



BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03



Certificate # 3939.01

IC TEST REPORT

(RSS-130)

Applicant:	Particle Industries, Inc
Address:	325 9th Street, San Francisco, CA 94103, United States Of America

Manufacturer or Supplier:	Particle Industries, Inc
Address:	325 9th Street, San Francisco, CA 94103, United States Of America
Product:	M SoM
Brand Name:	Particle
Model Name:	M404
IC:	20127-M404
Date of tests:	Dec. 27, 2023 ~ Mar. 10, 2024

The tests have been carried out according to the requirements of the following standard:

- RSS-130 Issue 2, February, 2019
 RSS-Gen Issue 5, Amendment 1, March 2019
 ANSI C63.26-2015

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department

Date: Mar. 10, 2024

Date: Mar. 10, 2024

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23120015RI03	Original release	Mar. 10, 2024

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1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: IC RSS-130, RSS-Gen		
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT
RSS-Gen	Occupied Bandwidth	Compliance
6.7	Transmit antenna	Compliance
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT
RSS-130	Frequency Stability AFC Freq. Error vs. Voltage AFC Freq. Error vs. Temperature	Compliance
4.5	Maximum Peak Output Power	Compliance
4.6	peak-to-average power ratio	Compliance
4.6	Band Edge Measurements	Compliance
4.7	Conducted Spurious Emissions	Compliance
4.7	Radiated Spurious Emissions	Compliance



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1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in ETSI TR 100 028-1 V1.4.1(2001-12):

MEASUREMENT	UNCERTAINTY
Frequency Stability	±76.97Hz
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions & Radiated Power (30MHz~1GHz)	±4.98dB
Radiated emissions & Radiated Power (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Band Edge Measurements	±4.70dB
Peak to average ratio	±0.76dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,23	Mar. 27,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.10,23	May.09,24
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,23	Sep.02,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,23	Feb. 17,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,23	Feb. 17,24
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 17,24	Feb. 16,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K- SG/QMS-00361	15433	Sep.04, 23	Sep.03, 24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 13,24	Feb. 12,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,23	May.09,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,23	Feb.16,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb.16,24	Feb.15,25
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn- CT0001143-121 6	Nov. 14,23	Nov. 13,26
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 06,23	May. 05,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,23	Feb. 13,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 13,24	Feb. 12,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,23	Feb. 13,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 13,24	Feb. 12,25
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,23	May. 05,24
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 13,24	Feb. 12,25
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,23	May.09,24
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24

- NOTE:**
1. The calibration interval of the above test instruments is 12 months months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
 3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
 4. The IC Company Number is 21771; The CAB Identifier No. is CN0007.



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2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

EUT	M SoM	
BRAND NAME	Particle	
MODEL NAME	M404	
POWER SUPPLY	VCC: 3.8V. 3V3:3.3V	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM
FREQUENCY RANGE	LTE Band 12 Channel Bandwidth: 1.4MHz	699.7MHz ~ 715.3MHz
	LTE Band 12 Channel Bandwidth: 3MHz	700.5MHz ~ 714.5MHz
	LTE Band 12 Channel Bandwidth: 5MHz	701.5MHz ~ 713.5MHz
	LTE Band 12 Channel Bandwidth: 10MHz	704.0MHz ~ 711.0MHz
	LTE Band 13 Channel Bandwidth: 5MHz	779.5MHz ~ 784.5MHz
	LTE Band 13 Channel Bandwidth: 10MHz	782.0MHz
EMISSION DESIGNATOR	LTE Band 12 Channel Bandwidth: 1.4MHz	QPSK: 1M09G7D
		16QAM: 1M09W7D
		64QAM: /
	LTE Band 12 Channel Bandwidth: 3MHz	QPSK: 1M33G7D
		16QAM: 1M33W7D
		64QAM: /
	LTE Band 12 Channel Bandwidth: 5MHz	QPSK: 1M21G7D
		16QAM: 1M22W7D
		64QAM: /

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EMISSION DESIGNATOR	LTE Band 12 Channel Bandwidth: 10MHz	QPSK: 1M42G7D 16QAM: 1M42W7D 64QAM: /
MAX. ERP/EIRP POWER	LTE Band 13 Channel Bandwidth: 5MHz	QPSK: 1M22G7D 16QAM: 1M22W7D 64QAM: /
MAX. ERP/EIRP POWER	LTE Band 13 Channel Bandwidth: 10MHz	QPSK: 1M48G7D 16QAM: 1M48W7D 64QAM: /
MAX. ERP/EIRP POWER	LTE Band 12 Channel Bandwidth: 1.4MHz	213.30mW
	LTE Band 12 Channel Bandwidth: 3MHz	224.91mW
	LTE Band 12 Channel Bandwidth: 5MHz	219.79mW
	LTE Band 12 Channel Bandwidth: 10MHz	224.91mW
	LTE Band 13 Channel Bandwidth: 5MHz	202.77mW
	LTE Band 13 Channel Bandwidth: 10MHz	187.07mW
ANTENNA TYPE	Fixed External Antenna with 2.8dBi gain for LTE B12 Fixed External Antenna with 2.8dBi gain for LTE B13	
HW VERSION	v0.2	
SW VERSION	v5.5.2	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	N/A	
EXTREME TEMPERATURE	-35-75 °C	
EXTREME VOLTAGE	VCC: 3.3V. 3V3:3.0V- VCC: 4.3V. 3V3:3.6V	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.

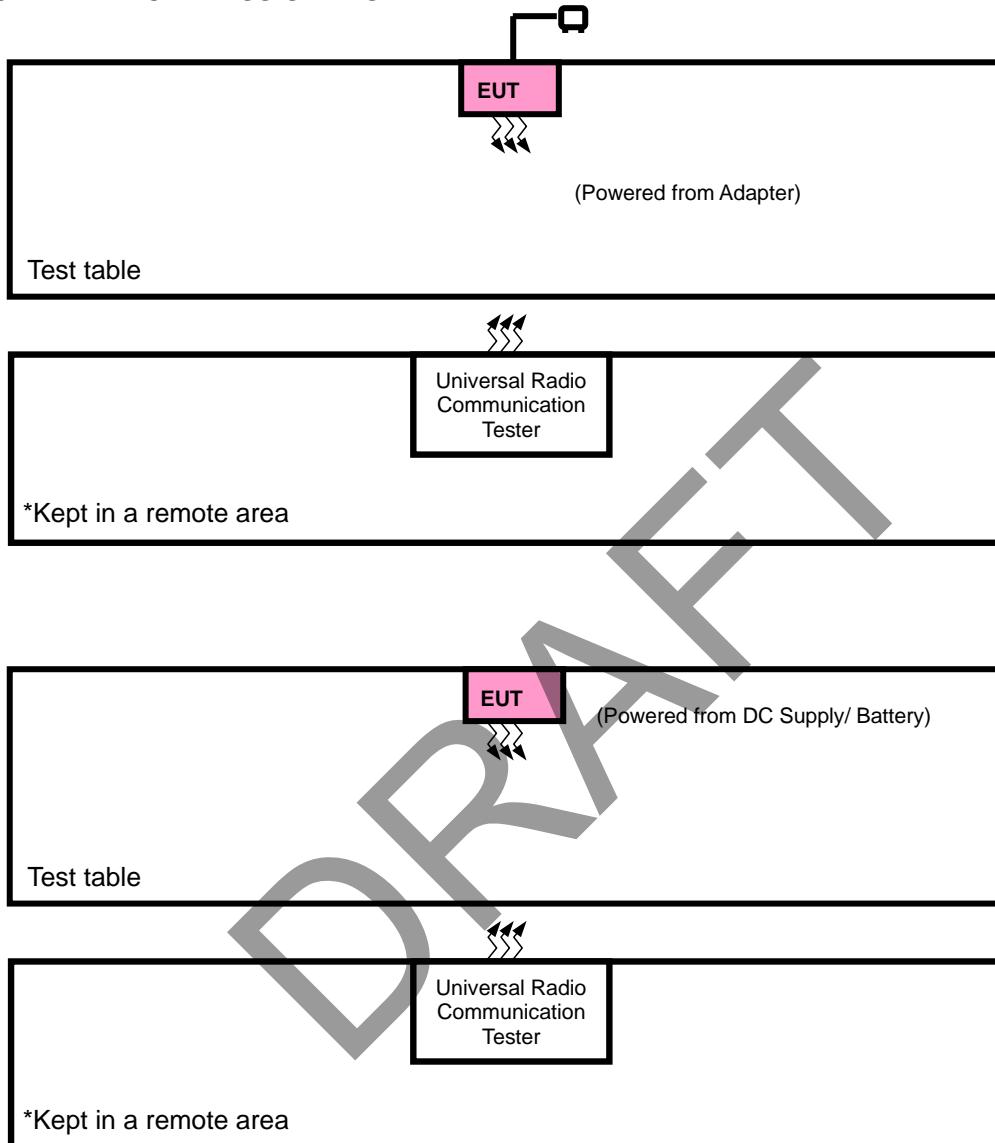


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2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





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2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	LONG WEI	PS-6403D	010934269	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.8m

2.4 DESCRIPTION OF TEST MODES

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on Y-plane for ERP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter + USB Cable with LTE link
B	EUT + DC Supply with LTE link



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LTE BAND 12 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	23060 to 23130	23060, 23095 ,23130	10MHz	QPSK	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM	6 RB / 0 RB Offset
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM	15 RB / 0 RB Offset
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	23017 to 23173	23017	1.4MHz	QPSK	1 RB / 0 RB Offset 6 RB / 0 RB Offset
			23173	1.4MHz	QPSK	1 RB / 5 RB Offset 6 RB / 0 RB Offset
		23025 to 23165	23025	3MHz	QPSK	1 RB / 0 RB Offset 15 RB / 0 RB Offset
			23165	3MHz	QPSK	1 RB / 14 RB Offset 15 RB / 0 RB Offset
		23035 to 23155	23035	5MHz	QPSK	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			23155	5MHz	QPSK	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		23060 to 23130	23060	10MHz	QPSK	1 RB / 0 RB Offset 50 RB / 0 RB Offset
			23130	10MHz	QPSK	1 RB / 49 RB Offset 50 RB / 0 RB Offset
A	CONDUCTED EMISSION	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	23017 to 23173	23095	1.4MHz	QPSK	1 RB / 0 RB Offset
		23025 to 23165	23095	3MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23095	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.



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LTE BAND 13 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	23230	23230	10MHz	QPSK	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	23230	23230	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	23205 to 23255	23205	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			23255	5MHz	QPSK, 16QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
A	CONDUCTED EMISSION	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	23205 to 23255	23230	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.



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TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	24deg. C, 60%RH	AC 120V/60Hz	Jace Hu
FREQUENCY STABILITY	24deg. C, 61%RH	DC 3.3V/3.8V/4.3V	James Fu
OCCUPIED BANDWIDTH	24deg. C, 61%RH	AC 120V/60Hz	James Fu
PEAK TO AVERAGE RATIO	24deg. C, 61%RH	AC 120V/60Hz	James Fu
BAND EDGE	24deg. C, 61%RH	AC 120V/60Hz	James Fu
CONDUCTED EMISSION	24deg. C, 61%RH	AC 120V/60Hz	Jace Hu
RADIATED EMISSION	23deg. C, 70%RH	AC 120V/60Hz	James Fu

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2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Canada RSS-130, Issue 2, February 2019

Canada RSS-Gen, Issue 5, Amendment 1, March 2019

ANSI C63.26 - 2015

NOTE: All test items have been performed and recorded as per the above standards.

2.6 TRANSMIT ANTENNA

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

Antenna Type	Fixed External Antenna
Antenna Gain	2.8dBi gain for LTE B12/B13
Impedance	50 Ω



3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

For frequency bands 617-652MHz and 663-698MHz:

The e.r.p. shall not exceed 3 watts for mobile equipment, fixed subscriber equipment and portable equipment.

For frequency bands 698-756MHz and 777-787MHz:

The e.r.p. shall not exceed 30 watts for mobile equipment and outdoor fixed subscriber equipment. The e.r.p. shall not exceed 3 watts for portable equipment and indoor fixed subscriber equipment.

3.1.2 TEST PROCEDURES

ERP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_c$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas} , typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_T = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

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

$$\text{ERP}=\text{EIRP}-2.15$$

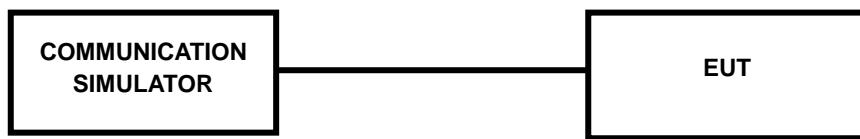
CONDUCTED POWER MEASUREMENT:

- a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

Please Refer to Appendix Of this test report.

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3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

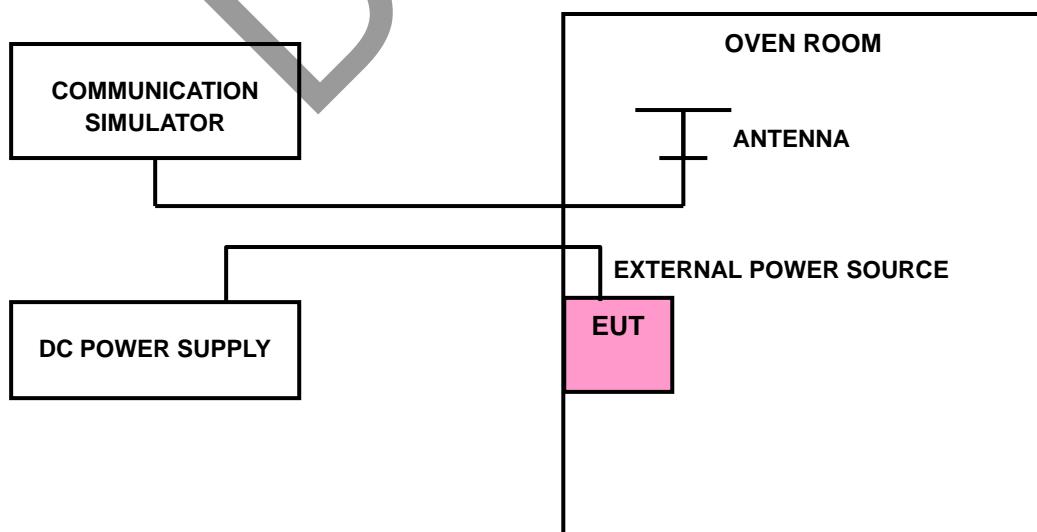
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP





3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

Note: 1.VL = Low voltage(VCC: 3.3V); VN/NV = Normal voltage(VCC: 3.8V); VH = High voltage(VCC: 4.3V);

NT = Normal temperature (25°C)

2. The frequency fundamental emissions stay within the authorized frequency block.

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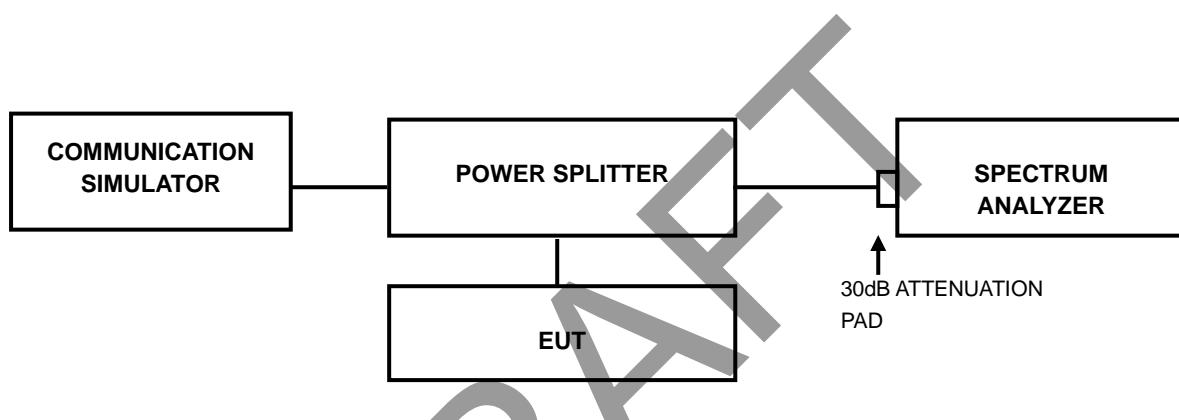
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3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

- a. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- b. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.



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3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

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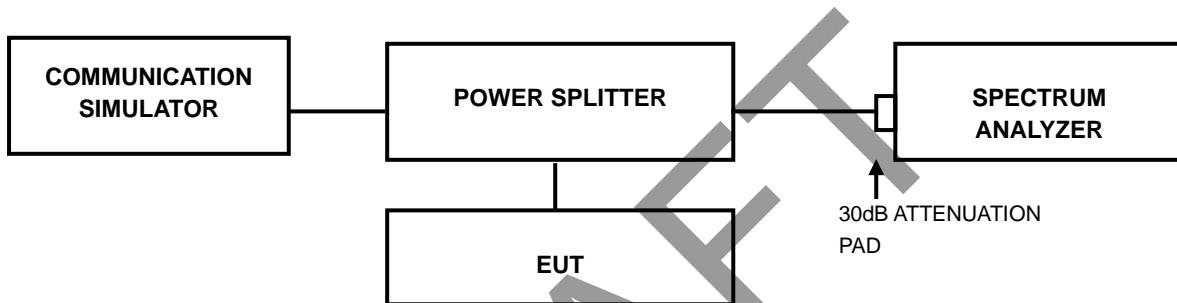
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3.4 PEAK TO AVERAGE RATIO

3.4.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

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

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

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



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3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.

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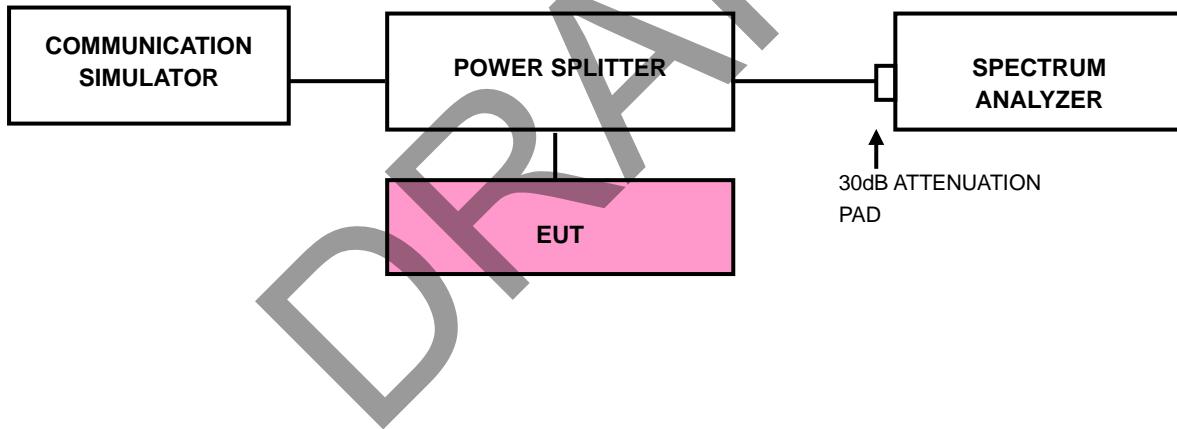
3.5 BAND EDGE MEASUREMENT

3.5.1 LIMITS OF BAND EDGE MEASUREMENT

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 $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

3.5.2 TEST SETUP





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3.5.3 TEST PROCEDURES

- a) All measurements were done at low and high operational frequency range
- b) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- c) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW)
- d) Set the resolution bandwidth (RBW) $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- e) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- f) Set the video bandwidth (VBW) to $\geq 3 \times$ RBW.
- g) Select the average power (RMS) display detector.
- h) Set the number of measurement points to ≥ 1001 .
- i) Use auto-coupled sweep time.
- j) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- k) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- l) Record the max trace plot into the test report.



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3.5.4 TEST RESULTS

Please Refer to Appendix Of this test report.

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3.6 CONDUCTED SPURIOUS EMISSIONS

3.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

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

Additional unwanted emissions limits

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

- a. the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:
 - i. $76 + 10 \log_{10} p$ (watts), dB, for base and fixed equipment and
 - ii. $65 + 10 \log_{10} p$ (watts), dB, for mobile and portable equipment
- b. the e.i.r.p. in the band 1559-1610 MHz shall not exceed -70 dBW/MHz for wideband signal and -80 dBW for discrete emission with bandwidth less than 700 Hz.

3.6.2 TEST PROCEDURE

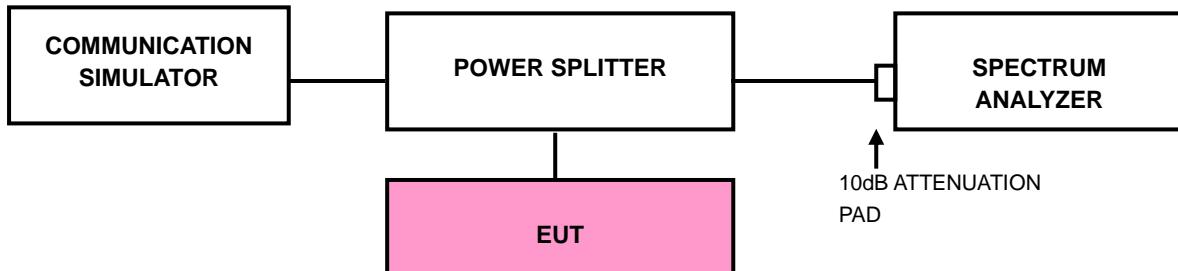
- a. The EUT makes a phone call to the communication simulator. All measurements were done at middle operational frequency range.
- b. Measuring frequency range is from 9 kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.



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3.6.3 TEST SETUP



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3.6.4 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Please Refer to Appendix Of this test report.

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3.7 RADIATED EMISSION MEASUREMENT

3.7.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

3.7.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m/1.5m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G
- c. EIRP = Output power level of S.G - TX cable loss + Antenna gain of substitution horn.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.7.3 DEVIATION FROM TEST STANDARD

No deviation

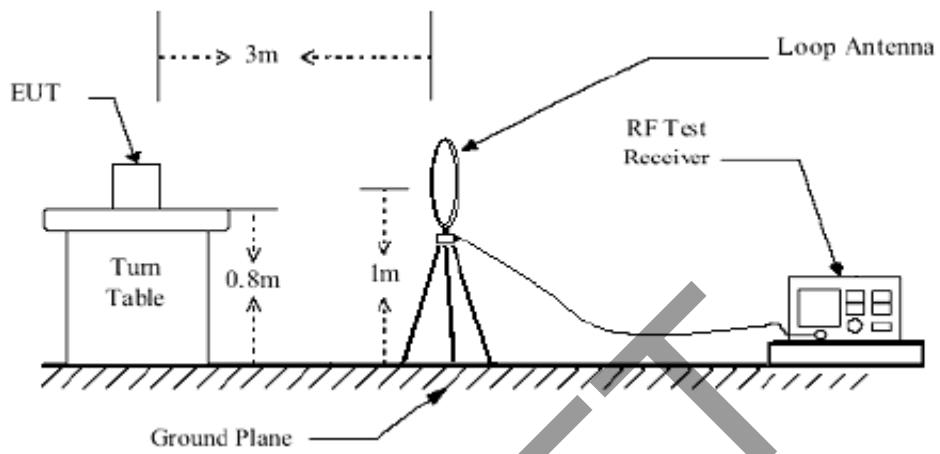


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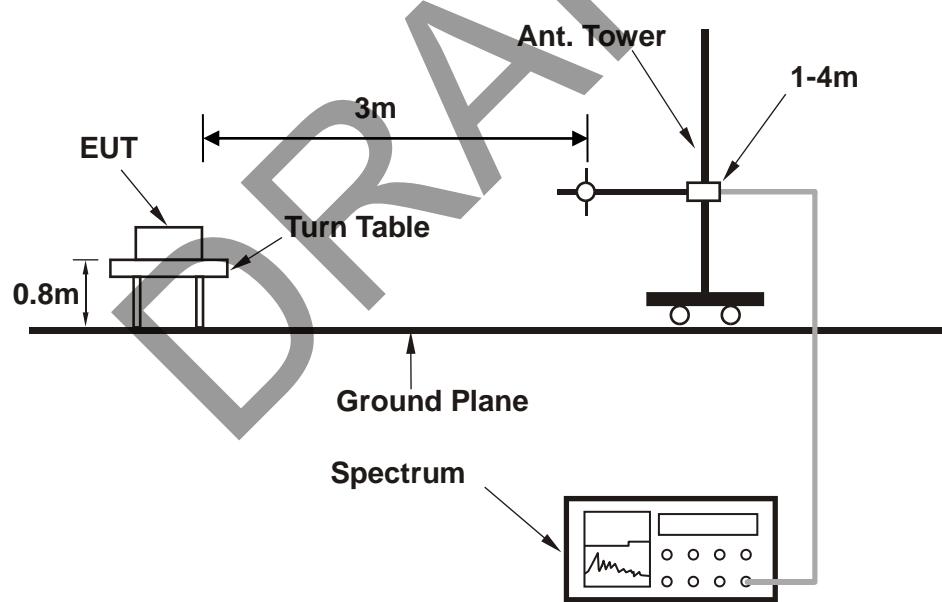
Test Report No.: W7L-P23120015RI03

3.7.4 TEST SETUP

< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >

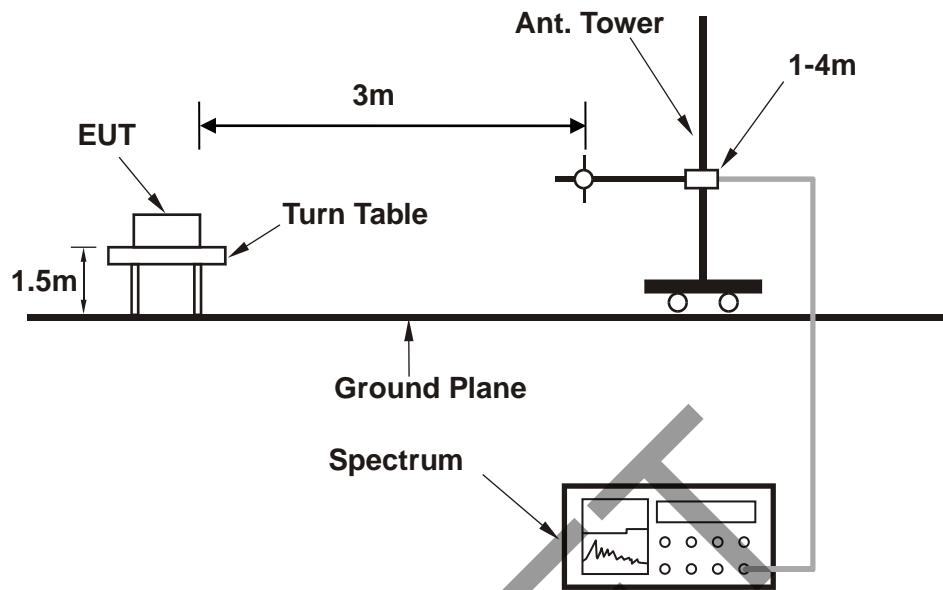




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Test Report No.: W7L-P23120015RI03

< Frequency Range above 1GHz >



For the actual test configuration, please refer to the attached file (Test Setup Photo).

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Test Report No.: W7L-P23120015RI03

3.7.5 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA

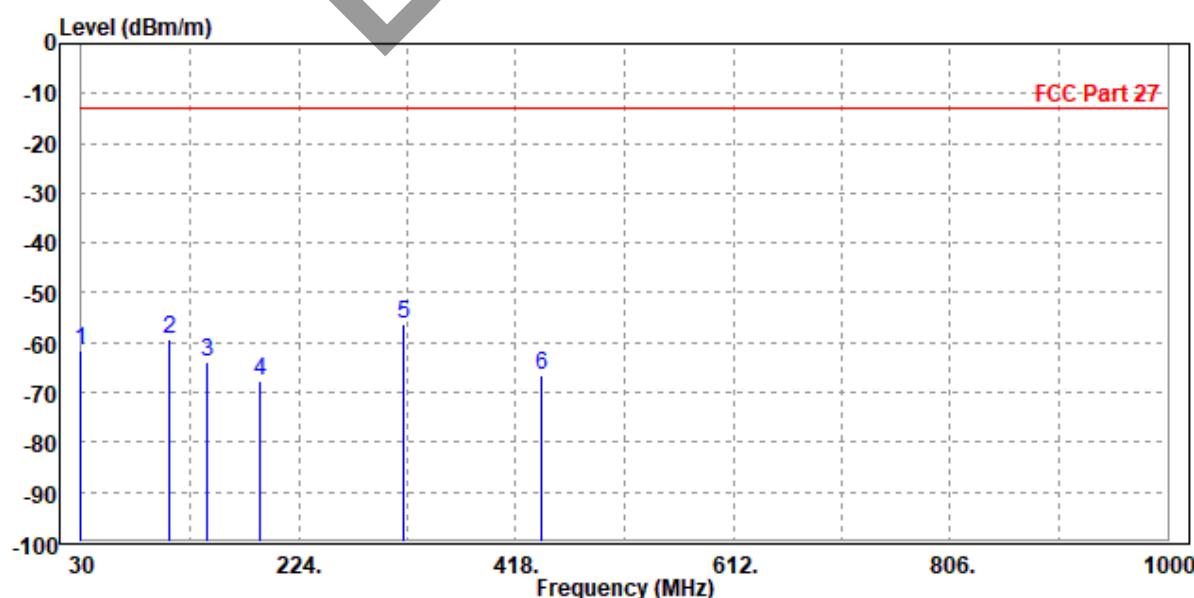
30 MHz – 1GHz data:

LTE Band 12

CHANNEL BANDWIDTH: 5MHz / QPSK

MODE	TX channel 23095	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	30.000	-61.61	-59.63	-13.00	-48.61	-1.98	Peak Horizontal
2	108.570	-59.22	-45.07	-13.00	-46.22	-14.15	Peak Horizontal
3	142.520	-63.94	-49.12	-13.00	-50.94	-14.82	Peak Horizontal
4	190.050	-67.50	-51.64	-13.00	-54.50	-15.86	Peak Horizontal
5 PP	317.120	-56.28	-47.80	-13.00	-43.28	-8.48	Peak Horizontal
6	441.280	-66.61	-60.48	-13.00	-53.61	-6.13	Peak Horizontal



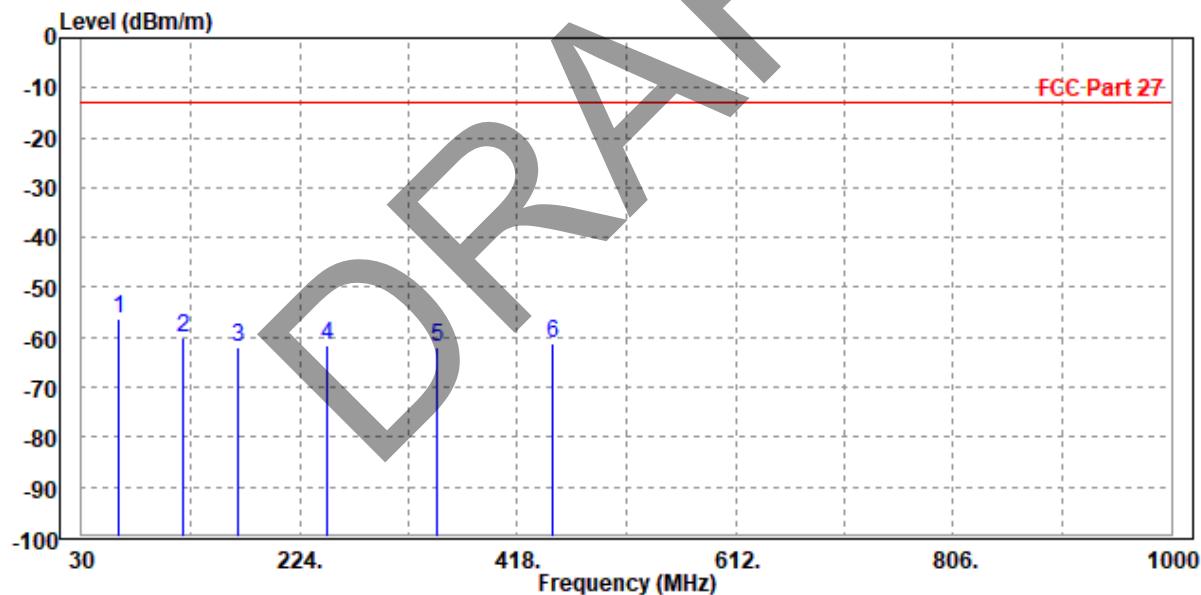


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23095	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Remark	Pol/Phase
		Level	Line	Limit Factor		
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 PP	62.980	-56.46	-37.52	-13.00	-43.46	-18.94 Peak Vertical
2	120.210	-60.09	-43.87	-13.00	-47.09	-16.22 Peak Vertical
3	168.710	-61.97	-51.02	-13.00	-48.97	-10.95 Peak Vertical
4	249.220	-61.52	-57.70	-13.00	-48.52	-3.82 Peak Vertical
5	346.220	-62.04	-58.29	-13.00	-49.04	-3.75 Peak Vertical
6	450.010	-61.36	-56.66	-13.00	-48.36	-4.70 Peak Vertical





ABOVE 1GHz

Note: For higher frequency, the emission is too low to be detected.

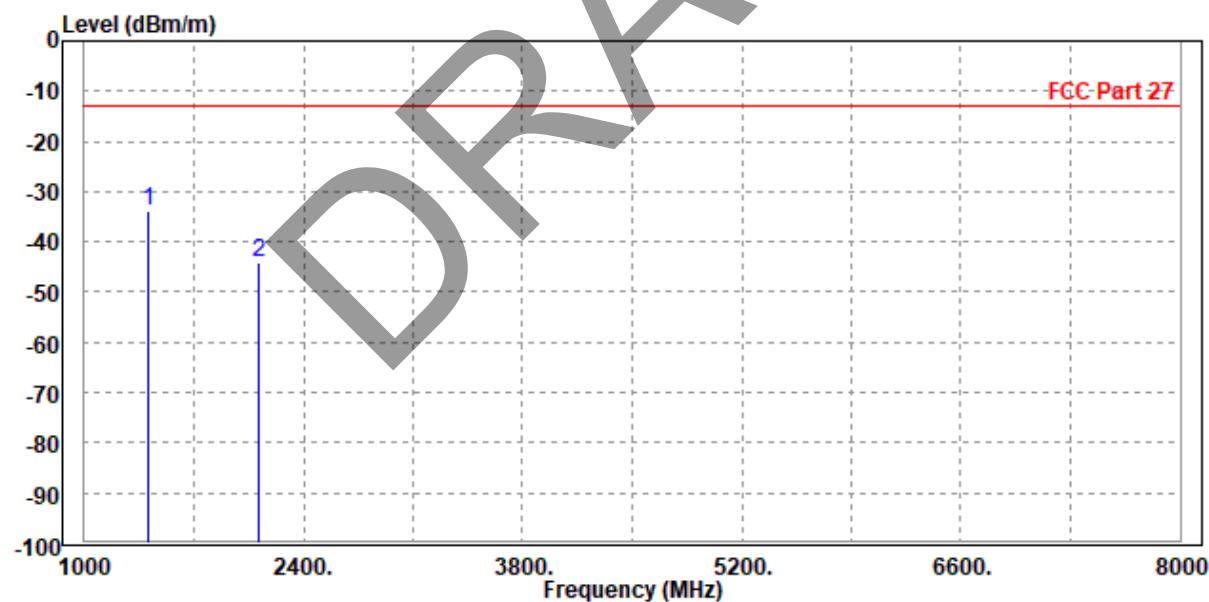
WORST-CASE DATA

LTE BAND 12

CHANNEL BANDWIDTH: 1.4MHz / QPSK

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq MHz	Level dBm/m	Read Level	Limit Line	Over Line Limit	Over Factor	Remark	Pol/Phase
		dBm	dBm/m	dB	dB/m		
1 1406.000	-33.87	-36.78	-13.00	-20.87	2.91	Peak	Horizontal
2 2113.000	-44.22	-49.28	-13.00	-31.22	5.06	Peak	Horizontal



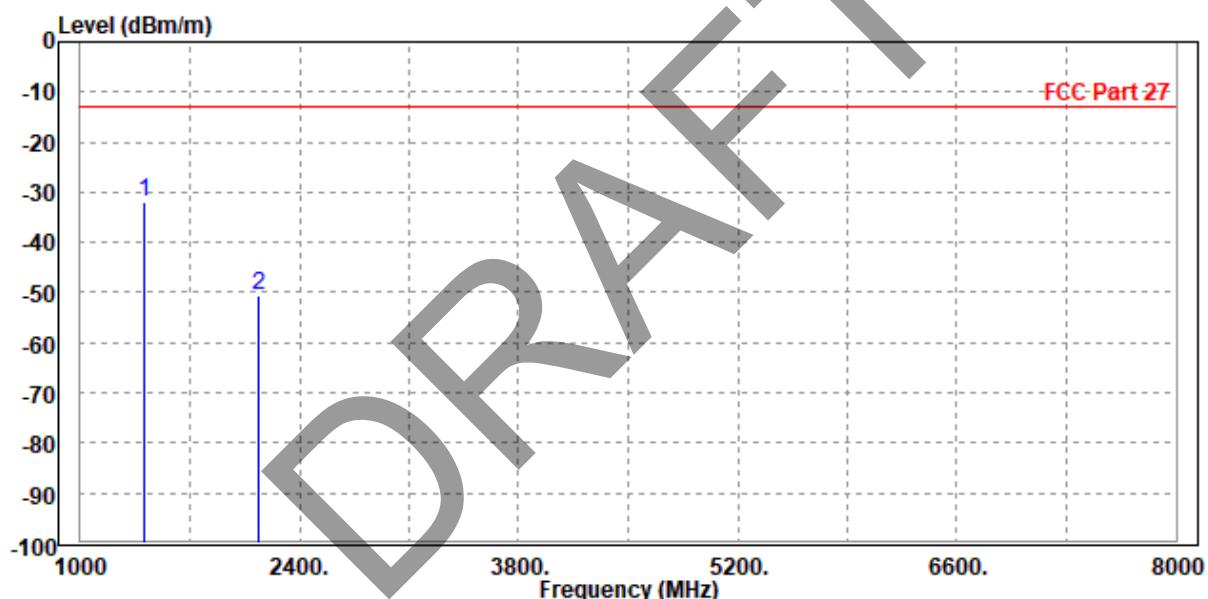


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Test Report No.: W7L-P23120015RI03

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Remark	Pol/Phase
		Level	Line	Limit Factor		
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 PP	1406.000	-31.80	-34.70	-13.00	-18.80	2.90 Peak Vertical
2	2134.000	-50.69	-55.17	-13.00	-37.69	4.48 Peak Vertical



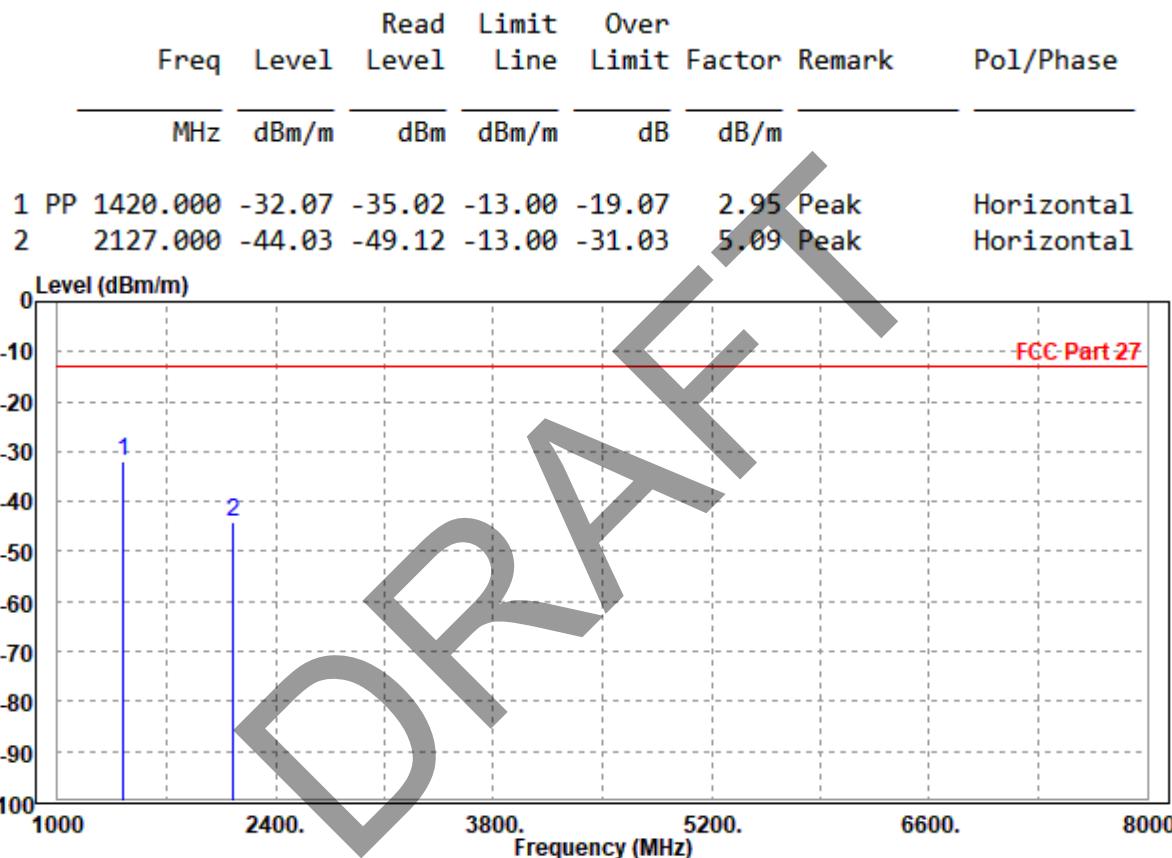


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Test Report No.: W7L-P23120015RI03

CHANNEL BANDWIDTH: 3MHz / QPSK

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			



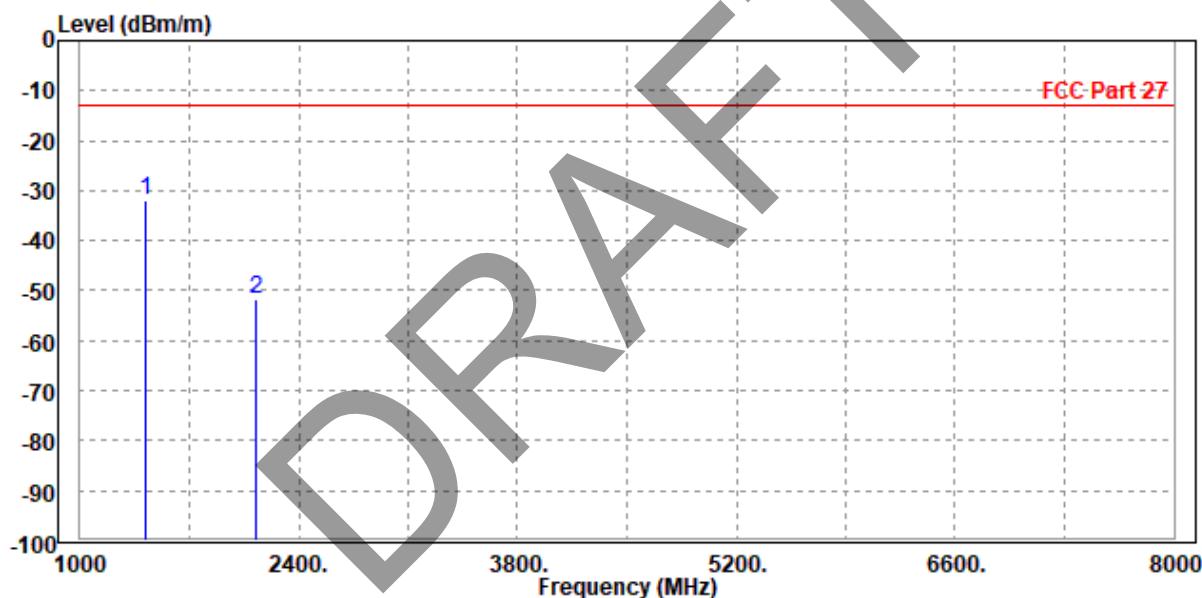


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Read Level	Limit Level	Over Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1420.000	-31.80	-34.74	-13.00	-18.80	2.94	Peak	Vertical
2	2127.000	-51.83	-56.28	-13.00	-38.83	4.45	Peak	Vertical





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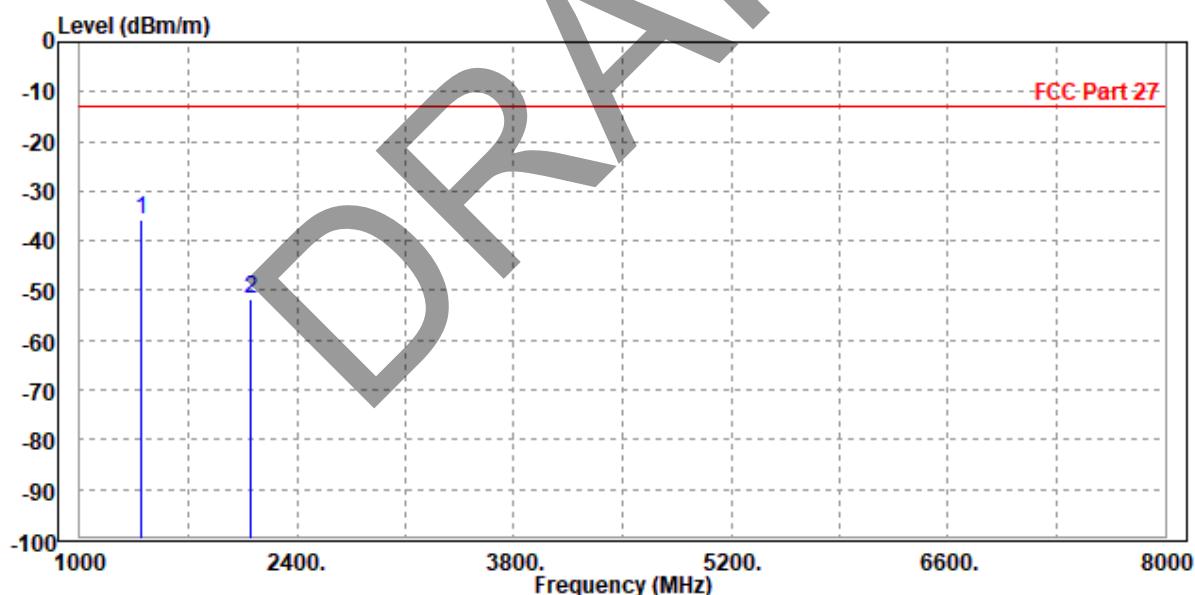
Test Report No.: W7L-P23120015RI03

CHANNEL BANDWIDTH: 5MHz / QPSK

CH 23035

MODE	TX channel 23035	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	PP 1399.000	-35.84	-38.73	-13.00	-22.84	2.89 Peak	Horizontal
2	2099.000	-51.53	-56.55	-13.00	-38.53	5.02 Peak	Horizontal



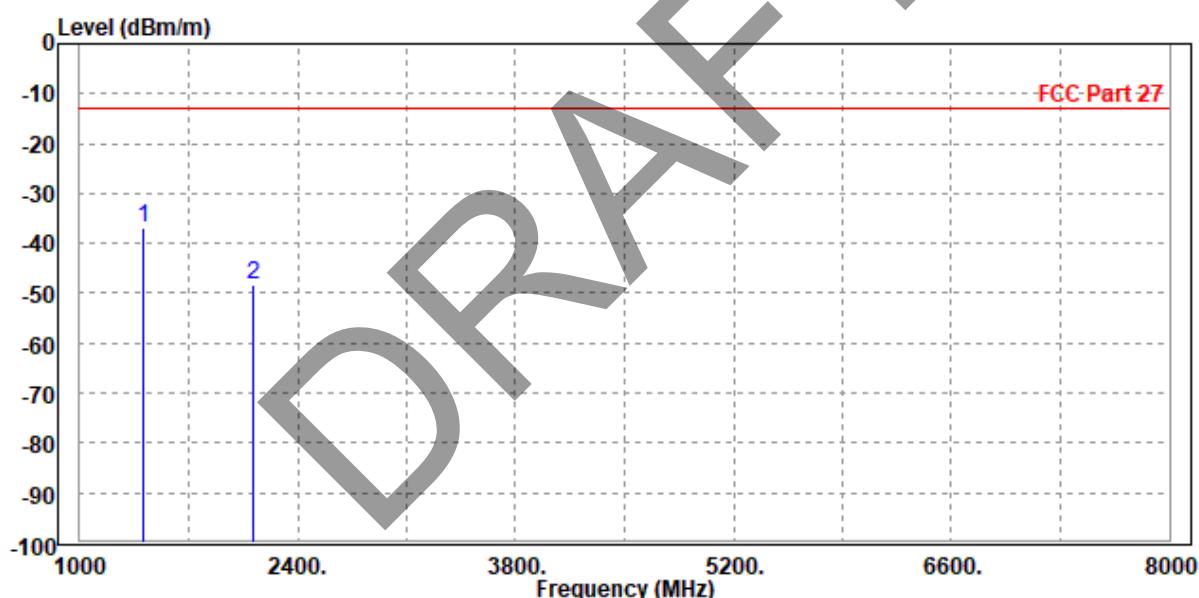


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23035	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Read Level	Limit Level	Over Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1406.000	-36.73	-39.63	-13.00	-23.73	2.90	Peak	Vertical
2	2113.000	-48.25	-52.65	-13.00	-35.25	4.40	Peak	Vertical





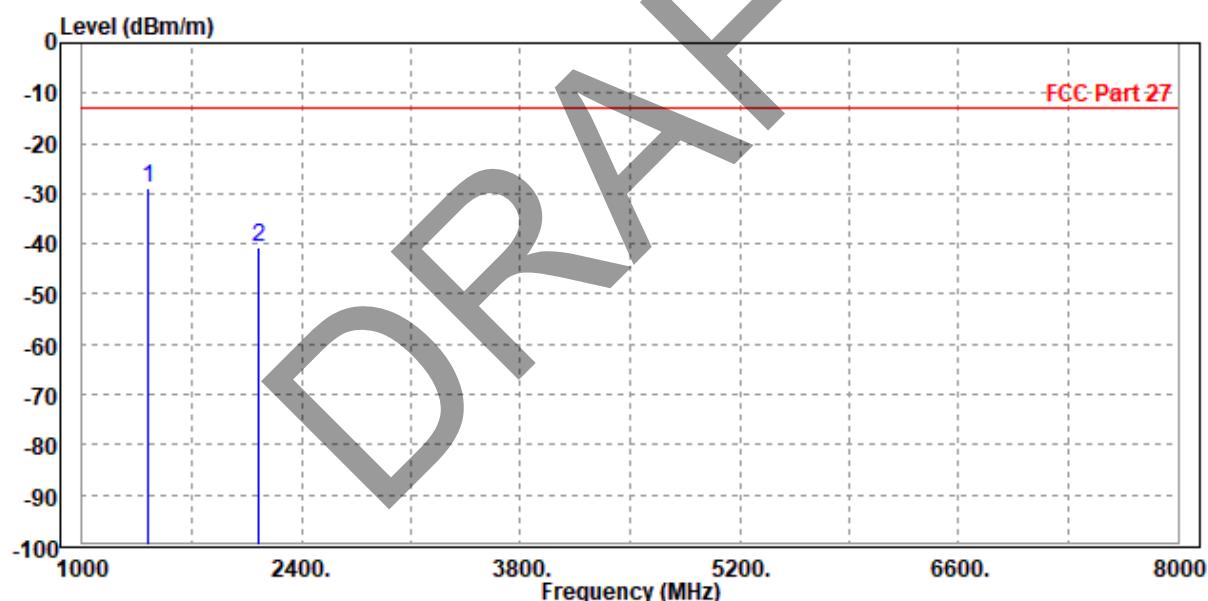
BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

CH 23095

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Line	Line	dB			
MHz	dBm/m		dBm	dBm/m			
1 PP 1420.000	-28.72	-31.67	-13.00	-15.72	2.95	Peak	Horizontal
2 2127.000	-40.72	-45.81	-13.00	-27.72	5.09	Peak	Horizontal



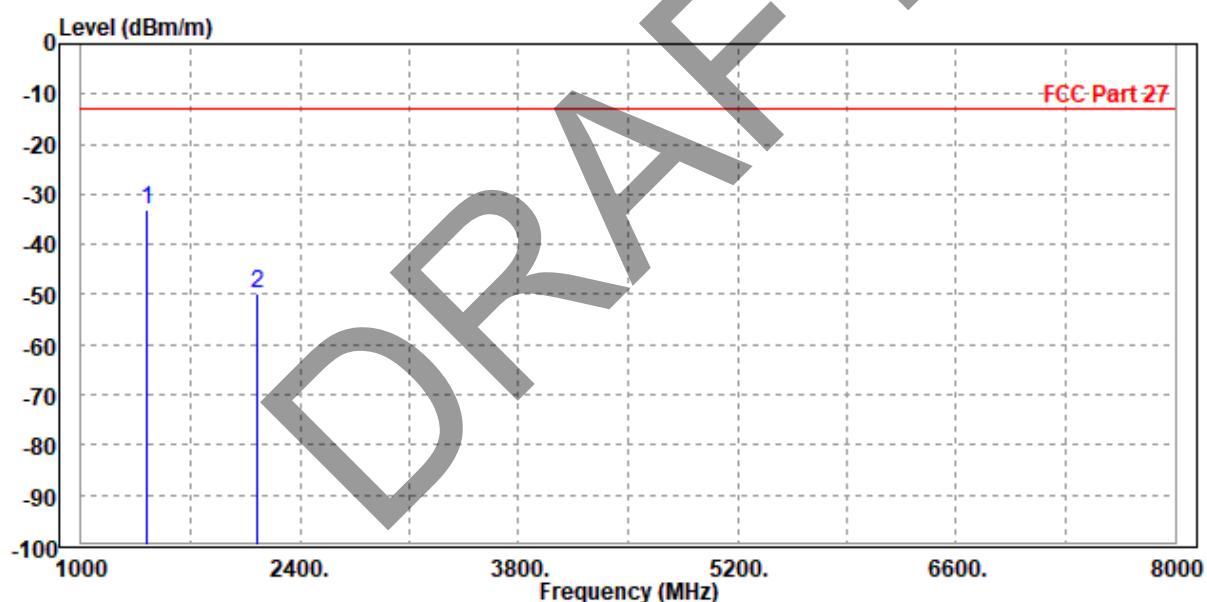


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Line	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dBm/m	dB	dB/m	
1 PP 1420.000	-32.91	-35.85	-13.00	-19.91	2.94	Peak	Vertical
2 2127.000	-49.86	-54.31	-13.00	-36.86	4.45	Peak	Vertical





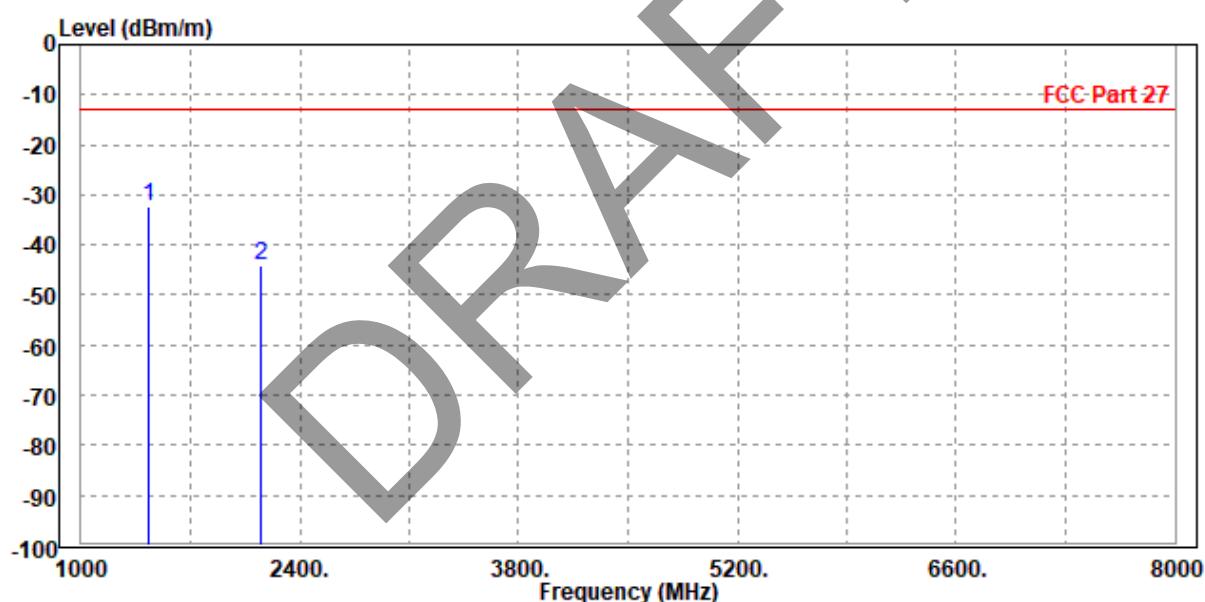
BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

CH 23155

MODE	TX channel 23155	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1434.000	-32.42	-35.42	-13.00	-19.42	3.00 Peak	Horizontal
2	2148.000	-44.05	-49.20	-13.00	-31.05	5.15 Peak	Horizontal



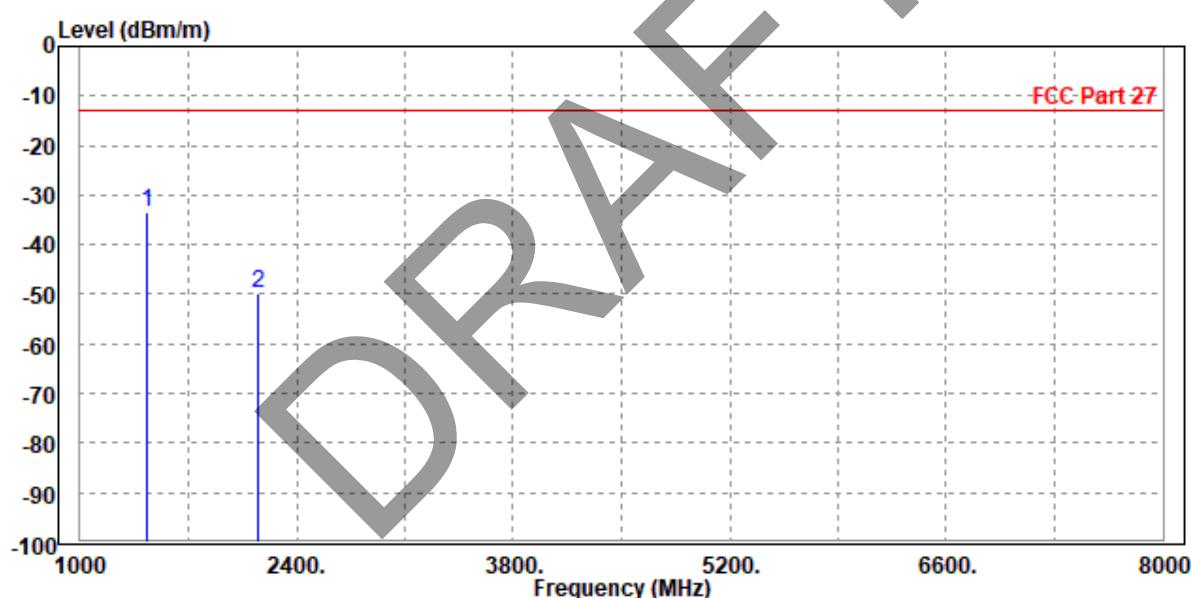


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23155	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1434.000	-33.53	-36.50	-13.00	-20.53	2.97	Peak	Vertical
2 2148.000	-49.97	-54.50	-13.00	-36.97	4.53	Peak	Vertical





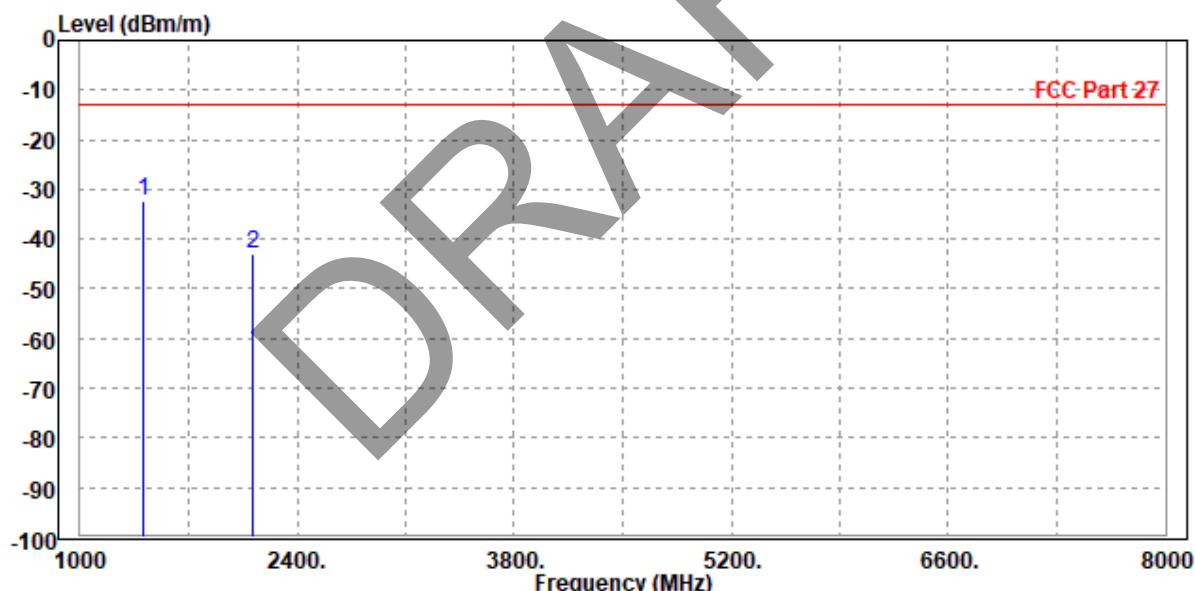
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Test Report No.: W7L-P23120015RI03

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq	Level	Read	Limit	Over	Remark	Pol/Phase
		Line	dBm/m	dB		
MHz	dBm/m	dBM	dBm/m	dB	dB/m	
1 PP 1406.000	-32.35	-35.26	-13.00	-19.35	2.91 Peak	Horizontal
2 2113.000	-42.96	-48.02	-13.00	-29.96	5.06 Peak	Horizontal

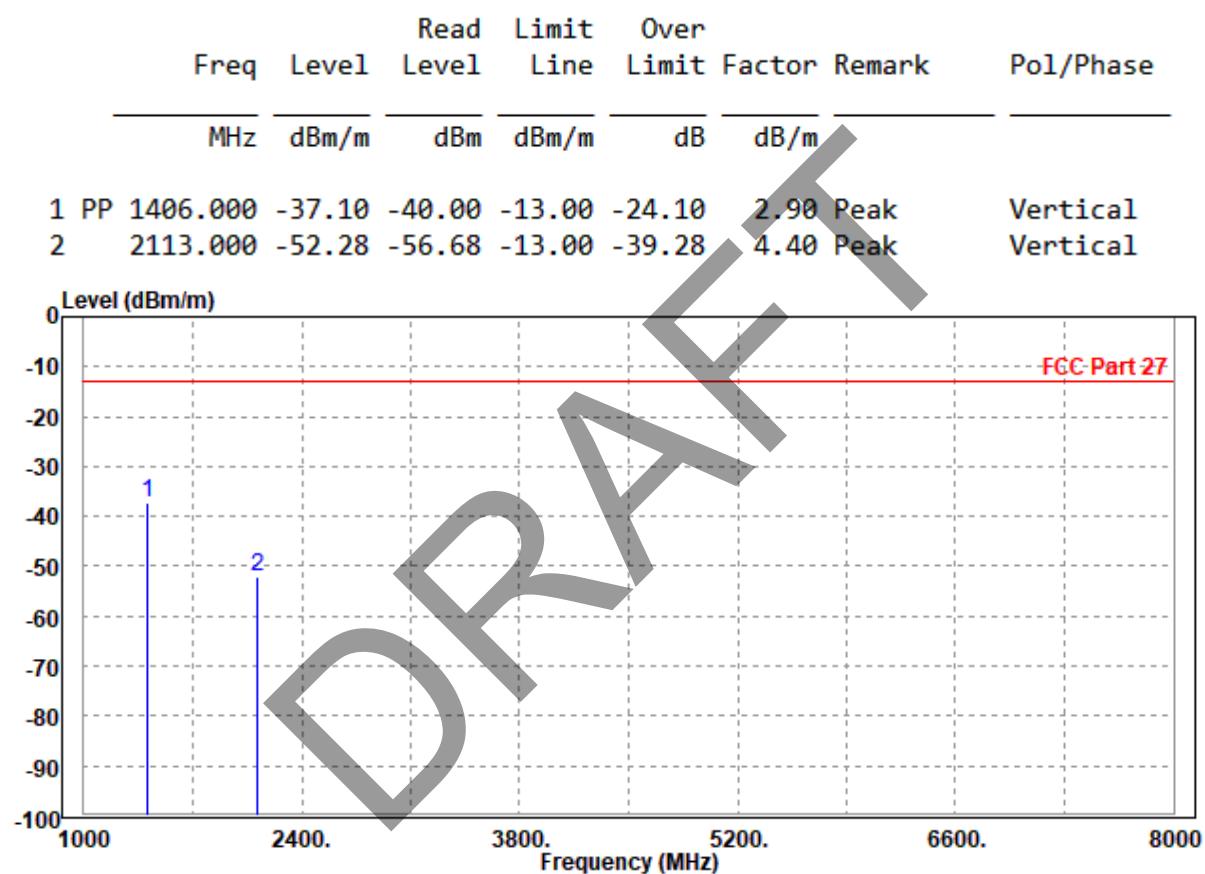




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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			





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Test Report No.: W7L-P23120015RI03

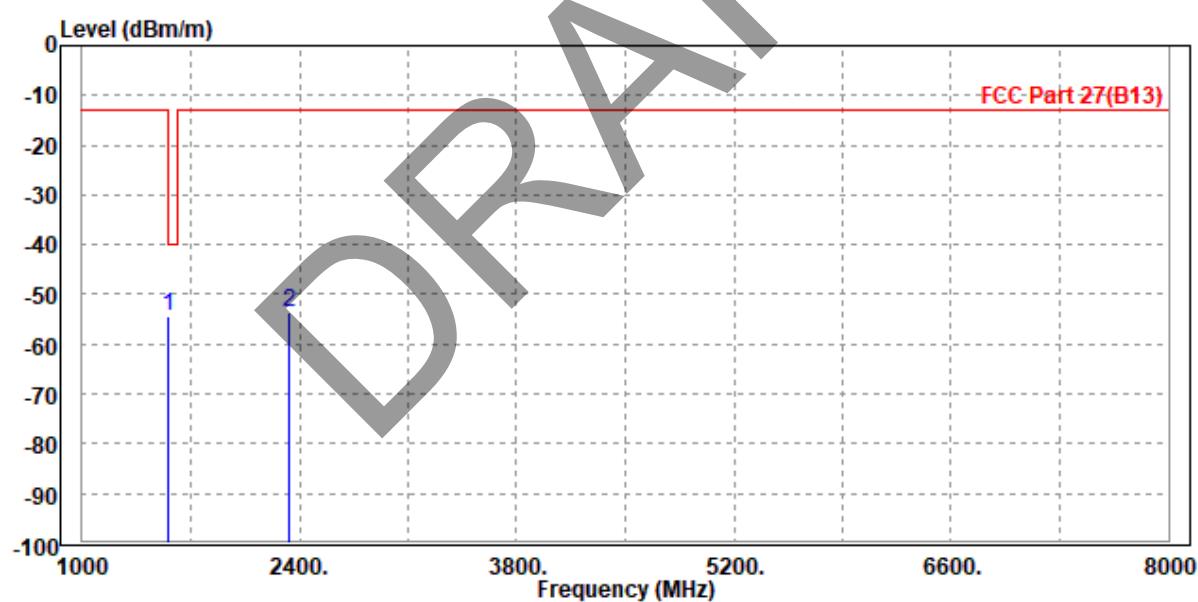
LTE B13

CHANNEL BANDWIDTH: 5MHz / QPSK

CH 23205

MODE	TX channel 23205	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Read Level	Limit Level	Over Line	Limit Factor	Over Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1559.000	-54.24	-57.62	-40.00	-14.24	3.38	Peak	Horizontal
2	2337.000	-53.65	-59.31	-13.00	-40.65	5.66	Peak	Horizontal

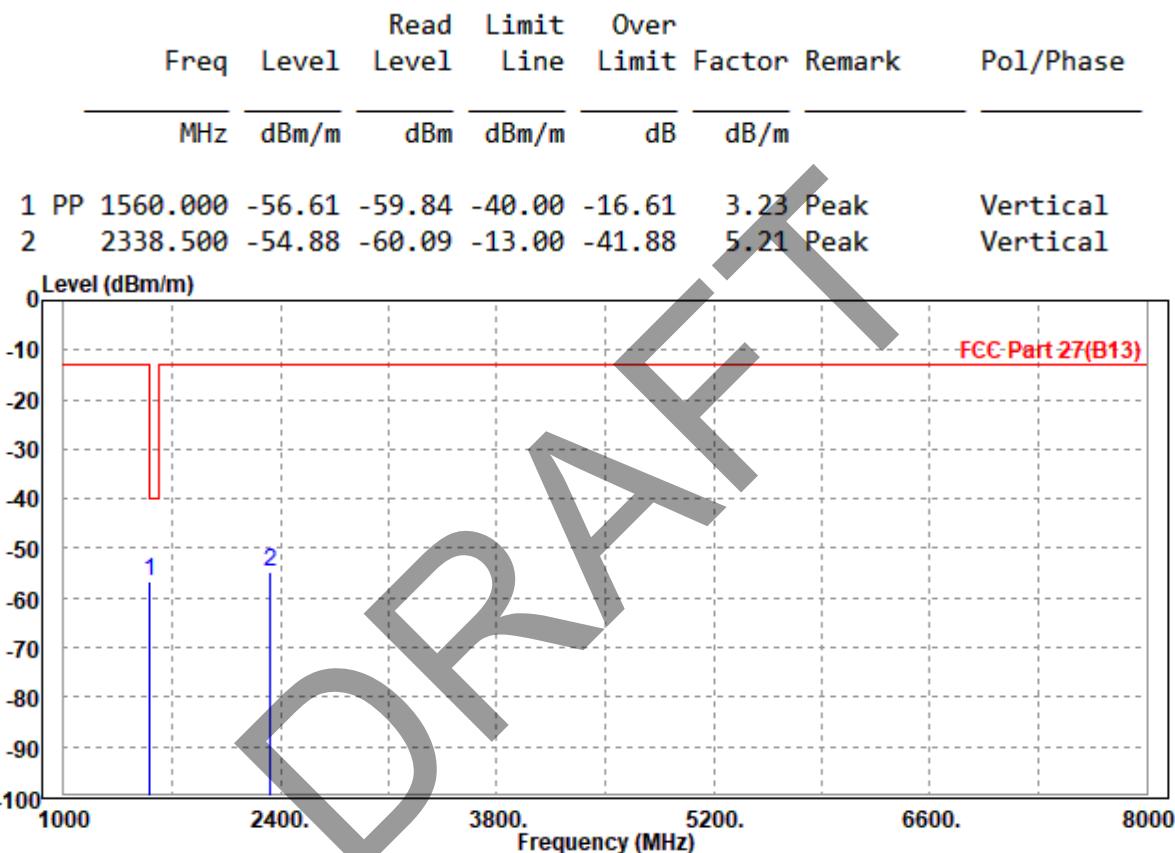




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Test Report No.: W7L-P23120015RI03

MODE	TX channel 23205	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			





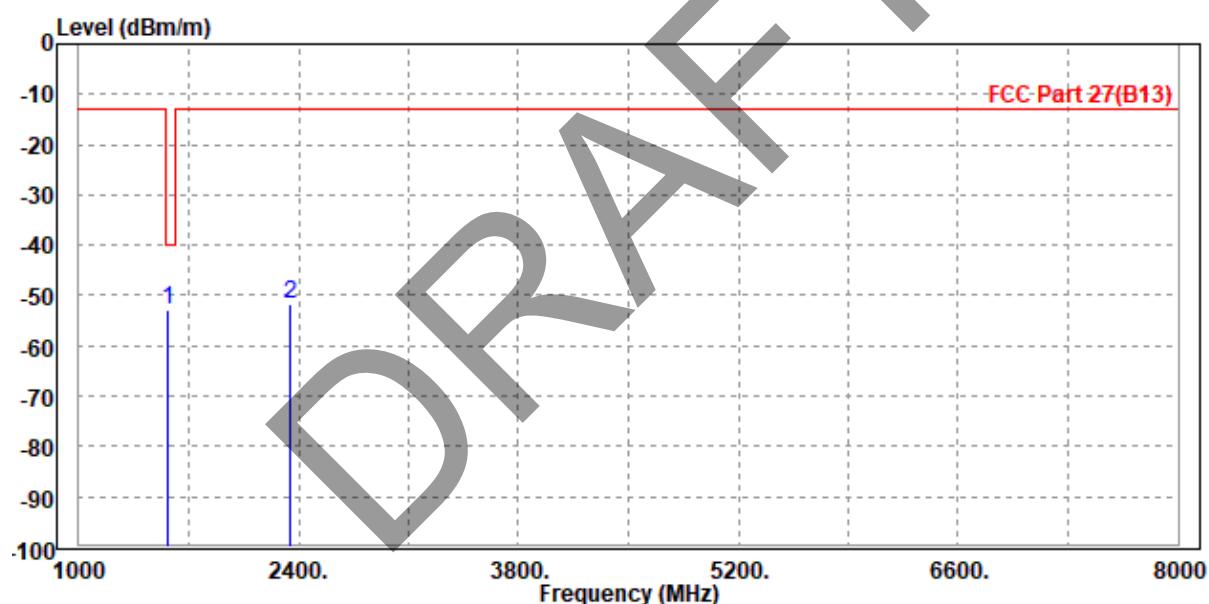
BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

CH 23230

MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1567.000	-52.70	-56.11	-40.00	-12.70	3.41	Peak	Horizontal
2 2346.000	-51.73	-57.41	-13.00	-38.73	5.68	Peak	Horizontal



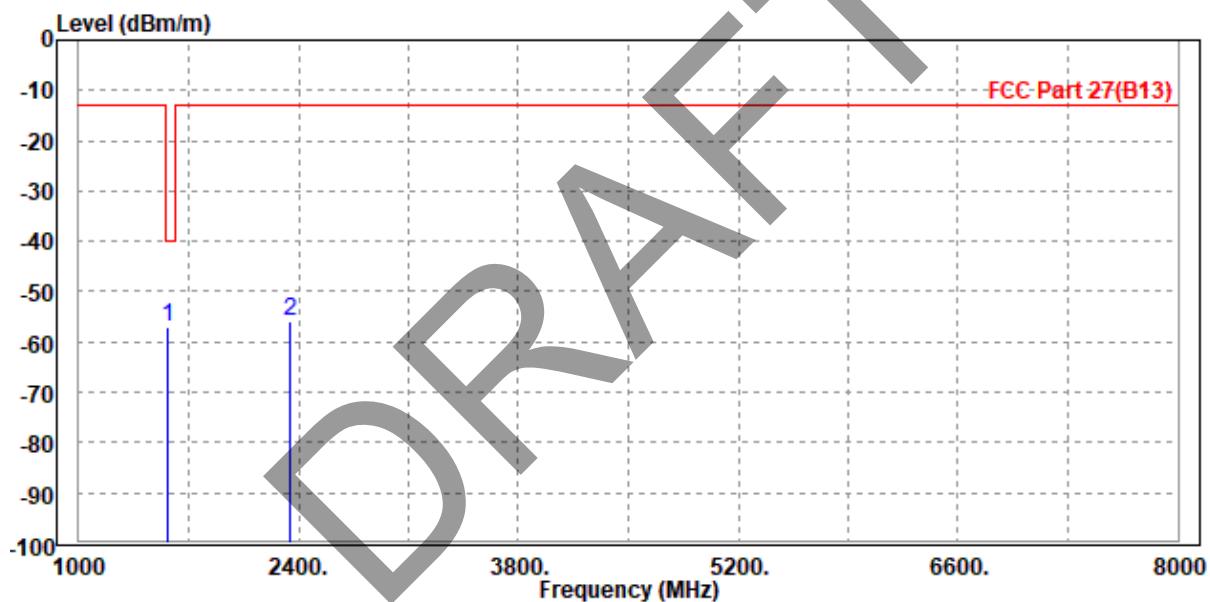


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Remark	Pol/Phase
		Level	Line	Limit Factor		
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 PP	1564.000	-56.97	-60.21	-40.00	-16.97	3.24 Peak
2	2344.000	-55.77	-60.99	-13.00	-42.77	5.22 Peak





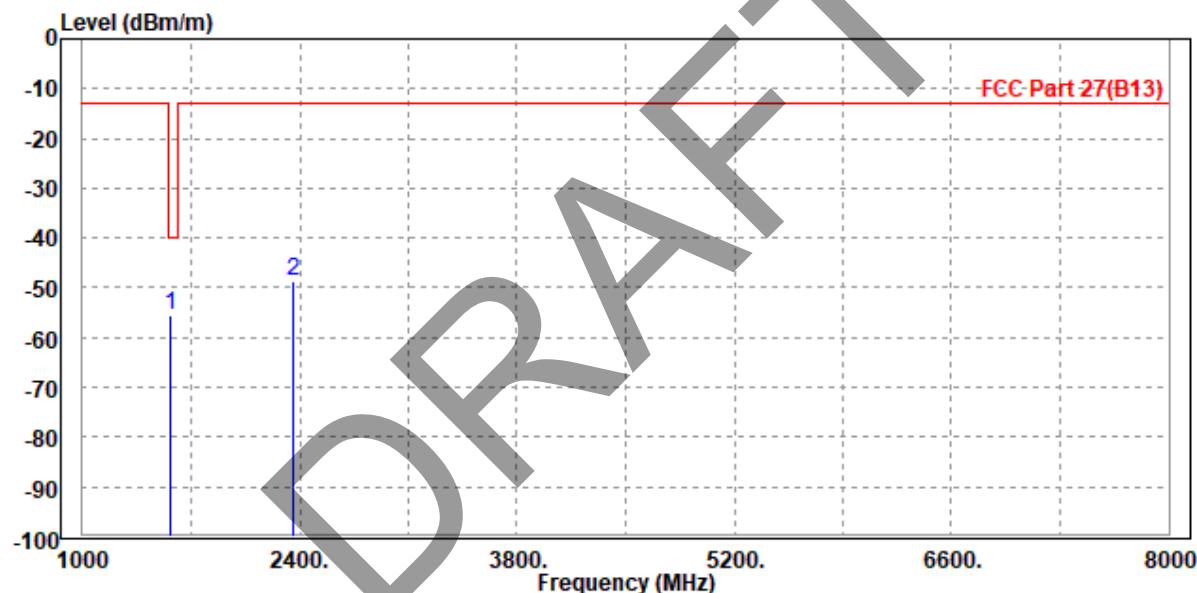
BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

CH 23255

MODE	TX channel 23255	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Line	dBm	dBm/m			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1567.000	-55.46	-58.87	-40.00	-15.46	3.41	Peak	Horizontal
2 2353.500	-48.50	-54.20	-13.00	-35.50	5.70	Peak	Horizontal



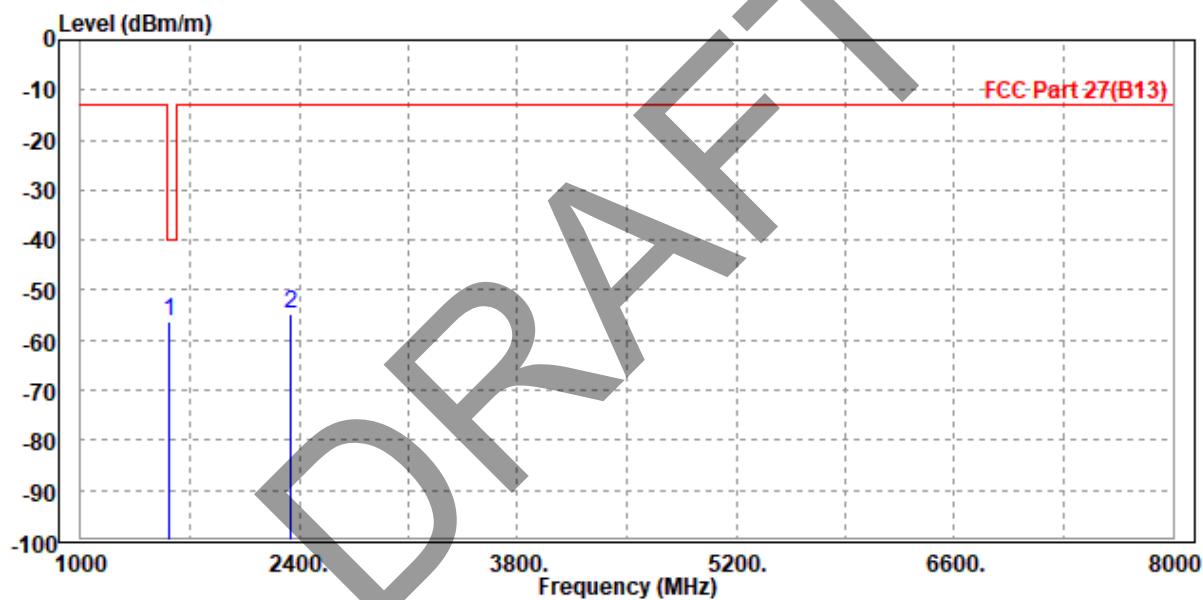


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Test Report No.: W7L-P23120015RI03

MODE	TX channel 23255	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1569.000	-56.11	-59.36	-40.00	-16.11	3.25	Peak	Vertical
2 2351.000	-54.59	-59.84	-13.00	-41.59	5.25	Peak	Vertical



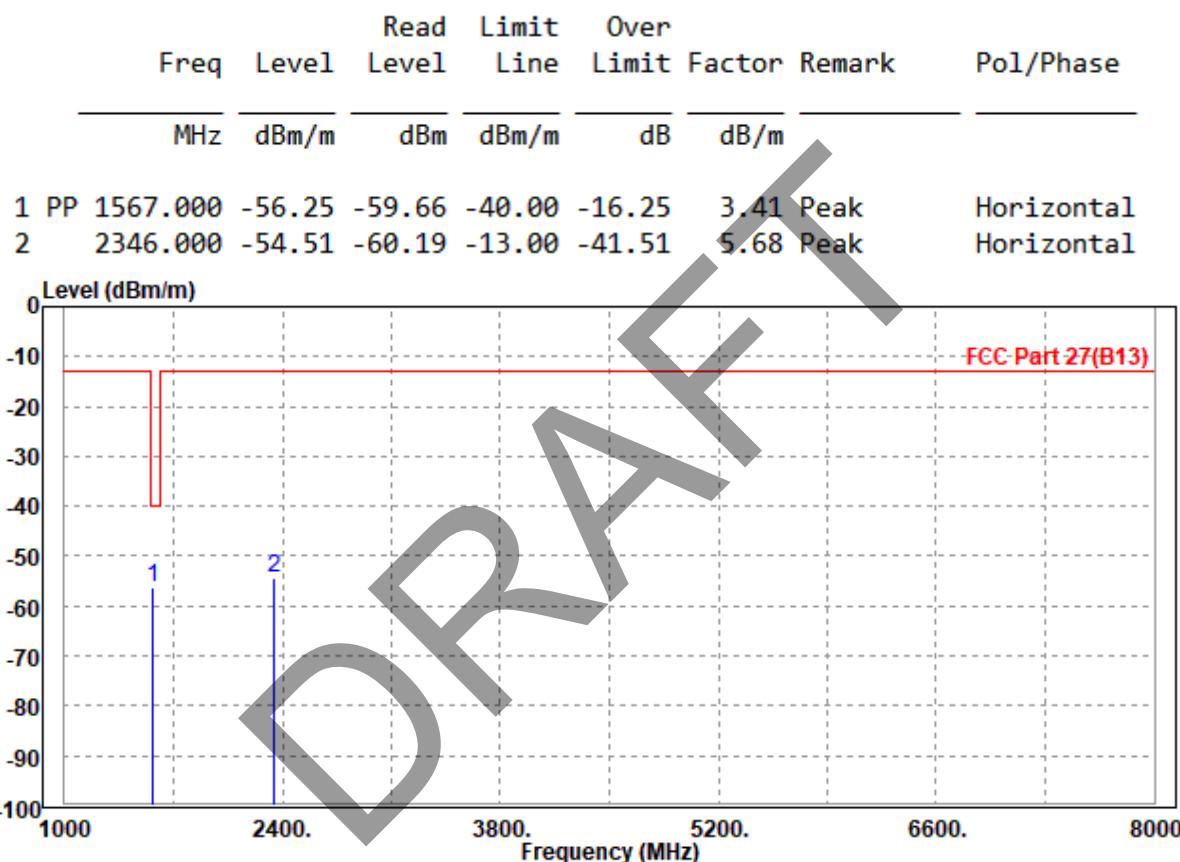


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VERITAS

Test Report No.: W7L-P23120015RI03

CHANNEL BANDWIDTH: 10MHz /QPSK

MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			



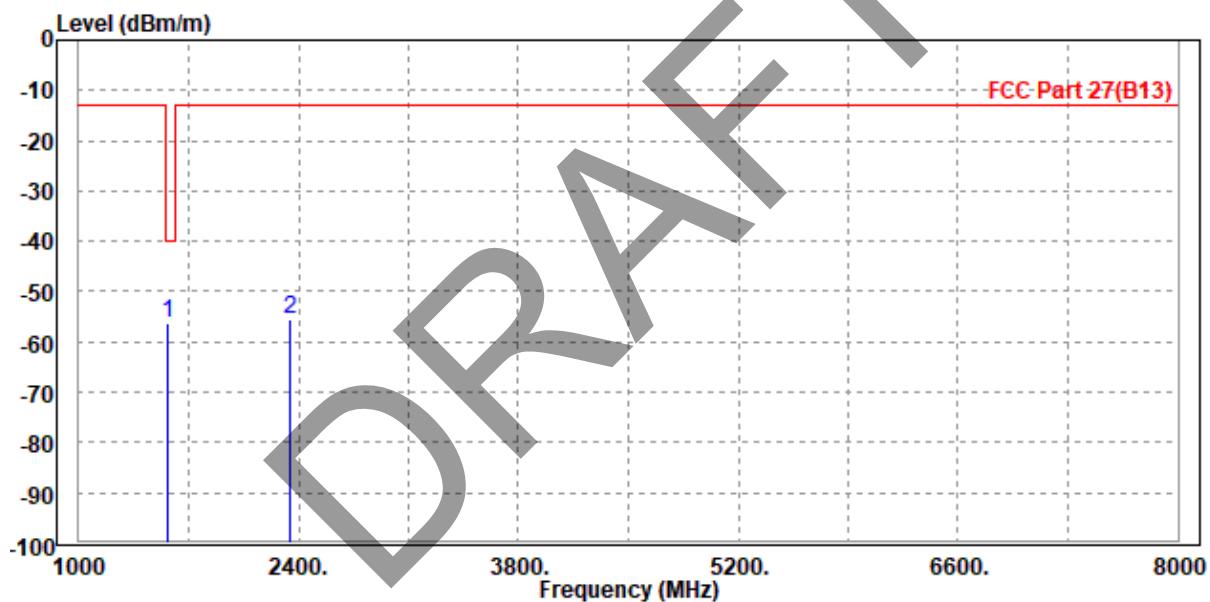


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VERITAS

Test Report No.: W7L-P23120015RI03

MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Freq	Level	Read	Limit	Over	Remark	Pol/Phase
		Level	Line	Limit Factor		
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 PP 1564.000	-56.20	-59.44	-40.00	-16.20	3.24 Peak	Vertical
2 2344.000	-55.38	-60.60	-13.00	-42.38	5.22 Peak	Vertical





4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7Layers Communications Technology (Shenzhen) Co. Ltd, were founded in 2015 to provide our best service in EMC, Radio, and Telecom. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Shenzhen EMC/RF Lab:

Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

Email: customerservice.sw@bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

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VERITAS Test Report No.: W7L-P23120015RI03

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

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Test Report No.: W7L-P23120015RI03

6 APPENDIX

EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA FOR M1

Band 12 Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dBm)	ERP(dBm)	ERP Limit(dB)	Verdict
Band12	1.4MHz	23017	QPSK	1	0	Low	22.64	23.29	<34.77	PASS
Band12	1.4MHz	23017	QPSK	1	5	Low	22.42	23.07	<34.77	PASS
Band12	1.4MHz	23017	QPSK	6	0	Low	20.34	20.99	<34.77	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	22.61	23.26	<34.77	PASS
Band12	1.4MHz	23095	QPSK	1	5	Low	22.44	23.09	<34.77	PASS
Band12	1.4MHz	23095	QPSK	6	0	Low	20.81	21.46	<34.77	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	22.53	23.18	<34.77	PASS
Band12	1.4MHz	23173	QPSK	1	5	High	22.36	23.01	<34.77	PASS
Band12	1.4MHz	23173	QPSK	6	0	High	20.47	21.12	<34.77	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	21.43	22.08	<34.77	PASS
Band12	1.4MHz	23017	16QAM	1	5	Low	21.2	21.85	<34.77	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	20.38	21.03	<34.77	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	21.83	22.48	<34.77	PASS
Band12	1.4MHz	23095	16QAM	1	5	Low	21.91	22.56	<34.77	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	20.73	21.38	<34.77	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	21.48	22.13	<34.77	PASS
Band12	1.4MHz	23173	16QAM	1	5	High	21.23	21.88	<34.77	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	20.55	21.2	<34.77	PASS
Band12	3MHz	23025	QPSK	1	0	Low	22.23	22.88	<34.77	PASS
Band12	3MHz	23025	QPSK	1	5	Low	22.17	22.82	<34.77	PASS
Band12	3MHz	23025	QPSK	6	0	Low	20.61	21.26	<34.77	PASS
Band12	3MHz	23095	QPSK	1	0	Low	22.87	23.52	<34.77	PASS
Band12	3MHz	23095	QPSK	1	5	Low	22.65	23.3	<34.77	PASS
Band12	3MHz	23095	QPSK	6	0	Low	20.71	21.36	<34.77	PASS
Band12	3MHz	23165	QPSK	1	0	High	22.36	23.01	<34.77	PASS
Band12	3MHz	23165	QPSK	1	5	High	22.13	22.78	<34.77	PASS
Band12	3MHz	23165	QPSK	6	0	High	20.6	21.25	<34.77	PASS
Band12	3MHz	23025	16QAM	1	0	Low	21.57	22.22	<34.77	PASS
Band12	3MHz	23025	16QAM	1	5	Low	21.61	22.26	<34.77	PASS
Band12	3MHz	23025	16QAM	6	0	Low	20.54	21.19	<34.77	PASS
Band12	3MHz	23095	16QAM	1	0	Low	21.61	22.26	<34.77	PASS
Band12	3MHz	23095	16QAM	1	5	Low	21.51	22.16	<34.77	PASS
Band12	3MHz	23095	16QAM	6	0	Low	20.76	21.41	<34.77	PASS
Band12	3MHz	23165	16QAM	1	0	High	21.57	22.22	<34.77	PASS
Band12	3MHz	23165	16QAM	1	5	High	21.49	22.14	<34.77	PASS
Band12	3MHz	23165	16QAM	6	0	High	20.51	21.16	<34.77	PASS



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Test Report No.: W7L-P23120015RI03

Band12	5MHz	23035	QPSK	1	0	Low	22.69	23.34	<34.77	PASS
Band12	5MHz	23035	QPSK	1	0	3	22.49	23.14	<34.77	PASS
Band12	5MHz	23035	QPSK	1	5	Low	22.53	23.18	<34.77	PASS
Band12	5MHz	23035	QPSK	6	0	Low	21.4	22.05	<34.77	PASS
Band12	5MHz	23095	QPSK	1	0	Low	22.77	23.42	<34.77	PASS
Band12	5MHz	23095	QPSK	1	5	Low	22.58	23.23	<34.77	PASS
Band12	5MHz	23095	QPSK	6	0	Low	21.63	22.28	<34.77	PASS
Band12	5MHz	23155	QPSK	1	0	High	22.74	23.39	<34.77	PASS
Band12	5MHz	23155	QPSK	1	5	High	22.4	23.05	<34.77	PASS
Band12	5MHz	23155	QPSK	6	0	High	21.37	22.02	<34.77	PASS
Band12	5MHz	23155	QPSK	6	0	3	21.42	22.07	<34.77	PASS
Band12	5MHz	23035	16QAM	1	0	Low	22.57	23.22	<34.77	PASS
Band12	5MHz	23035	16QAM	1	0	3	22.38	23.03	<34.77	PASS
Band12	5MHz	23035	16QAM	1	5	Low	22.45	23.1	<34.77	PASS
Band12	5MHz	23035	16QAM	6	0	Low	21.5	22.15	<34.77	PASS
Band12	5MHz	23095	16QAM	1	0	Low	22.62	23.27	<34.77	PASS
Band12	5MHz	23095	16QAM	1	5	Low	22.48	23.13	<34.77	PASS
Band12	5MHz	23095	16QAM	6	0	Low	21.74	22.39	<34.77	PASS
Band12	5MHz	23155	16QAM	1	0	High	22.43	23.08	<34.77	PASS
Band12	5MHz	23155	16QAM	1	5	High	22.4	23.05	<34.77	PASS
Band12	5MHz	23155	16QAM	6	0	High	21.48	22.13	<34.77	PASS
Band12	5MHz	23155	16QAM	6	0	3	21.51	22.16	<34.77	PASS
Band12	10MHz	23060	QPSK	1	0	Low	22.87	23.52	<34.77	PASS
Band12	10MHz	23060	QPSK	1	0	3	22.65	23.3	<34.77	PASS
Band12	10MHz	23060	QPSK	1	5	Low	22.6	23.25	<34.77	PASS
Band12	10MHz	23060	QPSK	4	0	Low	22.83	23.48	<34.77	PASS
Band12	10MHz	23060	QPSK	6	0	Low	21.64	22.29	<34.77	PASS
Band12	10MHz	23095	QPSK	1	0	Low	22.83	23.48	<34.77	PASS
Band12	10MHz	23095	QPSK	1	5	Low	22.64	23.29	<34.77	PASS
Band12	10MHz	23095	QPSK	4	0	Low	22.87	23.52	<34.77	PASS
Band12	10MHz	23095	QPSK	6	0	Low	21.69	22.34	<34.77	PASS
Band12	10MHz	23130	QPSK	1	0	High	22.78	23.43	<34.77	PASS
Band12	10MHz	23130	QPSK	1	5	High	22.46	23.11	<34.77	PASS
Band12	10MHz	23130	QPSK	1	5	4	22.56	23.21	<34.77	PASS
Band12	10MHz	23130	QPSK	4	2	High	22.57	23.22	<34.77	PASS
Band12	10MHz	23130	QPSK	6	0	High	21.55	22.2	<34.77	PASS
Band12	10MHz	23060	16QAM	1	0	Low	22.68	23.33	<34.77	PASS
Band12	10MHz	23060	16QAM	1	0	3	22.68	23.33	<34.77	PASS
Band12	10MHz	23060	16QAM	1	5	Low	22.5	23.15	<34.77	PASS
Band12	10MHz	23060	16QAM	4	0	Low	21.68	22.33	<34.77	PASS
Band12	10MHz	23060	16QAM	6	0	Low	21.83	22.48	<34.77	PASS
Band12	10MHz	23095	16QAM	1	0	Low	22.63	23.28	<34.77	PASS
Band12	10MHz	23095	16QAM	1	5	Low	22.55	23.2	<34.77	PASS
Band12	10MHz	23095	16QAM	4	0	Low	21.65	22.3	<34.77	PASS



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Test Report No.: W7L-P23120015RI03

Band12	10MHz	23095	16QAM	6	0	Low	21.8	22.45	<34.77	PASS
Band12	10MHz	23130	16QAM	1	0	High	22.71	23.36	<34.77	PASS
Band12	10MHz	23130	16QAM	1	5	High	22.52	23.17	<34.77	PASS
Band12	10MHz	23130	16QAM	1	5	4	22.37	23.02	<34.77	PASS
Band12	10MHz	23130	16QAM	4	2	High	21.63	22.28	<34.77	PASS
Band12	10MHz	23130	16QAM	6	0	High	21.6	22.25	<34.77	PASS

Band 13 Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIIndex	Result(dBm)	ERP(dBm)	ERP Limit(dB)	Verdict
Band13	5MHz	23205	QPSK	1	0	Low	21.74	22.39	<34.77	PASS
Band13	5MHz	23205	QPSK	1	0	3	21.79	22.44	<34.77	PASS
Band13	5MHz	23205	QPSK	1	5	Low	21.66	22.31	<34.77	PASS
Band13	5MHz	23205	QPSK	6	0	Low	20.77	21.42	<34.77	PASS
Band13	5MHz	23230	QPSK	1	0	Low	22.42	23.07	<34.77	PASS
Band13	5MHz	23230	QPSK	1	5	Low	22.14	22.79	<34.77	PASS
Band13	5MHz	23230	QPSK	6	0	Low	21.05	21.7	<34.77	PASS
Band13	5MHz	23255	QPSK	1	0	High	22.3	22.95	<34.77	PASS
Band13	5MHz	23255	QPSK	1	5	High	22.11	22.76	<34.77	PASS
Band13	5MHz	23255	QPSK	6	0	High	21.01	21.66	<34.77	PASS
Band13	5MHz	23255	QPSK	6	0	3	21.2	21.85	<34.77	PASS
Band13	5MHz	23205	16QAM	1	0	Low	21.64	22.29	<34.77	PASS
Band13	5MHz	23205	16QAM	1	0	3	21.69	22.34	<34.77	PASS
Band13	5MHz	23205	16QAM	1	5	Low	21.48	22.13	<34.77	PASS
Band13	5MHz	23205	16QAM	6	0	Low	20.87	21.52	<34.77	PASS
Band13	5MHz	23230	16QAM	1	0	Low	21.99	22.64	<34.77	PASS
Band13	5MHz	23230	16QAM	1	5	Low	21.77	22.42	<34.77	PASS
Band13	5MHz	23230	16QAM	6	0	Low	21.18	21.83	<34.77	PASS
Band13	5MHz	23255	16QAM	1	0	High	22.04	22.69	<34.77	PASS
Band13	5MHz	23255	16QAM	1	5	High	21.92	22.57	<34.77	PASS
Band13	5MHz	23255	16QAM	6	0	High	21.21	21.86	<34.77	PASS
Band13	5MHz	23255	16QAM	6	0	3	21.23	21.88	<34.77	PASS
Band13	10MHz	23230	QPSK	1	0	Low	22.07	22.72	<34.77	PASS
Band13	10MHz	23230	QPSK	1	5	Low	21.89	22.54	<34.77	PASS
Band13	10MHz	23230	QPSK	4	0	Low	21.99	22.64	<34.77	PASS
Band13	10MHz	23230	QPSK	6	0	Low	20.82	21.47	<34.77	PASS
Band13	10MHz	23230	16QAM	1	0	Low	21.6	22.25	<34.77	PASS
Band13	10MHz	23230	16QAM	1	5	Low	21.51	22.16	<34.77	PASS
Band13	10MHz	23230	16QAM	4	0	Low	21.11	21.76	<34.77	PASS
Band13	10MHz	23230	16QAM	6	0	Low	20.97	21.62	<34.77	PASS

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Test Report No.: W7L-P23120015RI03

PEAK-TO-AVERAGE RATIO(CCDF) FOR M1

Band 12 Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	23017	QPSK	1	0	Low	4.17	<=13	PASS
Band12	1.4MHz	23017	QPSK	6	0	Low	9.54	<=13	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	8.78	<=13	PASS
Band12	1.4MHz	23095	QPSK	6	0	Low	8.78	<=13	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	10.58	<=13	PASS
Band12	1.4MHz	23173	QPSK	6	0	High	9.45	<=13	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	9.19	<=13	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	10.00	<=13	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	10.90	<=13	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	9.04	<=13	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	9.39	<=13	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	8.78	<=13	PASS
Band12	3MHz	23025	QPSK	1	0	Low	8.55	<=13	PASS
Band12	3MHz	23025	QPSK	6	0	Low	11.68	<=13	PASS
Band12	3MHz	23095	QPSK	1	0	Low	9.07	<=13	PASS
Band12	3MHz	23095	QPSK	6	0	Low	8.84	<=13	PASS
Band12	3MHz	23165	QPSK	1	0	High	9.68	<=13	PASS
Band12	3MHz	23165	QPSK	6	0	High	9.51	<=13	PASS
Band12	3MHz	23025	16QAM	1	0	Low	9.39	<=13	PASS
Band12	3MHz	23025	16QAM	6	0	Low	11.68	<=13	PASS
Band12	3MHz	23095	16QAM	1	0	Low	11.01	<=13	PASS
Band12	3MHz	23095	16QAM	6	0	Low	9.33	<=13	PASS
Band12	3MHz	23165	16QAM	1	0	High	10.78	<=13	PASS
Band12	3MHz	23165	16QAM	6	0	High	8.84	<=13	PASS
Band12	5MHz	23035	QPSK	1	0	Low	4.52	<=13	PASS
Band12	5MHz	23035	QPSK	6	0	Low	10.90	<=13	PASS
Band12	5MHz	23095	QPSK	1	0	Low	11.28	<=13	PASS
Band12	5MHz	23095	QPSK	6	0	Low	11.51	<=13	PASS
Band12	5MHz	23155	QPSK	1	0	High	10.49	<=13	PASS
Band12	5MHz	23155	QPSK	6	0	High	9.77	<=13	PASS
Band12	5MHz	23035	16QAM	1	0	Low	11.94	<=13	PASS
Band12	5MHz	23035	16QAM	6	0	Low	9.28	<=13	PASS
Band12	5MHz	23095	16QAM	1	0	Low	9.86	<=13	PASS
Band12	5MHz	23095	16QAM	6	0	Low	10.29	<=13	PASS
Band12	5MHz	23155	16QAM	1	0	High	11.88	<=13	PASS
Band12	5MHz	23155	16QAM	6	0	High	11.25	<=13	PASS
Band12	10MHz	23060	QPSK	1	0	Low	8.49	<=13	PASS
Band12	10MHz	23060	QPSK	6	0	Low	9.48	<=13	PASS
Band12	10MHz	23095	QPSK	1	0	Low	8.38	<=13	PASS
Band12	10MHz	23095	QPSK	6	0	Low	10.64	<=13	PASS
Band12	10MHz	23130	QPSK	1	0	High	8.23	<=13	PASS
Band12	10MHz	23130	QPSK	6	0	High	8.96	<=13	PASS
Band12	10MHz	23060	16QAM	1	0	Low	8.93	<=13	PASS
Band12	10MHz	23060	16QAM	6	0	Low	11.42	<=13	PASS
Band12	10MHz	23095	16QAM	1	0	Low	10.32	<=13	PASS
Band12	10MHz	23095	16QAM	6	0	Low	8.87	<=13	PASS

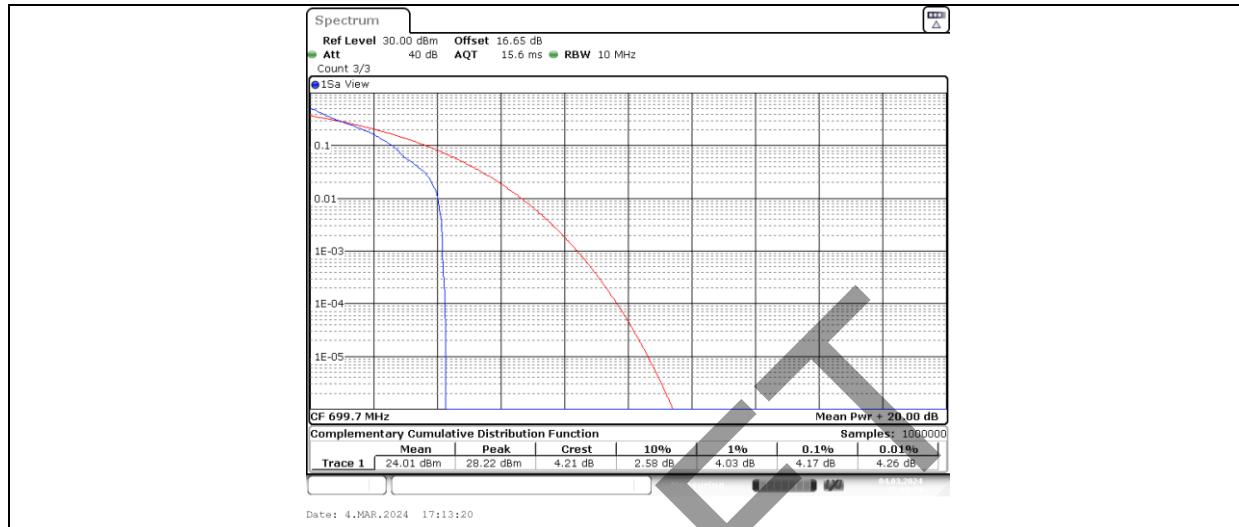


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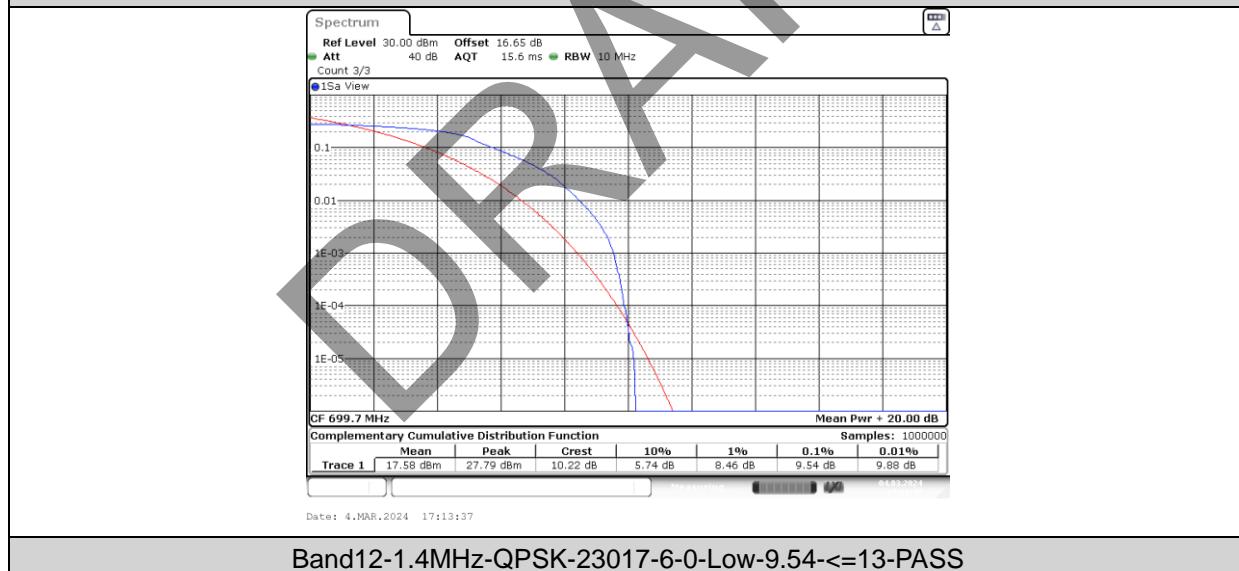
Test Report No.: W7L-P23120015RI03

Band12	10MHz	23130	16QAM	1	0	High	8.99	<=13	PASS
Band12	10MHz	23130	16QAM	6	0	High	10.70	<=13	PASS

Band 12 Test Graphs



Band12-1.4MHz-QPSK-23017-1-0-Low-4.17-<=13-PASS

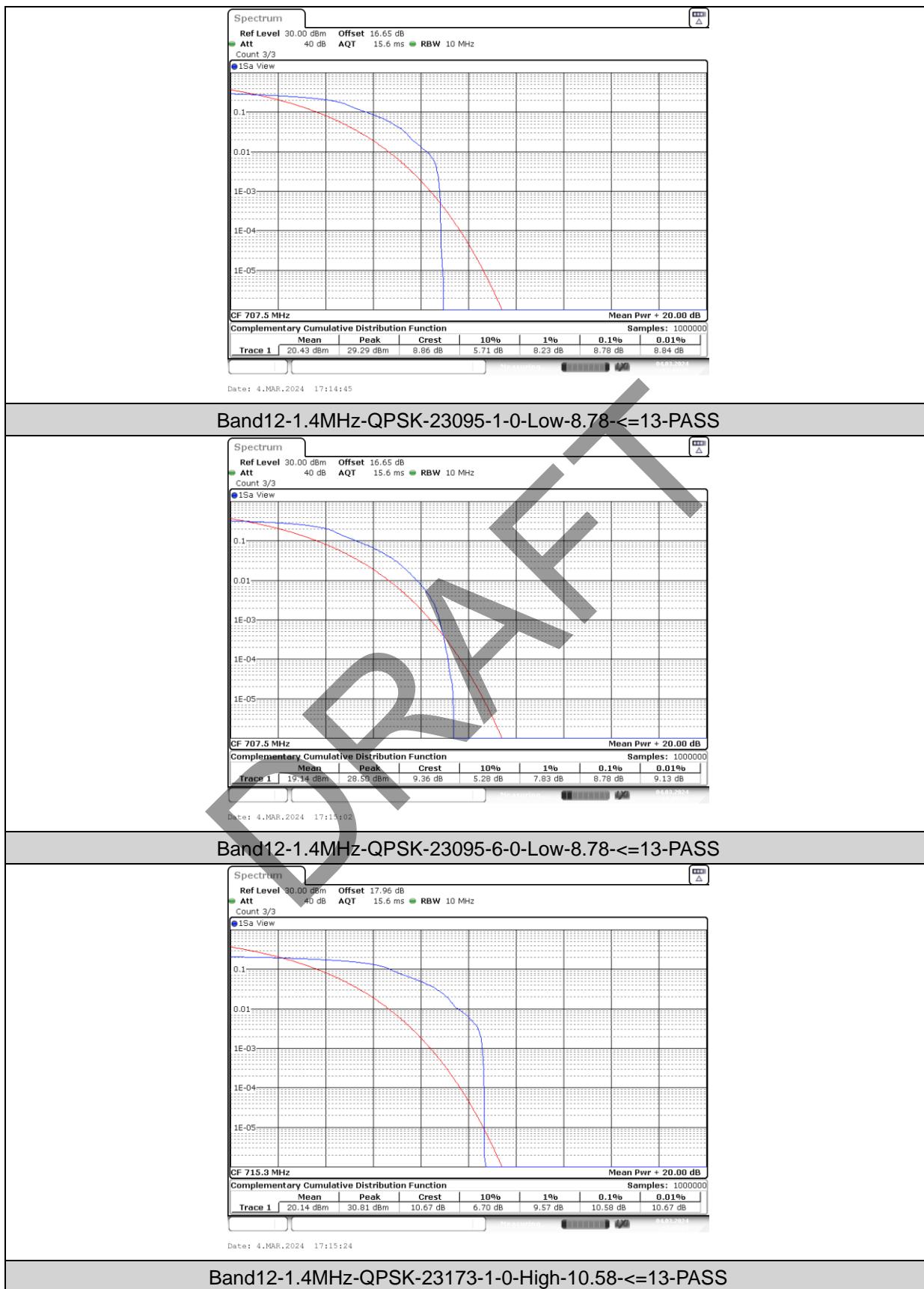


Band12-1.4MHz-QPSK-23017-6-0-Low-9.54-<=13-PASS



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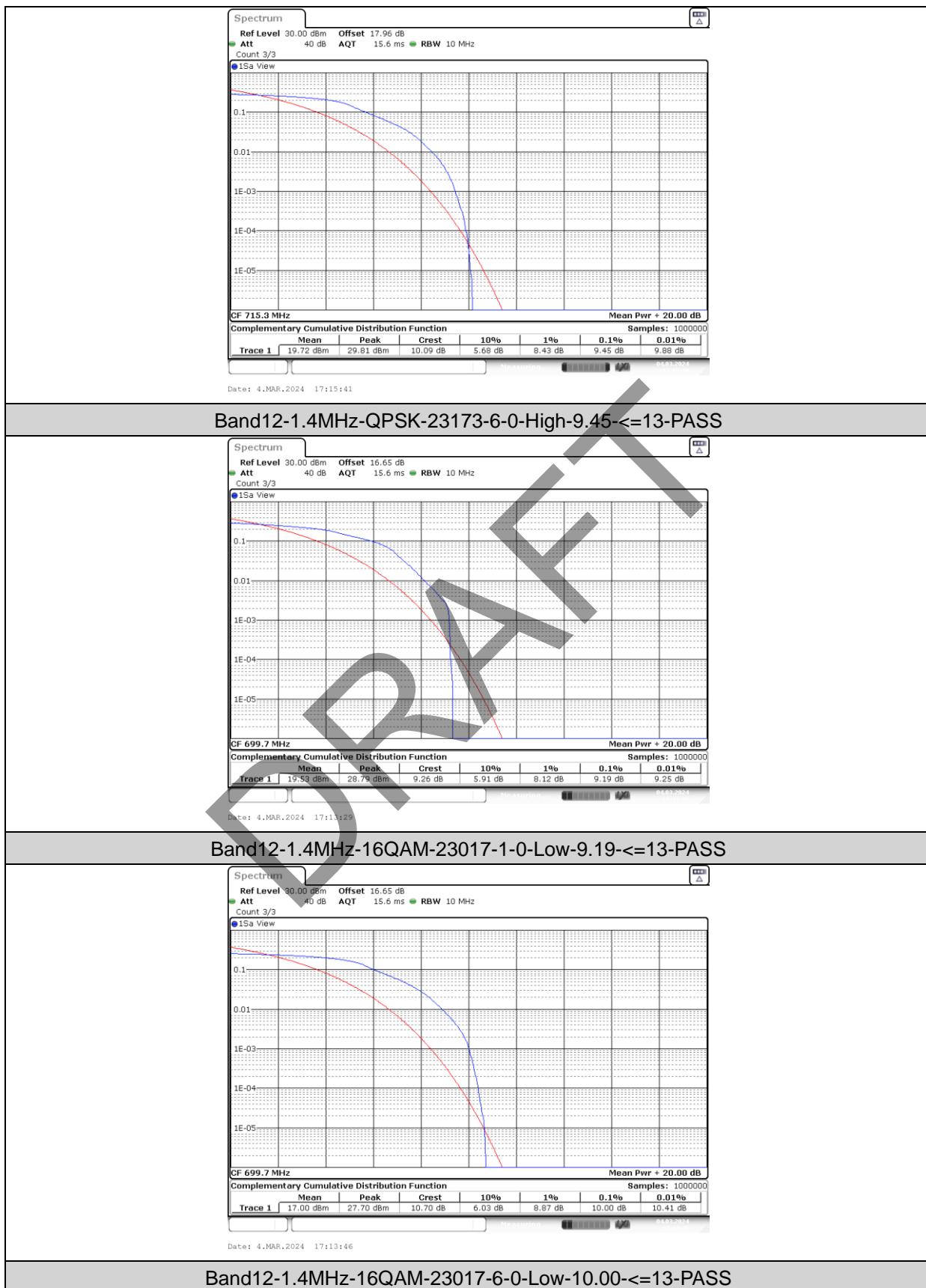
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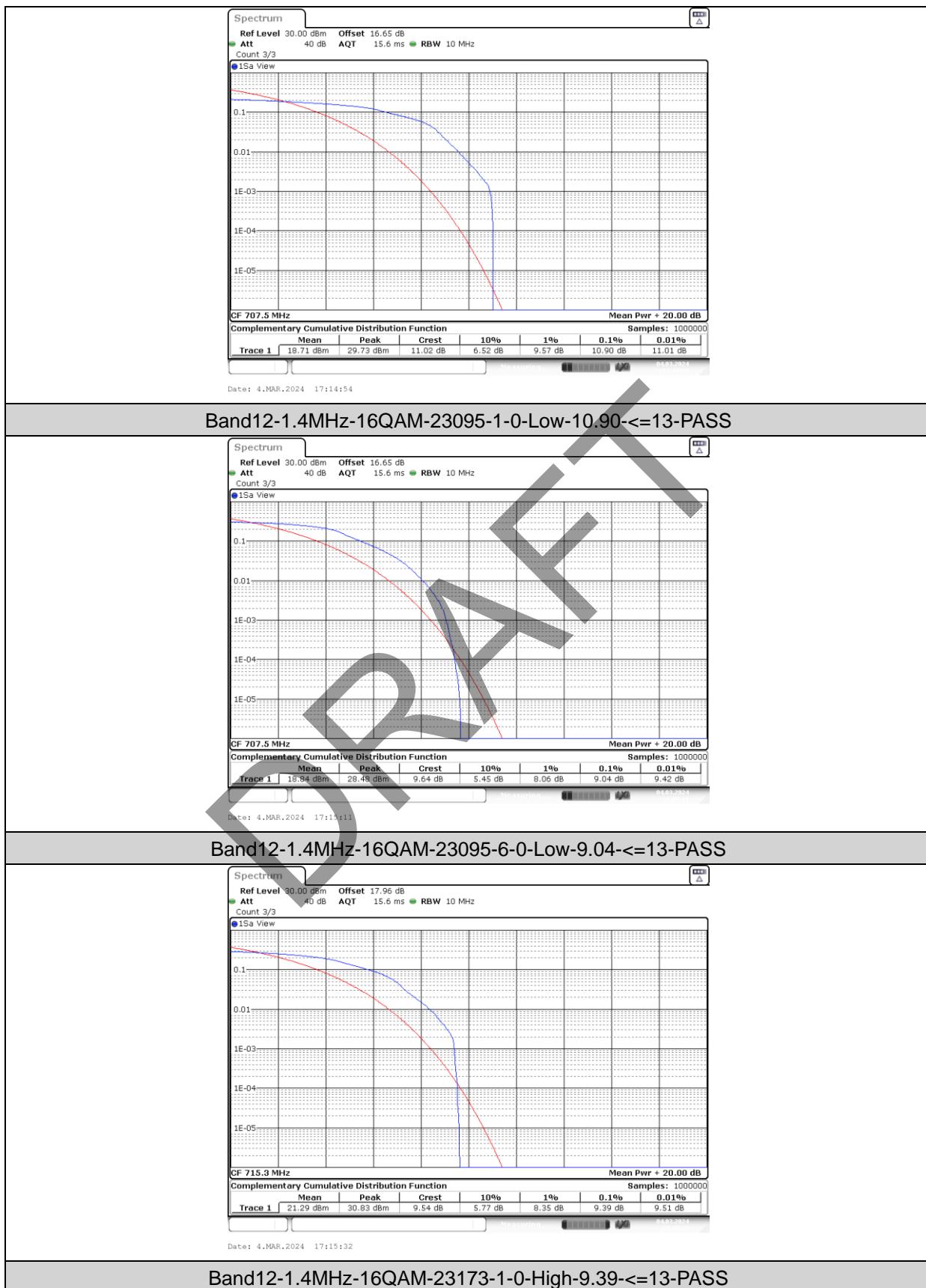
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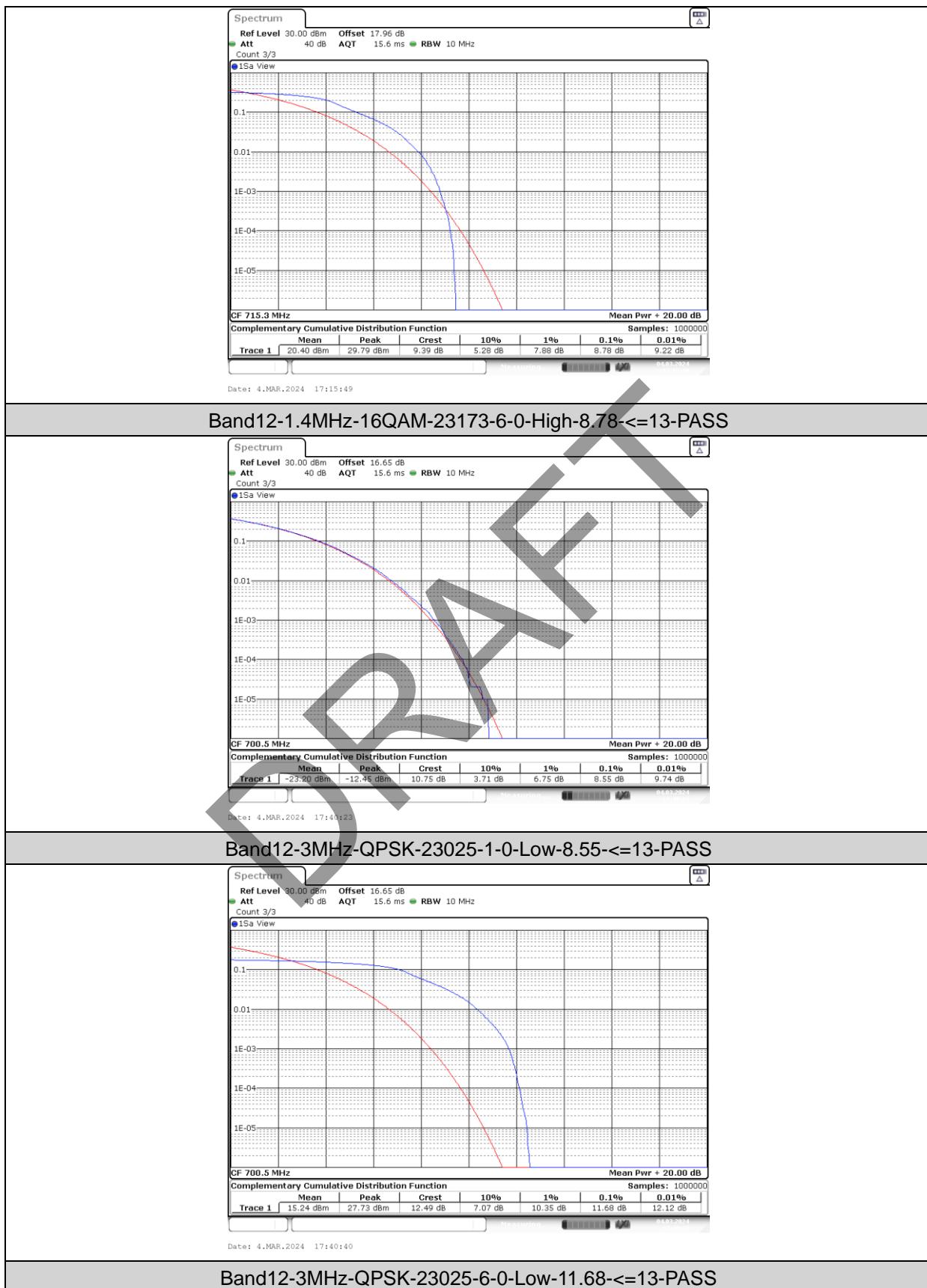
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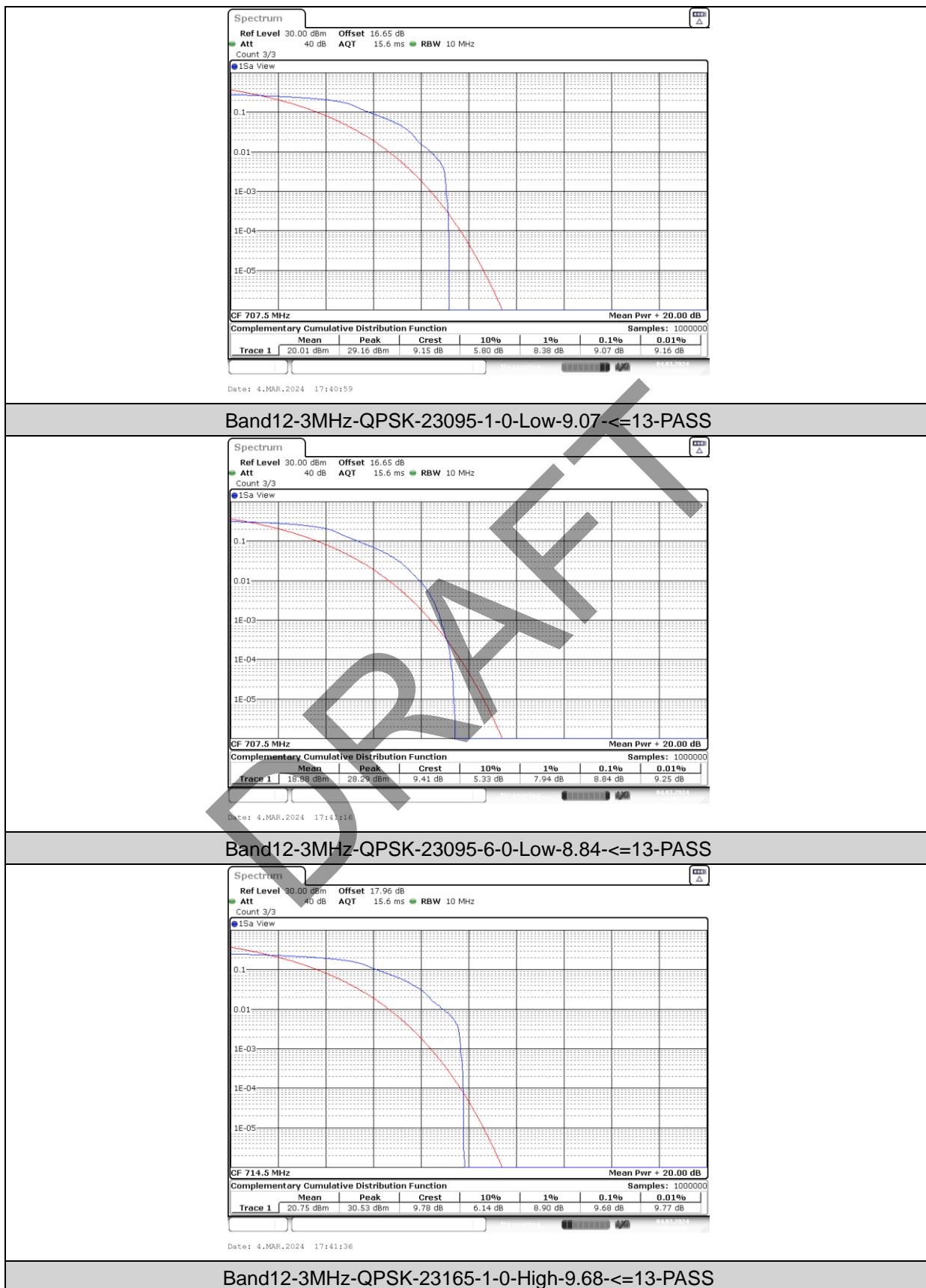
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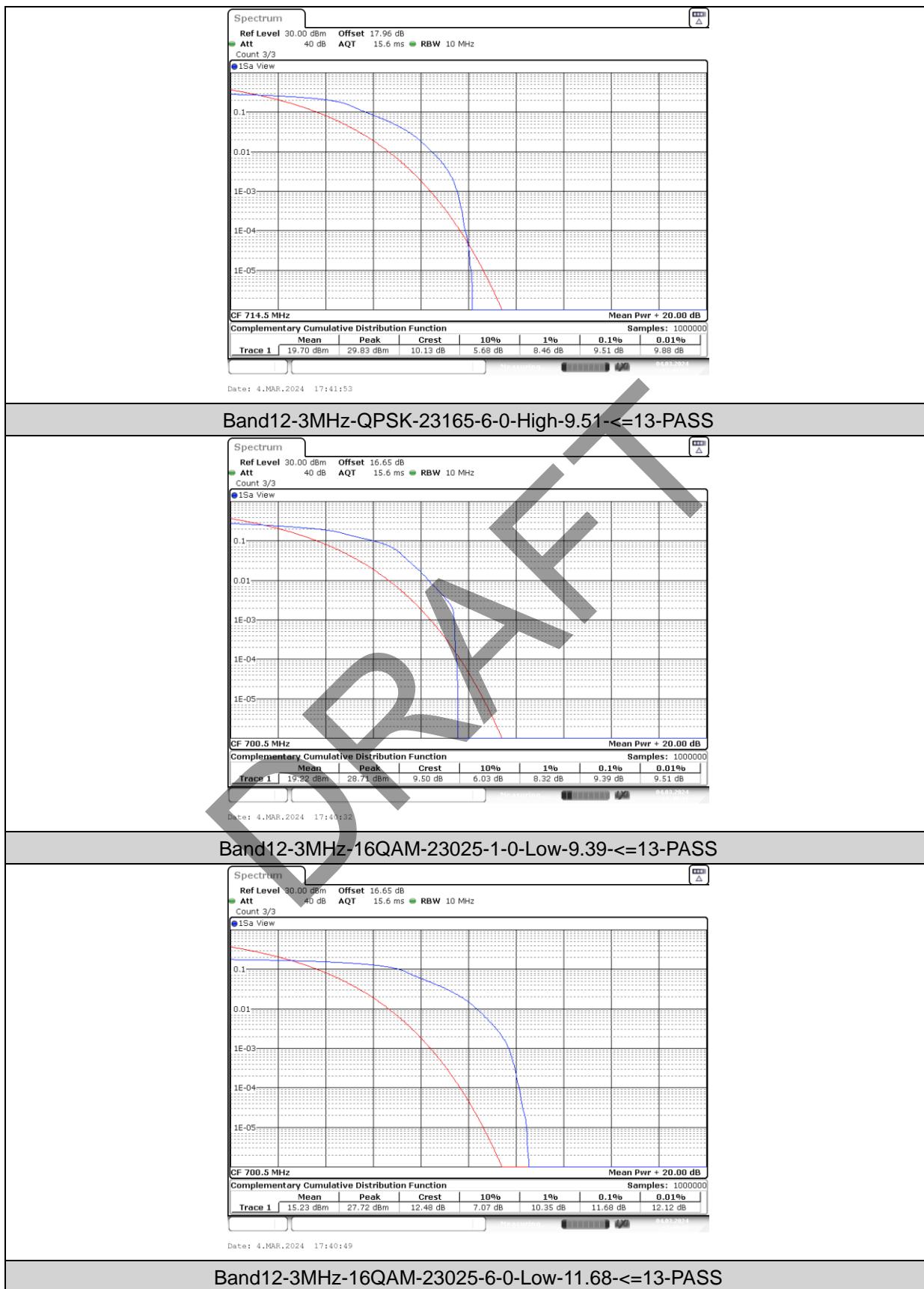
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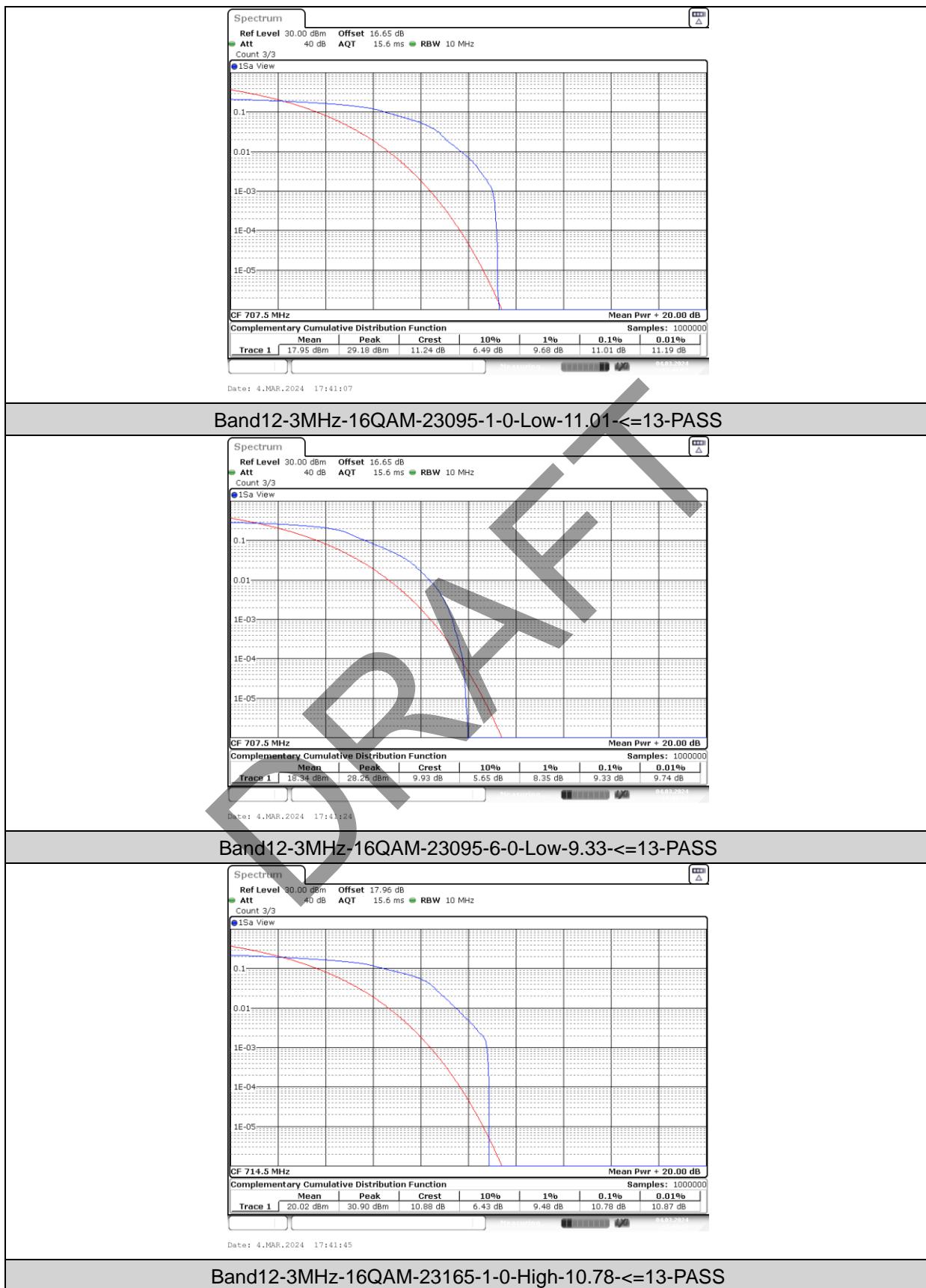
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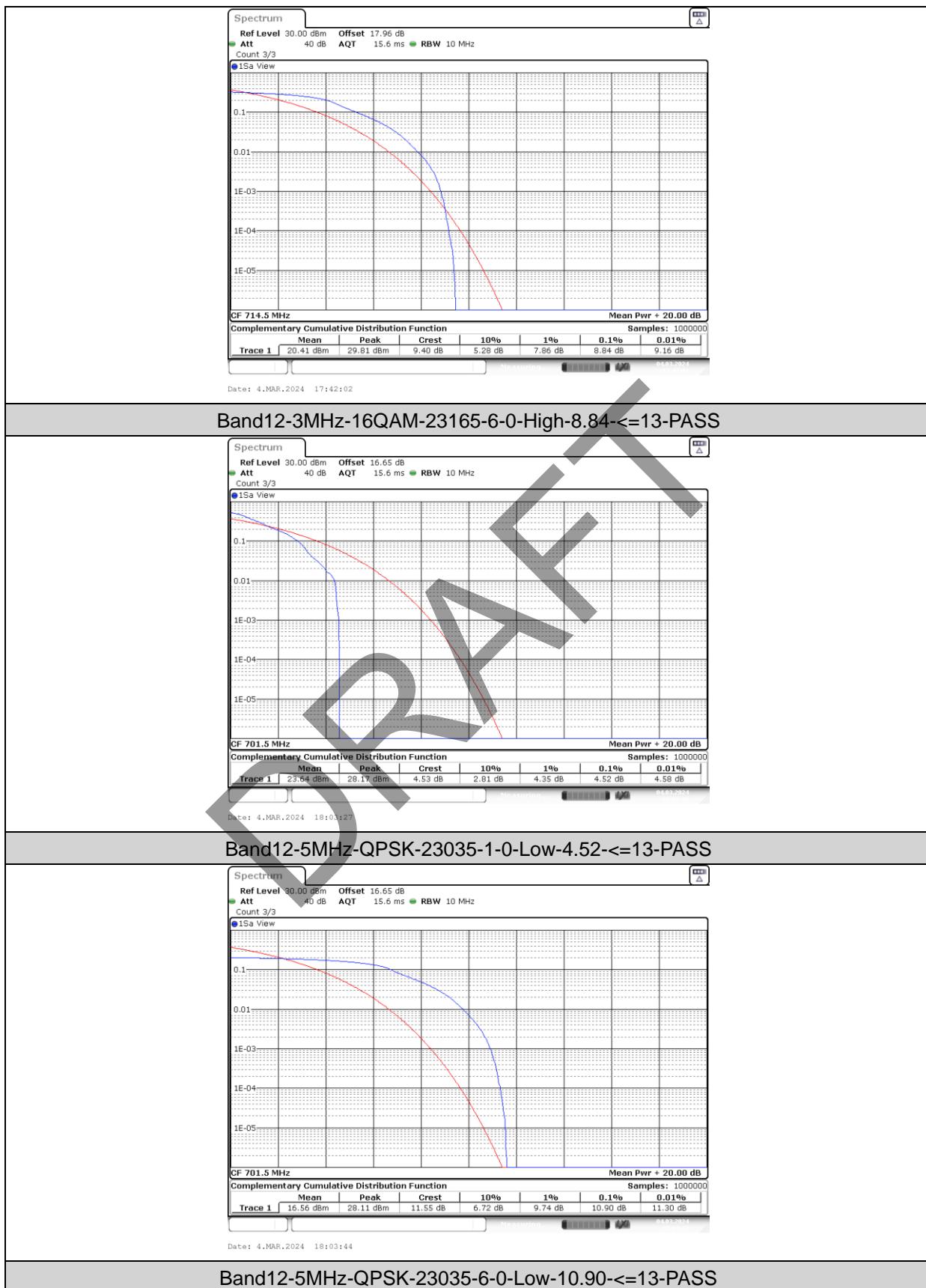
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BUREAU
VERITAS

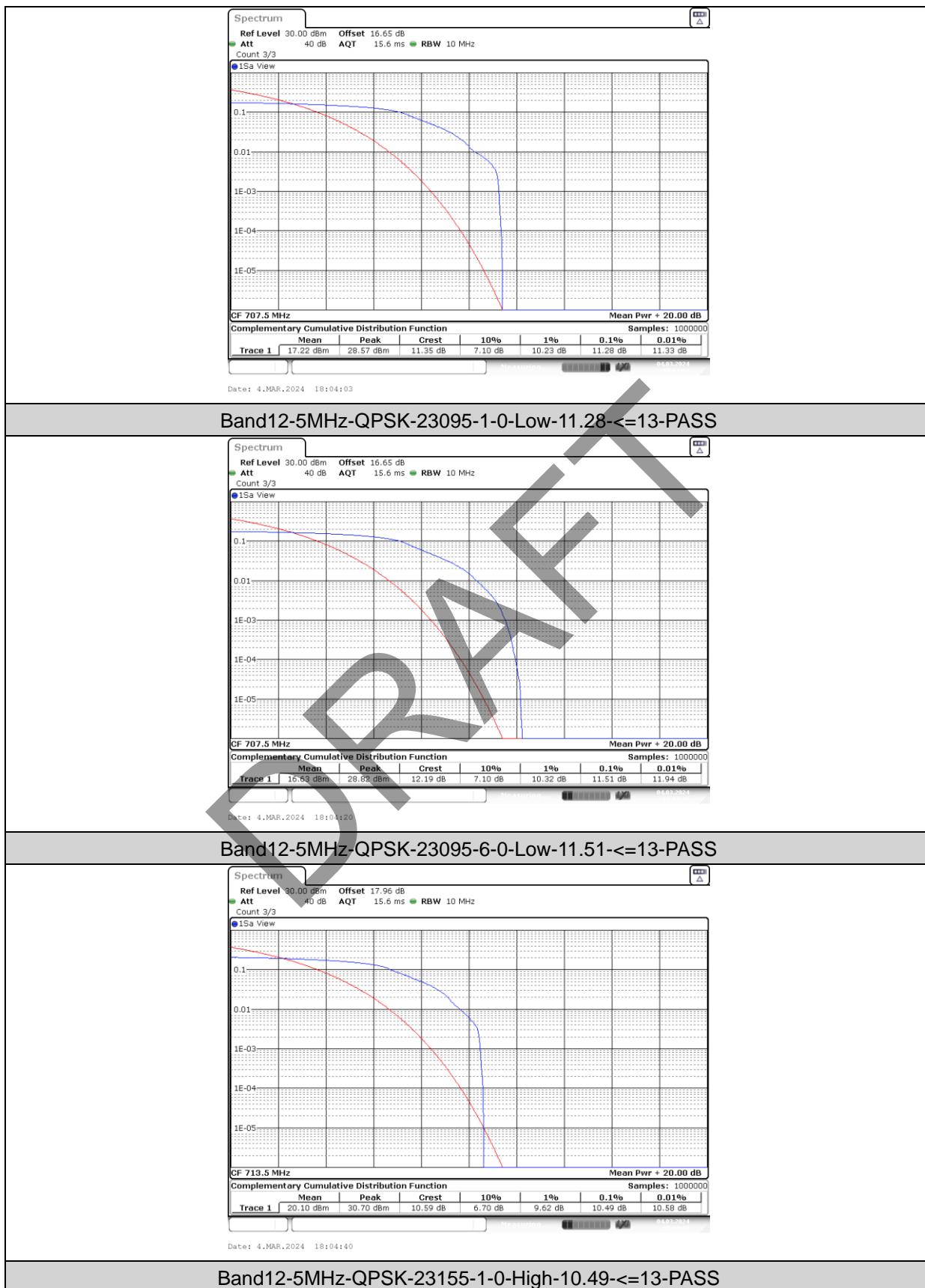
Test Report No.: W7L-P23120015RI03





BUREAU
VERITAS

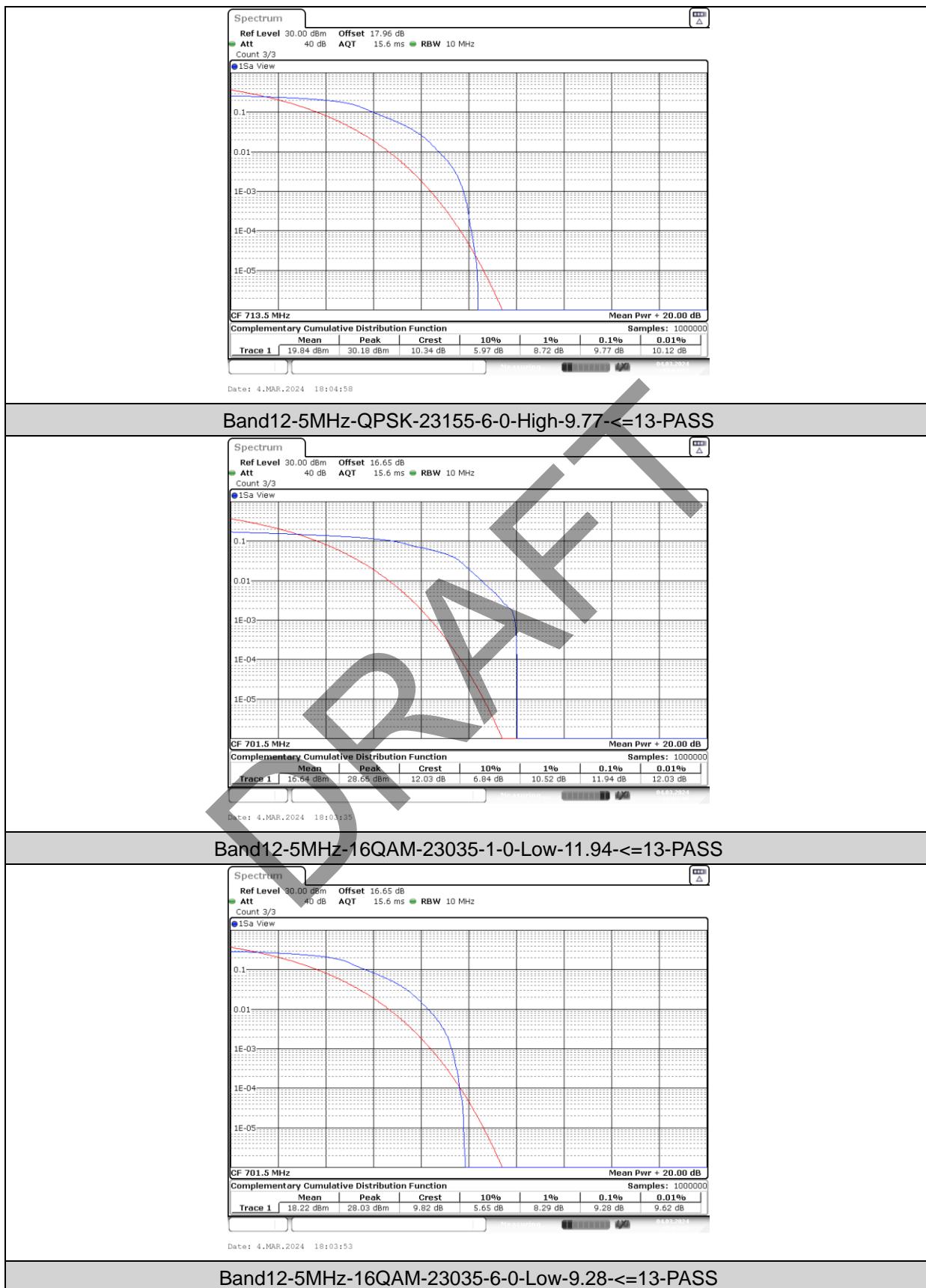
Test Report No.: W7L-P23120015RI03





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VERITAS

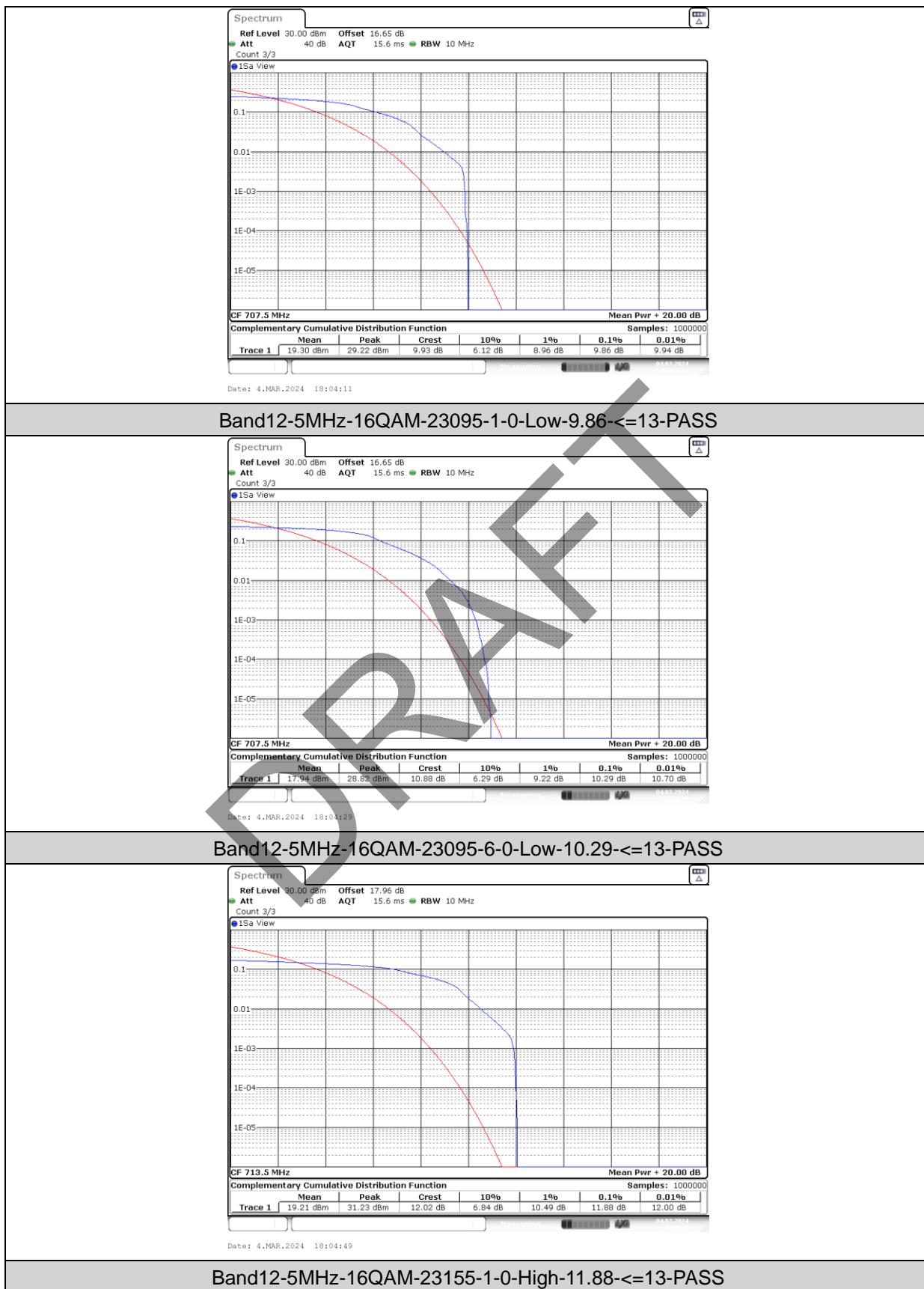
Test Report No.: W7L-P23120015RI03





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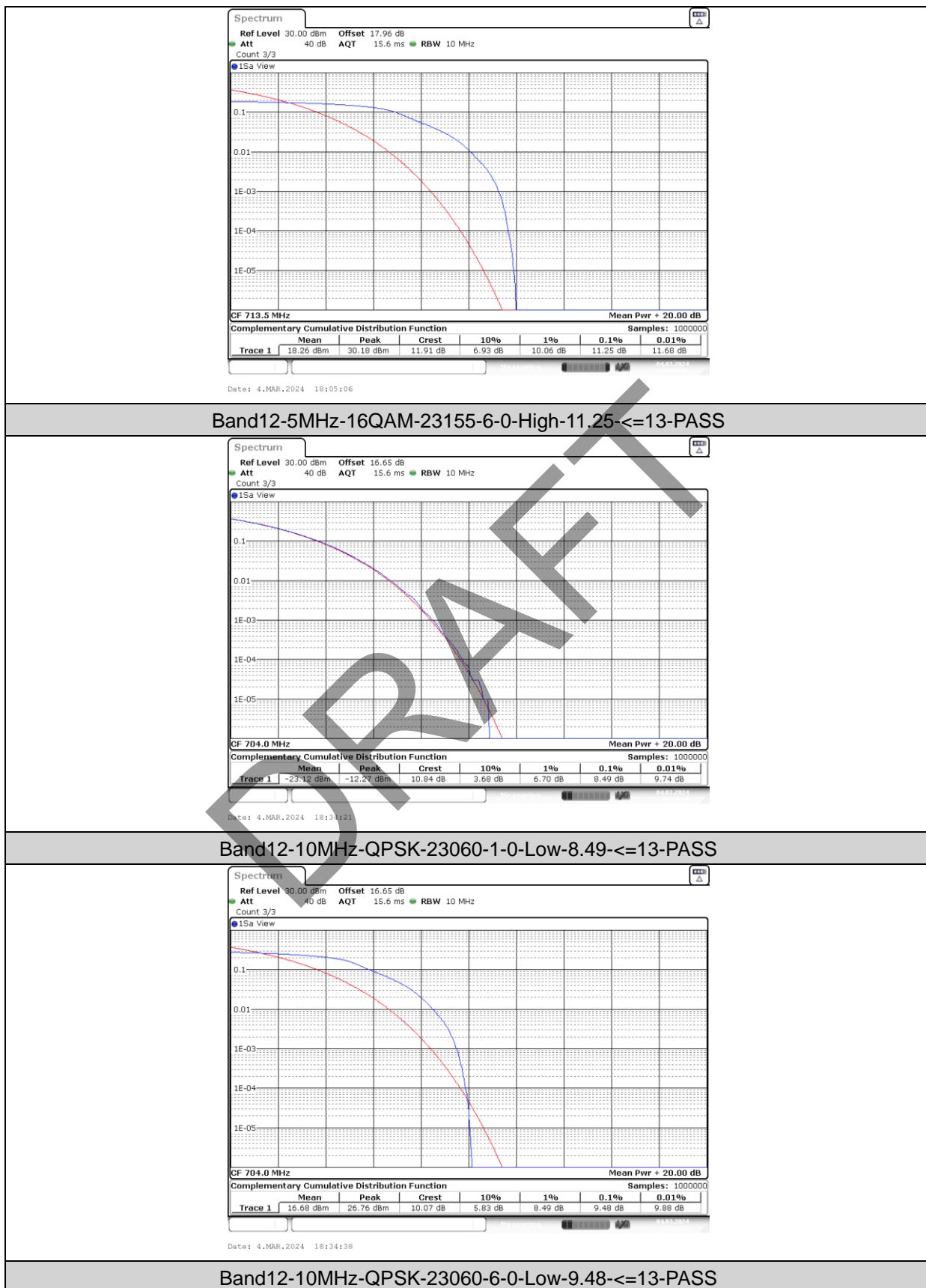
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VERITAS

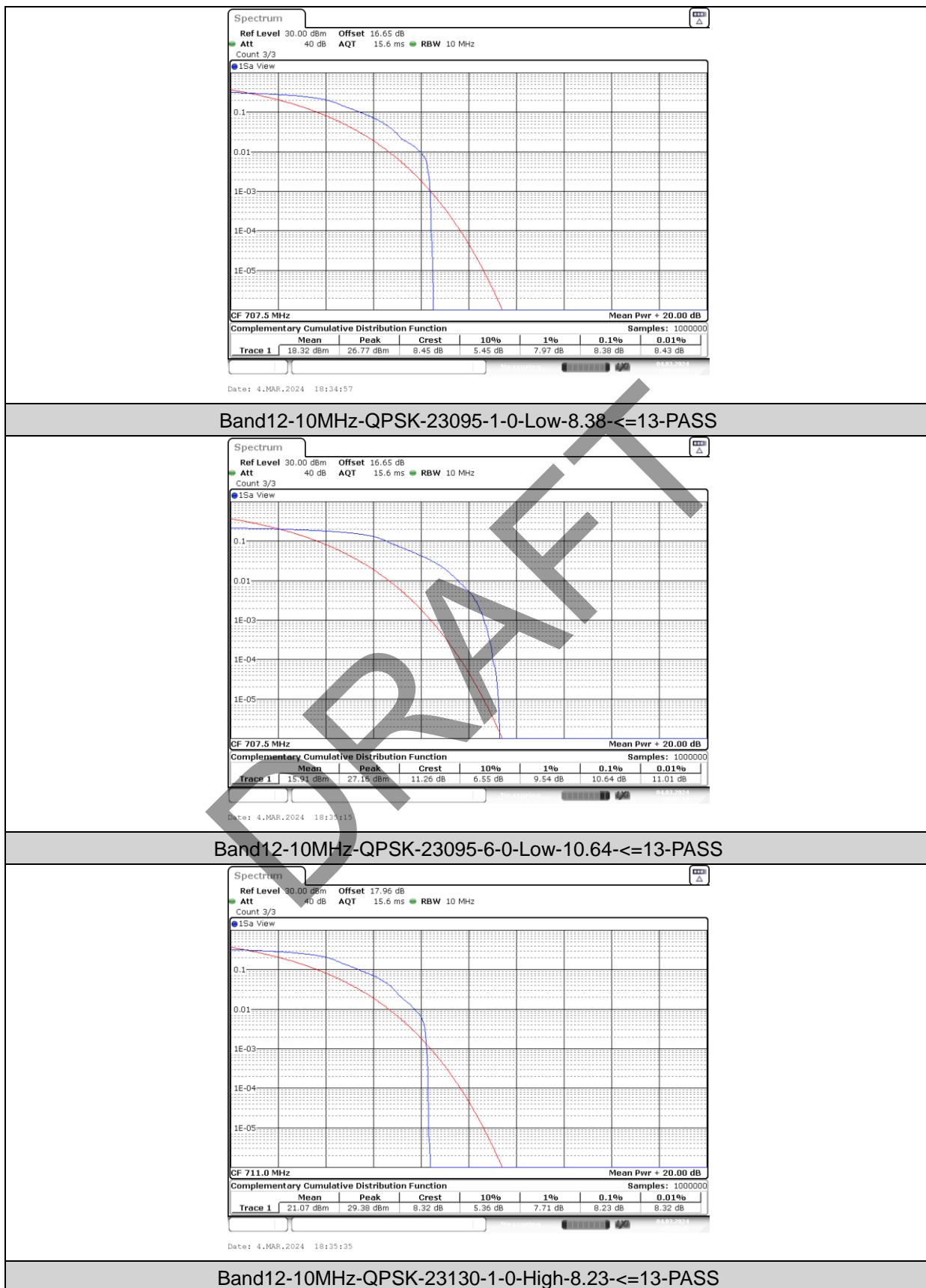
Test Report No.: W7L-P23120015RI03





BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03





BUREAU
VERITAS

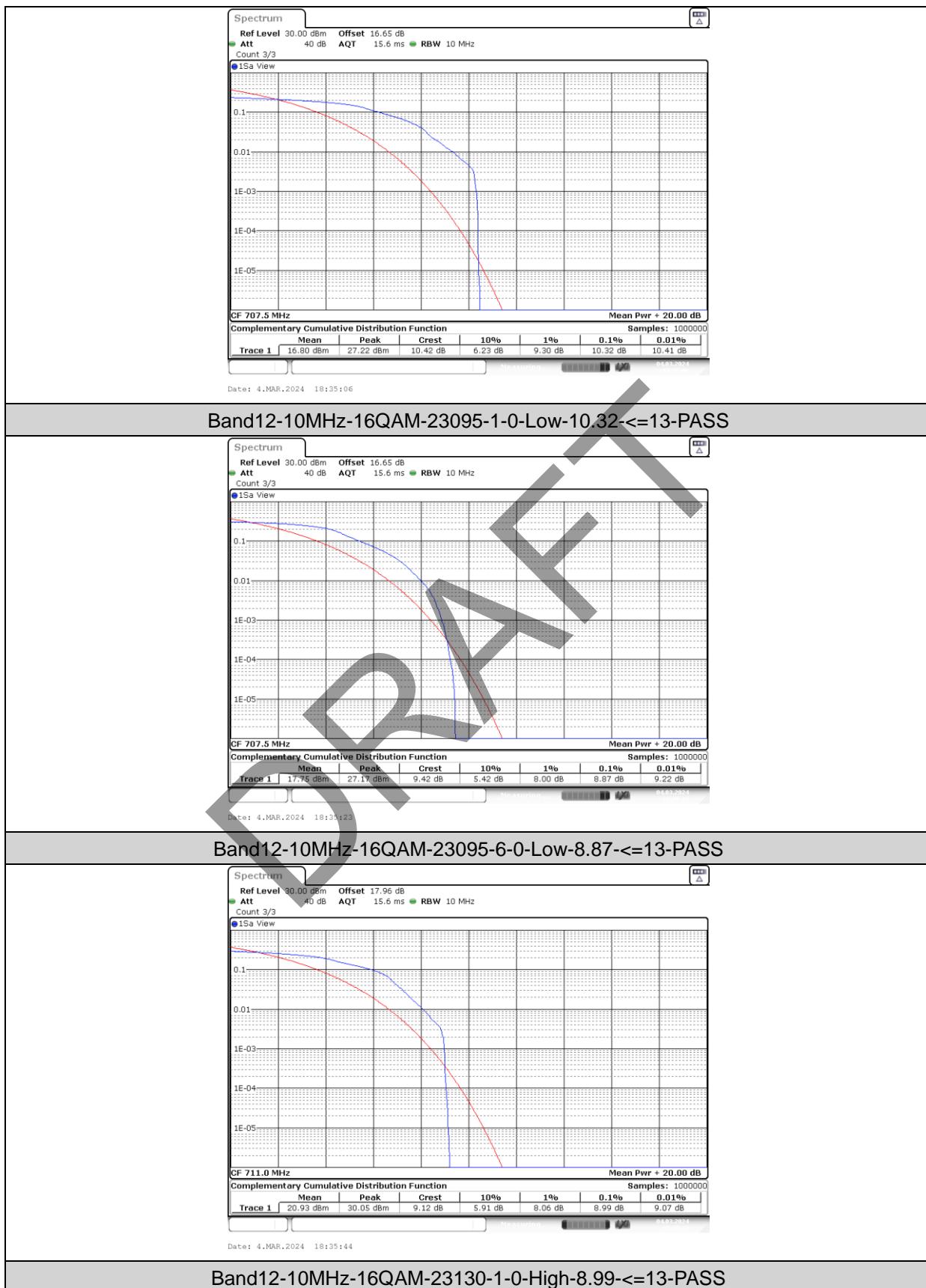
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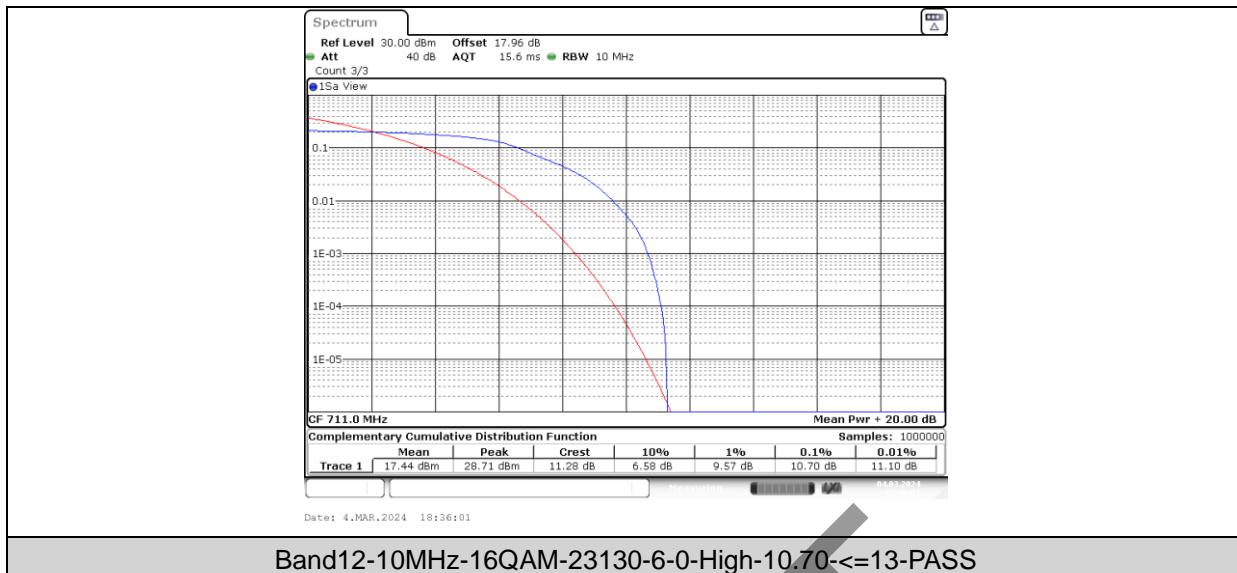
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VERITAS

Test Report No.: W7L-P23120015RI03



Band 13 Test Result

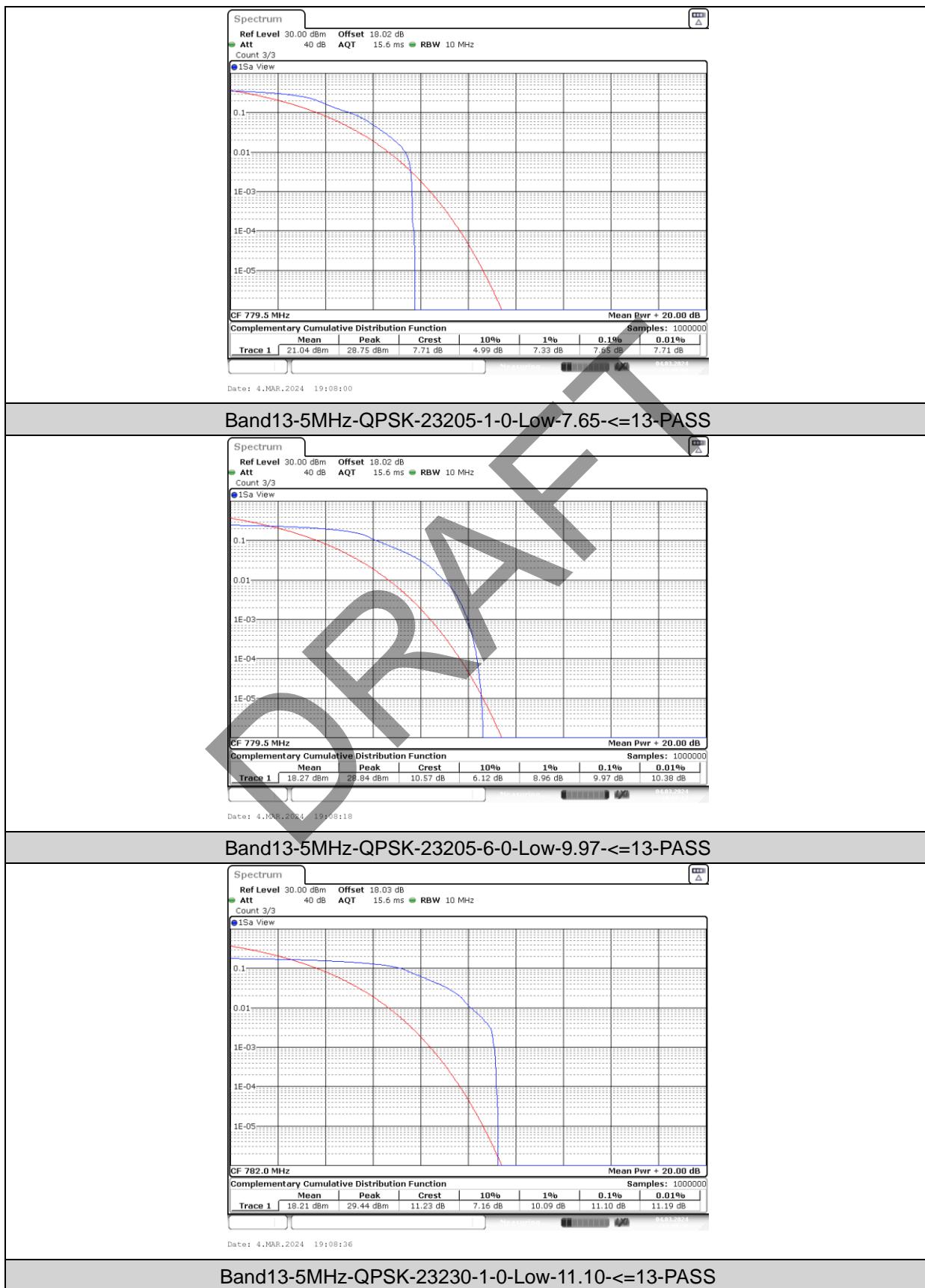
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	23205	QPSK	1	0	Low	7.65	<=13	PASS
Band13	5MHz	23205	QPSK	6	0	Low	9.97	<=13	PASS
Band13	5MHz	23230	QPSK	1	0	Low	11.10	<=13	PASS
Band13	5MHz	23230	QPSK	6	0	Low	10.26	<=13	PASS
Band13	5MHz	23255	QPSK	1	0	High	10.70	<=13	PASS
Band13	5MHz	23255	QPSK	6	0	High	8.67	<=13	PASS
Band13	5MHz	23205	16QAM	1	0	Low	10.75	<=13	PASS
Band13	5MHz	23205	16QAM	6	0	Low	11.01	<=13	PASS
Band13	5MHz	23230	16QAM	1	0	Low	11.28	<=13	PASS
Band13	5MHz	23230	16QAM	6	0	Low	9.86	<=13	PASS
Band13	5MHz	23255	16QAM	1	0	High	8.78	<=13	PASS
Band13	5MHz	23255	16QAM	6	0	High	10.14	<=13	PASS
Band13	10MHz	23230	QPSK	1	0	Low	8.52	<=13	PASS
Band13	10MHz	23230	QPSK	6	0	Low	9.77	<=13	PASS
Band13	10MHz	23230	16QAM	1	0	Low	9.86	<=13	PASS
Band13	10MHz	23230	16QAM	6	0	Low	8.61	<=13	PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

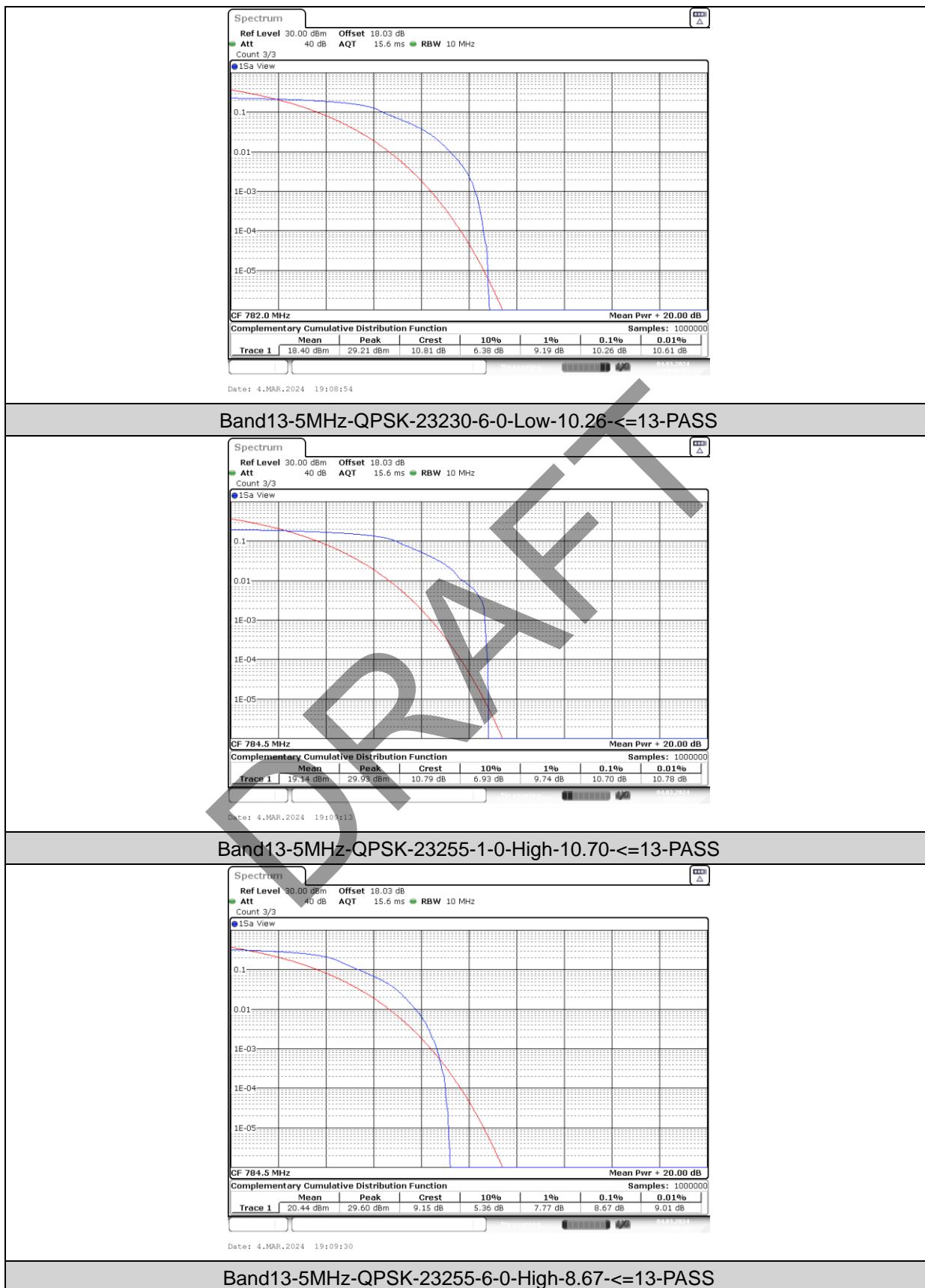
Band 13 Test Graphs





BUREAU
VERITAS

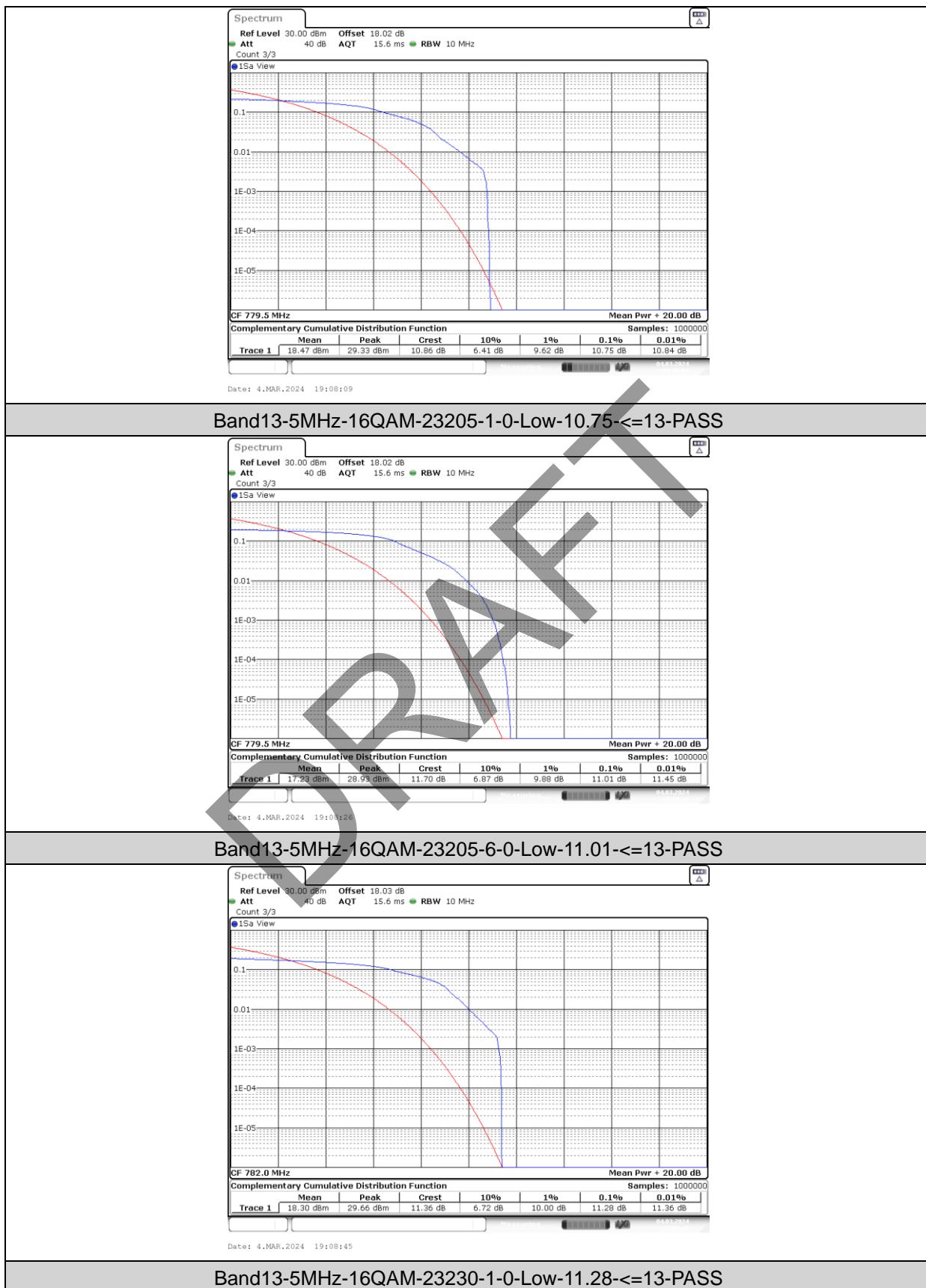
Test Report No.: W7L-P23120015RI03





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VERITAS

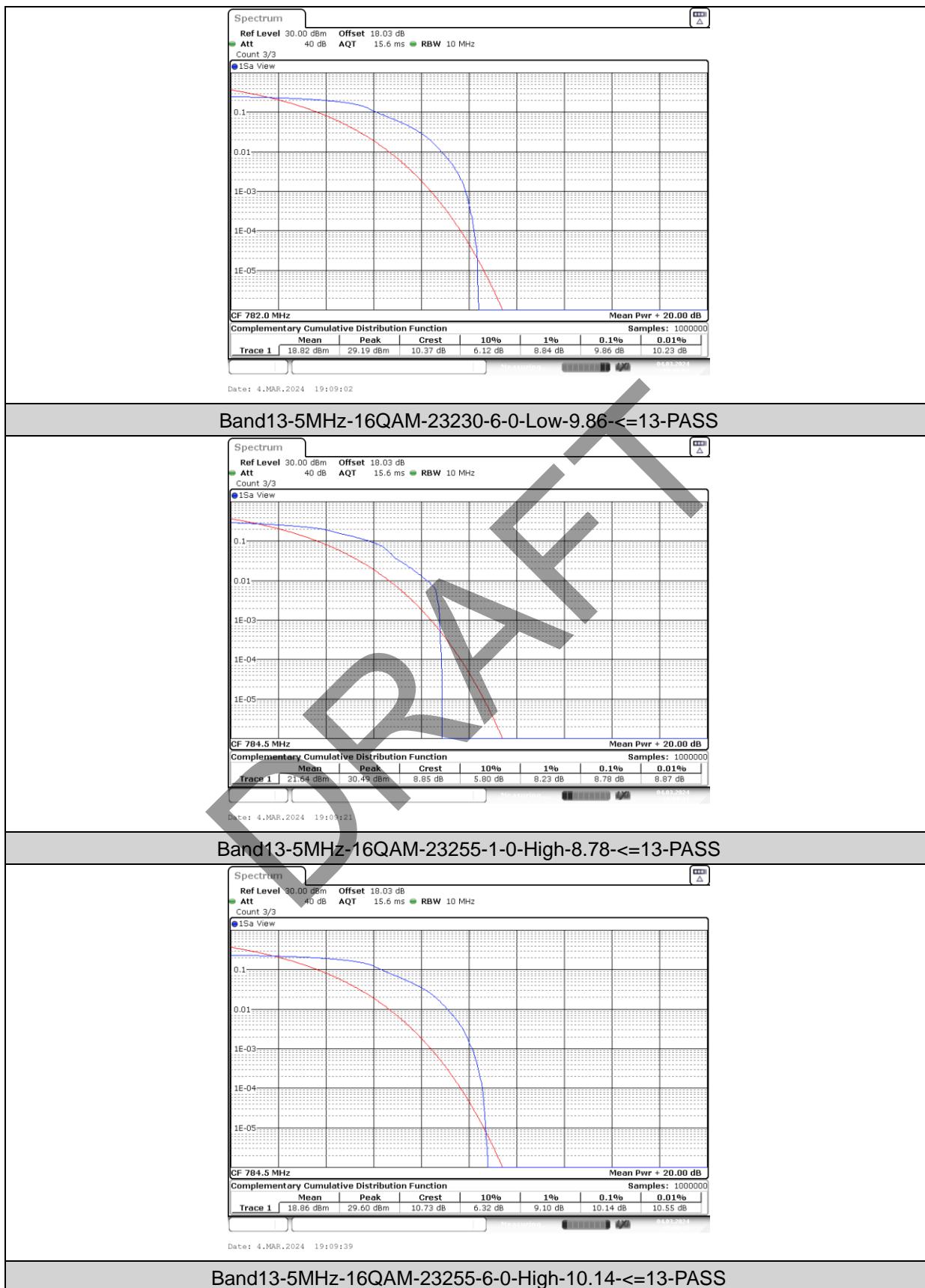
Test Report No.: W7L-P23120015RI03





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VERITAS

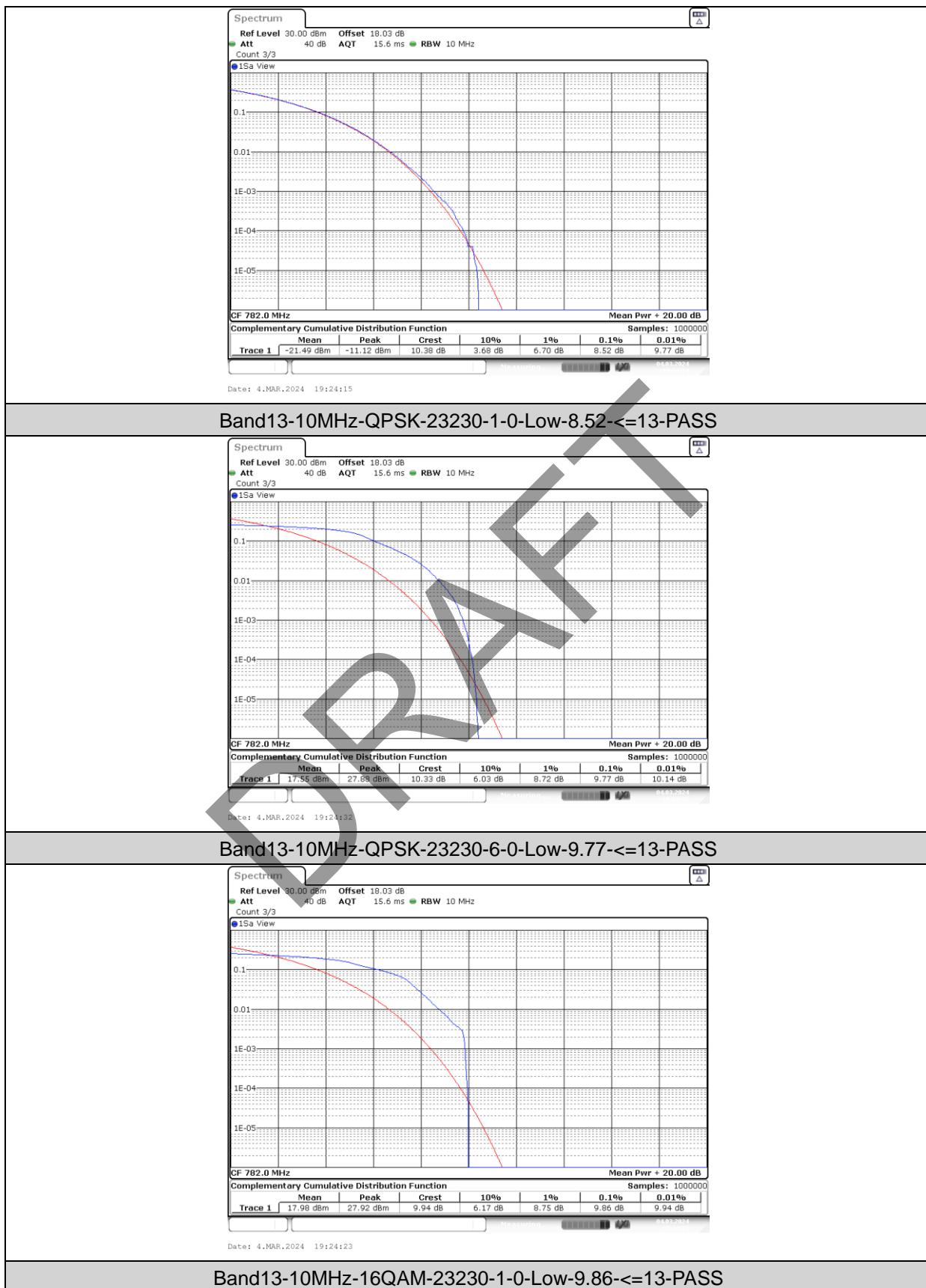
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BUREAU
VERITAS

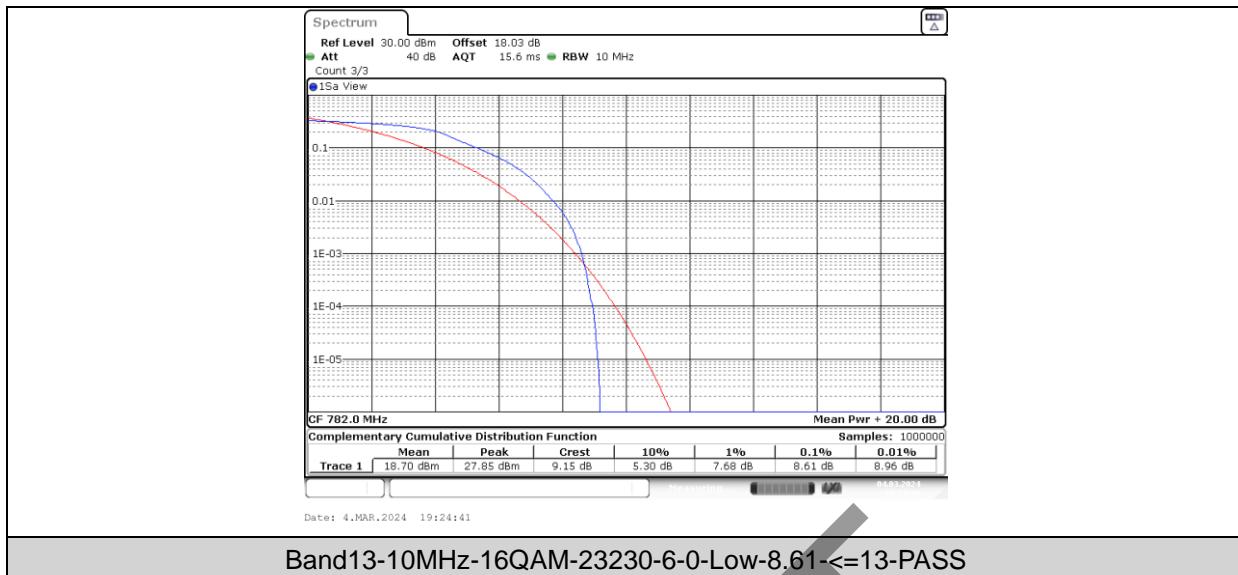
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BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03



DRAFT



BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

26DB BANDWIDTH AND OCCUPIED BANDWIDTH FOR M1

Band 12 Test Result

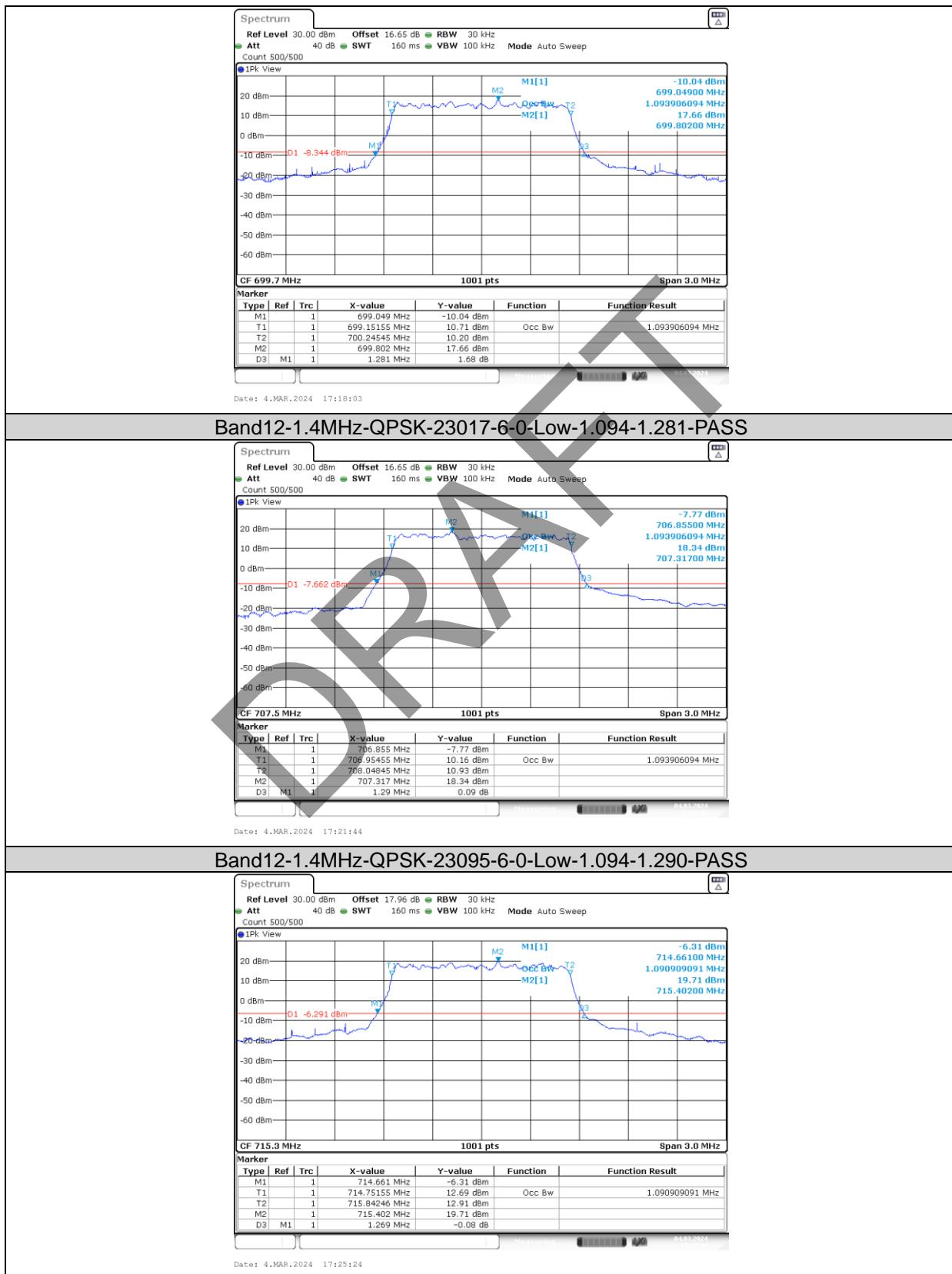
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	23017	QPSK	6	0	Low	1.094	1.281	PASS
Band12	1.4MHz	23095	QPSK	6	0	Low	1.094	1.290	PASS
Band12	1.4MHz	23173	QPSK	6	0	High	1.091	1.269	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	1.094	1.284	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	1.091	1.293	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	1.091	1.269	PASS
Band12	3MHz	23025	QPSK	6	0	Low	1.133	1.428	PASS
Band12	3MHz	23095	QPSK	6	0	Low	1.133	1.338	PASS
Band12	3MHz	23165	QPSK	6	0	High	1.121	1.398	PASS
Band12	3MHz	23025	16QAM	6	0	Low	1.133	1.446	PASS
Band12	3MHz	23095	16QAM	6	0	Low	1.127	1.338	PASS
Band12	3MHz	23165	16QAM	6	0	High	1.121	1.404	PASS
Band12	5MHz	23035	QPSK	6	0	Low	1.209	1.490	PASS
Band12	5MHz	23095	QPSK	6	0	Low	1.199	1.550	PASS
Band12	5MHz	23155	QPSK	6	0	High	1.199	1.440	PASS
Band12	5MHz	23035	16QAM	6	0	Low	1.219	1.540	PASS
Band12	5MHz	23095	16QAM	6	0	Low	1.199	1.510	PASS
Band12	5MHz	23155	16QAM	6	0	High	1.199	1.530	PASS
Band12	10MHz	23060	QPSK	6	0	Low	1.379	2.000	PASS
Band12	10MHz	23095	QPSK	6	0	Low	1.419	2.580	PASS
Band12	10MHz	23130	QPSK	6	0	High	1.379	2.200	PASS
Band12	10MHz	23060	16QAM	6	0	Low	1.379	1.940	PASS
Band12	10MHz	23095	16QAM	6	0	Low	1.419	2.560	PASS
Band12	10MHz	23130	16QAM	6	0	High	1.399	2.300	PASS



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VERITAS

Test Report No.: W7L-P23120015RI03

Band 12 Test Graphs





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VERITAS

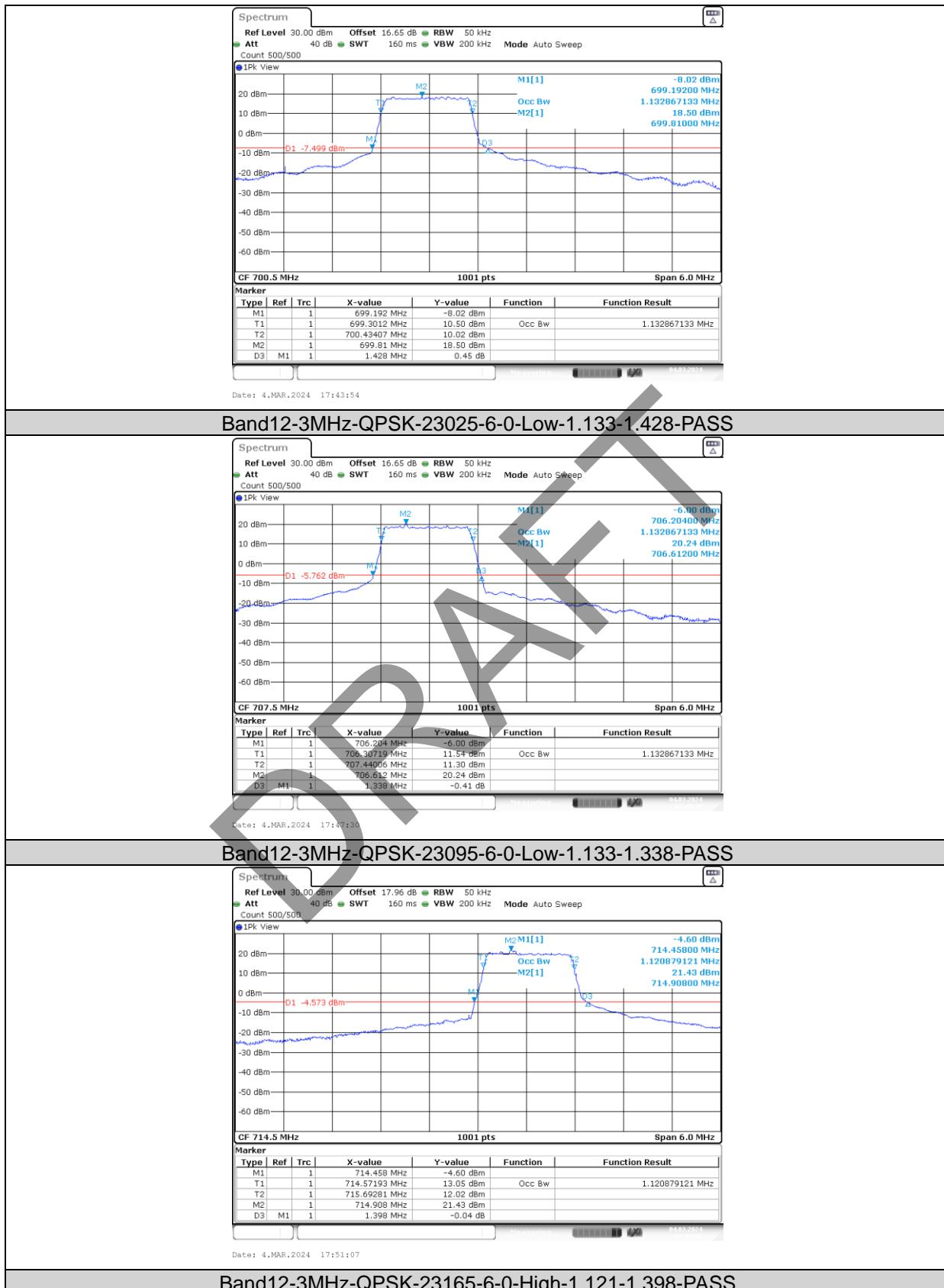
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BUREAU
VERITAS

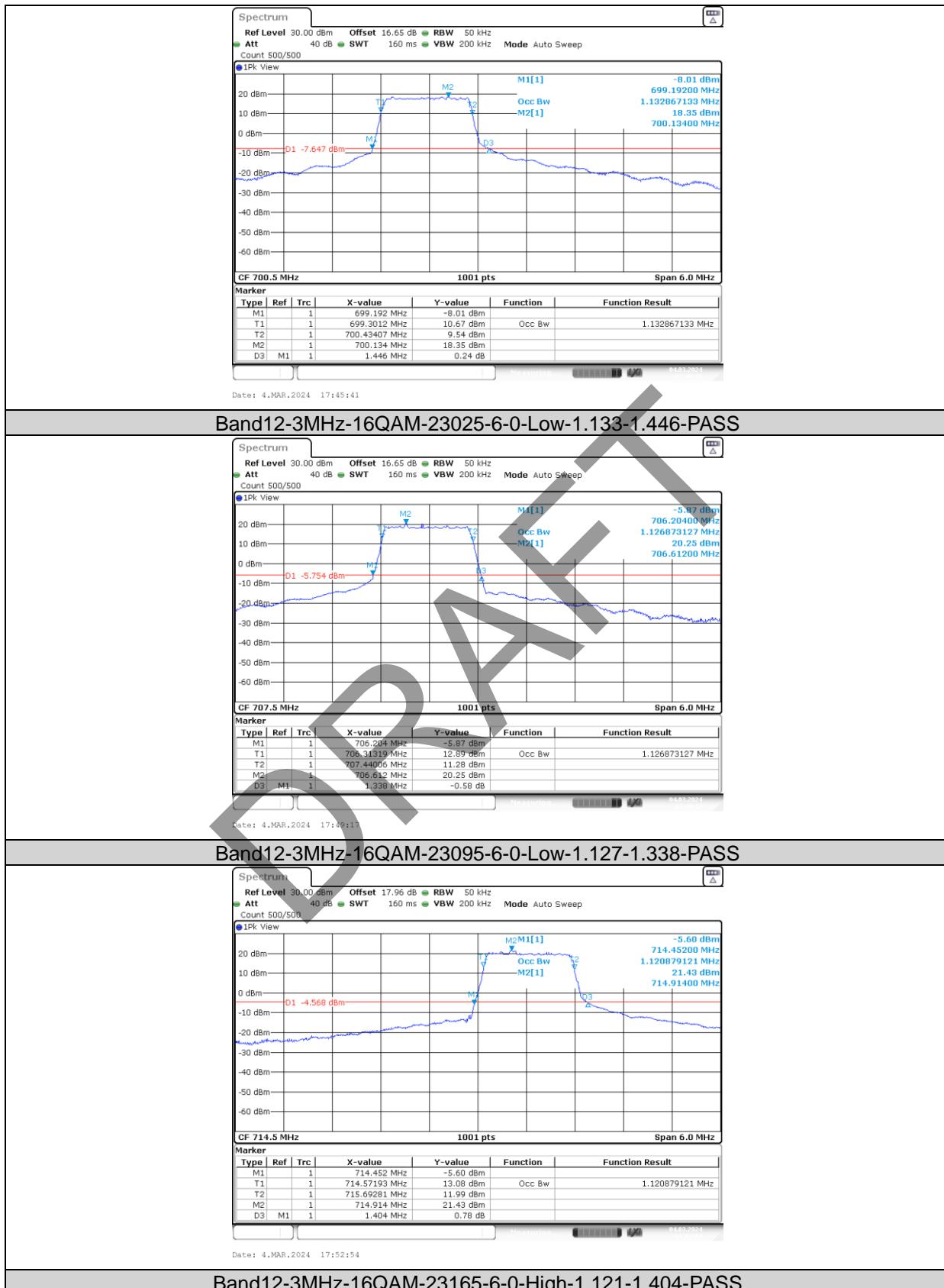
Test Report No.: W7L-P23120015RI03





BUREAU
VERITAS

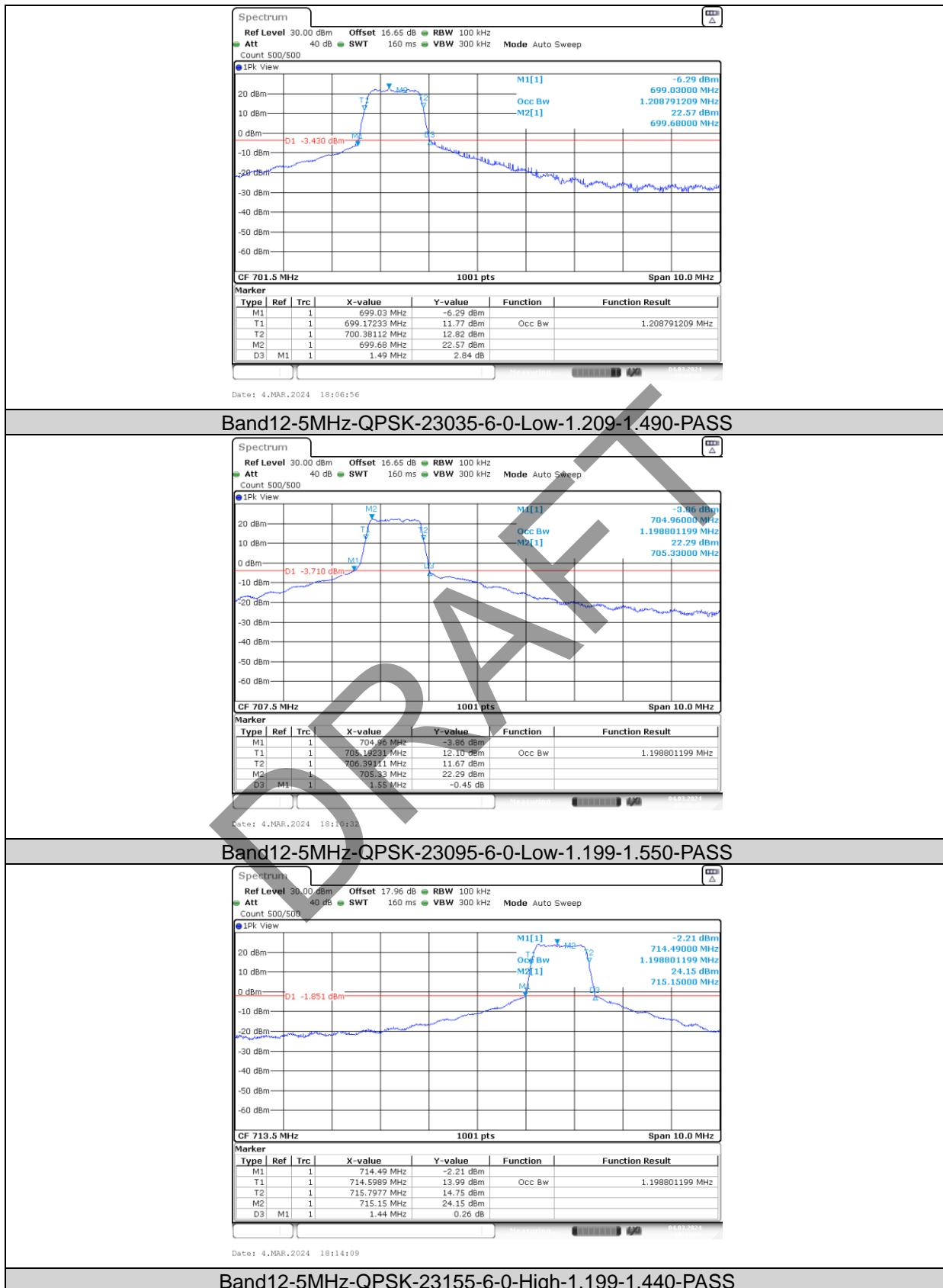
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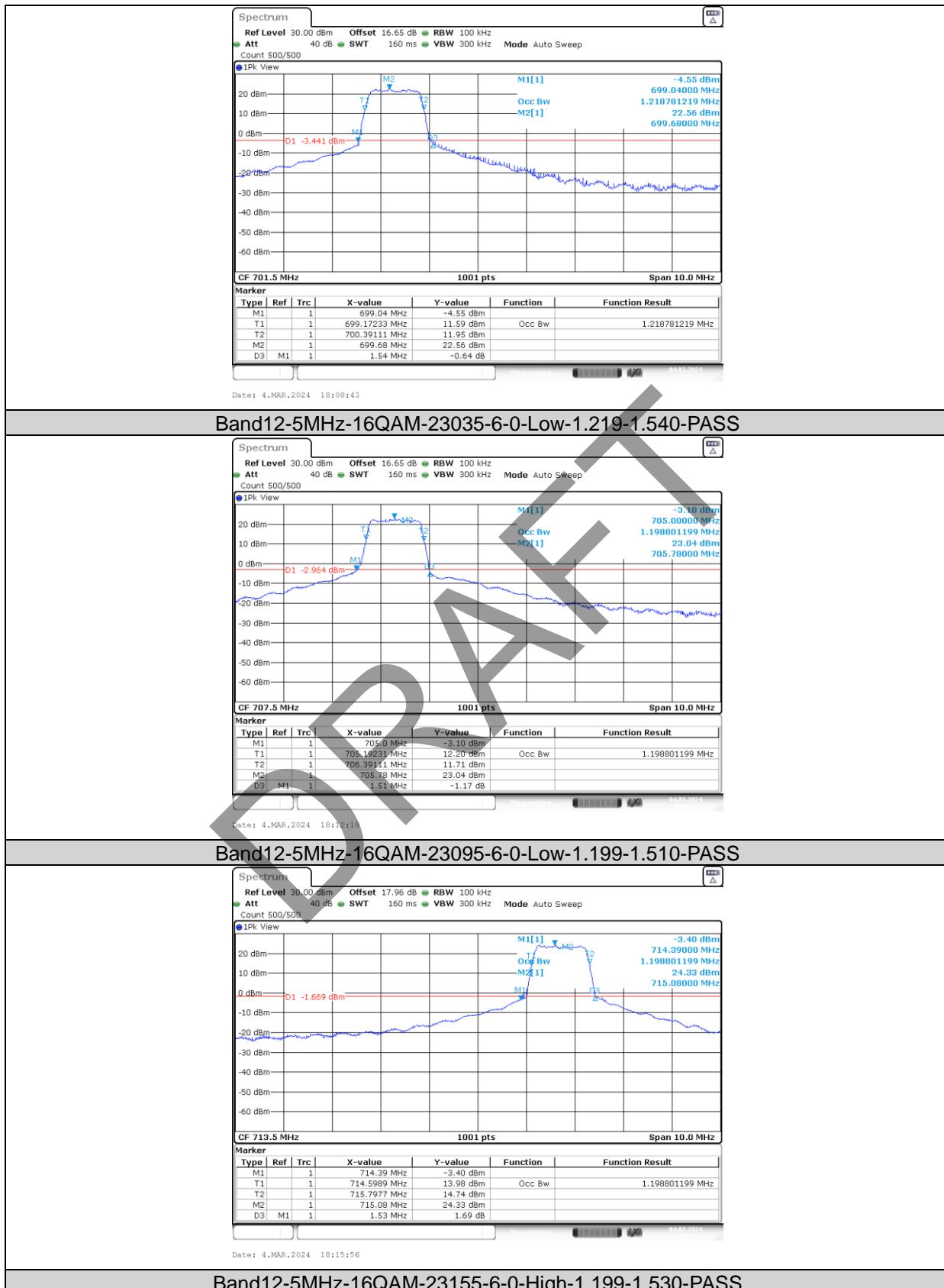
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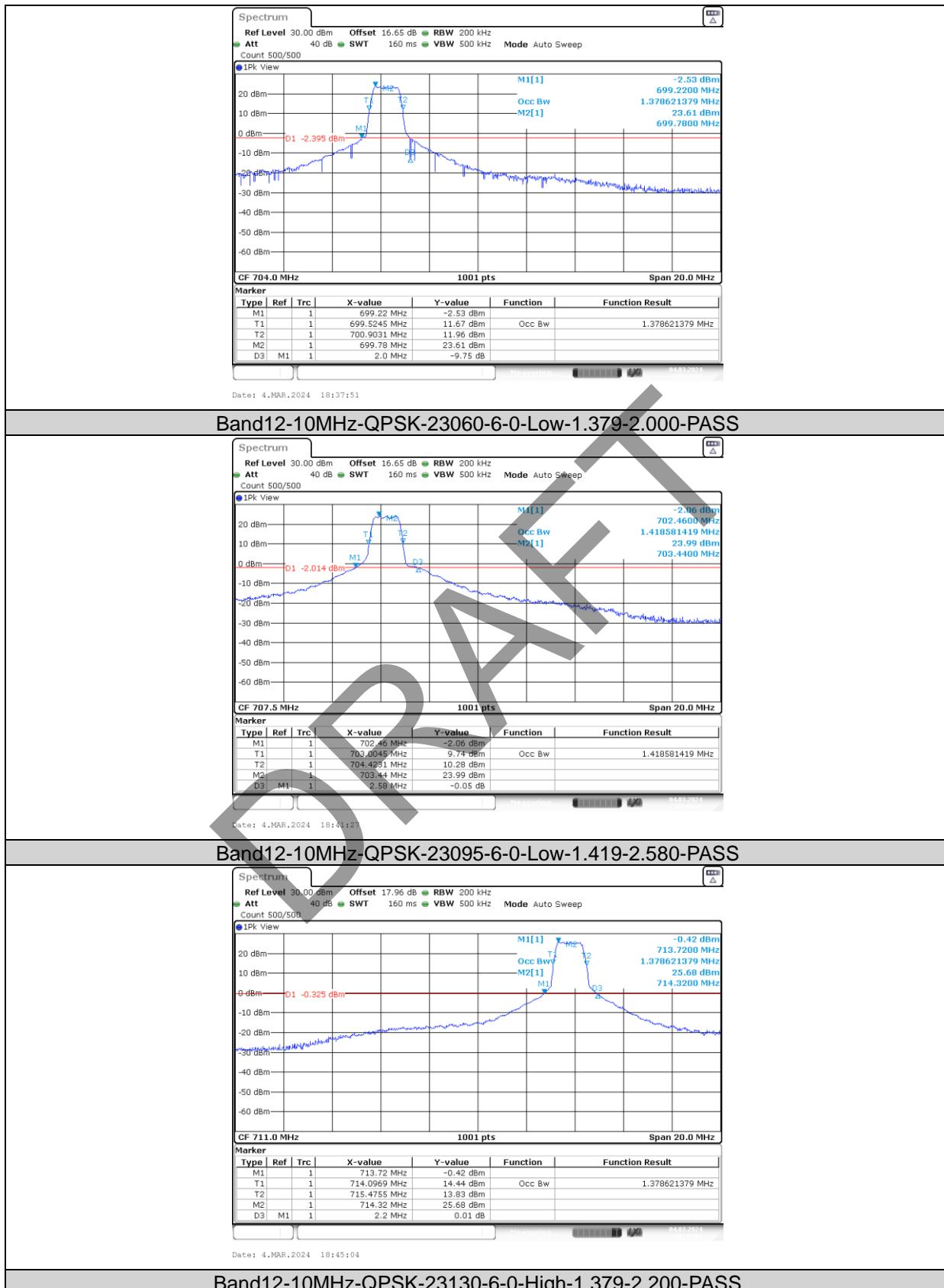
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BUREAU
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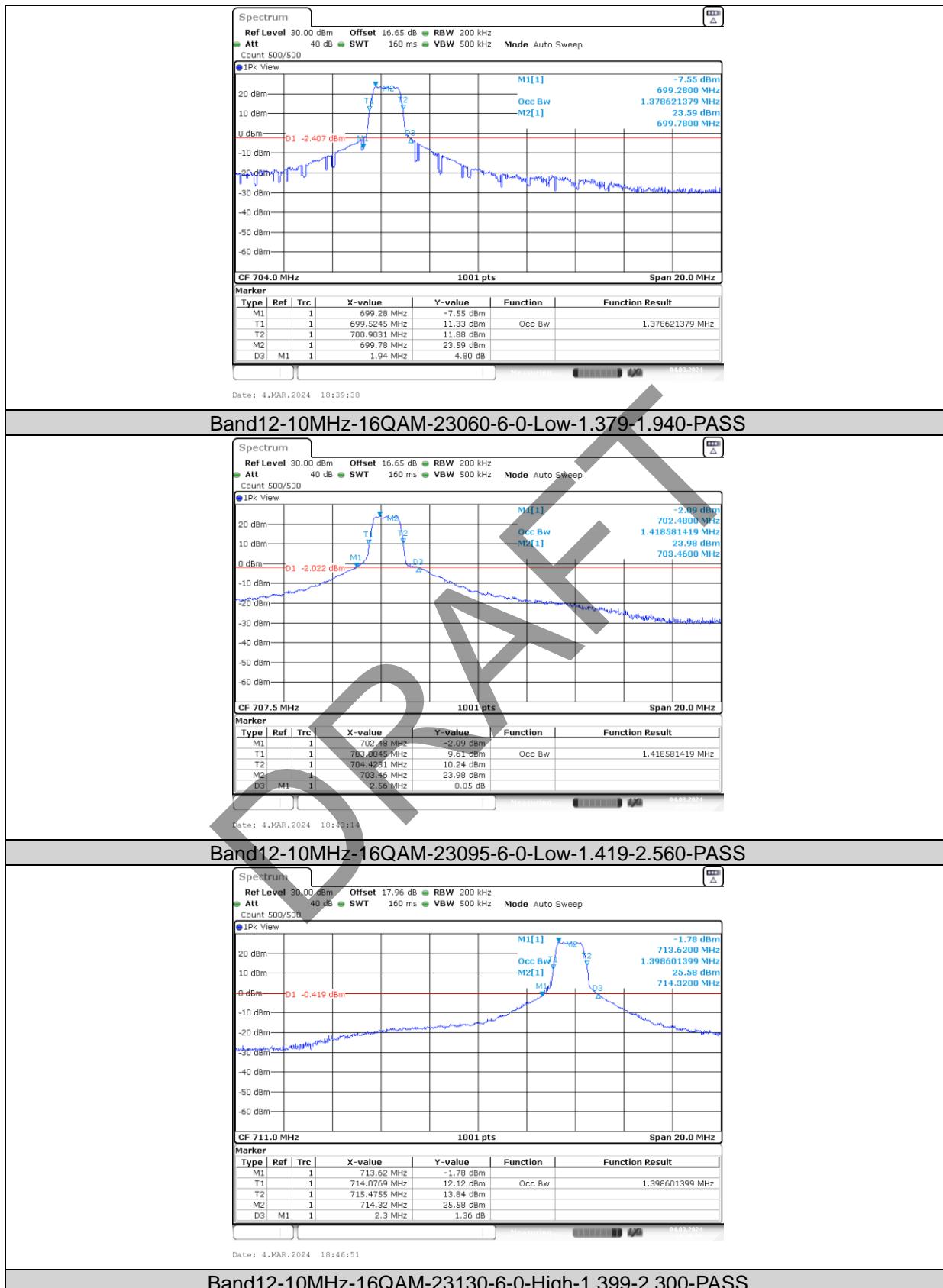
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BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03



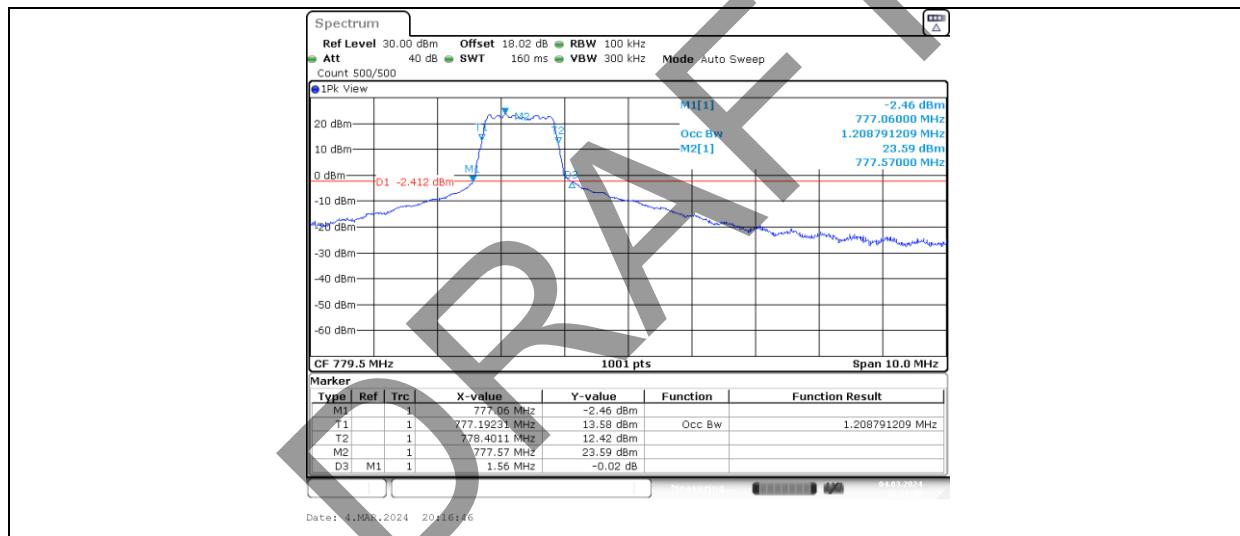
BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

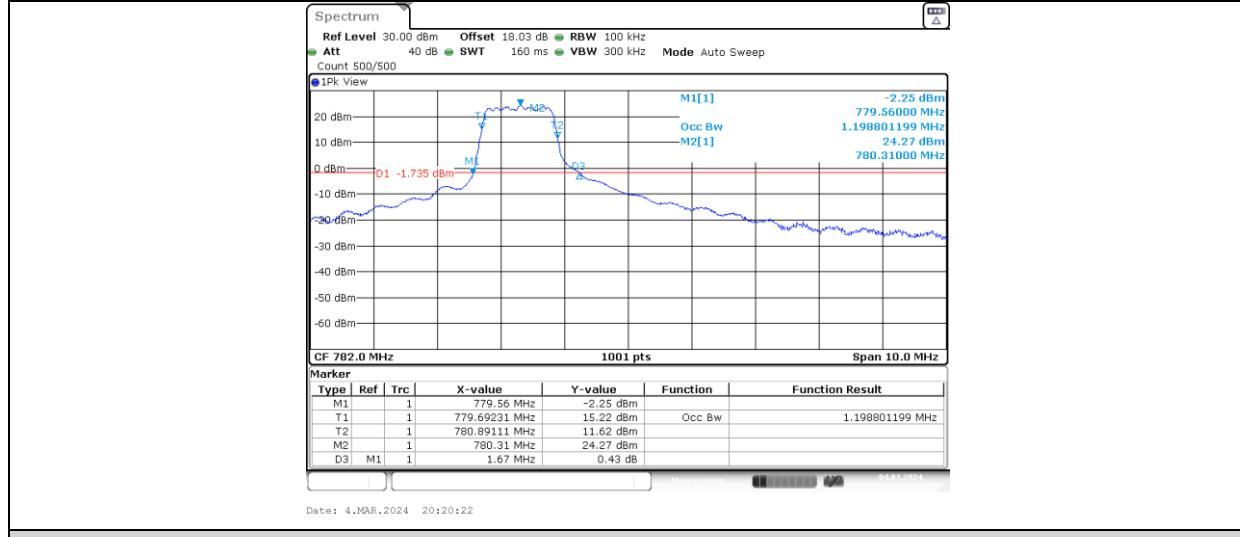
Band 13 Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	1.209	1.560	PASS
Band13	5MHz	23230	QPSK	6	0	Low	1.199	1.670	PASS
Band13	5MHz	23255	QPSK	6	0	High	1.219	1.480	PASS
Band13	5MHz	23205	16QAM	6	0	Low	1.209	1.570	PASS
Band13	5MHz	23230	16QAM	6	0	Low	1.199	1.680	PASS
Band13	5MHz	23255	16QAM	6	0	High	1.219	1.480	PASS
Band13	10MHz	23230	QPSK	6	0	Low	1.479	2.260	PASS
Band13	10MHz	23230	16QAM	6	0	Low	1.479	2.260	PASS

Band 13 Test Graphs



Band13-5MHz-QPSK-23205-6-0-Low-1.209-1.560-PASS

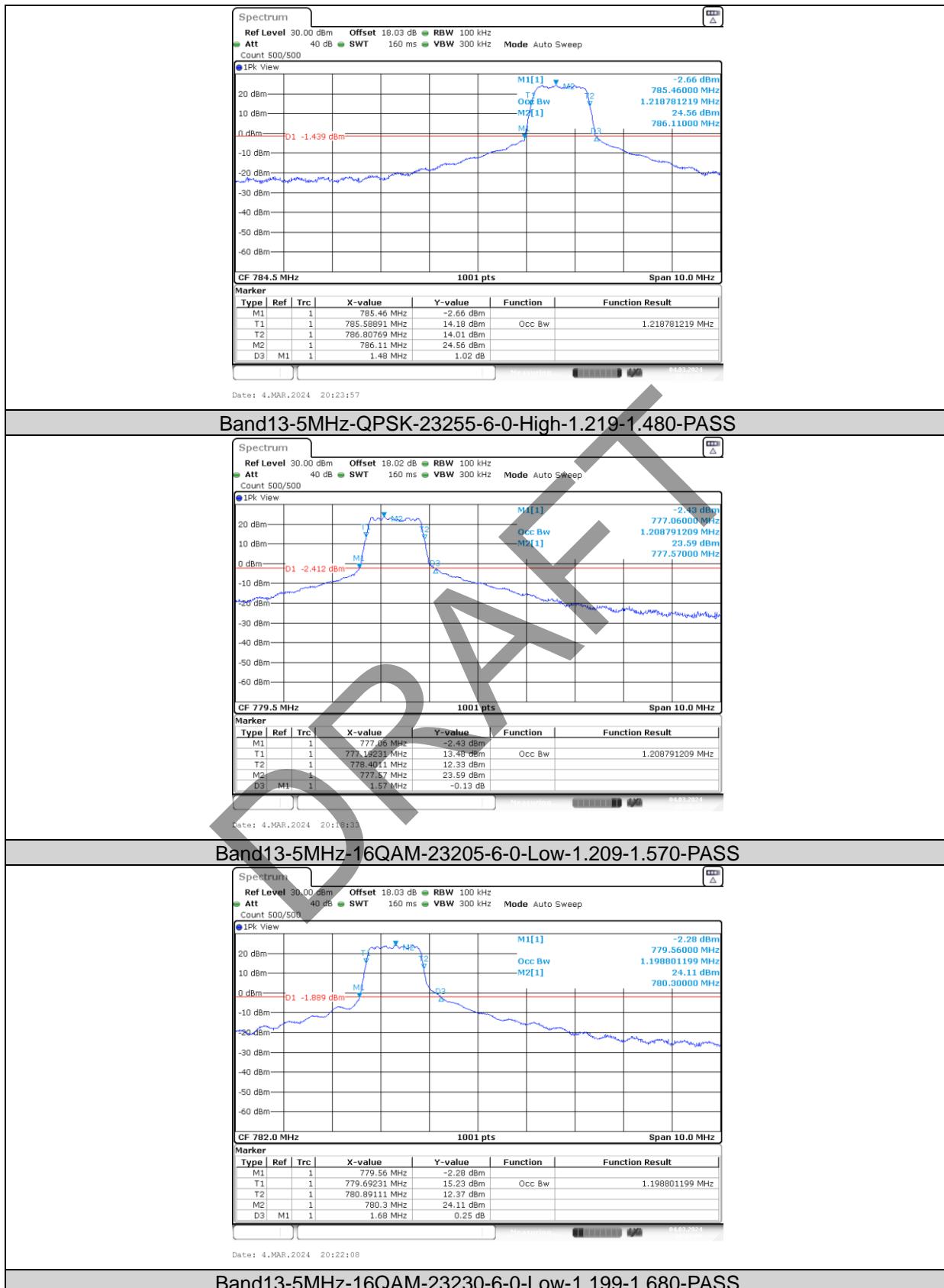


Band13-5MHz-QPSK-23230-6-0-Low-1.199-1.670-PASS



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VERITAS

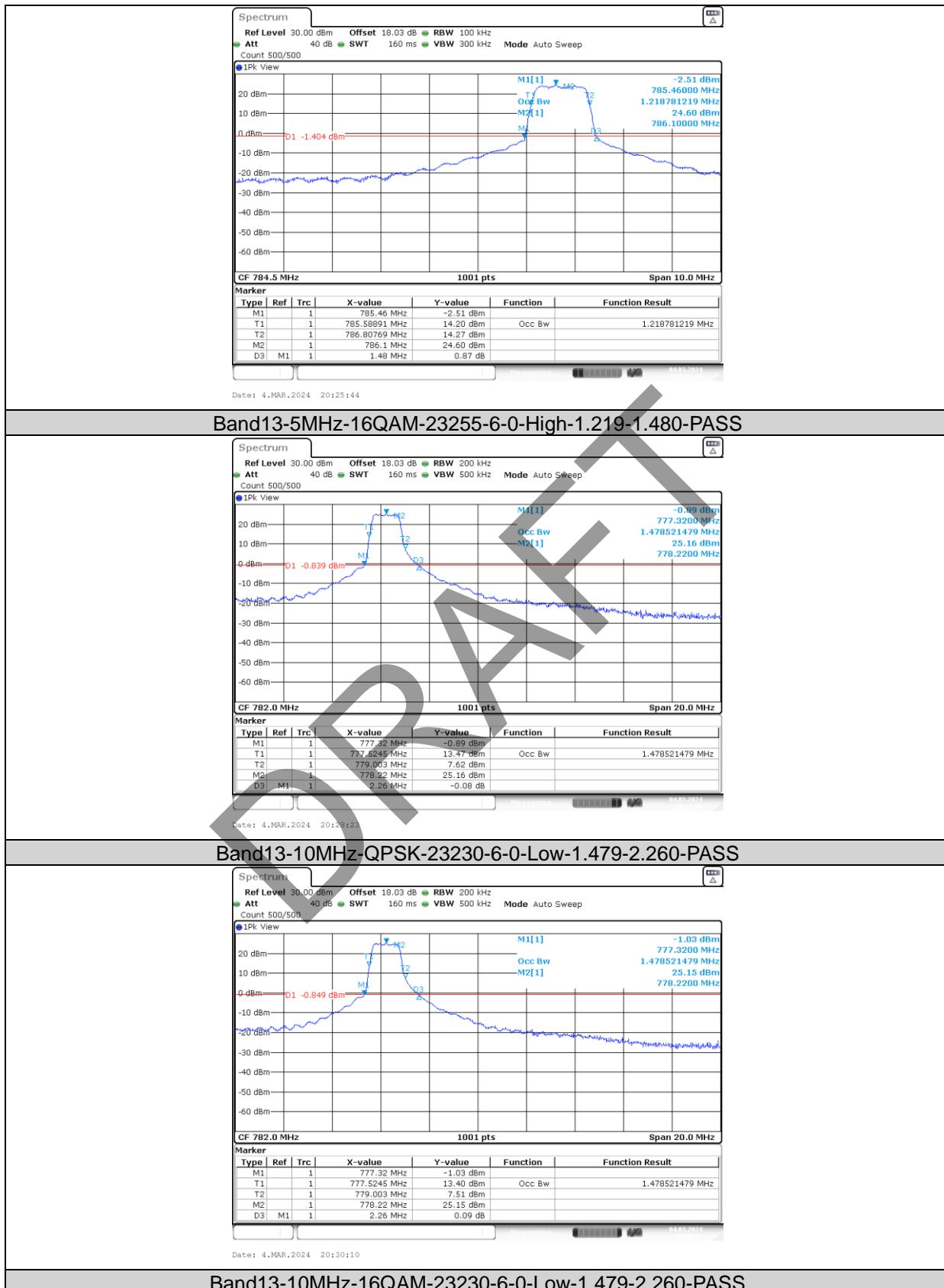
Test Report No.: W7L-P23120015RI03





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VERITAS

Test Report No.: W7L-P23120015RI03



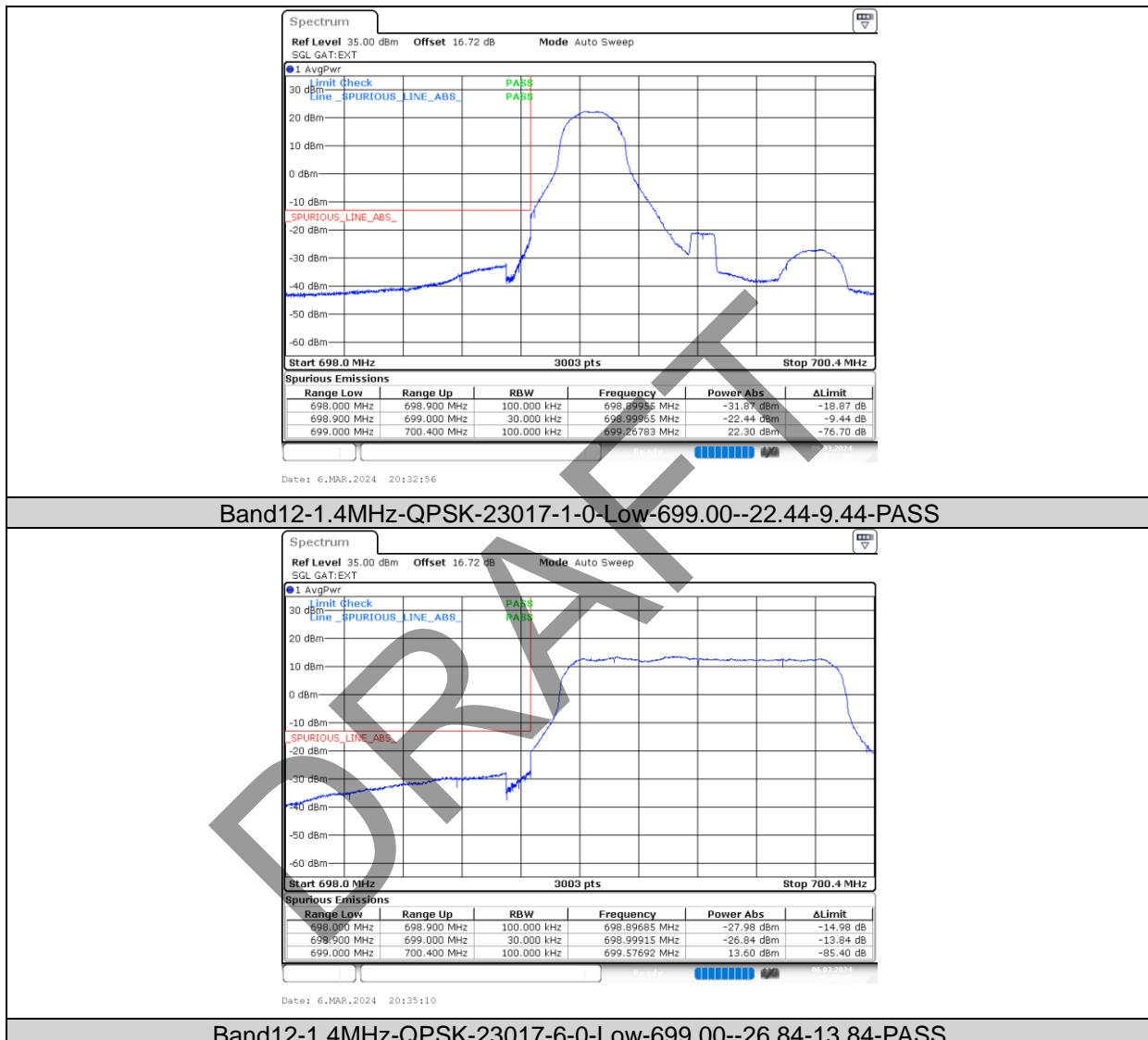


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VERITAS

Test Report No.: W7L-P23120015RI03

BAND EDGE FOR M1

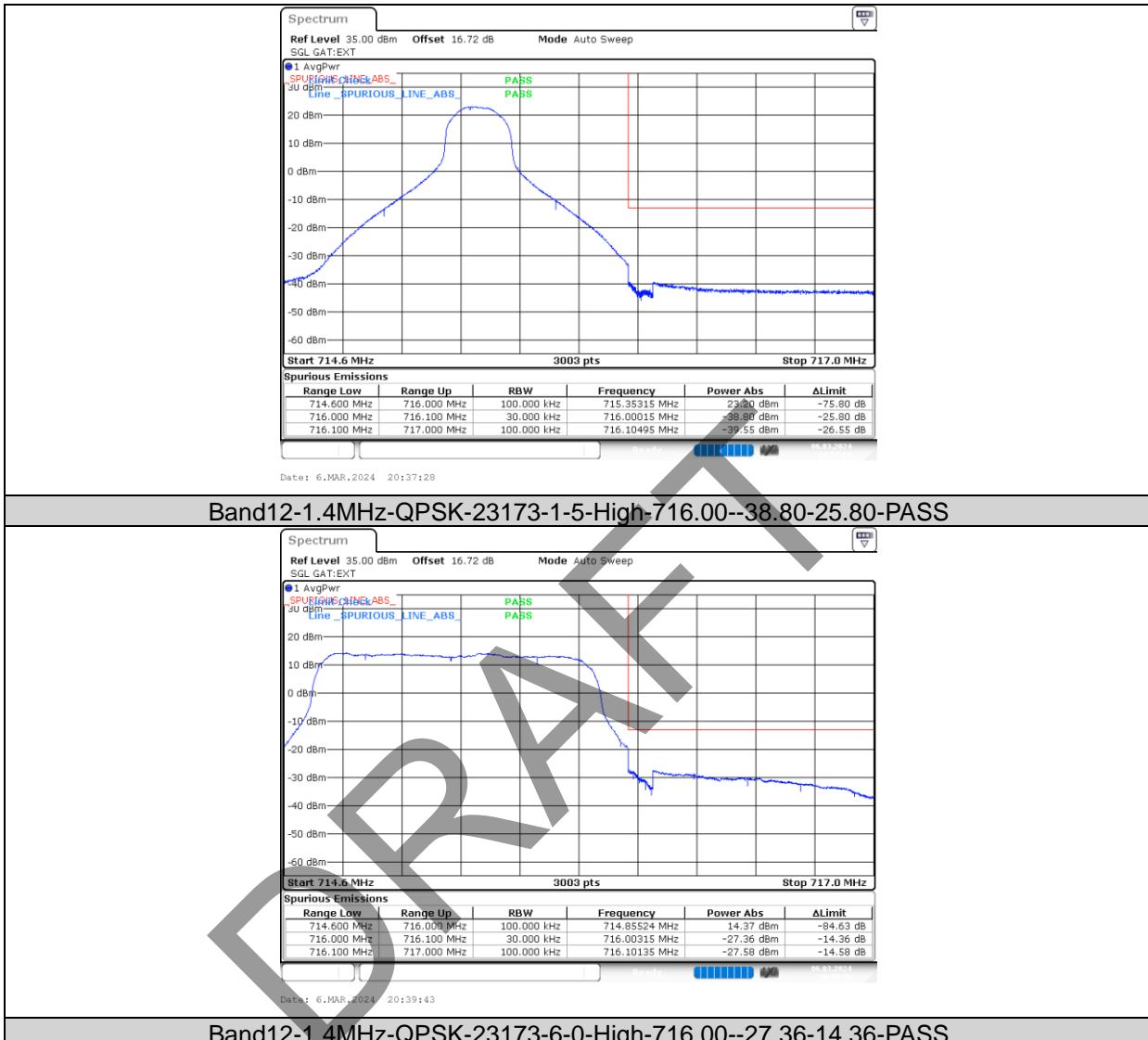
Band 12 Test Graphs





BUREAU
VERITAS

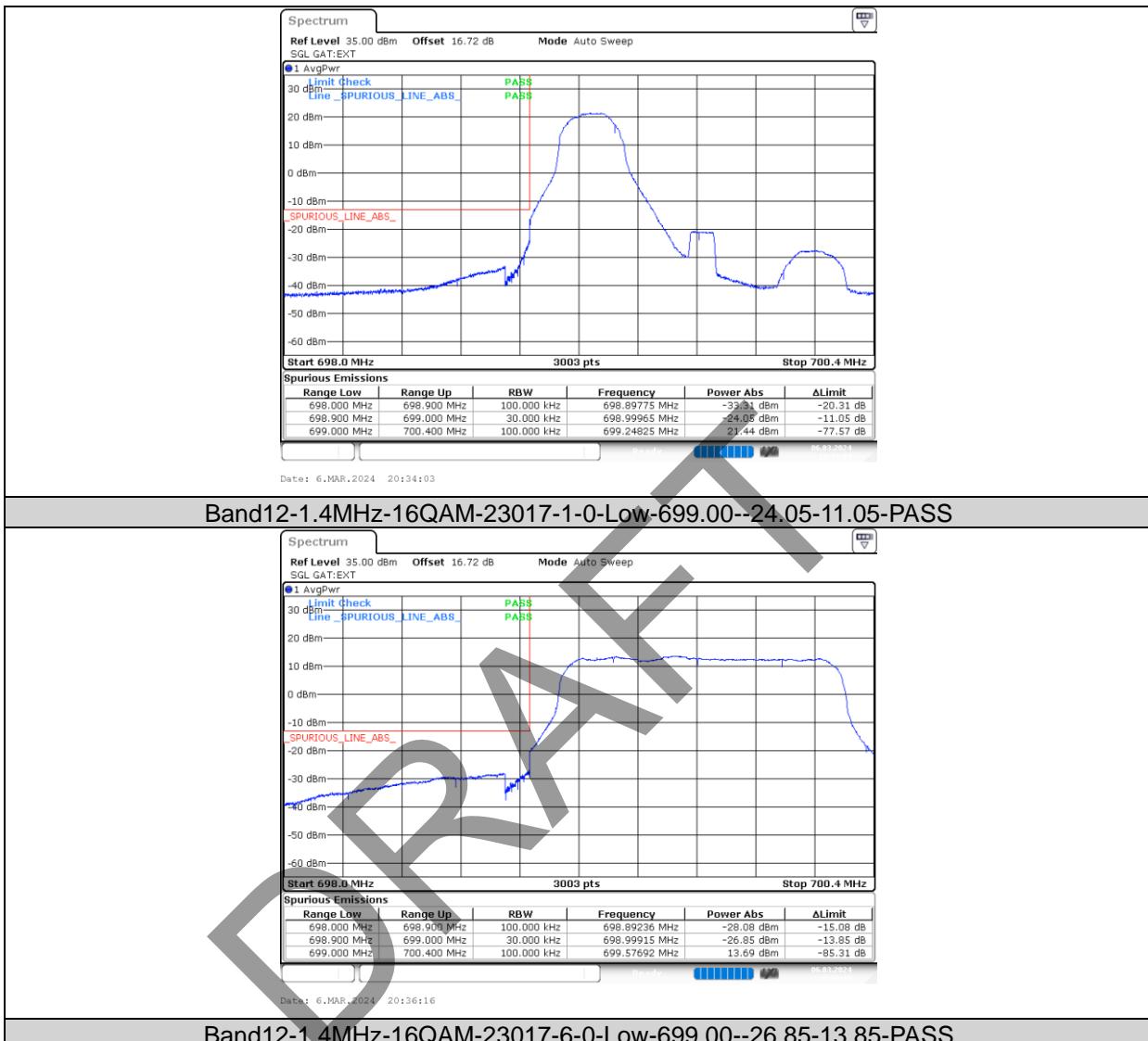
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VERITAS

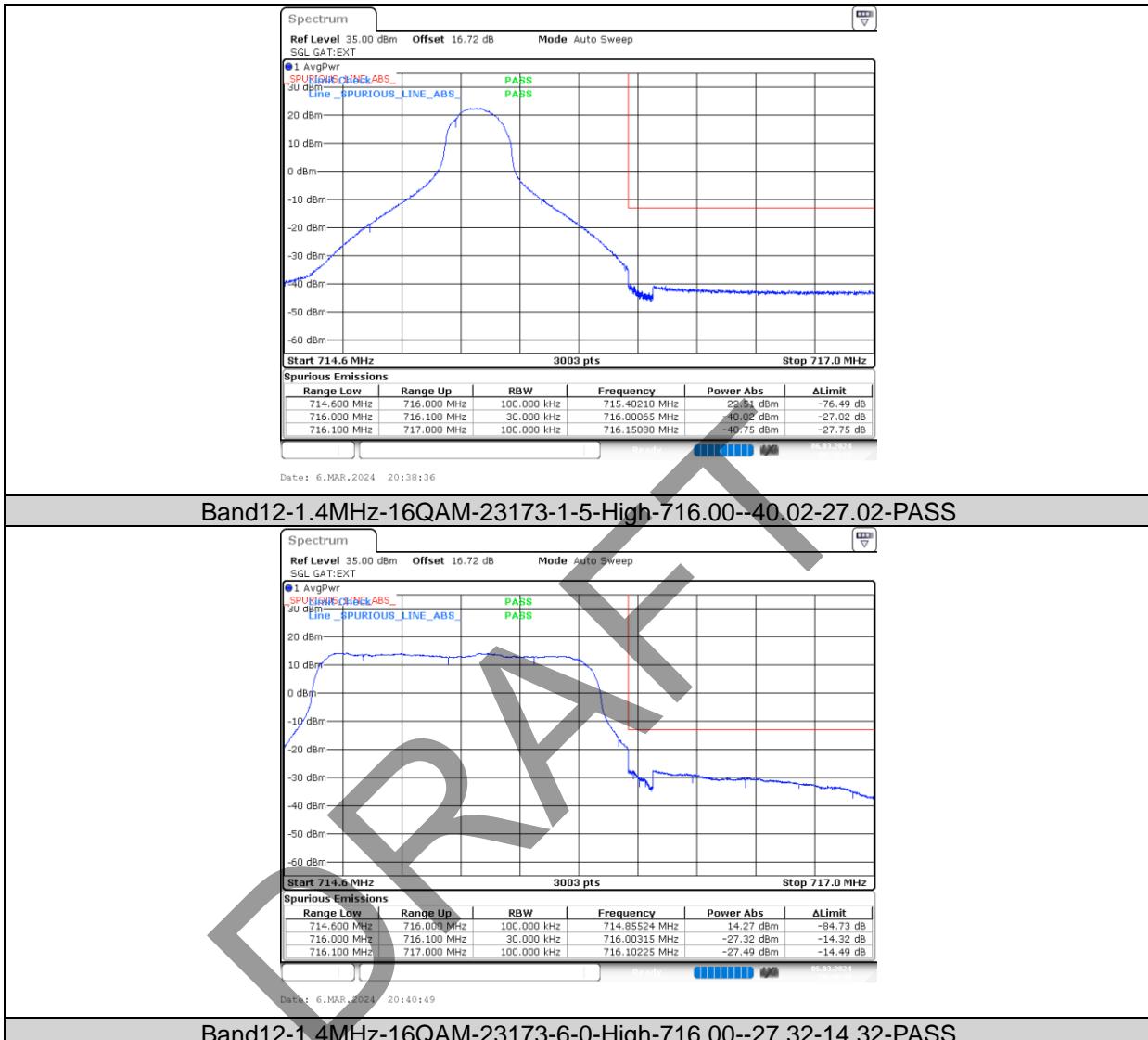
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VERITAS

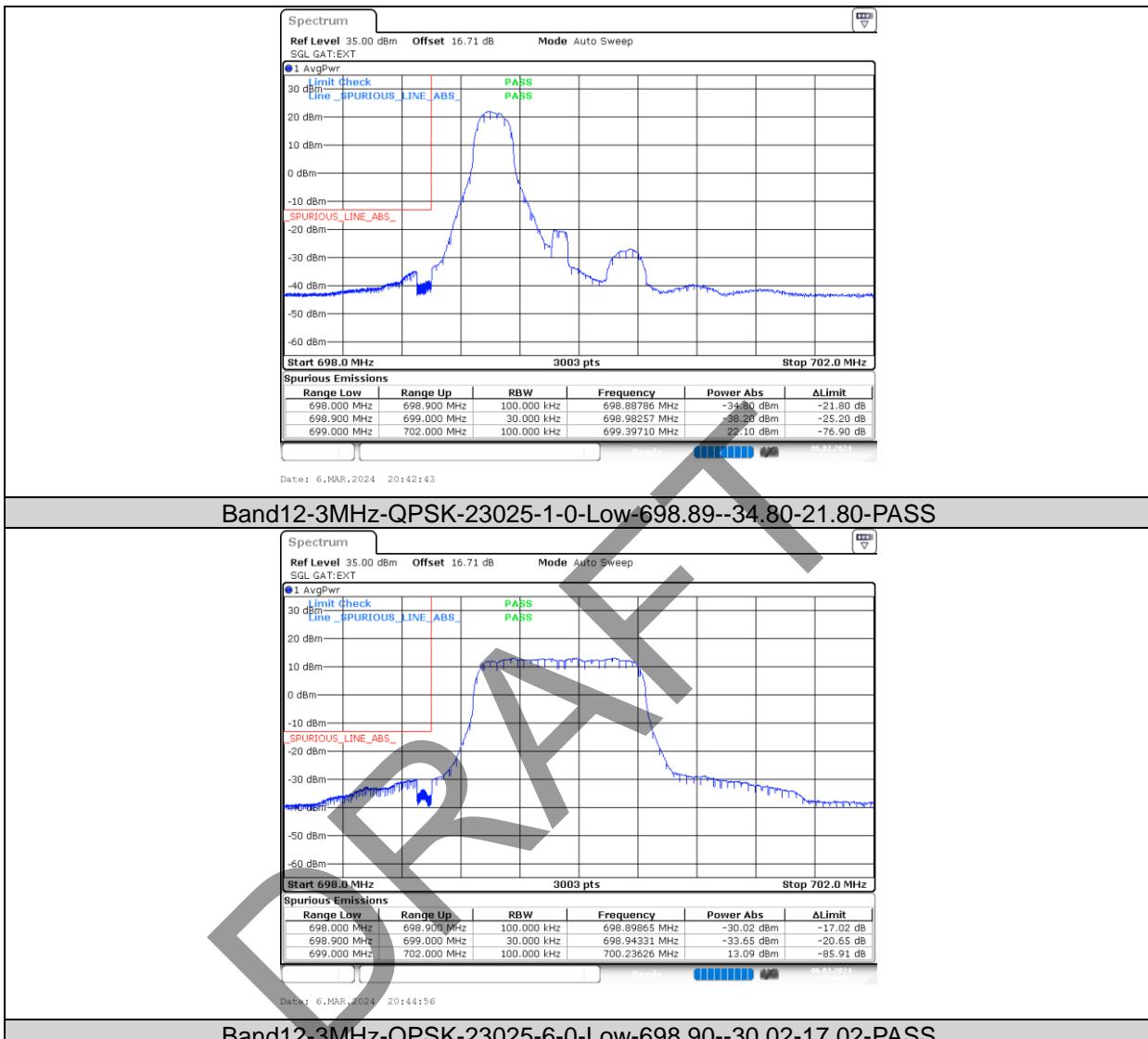
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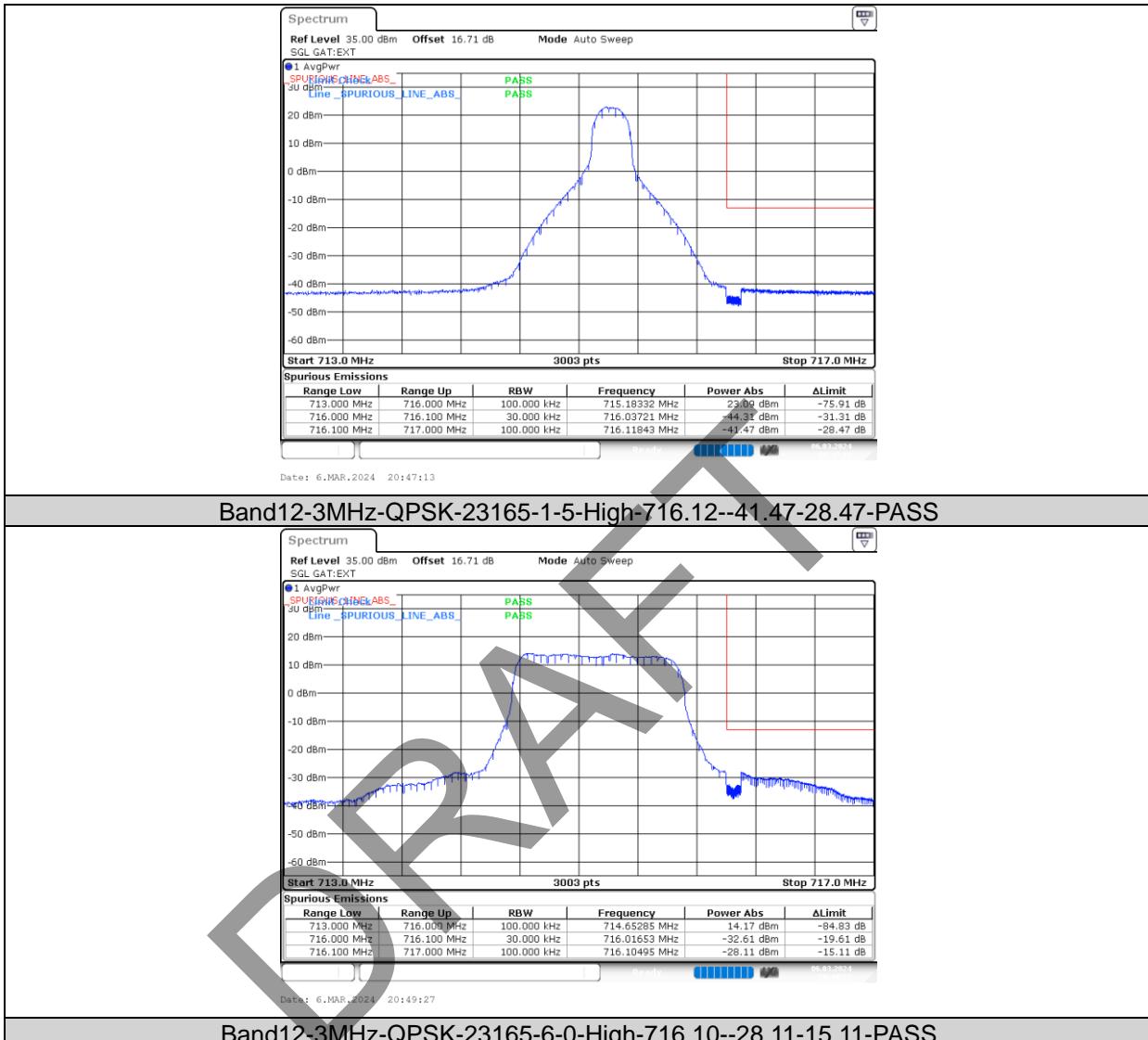
Test Report No.: W7L-P23120015RI03





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VERITAS

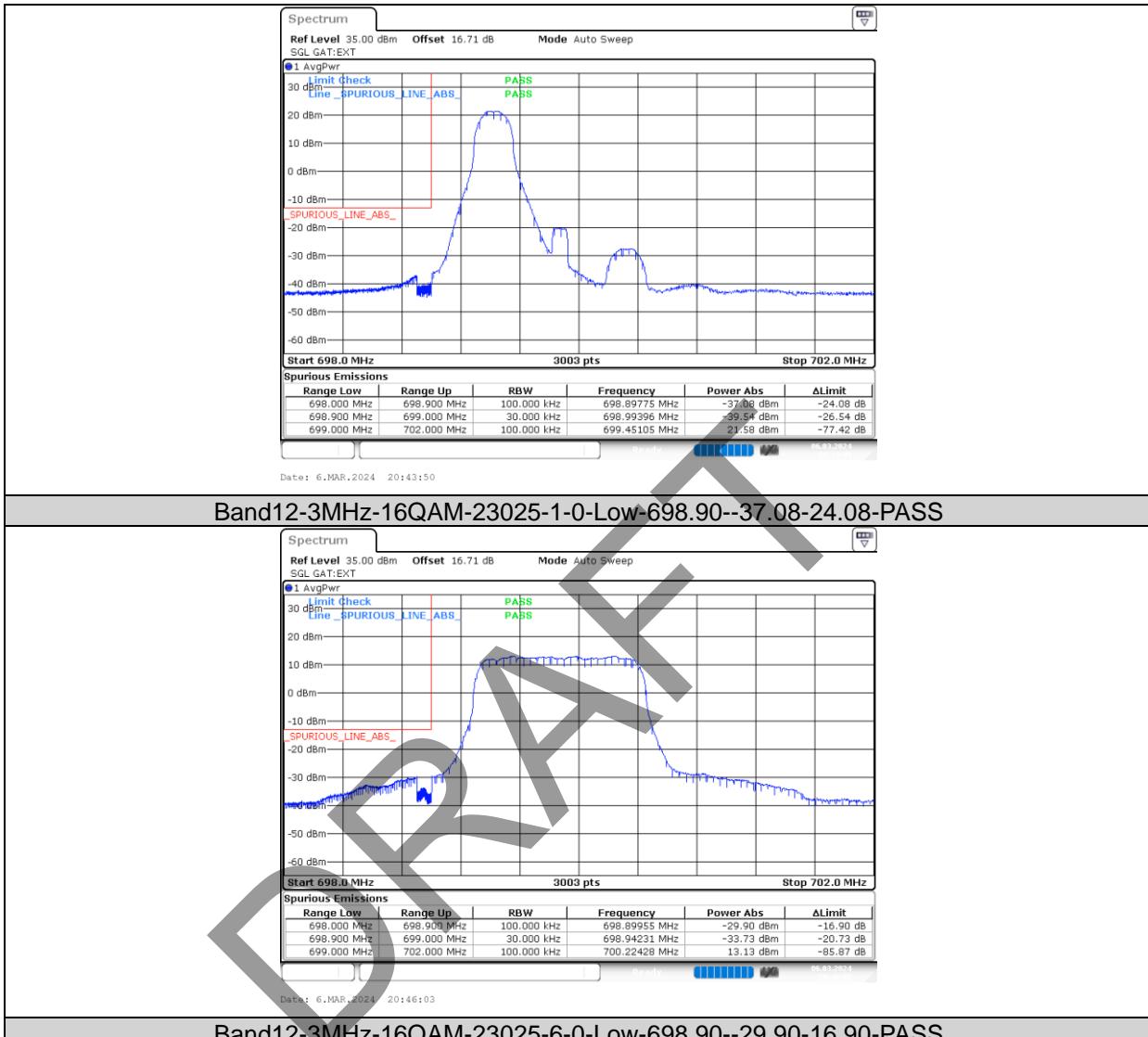
Test Report No.: W7L-P23120015RI03





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VERITAS

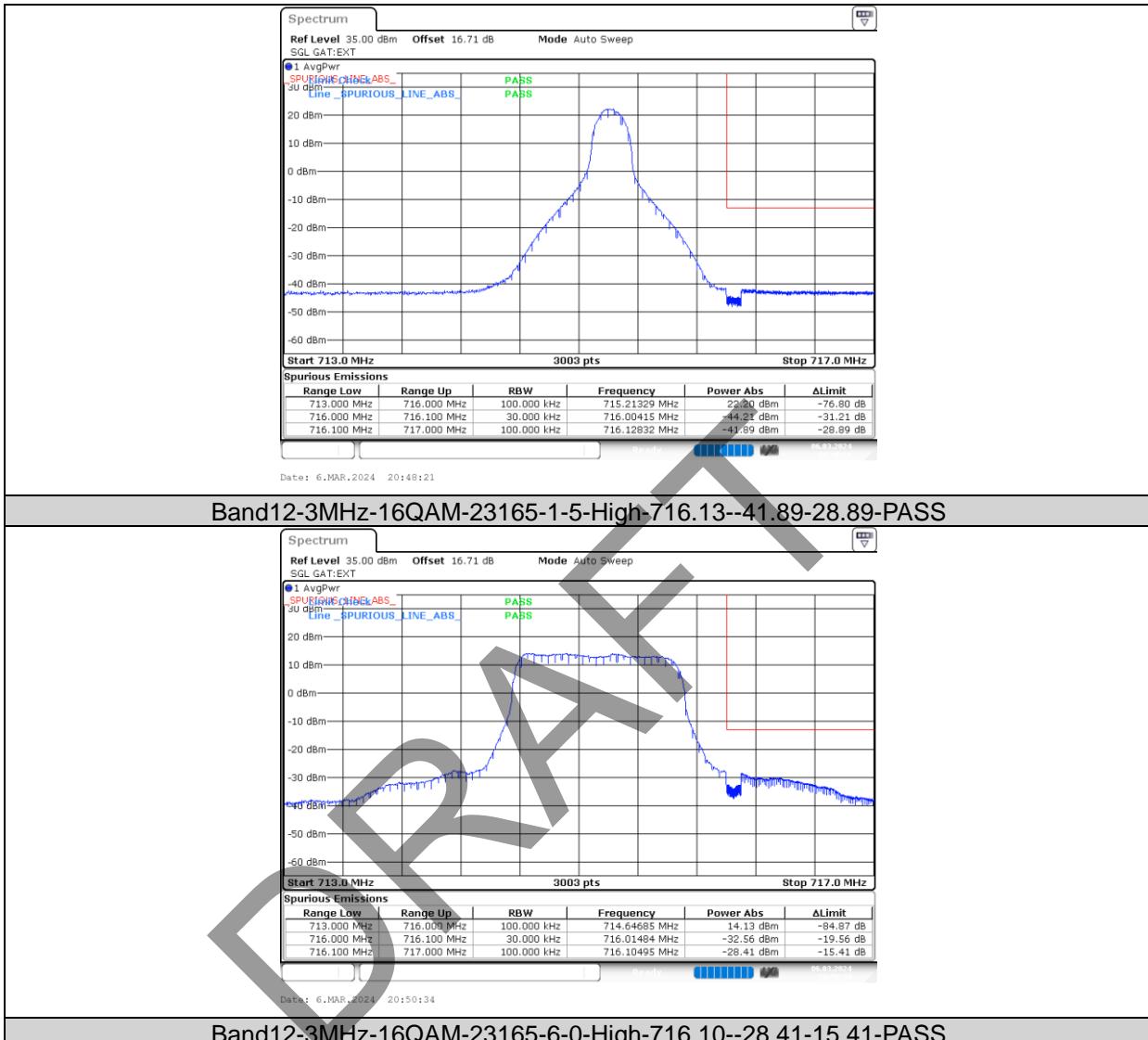
Test Report No.: W7L-P23120015RI03





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VERITAS

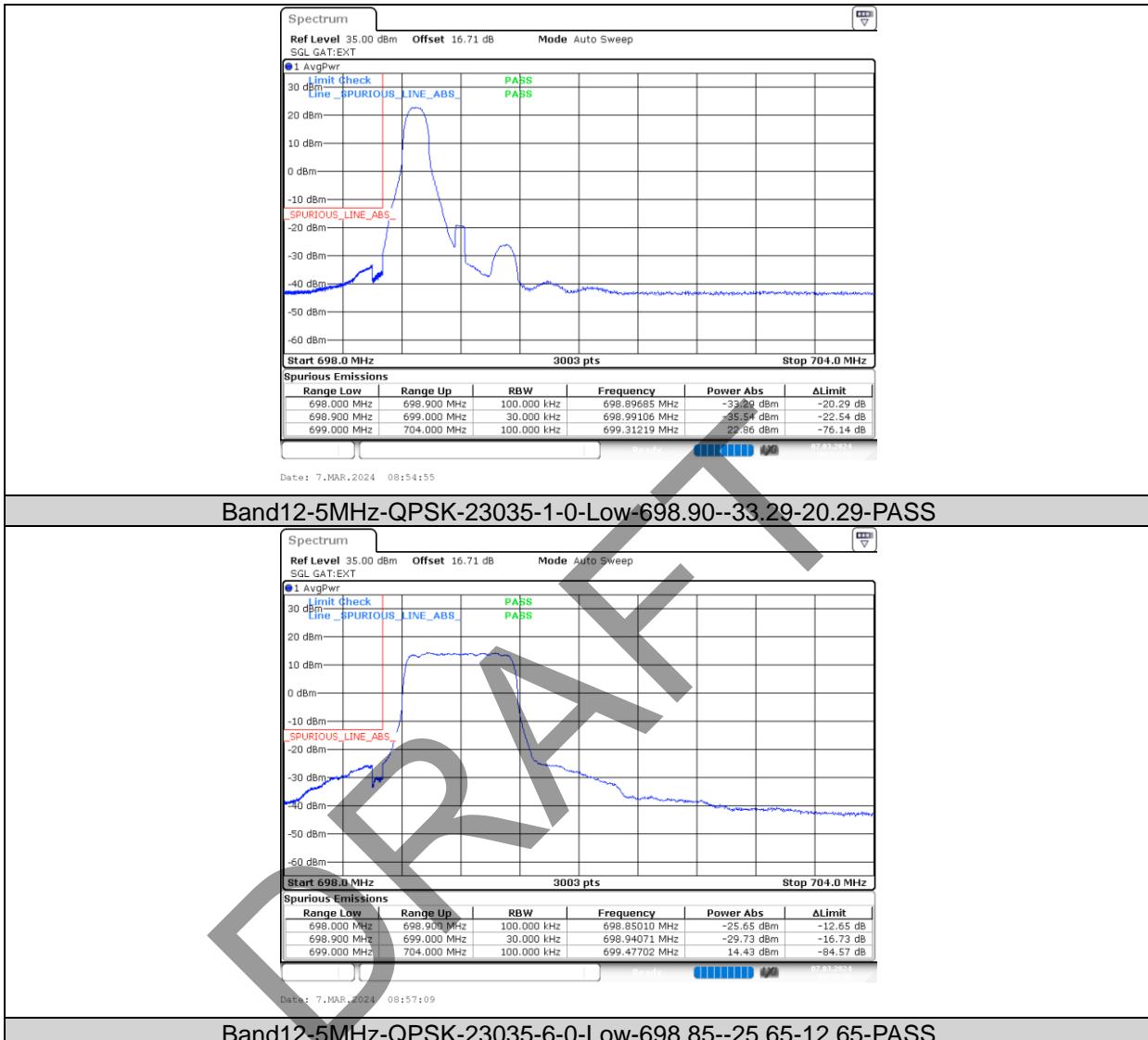
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VERITAS

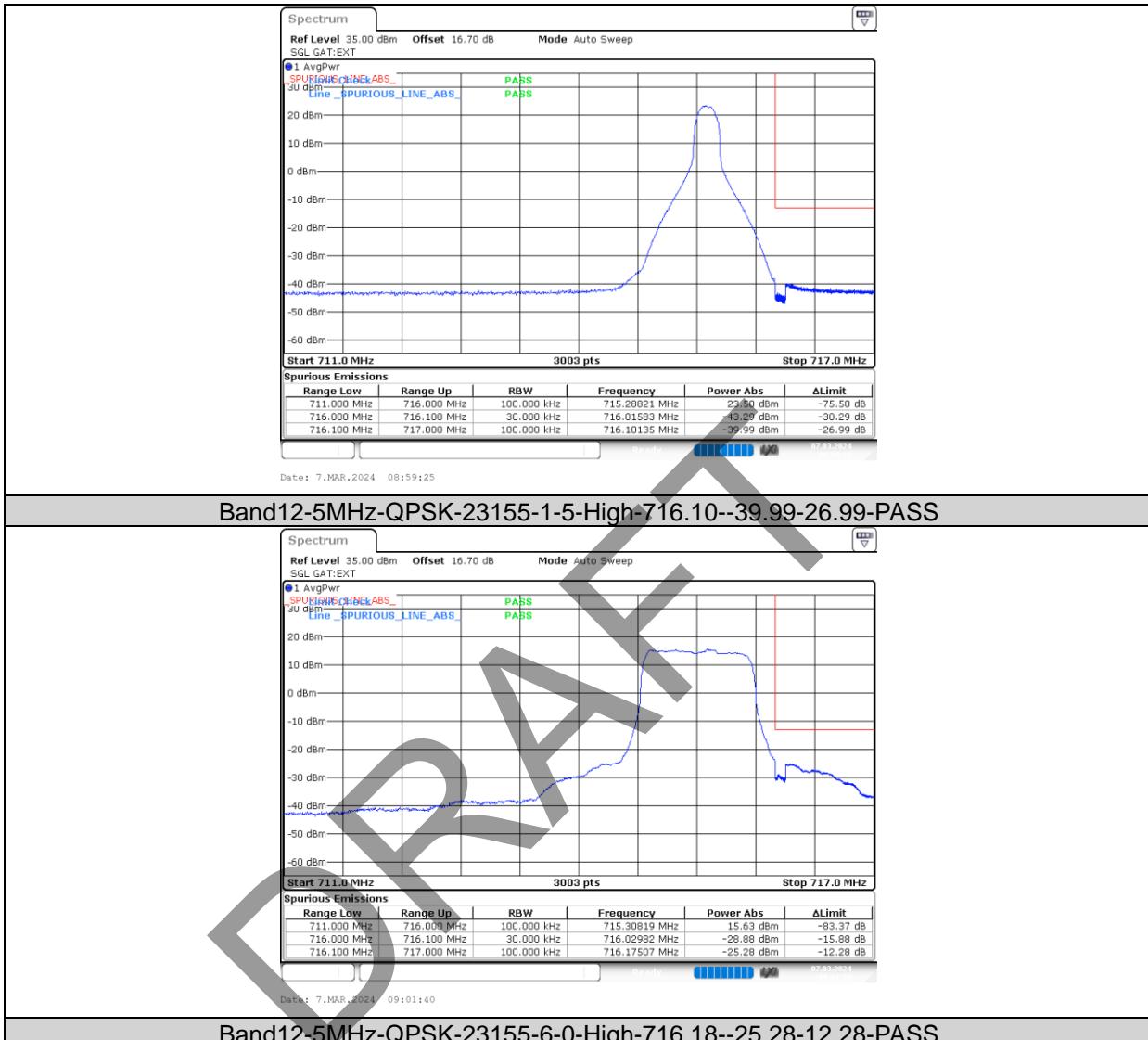
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VERITAS

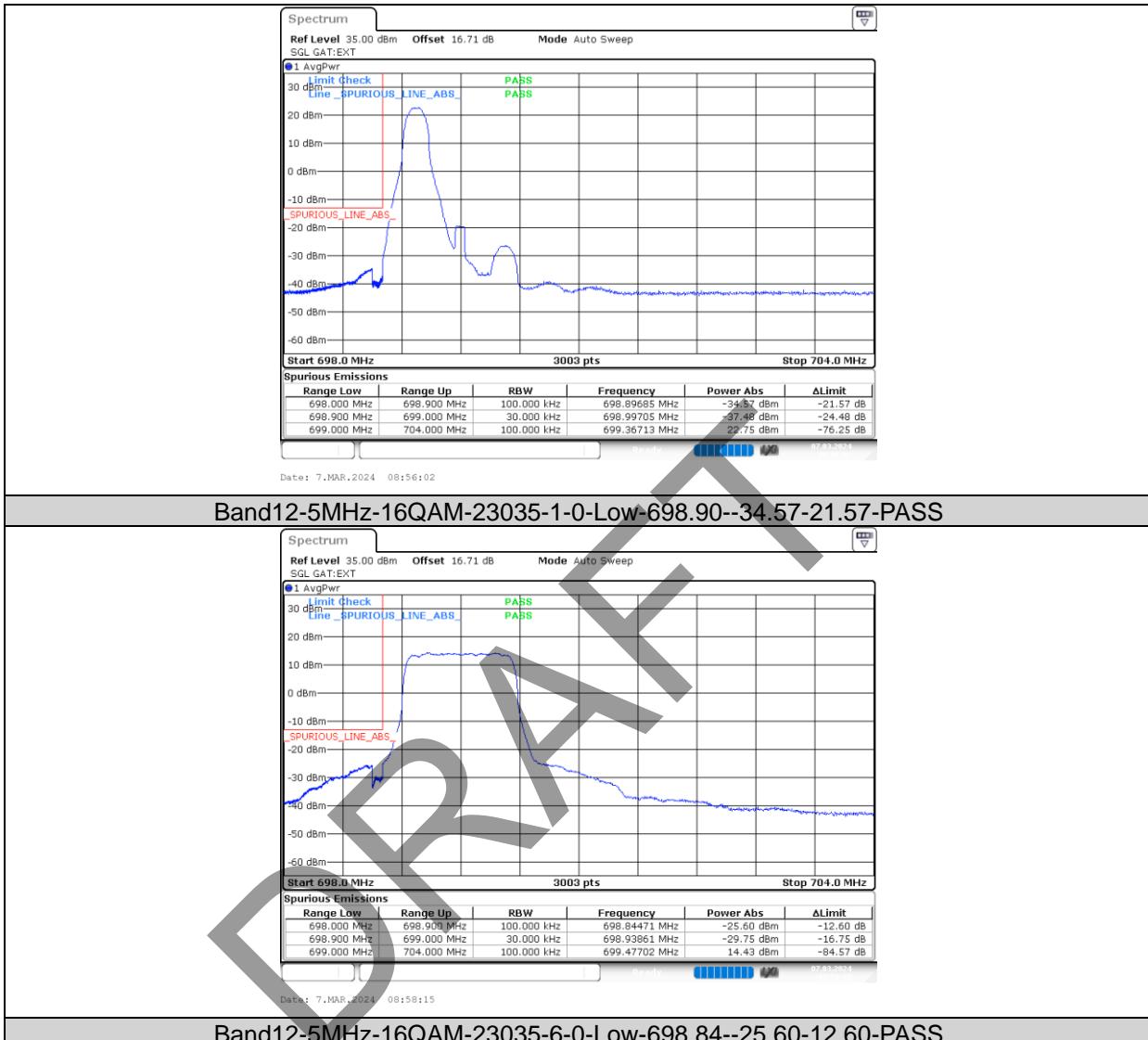
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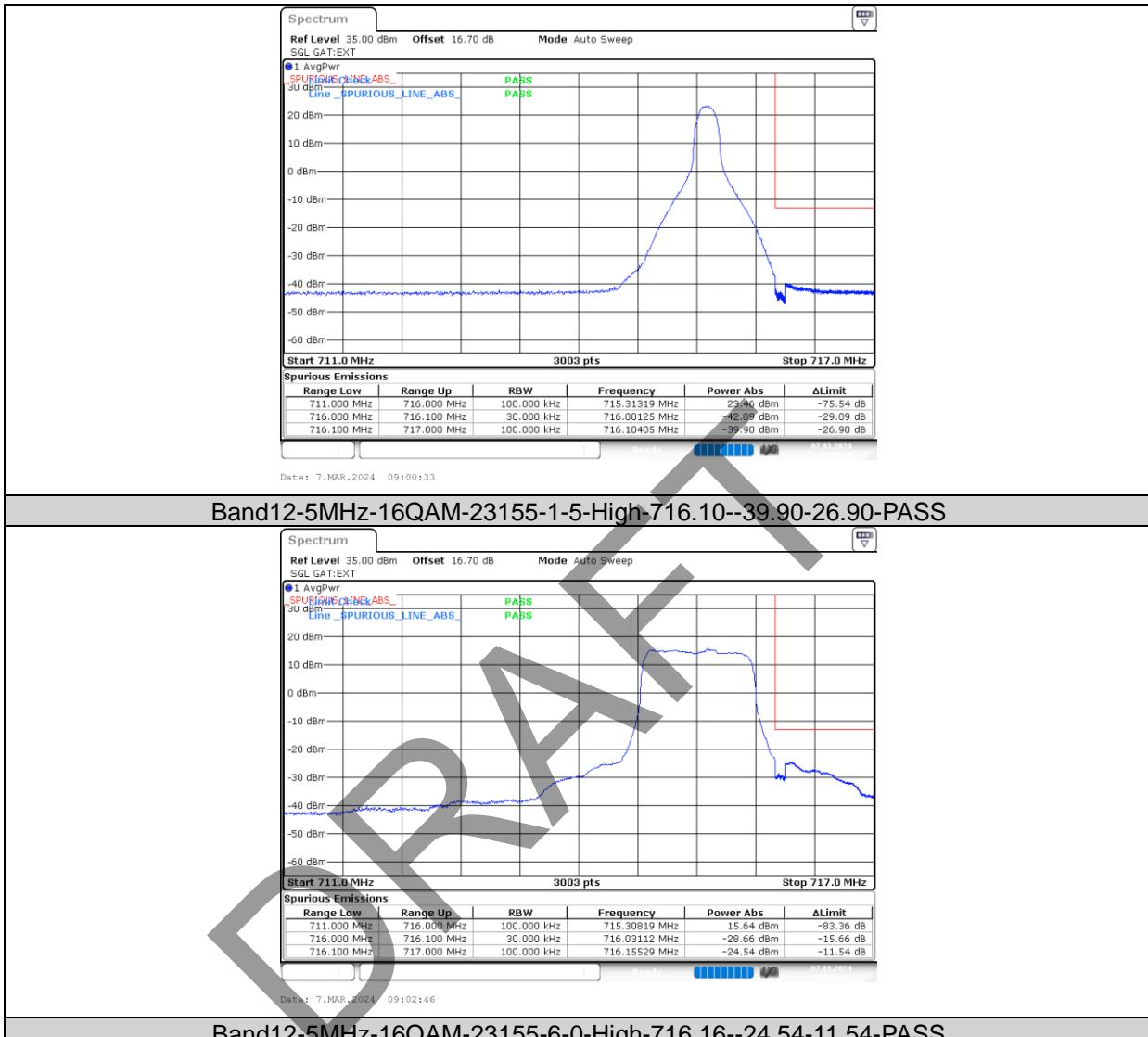
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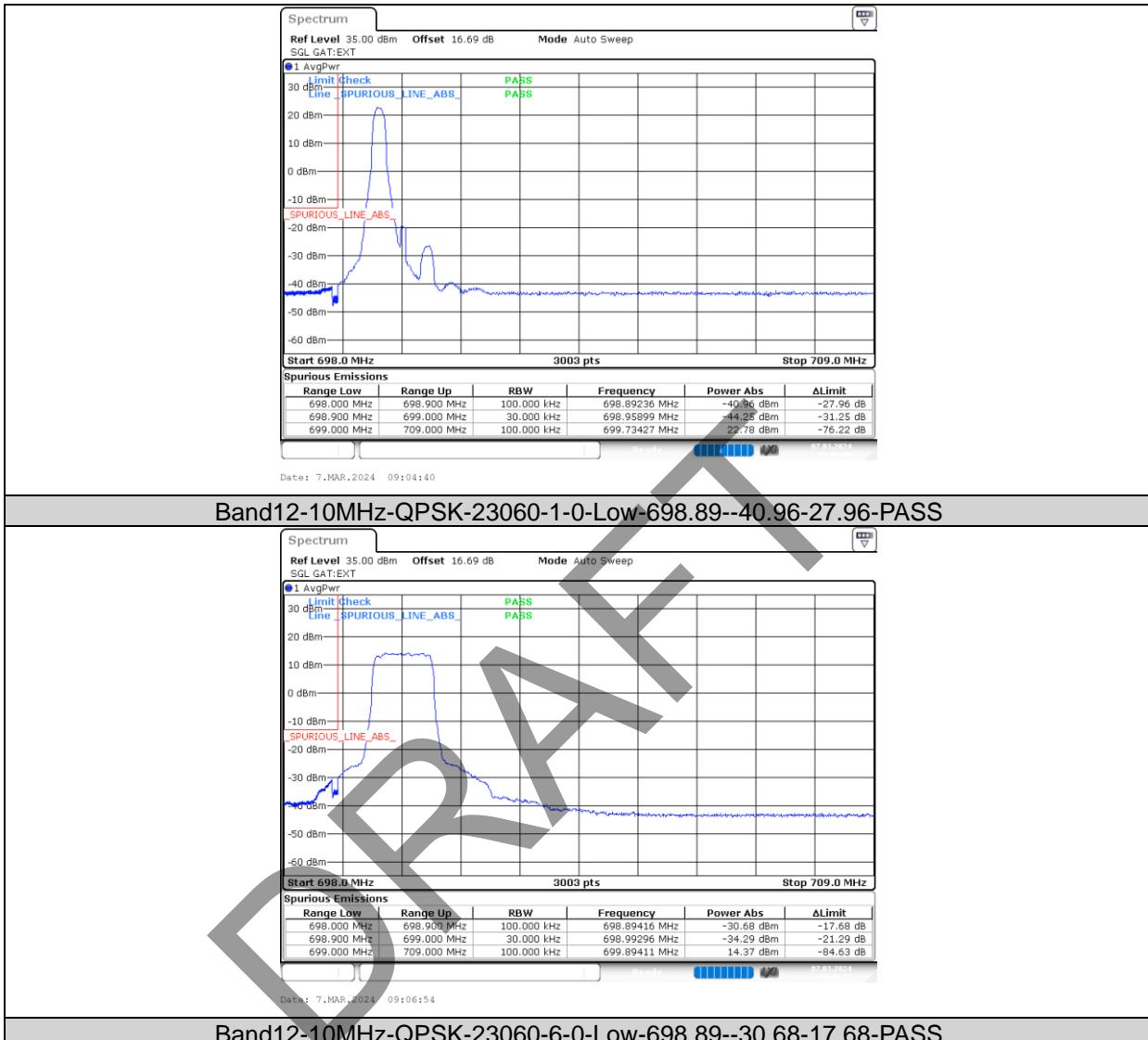
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BUREAU
VERITAS

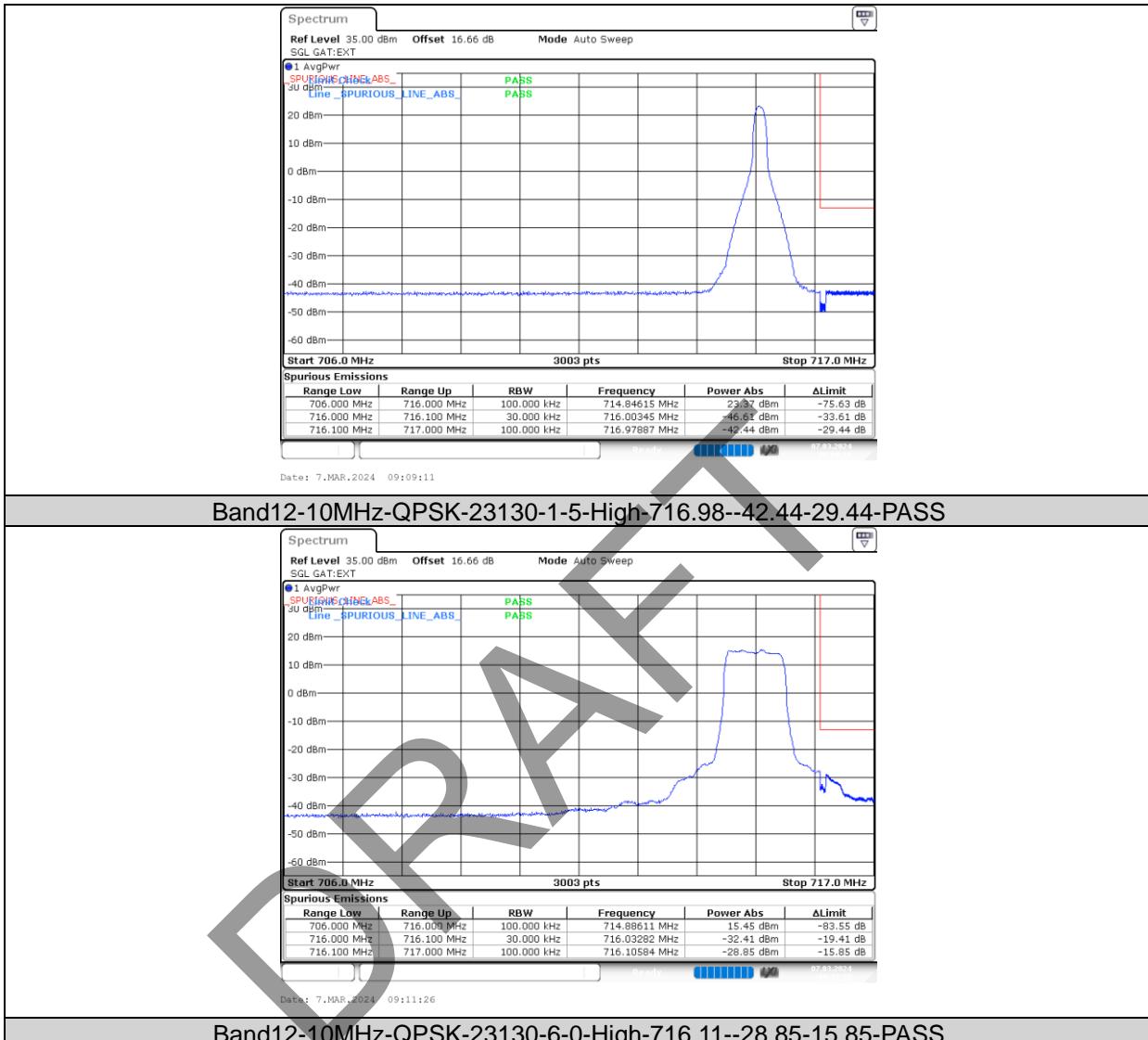
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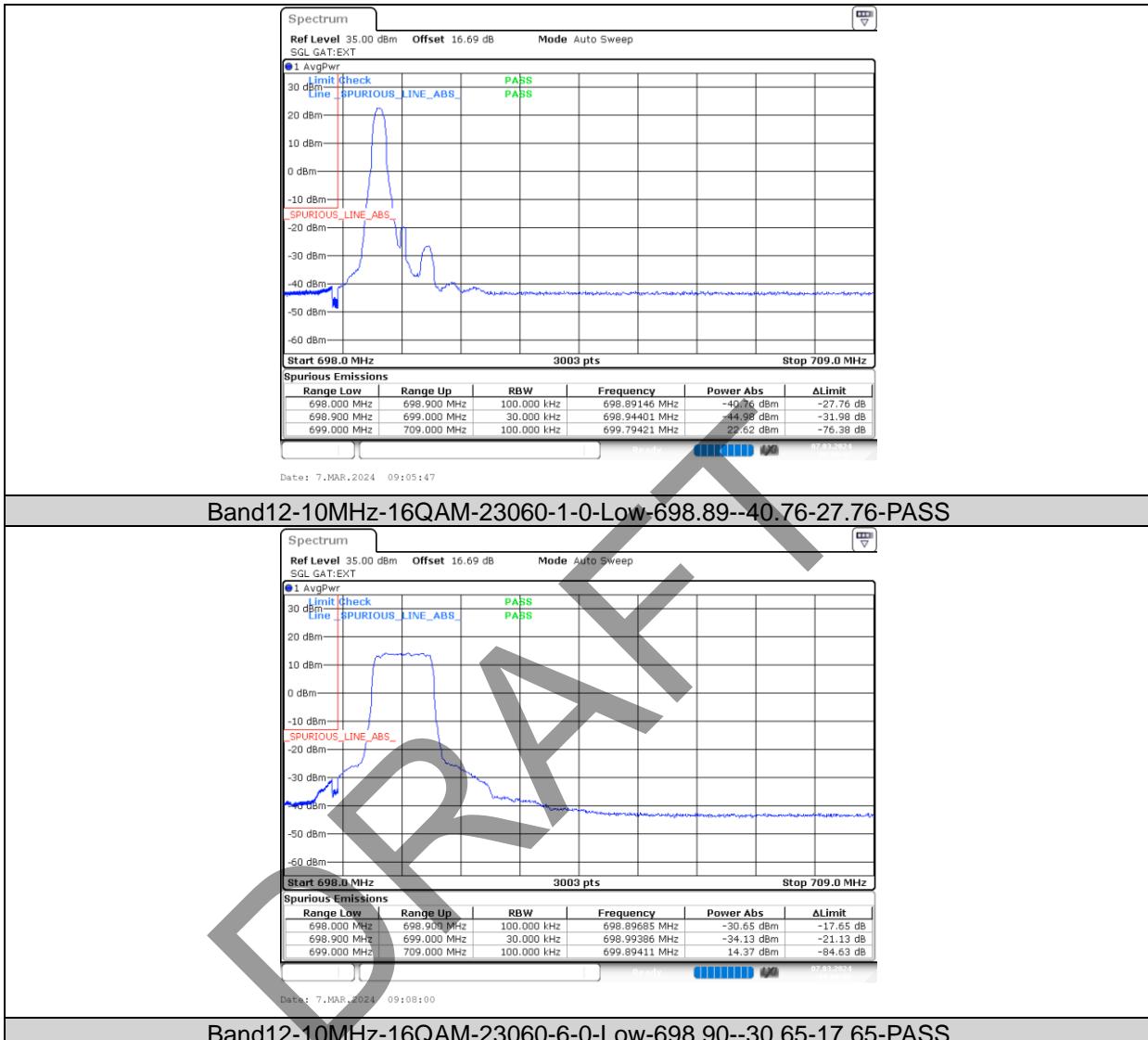
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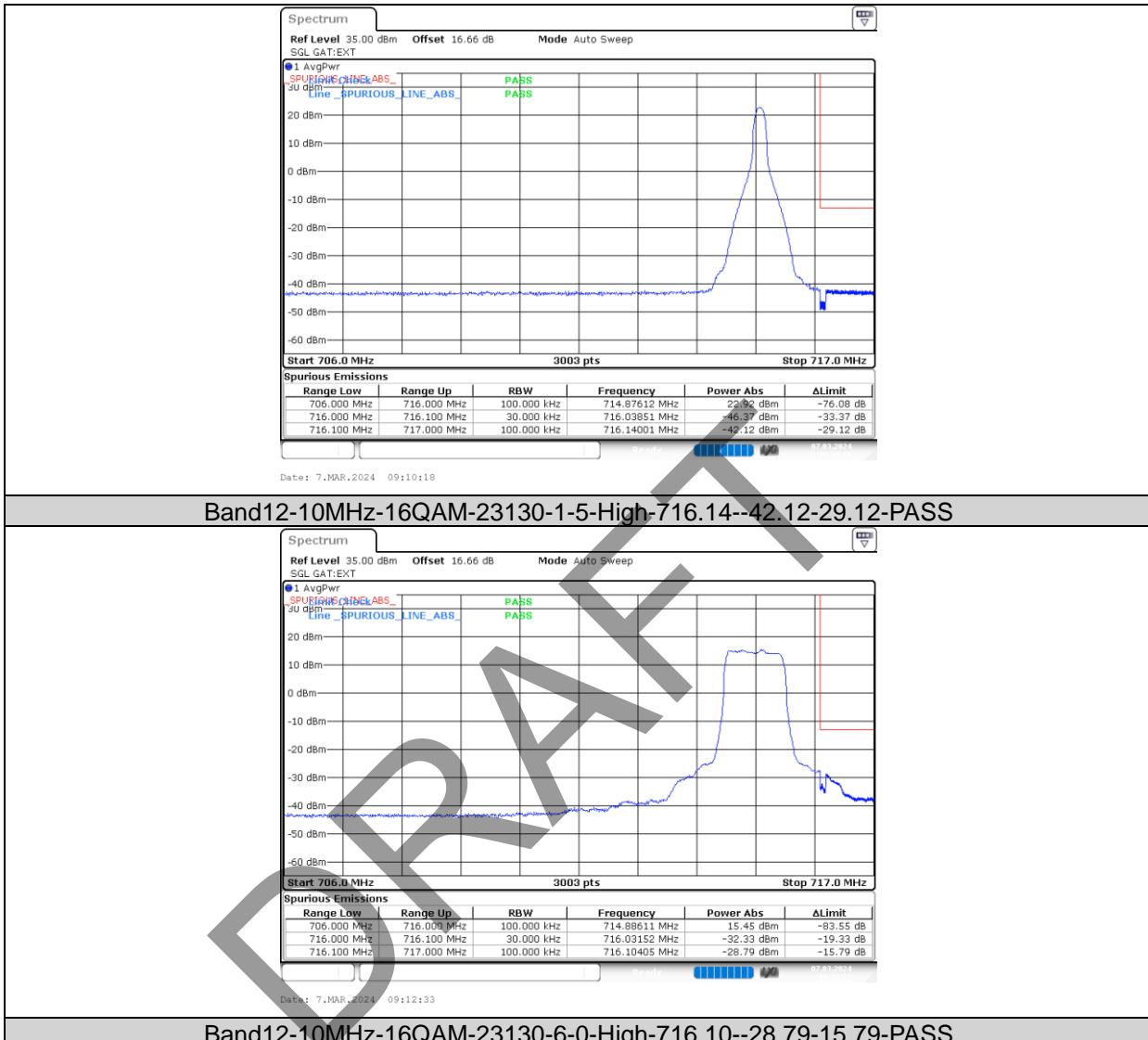
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VERITAS

Test Report No.: W7L-P23120015RI03

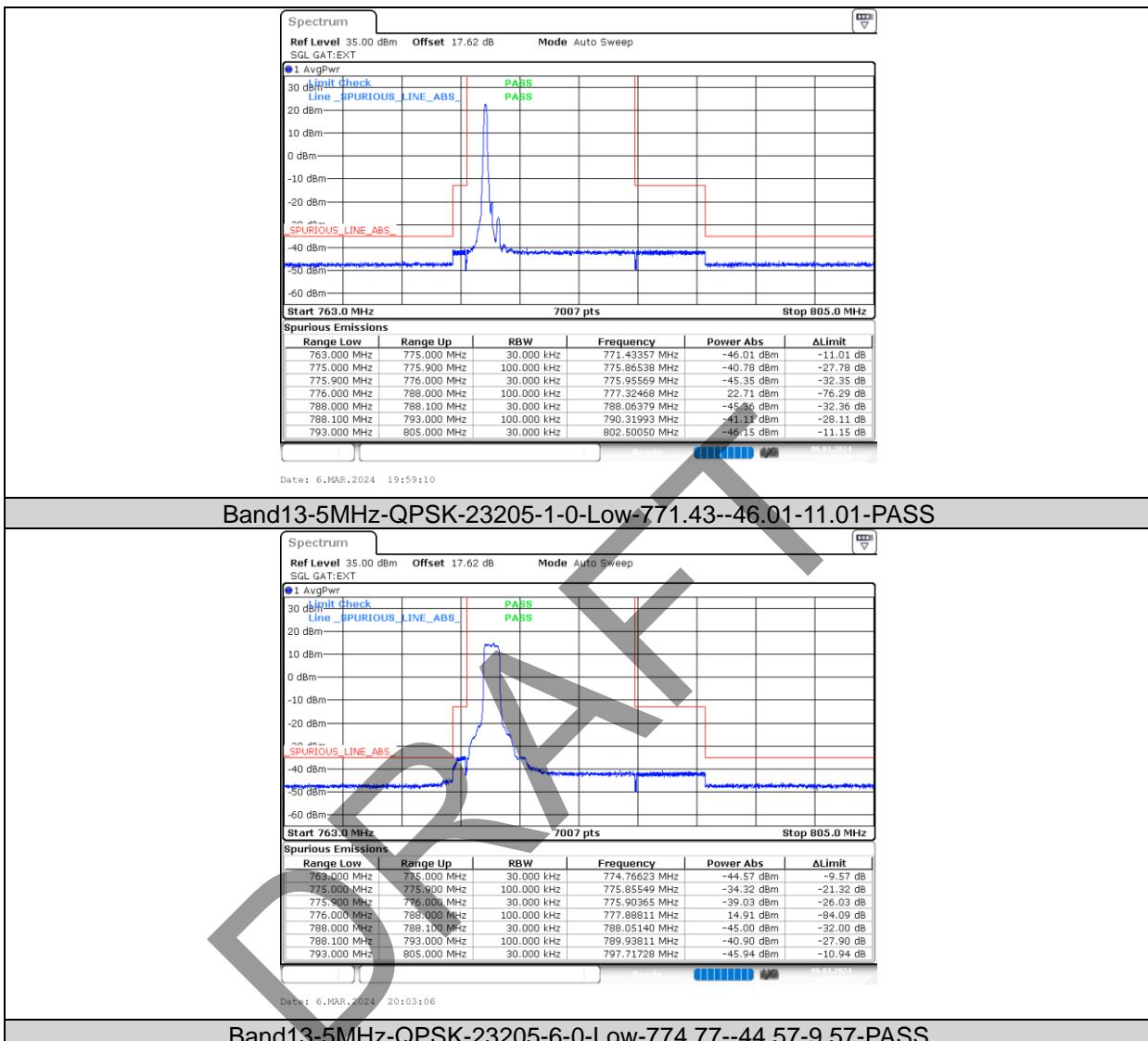




BUREAU
VERITAS

Test Report No.: W7L-P23120015RI03

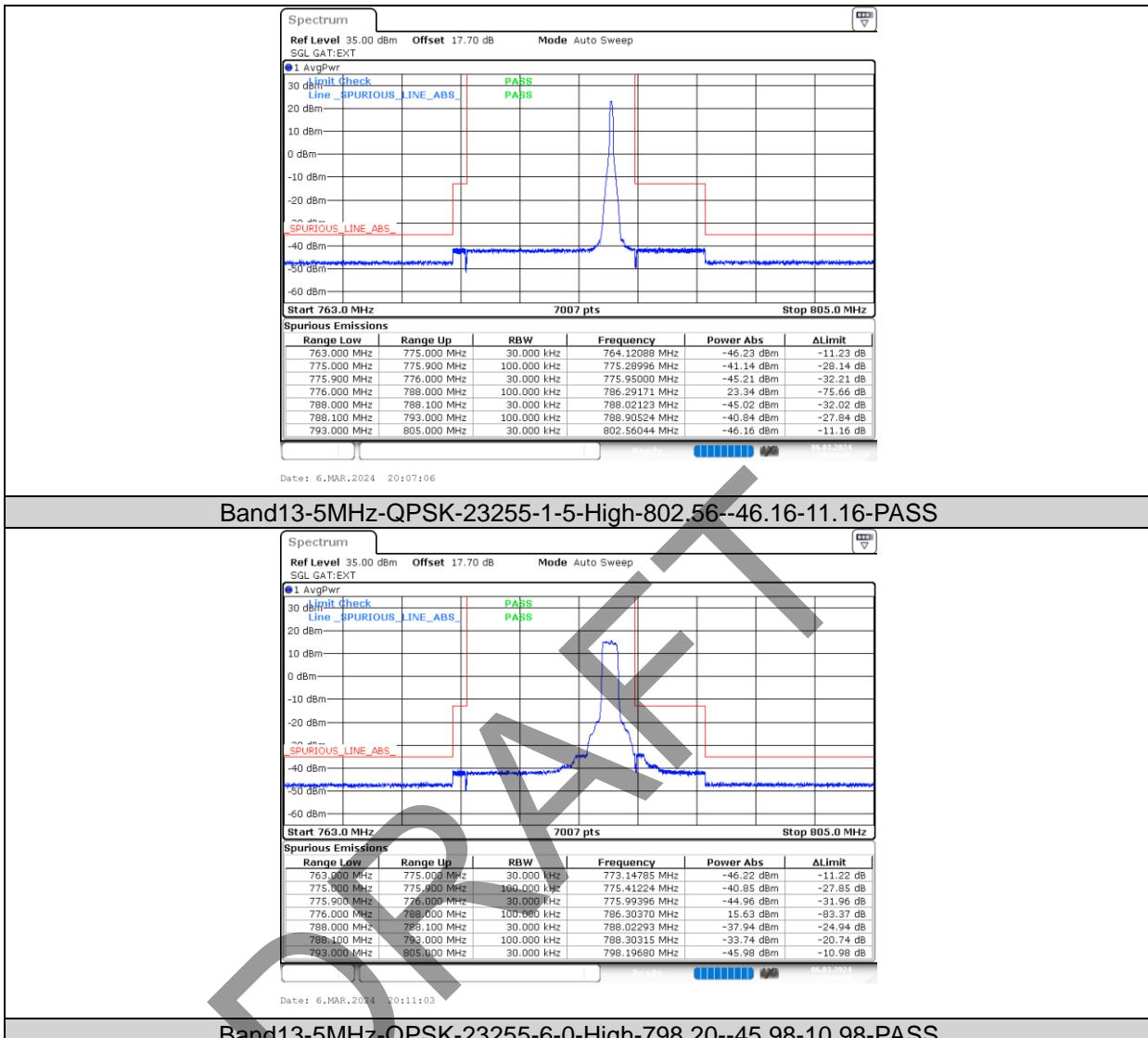
Band 13 Test Graphs





BUREAU
VERITAS

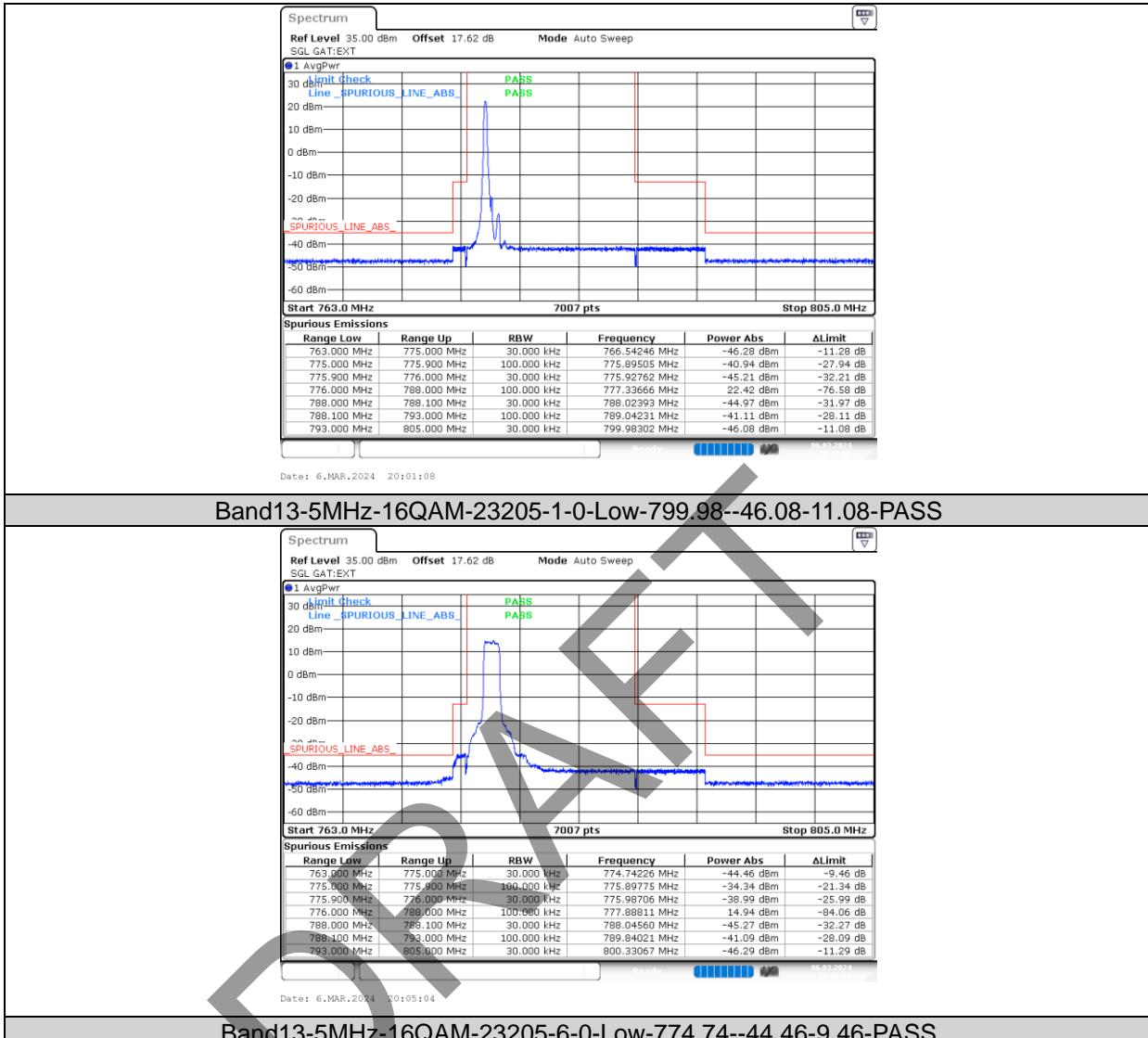
Test Report No.: W7L-P23120015RI03





BUREAU
VERITAS

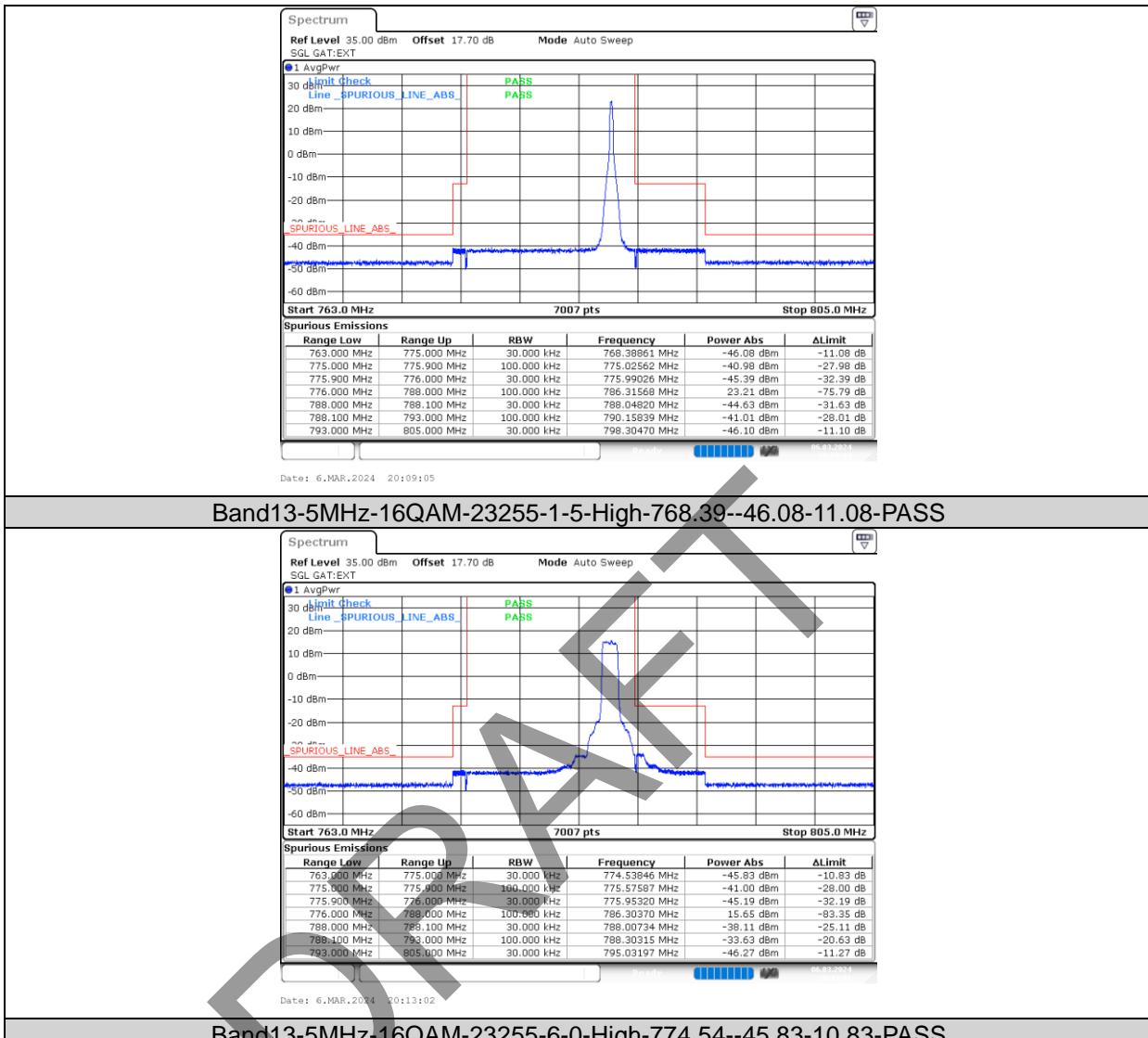
Test Report No.: W7L-P23120015RI03





BUREAU
VERITAS

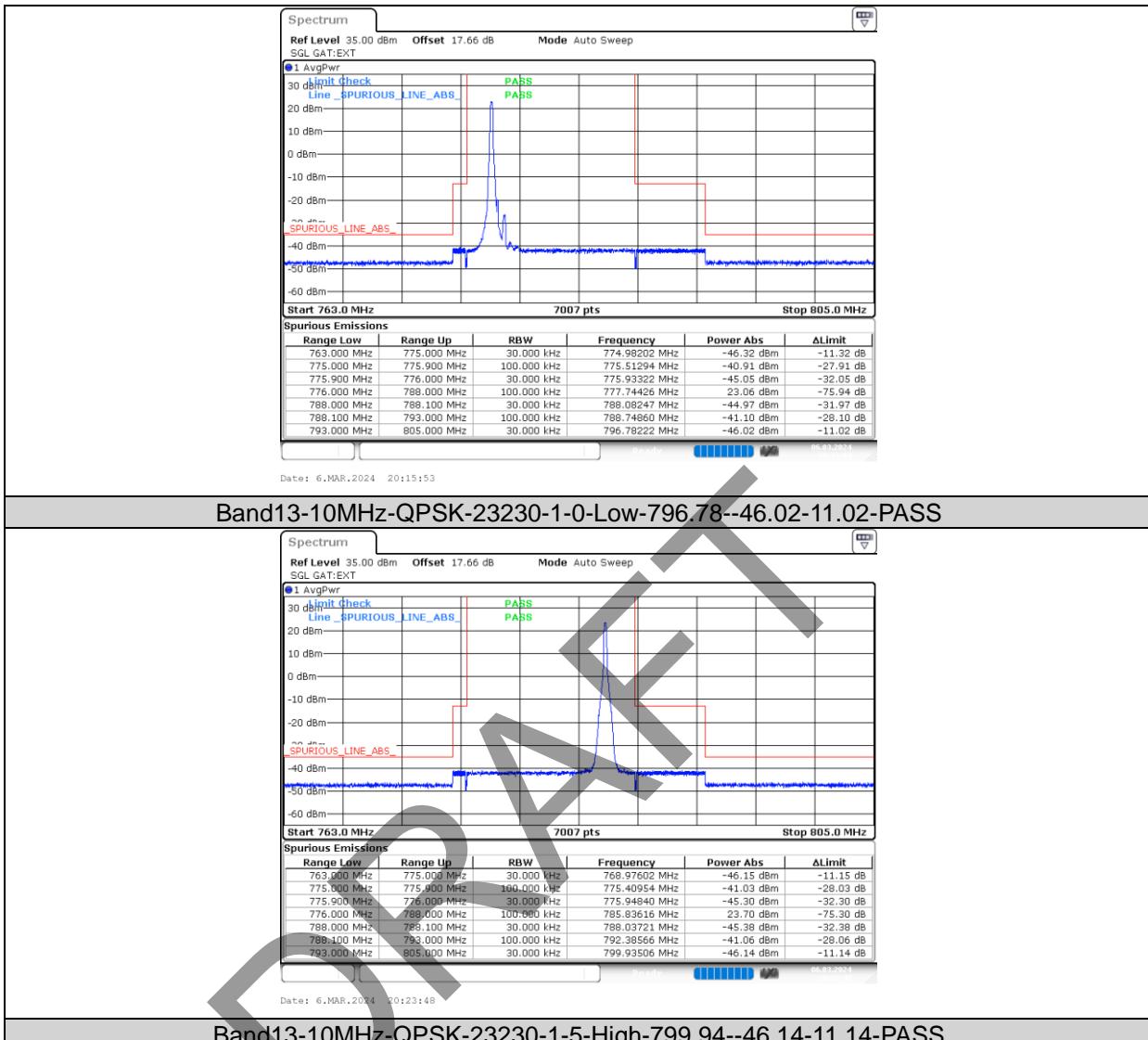
Test Report No.: W7L-P23120015RI03





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VERITAS

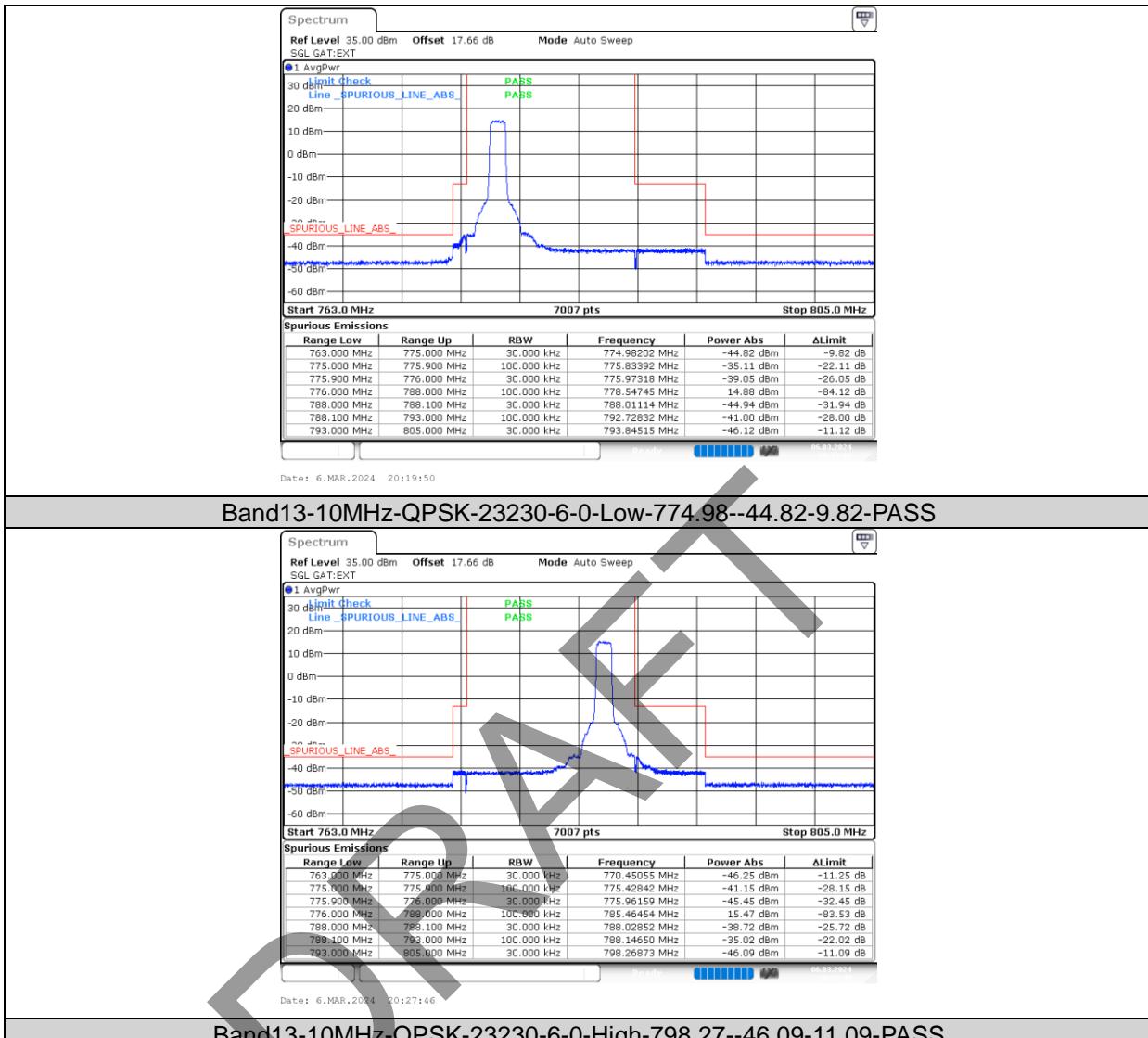
Test Report No.: W7L-P23120015RI03





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VERITAS

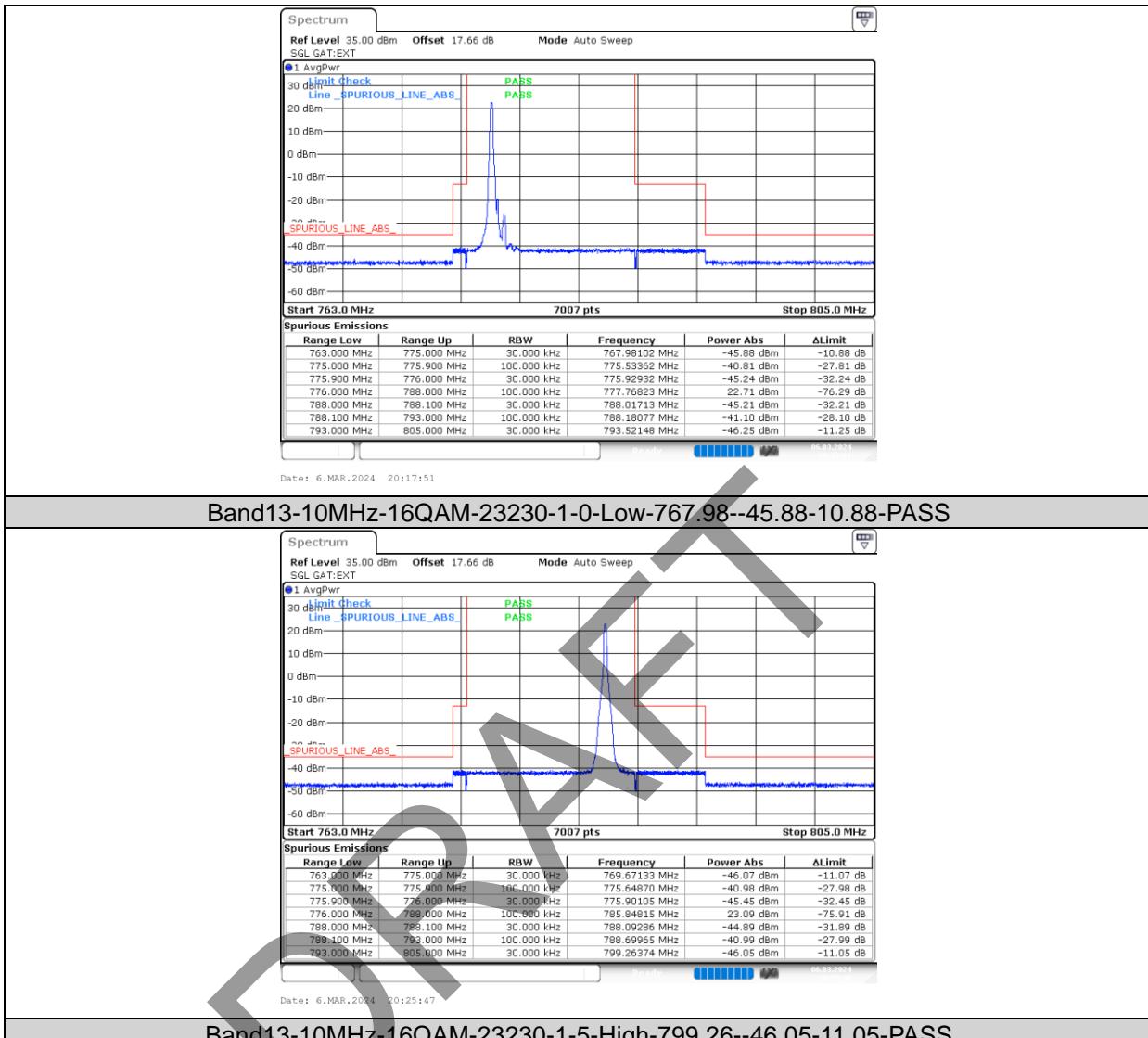
Test Report No.: W7L-P23120015RI03





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VERITAS

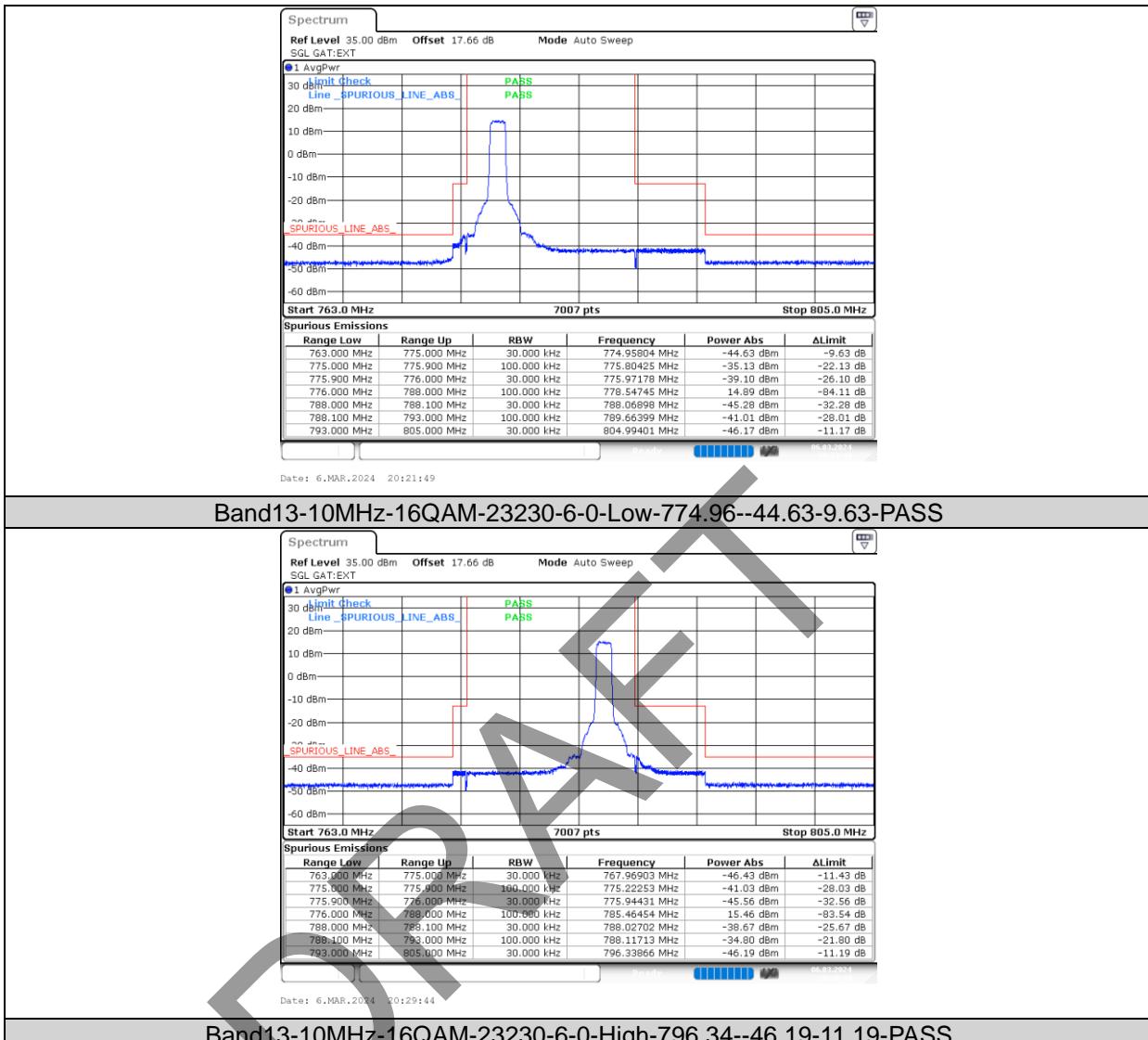
Test Report No.: W7L-P23120015RI03





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VERITAS

Test Report No.: W7L-P23120015RI03





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VERITAS

Test Report No.: W7L-P23120015RI03

CONDUCTED SPURIOUS EMISSION FOR M1

Band 12 Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band12	1.4MHz	23017	QPSK	1	0	Low	0.009	0.15	-56.65	PASS
Band12	1.4MHz	23017	QPSK	1	0	Low	0.15	30	-43.45	PASS
Band12	1.4MHz	23017	QPSK	1	0	Low	30	1000	-28.07	PASS
Band12	1.4MHz	23017	QPSK	1	0	Low	1000	5000	-33.45	PASS
Band12	1.4MHz	23017	QPSK	1	0	Low	5000	12000	-46.55	PASS
Band12	1.4MHz	23017	QPSK	1	0	Low	12000	26500	-41.89	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	0.009	0.15	-54.2	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	0.15	30	-43.77	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	30	1000	-28.12	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	1000	5000	-33.37	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	5000	12000	-46.61	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	12000	26500	-42	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	0.009	0.15	-52.36	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	0.15	30	-42.65	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	30	1000	-24.9	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	1000	5000	-32.13	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	5000	12000	-45.36	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	12000	26500	-40.48	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	0.009	0.15	-55.94	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	0.15	30	-42.2	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	30	1000	-28.11	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	1000	5000	-33.45	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	5000	12000	-46.66	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	12000	26500	-41.88	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	0.009	0.15	-54.44	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	0.15	30	-41.93	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	30	1000	-27.84	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	1000	5000	-33.39	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	5000	12000	-46.59	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	12000	26500	-41.81	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	0.009	0.15	-52.78	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	0.15	30	-42.86	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	30	1000	-26.4	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	1000	5000	-32.06	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	5000	12000	-45.21	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	12000	26500	-40.54	PASS
Band12	3MHz	23025	QPSK	1	0	Low	0.009	0.15	-55.34	PASS
Band12	3MHz	23025	QPSK	1	0	Low	0.15	30	-43.11	PASS
Band12	3MHz	23025	QPSK	1	0	Low	30	1000	-27.01	PASS
Band12	3MHz	23025	QPSK	1	0	Low	1000	5000	-33.59	PASS
Band12	3MHz	23025	QPSK	1	0	Low	5000	12000	-46.67	PASS
Band12	3MHz	23025	QPSK	1	0	Low	12000	26500	-41.73	PASS
Band12	3MHz	23095	QPSK	1	0	Low	0.009	0.15	-54.51	PASS
Band12	3MHz	23095	QPSK	1	0	Low	0.15	30	-44.06	PASS



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Test Report No.: W7L-P23120015RI03

Band12	3MHz	23095	QPSK	1	0	Low	30	1000	-27.96	PASS
Band12	3MHz	23095	QPSK	1	0	Low	1000	5000	-33.44	PASS
Band12	3MHz	23095	QPSK	1	0	Low	5000	12000	-46.61	PASS
Band12	3MHz	23095	QPSK	1	0	Low	12000	26500	-41.75	PASS
Band12	3MHz	23165	QPSK	1	0	High	0.009	0.15	-52.39	PASS
Band12	3MHz	23165	QPSK	1	0	High	0.15	30	-42.57	PASS
Band12	3MHz	23165	QPSK	1	0	High	30	1000	-26.62	PASS
Band12	3MHz	23165	QPSK	1	0	High	1000	5000	-31.96	PASS
Band12	3MHz	23165	QPSK	1	0	High	5000	12000	-45.33	PASS
Band12	3MHz	23165	QPSK	1	0	High	12000	26500	-40.47	PASS
Band12	3MHz	23025	16QAM	1	0	Low	0.009	0.15	-57.16	PASS
Band12	3MHz	23025	16QAM	1	0	Low	0.15	30	-43.57	PASS
Band12	3MHz	23025	16QAM	1	0	Low	30	1000	-28.21	PASS
Band12	3MHz	23025	16QAM	1	0	Low	1000	5000	-33.53	PASS
Band12	3MHz	23025	16QAM	1	0	Low	5000	12000	-46.59	PASS
Band12	3MHz	23025	16QAM	1	0	Low	12000	26500	-41.64	PASS
Band12	3MHz	23095	16QAM	1	0	Low	0.009	0.15	-54.99	PASS
Band12	3MHz	23095	16QAM	1	0	Low	0.15	30	-42.6	PASS
Band12	3MHz	23095	16QAM	1	0	Low	30	1000	-28.03	PASS
Band12	3MHz	23095	16QAM	1	0	Low	1000	5000	-33.44	PASS
Band12	3MHz	23095	16QAM	1	0	Low	5000	12000	-46.54	PASS
Band12	3MHz	23095	16QAM	1	0	Low	12000	26500	-41.93	PASS
Band12	3MHz	23165	16QAM	1	0	High	0.009	0.15	-52.79	PASS
Band12	3MHz	23165	16QAM	1	0	High	0.15	30	-42.32	PASS
Band12	3MHz	23165	16QAM	1	0	High	30	1000	-26.95	PASS
Band12	3MHz	23165	16QAM	1	0	High	1000	5000	-32.23	PASS
Band12	3MHz	23165	16QAM	1	0	High	5000	12000	-45.25	PASS
Band12	3MHz	23165	16QAM	1	0	High	12000	26500	-40.56	PASS
Band12	5MHz	23035	QPSK	1	0	Low	0.009	0.15	-54.49	PASS
Band12	5MHz	23035	QPSK	1	0	Low	0.15	30	-43.17	PASS
Band12	5MHz	23035	QPSK	1	0	Low	30	1000	-27.84	PASS
Band12	5MHz	23035	QPSK	1	0	Low	1000	5000	-33.55	PASS
Band12	5MHz	23035	QPSK	1	0	Low	5000	12000	-46.58	PASS
Band12	5MHz	23035	QPSK	1	0	Low	12000	26500	-41.96	PASS
Band12	5MHz	23095	QPSK	1	0	Low	0.009	0.15	-55.38	PASS
Band12	5MHz	23095	QPSK	1	0	Low	0.15	30	-42.98	PASS
Band12	5MHz	23095	QPSK	1	0	Low	30	1000	-26.67	PASS
Band12	5MHz	23095	QPSK	1	0	Low	1000	5000	-33.42	PASS
Band12	5MHz	23095	QPSK	1	0	Low	5000	12000	-46.66	PASS
Band12	5MHz	23095	QPSK	1	0	Low	12000	26500	-41.76	PASS
Band12	5MHz	23155	QPSK	1	0	High	0.009	0.15	-52.96	PASS
Band12	5MHz	23155	QPSK	1	0	High	0.15	30	-42.68	PASS
Band12	5MHz	23155	QPSK	1	0	High	30	1000	-26.31	PASS
Band12	5MHz	23155	QPSK	1	0	High	1000	5000	-32.2	PASS
Band12	5MHz	23155	QPSK	1	0	High	5000	12000	-45.21	PASS
Band12	5MHz	23155	QPSK	1	0	High	12000	26500	-40.56	PASS
Band12	5MHz	23035	16QAM	1	0	Low	0.009	0.15	-54.82	PASS
Band12	5MHz	23035	16QAM	1	0	Low	0.15	30	-44.1	PASS
Band12	5MHz	23035	16QAM	1	0	Low	30	1000	-28.17	PASS
Band12	5MHz	23035	16QAM	1	0	Low	1000	5000	-33.56	PASS
Band12	5MHz	23035	16QAM	1	0	Low	5000	12000	-46.58	PASS
Band12	5MHz	23035	16QAM	1	0	Low	12000	26500	-42.07	PASS
Band12	5MHz	23095	16QAM	1	0	Low	0.009	0.15	-54.01	PASS
Band12	5MHz	23095	16QAM	1	0	Low	0.15	30	-41.92	PASS



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Test Report No.: W7L-P23120015RI03

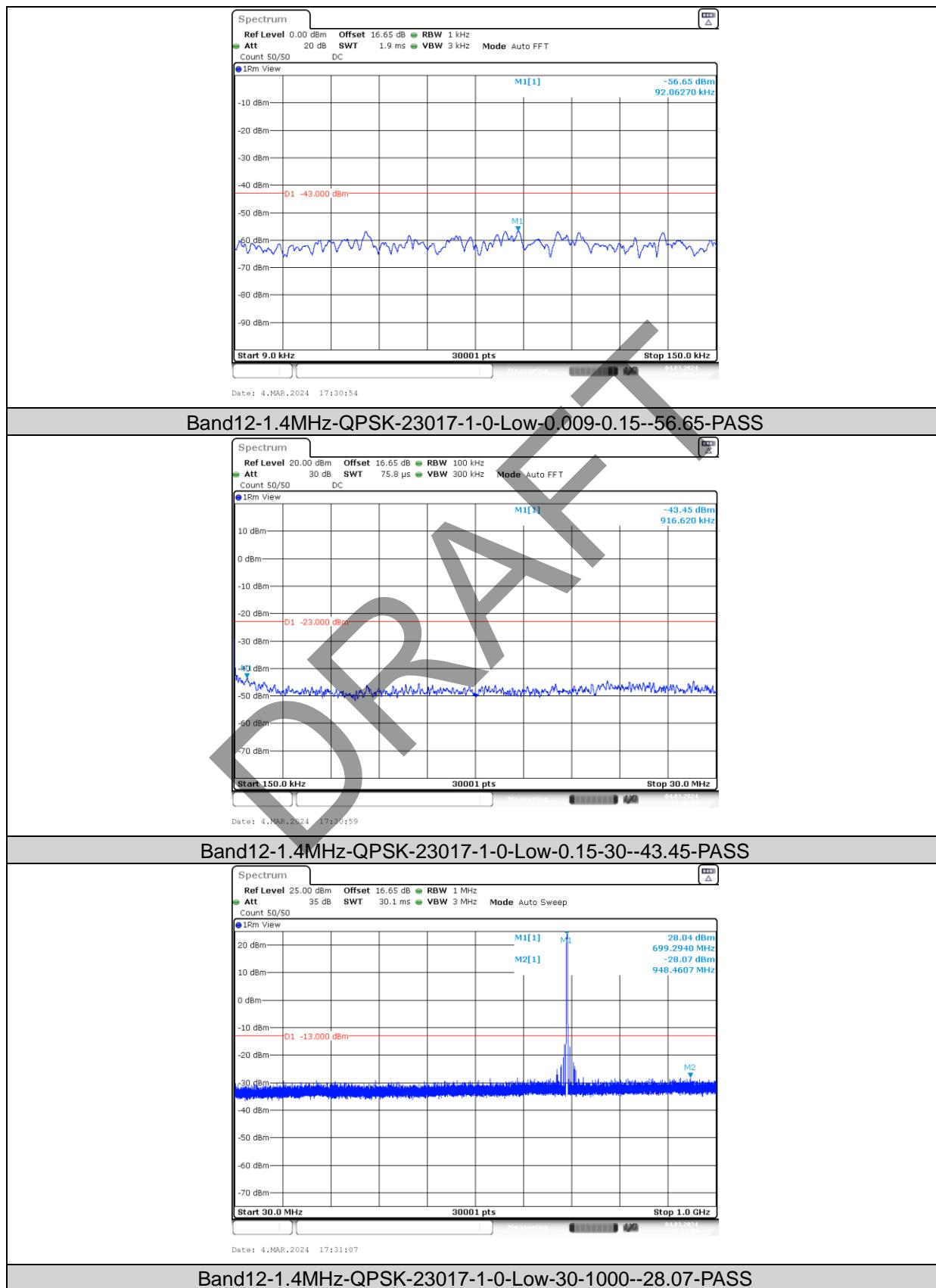
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Band12	5MHz	23095	16QAM	1	0	Low	1000	5000	-33.32	PASS
Band12	5MHz	23095	16QAM	1	0	Low	5000	12000	-46.68	PASS
Band12	5MHz	23095	16QAM	1	0	Low	12000	26500	-41.98	PASS
Band12	5MHz	23155	16QAM	1	0	High	0.009	0.15	-51.9	PASS
Band12	5MHz	23155	16QAM	1	0	High	0.15	30	-42.73	PASS
Band12	5MHz	23155	16QAM	1	0	High	30	1000	-26.42	PASS
Band12	5MHz	23155	16QAM	1	0	High	1000	5000	-32.18	PASS
Band12	5MHz	23155	16QAM	1	0	High	5000	12000	-45.03	PASS
Band12	5MHz	23155	16QAM	1	0	High	12000	26500	-40.38	PASS
Band12	10MHz	23060	QPSK	1	0	Low	0.009	0.15	-55.34	PASS
Band12	10MHz	23060	QPSK	1	0	Low	0.15	30	-44.48	PASS
Band12	10MHz	23060	QPSK	1	0	Low	30	1000	-27.89	PASS
Band12	10MHz	23060	QPSK	1	0	Low	1000	5000	-33.55	PASS
Band12	10MHz	23060	QPSK	1	0	Low	5000	12000	-46.54	PASS
Band12	10MHz	23060	QPSK	1	0	Low	12000	26500	-41.91	PASS
Band12	10MHz	23095	QPSK	1	0	Low	0.009	0.15	-56.04	PASS
Band12	10MHz	23095	QPSK	1	0	Low	0.15	30	-43.32	PASS
Band12	10MHz	23095	QPSK	1	0	Low	30	1000	-28.24	PASS
Band12	10MHz	23095	QPSK	1	0	Low	1000	5000	-33.35	PASS
Band12	10MHz	23095	QPSK	1	0	Low	5000	12000	-46.52	PASS
Band12	10MHz	23095	QPSK	1	0	Low	12000	26500	-42.06	PASS
Band12	10MHz	23130	QPSK	1	0	High	0.009	0.15	-52.32	PASS
Band12	10MHz	23130	QPSK	1	0	High	0.15	30	-41.28	PASS
Band12	10MHz	23130	QPSK	1	0	High	30	1000	-25.85	PASS
Band12	10MHz	23130	QPSK	1	0	High	1000	5000	-32.18	PASS
Band12	10MHz	23130	QPSK	1	0	High	5000	12000	-45.28	PASS
Band12	10MHz	23130	QPSK	1	0	High	12000	26500	-40.46	PASS
Band12	10MHz	23060	16QAM	1	0	Low	0.009	0.15	-55.05	PASS
Band12	10MHz	23060	16QAM	1	0	Low	0.15	30	-43.64	PASS
Band12	10MHz	23060	16QAM	1	0	Low	30	1000	-27.72	PASS
Band12	10MHz	23060	16QAM	1	0	Low	1000	5000	-33.59	PASS
Band12	10MHz	23060	16QAM	1	0	Low	5000	12000	-46.7	PASS
Band12	10MHz	23060	16QAM	1	0	Low	12000	26500	-41.98	PASS
Band12	10MHz	23095	16QAM	1	0	Low	0.009	0.15	-54.88	PASS
Band12	10MHz	23095	16QAM	1	0	Low	0.15	30	-43.72	PASS
Band12	10MHz	23095	16QAM	1	0	Low	30	1000	-27.85	PASS
Band12	10MHz	23095	16QAM	1	0	Low	1000	5000	-33.56	PASS
Band12	10MHz	23095	16QAM	1	0	Low	5000	12000	-46.52	PASS
Band12	10MHz	23095	16QAM	1	0	Low	12000	26500	-41.88	PASS
Band12	10MHz	23130	16QAM	1	0	High	0.009	0.15	-51.97	PASS
Band12	10MHz	23130	16QAM	1	0	High	0.15	30	-42.55	PASS
Band12	10MHz	23130	16QAM	1	0	High	30	1000	-26.24	PASS
Band12	10MHz	23130	16QAM	1	0	High	1000	5000	-32.14	PASS
Band12	10MHz	23130	16QAM	1	0	High	5000	12000	-45.29	PASS
Band12	10MHz	23130	16QAM	1	0	High	12000	26500	-40.58	PASS



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VERITAS

Test Report No.: W7L-P23120015RI03

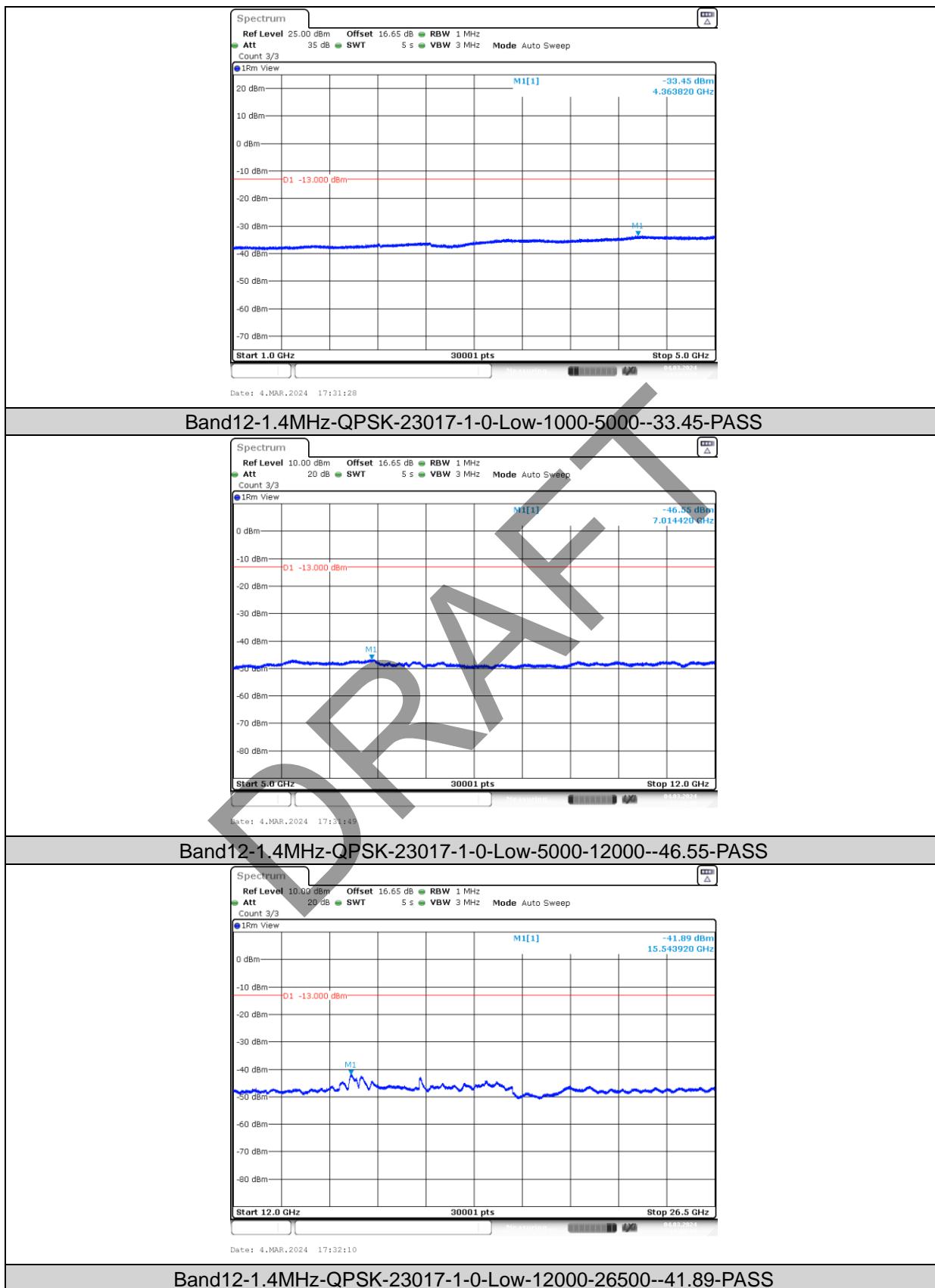
Band 12 Test Graphs





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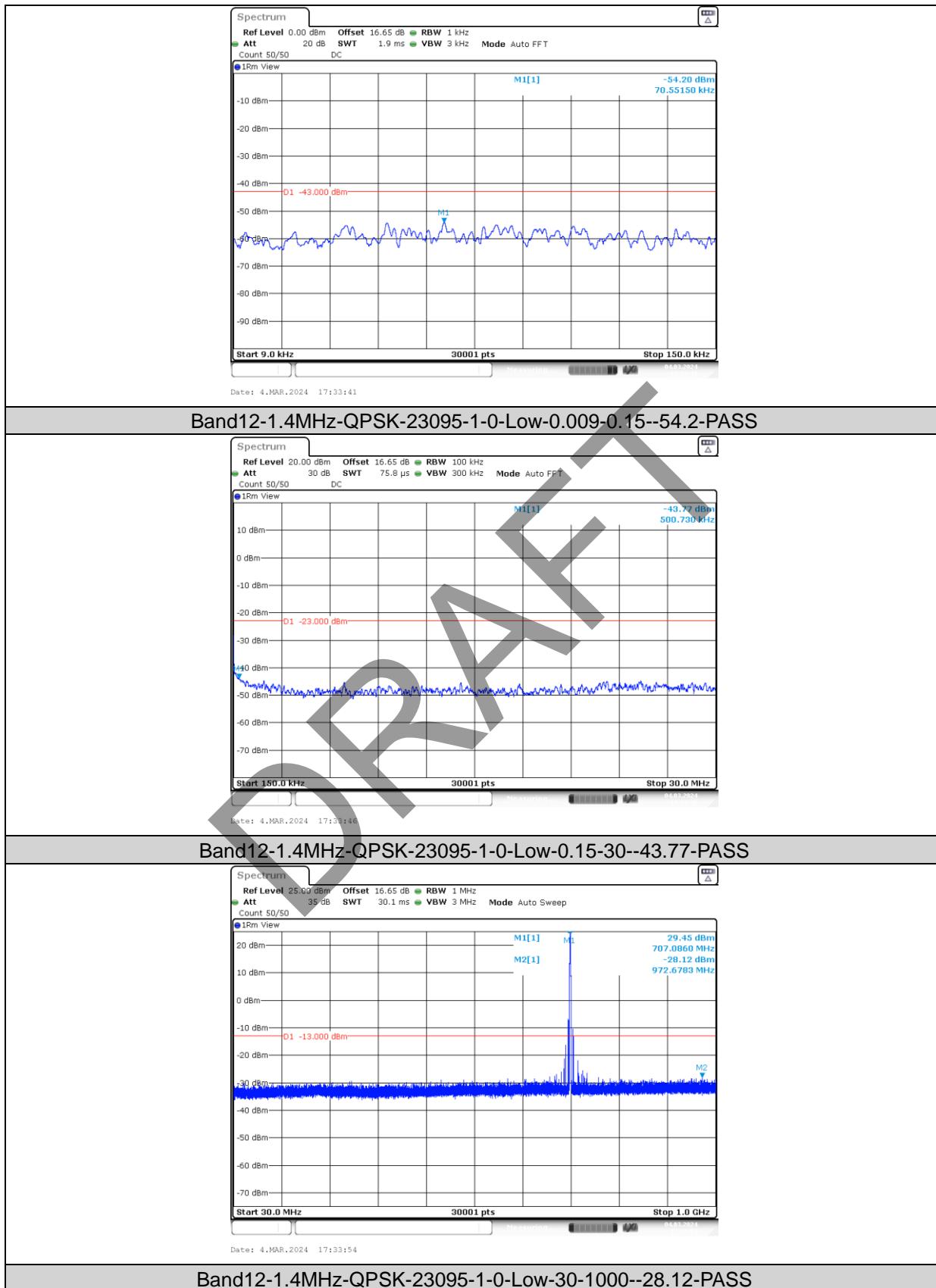
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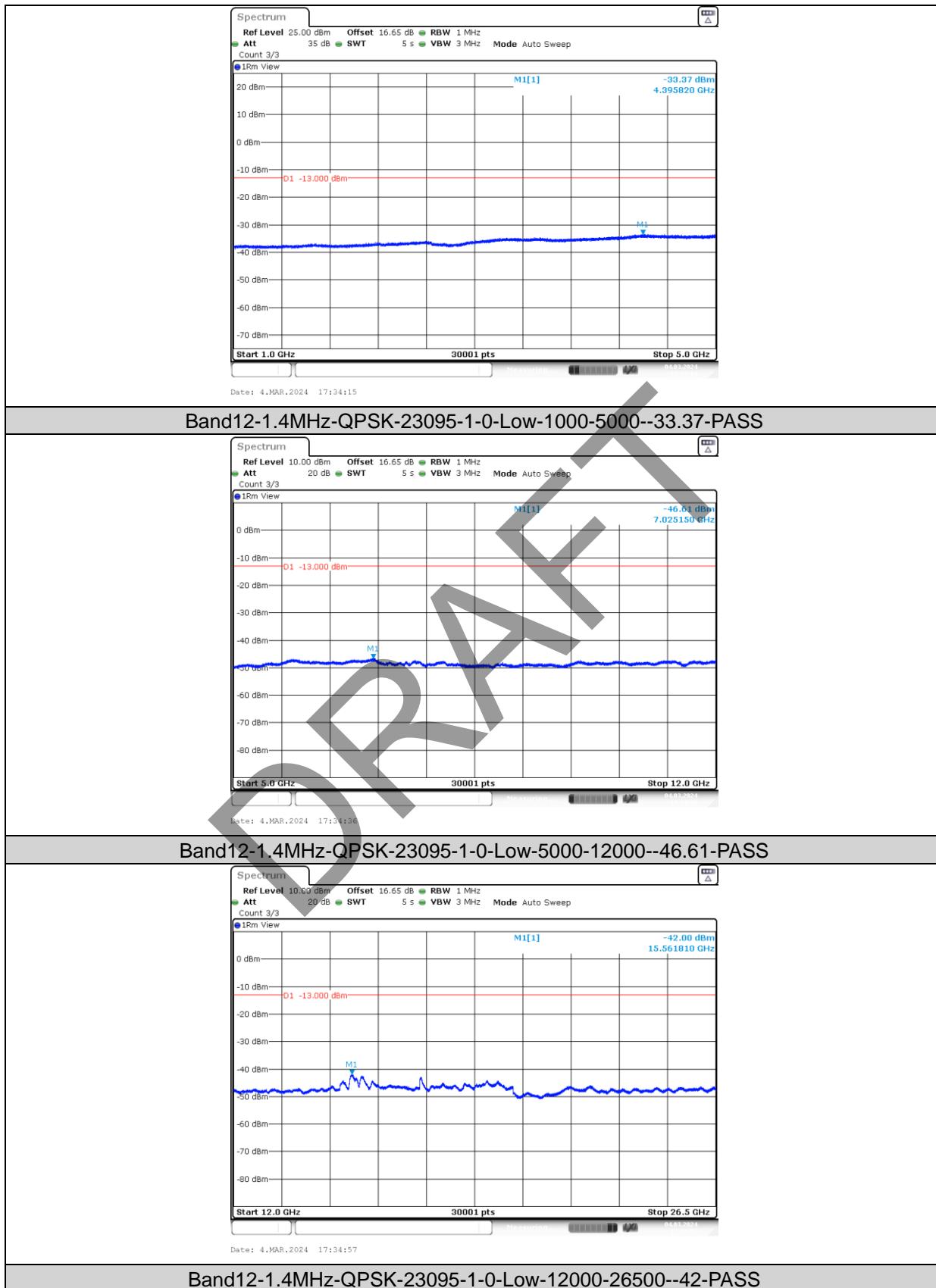
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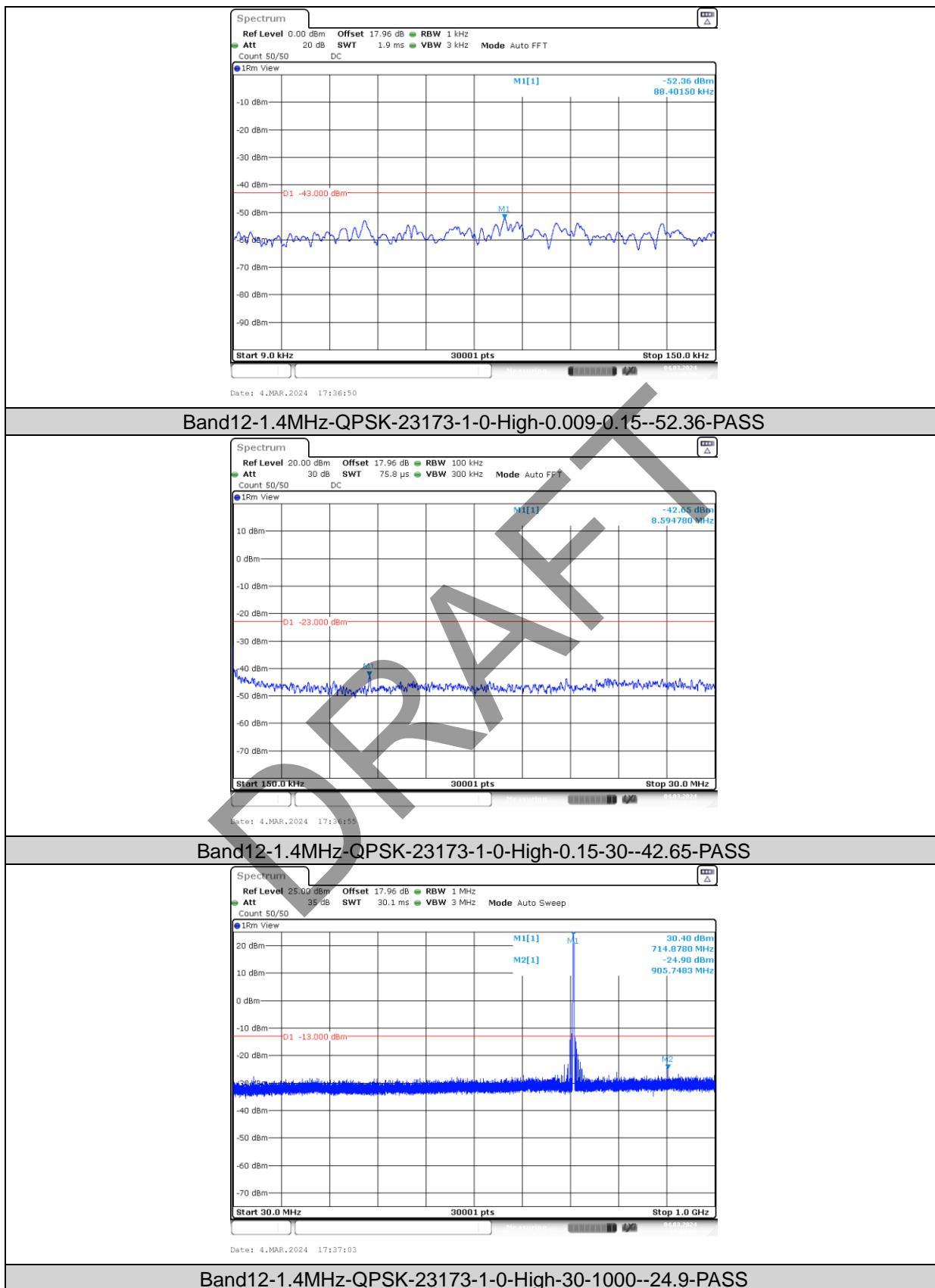
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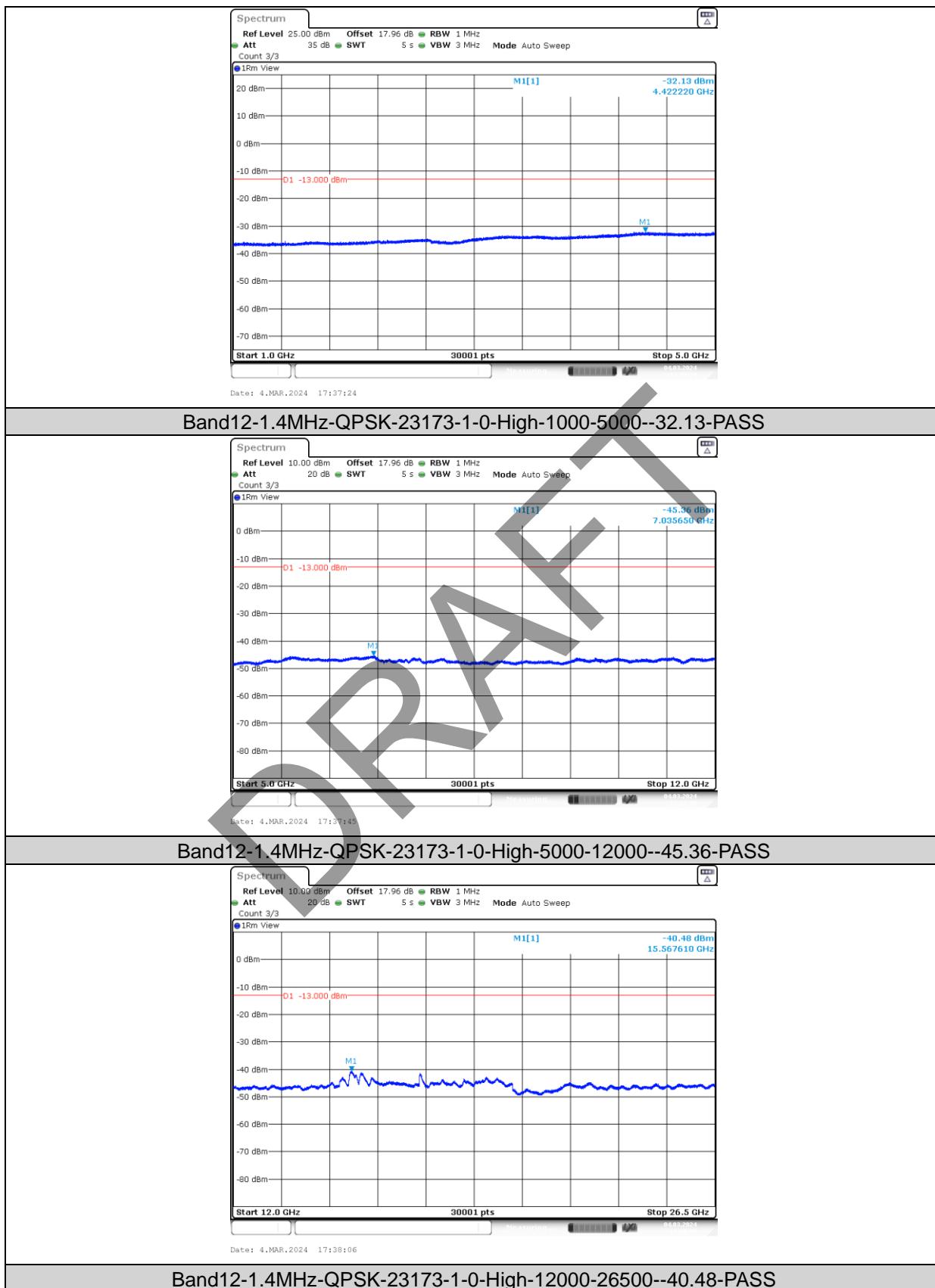
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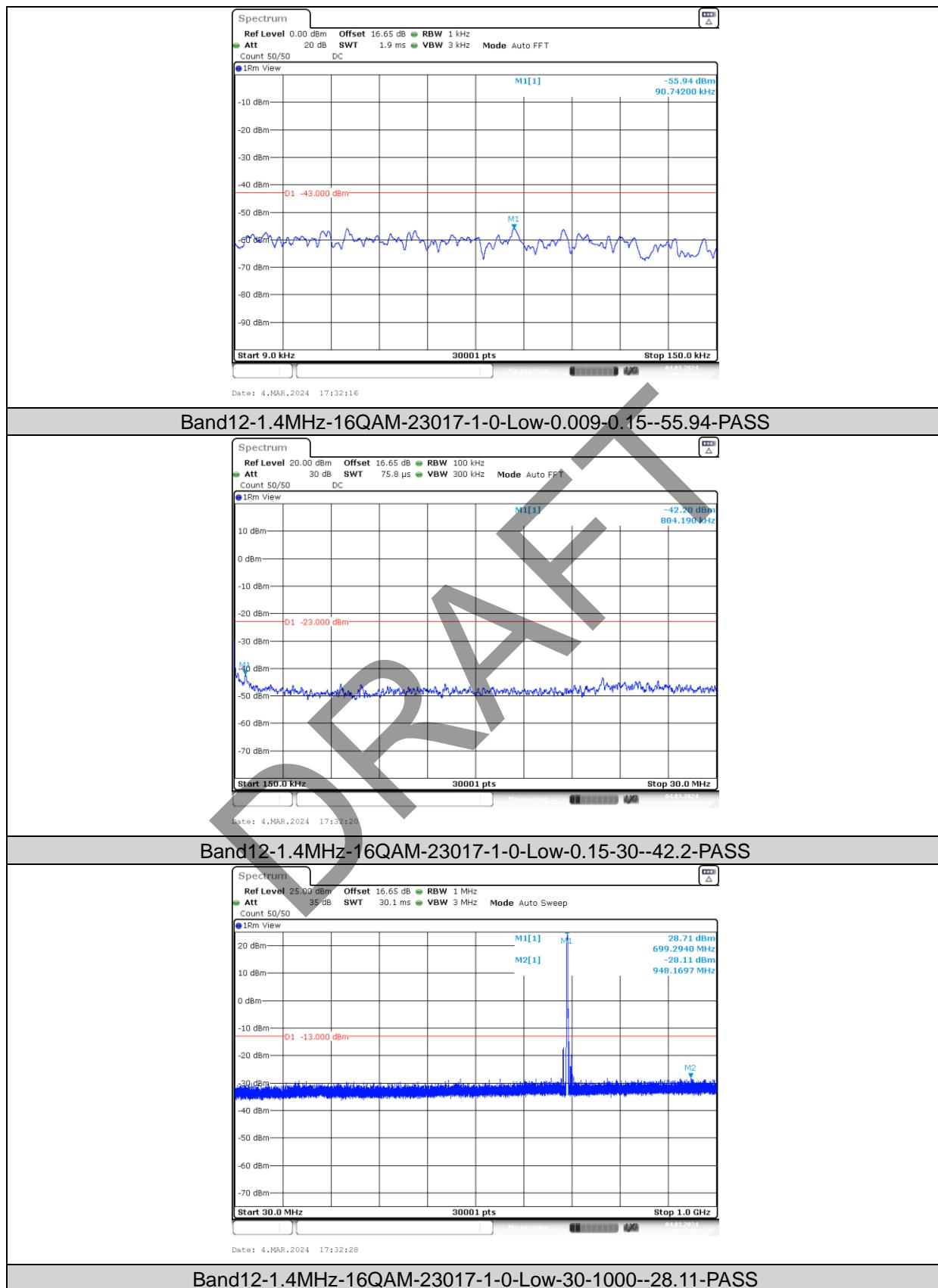
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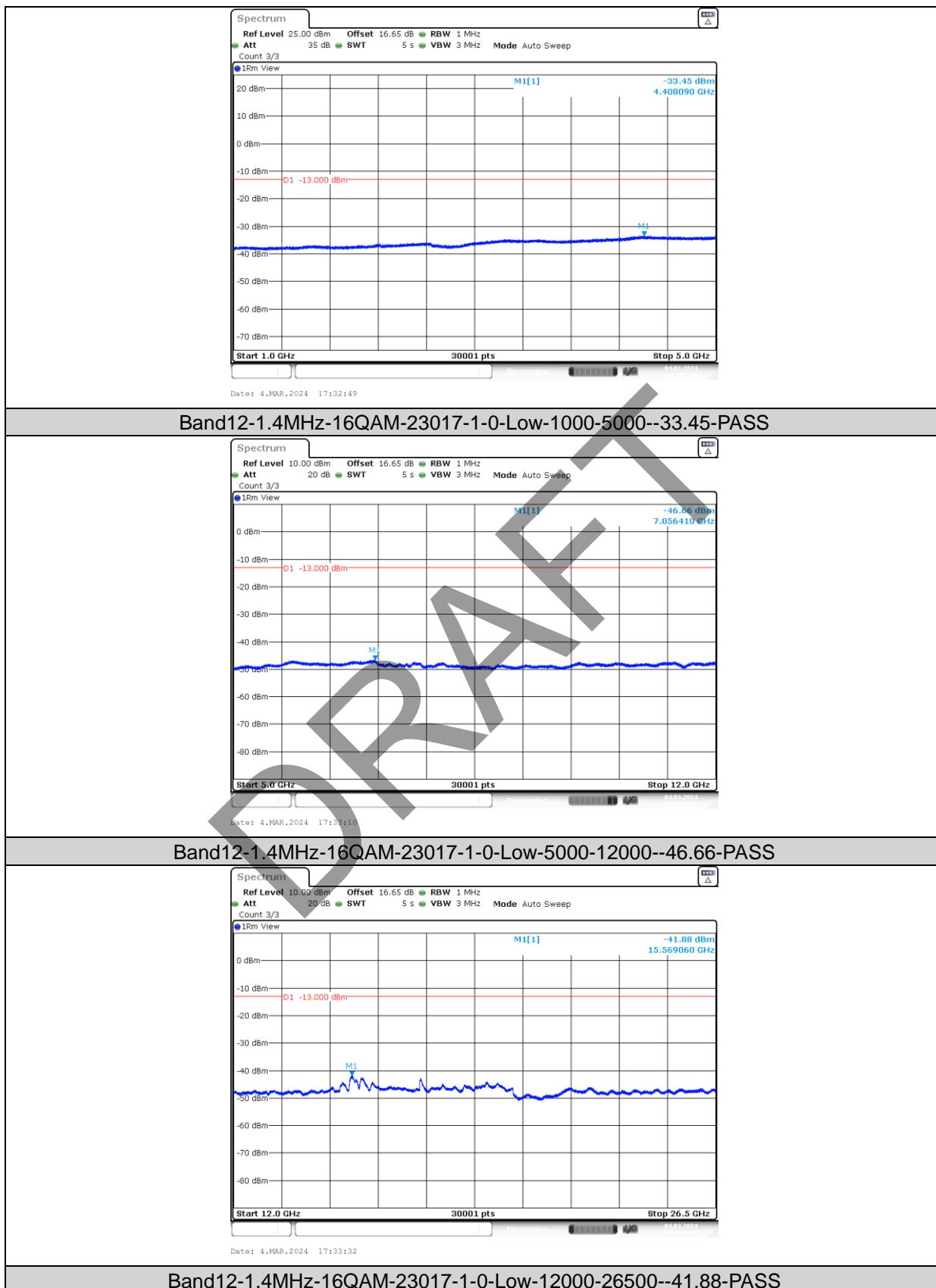
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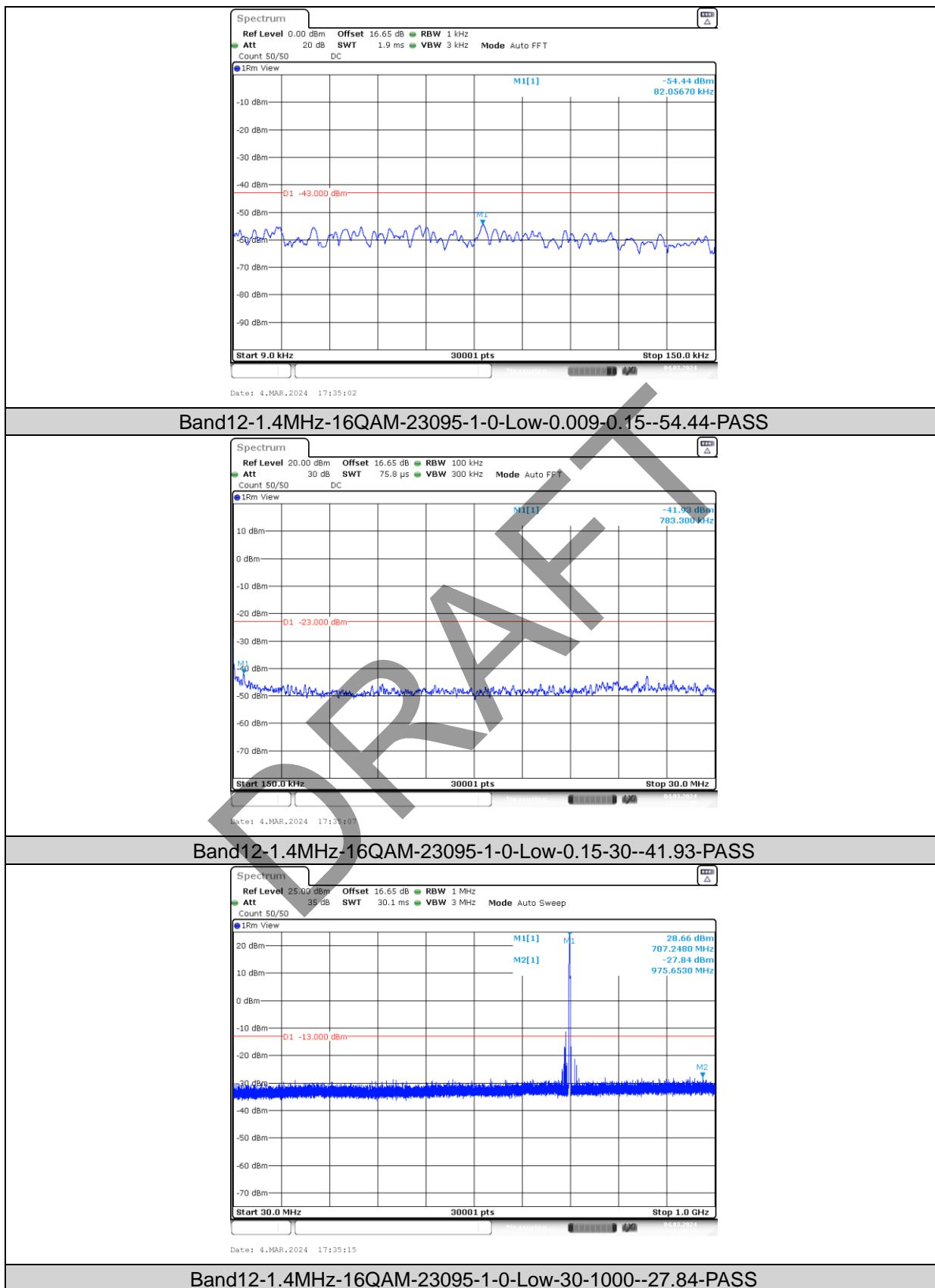
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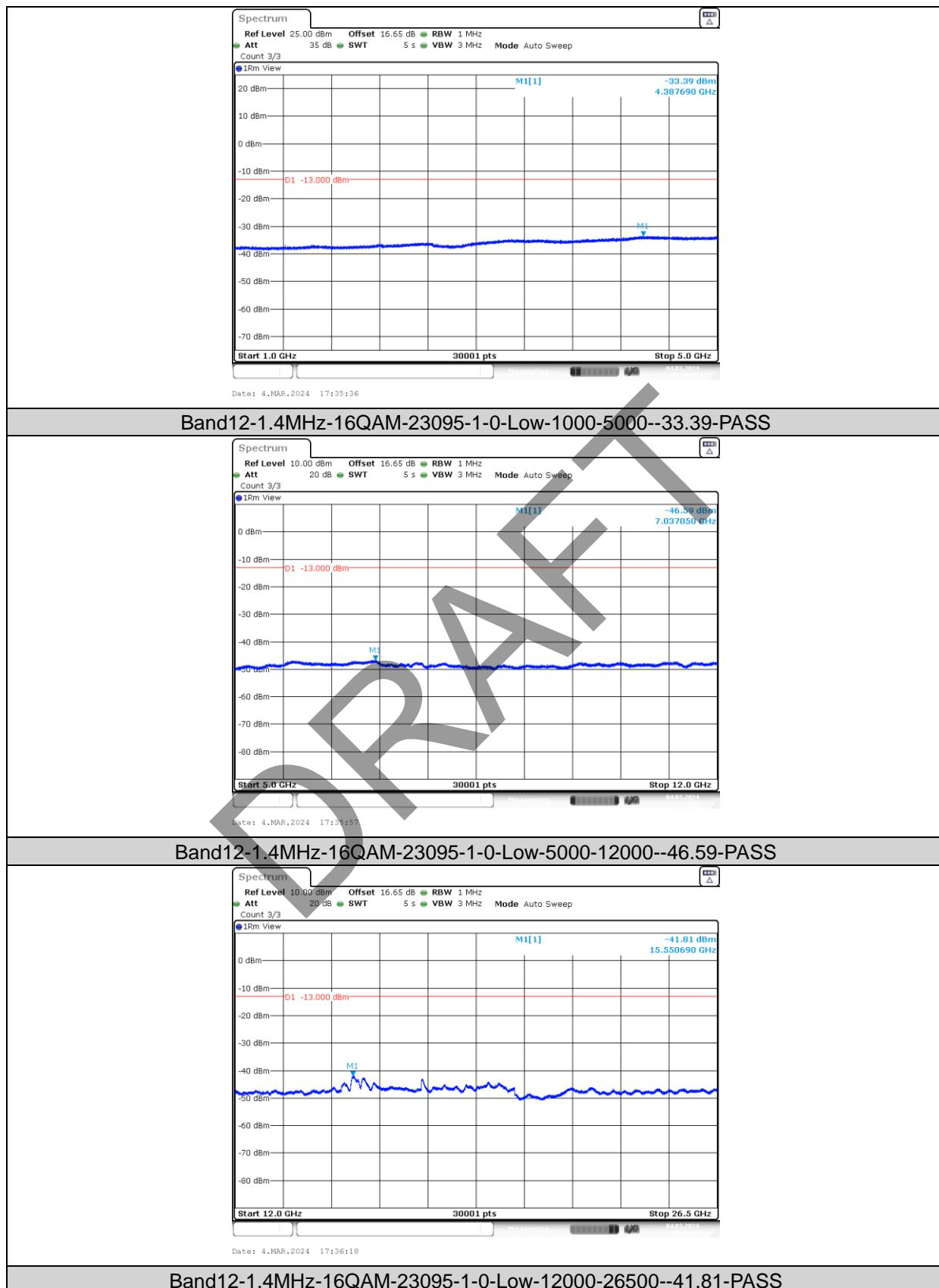
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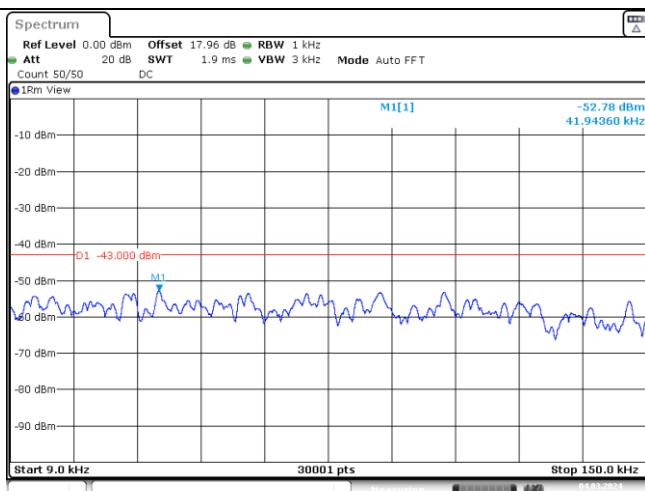
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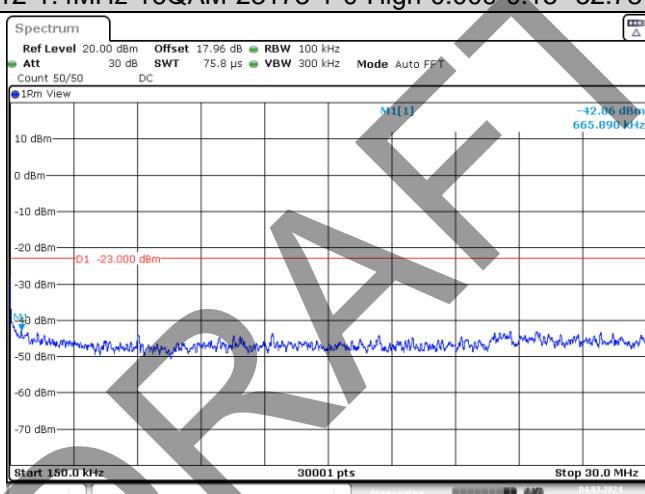


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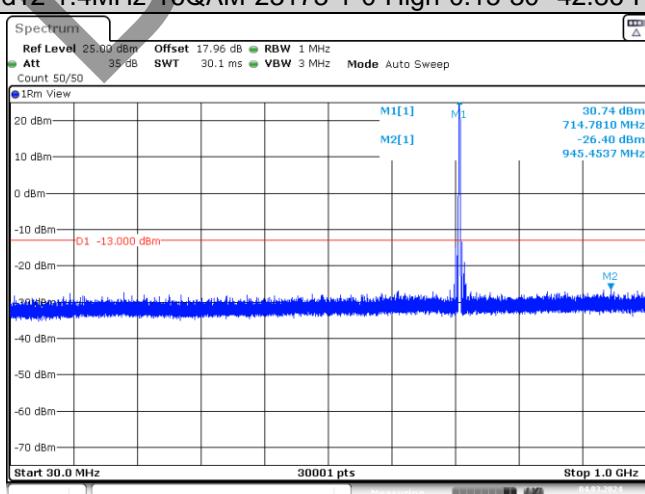
Test Report No.: W7L-P23120015RI03



Band12-1.4MHz-16QAM-23173-1-0-High-0.009-0.15--52.78-PASS



Band12-1.4MHz-16QAM-23173-1-0-High-0.15-30--42.86-PASS



Band12-1.4MHz-16QAM-23173-1-0-High-30-1000--26.4-PASS

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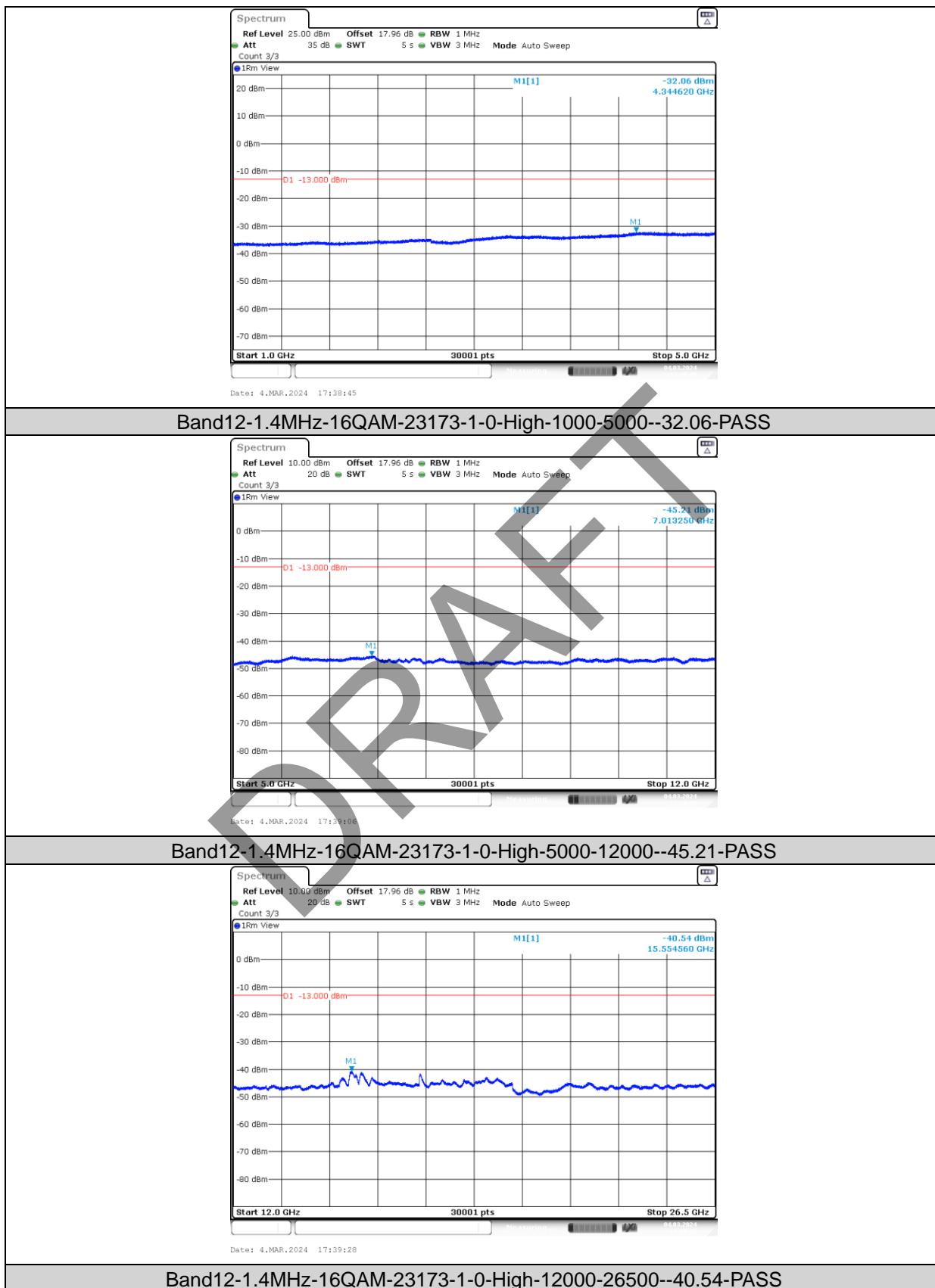
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
Guangdong, People's Republic of China

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email: customerservice.sw@bureauveritas.com



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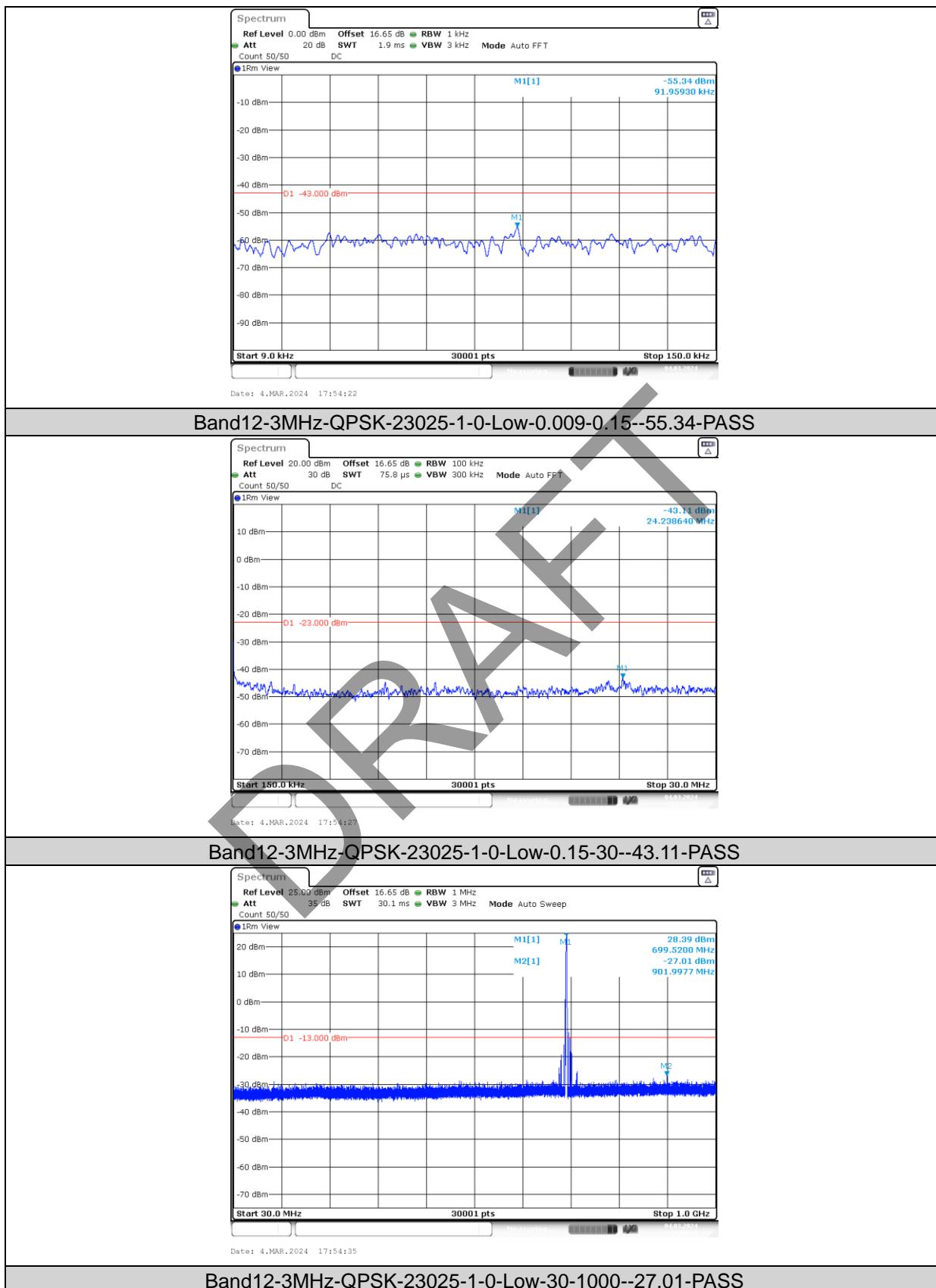
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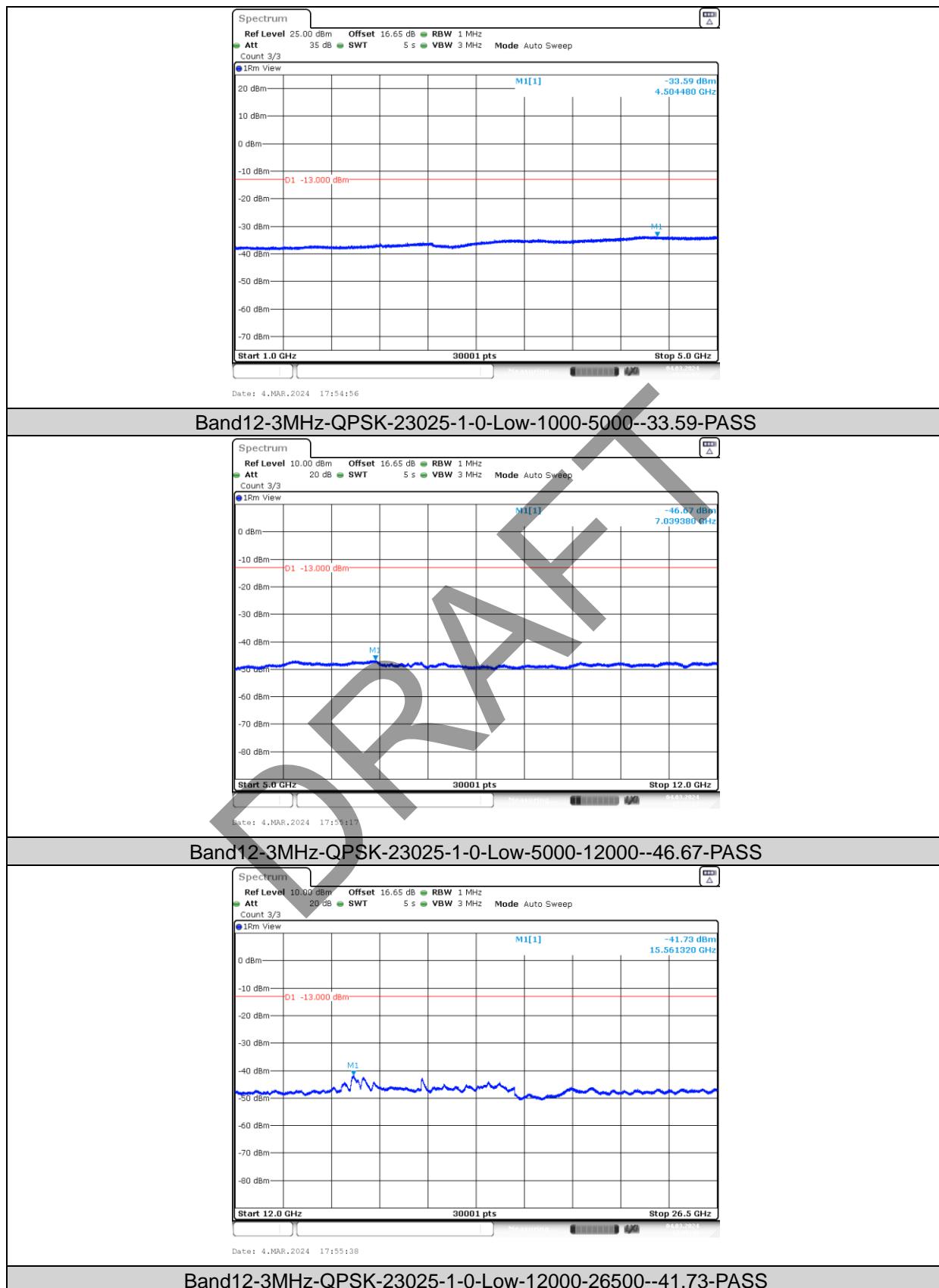
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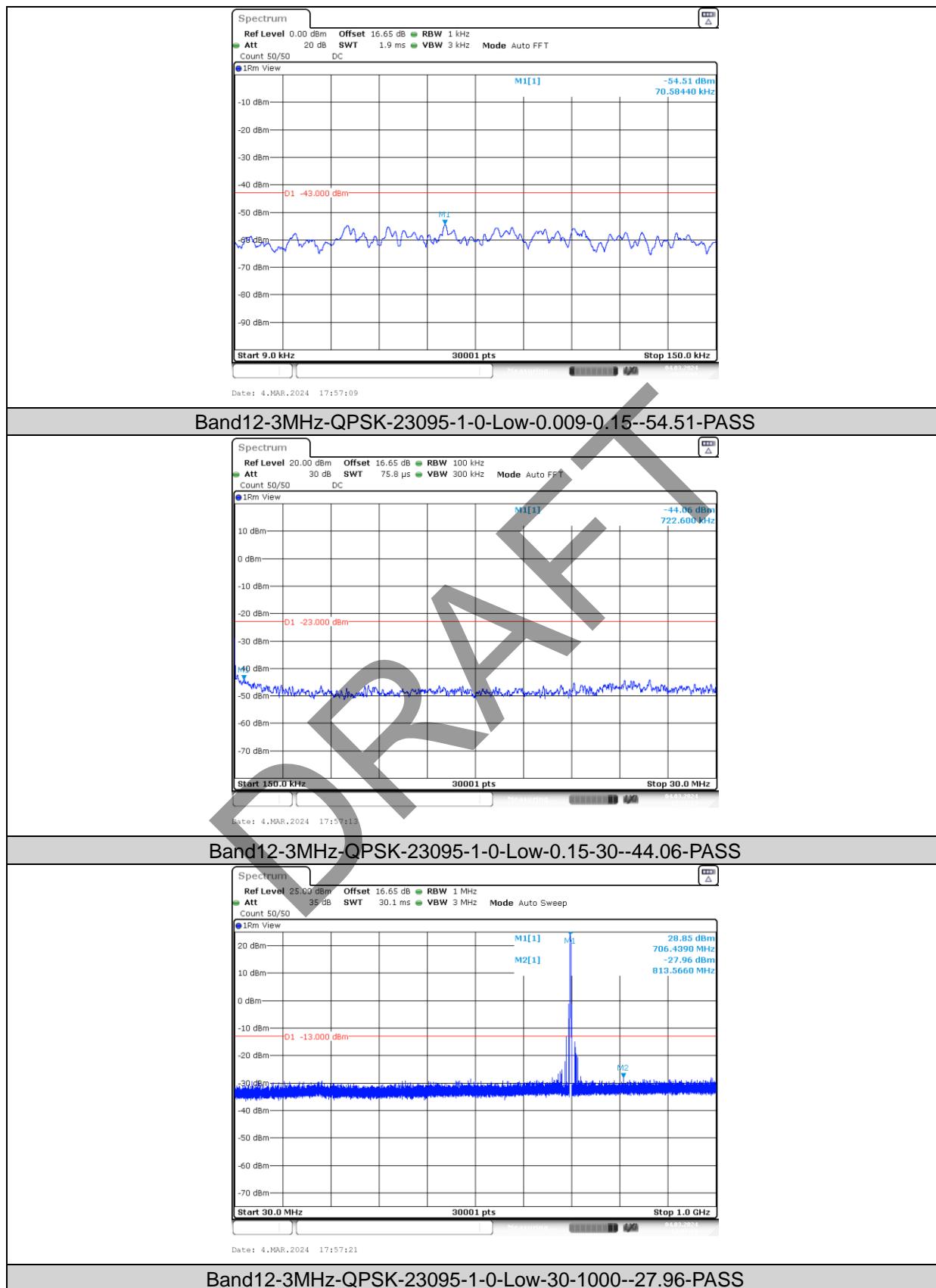
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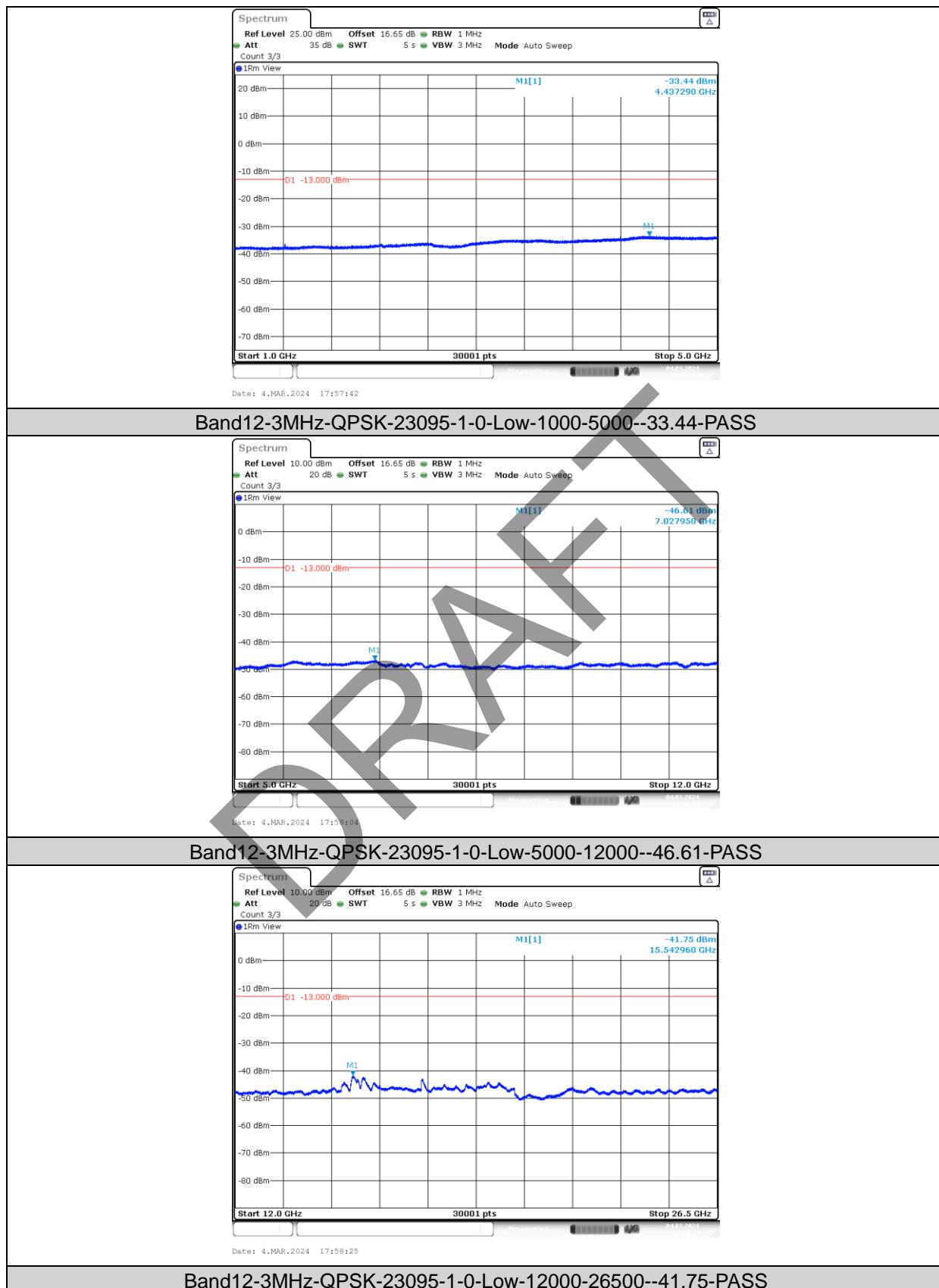
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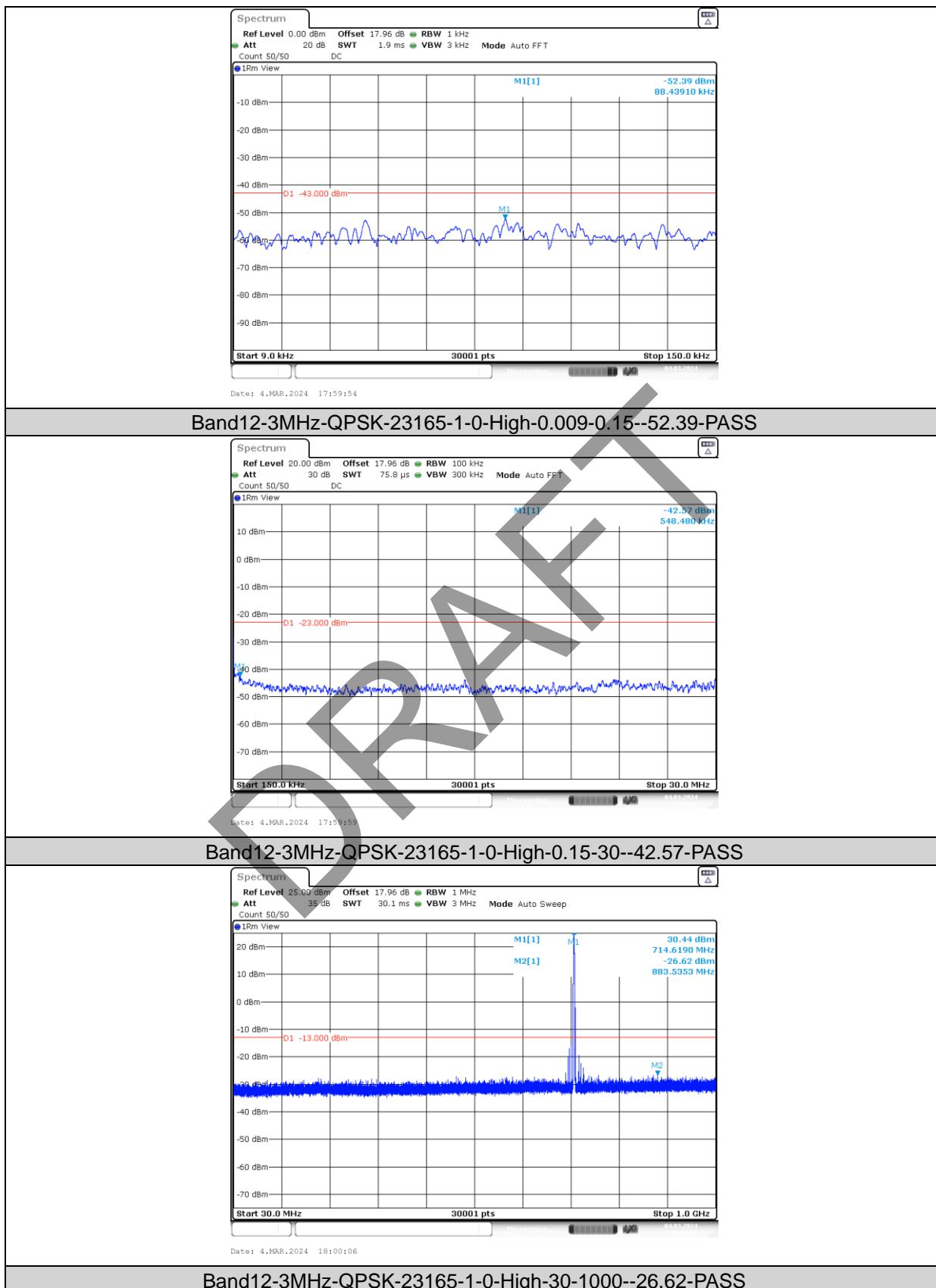
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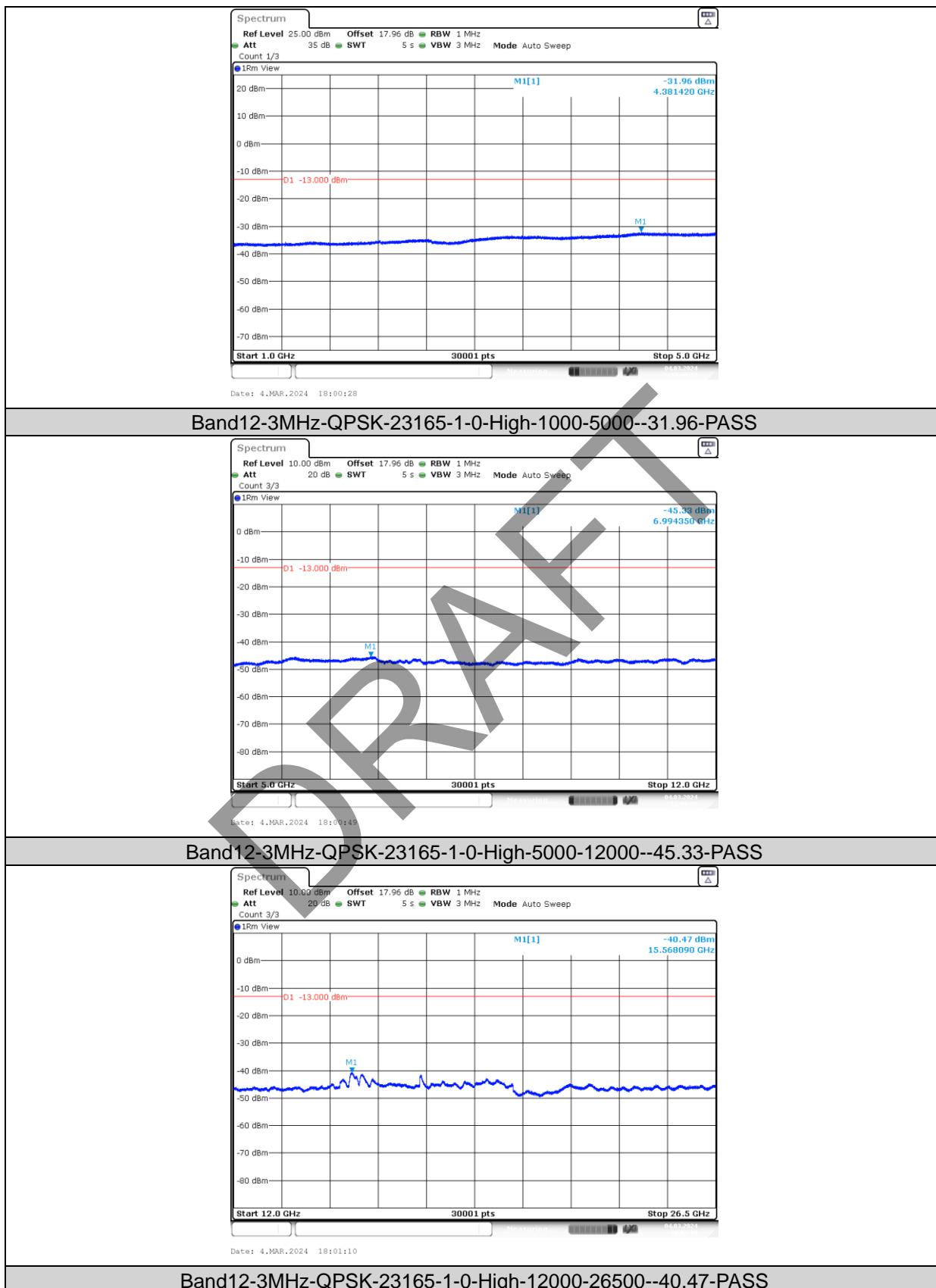
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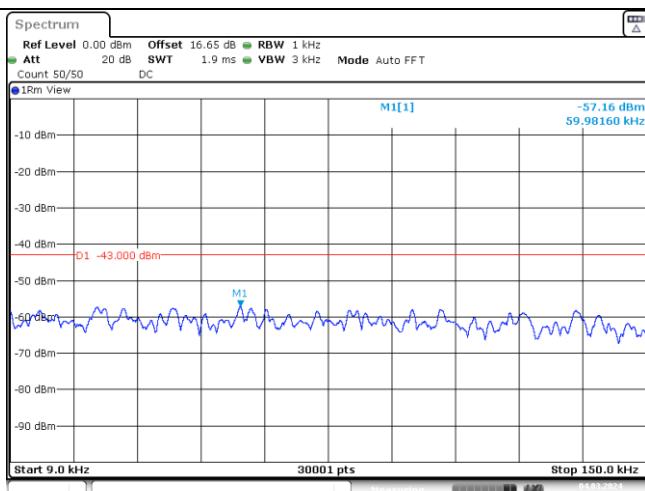
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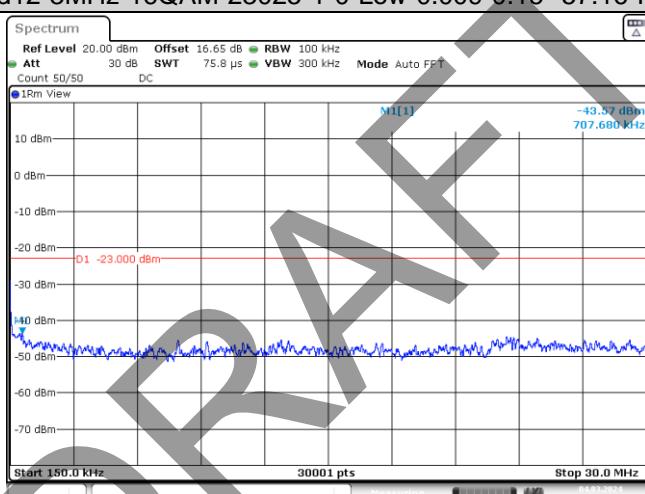


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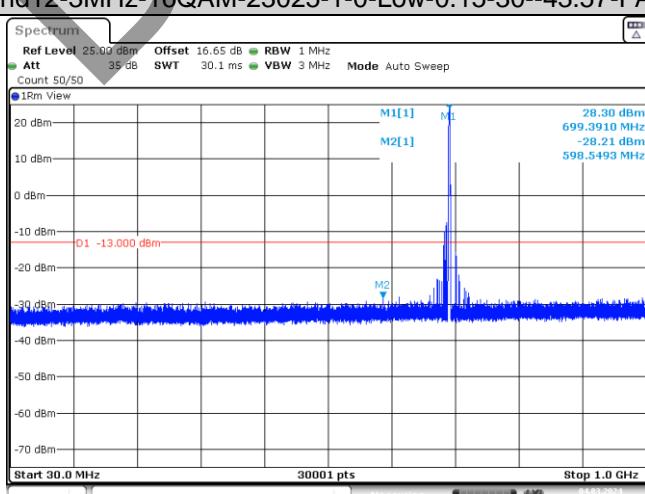
Test Report No.: W7L-P23120015RI03



Band12-3MHz-16QAM-23025-1-0-Low-0.009-0.15--57.16-PASS



Band12-3MHz-16QAM-23025-1-0-Low-0.15-30--43.57-PASS



Band12-3MHz-16QAM-23025-1-0-Low-30-1000--28.21-PASS

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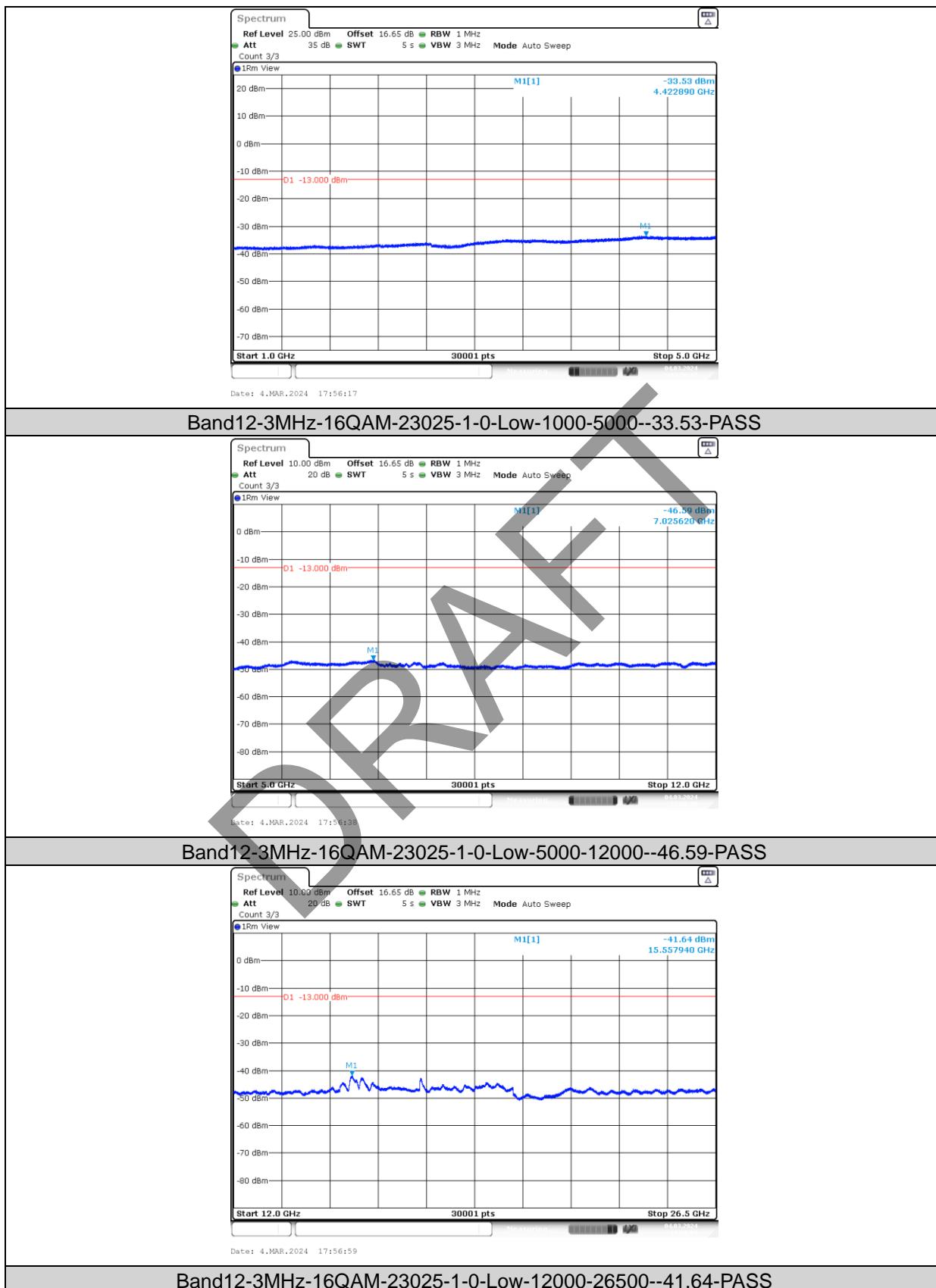
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
Guangdong, People's Republic of China

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email: customerservice.sw@bureauveritas.com



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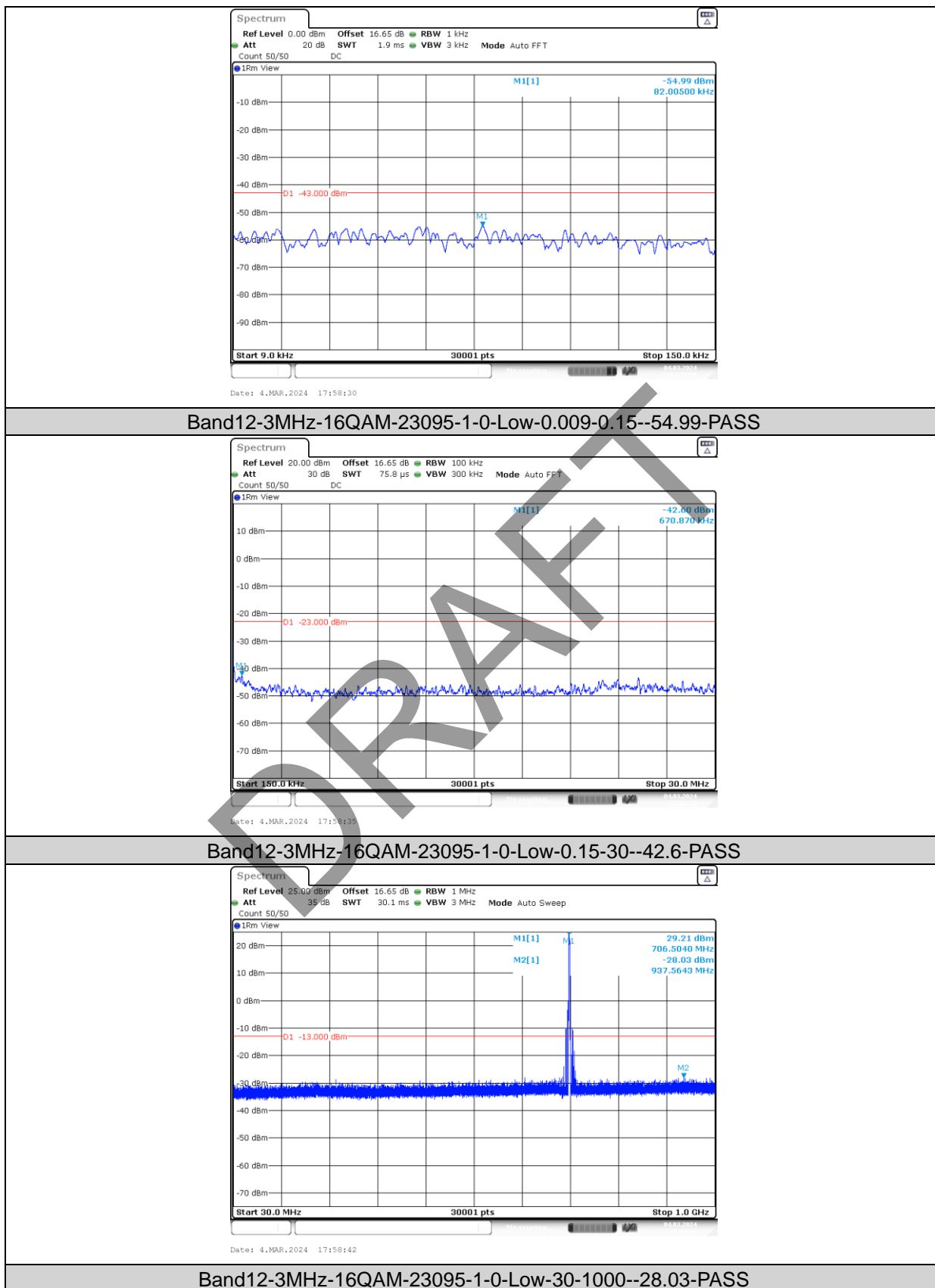
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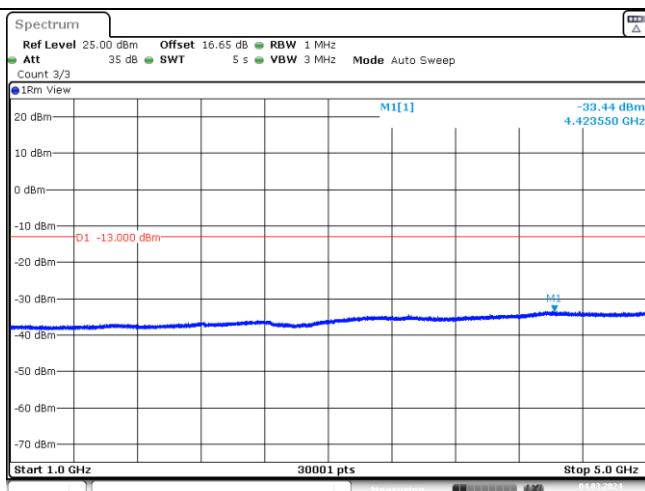
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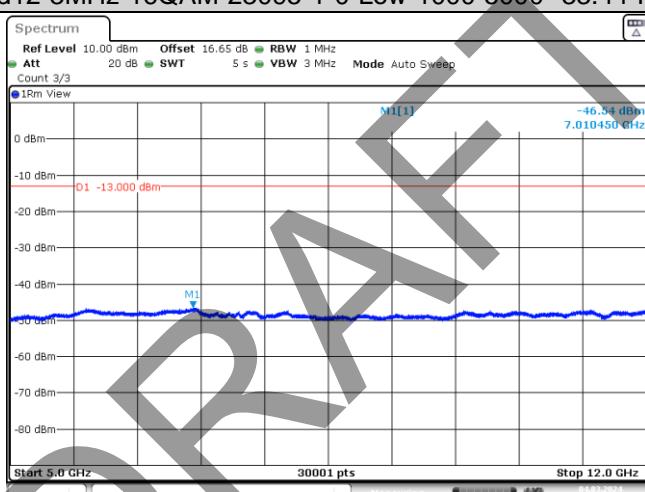


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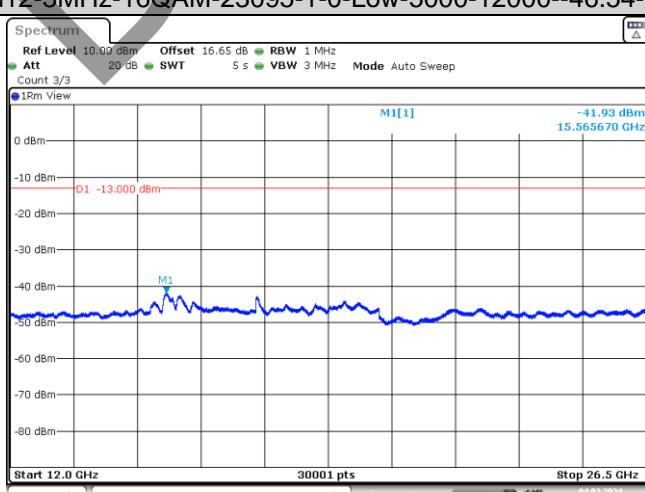
Test Report No.: W7L-P23120015RI03



Band12-3MHz-16QAM-23095-1-0-Low-1000-5000--33.44-PASS



Band12-3MHz-16QAM-23095-1-0-Low-5000-12000--46.54-PASS

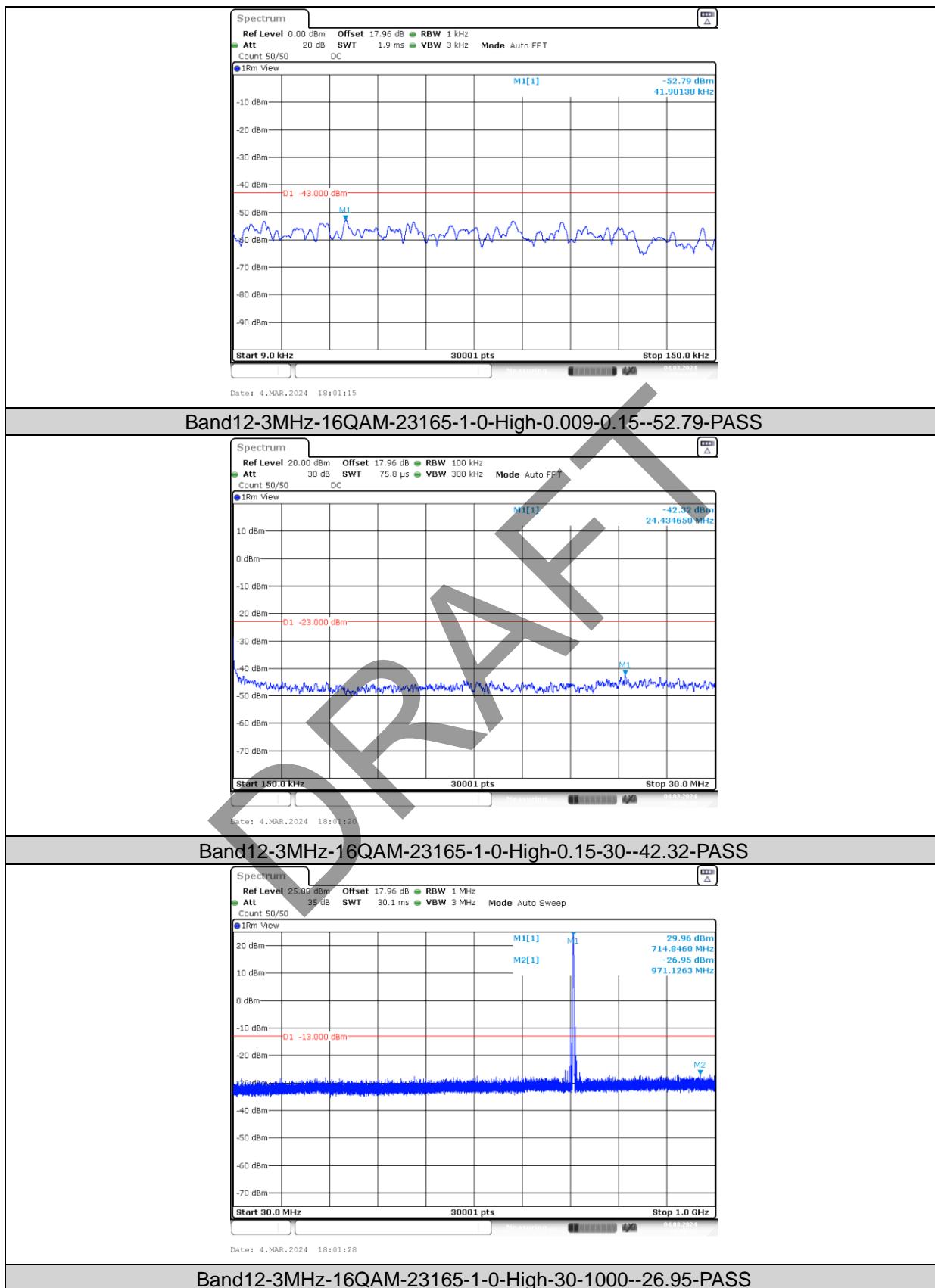


Band12-3MHz-16QAM-23095-1-0-Low-12000-26500--41.93-PASS



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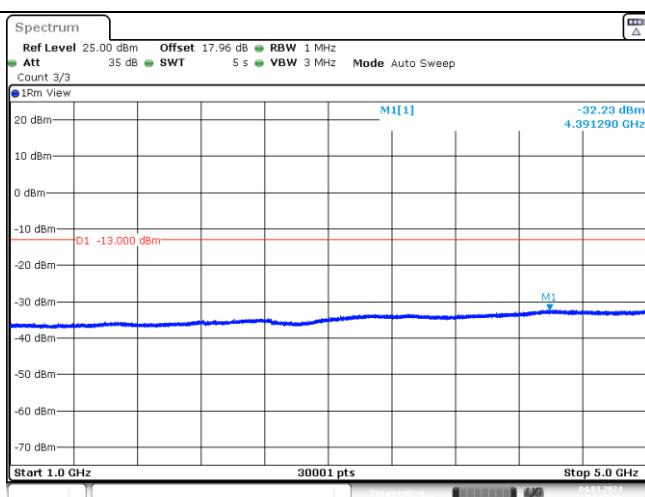
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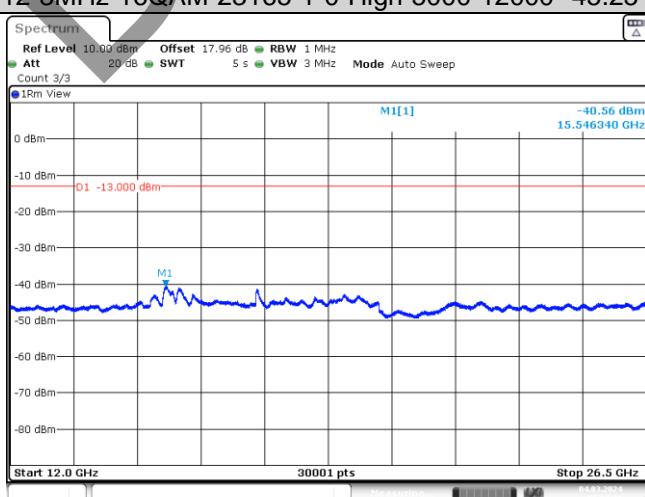
Test Report No.: W7L-P23120015RI03



Band12-3MHz-16QAM-23165-1-0-High-1000-5000--32.23-PASS



Band12-3MHz-16QAM-23165-1-0-High-5000-12000--45.25-PASS



Band12-3MHz-16QAM-23165-1-0-High-12000-26500--40.56-PASS

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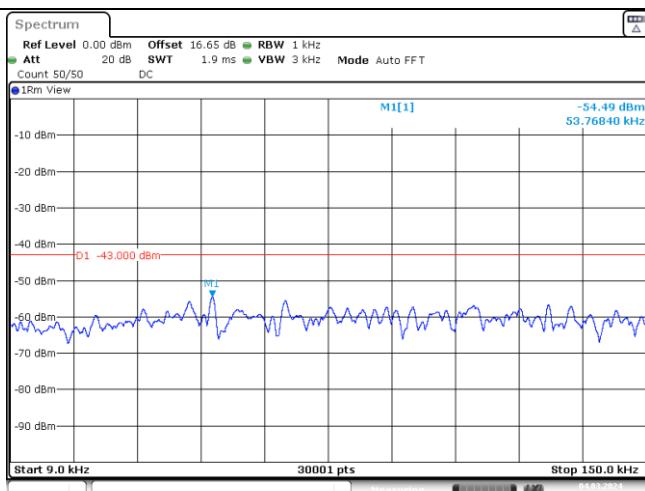
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
Guangdong, People's Republic of China

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email: customerservice.sw@bureauveritas.com

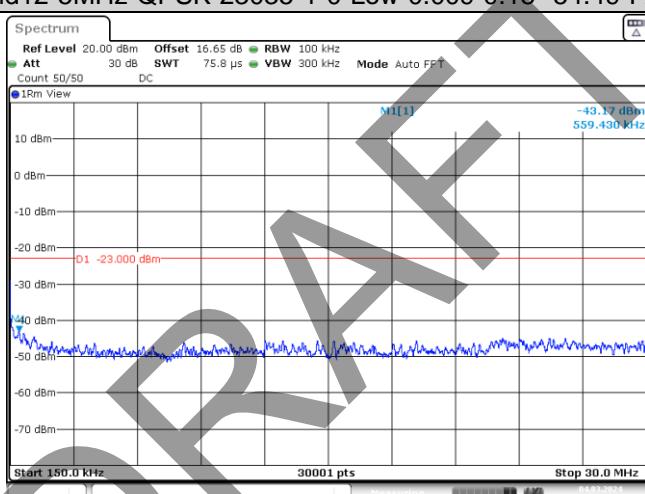


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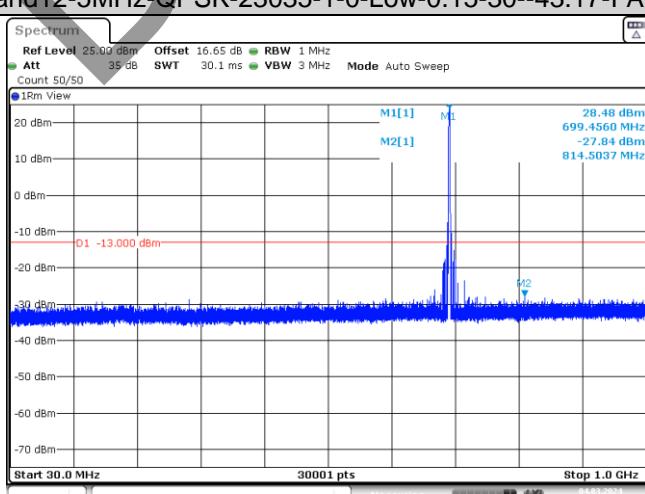
Test Report No.: W7L-P23120015RI03



Band12-5MHz-QPSK-23035-1-0-Low-0.009-0.15--54.49-PASS



Band12-5MHz-QPSK-23035-1-0-Low-0.15-30--43.17-PASS

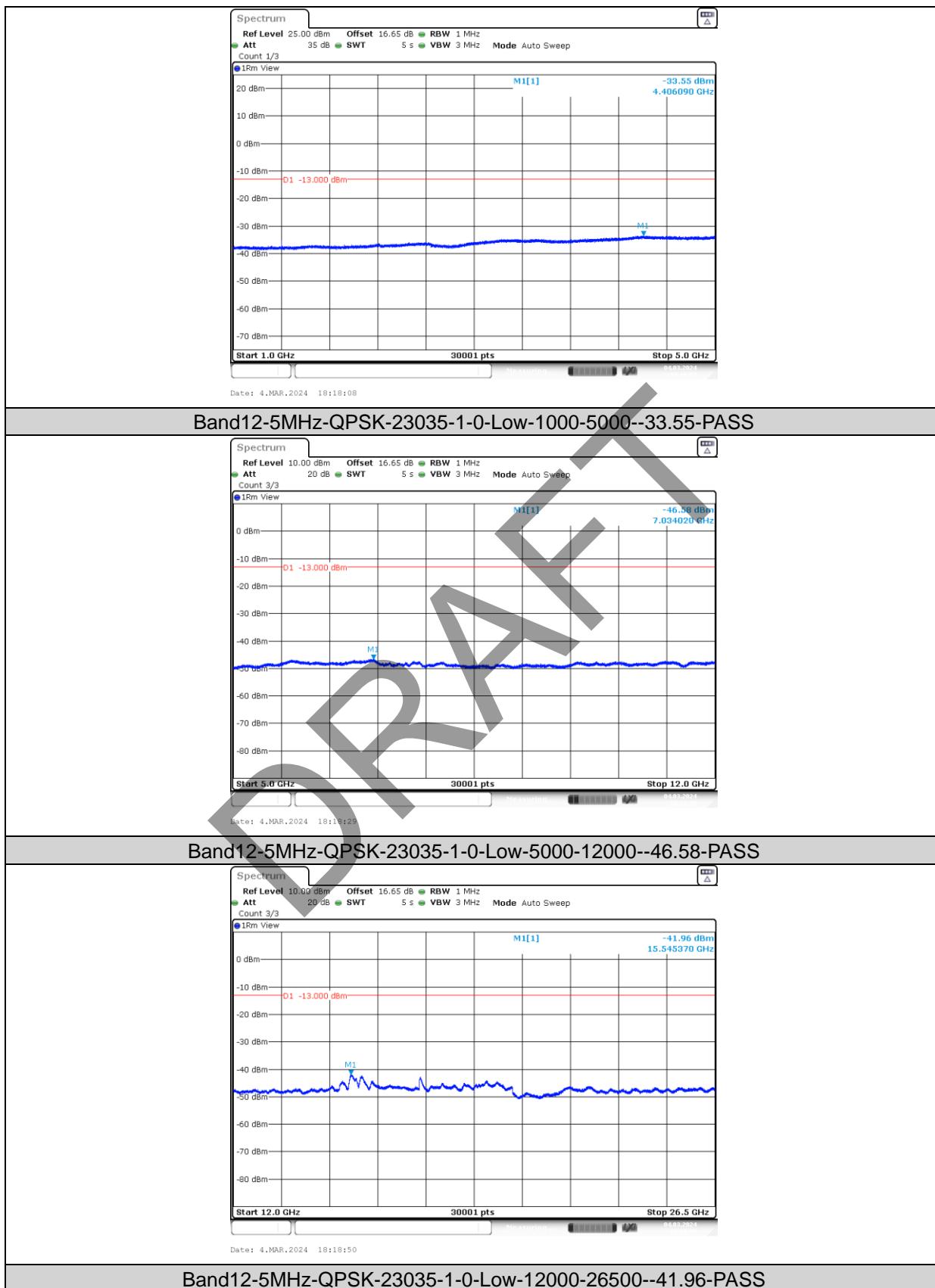


Band12-5MHz-QPSK-23035-1-0-Low-30-1000--27.84-PASS



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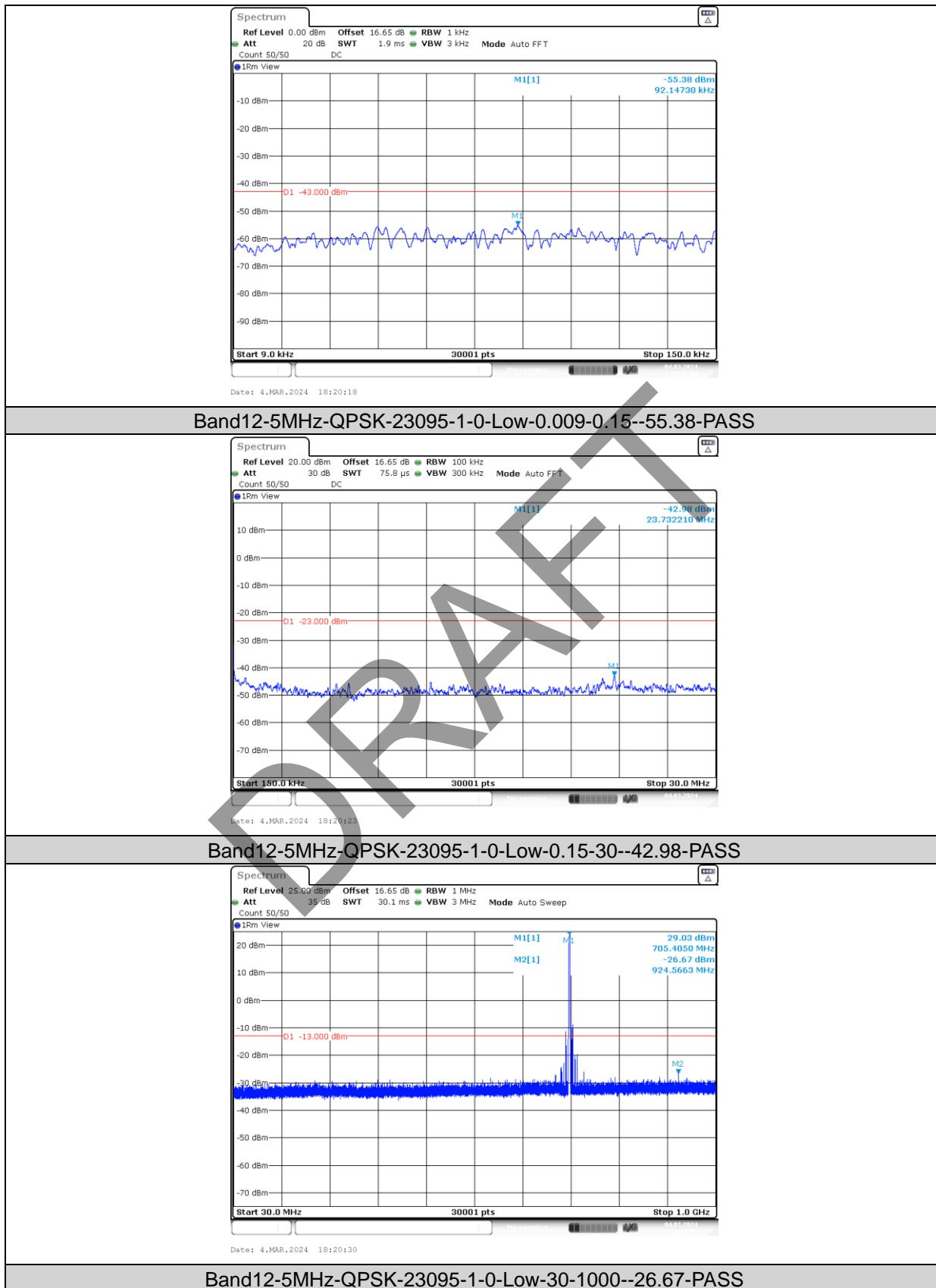
Test Report No.: W7L-P23120015RI03





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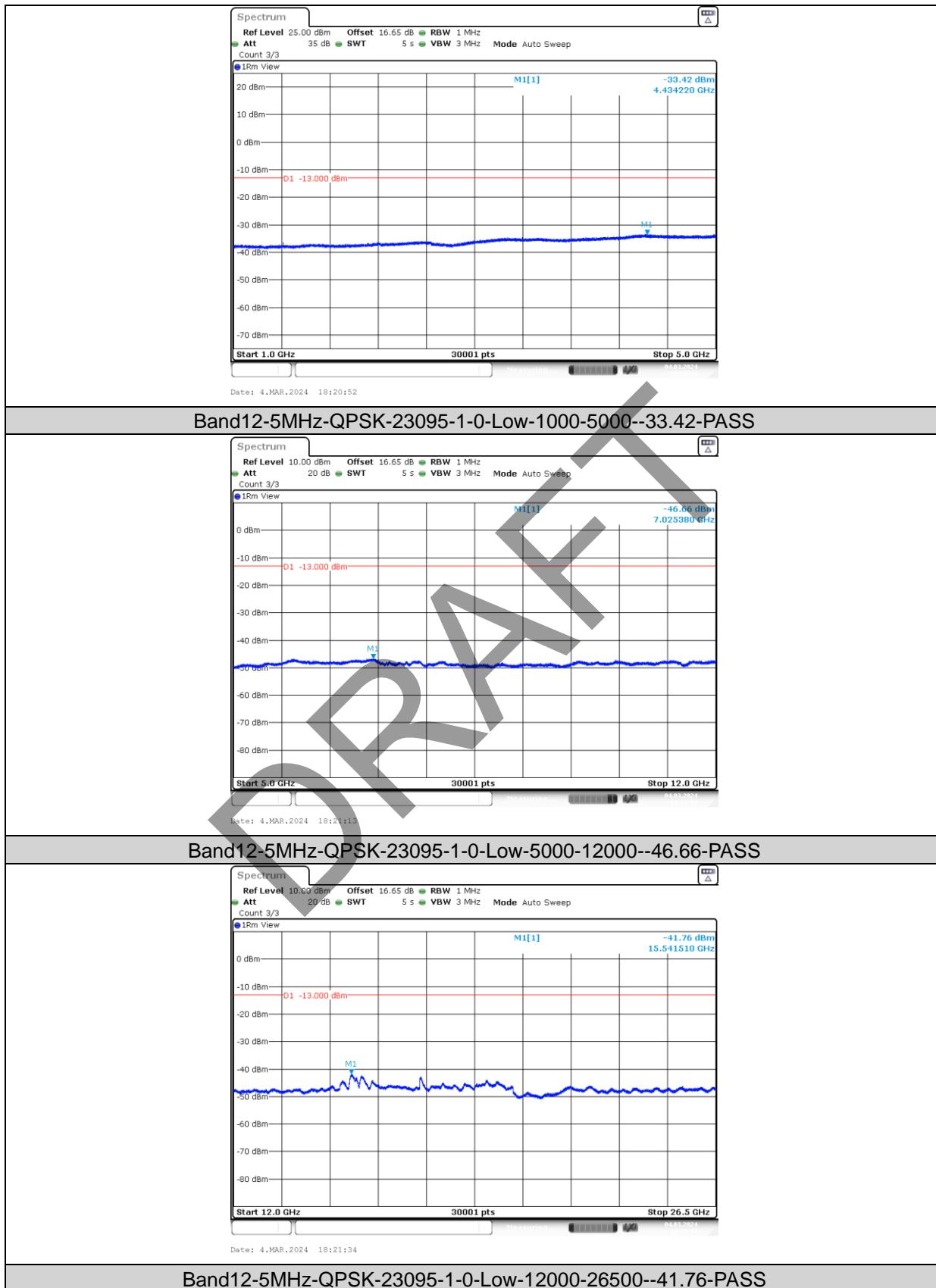
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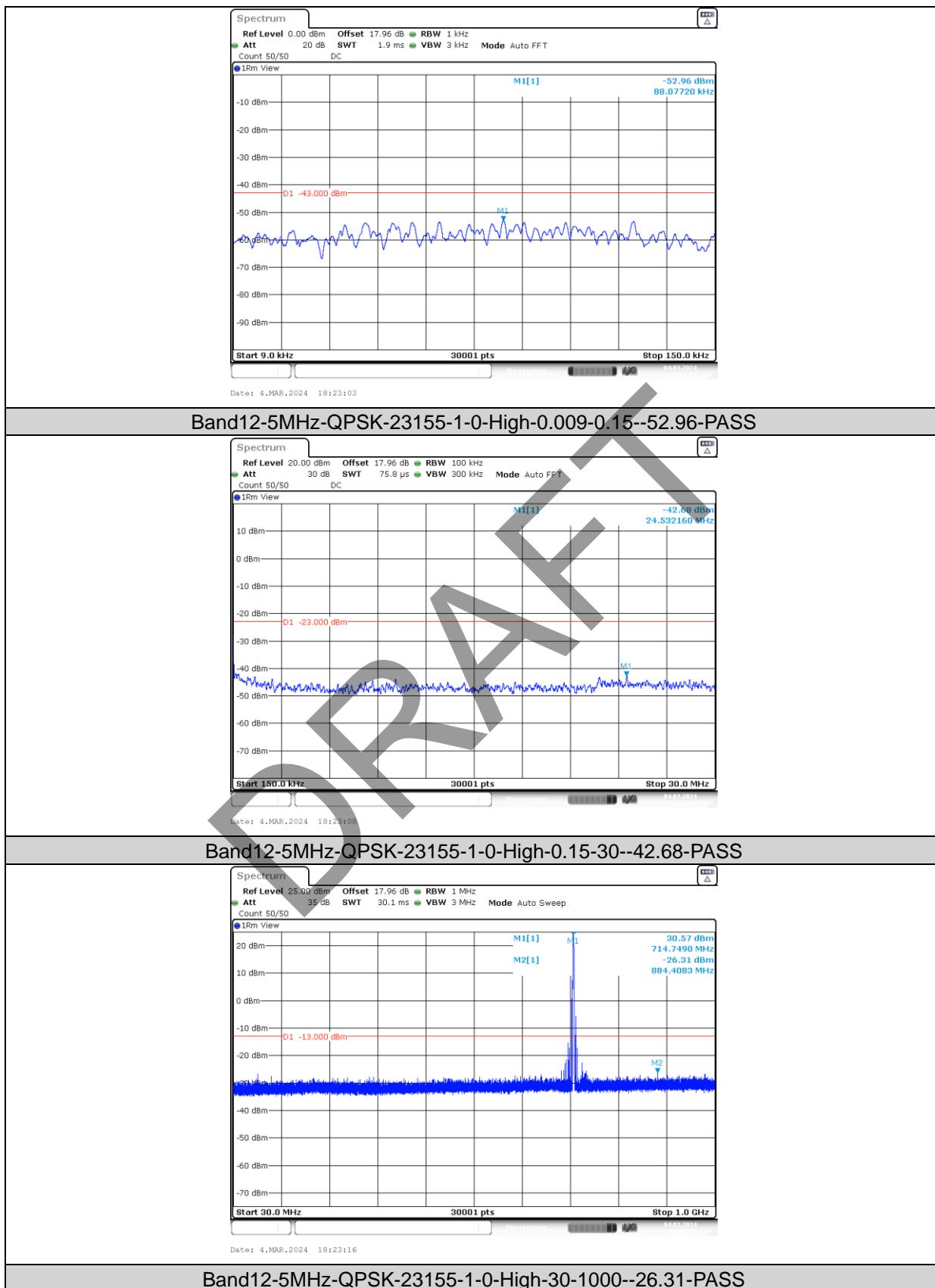
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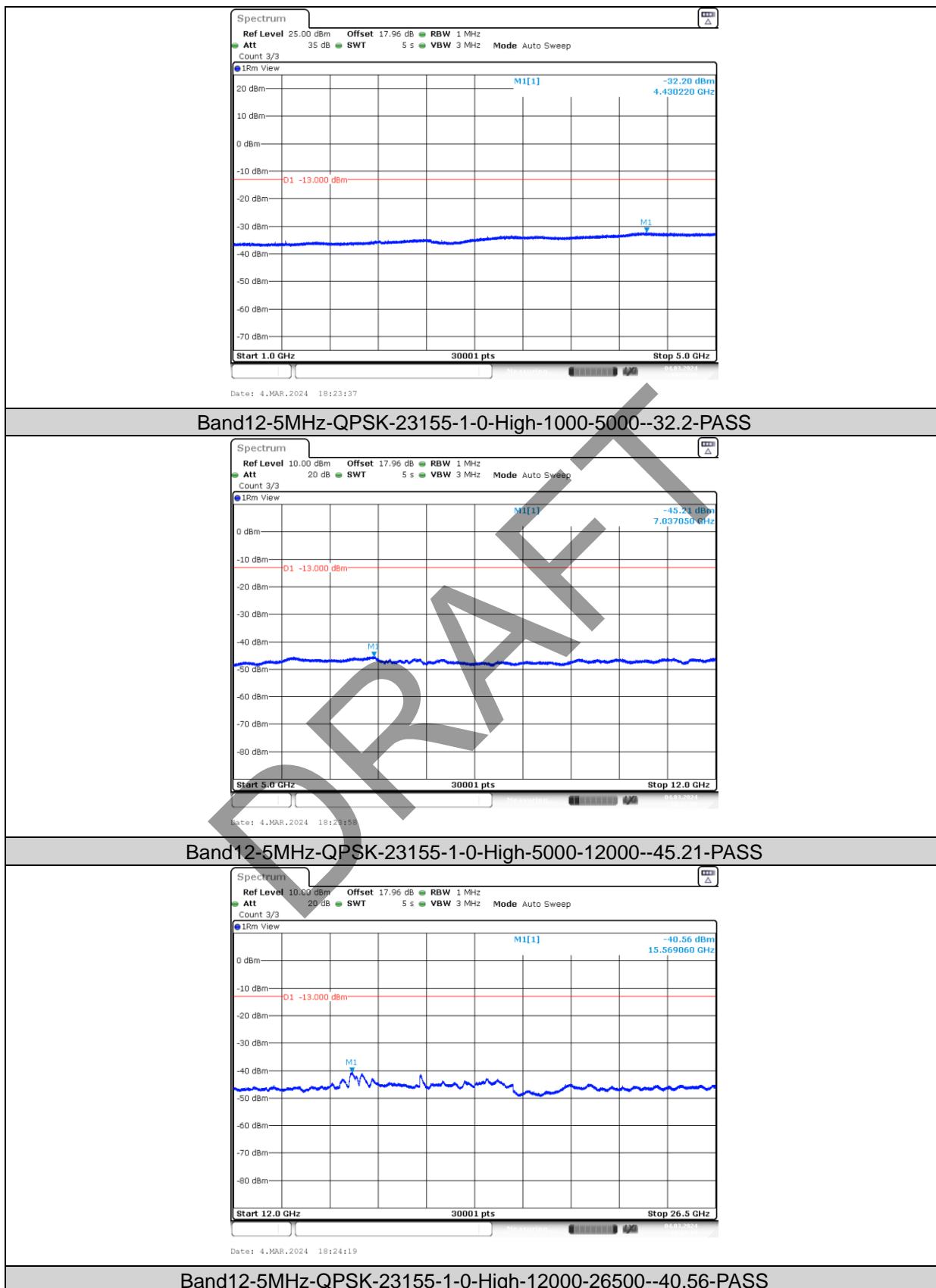
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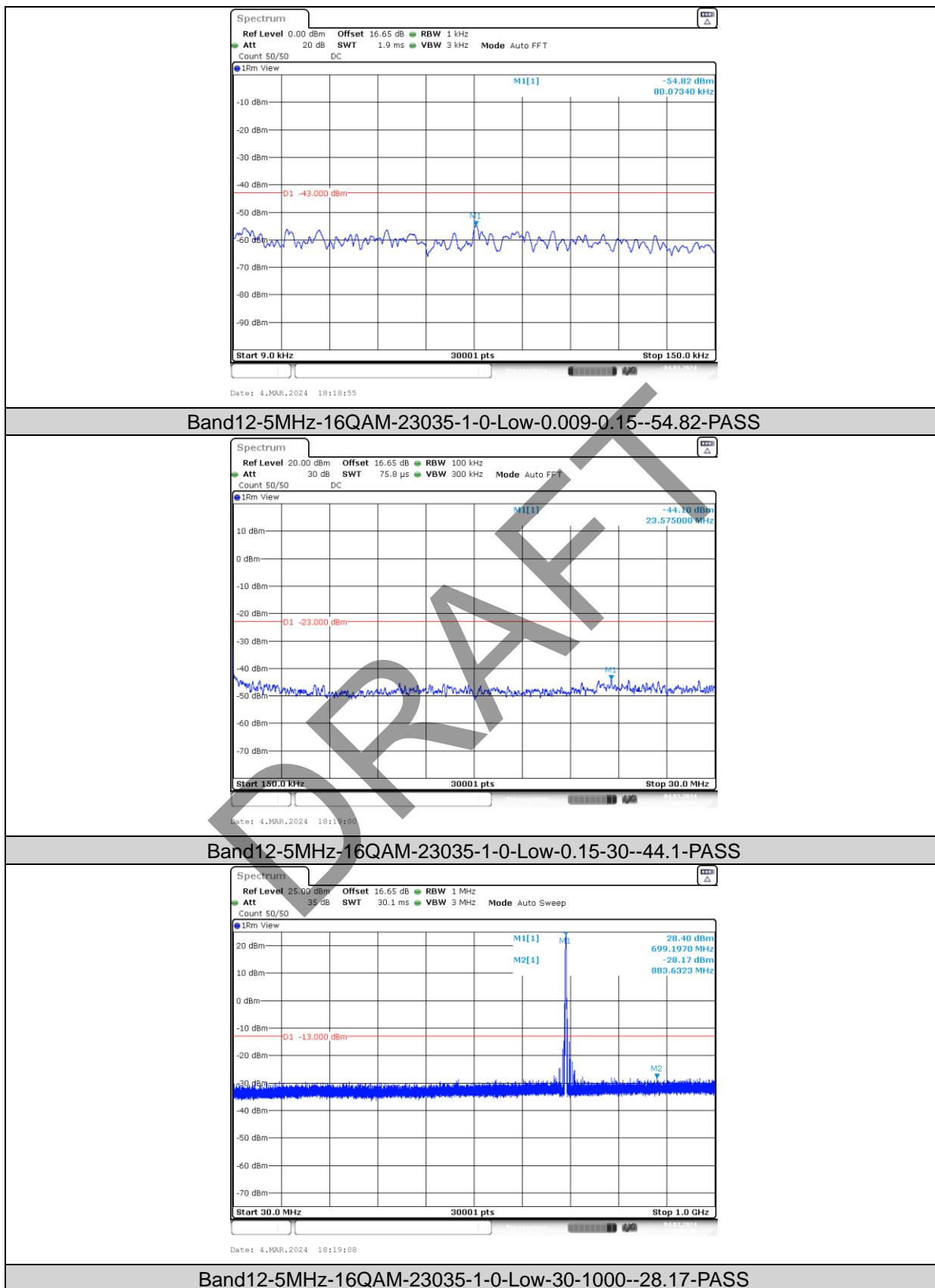
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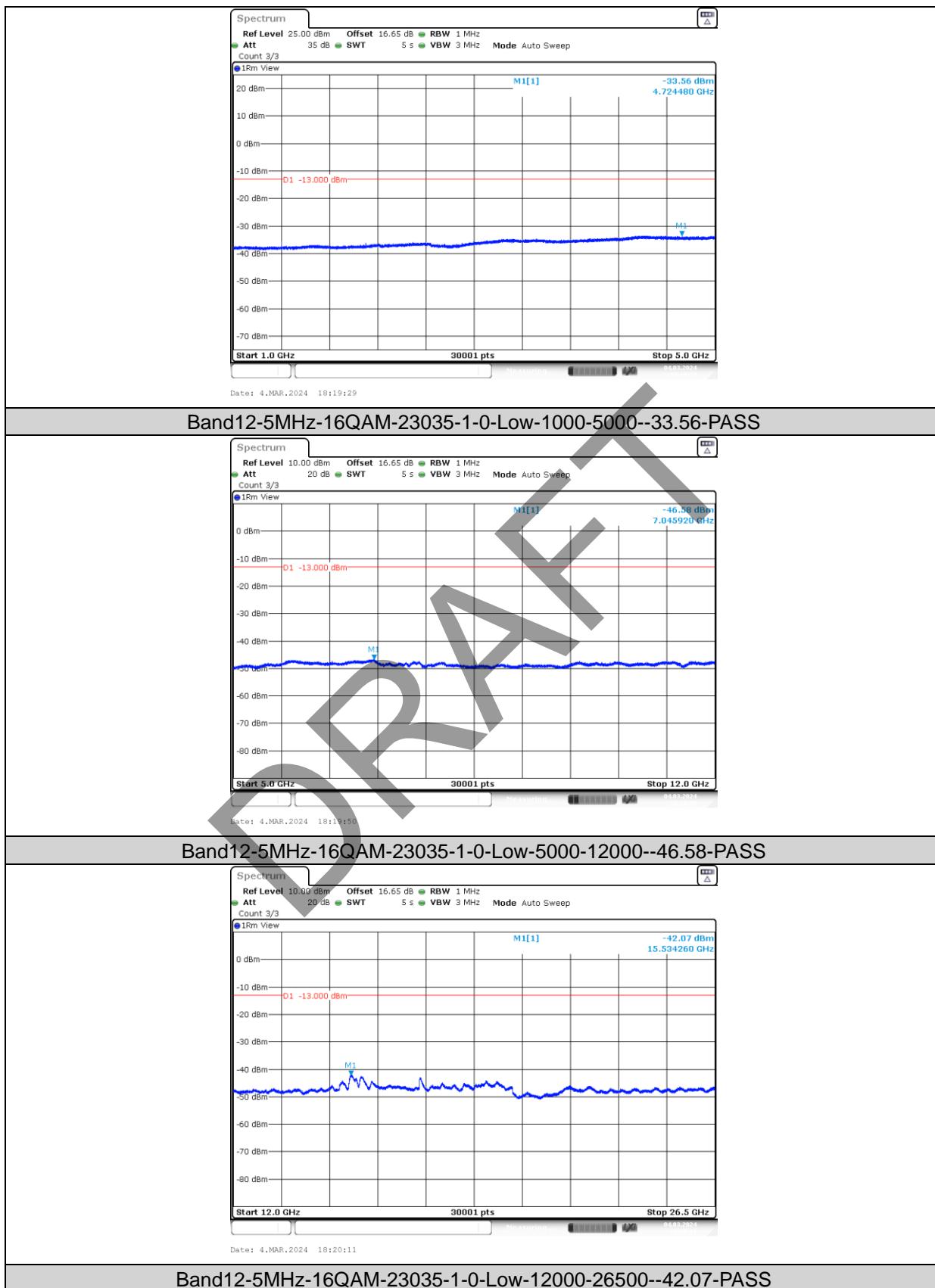
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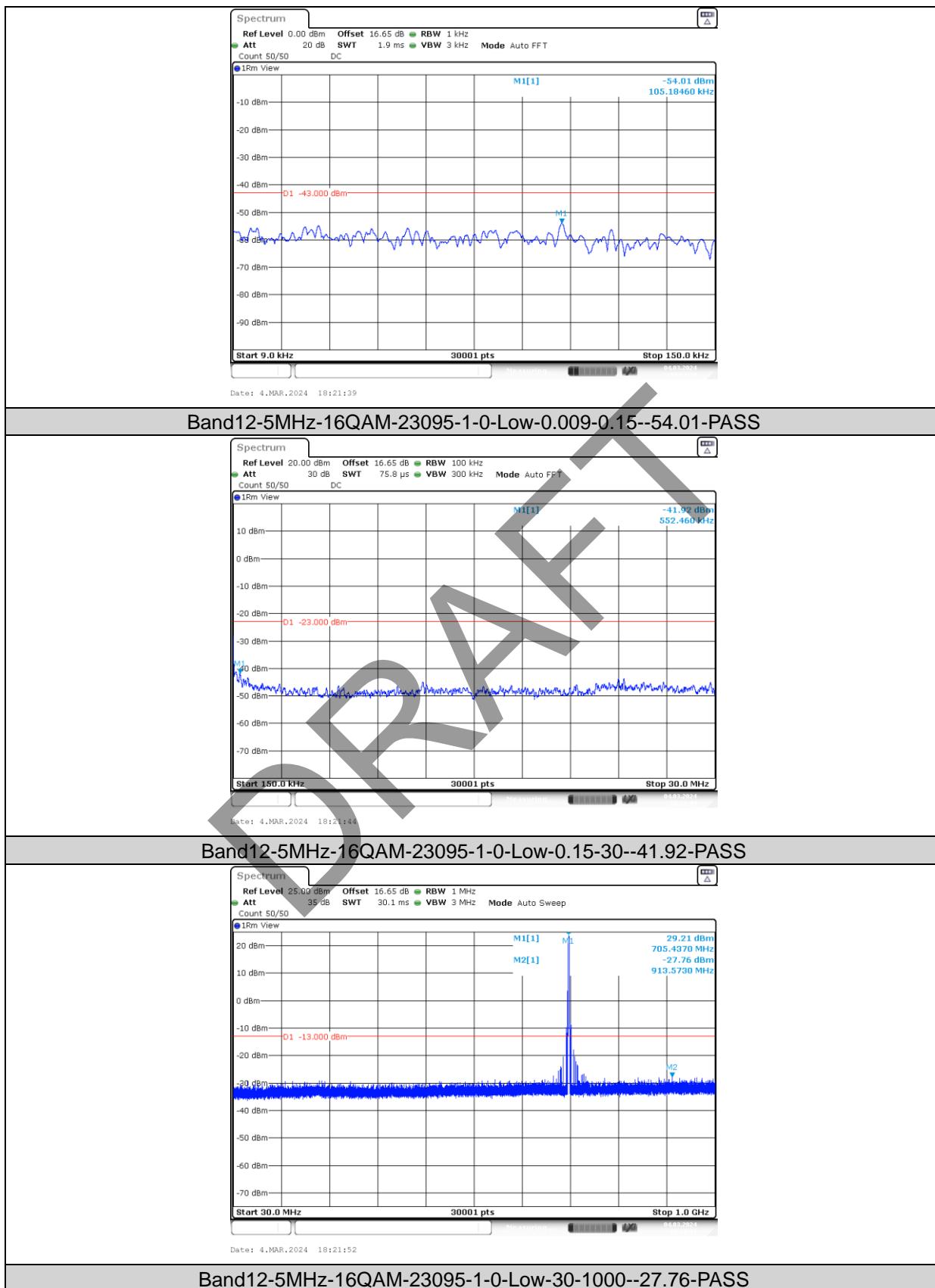
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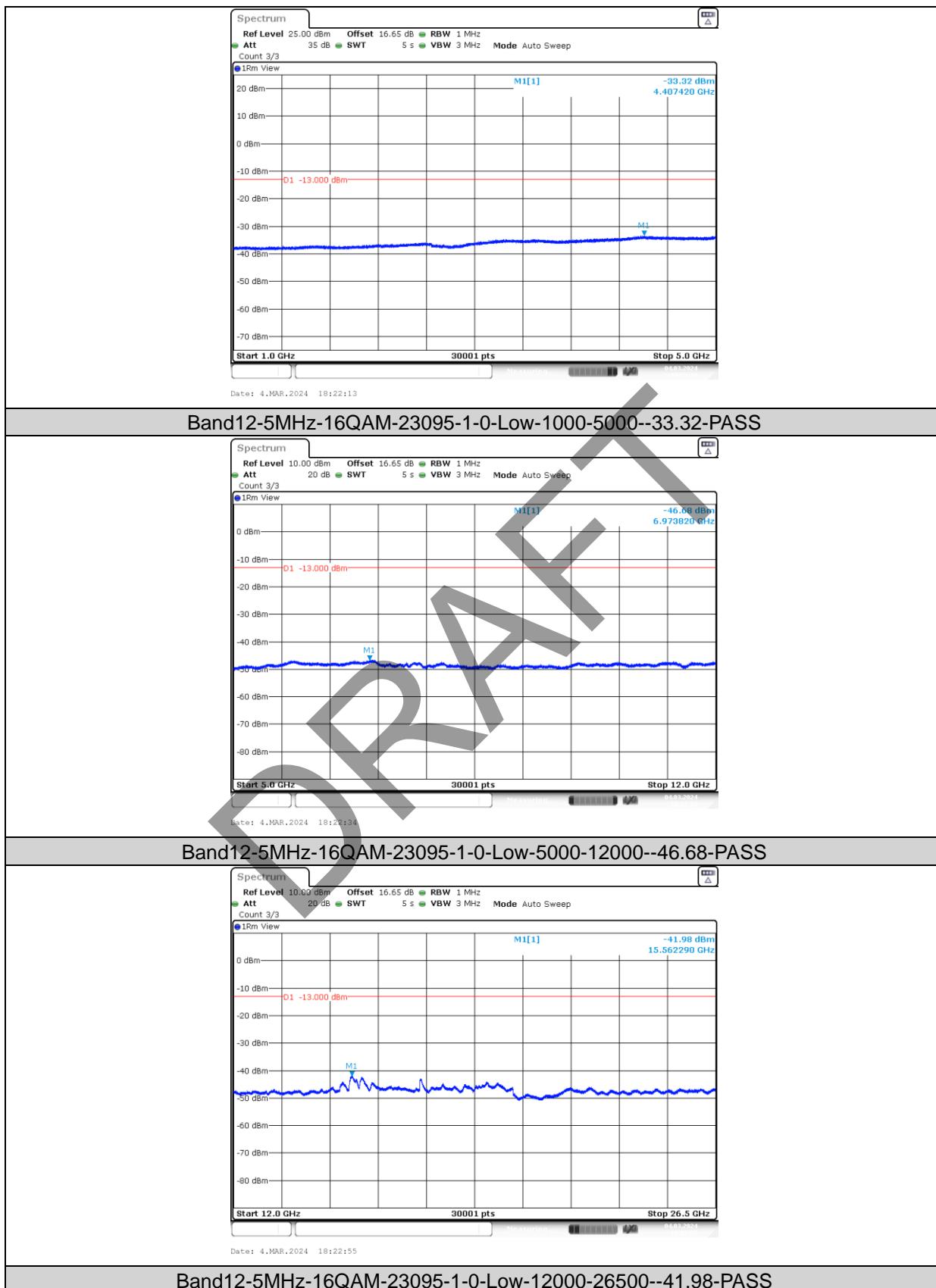
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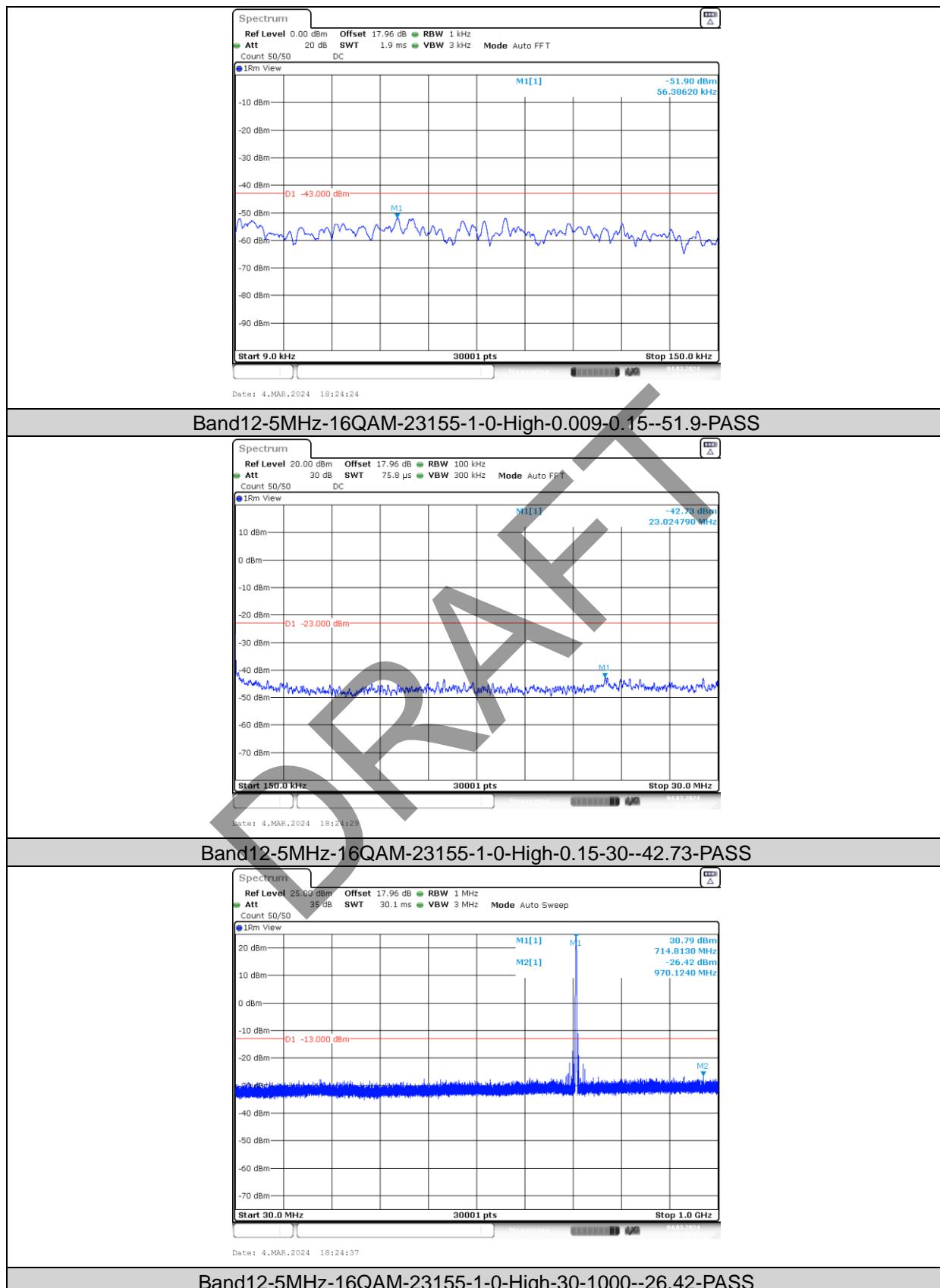
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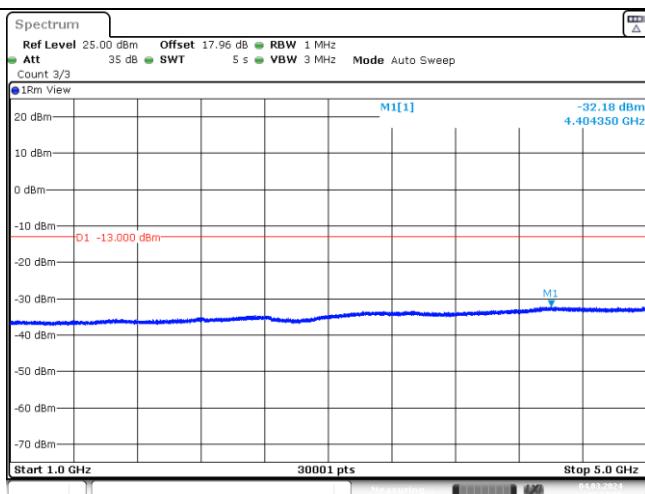
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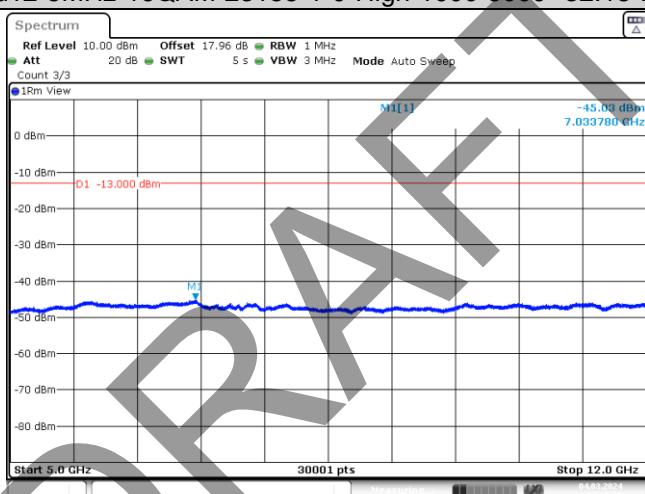


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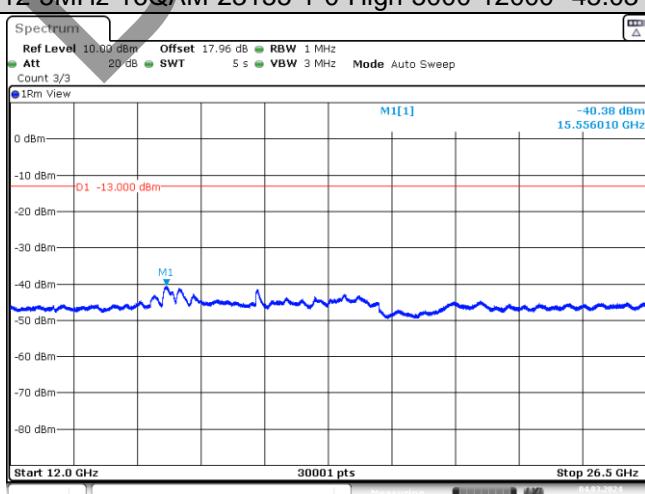
Test Report No.: W7L-P23120015RI03



Band12-5MHz-16QAM-23155-1-0-High-1000-5000--32.18-PASS



Band12-5MHz-16QAM-23155-1-0-High-5000-12000--45.03-PASS



Band12-5MHz-16QAM-23155-1-0-High-12000-26500--40.38-PASS

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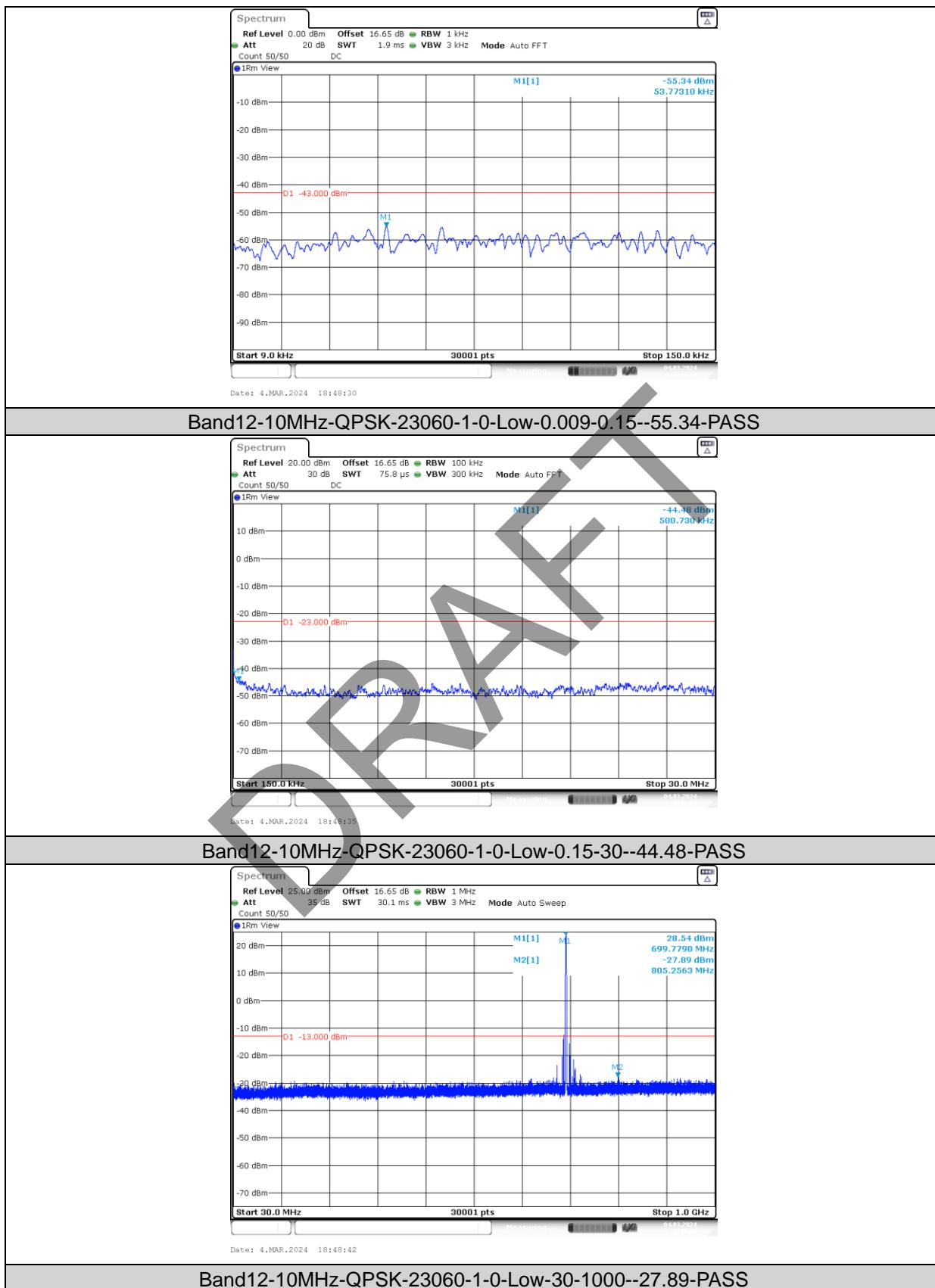
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
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Fax: +86 755 8869 6577
Email: customerservice.sw@bureauveritas.com



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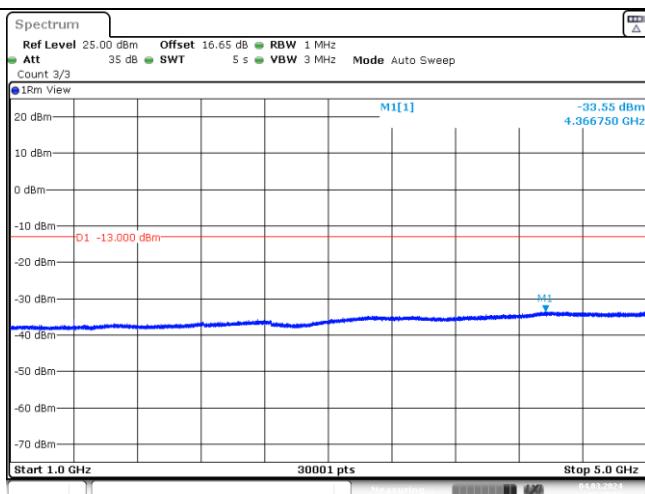
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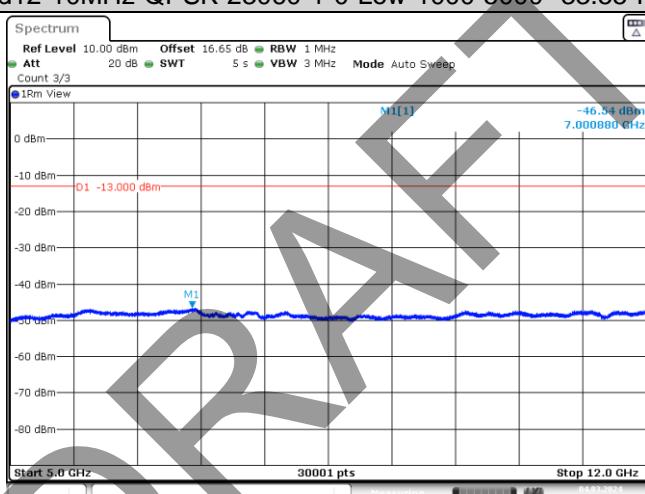


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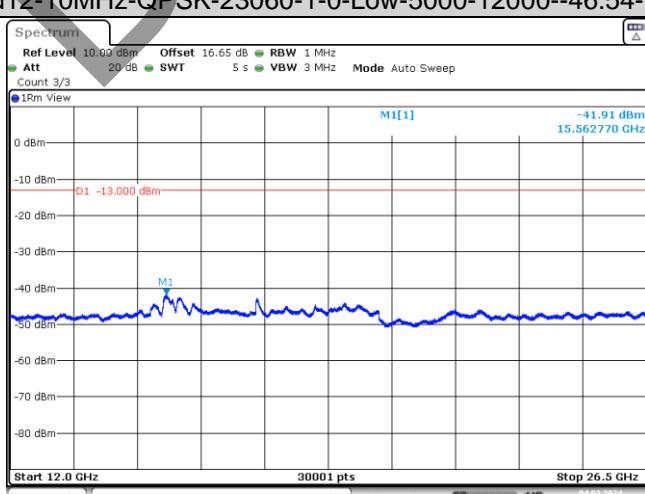
Test Report No.: W7L-P23120015RI03



Band12-10MHz-QPSK-23060-1-0-Low-1000-5000--33.55-PASS



Band12-10MHz-QPSK-23060-1-0-Low-5000-12000--46.54-PASS



Band12-10MHz-QPSK-23060-1-0-Low-12000-26500--41.91-PASS

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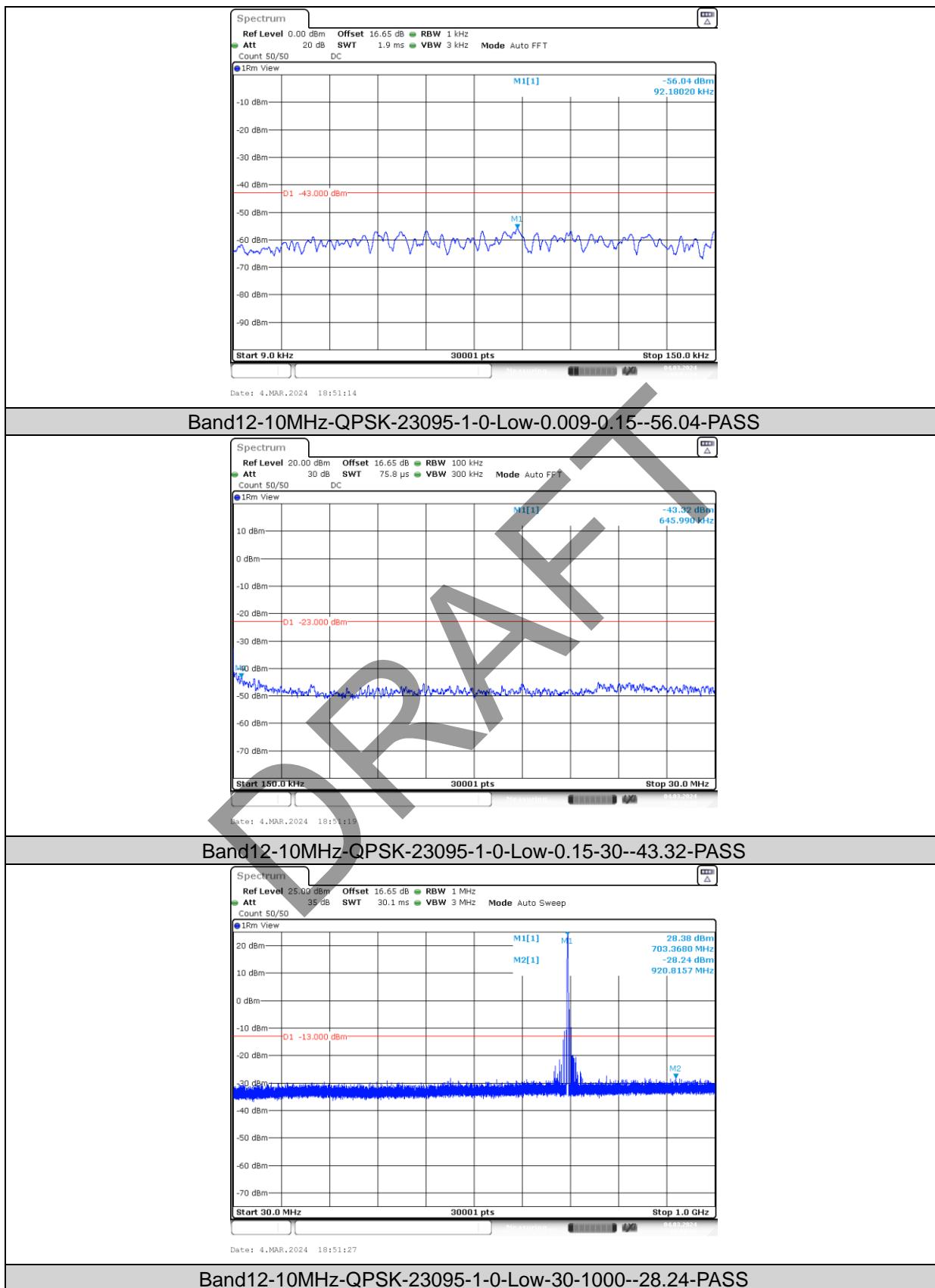
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
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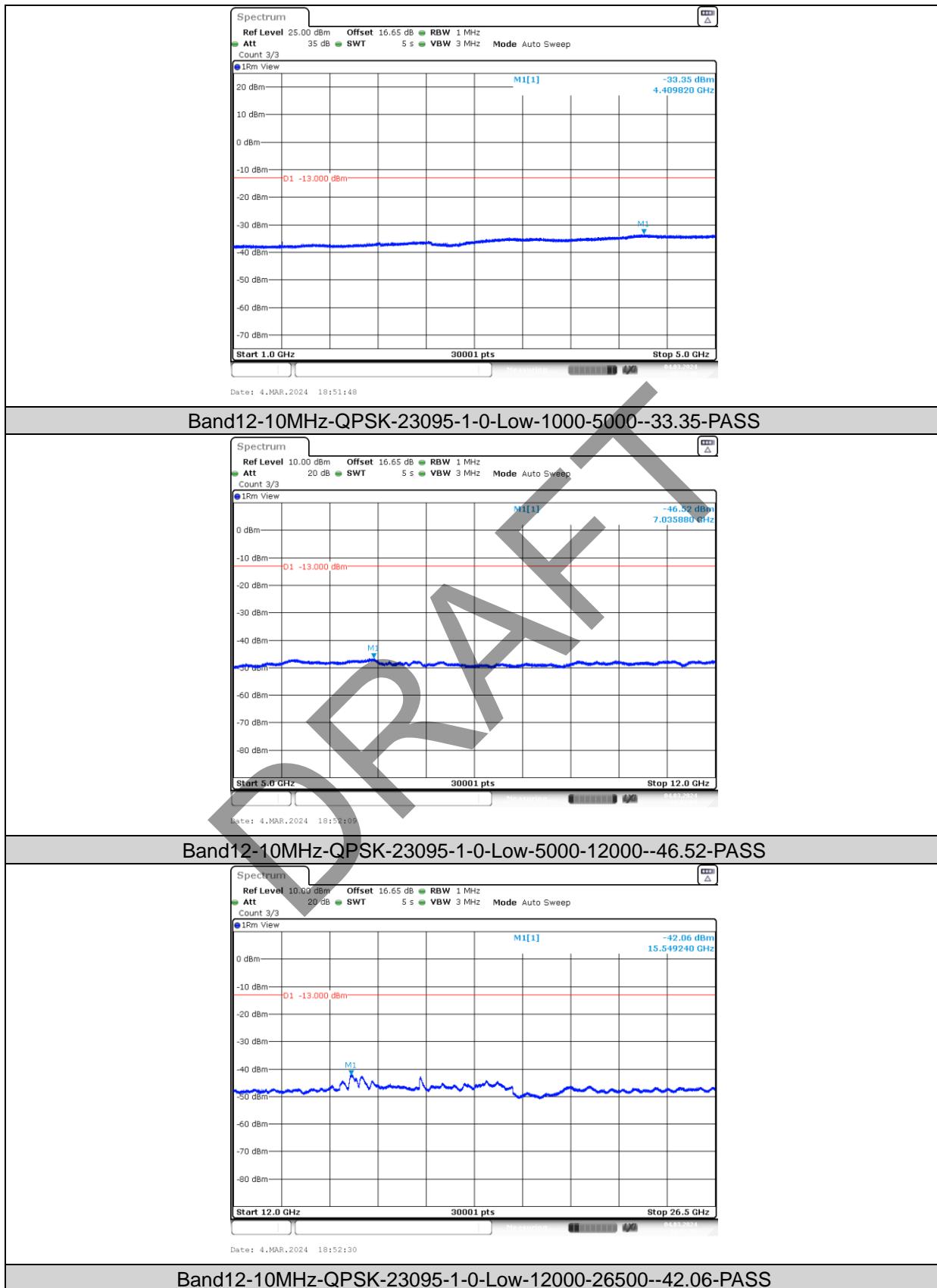
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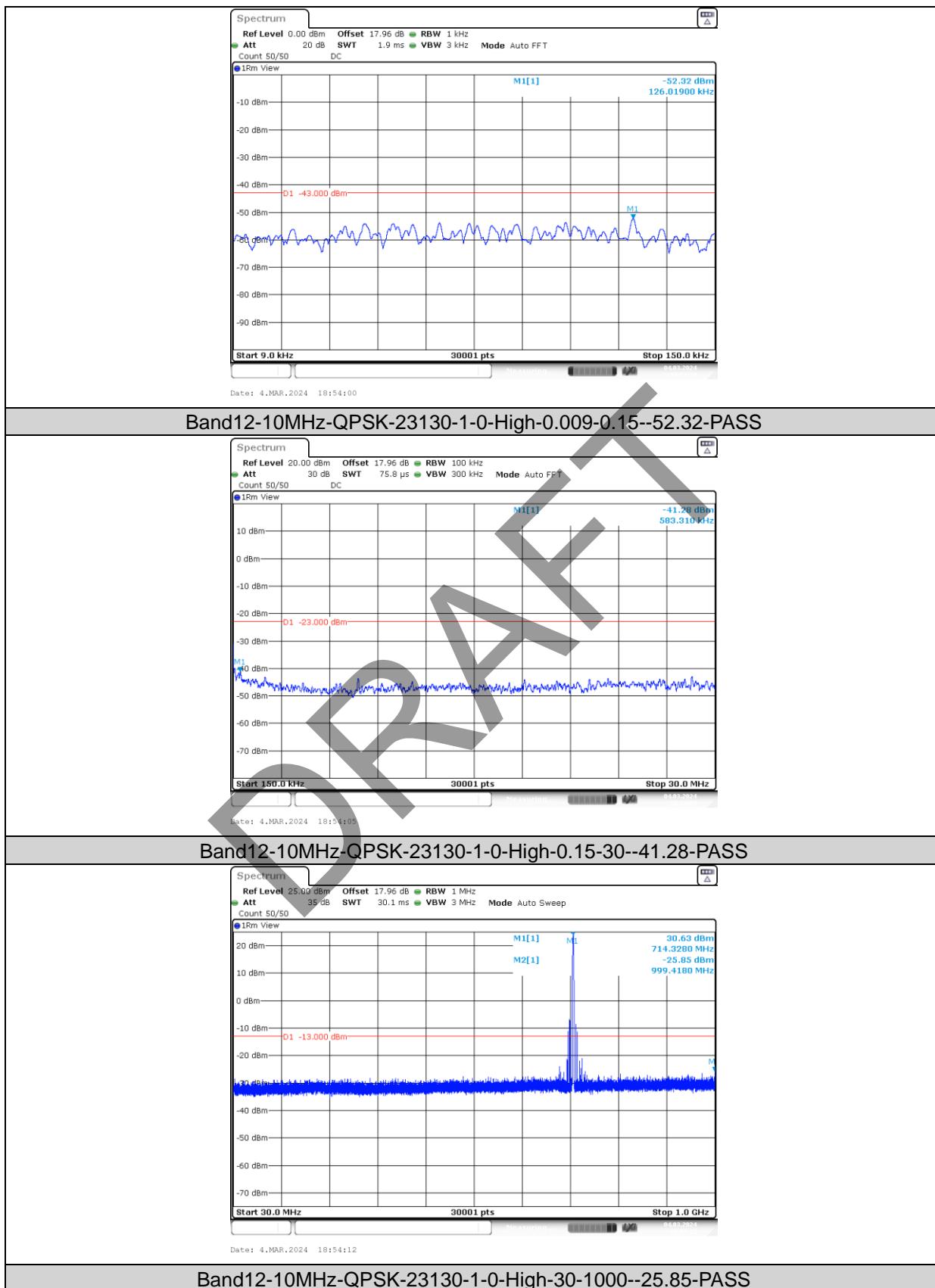
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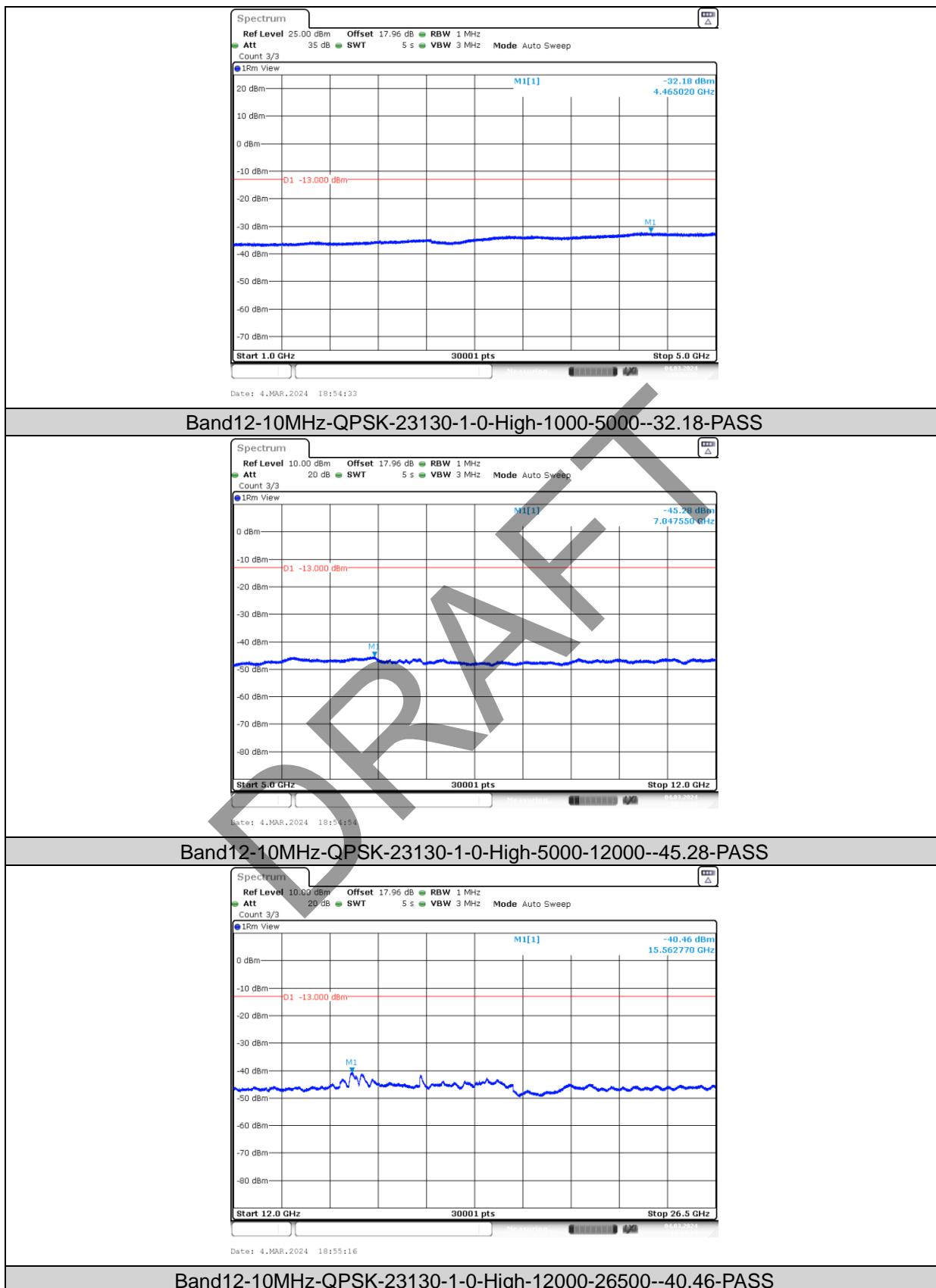
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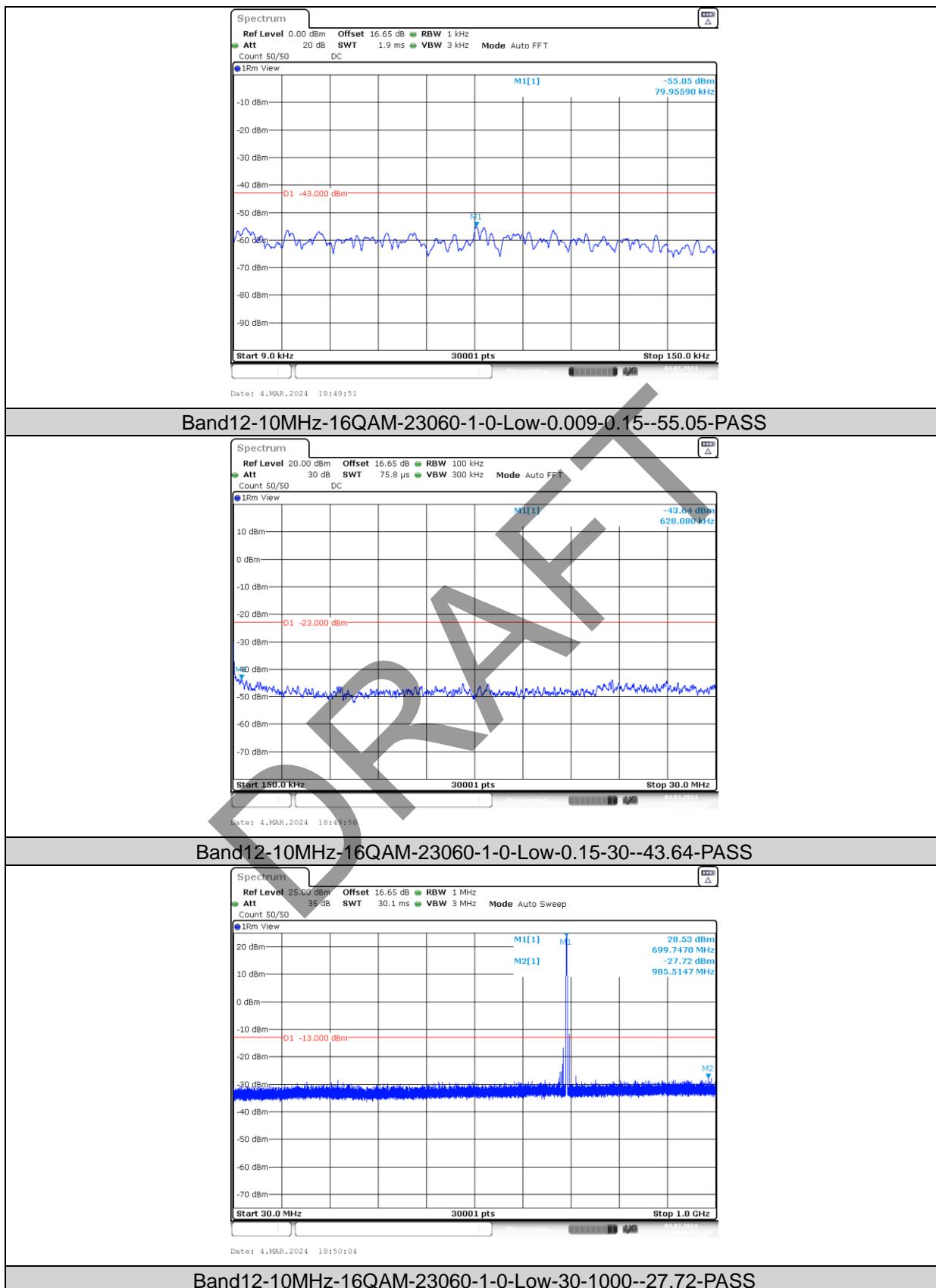
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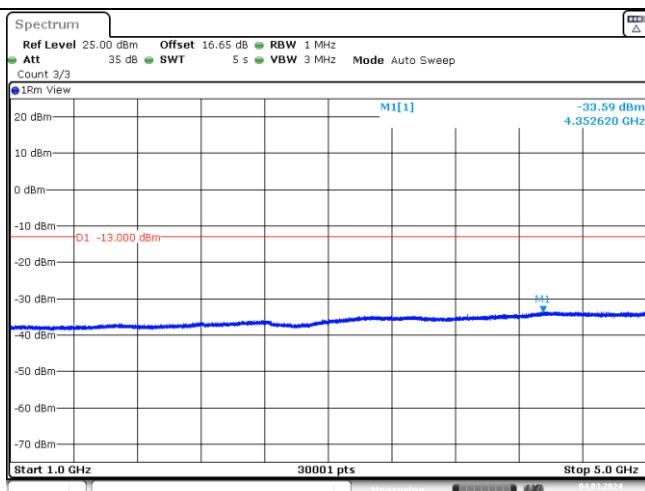
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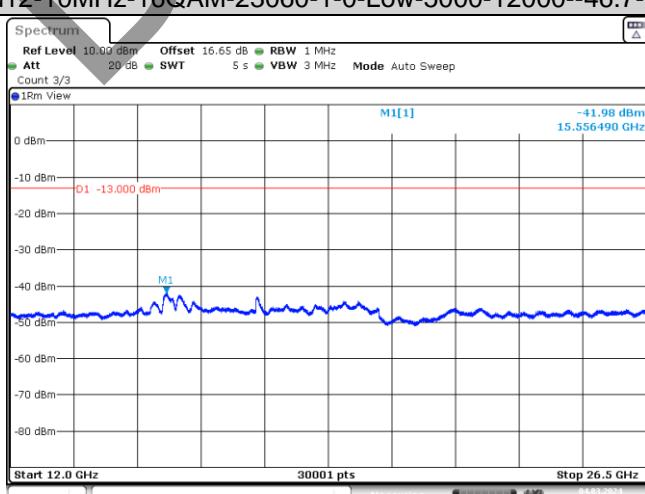
Test Report No.: W7L-P23120015RI03



Band12-10MHz-16QAM-23060-1-0-Low-1000-5000--33.59-PASS



Band12-10MHz-16QAM-23060-1-0-Low-5000-12000--46.7-PASS

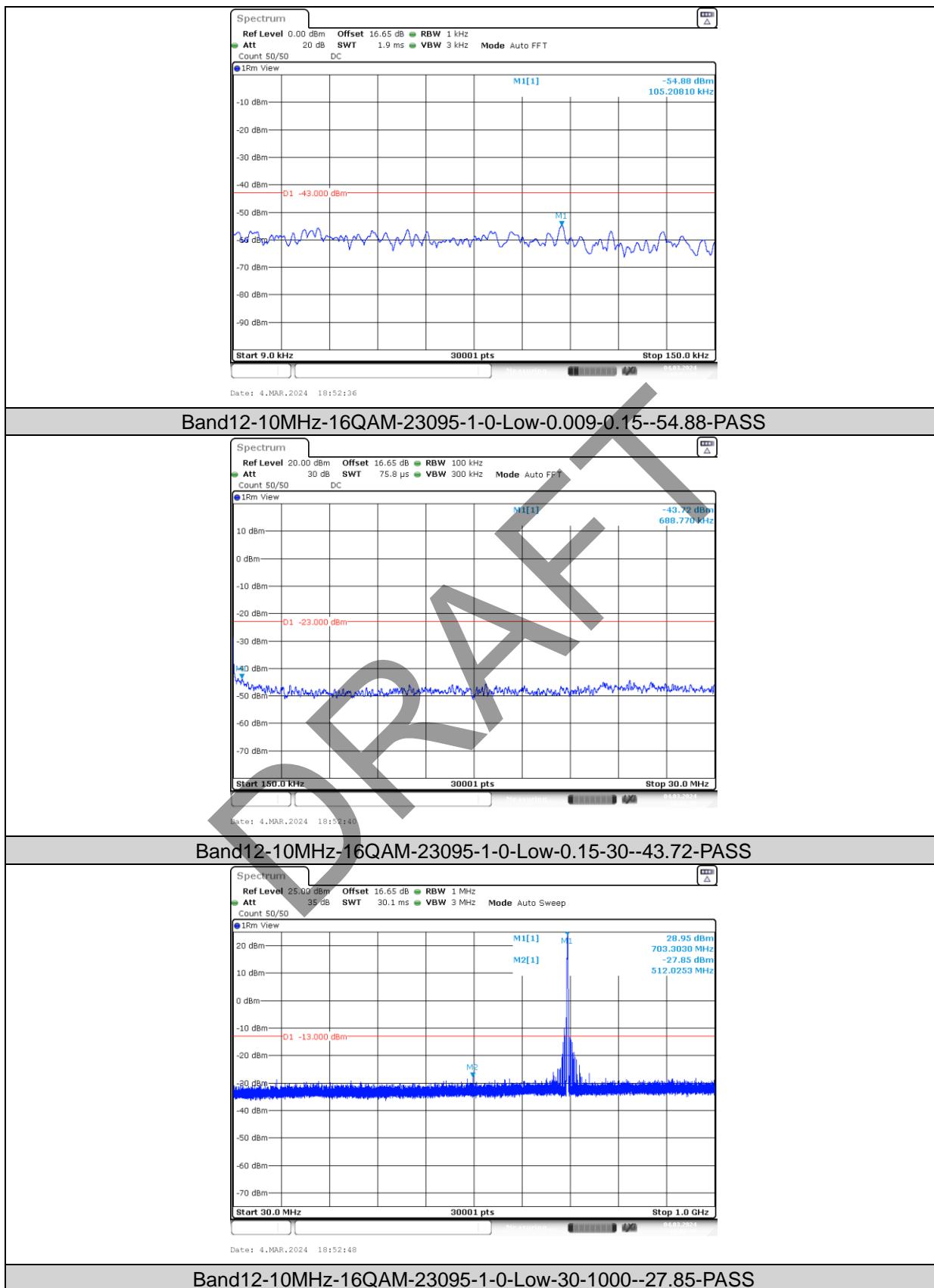


Band12-10MHz-16QAM-23060-1-0-Low-12000-26500--41.98-PASS



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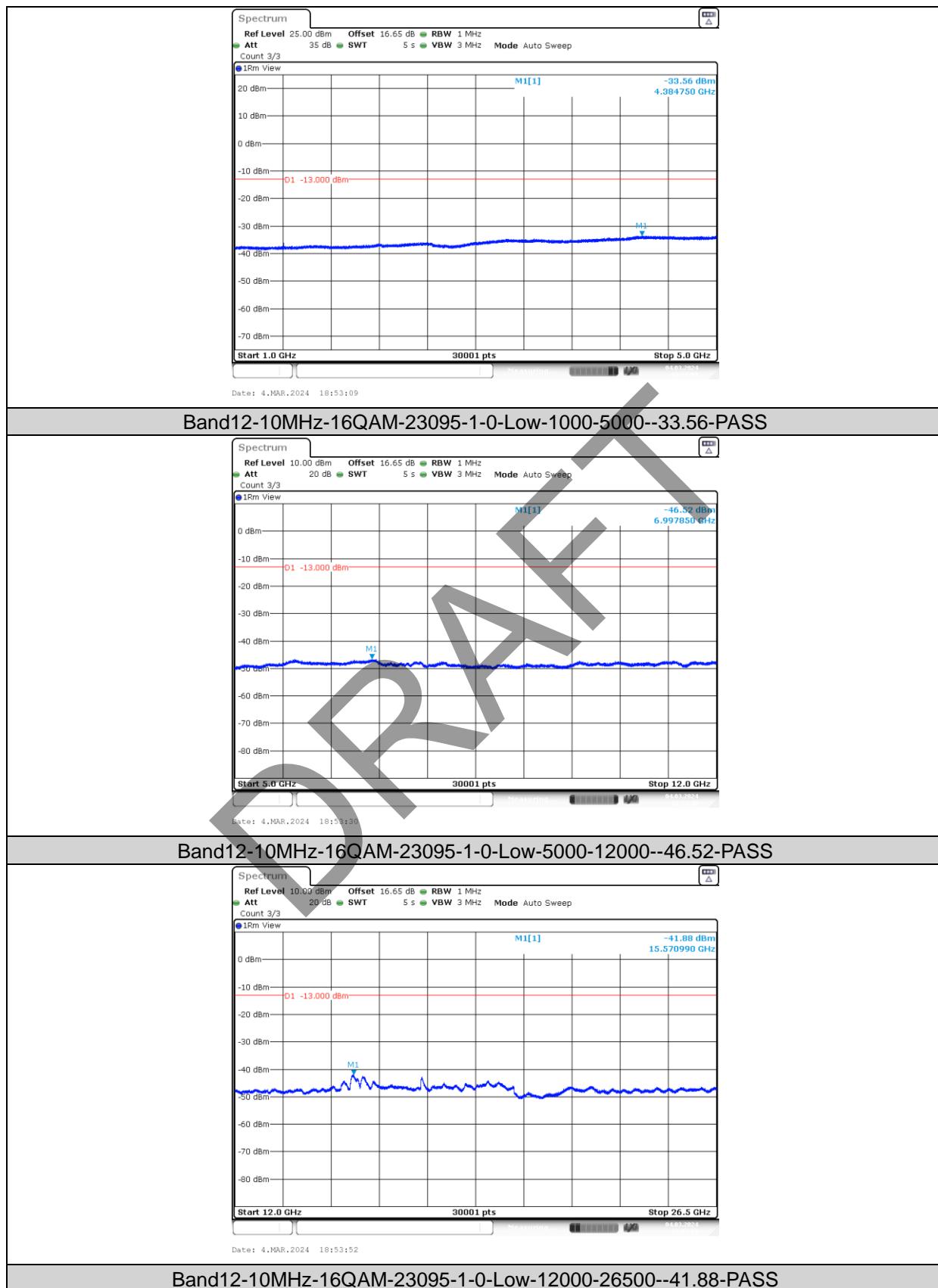
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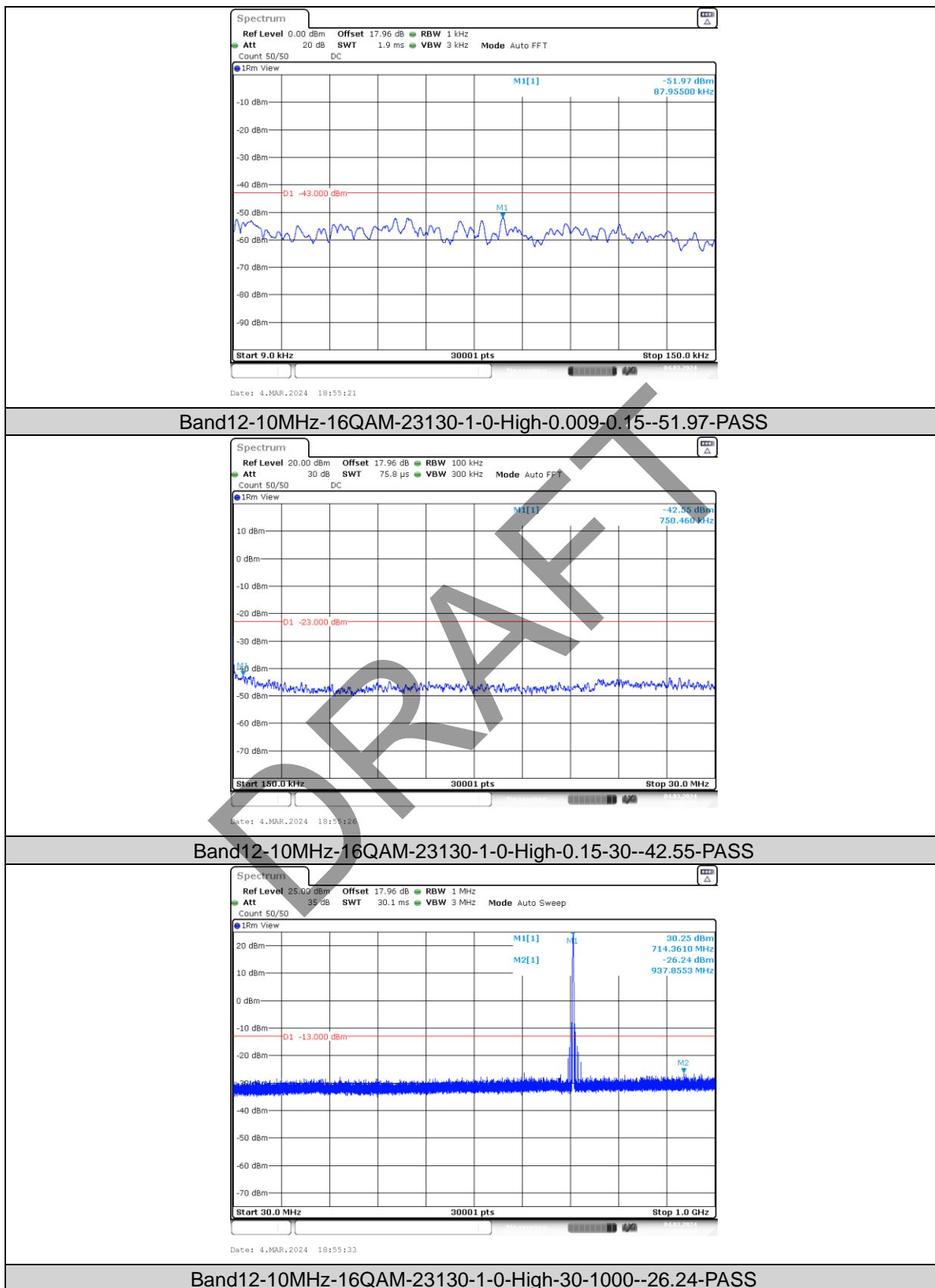
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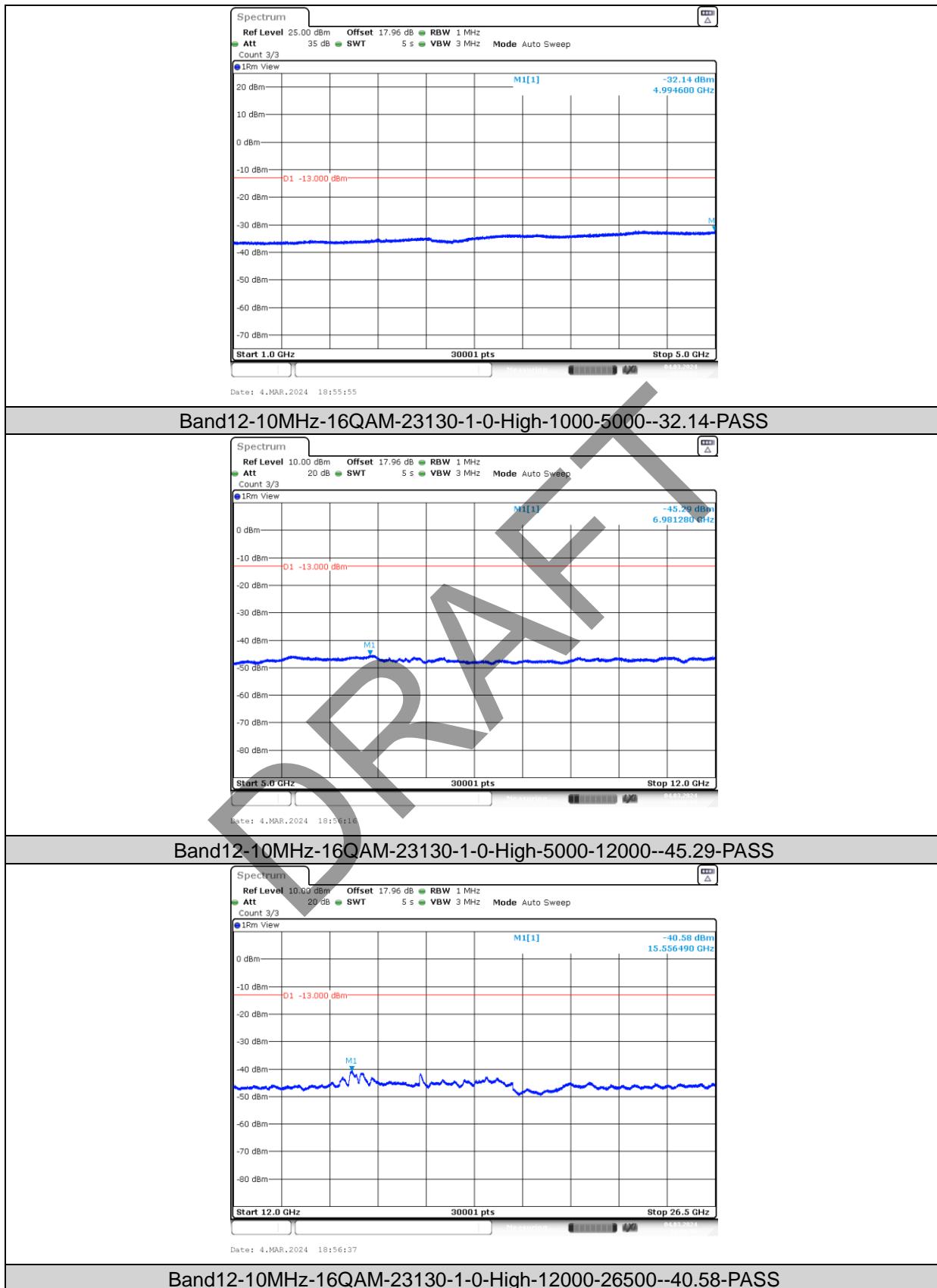
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Test Report No.: W7L-P23120015RI03





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Test Report No.: W7L-P23120015RI03

Band 13 Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band13	5MHz	23205	QPSK	1	0	Low	0.009	0.15	-54.81	PASS
Band13	5MHz	23205	QPSK	1	0	Low	0.15	30	-42.84	PASS
Band13	5MHz	23205	QPSK	1	0	Low	30	1000	-27.24	PASS
Band13	5MHz	23205	QPSK	1	0	Low	763	775	-37.04	PASS
Band13	5MHz	23205	QPSK	1	0	Low	793	805	-54.39	PASS
Band13	5MHz	23205	QPSK	1	0	Low	1000	5000	-32.05	PASS
Band13	5MHz	23205	QPSK	1	0	Low	1559	1610	-50.4	PASS
Band13	5MHz	23205	QPSK	1	0	Low	5000	12000	-45.28	PASS
Band13	5MHz	23205	QPSK	1	0	Low	12000	26500	-40.59	PASS
Band13	5MHz	23230	QPSK	1	0	Low	0.009	0.15	-53.75	PASS
Band13	5MHz	23230	QPSK	1	0	Low	0.15	30	-42.68	PASS
Band13	5MHz	23230	QPSK	1	0	Low	30	1000	-26.58	PASS
Band13	5MHz	23230	QPSK	1	0	Low	763	775	-44.78	PASS
Band13	5MHz	23230	QPSK	1	0	Low	793	805	-54.34	PASS
Band13	5MHz	23230	QPSK	1	0	Low	1000	5000	-31.99	PASS
Band13	5MHz	23230	QPSK	1	0	Low	1559	1610	-43.75	PASS
Band13	5MHz	23230	QPSK	1	0	Low	5000	12000	-45.12	PASS
Band13	5MHz	23230	QPSK	1	0	Low	12000	26500	-40.58	PASS
Band13	5MHz	23255	QPSK	1	0	High	0.009	0.15	-52.64	PASS
Band13	5MHz	23255	QPSK	1	0	High	0.15	30	-41.38	PASS
Band13	5MHz	23255	QPSK	1	0	High	30	1000	-26.67	PASS
Band13	5MHz	23255	QPSK	1	0	High	763	775	-53.67	PASS
Band13	5MHz	23255	QPSK	1	0	High	793	805	-53.36	PASS
Band13	5MHz	23255	QPSK	1	0	High	1000	5000	-32.05	PASS
Band13	5MHz	23255	QPSK	1	0	High	1559	1610	-43.22	PASS
Band13	5MHz	23255	QPSK	1	0	High	5000	12000	-45.2	PASS
Band13	5MHz	23255	QPSK	1	0	High	12000	26500	-40.54	PASS
Band13	5MHz	23205	16QAM	1	0	Low	0.009	0.15	-53.52	PASS
Band13	5MHz	23205	16QAM	1	0	Low	0.15	30	-41.53	PASS
Band13	5MHz	23205	16QAM	1	0	Low	30	1000	-26.42	PASS
Band13	5MHz	23205	16QAM	1	0	Low	763	775	-38.12	PASS
Band13	5MHz	23205	16QAM	1	0	Low	793	805	-54.22	PASS
Band13	5MHz	23205	16QAM	1	0	Low	1000	5000	-32.13	PASS
Band13	5MHz	23205	16QAM	1	0	Low	1559	1610	-50.21	PASS
Band13	5MHz	23205	16QAM	1	0	Low	5000	12000	-45.2	PASS
Band13	5MHz	23205	16QAM	1	0	Low	12000	26500	-40.63	PASS
Band13	5MHz	23230	16QAM	1	0	Low	0.009	0.15	-52.65	PASS
Band13	5MHz	23230	16QAM	1	0	Low	0.15	30	-41.95	PASS
Band13	5MHz	23230	16QAM	1	0	Low	30	1000	-25.54	PASS
Band13	5MHz	23230	16QAM	1	0	Low	763	775	-52.08	PASS
Band13	5MHz	23230	16QAM	1	0	Low	793	805	-53.38	PASS
Band13	5MHz	23230	16QAM	1	0	Low	1000	5000	-32.09	PASS
Band13	5MHz	23230	16QAM	1	0	Low	1559	1610	-43.88	PASS
Band13	5MHz	23230	16QAM	1	0	Low	5000	12000	-45.22	PASS
Band13	5MHz	23230	16QAM	1	0	Low	12000	26500	-40.49	PASS
Band13	5MHz	23255	16QAM	1	0	High	0.009	0.15	-53.48	PASS
Band13	5MHz	23255	16QAM	1	0	High	0.15	30	-42.09	PASS
Band13	5MHz	23255	16QAM	1	0	High	30	1000	-26.55	PASS
Band13	5MHz	23255	16QAM	1	0	High	763	775	-53.17	PASS



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Test Report No.: W7L-P23120015RI03

Band13	5MHz	23255	16QAM	1	0	High	793	805	-54.33	PASS
Band13	5MHz	23255	16QAM	1	0	High	1000	5000	-32.03	PASS
Band13	5MHz	23255	16QAM	1	0	High	1559	1610	-44.2	PASS
Band13	5MHz	23255	16QAM	1	0	High	5000	12000	-45.07	PASS
Band13	5MHz	23255	16QAM	1	0	High	12000	26500	-40.29	PASS

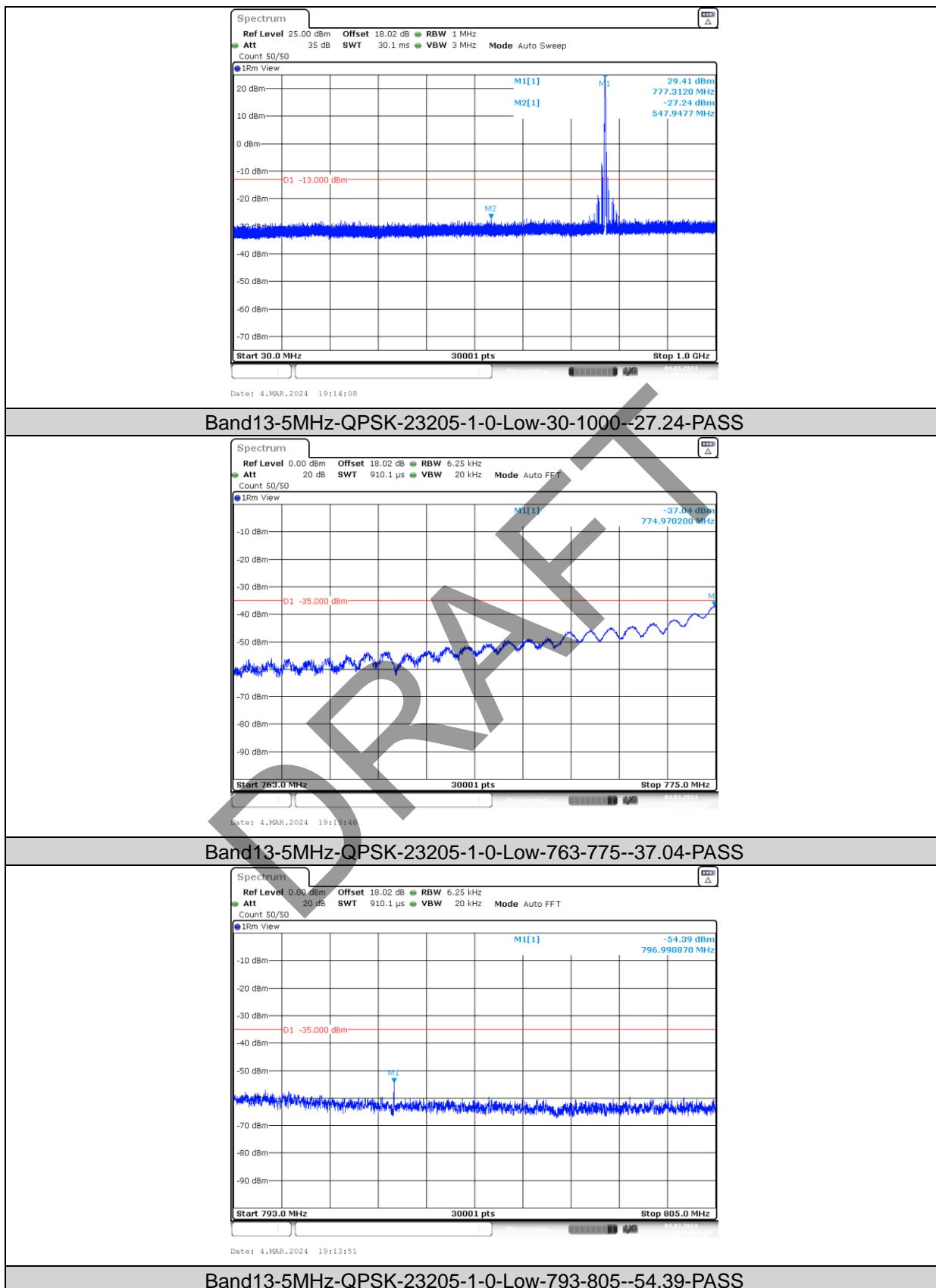
Band 13 Test Graphs





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Test Report No.: W7L-P23120015RI03





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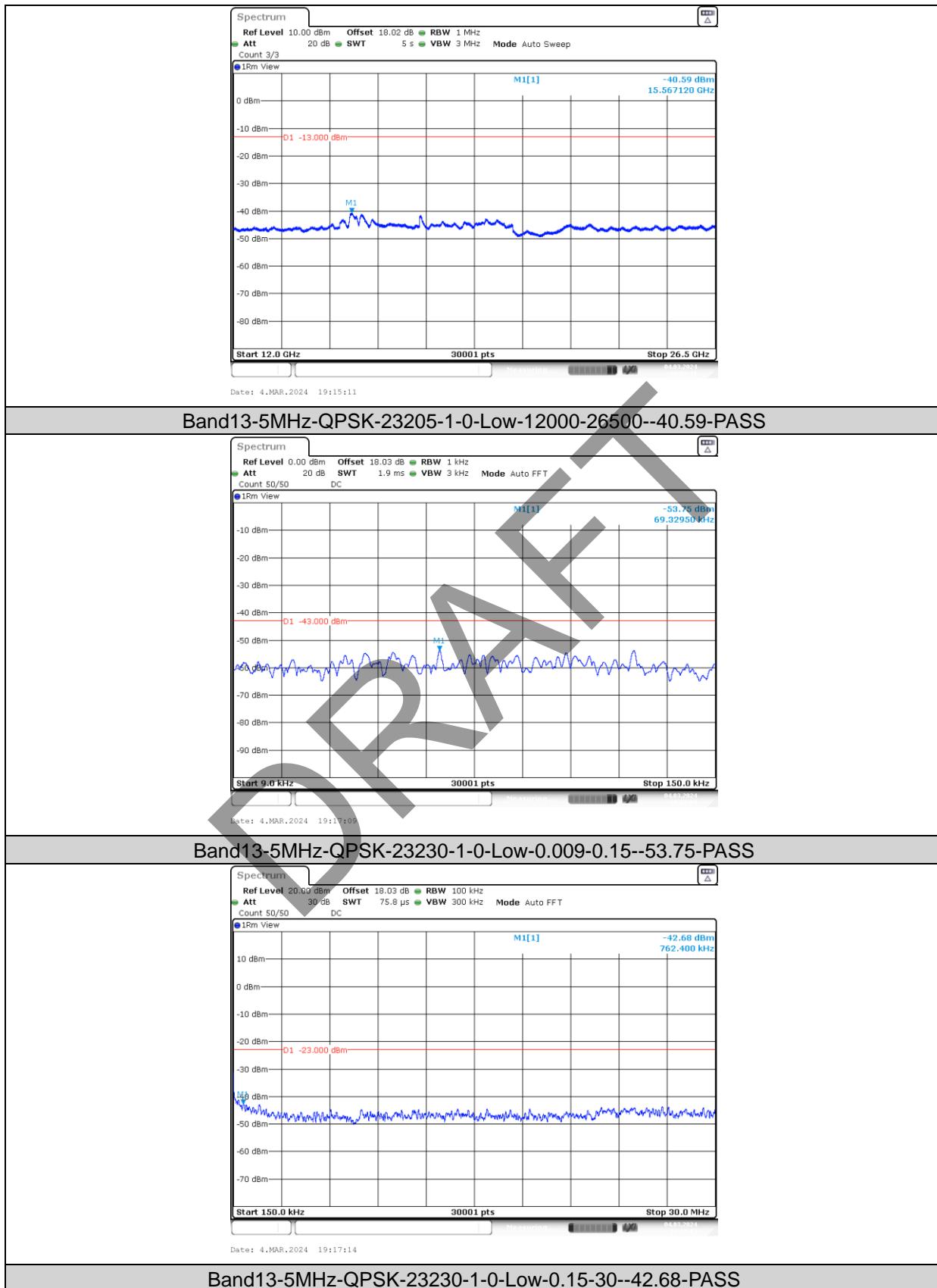
Test Report No.: W7L-P23120015RI03





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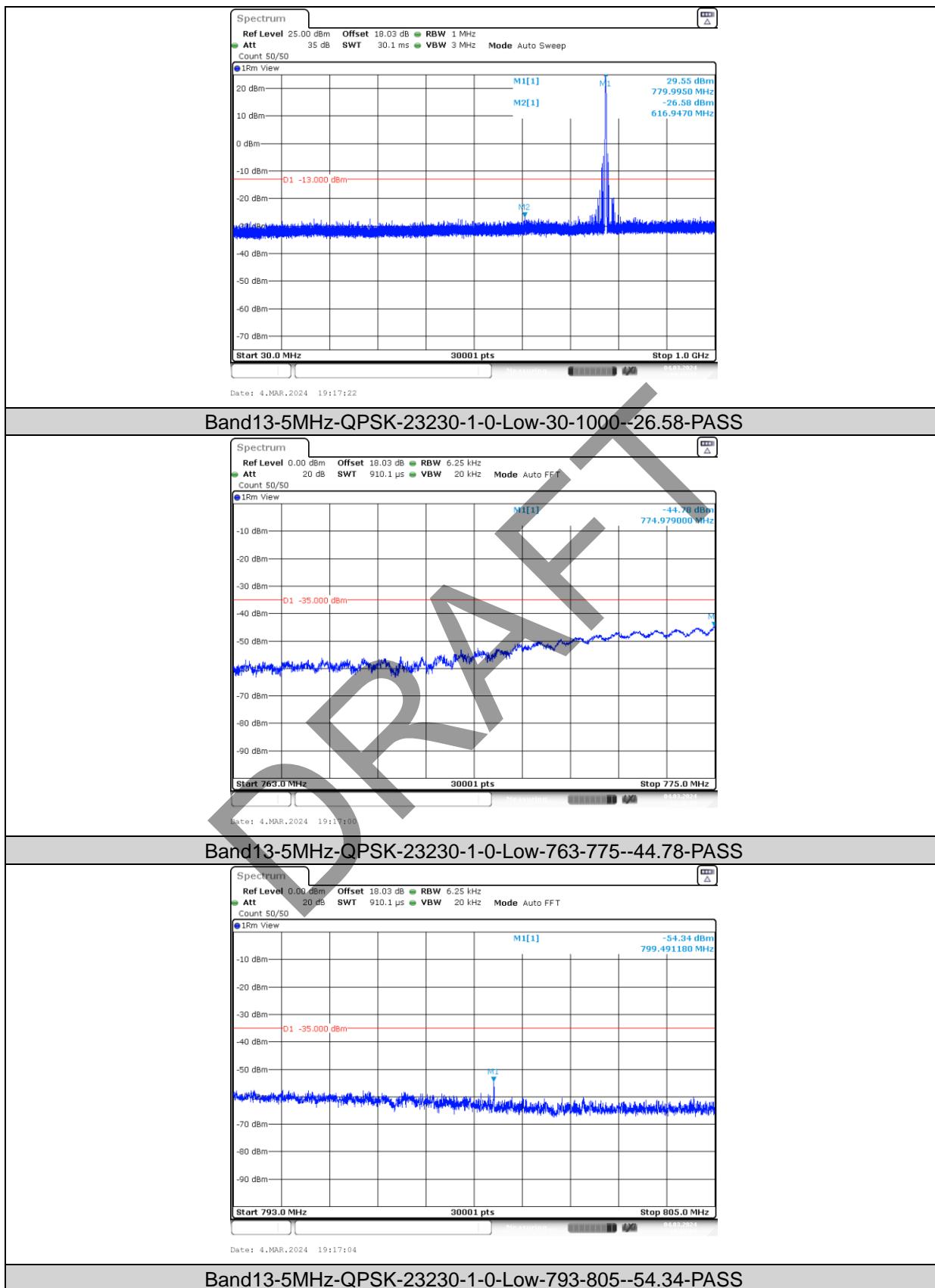
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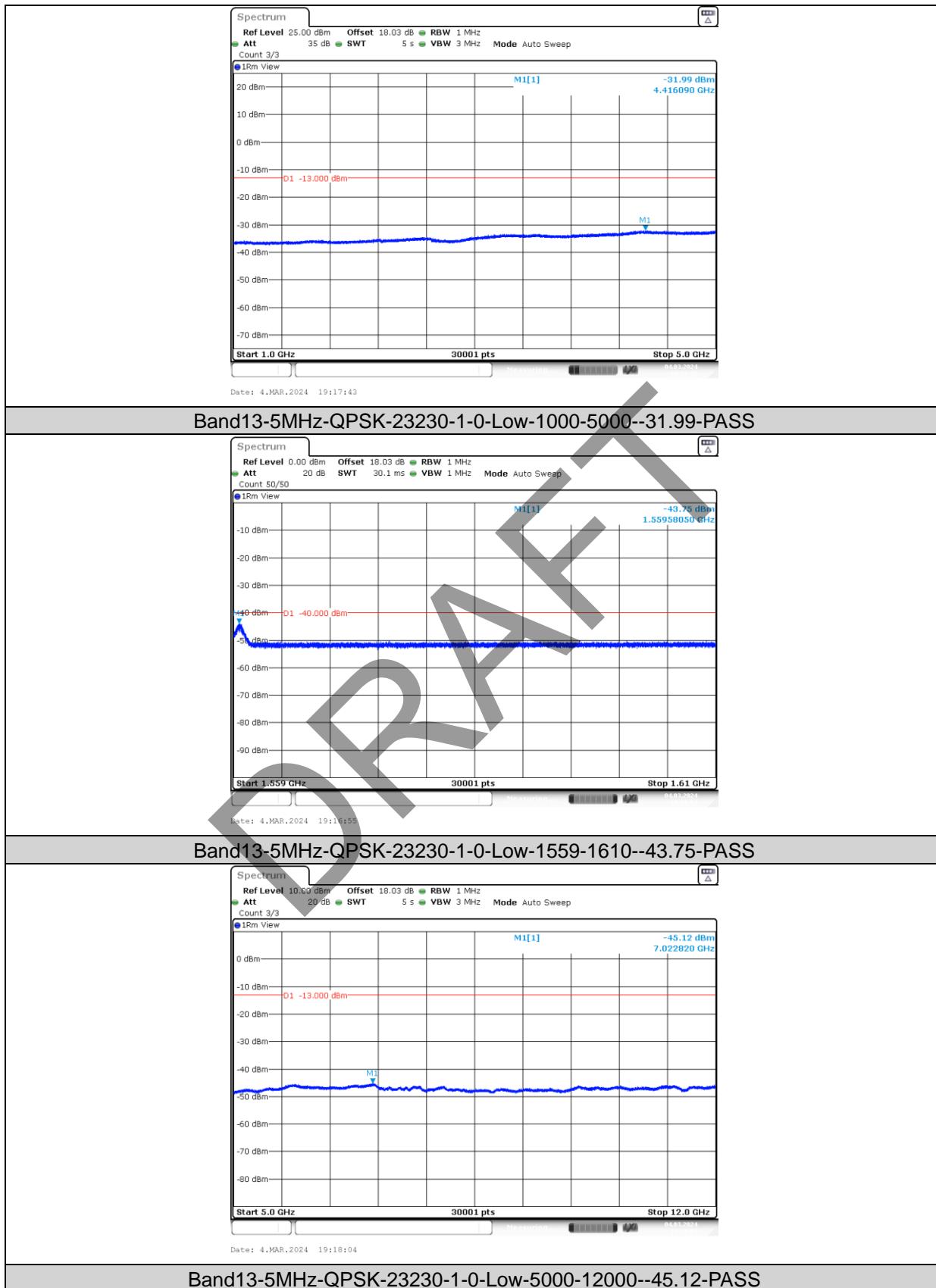
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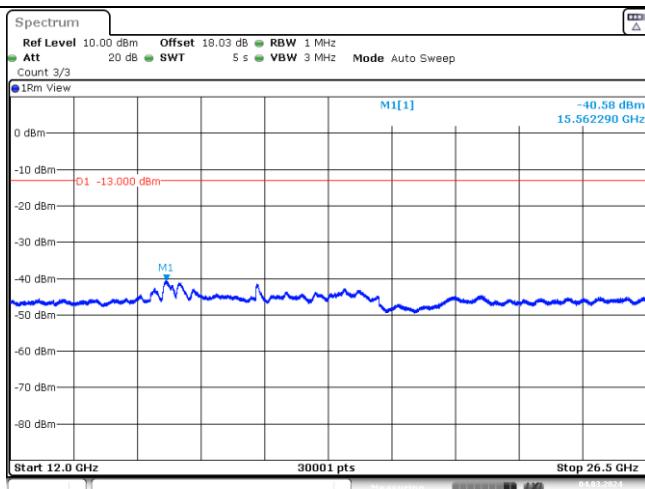
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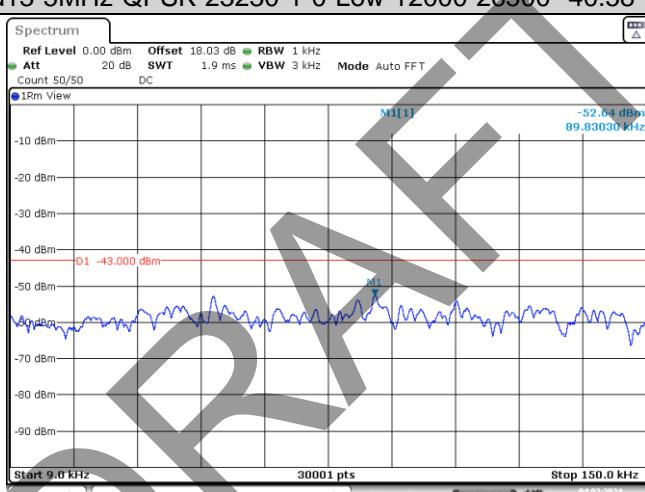


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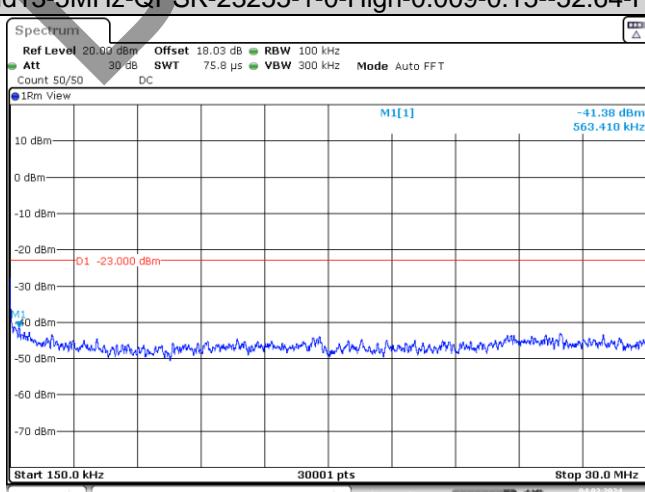
Test Report No.: W7L-P23120015RI03



Band13-5MHz-QPSK-23230-1-0-Low-12000-26500--40.58-PASS



Band13-5MHz-QPSK-23255-1-0-High-0.009-0.15--52.64-PASS



Band13-5MHz-QPSK-23255-1-0-High-0.15-30--41.38-PASS

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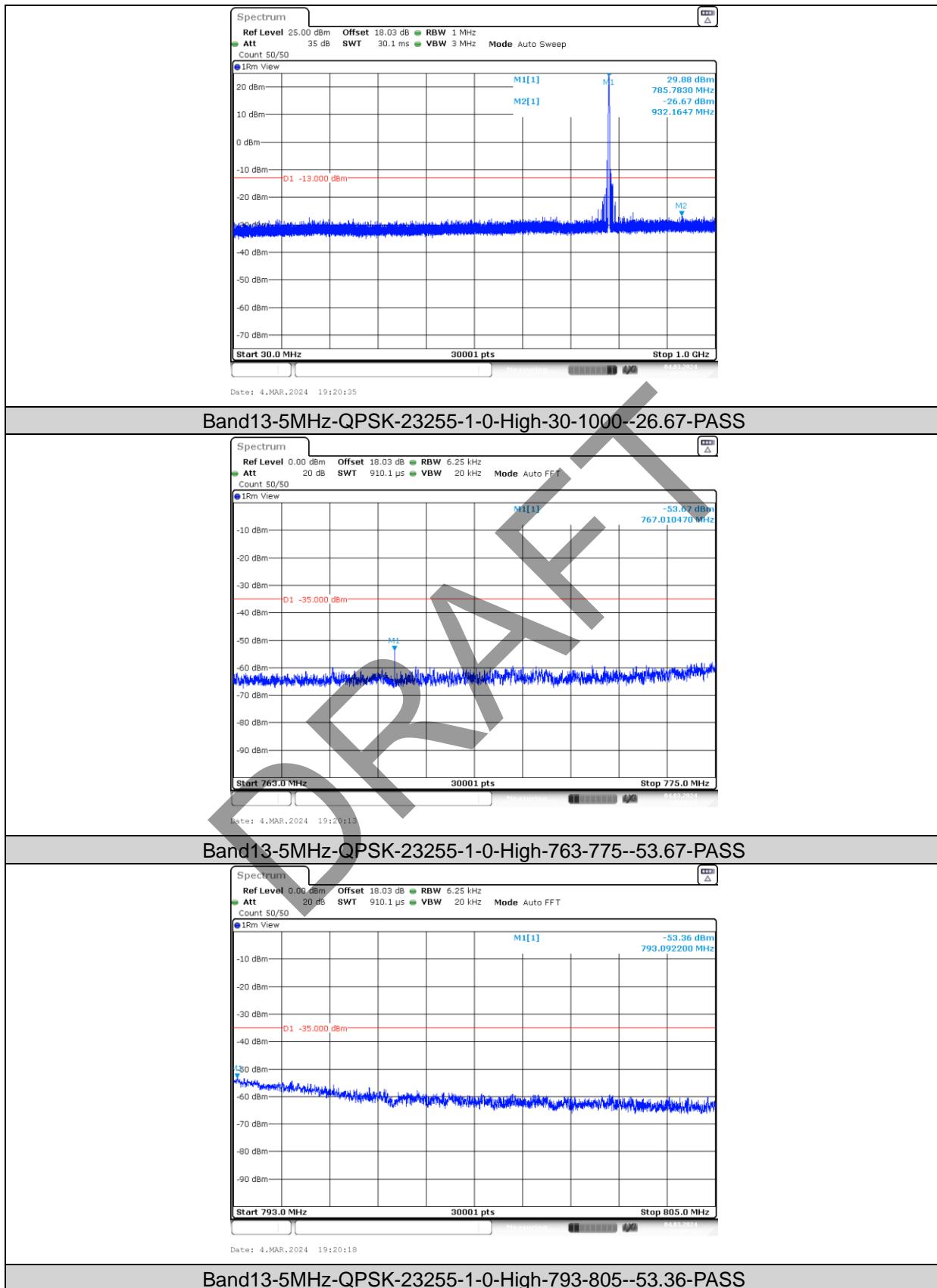
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Zhaoshang Street, Nanshan District Shenzhen,
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Email: customerservice.sw@bureauveritas.com



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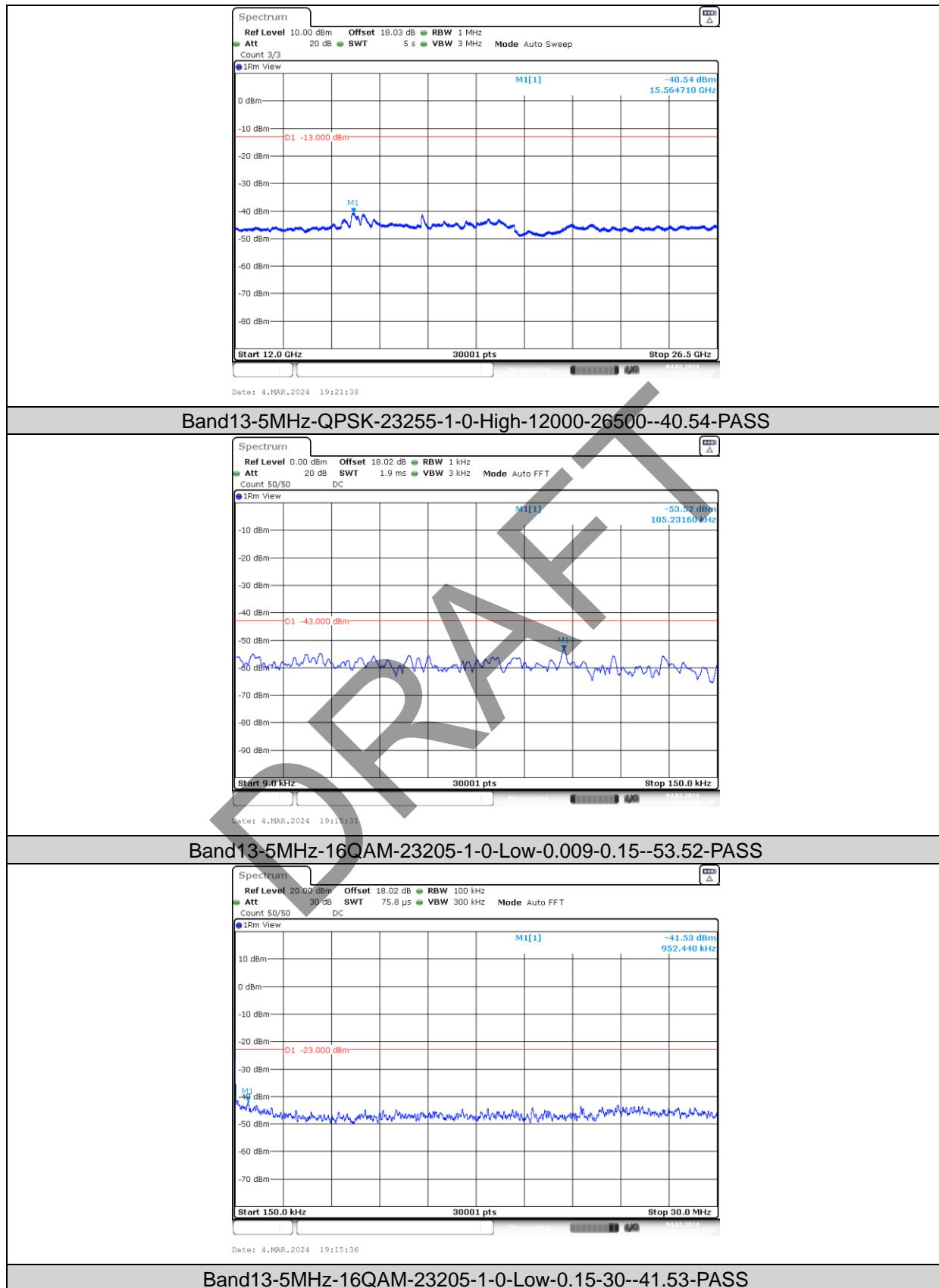
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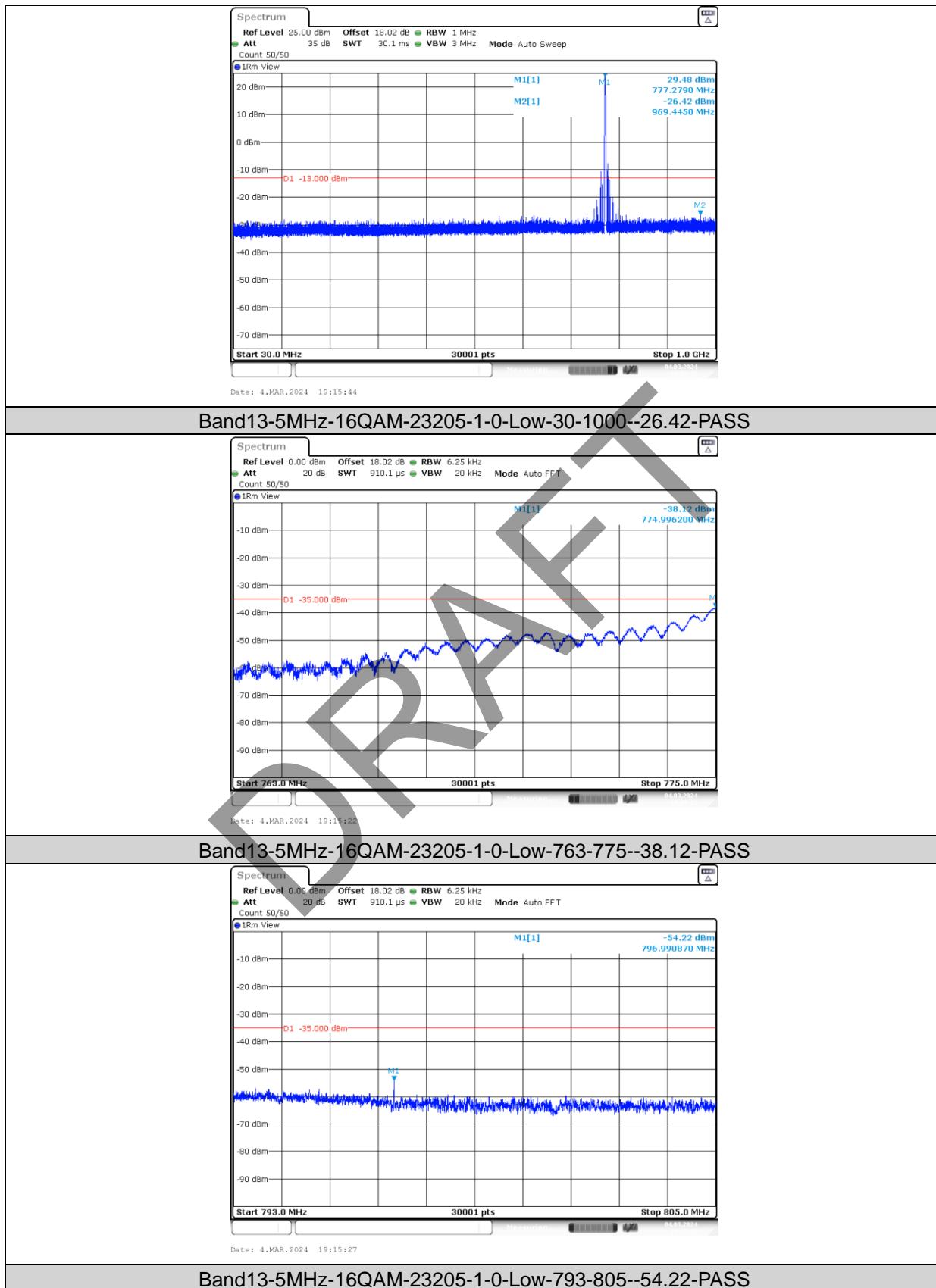
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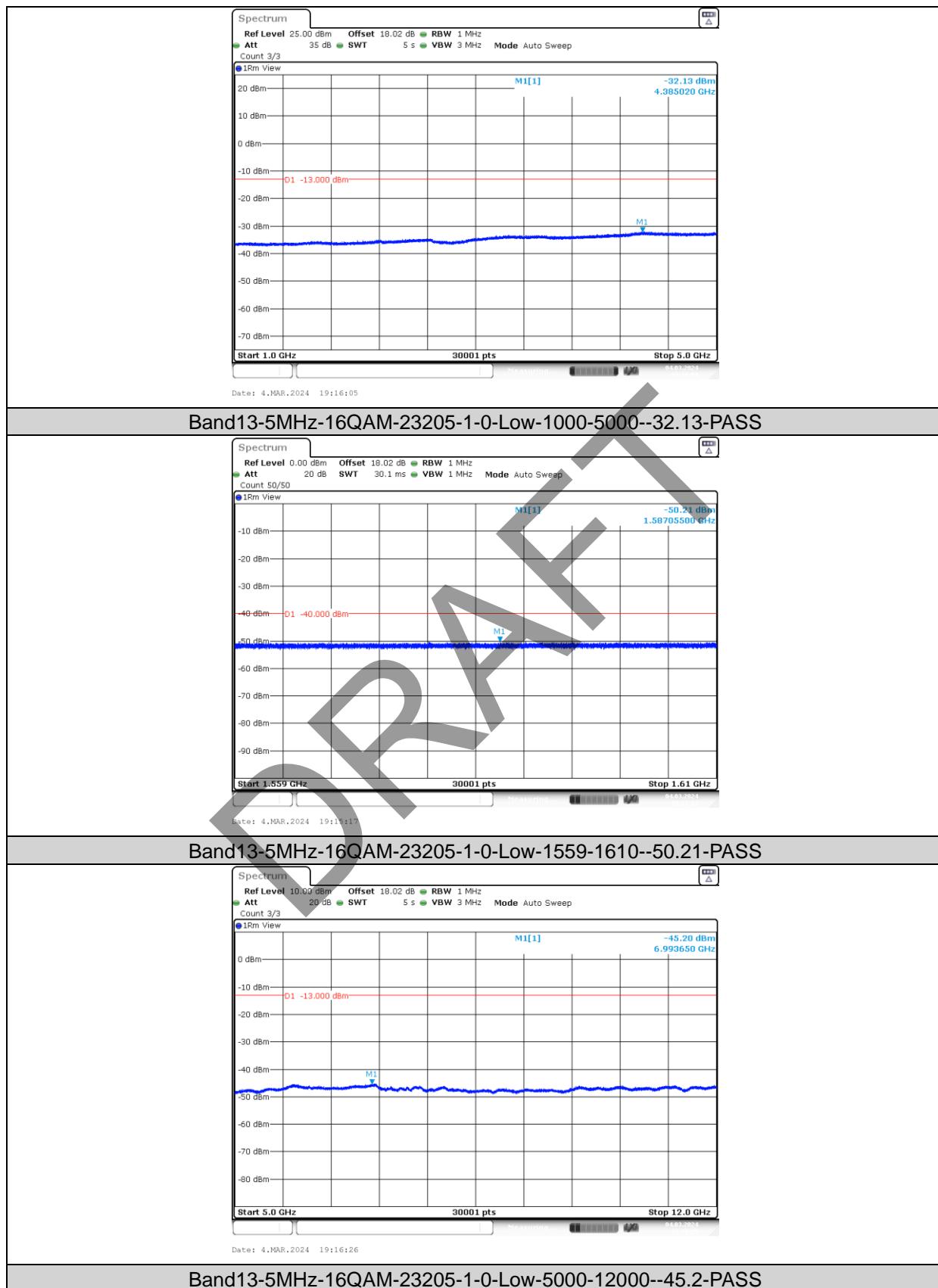
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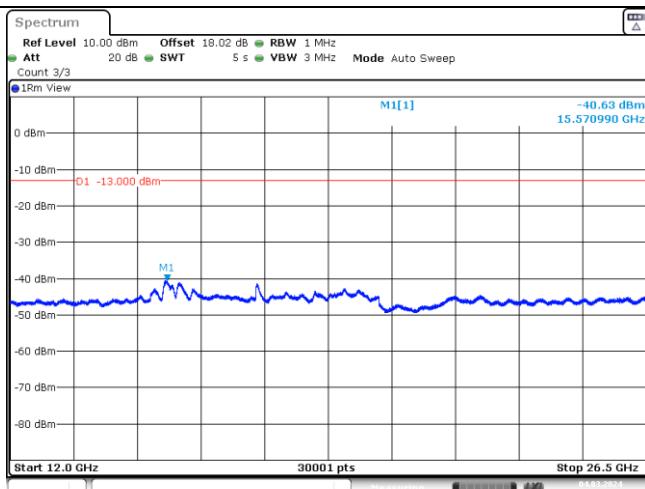
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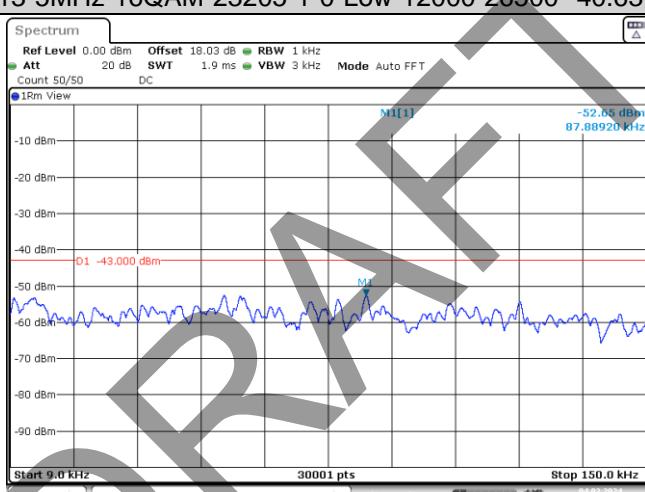


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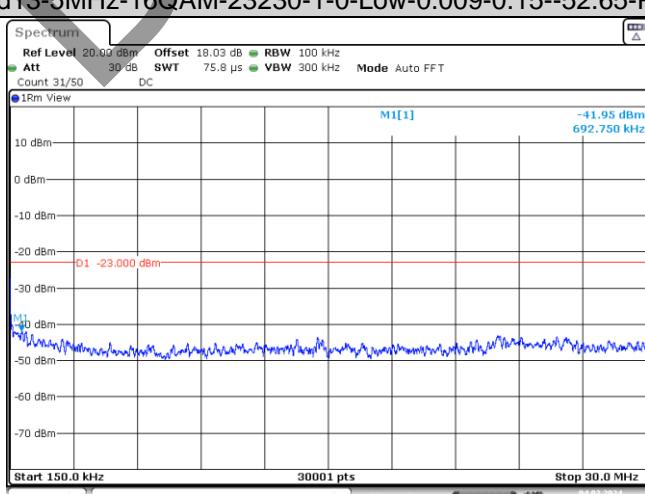
Test Report No.: W7L-P23120015RI03



Band13-5MHz-16QAM-23205-1-0-Low-12000-26500--40.63-PASS



Band13-5MHz-16QAM-23230-1-0-Low-0.009-0.15--52.65-PASS



Band13-5MHz-16QAM-23230-1-0-Low-0.15-30--41.95-PASS

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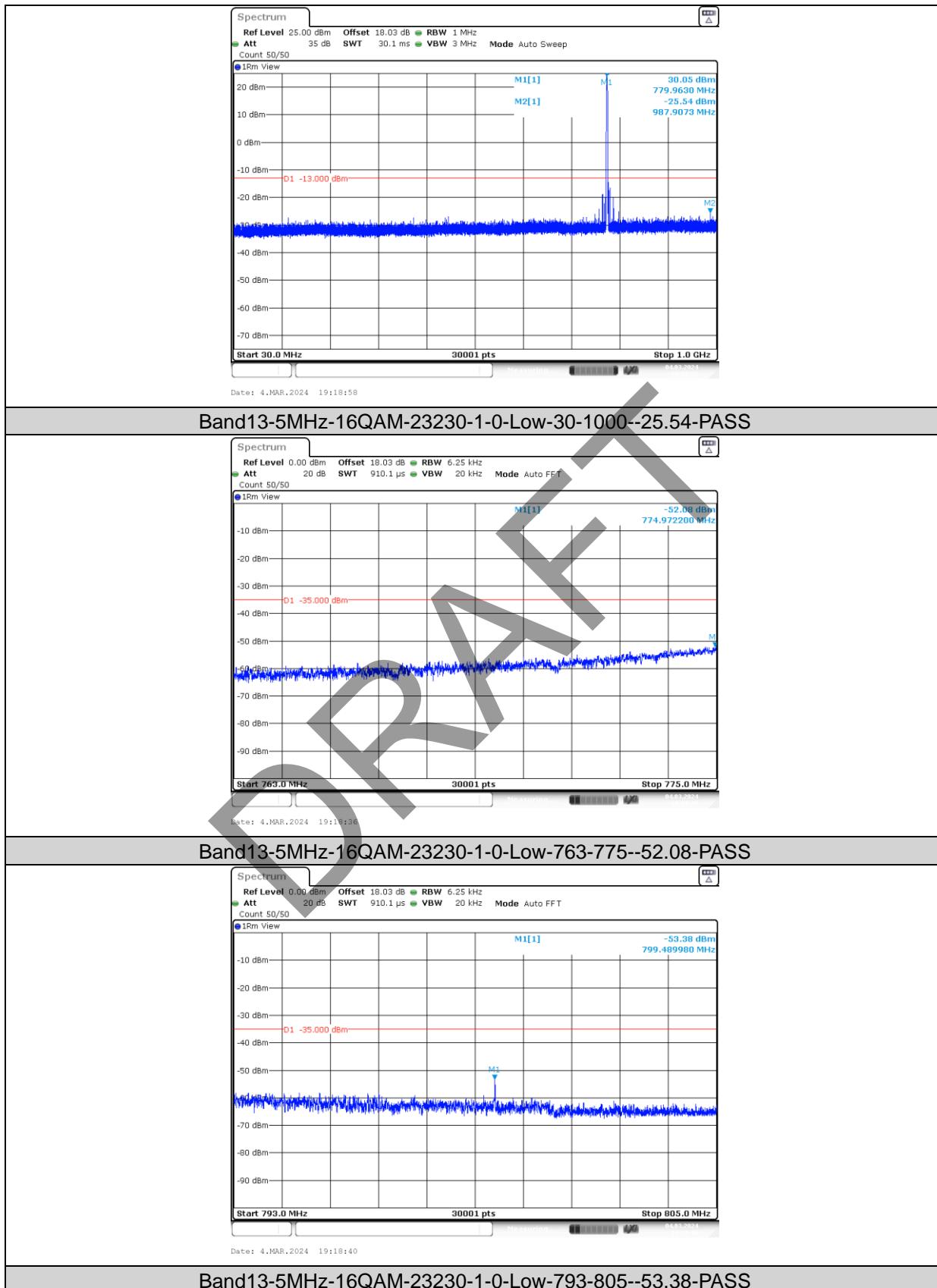
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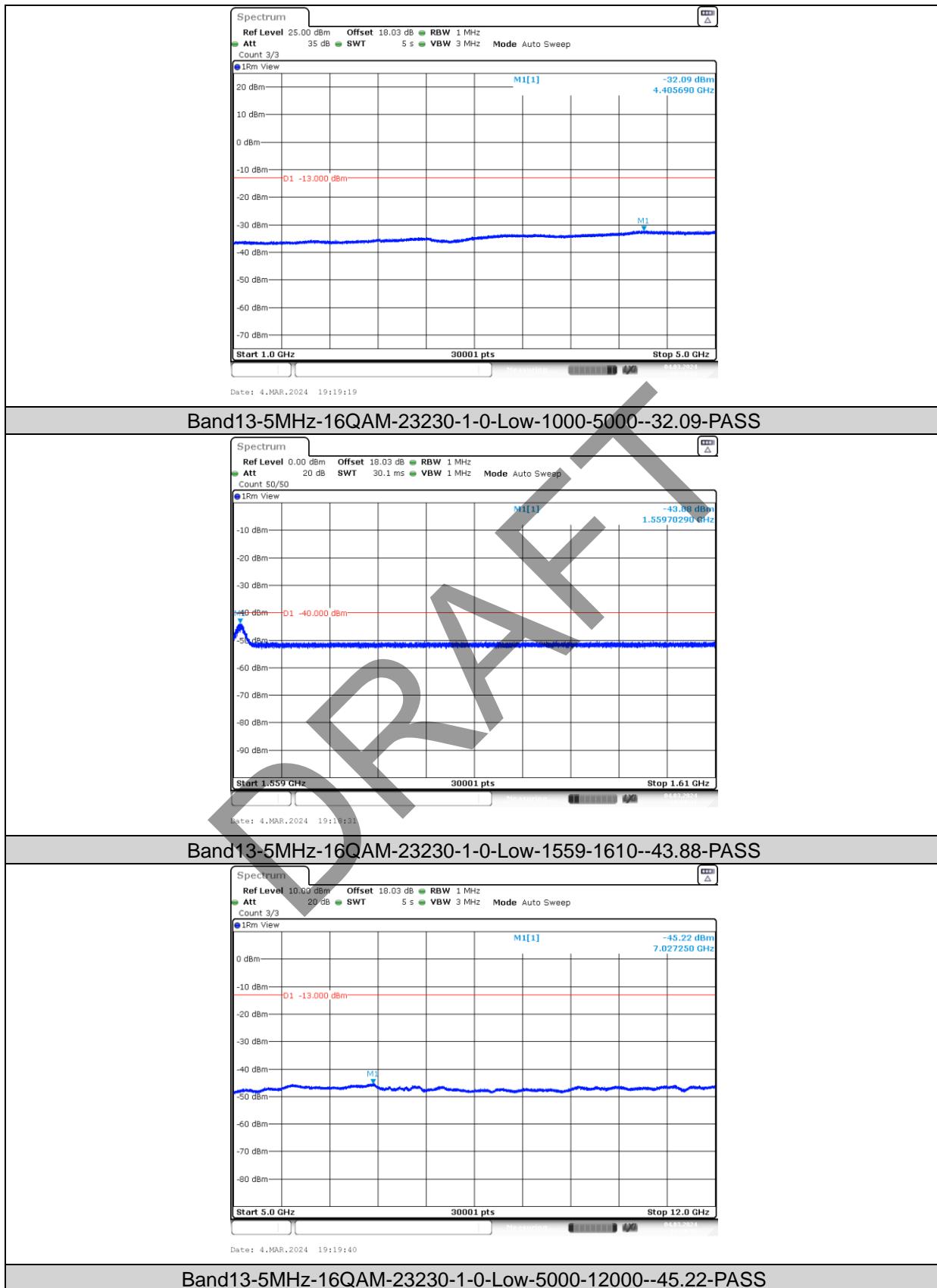
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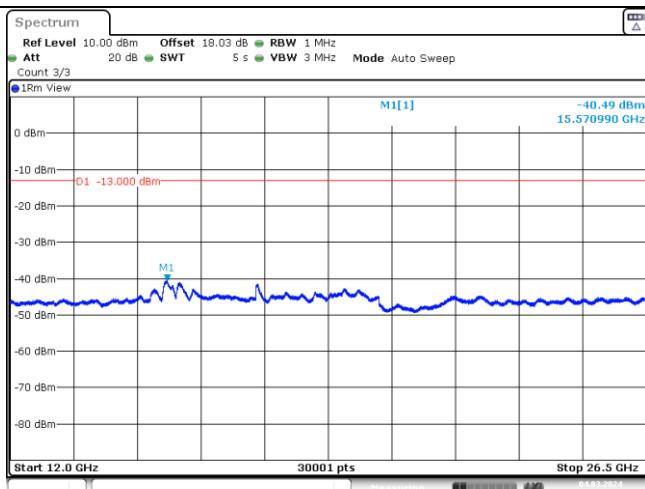
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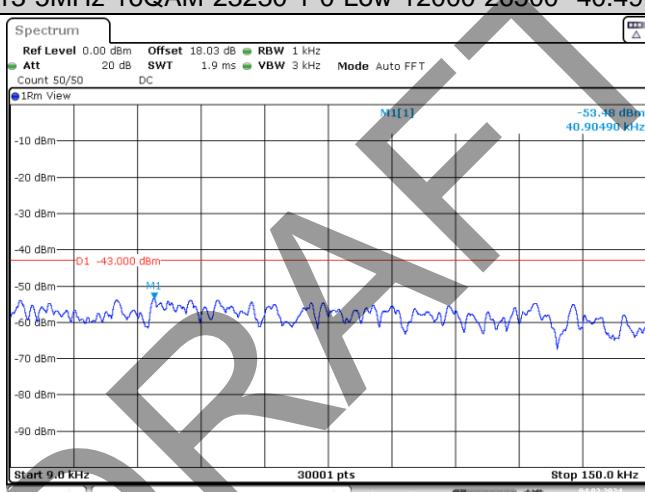


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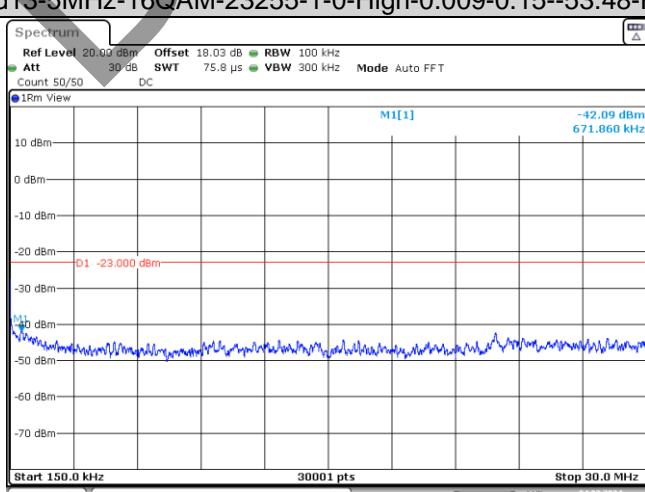
Test Report No.: W7L-P23120015RI03



Band13-5MHz-16QAM-23230-1-0-Low-12000-26500--40.49-PASS



Band13-5MHz-16QAM-23255-1-0-High-0.009-0.15--53.48-PASS



Band13-5MHz-16QAM-23255-1-0-High-0.15-30--42.09-PASS

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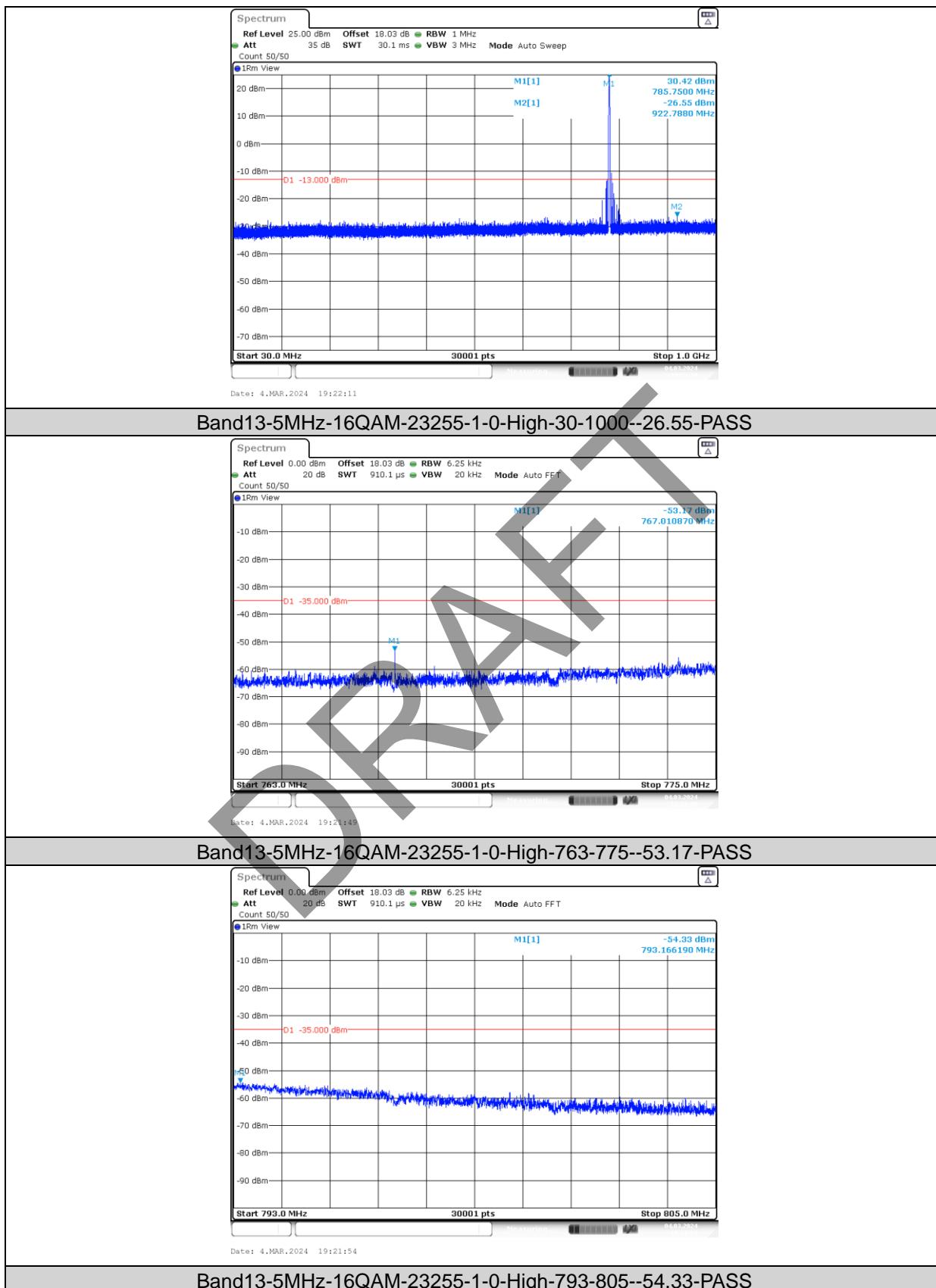
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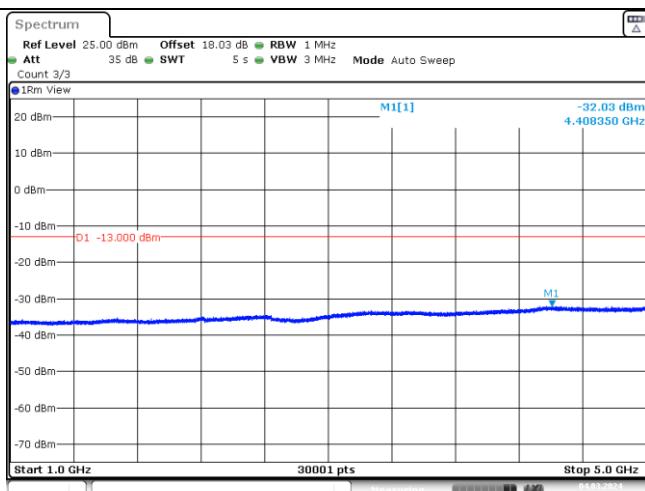
Test Report No.: W7L-P23120015RI03



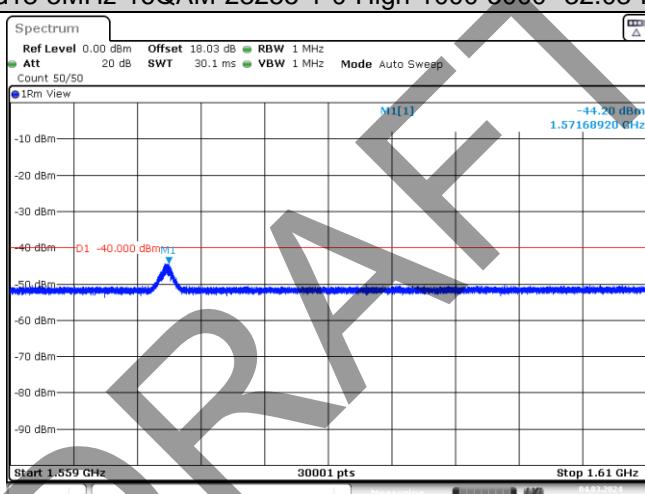


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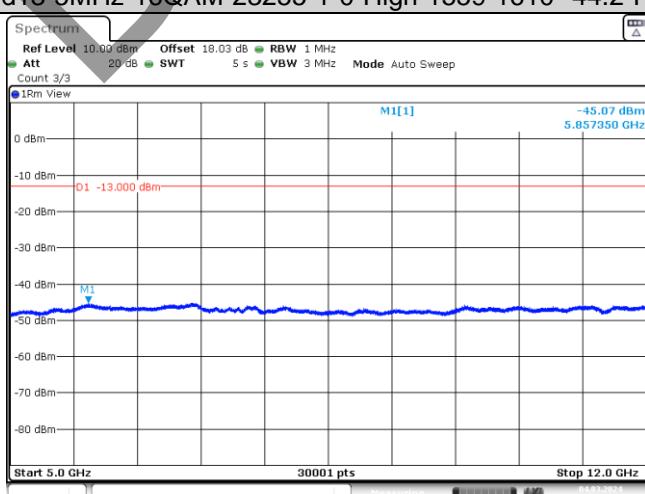
Test Report No.: W7L-P23120015RI03



Band13-5MHz-16QAM-23255-1-0-High-1000-5000--32.03-PASS



Band13-5MHz-16QAM-23255-1-0-High-1559-1610--44.2-PASS

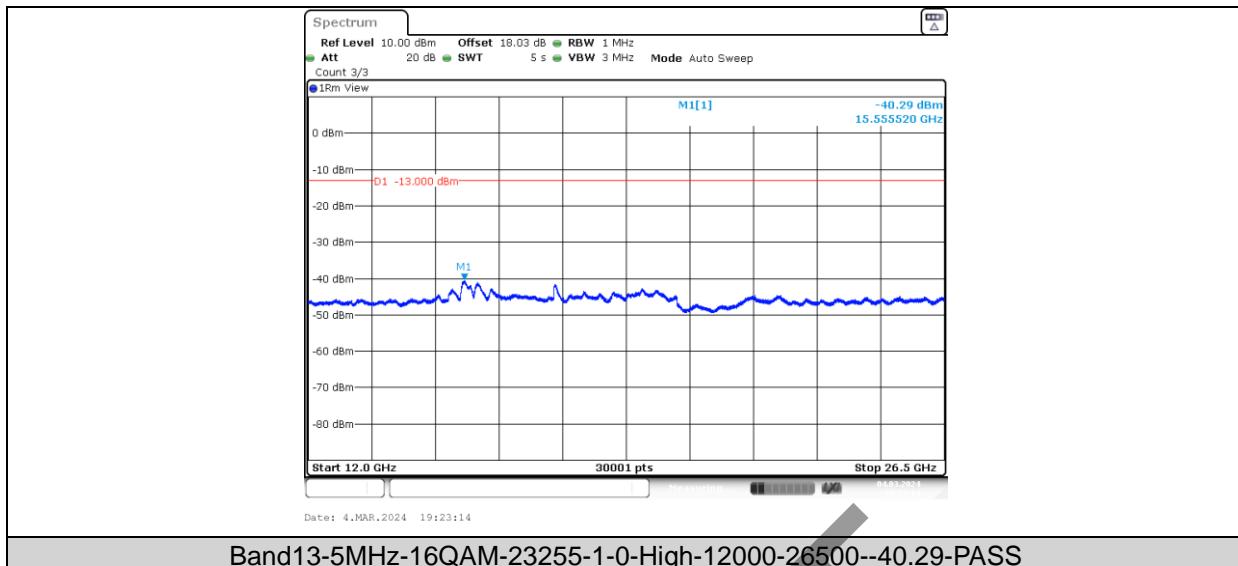


Band13-5MHz-16QAM-23255-1-0-High-5000-12000--45.07-PASS



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FREQUENCY STABILITY FOR M1

Band 12 Test Result

Band	Bandwidth	Modulation	Channel	Voltage								Deviation (Hz)	Deviation (ppm)	Verdict
				RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)						
Band12	1.4MHz	23017	QPSK	6	0	Low	VL	NT		-6.92	-0.00989	PASS		
Band12	1.4MHz	23017	QPSK	6	0	Low	VH	NT		-7.37	-0.010533	PASS		
Band12	1.4MHz	23017	QPSK	6	0	Low	VN	NT		-7.97	-0.011391	PASS		
Band12	1.4MHz	23095	QPSK	6	0	Low	VH	NT		-5.15	-0.007279	PASS		
Band12	1.4MHz	23095	QPSK	6	0	Low	VN	NT		-6.82	-0.00964	PASS		
Band12	1.4MHz	23095	QPSK	6	0	Low	VL	NT		-7.84	-0.011081	PASS		
Band12	1.4MHz	23173	QPSK	6	0	High	VH	NT		-8.35	-0.011673	PASS		
Band12	1.4MHz	23173	QPSK	6	0	High	VL	NT		-6.27	-0.008766	PASS		
Band12	1.4MHz	23173	QPSK	6	0	High	VN	NT		-6.29	-0.008794	PASS		
Band12	1.4MHz	23017	16QAM	6	0	Low	VN	NT		-8.65	-0.012362	PASS		
Band12	1.4MHz	23017	16QAM	6	0	Low	VL	NT		-7.15	-0.010219	PASS		
Band12	1.4MHz	23017	16QAM	6	0	Low	VH	NT		-5.71	-0.008161	PASS		
Band12	1.4MHz	23095	16QAM	6	0	Low	VH	NT		-6.79	-0.009597	PASS		
Band12	1.4MHz	23095	16QAM	6	0	Low	VN	NT		-4.84	-0.006841	PASS		
Band12	1.4MHz	23095	16QAM	6	0	Low	VL	NT		-7.77	-0.010982	PASS		
Band12	1.4MHz	23173	16QAM	6	0	High	VN	NT		-5.61	-0.007843	PASS		
Band12	1.4MHz	23173	16QAM	6	0	High	VL	NT		-5.71	-0.007983	PASS		
Band12	1.4MHz	23173	16QAM	6	0	High	VH	NT		-10.73	-0.015001	PASS		
Band12	3MHz	23025	QPSK	6	0	Low	VH	NT		-4.15	-0.005924	PASS		
Band12	3MHz	23025	QPSK	6	0	Low	VN	NT		-2.85	-0.004069	PASS		
Band12	3MHz	23025	QPSK	6	0	Low	VL	NT		-3.78	-0.005396	PASS		
Band12	3MHz	23095	QPSK	6	0	Low	VH	NT		-5.95	-0.00841	PASS		
Band12	3MHz	23095	QPSK	6	0	Low	VN	NT		-6.29	-0.00889	PASS		
Band12	3MHz	23095	QPSK	6	0	Low	VL	NT		-6.41	-0.00906	PASS		
Band12	3MHz	23165	QPSK	6	0	High	VH	NT		4.81	0.006732	PASS		
Band12	3MHz	23165	QPSK	6	0	High	VL	NT		-4.08	-0.00571	PASS		
Band12	3MHz	23165	QPSK	6	0	High	VN	NT		4.43	0.0062	PASS		
Band12	3MHz	23025	16QAM	6	0	Low	VN	NT		-4.21	-0.00601	PASS		
Band12	3MHz	23025	16QAM	6	0	Low	VL	NT		-3.58	-0.005111	PASS		
Band12	3MHz	23025	16QAM	6	0	Low	VH	NT		3.22	0.004597	PASS		
Band12	3MHz	23095	16QAM	6	0	Low	VH	NT		-6.59	-0.009314	PASS		
Band12	3MHz	23095	16QAM	6	0	Low	VN	NT		-4.23	-0.005979	PASS		
Band12	3MHz	23095	16QAM	6	0	Low	VL	NT		-5.31	-0.007505	PASS		
Band12	3MHz	23165	16QAM	6	0	High	VL	NT		3.79	0.005304	PASS		
Band12	3MHz	23165	16QAM	6	0	High	VN	NT		4.22	0.005906	PASS		



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Band12	3MHz	23165	16QAM	6	0	High	VH	NT	3.83	0.00536	PASS
Band12	5MHz	23035	QPSK	6	0	Low	VN	NT	-4.16	-0.00593	PASS
Band12	5MHz	23035	QPSK	6	0	Low	VH	NT	-4.48	-0.006386	PASS
Band12	5MHz	23035	QPSK	6	0	Low	VL	NT	-4.58	-0.006529	PASS
Band12	5MHz	23095	QPSK	6	0	Low	VH	NT	-5.78	-0.00817	PASS
Band12	5MHz	23095	QPSK	6	0	Low	VN	NT	-5.48	-0.007746	PASS
Band12	5MHz	23095	QPSK	6	0	Low	VL	NT	-4.28	-0.006049	PASS
Band12	5MHz	23155	QPSK	6	0	High	VH	NT	-7.37	-0.010329	PASS
Band12	5MHz	23155	QPSK	6	0	High	VL	NT	-6.71	-0.009404	PASS
Band12	5MHz	23155	QPSK	6	0	High	VN	NT	-5.55	-0.007779	PASS
Band12	5MHz	23035	16QAM	6	0	Low	VL	NT	-4.81	-0.006857	PASS
Band12	5MHz	23035	16QAM	6	0	Low	VH	NT	-5.24	-0.00747	PASS
Band12	5MHz	23035	16QAM	6	0	Low	VN	NT	-6.47	-0.009223	PASS
Band12	5MHz	23095	16QAM	6	0	Low	VL	NT	-5.01	-0.007081	PASS
Band12	5MHz	23095	16QAM	6	0	Low	VH	NT	-5.39	-0.007618	PASS
Band12	5MHz	23095	16QAM	6	0	Low	VN	NT	-3.83	-0.005413	PASS
Band12	5MHz	23155	16QAM	6	0	High	VN	NT	-6.75	-0.00946	PASS
Band12	5MHz	23155	16QAM	6	0	High	VL	NT	-6.64	-0.009306	PASS
Band12	5MHz	23155	16QAM	6	0	High	VH	NT	-5.76	-0.008073	PASS
Band12	10MHz	23060	QPSK	6	0	Low	VH	NT	8.63	0.012259	PASS
Band12	10MHz	23060	QPSK	6	0	Low	VN	NT	8.1	0.011506	PASS
Band12	10MHz	23060	QPSK	6	0	Low	VL	NT	8.96	0.012727	PASS
Band12	10MHz	23095	QPSK	6	0	Low	VN	NT	4.22	0.005965	PASS
Band12	10MHz	23095	QPSK	6	0	Low	VL	NT	4.85	0.006855	PASS
Band12	10MHz	23095	QPSK	6	0	Low	VH	NT	5.01	0.007081	PASS
Band12	10MHz	23130	QPSK	6	0	High	VN	NT	7.1	0.009986	PASS
Band12	10MHz	23130	QPSK	6	0	High	VH	NT	8.18	0.011505	PASS
Band12	10MHz	23130	QPSK	6	0	High	VL	NT	9.21	0.012954	PASS
Band12	10MHz	23060	16QAM	6	0	Low	VL	NT	9.37	0.01331	PASS
Band12	10MHz	23060	16QAM	6	0	Low	VN	NT	9.71	0.013793	PASS
Band12	10MHz	23060	16QAM	6	0	Low	VH	NT	9.46	0.013438	PASS
Band12	10MHz	23095	16QAM	6	0	Low	VN	NT	4.89	0.006912	PASS
Band12	10MHz	23095	16QAM	6	0	Low	VH	NT	4.21	0.005951	PASS
Band12	10MHz	23095	16QAM	6	0	Low	VL	NT	4.85	0.006855	PASS
Band12	10MHz	23130	16QAM	6	0	High	VN	NT	7.71	0.010844	PASS
Band12	10MHz	23130	16QAM	6	0	High	VL	NT	7.24	0.010183	PASS
Band12	10MHz	23130	16QAM	6	0	High	VH	NT	8.64	0.012152	PASS

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Temperature												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	70	-7.54	-0.010776	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	60	-8.05	-0.011505	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	50	-6.12	-0.008747	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	40	-7.62	-0.01089	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	20	-5.25	-0.007503	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	10	-6.78	-0.00969	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	0	-6.41	-0.009161	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	-10	-7.25	-0.010362	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	-20	-8.7	-0.012434	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	-30	-6.02	-0.008604	PASS	
Band12	1.4MHz	23017	QPSK	6	0	Low	NV	30	-6.05	-0.008647	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	-20	-8.91	-0.012594	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	-10	-6.02	-0.008509	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	0	-6.41	-0.00906	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	10	-6.79	-0.009597	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	20	-7.25	-0.010247	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	30	-6.28	-0.008876	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	40	-3.93	-0.005555	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	50	-7.55	-0.010671	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	70	-7.42	-0.010488	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	-30	-5.71	-0.008071	PASS	
Band12	1.4MHz	23095	QPSK	6	0	Low	NV	60	-7.52	-0.010629	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	-30	-7.84	-0.01096	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	-20	-12.96	-0.018118	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	-10	-11.42	-0.015965	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	0	-6.04	-0.008444	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	10	-6.48	-0.009059	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	20	-14.59	-0.020397	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	30	-10.73	-0.015001	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	40	-6.39	-0.008933	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	50	-7.4	-0.010345	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	60	-7.45	-0.010415	PASS	
Band12	1.4MHz	23173	QPSK	6	0	High	NV	70	-7.05	-0.009856	PASS	
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	-30	-7.4	-0.010576	PASS	
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	-20	-8.21	-0.011734	PASS	
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	-10	-7.67	-0.010962	PASS	
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	0	-6.51	-0.009304	PASS	
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	10	-6.54	-0.009347	PASS	
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	20	-8	-0.011433	PASS	

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Band12	1.4MHz	23017	16QAM	6	0	Low	NV	30	-6.62	-0.009461	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	40	-6.48	-0.009261	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	50	-6.9	-0.009861	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	60	-7.4	-0.010576	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	NV	70	-4.85	-0.006932	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	-20	-6.82	-0.00964	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	0	-5.62	-0.007943	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	-30	-6.68	-0.009442	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	-10	-8.78	-0.01241	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	10	-6.19	-0.008749	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	20	-6.44	-0.009102	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	30	-6.11	-0.008636	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	40	-7.42	-0.010488	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	50	-6.09	-0.008608	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	60	-4.81	-0.006799	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	NV	70	-6.48	-0.009159	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	-10	-10.63	-0.014861	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	30	-9.28	-0.012974	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	70	-9.56	-0.013365	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	60	-6.61	-0.009241	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	50	-3.83	-0.005354	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	40	-10.79	-0.015085	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	20	-5.32	-0.007437	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	0	-10.17	-0.014218	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	-20	-10.94	-0.015294	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	-30	-6.72	-0.009395	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	NV	10	-11.26	-0.015742	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	30	-2.3	-0.003283	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	70	-4.51	-0.006438	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	60	-4.36	-0.006224	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	50	-3.33	-0.004754	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	40	-3.6	-0.005139	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	10	-3.49	-0.004982	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	0	2.39	0.003412	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	-10	-3.08	-0.004397	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	-20	2.75	0.003926	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	-30	-3.32	-0.004739	PASS
Band12	3MHz	23025	QPSK	6	0	Low	NV	20	-2.37	-0.003383	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	-30	-5.49	-0.00776	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	-20	-6.51	-0.009201	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	0	-6.84	-0.009668	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	20	-6.81	-0.009625	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	30	-5.88	-0.008311	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	40	-5.46	-0.007717	PASS

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Band12	3MHz	23095	QPSK	6	0	Low	NV	50	-5.24	-0.007406	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	70	-5.97	-0.008438	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	-10	-7.05	-0.009965	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	60	-5.78	-0.00817	PASS
Band12	3MHz	23095	QPSK	6	0	Low	NV	10	-7.17	-0.010134	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	-30	-6.17	-0.008635	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	-20	5.25	0.007348	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	-10	3.48	0.004871	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	0	5.38	0.00753	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	10	3.38	0.004731	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	20	3.58	0.00501	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	30	5.41	0.007572	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	40	2.63	0.003681	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	50	4.32	0.006046	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	60	4.73	0.00662	PASS
Band12	3MHz	23165	QPSK	6	0	High	NV	70	-5.24	-0.007334	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	70	-3.45	-0.004925	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	60	-5.22	-0.007452	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	50	-1.83	-0.002612	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	-30	-4.08	-0.005824	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	30	-3.73	-0.005325	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	20	-4.72	-0.006738	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	10	-1.97	-0.002812	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	0	2.17	0.003098	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	-10	2.27	0.003241	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	-20	-2.92	-0.004168	PASS
Band12	3MHz	23025	16QAM	6	0	Low	NV	40	-2.66	-0.003797	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	-20	-2.76	-0.003901	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	-10	-4.31	-0.006092	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	0	-6.65	-0.009399	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	-30	-5.49	-0.00776	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	10	-6.11	-0.008636	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	20	-7.55	-0.010671	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	30	-6.87	-0.00971	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	40	-4.19	-0.005922	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	50	-6.45	-0.009117	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	60	-6.75	-0.009541	PASS
Band12	3MHz	23095	16QAM	6	0	Low	NV	70	-6.41	-0.00906	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	30	5.92	0.008286	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	70	5.26	0.007362	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	60	-3.53	-0.004941	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	50	3.93	0.0055	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	40	-4.06	-0.005682	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	20	5.38	0.00753	PASS



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Band12	3MHz	23165	16QAM	6	0	High	NV	10	3.93	0.0055	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	0	-5.49	-0.007684	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	-10	-4.69	-0.006564	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	-20	3.85	0.005388	PASS
Band12	3MHz	23165	16QAM	6	0	High	NV	-30	4.42	0.006186	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	70	-5.16	-0.007356	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	60	-4.82	-0.006871	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	50	-4.58	-0.006529	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	40	-3.95	-0.005631	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	30	-3.52	-0.005018	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	20	-5.12	-0.007299	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	10	-4.28	-0.006101	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	0	-4.01	-0.005716	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	-10	-5.61	-0.007997	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	-20	-6.09	-0.008681	PASS
Band12	5MHz	23035	QPSK	6	0	Low	NV	-30	-6.19	-0.008824	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	0	-6.09	-0.008608	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	-30	-4.18	-0.005908	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	-10	-5.62	-0.007943	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	10	-5.69	-0.008042	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	20	-6.72	-0.009498	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	30	-5.04	-0.007124	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	40	-5.21	-0.007364	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	50	-4.52	-0.006389	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	60	-3.53	-0.004989	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	70	-4.49	-0.006346	PASS
Band12	5MHz	23095	QPSK	6	0	Low	NV	-20	-5.98	-0.008452	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	30	-5.64	-0.007905	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	20	-6.49	-0.009096	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	-30	-7.02	-0.009839	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	-20	-7.61	-0.010666	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	-10	-7.37	-0.010329	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	0	-8.31	-0.011647	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	40	-7.11	-0.009965	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	50	-5.82	-0.008157	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	60	-6.62	-0.009278	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	70	-7.78	-0.010904	PASS
Band12	5MHz	23155	QPSK	6	0	High	NV	10	-5.72	-0.008017	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	60	-5.56	-0.007926	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	-30	-3.59	-0.005118	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	-20	-4.92	-0.007014	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	-10	-5.45	-0.007769	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	0	-6.65	-0.00948	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	10	-5.38	-0.007669	PASS

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Band12	5MHz	23035	16QAM	6	0	Low	NV	20	-4.45	-0.006344	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	30	-4.31	-0.006144	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	50	-3.75	-0.005346	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	70	-6.07	-0.008653	PASS
Band12	5MHz	23035	16QAM	6	0	Low	NV	40	-3.65	-0.005203	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	0	-2.55	-0.003604	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	50	-4.56	-0.006445	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	-20	-6.79	-0.009597	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	60	-4.96	-0.007011	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	40	-5.25	-0.00742	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	30	-4.66	-0.006587	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	20	-4.33	-0.00612	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	10	-5.06	-0.007152	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	-10	-5.56	-0.007859	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	-30	-3.65	-0.005159	PASS
Band12	5MHz	23095	16QAM	6	0	Low	NV	70	-5.92	-0.008367	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	-20	-5.99	-0.008395	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	30	-5.56	-0.007793	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	70	-6.74	-0.009446	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	60	-6.01	-0.008423	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	50	-7.04	-0.009867	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	40	-7.8	-0.010932	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	20	-6.54	-0.009166	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	10	-7.57	-0.01061	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	-10	-8.01	-0.011226	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	-30	-5.25	-0.007358	PASS
Band12	5MHz	23155	16QAM	6	0	High	NV	0	-7.77	-0.01089	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	40	8.4	0.011932	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	30	9.53	0.013537	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	-30	8.84	0.012557	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	-20	9.2	0.013068	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	-10	9.47	0.013452	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	0	8.03	0.011406	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	10	9.07	0.012884	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	50	10.13	0.014389	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	60	10.21	0.014503	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	70	9.36	0.013295	PASS
Band12	10MHz	23060	QPSK	6	0	Low	NV	20	8.93	0.012685	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	20	2.33	0.003293	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	-30	4.95	0.006996	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	-20	3.92	0.005541	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	-10	5.04	0.007124	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	10	4.19	0.005922	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	30	3.76	0.005314	PASS

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Band12	10MHz	23095	QPSK	6	0	Low	NV	40	3.96	0.005597	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	50	4.82	0.006813	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	60	4.75	0.006714	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	70	3.18	0.004495	PASS
Band12	10MHz	23095	QPSK	6	0	Low	NV	0	5.22	0.007378	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	60	7.42	0.010436	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	10	7.27	0.010225	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	-30	6.71	0.009437	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	-20	7.18	0.010098	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	-10	6.92	0.009733	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	0	8.03	0.011294	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	30	8.43	0.011857	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	50	6.97	0.009803	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	70	6.82	0.009592	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	20	8.43	0.011857	PASS
Band12	10MHz	23130	QPSK	6	0	High	NV	40	6.94	0.009761	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	70	10.14	0.014403	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	-30	9.16	0.013011	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	-20	10.76	0.015284	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	-10	9.97	0.014162	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	0	10.4	0.014773	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	10	8.93	0.012685	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	20	9.14	0.012983	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	30	9.54	0.013551	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	40	10.54	0.014972	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	60	9.9	0.014063	PASS
Band12	10MHz	23060	16QAM	6	0	Low	NV	50	9.9	0.014063	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	70	5.11	0.007223	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	60	4.58	0.006473	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	50	4.71	0.006657	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	40	4.62	0.00653	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	30	4.72	0.006671	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	20	3.02	0.004269	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	10	4.46	0.006304	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	0	5.11	0.007223	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	-10	4.51	0.006375	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	-20	5.54	0.00783	PASS
Band12	10MHz	23095	16QAM	6	0	Low	NV	-30	4.76	0.006728	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	40	7.74	0.010886	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	70	8.1	0.011392	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	60	8.6	0.012096	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	50	7.45	0.010478	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	30	7.18	0.010098	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	20	7.8	0.01097	PASS



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Band12	10MHz	23130	16QAM	6	0	High	NV	10	8.2	0.011533	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	0	8.23	0.011575	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	-10	7.5	0.010549	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	-30	6.59	0.009269	PASS
Band12	10MHz	23130	16QAM	6	0	High	NV	-20	7.17	0.010084	PASS

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Band 13 Test Result

Band	Bandwidth	Modulation	Channel	Voltage								Verdict
				RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)		
Band13	5MHz	23205	QPSK	6	0	Low	VL	NT	-5.81	-0.007453	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	VH	NT	-4.12	-0.005285	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	VN	NT	4.26	0.005465	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	VN	NT	-5.15	-0.006586	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	VL	NT	-3.52	-0.004501	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	VH	NT	-5.46	-0.006982	PASS	
Band13	5MHz	23255	QPSK	6	0	High	VN	NT	5.64	0.007189	PASS	
Band13	5MHz	23255	QPSK	6	0	High	VH	NT	6.24	0.007954	PASS	
Band13	5MHz	23255	QPSK	6	0	High	VL	NT	5.06	0.00645	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	VN	NT	-3.39	-0.004349	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	VL	NT	-2.2	-0.002822	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	VH	NT	2.52	0.003233	PASS	
Band13	5MHz	23230	16QAM	6	0	Low	VN	NT	-6.44	-0.008235	PASS	
Band13	5MHz	23230	16QAM	6	0	Low	VH	NT	-6.28	-0.008031	PASS	
Band13	5MHz	23230	16QAM	6	0	Low	VL	NT	-6.29	-0.008043	PASS	
Band13	5MHz	23255	16QAM	6	0	High	VN	NT	4.02	0.005124	PASS	
Band13	5MHz	23255	16QAM	6	0	High	VL	NT	5.24	0.006679	PASS	
Band13	5MHz	23255	16QAM	6	0	High	VH	NT	2.79	0.003556	PASS	
Band13	10MHz	23230	QPSK	6	0	Low	VN	NT	5.39	0.006893	PASS	
Band13	10MHz	23230	QPSK	6	0	Low	VL	NT	5.34	0.006829	PASS	
Band13	10MHz	23230	QPSK	6	0	Low	VH	NT	6.12	0.007826	PASS	
Band13	10MHz	23230	16QAM	6	0	Low	VH	NT	6.62	0.008465	PASS	
Band13	10MHz	23230	16QAM	6	0	Low	VN	NT	6.37	0.008146	PASS	
Band13	10MHz	23230	16QAM	6	0	Low	VL	NT	5.71	0.007302	PASS	

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Test Report No.: W7L-P23120015RI03

Temperature												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict	
Band13	5MHz	23205	QPSK	6	0	Low	NV	40	-3.58	-0.004593	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	60	3.13	0.004015	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	70	-3.6	-0.004618	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	-30	-2.27	-0.002912	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	50	-2.83	-0.003631	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	30	-3.63	-0.004657	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	20	-4.41	-0.005657	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	10	2.17	0.002784	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	0	-4.85	-0.006222	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	-10	2.68	0.003438	PASS	
Band13	5MHz	23205	QPSK	6	0	Low	NV	-20	-3.49	-0.004477	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	0	-3.89	-0.004974	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	60	-4.81	-0.006151	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	50	-6.42	-0.00821	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	40	-5.97	-0.007634	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	30	-5.65	-0.007225	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	10	-6.37	-0.008146	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	70	-5.45	-0.006969	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	-10	-3.56	-0.004552	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	-20	-5.39	-0.006893	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	-30	-4.68	-0.005985	PASS	
Band13	5MHz	23230	QPSK	6	0	Low	NV	20	-4.59	-0.00587	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	40	3.73	0.004755	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	-30	4.55	0.0058	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	-20	5.54	0.007062	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	-10	3.89	0.004959	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	0	3.08	0.003926	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	10	3.2	0.004079	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	30	3.81	0.004857	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	50	3.46	0.00441	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	60	2.6	0.003314	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	70	3.65	0.004653	PASS	
Band13	5MHz	23255	QPSK	6	0	High	NV	20	4.81	0.006131	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	NV	30	3.66	0.004695	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	NV	70	3.71	0.004759	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	NV	60	4.02	0.005157	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	NV	40	3.43	0.0044	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	NV	20	-1.96	-0.002514	PASS	
Band13	5MHz	23205	16QAM	6	0	Low	NV	10	-1.66	-0.00213	PASS	

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Band13	5MHz	23205	16QAM	6	0	Low	NV	0	3.1	0.003977	PASS
Band13	5MHz	23205	16QAM	6	0	Low	NV	-10	3.48	0.004464	PASS
Band13	5MHz	23205	16QAM	6	0	Low	NV	-20	3.25	0.004169	PASS
Band13	5MHz	23205	16QAM	6	0	Low	NV	-30	-3.08	-0.003951	PASS
Band13	5MHz	23205	16QAM	6	0	Low	NV	50	3.35	0.004298	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	-20	-5.11	-0.006535	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	30	-5.81	-0.00743	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	20	-4.84	-0.006189	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	10	-5.75	-0.007353	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	40	-5.64	-0.007212	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	-10	-6.67	-0.008529	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	50	-6.09	-0.007788	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	-30	-6.72	-0.008593	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	0	-5.61	-0.007174	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	60	-4.32	-0.005524	PASS
Band13	5MHz	23230	16QAM	6	0	Low	NV	70	-5.74	-0.00734	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	20	3.85	0.004908	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	0	3.46	0.00441	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	70	3.63	0.004627	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	60	4.76	0.006068	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	50	5.36	0.006832	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	40	3.99	0.005086	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	30	4.92	0.006272	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	-10	3.18	0.004054	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	-20	-3.38	-0.004308	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	-30	3.5	0.004461	PASS
Band13	5MHz	23255	16QAM	6	0	High	NV	10	4.29	0.005468	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	30	6.07	0.007762	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	10	5.26	0.006726	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	40	7.28	0.009309	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	50	5.72	0.007315	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	20	5.12	0.006547	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	70	4.81	0.006151	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	0	6.09	0.007788	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	-10	6.28	0.008031	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	60	5.49	0.00702	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	-30	4.26	0.005448	PASS
Band13	10MHz	23230	QPSK	6	0	Low	NV	-20	6.24	0.00798	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	70	7.27	0.009297	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	60	6.92	0.008849	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	50	5.76	0.007366	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	40	6.31	0.008069	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	30	7.72	0.009872	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	10	6.78	0.00867	PASS



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Band13	10MHz	23230	16QAM	6	0	Low	NV	-30	7.77	0.009936	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	-20	5.97	0.007634	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	-10	4.18	0.005345	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	0	6.25	0.007992	PASS
Band13	10MHz	23230	16QAM	6	0	Low	NV	20	7.2	0.009207	PASS

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