

TEST REPORT

Report No.: BCTC2603123961-6E

Applicant: Shenzhen EGO Device Co. Limited

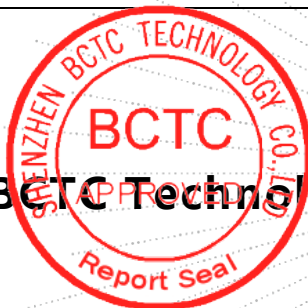
Product Name: Rugged Tablet PC

Test Model: ET-1068

Tested Date: 2026-06-08 to 2026-08-27

Issued Date: 2026-08-27

Shenzhen BCTC Technology Co., Ltd.



FCC ID: 2BN5Z-ET-1068

Product Name: Rugged Tablet PC

Trademark: N/A

Model/Type reference: ET-1068

Prepared For: Shenzhen EGO Device Co. Limited

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Manufacturer: Shenzhen EGO Device Co. Limited

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Prepared By: Shenzhen BCTC Technology Co., Ltd.

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Sample Received Date: 2026-06-08

Sample Tested Date: 2026-06-08 to 2026-08-27

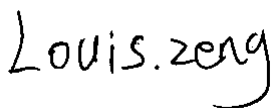
Report No.: BCTC2603123961-6E

Test Standards: FCC CFR Title 47 Part 2
FCC CFR Title 47 Part22 Subpart H
FCC CFR Title 47 Part24 Subpart E
ANSI/ TIA/ EIA-603-D-2010
FCC KDB 971168 D01 Power Meas. License Digital Systems v02v02

Test Results: PASS

Remark: This is GSM & WCDMAradio test report.

Prepared by :



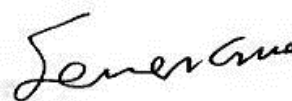
Louis Zeng /Editor

Reviewer by :



Mike Zheng / Supervisor

Approved by:



Sewen Guo/Manager

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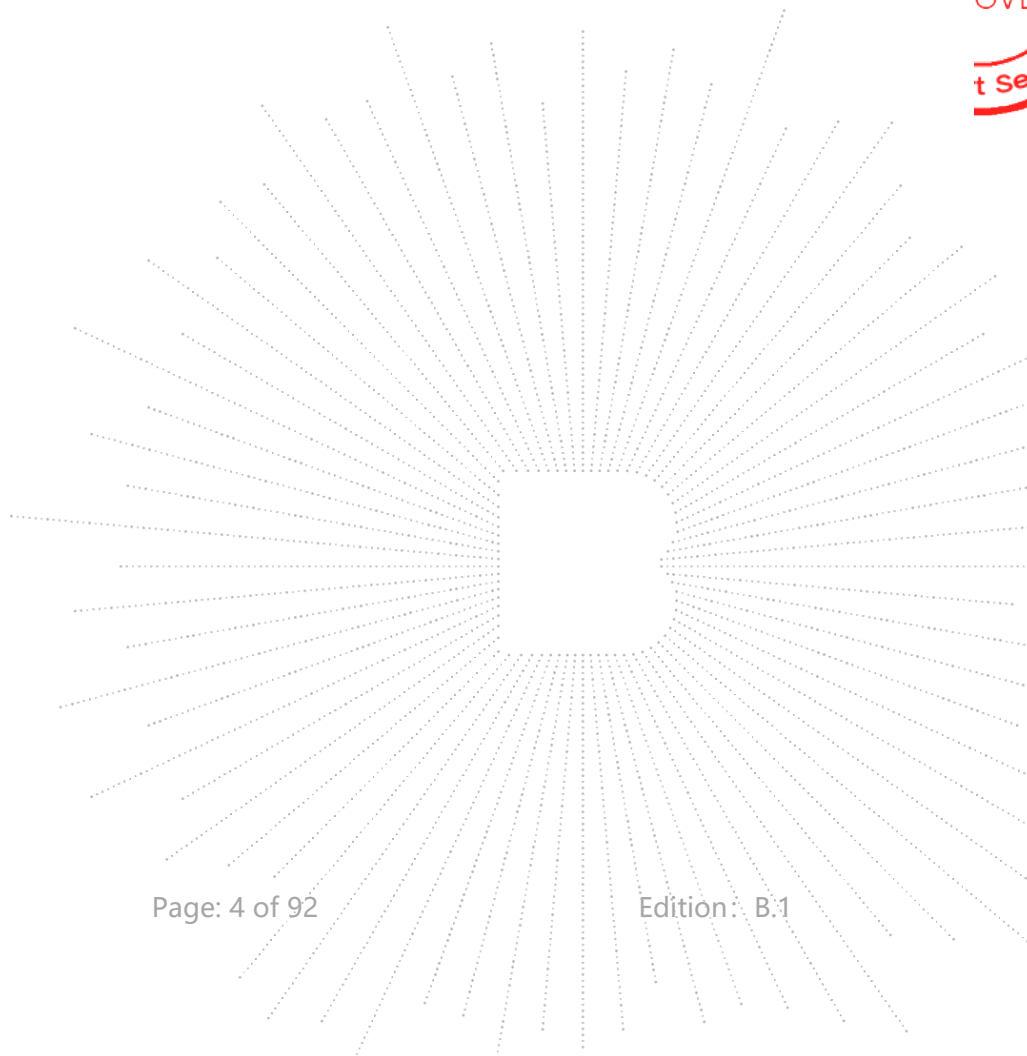
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(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2603123961-6E	2026-08-27	Original	Valid

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2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No.	Results
1	RF Exposure	§1.1307, §2.1093	PASS
2	RF Output Power	§22.913 (a), §24.232 (c),	PASS
3	Peak-to-average Ratio(PAR) of Transmitter	§22.913, §24.232(d)	PASS
4	Emission Bandwidth	§22.917 (b), §24.238(b),	PASS
5	Spurious Emissions at Antenna Terminal	§22.917 (a), §24.238 (a),	PASS
6	Spurious Radiation Emissions	§22.917 (a), §24.238 (a),	PASS
7	Out of Band Emissions	§22.917 (a), §24.238 (a),	PASS
8	Frequency Stability	§22.355, §24.235,	PASS

NOTE1: N/A (Not Applicable)

NOTE2: According to FCC OET KDB 971168 D01 Power Meas License Digital Systems v03r01 : MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS, ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

Note 3: "*" indicates that the test results are determined base on CFR 47 FCC Part 22/24. And the test results are took into account measurement uncertainty(see section 3 for measurement uncertainty information)

3. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2:2011/AMD2:2018. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(9kHz-30MHz)	U=3.7dB
2	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.8dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=5.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=5.0dB
5	Conducted Emission(150kHz-30MHz)	U=3.0dB
6	Power Spectral Density	U=3.46dB
7	Peak Power	U=0.31dB
8	Occupied Bandwidth/Frequency Range	U=3.46%
9	Conducted output power uncertainty	U=0.55dB
10	Frequency Error	U= 53.50 Hz
11	Frequency Drift	U=0.64 KHz
12	Temperature	U= 0.59 °C
13	Humidity	U= 5.3 %

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4. Product Information And Test Setup

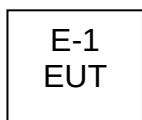
4.1 Product Information

Model/Type reference:	ET-1068	
Model differences:	N/A	
Hardware Version:	N/A	
Software Version:	N/A	
Operation Frequency:	GSM/GPRS/EGPRS 850: TX: 824~849MHz; RX: 869~894MHz; GSM/GPRS/EGPRS 1900: TX:1850~1910MHz; RX:1930~1990MHz; WCDMA Band II: TX: 1852.40~1907.60MHz; Rx: 1932.60~1987.40MHz; WCDMA Band IV: TX: 1712.40~1752.60MHz; RX: 2112.60 – 2452.40MHz WCDMA Band V: TX: 826.40~846.60MHz; RX: 871.40~ 891.60MHz;	
Max RF Output Power:	GSM/GPRS/EGPRS 850: 32.96 dBm, GSM/GPRS/EGPRS 1900: 29.63 dBm WCDMA Band II: 23.05 dBm WCDMA Band IV: 24.05 dBm WCDMA Band V: 23.44 dBm	
Type of Modulation:	GSM /GPRS/EGPRS	GMSK
	EDGE	GMSK, 8PSK
	WCDMA /HSDPA/USUPA	QPSK/16QAM
Multiplot Class	GSM/GPRS/EGPRS: 12	
Type of Emission:	GSM/GPRS 850: 250KGXW EGPRS 850:247KG7W GSM/GPRS 1900: 248KGXW EGPRS 1900:254KG7W WCDMA Band II: 4M18F9W WCDMA Band IV: 4M17F9W WCDMA Band V: 4M19F9W	
Antenna installation:	Internal antenna	
Antenna Gain:	GSM850:0.91dBi GSM1900: 1.49dBi WCDMA Band II: 1.49 dBi WCDMA Band IV: 1.13 dBi WCDMA Band V: 0.91 dBi	
	Remark: ☒ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information. Antenna gain information is provided by the client and the laboratory is not responsible for its authenticity ☐ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information. Antenna gain information is provided by the client and the laboratory is not responsible for its authenticity	
Ratings:	DC 9V from adapter/DC 3.87V from battery	
Adapter:	Model: PS20C120K1670UC Input: 100-240V~50/60Hz 0.6A Max. Output: DC 5.0V 3.0A 15.0W DC 9.0V 2.22A 19.98W DC 12.0V 1.67A 20.0W Max.	

4.2 Test Setup Configuration

See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Radiated Spurious Emission



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Adapter	N/A	PS20C120K1670UC	N/A	N/A
E-2					

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	N/A	DC cable unshielded

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Test Mode

Testing Configure			
Support Band	Support Standard	Channel Frequency	Channel Number
GSM 850	GSM/GPRS/EGPRS	824.2 MHz	128
		836.6 MHz	190
		848.8 MHz	251
PCS 1900	GSM/GPRS/EGPRS	1850.2 MHz	512
		1880.0 MHz	661
		1909.8 MHz	810
WCDMA Band II	RMC/HSDPA/ HSUPA	1852.4 MHz	9262
		1880.0 MHz	9400
		1907.6 MHz	9538
WCDMA Band IV	RMC/HSDPA/ HSUPA	1712.4 MHz	1312
		1740 MHz	1450
		1752.6 MHz	1513
WCDMA Band V	RMC/HSDPA/ HSUPA	826.4 MHz	4132
		836.4 MHz	4182
		846.6 MHz	4233
Note 1: the transmitter has been tested on the communications mode of RMC, HSDPA, HSUPA compliance test and record the worst case.			

4.5 Measurement Test Environments

During the measurement, the environmental conditions were within the listed ranges:

Test Voltage	NV (Normal Voltage):	DC 3.87V
	LV (Low Voltage) :	DC 3.47V
	HV (High Voltage) :	DC 4.24V
Test Temperature	NV (Normal Voltage) :	25 °C
	LV (Low Voltage) :	-10 °C
	HV (High Voltage) :	55 °C
Humidity	25% to 75%	

5. Test Facility And Test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Technology Co., Ltd.
Address: Room 101M, Unit 1, Building1, Pengyuan, No.18, Lilang Road, Shanglilang, Nanwan Subdistrict, Longgang District, Shenzhen, Guangdong, China.
The site and apparatus are constructed in conformance with the requirements of ANSI C63.4a-2017 and CISPR 16-1-1:2019 other equivalent standards.
FCC Test Firm Registration Number: 754702
ANAB certificate registration number is: CN3479

5.2 Test Instrument Used

Conducted emissions Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Receiver	R&S	ESCI	101421	2025.08.30	2026.08.29
AMN	SCHWHRZBECK	NSLK8128	05152	2026.01.22	2027.01.21
AMN	SCHWHRZBECK	NSLK8127	8127739	2025.09.16	2026.09.15
Pulse Limiter	SCHWHRZBECK	VTSD 9561-F-N	00547	2025.08.30	2026.08.29
Temperature & Humidity	Wetest	HTC-1	/	2025.09.01	2026.08.31
Software	EZ-EMC	Ver.EMC-CON 3A1	/	/	/

Radiated disturbance 2#					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Shielded room	ChengYu	9*6*6	/	2023.09.25	2026.09.24
Loop Antenna	Schwarzbeck	FMZB1519B	00014	2026.01.05	2027.01.04
Broadband antenna	SCHWHRZBECK	VULB9168	01620	2025.08.29	2026.08.28
Horn antenna(1 GHz -18GHz)	SCHWARZBECK	BBHA 9120 D	2792	2025.08.29	2026.08.28
Horn antenna (18 GHz -40GHz)	SCHWARZBECK	BBHA9170	00822	2025.12.29	2026.12.28
Receiver	R&S	ESR	1316	2025.08.30	2026.08.29
Spectrum Analyzer	R&S	FSV40	101328	2026.01.22	2027.01.21
Amplifier	SCHWHRZBECK	BBV9744	568	2025.08.30	2026.08.29
Amplifier	EMC INSTRUMENTS	EMC0518A45SE E	EMT-SZ2 233	2025.08.30	2026.08.29

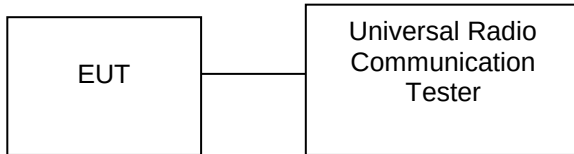
	CORPORATION				
Amplifier (18GHz-40GHz)	MITEQ	TTA1840-35-HG	2034381	2026.05.09	2027.05.08
RF cable 3# (9kHz-6GHz)	Yunyi	10M	/	2025.08.30	2026.08.29
RF cable 9# (9kHz-1GHz)	Yunyi	2M	/	2025.10.28	2026.10.27
RF cable 5# (1GHz-18GHz)	SKET	9M	18038626	2025.08.30	2026.08.29
RF cable 6# (1GHz-18GHz)	SKET	5M	#10	2025.09.05	2026.09.04
RF cable 10# (18GHz-40GHz)	/	2M	2M	2026.05.09	2027.05.08
RF cable 11# (18GHz-40GHz)	/	2.5M	2.5M	2026.05.09	2027.05.08
Temperature & Humidity	Wetest	HTC-1	/	2025.09.05	2026.09.04
Software	EZ-EMC	Ver.FA-03A2	/	/	/

RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Spectrum Analyzer	Keysight	N9020A	MY51287403	2025.08.30	2026.08.29
Signal Generator	Keysight	N5182A	MY50144088	2025.08.30	2026.08.29
Power Sensor	Keysight	U2001	MY51250006	2025.10.28	2026.10.27
Temperature & Humidity	Wetest	HTC-1	/	2025.09.01	2026.08.31
Communication test set	R&S	CMW500	157483	2025.08.30	2026.08.29
Radio frequency control box	MWRFTest	MW100-RFCB	\	\	\
Software	MWRFTest	MTS 8310	V 3.0.0.0	\	\
D.C. Power Supply	Elektro-Automatik GmbH & Co.KG	D-41747 Viersen	6230316	2025.09.30	2026.08.29
Temperature and humidity test chamber	Auchno	OJN-9606-408 L	19120183	2025.07.09	2026.07.08
				2026.07.07	2027.07.06

6. RF Output Power

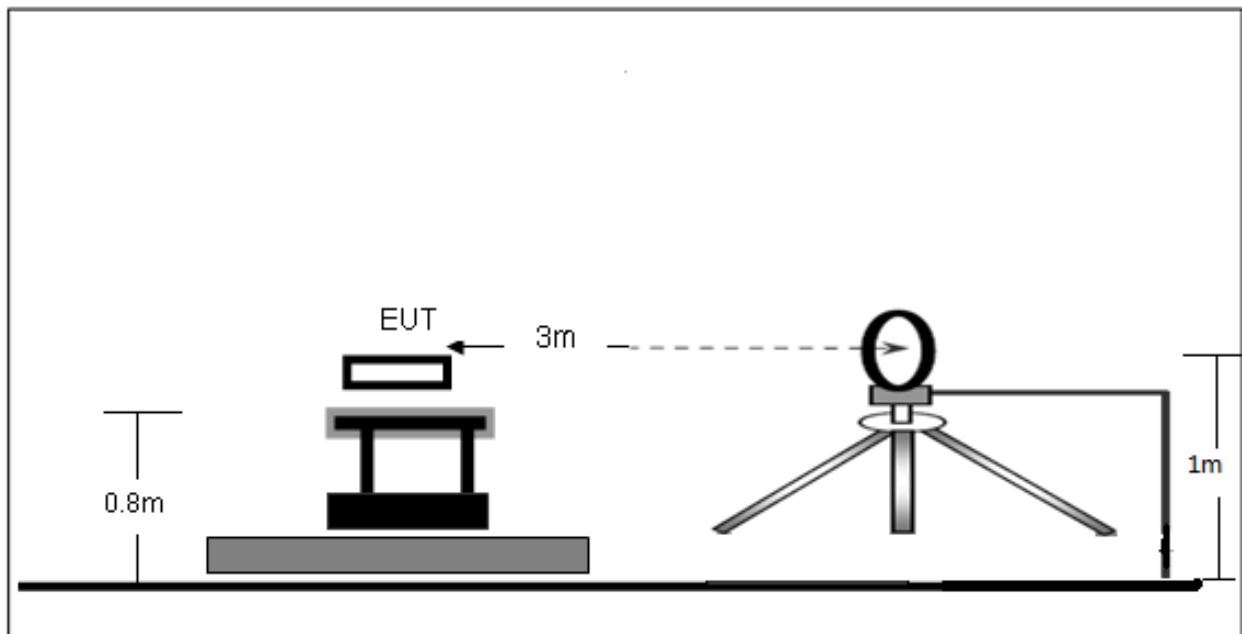
6.1 Block Diagram Of Test Setup

Conducted output power test method:



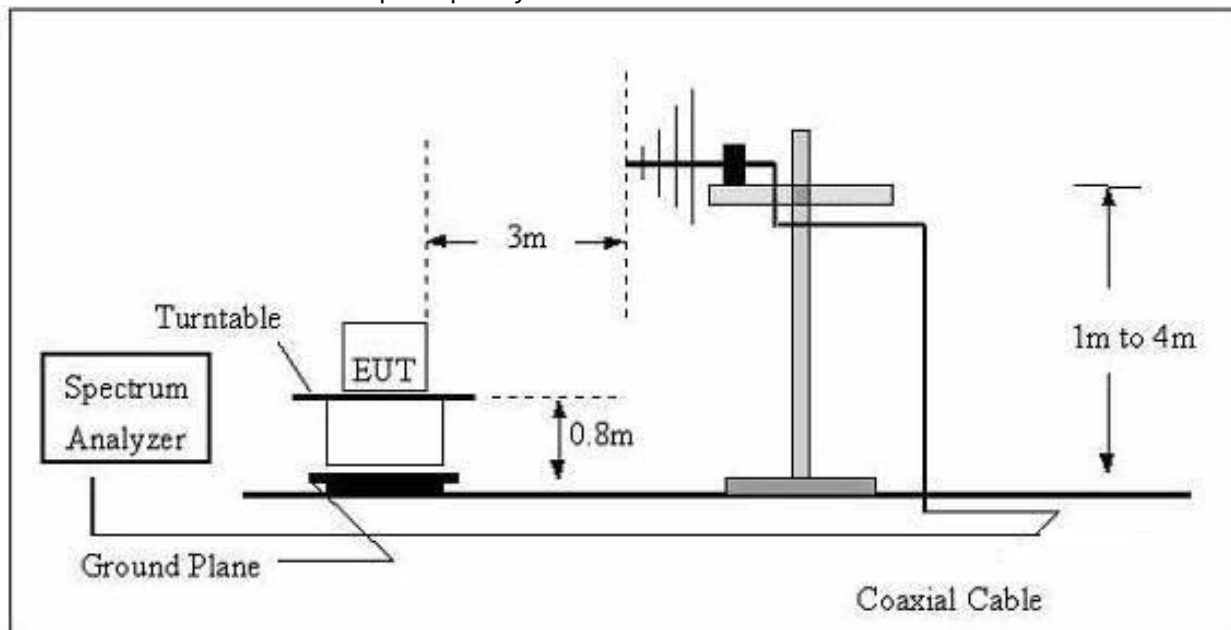
Radiated power test method:

(A) Radiated Emission Test-Up Frequency Below 30MHz

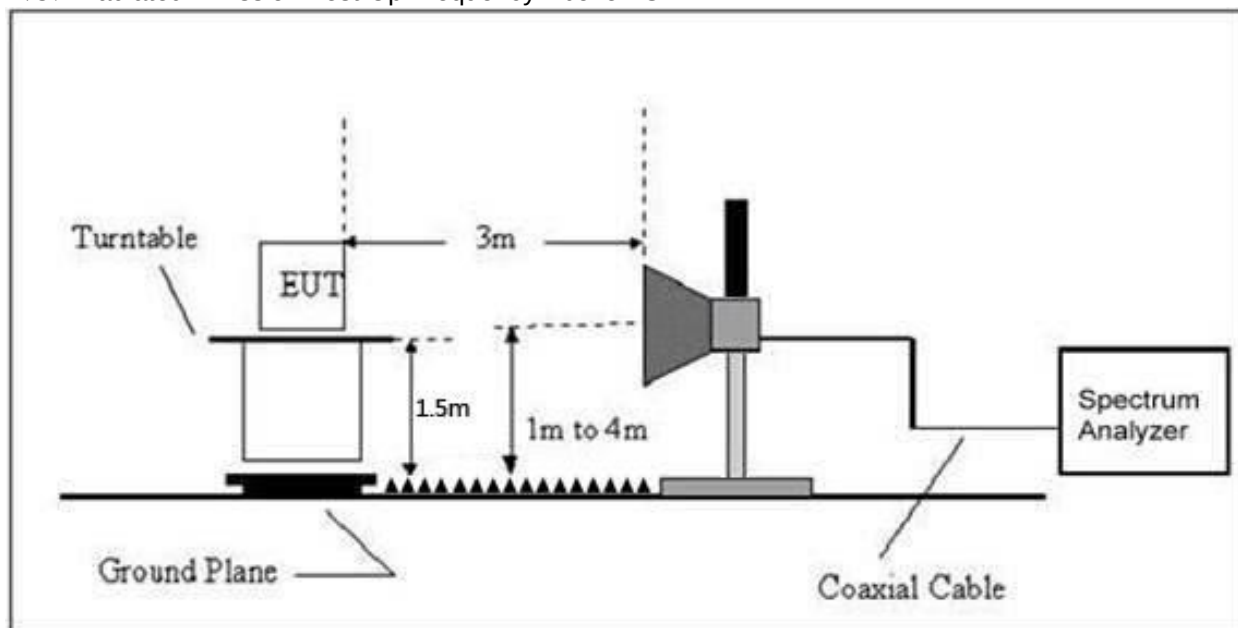


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(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



6.2 Limit

According to FCC section 22.913(a) (5), the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

6.3 Test procedure

Description of the Conducted Output Power Measurement

The EUT is coupled to the SS with attenuator through power splitter; the RF load attached to EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. A system simulator is used to establish communication with the EUT, and its parameters are set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The relevant equation for determining the conducted measured value is:

Conducted Output Power Value (dBm) = Measured Value (dBm) + Path Loss (dB)

where:

Conducted Output Power Value = final conducted measured value in the conducted power test, in dBm;

Measured Value = measured conducted power received by spectrum analyzer or power meter, in dBm;

Path Loss = signal attenuation in the connecting cable between the transmitter and spectrum analyzer or power meter, including external cable loss, in dB;

During the test, the data of Path Loss (dB) is added in the spectrum analyzer or power meter, so

Measured Value (dBm) is the final values which contains the data of Path Loss (dB).

Description of the Transmitter Radiated Power Measurement

In many cases, the RF output power limits for licensed digital transmission devices is specified in terms of effective radiated power (ERP) or equivalent isotropic radiated power (EIRP). Typically, ERP is specified when the operating frequency is less than or equal to 1 GHz and EIRP is specified when the operating frequency is greater than 1 GHz. Both are determined by adding the transmit antenna gain to the conducted RF output power with the primary difference between the two being that when determining the ERP, the transmit antenna gain is referenced to a dipole antenna (i.e., dBd) whereas when determining the EIRP, the transmit antenna gain is referenced to an isotropic antenna (dBi).

Final measurement calculation as below:

Determining ERP and EIRP from conducted RF output power measurement results

Subclause 5.2.5.5 of ANSI C63.26-2015 is applicable, along with the following provisions. For personal/portable radios utilizing an integral antenna, the factor LC is typically negligible. However, in a fixed station transmit system that utilizes a long cable run between the transmitter and the transmitting antenna, this factor can be significant. The minimum cable loss should be used in this equation.

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

ERP or EIRP = P_{Meas} + GT - LC

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;

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

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

$\text{dBd (ERP)} = \text{dBi (EIRP)} - 2.15 \text{ dB}$

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

The relevant equation for determining the ERP/EIRP from the radiated RF output power is:

$\text{ERP/EIRP (dBm)} = \text{SA Read Value (dBm)} + \text{Correction Factor (dB)}$

where:

ERP/EIRP = effective or equivalent radiated power, in dBm;

SA Read Value = measured transmitter power received by EMI receiver or spectrum analyzer, in dBm;

Correction Factor = total correction factor including cable loss, in dB;

During the test, the data of Correction Factor (dB) is added in the EMI receiver or spectrum analyzer, so SA Read Value (dBm) is the final values which contains the data of Correction Factor (dB).

The distance between the EUT and the test antenna shall be adequate to ensure that the measurements are performed in the radiated far-field. The maximum amplitude of the radiated output power must be found by employing a volume search comprising both the horizontal (azimuth) and vertical (elevation) planes. The polarization of the measurement antenna must also be matched with the EUT to determine the maximum amplitude. The procedures given in ANSI C63.26 for ensuring that the radiated amplitude is maximized shall be used.

6.4 Test Result

ERP For GSM Mode GSM850

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 22H Limits (dBm)	Result
Low Channel						
824.2	H	54.07	-26.29	27.78	38.45	PASS
824.2	V	54.16	-26.29	27.87	38.45	PASS
Middle Channel						
836.6	H	53.61	-26.35	27.26	38.45	PASS
836.6	V	53.06	-26.35	26.71	38.45	PASS
High Channel						
848.8	H	54.27	-26.42	27.85	38.45	PASS
848.8	V	54.15	-26.42	27.73	38.45	PASS

EIRP For GSM Mode PCS1900

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 24E Limits (dBm)	Result
Low Channel						
1850.2	H	54.73	-26.93	27.80	33.00	PASS
1850.2	V	54.64	-26.93	27.71	33.00	PASS
Middle Channel						
1880	H	54.11	-26.86	27.25	33.00	PASS
1880	V	54.00	-26.86	27.14	33.00	PASS
High Channel						
1909.8	H	54.28	-26.80	27.48	33.00	PASS
1909.8	V	53.93	-26.80	27.13	33.00	PASS

ERP For GPRS Mode GSM850

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 22H Limits (dBm)	Result
Low Channel						
824.2	H	53.38	-26.29	27.09	38.45	PASS
824.2	V	53.31	-26.29	27.02	38.45	PASS
Middle Channel						
836.6	H	53.62	-26.35	27.27	38.45	PASS
836.6	V	53.78	-26.35	27.43	38.45	PASS
High Channel						
848.8	H	54.30	-26.42	27.88	38.45	PASS
848.8	V	54.17	-26.42	27.75	38.45	PASS

EIRP For GPRS Mode PCS1900

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 24E Limits (dBm)	Result
Low Channel						
1850.2	H	54.44	-26.93	27.51	33.00	PASS
1850.2	V	54.34	-26.93	27.41	33.00	PASS
Middle Channel						
1880	H	54.50	-26.86	27.64	33.00	PASS
1880	V	53.88	-26.86	27.02	33.00	PASS
High Channel						
1909.8	H	54.42	-26.80	27.62	33.00	PASS
1909.8	V	53.95	-26.80	27.15	33.00	PASS

Note: All modes have been tested and only the worst mode is represented, with the worst data being Subtest1.

ERP For EGPRS Mode GSM850

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 22H Limits (dBm)	Result
Low Channel						
824.2	H	53.84	-26.29	27.55	38.45	PASS
824.2	V	53.36	-26.29	27.07	38.45	PASS
Middle Channel						
836.6	H	53.27	-26.35	26.92	38.45	PASS
836.6	V	52.92	-26.35	26.57	38.45	PASS
High Channel						
848.8	H	53.87	-26.42	27.45	38.45	PASS
848.8	V	53.94	-26.42	27.52	38.45	PASS

EIRP For EGPRS Mode PCS1900

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 24E Limits (dBm)	Result
Low Channel						
1850.2	H	54.35	-26.93	27.42	33.00	PASS
1850.2	V	54.18	-26.93	27.25	33.00	PASS
Middle Channel						
1880	H	54.17	-26.86	27.31	33.00	PASS
1880	V	54.27	-26.86	27.41	33.00	PASS
High Channel						
1909.8	H	54.53	-26.80	27.73	33.00	PASS
1909.8	V	54.35	-26.80	27.55	33.00	PASS

Note: All modes have been tested and only the worst mode is represented, with the worst data being Subtest1.

EIRP For RMC 12.2Kbps Mode Band II

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 24E Limits (dBm)	Result
Low Channel						
1852.4	H	50.26	-26.92	23.34	33.00	PASS
1852.4	V	48.84	-26.92	21.92	33.00	PASS
Middle Channel						
1880	H	49.61	-26.86	22.75	33.00	PASS
1880	V	48.55	-26.86	21.69	33.00	PASS
High Channel						
1907.6	H	48.88	-26.80	22.08	33.00	PASS
1907.6	V	48.72	-26.80	21.92	33.00	PASS

EIRP For HSDPA Mode Band II

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 24E Limits (dBm)	Result
Low Channel						
1852.4	H	49.26	-26.92	22.34	33.00	PASS
1852.4	V	49.15	-26.92	22.23	33.00	PASS
Middle Channel						
1880	H	49.69	-26.86	22.83	33.00	PASS
1880	V	48.74	-26.86	21.88	33.00	PASS
High Channel						
1907.6	H	48.59	-26.80	21.79	33.00	PASS
1907.6	V	48.69	-26.80	21.89	33.00	PASS

EIRP For HSUPA Mode Band II

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 24E Limits (dBm)	Result
Low Channel						
1852.4	H	50.19	-26.92	23.27	33.00	PASS
1852.4	V	49.26	-26.92	22.34	33.00	PASS
Middle Channel						
1880	H	48.79	-26.86	21.93	33.00	PASS
1880	V	49.09	-26.86	22.23	33.00	PASS
High Channel						
1907.6	H	49.54	-26.80	22.74	33.00	PASS
1907.6	V	48.81	-26.80	22.01	33.00	PASS

Note: The worst mode of HSDPA and HSUPA is Subtest1.

EIRP For RMC 12.2Kbps Mode Band IV

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 27L Limits (dBm)	Result
Low Channel						
1712.4	H	48.99	-27.23	21.76	33.00	PASS
1712.4	V	49.07	-27.23	21.84	33.00	PASS
Middle Channel						
1740	H	49.71	-27.19	22.52	33.00	PASS
1740	V	49.33	-27.19	22.14	33.00	PASS
High Channel						
1752.6	H	49.34	-27.14	22.20	33.00	PASS
1752.6	V	49.33	-27.14	22.19	33.00	PASS

EIRP For HSDPA Mode Band IV

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 27L Limits (dBm)	Result
Low Channel						
1712.4	H	48.27	-27.23	21.04	33.00	PASS
1712.4	V	47.67	-27.23	20.44	33.00	PASS
Middle Channel						
1740	H	48.85	-27.19	21.66	33.00	PASS
1740	V	48.11	-27.19	20.92	33.00	PASS
High Channel						
1752.6	H	48.08	-27.14	20.94	33.00	PASS
1752.6	V	47.64	-27.14	20.50	33.00	PASS

EIRP For HSUPA Mode Band IV

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 27L Limits (dBm)	Result
Low Channel						
1712.4	H	49.98	-27.23	22.75	33.00	PASS
1712.4	V	48.39	-27.23	21.16	33.00	PASS
Middle Channel						
1740	H	49.94	-27.19	22.75	33.00	PASS
1740	V	49.06	-27.19	21.87	33.00	PASS
High Channel						
1752.6	H	48.85	-27.14	21.71	33.00	PASS
1752.6	V	48.84	-27.14	21.70	33.00	PASS

Note: The worst mode of HSDPA and HSUPA is Subtest1.

ERP For RMC 12.2Kbps Mode Band V

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 22H Limits (dBm)	Result
Low Channel						
826.4	H	49.64	-26.29	23.35	38.45	PASS
826.4	V	48.74	-26.29	22.45	38.45	PASS
Middle Channel						
836.4	H	48.95	-26.35	22.60	38.45	PASS
836.4	V	48.89	-26.35	22.54	38.45	PASS
High Channel						
846.6	H	49.50	-26.42	23.08	38.45	PASS
846.6	V	48.70	-26.42	22.28	38.45	PASS

ERP For HSDPA Mode Band V

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 22H Limits (dBm)	Result
Low Channel						
826.4	H	50.22	-26.29	23.93	38.45	PASS
826.4	V	48.68	-26.29	22.39	38.45	PASS
Middle Channel						
836.4	H	48.46	-26.35	22.11	38.45	PASS
836.4	V	49.00	-26.35	22.65	38.45	PASS
High Channel						
846.6	H	49.98	-26.42	23.56	38.45	PASS
846.6	V	48.64	-26.42	22.22	38.45	PASS

ERP For HSUPA Mode Band V

Frequency (MHz)	Polar (H/V)	Reading Level (dBm)	Correct Factor (dB)	Measurement (dBm)	FCC Part 22H Limits (dBm)	Result
Low Channel						
826.4	H	49.46	-26.29	23.17	38.45	PASS
826.4	V	48.53	-26.29	22.24	38.45	PASS
Middle Channel						
836.4	H	50.26	-26.35	23.91	38.45	PASS
836.4	V	48.70	-26.35	22.35	38.45	PASS
High Channel						
846.6	H	48.96	-26.42	22.54	38.45	PASS
846.6	V	48.63	-26.42	22.21	38.45	PASS

Note: The worst mode of HSDPA and HSUPA is Subtest1.

Max. Conducted Output Power

For Cellular Band (GSM850)

Band	GSM850		
Channel	128	190	251
Frequency(MHz)	824.2	836.6	848.8
GSM	32.93	32.77	32.77
GPRS Slot -1	32.96	32.81	32.79
GPRS Slot -2	32.37	32.18	32.14
GPRS Slot -3	30.79	30.54	30.51
GPRS Slot -4	29.79	29.51	29.46
EGPRS Slot -1	26.81	26.62	26.55
EGPRS Slot -2	25.91	25.01	25.44
EGPRS Slot -3	24.29	23.33	23.6
EGPRS Slot -4	23.17	22.81	22.44

For PCS Band (GSM1900)

Band	GSM1900		
Channel	512	661	810
Frequency(MHz)	1850.2	1880	1909.8
GSM	29.23	29.57	29.63
GPRS Slot -1	29.2	29.54	29.59
GPRS Slot -2	28.64	28.95	28.96
GPRS Slot -3	27.21	27.41	27.34
GPRS Slot -4	26.23	26.4	26.28
EGPRS Slot -1	25.8	26.04	25.83
EGPRS Slot -2	25.09	25.25	25.31
EGPRS Slot -3	23.03	22.89	23.3
EGPRS Slot -4	21.98	22.23	22.22

Band	WCDMA Band II		
Channel	9262	9400	9538
Frequency(MHz)	1852.4	1880.0	1907.6
WCDMA RMC 12.2K	22.82	23.05	22.92
HSDPA Subtest-1	21.82	22.01	21.87
HSDPA Subtest-2	21.33	21.61	21.33
HSDPA Subtest-3	20.12	20.55	20.13
HSDPA Subtest-4	20.41	20.37	20.17
HSUPA Subtest-1	20.73	21.79	21.68
HSUPA Subtest-2	21.66	21.86	21.75
HSUPA Subtest-3	19.83	20.73	20.54
HSUPA Subtest-4	21.78	21.99	21.84
HSUPA Subtest-5	20.14	21.40	21.26

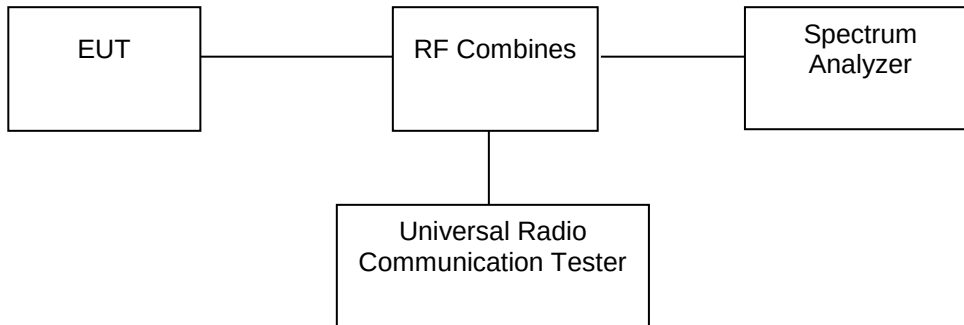
Band	WCDMA Band IV		
Channel	1312	1450	1513
Frequency(MHz)	1712.4	1740	1752.6
WCDMA RMC 12.2K	24.05	23.78	23.76
HSDPA Subtest-1	22.99	22.77	22.73
HSDPA Subtest-2	22.65	22.16	22.27
HSDPA Subtest-3	21.37	21.05	21.00
HSDPA Subtest-4	21.24	21.36	21.29
HSUPA Subtest-1	21.83	22.53	22.52
HSUPA Subtest-2	22.88	22.61	22.62
HSUPA Subtest-3	21.21	21.35	21.39
HSUPA Subtest-4	23.02	22.74	22.76
HSUPA Subtest-5	21.58	22.05	21.94

Band	WCDMA Band V		
Channel	4132	4182	4233
Frequency(MHz)	826.4	836.4	846.6
WCDMA RMC 12.2K	23.39	23.44	23.32
HSDPA Subtest-1	22.40	22.47	22.34
HSDPA Subtest-2	22.09	22.12	21.97
HSDPA Subtest-3	20.88	20.74	20.84
HSDPA Subtest-4	20.69	20.93	20.95
HSUPA Subtest-1	20.74	22.29	22.15
HSUPA Subtest-2	22.26	22.39	22.27
HSUPA Subtest-3	20.76	21.20	20.98
HSUPA Subtest-4	22.41	22.47	22.33
HSUPA Subtest-5	20.75	21.91	21.54

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7. Peak-to-average Ratio(PAR) of Transmitter

7.1 Block Diagram Of Test Setup



7.2 Limit

According to §24.232(d), Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. 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.

According to §27.50(B), the peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

7.3 Test procedure

The inherent randomness of the power peaks in a noise-like signal and the wide bandwidths associated with modern technologies makes it difficult to quantify the peak power using traditional measurement techniques. Because the peak power of a noise-like signal is predictable only on a statistical basis, a statistical measurement of the peak power is preferred.

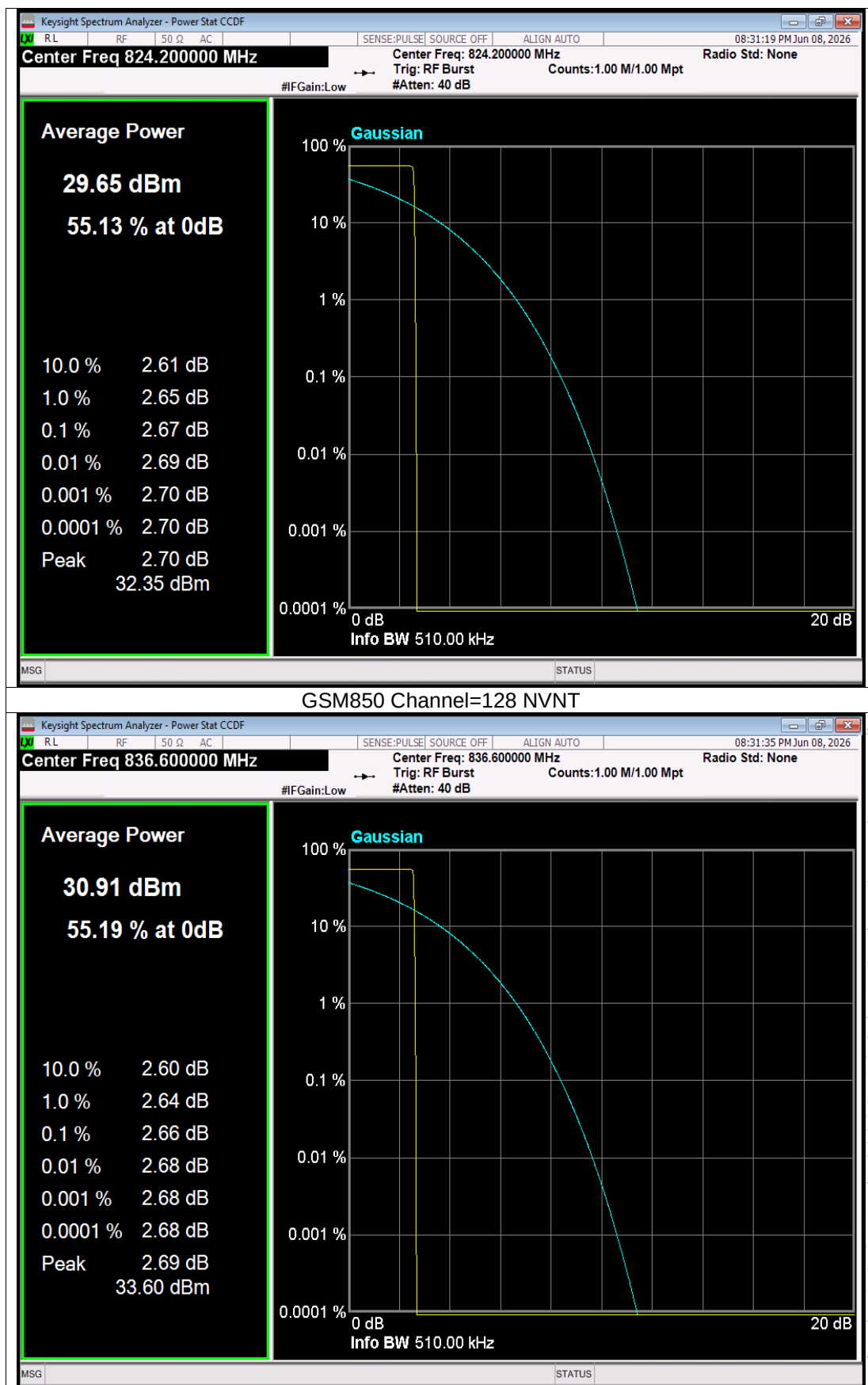
CCDF curves provide a means for characterizing the power peaks of a noise-like signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation offers the capability to produce CCDF curves for a noise-like input signal.

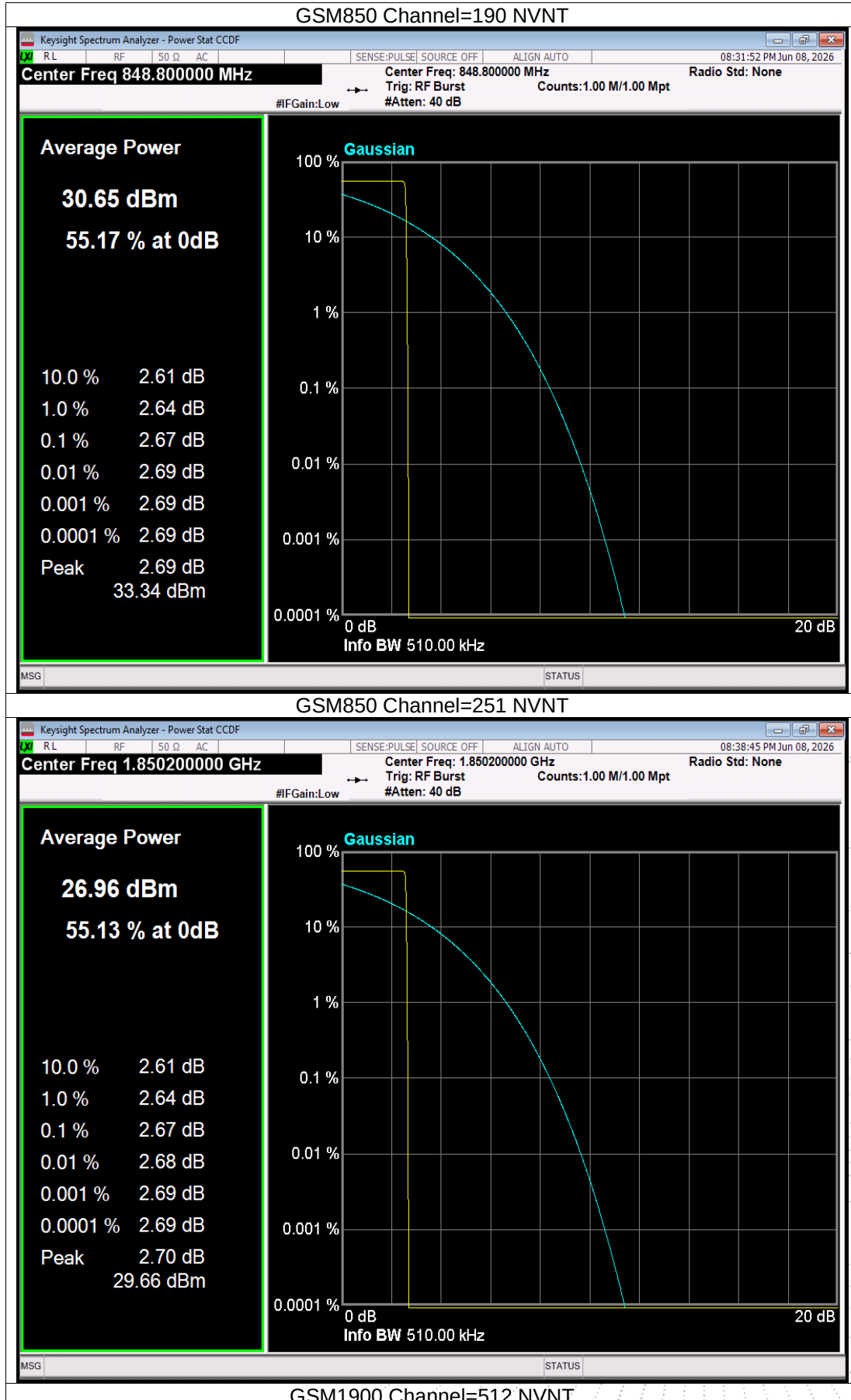
See instrumentation-specific application literature for further guidance regarding use of the CCDF capability. The following guidelines are offered for performing a CCDF measurement.

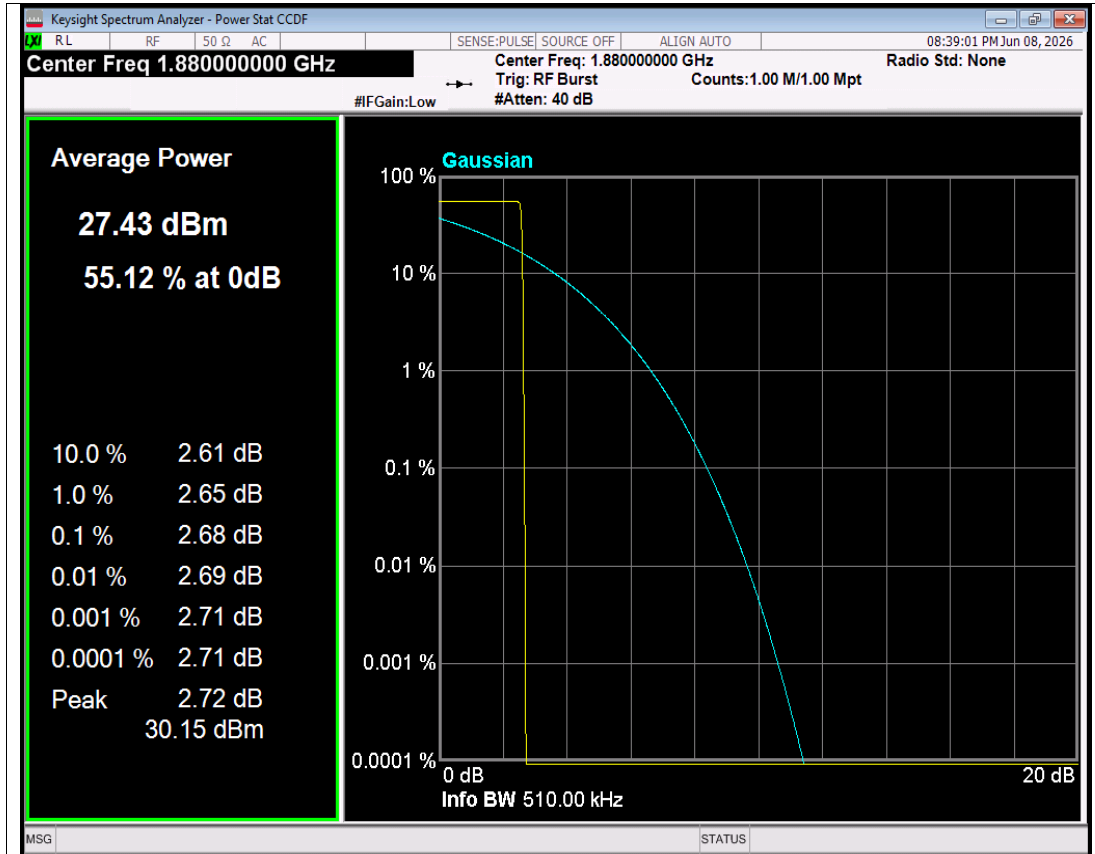
- a) Set resolution/measurement bandwidth $\geq$ OBW or specified reference bandwidth.
- b) Set the number of counts to a value that stabilizes the measured CCDF curve.
- c) Set the measurement interval as follows:
 - 1) For continuous transmissions, set to the greater of $[10 \times (\text{number of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

7.4 Test Result

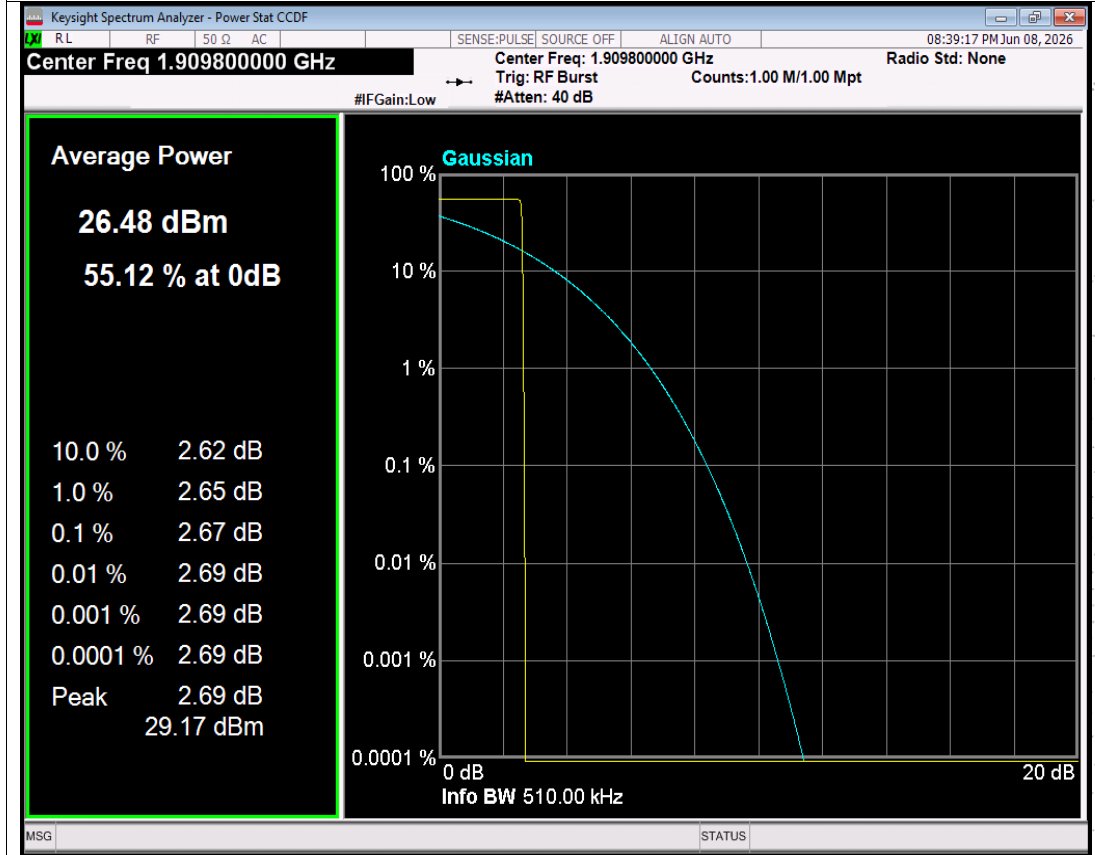
Condition	Band	Channel	Frequency (MHz)	Result (dB)	high Limit (dB)	Verdict
NVNT	GSM850	128	824.2	2.67	13.00	PASS
NVNT	GSM850	190	836.6	2.66	13.00	PASS
NVNT	GSM850	251	848.8	2.67	13.00	PASS
NVNT	GSM1900	512	1850.2	2.67	13.00	PASS
NVNT	GSM1900	661	1880	2.68	13.00	PASS
NVNT	GSM1900	810	1909.8	2.67	13.00	PASS
NVNT	GPRS850	128	824.2	2.71	13.00	PASS
NVNT	GPRS850	190	836.6	2.71	13.00	PASS
NVNT	GPRS850	251	848.8	2.70	13.00	PASS
NVNT	GPRS1900	512	1850.2	2.71	13.00	PASS
NVNT	GPRS1900	661	1880	2.70	13.00	PASS
NVNT	GPRS1900	810	1909.8	2.70	13.00	PASS
NVNT	EGPRS850	128	824.2	9.32	13.00	PASS
NVNT	EGPRS850	190	836.6	8.36	13.00	PASS
NVNT	EGPRS850	251	848.8	9.05	13.00	PASS
NVNT	EGPRS1900	512	1850.2	5.38	13.00	PASS
NVNT	EGPRS1900	661	1880	5.39	13.00	PASS
NVNT	EGPRS1900	810	1909.8	5.14	13.00	PASS



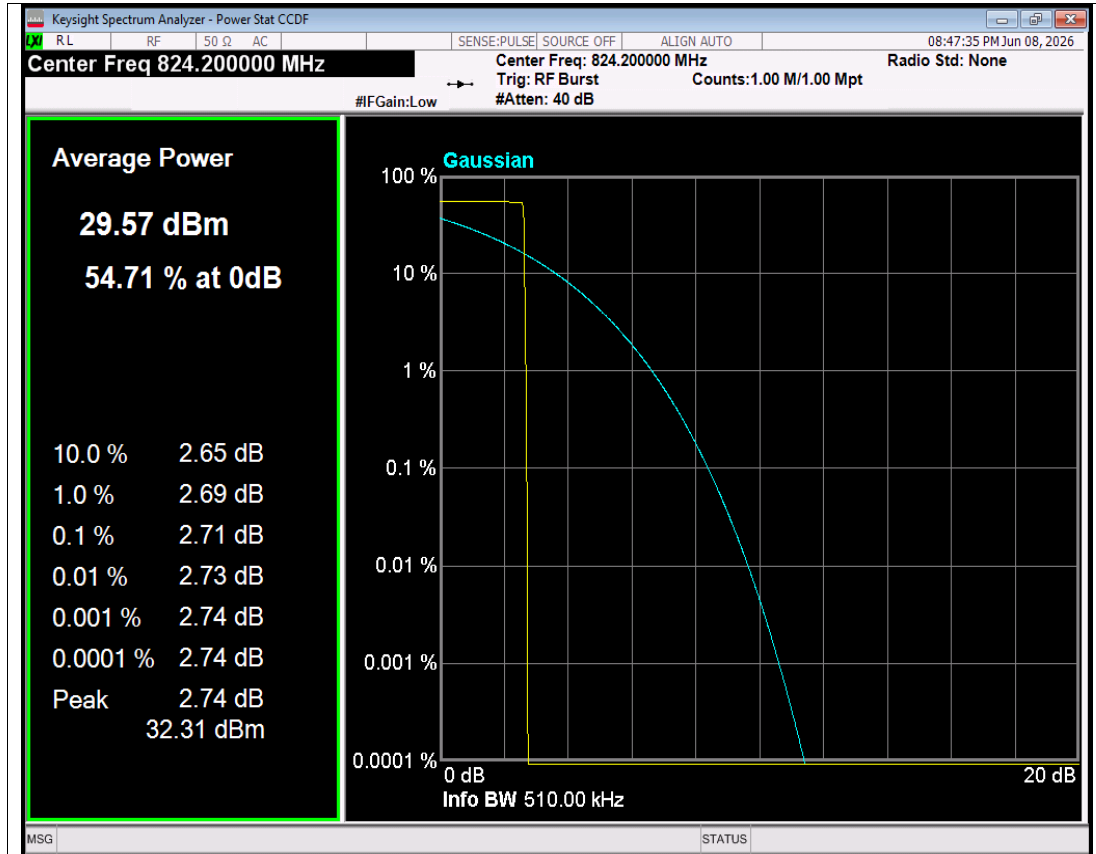




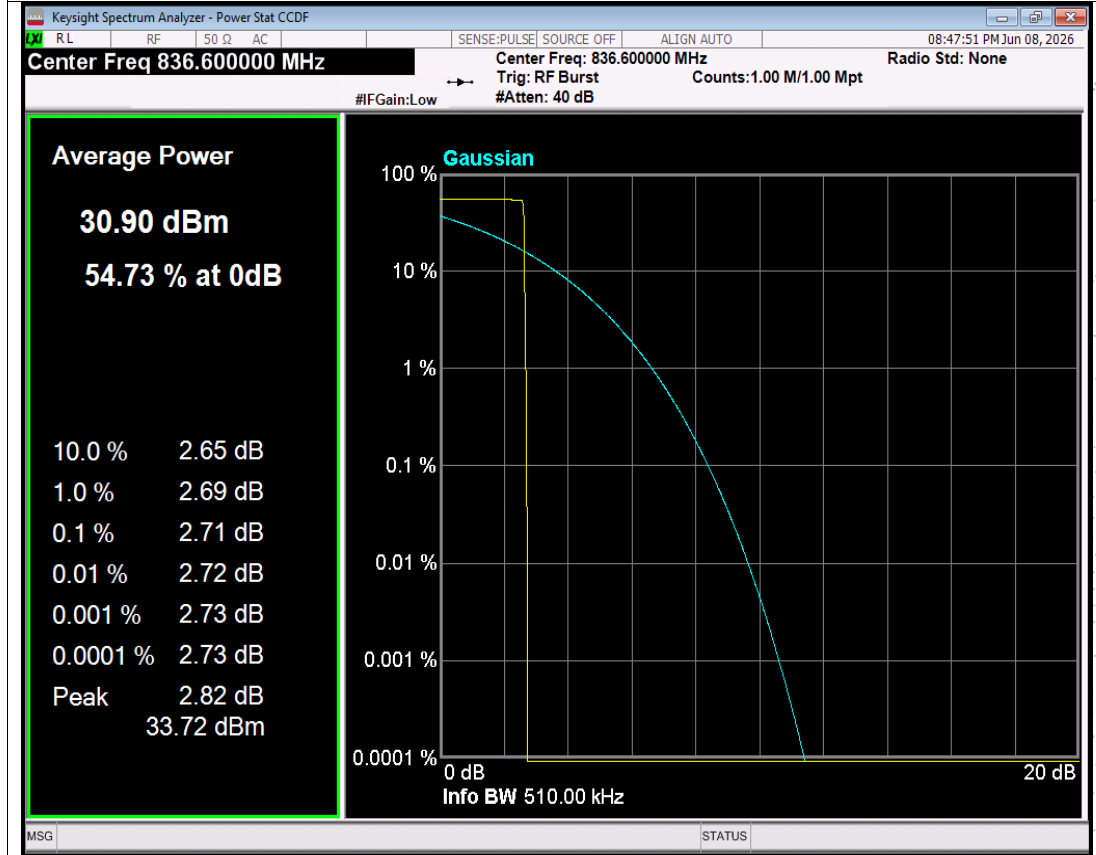
GSM1900 Channel=661 NVNT



GSM1900 Channel=810 NVNT

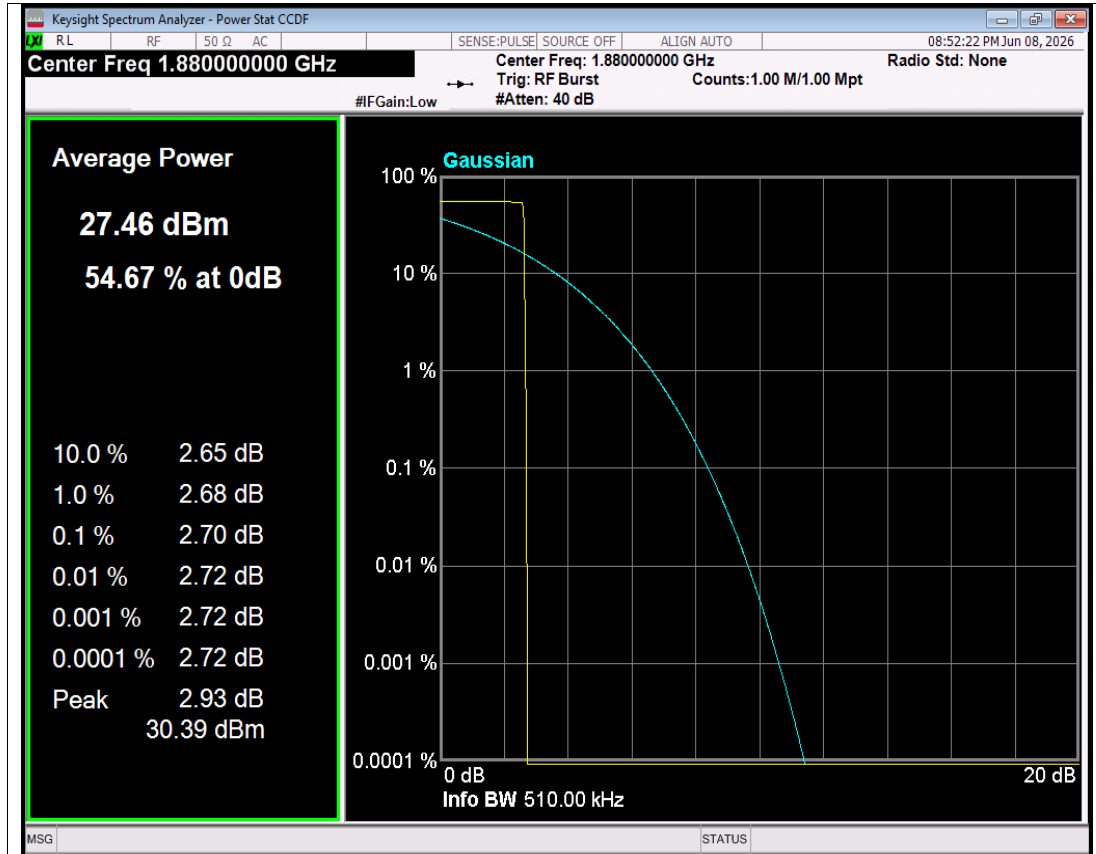


GPRS850 Channel=128 NVNT

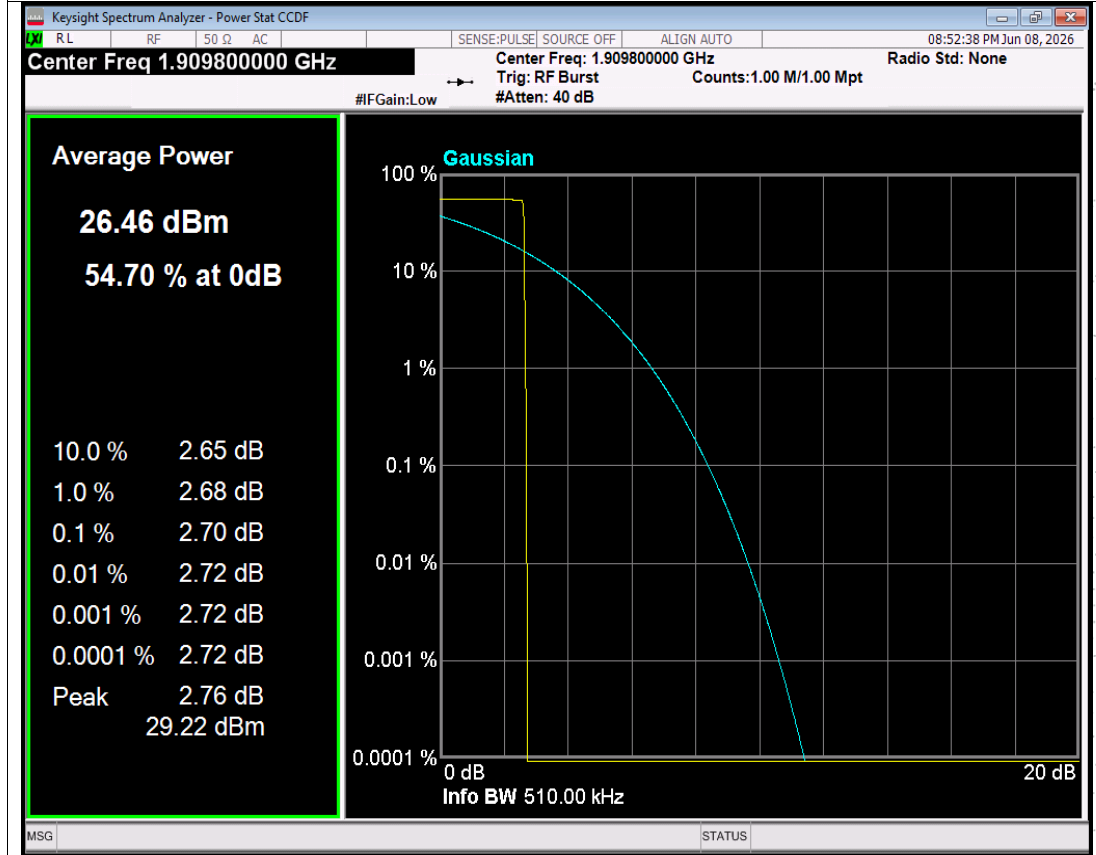


GPRS850 Channel=190 NVNT

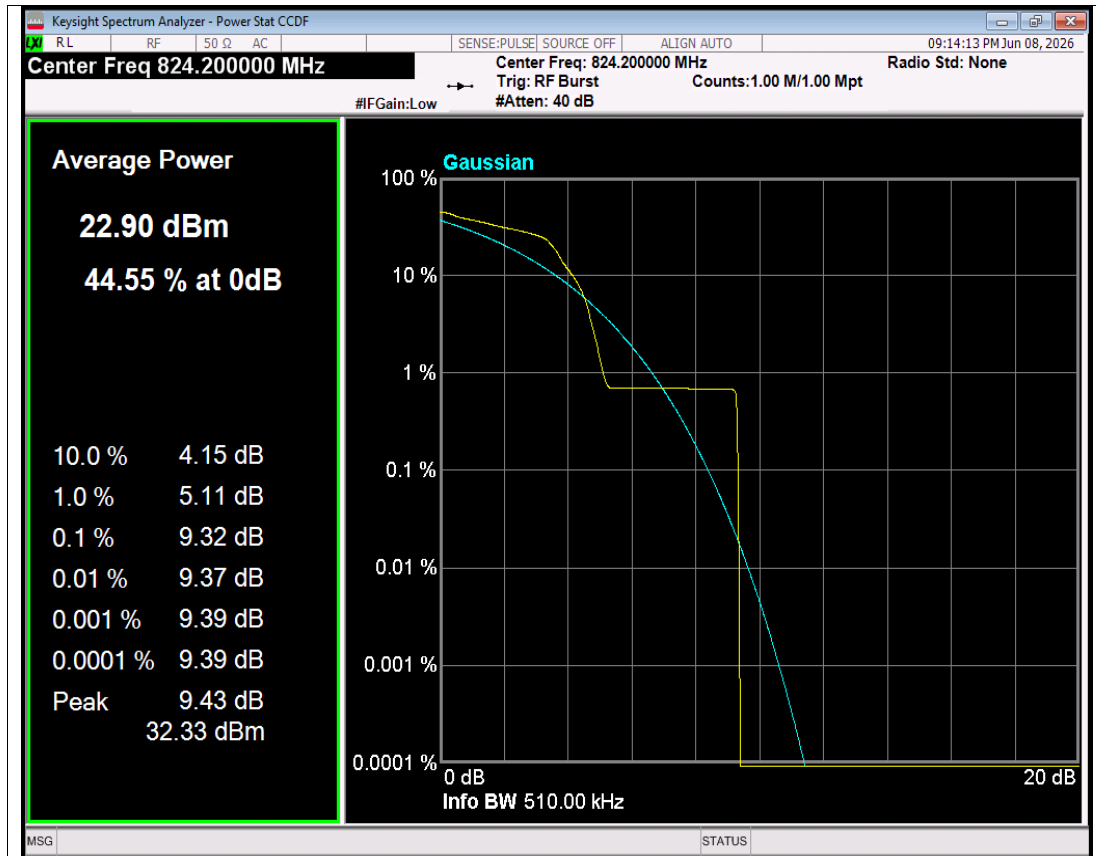




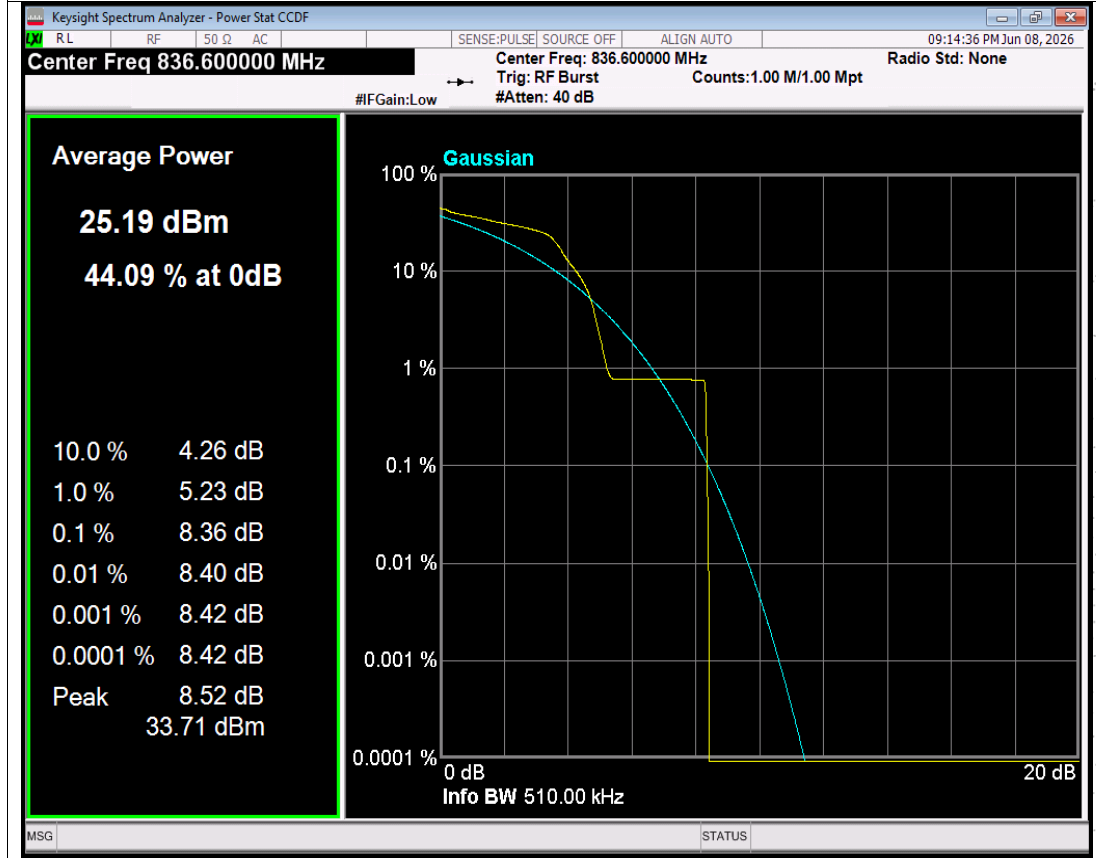
GPRS1900 Channel=661 NVNT



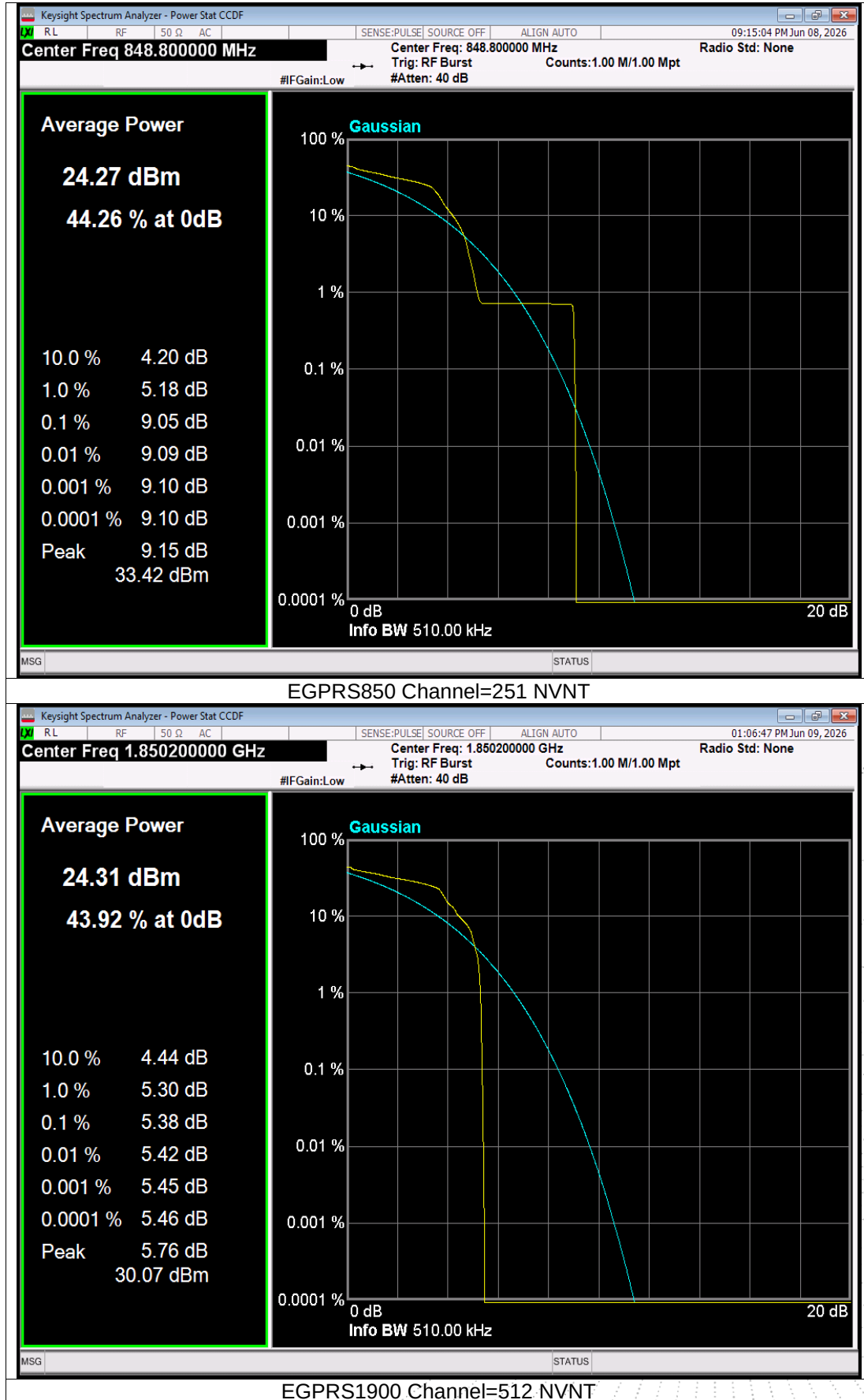
GPRS1900 Channel=810 NVNT

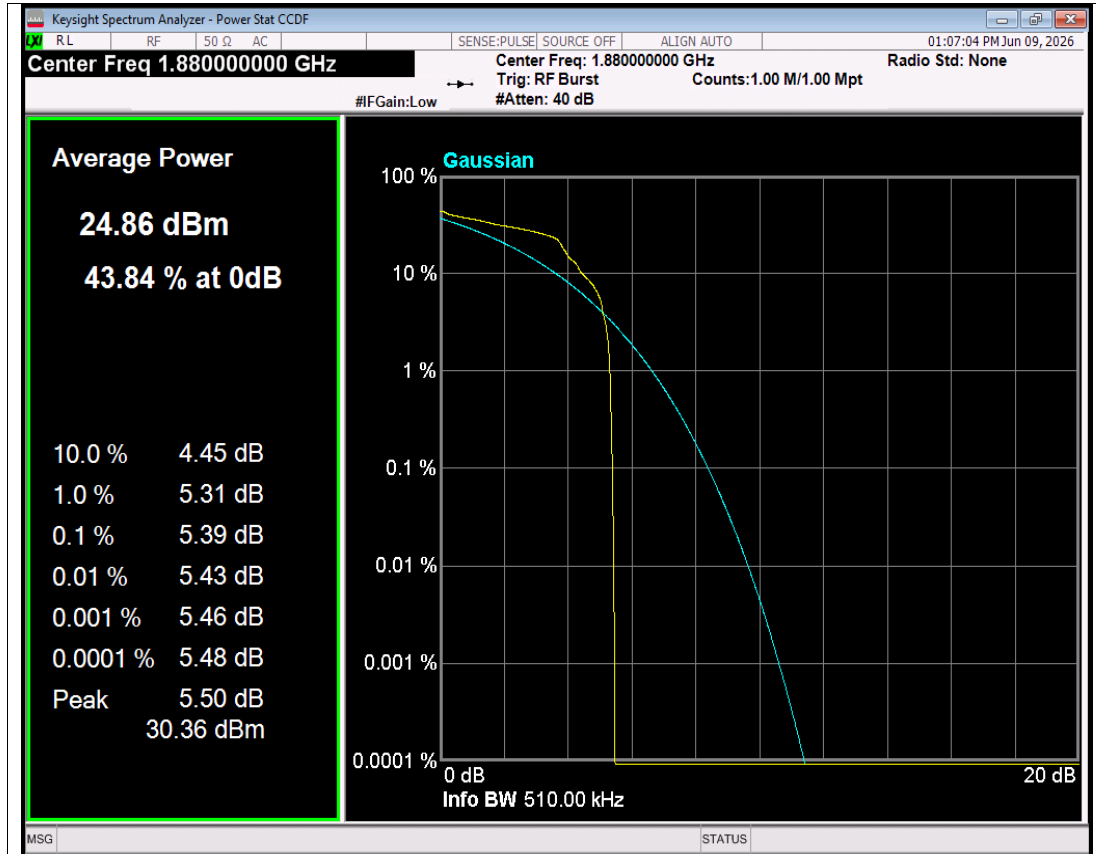


EGPRS850 Channel=128 NVNT

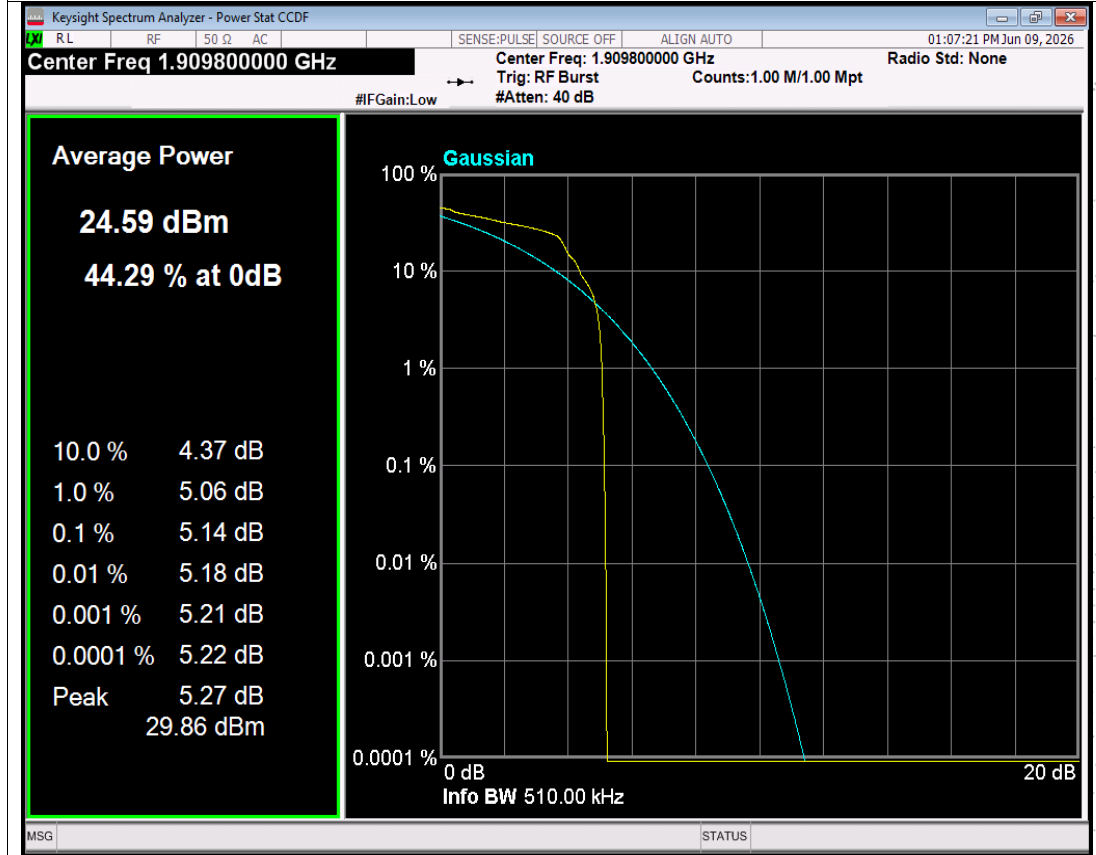


EGPRS850 Channel=190 NVNT





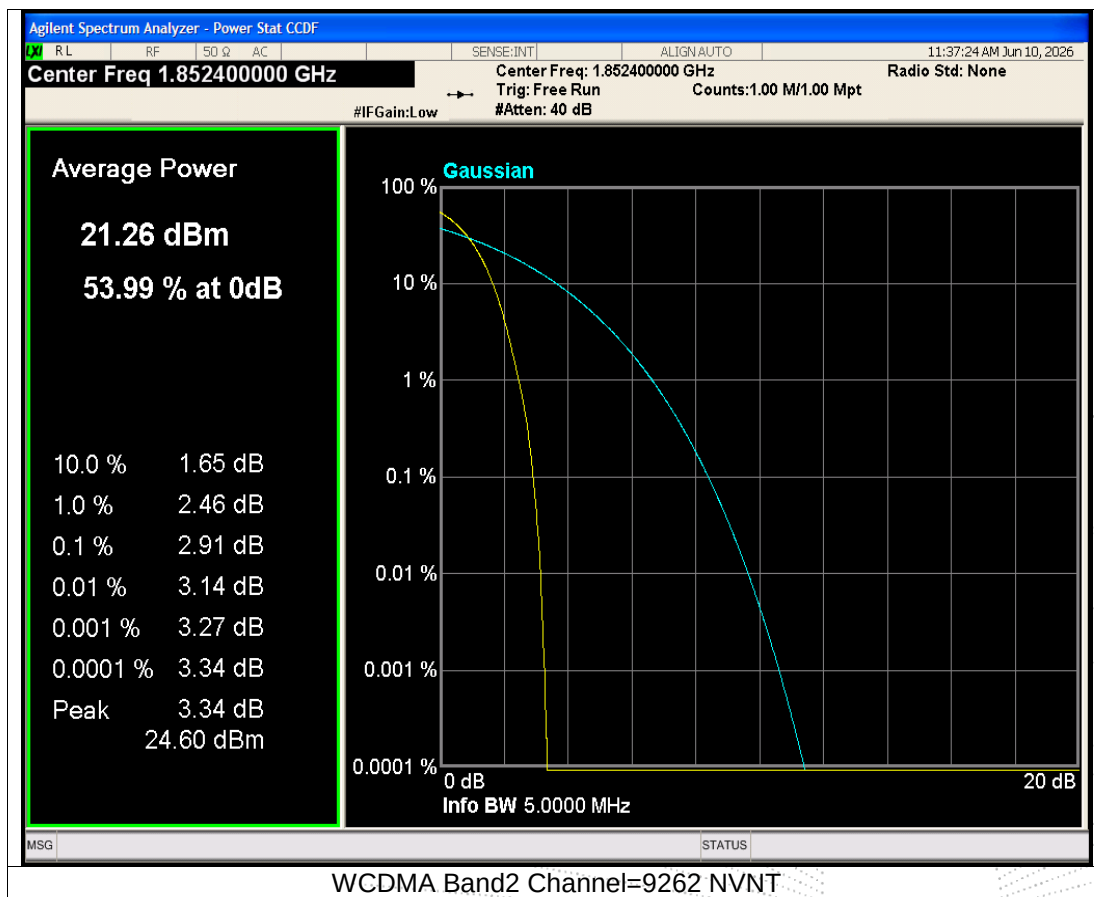
EGPRS1900 Channel=661 NVNT

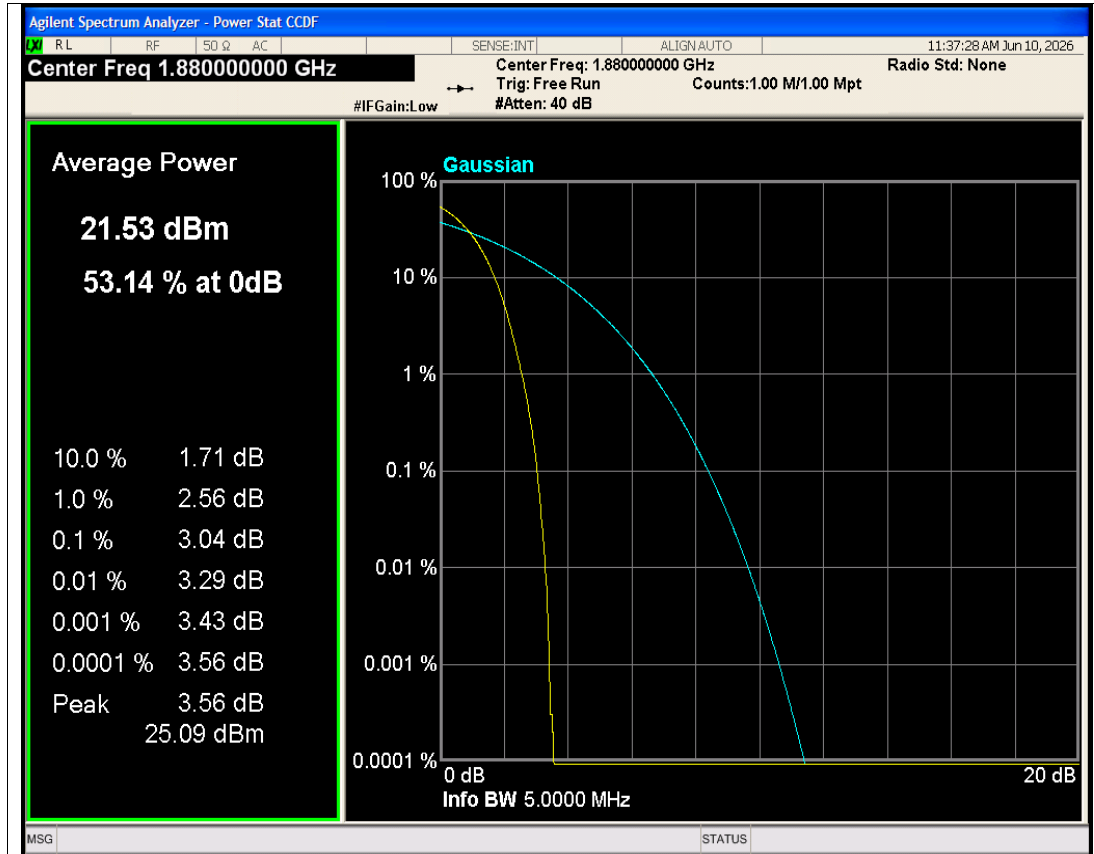


EGPRS1900 Channel=810 NVNT

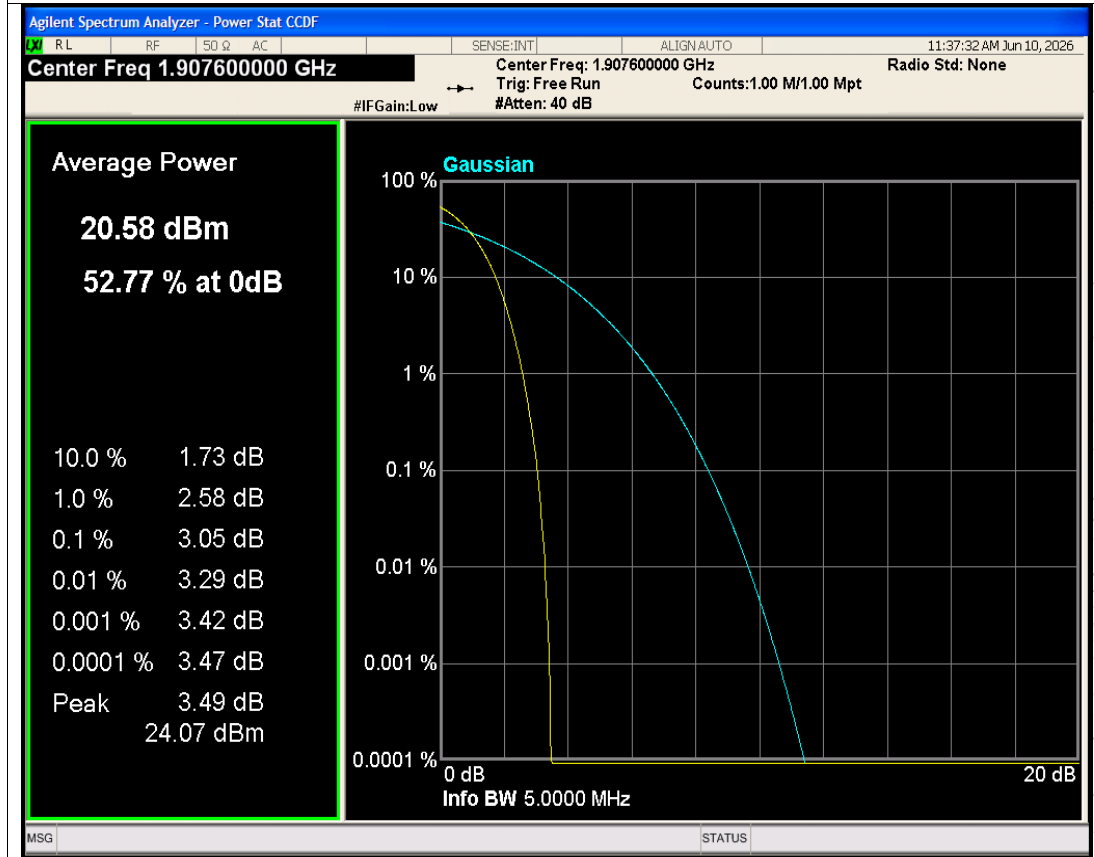
Condition	Band	Channel	Frequency (MHz)	Result (dB)	high Limit (dB)	Verdict
NVNT	WCDMA Band2	9262	1852.4	2.91	13	PASS
NVNT	WCDMA Band2	9400	1880	3.04	13	PASS
NVNT	WCDMA Band2	9538	1907.6	3.05	13	PASS
NVNT	WCDMA Band4	1312	1712.4	2.74	13	PASS
NVNT	WCDMA Band4	1450	1740	3.00	13	PASS
NVNT	WCDMA Band4	1513	1752.6	2.95	13	PASS
NVNT	WCDMA Band5	4132	826.4	2.88	13	PASS
NVNT	WCDMA Band5	4182	836.4	2.94	13	PASS
NVNT	WCDMA Band5	4233	846.6	2.97	13	PASS

Note: In WCDMA, RMC, HSDPA and HSUPA all three tests only reflect the worst mode RMC.

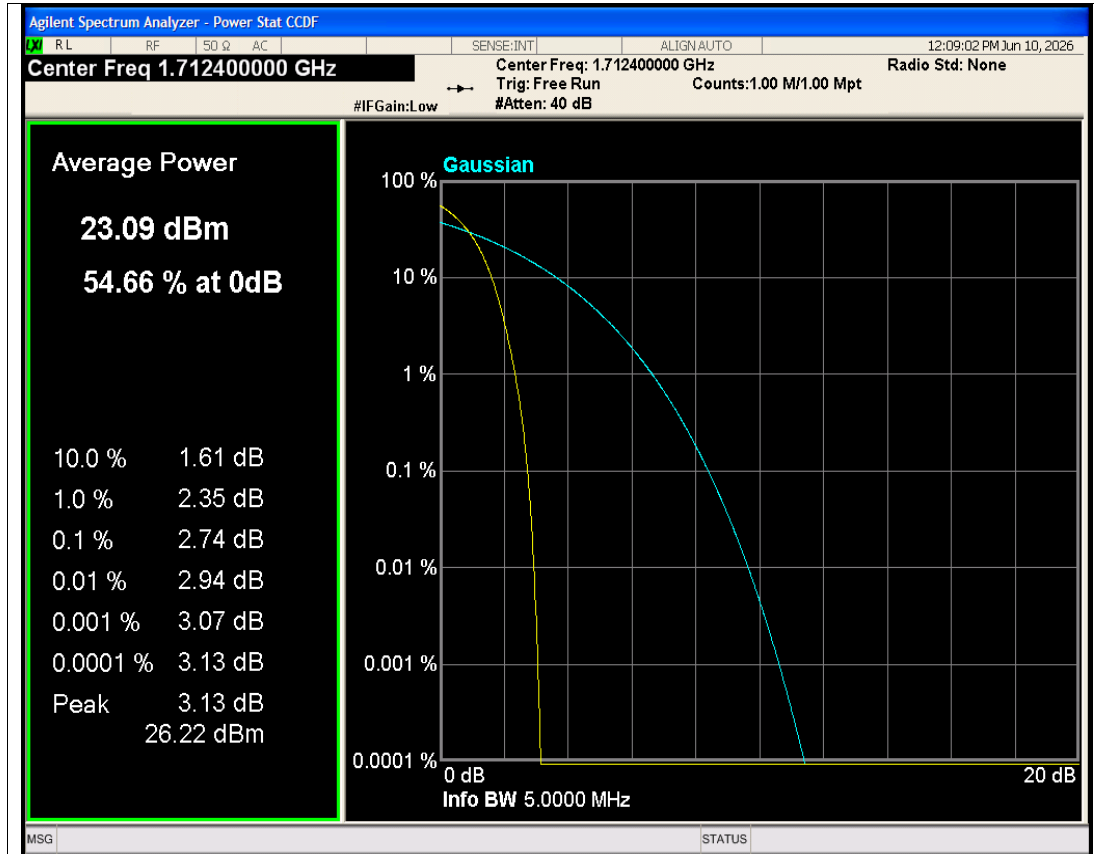




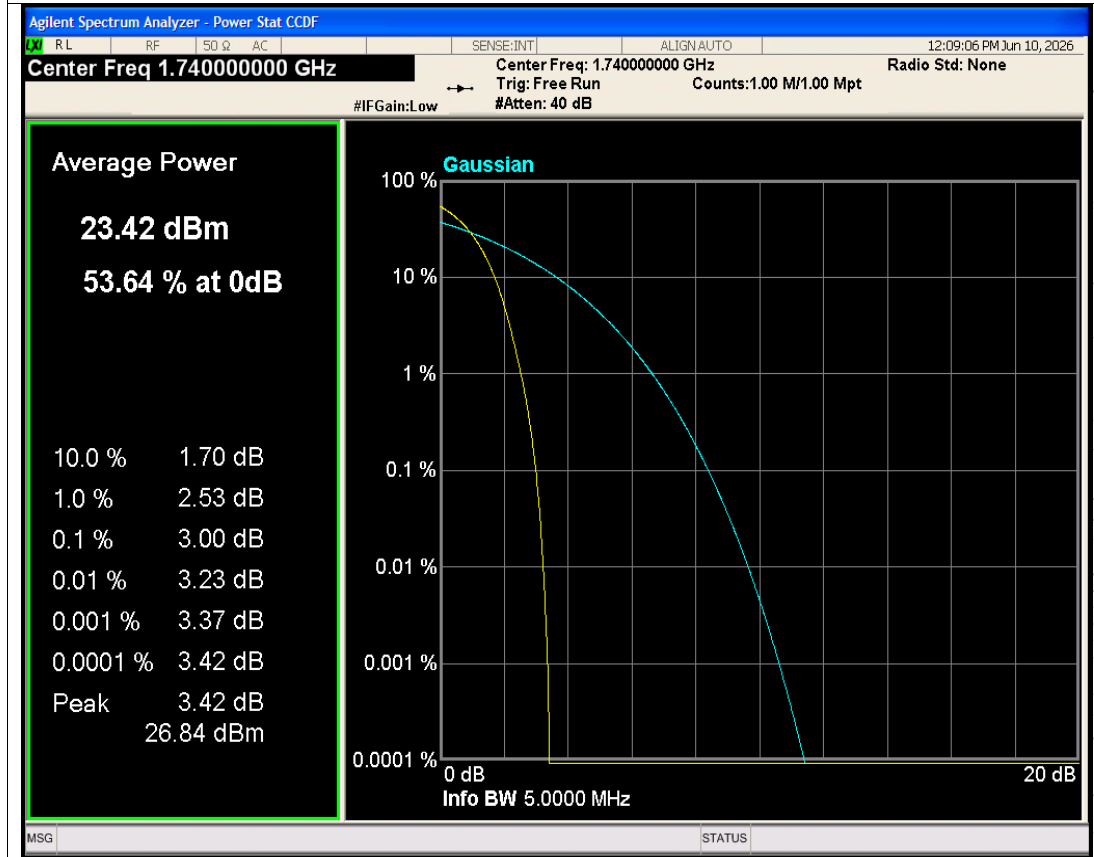
WCDMA Band2 Channel=9400 NVNT



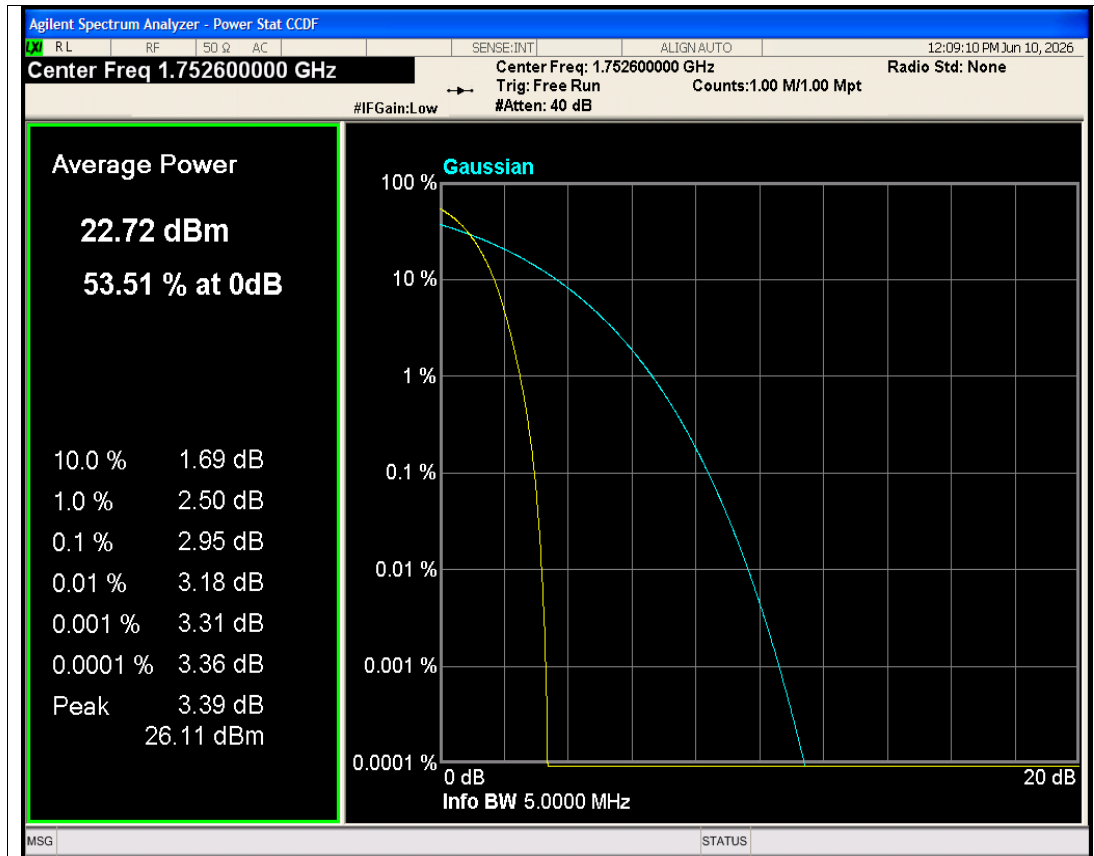
WCDMA Band2 Channel=9538 NVNT



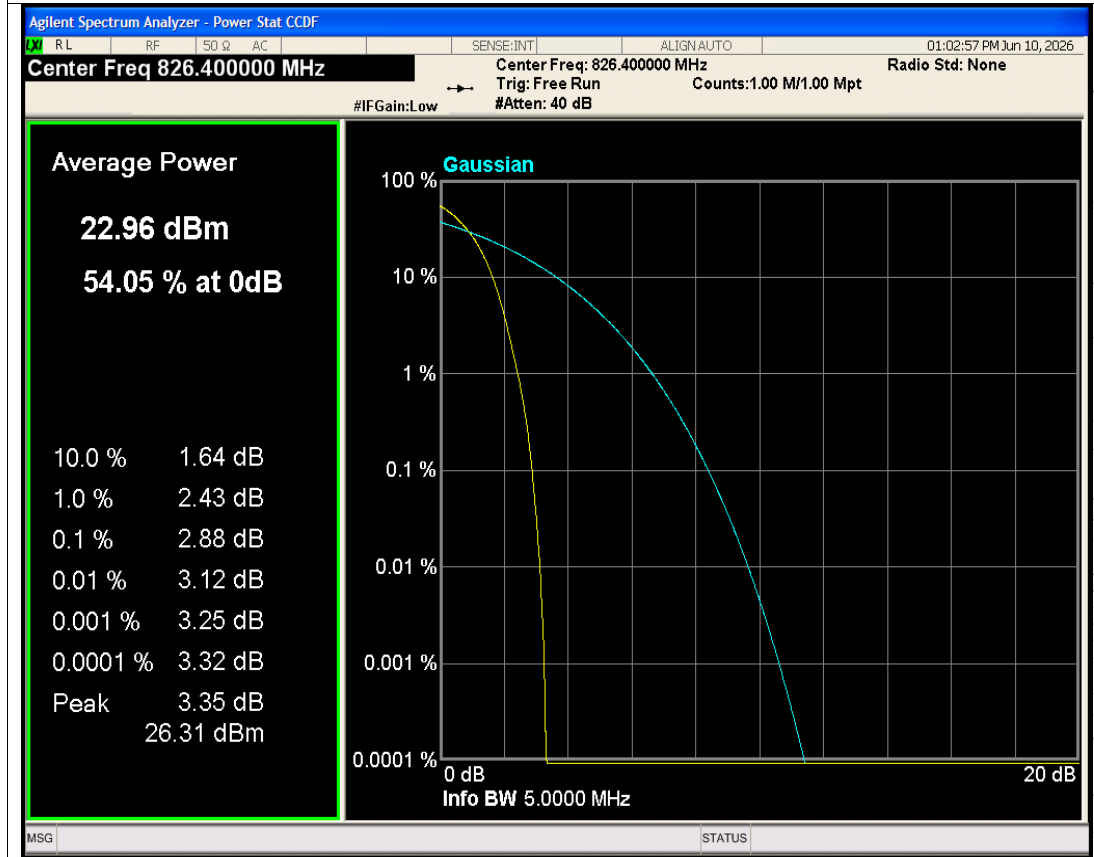
WCDMA Band4 Channel=1312 NVNT



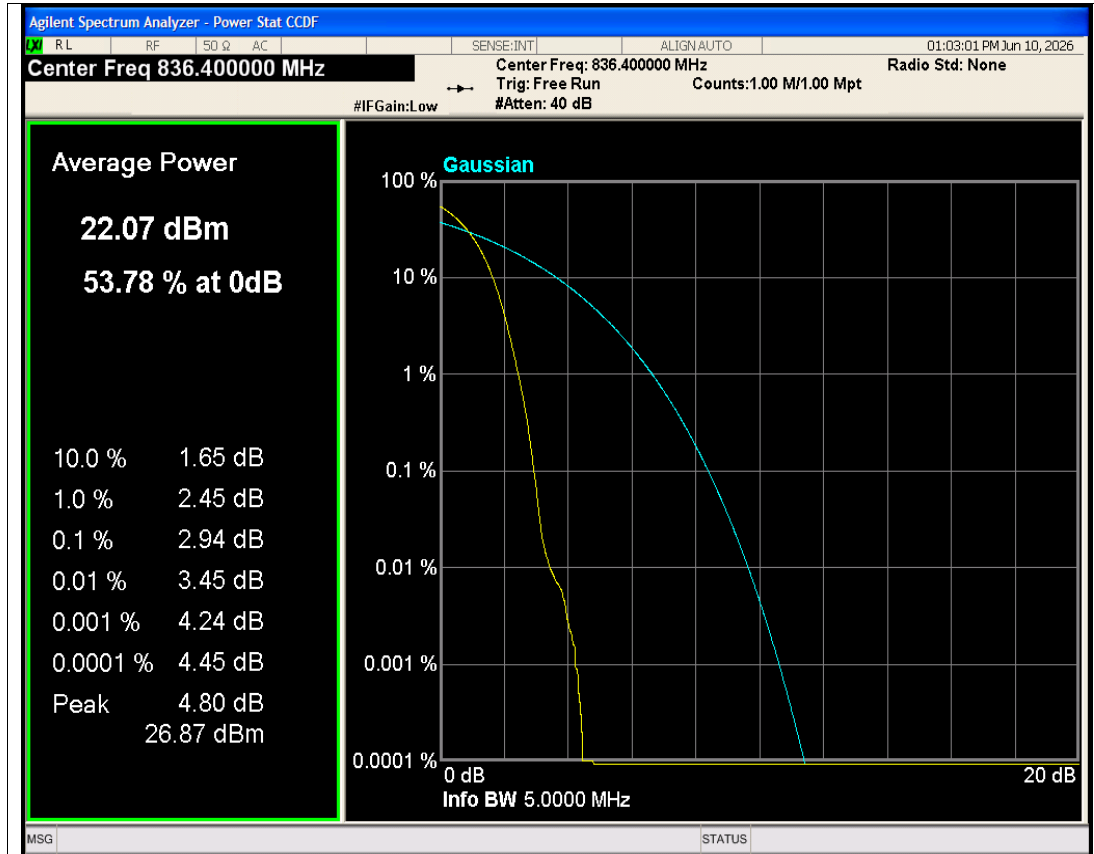
WCDMA Band4 Channel=1450 NVNT



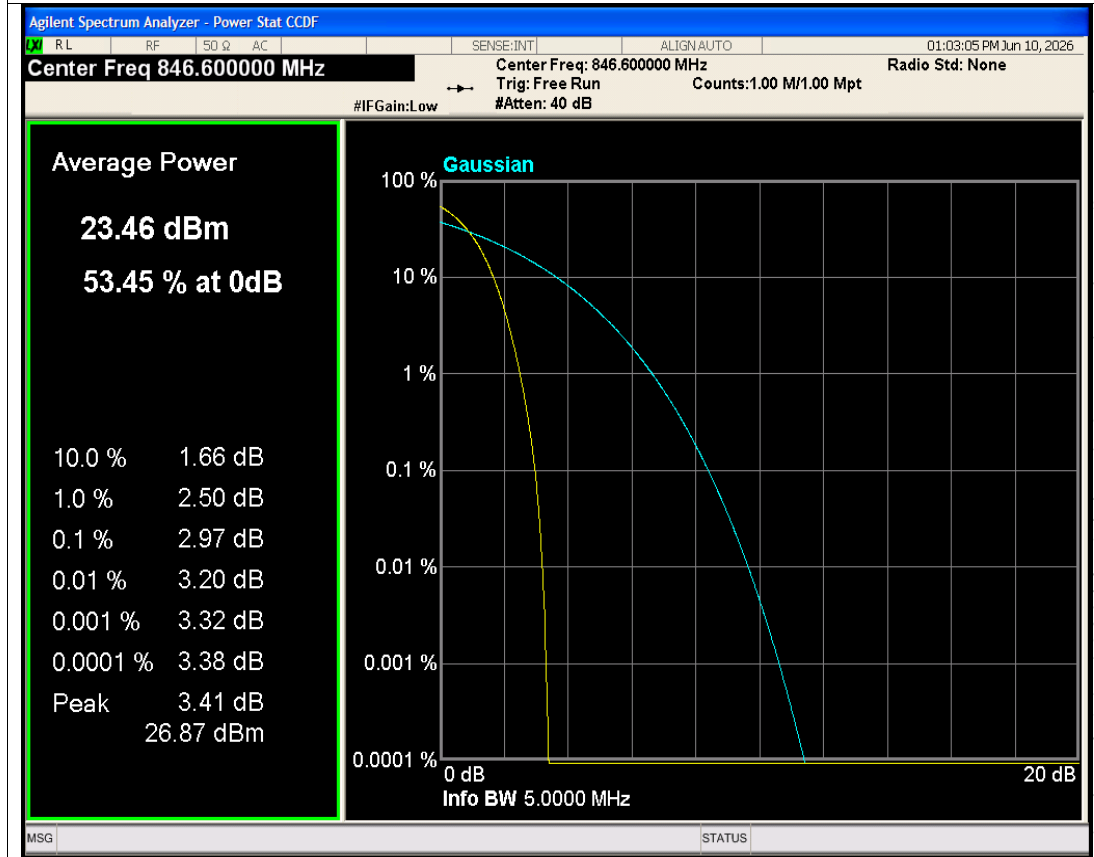
WCDMA Band4 Channel=1513 NVNT



WCDMA Band5 Channel=4132 NVNT



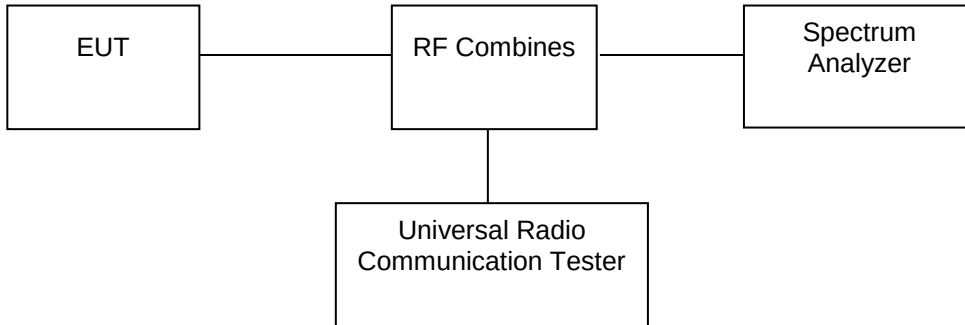
WCDMA Band5 Channel=4182 NVNT



WCDMA Band5 Channel=4233 NVNT

8. Emission Bandwidth

8.1 Block Diagram Of Test Setup



8.2 Limit

According to §22.917(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §24.238(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §27.53, The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

8.3 Test procedure

The following procedure shall be used for measuring power bandwidth.

- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the anticipated OBW).
- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
- Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least 10log (OBW / RBW) below the reference level.
- NOTE—Steps a) through c) may require iteration to adjust within the specified tolerances.
- For -26 dB OBW, the dynamic range of the spectrum analyzer at the selected RBW shall be at least

10dB below the target “-X dB down” requirement, e.g. -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be 36dB below the reference value.

f) Set the detection mode to peak, and the trace mode to max hold.

g) For 99% OBW, use the 99 % power bandwidth function of the spectrum analyzer (if available) and report the measured bandwidth.

If the instrument does not have a 99 % power bandwidth function, the trace data points are to be recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99 % power bandwidth is the difference between these two frequencies.

h) For -26 dB OBW, determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).

Determine the “-X dB down amplitude” as equal to (reference value -X). Alternatively, this calculation can be performed by the analyzer by using the marker-delta function.

Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below “-X dB down amplitude” determined in step

g). If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.

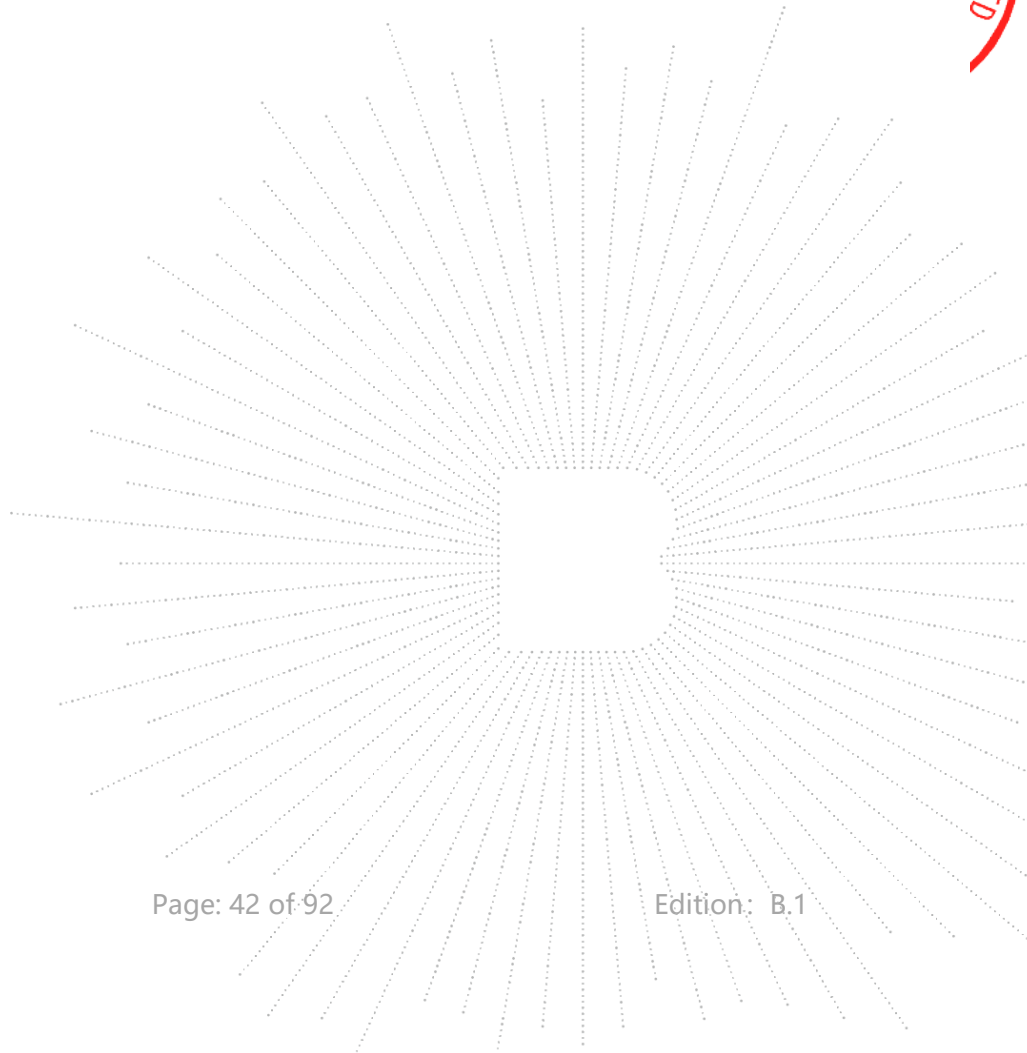
i) The OBW shall be reported by providing plot(s) of the measuring instrument display. The frequency and amplitude axes and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

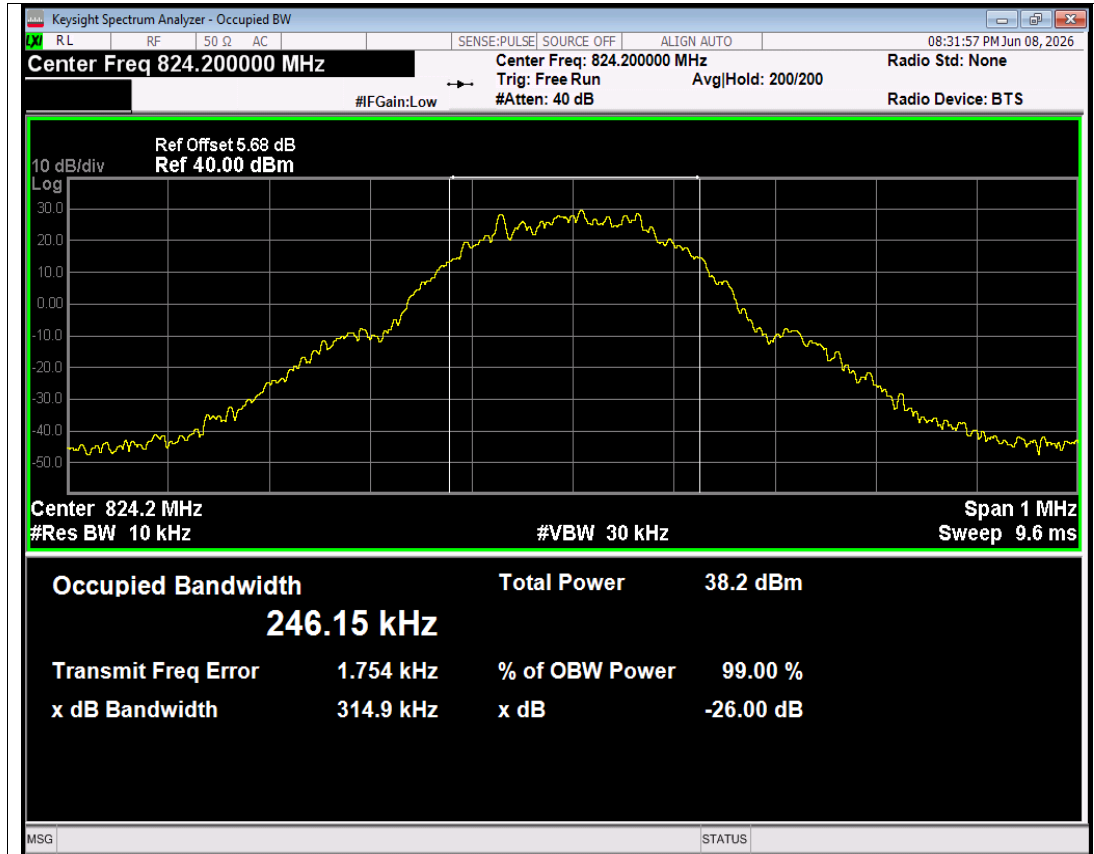
j) Change variable modulations, coding, or channel bandwidth settings, then repeat above test procedures.

8.4 Test Result

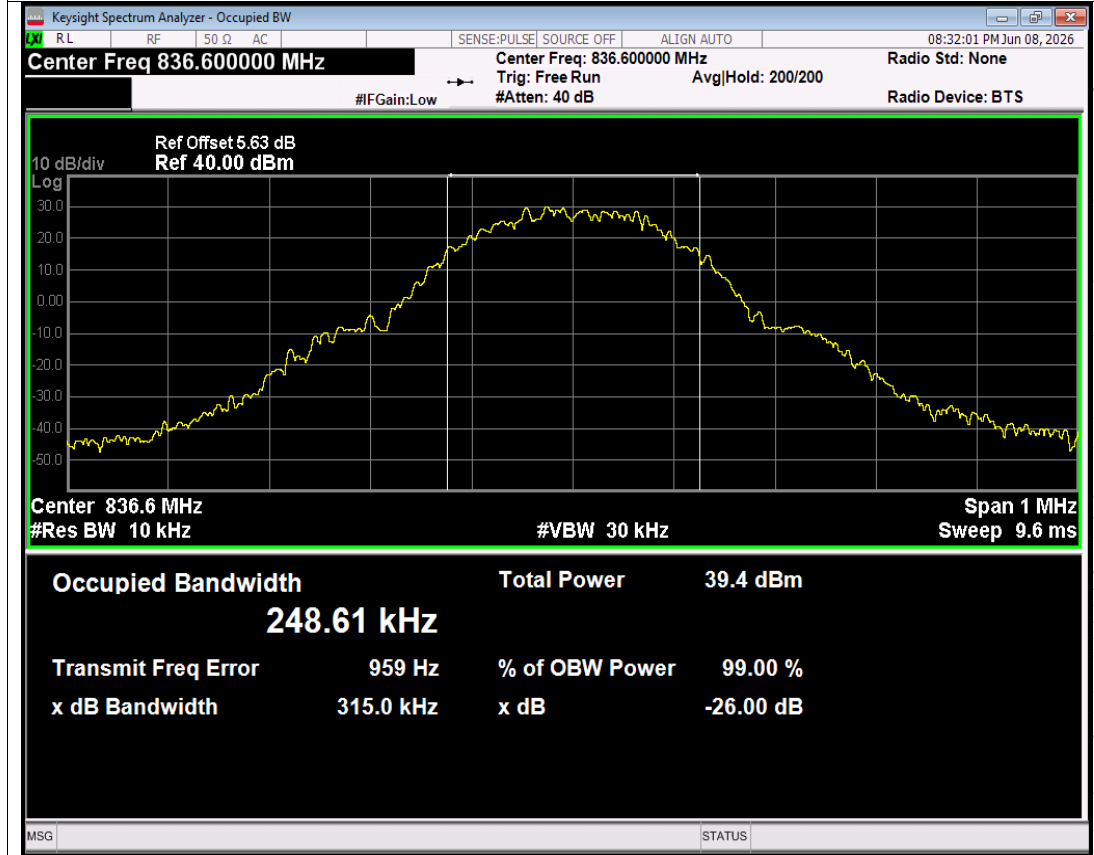
Condition	Band	Channel	Frequency (MHz)	99% OBW (kHz)	-26dB EBW (kHz)	Verdict
NVNT	GSM850	128	824.2	246.146	314.881	PASS
NVNT	GSM850	190	836.6	248.614	315.022	PASS
NVNT	GSM850	251	848.8	247.068	320.850	PASS
NVNT	GSM1900	512	1850.2	244.727	313.722	PASS
NVNT	GSM1900	661	1880	245.009	313.730	PASS
NVNT	GSM1900	810	1909.8	248.487	315.739	PASS
NVNT	GPRS850	128	824.2	247.692	320.325	PASS
NVNT	GPRS850	190	836.6	244.856	318.108	PASS
NVNT	GPRS850	251	848.8	249.663	315.601	PASS
NVNT	GPRS1900	512	1850.2	244.462	321.010	PASS
NVNT	GPRS1900	661	1880	244.979	319.890	PASS
NVNT	GPRS1900	810	1909.8	245.259	312.608	PASS
NVNT	EGPRS850	128	824.2	265.068	340.902	PASS
NVNT	EGPRS850	190	836.6	247.429	311.743	PASS
NVNT	EGPRS850	251	848.8	245.028	299.696	PASS
NVNT	EGPRS1900	512	1850.2	245.585	311.530	PASS
NVNT	EGPRS1900	661	1880	253.704	321.499	PASS
NVNT	EGPRS1900	810	1909.8	254.529	324.393	PASS

BCTC CO., LTD.

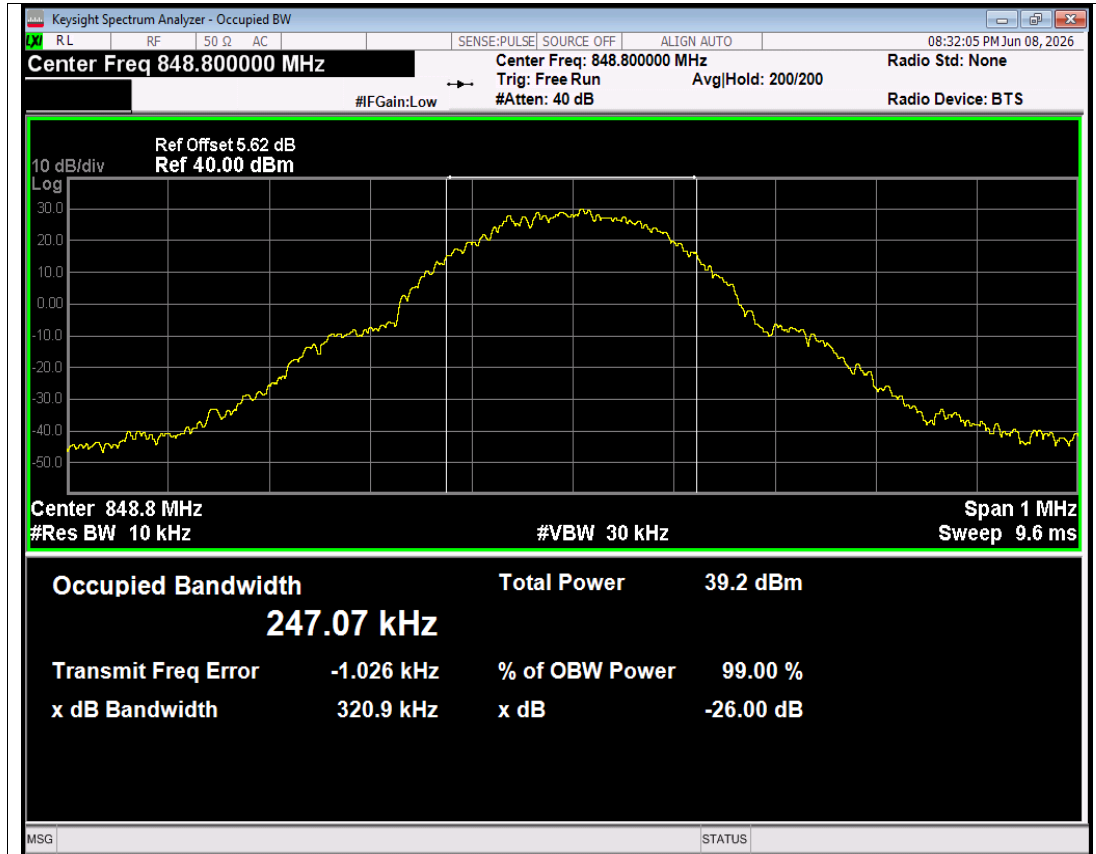




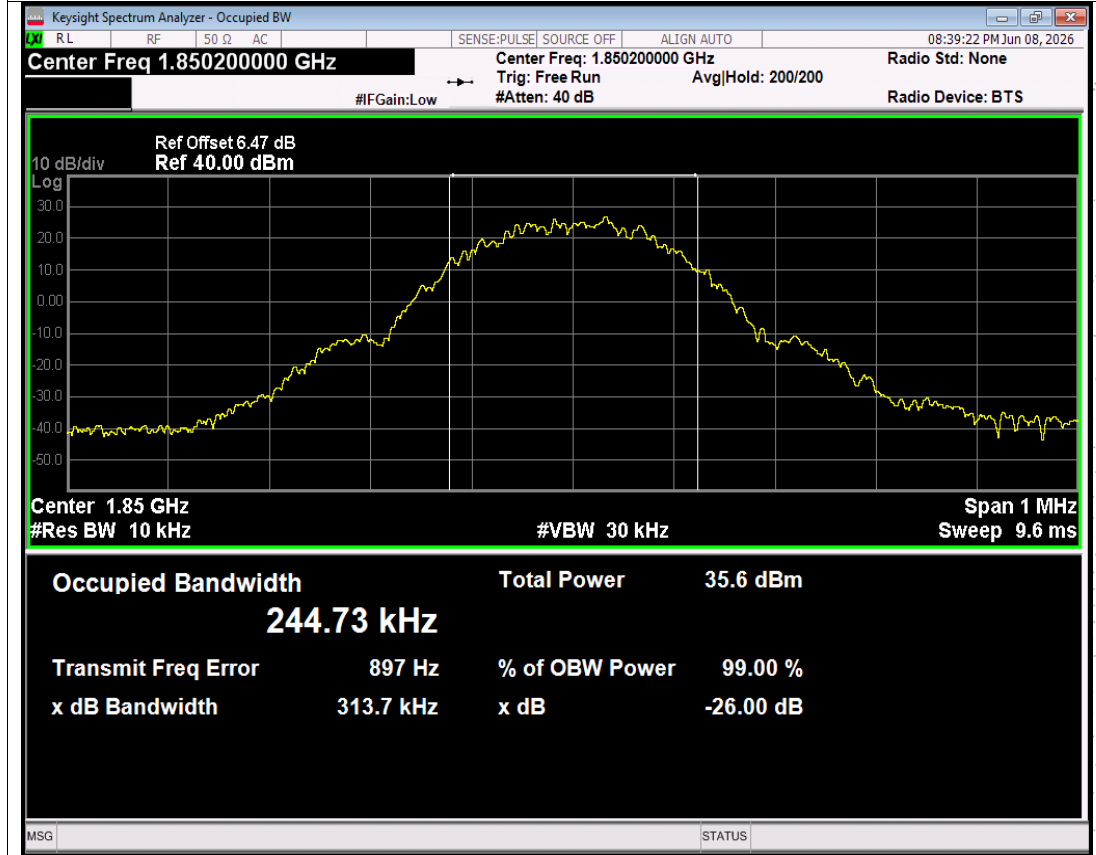
GSM850 Channel=128 NVNT



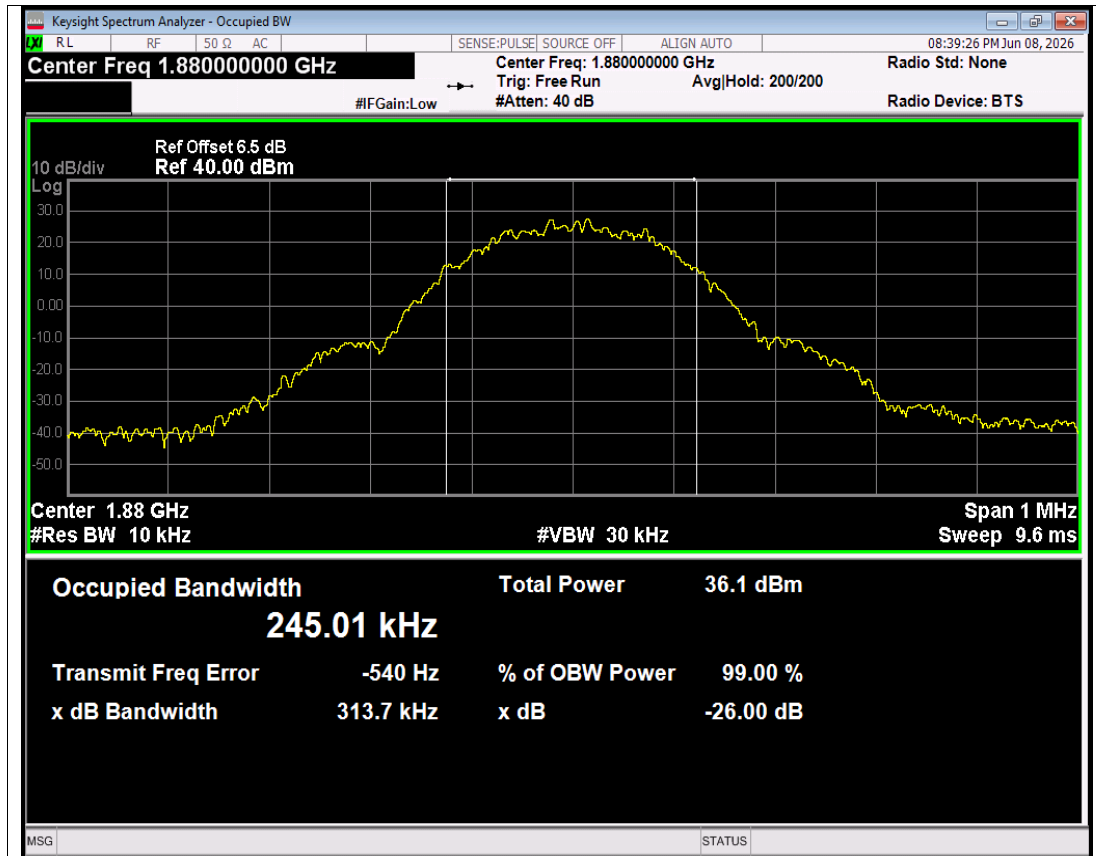
GSM850 Channel=190 NVNT



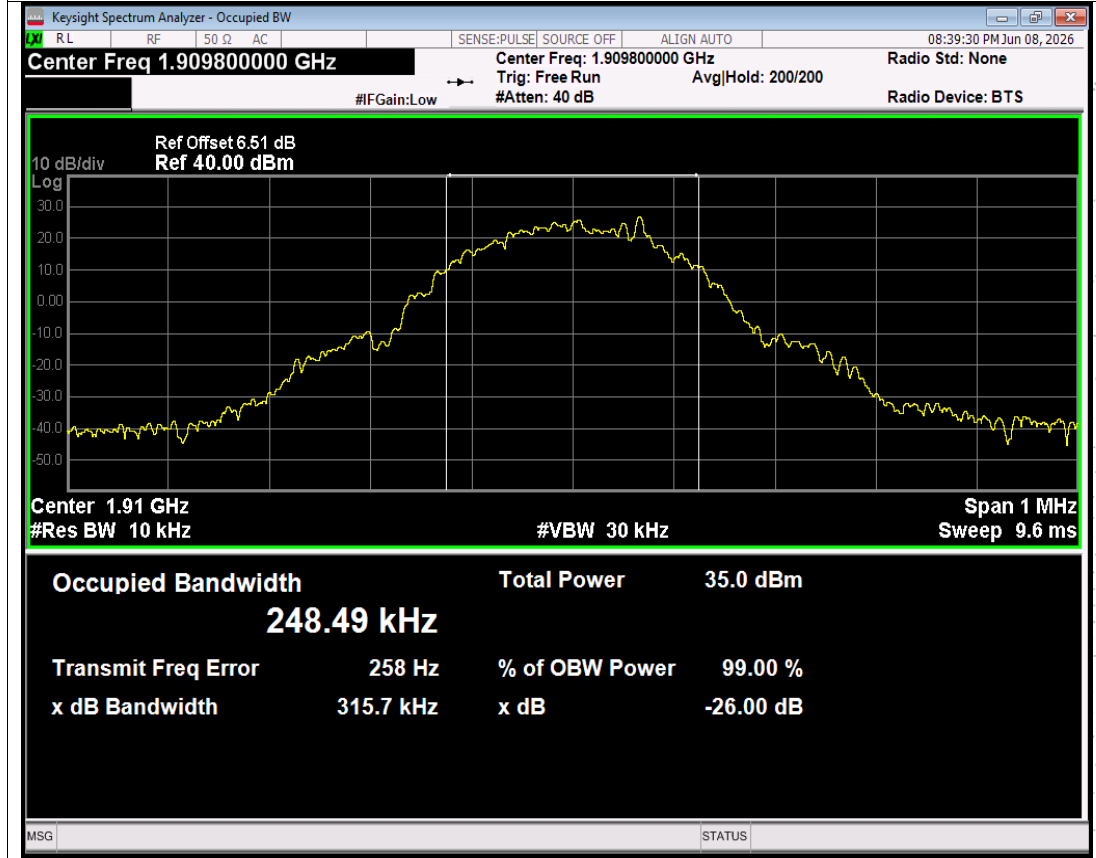
GSM850 Channel=251 NVNT



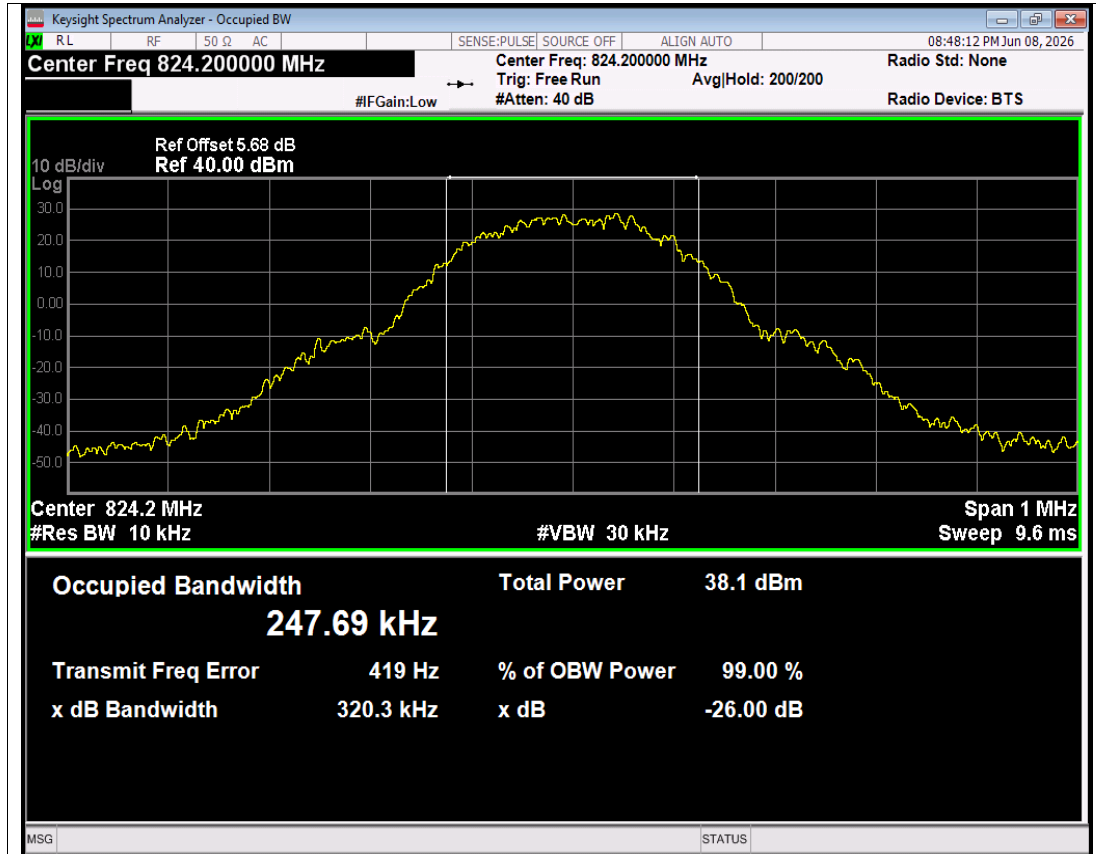
GSM1900 Channel=512 NVNT



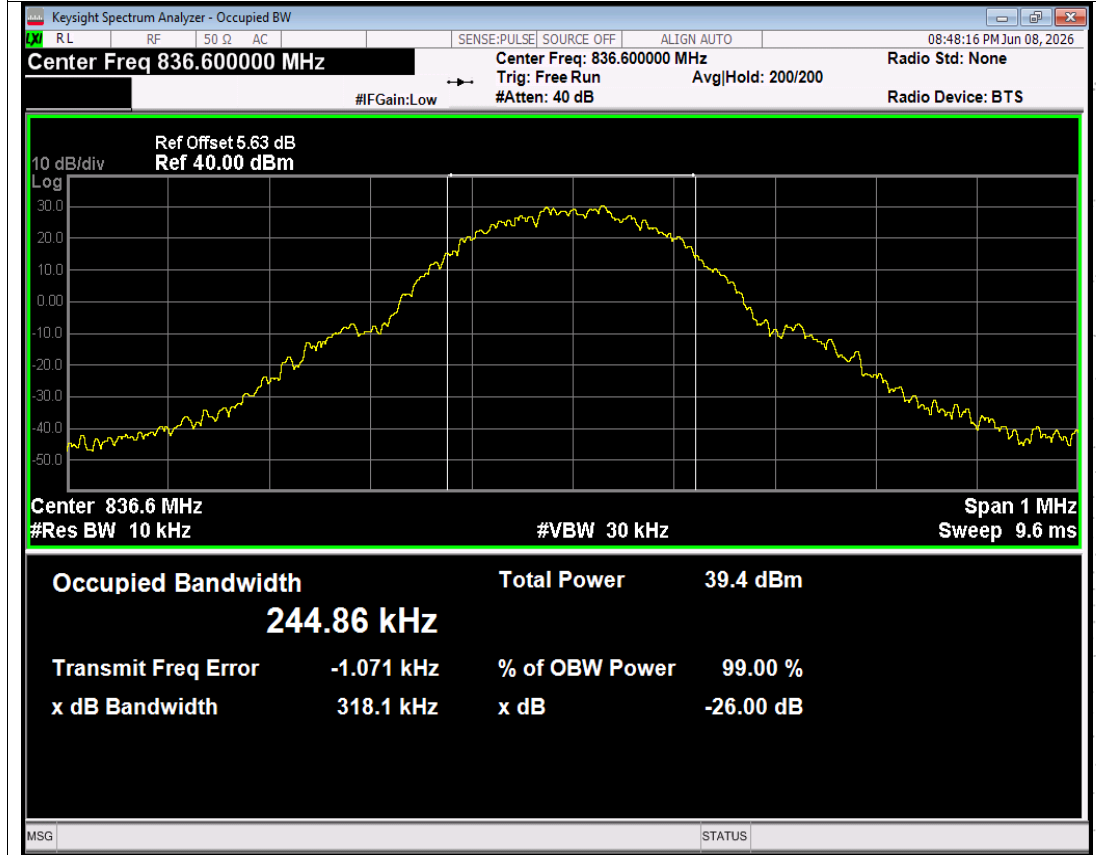
GSM1900 Channel=661 NVNT



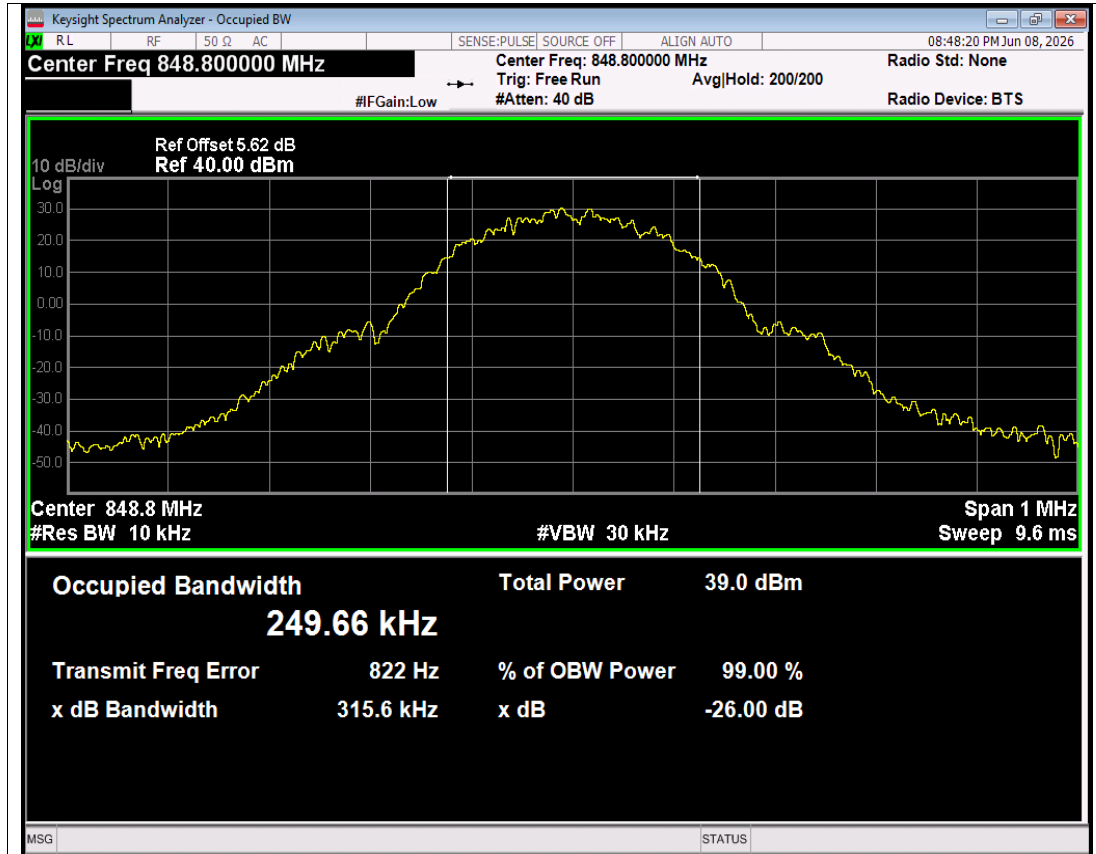
GSM1900 Channel=810 NVNT



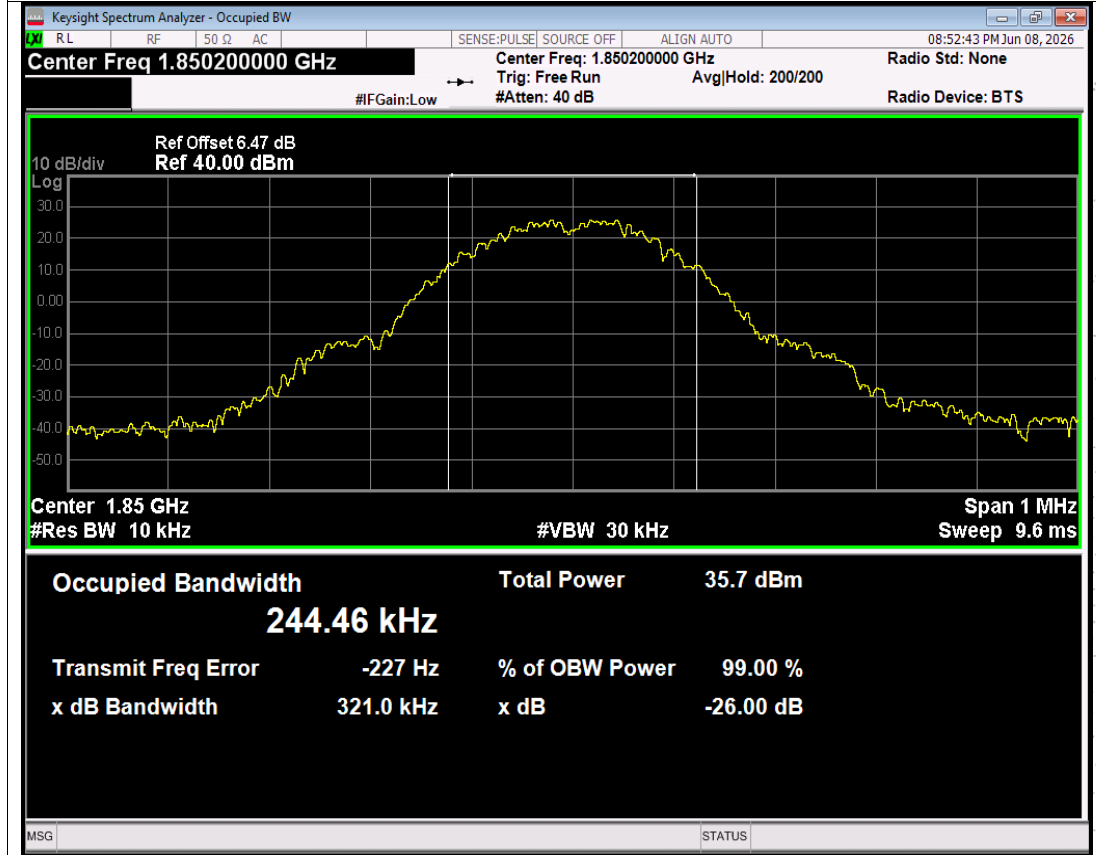
GPRS850 Channel=128 NVNT



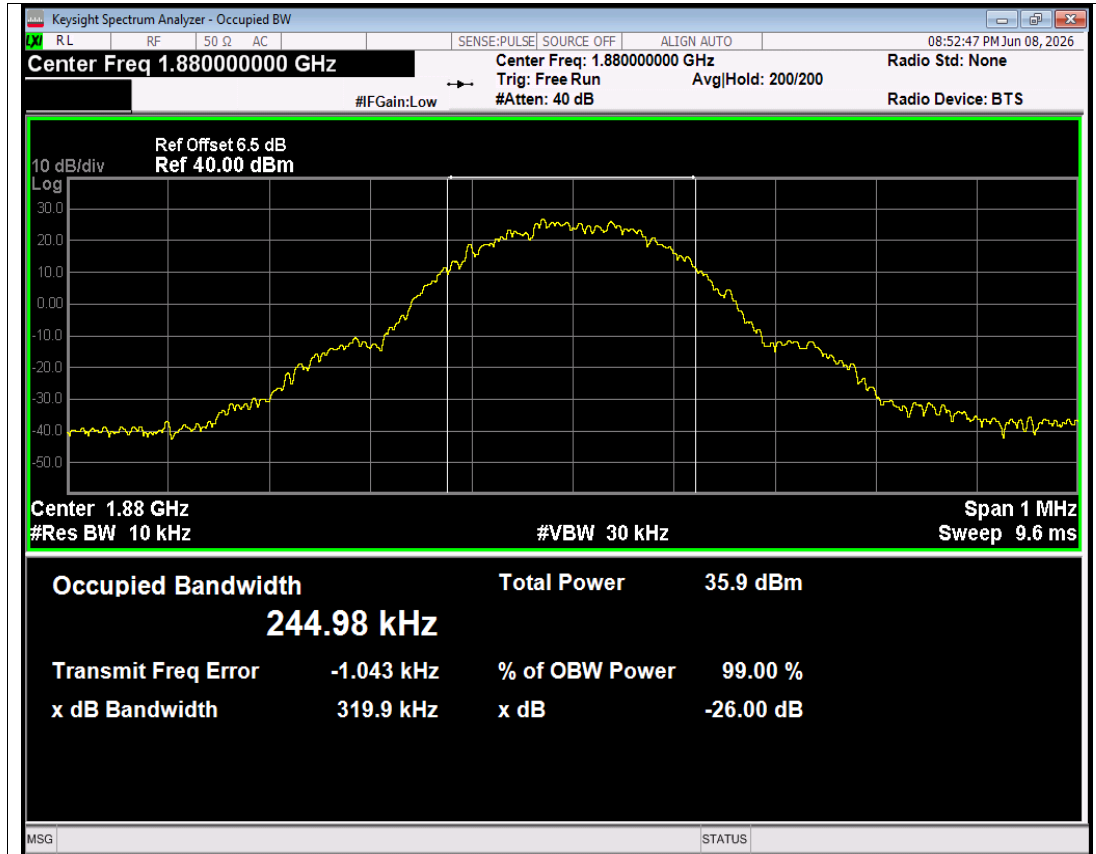
GPRS850 Channel=190 NVNT



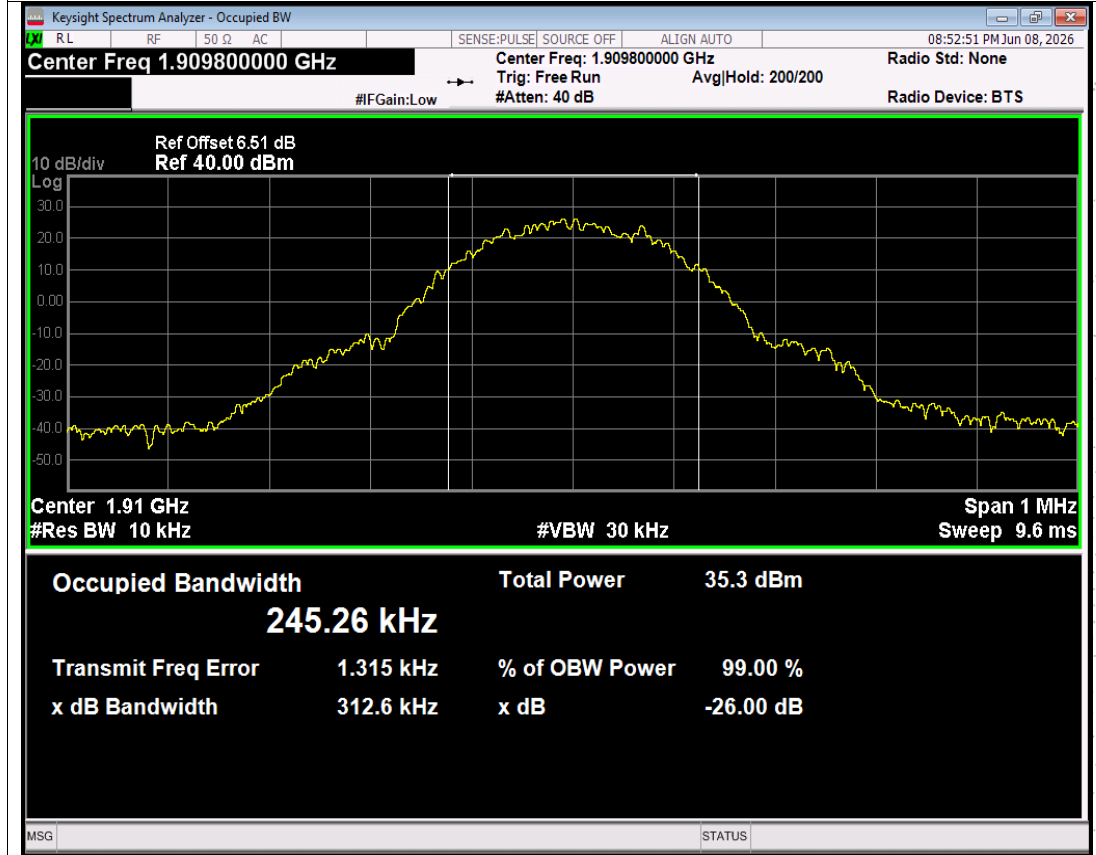
GPRS850 Channel=251 NVNT



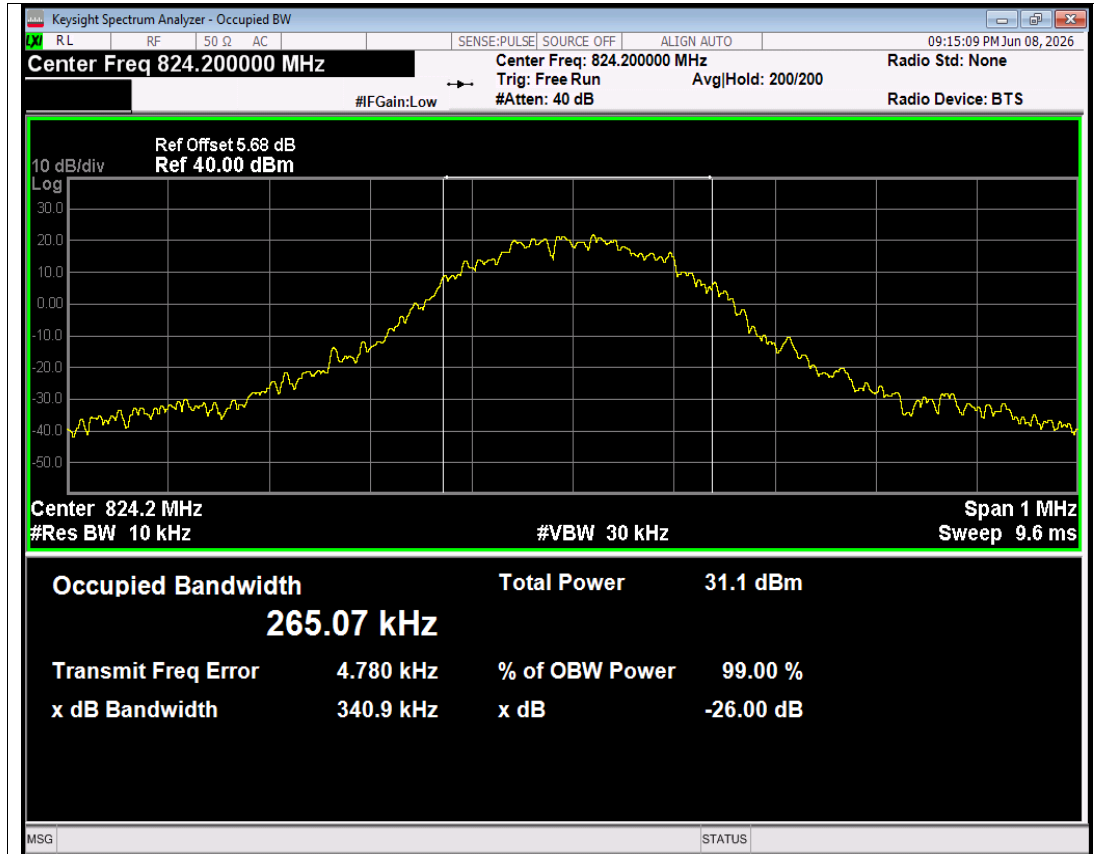
GPRS1900 Channel=512 NVNT



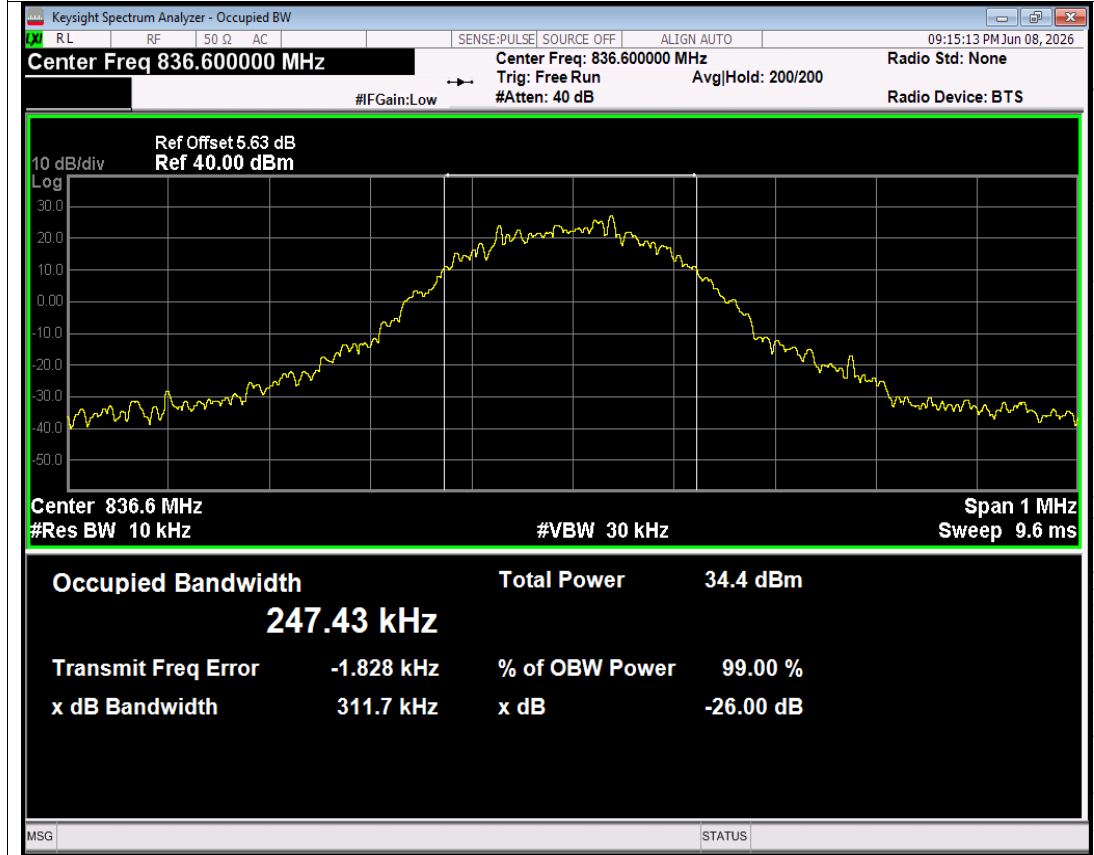
GPRS1900 Channel=661 NVNT



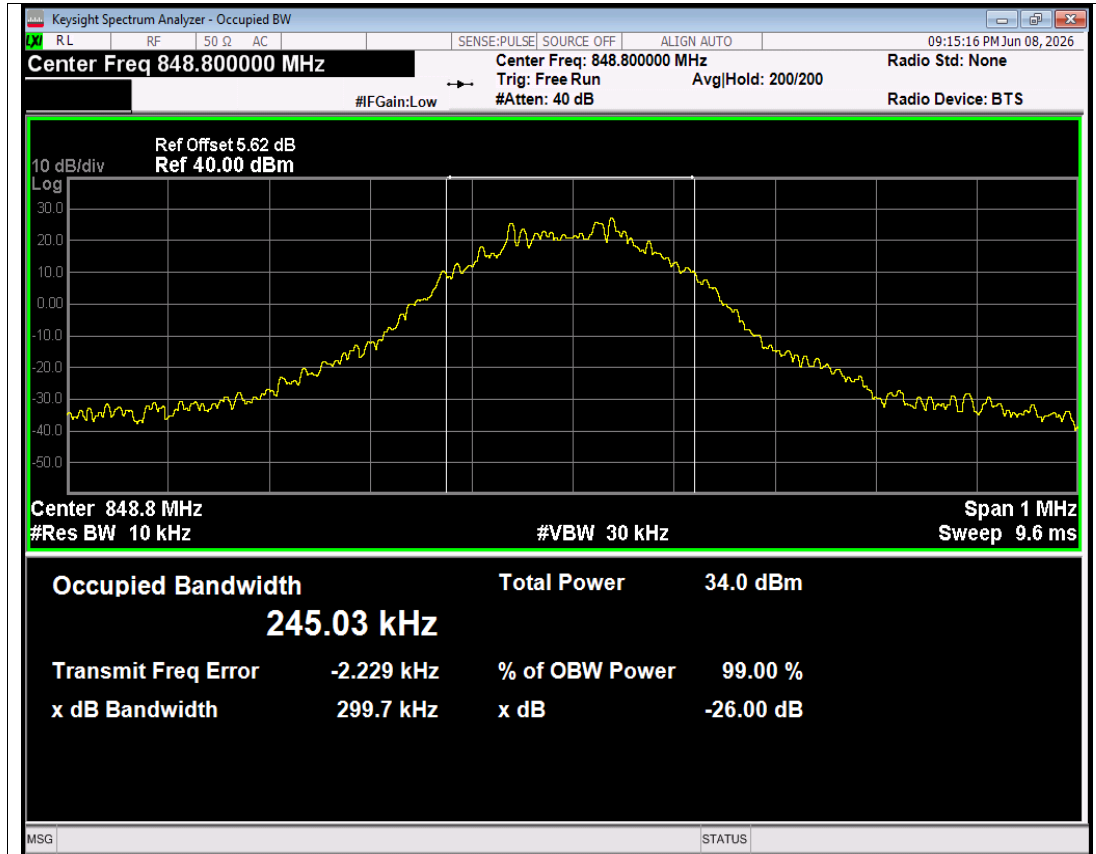
GPRS1900 Channel=810 NVNT



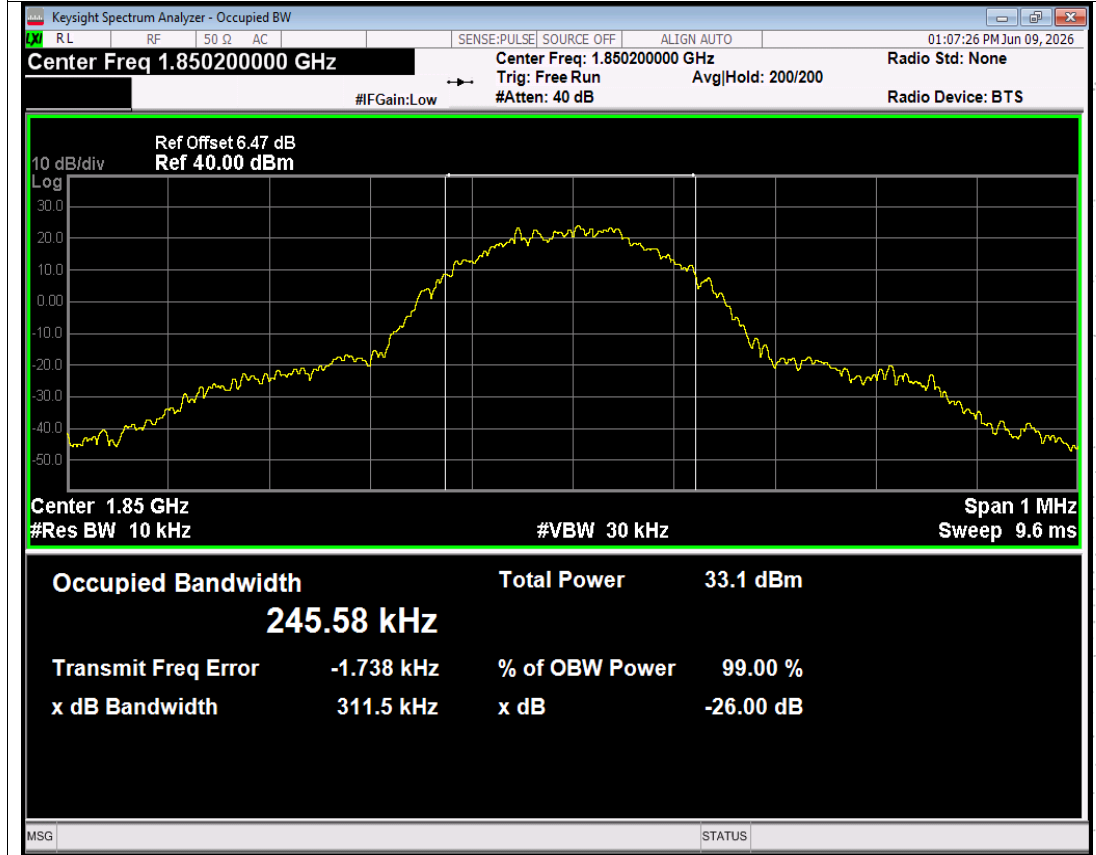
EGPRS850 Channel=128 NVNT



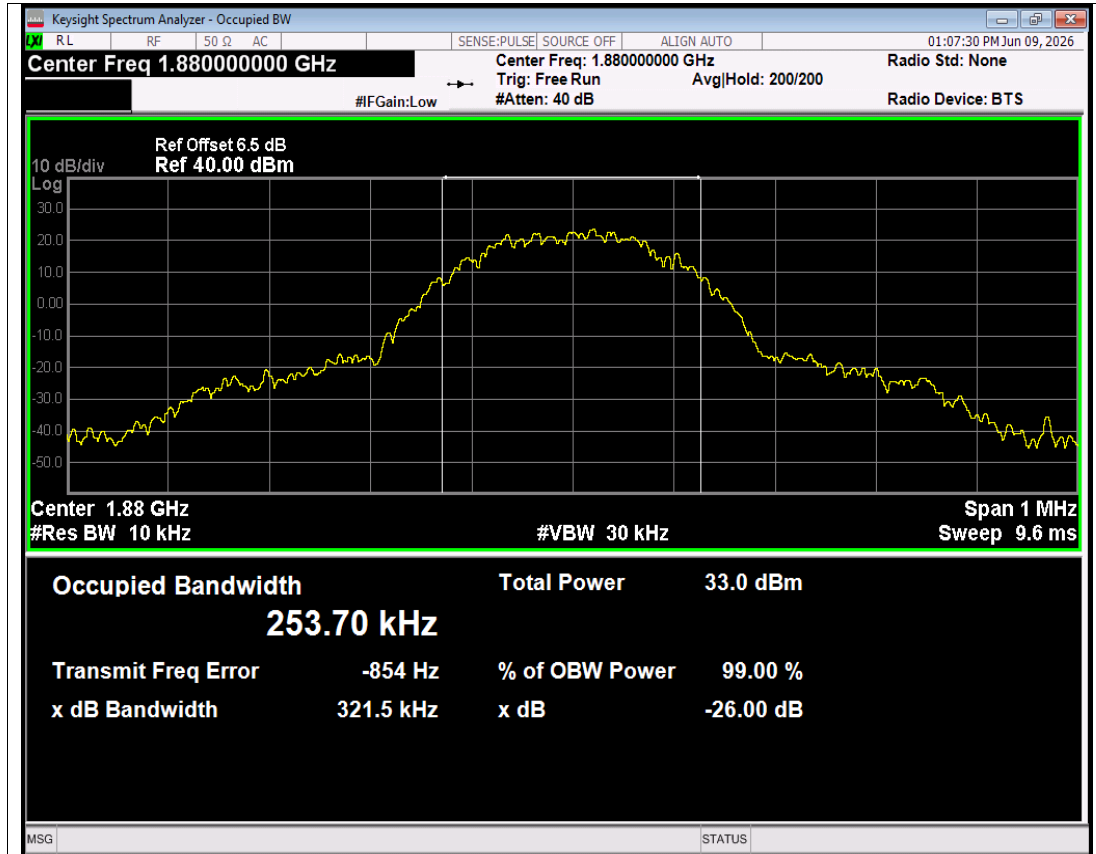
EGPRS850 Channel=190 NVNT



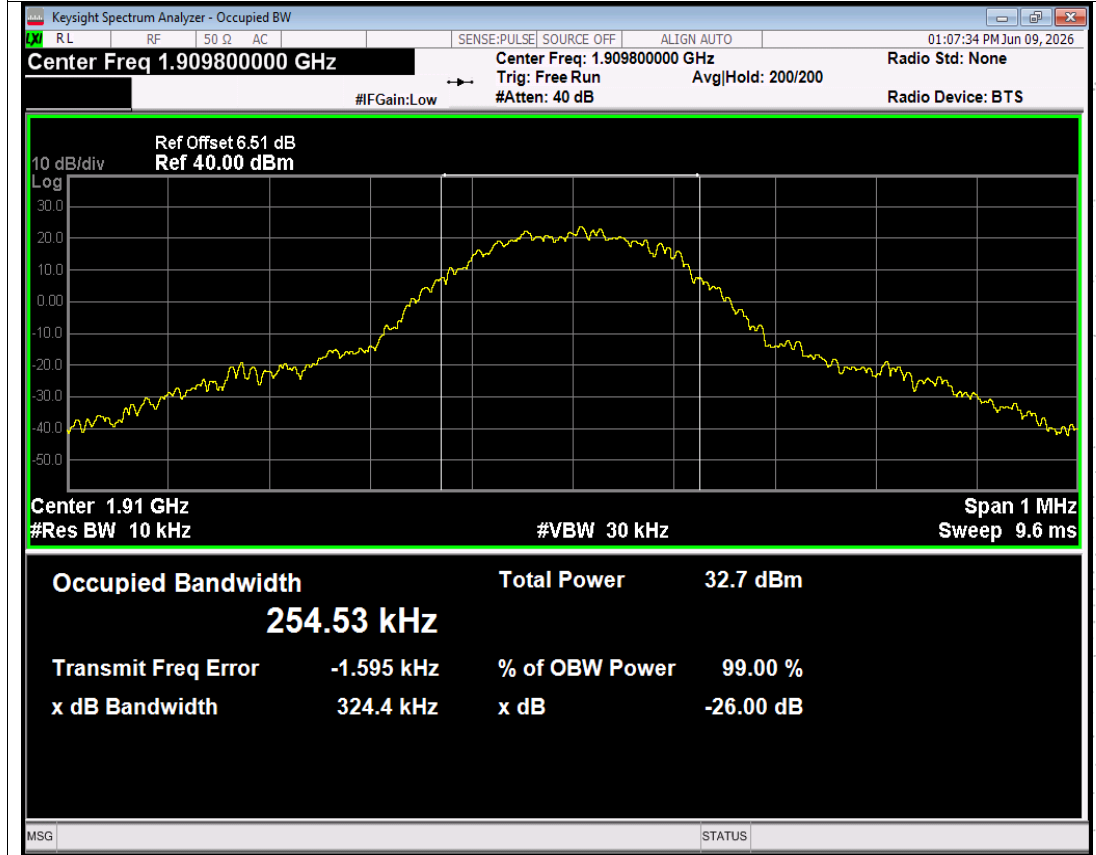
EGPRS850 Channel=251 NVNT



EGPRS1900 Channel=512 NVNT



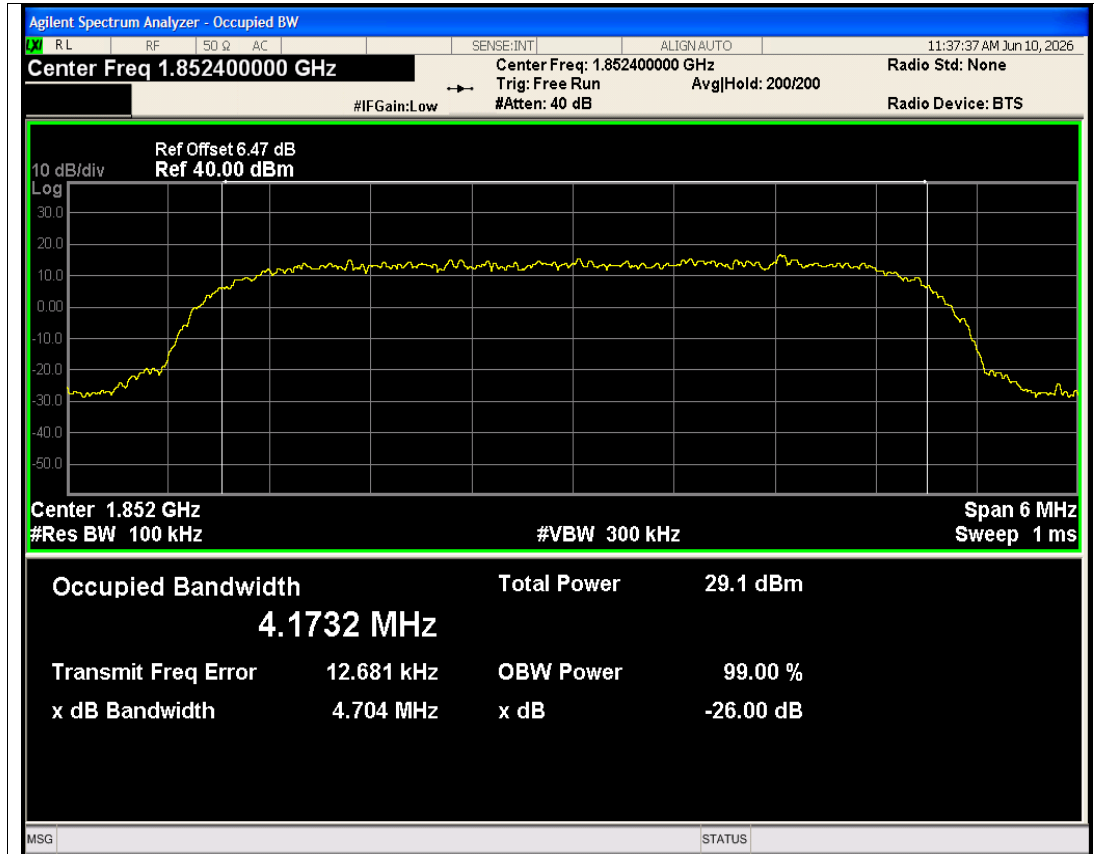
EGPRS1900 Channel=661 NVNT



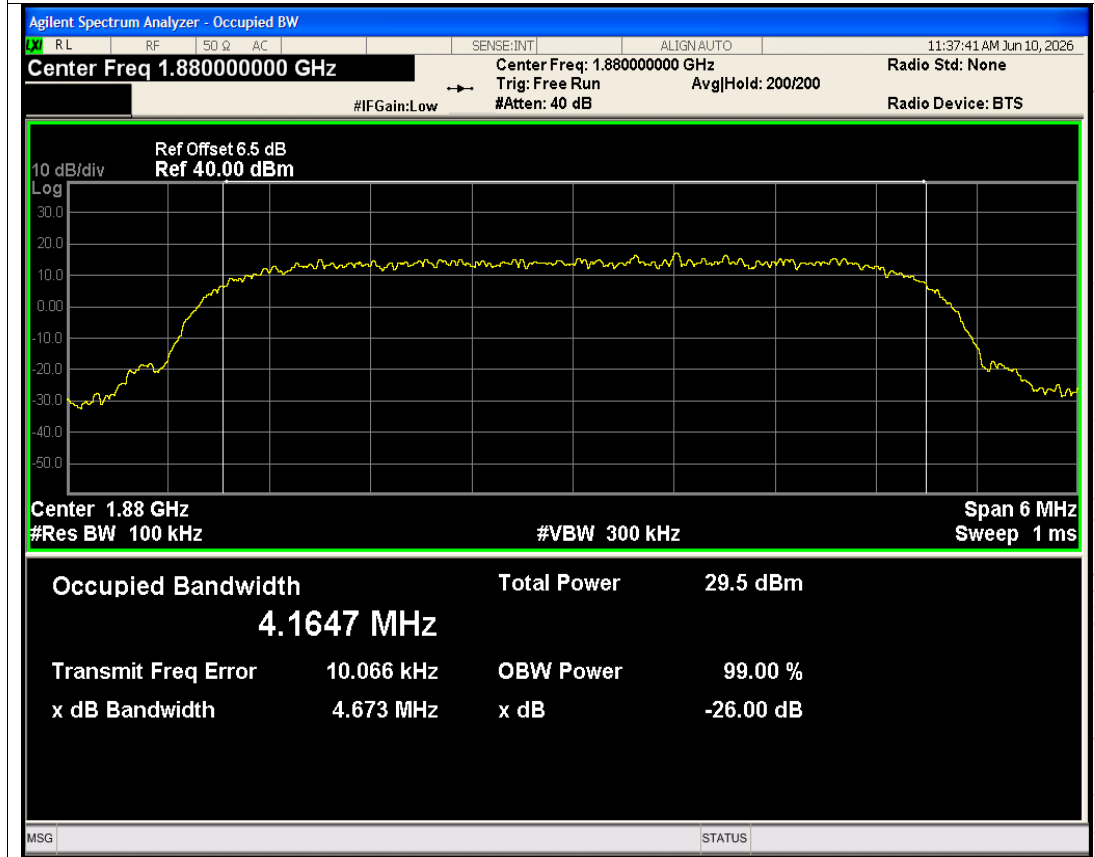
EGPRS1900 Channel=810 NVNT

Condition	Band	Channel	Frequency (MHz)	99% OBW (kHz)	-26dB EBW (kHz)	Verdict
NVNT	WCDMA Band2	9262	1852.4	4173.170	4703.922	PASS
NVNT	WCDMA Band2	9400	1880	4164.741	4672.593	PASS
NVNT	WCDMA Band2	9538	1907.6	4177.198	4730.627	PASS
NVNT	WCDMA Band4	1312	1712.4	4155.392	4728.646	PASS
NVNT	WCDMA Band4	1450	1740	4173.209	4697.992	PASS
NVNT	WCDMA Band4	1513	1752.6	4154.707	4711.015	PASS
NVNT	WCDMA Band5	4132	826.4	4186.101	4720.659	PASS
NVNT	WCDMA Band5	4182	836.4	4168.844	4695.959	PASS
NVNT	WCDMA Band5	4233	846.6	4186.189	4688.877	PASS

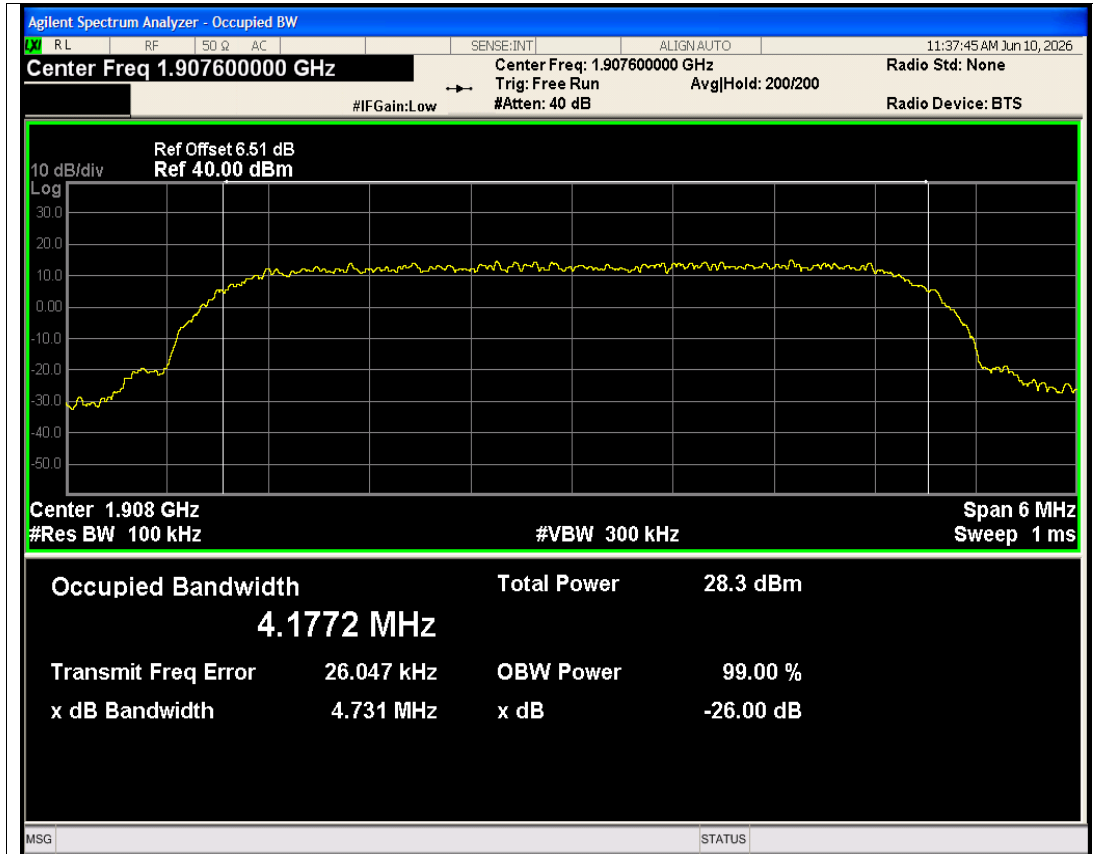
Note: In WCDMA, RMC, HSDPA and HSUPA all three tests only reflect the worst mode RMC.



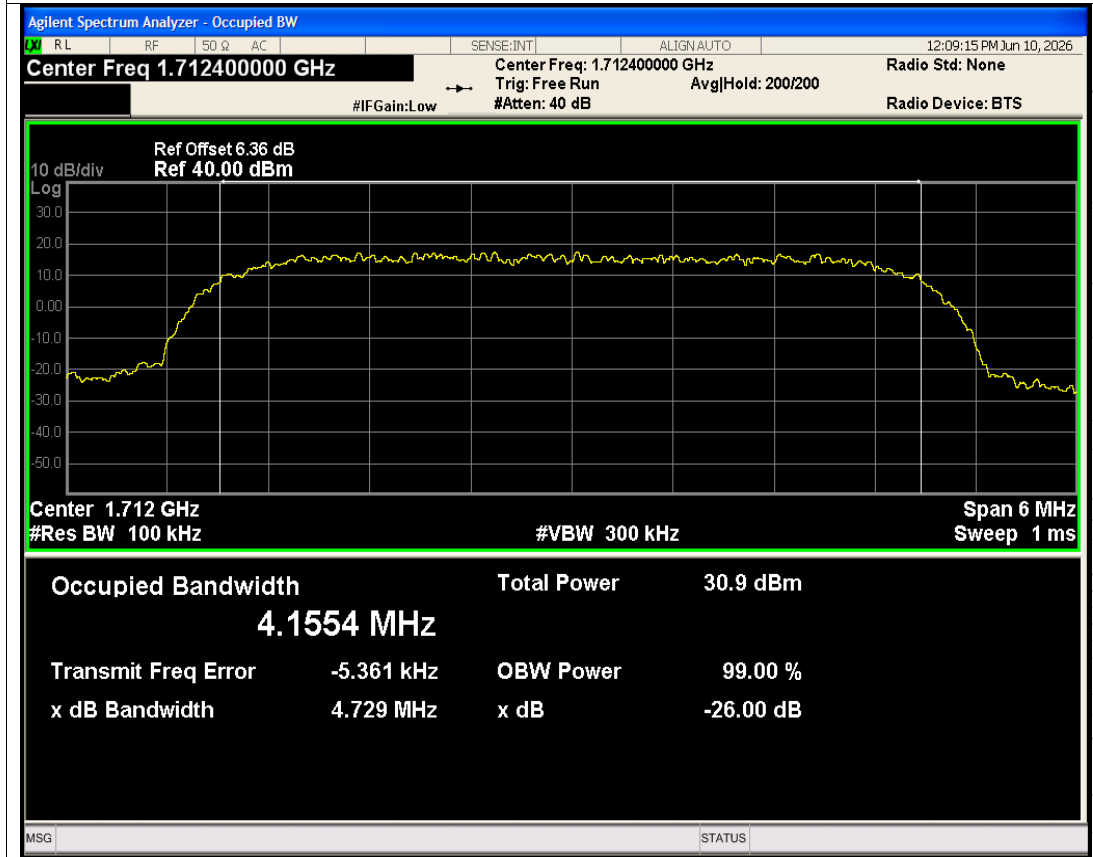
WCDMA Band2 Channel=9262 NVNT



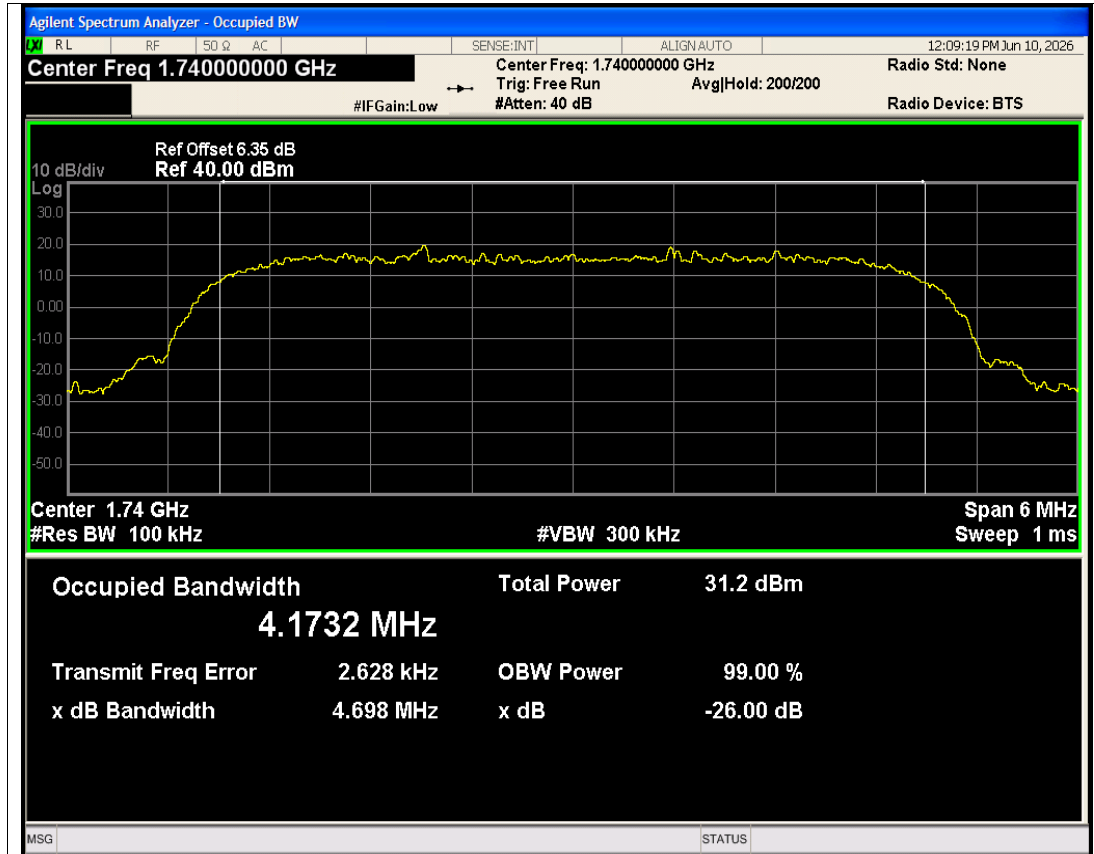
WCDMA Band2 Channel=9400 NVNT



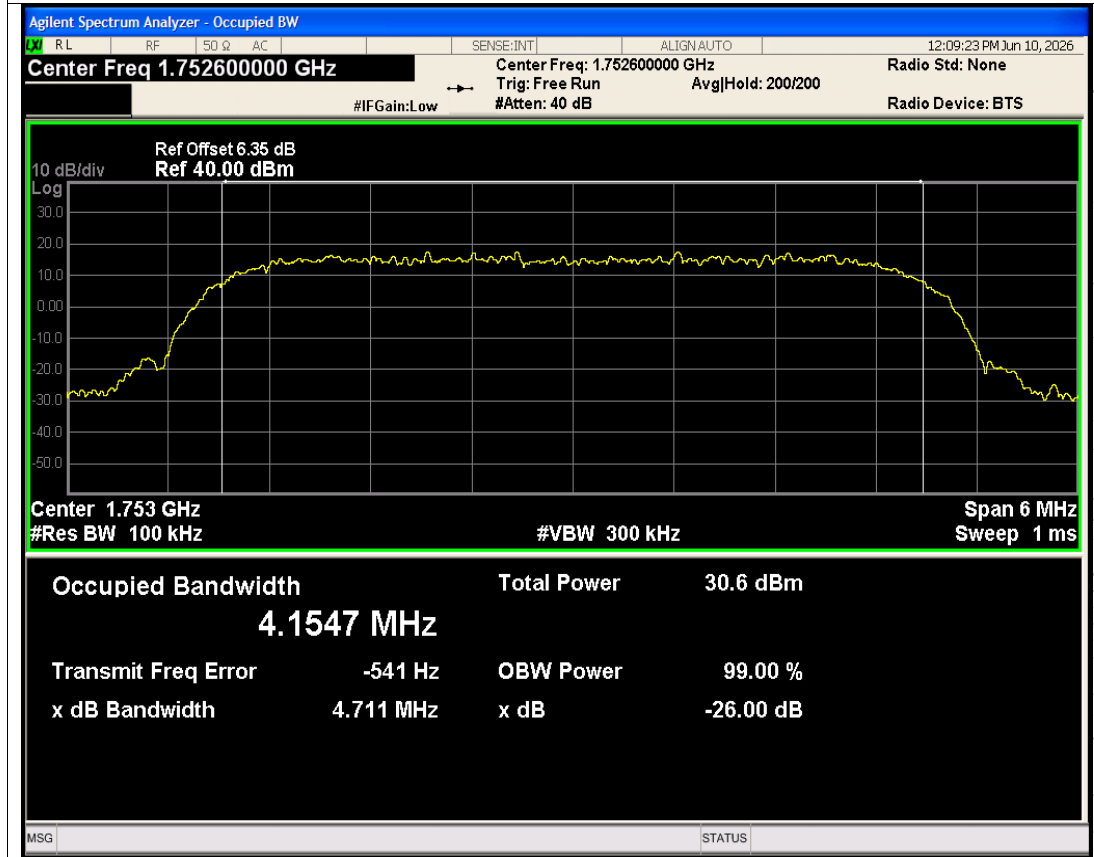
WCDMA Band2 Channel=9538 NVNT



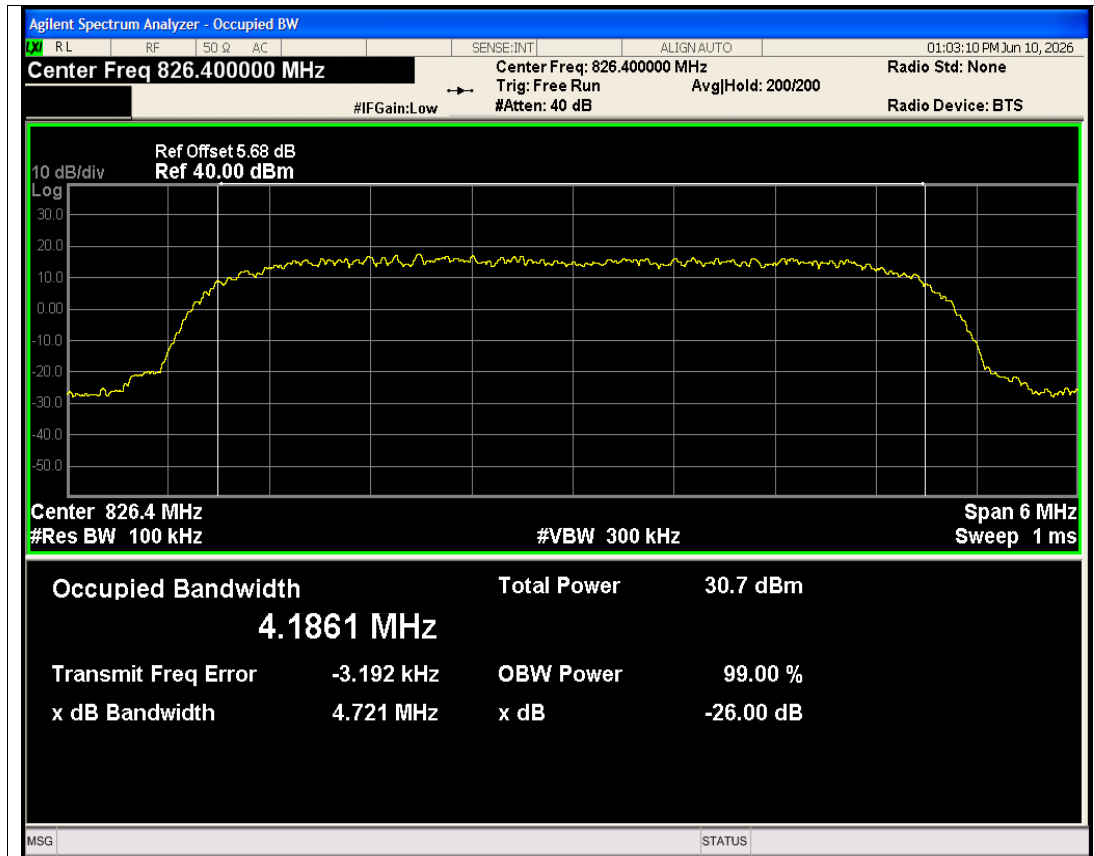
WCDMA Band4 Channel=1312 NVNT



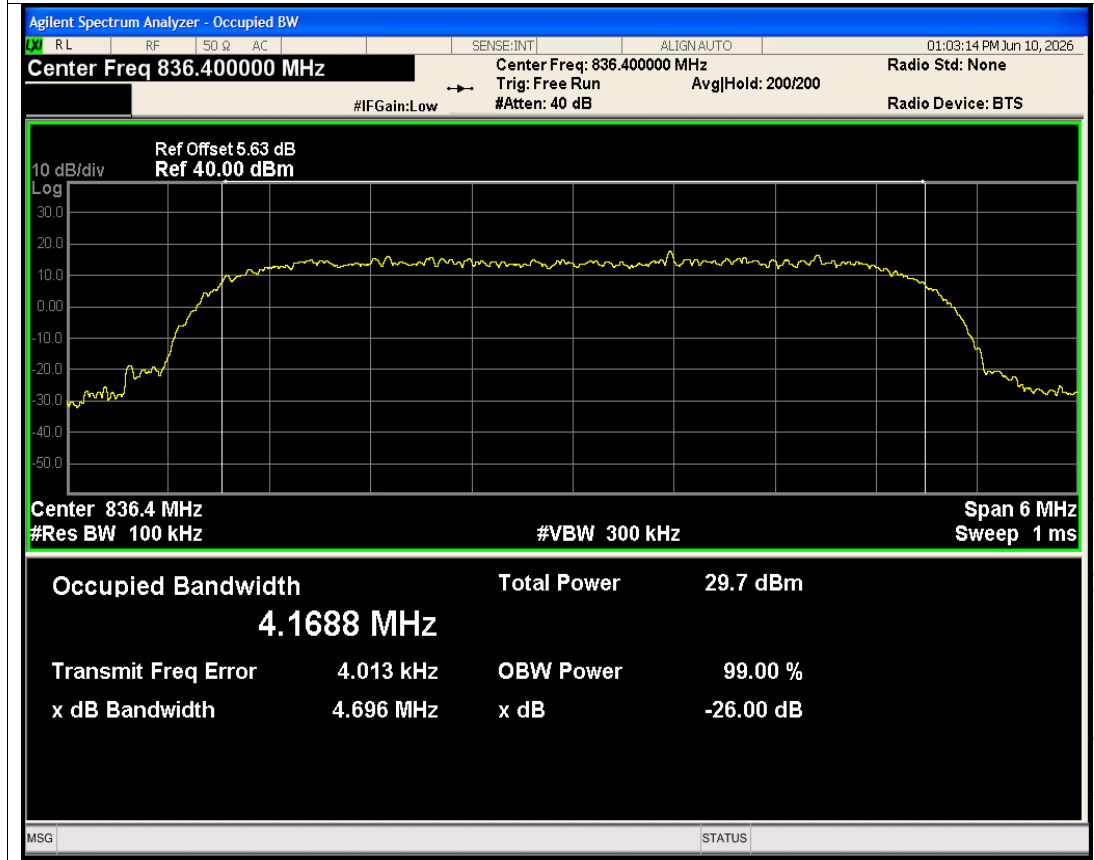
WCDMA Band4 Channel=1450 NVNT



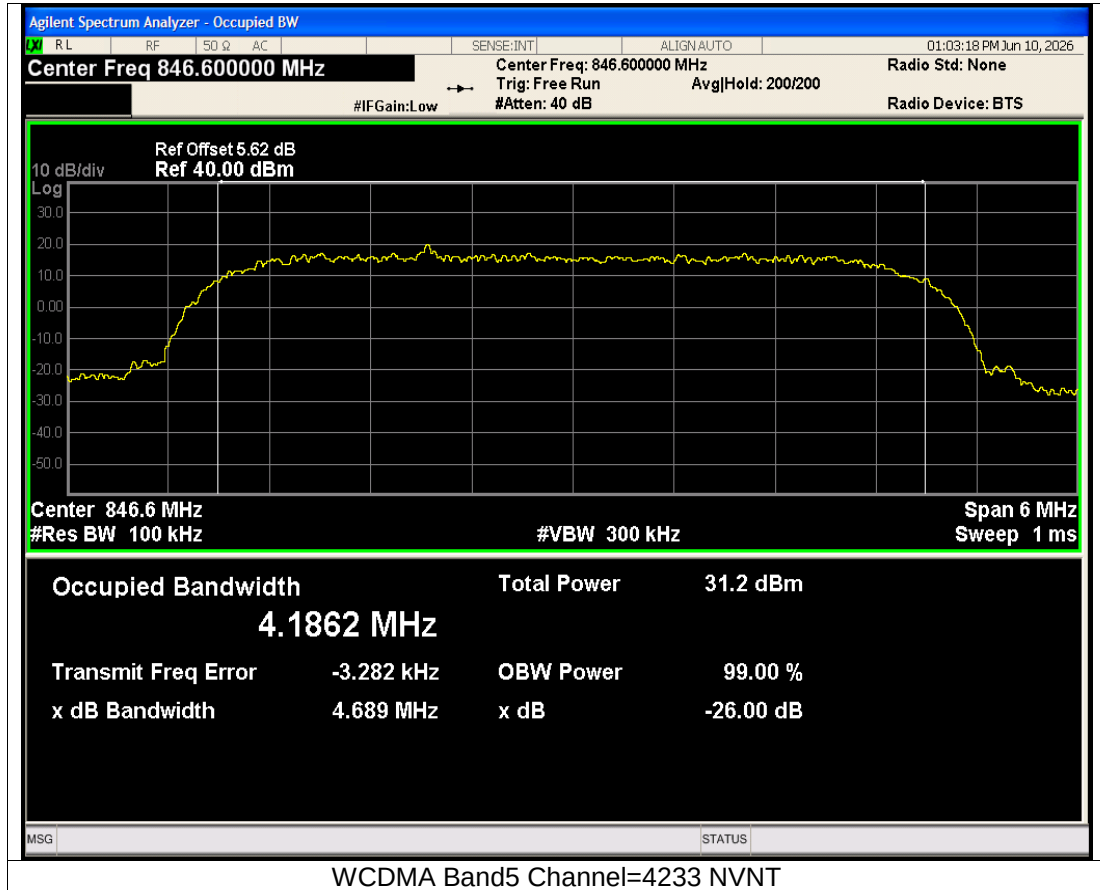
WCDMA Band4 Channel=1513 NVNT



WCDMA Band5 Channel=4132 NVNT

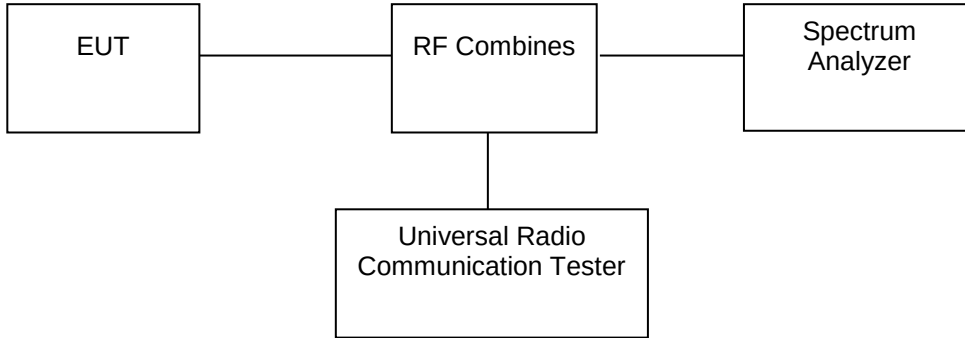


WCDMA Band5 Channel=4182 NVNT



9. Out of Band Emissions at Antenna Terminal

9.1 Block Diagram Of Test Setup



9.2 Limit

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

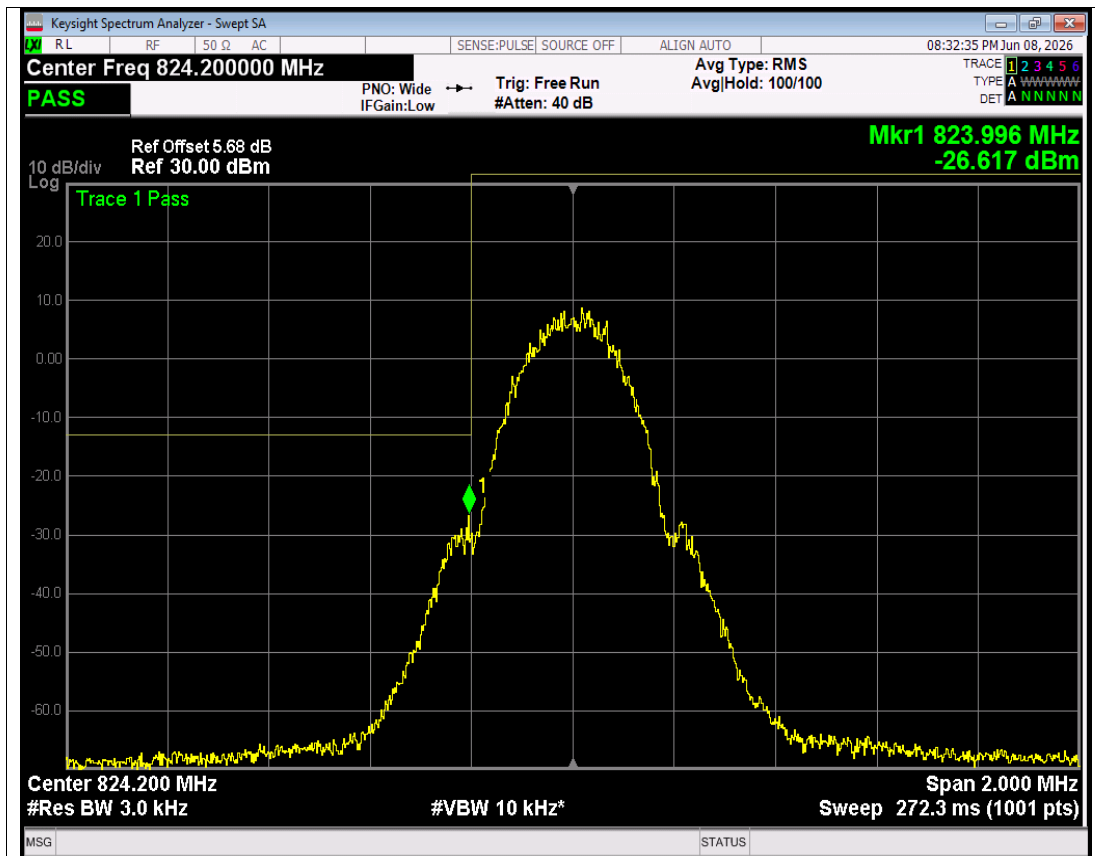
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §27.53 (h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

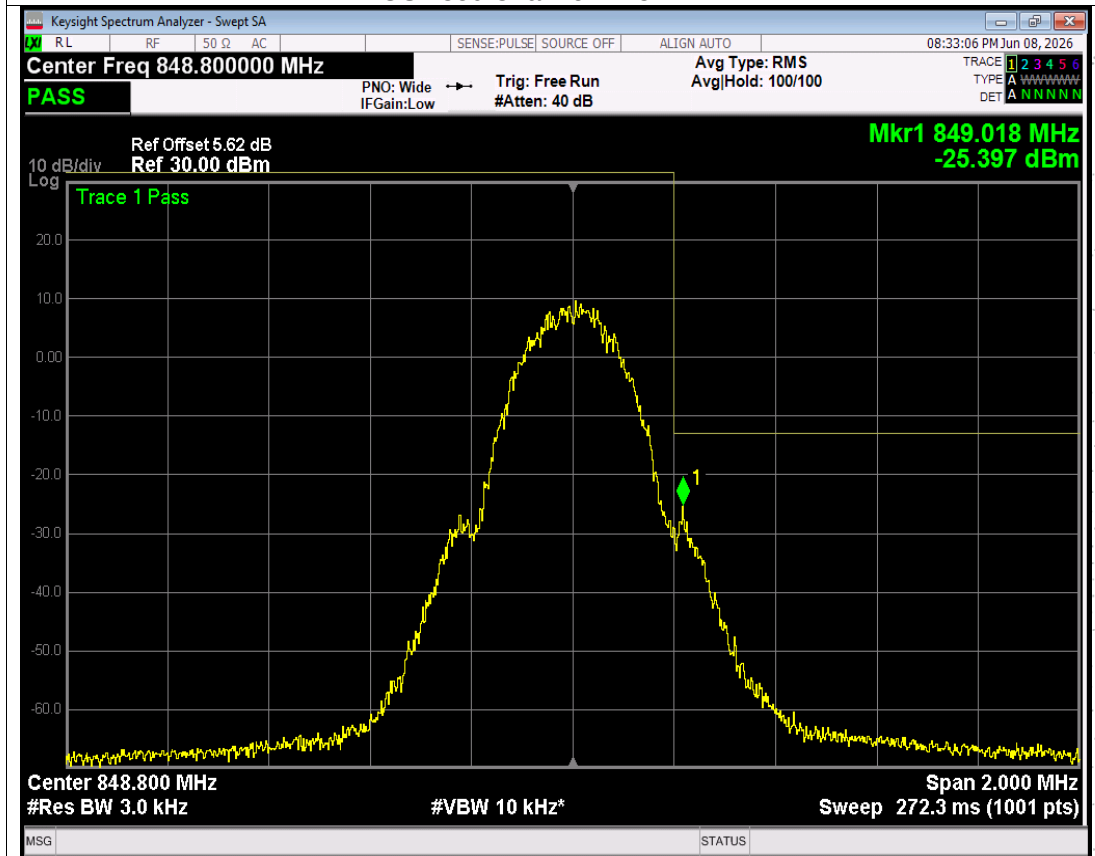
9.3 Test procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 100kHz and 1MHz for the scan frequency from 30MHz to 1GHz and the scan frequency from 1GHz to up to 10th harmonic

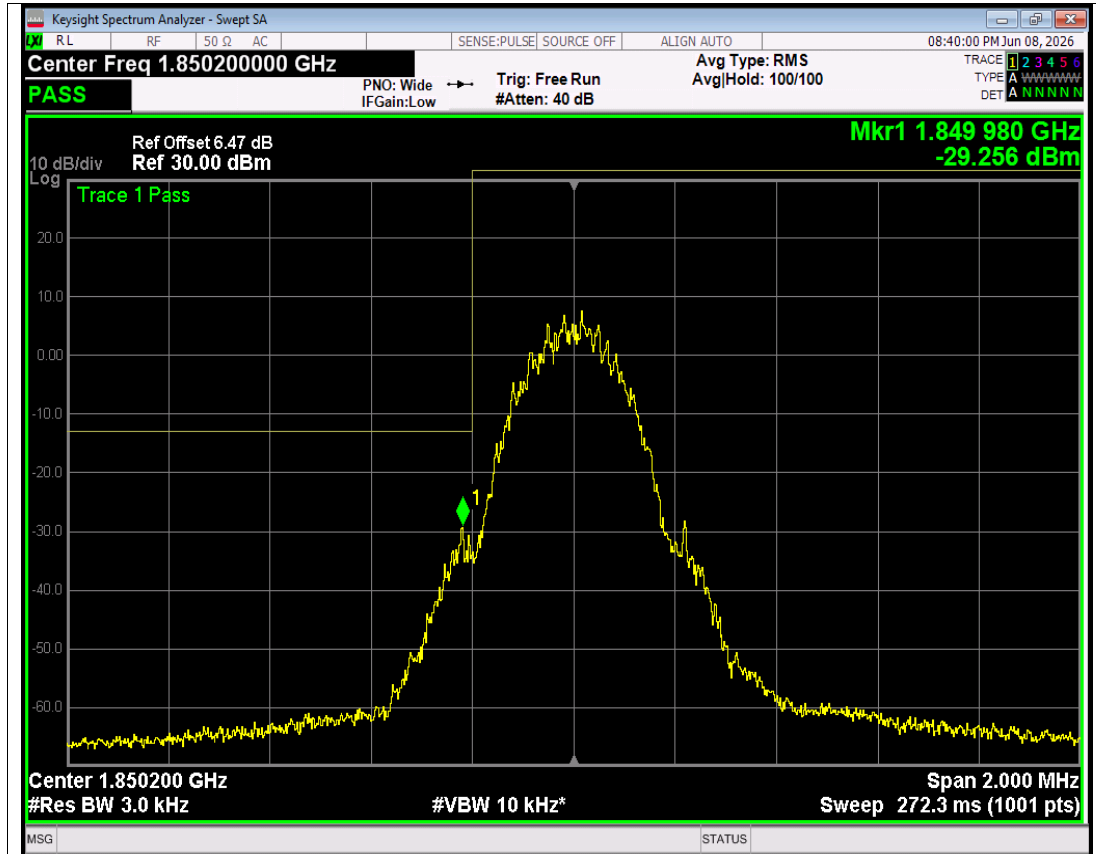
9.4 Test Result



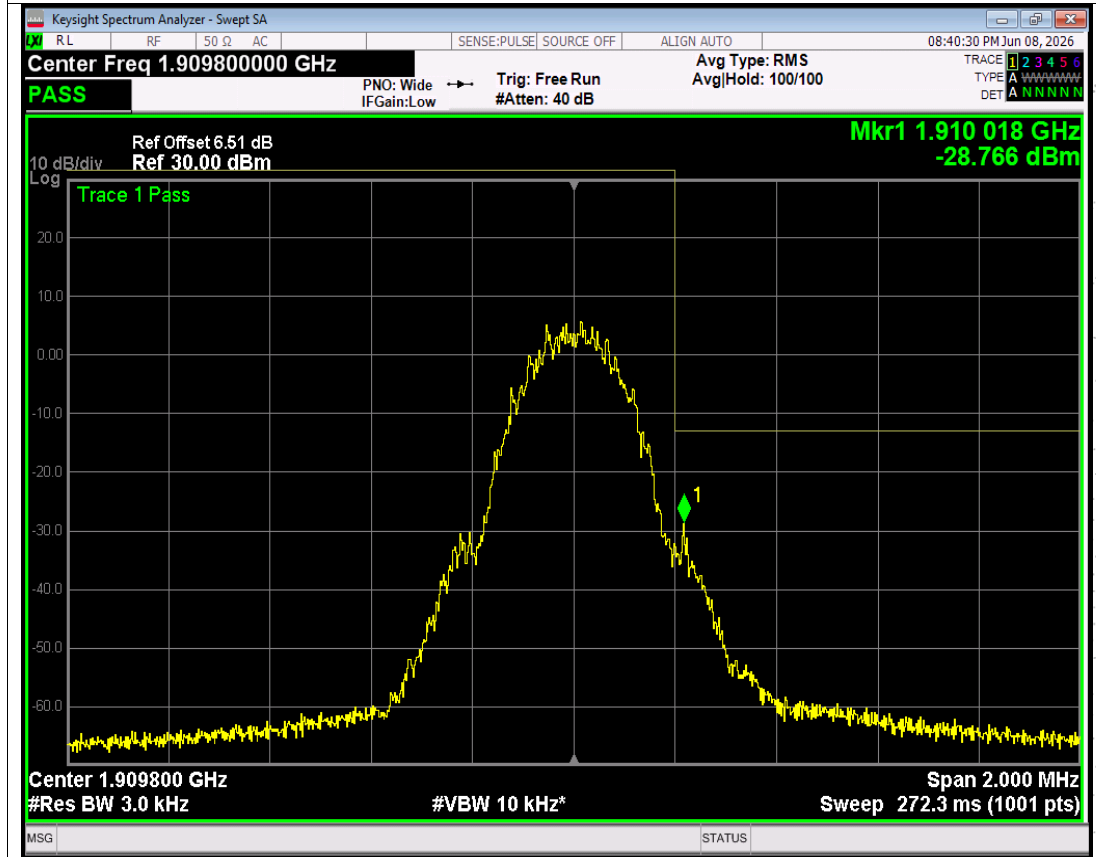
GSM850 Channel=128 NVNT



GSM850 Channel=251 NVNT



GSM1900 Channel=512 NVNT



GSM1900 Channel=810 NVNT