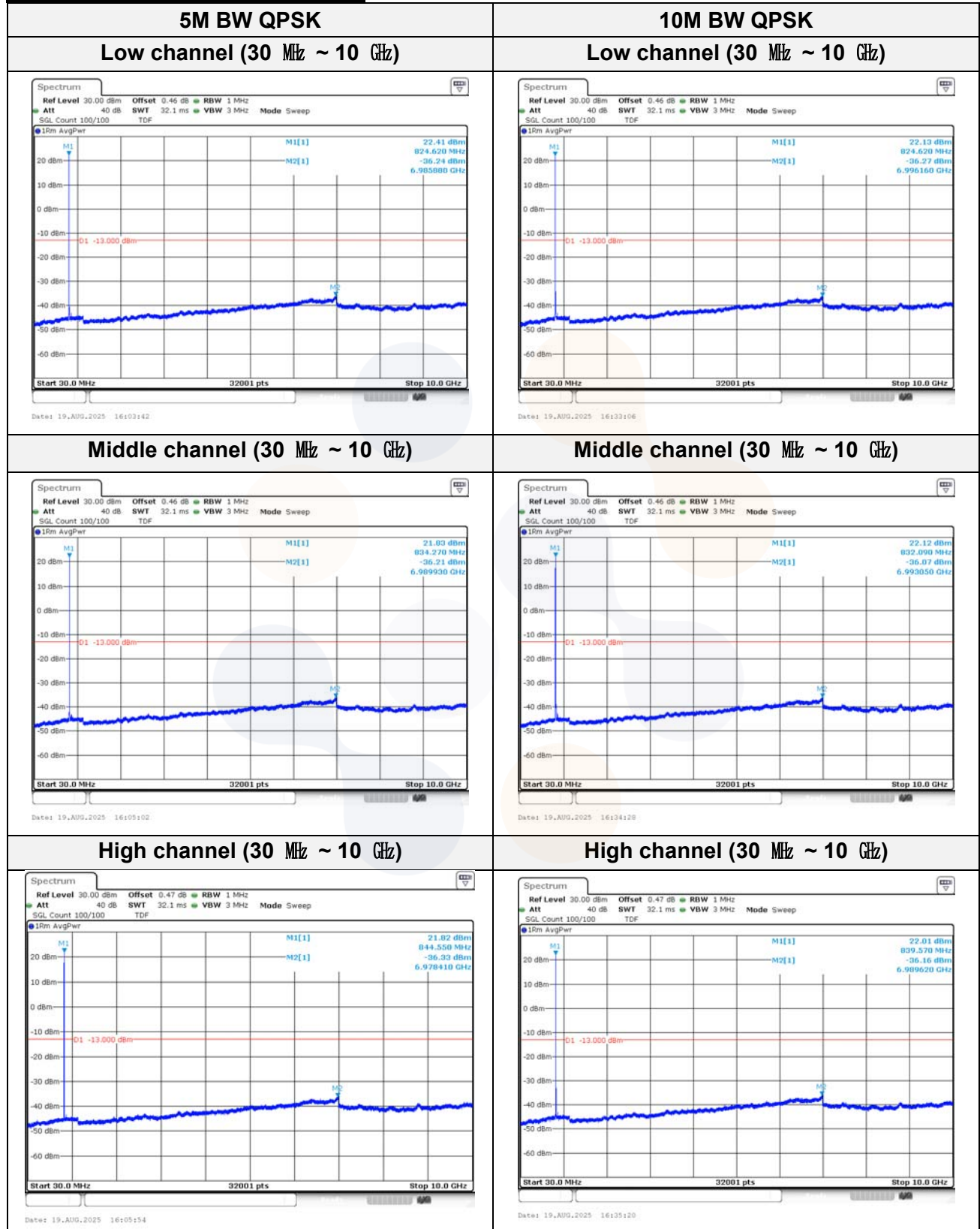


Date: 20.AUG.2025 10:16:06

-

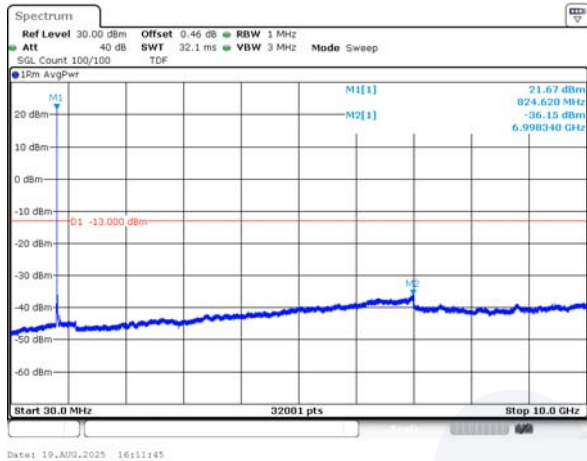
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Test mode: 5G NR n5 DFT-s OFDM



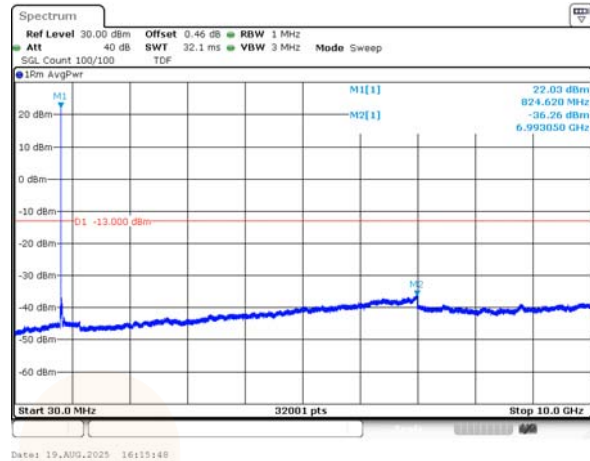
15M BW QPSK

Low channel (30 MHz ~ 10 GHz)

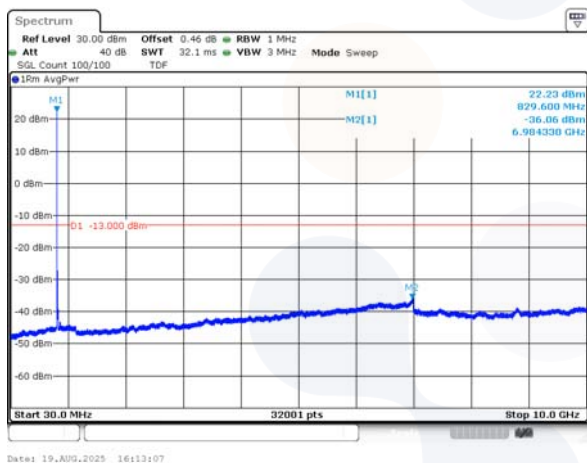


20M BW QPSK

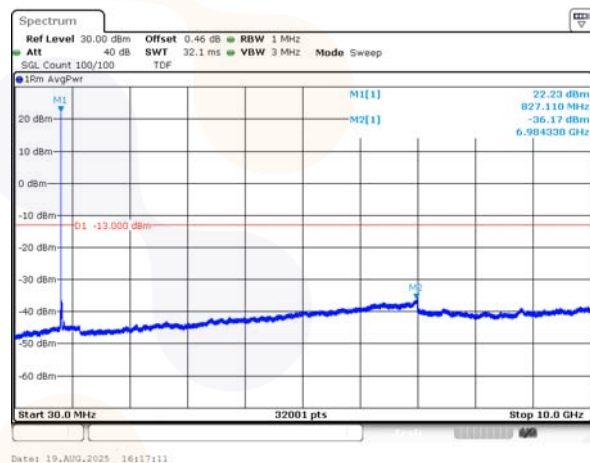
Low channel (30 MHz ~ 10 GHz)



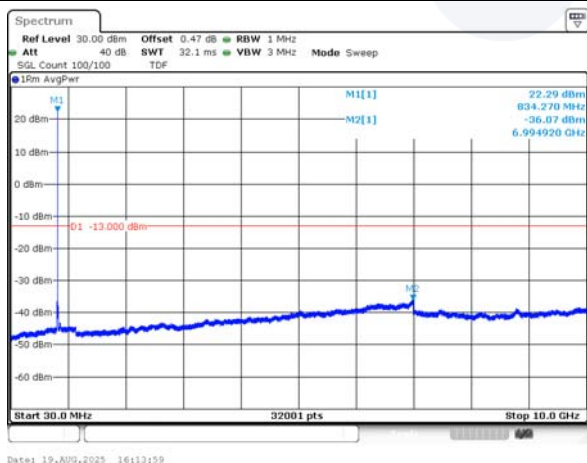
Middle channel (30 MHz ~ 10 GHz)



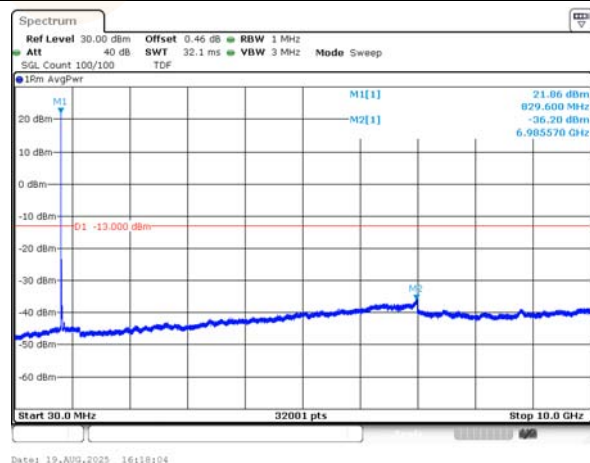
Middle channel (30 MHz ~ 10 GHz)



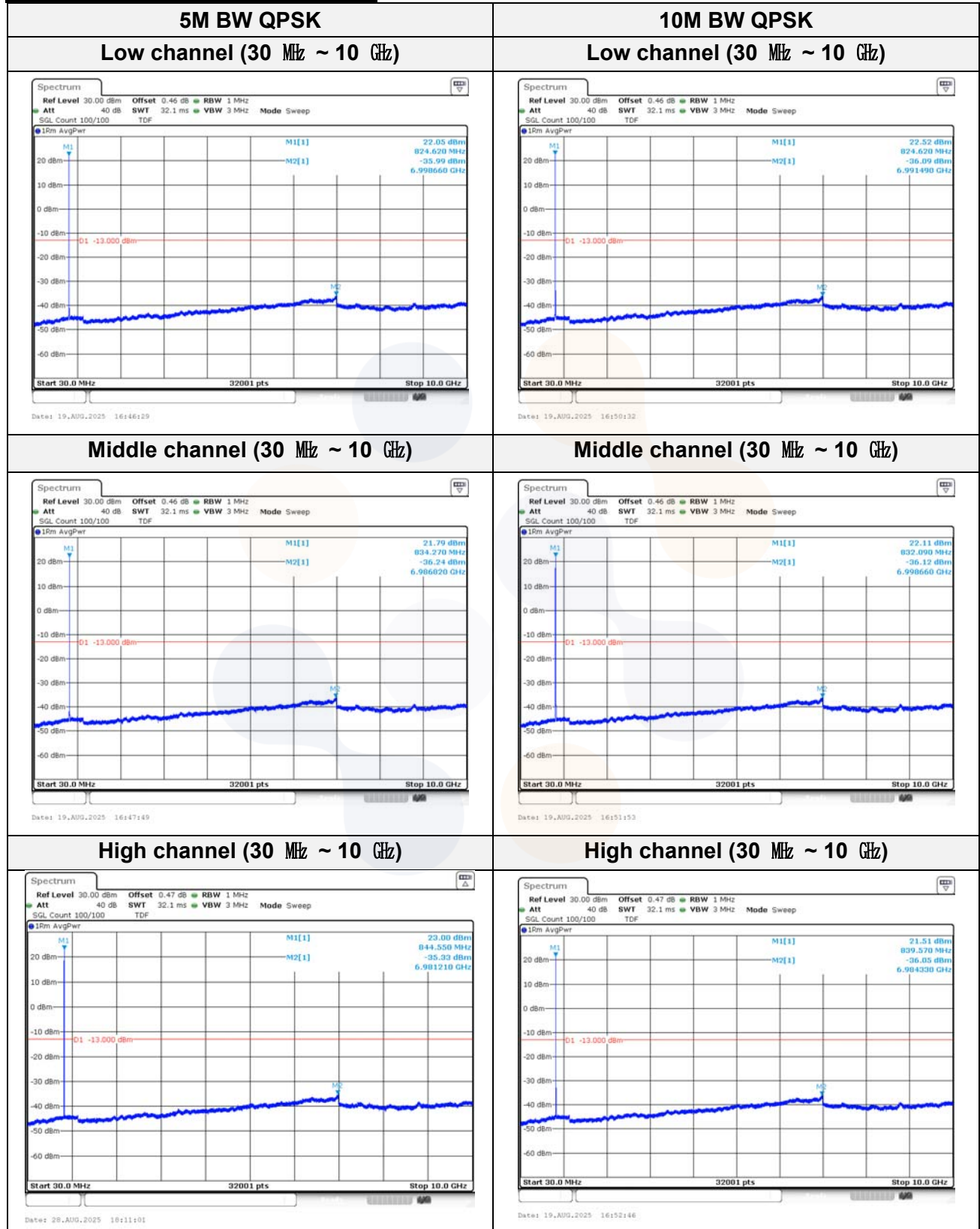
High channel (30 MHz ~ 10 GHz)



High channel (30 MHz ~ 10 GHz)

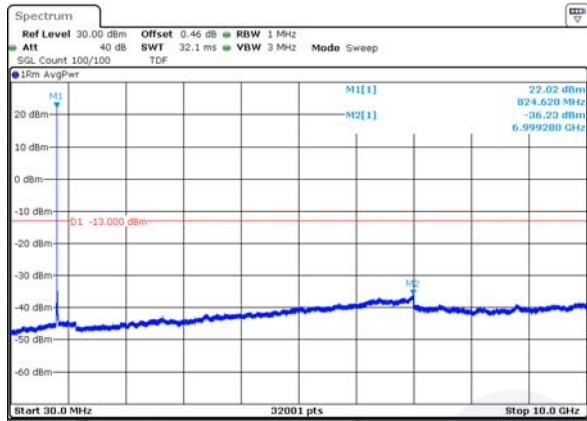


Test mode: 5G NR n26 DFT-s OFDM



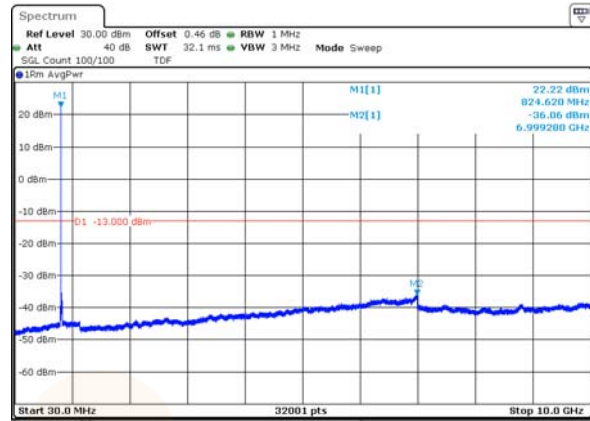
15M BW QPSK

Low channel (30 MHz ~ 10 GHz)

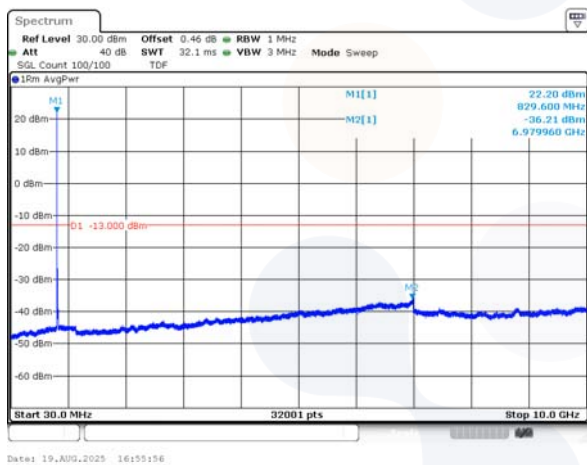


20M BW QPSK

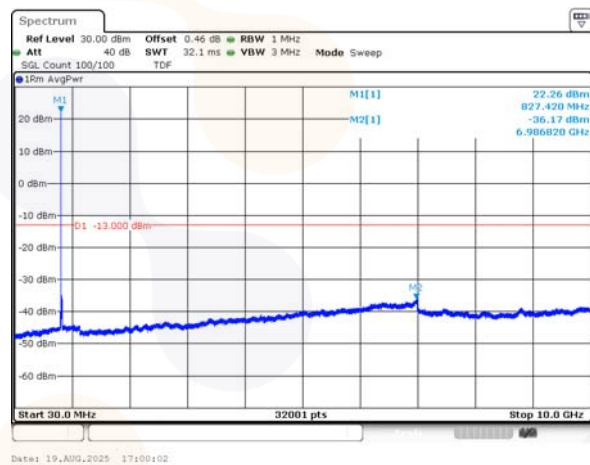
Low channel (30 MHz ~ 10 GHz)



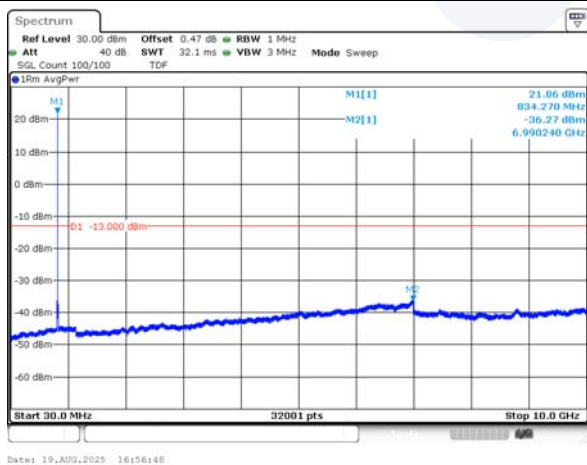
Middle channel (30 MHz ~ 10 GHz)



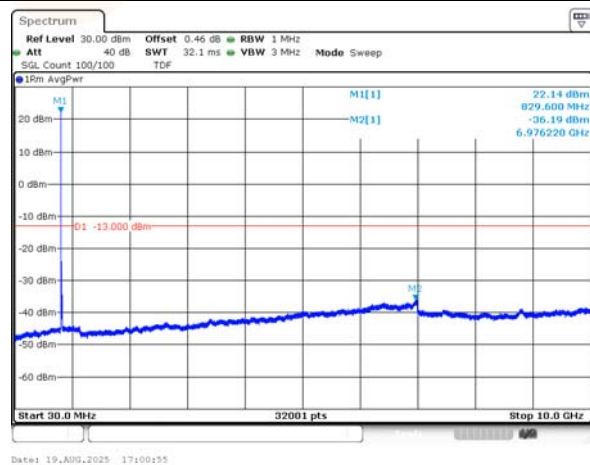
Middle channel (30 MHz ~ 10 GHz)



High channel (30 MHz ~ 10 GHz)

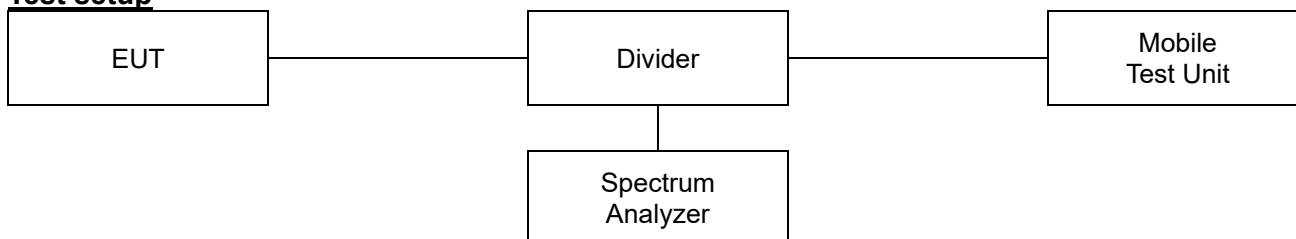


High channel (30 MHz ~ 10 GHz)



7.5. Peak to Average Power Ratio (PAPR)

Test setup



Limit

The peak-to-average ratio(PAR) of the transmission must not exceed 13 dB.

Test procedure

971168 D01 v03r01 - Section 5.7.2 or 5.7.3

971168 D02 v02r02 – Section VII

ANSI 63.26-2015 – Section 5.2.3.4 or 5.2.6

Test settings

5.2.3.4 Measurement of peak power in a broadband noise-like signal using CCDF

- 1) Set resolution/measurement Bandwidth $\geq$ OBW or specified reference Bandwidth
- 2) Set the number of counts to a value that stabilizes the measured CCDF curve.
- 3) Set the measurement interval as follows:
 - a) For continuous transmissions, set to the greater of $[10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$ or 1 ms.
 - b) For burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize. Set the measurement interval to a time that is less than or equal to the burst duration.
 - c) If there are several carriers in a single antenna port, the peak power shall be determined for each individual carrier (by disabling the other carriers while measuring the required carrier) and the total peak power calculated from the sum of the individual carrier peak powers.
- 4) Record the maximum PAPR level associated with a probability of 0.1%

5.2.6 Peak-to-average power ratio

Use one of the procedures presented in 5.2(ANSI C63.26-2015) to measure the total peak power and record as P_{PK} .

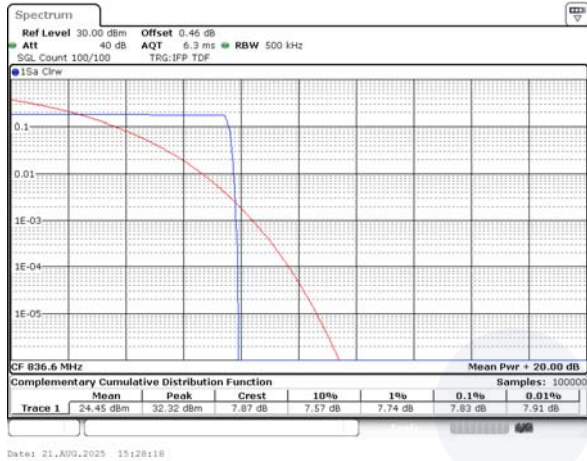
Use one of the applicable procedure presented 5.2(ANSI C63.26-2015) to measure the total average power and record as P_{AG} . Determine the P.A.P.R from:

$$PAPR(dB) = P_{PK}(dBm \text{ or } dBW) - P_{AG}(dBm \text{ or } dBW)$$

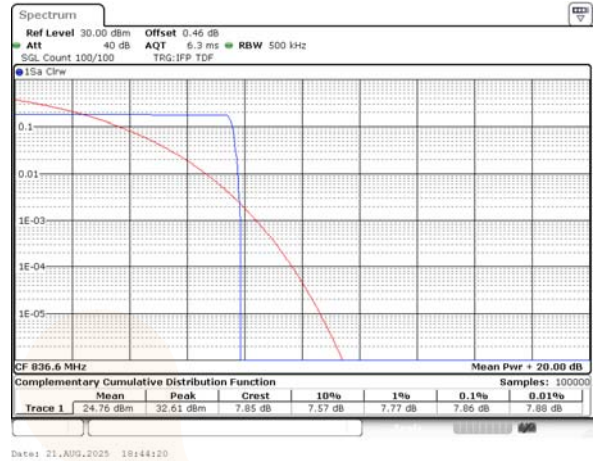
Test results

Test mode: GSM 850

Voice(GPRS) Middle channel

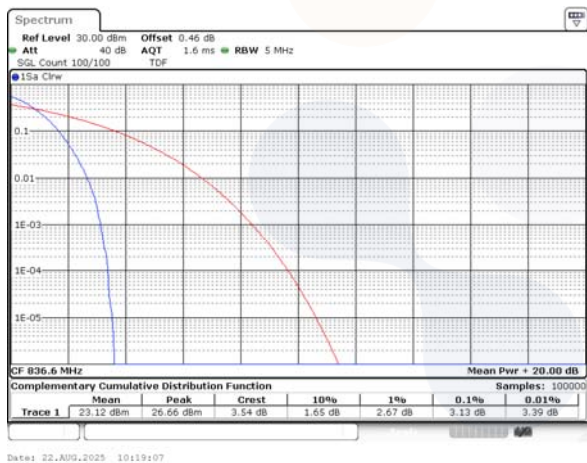


EDGE Middle channel



Test mode: WCDMA 850

RMC Middle channel

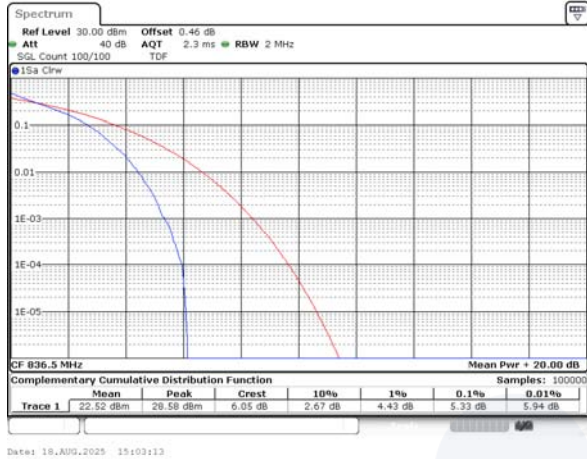


-

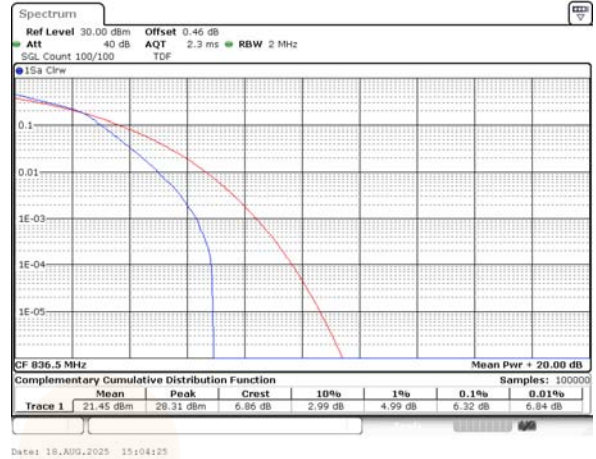
Blank

Test mode: LTE B5

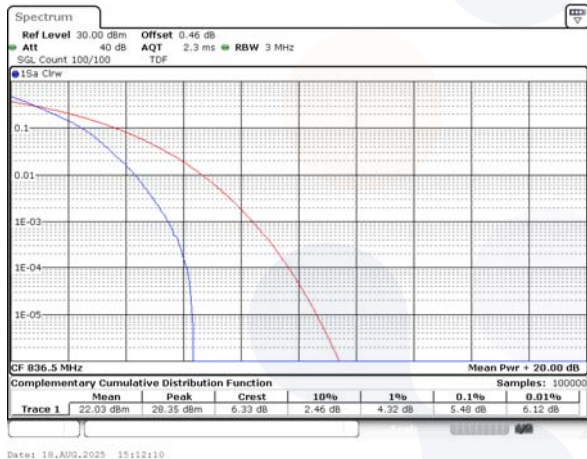
1.4M BW QPSK Middle channel



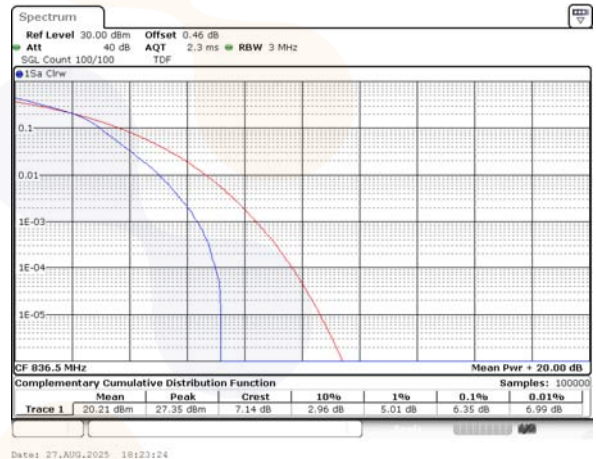
1.4M BW 16QAM Middle channel



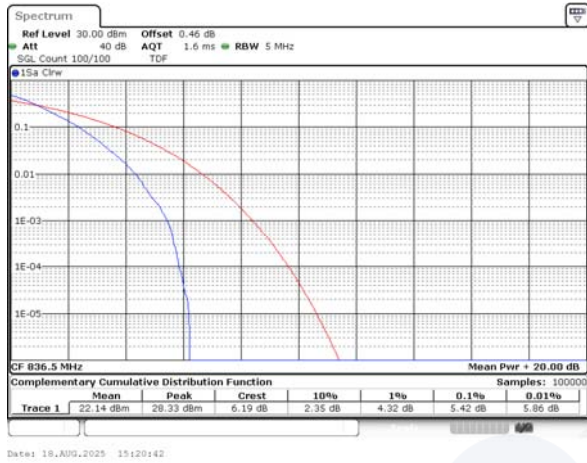
3M BW QPSK Middle channel



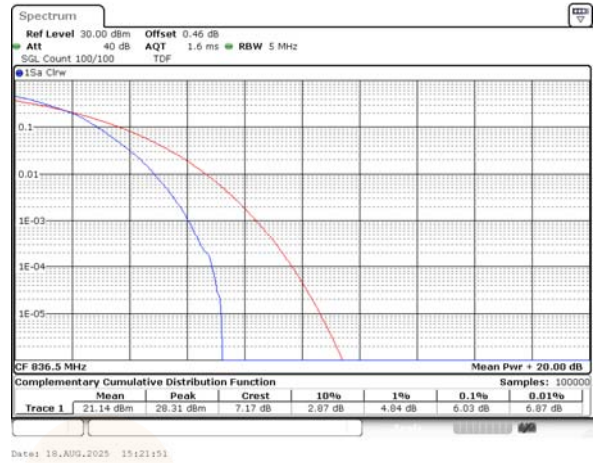
3M BW 16QAM Middle channel



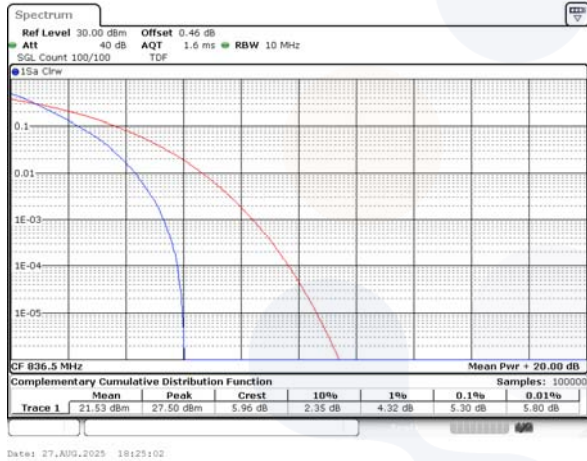
5M BW QPSK Middle channel



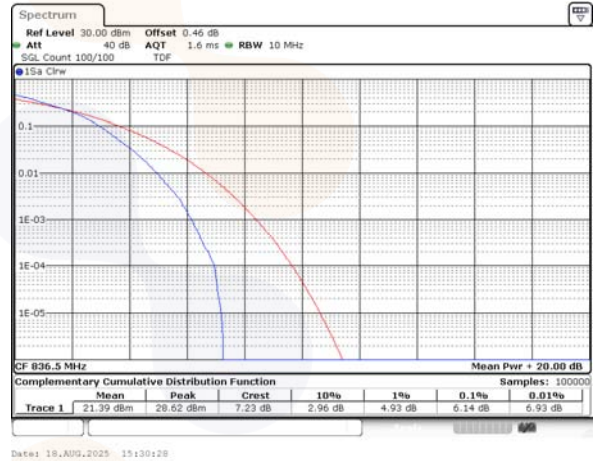
5M BW 16QAM Middle channel



10M BW QPSK Middle channel

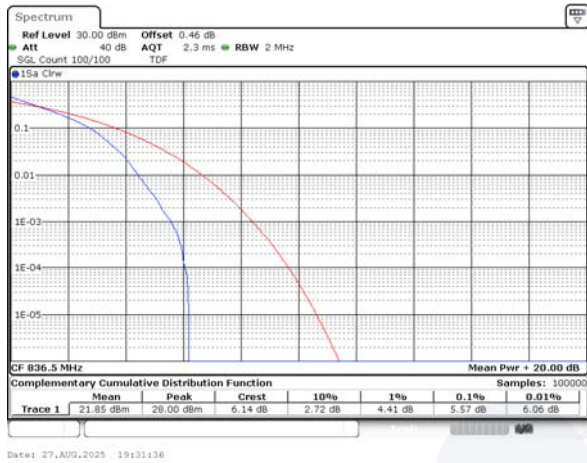


10M BW 16QAM Middle channel

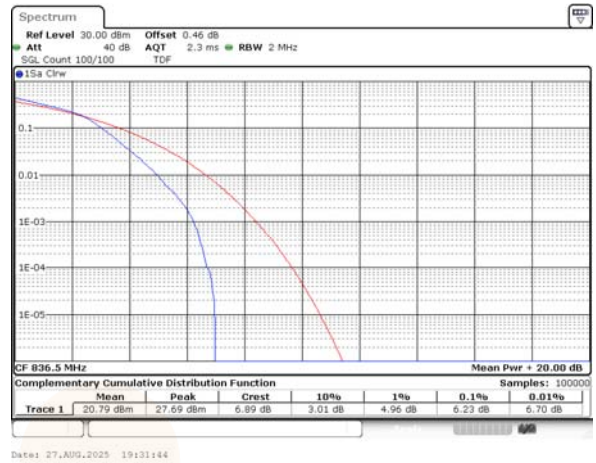


Test mode: LTE B26

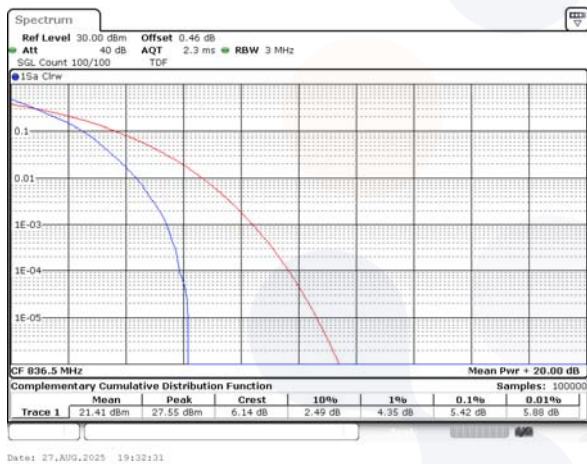
1.4M BW QPSK Middle channel



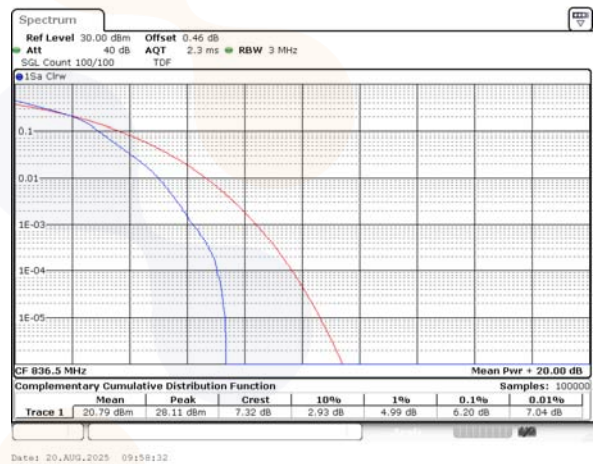
1.4M BW 16QAM Middle channel



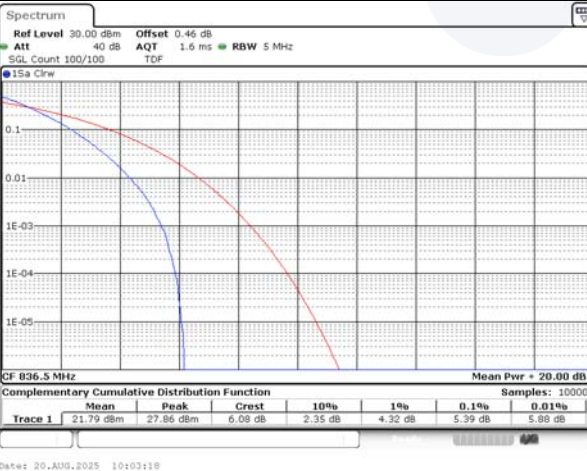
3M BW QPSK Middle channel



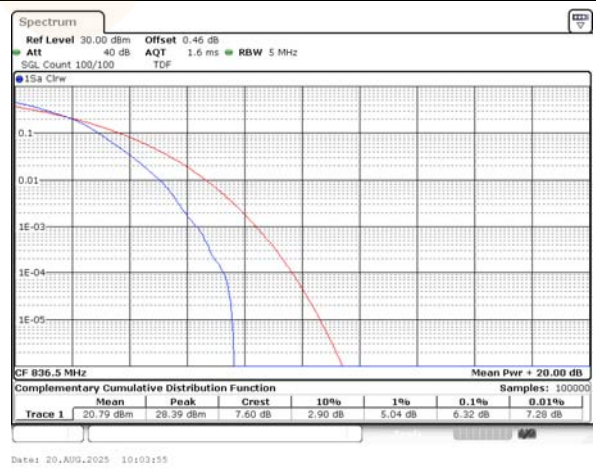
3M BW 16QAM Middle channel



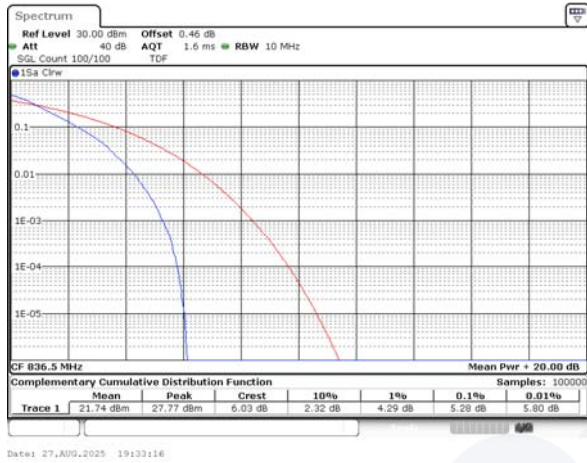
5M BW QPSK Middle channel



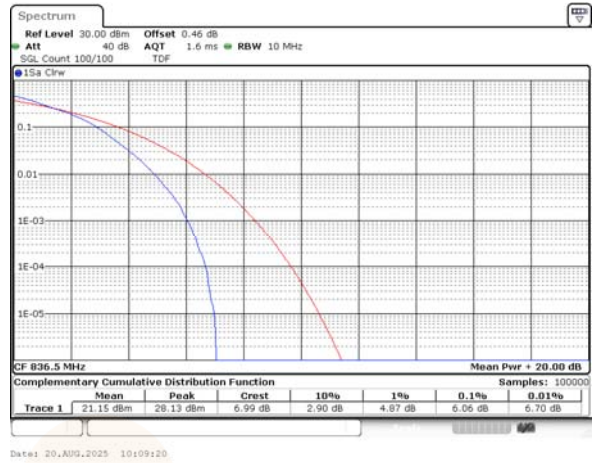
5M BW 16QAM Middle channel



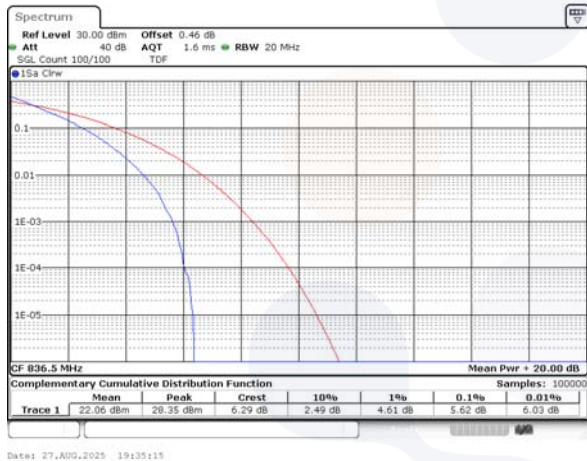
10M BW QPSK Middle channel



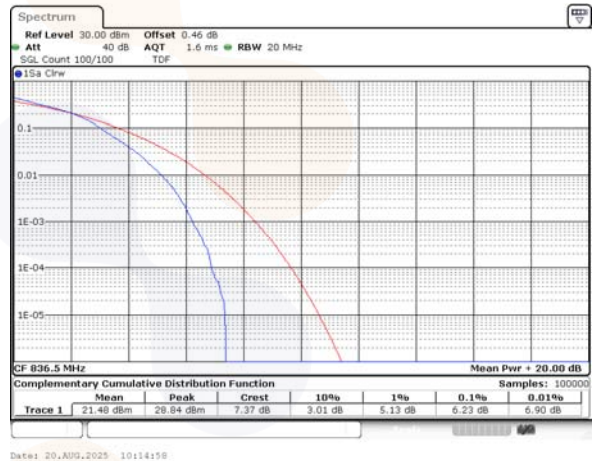
10M BW 16QAM Middle channel



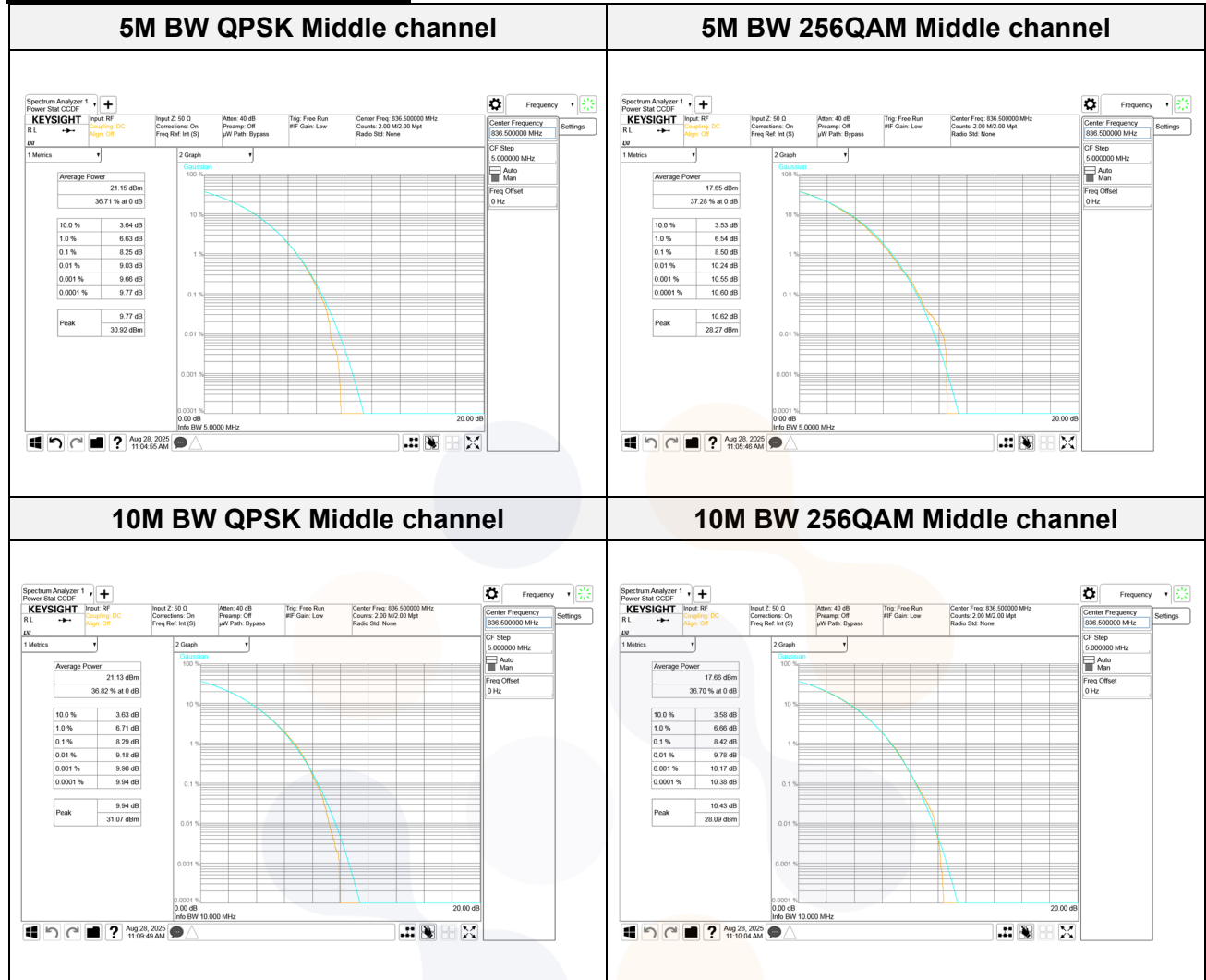
15M BW QPSK Middle channel



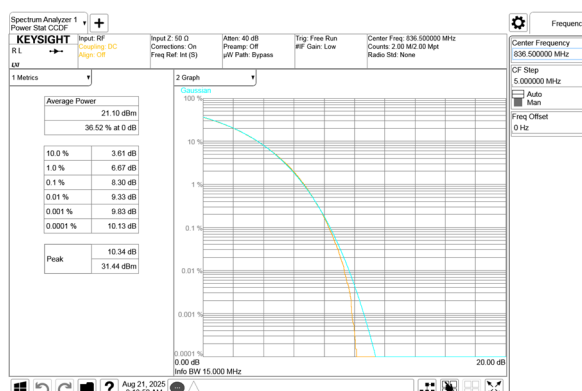
15M BW 16QAM Middle channel



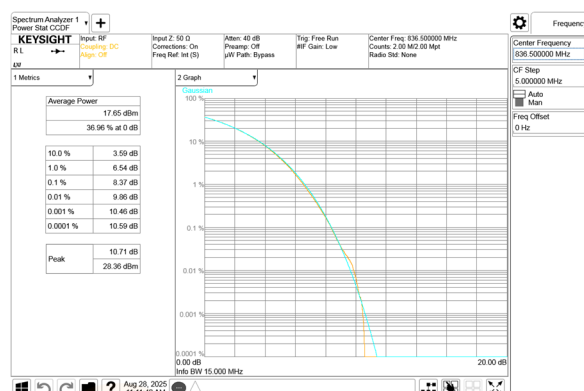
Test mode: 5G NR n5 CP OFDM



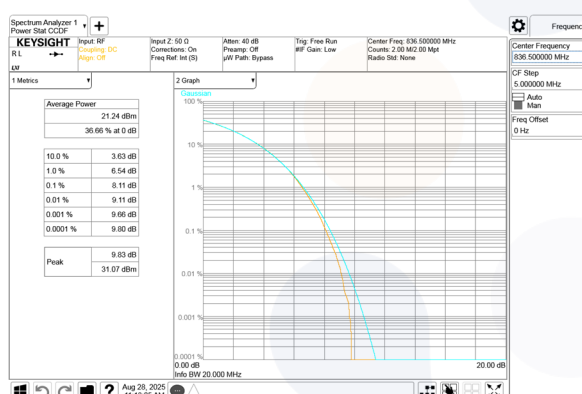
15M BW QPSK Middle channel



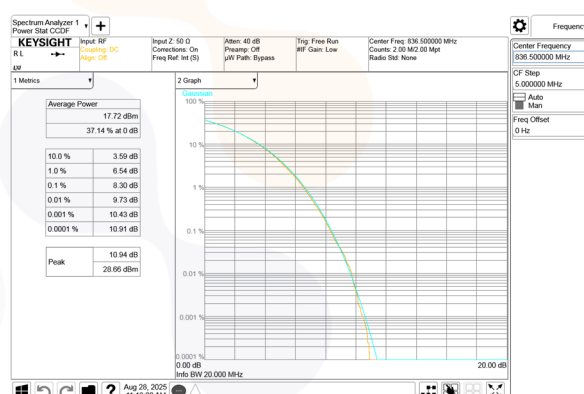
15M BW 256QAM Middle channel



20M BW QPSK Middle channel

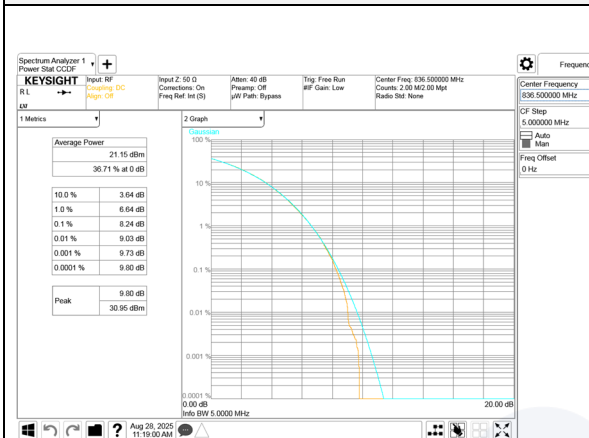


20M BW 256QAM Middle channel

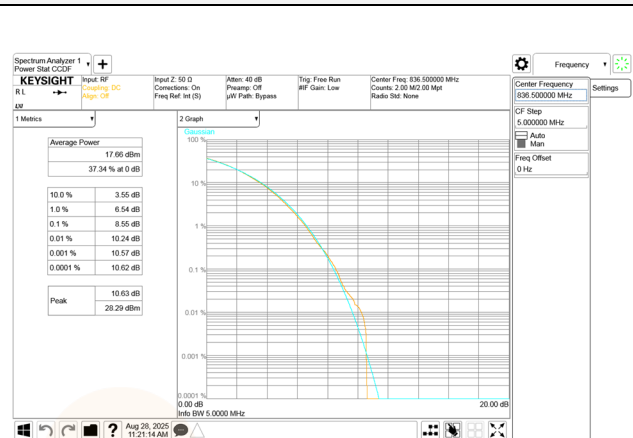


Test mode: 5G NR n26 CP OFDM

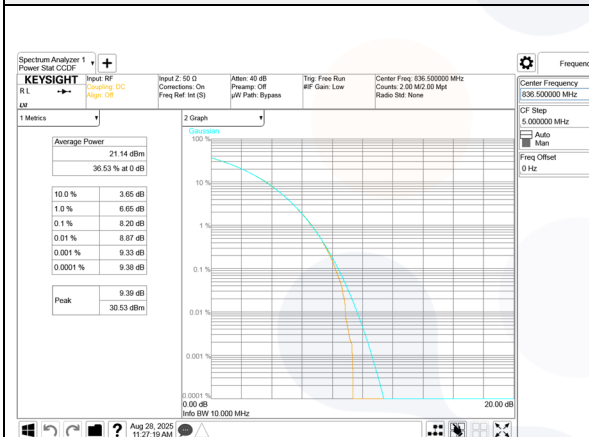
5M BW QPSK Middle channel



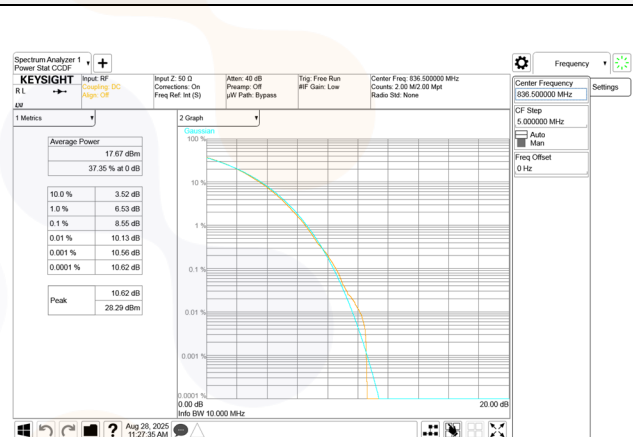
5M BW 256QAM Middle channel



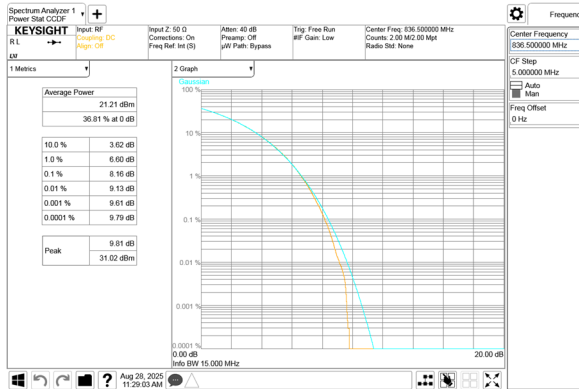
10M BW QPSK Middle channel



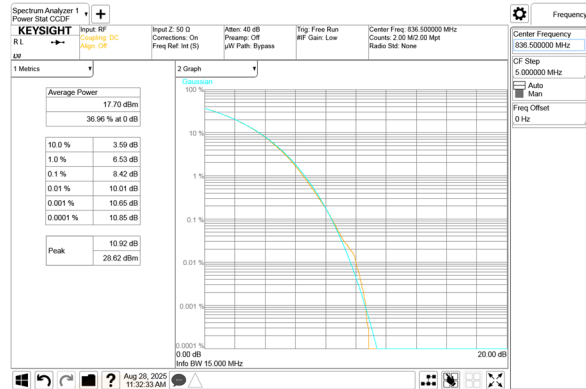
10M BW 256QAM Middle channel



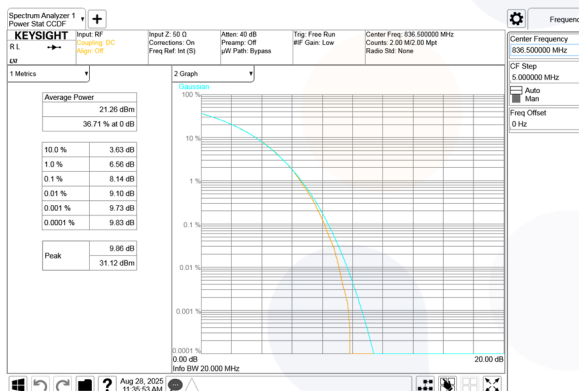
15M BW QPSK Middle channel



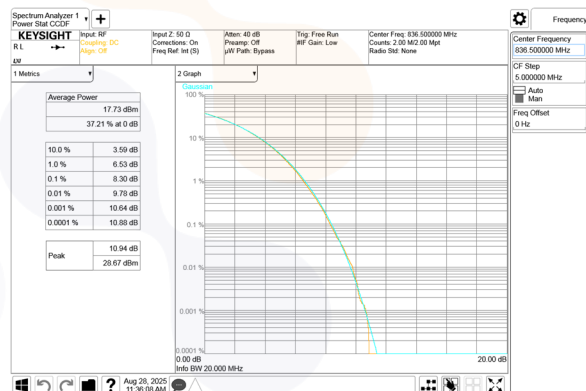
15M BW 256QAM Middle channel



20M BW QPSK Middle channel

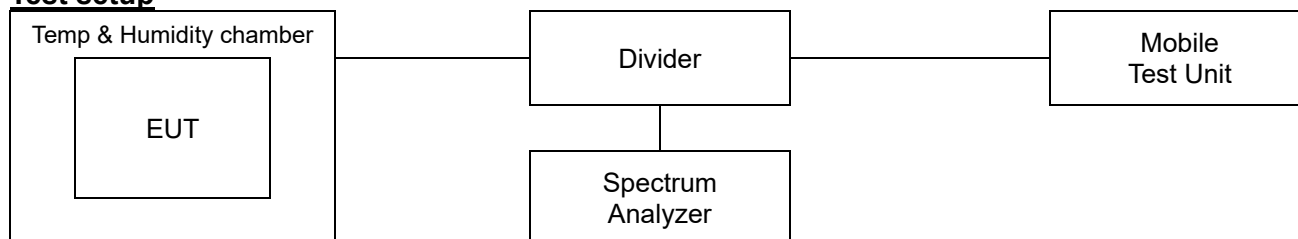


20M BW 256QAM Middle channel



7.6. Frequency stability

Test setup



Limit

According to §2.1055(a),

The frequency stability shall be measured with variation of ambient temperature as follows:

- 1) From -30° to + 50° centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.
- 2) From -20° to + 50° centigrade for equipment to be licensed for use in the maritime services under part 80 of this chapter, except for class A, B, and S emergency position indicating radiobeacons (EPIRBS), and equipment to be licensed for use above 952 MHz at operational fixed stations in all services, stations in the local television transmission service and point-to-point microwave radio service under part 21 of this chapter, equipment licensed for use aboard aircraft in the aviation services under part 87 of this chapter, and equipment authorized for use in the family radio service under part 95 of this chapter.
- 3) From 0° to + 50° centigrade for equipment to be licensed for use in the radio broadcast Services under part 73 of this chapter.

According to §2.1055(d),

The frequency stability shall be measured with variation of primary supply Voltage as follows:

- 1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.
- 2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating and point which shall be specified by the manufacturer.
- 3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

According to §22.355,

The carrier frequency of each transmitter in the public mobile services must be maintained within the tolerances given in Table of this section.

For mobile devices operating in the 824 to 849 MHz B at a power level than or equal to 3 Watts, the limit specified in Table C-1 is ± 2.5 ppm.

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Test procedure

ANSI 63.26-2015 – Section 5.6

Test settings

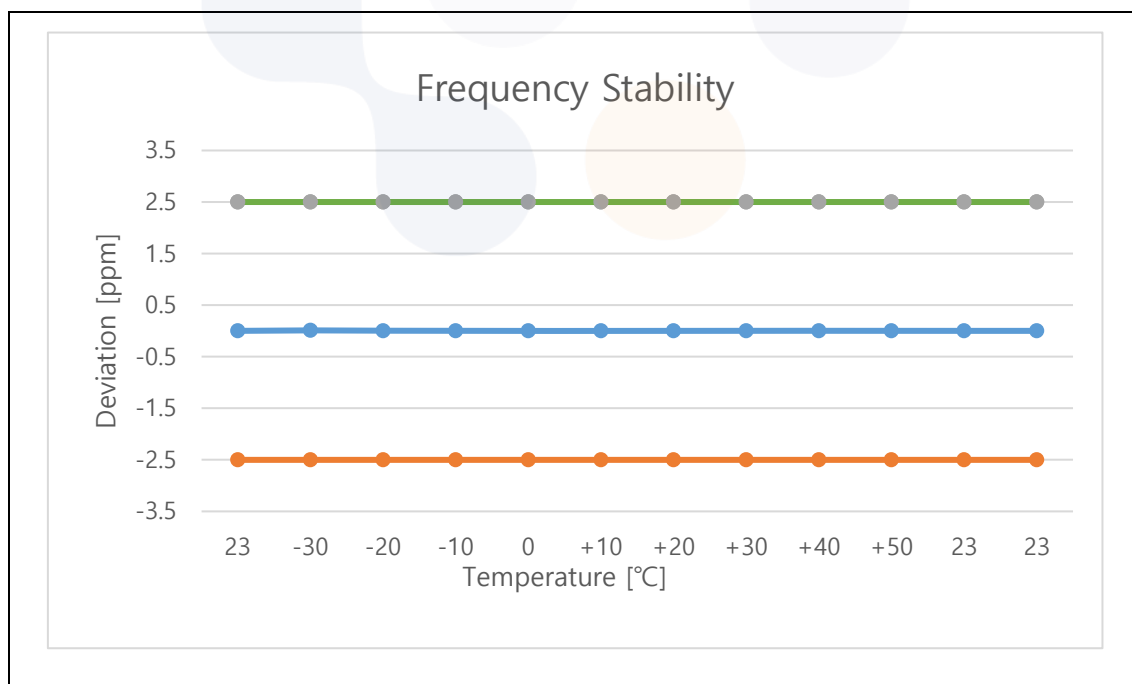
- 1) The carrier frequency of the transmitter is measured at room temperature.
(20°C to provide a reference)
- 2) The equipment is turned on in a “standby” condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
- 3) Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C.
A period of at least one half-hour is provided to allow stabilization of the equipment at each Temperature level.



Test results

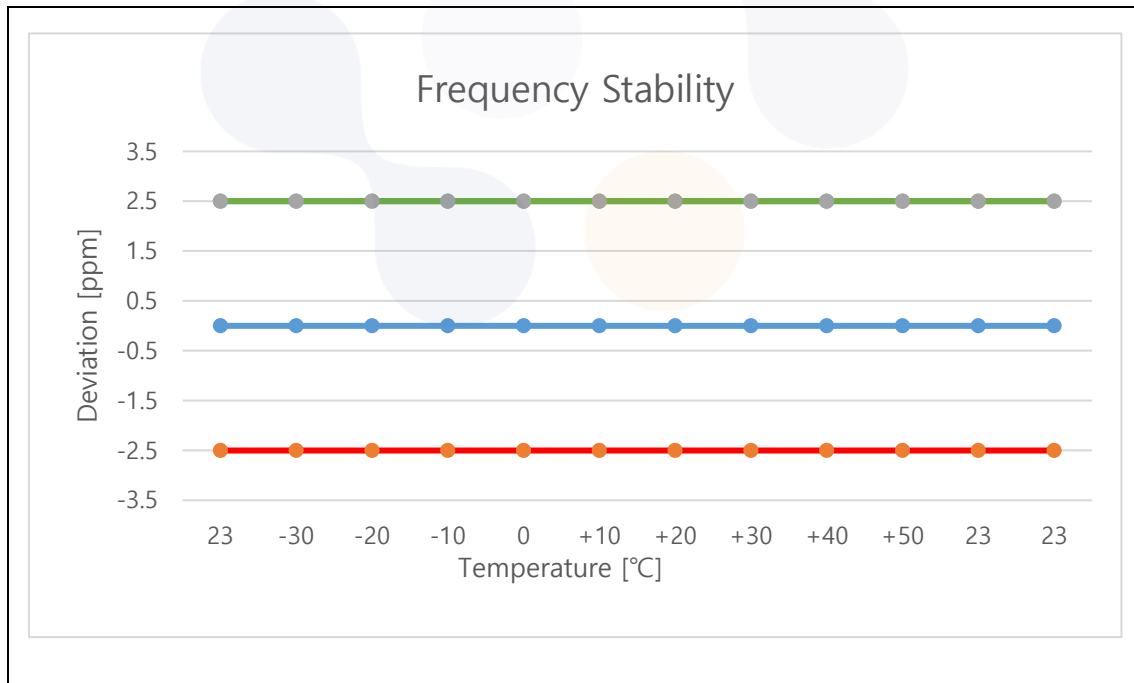
Test mode : GSM 850
 Frequency (Hz) : 836 600 000
 Channel : 190
 Deviation limit : ±0.000 25% or 2.5ppm

Voltage (%)	Power (V)	Temp. (°C)	Frequency (Hz)	Frequency error (Hz)	Deviation	
					(ppm)	(%)
100%	3.85	+23(Ref)	836,600,003	3.00	0.0	0.000 000
		-30	836,600,005	4.75	0.0	0.000 001
		-20	836,600,000	0.26	0.0	0.000 000
		-10	836,599,999	-0.87	0.0	0.000 000
		0	836,600,001	0.90	0.0	0.000 000
		+10	836,600,000	0.06	0.0	0.000 000
		+20	836,600,000	0.23	0.0	0.000 000
		+30	836,600,001	1.19	0.0	0.000 000
		+40	836,600,001	0.74	0.0	0.000 000
		+50	836,599,998	-1.78	0.0	0.000 000
115%	4.40	+23(Ref)	836,600,002	1.52	0.0	0.000 000
End point	3.65	+23(Ref)	836,600,004	3.58	0.0	0.000 000



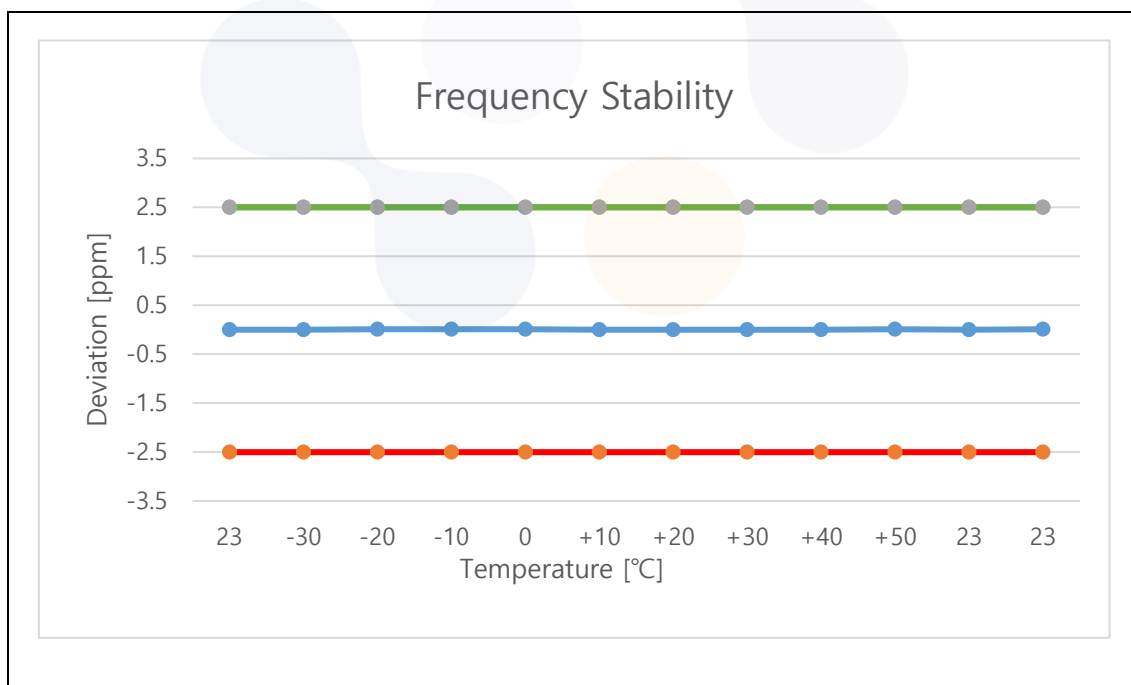
Test mode : WCDMA 850
 Frequency (Hz) : 836 600 000
 Channel : 4183
 Deviation limit : ±0.000 25% or 2.5 ppm

Voltage (%)	Power (V)	Temp. (°C)	Frequency (Hz)	Frequency error (Hz)	Deviation	
					(ppm)	(%)
100%	3.85	+23(Ref)	836,600,000	0.44	0.0	0.000 000
		-30	836,599,999	-0.75	0.0	0.000 000
		-20	836,600,000	0.06	0.0	0.000 000
		-10	836,599,998	-1.78	0.0	0.000 000
		0	836,600,000	0.39	0.0	0.000 000
		+10	836,600,000	0.31	0.0	0.000 000
		+20	836,599,999	-0.94	0.0	0.000 000
		+30	836,600,002	1.94	0.0	0.000 000
		+40	836,599,999	-0.55	0.0	0.000 000
		+50	836,600,001	0.99	0.0	0.000 000
115%	4.40	+23(Ref)	836,600,001	1.19	0.0	0.000 000
End point	3.65	+23(Ref)	836,599,999	-1.23	0.0	0.000 000



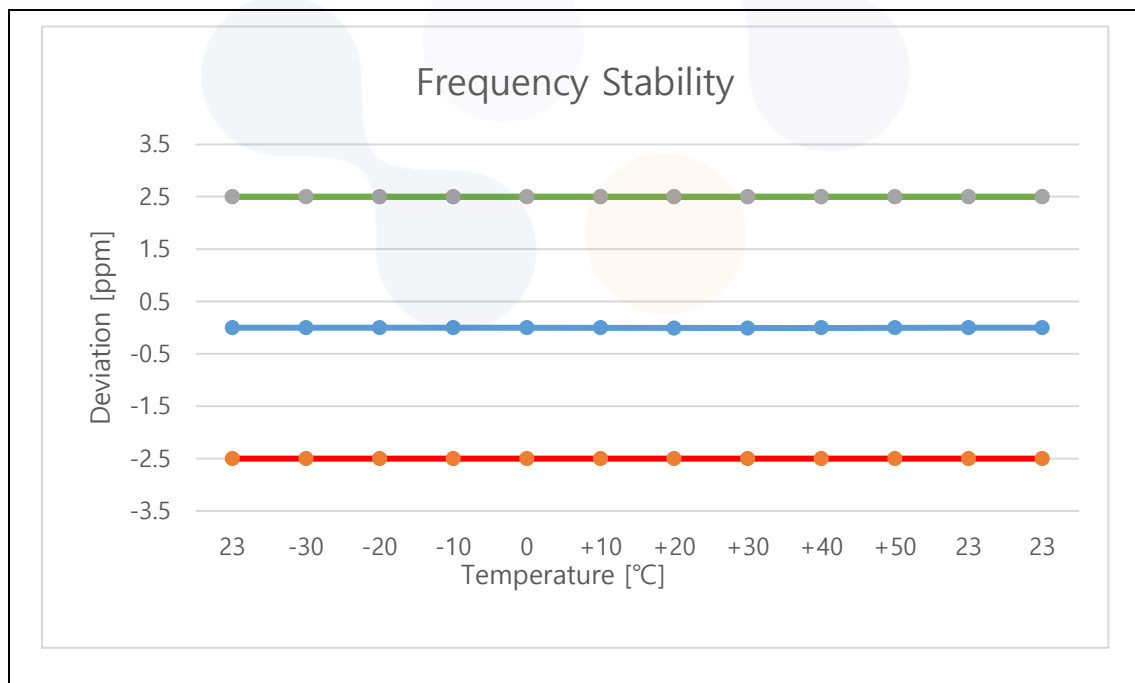
Test mode : LTE B5
 Frequency (Hz) : 836 500 000
 Channel : 20525
 Deviation limit : ±0.00025% or 2.5ppm

Voltage (%)	Power (V)	Temp. (°C)	Frequency (Hz)	Frequency error (Hz)	Deviation	
					(ppm)	(%)
100%	3.85	+23(Ref)	836,499,999	-0.89	0.0	0.000 000
		-30	836,499,998	-1.62	0.0	0.000 000
		-20	836,499,995	-4.61	0.0	-0.000 001
		-10	836,499,995	-5.04	0.0	-0.000 001
		0	836,499,995	-4.92	0.0	-0.000 001
		+10	836,499,997	-3.30	0.0	0.000 000
		+20	836,499,997	-2.89	0.0	0.000 000
		+30	836,499,998	-2.43	0.0	0.000 000
		+40	836,499,996	-3.71	0.0	0.000 000
		+50	836,499,992	-7.81	0.0	-0.000 001
115%	4.40	+23(Ref)	836,499,998	-2.35	0.0	0.000 000
End point	3.65	+23(Ref)	836,499,996	-4.25	0.0	-0.000 001



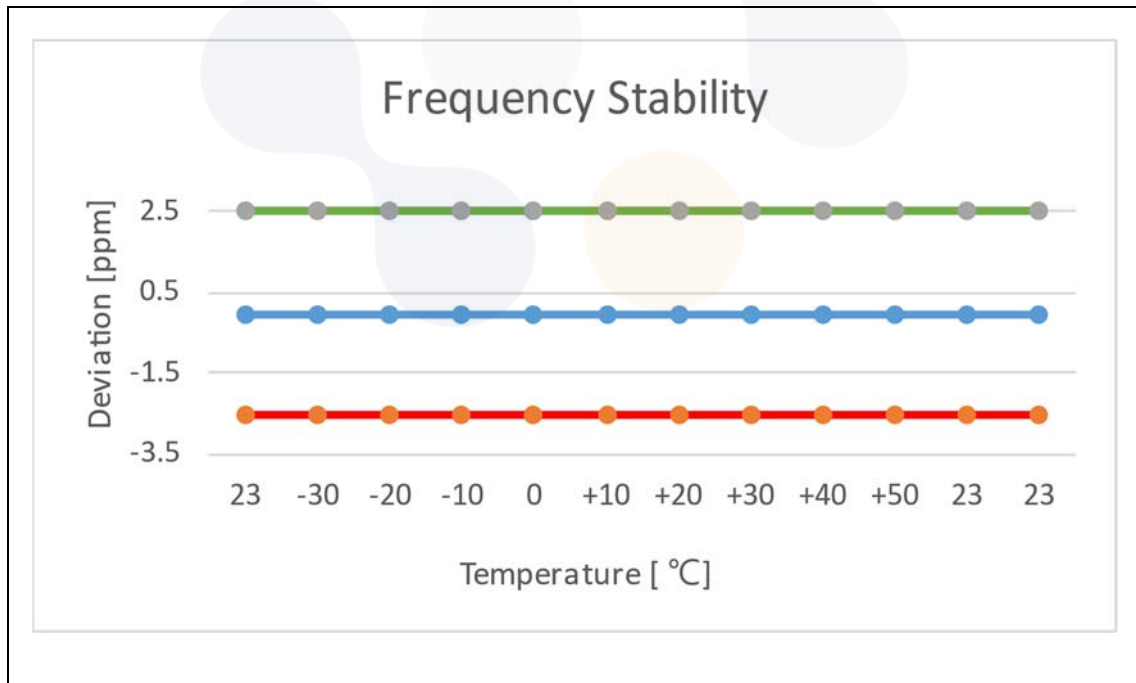
Test mode : LTE B26
 Frequency (Hz) : 836 500 000
 Channel : 26915
 Deviation limit : ±0.00025% or 2.5ppm

Voltage (%)	Power (V)	Temp. (°C)	Frequency (Hz)	Frequency error (Hz)	Deviation	
					(ppm)	(%)
100%	3.85	+23(Ref)	836,500,000	0.21	0.0	0.000 000
		-30	836,499,996	-3.86	0.0	0.000 000
		-20	836,499,998	-2.06	0.0	0.000 000
		-10	836,499,998	-1.76	0.0	0.000 000
		0	836,499,998	-1.63	0.0	0.000 000
		+10	836,499,998	-2.43	0.0	0.000 000
		+20	836,499,996	-4.32	0.0	-0.000 001
		+30	836,499,995	-4.62	0.0	-0.000 001
		+40	836,499,997	-3.46	0.0	0.000 000
		+50	836,499,997	-2.85	0.0	0.000 000
115%	4.40	+23(Ref)	836,500,001	1.19	0.0	0.000 000
End point	3.65	+23(Ref)	836,499,997	-3.33	0.0	0.000 000



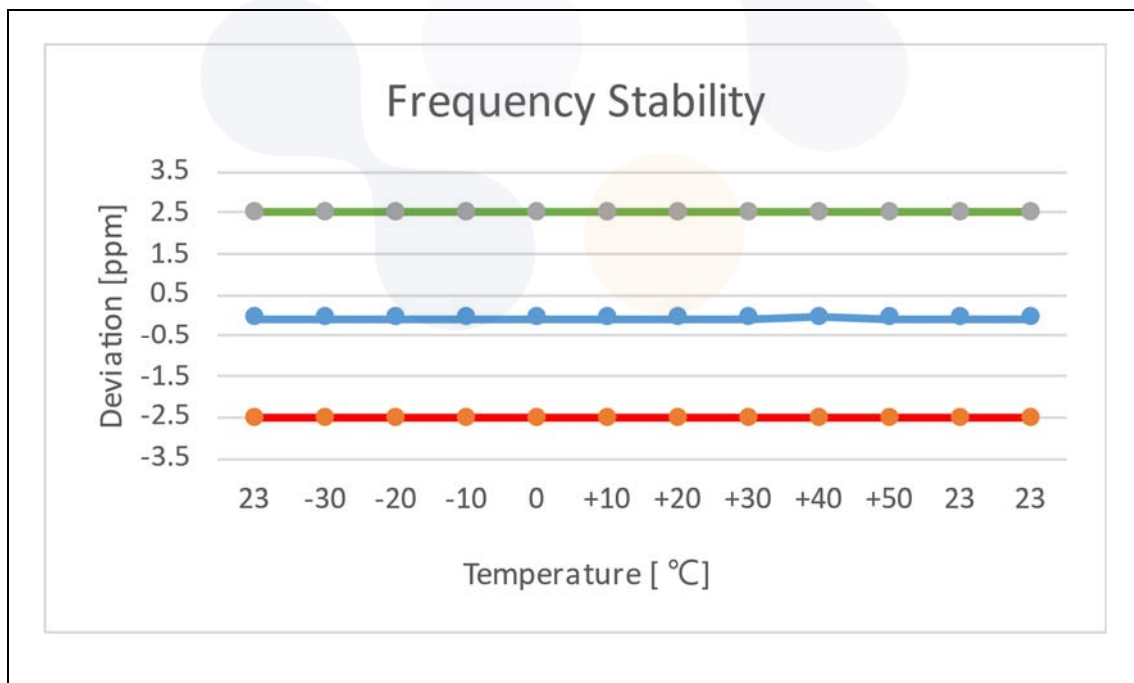
Test mode : 5G NR n5 DFT-s OFDM
 Frequency (Hz) : 836 500 000
 Channel : 167300
 Deviation limit : ±0.00025% or 2.5ppm

Voltage (%)	Power (V)	Temp. (°C)	Frequency (Hz)	Frequency error (Hz)	Deviation	
					(ppm)	(%)
100%	3.85	+23(Ref)	836,499,993	-7.00	0.0	-0.000 001
		-30	836,499,993	-6.60	0.0	-0.000 001
		-20	836,499,990	-10.00	0.0	-0.000 001
		-10	836,499,993	-7.40	0.0	-0.000 001
		0	836,499,994	-6.30	0.0	-0.000 001
		+10	836,499,994	-6.10	0.0	-0.000 001
		+20	836,499,992	-7.80	0.0	-0.000 001
		+30	836,499,991	-8.80	0.0	-0.000 001
		+40	836,499,995	-5.20	0.0	-0.000 001
		+50	836,499,993	-7.50	0.0	-0.000 001
115%	4.40	+23(Ref)	836,499,991	-9.20	0.0	-0.000 001
End point	3.65	+23(Ref)	836,499,995	-4.60	0.0	-0.000 001



Test mode : 5G NR n26 DFT-s OFDM
 Frequency (Hz) : 836 500 000
 Channel : 167300
 Deviation limit : ±0.00025% or 2.5ppm

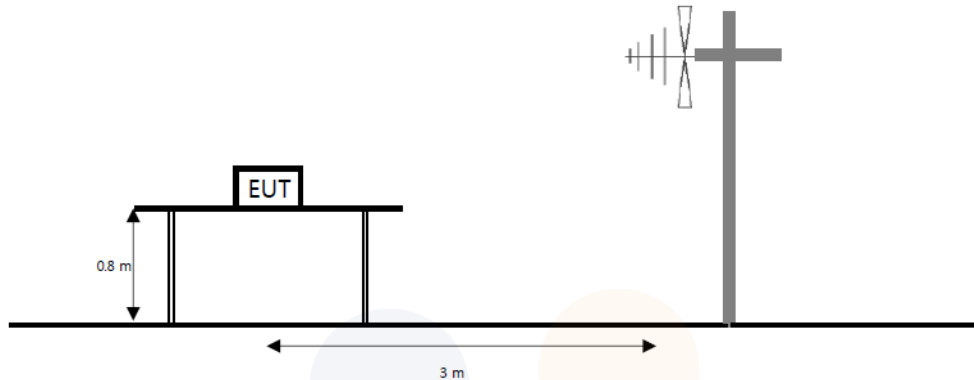
Voltage (%)	Power (V)	Temp. (°C)	Frequency (Hz)	Frequency error (Hz)	Deviation	
					(ppm)	(%)
100%	3.85	+23(Ref)	836,499,995	-4.70	0.0	-0.000 001
		-30	836,499,995	-5.00	0.0	-0.000 001
		-20	836,499,996	-4.40	0.0	-0.000 001
		-10	836,499,991	-8.80	0.0	-0.000 001
		0	836,499,991	-9.40	0.0	-0.000 001
		+10	836,499,993	-6.70	0.0	-0.000 001
		+20	836,499,994	-5.60	0.0	-0.000 001
		+30	836,499,995	-5.00	0.0	-0.000 001
		+40	836,499,997	-2.70	0.0	0.000 000
		+50	836,499,993	-7.40	0.0	-0.000 001
115%	4.40	+23(Ref)	836,499,993	-6.60	0.0	-0.000 001
End point	3.65	+23(Ref)	836,499,994	-5.80	0.0	-0.000 001



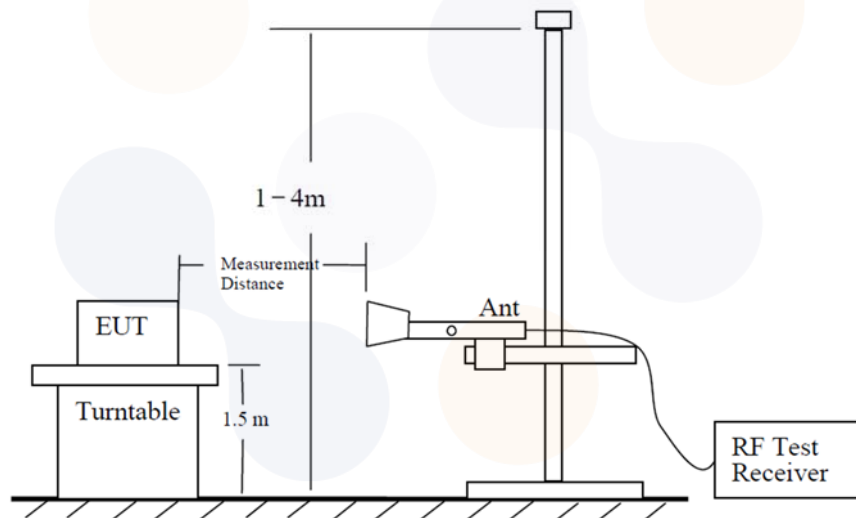
7.7. Radiated Power (ERP)

Test setup

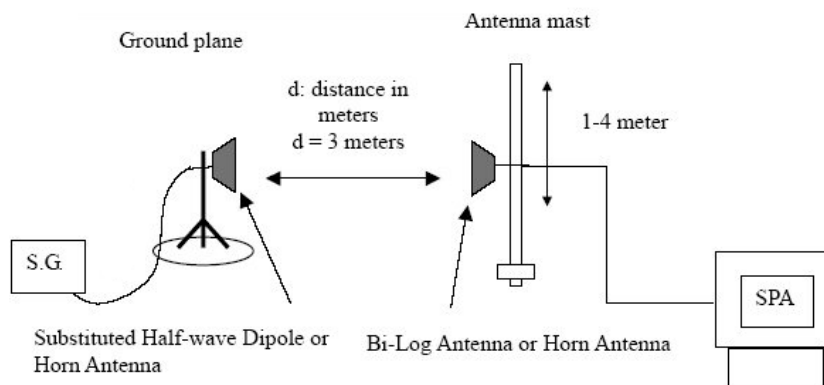
The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 GHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz emissions, whichever is lower.



The diagram below shows the test setup for substituted method.



Limit

According to §22.913(a)(5),

The ERP of transmitters in the cellular radiotelephone service must not exceed the limits in this section. The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

Test procedure

412172 D01 v01r01

971168 D01 v03r01 - Section 5.2 and 5.8

ANSI 63.26-2015 – Section 5.2

ANSI/TIA-603-E-2016 - Section 2.2.17

Test settings

- 1) RBW = 1 % to 5 % of the OBW.
- 2) VBW $\geq 3 \times$ RBW.
- 3) SPAN = 2 $\times$ to 3 $\times$ the OBW.
- 4) Number of measurement points in sweep $\geq 2 \times$ span / RBW.
- 5) Sweep time :
 - 1) Auto couple, or
 - 2) $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission period})]$ for single sweep (automation-compatible) measurement. Transmission period is the on and off time of the transmitter.
- 6) Detector = RMS
- 7) If the EUT can be configured to transmit continuously, then set the trigger to free run.
- 8) If the EUT cannot be configured to transmit continuously, then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Verify that the sweep time is less than or equal to the transmission burst duration. Time gating can also be used under similar constraints (i.e., configured such that measurement data is collected only during active full-power transmissions).
- 9) Trace mode = trace averaging (RMS) over 100 sweeps.
- 10) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's B or channel power measurement function, with the B/channel limits set equal to the OBW B edges. If the instrument does not have a B or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- 11) Allow trace to fully stabilize.

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Notes:

1. On a test site, the EUT shall be placed at 80 cm or 1.5 m height on a turn table, and in the position close to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarization located 3 m from EUT to correspond to the fundamental frequency of the transmitter.
3. The turntable is rotated through 360°, and the receiving antenna scans in order to determine the Level of the maximized emission.
4. The test antenna shall be raised and lowered again through the specified range of height until the maximum signal level is detected by the measuring receiver.
5. The maximum signal level detected by the measuring receiver shall be noted.
6. The EUT was replaced by half-wave dipole (1 GHz below) or horn antenna (1 GHz above) connected to a signal generator.
The power is calculated by the following formula;

$$Pd(\text{dBm}) = Pg(\text{dBm}) - \text{Cable loss (dB)} + \text{Antenna gain (dB)}$$
Note. Pd is the dipole equivalent power and Pg is the generator output power into the substitution antenna.
7. The test antenna shall be raised and lowered through the specified range of height to ensure that The maximum signal is received.
8. The input signal to the substitution antenna shall be adjusted to the level that produces a level Detected by the measuring corrected for the change of input attenuator setting of the measuring Receiver.
9. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for Any change of input attenuator setting of the measuring receiver.
10. The measurement shall be repeated with the test antenna and the substitution antenna Orientated for horizontal polarization.

Test results

Main Antenna

Test mode: GSM 850

Mode	Channel	Pol.	Antenna Gain	C.L	Substitute Level	ERP	
		[V/H]	[dBd]	[dB]	[dB m]	[dB m]	[W]
Voice	Low	H	4.25	6.12	34.04	32.17	1.648
	Middle	H	4.12	6.25	34.20	32.07	1.611
	High	H	4.23	6.29	33.99	31.93	1.560
EDGE	Low	H	4.25	6.12	28.18	26.31	0.428
	Middle	H	4.12	6.25	27.65	25.52	0.356
	High	H	4.23	6.29	27.16	25.10	0.324

Test mode: WCDMA 850

Mode	Channel	Pol.	Antenna Gain	C.L	Substitute Level	ERP	
		[V/H]	[dBd]	[dB]	[dB m]	[dB m]	[W]
RMC	Low	H	4.25	6.15	25.30	23.40	0.219
	Middle	H	4.12	6.25	25.04	22.91	0.195
	High	H	4.18	6.31	24.73	22.60	0.182

Note.

1. $E.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBd) - C.L(\text{Cable loss})(dB)$

Test mode: LTE B5

Bandwidth [MHz]	Modulation	Channel	Pol.	Antenna Gain	C.L	Substitute Level	ERP	
			[V/H]	[dBd]	[dB]	[dBm]	[dBm]	[W]
1.4	QPSK	Low	H	4.25	6.13	24.72	22.84	0.192
		Middle	H	4.12	6.25	24.60	22.47	0.177
		High	H	4.22	6.31	24.07	21.97	0.158
	16QAM	Low	H	4.25	6.13	23.84	21.96	0.157
		Middle	H	4.12	6.25	23.54	21.41	0.138
		High	H	4.22	6.31	23.17	21.08	0.128
3	QPSK	Low	H	4.25	6.14	24.84	22.95	0.197
		Middle	H	4.12	6.25	24.47	22.34	0.171
		High	H	4.20	6.31	24.04	21.93	0.156
	16QAM	Low	H	4.25	6.14	23.96	22.07	0.161
		Middle	H	4.12	6.25	23.57	21.44	0.139
		High	H	4.20	6.31	23.24	21.13	0.130
5	QPSK	Low	H	4.25	6.15	23.94	22.04	0.160
		Middle	H	4.12	6.25	24.50	22.37	0.172
		High	H	4.18	6.30	24.02	21.90	0.155
	16QAM	Low	H	4.25	6.15	22.94	21.04	0.127
		Middle	H	4.12	6.25	23.73	21.60	0.144
		High	H	4.18	6.30	23.15	21.03	0.127
10	QPSK	Low	H	4.25	6.15	24.14	22.24	0.167
		Middle	H	4.12	6.25	24.61	22.48	0.177
		High	H	4.13	6.25	24.22	22.10	0.162
	16QAM	Low	H	4.25	6.15	23.33	21.43	0.139
		Middle	H	4.12	6.25	23.54	21.41	0.138
		High	H	4.13	6.25	23.06	20.94	0.124

Note.

1. $E.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBd) - C.L(\text{Cable loss})(dB)$

Test mode: LTE B26

Bandwidth [MHz]	Modulation	Channel	Pol.	Antenna Gain	C.L	Substitute Level	ERP	
			[V/H]	[dBd]	[dB]	[dBm]	[dBm]	[W]
1.4	QPSK	Low	H	4.25	6.13	24.63	22.75	0.188
		Middle	H	4.12	6.25	24.41	22.28	0.169
		High	H	4.22	6.31	24.51	22.42	0.175
	16QAM	Low	H	4.25	6.13	23.59	21.71	0.148
		Middle	H	4.12	6.25	23.46	21.33	0.136
		High	H	4.22	6.31	23.61	21.52	0.142
3	QPSK	Low	H	4.25	6.14	24.54	22.65	0.184
		Middle	H	4.12	6.25	24.50	22.37	0.172
		High	H	4.20	6.31	24.29	22.18	0.165
	16QAM	Low	H	4.25	6.14	23.71	21.82	0.152
		Middle	H	4.12	6.25	23.67	21.54	0.143
		High	H	4.20	6.31	23.25	21.14	0.130
5	QPSK	Low	H	4.25	6.15	23.57	21.67	0.147
		Middle	H	4.12	6.25	24.50	22.37	0.173
		High	H	4.18	6.30	24.17	22.05	0.160
	16QAM	Low	H	4.25	6.15	22.61	20.71	0.118
		Middle	H	4.12	6.25	23.64	21.51	0.141
		High	H	4.18	6.30	23.37	21.25	0.133
10	QPSK	Low	H	4.25	6.15	23.80	21.90	0.155
		Middle	H	4.12	6.25	24.57	22.44	0.175
		High	H	4.13	6.25	24.45	22.33	0.171
	16QAM	Low	H	4.25	6.15	22.91	21.01	0.126
		Middle	H	4.12	6.25	23.54	21.41	0.138
		High	H	4.13	6.25	23.62	21.50	0.141
15	QPSK	Low	H	4.22	6.17	24.13	22.18	0.165
		Middle	H	4.12	6.25	24.65	22.52	0.179
		High	H	4.08	6.21	24.46	22.33	0.171
	16QAM	Low	H	4.22	6.17	23.16	21.21	0.132
		Middle	H	4.12	6.25	23.74	21.61	0.145
		High	H	4.08	6.21	23.56	21.43	0.139

Note.

1. $E.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBd) - C.L(\text{Cable loss})(dB)$

Test mode: 5G NR n5 DFT-s OFDM

Bandwidth [MHz]	Modulation	Channel	Pol.	Antenna Gain	C.L	Substitute Level	ERP	
			[V/H]	[dBd]	[dB]	[dBm]	[dBm]	[W]
5	QPSK	Low	H	4.25	6.15	23.82	21.92	0.156
		Middle	H	4.12	6.25	24.51	22.38	0.173
		High	H	4.18	6.30	23.94	21.82	0.152
	16QAM	Low	H	4.25	6.15	22.72	20.82	0.121
		Middle	H	4.12	6.25	23.65	21.52	0.142
		High	H	4.18	6.30	23.04	20.92	0.123
10	QPSK	Low	H	4.25	6.15	24.01	22.11	0.163
		Middle	H	4.12	6.25	24.40	22.27	0.169
		High	H	4.13	6.25	24.24	22.12	0.163
	16QAM	Low	H	4.25	6.15	23.21	21.31	0.135
		Middle	H	4.12	6.25	23.69	21.56	0.143
		High	H	4.13	6.25	23.54	21.42	0.139
15	QPSK	Low	H	4.22	6.17	24.34	22.39	0.173
		Middle	H	4.12	6.25	24.68	22.55	0.180
		High	H	4.08	6.21	24.45	22.32	0.170
	16QAM	Low	H	4.22	6.17	23.39	21.44	0.139
		Middle	H	4.12	6.25	23.78	21.65	0.146
		High	H	4.08	6.21	23.69	21.56	0.143
20	QPSK	Low	H	4.17	6.23	24.60	22.54	0.180
		Middle	H	4.12	6.25	24.78	22.65	0.184
		High	H	4.07	6.22	24.65	22.50	0.178
	16QAM	Low	H	4.17	6.23	23.70	21.64	0.146
		Middle	H	4.12	6.25	23.93	21.80	0.151
		High	H	4.07	6.22	23.67	21.52	0.142

Note.

1. $E.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBd) - C.L(\text{Cable loss})(dB)$

Test mode: 5G NR n26 DFT-s OFDM

Bandwidth [MHz]	Modulation	Channel	Pol.	Antenna Gain	C.L	Substitute Level	ERP	
			[V/H]	[dBd]	[dB]	[dBm]	[dBm]	[W]
5	QPSK	Low	H	4.25	6.15	24.11	22.21	0.166
		Middle	H	4.12	6.25	24.52	22.39	0.173
		High	H	4.18	6.30	24.13	22.01	0.159
	16QAM	Low	H	4.25	6.15	22.95	21.05	0.127
		Middle	H	4.12	6.25	23.55	21.42	0.139
		High	H	4.18	6.30	23.20	21.08	0.128
10	QPSK	Low	H	4.25	6.15	23.83	21.93	0.156
		Middle	H	4.12	6.25	24.57	22.44	0.175
		High	H	4.13	6.25	24.37	22.25	0.168
	16QAM	Low	H	4.25	6.15	23.05	21.15	0.130
		Middle	H	4.12	6.25	23.64	21.51	0.142
		High	H	4.13	6.25	23.52	21.40	0.138
15	QPSK	Low	H	4.22	6.17	23.75	21.80	0.151
		Middle	H	4.12	6.25	24.23	22.10	0.162
		High	H	4.08	6.21	24.28	22.15	0.164
	16QAM	Low	H	4.22	6.17	22.93	20.98	0.125
		Middle	H	4.12	6.25	23.52	21.39	0.138
		High	H	4.08	6.21	23.54	21.41	0.138
20	QPSK	Low	H	4.17	6.23	24.04	21.98	0.158
		Middle	H	4.12	6.25	24.35	22.22	0.167
		High	H	4.07	6.22	24.33	22.18	0.165
	16QAM	Low	H	4.17	6.23	23.26	21.20	0.132
		Middle	H	4.12	6.25	23.46	21.33	0.136
		High	H	4.07	6.22	23.50	21.35	0.137

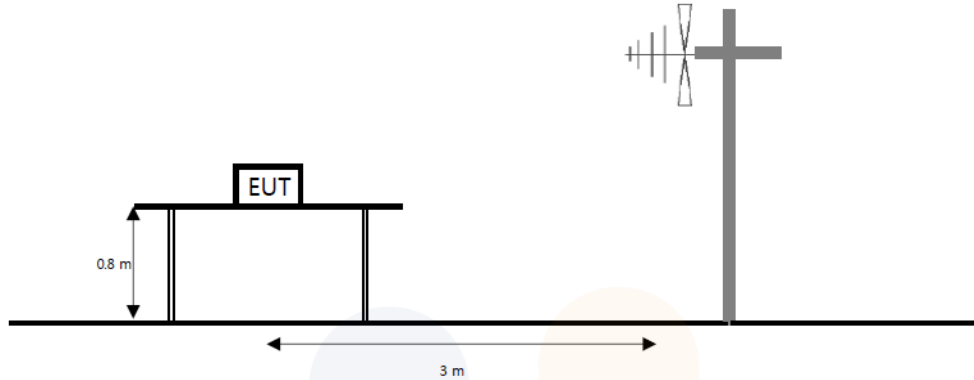
Note.

1. $E.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBd) - C.L(\text{Cable loss})(dB)$

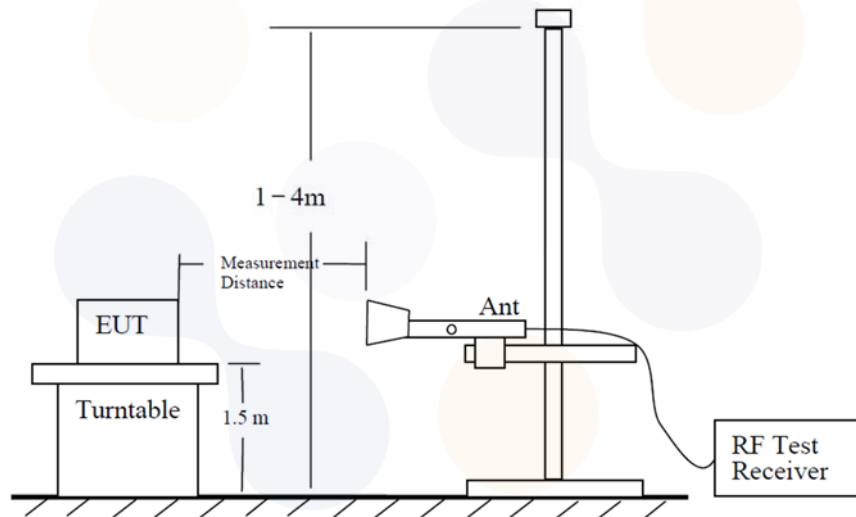
7.8. Radiated Spurious Emissions

Test setup

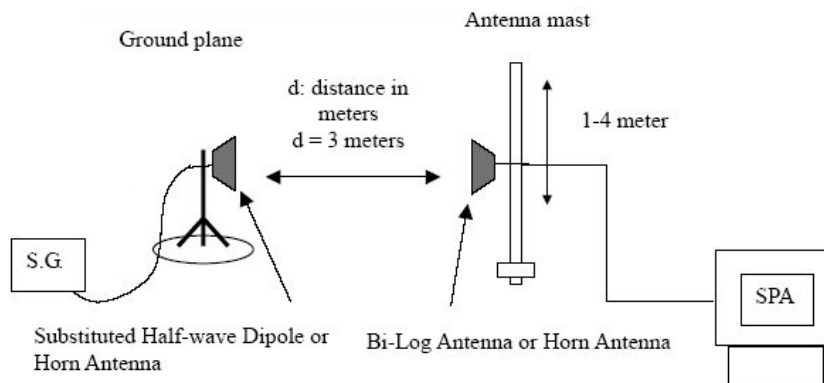
The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 GHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz emissions, whichever is lower.



The diagram below shows the test setup for substituted method.



Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-4904-0113 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR25-SRF0174 Page (111) of (118)	
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Limit

According to §22.917(a),

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.

Test procedure

971168 D01 v03r01 - Section 6.2

ANSI 63.26-2015 – Section 5.5

ANSI/TIA-603-E-2016 - Section 2.2.12

Test settings

- 1) RBW = 100 kHz for below 1 GHz and 1 MHz for above 1 GHz.
- 2) VBW $\geq 3 \times$ RBW.
- 3) Detector = RMS
- 4) Trace mode = Max hold
- 5) Sweep time = Auto couple
- 6) Number of sweep points $\geq 2 \times \text{span} / \text{RBW}$
- 7) Allow trace to fully stabilize.

Notes:

1. On a test site, the EUT shall be placed at 80 cm or 1.5 m height on a turn table, and in the position close to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarization located 3 m from EUT to Correspond to the fundamental frequency of the transmitter.
3. The turntable is rotated through 360°, and the receiving antenna scans in order to determine the Level of the maximized emission.
4. The test antenna shall be raised and lowered again through the specified range of height until the maximum signal level is detected by the measuring receiver.
5. The maximum signal level detected by the measuring receiver shall be noted.
6. The EUT was replaced by half-wave dipole (1 GHz below) or horn antenna (1 GHz above) connected to a signal generator.
7. The test antenna shall be raised and lowered through the specified range of height to ensure that The maximum signal is received.
8. The input signal to the substitution antenna shall be adjusted to the level that produces a level Detected by the measuring corrected for the change of input attenuator setting of the measuring Receiver.
9. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for Any change of input attenuator setting of the measuring receiver.
10. The measurement shall be repeated with the test antenna and the substitution antenna Orientated for horizontal polarization.

Test results (Above 1 000 MHz)

Test mode : GSM 850

Frequency(MHz) : 824.2

Channel : 128

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
Voice	1 648.40	V	5.37	8.63	-50.44	-53.70	-13.00	40.70
	2 472.80	H	5.83	10.57	-46.76	-51.50	-13.00	38.50
	3 295.60	H	7.81	12.26	-51.25	-55.70	-13.00	42.70
	4 120.40	H	9.04	13.91	-48.63	-53.50	-13.00	40.50

Test mode : GSM 850

Frequency(MHz) : 836.6

Channel : 190

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
Voice	1 673.20	H	5.32	8.64	-51.58	-54.90	-13.00	41.90
	2 509.60	H	5.92	10.73	-44.99	-49.80	-13.00	36.80
	3 346.80	H	7.93	12.36	-52.17	-56.60	-13.00	43.60
	4 184.00	V	9.12	13.83	-47.89	-52.60	-13.00	39.60

Test mode : GSM 850

Frequency(MHz) : 848.8

Channel : 251

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
Voice	1 697.60	H	5.27	8.71	-47.96	-51.40	-13.00	38.40
	2 546.40	H	6.01	10.77	-42.94	-47.70	-13.00	34.70
	3 395.60	H	8.05	12.47	-49.58	-54.00	-13.00	41.00
	4 244.40	H	9.19	13.97	-50.22	-55.00	-13.00	42.00

Note.

1. E.I.R.P(dBm) = Substitute Level(dB) + Antenna gain(dBi) - C.L(Cable loss) (dB)

Test mode : WCDMA 850

Frequency(MHz) : 826.4

Channel : 4132

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
RMC	1 650.40	V	5.37	8.58	-58.09	-61.30	-13.00	48.30
	2 480.00	H	5.85	10.59	-50.66	-55.40	-13.00	42.40
	3 305.20	V	7.83	12.28	-50.95	-55.40	-13.00	42.40
	4 132.00	H	9.06	13.93	-48.63	-53.50	-13.00	40.50

Test mode : WCDMA 850

Frequency(MHz) : 836.6

Channel : 4183

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
RMC	1 674.80	H	5.32	8.65	-59.47	-62.80	-13.00	49.80
	2 509.60	H	5.92	10.73	-51.39	-56.20	-13.00	43.20
	3 346.40	H	7.93	12.36	-51.87	-56.30	-13.00	43.30
	4 182.80	V	9.12	13.82	-47.50	-52.20	-13.00	39.20

Test mode : WCDMA 850

Frequency(MHz) : 846.6

Channel : 4233

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
RMC	1 691.20	V	5.28	8.69	-56.39	-59.80	-13.00	46.80
	2 539.60	V	6.00	10.76	-52.94	-57.70	-13.00	44.70
	3 385.20	V	8.02	12.44	-51.98	-56.40	-13.00	43.40
	4 234.40	H	9.18	13.94	-49.84	-54.60	-13.00	41.60

Note.

1. $E.I.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBi) - C.L(\text{Cable loss}) (dB)$

Test mode : LTE B5

Frequency(MHz) : 825.5

Channel : 20415

Bandwidth(MHz) : 3

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 654.80	V	5.36	8.59	-54.27	-57.50	-13.00	44.50
	2 481.10	H	5.85	10.59	-47.66	-52.40	-13.00	39.40
	3 308.63	H	7.84	12.28	-45.36	-49.80	-13.00	36.80
	4 137.39	H	9.06	13.94	-41.72	-46.60	-13.00	33.60

Test mode : LTE B5

Frequency(MHz) : 836.5

Channel : 20525

Bandwidth(MHz) : 3

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 675.73	V	5.31	8.65	-54.16	-57.50	-13.00	44.50
	2 514.33	V	5.93	10.73	-46.80	-51.60	-13.00	38.60
	3 352.53	H	7.95	12.38	-46.87	-51.30	-13.00	38.30
	4 190.73	H	9.13	13.85	-41.88	-46.60	-13.00	33.60

Test mode : LTE B5

Frequency(MHz) : 847.5

Channel : 20635

Bandwidth(MHz) : 3

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 698.29	H	5.26	8.71	-54.45	-57.90	-13.00	44.90
	2 547.98	H	6.02	10.77	-48.05	-52.80	-13.00	39.80
	3 395.61	H	8.05	12.47	-46.58	-51.00	-13.00	38.00
	4 244.88	H	9.19	13.97	-45.42	-50.20	-13.00	37.20

Note.

1. E.I.R.P(dBm) = Substitute Level(dB) + Antenna gain(dBi) - C.L(Cable loss) (dB)

Test mode : LTE B26

Frequency(MHz) : 824.7

Channel : 26797

Bandwidth(MHz) : 1.4

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 647.83	V	5.37	8.63	-55.24	-58.50	-13.00	45.50
	2 472.49	V	5.83	10.57	-47.46	-52.20	-13.00	39.20
	3 295.09	V	7.81	12.25	-47.16	-51.60	-13.00	38.60
	4 118.52	V	9.04	13.91	-42.43	-47.30	-13.00	34.30

Test mode : LTE B26

Frequency(MHz) : 836.5

Channel : 26915

Bandwidth(MHz) : 1.4

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 672.03	V	5.32	8.64	-54.78	-58.10	-13.00	45.10
	2 508.18	V	5.92	10.73	-47.59	-52.40	-13.00	39.40
	3 342.27	V	7.92	12.35	-47.17	-51.60	-13.00	38.60
	4 180.06	V	9.12	13.82	-43.10	-47.80	-13.00	34.80

Test mode : LTE B26

Frequency(MHz) : 848.3

Channel : 27033

Bandwidth(MHz) : 1.4

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 695.83	V	5.27	8.71	-53.86	-57.30	-13.00	44.30
	2 542.64	V	6.00	10.76	-47.74	-52.50	-13.00	39.50
	3 392.74	H	8.04	12.46	-46.28	-50.70	-13.00	37.70
	4 239.96	V	9.19	13.96	-44.53	-49.30	-13.00	36.30

Note.

1. E.I.R.P(dBm) = Substitute Level(dB) + Antenna gain(dBi) - C.L(Cable loss) (dB)

Test mode : 5G NR n5 DFT-s OFDM

Frequency(MHz) : 834.0

Channel : 166800

Bandwidth(MHz) : 20

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 648.65	V	5.37	8.63	-54.34	-57.60	-13.00	44.60
	2 474.54	V	5.83	10.58	-46.55	-51.30	-13.00	38.30
	3 296.32	H	7.81	12.26	-44.85	-49.30	-13.00	36.30
	4 119.34	V	9.04	13.91	-41.43	-46.30	-13.00	33.30

Test mode : 5G NR n5 DFT-s OFDM

Frequency(MHz) : 836.5

Channel : 167300

Bandwidth(MHz) : 20

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 649.47	V	5.37	8.63	-53.64	-56.90	-13.00	43.90
	2 480.69	V	5.85	10.59	-47.16	-51.90	-13.00	38.90
	3 302.48	V	7.83	12.27	-44.66	-49.10	-13.00	36.10
	4 134.11	H	9.06	13.93	-42.43	-47.30	-13.00	34.30

Test mode : 5G NR n5 DFT-s OFDM

Frequency(MHz) : 839.0

Channel : 167800

Bandwidth(MHz) : 20

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 657.68	V	5.35	8.60	-54.75	-58.00	-13.00	45.00
	2 489.31	H	5.87	10.61	-48.26	-53.00	-13.00	40.00
	3 313.14	V	7.85	12.29	-45.36	-49.80	-13.00	36.80
	4 146.01	V	9.08	13.96	-41.72	-46.60	-13.00	33.60

Note.

1. $E.I.R.P(dBm) = \text{Substitute Level}(dB) + \text{Antenna gain}(dBi) - C.L(\text{Cable loss}) (dB)$

Test mode : 5G NR n26 DFT-s OFDM

Frequency(MHz) : 829.0

Channel : 165800

Bandwidth(MHz) : 10

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 648.24	V	5.37	8.63	-53.64	-56.90	-13.00	43.90
	2 476.18	H	5.84	10.58	-46.96	-51.70	-13.00	38.70
	3 292.63	V	7.80	12.25	-44.95	-49.40	-13.00	36.40
	4 122.62	V	9.05	13.91	-42.24	-47.10	-13.00	34.10

Test mode : 5G NR n26 DFT-s OFDM

Frequency(MHz) : 836.5

Channel : 167300

Bandwidth(MHz) : 10

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 664.65	H	5.34	8.62	-53.42	-56.70	-13.00	43.70
	2 497.92	V	5.89	10.62	-47.57	-52.30	-13.00	39.30
	3 325.04	H	7.88	12.32	-44.76	-49.20	-13.00	36.20
	4 155.85	H	9.09	13.76	-42.23	-46.90	-13.00	33.90

Test mode : 5G NR n26 DFT-s OFDM

Frequency(MHz) : 844.0

Channel : 168800

Bandwidth(MHz) : 10

Mode	Frequency	Pol.	Antenna Gain	Cable loss	Substitute Level	Level	Limit	Margin
	[MHz]	[V/H]	[dBi]	[dB]	[dBm]	[dBm]	[dBm]	[dB]
QPSK	1 679.01	H	5.31	8.66	-53.35	-56.70	-13.00	43.70
	2 513.10	V	5.93	10.72	-45.11	-49.90	-13.00	36.90
	3 353.35	H	7.95	12.38	-45.87	-50.30	-13.00	37.30
	4 194.01	V	9.13	13.85	-42.68	-47.40	-13.00	34.40

Note.

1. E.I.R.P(dBm) = Substitute Level(dB) + Antenna gain(dBi) - C.L(Cable loss) (dB)

8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100914	26.06.30
Spectrum Analyzer	R&S	FSV40-N	101462	25.10.10
PXA Signal Analyzer	KEYSIGHT	N9040B	US56050101	25.12.03
PXA Signal Analyzer	KEYSIGHT	N9040B	US55230151	26.07.01
Signal Generator	R&S	SMB100A	176206	26.01.17
Vector Signal Generator	R&S	SMBV100A	257566	26.07.01
Radio Communication Analyzer	ANRITSU	MT8000A	6262093278	26.04.23
Radio Communication Analyzer	ANRITSU	MT8000A	6272583191	25.11.01
Wideband Radio Communication Tester	R&S	CMW500	106840	26.01.17
Wideband Radio Communication Tester	R&S	CMW500	141780	26.01.16
Broadband Resistive Power Divider	WEINSCHEL	WA1575	3750	25.10.10
DC Power Supply	TOYOTECH	TL305TP	20100121	26.06.30
DC Power Supply	AGILENT	E3632A	MY51220373	26.06.30
Temp & Humid Chamber	ESPEC CORP.	SH-661	92004048	25.10.10
Temp & Humid Chamber	Myeongseong R&P	CTHC-50P-DT	20150824-1	25.10.10
Bi-log Antenna	Teseq GmbH	CBL 6112D	62027	26.10.17
Bi-log Antenna	ETS-LINDGREN	3143B	00228420	27.07.03
Horn Antenna	ETS-LINDGREN	3117	00251528	26.01.21
Horn Antenna	ETS-LINDGREN	3117	00246058	26.01.21
Horn Antenna	ETS-LINDGREN	3116C	00251516	26.01.20
Horn Antenna	ETS-LINDGREN	3116	00086635	26.01.21
Amplifier	SONOMA INSTRUMENT	310N	421822	25.10.10
Amplifier	B&Z Technologies	BZR-0050400-551028-252525	27736	26.04.30
High pass Filter	Wainwright Instruments GmbH	WHKX10-900-1000-15000-40SS	11	26.06.30
High pass Filter	Wainwright Instruments GmbH	WHKX3.0/18G-12SS	44	26.01.16

End of test report