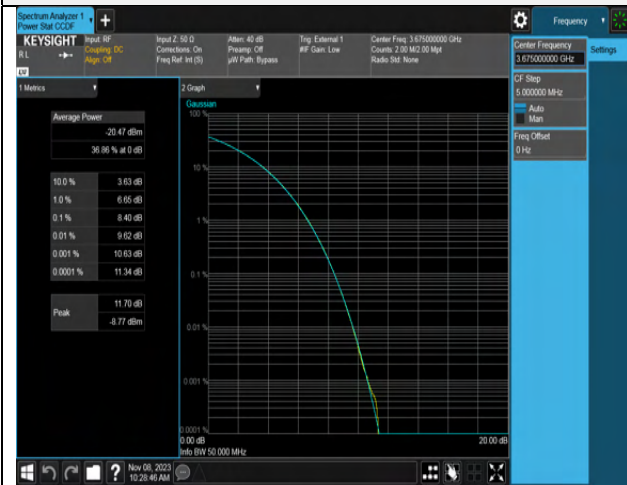
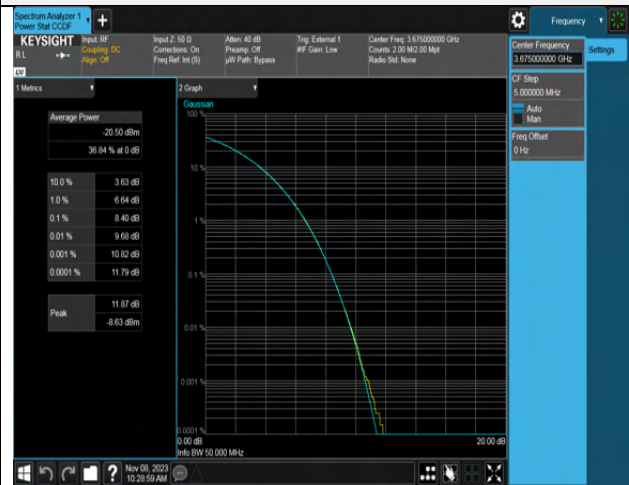


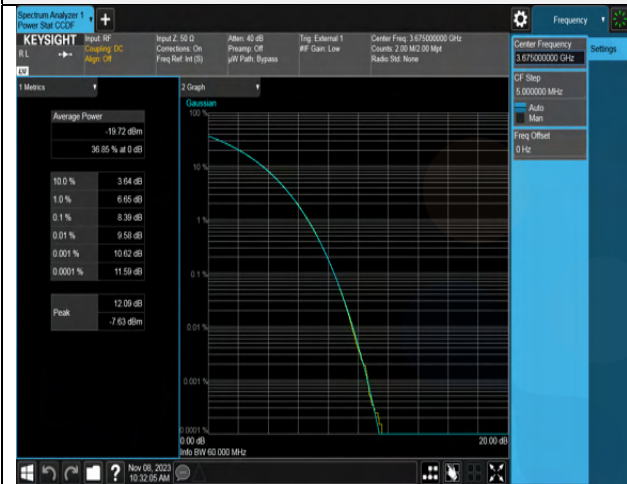
50M BW QPSK Mid ch.



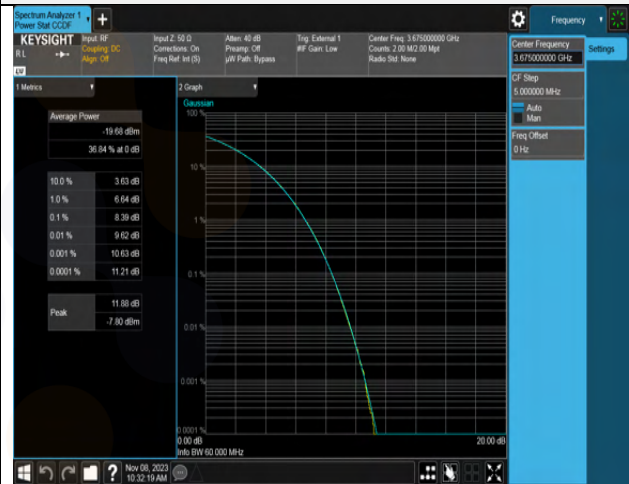
50M BW 256QAM Mid ch.



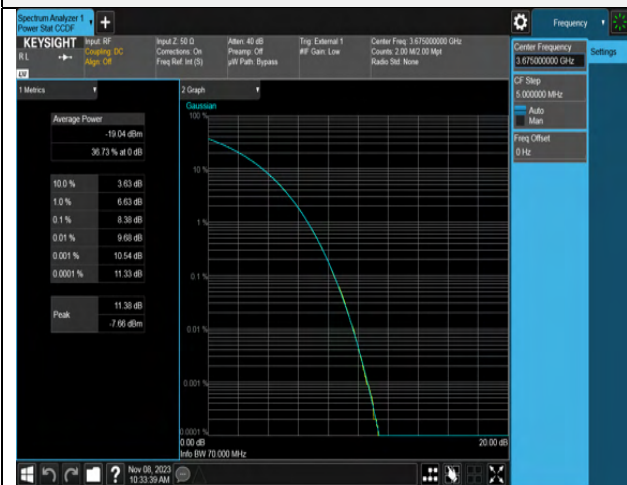
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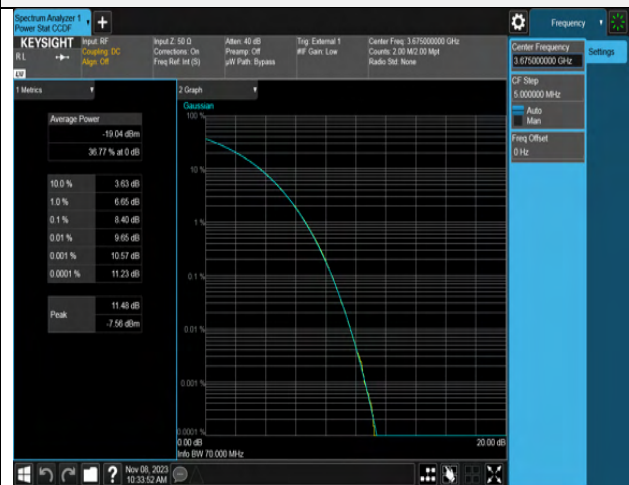
60M BW 256QAM Mid ch.



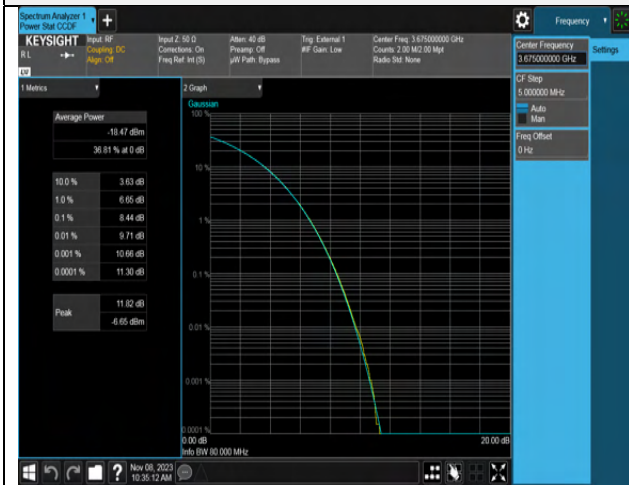
70M BW QPSK Mid ch.



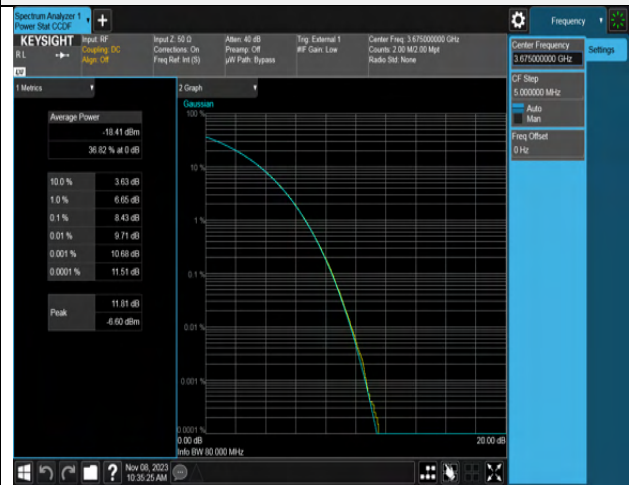
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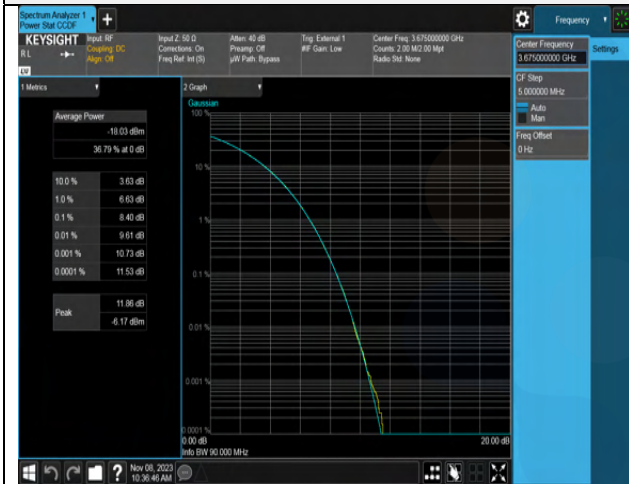
80M BW QPSK Mid ch.



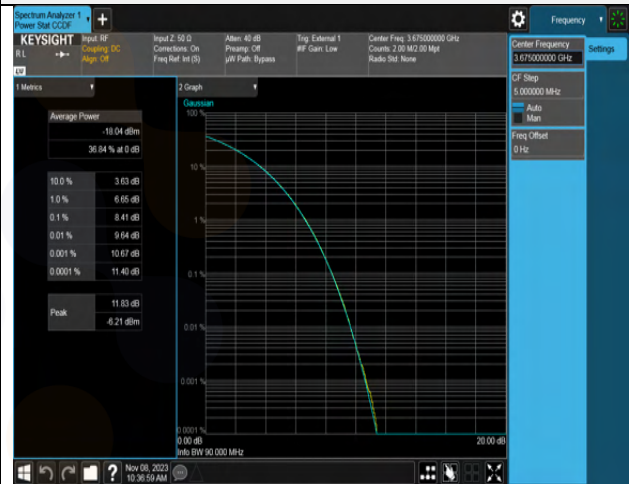
80M BW 256QAM Mid ch.



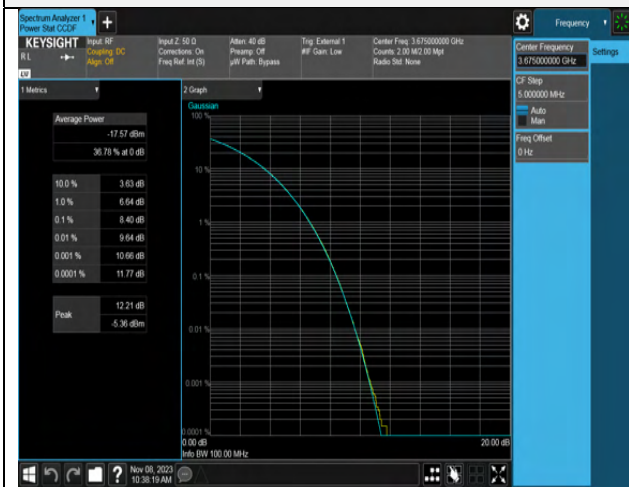
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90M BW 256QAM Mid ch.



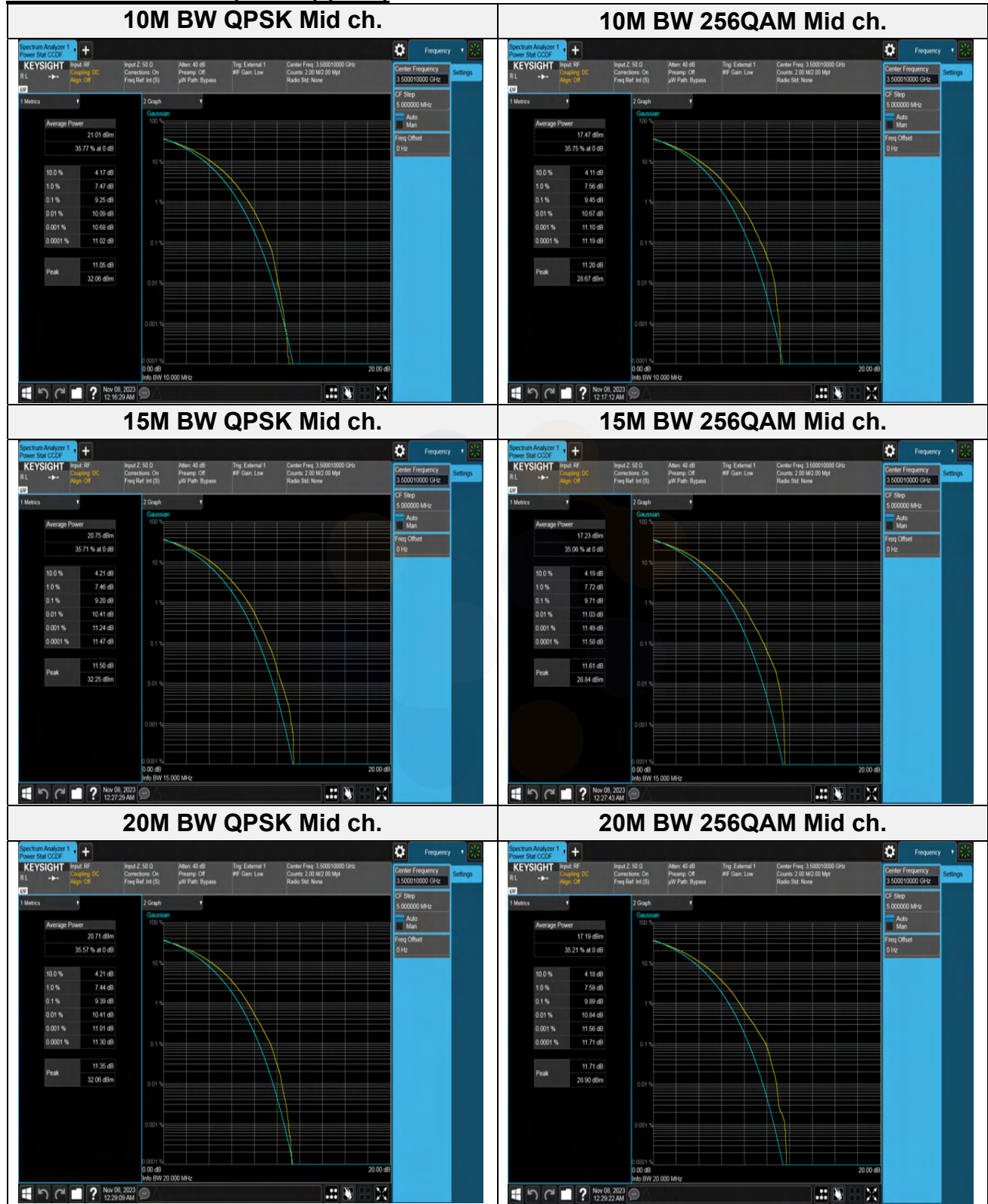
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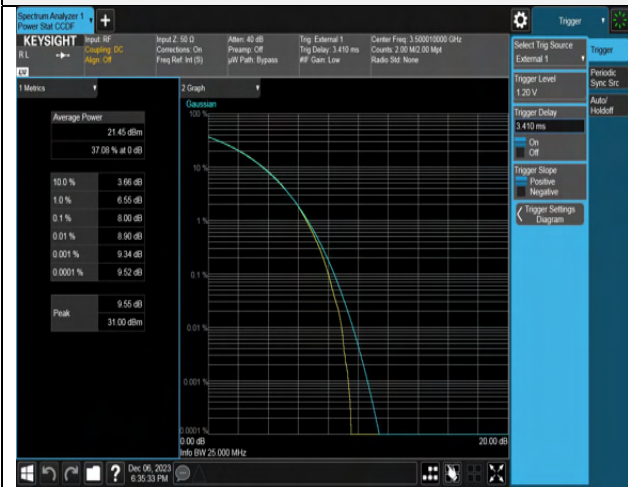
100M BW 256QAM Mid ch.



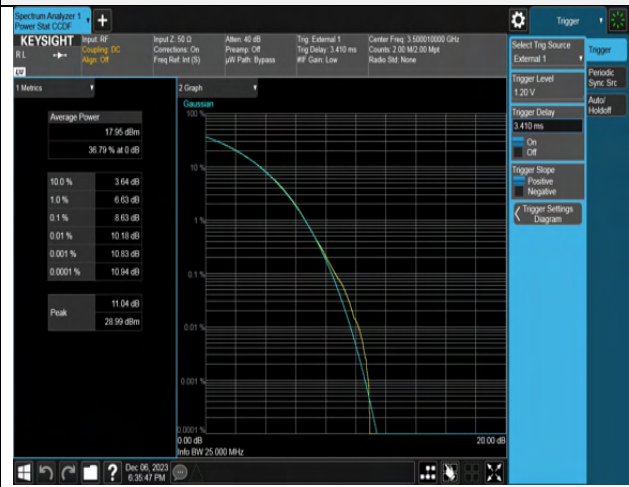
Test mode: NR n77 (Lower) (PC3)



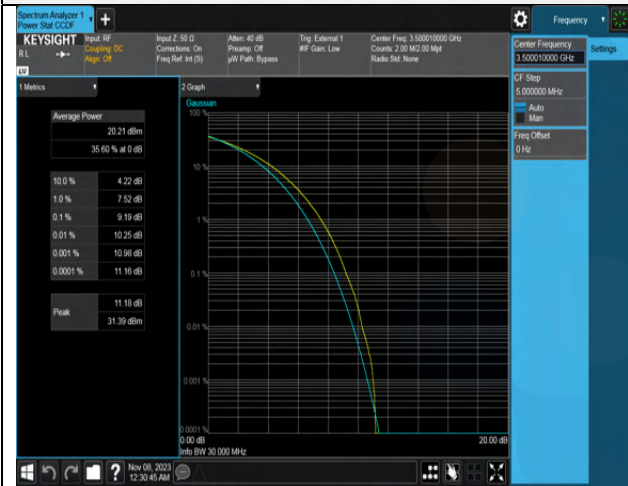
25M BW QPSK Mid ch.



25M BW 256QAM Mid ch.



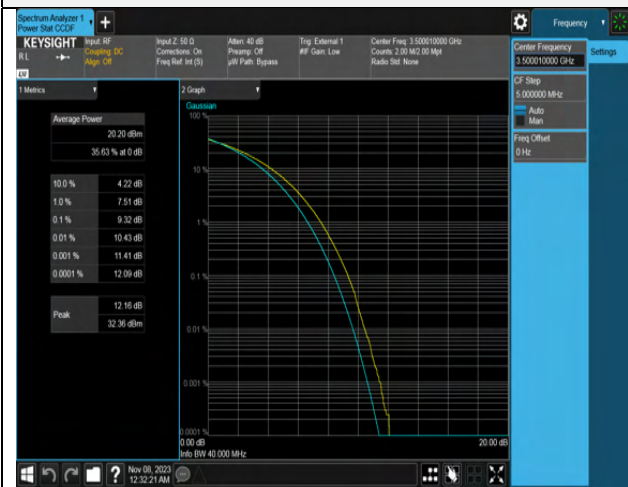
30M BW QPSK Mid ch.



30M BW 256QAM Mid ch.



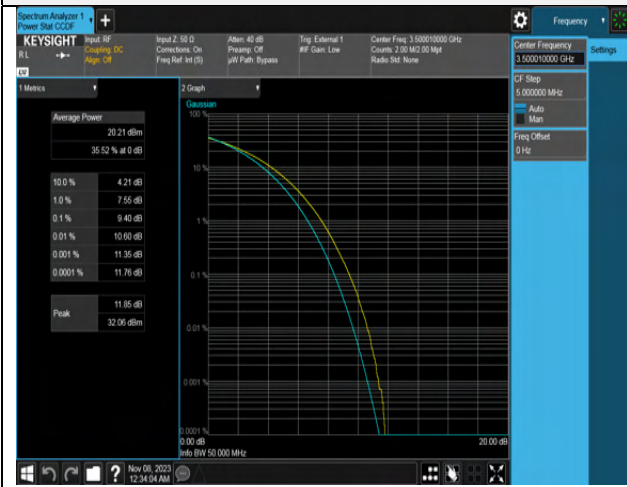
40M BW QPSK Mid ch.



40M BW 256QAM Mid ch.



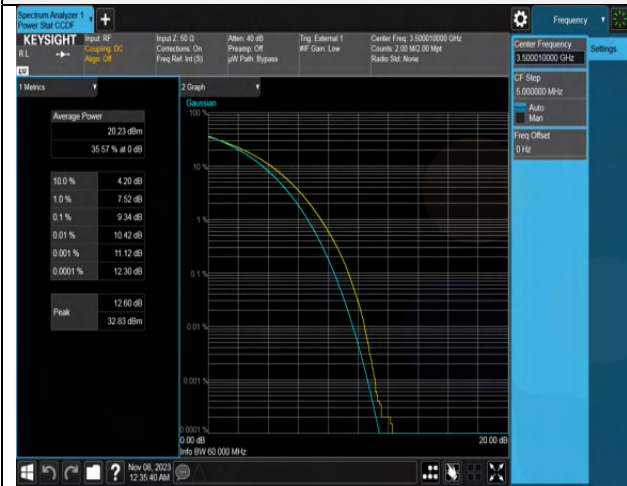
50M BW QPSK Mid ch.



50M BW 256QAM Mid ch.



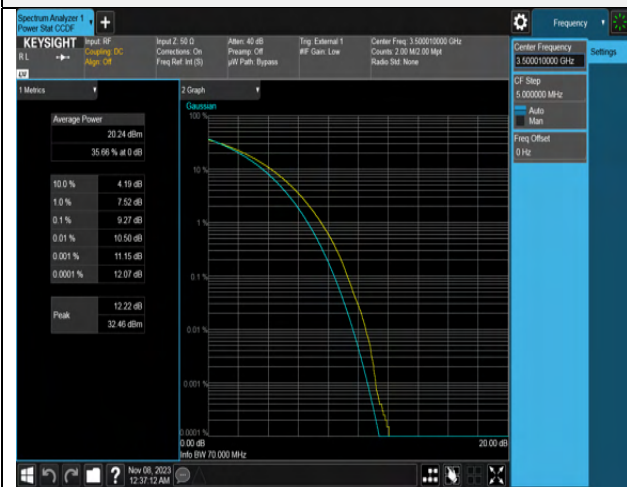
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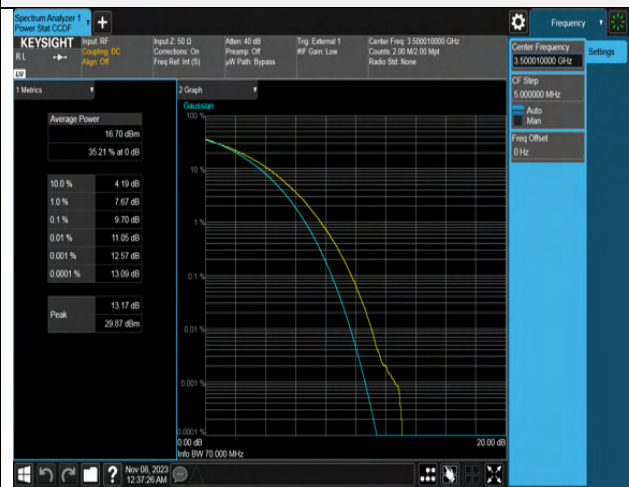
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70M BW QPSK Mid ch.



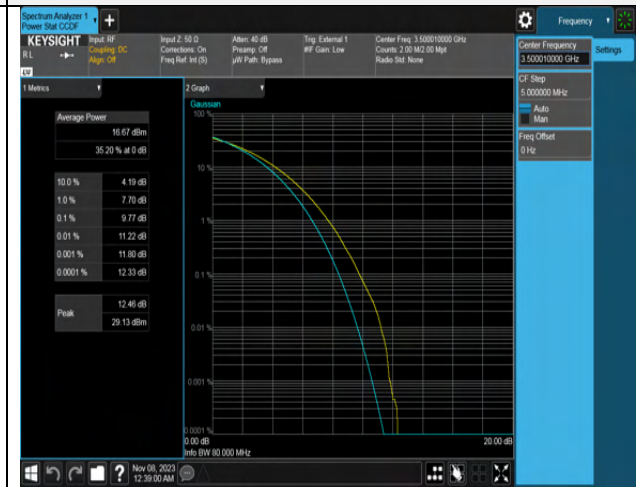
70M BW 256QAM Mid ch.



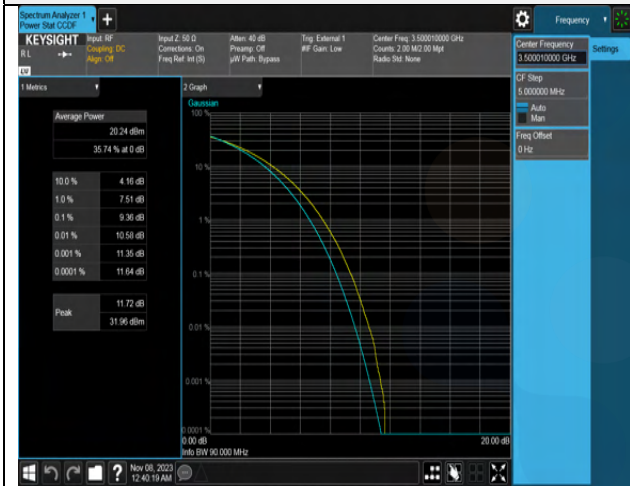
80M BW QPSK Mid ch.



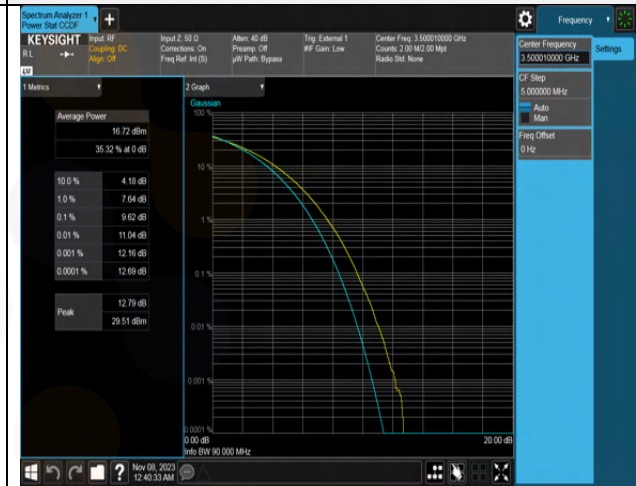
80M BW 256QAM Mid ch.



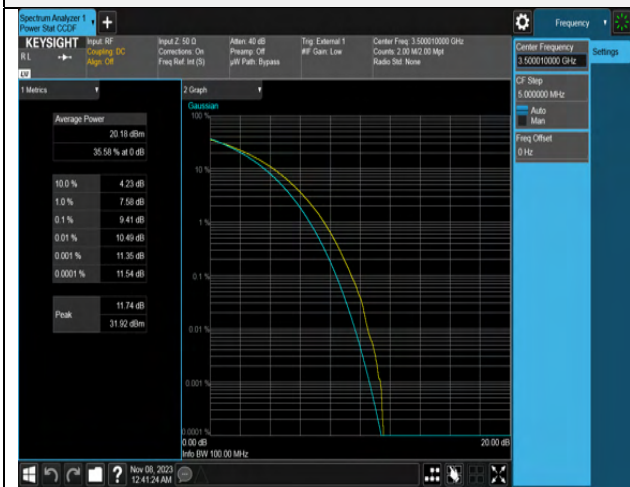
90M BW QPSK Mid ch.



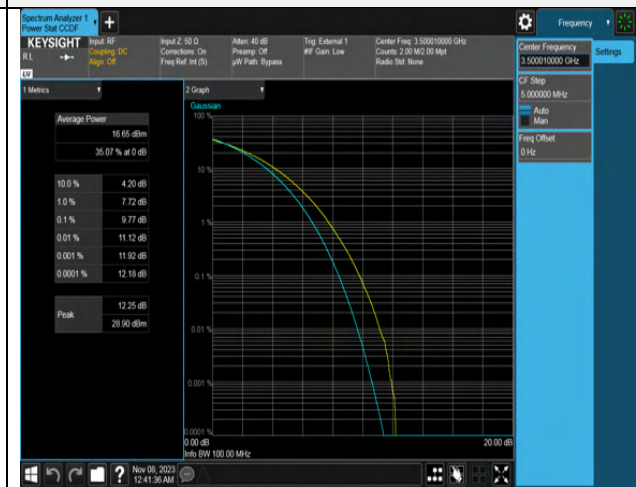
90M BW 256QAM Mid ch.



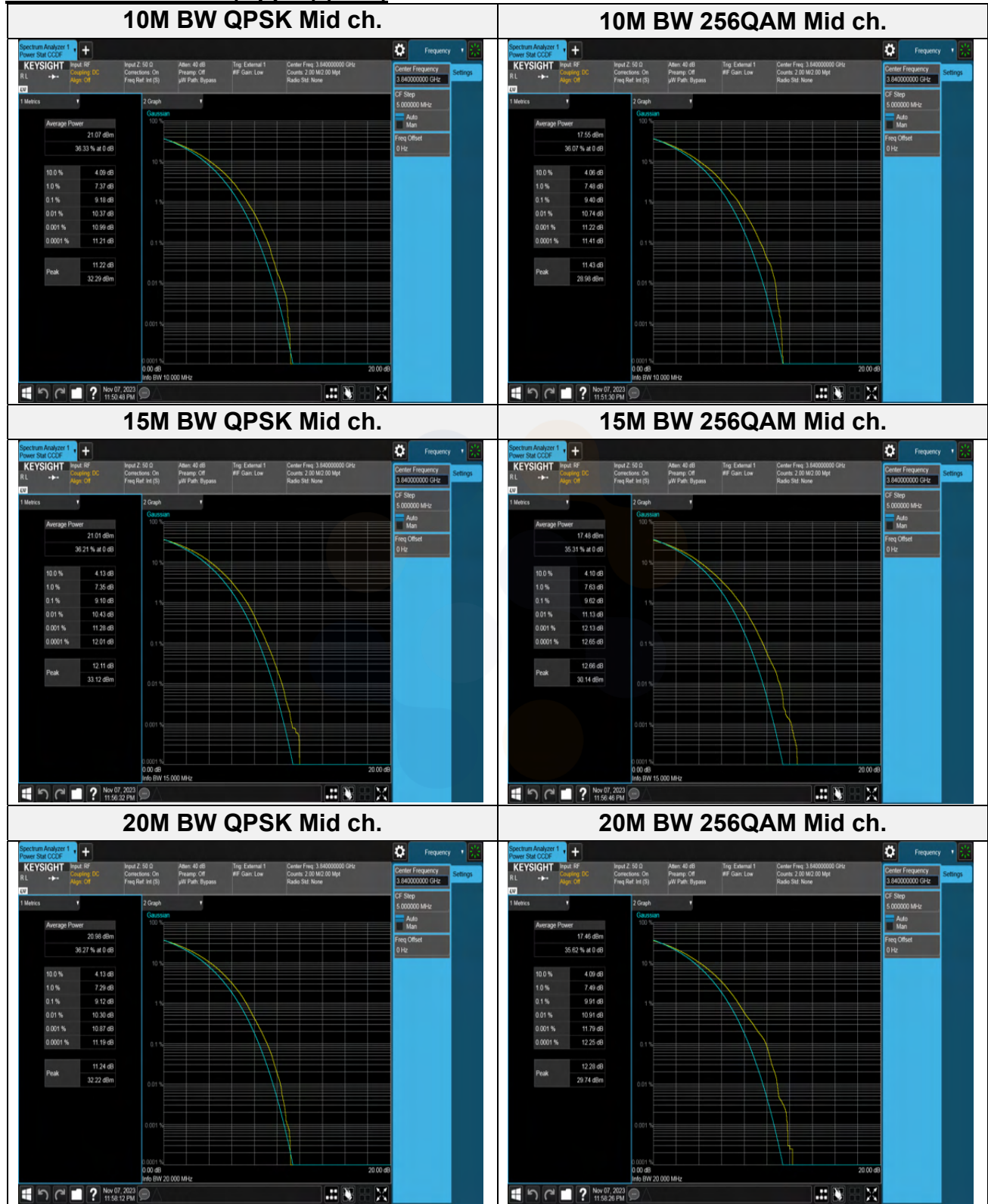
100M BW QPSK Mid ch.



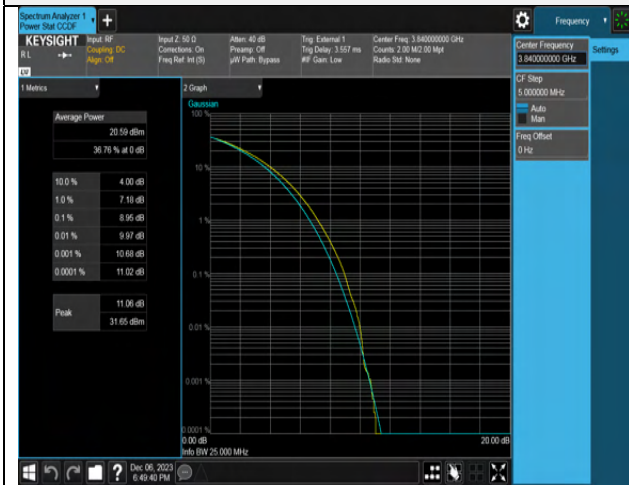
100M BW 256QAM Mid ch.



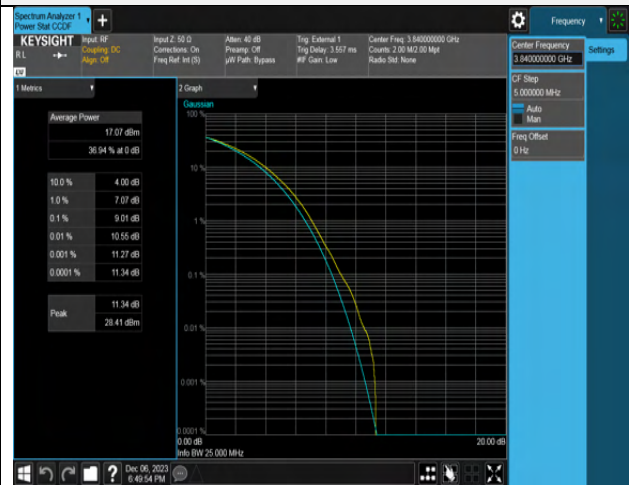
Test mode: NR n77 (Upper) (PC3)



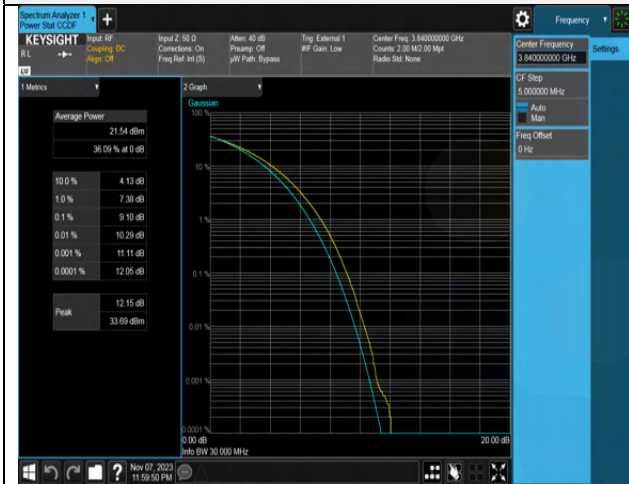
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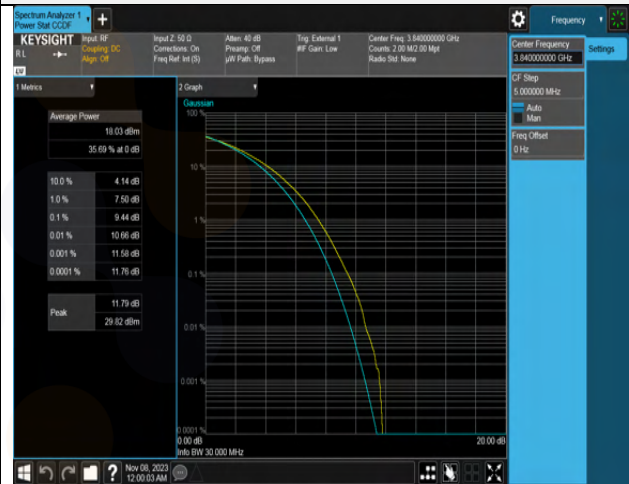
25M BW 256QAM Mid ch.



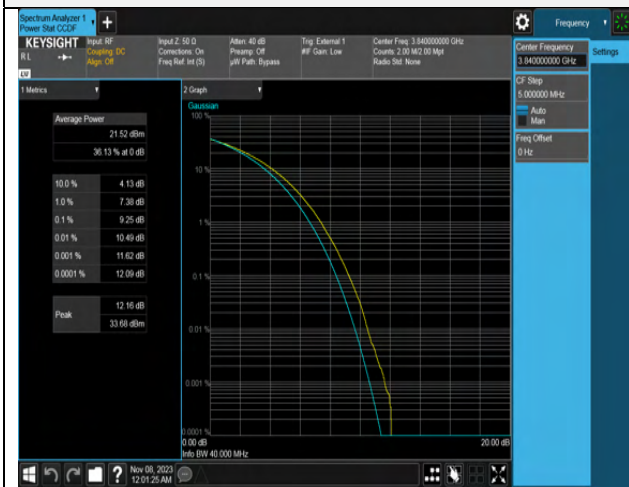
30M BW QPSK Mid ch.



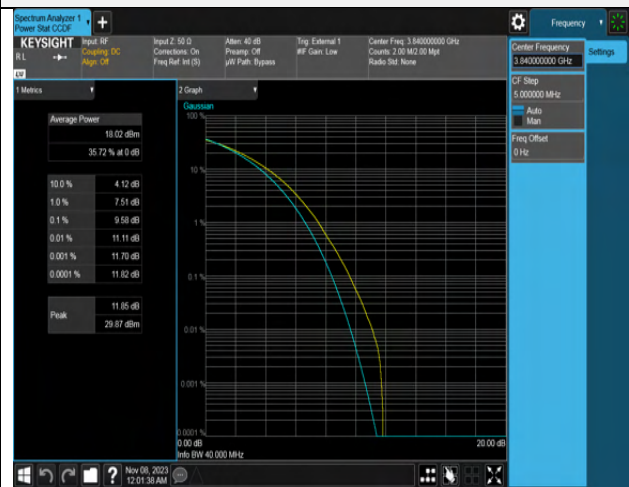
30M BW 256QAM Mid ch.



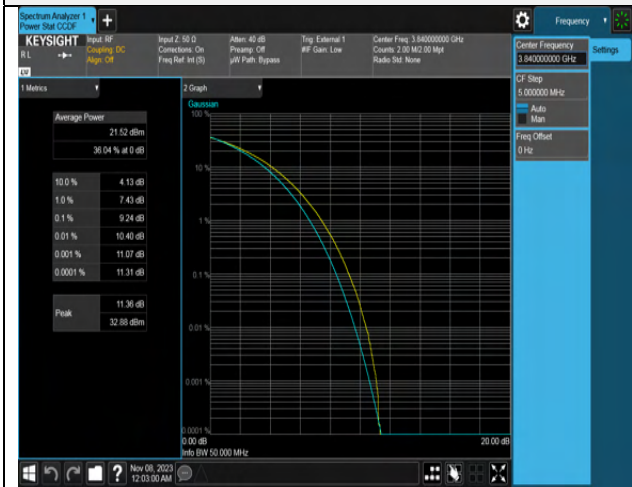
40M BW QPSK Mid ch.



40M BW 256QAM Mid ch.



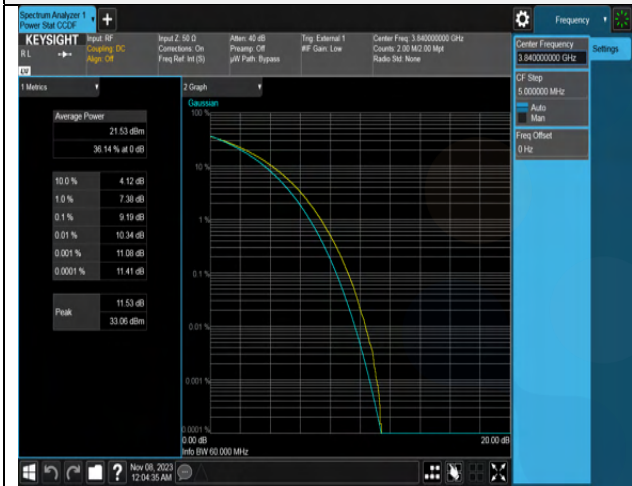
50M BW QPSK Mid ch.



50M BW 256QAM Mid ch.



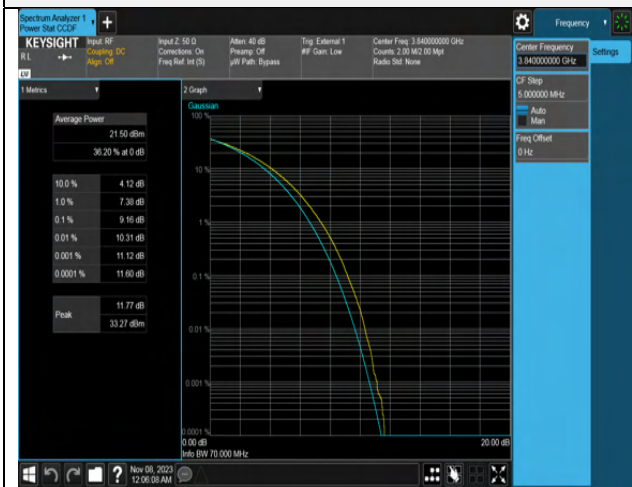
60M BW QPSK Mid ch.



60M BW 256QAM Mid ch.



70M BW QPSK Mid ch.



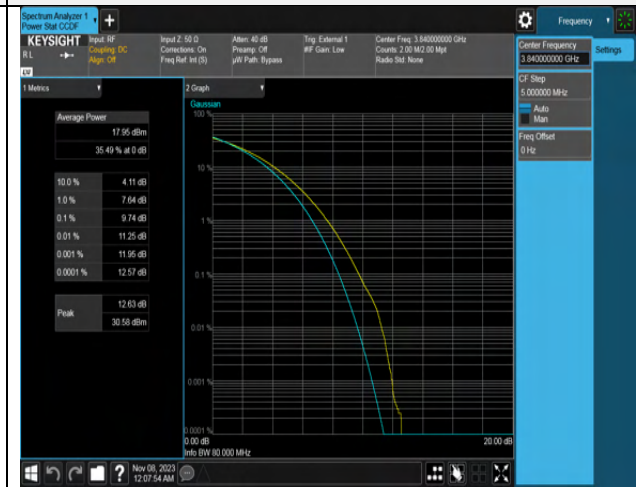
70M BW 256QAM Mid ch.



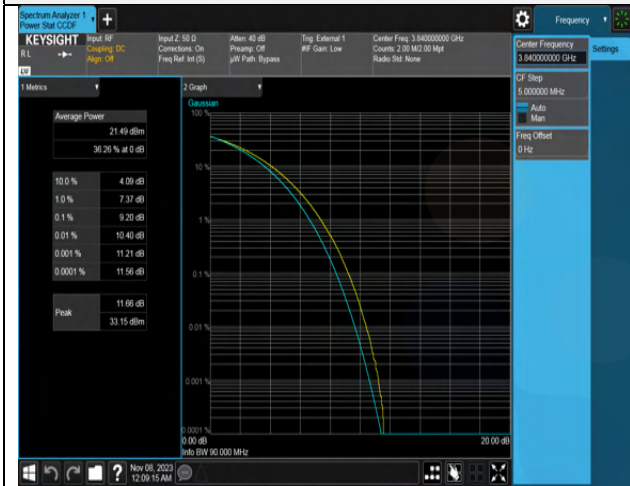
80M BW QPSK Mid ch.



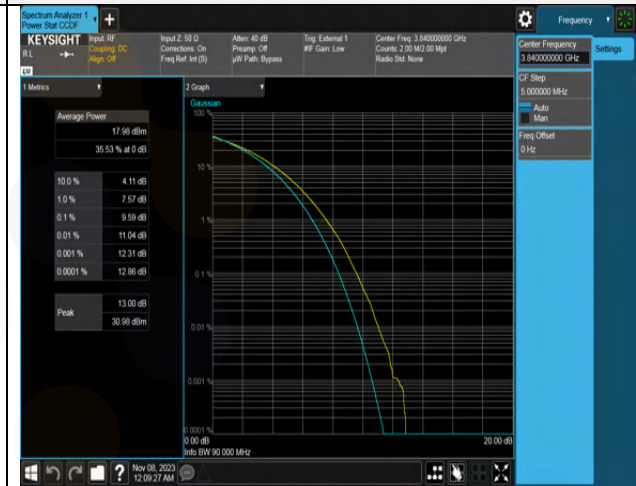
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90M BW QPSK Mid ch.



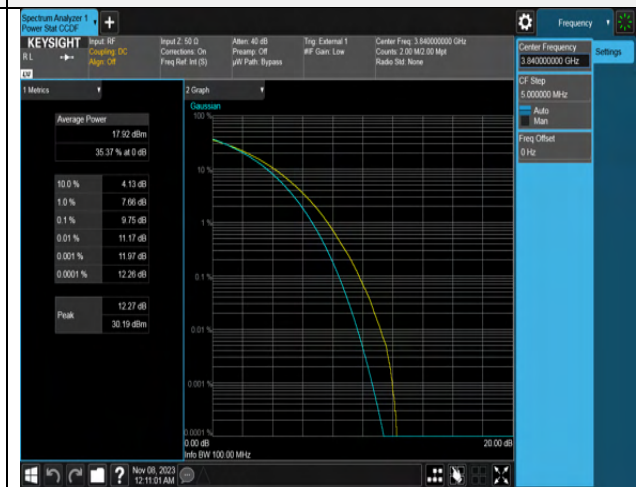
90M BW 256QAM Mid ch.



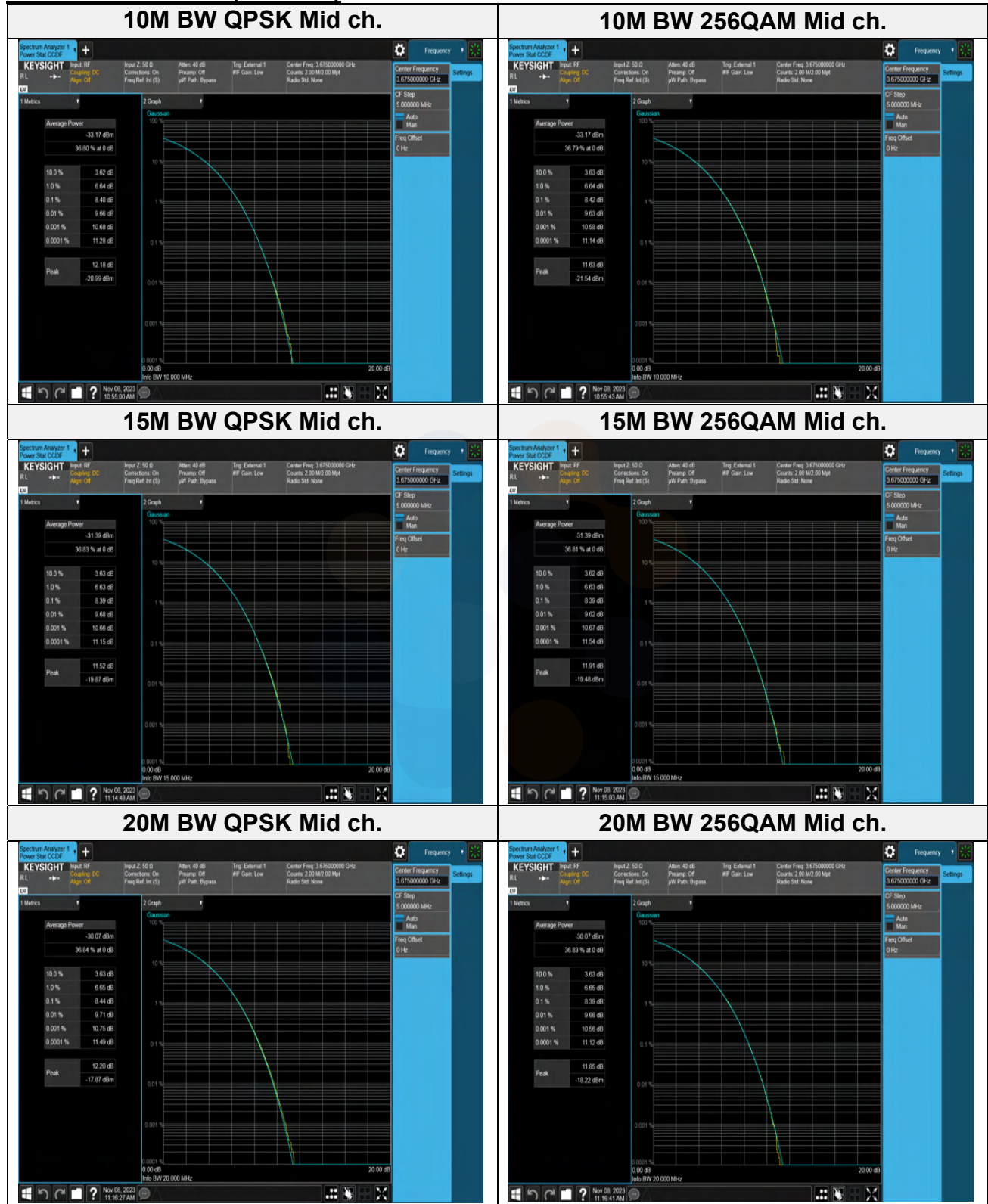
100M BW QPSK Mid ch.



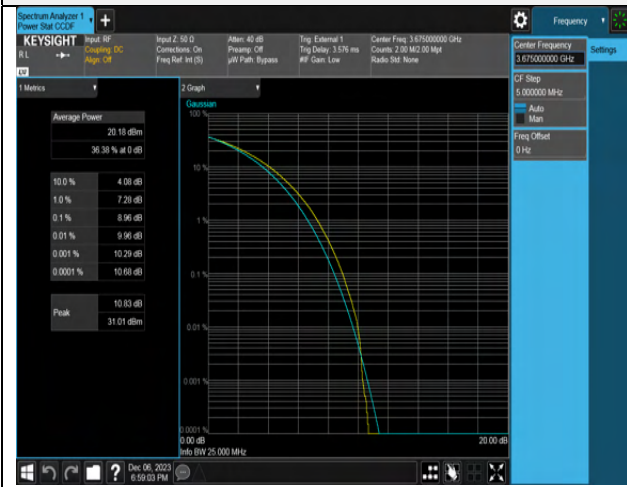
100M BW 256QAM Mid ch.



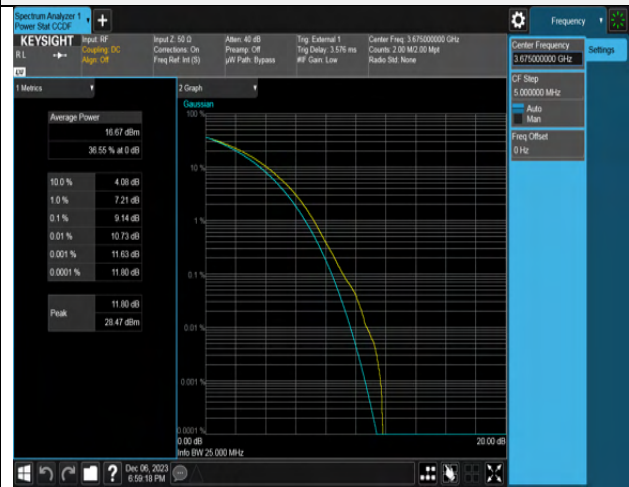
Test mode: NR n77 (PC3 - IC)



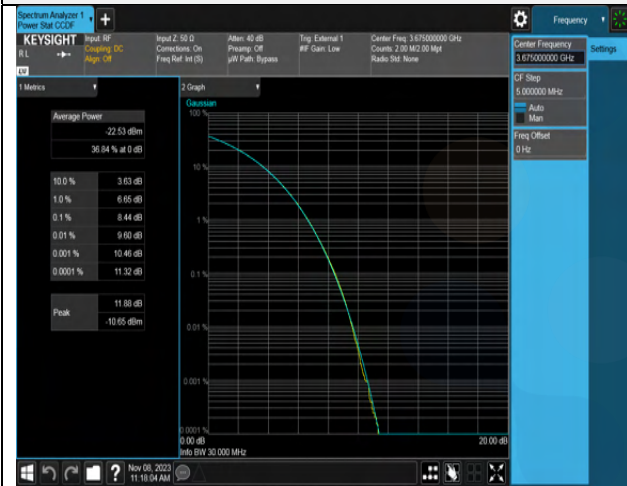
25M BW QPSK Mid ch.



25M BW 256QAM Mid ch.



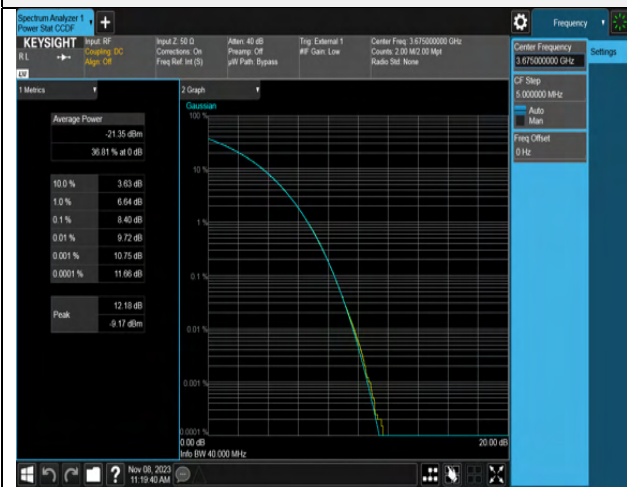
30M BW QPSK Mid ch.



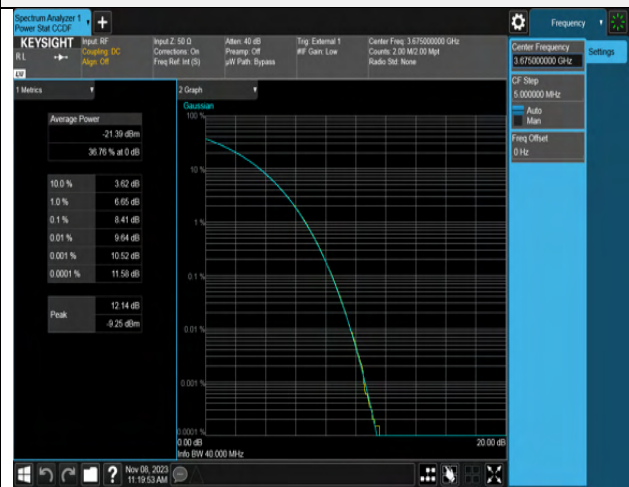
30M BW 256QAM Mid ch.



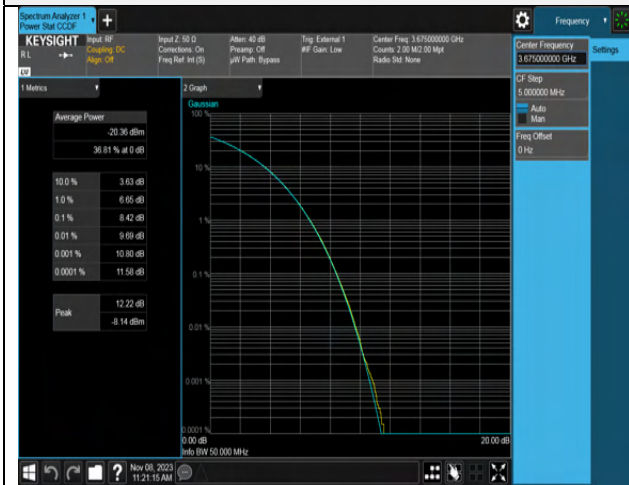
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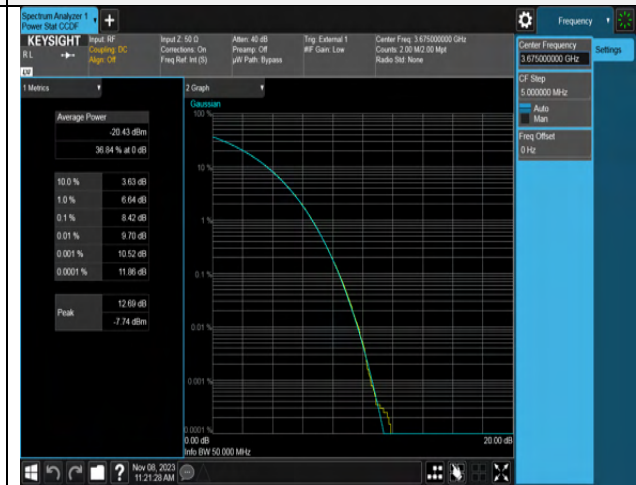
40M BW 256QAM Mid ch.



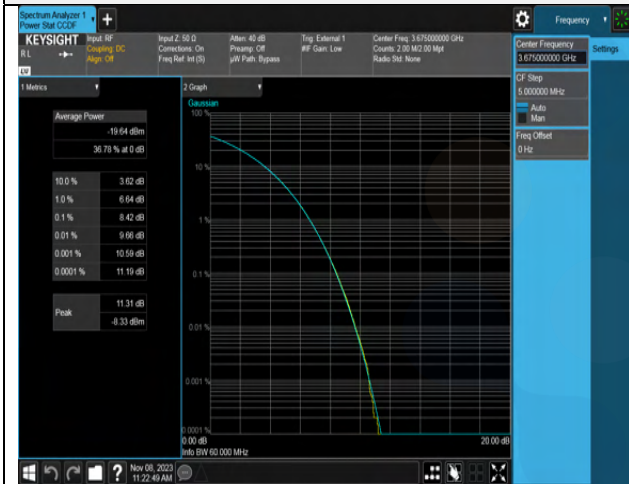
50M BW QPSK Mid ch.



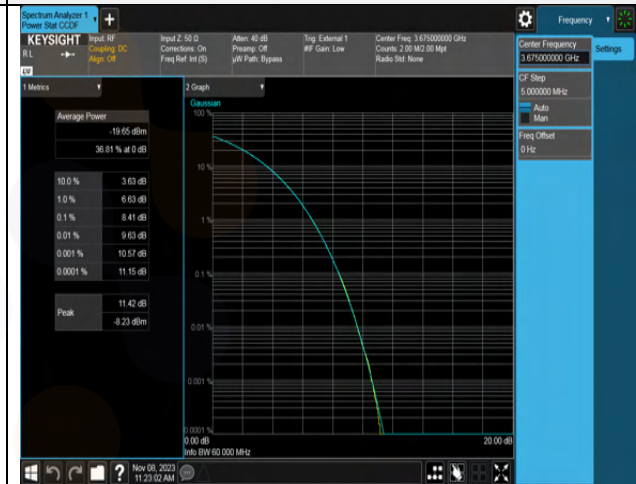
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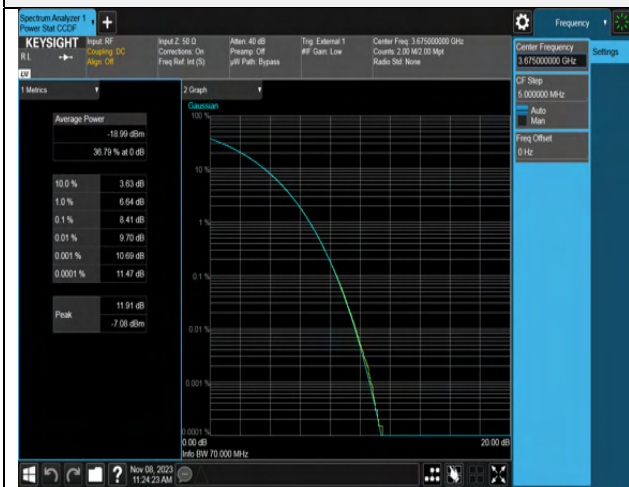
60M BW QPSK Mid ch.



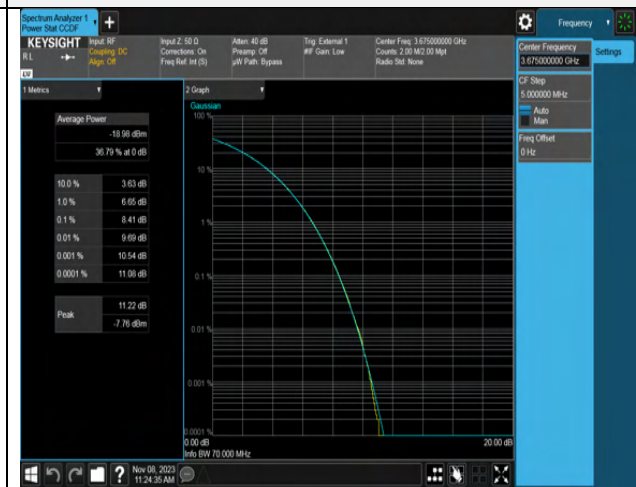
60M BW 256QAM Mid ch.



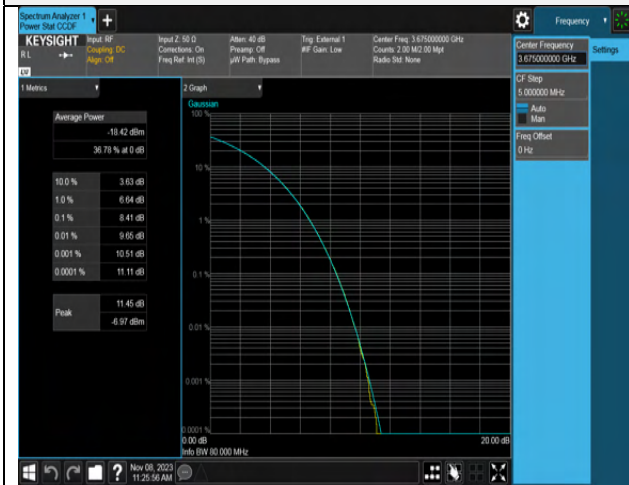
70M BW QPSK Mid ch.



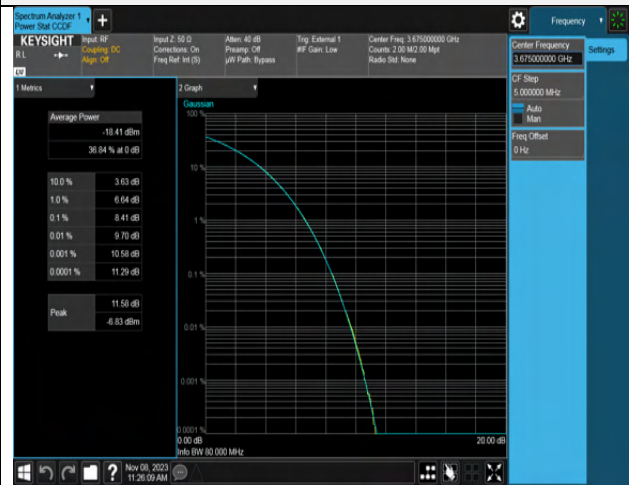
70M BW 256QAM Mid ch.



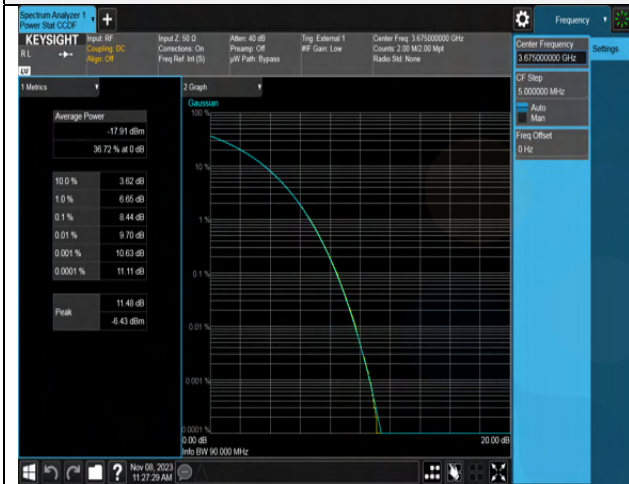
80M BW QPSK Mid ch.



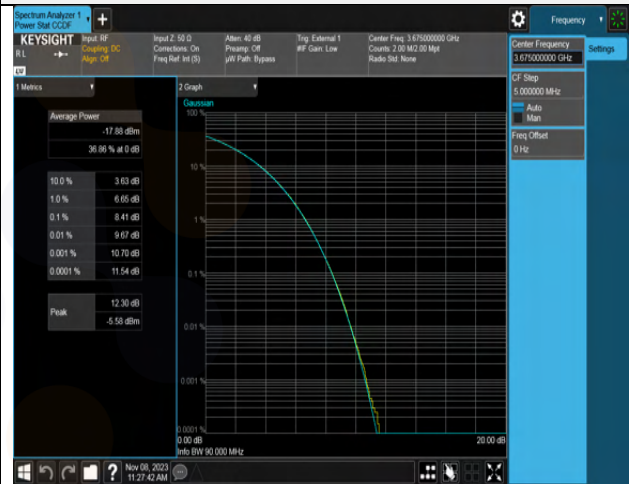
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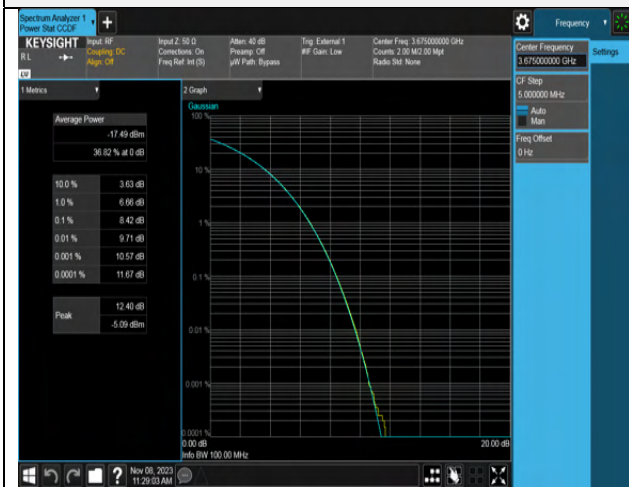
90M BW QPSK Mid ch.



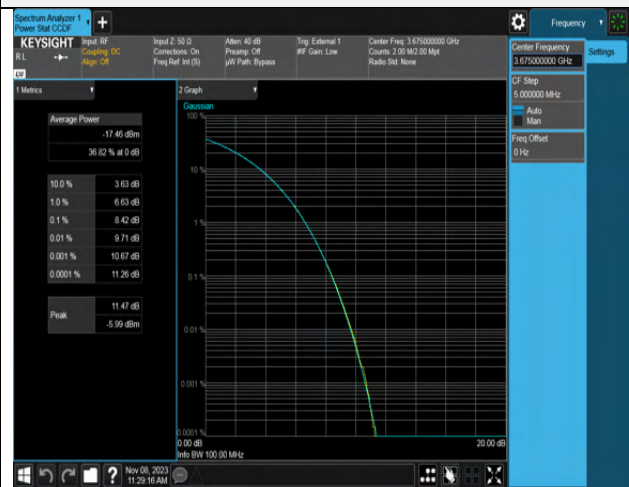
90M BW 256QAM Mid ch.



100M BW QPSK Mid ch.

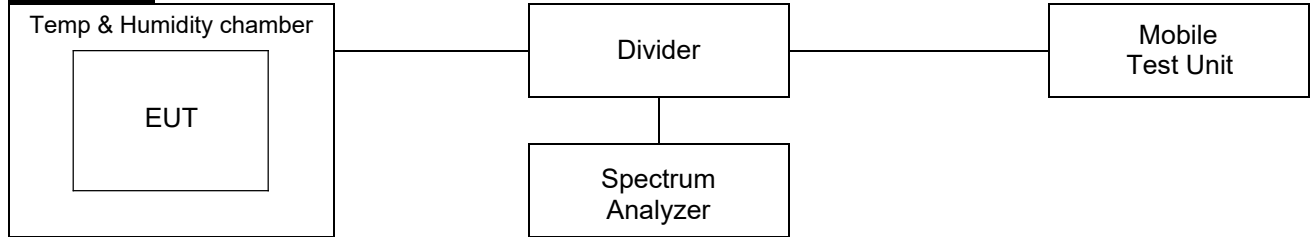


100M BW 256QAM Mid ch.



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 radio beacons (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 and RSS-132(5.3)

For FCC, 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 band at a power level than or equal to 3 Watts, the limit specified in Table C-1 is ± 2.5 ppm.

For IC, the frequency stability shall be sufficient to ensure that the occupied bandwidth stays within each of the sub-bands when tested at the temperature and supply voltage variations specified in RSS-Gen

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p> | <p>Report No.: KR23-SRF0267-B Page (623) of (696)</p> |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

According to §24.235 and RSS-133(6.3),

For FCC, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

For IC, the carrier frequency shall not depart from the reference frequency, in excess of ± 2.5 ppm for mobile stations and ± 1.0 ppm for base stations.

According to §27.54 and RSS-130(4.5), RSS-199(5.4)

For FCC&IC, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

According to §27.54 and RSS-139(5.4), RSS-192(5.4)

For FCC, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

For IC, the frequency stability shall be sufficient to ensure that the occupied bandwidth stay within the operating frequency block or frequency block group when tested to the temperature and supply voltage variations specified in RSS-Gen.

Test procedure

ANSI 63.26-2015 – Section 5.6

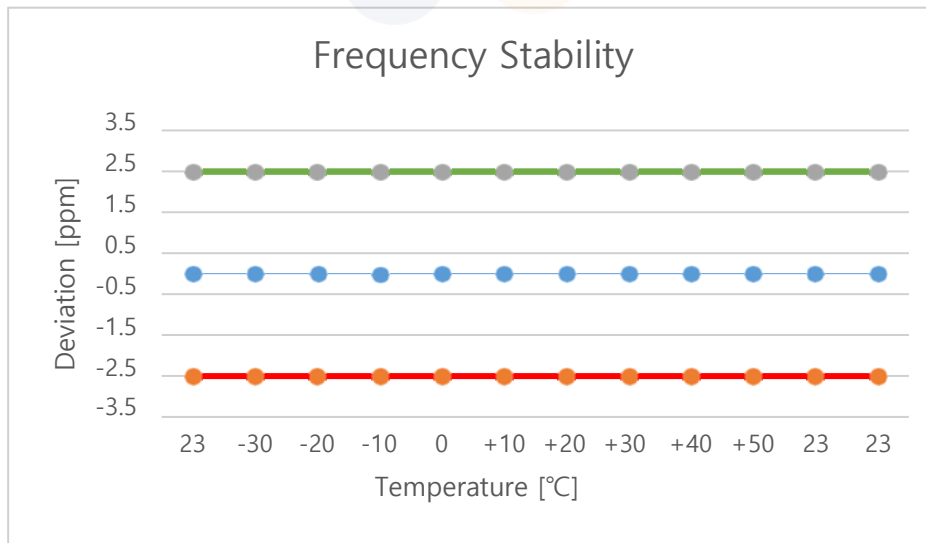
Test settings

- 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

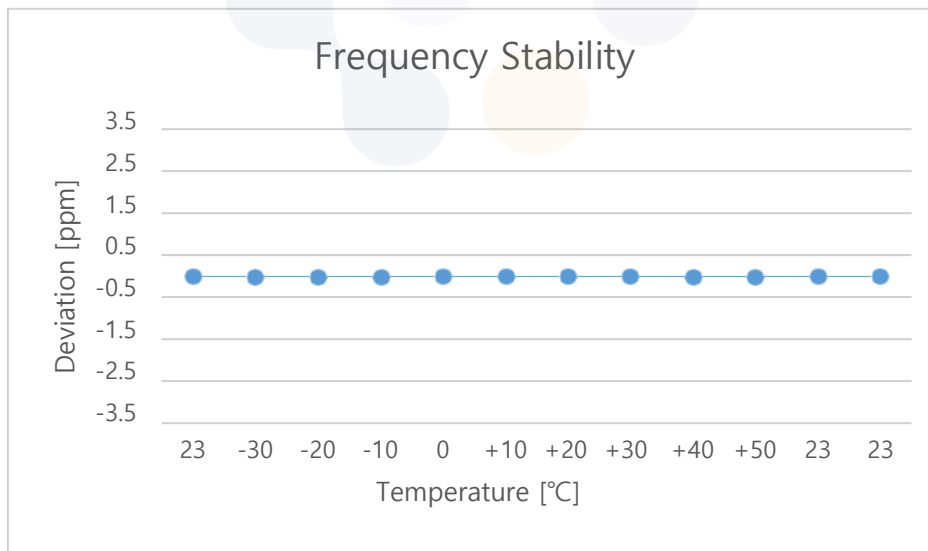
Test mode : NR n5
 Frequency (Hz) : 836 500 000
 Channel : 167300
 Deviation limit(FCC) : ±0.00025% or 2.5ppm
 Deviation limit(IC) : The frequency stability shall be sufficient to ensure that the occupied bandwidth stays within each of the sub-bands when tested at the temperature and supply voltage

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 836,500,002 | 2.00 | 0.0 | 0.000 000 |
| | | -30 | 836,500,003 | 3.40 | 0.0 | 0.000 000 |
| | | -20 | 836,500,005 | 4.50 | 0.0 | 0.000 001 |
| | | -10 | 836,500,002 | 1.70 | 0.0 | 0.000 000 |
| | | 0 | 836,500,001 | 0.90 | 0.0 | 0.000 000 |
| | | +10 | 836,500,002 | 1.50 | 0.0 | 0.000 000 |
| | | +20 | 836,500,003 | 2.50 | 0.0 | 0.000 000 |
| | | +30 | 836,500,003 | 3.10 | 0.0 | 0.000 000 |
| | | +40 | 836,500,005 | 5.10 | 0.0 | 0.000 001 |
| | | +50 | 836,500,006 | 5.50 | 0.0 | 0.000 001 |
| 115% | 4.43 | +23(Ref) | 836,500,001 | 0.80 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 836,500,003 | 3.00 | 0.0 | 0.000 000 |



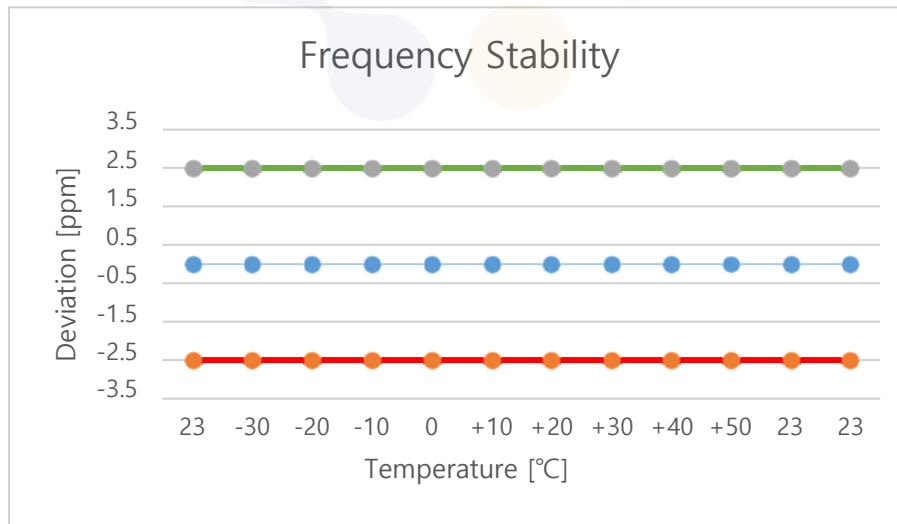
Test mode : NR n12
 Frequency (Hz) : 707 500 000
 Channel : 141500
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized bands of operation

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|------------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 707,500,001 | 1.20 | 0.0 | 0.000 000 |
| | | -30 | 707,499,992 | -8.10 | 0.0 | -0.000 001 |
| | | -20 | 707,499,994 | -5.80 | 0.0 | -0.000 001 |
| | | -10 | 707,499,997 | -3.00 | 0.0 | 0.000 000 |
| | | 0 | 707,499,998 | -2.20 | 0.0 | 0.000 000 |
| | | +10 | 707,500,001 | 0.70 | 0.0 | 0.000 000 |
| | | +20 | 707,500,002 | 1.50 | 0.0 | 0.000 000 |
| | | +30 | 707,500,004 | 3.90 | 0.0 | 0.000 001 |
| | | +40 | 707,500,003 | 3.10 | 0.0 | 0.000 000 |
| | | +50 | 707,500,006 | 5.50 | 0.0 | 0.000 001 |
| 115% | 4.43 | +23(Ref) | 707,500,001 | 1.10 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 707,500,002 | 1.90 | 0.0 | 0.000 000 |



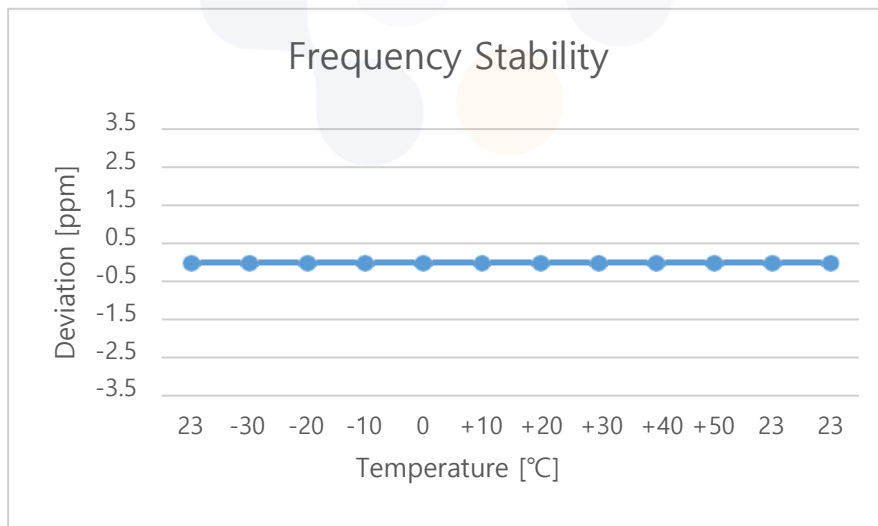
Test mode : NR n25/2
 Frequency (Hz) : 1 882 500 000
 Channel : 376500
 Deviation limit(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.
 Deviation limit(IC) : ±0.00025% or 2.5ppm

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.88 | +23(Ref) | 1,882,500,001 | 1.40 | 0.0 | 0.000 000 |
| | | -30 | 1,882,499,998 | -2.40 | 0.0 | 0.000 000 |
| | | -20 | 1,882,499,994 | -6.00 | 0.0 | 0.000 000 |
| | | -10 | 1,882,499,999 | -1.10 | 0.0 | 0.000 000 |
| | | 0 | 1,882,499,997 | -3.10 | 0.0 | 0.000 000 |
| | | +10 | 1,882,499,997 | -2.80 | 0.0 | 0.000 000 |
| | | +20 | 1,882,500,001 | 1.20 | 0.0 | 0.000 000 |
| | | +30 | 1,882,500,003 | 3.40 | 0.0 | 0.000 000 |
| | | +40 | 1,882,500,006 | 5.90 | 0.0 | 0.000 000 |
| | | +50 | 1,882,500,004 | 4.40 | 0.0 | 0.000 000 |
| 115% | 4.46 | +23(Ref) | 1,882,500,000 | 0.30 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 1,882,500,001 | 0.60 | 0.0 | 0.000 000 |



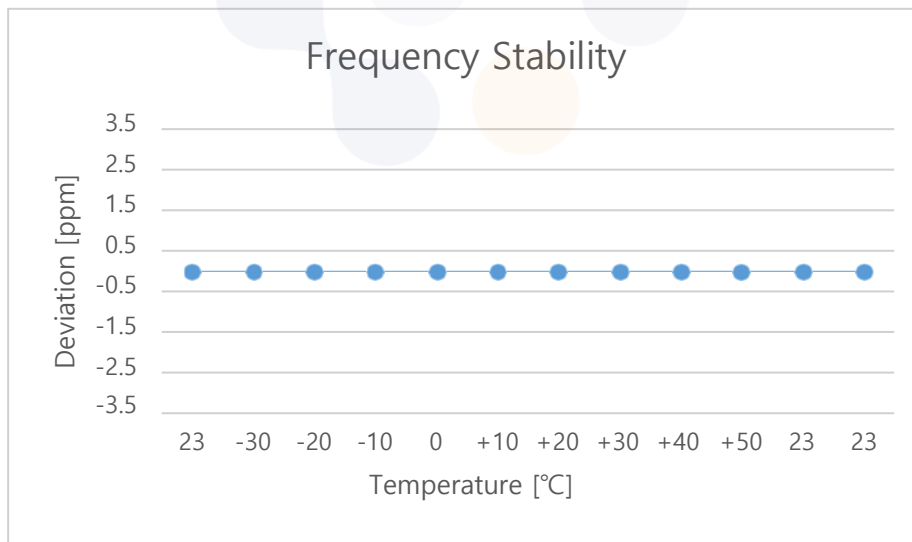
Test mode : NR n30
 Frequency (Hz) : 2 310 00 000
 Channel : 462000
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stay within the authorized bands of operation

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 2,309,999,999 | -1.00 | 0.0 | 0.000 000 |
| | | -30 | 2,309,999,997 | -2.90 | 0.0 | 0.000 000 |
| | | -20 | 2,309,999,997 | -3.30 | 0.0 | 0.000 000 |
| | | -10 | 2,309,999,997 | -2.60 | 0.0 | 0.000 000 |
| | | 0 | 2,309,999,998 | -2.00 | 0.0 | 0.000 000 |
| | | +10 | 2,309,999,998 | -1.80 | 0.0 | 0.000 000 |
| | | +20 | 2,309,999,999 | -0.90 | 0.0 | 0.000 000 |
| | | +30 | 2,309,999,999 | -1.50 | 0.0 | 0.000 000 |
| | | +40 | 2,309,999,998 | -1.60 | 0.0 | 0.000 000 |
| | | +50 | 2,309,999,997 | -3.50 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 2,310,000,000 | -0.10 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 2,309,999,999 | -0.70 | 0.0 | 0.000 000 |



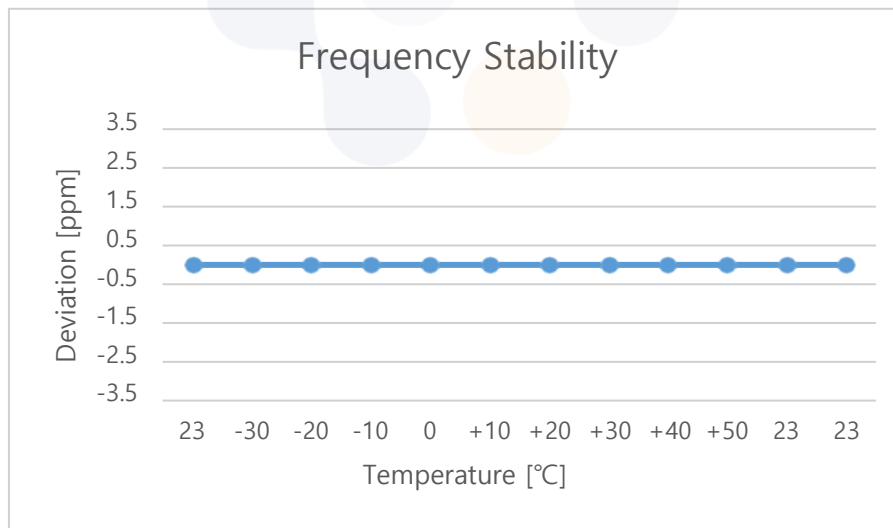
Test mode : NR n41 (PC2)
 Frequency (Hz) : 2 592 990 000
 Channel : 518598
 Deviation limit(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized bands of operation.

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 2,592,989,993 | -6.80 | 0.0 | 0.000 000 |
| | | -30 | 2,592,989,997 | -3.11 | 0.0 | 0.000 000 |
| | | -20 | 2,592,989,997 | -3.01 | 0.0 | 0.000 000 |
| | | -10 | 2,592,989,998 | -2.34 | 0.0 | 0.000 000 |
| | | 0 | 2,592,989,994 | -5.60 | 0.0 | 0.000 000 |
| | | +10 | 2,592,989,997 | -3.10 | 0.0 | 0.000 000 |
| | | +20 | 2,592,989,993 | -6.60 | 0.0 | 0.000 000 |
| | | +30 | 2,592,989,995 | -5.00 | 0.0 | 0.000 000 |
| | | +40 | 2,592,989,996 | -4.20 | 0.0 | 0.000 000 |
| | | +50 | 2,592,989,999 | -1.10 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 2,592,989,993 | -7.30 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 2,592,989,994 | -6.30 | 0.0 | 0.000 000 |



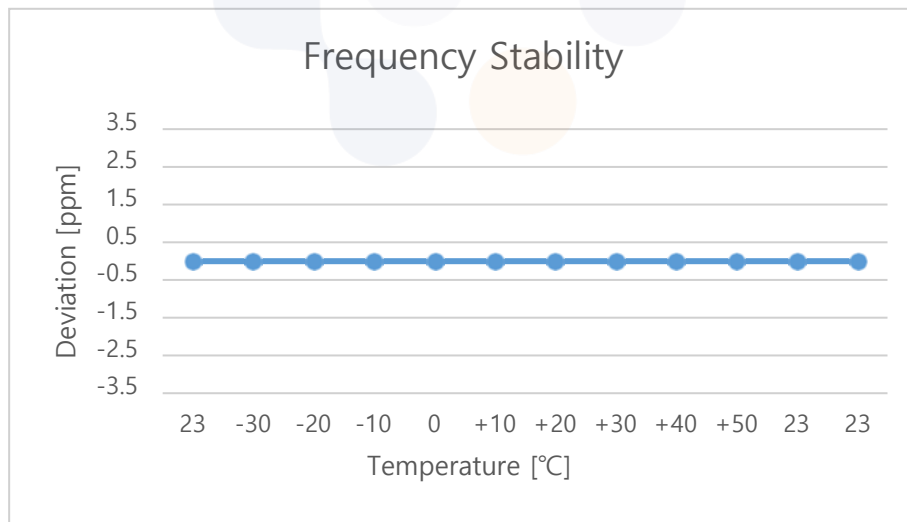
Test mode : NR n41 (PC2 - IC)
 Frequency (Hz) : 2 505 000 000
 Channel : 501000
 Deviation limit(IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized bands of operation.

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 2,504,999,996 | -4.00 | 0.0 | 0.000 000 |
| | | -30 | 2,505,000,003 | 2.90 | 0.0 | 0.000 000 |
| | | -20 | 2,505,000,003 | 3.30 | 0.0 | 0.000 000 |
| | | -10 | 2,505,000,001 | 1.10 | 0.0 | 0.000 000 |
| | | 0 | 2,504,999,997 | -2.80 | 0.0 | 0.000 000 |
| | | +10 | 2,504,999,999 | -1.10 | 0.0 | 0.000 000 |
| | | +20 | 2,504,999,997 | -3.10 | 0.0 | 0.000 000 |
| | | +30 | 2,504,999,996 | -4.50 | 0.0 | 0.000 000 |
| | | +40 | 2,504,999,997 | -3.00 | 0.0 | 0.000 000 |
| | | +50 | 2,504,999,994 | -6.10 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 2,504,999,993 | -7.20 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 2,504,999,999 | -1.50 | 0.0 | 0.000 000 |



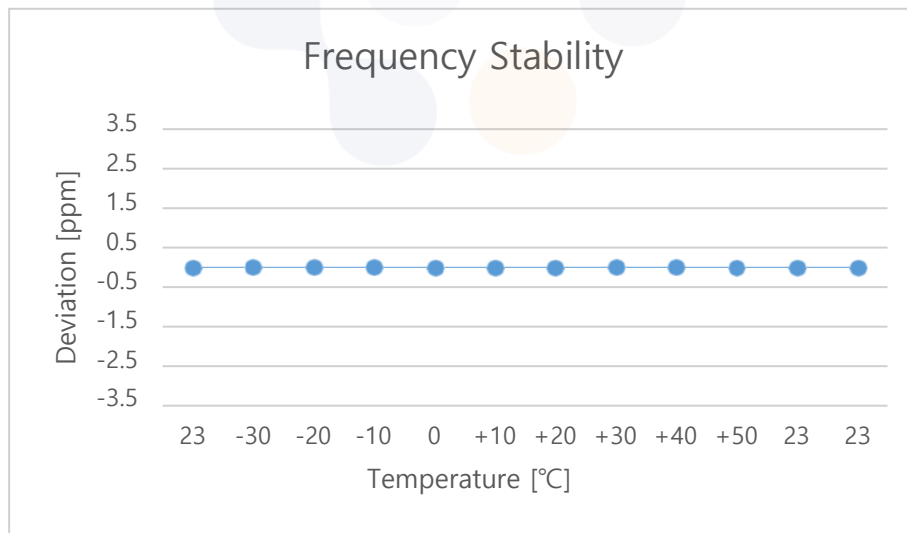
Test mode : NR n66
 Frequency (Hz) : 1 745 000 000
 Channel : 349000
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized bands of operation.

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 1,745,000,001 | 1.00 | 0.0 | 0.000 000 |
| | | -30 | 1,744,999,999 | -1.30 | 0.0 | 0.000 000 |
| | | -20 | 1,744,999,999 | -0.90 | 0.0 | 0.000 000 |
| | | -10 | 1,745,000,001 | 1.10 | 0.0 | 0.000 000 |
| | | 0 | 1,745,000,003 | 3.00 | 0.0 | 0.000 000 |
| | | +10 | 1,745,000,002 | 2.20 | 0.0 | 0.000 000 |
| | | +20 | 1,745,000,001 | 1.10 | 0.0 | 0.000 000 |
| | | +30 | 1,745,000,003 | 3.10 | 0.0 | 0.000 000 |
| | | +40 | 1,745,000,003 | 2.50 | 0.0 | 0.000 000 |
| | | +50 | 1,745,000,002 | 1.80 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 1,745,000,001 | 0.80 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 1,745,000,000 | 0.30 | 0.0 | 0.000 000 |



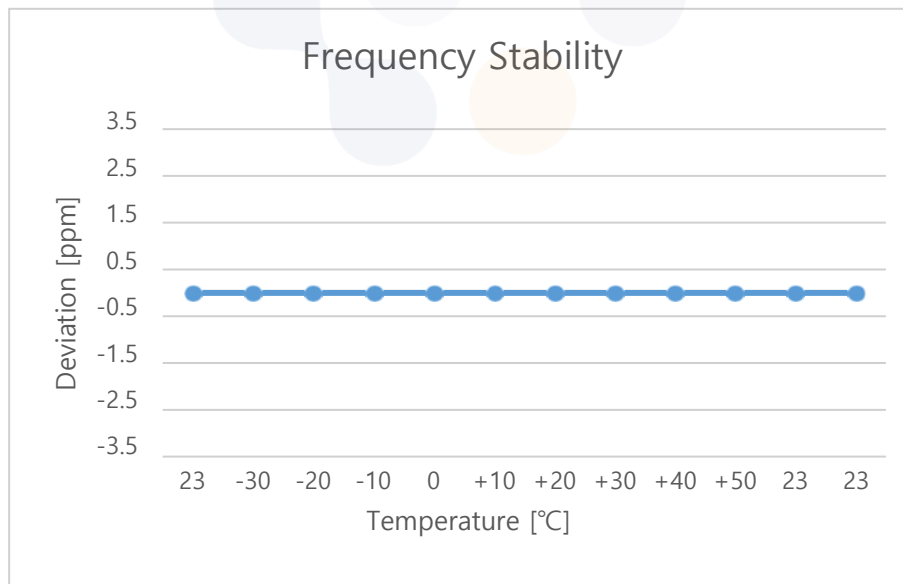
Test mode : NR n71
 Frequency (Hz) : 680 500 000
 Channel : 136100
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stay within the authorized bands of operation

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 680,500,002 | 1.70 | 0.0 | 0.000 000 |
| | | -30 | 680,499,998 | -2.40 | 0.0 | 0.000 000 |
| | | -20 | 680,499,997 | -2.80 | 0.0 | 0.000 000 |
| | | -10 | 680,499,998 | -1.60 | 0.0 | 0.000 000 |
| | | 0 | 680,500,002 | 2.00 | 0.0 | 0.000 000 |
| | | +10 | 680,500,002 | 1.80 | 0.0 | 0.000 000 |
| | | +20 | 680,500,001 | 1.30 | 0.0 | 0.000 000 |
| | | +30 | 680,500,001 | 0.80 | 0.0 | 0.000 000 |
| | | +40 | 680,500,000 | -0.10 | 0.0 | 0.000 000 |
| | | +50 | 680,500,000 | -0.40 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 680,500,000 | 0.20 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 680,500,001 | 1.30 | 0.0 | 0.000 000 |



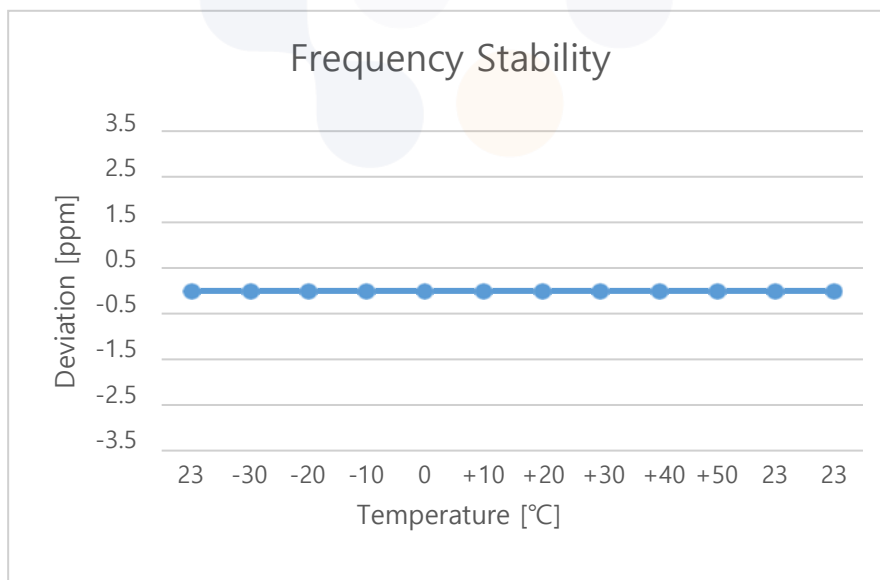
Test mode : NR n77 (Lower)
 Frequency (Hz) : 3 500 010 000
 Channel : 633334
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stay within the authorized bands of operation

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 3,500,009,994 | -6.00 | 0.0 | 0.000 000 |
| | | -30 | 3,500,009,999 | -1.10 | 0.0 | 0.000 000 |
| | | -20 | 3,500,009,997 | -2.69 | 0.0 | 0.000 000 |
| | | -10 | 3,500,009,997 | -3.31 | 0.0 | 0.000 000 |
| | | 0 | 3,500,009,996 | -4.00 | 0.0 | 0.000 000 |
| | | +10 | 3,500,009,998 | -2.28 | 0.0 | 0.000 000 |
| | | +20 | 3,500,009,996 | -4.10 | 0.0 | 0.000 000 |
| | | +30 | 3,500,009,998 | -2.20 | 0.0 | 0.000 000 |
| | | +40 | 3,500,009,997 | -2.90 | 0.0 | 0.000 000 |
| | | +50 | 3,500,009,997 | -3.09 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 3,500,009,997 | -3.00 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 3,500,009,997 | -2.90 | 0.0 | 0.000 000 |



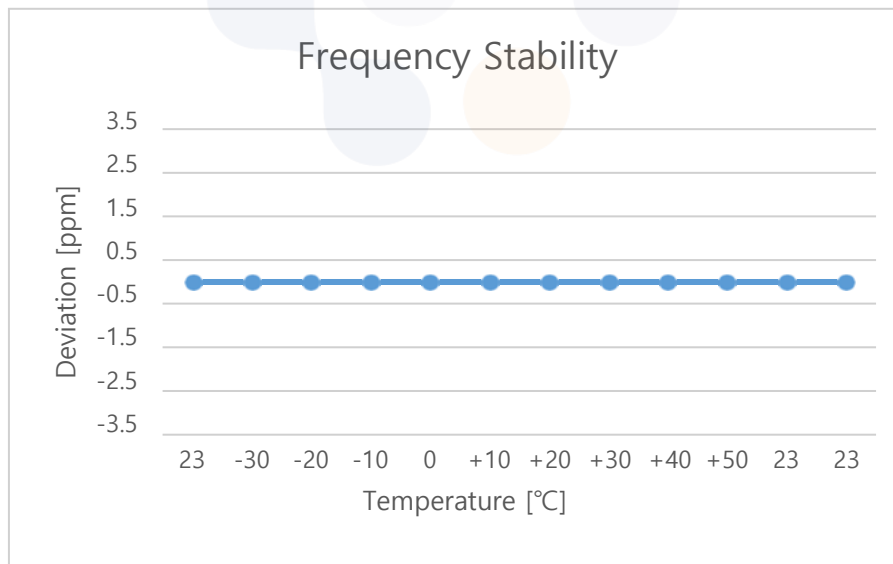
Test mode : NR n77 (Upper)
 Frequency (Hz) : 3 840 000 000
 Channel : 656000
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stay within the authorized bands of operation

| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 3,839,999,997 | -2.90 | 0.0 | 0.000 000 |
| | | -30 | 3,839,999,996 | -4.10 | 0.0 | 0.000 000 |
| | | -20 | 3,839,999,996 | -4.00 | 0.0 | 0.000 000 |
| | | -10 | 3,839,999,998 | -2.22 | 0.0 | 0.000 000 |
| | | 0 | 3,839,999,998 | -1.58 | 0.0 | 0.000 000 |
| | | +10 | 3,839,999,998 | -1.90 | 0.0 | 0.000 000 |
| | | +20 | 3,839,999,997 | -3.00 | 0.0 | 0.000 000 |
| | | +30 | 3,839,999,997 | -3.10 | 0.0 | 0.000 000 |
| | | +40 | 3,839,999,999 | -1.25 | 0.0 | 0.000 000 |
| | | +50 | 3,839,999,998 | -1.69 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 3,839,999,998 | -2.20 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 3,839,999,996 | -4.50 | 0.0 | 0.000 000 |



Test mode : NR n77 (IC)
 Frequency (Hz) : 3 675 000 000
 Channel : 645000
 Deviation limit(FCC&IC) : The frequency stability shall be sufficient to ensure that the fundamental emission stay within the authorized bands of operation

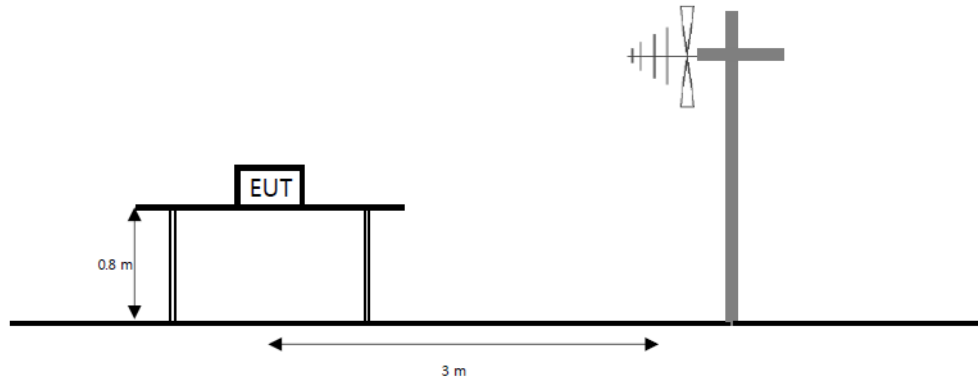
| Voltage (%) | Power (V) | Temp. (°C) | Frequency (Hz) | Frequency error (Hz) | Deviation | |
|-------------|-----------|------------|----------------|----------------------|-----------|-----------|
| | | | | | (ppm) | (%) |
| 100% | 3.85 | +23(Ref) | 3,674,999,996 | -4.20 | 0.0 | 0.000 000 |
| | | -30 | 3,674,999,994 | -6.10 | 0.0 | 0.000 000 |
| | | -20 | 3,674,999,994 | -5.60 | 0.0 | 0.000 000 |
| | | -10 | 3,674,999,996 | -4.50 | 0.0 | 0.000 000 |
| | | 0 | 3,674,999,998 | -1.90 | 0.0 | 0.000 000 |
| | | +10 | 3,674,999,998 | -2.40 | 0.0 | 0.000 000 |
| | | +20 | 3,674,999,997 | -3.30 | 0.0 | 0.000 000 |
| | | +30 | 3,674,999,997 | -3.50 | 0.0 | 0.000 000 |
| | | +40 | 3,674,999,996 | -4.10 | 0.0 | 0.000 000 |
| | | +50 | 3,674,999,992 | -8.00 | 0.0 | 0.000 000 |
| 115% | 4.43 | +23(Ref) | 3,674,999,999 | -1.20 | 0.0 | 0.000 000 |
| End point | 3.40 | +23(Ref) | 3,674,999,995 | -5.40 | 0.0 | 0.000 000 |



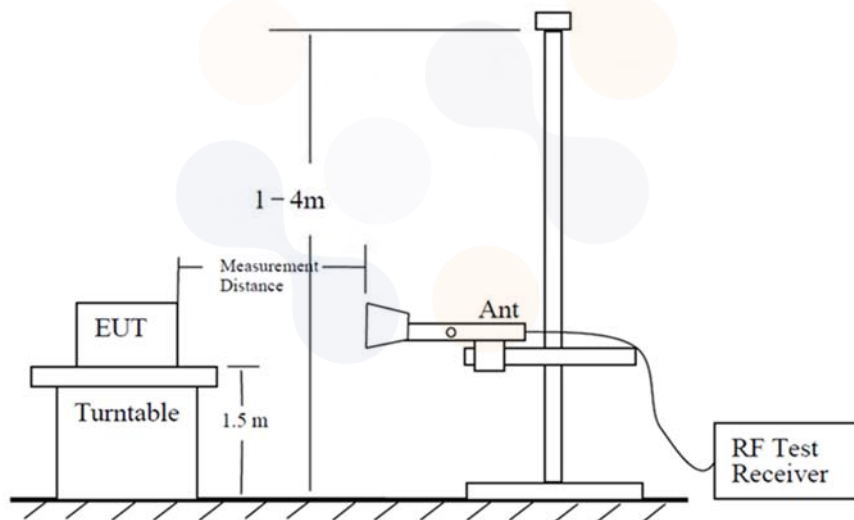
7.7 Radiated Power (ERP/EIRP)

Test setup

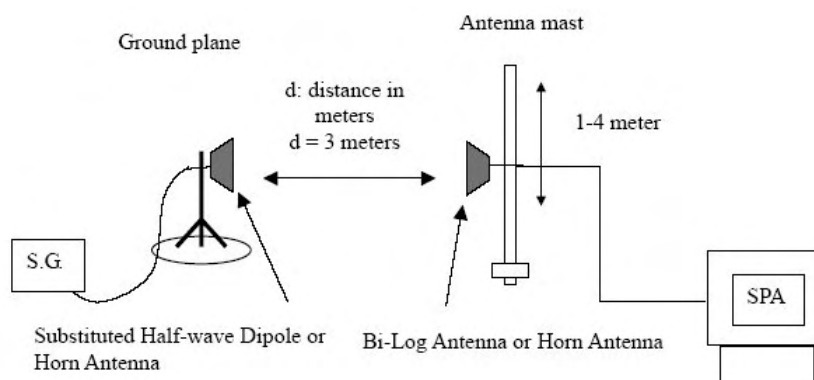
The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz emissions.





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.



| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: center;">Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p> | <p style="text-align: center;">Report No.: KR23-SRF0267-B Page (636) of (696)</p> |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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.

According to RSS-132(5.4),

the equivalent radiated power (e.r.p.) shall not exceed 7 watts for mobile equipment and 3 watts for portable equipment.

According to §24.232(c) and RSS-133(6.4),

Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(a),

The following power limits and related requirements apply to stations transmitting in the 2305-2320 MHz band or the 2345-2360 MHz band.

(3) Mobile and portable stations.

(i) For mobile and portable stations transmitting in the 2305–2315 MHz band or the 2350–2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305–2315 MHz and 2350–2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305–2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

According to §27.50(c)(10) and RSS-130(4.6)

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

According to §27.50(d)(4),

Fixed, mobile and portable (hand-held) 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.

According to RSS-139(5.5),

The equivalent isotropically radiated power (e.i.r.p.) for mobile and portable transmitters shall not exceed one watt. The e.i.r.p. for fixed and base stations in the band 1710-1780 MHz shall not exceed one watt(30 dBm e.i.r.p./channel bandwidth).

According to §27.50(h),

Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

According to RSS-199(5.5),

Subscriber equipment other than fixed subscriber equipment shall not exceed an e.i.r.p. of 2W per channel bandwidth.

According to §27.50(j)(3),

The following power requirements apply to stations transmitting in the 3700-3980 MHz band: 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.

According to §27.50(k)(3),



The following power requirements apply to stations transmitting in the 3450-3550 MHz band: Mobile devices are limited to 1 Watt (30 dB m) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

According to RSS-192(5.5),

The maximum output power of the equipment measured in terms of average values shall comply with the limits specified in table 1.

Table 1:Maximum power of equipment

| Equipment type | Maximum power |
|----------------------------------------------------------------------|----------------------------------|
| Non-ASS: base station (outdoor), fixed P-P station, P-MP hub station | 60 dBm e.i.r.p/5MHz |
| AAS: base station (outdoor), P-MP hub station | 47 dBm TRP/5MHz |
| Indoor base station | 39 dBm TRP/channel bandwidth |
| Fixed subscriber equipment | 39 dBm e.i.r.p/channel bandwidth |
| Subscriber equipment other than fixed subscriber equipment | 30 dBm e.i.r.p/channel bandwidth |

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p> | <p>Report No.: KR23-SRF0267-B Page (638) of (696)</p> |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Test procedure



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 freerun.
- 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 band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band 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.

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p> | <p>Report No.: KR23-SRF0267-B Page (639) of (696)</p> |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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 raIC 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 raIC 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

Test mode: 5G NR n5 DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBd] | C.L [dB] | Substitute Level [dBm] | ERP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 5 | QPSK | Low | 1/1 | H | 3.42 | 6.13 | 24.87 | 22.15 | 0.164 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 26.49 | 23.72 | 0.236 |
| | | High | 1/1 | H | 3.26 | 6.24 | 26.52 | 23.53 | 0.225 |
| | 16QAM | Low | 1/1 | H | 3.42 | 6.13 | 23.77 | 21.05 | 0.127 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 25.39 | 22.62 | 0.183 |
| | | High | 1/1 | H | 3.26 | 6.24 | 25.50 | 22.51 | 0.178 |
| 10 | QPSK | Low | 1/1 | H | 3.44 | 6.13 | 24.30 | 21.61 | 0.145 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 26.47 | 23.70 | 0.234 |
| | | High | 1/1 | H | 3.33 | 6.22 | 26.59 | 23.70 | 0.234 |
| | 16QAM | Low | 1/1 | H | 3.44 | 6.13 | 23.31 | 20.62 | 0.115 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 25.28 | 22.51 | 0.178 |
| | | High | 1/1 | H | 3.33 | 6.22 | 25.52 | 22.63 | 0.183 |
| 15 | QPSK | Low | 1/1 | H | 3.45 | 6.14 | 24.66 | 21.97 | 0.157 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 26.43 | 23.66 | 0.232 |
| | | High | 1/1 | H | 3.41 | 6.24 | 26.84 | 24.00 | 0.251 |
| | 16QAM | Low | 1/1 | H | 3.45 | 6.14 | 23.59 | 20.90 | 0.123 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 25.30 | 22.53 | 0.179 |
| | | High | 1/1 | H | 3.41 | 6.24 | 25.68 | 22.84 | 0.192 |
| 20 | QPSK | Low | 1/1 | H | 3.45 | 6.19 | 24.88 | 22.14 | 0.164 |
| | | Middle | 1/1 | H | 3.45 | 6.22 | 26.34 | 23.57 | 0.228 |
| | | High | 1/1 | H | 3.45 | 6.25 | 26.50 | 23.70 | 0.234 |
| | 16QAM | Low | 1/1 | H | 3.45 | 6.19 | 23.76 | 21.02 | 0.126 |
| | | Middle | 1/53 | H | 3.45 | 6.22 | 25.32 | 22.55 | 0.180 |
| | | High | 1/1 | H | 3.45 | 6.25 | 25.56 | 22.76 | 0.189 |

Test mode: 5G NR n12 DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBd] | C.L [dB] | Substitute Level [dBm] | ERP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 5 | QPSK | Low | 1/23 | H | 2.57 | 5.64 | 26.49 | 23.41 | 0.219 |
| | | Middle | 1/1 | H | 2.63 | 5.65 | 26.04 | 23.01 | 0.200 |
| | | High | 1/1 | H | 2.62 | 5.67 | 26.87 | 23.81 | 0.240 |
| | 16QAM | Low | 1/1 | H | 2.57 | 5.64 | 25.26 | 22.18 | 0.165 |
| | | Middle | 1/1 | H | 2.63 | 5.65 | 25.01 | 21.98 | 0.158 |
| | | High | 1/1 | H | 2.62 | 5.67 | 25.68 | 22.62 | 0.183 |
| 10 | QPSK | Low | 1/50 | H | 2.59 | 5.65 | 26.21 | 23.15 | 0.207 |
| | | Middle | 1/1 | H | 2.63 | 5.65 | 26.08 | 23.05 | 0.202 |
| | | High | 1/1 | H | 2.64 | 5.65 | 26.37 | 23.36 | 0.217 |
| | 16QAM | Low | 1/26 | H | 2.59 | 5.65 | 25.22 | 22.16 | 0.164 |
| | | Middle | 1/1 | H | 2.63 | 5.65 | 25.00 | 21.97 | 0.157 |
| | | High | 1/1 | H | 2.64 | 5.65 | 25.53 | 22.52 | 0.179 |
| 15 | QPSK | Low | 1/1 | H | 2.62 | 5.66 | 25.94 | 22.90 | 0.195 |
| | | Middle | 1/40 | H | 2.63 | 5.65 | 25.96 | 22.93 | 0.196 |
| | | High | 1/1 | H | 2.64 | 5.65 | 26.26 | 23.24 | 0.211 |
| | 16QAM | Low | 1/1 | H | 2.62 | 5.66 | 24.93 | 21.89 | 0.155 |
| | | Middle | 1/40 | H | 2.63 | 5.65 | 24.92 | 21.89 | 0.155 |
| | | High | 1/1 | H | 2.64 | 5.65 | 24.93 | 21.91 | 0.155 |

Test mode: 5G NR n25/2 DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 5 | QPSK | Low | 1/1 | H | 5.14 | 9.23 | 25.67 | 21.58 | 0.144 |
| | | Middle | 1/13 | H | 5.05 | 9.33 | 28.26 | 23.98 | 0.250 |
| | | High | 1/1 | H | 4.96 | 9.40 | 28.14 | 23.70 | 0.234 |
| | 16QAM | Low | 1/13 | H | 5.14 | 9.23 | 24.81 | 20.72 | 0.118 |
| | | Middle | 1/1 | H | 5.05 | 9.33 | 26.82 | 22.54 | 0.179 |
| | | High | 1/13 | H | 4.96 | 9.40 | 27.17 | 22.73 | 0.187 |
| 10 | QPSK | Low | 1/26 | H | 5.14 | 9.24 | 26.61 | 22.50 | 0.178 |
| | | Middle | 1/50 | H | 5.05 | 9.33 | 27.16 | 22.88 | 0.194 |
| | | High | 1/1 | H | 4.97 | 9.38 | 27.46 | 23.05 | 0.202 |
| | 16QAM | Low | 1/1 | H | 5.14 | 9.24 | 25.68 | 21.57 | 0.144 |
| | | Middle | 1/50 | H | 5.05 | 9.33 | 26.15 | 21.87 | 0.154 |
| | | High | 1/1 | H | 4.97 | 9.38 | 26.22 | 21.81 | 0.152 |
| 15 | QPSK | Low | 1/1 | H | 5.13 | 9.25 | 26.64 | 22.52 | 0.179 |
| | | Middle | 1/1 | H | 5.05 | 9.33 | 27.90 | 23.62 | 0.230 |
| | | High | 1/77 | H | 4.98 | 9.36 | 28.25 | 23.87 | 0.244 |
| | 16QAM | Low | 1/1 | H | 5.13 | 9.25 | 25.53 | 21.41 | 0.138 |
| | | Middle | 1/1 | H | 5.05 | 9.33 | 27.08 | 22.80 | 0.191 |
| | | High | 1/77 | H | 4.98 | 9.36 | 27.18 | 22.80 | 0.191 |
| 20 | QPSK | Low | 1/53 | H | 5.12 | 9.27 | 25.32 | 21.17 | 0.131 |
| | | Middle | 1/1 | H | 5.05 | 9.33 | 28.68 | 24.40 | 0.275 |
| | | High | 1/104 | H | 4.99 | 9.34 | 26.41 | 22.05 | 0.160 |
| | 16QAM | Low | 1/53 | H | 5.12 | 9.27 | 24.21 | 20.06 | 0.101 |
| | | Middle | 1/1 | H | 5.05 | 9.33 | 27.42 | 23.14 | 0.206 |
| | | High | 1/104 | H | 4.99 | 9.34 | 25.39 | 21.03 | 0.127 |

Test mode: 5G NR n30 DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 5 | QPSK | Low | 1/1 | H | 5.50 | 10.47 | 27.46 | 22.49 | 0.177 |
| | | Middle | 1/1 | H | 5.51 | 10.50 | 27.44 | 22.45 | 0.176 |
| | | High | 1/1 | H | 5.51 | 10.47 | 27.41 | 22.45 | 0.176 |
| | 16QAM | Low | 1/1 | H | 5.50 | 10.47 | 26.47 | 21.50 | 0.141 |
| | | Middle | 1/1 | H | 5.51 | 10.50 | 26.41 | 21.42 | 0.139 |
| | | High | 1/1 | H | 5.51 | 10.47 | 26.37 | 21.41 | 0.138 |
| 10 | QPSK | Low | 1/1 | H | 5.51 | 10.50 | 27.35 | 22.36 | 0.172 |
| | 16QAM | Low | 1/1 | H | 5.51 | 10.50 | 26.28 | 21.29 | 0.135 |

Test mode: 5G NR n41 (Power Class 2) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBi] | C.L [dB] | Substitute Level [dBm] | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 10\ | QPSK | Low | 1/12 | H | 6.00 | 10.87 | 32.58 | 27.71 | 0.590 |
| | | Low(IC) | 1/1 | H | 6.01 | 10.88 | 32.59 | 27.72 | 0.592 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.68 | 25.91 | 0.390 |
| | | High | 1/1 | H | 6.48 | 11.25 | 29.70 | 24.93 | 0.311 |
| | 16QAM | Low | 1/12 | H | 6.00 | 10.87 | 31.25 | 26.38 | 0.435 |
| | | Low(IC) | 1/1 | H | 6.01 | 10.88 | 31.60 | 26.73 | 0.471 |
| | | Middle | 1/12 | H | 6.24 | 11.01 | 29.48 | 24.71 | 0.296 |
| | | High | 1/1 | H | 6.48 | 11.25 | 28.87 | 24.10 | 0.257 |
| 15 | QPSK | Low | 1/36 | H | 6.01 | 10.88 | 32.61 | 27.74 | 0.594 |
| | | Low(IC) | 1/36 | H | 6.02 | 10.87 | 32.87 | 28.02 | 0.634 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.69 | 26.92 | 0.492 |
| | | High | 1/19 | H | 6.47 | 11.24 | 29.74 | 24.97 | 0.314 |
| | 16QAM | Low | 1/1 | H | 6.01 | 10.88 | 31.69 | 26.82 | 0.481 |
| | | Low(IC) | 1/1 | H | 6.02 | 10.87 | 32.11 | 27.26 | 0.532 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.32 | 25.55 | 0.359 |
| | | High | 1/19 | H | 6.47 | 11.24 | 28.65 | 23.88 | 0.244 |
| 20 | QPSK | Low | 1/1 | H | 6.02 | 10.89 | 32.81 | 27.94 | 0.622 |
| | | Low(IC) | 1/26 | H | 6.03 | 10.88 | 33.19 | 28.34 | 0.682 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.65 | 26.88 | 0.488 |
| | | High | 1/49 | H | 6.47 | 11.25 | 30.60 | 25.82 | 0.382 |
| | 16QAM | Low | 1/1 | H | 6.02 | 10.89 | 31.45 | 26.58 | 0.455 |
| | | Low(IC) | 1/26 | H | 6.03 | 10.88 | 31.93 | 27.08 | 0.511 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.05 | 25.28 | 0.337 |
| | | High | 1/49 | H | 6.47 | 11.25 | 29.30 | 24.52 | 0.283 |
| 30 | QPSK | Low | 1/39 | H | 6.03 | 10.88 | 33.42 | 28.57 | 0.719 |
| | | Low(IC) | 1/1 | H | 6.04 | 10.89 | 33.38 | 28.53 | 0.713 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.42 | 26.65 | 0.462 |
| | | High | 1/1 | H | 6.45 | 11.24 | 29.70 | 24.91 | 0.310 |
| | 16QAM | Low | 1/39 | H | 6.03 | 10.88 | 32.14 | 27.29 | 0.536 |
| | | Low(IC) | 1/1 | H | 6.04 | 10.89 | 32.37 | 27.52 | 0.565 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.42 | 25.65 | 0.367 |
| | | High | 1/1 | H | 6.45 | 11.24 | 28.38 | 23.59 | 0.229 |
| 40 | QPSK | Low | 1/1 | H | 6.04 | 10.89 | 32.47 | 27.62 | 0.578 |
| | | Low(IC) | 1/1 | H | 6.05 | 10.90 | 32.48 | 27.63 | 0.579 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.10 | 26.33 | 0.430 |
| | | High | 1/1 | H | 6.44 | 11.23 | 29.80 | 25.01 | 0.317 |
| | 16QAM | Low | 1/1 | H | 6.04 | 10.89 | 31.63 | 26.78 | 0.476 |
| | | Low(IC) | 1/1 | H | 6.05 | 10.90 | 31.54 | 26.69 | 0.467 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 29.54 | 24.77 | 0.300 |
| | | High | 1/1 | H | 6.44 | 11.23 | 28.36 | 23.57 | 0.228 |
| 50 | QPSK | Low | 1/1 | H | 6.05 | 10.90 | 33.76 | 28.91 | 0.778 |
| | | Low(IC) | 1/1 | H | 6.07 | 10.91 | 33.13 | 28.28 | 0.673 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.51 | 26.74 | 0.472 |
| | | High | 1/131 | H | 6.43 | 11.23 | 29.87 | 25.07 | 0.321 |
| | 16QAM | Low | 1/1 | H | 6.05 | 10.90 | 32.79 | 27.94 | 0.622 |
| | | Low(IC) | 1/1 | H | 6.07 | 10.91 | 32.03 | 27.18 | 0.522 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.15 | 25.38 | 0.345 |
| | | High | 1/131 | H | 6.43 | 11.23 | 28.36 | 23.56 | 0.227 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 60 | QPSK | Low | 1/1 | H | 6.07 | 10.91 | 33.61 | 28.76 | 0.752 |
| | | Low(IC) | 1/1 | H | 6.08 | 10.92 | 33.22 | 28.38 | 0.689 |
| | | Middle | 1/160 | H | 6.24 | 11.01 | 30.63 | 25.86 | 0.385 |
| | | High | 1/81 | H | 6.42 | 11.22 | 30.72 | 25.92 | 0.391 |
| | 16QAM | Low | 1/1 | H | 6.07 | 10.91 | 32.66 | 27.81 | 0.604 |
| | | Low(IC) | 1/1 | H | 6.08 | 10.92 | 32.39 | 27.55 | 0.569 |
| | | Middle | 1/160 | H | 6.24 | 11.01 | 29.88 | 25.11 | 0.324 |
| | | High | 1/160 | H | 6.42 | 11.22 | 29.30 | 24.50 | 0.282 |
| 70 | QPSK | Low | 1/1 | H | 6.08 | 10.92 | 33.27 | 28.43 | 0.697 |
| | | Low(IC) | 1/1 | H | 6.09 | 10.94 | 33.41 | 28.56 | 0.718 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.19 | 26.42 | 0.439 |
| | | High | 1/95 | H | 6.40 | 11.21 | 30.49 | 25.68 | 0.370 |
| | 16QAM | Low | 1/1 | H | 6.08 | 10.92 | 32.23 | 27.39 | 0.548 |
| | | Low(IC) | 1/1 | H | 6.09 | 10.94 | 32.50 | 27.65 | 0.582 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 29.85 | 25.08 | 0.322 |
| | | High | 1/95 | H | 6.40 | 11.21 | 29.01 | 24.20 | 0.263 |
| 80 | QPSK | Low | 1/1 | H | 6.09 | 10.94 | 33.42 | 28.57 | 0.719 |
| | | Low(IC) | 1/1 | H | 6.10 | 10.95 | 33.74 | 28.89 | 0.774 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 31.64 | 26.87 | 0.486 |
| | | High | 1/215 | H | 6.39 | 11.21 | 30.31 | 25.49 | 0.354 |
| | 16QAM | Low | 1/1 | H | 6.09 | 10.94 | 32.35 | 27.50 | 0.562 |
| | | Low(IC) | 1/1 | H | 6.10 | 10.95 | 32.57 | 27.72 | 0.592 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.57 | 25.80 | 0.380 |
| | | High | 1/215 | H | 6.39 | 11.21 | 29.47 | 24.65 | 0.292 |
| 90 | QPSK | Low | 1/123 | H | 6.11 | 10.95 | 33.45 | 28.60 | 0.724 |
| | | Low(IC) | 1/1 | H | 6.12 | 10.96 | 33.70 | 28.86 | 0.769 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.69 | 25.92 | 0.391 |
| | | High | 1/1 | H | 6.38 | 11.20 | 29.54 | 24.72 | 0.296 |
| | 16QAM | Low | 1/1 | H | 6.11 | 10.95 | 32.39 | 27.54 | 0.568 |
| | | Low(IC) | 1/1 | H | 6.12 | 10.96 | 32.82 | 27.98 | 0.628 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 29.78 | 25.01 | 0.317 |
| | | High | 1/1 | H | 6.38 | 11.20 | 28.39 | 23.57 | 0.228 |
| 100 | QPSK | Low | 1/1 | H | 6.12 | 10.96 | 32.89 | 28.05 | 0.638 |
| | | Low(IC) | 1/1 | H | 6.13 | 10.97 | 33.66 | 28.82 | 0.762 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 30.14 | 25.37 | 0.344 |
| | | High | 1/271 | H | 6.36 | 11.19 | 30.45 | 25.62 | 0.365 |
| | 16QAM | Low | 1/1 | H | 6.12 | 10.96 | 31.69 | 26.85 | 0.484 |
| | | Low(IC) | 1/1 | H | 6.13 | 10.97 | 32.22 | 27.38 | 0.547 |
| | | Middle | 1/1 | H | 6.24 | 11.01 | 29.21 | 24.44 | 0.278 |
| | | High | 1/271 | H | 6.36 | 11.19 | 29.46 | 24.63 | 0.290 |

Test mode: 5G NR n66 DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 5 | QPSK | Low | 1/1 | H | 5.56 | 8.86 | 27.19 | 23.89 | 0.245 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 27.29 | 23.82 | 0.241 |
| | | High | 1/1 | H | 5.37 | 9.11 | 27.06 | 23.32 | 0.215 |
| | 16QAM | Low | 1/1 | H | 5.56 | 8.86 | 26.34 | 23.04 | 0.201 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 26.46 | 22.99 | 0.199 |
| | | High | 1/1 | H | 5.37 | 9.11 | 25.87 | 22.13 | 0.163 |
| 10 | QPSK | Low | 1/50 | H | 5.56 | 8.87 | 27.17 | 23.85 | 0.243 |
| | | Middle | 1/50 | H | 5.47 | 8.93 | 27.48 | 24.01 | 0.252 |
| | | High | 1/26 | H | 5.38 | 9.08 | 27.18 | 23.47 | 0.222 |
| | 16QAM | Low | 1/50 | H | 5.56 | 8.87 | 26.39 | 23.07 | 0.203 |
| | | Middle | 1/50 | H | 5.47 | 8.93 | 26.65 | 23.18 | 0.208 |
| | | High | 1/26 | H | 5.38 | 9.08 | 26.25 | 22.54 | 0.179 |
| 15 | QPSK | Low | 1/77 | H | 5.55 | 8.88 | 27.29 | 23.96 | 0.249 |
| | | Middle | 1/40 | H | 5.47 | 8.93 | 27.16 | 23.69 | 0.234 |
| | | High | 1/40 | H | 5.38 | 9.07 | 27.24 | 23.55 | 0.226 |
| | 16QAM | Low | 1/77 | H | 5.55 | 8.88 | 26.42 | 23.09 | 0.204 |
| | | Middle | 1/40 | H | 5.47 | 8.93 | 26.39 | 22.92 | 0.196 |
| | | High | 1/77 | H | 5.38 | 9.07 | 26.40 | 22.71 | 0.187 |
| 20 | QPSK | Low | 1/53 | H | 5.54 | 8.88 | 27.71 | 24.37 | 0.274 |
| | | Middle | 1/53 | H | 5.47 | 8.93 | 27.05 | 23.58 | 0.228 |
| | | High | 1/104 | H | 5.39 | 9.07 | 28.10 | 24.42 | 0.277 |
| | 16QAM | Low | 1/53 | H | 5.54 | 8.88 | 26.72 | 23.38 | 0.218 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 25.91 | 22.44 | 0.175 |
| | | High | 1/104 | H | 5.39 | 9.07 | 27.16 | 23.48 | 0.223 |
| 25 | QPSK | Low | 1/1 | H | 5.53 | 8.89 | 28.03 | 24.67 | 0.293 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 26.24 | 22.77 | 0.189 |
| | | High | 1/131 | H | 5.40 | 9.01 | 27.56 | 23.94 | 0.248 |
| | 16QAM | Low | 1/1 | H | 5.53 | 8.89 | 27.21 | 23.85 | 0.243 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 25.33 | 21.86 | 0.153 |
| | | High | 1/131 | H | 5.40 | 9.01 | 26.82 | 23.20 | 0.209 |
| 30 | QPSK | Low | 1/80 | H | 5.53 | 8.90 | 26.90 | 23.53 | 0.225 |
| | | Middle | 1/80 | H | 5.47 | 8.93 | 26.51 | 23.04 | 0.201 |
| | | High | 1/1 | H | 5.41 | 9.01 | 29.65 | 26.05 | 0.403 |
| | 16QAM | Low | 1/1 | H | 5.53 | 8.90 | 26.23 | 22.86 | 0.193 |
| | | Middle | 1/80 | H | 5.47 | 8.93 | 25.56 | 22.09 | 0.162 |
| | | High | 1/1 | H | 5.41 | 9.01 | 28.80 | 25.20 | 0.331 |
| 40 | QPSK | Low | 1/1 | H | 5.51 | 8.92 | 25.82 | 22.41 | 0.174 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 26.59 | 23.12 | 0.205 |
| | | High | 1/1 | H | 5.42 | 8.99 | 28.38 | 24.81 | 0.303 |
| | 16QAM | Low | 1/1 | H | 5.51 | 8.92 | 24.78 | 21.37 | 0.137 |
| | | Middle | 1/1 | H | 5.47 | 8.93 | 25.52 | 22.05 | 0.160 |
| | | High | 1/1 | H | 5.42 | 8.99 | 27.59 | 24.02 | 0.252 |

Test mode: 5G NR n71 DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | ERP | |
|------------------|------------|---------|-----------------|-------|--------------|------|------------------|-------|-------|
| | | | | [V/H] | [dBd] | [dB] | [dBm] | [dBm] | [W] |
| 5 | QPSK | Low | 1/1 | H | 3.14 | 5.50 | 22.61 | 20.25 | 0.106 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 22.55 | 19.85 | 0.097 |
| | | High | 1/13 | H | 2.55 | 5.59 | 22.61 | 19.57 | 0.091 |
| | 16QAM | Low | 1/1 | H | 3.14 | 5.50 | 21.63 | 19.27 | 0.085 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 21.47 | 18.77 | 0.075 |
| | | High | 1/13 | H | 2.55 | 5.59 | 21.41 | 18.37 | 0.069 |
| 10 | QPSK | Low | 1/1 | H | 3.09 | 5.51 | 22.31 | 19.89 | 0.097 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 22.51 | 19.81 | 0.096 |
| | | High | 1/50 | H | 2.55 | 5.60 | 22.03 | 18.98 | 0.079 |
| | 16QAM | Low | 1/1 | H | 3.09 | 5.51 | 21.37 | 18.95 | 0.079 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 21.46 | 18.76 | 0.075 |
| | | High | 1/50 | H | 2.55 | 5.60 | 21.03 | 17.98 | 0.063 |
| 15 | QPSK | Low | 1/1 | H | 3.04 | 5.51 | 22.66 | 20.19 | 0.104 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 22.68 | 19.98 | 0.100 |
| | | High | 1/1 | H | 2.55 | 5.59 | 22.55 | 19.51 | 0.089 |
| | 16QAM | Low | 1/1 | H | 3.04 | 5.51 | 21.64 | 19.17 | 0.083 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 21.59 | 18.89 | 0.077 |
| | | High | 1/1 | H | 2.55 | 5.59 | 21.50 | 18.46 | 0.070 |
| 20 | QPSK | Low | 1/1 | H | 2.99 | 5.52 | 22.73 | 20.20 | 0.105 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 22.70 | 20.00 | 0.100 |
| | | High | 1/1 | H | 2.61 | 5.58 | 22.79 | 19.82 | 0.096 |
| | 16QAM | Low | 1/1 | H | 2.99 | 5.52 | 21.68 | 19.15 | 0.082 |
| | | Middle | 1/1 | H | 2.84 | 5.53 | 21.68 | 18.98 | 0.079 |
| | | High | 1/1 | H | 2.61 | 5.58 | 21.58 | 18.61 | 0.073 |

Test mode: 5G NR n77(Lower)(Power Class 2) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 10 | QPSK | Low | 1/12 | H | 8.21 | 12.18 | 30.73 | 26.76 | 0.474 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 31.57 | 27.64 | 0.581 |
| | | High | 1/1 | H | 8.38 | 12.28 | 31.95 | 28.05 | 0.638 |
| | 16QAM | Low | 1/12 | H | 8.21 | 12.18 | 29.65 | 25.68 | 0.370 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 30.61 | 26.68 | 0.466 |
| | | High | 1/1 | H | 8.38 | 12.28 | 30.74 | 26.84 | 0.483 |
| 15 | QPSK | Low | 1/19 | H | 8.39 | 12.29 | 31.19 | 27.29 | 0.536 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 31.76 | 27.83 | 0.607 |
| | | High | 1/1 | H | 8.38 | 12.28 | 32.14 | 28.23 | 0.665 |
| | 16QAM | Low | 1/19 | H | 8.39 | 12.29 | 29.92 | 26.02 | 0.400 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 30.69 | 26.76 | 0.474 |
| | | High | 1/1 | H | 8.38 | 12.28 | 30.75 | 26.84 | 0.483 |
| 20 | QPSK | Low | 1/49 | H | 8.22 | 12.18 | 30.18 | 26.22 | 0.419 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 31.00 | 27.07 | 0.509 |
| | | High | 1/49 | H | 8.37 | 12.28 | 31.27 | 27.36 | 0.545 |
| | 16QAM | Low | 1/49 | H | 8.22 | 12.18 | 29.25 | 25.29 | 0.338 |
| | | Middle | 1/49 | H | 8.30 | 12.23 | 30.09 | 26.16 | 0.413 |
| | | High | 1/49 | H | 8.37 | 12.28 | 30.22 | 26.31 | 0.428 |
| 25 | QPSK | Low | 1/63 | H | 8.23 | 12.19 | 30.37 | 26.41 | 0.438 |
| | | Middle | 1/33 | H | 8.30 | 12.23 | 30.82 | 26.89 | 0.489 |
| | | High | 1/33 | H | 8.37 | 12.28 | 31.77 | 27.86 | 0.611 |
| | 16QAM | Low | 1/63 | H | 8.23 | 12.19 | 29.50 | 25.54 | 0.358 |
| | | Middle | 1/33 | H | 8.30 | 12.23 | 29.99 | 26.06 | 0.404 |
| | | High | 1/33 | H | 8.37 | 12.28 | 30.78 | 26.87 | 0.486 |
| 30 | QPSK | Low | 1/76 | H | 8.23 | 12.19 | 29.40 | 25.44 | 0.350 |
| | | Middle | 1/76 | H | 8.30 | 12.23 | 30.31 | 26.38 | 0.435 |
| | | High | 1/1 | H | 8.36 | 12.27 | 30.89 | 26.98 | 0.499 |
| | 16QAM | Low | 1/76 | H | 8.23 | 12.19 | 28.35 | 24.39 | 0.275 |
| | | Middle | 1/76 | H | 8.30 | 12.23 | 28.72 | 24.79 | 0.301 |
| | | High | 1/1 | H | 8.36 | 12.27 | 29.36 | 25.45 | 0.351 |
| 40 | QPSK | Low | 1/104 | H | 8.24 | 12.20 | 30.81 | 26.85 | 0.484 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 31.23 | 27.30 | 0.537 |
| | | High | 1/1 | H | 8.35 | 12.27 | 31.35 | 27.44 | 0.555 |
| | 16QAM | Low | 1/104 | H | 8.24 | 12.20 | 29.44 | 25.48 | 0.353 |
| | | Middle | 1/104 | H | 8.30 | 12.23 | 29.47 | 25.54 | 0.358 |
| | | High | 1/1 | H | 8.35 | 12.27 | 30.55 | 26.64 | 0.461 |
| 50 | QPSK | Low | 1/67 | H | 8.25 | 12.20 | 31.27 | 27.32 | 0.540 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 31.49 | 27.56 | 0.570 |
| | | High | 1/67 | H | 8.35 | 12.26 | 31.85 | 27.93 | 0.621 |
| | 16QAM | Low | 1/67 | H | 8.25 | 12.20 | 30.08 | 26.13 | 0.410 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 30.43 | 26.50 | 0.447 |
| | | High | 1/67 | H | 8.35 | 12.26 | 30.63 | 26.71 | 0.469 |
| 60 | QPSK | Low | 1/81 | H | 8.26 | 12.21 | 30.49 | 26.54 | 0.451 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 31.14 | 27.21 | 0.526 |
| | | High | 1/81 | H | 8.34 | 12.25 | 31.11 | 27.19 | 0.524 |
| | 16QAM | Low | 1/81 | H | 8.26 | 12.21 | 29.50 | 25.55 | 0.359 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 29.72 | 25.79 | 0.379 |
| | | High | 1/81 | H | 8.34 | 12.25 | 30.06 | 26.14 | 0.411 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 70 | QPSK | Low | 1/187 | H | 8.27 | 12.21 | 30.50 | 26.56 | 0.453 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 30.77 | 26.84 | 0.483 |
| | | High | 1/95 | H | 8.33 | 12.25 | 31.22 | 27.30 | 0.537 |
| | 16QAM | Low | 1/187 | H | 8.27 | 12.21 | 29.95 | 26.01 | 0.399 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 29.66 | 25.73 | 0.374 |
| | | High | 1/95 | H | 8.33 | 12.25 | 30.43 | 26.51 | 0.448 |
| 80 | QPSK | Low | 1/215 | H | 8.28 | 12.22 | 30.42 | 26.48 | 0.445 |
| | | Middle | 1/215 | H | 8.30 | 12.23 | 30.16 | 26.23 | 0.420 |
| | | High | 1/109 | H | 8.32 | 12.24 | 31.21 | 27.29 | 0.536 |
| | 16QAM | Low | 1/215 | H | 8.28 | 12.22 | 29.44 | 25.50 | 0.355 |
| | | Middle | 1/215 | H | 8.30 | 12.23 | 29.00 | 25.07 | 0.321 |
| | | High | 1/109 | H | 8.32 | 12.24 | 30.37 | 26.45 | 0.442 |
| 90 | QPSK | Low | 1/123 | H | 8.29 | 12.23 | 30.43 | 26.49 | 0.446 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 30.36 | 26.43 | 0.440 |
| | | High | 1/123 | H | 8.31 | 12.24 | 30.84 | 26.91 | 0.491 |
| | 16QAM | Low | 1/123 | H | 8.29 | 12.23 | 29.72 | 25.78 | 0.378 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 29.71 | 25.78 | 0.378 |
| | | High | 1/123 | H | 8.31 | 12.24 | 29.88 | 25.95 | 0.394 |
| 100 | QPSK | Low | 1/137 | H | 8.30 | 12.23 | 30.15 | 26.22 | 0.419 |
| | 16QAM | Low | 1/137 | H | 8.30 | 12.23 | 28.96 | 25.03 | 0.318 |

Test mode: 5G NR n77(Lower)(Power Class 2)(SRS1)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 40 | QPSK | Low | 1/1 | H | 8.24 | 12.20 | 13.91 | 9.95 | 0.010 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 13.16 | 9.23 | 0.008 |
| | | High | 1/1 | H | 8.35 | 12.27 | 14.40 | 10.49 | 0.011 |

Test mode: 5G NR n77(Lower)(Power Class 2)(SRS2)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Middle | 1/137 | H | 8.30 | 12.23 | 15.24 | 11.31 | 0.014 |

Test mode: 5G NR n77(Lower)(Power Class 2)(SRS3)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 80 | QPSK | Low | 1/109 | H | 8.28 | 12.22 | 17.08 | 13.14 | 0.021 |
| | | Middle | 1/109 | H | 8.30 | 12.23 | 17.12 | 13.19 | 0.021 |
| | | High | 1/109 | H | 8.32 | 12.24 | 17.79 | 13.87 | 0.024 |

Test mode: 5G NR n77(Upper)(Power Class 2) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 10 | QPSK | Low | 1/1 | H | 8.67 | 12.48 | 31.89 | 28.08 | 0.643 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 31.54 | 27.83 | 0.607 |
| | | High | 1/1 | H | 9.16 | 12.78 | 32.16 | 28.53 | 0.713 |
| | 16QAM | Low | 1/1 | H | 8.67 | 12.48 | 30.72 | 26.91 | 0.491 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 29.69 | 25.98 | 0.396 |
| | | High | 1/1 | H | 9.16 | 12.78 | 30.82 | 27.19 | 0.524 |
| 15 | QPSK | Low | 1/19 | H | 8.67 | 12.48 | 31.06 | 27.25 | 0.531 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 31.72 | 28.01 | 0.632 |
| | | High | 1/19 | H | 8.83 | 12.35 | 33.12 | 29.59 | 0.910 |
| | 16QAM | Low | 1/19 | H | 8.67 | 12.48 | 29.90 | 26.09 | 0.406 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 30.36 | 26.65 | 0.462 |
| | | High | 1/19 | H | 8.83 | 12.35 | 31.49 | 27.96 | 0.625 |
| 20 | QPSK | Low | 1/26 | H | 8.68 | 12.49 | 31.52 | 27.71 | 0.590 |
| | | Middle | 1/26 | H | 8.91 | 12.62 | 31.51 | 27.80 | 0.603 |
| | | High | 1/26 | H | 9.15 | 12.77 | 32.86 | 29.24 | 0.839 |
| | 16QAM | Low | 1/26 | H | 8.68 | 12.49 | 30.08 | 26.27 | 0.424 |
| | | Middle | 1/26 | H | 8.91 | 12.62 | 30.60 | 26.89 | 0.489 |
| | | High | 1/26 | H | 9.15 | 12.77 | 32.45 | 28.83 | 0.764 |
| 25 | QPSK | Low | 1/63 | H | 8.68 | 12.49 | 32.90 | 29.09 | 0.811 |
| | | Middle | 1/63 | H | 8.91 | 12.62 | 32.13 | 28.42 | 0.695 |
| | | High | 1/1 | H | 9.14 | 12.76 | 32.88 | 29.26 | 0.843 |
| | 16QAM | Low | 1/63 | H | 8.68 | 12.49 | 31.93 | 28.12 | 0.649 |
| | | Middle | 1/63 | H | 8.91 | 12.62 | 31.37 | 27.66 | 0.583 |
| | | High | 1/1 | H | 9.14 | 12.76 | 31.74 | 28.12 | 0.649 |
| 30 | QPSK | Low | 1/1 | H | 8.69 | 12.49 | 31.52 | 27.71 | 0.590 |
| | | Middle | 1/39 | H | 8.91 | 12.62 | 31.08 | 27.37 | 0.546 |
| | | High | 1/1 | H | 9.14 | 12.75 | 32.68 | 29.06 | 0.805 |
| | 16QAM | Low | 1/39 | H | 8.69 | 12.49 | 30.58 | 26.77 | 0.475 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 30.24 | 26.53 | 0.450 |
| | | High | 1/1 | H | 9.14 | 12.75 | 31.10 | 27.48 | 0.560 |
| 40 | QPSK | Low | 1/53 | H | 8.70 | 12.50 | 31.37 | 27.56 | 0.570 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 31.37 | 27.66 | 0.583 |
| | | High | 1/1 | H | 9.13 | 12.74 | 31.80 | 28.19 | 0.659 |
| | 16QAM | Low | 1/53 | H | 8.70 | 12.50 | 30.71 | 26.90 | 0.490 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 30.13 | 26.42 | 0.439 |
| | | High | 1/1 | H | 9.13 | 12.74 | 30.83 | 27.22 | 0.527 |
| 50 | QPSK | Low | 1/1 | H | 8.71 | 12.51 | 30.45 | 26.65 | 0.462 |
| | | Middle | 1/131 | H | 8.91 | 12.62 | 31.38 | 27.67 | 0.585 |
| | | High | 1/67 | H | 9.12 | 12.72 | 31.98 | 28.37 | 0.687 |
| | 16QAM | Low | 1/1 | H | 8.71 | 12.51 | 29.46 | 25.66 | 0.368 |
| | | Middle | 1/131 | H | 8.91 | 12.62 | 30.53 | 26.82 | 0.481 |
| | | High | 1/67 | H | 9.12 | 12.72 | 30.91 | 27.30 | 0.537 |
| 60 | QPSK | Low | 1/81 | H | 8.71 | 12.52 | 30.51 | 26.71 | 0.469 |
| | | Middle | 1/160 | H | 8.91 | 12.62 | 31.34 | 27.63 | 0.579 |
| | | High | 1/1 | H | 9.11 | 12.76 | 31.36 | 27.71 | 0.590 |
| | 16QAM | Low | 1/81 | H | 8.71 | 12.52 | 29.46 | 25.66 | 0.368 |
| | | Middle | 1/160 | H | 8.91 | 12.62 | 30.40 | 26.69 | 0.467 |
| | | High | 1/1 | H | 9.11 | 12.76 | 30.54 | 26.89 | 0.489 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 70 | QPSK | Low | 1/1 | H | 8.72 | 12.52 | 30.35 | 26.55 | 0.452 |
| | | Middle | 1/187 | H | 8.91 | 12.62 | 31.27 | 27.56 | 0.570 |
| | | High | 1/187 | H | 9.10 | 12.75 | 31.63 | 27.98 | 0.628 |
| | 16QAM | Low | 1/1 | H | 8.72 | 12.52 | 29.59 | 25.79 | 0.379 |
| | | Middle | 1/187 | H | 8.91 | 12.62 | 30.42 | 26.71 | 0.469 |
| | | High | 1/187 | H | 9.10 | 12.75 | 30.77 | 27.12 | 0.515 |
| 80 | QPSK | Low | 1/215 | H | 8.73 | 12.53 | 30.73 | 26.93 | 0.493 |
| | | Middle | 1/215 | H | 8.91 | 12.62 | 31.09 | 27.38 | 0.547 |
| | | High | 1/1 | H | 9.09 | 12.74 | 31.88 | 28.24 | 0.667 |
| | 16QAM | Low | 1/215 | H | 8.73 | 12.53 | 29.53 | 25.73 | 0.374 |
| | | Middle | 1/215 | H | 8.91 | 12.62 | 29.96 | 26.25 | 0.422 |
| | | High | 1/1 | H | 9.09 | 12.74 | 31.17 | 27.53 | 0.566 |
| 90 | QPSK | Low | 1/243 | H | 8.74 | 12.54 | 30.71 | 26.91 | 0.491 |
| | | Middle | 1/243 | H | 8.91 | 12.62 | 31.23 | 27.52 | 0.565 |
| | | High | 1/243 | H | 9.08 | 12.72 | 31.00 | 27.36 | 0.545 |
| | 16QAM | Low | 1/243 | H | 8.74 | 12.54 | 29.84 | 26.04 | 0.402 |
| | | Middle | 1/243 | H | 8.91 | 12.62 | 30.30 | 26.59 | 0.456 |
| | | High | 1/243 | H | 9.08 | 12.72 | 29.94 | 26.30 | 0.427 |
| 100 | QPSK | Low | 1/137 | H | 8.75 | 12.22 | 30.60 | 27.13 | 0.516 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 30.93 | 27.22 | 0.527 |
| | | High | 1/137 | H | 9.07 | 12.71 | 31.79 | 28.15 | 0.653 |
| | 16QAM | Low | 1/137 | H | 8.75 | 12.22 | 29.75 | 26.28 | 0.425 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 29.84 | 26.13 | 0.410 |
| | | High | 1/137 | H | 9.07 | 12.71 | 30.48 | 26.84 | 0.483 |

Test mode: 5G NR n77(Upper)(Power Class 2)(SRS1)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.75 | 12.22 | 15.09 | 11.62 | 0.015 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 16.15 | 12.44 | 0.018 |
| | | High | 1/1 | H | 9.07 | 12.71 | 18.32 | 14.68 | 0.029 |

Test mode: 5G NR n77(Upper)(Power Class 2)(SRS2)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 90 | QPSK | Low | 1/243 | H | 8.74 | 12.54 | 16.06 | 12.26 | 0.017 |
| | | Middle | 1/243 | H | 8.91 | 12.62 | 15.73 | 12.02 | 0.016 |
| | | High | 1/243 | H | 9.08 | 12.72 | 14.52 | 10.88 | 0.012 |

Test mode: 5G NR n77(Upper)(Power Class 2)(SRS3)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.75 | 12.22 | 22.26 | 18.79 | 0.076 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 20.18 | 16.47 | 0.044 |
| | | High | 1/1 | H | 9.07 | 12.71 | 18.86 | 15.22 | 0.033 |

Test mode: 5G NR n77(IC)(Power Class 2) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBi] | C.L [dB] | Substitute Level [dBm] | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 10 | QPSK | Low | 1/12 | H | 8.21 | 12.18 | 30.73 | 26.76 | 0.474 |
| | | Middle | 1/12 | H | 8.62 | 12.30 | 29.66 | 25.98 | 0.396 |
| | | High | 1/1 | H | 9.01 | 13.07 | 33.02 | 28.96 | 0.787 |
| | 16QAM | Low | 1/12 | H | 8.21 | 12.18 | 29.65 | 25.68 | 0.370 |
| | | Middle | 1/12 | H | 8.62 | 12.30 | 28.34 | 24.66 | 0.292 |
| | | High | 1/1 | H | 9.01 | 13.07 | 31.47 | 27.41 | 0.551 |
| 15 | QPSK | Low | 1/19 | H | 8.22 | 12.18 | 31.26 | 27.29 | 0.536 |
| | | Middle | 1/36 | H | 8.62 | 12.30 | 30.84 | 27.16 | 0.520 |
| | | High | 1/1 | H | 9.01 | 13.06 | 33.22 | 29.16 | 0.824 |
| | 16QAM | Low | 1/19 | H | 8.22 | 12.18 | 29.99 | 26.02 | 0.400 |
| | | Middle | 1/36 | H | 8.62 | 12.30 | 30.08 | 26.40 | 0.437 |
| | | High | 1/1 | H | 9.01 | 13.06 | 31.72 | 27.66 | 0.583 |
| 20 | QPSK | Low | 1/49 | H | 8.22 | 12.18 | 30.18 | 26.22 | 0.419 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 30.80 | 27.12 | 0.515 |
| | | High | 1/26 | H | 9.00 | 13.06 | 32.00 | 27.94 | 0.622 |
| | 16QAM | Low | 1/49 | H | 8.22 | 12.18 | 29.25 | 25.29 | 0.338 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 30.11 | 26.43 | 0.440 |
| | | High | 1/26 | H | 9.00 | 13.06 | 31.00 | 26.94 | 0.494 |
| 25 | QPSK | Low | 1/63 | H | 8.23 | 12.19 | 30.37 | 26.41 | 0.438 |
| | | Middle | 1/63 | H | 8.62 | 12.30 | 31.78 | 28.10 | 0.646 |
| | | High | 1/1 | H | 9.00 | 13.06 | 32.98 | 28.92 | 0.780 |
| | 16QAM | Low | 1/63 | H | 8.23 | 12.19 | 29.50 | 25.54 | 0.358 |
| | | Middle | 1/33 | H | 8.62 | 12.30 | 31.04 | 27.36 | 0.545 |
| | | High | 1/1 | H | 9.00 | 13.06 | 32.08 | 28.02 | 0.634 |
| 30 | QPSK | Low | 1/76 | H | 8.23 | 12.19 | 30.87 | 26.91 | 0.491 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 30.53 | 26.85 | 0.484 |
| | | High | 1/1 | H | 8.99 | 13.06 | 33.40 | 29.33 | 0.857 |
| | 16QAM | Low | 1/76 | H | 8.23 | 12.19 | 29.40 | 25.44 | 0.350 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 29.13 | 25.45 | 0.351 |
| | | High | 1/1 | H | 8.99 | 13.06 | 32.76 | 28.69 | 0.740 |
| 40 | QPSK | Low | 1/104 | H | 8.24 | 12.20 | 30.81 | 26.85 | 0.484 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 30.18 | 26.50 | 0.447 |
| | | High | 1/104 | H | 8.98 | 13.06 | 32.89 | 28.82 | 0.762 |
| | 16QAM | Low | 1/104 | H | 8.24 | 12.20 | 29.44 | 25.48 | 0.353 |
| | | Middle | 1/53 | H | 8.62 | 12.30 | 28.81 | 25.13 | 0.326 |
| | | High | 1/104 | H | 8.98 | 13.06 | 32.26 | 28.19 | 0.659 |
| 50 | QPSK | Low | 1/67 | H | 8.25 | 12.20 | 31.27 | 27.32 | 0.540 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 29.84 | 26.16 | 0.413 |
| | | High | 1/67 | H | 8.97 | 13.05 | 32.12 | 28.04 | 0.637 |
| | 16QAM | Low | 1/67 | H | 8.25 | 12.20 | 30.08 | 26.13 | 0.410 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 28.86 | 25.18 | 0.330 |
| | | High | 1/67 | H | 8.97 | 13.05 | 31.09 | 27.01 | 0.502 |
| 60 | QPSK | Low | 1/81 | H | 8.26 | 12.21 | 30.49 | 26.54 | 0.451 |
| | | Middle | 1/160 | H | 8.62 | 12.30 | 29.59 | 25.91 | 0.390 |
| | | High | 1/81 | H | 8.97 | 13.05 | 32.73 | 28.64 | 0.731 |
| | 16QAM | Low | 1/81 | H | 8.26 | 12.21 | 29.50 | 25.55 | 0.359 |
| | | Middle | 1/160 | H | 8.62 | 12.30 | 28.44 | 24.76 | 0.299 |
| | | High | 1/81 | H | 8.97 | 13.05 | 31.50 | 27.41 | 0.551 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 70 | QPSK | Low | 1/187 | H | 8.27 | 12.21 | 30.50 | 26.56 | 0.453 |
| | | Middle | 1/187 | H | 8.62 | 12.30 | 30.19 | 26.51 | 0.448 |
| | | High | 1/187 | H | 8.96 | 13.05 | 32.21 | 28.12 | 0.649 |
| | 16QAM | Low | 1/187 | H | 8.27 | 12.21 | 29.95 | 26.01 | 0.399 |
| | | Middle | 1/187 | H | 8.62 | 12.30 | 29.77 | 26.09 | 0.406 |
| | | High | 1/187 | H | 8.96 | 13.05 | 31.46 | 27.37 | 0.546 |
| 80 | QPSK | Low | 1/215 | H | 8.28 | 12.22 | 30.42 | 26.48 | 0.445 |
| | | Middle | 1/215 | H | 8.62 | 12.30 | 29.46 | 25.78 | 0.378 |
| | | High | 1/215 | H | 8.95 | 13.05 | 31.75 | 27.65 | 0.582 |
| | 16QAM | Low | 1/215 | H | 8.28 | 12.22 | 29.44 | 25.50 | 0.355 |
| | | Middle | 1/215 | H | 8.62 | 12.30 | 28.49 | 24.81 | 0.303 |
| | | High | 1/215 | H | 8.95 | 13.05 | 31.05 | 26.95 | 0.495 |
| 90 | QPSK | Low | 1/123 | H | 8.29 | 12.23 | 30.43 | 26.49 | 0.446 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 29.78 | 26.10 | 0.407 |
| | | High | 1/243 | H | 8.94 | 13.04 | 31.68 | 27.58 | 0.573 |
| | 16QAM | Low | 1/123 | H | 8.29 | 12.23 | 29.72 | 25.78 | 0.378 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 28.76 | 25.08 | 0.322 |
| | | High | 1/243 | H | 8.94 | 13.04 | 31.09 | 26.99 | 0.500 |
| 100 | QPSK | Low | 1/137 | H | 8.30 | 12.23 | 30.15 | 26.22 | 0.419 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 30.40 | 26.72 | 0.470 |
| | | High | 1/271 | H | 8.93 | 12.64 | 30.77 | 27.06 | 0.508 |
| | 16QAM | Low | 1/137 | H | 8.30 | 12.23 | 28.96 | 25.03 | 0.318 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 29.68 | 26.00 | 0.398 |
| | | High | 1/271 | H | 8.93 | 12.64 | 29.72 | 26.01 | 0.399 |

Test mode: 5G NR n77(IC)(Power Class 2)(SRS1)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.30 | 12.23 | 14.72 | 10.79 | 0.012 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 15.45 | 11.77 | 0.015 |
| | | High | 1/1 | H | 8.93 | 12.64 | 16.16 | 12.45 | 0.018 |

Test mode: 5G NR n77(IC)(Power Class 2)(SRS2)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/137 | H | 8.30 | 12.23 | 12.09 | 8.16 | 0.007 |
| | | Middle | 1/137 | H | 8.62 | 12.30 | 13.22 | 9.54 | 0.009 |
| | | High | 1/137 | H | 8.93 | 12.64 | 14.76 | 11.05 | 0.013 |

Test mode: 5G NR n77(IC)(Power Class 2)(SRS3)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.30 | 12.23 | 16.21 | 12.28 | 0.017 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 19.66 | 15.98 | 0.040 |
| | | High | 1/1 | H | 8.93 | 12.64 | 19.11 | 15.40 | 0.035 |

Test mode: 5G NR n77(Lower)(Power Class 3) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 10 | QPSK | Low | 1/1 | H | 8.21 | 12.18 | 28.60 | 24.63 | 0.290 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 28.78 | 24.85 | 0.305 |
| | | High | 1/12 | H | 8.38 | 12.28 | 29.57 | 25.67 | 0.369 |
| | 16QAM | Low | 1/1 | H | 8.21 | 12.18 | 27.63 | 23.66 | 0.232 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 27.60 | 23.67 | 0.233 |
| | | High | 1/12 | H | 8.38 | 12.28 | 28.42 | 24.52 | 0.283 |
| 15 | QPSK | Low | 1/19 | H | 8.39 | 12.29 | 29.07 | 25.17 | 0.329 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 28.87 | 24.94 | 0.312 |
| | | High | 1/19 | H | 8.38 | 12.28 | 29.33 | 25.42 | 0.348 |
| | 16QAM | Low | 1/19 | H | 8.39 | 12.29 | 27.92 | 24.02 | 0.252 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 27.31 | 23.38 | 0.218 |
| | | High | 1/1 | H | 8.38 | 12.28 | 28.68 | 24.77 | 0.300 |
| 20 | QPSK | Low | 1/1 | H | 8.22 | 12.18 | 27.53 | 23.57 | 0.228 |
| | | Middle | 1/49 | H | 8.30 | 12.23 | 28.65 | 24.72 | 0.296 |
| | | High | 1/49 | H | 8.37 | 12.28 | 29.42 | 25.51 | 0.356 |
| | 16QAM | Low | 1/1 | H | 8.22 | 12.18 | 26.75 | 22.79 | 0.190 |
| | | Middle | 1/49 | H | 8.30 | 12.23 | 27.52 | 23.59 | 0.229 |
| | | High | 1/49 | H | 8.37 | 12.28 | 28.17 | 24.26 | 0.267 |
| 25 | QPSK | Low | 1/63 | H | 8.23 | 12.19 | 27.76 | 23.80 | 0.240 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 28.33 | 24.40 | 0.275 |
| | | High | 1/33 | H | 8.37 | 12.28 | 28.87 | 24.96 | 0.313 |
| | 16QAM | Low | 1/1 | H | 8.23 | 12.19 | 26.88 | 22.92 | 0.196 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 27.44 | 23.51 | 0.224 |
| | | High | 1/33 | H | 8.37 | 12.28 | 27.98 | 24.07 | 0.255 |
| 30 | QPSK | Low | 1/76 | H | 8.23 | 12.19 | 28.31 | 24.35 | 0.272 |
| | | Middle | 1/76 | H | 8.30 | 12.23 | 29.05 | 25.12 | 0.325 |
| | | High | 1/1 | H | 8.36 | 12.27 | 29.90 | 25.99 | 0.397 |
| | 16QAM | Low | 1/76 | H | 8.23 | 12.19 | 27.18 | 23.22 | 0.210 |
| | | Middle | 1/76 | H | 8.30 | 12.23 | 28.11 | 24.18 | 0.262 |
| | | High | 1/1 | H | 8.36 | 12.27 | 28.93 | 25.02 | 0.318 |
| 40 | QPSK | Low | 1/104 | H | 8.24 | 12.20 | 28.05 | 24.09 | 0.256 |
| | | Middle | 1/104 | H | 8.30 | 12.23 | 29.04 | 25.11 | 0.324 |
| | | High | 1/1 | H | 8.35 | 12.27 | 29.08 | 25.17 | 0.329 |
| | 16QAM | Low | 1/104 | H | 8.24 | 12.20 | 27.22 | 23.26 | 0.212 |
| | | Middle | 1/104 | H | 8.30 | 12.23 | 28.07 | 24.14 | 0.259 |
| | | High | 1/53 | H | 8.35 | 12.27 | 27.85 | 23.94 | 0.248 |
| 50 | QPSK | Low | 1/67 | H | 8.25 | 12.20 | 28.58 | 24.63 | 0.290 |
| | | Middle | 1/131 | H | 8.30 | 12.23 | 29.13 | 25.20 | 0.331 |
| | | High | 1/67 | H | 8.35 | 12.26 | 28.78 | 24.86 | 0.306 |
| | 16QAM | Low | 1/67 | H | 8.25 | 12.20 | 27.53 | 23.58 | 0.228 |
| | | Middle | 1/131 | H | 8.30 | 12.23 | 27.94 | 24.01 | 0.252 |
| | | High | 1/67 | H | 8.35 | 12.26 | 27.85 | 23.93 | 0.247 |
| 60 | QPSK | Low | 1/81 | H | 8.26 | 12.21 | 28.26 | 24.31 | 0.270 |
| | | Middle | 1/160 | H | 8.30 | 12.23 | 28.31 | 24.38 | 0.274 |
| | | High | 1/81 | H | 8.34 | 12.25 | 29.29 | 25.37 | 0.344 |
| | 16QAM | Low | 1/81 | H | 8.26 | 12.21 | 27.36 | 23.41 | 0.219 |
| | | Middle | 1/160 | H | 8.30 | 12.23 | 27.38 | 23.45 | 0.221 |
| | | High | 1/81 | H | 8.34 | 12.25 | 28.40 | 24.48 | 0.281 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 70 | QPSK | Low | 1/95 | H | 8.27 | 12.21 | 27.99 | 24.05 | 0.254 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 28.51 | 24.58 | 0.287 |
| | | High | 1/95 | H | 8.33 | 12.25 | 28.92 | 25.00 | 0.316 |
| | 16QAM | Low | 1/95 | H | 8.27 | 12.21 | 26.99 | 23.05 | 0.202 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 26.98 | 23.05 | 0.202 |
| | | High | 1/95 | H | 8.33 | 12.25 | 28.13 | 24.21 | 0.264 |
| 80 | QPSK | Low | 1/109 | H | 8.28 | 12.22 | 28.09 | 24.15 | 0.260 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 27.90 | 23.97 | 0.249 |
| | | High | 1/109 | H | 8.32 | 12.24 | 28.92 | 25.00 | 0.316 |
| | 16QAM | Low | 1/109 | H | 8.28 | 12.22 | 27.03 | 23.09 | 0.204 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 26.65 | 22.72 | 0.187 |
| | | High | 1/109 | H | 8.32 | 12.24 | 27.81 | 23.89 | 0.245 |
| 90 | QPSK | Low | 1/1 | H | 8.29 | 12.23 | 27.79 | 23.85 | 0.243 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 27.95 | 24.02 | 0.252 |
| | | High | 1/123 | H | 8.31 | 12.24 | 27.86 | 23.93 | 0.247 |
| | 16QAM | Low | 1/1 | H | 8.29 | 12.23 | 26.73 | 22.79 | 0.190 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 27.12 | 23.19 | 0.208 |
| | | High | 1/123 | H | 8.31 | 12.24 | 26.76 | 22.83 | 0.192 |
| 100 | QPSK | Low | 1/137 | H | 8.30 | 12.23 | 27.75 | 23.82 | 0.241 |
| | 16QAM | Low | 1/137 | H | 8.30 | 12.23 | 26.91 | 22.98 | 0.199 |

Test mode: 5G NR n77(Lower)(Power Class 3)(SRS1)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Middle | 1/1 | H | 8.30 | 12.23 | 13.20 | 9.27 | 0.008 |

Test mode: 5G NR n77(Lower)(Power Class 3)(SRS2)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 50 | QPSK | Low | 1/1 | H | 8.25 | 12.20 | 15.09 | 11.14 | 0.013 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 14.94 | 11.01 | 0.013 |
| | | High | 1/1 | H | 8.35 | 12.26 | 15.57 | 11.66 | 0.015 |

Test mode: 5G NR n77(Lower)(Power Class 3)(SRS3)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 10 | QPSK | Low | 1/1 | H | 8.21 | 12.18 | 14.29 | 10.33 | 0.011 |
| | | Middle | 1/1 | H | 8.30 | 12.23 | 14.46 | 10.53 | 0.011 |
| | | High | 1/1 | H | 8.38 | 12.28 | 15.52 | 11.61 | 0.015 |

Test mode: 5G NR n77(Upper)(Power Class 3) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 10 | QPSK | Low | 1/1 | H | 8.67 | 12.48 | 29.41 | 25.60 | 0.363 |
| | | Middle | 1/12 | H | 8.91 | 12.62 | 29.29 | 25.58 | 0.361 |
| | | High | 1/12 | H | 9.16 | 12.78 | 29.52 | 25.89 | 0.388 |
| | 16QAM | Low | 1/12 | H | 8.67 | 12.48 | 27.89 | 24.08 | 0.256 |
| | | Middle | 1/12 | H | 8.91 | 12.62 | 28.19 | 24.48 | 0.281 |
| | | High | 1/12 | H | 9.16 | 12.78 | 28.40 | 24.77 | 0.300 |
| 15 | QPSK | Low | 1/19 | H | 8.67 | 12.48 | 28.65 | 24.84 | 0.305 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 29.23 | 25.52 | 0.356 |
| | | High | 1/19 | H | 8.83 | 12.35 | 29.51 | 25.98 | 0.396 |
| | 16QAM | Low | 1/19 | H | 8.67 | 12.48 | 27.80 | 23.99 | 0.251 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 28.44 | 24.73 | 0.297 |
| | | High | 1/19 | H | 8.83 | 12.35 | 28.94 | 25.41 | 0.348 |
| 20 | QPSK | Low | 1/1 | H | 8.68 | 12.49 | 29.00 | 25.19 | 0.330 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 28.57 | 24.86 | 0.306 |
| | | High | 1/1 | H | 9.15 | 12.77 | 29.74 | 26.12 | 0.409 |
| | 16QAM | Low | 1/1 | H | 8.68 | 12.49 | 28.06 | 24.25 | 0.266 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 27.46 | 23.75 | 0.237 |
| | | High | 1/1 | H | 9.15 | 12.77 | 28.35 | 24.73 | 0.297 |
| 25 | QPSK | Low | 1/1 | H | 8.68 | 12.49 | 29.81 | 26.00 | 0.398 |
| | | Middle | 1/63 | H | 8.91 | 12.62 | 29.25 | 25.54 | 0.358 |
| | | High | 1/1 | H | 9.14 | 12.76 | 30.00 | 26.38 | 0.435 |
| | 16QAM | Low | 1/1 | H | 8.68 | 12.49 | 28.95 | 25.14 | 0.327 |
| | | Middle | 1/63 | H | 8.91 | 12.62 | 28.37 | 24.66 | 0.292 |
| | | High | 1/1 | H | 9.14 | 12.76 | 29.32 | 25.70 | 0.372 |
| 30 | QPSK | Low | 1/1 | H | 8.69 | 12.49 | 29.72 | 25.91 | 0.390 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 29.25 | 25.54 | 0.358 |
| | | High | 1/1 | H | 9.14 | 12.75 | 30.12 | 26.50 | 0.447 |
| | 16QAM | Low | 1/1 | H | 8.69 | 12.49 | 28.68 | 24.87 | 0.307 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 28.14 | 24.43 | 0.277 |
| | | High | 1/1 | H | 9.14 | 12.75 | 29.25 | 25.63 | 0.366 |
| 40 | QPSK | Low | 1/104 | H | 8.70 | 12.50 | 28.75 | 24.94 | 0.312 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 28.39 | 24.68 | 0.294 |
| | | High | 1/53 | H | 9.13 | 12.74 | 29.47 | 25.86 | 0.385 |
| | 16QAM | Low | 1/104 | H | 8.70 | 12.50 | 27.49 | 23.68 | 0.233 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 27.36 | 23.65 | 0.232 |
| | | High | 1/53 | H | 9.13 | 12.74 | 28.24 | 24.63 | 0.290 |
| 50 | QPSK | Low | 1/1 | H | 8.71 | 12.51 | 28.31 | 24.51 | 0.282 |
| | | Middle | 1/131 | H | 8.91 | 12.62 | 28.48 | 24.77 | 0.300 |
| | | High | 1/67 | H | 9.12 | 12.72 | 29.39 | 25.78 | 0.378 |
| | 16QAM | Low | 1/1 | H | 8.71 | 12.51 | 27.43 | 23.63 | 0.231 |
| | | Middle | 1/131 | H | 8.91 | 12.62 | 27.44 | 23.73 | 0.236 |
| | | High | 1/67 | H | 9.12 | 12.72 | 28.70 | 25.09 | 0.323 |
| 60 | QPSK | Low | 1/1 | H | 8.71 | 12.52 | 29.07 | 25.27 | 0.337 |
| | | Middle | 1/160 | H | 8.91 | 12.62 | 29.56 | 25.85 | 0.385 |
| | | High | 1/1 | H | 9.11 | 12.76 | 29.19 | 25.54 | 0.358 |
| | 16QAM | Low | 1/1 | H | 8.71 | 12.52 | 28.01 | 24.21 | 0.264 |
| | | Middle | 1/160 | H | 8.91 | 12.62 | 28.69 | 24.98 | 0.315 |
| | | High | 1/1 | H | 9.11 | 12.76 | 28.26 | 24.61 | 0.289 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 70 | QPSK | Low | 1/187 | H | 8.72 | 12.52 | 28.33 | 24.53 | 0.284 |
| | | Middle | 1/187 | H | 8.91 | 12.62 | 28.51 | 24.80 | 0.302 |
| | | High | 1/1 | H | 9.10 | 12.75 | 29.03 | 25.38 | 0.345 |
| | 16QAM | Low | 1/187 | H | 8.72 | 12.52 | 27.55 | 23.75 | 0.237 |
| | | Middle | 1/187 | H | 8.91 | 12.62 | 27.37 | 23.66 | 0.232 |
| | | High | 1/1 | H | 9.10 | 12.75 | 28.11 | 24.46 | 0.279 |
| 80 | QPSK | Low | 1/1 | H | 8.73 | 12.53 | 28.02 | 24.22 | 0.264 |
| | | Middle | 1/215 | H | 8.91 | 12.62 | 28.30 | 24.59 | 0.288 |
| | | High | 1/1 | H | 9.09 | 12.74 | 29.43 | 25.79 | 0.379 |
| | 16QAM | Low | 1/1 | H | 8.73 | 12.53 | 27.08 | 23.28 | 0.213 |
| | | Middle | 1/215 | H | 8.91 | 12.62 | 27.40 | 23.69 | 0.234 |
| | | High | 1/1 | H | 9.09 | 12.74 | 28.37 | 24.73 | 0.297 |
| 90 | QPSK | Low | 1/243 | H | 8.74 | 12.54 | 28.36 | 24.56 | 0.286 |
| | | Middle | 1/243 | H | 8.91 | 12.62 | 28.01 | 24.30 | 0.269 |
| | | High | 1/243 | H | 9.08 | 12.72 | 28.66 | 25.02 | 0.318 |
| | 16QAM | Low | 1/243 | H | 8.74 | 12.54 | 27.17 | 23.37 | 0.217 |
| | | Middle | 1/243 | H | 8.91 | 12.62 | 27.08 | 23.37 | 0.217 |
| | | High | 1/243 | H | 9.08 | 12.72 | 27.47 | 23.83 | 0.242 |
| 100 | QPSK | Low | 1/271 | H | 8.75 | 12.22 | 28.09 | 24.62 | 0.290 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 28.14 | 24.43 | 0.277 |
| | | High | 1/271 | H | 9.07 | 12.71 | 28.16 | 24.52 | 0.283 |
| | 16QAM | Low | 1/271 | H | 8.75 | 12.22 | 26.87 | 23.40 | 0.219 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 27.52 | 23.81 | 0.240 |
| | | High | 1/271 | H | 9.07 | 12.71 | 27.21 | 23.57 | 0.228 |

Test mode: 5G NR n77(Upper)(Power Class 3)(SRS1)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.75 | 12.22 | 13.08 | 9.61 | 0.009 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 14.22 | 10.51 | 0.011 |
| | | High | 1/1 | H | 9.07 | 12.71 | 17.93 | 14.29 | 0.027 |

Test mode: 5G NR n77(Upper)(Power Class 3)(SRS2)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.75 | 12.22 | 13.13 | 9.66 | 0.009 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 14.75 | 11.04 | 0.013 |
| | | High | 1/1 | H | 9.07 | 12.71 | 15.09 | 11.45 | 0.014 |

Test mode: 5G NR n77(Upper)(Power Class 3)(SRS3)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 15 | QPSK | Low | 1/1 | H | 8.67 | 12.48 | 15.83 | 12.02 | 0.016 |
| | | Middle | 1/1 | H | 8.91 | 12.62 | 16.19 | 12.48 | 0.018 |
| | | High | 1/1 | H | 9.15 | 12.78 | 17.11 | 13.48 | 0.022 |

Test mode: 5G NR n77(IC)(Power Class 3) DFT-s-OFDM

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain | C.L | Substitute Level | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------|-------|------------------|-------|-------|
| | | | | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [W] |
| 10 | QPSK | Low | 1/1 | H | 8.21 | 12.18 | 28.60 | 24.63 | 0.290 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.29 | 23.61 | 0.230 |
| | | High | 1/1 | H | 9.01 | 13.07 | 30.71 | 26.65 | 0.462 |
| | 16QAM | Low | 1/1 | H | 8.21 | 12.18 | 27.63 | 23.66 | 0.232 |
| | | Middle | 1/12 | H | 8.62 | 12.30 | 25.94 | 22.26 | 0.168 |
| | | High | 1/1 | H | 9.01 | 13.07 | 29.63 | 25.57 | 0.361 |
| 15 | QPSK | Low | 1/19 | H | 8.22 | 12.18 | 29.14 | 25.17 | 0.329 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 28.29 | 24.61 | 0.289 |
| | | High | 1/19 | H | 9.01 | 13.06 | 29.44 | 25.38 | 0.345 |
| | 16QAM | Low | 1/19 | H | 8.22 | 12.18 | 27.99 | 24.02 | 0.252 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.75 | 23.07 | 0.203 |
| | | High | 1/19 | H | 9.01 | 13.06 | 28.52 | 24.46 | 0.279 |
| 20 | QPSK | Low | 1/1 | H | 8.22 | 12.18 | 27.53 | 23.57 | 0.228 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.65 | 23.97 | 0.249 |
| | | High | 1/49 | H | 9.00 | 13.06 | 30.00 | 25.94 | 0.393 |
| | 16QAM | Low | 1/1 | H | 8.22 | 12.18 | 26.75 | 22.79 | 0.190 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.34 | 22.66 | 0.185 |
| | | High | 1/49 | H | 9.00 | 13.06 | 29.16 | 25.10 | 0.324 |
| 25 | QPSK | Low | 1/63 | H | 8.23 | 12.19 | 27.76 | 23.80 | 0.240 |
| | | Middle | 1/63 | H | 8.62 | 12.30 | 29.63 | 25.95 | 0.394 |
| | | High | 1/1 | H | 9.00 | 13.06 | 30.27 | 26.21 | 0.418 |
| | 16QAM | Low | 1/1 | H | 8.23 | 12.19 | 26.88 | 22.92 | 0.196 |
| | | Middle | 1/63 | H | 8.62 | 12.30 | 28.50 | 24.82 | 0.303 |
| | | High | 1/1 | H | 9.00 | 13.06 | 28.93 | 24.87 | 0.307 |
| 30 | QPSK | Low | 1/76 | H | 8.23 | 12.19 | 28.31 | 24.35 | 0.272 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.67 | 23.99 | 0.251 |
| | | High | 1/76 | H | 8.99 | 13.06 | 30.17 | 26.10 | 0.407 |
| | 16QAM | Low | 1/76 | H | 8.23 | 12.19 | 27.18 | 23.22 | 0.210 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.68 | 23.00 | 0.200 |
| | | High | 1/76 | H | 8.99 | 13.06 | 29.40 | 25.33 | 0.341 |
| 40 | QPSK | Low | 1/104 | H | 8.24 | 12.20 | 28.05 | 24.09 | 0.256 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.46 | 23.78 | 0.239 |
| | | High | 1/53 | H | 8.98 | 13.06 | 29.57 | 25.50 | 0.355 |
| | 16QAM | Low | 1/104 | H | 8.24 | 12.20 | 27.22 | 23.26 | 0.212 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.48 | 22.80 | 0.191 |
| | | High | 1/53 | H | 8.98 | 13.06 | 28.66 | 24.59 | 0.288 |
| 50 | QPSK | Low | 1/67 | H | 8.25 | 12.20 | 28.58 | 24.63 | 0.290 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.86 | 23.18 | 0.208 |
| | | High | 1/131 | H | 8.97 | 13.05 | 29.29 | 25.21 | 0.332 |
| | 16QAM | Low | 1/67 | H | 8.25 | 12.20 | 27.53 | 23.58 | 0.228 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 25.54 | 21.86 | 0.153 |
| | | High | 1/131 | H | 8.97 | 13.05 | 27.97 | 23.89 | 0.245 |
| 60 | QPSK | Low | 1/81 | H | 8.26 | 12.21 | 28.26 | 24.31 | 0.270 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.97 | 23.29 | 0.213 |
| | | High | 1/81 | H | 8.97 | 13.05 | 29.54 | 25.45 | 0.351 |
| | 16QAM | Low | 1/81 | H | 8.26 | 12.21 | 27.36 | 23.41 | 0.219 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 25.56 | 21.88 | 0.154 |
| | | High | 1/81 | H | 8.97 | 13.05 | 28.67 | 24.58 | 0.287 |

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBi] | C.L [dB] | Substitute Level [dBm] | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 70 | QPSK | Low | 1/95 | H | 8.27 | 12.21 | 27.99 | 24.05 | 0.254 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.48 | 23.80 | 0.240 |
| | | High | 1/95 | H | 8.96 | 13.05 | 29.45 | 25.36 | 0.344 |
| | 16QAM | Low | 1/95 | H | 8.27 | 12.21 | 26.99 | 23.05 | 0.202 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.41 | 22.73 | 0.187 |
| | | High | 1/95 | H | 8.96 | 13.05 | 28.88 | 24.79 | 0.301 |
| 80 | QPSK | Low | 1/109 | H | 8.28 | 12.22 | 28.09 | 24.15 | 0.260 |
| | | Middle | 1/215 | H | 8.62 | 12.30 | 26.52 | 22.84 | 0.192 |
| | | High | 1/215 | H | 8.95 | 13.05 | 29.14 | 25.04 | 0.319 |
| | 16QAM | Low | 1/109 | H | 8.28 | 12.22 | 27.03 | 23.09 | 0.204 |
| | | Middle | 1/215 | H | 8.62 | 12.30 | 25.73 | 22.05 | 0.160 |
| | | High | 1/215 | H | 8.95 | 13.05 | 27.89 | 23.79 | 0.239 |
| 90 | QPSK | Low | 1/1 | H | 8.29 | 12.23 | 27.79 | 23.85 | 0.243 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.11 | 23.43 | 0.220 |
| | | High | 1/243 | H | 8.94 | 13.04 | 29.37 | 25.27 | 0.337 |
| | 16QAM | Low | 1/1 | H | 8.29 | 12.23 | 26.73 | 22.79 | 0.190 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.18 | 22.50 | 0.178 |
| | | High | 1/243 | H | 8.94 | 13.04 | 28.39 | 24.29 | 0.269 |
| 100 | QPSK | Low | 1/137 | H | 8.30 | 12.23 | 27.75 | 23.82 | 0.241 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 27.46 | 23.78 | 0.239 |
| | | High | 1/271 | H | 8.93 | 12.64 | 27.80 | 24.09 | 0.256 |
| | 16QAM | Low | 1/137 | H | 8.30 | 12.23 | 26.91 | 22.98 | 0.199 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 26.86 | 23.18 | 0.208 |
| | | High | 1/271 | H | 8.93 | 12.64 | 26.84 | 23.13 | 0.206 |

Test mode: 5G NR n77(IC)(Power Class 3)(SRS1)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBi] | C.L [dB] | Substitute Level [dBm] | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.30 | 12.23 | 11.82 | 7.89 | 0.006 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 15.19 | 11.51 | 0.014 |
| | | High | 1/1 | H | 8.93 | 12.64 | 14.40 | 10.69 | 0.012 |

Test mode: 5G NR n77(IC)(Power Class 3)(SRS2)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBi] | C.L [dB] | Substitute Level [dBm] | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 100 | QPSK | Low | 1/1 | H | 8.30 | 12.23 | 14.05 | 10.12 | 0.010 |
| | | Middle | 1/1 | H | 8.62 | 12.30 | 14.05 | 10.37 | 0.011 |
| | | High | 1/1 | H | 8.93 | 12.64 | 14.41 | 10.70 | 0.012 |

Test mode: 5G NR n77(IC)(Power Class 3)(SRS3)

| Band width [MHz] | Modulation | Channel | RB Size/ Offset | Pol. | Antenna Gain [dBi] | C.L [dB] | Substitute Level [dBm] | EIRP | |
|------------------|------------|---------|-----------------|-------|--------------------|----------|------------------------|-------|-------|
| | | | | [V/H] | | | | [dBm] | [W] |
| 70 | QPSK | Low | 1/95 | H | 8.27 | 12.21 | 14.68 | 10.74 | 0.012 |
| | | Middle | 1/95 | H | 8.62 | 12.30 | 17.17 | 13.49 | 0.022 |
| | | High | 1/95 | H | 8.96 | 13.05 | 14.80 | 10.71 | 0.012 |

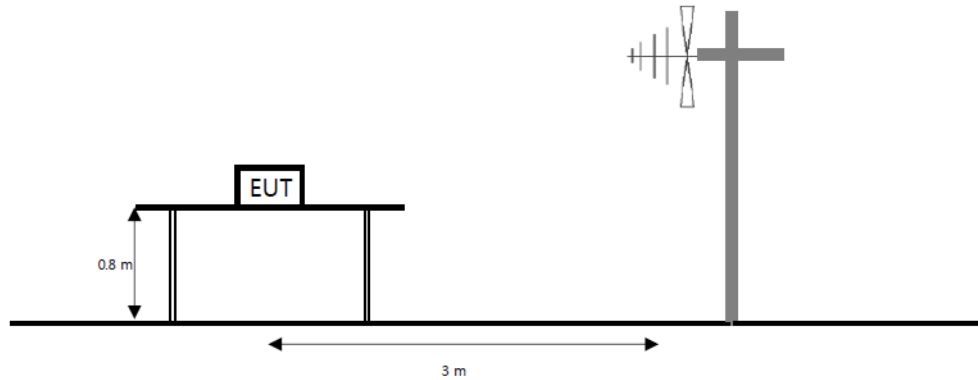
Note.

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

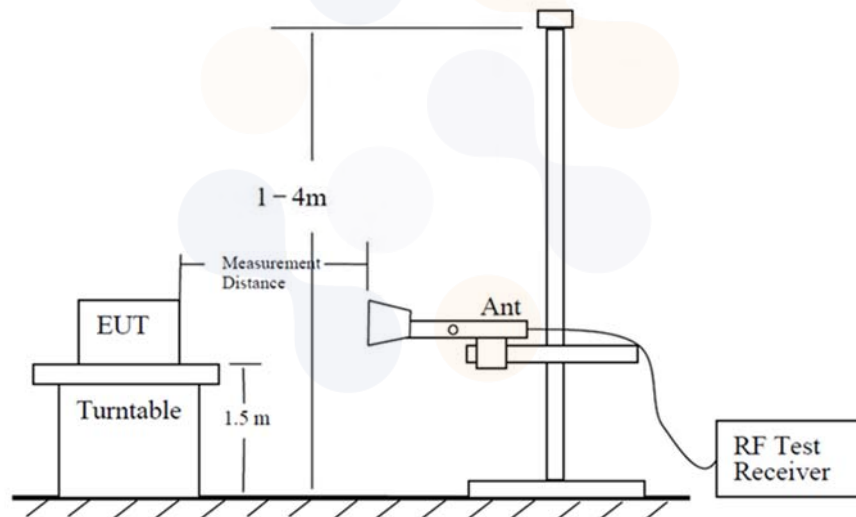
7.8 Radiated Spurious Emissions

Test setup

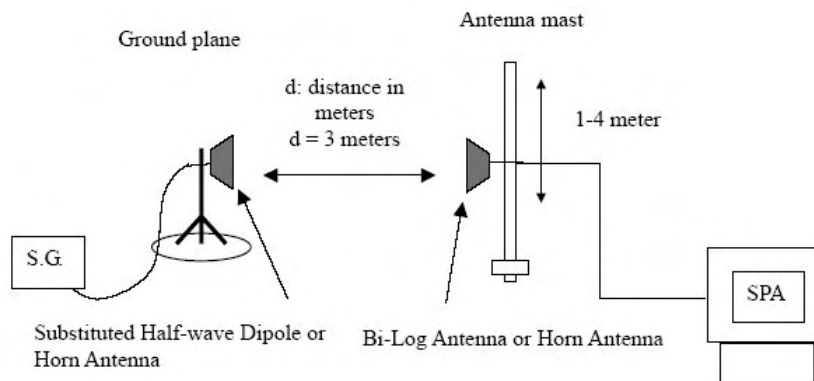
The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz emissions.



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.



Limit

According to §22.917(a), §24.238(a) and RSS-132(5.5), RSS-133(6.5),

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 $43 + 10\log(P_{\text{[Watts]}})$ dB.

According to §27.53(a),

By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz , and not less than $70 + 10 \log (P)$ dB above 2365 MHz .

According to §27.53(g) and RSS-130(4.7),

For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10\log(P_{\text{[Watts]}})$ dB.

According to §27.53(h) and RSS-139(5.6),

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10\log(P_{\text{[Watts]}})$ dB.

According to §27.53(m) and RSS-199(4.5),

The minimum permissible attenuation level of any spurious emission is $55 + 10\log(P_{\text{[Watts]}})$ dB.

According to §27.53(l)(2),



The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

- (4) 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.

According to §27.53(n)(2),

The following emission limits apply to stations transmitting in the 3450-3550 MHz band:

- (4) 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.

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p> | <p>Report No.: KR23-SRF0267-B Page (660) of (696)</p> |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

According to RSS-192(5.6)

Subscriber equipment shall have the TRP or conducted power (per antenna), where applicable, of unwanted emission not exceeding the following:

- a. a limit of -30 dBm/MHz in the frequency range greater than (B+5) MHz from the edge of the frequency band

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 ≥ 3 × RBW.
- 3) Detector = RMS
- 4) Trace mode = Max hold
- 5) Sweep time = Auto couple
- 6) Number of sweep points ≥ 2 × span / 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 raIC 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 raIC 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: 5G NR n5 DFT-s-OFDM

Test mode : 5G NR n5
 Frequency(MHz) : 831.5
 Channel : 166300
 Bandwidth(MHz) : 15
 RB Size/Offset : 1/1

| 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 | 5.75 | 8.70 | -57.95 | -60.90 | -13.00 | 47.90 |
| | 2 472.08 | H | 5.93 | 10.79 | -51.44 | -56.30 | -13.00 | 43.30 |
| | 3 298.37 | V | 7.90 | 11.99 | -50.21 | -54.30 | -13.00 | 41.30 |
| | 4 117.29 | H | 9.29 | 13.40 | -48.49 | -52.60 | -13.00 | 39.60 |

Test mode : 5G NR n5
 Frequency(MHz) : 836.5
 Channel : 167300
 Bandwidth(MHz) : 15
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 658.50 | H | 5.72 | 8.67 | -58.75 | -61.70 | -13.00 | 48.70 |
| | 2 486.44 | H | 5.96 | 10.81 | -53.25 | -58.10 | -13.00 | 45.10 |
| | 3 318.07 | V | 7.94 | 12.01 | -50.73 | -54.80 | -13.00 | 41.80 |
| | 4 147.65 | H | 9.32 | 13.46 | -47.66 | -51.80 | -13.00 | 38.80 |

Test mode : 5G NR n5
 Frequency(MHz) : 841.5
 Channel : 168300
 Bandwidth(MHz) : 15
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 669.98 | H | 5.69 | 8.70 | -57.89 | -60.90 | -13.00 | 47.90 |
| | 2 502.44 | V | 6.01 | 10.87 | -51.74 | -56.60 | -13.00 | 43.60 |
| | 3 335.30 | V | 7.97 | 12.03 | -51.64 | -55.70 | -13.00 | 42.70 |
| | 4 171.03 | H | 9.34 | 13.14 | -49.70 | -53.50 | -13.00 | 40.50 |

Test mode: 5G NR n12 DFT-s-OFDM

Test mode : 5G NR n12
 Frequency(MHz) : 701.5
 Channel : 140300
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/23

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 409.20 | H | 5.56 | 8.04 | -61.32 | -63.80 | -13.00 | 50.80 |
| | 2 113.60 | H | 5.00 | 9.91 | -52.79 | -57.70 | -13.00 | 44.70 |
| | 2 815.60 | V | 6.82 | 11.41 | -53.11 | -57.70 | -13.00 | 44.70 |
| | 3 518.80 | H | 8.33 | 12.25 | -51.18 | -55.10 | -13.00 | 42.10 |

Test mode : 5G NR n12
 Frequency(MHz) : 707.5
 Channel : 141500
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 410.40 | H | 5.57 | 8.04 | -59.43 | -61.90 | -13.00 | 48.90 |
| | 2 114.40 | V | 5.00 | 9.91 | -52.19 | -57.10 | -13.00 | 44.10 |
| | 2 820.80 | V | 6.83 | 11.42 | -52.41 | -57.00 | -13.00 | 44.00 |
| | 3 525.60 | H | 8.35 | 12.26 | -50.89 | -54.80 | -13.00 | 41.80 |

Test mode : 5G NR n12
 Frequency(MHz) : 713.5
 Channel : 142700
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 422.80 | H | 5.66 | 8.07 | -58.09 | -60.50 | -13.00 | 47.50 |
| | 2 134.40 | H | 5.05 | 9.96 | -41.09 | -46.00 | -13.00 | 33.00 |
| | 2 840.80 | V | 6.89 | 11.44 | -51.85 | -56.40 | -13.00 | 43.40 |
| | 3 554.40 | V | 8.40 | 12.91 | -49.29 | -53.80 | -13.00 | 40.80 |

Test mode: 5G NR n25 DFT-s-OFDM

Test mode : 5G NR n25/2
 Frequency(MHz) : 1 860.0
 Channel : 372000
 Bandwidth(MHz) : 20
 RB Size/Offset : 1/53

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 719.25 | V | 8.69 | 12.50 | -48.99 | -52.80 | -13.00 | 39.80 |
| | 5 580.00 | H | 10.62 | 16.22 | -36.70 | -42.30 | -13.00 | 29.30 |
| | 7 445.25 | H | 12.02 | 19.65 | -42.07 | -49.70 | -13.00 | 36.70 |
| | 9 300.75 | H | 13.20 | 22.24 | -39.66 | -48.70 | -13.00 | 35.70 |

Test mode : 5G NR n25/2
 Frequency(MHz) : 1 882.5
 Channel : 376500
 Bandwidth(MHz) : 20
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 749.25 | H | 8.75 | 12.55 | -48.00 | -51.80 | -13.00 | 38.80 |
| | 5 619.00 | H | 10.62 | 16.14 | -42.88 | -48.40 | -13.00 | 35.40 |
| | 7 491.75 | H | 12.09 | 19.72 | -40.97 | -48.60 | -13.00 | 35.60 |
| | 9 367.50 | V | 13.20 | 22.34 | -36.56 | -45.70 | -13.00 | 32.70 |

Test mode : 5G NR n25/2
 Frequency(MHz) : 1 905.0
 Channel : 381000
 Bandwidth(MHz) : 20
 RB Size/Offset : 1/104

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 831.75 | V | 8.90 | 12.60 | -49.70 | -53.40 | -13.00 | 40.40 |
| | 5 740.50 | V | 10.65 | 16.56 | -44.39 | -50.30 | -13.00 | 37.30 |
| | 7 656.75 | H | 12.23 | 20.00 | -41.93 | -49.70 | -13.00 | 36.70 |
| | 9 574.50 | V | 13.19 | 22.53 | -39.06 | -48.40 | -13.00 | 35.40 |

Test mode: 5G NR n30 DFT-s-OFDM

Test mode : 5G NR n30
 Frequency(MHz) : 2 307.5
 Channel : 461500
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 4 610.25 | V | 9.75 | 14.35 | -49.90 | -54.50 | -40.00 | 14.50 |
| | 6 914.25 | H | 11.33 | 18.65 | -46.88 | -54.20 | -40.00 | 14.20 |
| | 9 221.25 | H | 13.20 | 22.15 | -39.25 | -48.20 | -40.00 | 8.20 |
| | 11 526.00 | H | 13.29 | 24.94 | -37.95 | -49.60 | -40.00 | 9.60 |

Test mode : 5G NR n30
 Frequency(MHz) : 2 310.0
 Channel : 641666
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 4 615.50 | H | 9.76 | 14.36 | -49.10 | -53.70 | -40.00 | 13.70 |
| | 6 924.00 | H | 11.34 | 18.66 | -46.08 | -53.40 | -40.00 | 13.40 |
| | 9 231.75 | V | 13.20 | 22.16 | -36.34 | -45.30 | -40.00 | 5.30 |
| | 11 535.75 | V | 13.29 | 24.95 | -37.74 | -49.40 | -40.00 | 9.40 |

Test mode : 5G NR n30
 Frequency(MHz) : 2 312.5
 Channel : 462500
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 4 620.75 | H | 9.77 | 14.36 | -49.51 | -54.10 | -40.00 | 14.10 |
| | 6 934.50 | V | 11.35 | 18.68 | -46.07 | -53.40 | -40.00 | 13.40 |
| | 9 241.50 | V | 13.20 | 22.18 | -36.62 | -45.60 | -40.00 | 5.60 |
| | 11 552.25 | H | 13.28 | 24.98 | -37.40 | -49.10 | -40.00 | 9.10 |

Test mode: 5G NR n41 DFT-s-OFDM

Test mode : 5G NR n41 (PC2)
 Frequency(MHz) : 2 521.02
 Channel : 504204
 Bandwidth(MHz) : 50
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 4 995.00 | V | 10.29 | 15.08 | -43.31 | -48.10 | -25.00 | 23.10 |
| | 7 492.50 | V | 12.09 | 19.72 | -37.17 | -44.80 | -25.00 | 19.80 |
| | 9 990.00 | V | 13.10 | 23.73 | -20.97 | -31.60 | -25.00 | 6.60 |
| | 12 479.25 | H | 13.20 | 27.01 | -31.69 | -45.50 | -25.00 | 20.50 |

Test mode : 5G NR n41 (PC2)
 Frequency(MHz) : 2 592.99
 Channel : 518598
 Bandwidth(MHz) : 80
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 5 139.00 | H | 10.38 | 15.49 | -46.29 | -51.40 | -25.00 | 26.40 |
| | 7 701.00 | H | 12.26 | 19.87 | -41.19 | -48.80 | -25.00 | 23.80 |
| | 10 278.00 | V | 13.16 | 23.86 | -25.90 | -36.60 | -25.00 | 11.60 |
| | 12 840.75 | V | 13.34 | 27.17 | -31.17 | -45.00 | -25.00 | 20.00 |

Test mode : 5G NR n41 (PC2)
 Frequency(MHz) : 2 664.99
 Channel : 532998
 Bandwidth(MHz) : 50
 RB Size/Offset : 1/131

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 5 376.00 | H | 10.53 | 16.03 | -44.40 | -49.90 | -25.00 | 24.90 |
| | 8 067.75 | H | 12.57 | 20.15 | -41.32 | -48.90 | -25.00 | 23.90 |
| | 10 752.75 | V | 13.20 | 24.36 | -20.34 | -31.50 | -25.00 | 6.50 |
| | 13 447.50 | H | 14.03 | 27.77 | -31.56 | -45.30 | -25.00 | 20.30 |

Test mode : 5G NR n41 (PC2 - IC)
 Frequency(MHz) : 2 540.01
 Channel : 508002
 Bandwidth(MHz) : 80
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 5 002.50 | H | 10.30 | 14.88 | -44.82 | -49.40 | -25.00 | 24.40 |
| | 7 500.00 | V | 12.10 | 19.44 | -41.56 | -48.90 | -25.00 | 23.90 |
| | 10 005.75 | V | 13.10 | 23.22 | -21.38 | -31.50 | -25.00 | 6.50 |
| | 12 499.50 | V | 13.20 | 27.02 | -30.28 | -44.10 | -25.00 | 19.10 |



Test mode: 5G NR n66 DFT-s-OFDM

Test mode : 5G NR n66
 Frequency(MHz) : 1 725.0
 Channel : 345000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/80

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 450.00 | V | 8.20 | 12.17 | -52.73 | -56.70 | -13.00 | 43.70 |
| | 5 175.00 | H | 10.41 | 15.55 | -40.56 | -45.70 | -13.00 | 32.70 |
| | 6 989.25 | V | 11.39 | 18.76 | -44.23 | -51.60 | -13.00 | 38.60 |
| | 8 623.50 | V | 13.05 | 21.02 | -43.93 | -51.90 | -13.00 | 38.90 |

Test mode : 5G NR n66
 Frequency(MHz) : 1 745.0
 Channel : 349000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/80

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 489.00 | H | 8.28 | 12.22 | -53.36 | -57.30 | -13.00 | 44.30 |
| | 5 235.00 | H | 10.44 | 15.38 | -35.06 | -40.00 | -13.00 | 27.00 |
| | 6 979.50 | V | 11.38 | 18.74 | -45.54 | -52.90 | -13.00 | 39.90 |
| | 8 727.75 | H | 13.09 | 20.99 | -43.50 | -51.40 | -13.00 | 38.40 |

Test mode : 5G NR n66
 Frequency(MHz) : 1 765.0
 Channel : 353000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 501.75 | H | 8.30 | 12.23 | -51.97 | -55.90 | -13.00 | 42.90 |
| | 5 252.25 | H | 10.45 | 15.40 | -37.85 | -42.80 | -13.00 | 29.80 |
| | 7 001.25 | V | 11.40 | 18.52 | -45.88 | -53.00 | -13.00 | 40.00 |
| | 8 751.00 | V | 13.10 | 21.04 | -43.46 | -51.40 | -13.00 | 38.40 |

Test mode: 5G NR n71 DFT-s-OFDM

Test mode : 5G NR n71
 Frequency(MHz) : 665.5
 Channel : 133100
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 326.99 | H | 4.99 | 7.82 | -50.67 | -53.50 | -13.00 | 40.50 |
| | 1 988.36 | H | 4.73 | 9.60 | -52.33 | -57.20 | -13.00 | 44.20 |
| | 2 651.37 | V | 6.39 | 11.21 | -50.78 | -55.60 | -13.00 | 42.60 |
| | 3 316.02 | V | 7.93 | 12.01 | -50.72 | -54.80 | -13.00 | 41.80 |

Test mode : 5G NR n71
 Frequency(MHz) : 680.5
 Channel : 136100
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 356.94 | H | 5.20 | 7.88 | -52.62 | -55.30 | -13.00 | 42.30 |
| | 2 038.00 | V | 4.80 | 9.73 | -51.97 | -56.90 | -13.00 | 43.90 |
| | 2 719.06 | V | 6.57 | 11.30 | -51.67 | -56.40 | -13.00 | 43.40 |
| | 3 394.79 | V | 8.09 | 12.11 | -50.58 | -54.60 | -13.00 | 41.60 |

Test mode : 5G NR n71
 Frequency(MHz) : 695.5
 Channel : 139100
 Bandwidth(MHz) : 5
 RB Size/Offset : 1/13

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 391.41 | H | 5.44 | 7.97 | -56.07 | -58.60 | -13.00 | 45.60 |
| | 2 085.59 | H | 4.92 | 9.84 | -52.48 | -57.40 | -13.00 | 44.40 |
| | 2 782.66 | H | 6.73 | 11.37 | -52.36 | -57.00 | -13.00 | 44.00 |
| | 3 478.08 | H | 8.26 | 12.20 | -51.66 | -55.60 | -13.00 | 42.60 |

Test mode: 5G NR n77(Lower)(PC2) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC2)
Frequency(MHz) : 3 457.5
Channel : 630500
Bandwidth(MHz) : 15
RB Size/Offset : 1/19

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 914.80 | H | 11.33 | 18.65 | -35.38 | -42.70 | -13.00 | 29.70 |
| | 10 373.50 | H | 13.17 | 23.76 | -31.81 | -42.40 | -13.00 | 29.40 |
| | 13 830.80 | V | 14.30 | 28.69 | -27.51 | -41.90 | -13.00 | 28.90 |
| | 17 286.00 | H | 13.76 | 31.49 | -29.07 | -46.80 | -13.00 | 33.80 |

Test mode : 5G NR n77(Lower)(PC2)
Frequency(MHz) : 3 500.01
Channel : 633334
Bandwidth(MHz) : 15
RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 986.90 | V | 11.39 | 18.76 | -34.23 | -41.60 | -13.00 | 28.60 |
| | 10 479.20 | H | 13.20 | 24.24 | -31.36 | -42.40 | -13.00 | 29.40 |
| | 13 970.10 | V | 14.38 | 29.13 | -29.55 | -44.30 | -13.00 | 31.30 |
| | 17 461.70 | H | 14.04 | 33.08 | -24.16 | -43.20 | -13.00 | 30.20 |

Test mode : 5G NR n77(Lower)(PC2)
Frequency(MHz) : 3 542.49
Channel : 636166
Bandwidth(MHz) : 15
RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 072.30 | V | 11.50 | 18.63 | -29.47 | -36.60 | -13.00 | 23.60 |
| | 10 606.60 | V | 13.20 | 24.17 | -30.33 | -41.30 | -13.00 | 28.30 |
| | 14 140.90 | V | 14.32 | 29.01 | -26.61 | -41.30 | -13.00 | 28.30 |
| | 17 678.00 | V | 14.10 | 31.91 | -25.39 | -43.20 | -13.00 | 30.20 |

Test mode: 5G NR n77(Lower)(PC2)(SRS1) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC2)(SRS1)
 Frequency(MHz) : 3 470.01
 Channel : 631334
 Bandwidth(MHz) : 40
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 898.70 | V | 11.32 | 18.38 | -44.34 | -51.40 | -13.00 | 38.40 |
| | 10 350.40 | V | 13.17 | 23.73 | -36.34 | -46.90 | -13.00 | 33.90 |
| | 13 799.30 | V | 14.28 | 29.18 | -29.80 | -44.70 | -13.00 | 31.70 |
| | 17 250.30 | V | 13.70 | 32.72 | -29.88 | -48.90 | -13.00 | 35.90 |

Test mode : 5G NR n77(Lower)(PC2)(SRS1)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 40
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 961.00 | H | 11.37 | 18.72 | -43.35 | -50.70 | -13.00 | 37.70 |
| | 10 438.60 | V | 13.19 | 24.20 | -35.89 | -46.90 | -13.00 | 33.90 |
| | 13 920.40 | V | 14.35 | 29.02 | -30.43 | -45.10 | -13.00 | 32.10 |
| | 17 400.80 | H | 13.94 | 35.22 | -24.32 | -45.60 | -13.00 | 32.60 |

Test mode : 5G NR n77(Lower)(PC2)(SRS1)
 Frequency(MHz) : 3 529.98
 Channel : 635332
 Bandwidth(MHz) : 40
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 021.20 | V | 11.43 | 18.55 | -42.58 | -49.70 | -13.00 | 36.70 |
| | 10 530.30 | H | 13.20 | 24.26 | -34.74 | -45.80 | -13.00 | 32.80 |
| | 14 040.10 | V | 14.38 | 29.67 | -29.71 | -45.00 | -13.00 | 32.00 |
| | 17 549.20 | H | 14.10 | 33.70 | -26.50 | -46.10 | -13.00 | 33.10 |

Test mode: 5G NR n77(Lower)(PC2)(SRS2) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC2)(SRS2)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/137

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 997.40 | H | 11.40 | 18.77 | -41.93 | -49.30 | -13.00 | 36.30 |
| | 10 500.90 | H | 13.20 | 24.24 | -34.96 | -46.00 | -13.00 | 33.00 |
| | 14 000.90 | V | 14.40 | 29.62 | -31.68 | -46.90 | -13.00 | 33.90 |
| | 17 499.50 | H | 14.10 | 31.74 | -33.06 | -50.70 | -13.00 | 37.70 |



Test mode: 5G NR n77(Lower)(PC2)(SRS3) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC2)(SRS3)
 Frequency(MHz) : 3 490.02
 Channel : 632668
 Bandwidth(MHz) : 80
 RB Size/Offset : 1/109

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 979.90 | H | 11.38 | 18.75 | -41.23 | -48.60 | -13.00 | 35.60 |
| | 10 468.70 | H | 13.19 | 24.23 | -34.96 | -46.00 | -13.00 | 33.00 |
| | 13 958.90 | H | 14.38 | 29.10 | -29.78 | -44.50 | -13.00 | 31.50 |
| | 17 451.20 | H | 14.02 | 33.45 | -27.47 | -46.90 | -13.00 | 33.90 |

Test mode : 5G NR n77(Lower)(PC2)(SRS3)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 80
 RB Size/Offset : 1/109

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 000.90 | V | 11.40 | 18.52 | -43.08 | -50.20 | -13.00 | 37.20 |
| | 10 501.60 | V | 13.20 | 24.24 | -37.06 | -48.10 | -13.00 | 35.10 |
| | 13 999.50 | H | 14.40 | 29.20 | -32.80 | -47.60 | -13.00 | 34.60 |
| | 17 499.50 | H | 14.10 | 31.74 | -30.96 | -48.60 | -13.00 | 35.60 |

Test mode : 5G NR n77(Lower)(PC2)(SRS3)
 Frequency(MHz) : 3 510.00
 Channel : 634000
 Bandwidth(MHz) : 80
 RB Size/Offset : 1/109

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 019.10 | H | 11.43 | 18.55 | -43.08 | -50.20 | -13.00 | 37.20 |
| | 10 531.00 | H | 13.20 | 24.26 | -35.74 | -46.80 | -13.00 | 33.80 |
| | 14 040.80 | V | 14.38 | 29.67 | -31.71 | -47.00 | -13.00 | 34.00 |
| | 17 550.60 | V | 14.10 | 33.65 | -28.75 | -48.30 | -13.00 | 35.30 |

Test mode: 5G NR n77(Upper)(PC2) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC2)
 Frequency(MHz) : 3 707.52
 Channel : 647168
 Bandwidth(MHz) : 15
 RB Size/Offset : 1/19

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 414.60 | V | 11.98 | 19.61 | -35.27 | -42.90 | -13.00 | 29.90 |
| | 11 123.20 | V | 13.22 | 24.73 | -31.39 | -42.90 | -13.00 | 29.90 |
| | 14 830.40 | H | 14.03 | 30.34 | -23.29 | -39.60 | -13.00 | 26.60 |

Test mode : 5G NR n77(Upper)(PC2)
 Frequency(MHz) : 3 840.00
 Channel : 656000
 Bandwidth(MHz) : 15
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 663.80 | H | 12.23 | 20.01 | -37.92 | -45.70 | -13.00 | 32.70 |
| | 11 499.80 | H | 13.30 | 25.31 | -28.29 | -40.30 | -13.00 | 27.30 |
| | 15 328.10 | H | 14.20 | 31.71 | -23.79 | -41.30 | -13.00 | 28.30 |

Test mode : 5G NR n77(Upper)(PC2)
 Frequency(MHz) : 3 972.48
 Channel : 664832
 Bandwidth(MHz) : 15
 RB Size/Offset : 1/19

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 945.20 | H | 12.46 | 20.14 | -32.22 | -39.90 | -13.00 | 26.90 |
| | 11 919.10 | H | 13.13 | 25.94 | -30.49 | -43.30 | -13.00 | 30.30 |
| | 15 887.40 | V | 13.76 | 33.44 | -23.82 | -43.50 | -13.00 | 30.50 |

Test mode: 5G NR n77(Upper)(PC2)(SRS1) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC2)(SRS1)
Frequency(MHz) : 3 750.00
Channel : 650000
Bandwidth(MHz) : 100
RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 400.60 | V | 11.96 | 19.59 | -42.57 | -50.20 | -13.00 | 37.20 |
| | 11 101.50 | V | 13.22 | 24.70 | -33.82 | -45.30 | -13.00 | 32.30 |
| | 14 796.80 | V | 14.04 | 30.89 | -28.75 | -45.60 | -13.00 | 32.60 |
| | 18 500.50 | H | 11.30 | 31.82 | -27.98 | -48.50 | -13.00 | 35.50 |

Test mode : 5G NR n77(Upper)(PC2)(SRS1)
Frequency(MHz) : 3 840.00
Channel : 656000
Bandwidth(MHz) : 100
RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 578.40 | V | 12.16 | 19.56 | -43.90 | -51.30 | -13.00 | 38.30 |
| | 11 369.60 | V | 13.27 | 24.97 | -34.40 | -46.10 | -13.00 | 33.10 |
| | 15 160.80 | V | 14.10 | 31.80 | -28.80 | -46.50 | -13.00 | 33.50 |
| | 18 952.60 | V | 11.40 | 32.18 | -28.12 | -48.90 | -13.00 | 35.90 |

Test mode : 5G NR n77(Upper)(PC2)(SRS1)
Frequency(MHz) : 3 930.00
Channel : 662000
Bandwidth(MHz) : 100
RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 759.00 | H | 12.31 | 19.93 | -42.68 | -50.30 | -13.00 | 37.30 |
| | 11 638.40 | V | 13.24 | 25.62 | -33.42 | -45.80 | -13.00 | 32.80 |
| | 15 520.60 | H | 14.27 | 32.24 | -27.33 | -45.30 | -13.00 | 32.30 |
| | 19 398.10 | V | 11.50 | 32.23 | -26.97 | -47.70 | -13.00 | 34.70 |

Test mode: 5G NR n77(Upper)(PC2)(SRS2) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC2)(SRS2)
 Frequency(MHz) : 3 745.02
 Channel : 649668
 Bandwidth(MHz) : 90
 RB Size/Offset 1/243

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 579.80 | H | 12.16 | 19.56 | -41.80 | -49.20 | -13.00 | 36.20 |
| | 11 370.30 | H | 13.27 | 24.97 | -34.10 | -45.80 | -13.00 | 32.80 |
| | 15 160.80 | V | 14.10 | 31.80 | -29.80 | -47.50 | -13.00 | 34.50 |
| | 18 947.10 | V | 11.40 | 32.18 | -28.32 | -49.10 | -13.00 | 36.10 |

Test mode : 5G NR n77(Upper)(PC2)(SRS2)
 Frequency(MHz) : 3 840.00
 Channel : 656000
 Bandwidth(MHz) : 90
 RB Size/Offset 1/243

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 769.50 | V | 12.32 | 19.94 | -41.98 | -49.60 | -13.00 | 36.60 |
| | 11 654.50 | V | 13.24 | 25.64 | -34.00 | -46.40 | -13.00 | 33.40 |
| | 15 540.90 | V | 14.24 | 32.26 | -28.48 | -46.50 | -13.00 | 33.50 |
| | 19 425.60 | V | 11.50 | 32.48 | -27.02 | -48.00 | -13.00 | 35.00 |

Test mode : 5G NR n77(Upper)(PC2)(SRS2)
 Frequency(MHz) : 3 934.98
 Channel : 662332
 Bandwidth(MHz) : 90
 RB Size/Offset 1/243

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 959.90 | H | 12.47 | 20.16 | -41.21 | -48.90 | -13.00 | 35.90 |
| | 11 940.10 | V | 13.12 | 25.97 | -34.55 | -47.40 | -13.00 | 34.40 |
| | 15 921.00 | H | 13.71 | 32.34 | -28.37 | -47.00 | -13.00 | 34.00 |
| | 19 900.80 | V | 11.30 | 32.92 | -24.58 | -46.20 | -13.00 | 33.20 |

Test mode: 5G NR n77(Upper)(PC2)(SRS3) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC2)(SRS3)
 Frequency(MHz) : 3 750.00
 Channel : 650000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 398.50 | V | 11.96 | 19.45 | -40.51 | -48.00 | -13.00 | 35.00 |
| | 11 102.20 | H | 13.22 | 24.70 | -33.72 | -45.20 | -13.00 | 32.20 |
| | 14 802.40 | H | 14.04 | 30.26 | -28.58 | -44.80 | -13.00 | 31.80 |
| | 18 502.70 | H | 11.30 | 31.82 | -28.98 | -49.50 | -13.00 | 36.50 |

Test mode : 5G NR n77(Upper)(PC2)(SRS3)
 Frequency(MHz) : 3 840.00
 Channel : 656000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 582.60 | V | 12.17 | 19.56 | -42.91 | -50.30 | -13.00 | 37.30 |
| | 11 368.20 | H | 13.27 | 24.97 | -33.90 | -45.60 | -13.00 | 32.60 |
| | 15 160.80 | V | 14.10 | 31.80 | -29.30 | -47.00 | -13.00 | 34.00 |
| | 18 950.40 | V | 11.40 | 32.18 | -28.72 | -49.50 | -13.00 | 36.50 |

Test mode : 5G NR n77(Upper)(PC2)(SRS3)
 Frequency(MHz) : 3 930.00
 Channel : 662000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 760.40 | H | 12.31 | 19.93 | -41.88 | -49.50 | -13.00 | 36.50 |
| | 11 640.50 | V | 13.24 | 25.62 | -34.42 | -46.80 | -13.00 | 33.80 |
| | 15 521.30 | V | 14.27 | 32.24 | -28.13 | -46.10 | -13.00 | 33.10 |
| | 19 404.70 | V | 11.50 | 32.23 | -27.47 | -48.20 | -13.00 | 35.20 |

Test mode: 5G NR n77(IC)(PC2) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC2)
 Frequency(MHz) : 3 465.00
 Channel : 631000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/76

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 956.10 | V | 11.36 | 18.71 | -36.45 | -43.80 | -30.00 | 13.80 |
| | 10 440.70 | V | 13.19 | 24.20 | -31.49 | -42.50 | -30.00 | 12.50 |
| | 13 919.70 | V | 14.35 | 29.01 | -27.24 | -41.90 | -30.00 | 11.90 |
| | 17 400.80 | V | 13.94 | 35.22 | -21.82 | -43.10 | -30.00 | 13.10 |

Test mode : 5G NR n77(IC)(PC2)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 322.84 | V | 11.85 | 19.33 | -28.92 | -36.40 | -30.00 | 6.40 |
| | 10 980.25 | H | 13.20 | 24.87 | -35.23 | -46.90 | -30.00 | 16.90 |
| | 14 637.67 | V | 14.07 | 30.68 | -28.59 | -45.20 | -30.00 | 15.20 |

Test mode : 5G NR n77(IC)(PC2)
 Frequency(MHz) : 3 885.00
 Channel : 659000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 742.90 | V | 12.29 | 19.92 | -34.37 | -42.00 | -30.00 | 12.00 |
| | 11 608.30 | V | 13.26 | 25.58 | -30.98 | -43.30 | -30.00 | 13.30 |
| | 15 480.00 | V | 14.29 | 31.69 | -26.10 | -43.50 | -30.00 | 13.50 |

Test mode: 5G NR n77(IC)(PC2)(SRS1) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC2)(SRS1)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 900.10 | H | 11.32 | 18.63 | -42.49 | -49.80 | -30.00 | 19.80 |
| | 10 350.40 | V | 13.17 | 23.73 | -36.54 | -47.10 | -30.00 | 17.10 |
| | 13 800.00 | V | 14.28 | 29.18 | -31.20 | -46.10 | -30.00 | 16.10 |
| | 17 248.90 | H | 13.70 | 32.77 | -28.43 | -47.50 | -30.00 | 17.50 |

Test mode : 5G NR n77(IC)(PC2)(SRS1)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 250.80 | V | 11.75 | 18.88 | -42.57 | -49.70 | -30.00 | 19.70 |
| | 10 876.10 | H | 13.20 | 24.69 | -34.01 | -45.50 | -30.00 | 15.50 |
| | 14 500.70 | H | 14.10 | 29.71 | -29.79 | -45.40 | -30.00 | 15.40 |
| | 18 126.50 | H | 11.30 | 31.25 | -28.45 | -48.40 | -30.00 | 18.40 |

Test mode : 5G NR n77(IC)(PC2)(SRS1)
 Frequency(MHz) : 3 849.99
 Channel : 656666
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 600.10 | H | 12.18 | 19.94 | -44.24 | -52.00 | -30.00 | 22.00 |
| | 11 400.40 | H | 13.28 | 25.13 | -33.95 | -45.80 | -30.00 | 15.80 |
| | 15 201.40 | H | 14.12 | 31.60 | -28.02 | -45.50 | -30.00 | 15.50 |
| | 18 999.90 | V | 11.40 | 32.42 | -27.48 | -48.50 | -30.00 | 18.50 |

Test mode: 5G NR n77(IC)(PC2)(SRS2) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC2)(SRS2)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/137

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 996.70 | V | 11.40 | 18.77 | -41.13 | -48.50 | -30.00 | 18.50 |
| | 10 499.50 | H | 13.20 | 24.26 | -37.54 | -48.60 | -30.00 | 18.60 |
| | 14 004.40 | V | 14.40 | 29.63 | -30.57 | -45.80 | -30.00 | 15.80 |
| | 17 499.50 | H | 14.10 | 31.74 | -31.56 | -49.20 | -30.00 | 19.20 |

Test mode : 5G NR n77(IC)(PC2)(SRS2)
 Frequency(MHz) : 3 675
 Channel : 645000
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/137

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 350.20 | H | 11.89 | 19.37 | -45.32 | -52.80 | -30.00 | 22.80 |
| | 11 025.20 | H | 13.21 | 24.47 | -32.44 | -43.70 | -30.00 | 13.70 |
| | 14 703.00 | H | 14.06 | 30.77 | -29.79 | -46.50 | -30.00 | 16.50 |
| | 18 374.00 | H | 11.30 | 31.50 | -28.20 | -48.40 | -30.00 | 18.40 |

Test mode : 5G NR n77(IC)(PC2)(SRS2)
 Frequency(MHz) : 3 849.99
 Channel : 656666
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/137

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 699.50 | V | 12.26 | 20.04 | -43.12 | -50.90 | -30.00 | 20.90 |
| | 11 550.20 | V | 13.28 | 24.98 | -34.40 | -46.10 | -30.00 | 16.10 |
| | 15 400.20 | H | 14.24 | 31.45 | -30.99 | -48.20 | -30.00 | 18.20 |
| | 19 250.70 | H | 11.50 | 32.44 | -28.86 | -49.80 | -30.00 | 19.80 |

Test mode: 5G NR n77(IC)(PC2)(SRS3) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC2)(SRS3)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 901.50 | H | 11.32 | 18.63 | -43.89 | -51.20 | -30.00 | 21.20 |
| | 10 353.90 | V | 13.17 | 23.74 | -35.63 | -46.20 | -30.00 | 16.20 |
| | 13 802.10 | V | 14.28 | 28.64 | -28.94 | -43.30 | -30.00 | 13.30 |
| | 17 250.30 | H | 13.70 | 32.72 | -28.78 | -47.80 | -30.00 | 17.80 |

Test mode : 5G NR n77(IC)(PC2)(SRS3)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 248.70 | H | 11.75 | 18.87 | -41.38 | -48.50 | -30.00 | 18.50 |
| | 10 876.80 | H | 13.20 | 24.70 | -33.10 | -44.60 | -30.00 | 14.60 |
| | 14 500.70 | H | 14.10 | 29.71 | -30.19 | -45.80 | -30.00 | 15.80 |
| | 18 124.30 | V | 11.30 | 31.25 | -28.75 | -48.70 | -30.00 | 18.70 |

Test mode : 5G NR n77(IC)(PC2)(SRS3)
 Frequency(MHz) : 3 849.99
 Channel : 656666
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 600.80 | V | 12.18 | 19.94 | -42.74 | -50.50 | -30.00 | 20.50 |
| | 11 399.70 | V | 13.28 | 25.01 | -34.77 | -46.50 | -30.00 | 16.50 |
| | 15 200.70 | H | 14.12 | 31.60 | -28.02 | -45.50 | -30.00 | 15.50 |
| | 19 002.10 | V | 11.40 | 32.42 | -28.18 | -49.20 | -30.00 | 19.20 |

Test mode: 5G NR n77(Lower)(PC3) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC3)
 Frequency(MHz) : 3 465.00
 Channel : 631000
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/76

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 961.00 | V | 11.37 | 18.72 | -39.15 | -46.50 | -13.00 | 33.50 |
| | 10 440.70 | H | 13.19 | 24.20 | -32.39 | -43.40 | -13.00 | 30.40 |
| | 13 920.40 | V | 14.35 | 29.02 | -28.53 | -43.20 | -13.00 | 30.20 |
| | 17 399.40 | H | 13.94 | 31.33 | -26.21 | -43.60 | -13.00 | 30.60 |

Test mode : 5G NR n77(Lower)(PC3)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/76

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 002.30 | H | 11.40 | 18.52 | -39.58 | -46.70 | -13.00 | 33.70 |
| | 10 500.90 | H | 13.20 | 24.24 | -30.26 | -41.30 | -13.00 | 28.30 |
| | 14 000.20 | V | 14.40 | 29.62 | -27.48 | -42.70 | -13.00 | 29.70 |
| | 17 499.50 | H | 14.10 | 31.74 | -26.66 | -44.30 | -13.00 | 31.30 |

Test mode : 5G NR n77(Lower)(PC3)
 Frequency(MHz) : 3 534.99
 Channel : 635666
 Bandwidth(MHz) : 30
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 040.10 | V | 11.46 | 18.58 | -39.28 | -46.40 | -13.00 | 33.40 |
| | 10 560.40 | V | 13.20 | 24.28 | -32.42 | -43.50 | -13.00 | 30.50 |
| | 14 080.70 | V | 14.35 | 29.72 | -25.73 | -41.10 | -13.00 | 28.10 |
| | 17 601.00 | H | 14.10 | 34.58 | -23.62 | -44.10 | -13.00 | 31.10 |

Test mode: 5G NR n77(Lower)(PC3)(SRS1) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC3)(SRS1)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 902.20 | H | 11.32 | 18.63 | -42.89 | -50.20 | -13.00 | 37.20 |
| | 10 349.00 | V | 13.17 | 23.73 | -36.24 | -46.80 | -13.00 | 33.80 |
| | 13 797.20 | H | 14.28 | 29.17 | -30.11 | -45.00 | -13.00 | 32.00 |
| | 17 251.00 | V | 13.70 | 32.69 | -28.11 | -47.10 | -13.00 | 34.10 |



Test mode: 5G NR n77(Lower)(PC3)(SRS2) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC3)(SRS2)
 Frequency(MHz) : 3 475.02
 Channel : 631668
 Bandwidth(MHz) : 50
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 899.40 | H | 11.32 | 18.39 | -43.23 | -50.30 | -13.00 | 37.30 |
| | 10 351.80 | H | 13.17 | 23.73 | -35.04 | -45.60 | -13.00 | 32.60 |
| | 13 798.60 | H | 14.28 | 29.17 | -29.41 | -44.30 | -13.00 | 31.30 |
| | 17 253.10 | H | 13.70 | 32.62 | -28.48 | -47.40 | -13.00 | 34.40 |

Test mode : 5G NR n77(Lower)(PC3)(SRS2)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 50
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 949.80 | V | 11.36 | 18.70 | -42.86 | -50.20 | -13.00 | 37.20 |
| | 10 423.90 | V | 13.18 | 24.18 | -34.90 | -45.90 | -13.00 | 32.90 |
| | 13 898.70 | V | 14.34 | 28.80 | -30.54 | -45.00 | -13.00 | 32.00 |
| | 17 374.20 | H | 13.90 | 32.21 | -30.09 | -48.40 | -13.00 | 35.40 |

Test mode : 5G NR n77(Lower)(PC3)(SRS2)
 Frequency(MHz) : 3 525.00
 Channel : 635000
 Bandwidth(MHz) : 50
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 000.90 | V | 11.40 | 18.52 | -42.98 | -50.10 | -13.00 | 37.10 |
| | 10 500.20 | H | 13.20 | 24.24 | -35.26 | -46.30 | -13.00 | 33.30 |
| | 13 998.10 | H | 14.40 | 29.19 | -29.91 | -44.70 | -13.00 | 31.70 |
| | 17 500.20 | V | 14.10 | 35.43 | -27.77 | -49.10 | -13.00 | 36.10 |

Test mode: 5G NR n77(Lower)(PC3)(SRS3) DFT-s-OFDM

Test mode : 5G NR n77(Lower)(PC3)(SRS3)
 Frequency(MHz) : 3 455.01
 Channel : 630334
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 900.80 | H | 11.32 | 18.63 | -43.89 | -51.20 | -13.00 | 38.20 |
| | 10 349.00 | V | 13.17 | 23.73 | -35.94 | -46.50 | -13.00 | 33.50 |
| | 13 797.90 | H | 14.28 | 29.17 | -28.41 | -43.30 | -13.00 | 30.30 |
| | 17 253.80 | V | 13.71 | 32.60 | -28.71 | -47.60 | -13.00 | 34.60 |

Test mode : 5G NR n77(Lower)(PC3)(SRS3)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 991.10 | V | 11.39 | 18.76 | -42.03 | -49.40 | -13.00 | 36.40 |
| | 10 486.90 | H | 13.20 | 24.24 | -35.16 | -46.20 | -13.00 | 33.20 |
| | 13 979.90 | V | 14.39 | 29.15 | -31.54 | -46.30 | -13.00 | 33.30 |
| | 17 475.00 | V | 14.06 | 32.61 | -29.25 | -47.80 | -13.00 | 34.80 |

Test mode : 5G NR n77(Lower)(PC3)(SRS3)
 Frequency(MHz) : 3 544.98
 Channel : 636332
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 082.80 | H | 11.52 | 18.65 | -44.17 | -51.30 | -13.00 | 38.30 |
| | 10 619.20 | H | 13.20 | 24.19 | -35.51 | -46.50 | -13.00 | 33.50 |
| | 14 161.20 | V | 14.30 | 29.07 | -31.23 | -46.00 | -13.00 | 33.00 |
| | 17 699.70 | H | 14.10 | 31.16 | -31.14 | -48.20 | -13.00 | 35.20 |

Test mode: 5G NR n77(Upper)(PC3) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC3)
 Frequency(MHz) : 3 715.02
 Channel : 647668
 Bandwidth(MHz) : 30
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 402.70 | V | 11.96 | 19.59 | -34.07 | -41.70 | -13.00 | 28.70 |
| | 11 099.40 | H | 13.22 | 24.60 | -31.12 | -42.50 | -13.00 | 29.50 |
| | 14 801.70 | V | 14.04 | 30.26 | -25.98 | -42.20 | -13.00 | 29.20 |

Test mode : 5G NR n77(Upper)(PC3)
 Frequency(MHz) : 3 840.00
 Channel : 656000
 Bandwidth(MHz) : 30
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 652.60 | H | 12.22 | 19.99 | -37.23 | -45.00 | -13.00 | 32.00 |
| | 11 476.70 | H | 13.30 | 25.27 | -29.13 | -41.10 | -13.00 | 28.10 |
| | 15 300.80 | V | 14.18 | 31.67 | -26.71 | -44.20 | -13.00 | 31.20 |

Test mode : 5G NR n77(Upper)(PC3)
 Frequency(MHz) : 3 964.98
 Channel : 664332
 Bandwidth(MHz) : 30
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 899.70 | V | 12.42 | 20.07 | -37.95 | -45.60 | -13.00 | 32.60 |
| | 11 851.20 | V | 13.16 | 25.56 | -29.90 | -42.30 | -13.00 | 29.30 |
| | 15 800.60 | V | 13.88 | 33.36 | -24.02 | -43.50 | -13.00 | 30.50 |

Test mode: 5G NR n77(Upper)(PC3)(SRS1) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC3)(SRS1)
 Frequency(MHz) : 3 750.00
 Channel : 650000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 403.40 | H | 11.96 | 19.59 | -41.77 | -49.40 | -13.00 | 36.40 |
| | 11 098.00 | V | 13.22 | 24.60 | -32.92 | -44.30 | -13.00 | 31.30 |
| | 14 796.80 | H | 14.04 | 30.89 | -29.25 | -46.10 | -13.00 | 33.10 |
| | 18 495.00 | H | 11.30 | 31.82 | -28.18 | -48.70 | -13.00 | 35.70 |

Test mode : 5G NR n77(Upper)(PC3)(SRS1)
 Frequency(MHz) : 3 840.00
 Channel : 656000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 579.80 | H | 12.16 | 19.56 | -43.50 | -50.90 | -13.00 | 37.90 |
| | 11 372.40 | H | 13.27 | 24.98 | -33.39 | -45.10 | -13.00 | 32.10 |
| | 15 160.10 | H | 14.10 | 31.80 | -28.60 | -46.30 | -13.00 | 33.30 |
| | 18 948.20 | V | 11.50 | 32.18 | -27.12 | -47.80 | -13.00 | 34.80 |

Test mode : 5G NR n77(Upper)(PC3)(SRS1)
 Frequency(MHz) : 3 930.00
 Channel : 662000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 759.70 | H | 12.31 | 19.93 | -41.98 | -49.60 | -13.00 | 36.60 |
| | 11 639.80 | H | 13.24 | 25.62 | -34.02 | -46.40 | -13.00 | 33.40 |
| | 15 520.60 | H | 14.27 | 32.24 | -28.53 | -46.50 | -13.00 | 33.50 |
| | 19 397.00 | V | 11.50 | 32.23 | -26.57 | -47.30 | -13.00 | 34.30 |

Test mode: 5G NR n77(Upper)(PC3)(SRS2) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC3)(SRS2)
Frequency(MHz) : 3 750.00
Channel : 650000
Bandwidth(MHz) : 100
RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 403.40 | V | 11.96 | 19.59 | -41.77 | -49.40 | -13.00 | 36.40 |
| | 11 100.80 | H | 13.22 | 24.70 | -32.72 | -44.20 | -13.00 | 31.20 |
| | 14 798.90 | H | 14.04 | 30.90 | -27.94 | -44.80 | -13.00 | 31.80 |
| | 18 503.80 | V | 11.30 | 31.82 | -27.78 | -48.30 | -13.00 | 35.30 |

Test mode : 5G NR n77(Upper)(PC3)(SRS2)
Frequency(MHz) : 3 840.00
Channel : 656000
Bandwidth(MHz) : 100
RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 580.50 | H | 12.16 | 19.56 | -43.10 | -50.50 | -13.00 | 37.50 |
| | 11 371.00 | H | 13.27 | 24.97 | -32.50 | -44.20 | -13.00 | 31.20 |
| | 15 162.90 | V | 14.10 | 31.80 | -28.40 | -46.10 | -13.00 | 33.10 |
| | 18 948.20 | V | 11.40 | 32.18 | -27.02 | -47.80 | -13.00 | 34.80 |

Test mode : 5G NR n77(Upper)(PC3)(SRS2)
Frequency(MHz) : 3 930.00
Channel : 662000
Bandwidth(MHz) : 100
RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 763.90 | V | 12.31 | 19.94 | -41.47 | -49.10 | -13.00 | 36.10 |
| | 11 639.80 | V | 13.24 | 25.62 | -33.42 | -45.80 | -13.00 | 32.80 |
| | 15 519.20 | H | 14.27 | 32.23 | -30.74 | -48.70 | -13.00 | 35.70 |
| | 19 397.00 | V | 11.50 | 32.23 | -26.57 | -47.30 | -13.00 | 34.30 |

Test mode: 5G NR n77(Upper)(PC3)(SRS3) DFT-s-OFDM

Test mode : 5G NR n77(Upper)(PC3)(SRS3)
 Frequency(MHz) : 3 707.52
 Channel : 647168
 Bandwidth(MHz) : 15
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 401.30 | H | 11.96 | 19.59 | -41.97 | -49.60 | -13.00 | 36.60 |
| | 11 103.60 | V | 13.22 | 24.70 | -31.92 | -43.40 | -13.00 | 30.40 |
| | 14 800.30 | V | 14.04 | 30.25 | -30.29 | -46.50 | -13.00 | 33.50 |
| | 18 499.40 | V | 11.30 | 31.82 | -28.18 | -48.70 | -13.00 | 35.70 |

Test mode : 5G NR n77(Upper)(PC3)(SRS3)
 Frequency(MHz) : 3 840.00
 Channel : 656000
 Bandwidth(MHz) : 15
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 668.00 | V | 12.23 | 20.01 | -43.02 | -50.80 | -13.00 | 37.80 |
| | 11 498.40 | H | 13.30 | 25.31 | -31.89 | -43.90 | -13.00 | 30.90 |
| | 15 330.90 | H | 14.20 | 31.71 | -29.69 | -47.20 | -13.00 | 34.20 |
| | 19 162.70 | V | 11.50 | 32.34 | -27.66 | -48.50 | -13.00 | 35.50 |

Test mode : 5G NR n77(Upper)(PC3)(SRS3)
 Frequency(MHz) : 3 972.48
 Channel : 664832
 Bandwidth(MHz) : 15
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 929.80 | V | 12.44 | 20.12 | -40.32 | -48.00 | -13.00 | 35.00 |
| | 11 895.30 | H | 13.14 | 25.64 | -33.90 | -46.40 | -13.00 | 33.40 |
| | 15 859.40 | H | 13.80 | 33.42 | -27.38 | -47.00 | -13.00 | 34.00 |
| | 19 827.10 | V | 11.40 | 33.13 | -25.87 | -47.60 | -13.00 | 34.60 |

Test mode: 5G NR n77(IC)(PC3) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC3)
 Frequency(MHz) : 3 455.01
 Channel : 630334
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 900.10 | V | 11.32 | 18.63 | -41.49 | -48.80 | -30.00 | 18.80 |
| | 10 350.40 | H | 13.17 | 23.73 | -32.14 | -42.70 | -30.00 | 12.70 |
| | 13 801.40 | H | 14.28 | 28.64 | -26.34 | -40.70 | -30.00 | 10.70 |
| | 17 250.30 | V | 13.70 | 32.72 | -24.08 | -43.10 | -30.00 | 13.10 |

Test mode : 5G NR n77(IC)(PC3)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 341.80 | V | 11.88 | 19.36 | -34.62 | -42.10 | -30.00 | 12.10 |
| | 11 011.20 | H | 13.20 | 24.45 | -29.55 | -40.80 | -30.00 | 10.80 |
| | 14 679.90 | V | 14.06 | 30.73 | -26.13 | -42.80 | -30.00 | 12.80 |

Test mode : 5G NR n77(IC)(PC3)
 Frequency(MHz) : 3 894.99
 Channel : 659666
 Bandwidth(MHz) : 10
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 780.70 | H | 12.32 | 19.96 | -38.66 | -46.30 | -30.00 | 16.30 |
| | 11 669.20 | H | 13.23 | 25.66 | -30.07 | -42.50 | -30.00 | 12.50 |
| | 15 559.80 | H | 14.22 | 32.28 | -25.94 | -44.00 | -30.00 | 14.00 |

Test mode: 5G NR n77(IC)(PC3)(SRS1) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC3)(SRS1)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 899.40 | H | 11.32 | 18.39 | -43.03 | -50.10 | -30.00 | 20.10 |
| | 10 350.40 | V | 13.17 | 23.73 | -36.94 | -47.50 | -30.00 | 17.50 |
| | 13 800.00 | H | 14.28 | 29.18 | -30.60 | -45.50 | -30.00 | 15.50 |
| | 17 246.80 | H | 13.69 | 32.84 | -28.65 | -47.80 | -30.00 | 17.80 |

Test mode : 5G NR n77(IC)(PC3)(SRS1)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 248.70 | V | 11.75 | 18.87 | -41.58 | -48.70 | -30.00 | 18.70 |
| | 10 875.40 | V | 13.20 | 24.69 | -35.51 | -47.00 | -30.00 | 17.00 |
| | 14 500.00 | V | 14.10 | 30.16 | -29.84 | -45.90 | -30.00 | 15.90 |
| | 18 125.40 | V | 11.30 | 31.25 | -28.05 | -48.00 | -30.00 | 18.00 |

Test mode : 5G NR n77(IC)(PC3)(SRS1)
 Frequency(MHz) : 3 849.99
 Channel : 656666
 Bandwidth(MHz) : 100
 RB Size/Offset 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 599.40 | H | 12.18 | 19.59 | -42.59 | -50.00 | -30.00 | 20.00 |
| | 11 399.70 | V | 13.28 | 25.01 | -34.07 | -45.80 | -30.00 | 15.80 |
| | 15 199.30 | H | 14.12 | 31.82 | -29.10 | -46.80 | -30.00 | 16.80 |
| | 18 998.80 | V | 11.40 | 32.42 | -27.88 | -48.90 | -30.00 | 18.90 |

Test mode: 5G NR n77(IC)(PC3)(SRS2) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC3)(SRS2)
 Frequency(MHz) : 3 500.01
 Channel : 633334
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 900.10 | V | 11.32 | 18.63 | -43.19 | -50.50 | -30.00 | 20.50 |
| | 10 350.40 | H | 13.17 | 23.73 | -37.44 | -48.00 | -30.00 | 18.00 |
| | 13 803.50 | V | 14.28 | 28.65 | -29.83 | -44.20 | -30.00 | 14.20 |
| | 17 250.30 | V | 13.70 | 32.72 | -28.08 | -47.10 | -30.00 | 17.10 |

Test mode : 5G NR n77(IC)(PC3)(SRS2)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 248.70 | H | 11.75 | 18.87 | -42.68 | -49.80 | -30.00 | 19.80 |
| | 10 874.70 | H | 13.20 | 24.69 | -32.81 | -44.30 | -30.00 | 14.30 |
| | 14 501.40 | H | 14.10 | 29.71 | -29.99 | -45.60 | -30.00 | 15.60 |
| | 18 124.30 | V | 11.30 | 31.25 | -28.65 | -48.60 | -30.00 | 18.60 |

Test mode : 5G NR n77(IC)(PC3)(SRS2)
 Frequency(MHz) : 3 849.99
 Channel : 656666
 Bandwidth(MHz) : 100
 RB Size/Offset : 1/1

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 603.60 | H | 12.18 | 19.94 | -42.04 | -49.80 | -30.00 | 19.80 |
| | 11 399.70 | H | 13.28 | 25.01 | -33.37 | -45.10 | -30.00 | 15.10 |
| | 15 200.70 | H | 14.12 | 31.60 | -29.02 | -46.50 | -30.00 | 16.50 |
| | 18 999.90 | H | 11.50 | 32.42 | -29.38 | -50.30 | -30.00 | 20.30 |

Test mode: 5G NR n77(IC)(PC3)(SRS3) DFT-s-OFDM

Test mode : 5G NR n77(IC)(PC3)(SRS3)
 Frequency(MHz) : 3 485.01
 Channel : 632334
 Bandwidth(MHz) : 70
 RB Size/Offset : 1/95

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 6 970.80 | V | 11.38 | 18.73 | -40.95 | -48.30 | -30.00 | 18.30 |
| | 10 455.40 | V | 13.19 | 24.21 | -35.58 | -46.60 | -30.00 | 16.60 |
| | 13 940.00 | V | 14.36 | 29.06 | -31.00 | -45.70 | -30.00 | 15.70 |
| | 17 426.00 | H | 13.98 | 34.33 | -27.25 | -47.60 | -30.00 | 17.60 |

Test mode : 5G NR n77(IC)(PC3)(SRS3)
 Frequency(MHz) : 3 675.00
 Channel : 645000
 Bandwidth(MHz) : 70
 RB Size/Offset : 1/95

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 349.50 | V | 11.89 | 19.37 | -40.72 | -48.20 | -30.00 | 18.20 |
| | 11 025.90 | H | 13.21 | 24.48 | -34.43 | -45.70 | -30.00 | 15.70 |
| | 14 700.20 | H | 14.06 | 30.77 | -29.89 | -46.60 | -30.00 | 16.60 |
| | 18 375.10 | V | 11.30 | 31.50 | -28.80 | -49.00 | -30.00 | 19.00 |

Test mode : 5G NR n77(IC)(PC3)(SRS3)
 Frequency(MHz) : 3 864.99
 Channel : 657666
 Bandwidth(MHz) : 70
 RB Size/Offset : 1/95

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 732.40 | V | 12.29 | 19.90 | -40.89 | -48.50 | -30.00 | 18.50 |
| | 11 595.00 | H | 13.26 | 25.04 | -33.62 | -45.40 | -30.00 | 15.40 |
| | 15 459.70 | V | 14.28 | 31.63 | -29.25 | -46.60 | -30.00 | 16.60 |
| | 19 322.20 | V | 11.50 | 32.59 | -26.61 | -47.70 | -30.00 | 17.70 |

Note.

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

Test mode: EN-DC (Worst case) DFT-s-OFDM

Test mode : 13A-n2A
 Frequency(MHz) : 1 882.5
 Channel : 376500
 Bandwidth(MHz) : 10 (LTE), 20 (NR)
 RB Size/Offset : 1/0 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 746.25 | H | 8.74 | 12.54 | -46.40 | -50.20 | -13.00 | 37.20 |
| | 5 619.00 | V | 10.62 | 16.14 | -45.68 | -51.20 | -13.00 | 38.20 |
| | 7 491.75 | H | 12.09 | 19.72 | -41.37 | -49.00 | -13.00 | 36.00 |
| | 9 362.25 | V | 13.20 | 22.33 | -38.67 | -47.80 | -13.00 | 34.80 |

Test mode : 66A-n5A
 Frequency(MHz) : 841.5
 Channel : 168300
 Bandwidth(MHz) : 20 (LTE), 15 (NR)
 RB Size/Offset : 1/99 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 668.40 | H | 5.69 | 8.70 | -57.09 | -60.10 | -13.00 | 47.10 |
| | 2 502.00 | V | 6.01 | 10.87 | -51.74 | -56.60 | -13.00 | 43.60 |
| | 3 335.60 | V | 7.97 | 12.03 | -51.34 | -55.40 | -13.00 | 42.40 |
| | 4 171.60 | H | 9.34 | 13.14 | -49.10 | -52.90 | -13.00 | 39.90 |

Test mode : 66A-n12A
 Frequency(MHz) : 713.5
 Channel : 142700
 Bandwidth(MHz) : 20 (LTE), 5 (NR)
 RB Size/Offset : 1/99 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 422.40 | H | 5.66 | 8.07 | -59.59 | -62.00 | -13.00 | 49.00 |
| | 2 131.60 | V | 5.04 | 9.95 | -52.89 | -57.80 | -13.00 | 44.80 |
| | 2 846.40 | H | 6.90 | 11.45 | -48.05 | -52.60 | -13.00 | 39.60 |
| | 3 554.80 | H | 8.40 | 12.91 | -52.39 | -56.90 | -13.00 | 43.90 |

Test mode : 12A-n25A
Frequency(MHz) : 1 882.5
Channel : 376500
Bandwidth(MHz) : 1.4 (LTE), 20 (NR)
RB Size/Offset : 1/5 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 741.75 | V | 8.74 | 12.54 | -48.10 | -51.90 | -13.00 | 38.90 |
| | 5 618.25 | V | 10.62 | 16.14 | -46.78 | -52.30 | -13.00 | 39.30 |
| | 7 490.25 | V | 12.09 | 19.72 | -42.97 | -50.60 | -13.00 | 37.60 |
| | 9 360.75 | H | 13.20 | 22.33 | -38.97 | -48.10 | -13.00 | 35.10 |

Test mode : 66A-n30A
Frequency(MHz) : 2 307.5
Channel : 461500
Bandwidth(MHz) : 20 (LTE), 5 (NR)
RB Size/Offset : 1/99 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 557.25 | H | 8.40 | 12.93 | -46.77 | -51.30 | -40.00 | 11.30 |
| | 4 607.25 | H | 9.75 | 14.34 | -51.71 | -56.30 | -40.00 | 16.30 |
| | 6 919.50 | H | 11.34 | 18.66 | -45.28 | -52.60 | -40.00 | 12.60 |
| | 9 224.25 | H | 13.20 | 22.15 | -42.35 | -51.30 | -40.00 | 11.30 |
| | 11 526.75 | H | 13.29 | 24.94 | -37.65 | -49.30 | -40.00 | 9.30 |

Test mode : 66A-n41A
Frequency(MHz) : 2 540.01
Channel : 508002
Bandwidth(MHz) : 20 (LTE), 80 (NR)
RB Size/Offset : 1/99 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 557.25 | H | 8.40 | 12.93 | -45.27 | -49.80 | -25.00 | 24.80 |
| | 4 992.00 | V | 10.29 | 15.07 | -50.02 | -54.80 | -25.00 | 29.80 |
| | 7 488.00 | V | 12.08 | 19.71 | -46.17 | -53.80 | -25.00 | 28.80 |
| | 9 984.00 | V | 13.10 | 23.73 | -41.77 | -52.40 | -25.00 | 27.40 |
| | 12 479.25 | V | 13.20 | 27.01 | -38.29 | -52.10 | -25.00 | 27.10 |

Test mode : 13A-n66A
 Frequency(MHz) : 1 765.0
 Channel : 353000
 Bandwidth(MHz) : 10 (LTE), 30 (NR)
 RB Size/Offset : 1/0 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 3 501.75 | V | 8.30 | 12.23 | -53.67 | -57.60 | -13.00 | 44.60 |
| | 5 250.00 | V | 10.45 | 15.40 | -50.45 | -55.40 | -13.00 | 42.40 |
| | 7 000.50 | H | 11.40 | 18.52 | -44.98 | -52.10 | -13.00 | 39.10 |
| | 8 751.00 | H | 13.10 | 21.04 | -44.06 | -52.00 | -13.00 | 39.00 |

Test mode : 66A-n71A
 Frequency(MHz) : 665.5
 Channel : 133100
 Bandwidth(MHz) : 20 (LTE), 5 (NR)
 RB Size/Offset : 1/99 (LTE), 1/1 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 1 327.20 | H | 4.99 | 7.82 | -55.27 | -58.10 | -13.00 | 45.10 |
| | 1 989.20 | H | 4.73 | 9.60 | -52.23 | -57.10 | -13.00 | 44.10 |
| | 2 652.00 | H | 6.40 | 11.21 | -52.19 | -57.00 | -13.00 | 44.00 |
| | 3 315.20 | V | 7.93 | 12.01 | -53.02 | -57.10 | -13.00 | 44.10 |

Test mode : 66A-n77/78A
 Frequency(MHz) : 3 972.48
 Channel : 664832
 Bandwidth(MHz) : 20 (LTE), 15 (NR)
 RB Size/Offset : 1/99 (LTE), 1/19 (NR)

| Mode | Frequency | Pol. | Antenna Gain | Cable loss | Substitute Level | Level | Limit | Margin |
|------|-----------|-------|--------------|------------|------------------|--------|--------|--------|
| | [MHz] | [V/H] | [dBi] | [dB] | [dBm] | [dBm] | [dBm] | [dB] |
| QPSK | 7 943.80 | H | 12.46 | 20.14 | -40.82 | -48.50 | -13.00 | 35.50 |
| | 11 915.60 | V | 13.13 | 25.94 | -30.79 | -43.60 | -13.00 | 30.60 |
| | 15 890.90 | H | 13.75 | 33.45 | -25.90 | -45.60 | -13.00 | 32.60 |
| | 19 863.89 | H | 11.40 | 33.02 | -29.48 | -51.10 | -13.00 | 38.10 |

8. Measurement equipment

| Equipment Name | Manufacturer | Model No. | Serial No. | Next Cal. Date |
|-------------------------------------|-----------------------------|-------------------------------------|---------------------|----------------|
| Spectrum Analyzer | R&S | FSV40-N | 101462 | 24.10.12* |
| Spectrum Analyzer | R&S | FSVA40 | 101574 | 24.03.28 |
| Spectrum Analyzer | AGILENT | N9040B | US55230151 | 24.07.03 |
| Vector Signal Generator | R&S | SMBV100A | 257566 | 24.07.04 |
| Signal Generator | R&S | SMB100A | 176206 | 24.01.19 |
| Divider | Marki Microwave, Inc. | PD-0040 | D0002 | 24.07.04 |
| Wideband Radio Communication Tester | R&S | CMW500 | 141780 | 24.01.19 |
| Wideband Radio Communication Tester | R&S | CMW500 | 132120 | 24.04.25 |
| Temp & Humid Chamber | ESPEC CORP. | SH-642 | 93016978 | 24.01.19 |
| High Pass Filter | Wainwright Instruments GmbH | WHKX10-900-1000-15000-40SS | 11 | 24.07.04 |
| High Pass Filter | Wainwright Instruments GmbH | WHKX12-2805-3000-18000-40SS | 32 | 24.07.04 |
| High Pass Filter | Wainwright Instruments GmbH | WHNX10-4050-4500-26500-40CC | SN3 | 24.10.16* |
| High Pass Filter | QOTANA TECHNOLOGIES | DBHF0508004000A | 20070100016 | 24.07.04 |
| Band Reject Filter | Wainwright Instruments GmbH | WRCTG12+16-2290-2300-2400-2410-75SS | SN1 | 24.10.12* |
| Bilog Antenna | Teseq GmbH | CBL 6112D | 62027 | 24.11.17** |
| Bilog Antenna | ETS.LINDGREN | '3143B | 228420 | 25.07.20 |
| Horn Antenna | ETS-LINDGREN | 3117 | 251528 | 24.02.02 |
| Horn Antenna | ETS.LINDGREN | 3117 | 227509 | 24.07.12 |
| Horn Antenna | ETS-Lindgren | 3116 | 00086635 | 24.03.20 |
| Horn Antenna | ETS-LINDGREN | 3116C | 251516 | 24.02.02 |
| Amplifier | SONOMA INSTRUMENT | 310N | 421822 | 24.10.12* |
| Amplifier | C&K Technologies, Inc. | BZR-00504000-551028-252525 | 27736 | 24.07.04 |
| Amplifier | C&K Technologies, Inc. | BZRT-00504000-481055-382525 | 26299-27735 | 24.07.04 |
| Antenna Mast | innco systems GmbH | MA4640-XP-ET | N/A | - |
| Controller | innco systems GmbH | CO3000 | 1175/4585031 9/P | - |

*This equipment was calibrated during the test period, and was used after calibration.

**This equipment was calibrated during the test period, and was used before calibration.

End of test report