RF TEST REPORT

Product Name: Quantum Connectivity Gateway

Model Name: QCG

FCC ID: 2BNDS-QCG

Issued For : Steelwrist AB

Titangatan 9, 17592 Rosersberg, Sweden

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

Report Number:	LGT24L181RF07
Sample Received Date:	Dec. 25, 2024
Date of Test:	Dec. 25, 2024 ~ Mar. 08, 2025
Date of Issue:	Mar. 31, 2025

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TEST REPORT CERTIFICATION

Applicant: Steelwrist AB

Address: Titangatan 9, 17592 Rosersberg, Sweden

Manufacturer: Steelwrist AB

Address: Titangatan 9, 17592 Rosersberg, Sweden

Product Name: Quantum Connectivity Gateway

Trademark: Steelwrist

Model Name: QCG

Sample Status: Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 22H and 24E, 27 KDB 971168 D01 v03r01, ANSI C63.26(2015)	PASS

Prepared by:

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Zane Shan
Engineer

Approved by:

Vita Li
Technical Director

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Revision History

Rev.	Issue Date	Contents
00	Mar. 31, 2025	Initial Issue

1. TEST FACTORY & MEASUREMENT UNCERTAINTY

1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate:	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 9K-30MHz	±2.84dB
4	All emissions, radiated 30M-1GHz	±4.39dB
5	All emissions, radiated 1G-6GHz	±5.10dB
6	All emissions, radiated>6G	±5.48dB
7	Conducted Emission (9KHz-150KHz)	±2.79dB
8	Conducted Emission (150KHz-30MHz)	±2.80dB

Note: The measurement uncertainty is not included in the test result.

2. GENERAL INFORMATION

2.1 TECHNICAL SPECIFICATIONS AND REGULATIONS

2.1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Name:	Quantum Connectivity Gateway
Trademark:	Steelwrist
Model Name:	QCG
Series Model:	N/A
Model Difference:	N/A
Frequency Bands:	Cat-M: Band 2/4/12
SIM Card:	Only one SIM card is supported.
Antenna Type:	LPWA Antenna
Antenna gain:	Band 2: 4.4dBi, Band 4: 4.4dBi, Band 12: 2.6dBi
Rating:	Input: DC 12~24V
Extreme Vol. Limits:	12V to 24V (Nominal 12-24V)
Extreme Temp. Tolerance:	-40℃ to +70℃
Hardware Version:	09
Software Version:	N/A

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

2.1.2 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Product Specification Subjective To This Standard	
Tx Frequency	Band 2:1850~1910MHz Band 4:1710~1755MHz Band 12: 699-716MHz
Rx Frequency	Band 2: 1930-1990MHz Band 4: 2110-2155MHz Band 12: 729-746MHz
Bandwidth	Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz Band 12: 1.4MHz / 3MHz / 5MHz / 10MHz
Type of Modulation	QPSK/16QAM

2.1.3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 v03r01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power. Radiated measurements are performed by rotating the EUT in three different orthogonal test planes tofind the maximum emission.

Remark:

1. The mark ‘v’means that this configuration is chosen for testing
2. The mark ‘-’means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated.

ITEMS	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
E.R.P.& E.I.R.P.	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v			v	v	v	v	v	v	v	v
Peak&Avera Ratio	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
26dB&99% Bandwidth	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v			v	v			v	v	v	v
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v		v	v	v	v
	4	v	v	v	v	v	v	v	v	v		v	v	v	v
	12	v	v	v	v			v	v	v		v	v	v	v
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v			v	v			v	v	v	v
Frequency Stability	2						v	v	v			v		v	
	4						v	v	v			v		v	
	12				v			v	v			v		v	
Radiated Spurious Emission	2						v	v		v			v	v	v
	4						v	v		v			v	v	v
	12				v			v		v			v	v	v

2.1.4 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for filing to comply with the 47 CFR Part 2, 22H, 24(E), 27.

2.1.5 SPECIAL ACCESSORIES

The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

2.1.6 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.1.7 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

2.1.8 CONFIGURATION OF EUT SYSTEM

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

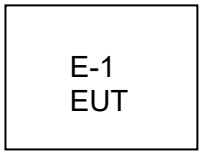


Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	Length	Note
N/A				N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

(2) "YES" is means "with core"; "NO" is means "without core".

2.1.9MEASUREMENT INSTRUMENTS

The radiated emission testing was performed according to the procedures of ANSI C63.26 2015 and FCC CFR 47 rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057.

Radiated Test equipment					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date**	**Cal. Until**
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
Active loop Antenna	ETS	6502	00049544	2023.10.13	2025.10.12
Spectrum Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Bilog Antenna(30M-1G)	SCHWARZBECK	VULB 9168	2705	2022.12.12	2025.12.11
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211060273	2022.06.08	2025.06.07
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2024.03.09	2025.03.08
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2024.03.09	2025.03.08
Pre-amplifier(18-40G)	com-mw	LNPA_18-40-01	18050003	2024.03.09	2025.03.08
Wireless Communications Test Set	R&S	CMW 500	137737	2024.03.09	2025.03.08
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Testing Software	EMC-I_V1.4.0.3_SKET				

RF Conducted Test equipment					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date**	**Cal. Until**
Signal Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Signal Analyzer	Keysight	N9020A	MY50530994	2024.03.09	2025.03.08
RF Automatic Test system	MW	MW100-RFCB	MW220322LG-033	2024.03.09	2025.03.08
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2024.03.09	2025.03.08
Attenuator	eastsheep	90db	N.A	2024.03.09	2025.03.08
Antenna Tower	SAEMC	BK-4AT-BS-D	SK2021093008	N.A	N.A
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Digital multimeter	MASTECH	MS8261	MBGBC83053	2024.03.09	2025.03.08
Testing Software	MTS8310_V2.0.0.0_MW				

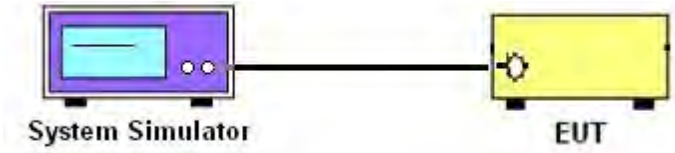
3. CONDUCTED OUTPUT POWER

3.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

3.1.1 MEASUREMENT METHOD

A system simulator was used to establish communication with the eut. Its parameters were set to force the eut transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.
Configuration follows KDB 971168 D01 v03r01.

3.1.2 TEST SETUP



3.1.3 TEST PROCEDURES

1. The transmitter output port was connected to system simulator.

2. Set EUT at maximum power through the system simulator.

3. Select lowest/middle/highest channels for each band and different modulation.

4. Measure and record the power level from the system simulator.

3.1.4 TEST RESULTS

Note: Test chart See Appendix II

4. RADIATED POWER AND EFFECTIVE ISOTROPIC RADIATED POWER

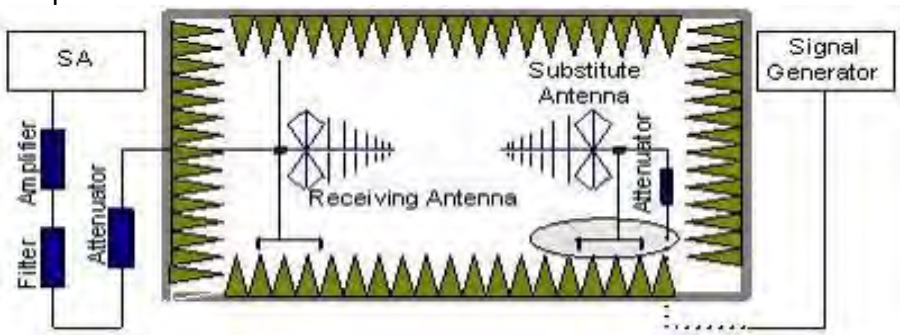
4.1 DESCRIPTION OF THE ERP/EIRP MEASUREMENT

4.1.1 MEASUREMENT METHOD

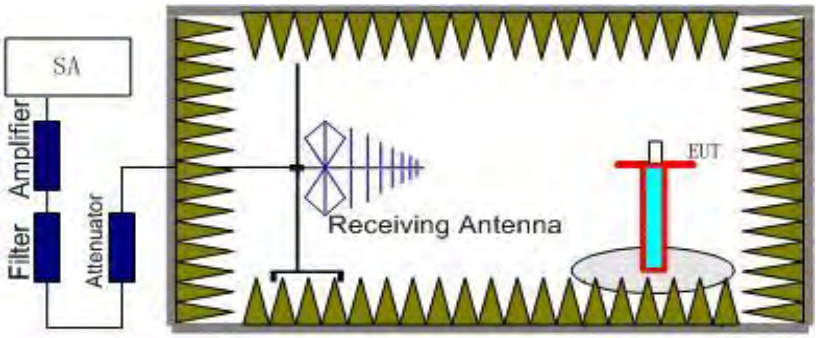
Effective radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas.
License Digital Systems. Mobile and portable (hand-held) stations operating are limited to average ERP, Equivalent isotropic radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas, Mobile and portable (hand-held) stations operating are limited to average EIRP.

4.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:
a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, RSE=Rx (dBuV) +CL (dB) +SA (dB) +Gain (dBi) -107 (dBuV to dBm) The SA is calibrated using following setup.



b) EUT was placed on a 1.5m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.



Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.
The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below:
Power=PMea+ARpl

4.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01v03r01 Section 5.6 and ANSI C63.26 2015 Section 5.2.

2. The EUT was placed on a non-conductive rotating platform 1.5 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with Peak detector.
3. During the measurement, the system simulator parameters were set to force the EUTtransmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 m in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to ANSI C63.26 2015. The EUT was replaced by dipole antenna (substitution antenna) at same location and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. EIRP=S.G Level+ Gain-Cable loss; ERP=S.G Level+ Gain-Cable loss-2.15.

5. RB Set greater than bandwidth, VB Set spectrum analyzer Maximum support.

4.1.4 TEST RESULTS

Note: Test is divided into three directions, X/Y/Z. X pattern for the worst.
Note: Test chart See Appendix II

5. RADIATED SPURIOUS EMISSION

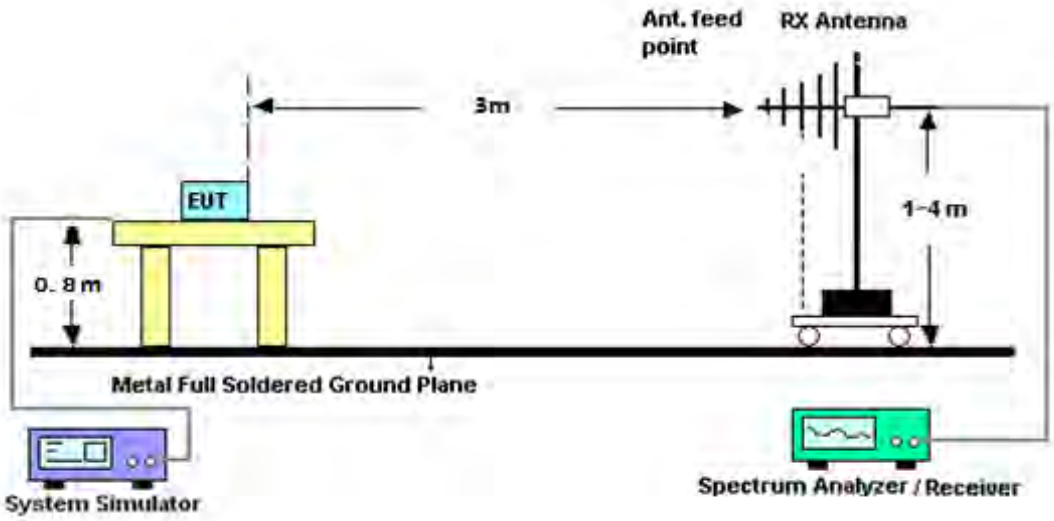
5.1 DESCRIPTION OF RADIATED SPURIOUS EMISSION

5.1.1 MEASUREMENT METHOD

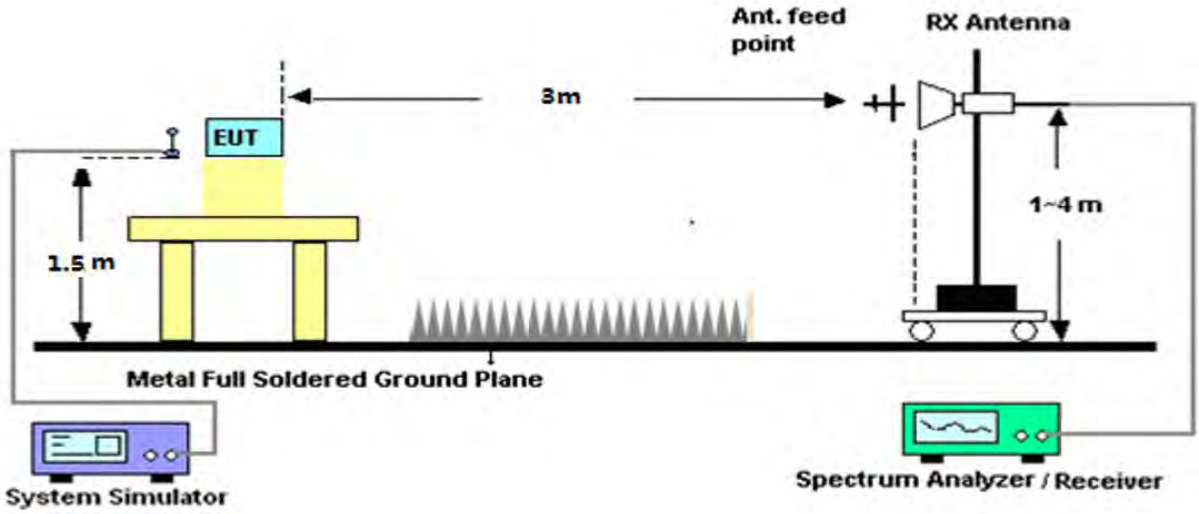
The radiated spurious emission was measured by substitution method according to ANSI C63.26 2015. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.
For Band 7 The power of any emission outside of the authorized operating frequency ranges must attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

5.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:
a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, RSE=Rx(dBuV)+CL(dB)+SA(dB)+Gain(dBi)-107(dBuV to dBm)The SA is calibrated using following setup.
b) EUT was placed on 1.5 m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.
Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.
The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below: Power=PMea+ARpl
For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



5.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 Section 7 and ANSI C63.26 2015 Section 5.5.

2. The EUT was placed on a rotatable wooden table with 1.5 meter above ground.

3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.

4. The table was rotated 360 degrees to determine the position of the highest spurious emission.

5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations

6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.

7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.

8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.

9. Taking the record of output power at antenna port.

10. Repeat step 7 to step 8 for another polarization.

11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm
.
For Band 7:
The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm
PMea=S.G Level+ Ant-Cable loss; Margin=PMea-Limit.

5.1.4 TEST RESULTS

Note: Test chart See Appendix II

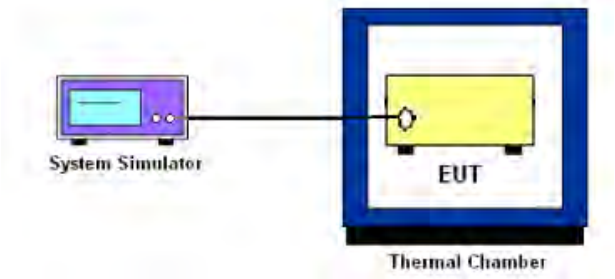
6. FREQUENCY STABILITY

6.1 DESCRIPTION OF FREQUENCY STABILITY MEASUREMENT

6.1.1 MEASUREMENT METHOD

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

6.1.2 TEST SETUP



6.1.3 TEST PROCEDURES FOR TEMPERATURE VARIATION

1. The EUT was set up in the thermal chamber and connected with the system simulator.

2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

6.1.4 TEST PROCEDURES FOR VOLTAGE VARIATION

1. The testing follows FCC KDB 971168 D01v01r03 Section 9.

2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simlator.

3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.

4. The variation in frequency was measured for the worst case.

6.1.5 TEST RESULTS

Note: Test chart See Appendix II

APPENDIX I-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

APPENDIX II-TEST DATA

Conducted output power

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
Band2	1.4	18607	1	#0	0	QPSK	19.48	4.4	23.88	33.01	PASS
Band2	1.4	18607	6	#0	0	QPSK	19.39	4.4	23.79	33.01	PASS
Band2	1.4	18607	1	#0	0	16QAM	20.27	4.4	24.67	33.01	PASS
Band2	1.4	18607	5	#0	0	16QAM	19.47	4.4	23.87	33.01	PASS
Band2	1.4	18900	1	#0	0	QPSK	21.69	4.4	26.09	33.01	PASS
Band2	1.4	18900	6	#0	0	QPSK	19.52	4.4	23.92	33.01	PASS
Band2	1.4	18900	1	#0	0	16QAM	20.49	4.4	24.89	33.01	PASS
Band2	1.4	18900	5	#0	0	16QAM	19.60	4.4	24.00	33.01	PASS
Band2	1.4	19193	1	#Max	0	QPSK	21.04	4.4	25.44	33.01	PASS
Band2	1.4	19193	6	#Max	0	QPSK	19.14	4.4	23.54	33.01	PASS
Band2	1.4	19193	1	#Max	0	16QAM	20.25	4.4	24.65	33.01	PASS
Band2	1.4	19193	5	#Max	0	16QAM	19.34	4.4	23.74	33.01	PASS
Band2	3	18615	1	#0	0	QPSK	21.54	4.4	25.94	33.01	PASS
Band2	3	18615	6	#0	0	QPSK	19.40	4.4	23.80	33.01	PASS
Band2	3	18615	1	#0	0	16QAM	20.35	4.4	24.75	33.01	PASS
Band2	3	18615	5	#0	0	16QAM	19.47	4.4	23.87	33.01	PASS
Band2	3	18900	1	#0	0	QPSK	21.66	4.4	26.06	33.01	PASS
Band2	3	18900	6	#0	0	QPSK	19.51	4.4	23.91	33.01	PASS
Band2	3	18900	1	#0	0	16QAM	20.47	4.4	24.87	33.01	PASS
Band2	3	18900	5	#0	0	16QAM	19.60	4.4	24.00	33.01	PASS
Band2	3	19185	1	#Max	1	QPSK	21.38	4.4	25.78	33.01	PASS
Band2	3	19185	6	#Max	1	QPSK	19.45	4.4	23.85	33.01	PASS
Band2	3	19185	1	#Max	1	16QAM	20.30	4.4	24.70	33.01	PASS
Band2	3	19185	5	#Max	1	16QAM	19.47	4.4	23.87	33.01	PASS
Band2	5	18625	1	#0	0	QPSK	21.62	4.4	26.02	33.01	PASS
Band2	5	18625	6	#0	0	QPSK	20.53	4.4	24.93	33.01	PASS
Band2	5	18625	1	#0	0	16QAM	21.75	4.4	26.15	33.01	PASS
Band2	5	18625	5	#0	0	16QAM	20.63	4.4	25.03	33.01	PASS
Band2	5	18900	1	#0	0	QPSK	21.66	4.4	26.06	33.01	PASS
Band2	5	18900	6	#0	0	QPSK	20.64	4.4	25.04	33.01	PASS

Band2	5	18900	1	#0	0	16QAM	21.97	4.4	26.37	33.01	PASS
Band2	5	18900	5	#0	0	16QAM	20.84	4.4	25.24	33.01	PASS
Band2	5	19175	1	#Max	3	QPSK	21.12	4.4	25.52	33.01	PASS
Band2	5	19175	6	#Max	3	QPSK	20.30	4.4	24.70	33.01	PASS
Band2	5	19175	1	#Max	3	16QAM	21.70	4.4	26.10	33.01	PASS
Band2	5	19175	5	#Max	3	16QAM	20.57	4.4	24.97	33.01	PASS
Band2	10	18650	1	#0	0	QPSK	21.16	4.4	25.56	33.01	PASS
Band2	10	18650	4	#0	0	QPSK	21.27	4.4	25.67	33.01	PASS
Band2	10	18650	1	#0	0	16QAM	21.38	4.4	25.78	33.01	PASS
Band2	10	18650	4	#0	0	16QAM	21.48	4.4	25.88	33.01	PASS
Band2	10	18900	1	#0	0	QPSK	21.48	4.4	25.88	33.01	PASS
Band2	10	18900	4	#0	0	QPSK	21.60	4.4	26.00	33.01	PASS
Band2	10	18900	1	#0	0	16QAM	21.83	4.4	26.23	33.01	PASS
Band2	10	18900	4	#0	0	16QAM	21.79	4.4	26.19	33.01	PASS
Band2	10	19150	1	#Max	7	QPSK	21.39	4.4	25.79	33.01	PASS
Band2	10	19150	4	#Max	7	QPSK	21.41	4.4	25.81	33.01	PASS
Band2	10	19150	1	#Max	7	16QAM	21.63	4.4	26.03	33.01	PASS
Band2	10	19150	4	#Max	7	16QAM	21.34	4.4	25.74	33.01	PASS
Band2	15	18675	1	#0	7	QPSK	21.45	4.4	25.85	33.01	PASS
Band2	15	18675	6	#0	7	QPSK	21.30	4.4	25.70	33.01	PASS
Band2	15	18675	1	#0	0	16QAM	21.54	4.4	25.94	33.01	PASS
Band2	15	18675	5	#0	0	16QAM	21.56	4.4	25.96	33.01	PASS
Band2	15	18900	1	#0	7	QPSK	21.51	4.4	25.91	33.01	PASS
Band2	15	18900	6	#0	7	QPSK	21.50	4.4	25.90	33.01	PASS
Band2	15	18900	1	#0	0	16QAM	21.67	4.4	26.07	33.01	PASS
Band2	15	18900	5	#0	0	16QAM	21.70	4.4	26.10	33.01	PASS
Band2	15	19125	1	#Max	11	QPSK	21.66	4.4	26.06	33.01	PASS
Band2	15	19125	6	#Max	11	QPSK	21.40	4.4	25.80	33.01	PASS
Band2	15	19125	1	#Max	11	16QAM	21.63	4.4	26.03	33.01	PASS
Band2	15	19125	5	#Max	1	16QAM	21.39	4.4	25.79	33.01	PASS
Band2	20	18700	1	#0	0	QPSK	21.44	4.4	25.84	33.01	PASS
Band2	20	18700	6	#0	0	QPSK	21.36	4.4	25.76	33.01	PASS
Band2	20	18700	1	#0	0	16QAM	21.53	4.4	25.93	33.01	PASS
Band2	20	18700	5	#0	0	16QAM	21.76	4.4	26.16	33.01	PASS
Band2	20	18900	1	#0	0	QPSK	21.53	4.4	25.93	33.01	PASS
Band2	20	18900	6	#0	0	QPSK	21.52	4.4	25.92	33.01	PASS
Band2	20	18900	1	#0	0	16QAM	21.83	4.4	26.23	33.01	PASS
Band2	20	18900	5	#0	0	16QAM	21.69	4.4	26.09	33.01	PASS
Band2	20	19100	1	#Max	15	QPSK	21.70	4.4	26.10	33.01	PASS

Band2	20	19100	6	#Max	15	QPSK	21.41	4.4	25.81	33.01	PASS
Band2	20	19100	1	#Max	15	16QAM	21.58	4.4	25.98	33.01	PASS
Band2	20	19100	5	#Max	15	16QAM	21.43	4.4	25.83	33.01	PASS

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
Band4	1.4	19957	1	#0	0	QPSK	19.65	4.4	24.05	30	PASS
Band4	1.4	19957	6	#0	0	QPSK	19.88	4.4	24.28	30	PASS
Band4	1.4	19957	1	#0	0	16QAM	20.81	4.4	25.21	30	PASS
Band4	1.4	19957	5	#0	0	16QAM	19.89	4.4	24.29	30	PASS
Band4	1.4	20175	1	#0	0	QPSK	21.79	4.4	26.19	30	PASS
Band4	1.4	20175	6	#0	0	QPSK	19.85	4.4	24.25	30	PASS
Band4	1.4	20175	1	#0	0	16QAM	20.78	4.4	25.18	30	PASS
Band4	1.4	20175	5	#0	0	16QAM	19.95	4.4	24.35	30	PASS
Band4	1.4	20393	1	#Max	0	QPSK	21.59	4.4	25.99	30	PASS
Band4	1.4	20393	6	#Max	0	QPSK	19.70	4.4	24.10	30	PASS
Band4	1.4	20393	1	#Max	0	16QAM	20.54	4.4	24.94	30	PASS
Band4	1.4	20393	5	#Max	0	16QAM	19.63	4.4	24.03	30	PASS
Band4	3	19965	1	#0	0	QPSK	21.90	4.4	26.30	30	PASS
Band4	3	19965	6	#0	0	QPSK	19.79	4.4	24.19	30	PASS
Band4	3	19965	1	#0	0	16QAM	20.93	4.4	25.33	30	PASS
Band4	3	19965	5	#0	0	16QAM	19.88	4.4	24.28	30	PASS
Band4	3	20175	1	#0	0	QPSK	22.23	4.4	26.63	30	PASS
Band4	3	20175	6	#0	0	QPSK	20.12	4.4	24.52	30	PASS
Band4	3	20175	1	#0	0	16QAM	21.23	4.4	25.63	30	PASS
Band4	3	20175	5	#0	0	16QAM	20.20	4.4	24.60	30	PASS
Band4	3	20385	1	#Max	1	QPSK	21.77	4.4	26.17	30	PASS
Band4	3	20385	6	#Max	1	QPSK	19.77	4.4	24.17	30	PASS
Band4	3	20385	1	#Max	1	16QAM	20.72	4.4	25.12	30	PASS
Band4	3	20385	5	#Max	1	16QAM	19.70	4.4	24.10	30	PASS
Band4	5	19975	1	#0	0	QPSK	22.02	4.4	26.42	30	PASS
Band4	5	19975	6	#0	0	QPSK	21.02	4.4	25.42	30	PASS
Band4	5	19975	1	#0	0	16QAM	22.36	4.4	26.76	30	PASS
Band4	5	19975	5	#0	0	16QAM	21.30	4.4	25.70	30	PASS
Band4	5	20175	1	#0	0	QPSK	22.27	4.4	26.67	30	PASS
Band4	5	20175	6	#0	0	QPSK	21.12	4.4	25.52	30	PASS
Band4	5	20175	1	#0	0	16QAM	22.34	4.4	26.74	30	PASS
Band4	5	20175	5	#0	0	16QAM	21.21	4.4	25.61	30	PASS
Band4	5	20375	1	#Max	3	QPSK	21.69	4.4	26.09	30	PASS
Band4	5	20375	6	#Max	3	QPSK	20.71	4.4	25.11	30	PASS
Band4	5	20375	1	#Max	3	16QAM	22.00	4.4	26.40	30	PASS
Band4	5	20375	5	#Max	3	16QAM	21.04	4.4	25.44	30	PASS

Band4	10	20000	1	#0	0	QPSK	22.20	4.4	26.60	30	PASS
Band4	10	20000	4	#0	0	QPSK	22.14	4.4	26.54	30	PASS
Band4	10	20000	1	#0	0	16QAM	22.35	4.4	26.75	30	PASS
Band4	10	20000	4	#0	0	16QAM	22.21	4.4	26.61	30	PASS
Band4	10	20175	1	#0	0	QPSK	21.85	4.4	26.25	30	PASS
Band4	10	20175	4	#0	0	QPSK	21.90	4.4	26.30	30	PASS
Band4	10	20175	1	#0	0	16QAM	22.09	4.4	26.49	30	PASS
Band4	10	20175	4	#0	0	16QAM	22.12	4.4	26.52	30	PASS
Band4	10	20350	1	#Max	7	QPSK	21.93	4.4	26.33	30	PASS
Band4	10	20350	4	#Max	7	QPSK	21.98	4.4	26.38	30	PASS
Band4	10	20350	1	#Max	7	16QAM	22.01	4.4	26.41	30	PASS
Band4	10	20350	4	#Max	7	16QAM	22.02	4.4	26.42	30	PASS
Band4	15	20025	1	#0	7	QPSK	22.22	4.4	26.62	30	PASS
Band4	15	20025	6	#0	7	QPSK	22.16	4.4	26.56	30	PASS
Band4	15	20025	1	#0	0	16QAM	22.30	4.4	26.70	30	PASS
Band4	15	20025	5	#0	0	16QAM	22.26	4.4	26.66	30	PASS
Band4	15	20175	1	#0	7	QPSK	22.26	4.4	26.66	30	PASS
Band4	15	20175	6	#0	7	QPSK	22.02	4.4	26.42	30	PASS
Band4	15	20175	1	#0	0	16QAM	22.09	4.4	26.49	30	PASS
Band4	15	20175	5	#0	0	16QAM	22.12	4.4	26.52	30	PASS
Band4	15	20325	1	#Max	11	QPSK	21.47	4.4	25.87	30	PASS
Band4	15	20325	6	#Max	11	QPSK	21.80	4.4	26.20	30	PASS
Band4	15	20325	1	#Max	11	16QAM	21.83	4.4	26.23	30	PASS
Band4	15	20325	5	#Max	1	16QAM	22.03	4.4	26.43	30	PASS
Band4	20	20050	1	#0	0	QPSK	22.03	4.4	26.43	30	PASS
Band4	20	20050	6	#0	0	QPSK	22.09	4.4	26.49	30	PASS
Band4	20	20050	1	#0	0	16QAM	22.32	4.4	26.72	30	PASS
Band4	20	20050	5	#0	0	16QAM	22.24	4.4	26.64	30	PASS
Band4	20	20175	1	#0	0	QPSK	21.85	4.4	26.25	30	PASS
Band4	20	20175	6	#0	0	QPSK	21.81	4.4	26.21	30	PASS
Band4	20	20175	1	#0	0	16QAM	22.05	4.4	26.45	30	PASS
Band4	20	20175	5	#0	0	16QAM	22.09	4.4	26.49	30	PASS
Band4	20	20300	1	#Max	15	QPSK	21.42	4.4	25.82	30	PASS
Band4	20	20300	6	#Max	15	QPSK	21.64	4.4	26.04	30	PASS
Band4	20	20300	1	#Max	15	16QAM	21.80	4.4	26.20	30	PASS
Band4	20	20300	5	#Max	15	16QAM	21.91	4.4	26.31	30	PASS

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Power (dBm)	Gain (dB)	ERP (dBm)	ERP Limit (dBm)	Verdict
Band12	1.4	23017	1	#0	0	QPSK	20.11	2.6	20.56	34.77	PASS
Band12	1.4	23017	6	#0	0	QPSK	20.10	2.6	20.55	34.77	PASS
Band12	1.4	23017	1	#0	0	16QAM	21.08	2.6	21.53	34.77	PASS
Band12	1.4	23017	5	#0	0	16QAM	20.14	2.6	20.59	34.77	PASS
Band12	1.4	23095	1	#0	0	QPSK	22.23	2.6	22.68	34.77	PASS
Band12	1.4	23095	6	#0	0	QPSK	20.19	2.6	20.64	34.77	PASS
Band12	1.4	23095	1	#0	0	16QAM	21.27	2.6	21.72	34.77	PASS
Band12	1.4	23095	5	#0	0	16QAM	20.23	2.6	20.68	34.77	PASS
Band12	1.4	23173	1	#Max	0	QPSK	21.90	2.6	22.35	34.77	PASS
Band12	1.4	23173	6	#Max	0	QPSK	20.11	2.6	20.56	34.77	PASS
Band12	1.4	23173	1	#Max	0	16QAM	20.97	2.6	21.42	34.77	PASS
Band12	1.4	23173	5	#Max	0	16QAM	20.10	2.6	20.55	34.77	PASS
Band12	3	23025	1	#0	0	QPSK	21.95	2.6	22.40	34.77	PASS
Band12	3	23025	6	#0	0	QPSK	19.86	2.6	20.31	34.77	PASS
Band12	3	23025	1	#0	0	16QAM	20.85	2.6	21.30	34.77	PASS
Band12	3	23025	5	#0	0	16QAM	19.74	2.6	20.19	34.77	PASS
Band12	3	23095	1	#0	0	QPSK	22.28	2.6	22.73	34.77	PASS
Band12	3	23095	6	#0	0	QPSK	20.26	2.6	20.71	34.77	PASS
Band12	3	23095	1	#0	0	16QAM	21.25	2.6	21.70	34.77	PASS
Band12	3	23095	5	#0	0	16QAM	20.31	2.6	20.76	34.77	PASS
Band12	3	23165	1	#Max	1	QPSK	22.09	2.6	22.54	34.77	PASS
Band12	3	23165	6	#Max	1	QPSK	20.23	2.6	20.68	34.77	PASS
Band12	3	23165	1	#Max	1	16QAM	21.08	2.6	21.53	34.77	PASS
Band12	3	23165	5	#Max	1	16QAM	20.20	2.6	20.65	34.77	PASS
Band12	5	23035	1	#0	0	QPSK	22.31	2.6	22.76	34.77	PASS
Band12	5	23035	6	#0	0	QPSK	21.17	2.6	21.62	34.77	PASS
Band12	5	23035	1	#0	0	16QAM	22.38	2.6	22.83	34.77	PASS
Band12	5	23035	5	#0	0	16QAM	21.31	2.6	21.76	34.77	PASS
Band12	5	23095	1	#0	0	QPSK	22.25	2.6	22.70	34.77	PASS
Band12	5	23095	6	#0	0	QPSK	21.27	2.6	21.72	34.77	PASS
Band12	5	23095	1	#0	0	16QAM	22.39	2.6	22.84	34.77	PASS
Band12	5	23095	5	#0	0	16QAM	21.46	2.6	21.91	34.77	PASS
Band12	5	23155	1	#Max	3	QPSK	22.01	2.6	22.46	34.77	PASS
Band12	5	23155	6	#Max	3	QPSK	21.28	2.6	21.73	34.77	PASS
Band12	5	23155	1	#Max	3	16QAM	22.30	2.6	22.75	34.77	PASS
Band12	5	23155	5	#Max	3	16QAM	21.43	2.6	21.88	34.77	PASS

Band12	10	23060	1	#0	0	QPSK	22.25	2.6	22.70	34.77	PASS
Band12	10	23060	4	#0	0	QPSK	22.13	2.6	22.58	34.77	PASS
Band12	10	23060	1	#0	0	16QAM	22.33	2.6	22.78	34.77	PASS
Band12	10	23060	4	#0	0	16QAM	22.11	2.6	22.56	34.77	PASS
Band12	10	23095	1	#0	0	QPSK	21.61	2.6	22.06	34.77	PASS
Band12	10	23095	4	#0	0	QPSK	22.03	2.6	22.48	34.77	PASS
Band12	10	23095	1	#0	0	16QAM	22.09	2.6	22.54	34.77	PASS
Band12	10	23095	4	#0	0	16QAM	22.20	2.6	22.65	34.77	PASS
Band12	10	23130	1	#Max	7	QPSK	21.67	2.6	22.12	34.77	PASS
Band12	10	23130	4	#Max	7	QPSK	22.04	2.6	22.49	34.77	PASS
Band12	10	23130	1	#Max	7	16QAM	22.02	2.6	22.47	34.77	PASS
Band12	10	23130	4	#Max	7	16QAM	22.04	2.6	22.49	34.77	PASS

Frequency stability

LTE Band 2 (QPSK) / 1880MHz / BW20M					
Temperature (°C)	**Voltage (Volt)**	**Freq. Dev. (Hz)**	**Freq. Dev. (ppm)**	**Limit**	**Result**
50	Normal Voltage	0.67	0.000	2.5ppm	PASS
40		-0.63	0.000		
30		0.68	0.000		
20		-2.47	-0.001		
10		0.61	0.000		
0		0.70	0.000		
-10		-0.69	0.000		
-20		0.14	0.000		
-30		-0.18	0.000		
20	Maximum Voltage	0.26	0.000		
20	BEP	-0.57	0.000		

LTE Band 2 (16QAM) / 1880MHz / BW20M					
Temperature (°C)	**Voltage (Volt)**	**Freq. Dev. (Hz)**	**Freq. Dev. (ppm)**	**Limit**	**Result**
50	Normal Voltage	3.75	0.002	2.5ppm	PASS
40		3.90	0.002		
30		3.86	0.002		
20		-8.87	-0.005		
10		-3.83	-0.002		
0		-3.41	-0.002		
-10		3.69	0.002		
-20		3.62	0.002		
-30		3.40	0.002		
20	Maximum Voltage	1.78	0.001		
20	BEP	-5.19	-0.003		

LTE Band 4 (QPSK) / 1733MHz / BW20M					
Temperature (°C)	**Voltage (Volt)**	**Freq. Dev. (Hz)**	**Freq. Dev. (ppm)**	**Limit**	**Result**
50	Normal Voltage	0.84	0.000	2.5ppm	PASS
40		-0.83	0.000		
30		0.87	0.001		
20		0.49	0.000		
10		-0.82	0.000		
0		-1.20	-0.001		
-10		-0.86	0.000		
-20		-0.95	-0.001		
-30		0.82	0.000		
20	Maximum Voltage	-0.53	0.000		
20	BEP	-0.66	0.000		

LTE Band 4 (16QAM) / 1733MHz / BW20M					
Temperature (°C)	**Voltage (Volt)**	**Freq. Dev. (Hz)**	**Freq. Dev. (ppm)**	**Limit**	**Result**
50	Normal Voltage	-0.35	0.000	2.5ppm	PASS
40		0.18	0.000		
30		0.15	0.000		
20		-2.42	-0.001		
10		0.35	0.000		
0		-0.65	0.000		
-10		0.56	0.000		
-20		0.63	0.000		
-30		-0.21	0.000		
20	Maximum Voltage	0.34	0.000		
20	BEP	0.12	0.000		

LTE Band 12 (QPSK) / 707.5MHz / BW10M					
Temperature (°C)	**Voltage (Volt)**	**Freq. Dev. (Hz)**	**Freq. Dev. (ppm)**	**Limit**	**Result**
50	Normal Voltage	-1.83	-0.003	2.5ppm	PASS
40		-2.18	-0.003		
30		-2.34	-0.003		
20		2.50	0.004		
10		2.26	0.003		
0		-2.06	-0.003		
-10		-2.19	-0.003		
-20		-2.34	-0.003		
-30		2.26	0.003		
20	Maximum Voltage	3.02	0.004		
20	BEP	2.95	0.004		

LTE Band 12 (16QAM) / 707.5MHz / BW10M					
Temperature (°C)	**Voltage (Volt)**	**Freq. Dev. (Hz)**	**Freq. Dev. (ppm)**	**Limit**	**Result**
50	Normal Voltage	0.14	0.000	2.5ppm	PASS
40		0.23	0.000		
30		-0.24	0.000		
20		-1.73	-0.002		
10		-0.30	0.000		
0		0.00	0.000		
-10		0.05	0.000		
-20		0.03	0.000		
-30		-0.01	0.000		
20	Maximum Voltage	-0.10	0.000		
20	BEP	0.21	0.000		

Peak-to-Average Ratio

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Result (dB)	high Limit (dB)	Verdict
Band2	1.4	18607	6	#0	0	QPSK	10.73	13	PASS
Band2	1.4	18607	5	#0	0	16QAM	9.93	13	PASS
Band2	1.4	18900	6	#0	0	QPSK	10.83	13	PASS
Band2	1.4	18900	5	#0	0	16QAM	9.81	13	PASS
Band2	1.4	19193	6	#0	0	QPSK	10.04	13	PASS
Band2	1.4	19193	5	#0	0	16QAM	10.09	13	PASS
Band2	3	18615	6	#0	0	QPSK	12.44	13	PASS
Band2	3	18615	5	#0	0	16QAM	10.36	13	PASS
Band2	3	18900	6	#0	0	QPSK	10.63	13	PASS
Band2	3	18900	5	#0	0	16QAM	9.03	13	PASS
Band2	3	19185	6	#0	0	QPSK	11.04	13	PASS
Band2	3	19185	5	#0	0	16QAM	11.04	13	PASS
Band2	5	18625	6	#0	0	QPSK	12.65	13	PASS
Band2	5	18625	5	#0	0	16QAM	9.09	13	PASS
Band2	5	18900	6	#0	0	QPSK	11.01	13	PASS
Band2	5	18900	5	#0	0	16QAM	10.46	13	PASS
Band2	5	19175	6	#0	0	QPSK	11.87	13	PASS
Band2	5	19175	5	#0	0	16QAM	12.12	13	PASS
Band2	10	18650	6	#0	0	QPSK	9.40	13	PASS
Band2	10	18650	5	#0	0	16QAM	10.01	13	PASS
Band2	10	18900	6	#0	0	QPSK	9.78	13	PASS
Band2	10	18900	5	#0	0	16QAM	8.17	13	PASS
Band2	10	19150	6	#0	0	QPSK	10.09	13	PASS
Band2	10	19150	5	#0	0	16QAM	8.94	13	PASS
Band2	15	18675	6	#0	0	QPSK	8.32	13	PASS
Band2	15	18675	5	#0	0	16QAM	8.77	13	PASS
Band2	15	18900	6	#0	0	QPSK	11.04	13	PASS
Band2	15	18900	5	#0	0	16QAM	10.22	13	PASS
Band2	15	19125	6	#0	0	QPSK	7.57	13	PASS
Band2	15	19125	5	#0	0	16QAM	9.22	13	PASS
Band2	20	18700	6	#0	0	QPSK	12.43	13	PASS
Band2	20	18700	5	#0	0	16QAM	8.36	13	PASS
Band2	20	18900	6	#0	0	QPSK	8.57	13	PASS
Band2	20	18900	5	#0	0	16QAM	8.96	13	PASS
Band2	20	19100	6	#0	0	QPSK	11.47	13	PASS
Band2	20	19100	5	#0	0	16QAM	9.52	13	PASS
Band4	1.4	19957	6	#0	0	QPSK	11.18	13	PASS
Band4	1.4	19957	5	#0	0	16QAM	9.66	13	PASS
Band4	1.4	20175	6	#0	0	QPSK	9.95	13	PASS
Band4	1.4	20175	5	#0	0	16QAM	11.15	13	PASS
Band4	1.4	20393	6	#0	0	QPSK	7.45	13	PASS
Band4	1.4	20393	5	#0	0	16QAM	11.51	13	PASS
Band4	3	19965	6	#0	0	QPSK	8.46	13	PASS
Band4	3	19965	5	#0	0	16QAM	11.14	13	PASS
Band4	3	20175	6	#0	0	QPSK	10.87	13	PASS
Band4	3	20175	5	#0	0	16QAM	10.73	13	PASS
Band4	3	20385	6	#0	0	QPSK	11.56	13	PASS
Band4	3	20385	5	#0	0	16QAM	11.11	13	PASS
Band4	5	19975	6	#0	0	QPSK	7.58	13	PASS
Band4	5	19975	5	#0	0	16QAM	10.12	13	PASS
Band4	5	20175	6	#0	0	QPSK	9.97	13	PASS
Band4	5	20175	5	#0	0	16QAM	9.46	13	PASS
Band4	5	20375	6	#0	0	QPSK	8.96	13	PASS
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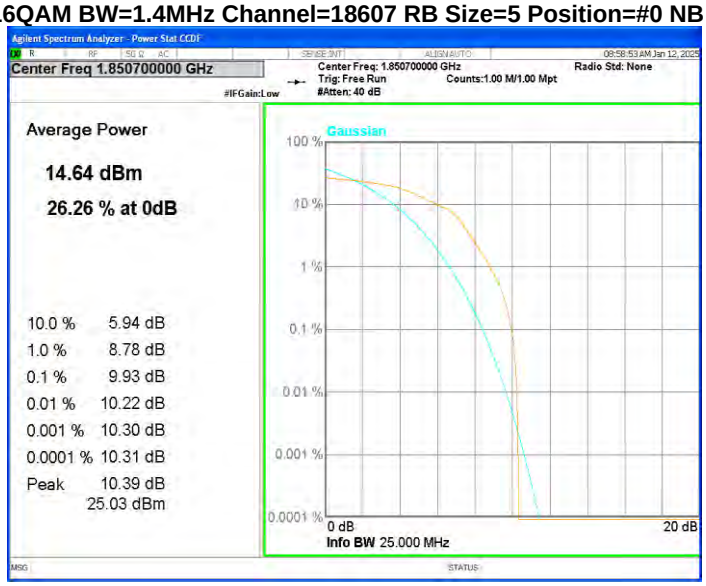
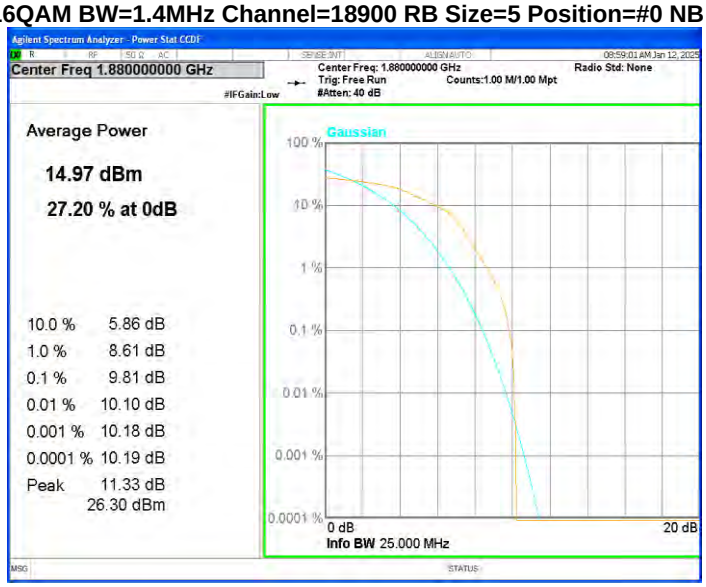
Band4	10	20000	6	#0	0	QPSK	9.26	13	PASS
Band4	10	20000	5	#0	0	16QAM	6.66	13	PASS
Band4	10	20175	6	#0	0	QPSK	11.34	13	PASS
Band4	10	20175	5	#0	0	16QAM	7.12	13	PASS
Band4	10	20350	6	#0	0	QPSK	7.57	13	PASS
Band4	10	20350	5	#0	0	16QAM	8.12	13	PASS
Band4	15	20025	6	#0	0	QPSK	9.75	13	PASS
Band4	15	20025	5	#0	0	16QAM	11.20	13	PASS
Band4	15	20175	6	#0	0	QPSK	9.50	13	PASS
Band4	15	20175	5	#0	0	16QAM	8.77	13	PASS

Band4	15	20325	6	#0	0	QPSK	12.04	13	PASS
Band4	15	20325	5	#0	0	16QAM	10.66	13	PASS
Band4	20	20050	6	#0	0	QPSK	9.12	13	PASS
Band4	20	20050	5	#0	0	16QAM	10.48	13	PASS
Band4	20	20175	6	#0	0	QPSK	8.25	13	PASS
Band4	20	20175	5	#0	0	16QAM	7.23	13	PASS
Band4	20	20300	6	#0	0	QPSK	8.58	13	PASS
Band4	20	20300	5	#0	0	16QAM	8.70	13	PASS
Band12	1.4	23017	6	#0	0	QPSK	10.29	13	PASS
Band12	1.4	23017	5	#0	0	16QAM	10.75	13	PASS
Band12	1.4	23095	6	#0	0	QPSK	11.66	13	PASS
Band12	1.4	23095	5	#0	0	16QAM	8.37	13	PASS
Band12	1.4	23173	6	#0	0	QPSK	10.20	13	PASS
Band12	1.4	23173	5	#0	0	16QAM	10.04	13	PASS
Band12	3	23025	6	#0	0	QPSK	11.24	13	PASS
Band12	3	23025	5	#0	0	16QAM	9.46	13	PASS
Band12	3	23095	6	#0	0	QPSK	9.03	13	PASS
Band12	3	23095	5	#0	0	16QAM	9.85	13	PASS
Band12	3	23165	6	#0	0	QPSK	11.09	13	PASS
Band12	3	23165	5	#0	0	16QAM	10.74	13	PASS
Band12	5	23035	6	#0	0	QPSK	8.63	13	PASS
Band12	5	23035	5	#0	0	16QAM	10.54	13	PASS
Band12	5	23095	6	#0	0	QPSK	8.25	13	PASS
Band12	5	23095	5	#0	0	16QAM	7.55	13	PASS
Band12	5	23155	6	#0	0	QPSK	8.31	13	PASS
Band12	5	23155	5	#0	0	16QAM	9.77	13	PASS
Band12	10	23060	6	#0	0	QPSK	11.75	13	PASS
Band12	10	23060	5	#0	0	16QAM	9.87	13	PASS
Band12	10	23095	6	#0	0	QPSK	8.82	13	PASS
Band12	10	23095	5	#0	0	16QAM	9.00	13	PASS
Band12	10	23130	6	#0	0	QPSK	12.28	13	PASS
Band12	10	23130	5	#0	0	16QAM	9.32	13	PASS

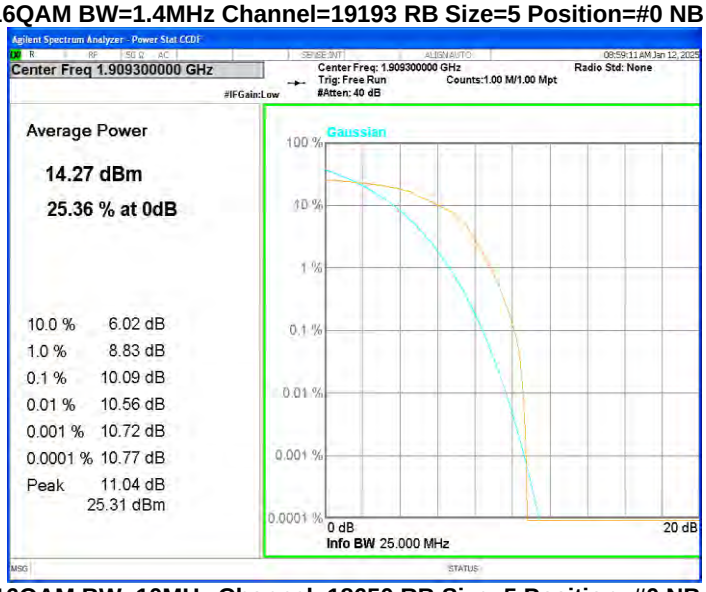
Band2 16QAM BW=1.4MHz Channel=18607 RB Size=5 Position=#0 NB Index=0



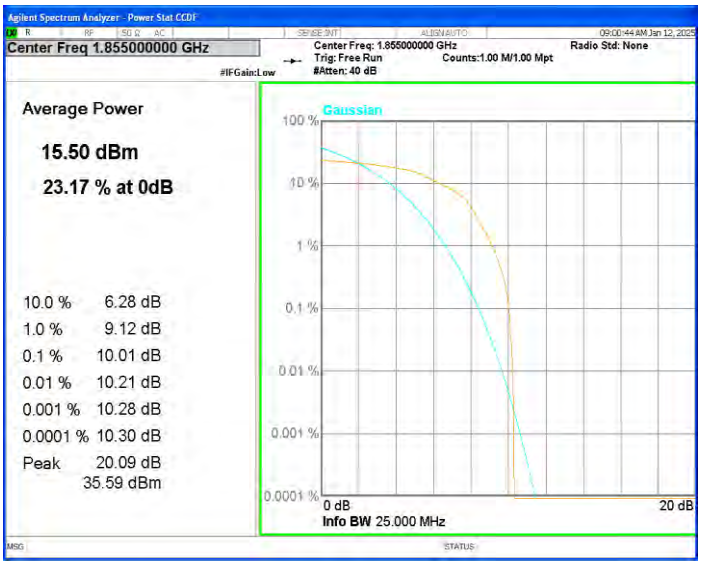
Band2 16QAM BW=1.4MHz Channel=18900 RB Size=5 Position=#0 NB Index=0



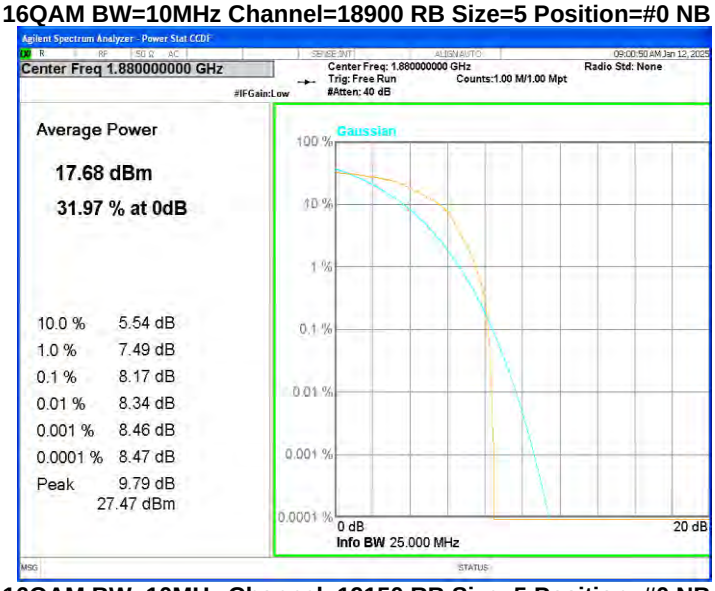
Band2 16QAM BW=1.4MHz Channel=19193 RB Size=5 Position=#0 NB Index=0



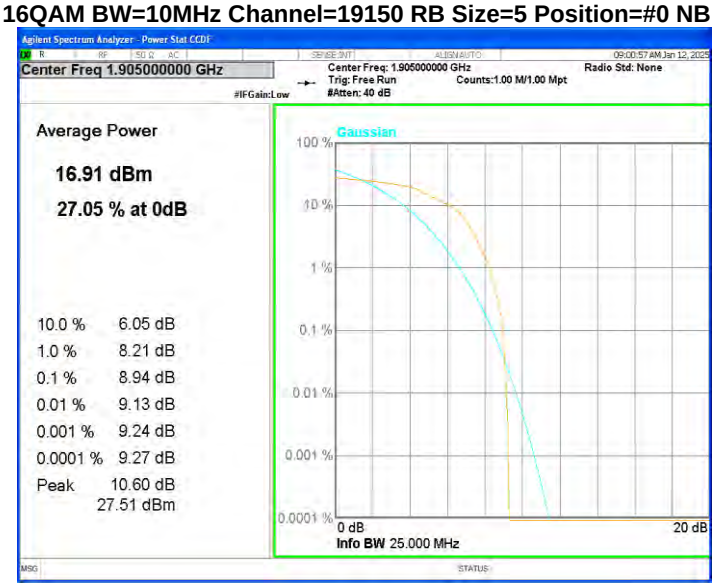
Band2 16QAM BW=10MHz Channel=18650 RB Size=5 Position=#0 NB Index=0



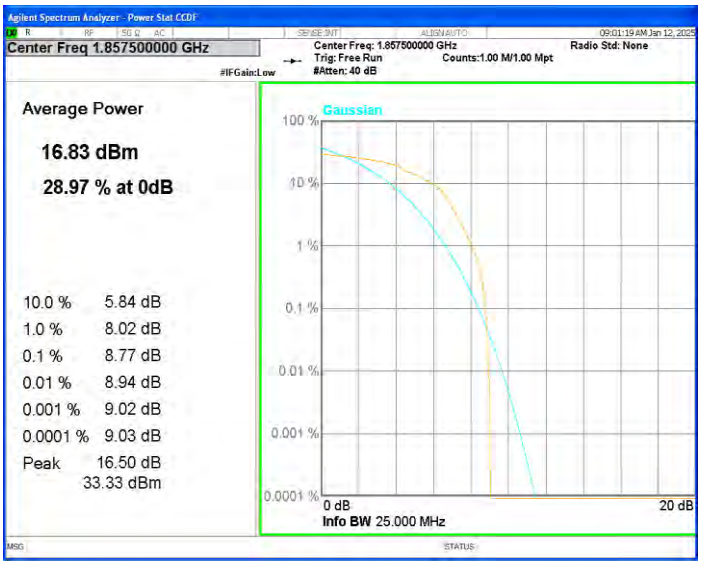
Band2 16QAM BW=10MHz Channel=18900 RB Size=5 Position=#0 NB Index=0



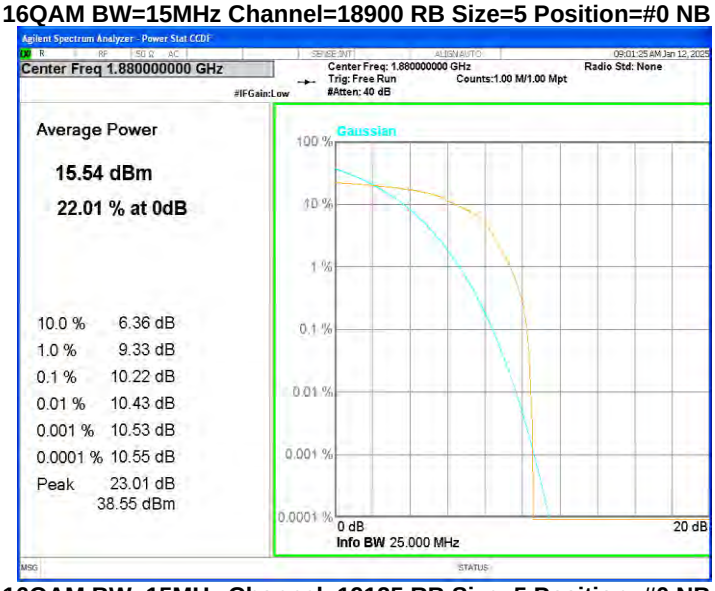
Band2 16QAM BW=10MHz Channel=19150 RB Size=5 Position=#0 NB Index=0



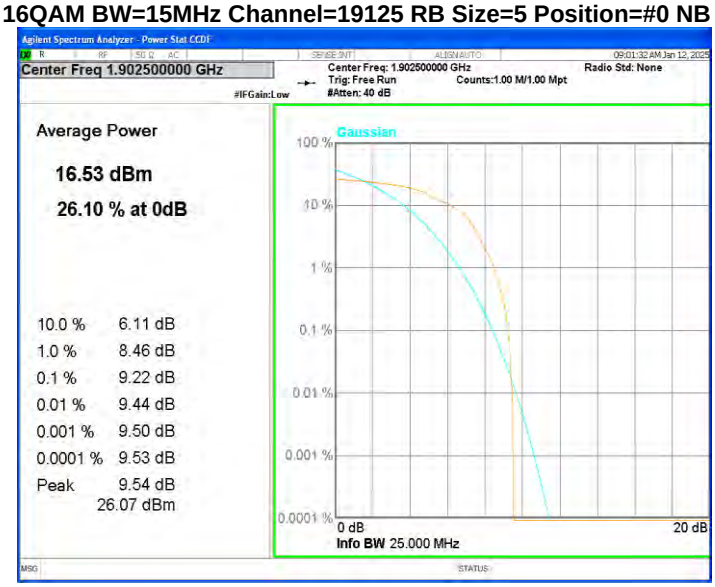
Band2 16QAM BW=15MHz Channel=18675 RB Size=5 Position=#0 NB Index=0



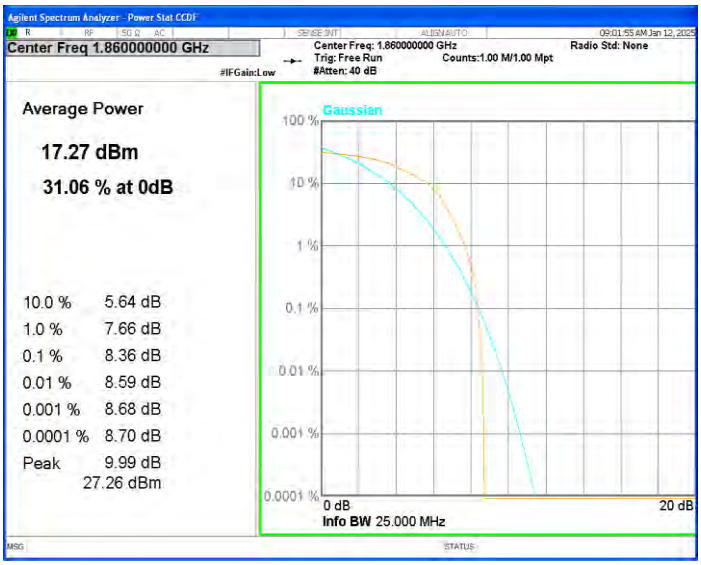
Band2 16QAM BW=15MHz Channel=18900 RB Size=5 Position=#0 NB Index=0



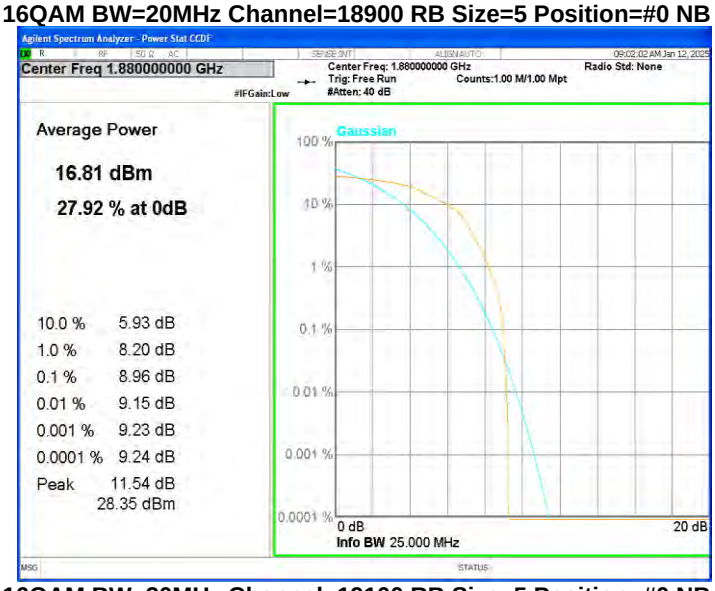
Band2 16QAM BW=15MHz Channel=19125 RB Size=5 Position=#0 NB Index=0



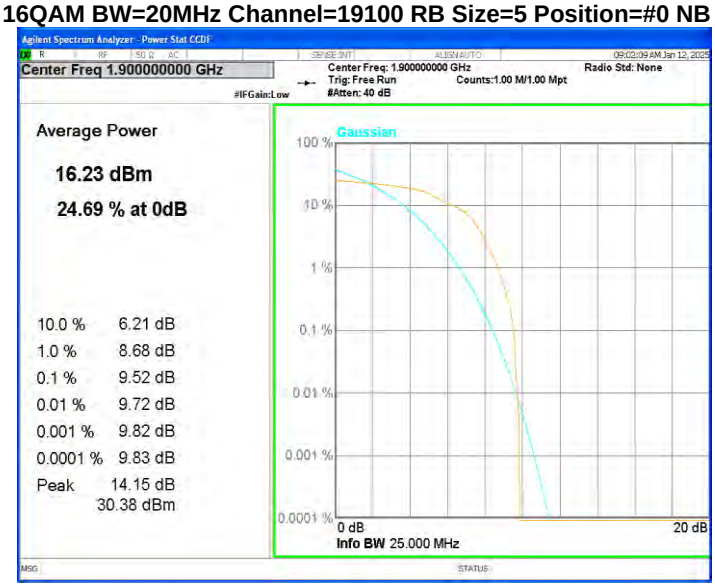
Band2 16QAM BW=20MHz Channel=18700 RB Size=5 Position=#0 NB Index=0



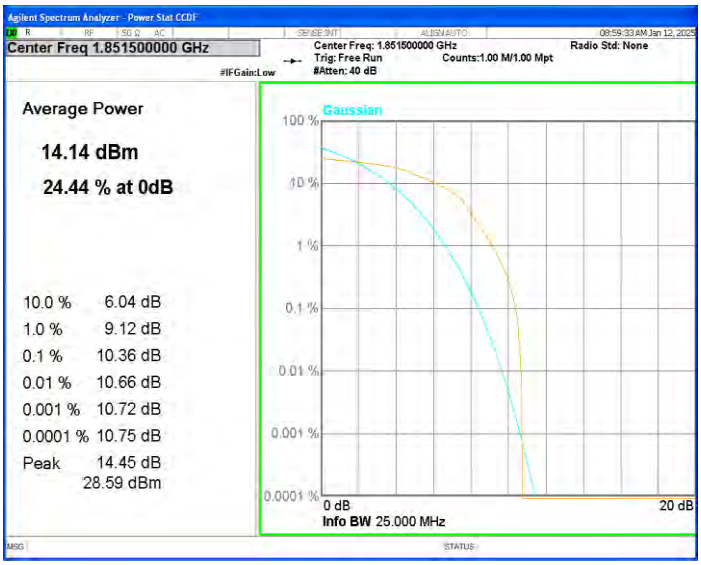
Band2 16QAM BW=20MHz Channel=18900 RB Size=5 Position=#0 NB Index=0



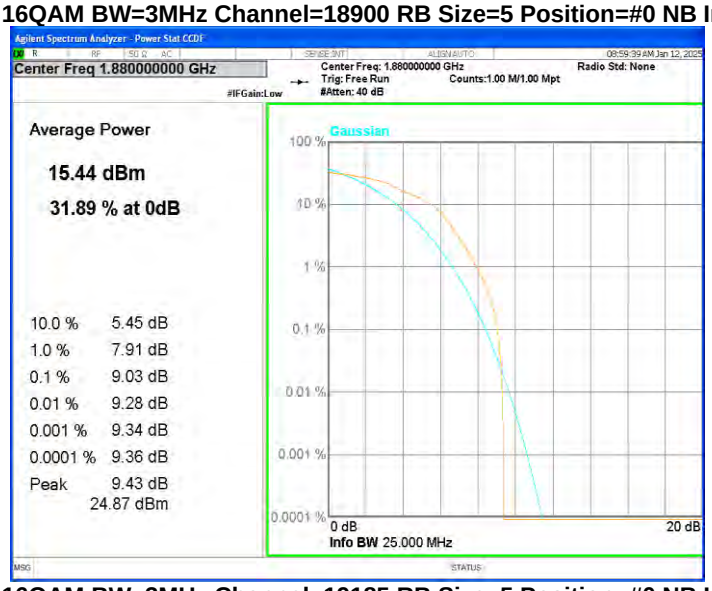
Band2 16QAM BW=20MHz Channel=19100 RB Size=5 Position=#0 NB Index=0



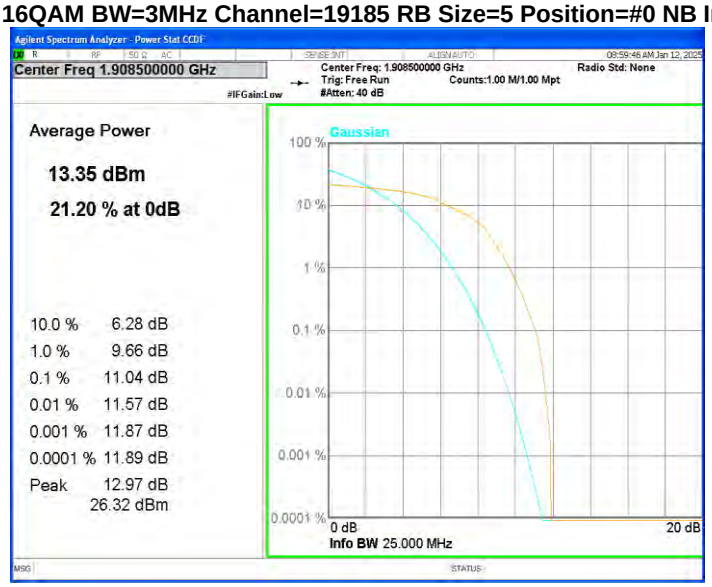
Band2 16QAM BW=3MHz Channel=18615 RB Size=5 Position=#0 NB Index=0



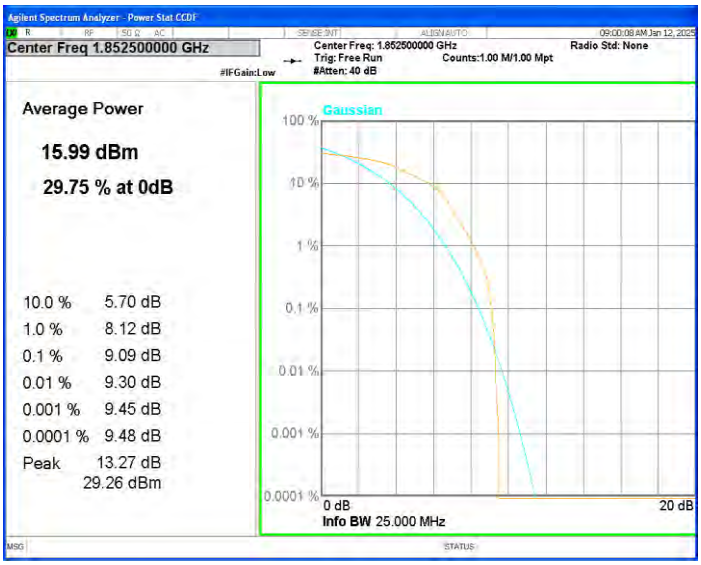
Band2 16QAM BW=3MHz Channel=18900 RB Size=5 Position=#0 NB Index=0



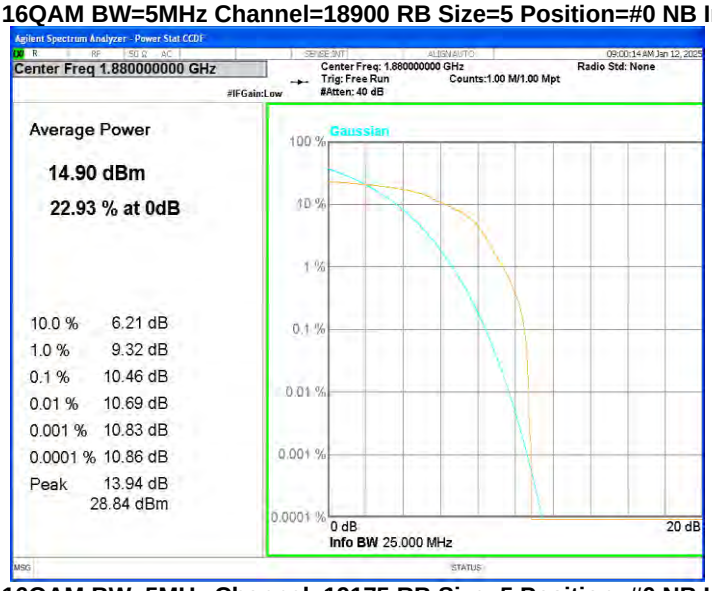
Band2 16QAM BW=3MHz Channel=19185 RB Size=5 Position=#0 NB Index=0



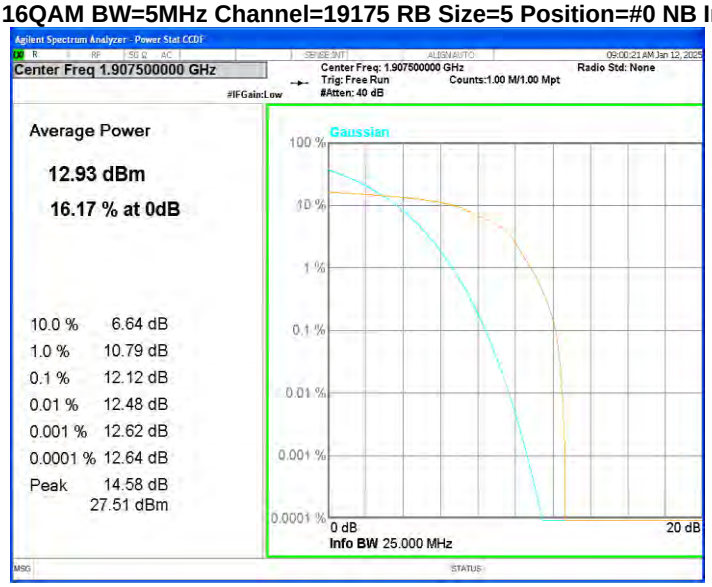
Band2 16QAM BW=5MHz Channel=18625 RB Size=5 Position=#0 NB Index=0



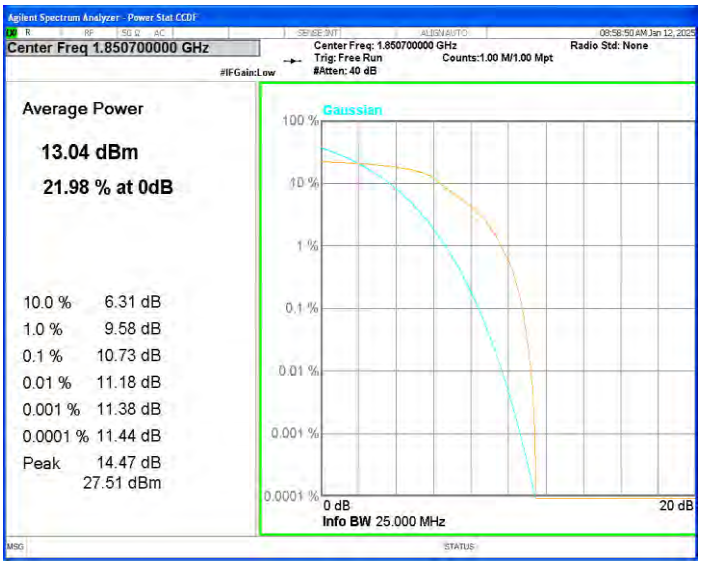
Band2 16QAM BW=5MHz Channel=18900 RB Size=5 Position=#0 NB Index=0



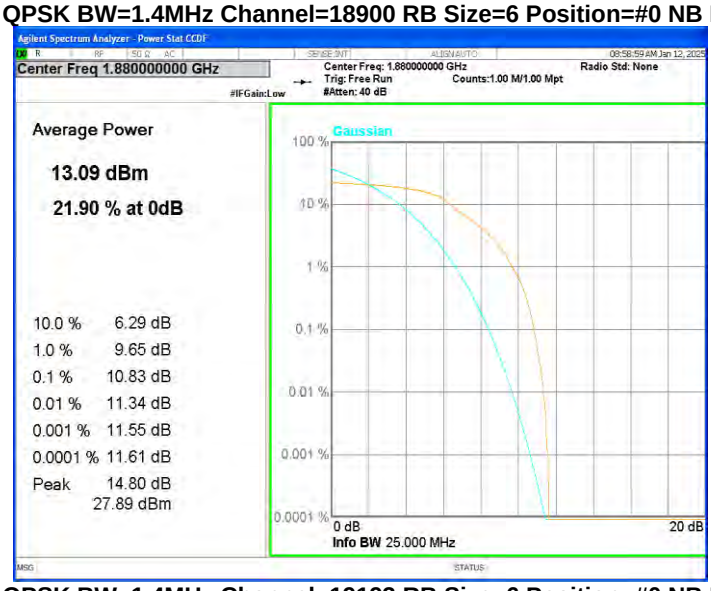
Band2 16QAM BW=5MHz Channel=19175 RB Size=5 Position=#0 NB Index=0



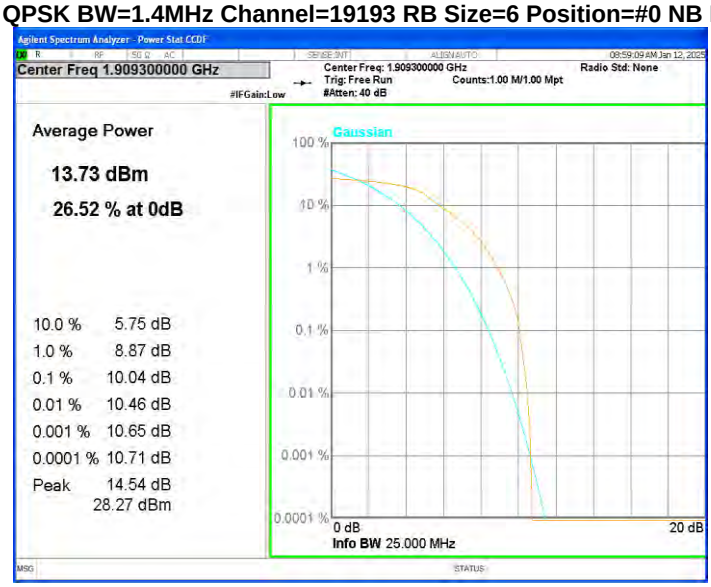
Band2 QPSK BW=1.4MHz Channel=18607 RB Size=6 Position=#0 NB Index=0



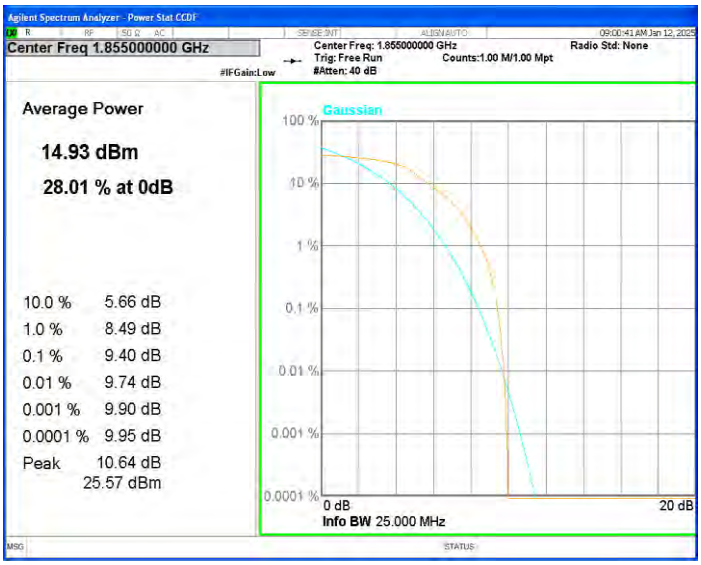
Band2 QPSK BW=1.4MHz Channel=18900 RB Size=6 Position=#0 NB Index=0



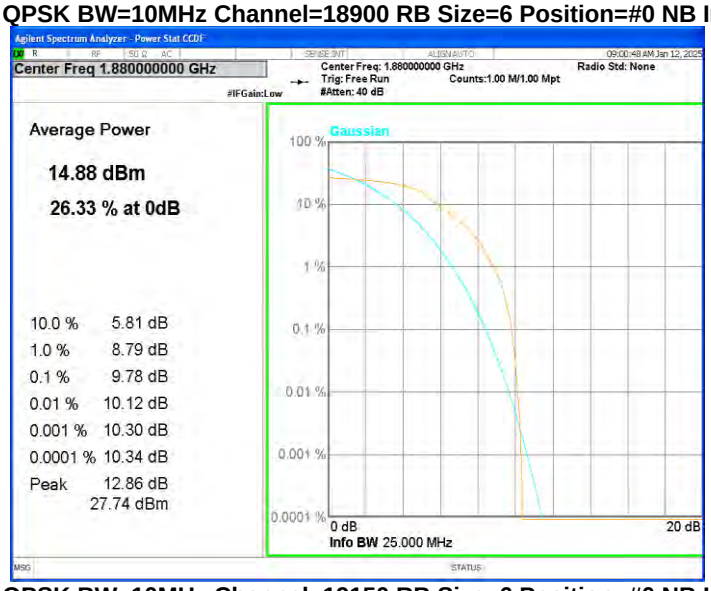
Band2 QPSK BW=1.4MHz Channel=19193 RB Size=6 Position=#0 NB Index=0



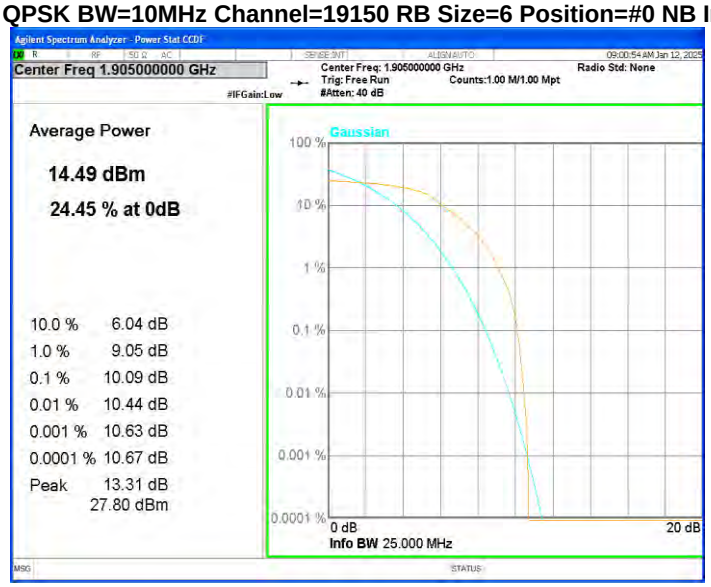
Band2 QPSK BW=10MHz Channel=18650 RB Size=6 Position=#0 NB Index=0



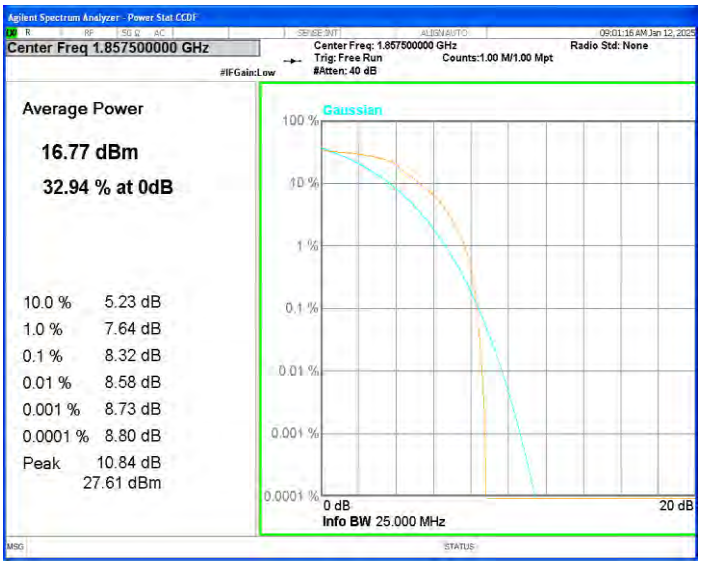
Band2 QPSK BW=10MHz Channel=18900 RB Size=6 Position=#0 NB Index=0



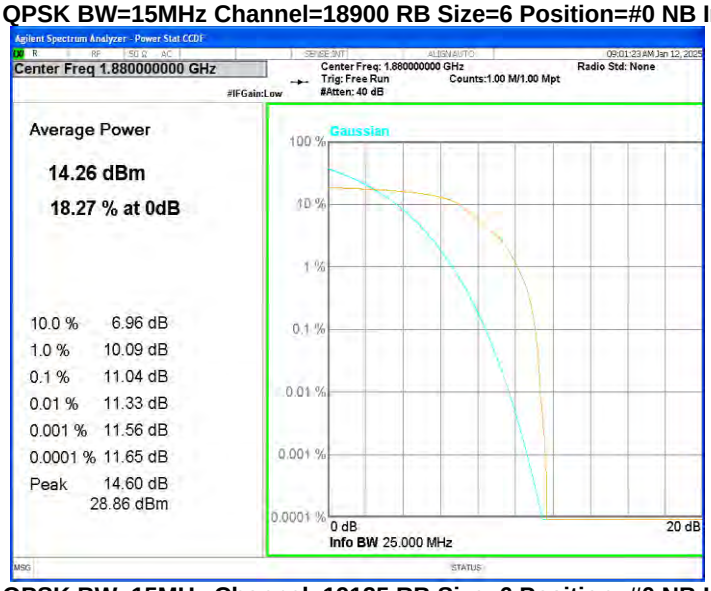
Band2 QPSK BW=10MHz Channel=19150 RB Size=6 Position=#0 NB Index=0



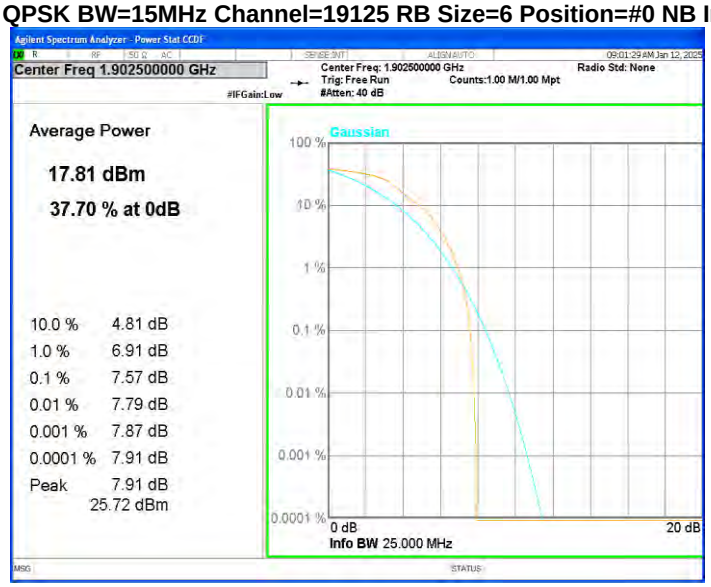
Band2 QPSK BW=15MHz Channel=18675 RB Size=6 Position=#0 NB Index=0



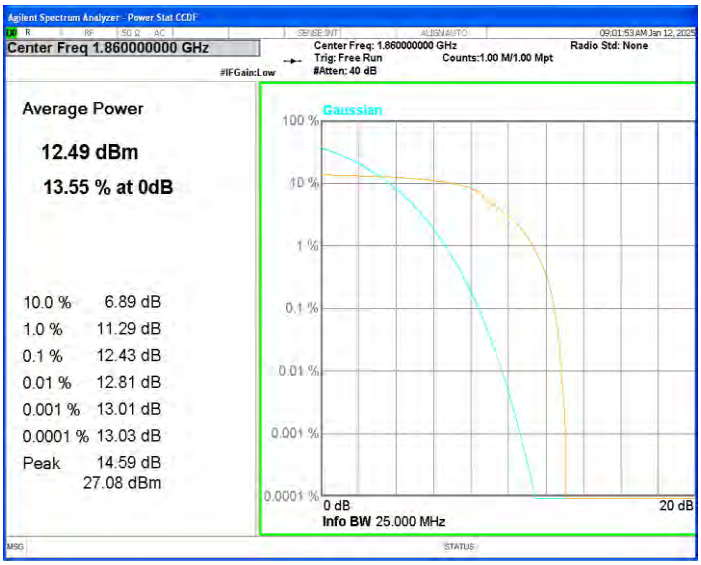
Band2 QPSK BW=15MHz Channel=18900 RB Size=6 Position=#0 NB Index=0



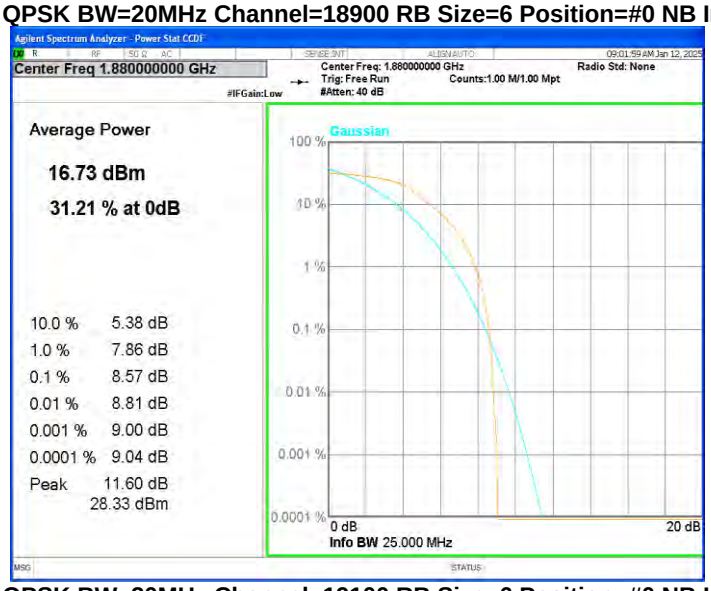
Band2 QPSK BW=15MHz Channel=19125 RB Size=6 Position=#0 NB Index=0



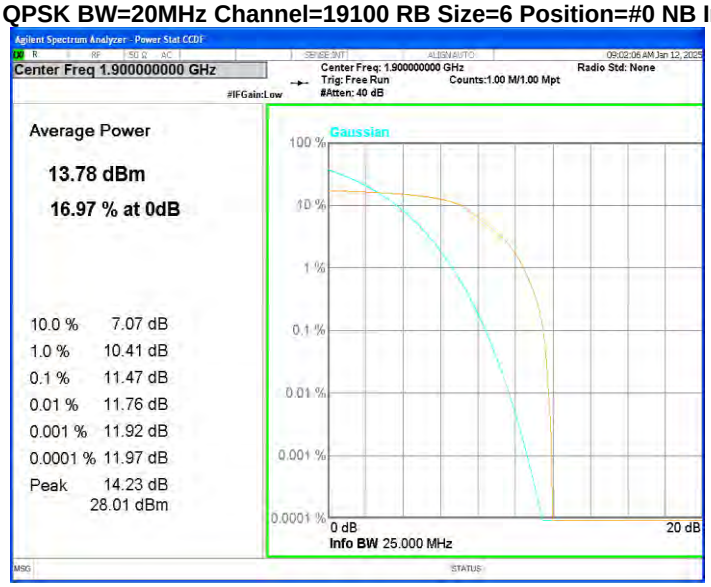
Band2 QPSK BW=20MHz Channel=18700 RB Size=6 Position=#0 NB Index=0



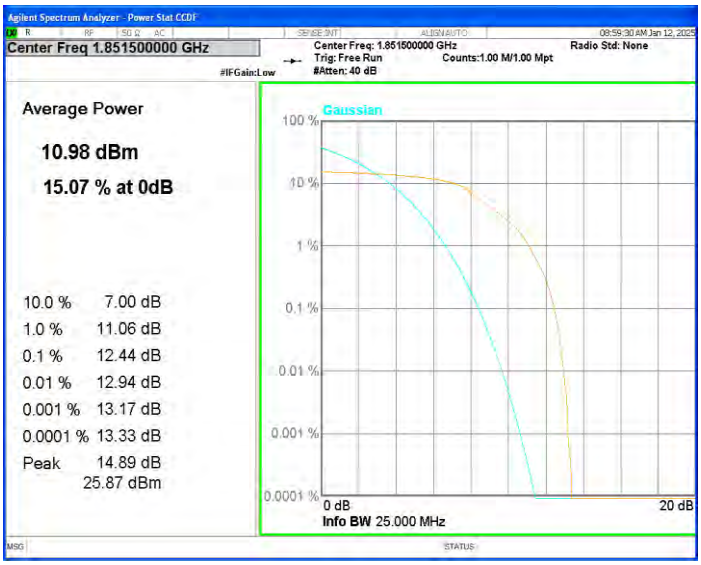
Band2 QPSK BW=20MHz Channel=18900 RB Size=6 Position=#0 NB Index=0



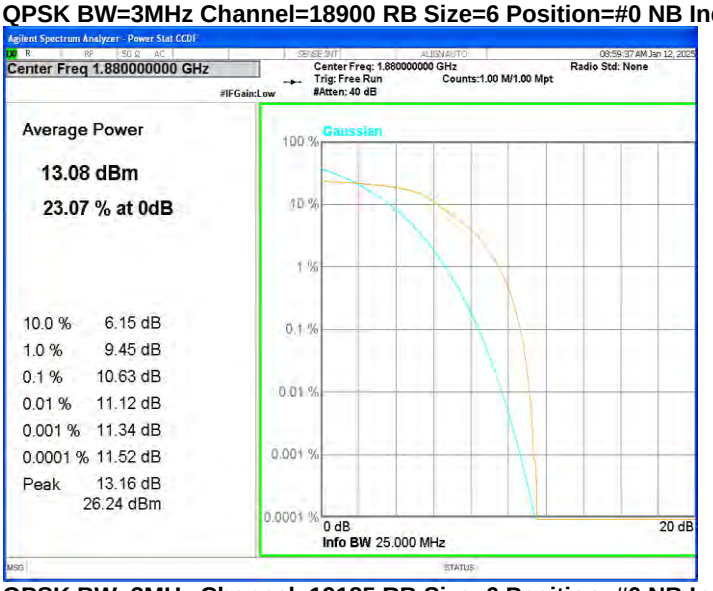
Band2 QPSK BW=20MHz Channel=19100 RB Size=6 Position=#0 NB Index=0



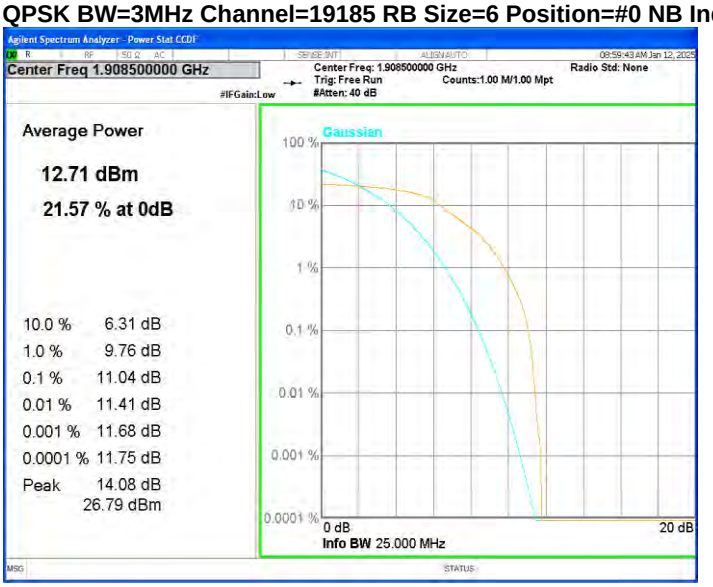
Band2 QPSK BW=3MHz Channel=18615 RB Size=6 Position=#0 NB Index=0



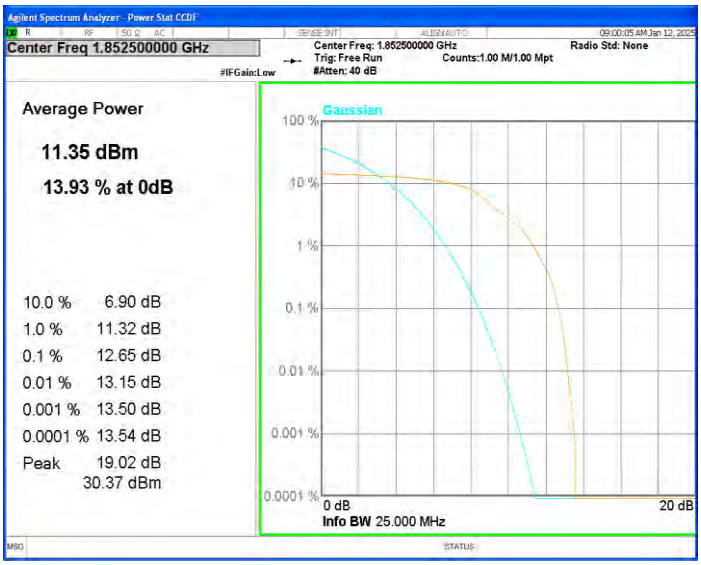
Band2 QPSK BW=3MHz Channel=18900 RB Size=6 Position=#0 NB Index=0



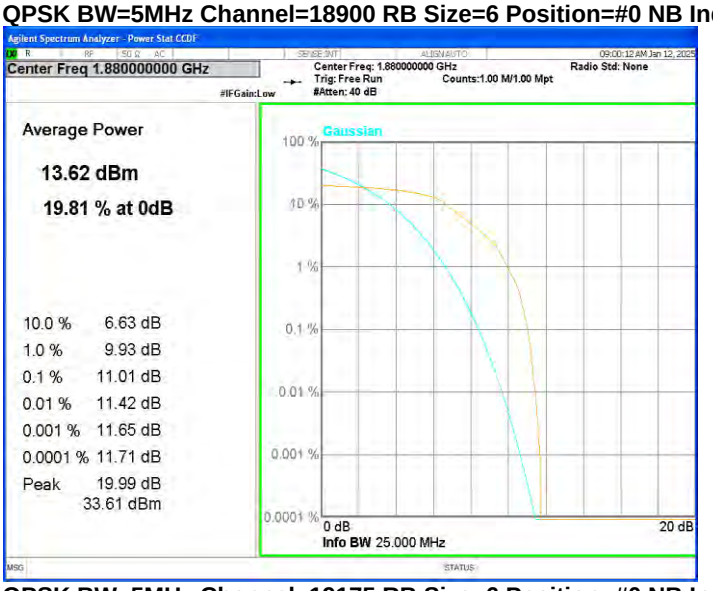
Band2 QPSK BW=3MHz Channel=19185 RB Size=6 Position=#0 NB Index=0



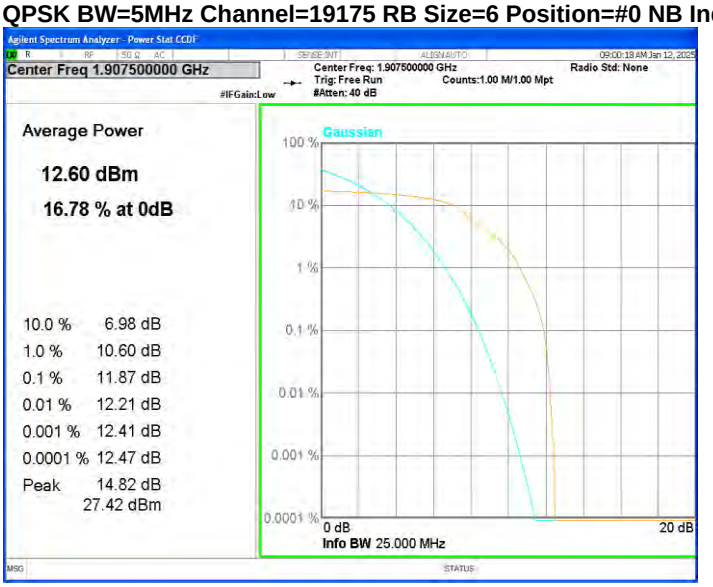
Band2 QPSK BW=5MHz Channel=18625 RB Size=6 Position=#0 NB Index=0



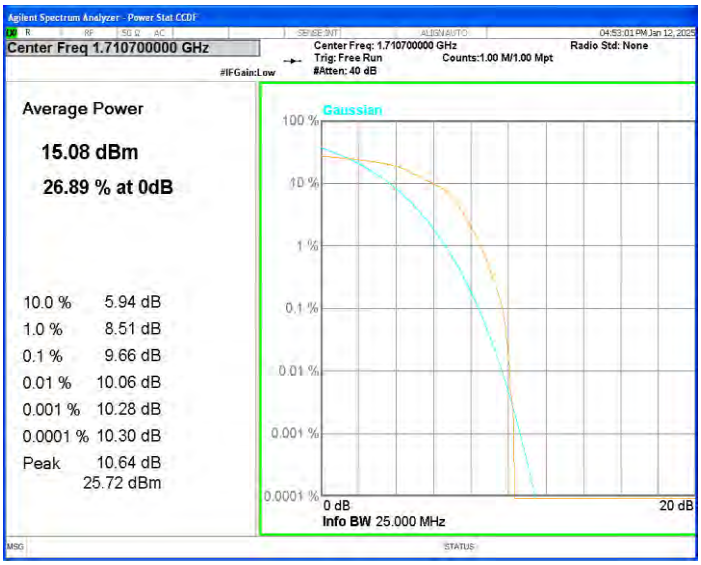
Band2 QPSK BW=5MHz Channel=18900 RB Size=6 Position=#0 NB Index=0



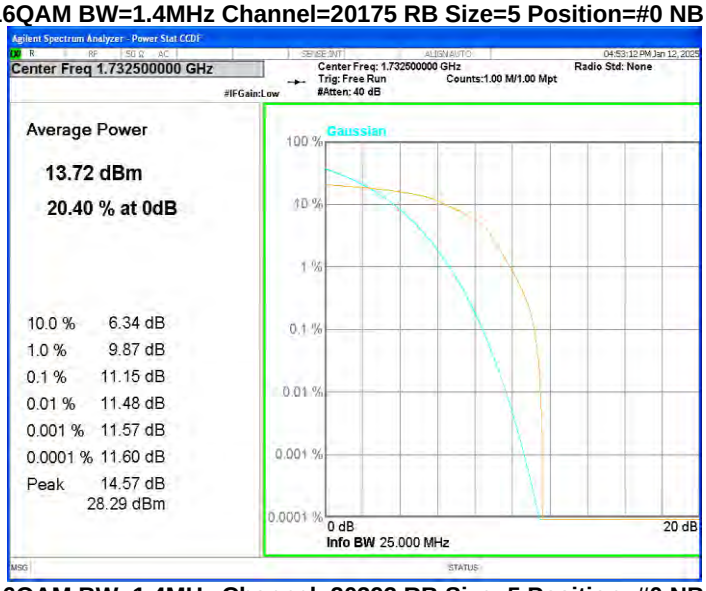
Band2 QPSK BW=5MHz Channel=19175 RB Size=6 Position=#0 NB Index=0



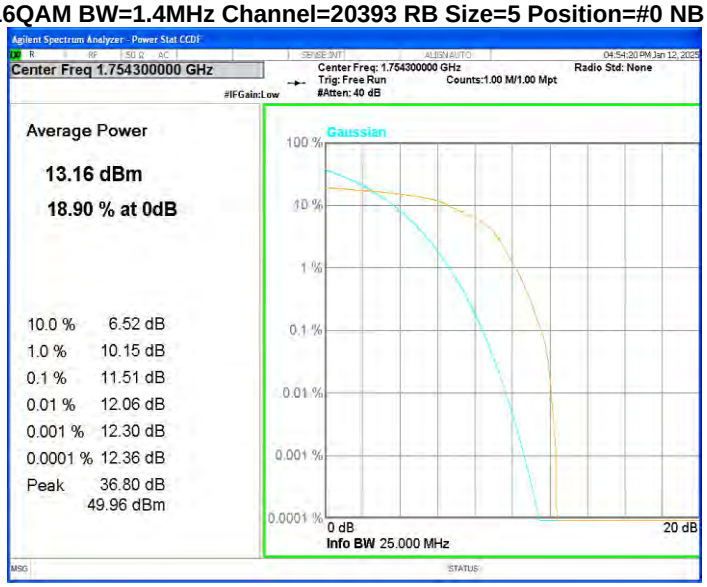
Band4 16QAM BW=1.4MHz Channel=19957 RB Size=5 Position=#0 NB Index=0



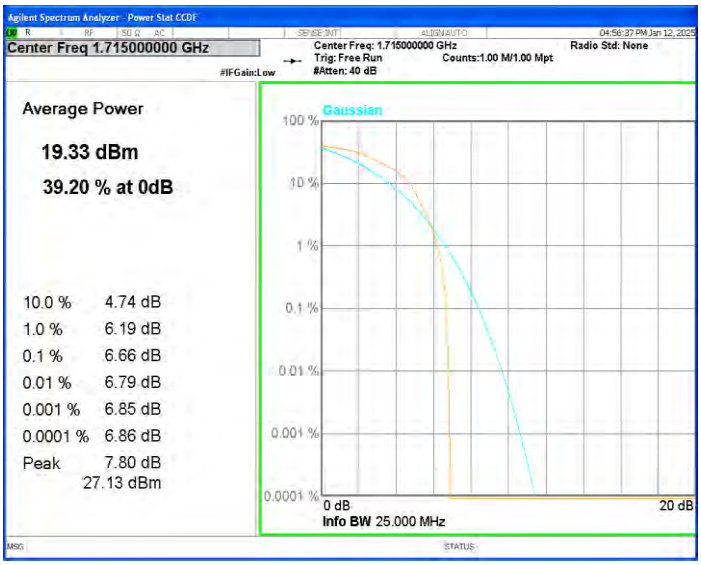
Band4 16QAM BW=1.4MHz Channel=20175 RB Size=5 Position=#0 NB Index=0



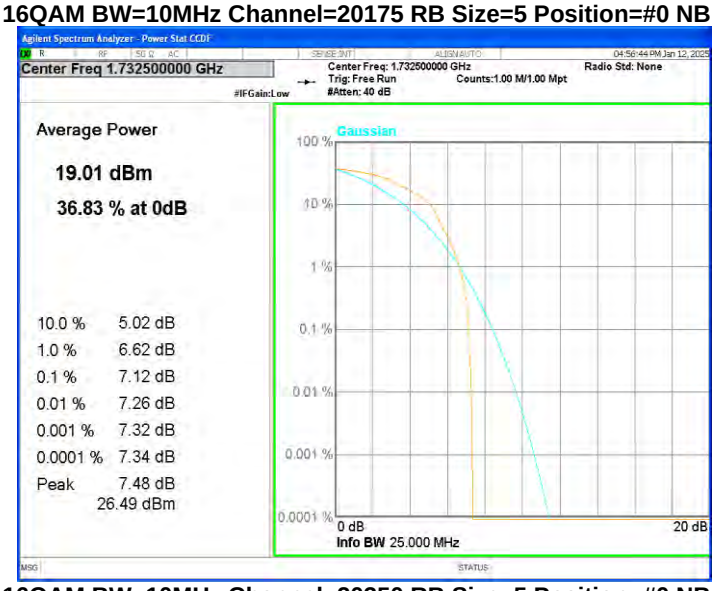
Band4 16QAM BW=1.4MHz Channel=20393 RB Size=5 Position=#0 NB Index=0



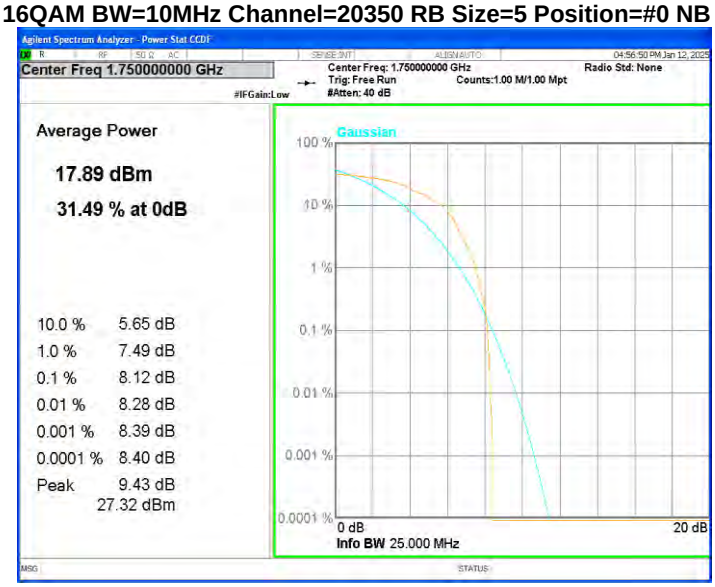
Band4 16QAM BW=10MHz Channel=20000 RB Size=5 Position=#0 NB Index=0



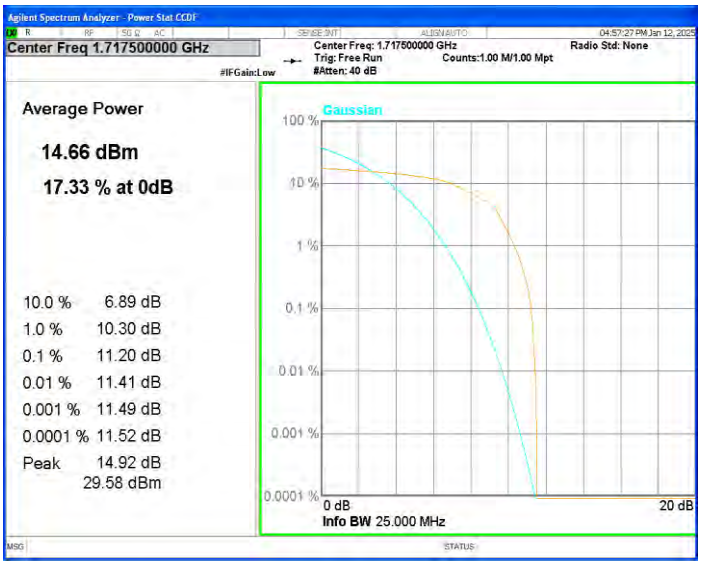
Band4 16QAM BW=10MHz Channel=20175 RB Size=5 Position=#0 NB Index=0



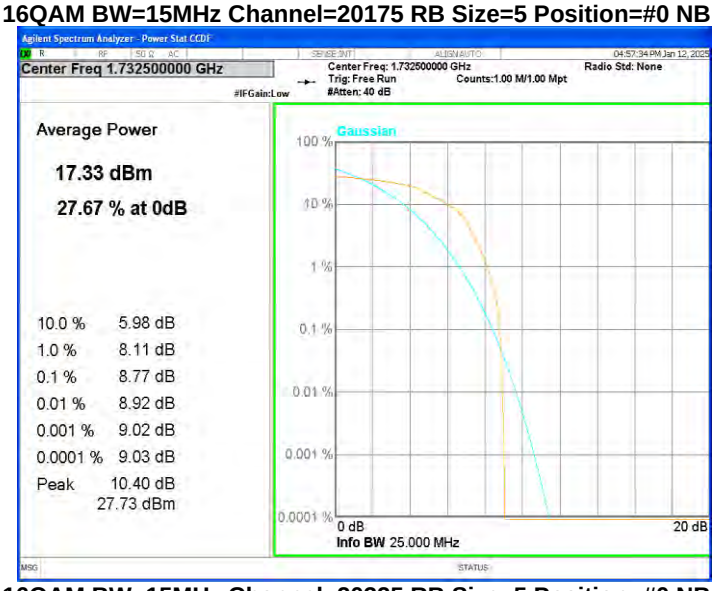
Band4 16QAM BW=10MHz Channel=20350 RB Size=5 Position=#0 NB Index=0



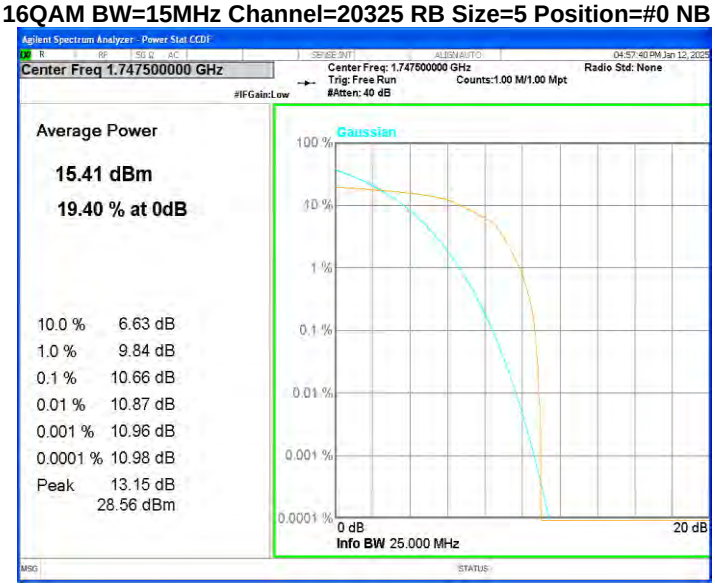
Band4 16QAM BW=15MHz Channel=20025 RB Size=5 Position=#0 NB Index=0



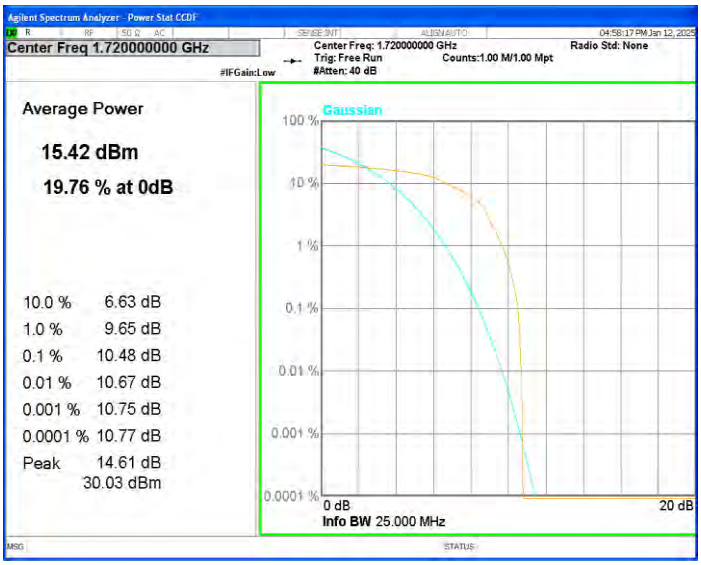
Band4 16QAM BW=15MHz Channel=20175 RB Size=5 Position=#0 NB Index=0



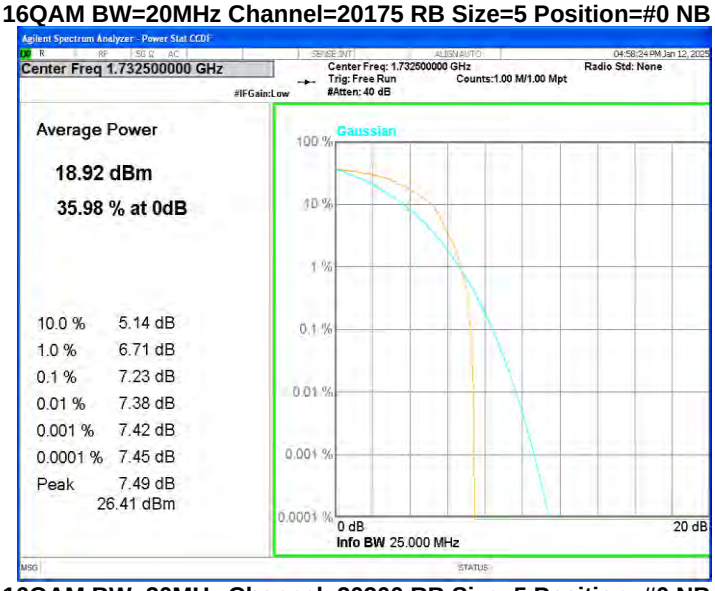
Band4 16QAM BW=15MHz Channel=20325 RB Size=5 Position=#0 NB Index=0



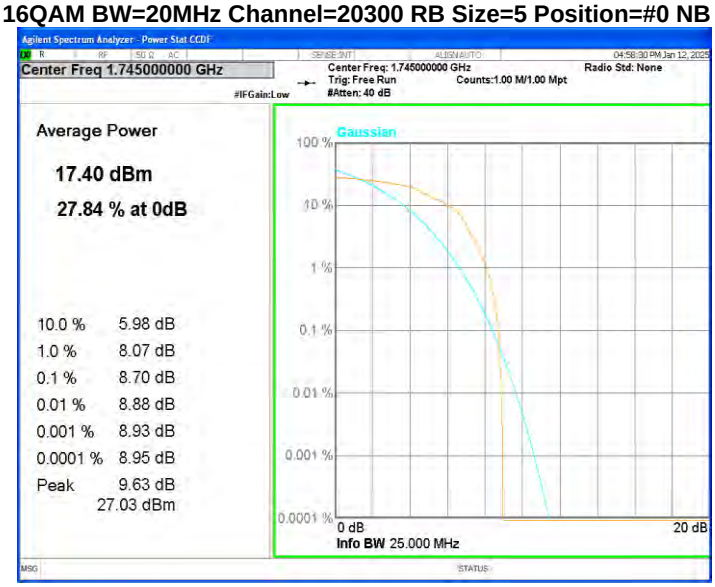
Band4 16QAM BW=20MHz Channel=20050 RB Size=5 Position=#0 NB Index=0



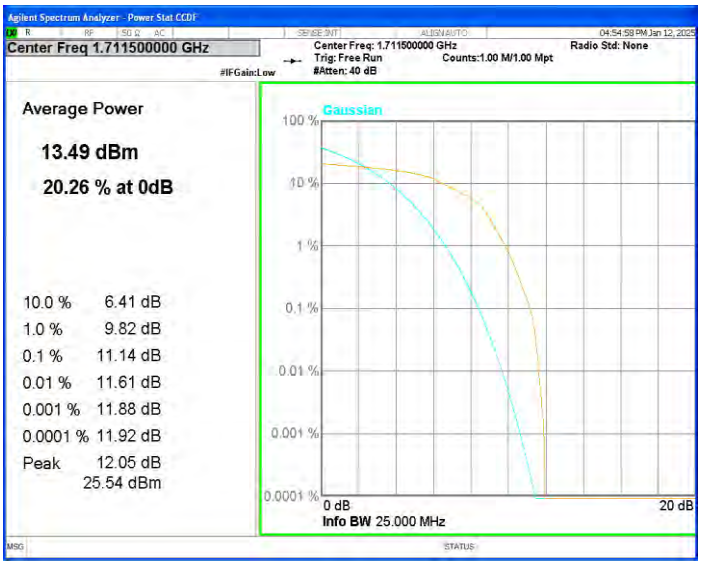
Band4 16QAM BW=20MHz Channel=20175 RB Size=5 Position=#0 NB Index=0



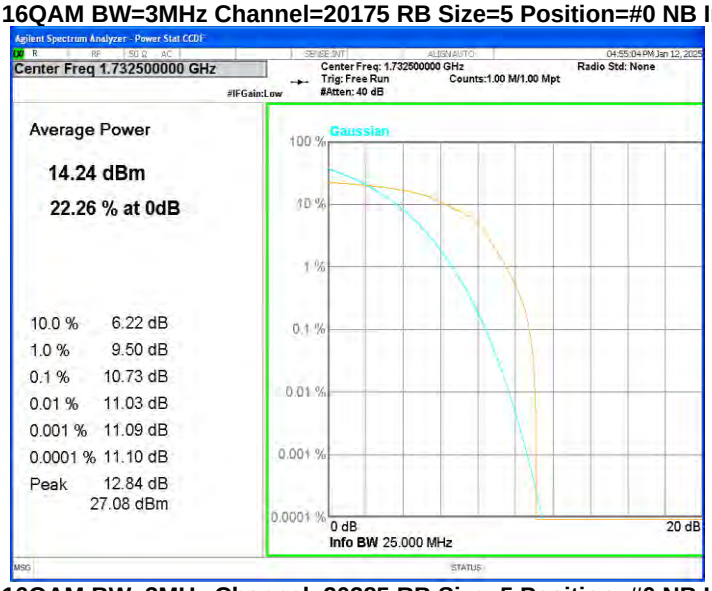
Band4 16QAM BW=20MHz Channel=20300 RB Size=5 Position=#0 NB Index=0



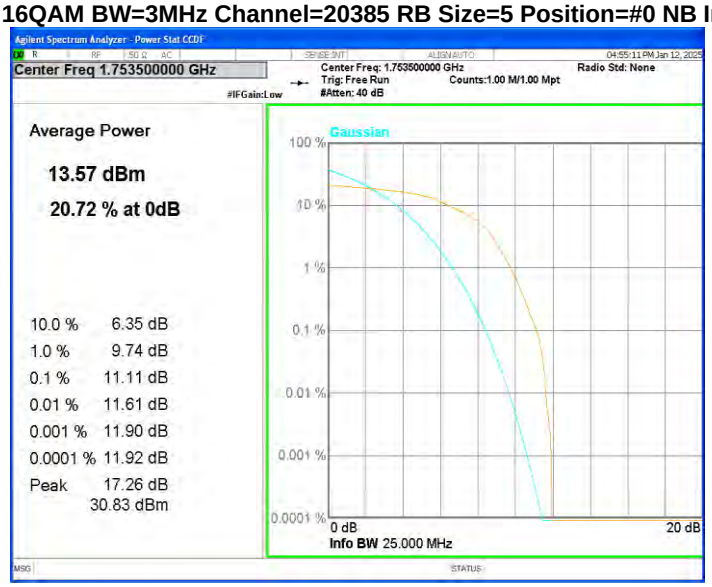
Band4 16QAM BW=3MHz Channel=19965 RB Size=5 Position=#0 NB Index=0



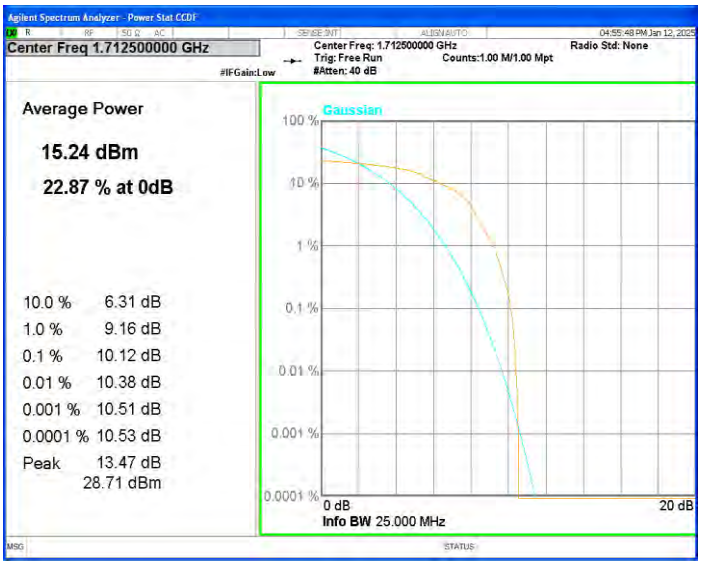
Band4 16QAM BW=3MHz Channel=20175 RB Size=5 Position=#0 NB Index=0



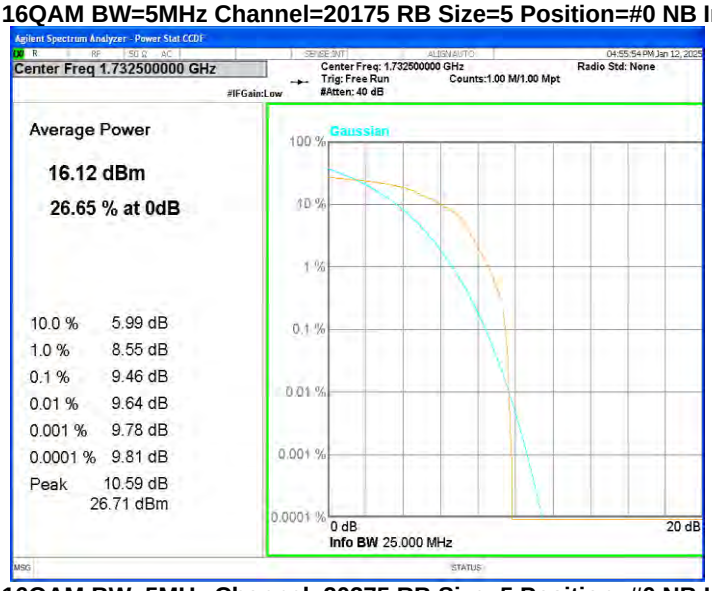
Band4 16QAM BW=3MHz Channel=20385 RB Size=5 Position=#0 NB Index=0



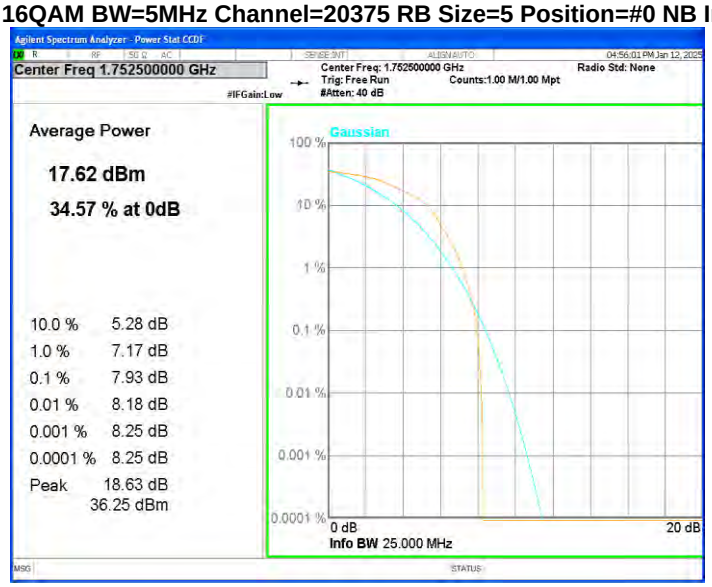
Band4 16QAM BW=5MHz Channel=19975 RB Size=5 Position=#0 NB Index=0



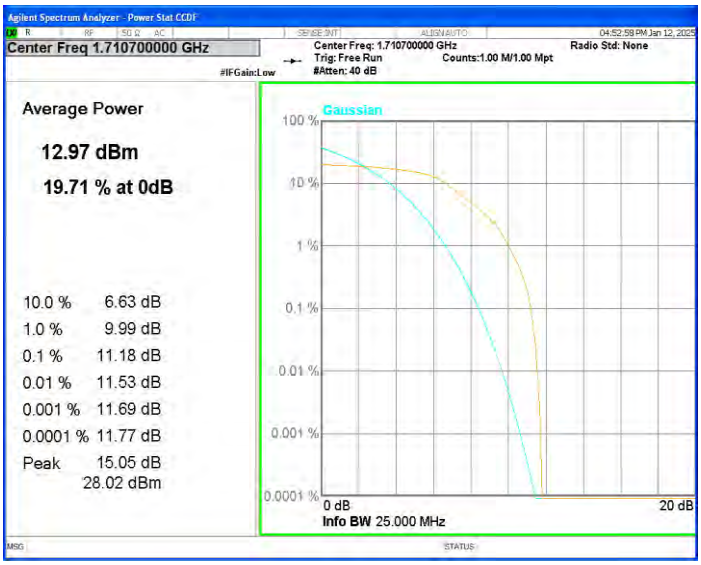
Band4 16QAM BW=5MHz Channel=20175 RB Size=5 Position=#0 NB Index=0



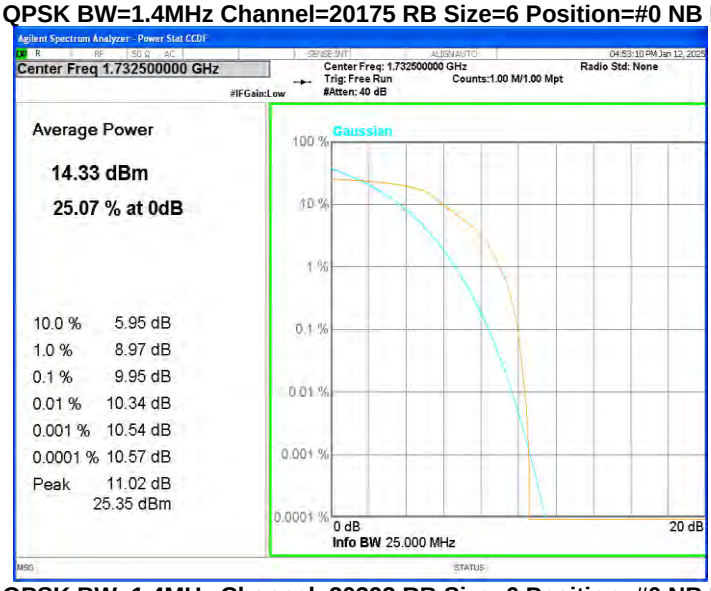
Band4 16QAM BW=5MHz Channel=20375 RB Size=5 Position=#0 NB Index=0



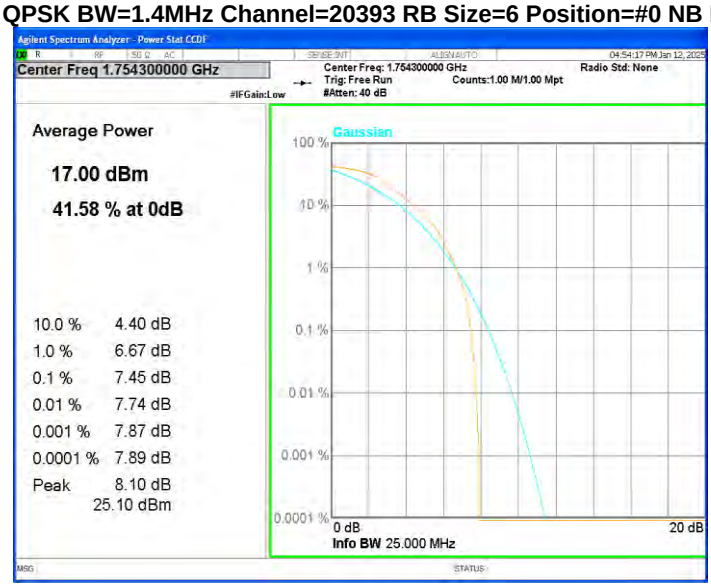
Band4 QPSK BW=1.4MHz Channel=19957 RB Size=6 Position=#0 NB Index=0



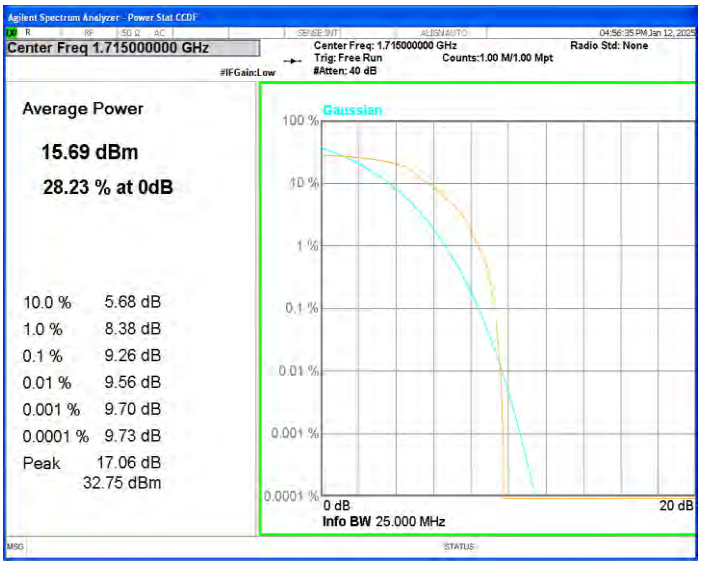
Band4 QPSK BW=1.4MHz Channel=20175 RB Size=6 Position=#0 NB Index=0



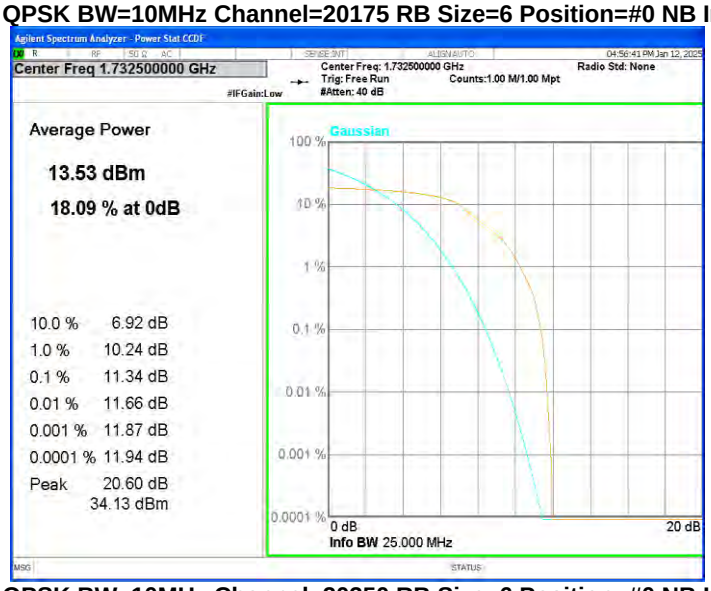
Band4 QPSK BW=1.4MHz Channel=20393 RB Size=6 Position=#0 NB Index=0



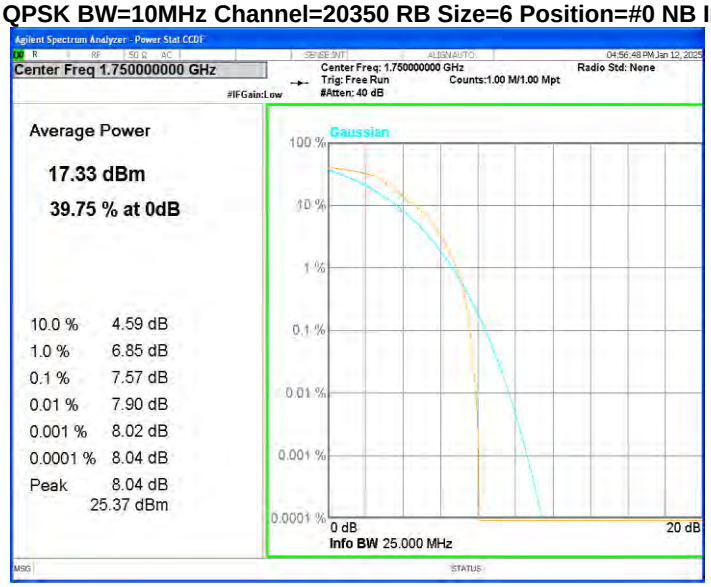
Band4 QPSK BW=10MHz Channel=20000 RB Size=6 Position=#0 NB Index=0



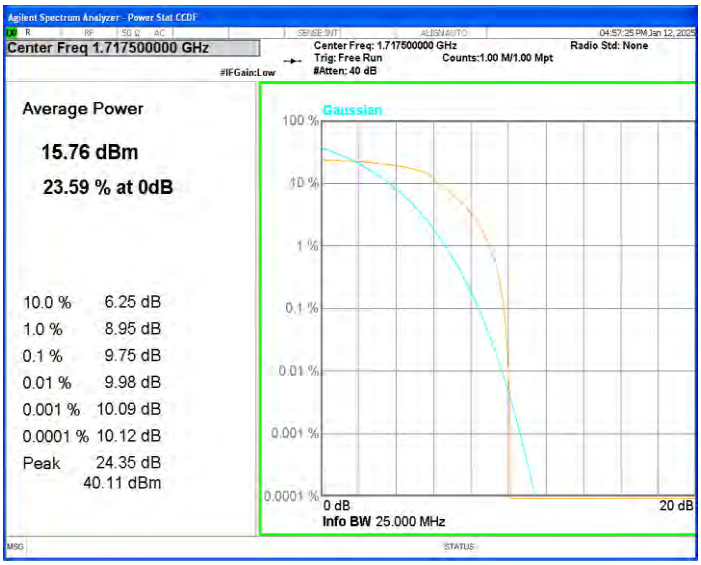
Band4 QPSK BW=10MHz Channel=20175 RB Size=6 Position=#0 NB Index=0



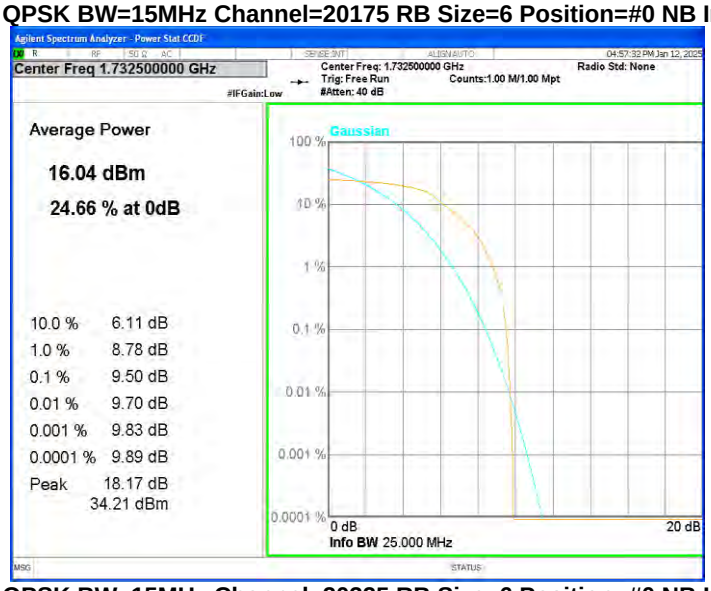
Band4 QPSK BW=10MHz Channel=20350 RB Size=6 Position=#0 NB Index=0



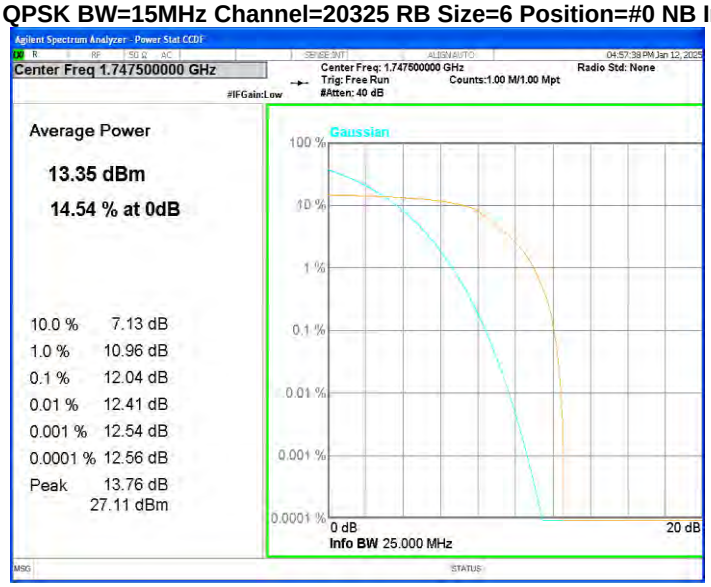
Band4 QPSK BW=15MHz Channel=20025 RB Size=6 Position=#0 NB Index=0



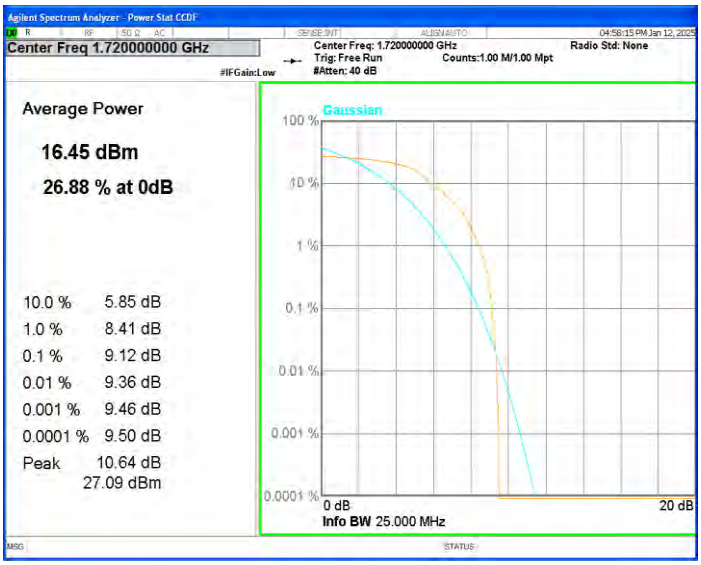
Band4 QPSK BW=15MHz Channel=20175 RB Size=6 Position=#0 NB Index=0



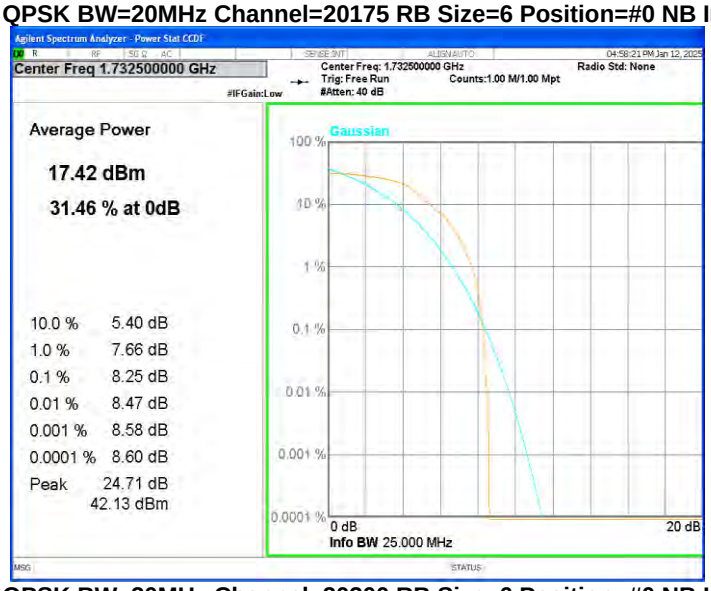
Band4 QPSK BW=15MHz Channel=20325 RB Size=6 Position=#0 NB Index=0



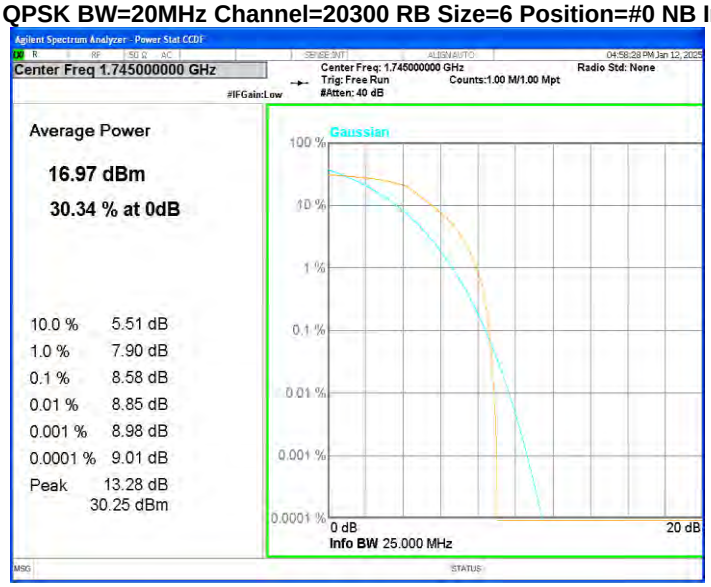
Band4 QPSK BW=20MHz Channel=20050 RB Size=6 Position=#0 NB Index=0



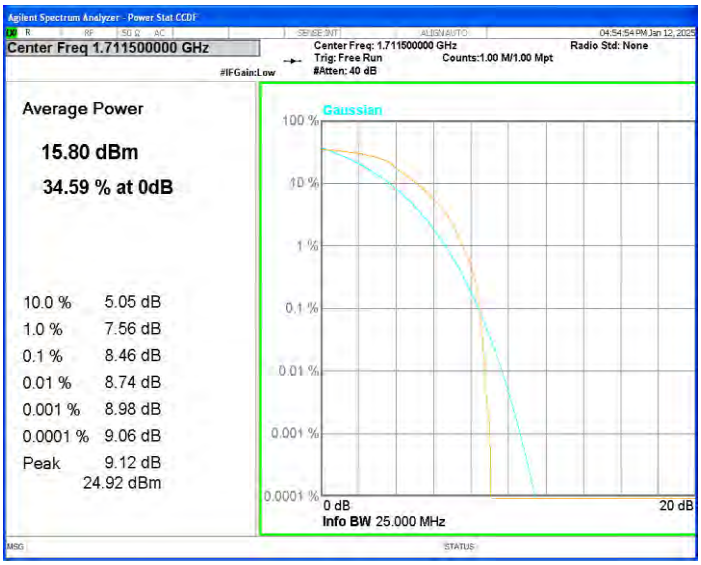
Band4 QPSK BW=20MHz Channel=20175 RB Size=6 Position=#0 NB Index=0



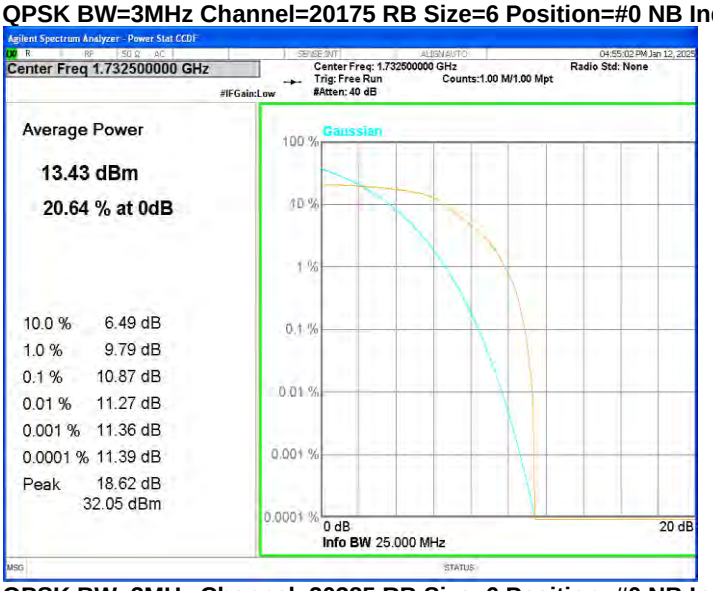
Band4 QPSK BW=20MHz Channel=20300 RB Size=6 Position=#0 NB Index=0



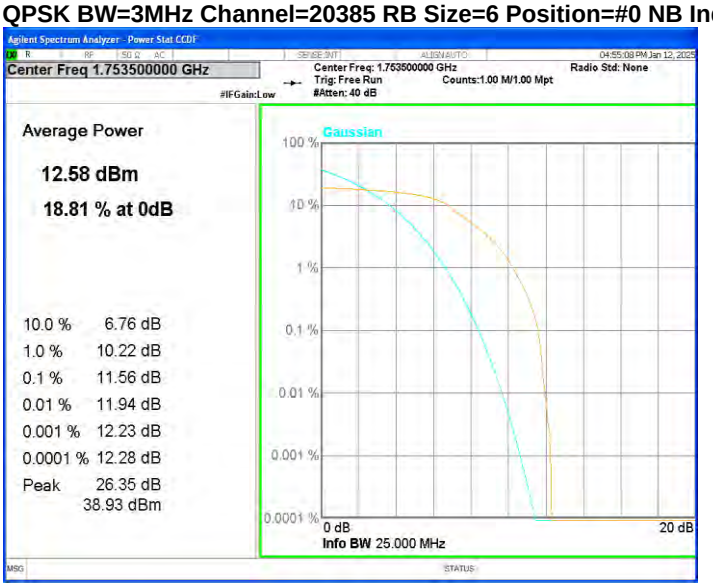
Band4 QPSK BW=3MHz Channel=19965 RB Size=6 Position=#0 NB Index=0



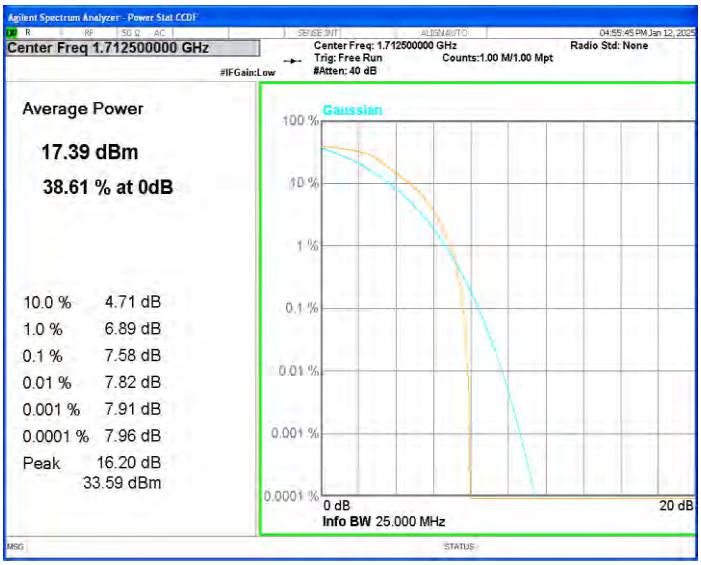
Band4 QPSK BW=3MHz Channel=20175 RB Size=6 Position=#0 NB Index=0



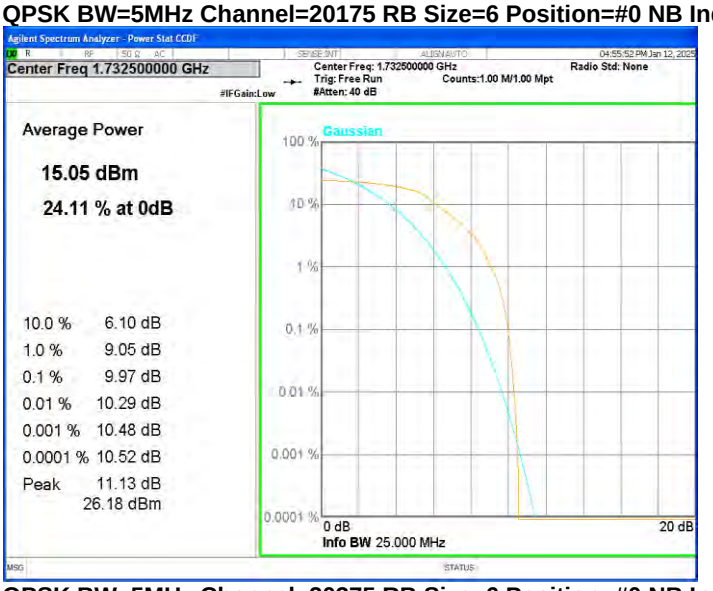
Band4 QPSK BW=3MHz Channel=20385 RB Size=6 Position=#0 NB Index=0



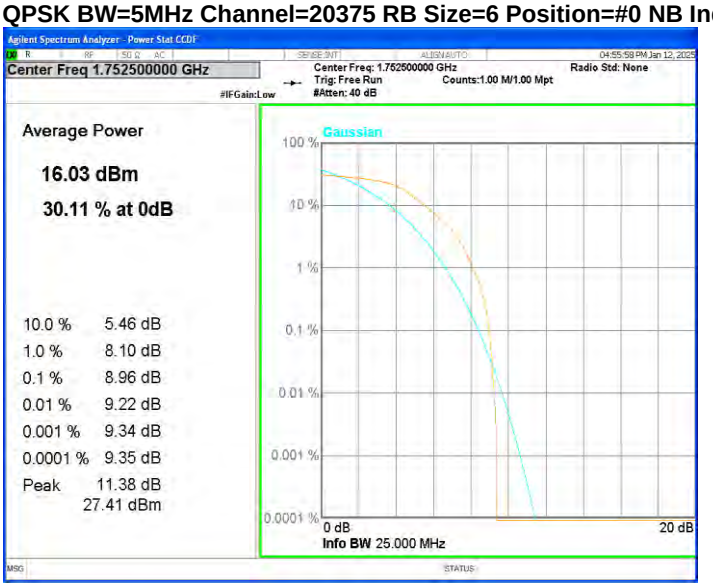
Band4 QPSK BW=5MHz Channel=19975 RB Size=6 Position=#0 NB Index=0



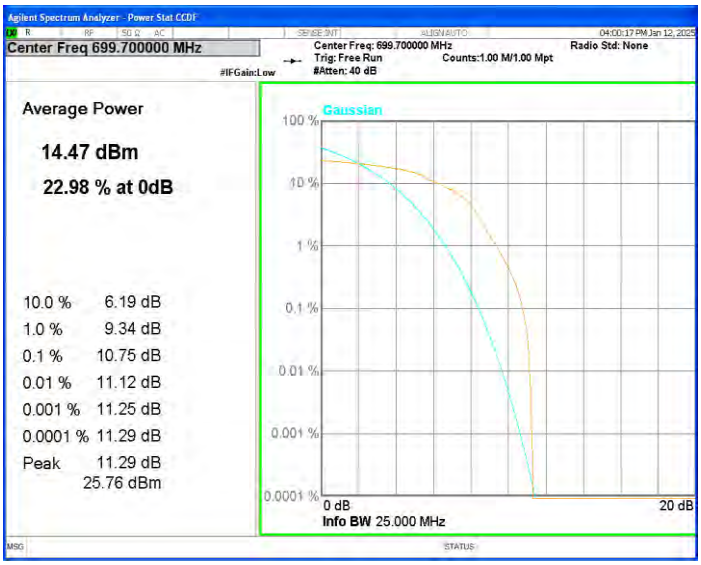
Band4 QPSK BW=5MHz Channel=20175 RB Size=6 Position=#0 NB Index=0



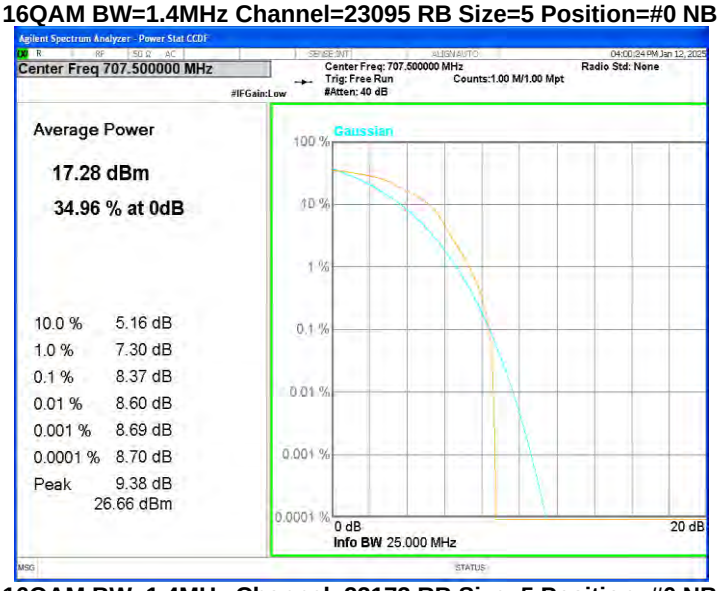
Band4 QPSK BW=5MHz Channel=20375 RB Size=6 Position=#0 NB Index=0



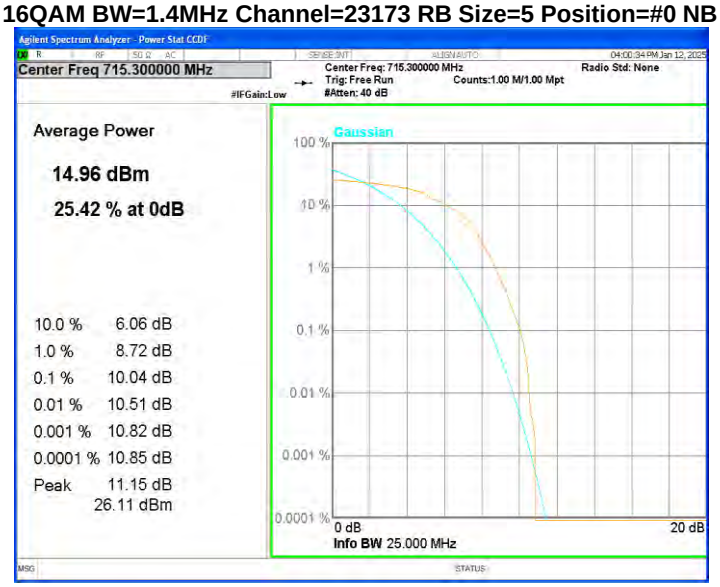
Band12 16QAM BW=1.4MHz Channel=23017 RB Size=5 Position=#0 NB Index=0



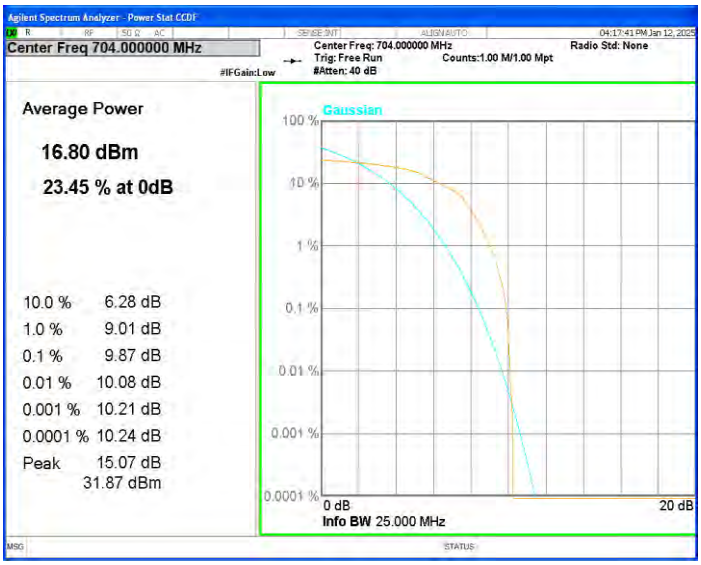
Band12 16QAM BW=1.4MHz Channel=23095 RB Size=5 Position=#0 NB Index=0



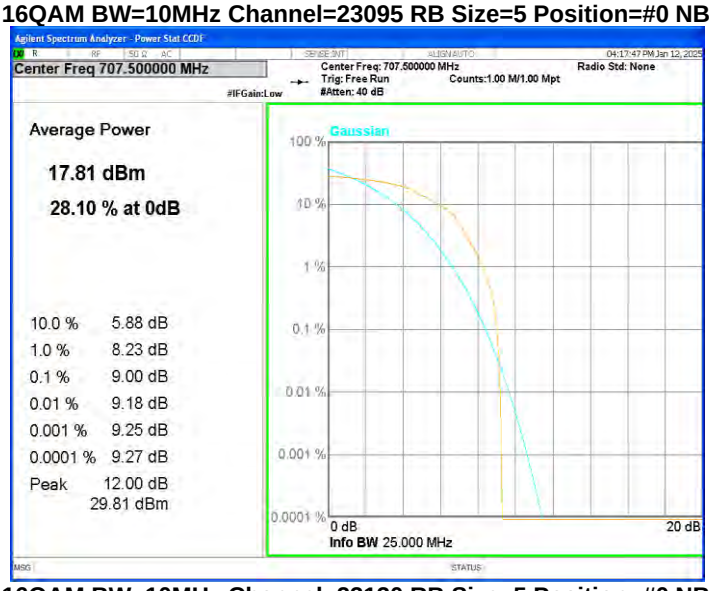
Band12 16QAM BW=1.4MHz Channel=23173 RB Size=5 Position=#0 NB Index=0



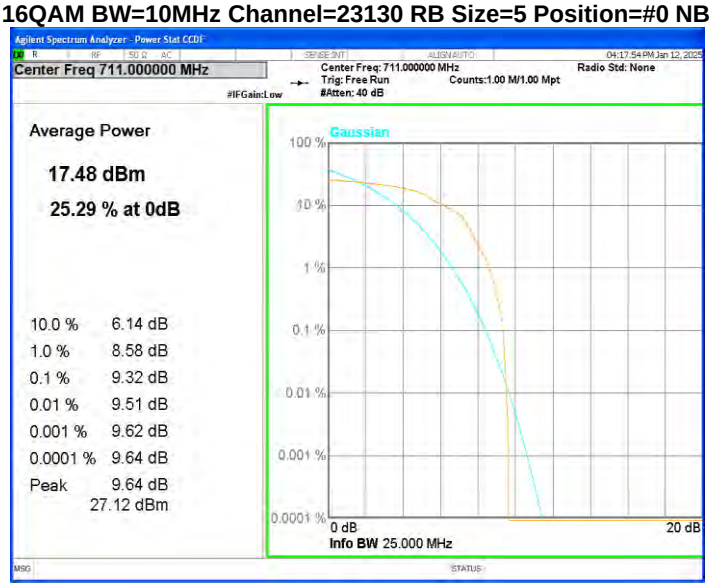
Band12 16QAM BW=10MHz Channel=23060 RB Size=5 Position=#0 NB Index=0



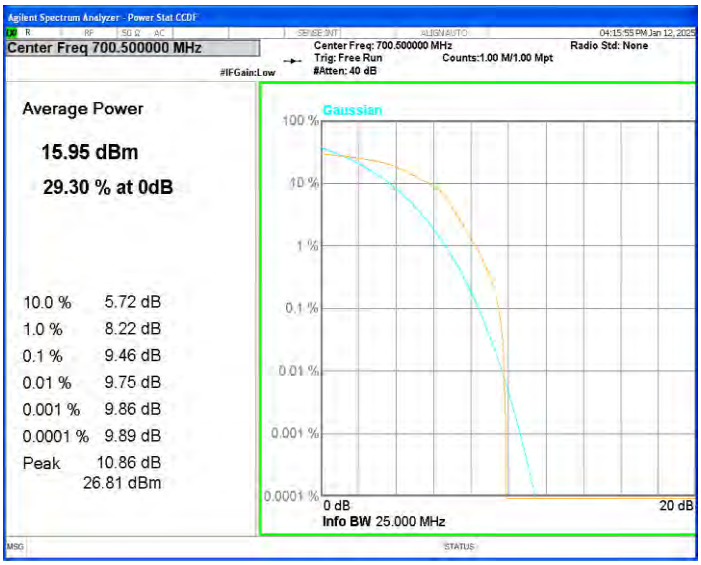
Band12 16QAM BW=10MHz Channel=23095 RB Size=5 Position=#0 NB Index=0



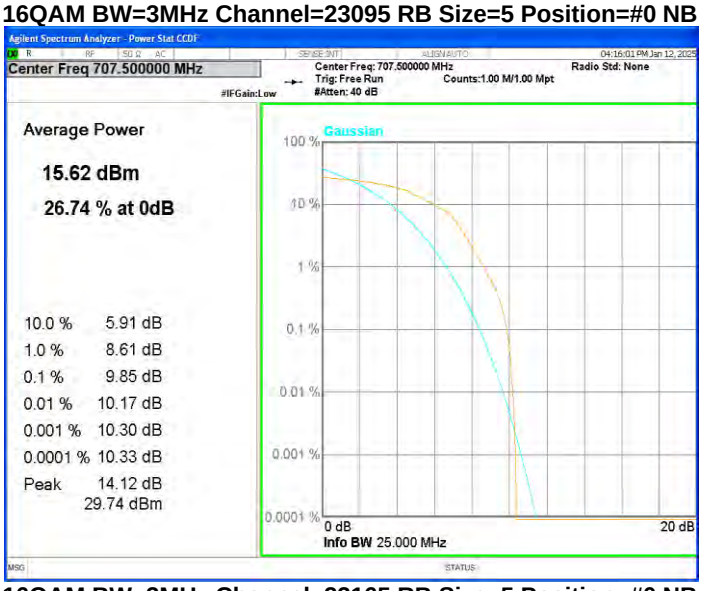
Band12 16QAM BW=10MHz Channel=23130 RB Size=5 Position=#0 NB Index=0



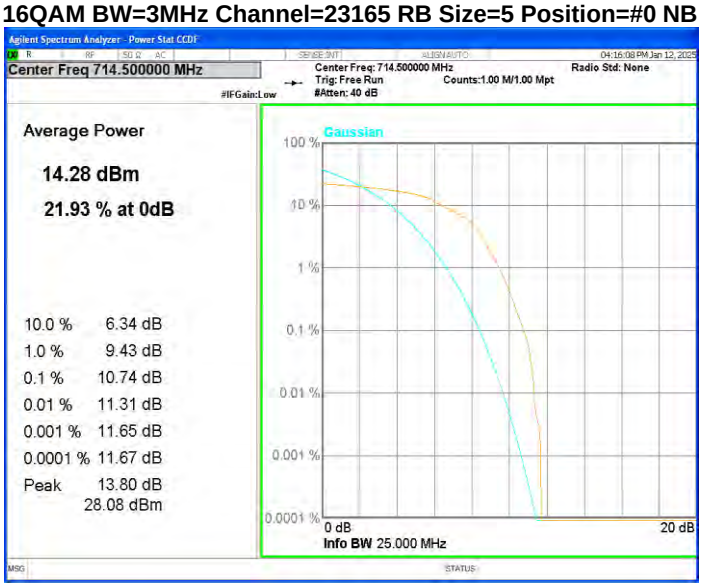
Band12 16QAM BW=3MHz Channel=23025 RB Size=5 Position=#0 NB Index=0



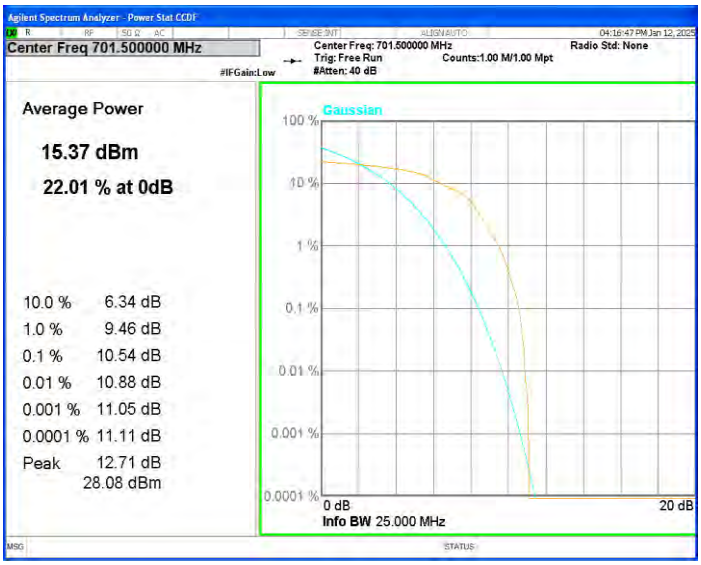
Band12 16QAM BW=3MHz Channel=23095 RB Size=5 Position=#0 NB Index=0



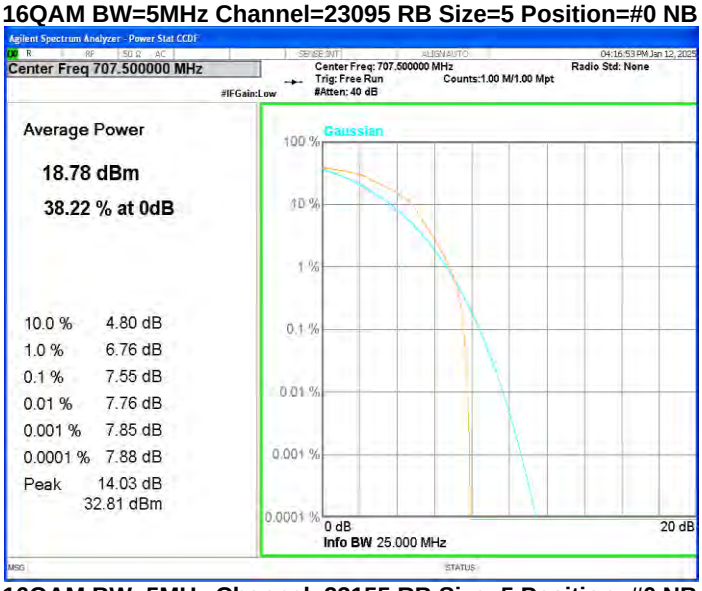
Band12 16QAM BW=3MHz Channel=23165 RB Size=5 Position=#0 NB Index=0



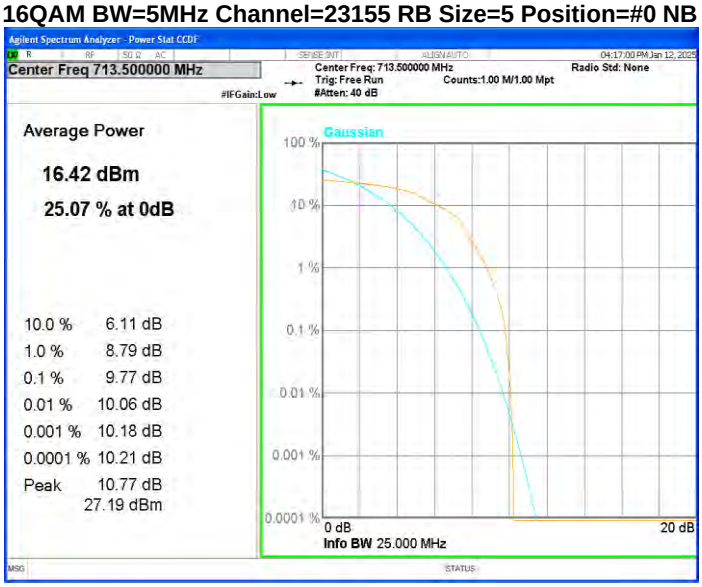
Band12 16QAM BW=5MHz Channel=23035 RB Size=5 Position=#0 NB Index=0



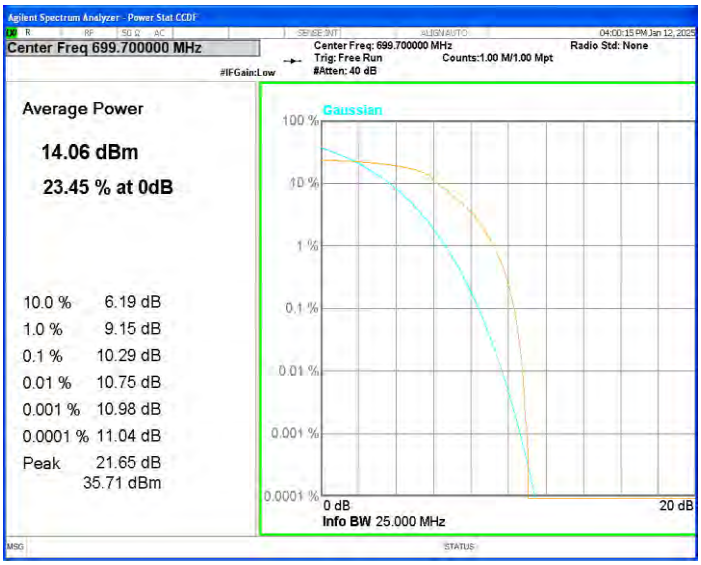
Band12 16QAM BW=5MHz Channel=23095 RB Size=5 Position=#0 NB Index=0



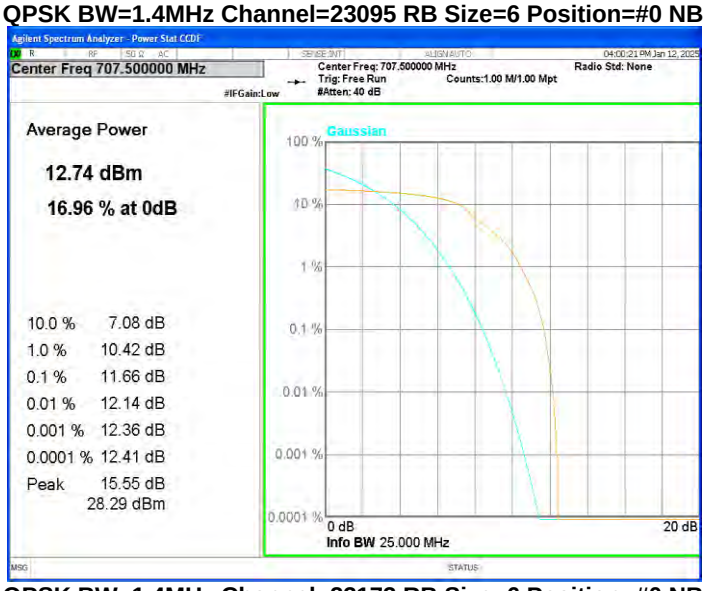
Band12 16QAM BW=5MHz Channel=23155 RB Size=5 Position=#0 NB Index=0



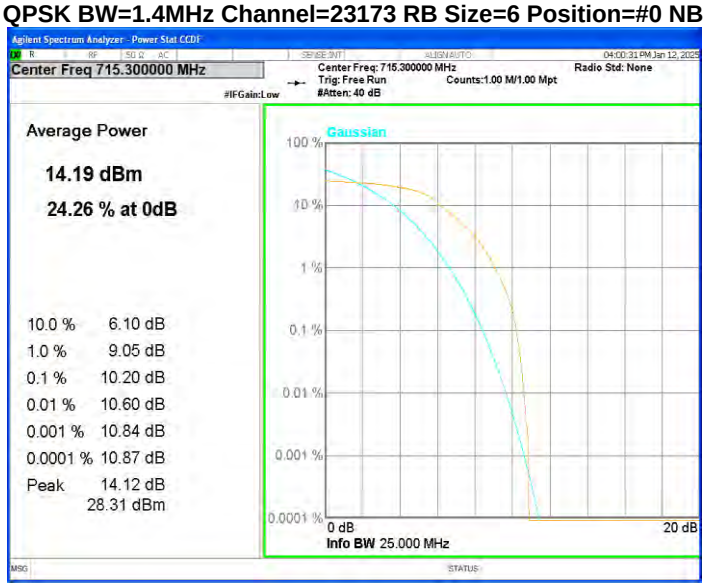
Band12 QPSK BW=1.4MHz Channel=23017 RB Size=6 Position=#0 NB Index=0



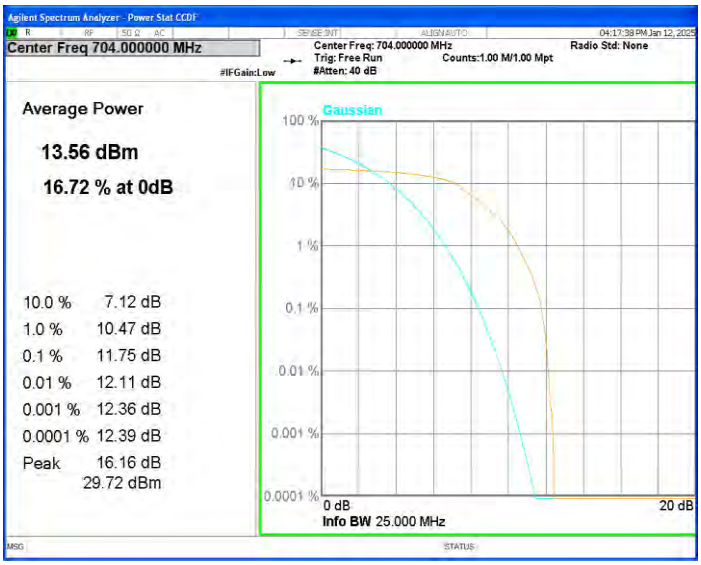
Band12 QPSK BW=1.4MHz Channel=23095 RB Size=6 Position=#0 NB Index=0



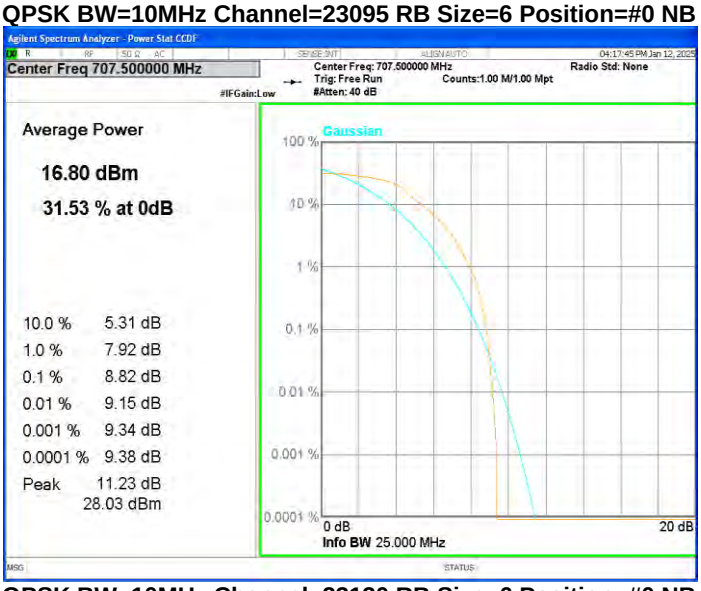
Band12 QPSK BW=1.4MHz Channel=23173 RB Size=6 Position=#0 NB Index=0



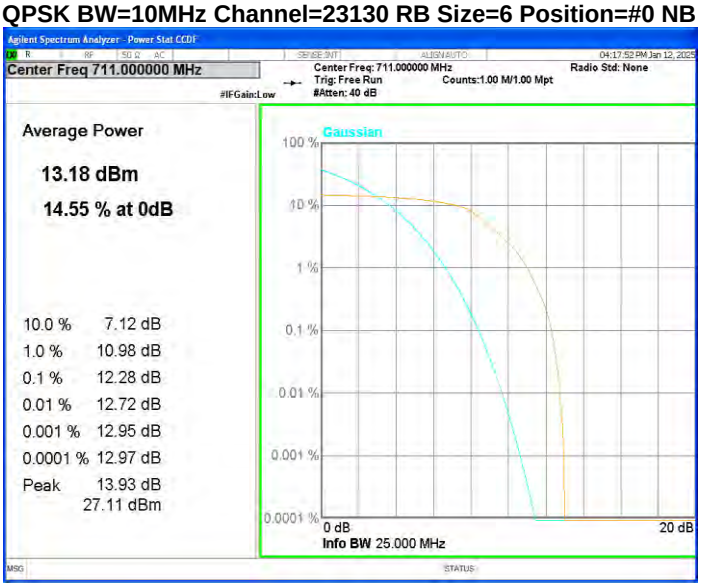
Band12 QPSK BW=10MHz Channel=23060 RB Size=6 Position=#0 NB Index=0



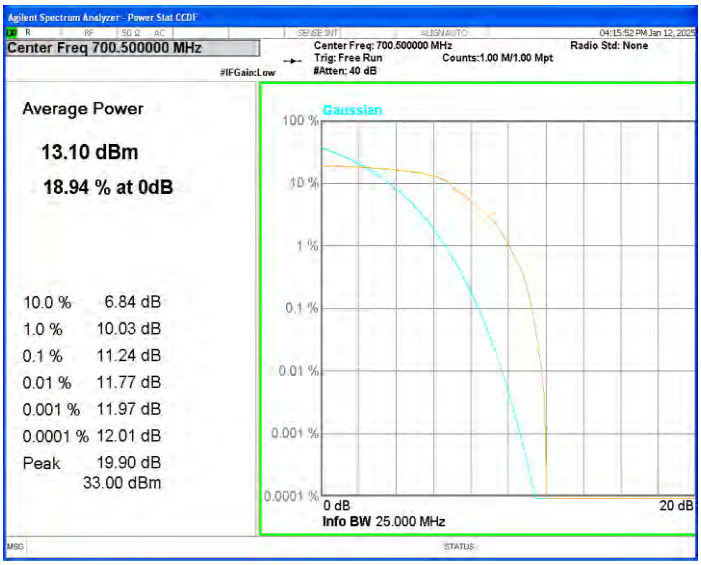
Band12 QPSK BW=10MHz Channel=23095 RB Size=6 Position=#0 NB Index=0



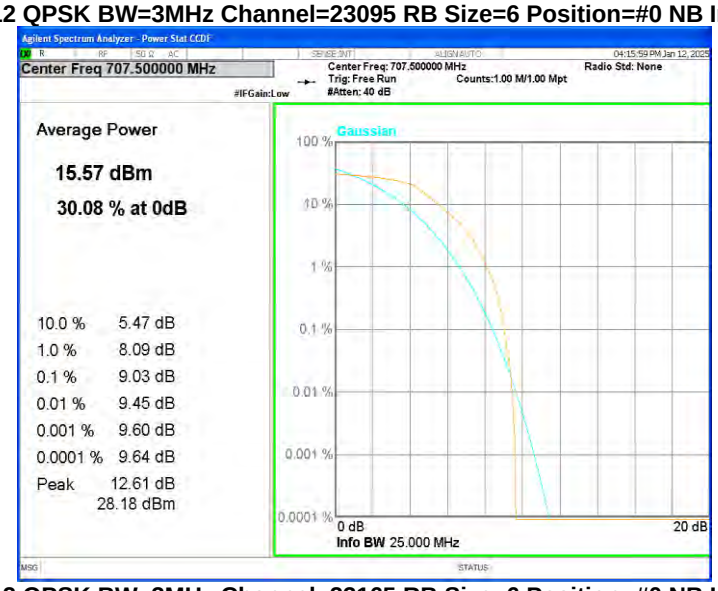
Band12 QPSK BW=10MHz Channel=23130 RB Size=6 Position=#0 NB Index=0



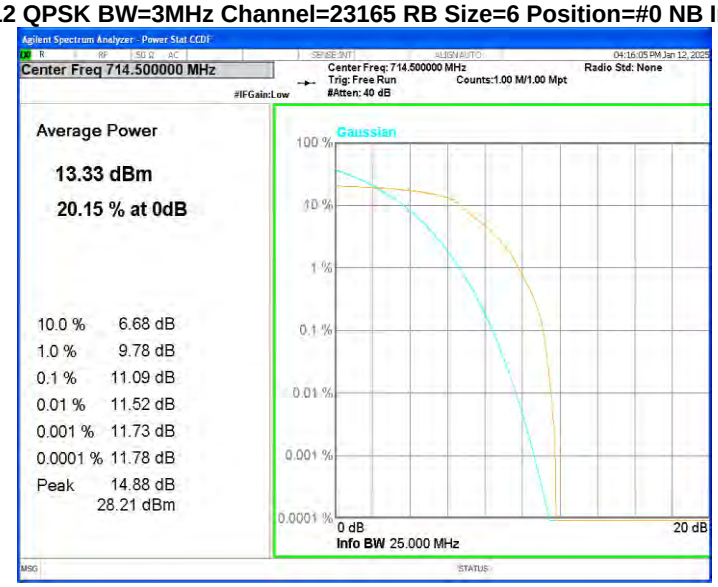
Band12 QPSK BW=3MHz Channel=23025 RB Size=6 Position=#0 NB Index=0



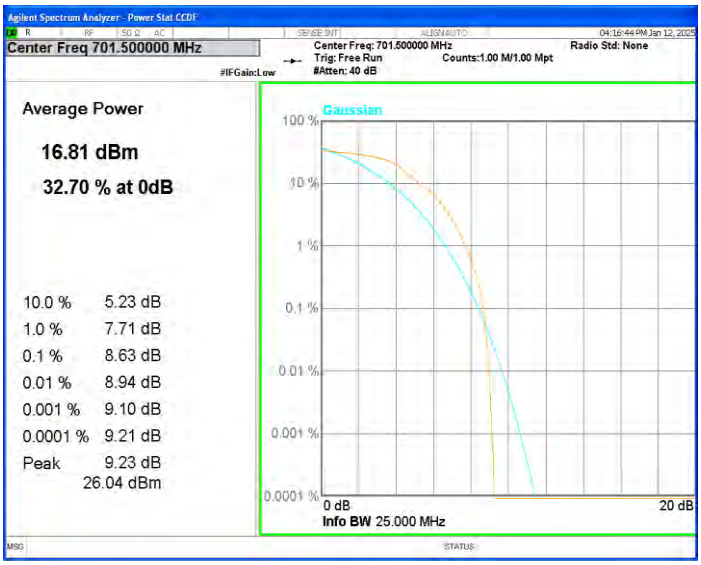
Band12 QPSK BW=3MHz Channel=23095 RB Size=6 Position=#0 NB Index=0



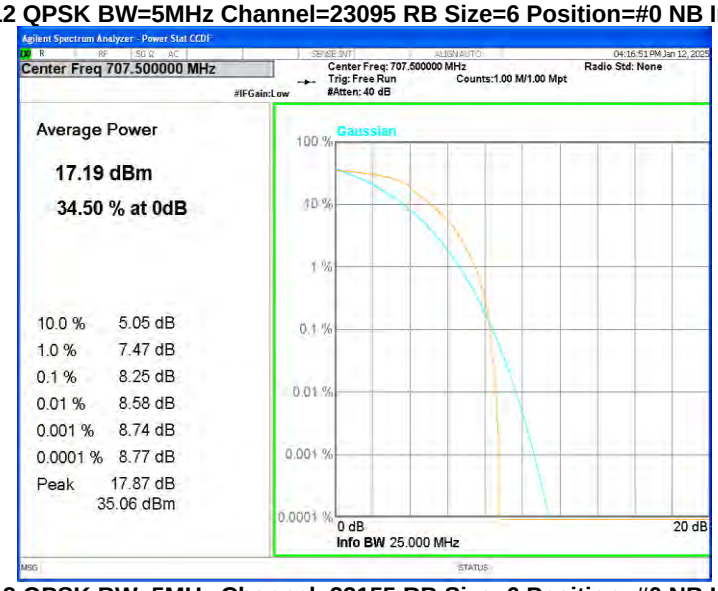
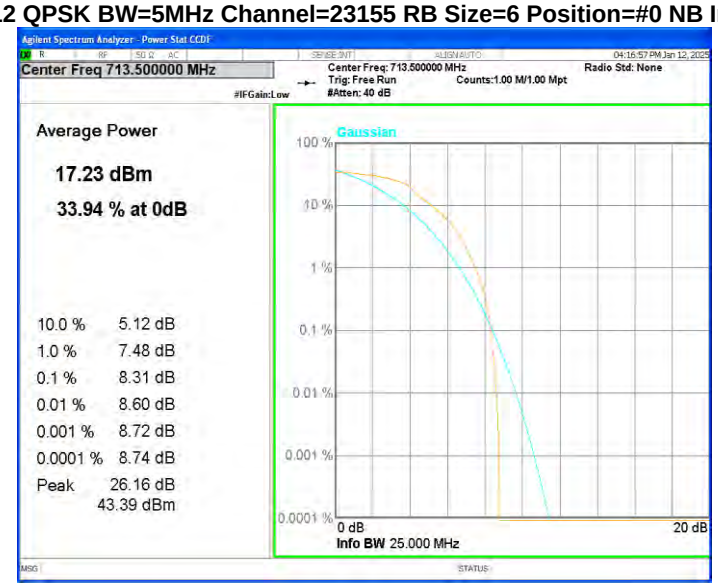
Band12 QPSK BW=3MHz Channel=23165 RB Size=6 Position=#0 NB Index=0



Band12 QPSK BW=5MHz Channel=23035 RB Size=6 Position=#0 NB Index=0



Band12 QPSK BW=5MHz Channel=23095 RB Size=6 Position=#0 NB Index=0



Band12 QPSK BW=5MHz Channel=23155 RB Size=6 Position=#0 NB Index=0