

TEST REPORT

FCC Test for PS2RDU_E_VHF_UHF_R
Certification

APPLICANT
SOLiD, Inc.

REPORT NO.
HCT-RF-2605-FC011

DATE OF ISSUE
May 13, 2026

Tested by
Kyung Soo Kang



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TEST REPORT

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Applicant**SOLiD,Inc.**

10, 9th Floor, SOLiD Space, 220, Pangyoyeok-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do, Republic of Korea, 13493

Product Name

DAS

Model Name

PS2RDU_E_VHF_UHF_R

FCC ID

W6UPSEVHFUHF

Date of Test

April 6, 2026 ~ May 13, 2026

Location of Test☒ Permanent Testing Lab ☐ On Site Testing

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-
do, Republic of Korea)

Test Standard Used

CFR 47 Part 2, Part 90

Test Results

PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	May 13, 2026	Initial Release

Notice

Content

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

CONTENTS

1. GENERAL INFORMATION	5
1.1. APPLICANT INFORMATION	5
1.2. PRODUCT INFORMATION	5
1.3. TEST INFORMATION	5
2. FACILITIES AND ACCREDITATIONS	6
2.1. FACILITIES	6
2.2. EQUIPMENT	6
3. TEST SPECIFICATIONS	7
3.1. STANDARDS	7
3.2. ADDITIONAL DESCRIPTIONS ABOUT TEST	8
3.3. MEASUREMENT UNCERTAINTY	10
3.4. STANDARDS ENVIRONMENTAL TEST CONDITIONS	10
3.5. TEST DIAGRAMS	11
4. TEST EQUIPMENTS	13
5. TEST RESULT	14
5.1. AGC THRESHOLD	14
5.2. OUT-OF-BAND REJECTION	18
5.3. OCCUPIED BANDWIDTH	20
5.4. INPUT-VERSUS-OUTPUT SIGNAL COMPARISON	31
5.5. INPUT/OUTPUT POWER AND AMPLIFIER/BOOSTER GAIN	42
5.6. NOISE FIGURE	53
5.7. OUT-OF-BAND/OUT-OF-BLOCK EMISSIONS AND SPURIOUS EMISSIONS	56
5.8. RADIATED SPURIOUS EMISSIONS	65
5.9. FREQUENCY STABILITY	67
6. Annex A_EUT AND TEST SETUP PHOTO	73

1. GENERAL INFORMATION

1.1. APPLICANT INFORMATION

Company Name	SOLiD,Inc.
Company Address	10, 9th Floor, SOLiD Space, 220, Pangyoyeok-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea, 13493

1.2. PRODUCT INFORMATION

EUT Type	DAS	
EUT Serial Number	2026030001	
Power Supply	AC 110~220 Vac	
Frequency Range	Band Name	Downlink (MHz)
	VHF	150.05 ~ 173.4
	UHF	406.1 ~ 420
		421 ~ 430
		450 ~ 512
Tx Output Power	24 dBm	
Antenna Gain (# Total Gain)	Peak Antenna Gain:	
	Band Name	Downlink
	VHF / UHF	17 dBi 14.85 dBd
	# Total Gain = Peak Antenna Gain + Cable Loss (Cable Loss: Downlink -2.87 dB)	
	Band Name	Downlink
	VHF / UHF	14.13 dBi 11.98 dBd

1.3. TEST INFORMATION

FCC Rule Parts	CFR 47 Part 2, Part 90
Measurement Standards	KDB 935210 D05 v01r04, KDB 971168 D01 v03r01, KDB 935210 D02 v04r03, ANSI C63.26-2015
Test Location	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea

2. FACILITIES AND ACCREDITATIONS

2.1. FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated February 26, 2026(Registration Number: KR0032).

2.2. EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

3. TEST SPECIFICATIONS

3.1. STANDARDS

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC CFR 47 Part 2, Part 90.

Description	Reference	Results
AGC threshold	KDB 935210 D05 v01r04 4.2	Compliant
Out-of-band rejection	KDB 935210 D05 v01r04 4.3	Compliant
Occupied Bandwidth	§ 2.1049 § 90.209, § 90.219(e)(4)(ii)	Compliant
Input-versus-output signal comparison	§ 90.210, § 90.219(e)(4)(iii)	Compliant
Input/output power and amplifier/booster gain	§ 2.1046, § 90.219(e)(1)	Compliant
Noise figure	KDB 935210 D02 v04r03 V.(j)(5) § 90.219(d)(6)(ii)	Compliant
Out-of-band/out-of-block emissions and spurious emissions	§ 2.1051, § 90.219(e)(3)	Compliant
Spurious emissions radiated	§ 2.1053	Compliant
Frequency Stability	§ 2.1055 § 90.213	Compliant

Note: The decision rule applies 'simple acceptance'

3.2. ADDITIONAL DESCRIPTIONS ABOUT TEST

- Except for the following cases, EUT was tested under normal operating conditions.
: Out-of-band rejection test requires maximum gain condition without AGC.
- The highest antenna gain among the antennas used was applied for testing.
- The test was generally based on the method of KDB 935210 D05 v01r04 and only followed ANSI C63.26-2015 if there was no test method in KDB standard.
- The EUT was tested using test signals required by the test procedures, configured based on the manufacturer's specifications.

Band Name	Downlink	
	Frequency (MHz)	Test Signal
VHF	150.05 ~ 173.4	IDEN CW
UHF	406.1 ~ 420	
	421 ~ 430	
	450 ~ 512	

The tests results included actual loss value for attenuator and cable combination as shown in the table below.

: Input Path

Correction factor table			
Frequency (MHz)	Factor (dB)	Frequency (MHz)	Factor (dB)
50	0.484	350	0.672
100	0.274	400	0.634
150	0.898	450	0.210
200	0.758	500	0.911
250	0.495	550	0.601
300	0.507	600	0.603

: Output Path

Correction factor table			
Frequency (MHz)	Factor (dB)	Frequency (MHz)	Factor (dB)
2	29.790	2 000	30.645
10	28.917	2 100	30.703
30	29.062	2 200	30.500
50	29.134	2 300	30.379
100	29.009	2 400	30.418
200	29.559	2 500	30.292
300	29.399	2 600	30.295
400	29.559	2 700	30.105
500	29.906	2 800	30.519
600	29.623	2 900	30.594
700	29.739	3 000	30.980
800	29.765	4 000	31.645
900	30.155	5 000	31.595
1 000	30.212	6 000	31.762
1 100	30.001	7 000	31.932
1 200	30.043	8 000	32.187
1 300	30.054	9 000	31.626
1 400	30.025	10 000	31.417
1 500	30.132	-	-
1 600	30.282	-	-
1 700	30.405	-	-
1 800	30.648	-	-
1 900	30.586	-	-

3.3. MEASUREMENT UNCERTAINTY

Parameter		Expanded Uncertainty
Radiated Disturbance	9 kHz ~ 30 MHz	4.36 dB
	30 MHz ~ 1 GHz	5.68 dB
	1 GHz ~ 18 GHz	5.75 dB
	18 GHz ~ 40 GHz	5.82 dB

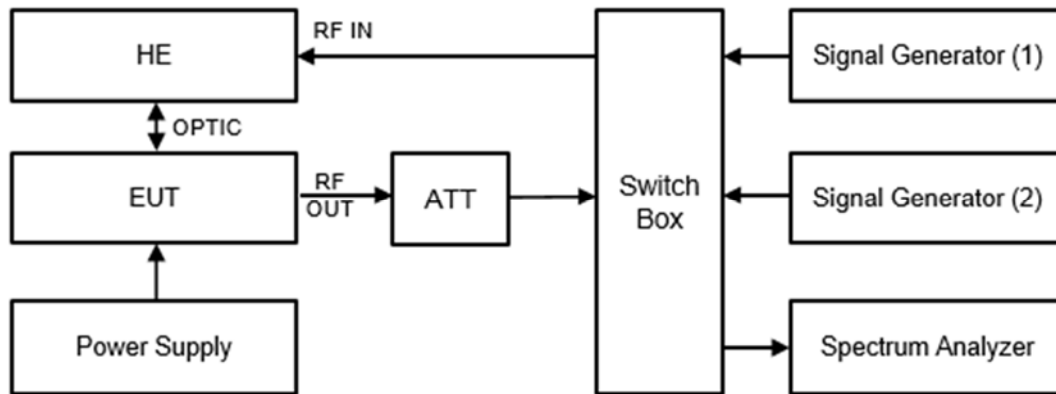
Coverage factor $k=2$, Confidence levels of 95 %

3.4. STANDARDS ENVIRONMENTAL TEST CONDITIONS

Temperature	+15 °C to +35 °C
Relative humidity	30 % to 60 %
Air pressure	860 mbar to 1 060 mbar

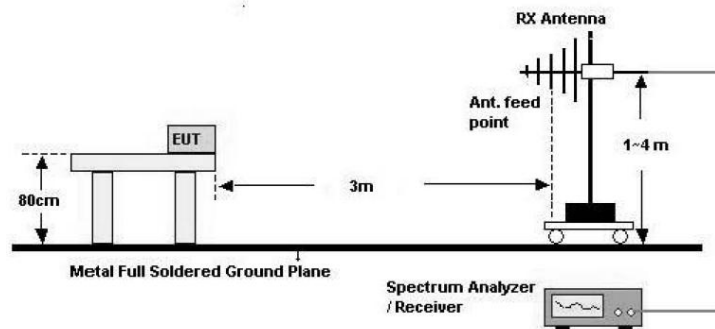
3.5. TEST DIAGRAMS

Conducted Test

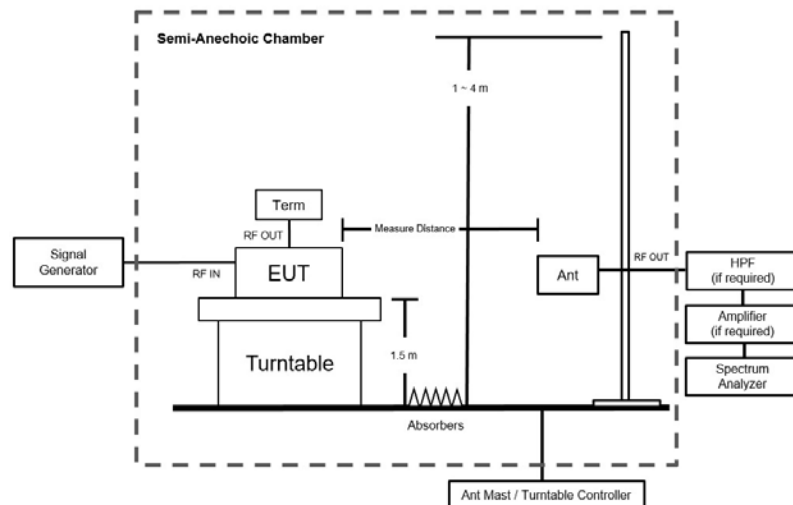


Radiated Test

30 MHz ~ 1 GHz

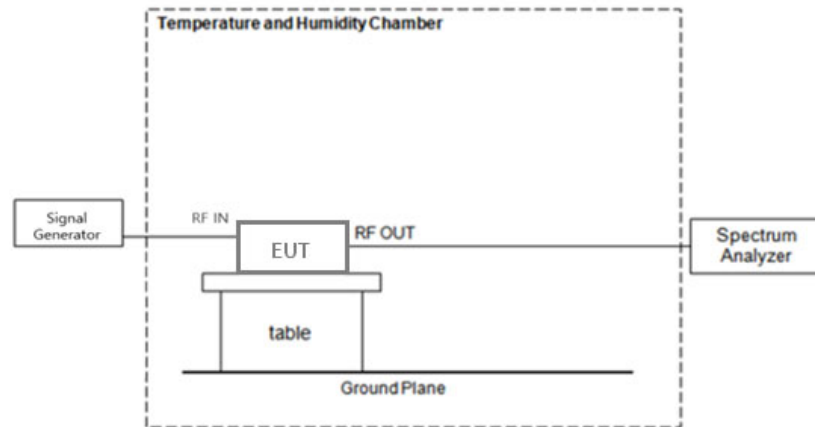


Above 1 GHz



Note: Measure distance for Above 1 GHz is 3 m.

Frequency Stability



4. TEST EQUIPMENTS

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
MXA Signal Analyzer	N9020A	Agilent	MY51110063	04/01/2027	Annual
# MXG Vector Signal Generator	N5182A	Agilent	MY46240807	03/04/2027	Annual
30 dB Attenuator	WA93-30-33	Weinschel Associates	0184	11/05/2026	Annual
AC Power Supply	PCR2000MA	KIKUSUI	ZL002530	12/17/2026	Annual
Switch	S46-SV11	KEITHLEY	1088025	N/A	N/A
50Ω Termination	908A	H.P.	N/A	N/A	N/A
Temperature and Humidity Chamber	NY-THR18750	NANGYEAL	NY-200912201A	12/16/2026	Annual
Amp & Filter Bank Switch Controller	FBSM-01B	TNM system	TM20090002	N/A	N/A
Controller(Antenna Mast & Turn Table)	CO3000	Innco systems	CO3000/1251/48920320/P	N/A	N/A
Antenna Mast	MA4640	Innco systems	S4AM	08/01/2026	Annual
Turn Table	Turn Table	Ets	N/A	N/A	N/A
Loop Antenna	FMZB 1513	Rohde & Schwarz	1513-333	06/23/2027	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	08/28/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-937	02/07/2027	Biennial
RF Switching System	FBSR-04C (LNA)	TNM system	S4L4	03/04/2027	Annual
RF Switching System	FBSR-04C (Thru)	TNM system	S4L6	03/04/2027	Annual
High Pass Filter	WHKX10-900-1000-15000-40SS	WAINWRIGHT INSTRUMENTS	16	07/10/2026	Annual

Multiple pieces of equipment were used depending on the test configuration; however, only one is listed for simplicity.

Note: All test equipment was within its valid calibration period at the time of testing.

5. TEST RESULT

5.1. AGC THRESHOLD

Test Requirement:

KDB 935210 D05 v01r04

Testing at and above the AGC threshold is required.

Test Procedures:

Measurements were in accordance with the test methods section 4.2 of KDB 935210 D05 v01r04.

Testing at and above the AGC threshold will be required. The AGC threshold shall be determined by applying the procedure of 3.2, but with the signal generator configured to produce a test signal defined in Table 1, a CW input signal, or a digitally modulated signal, consistent with the discussion about signal types in 4.1.

Measurement were in accordance with the test methods in subclause 7.2.3.1 of ANSI C63.26.

- a) Connect a signal generator to the input of the EUT.
- b) Connect a spectrum analyzer or power meter to the output of the EUT using appropriate attenuation.
- c) The signal generator must be set for CW operation.
- d) While monitoring the output of the EUT, increase the input level until a 1 dB increase in the input signal no longer causes a 1 dB increase in the output signal.
- e) This is the AGC threshold level of the EUT.

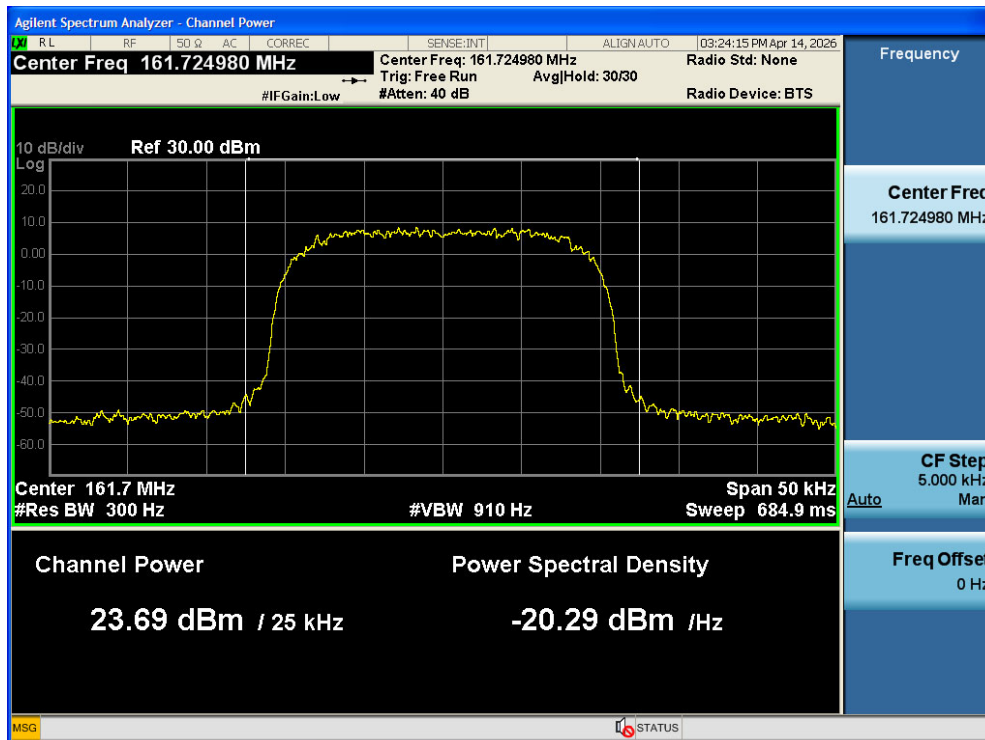
Note: Although subclause 7.2.3.1 c) of ANSI C63.26 specifies CW operation, the signal generator was configured to produce a digitally modulated signal in accordance with section 4.2 of KDB 935210 D05 v01r04, consistent with the signal types described in section 4.1.

Test Results:

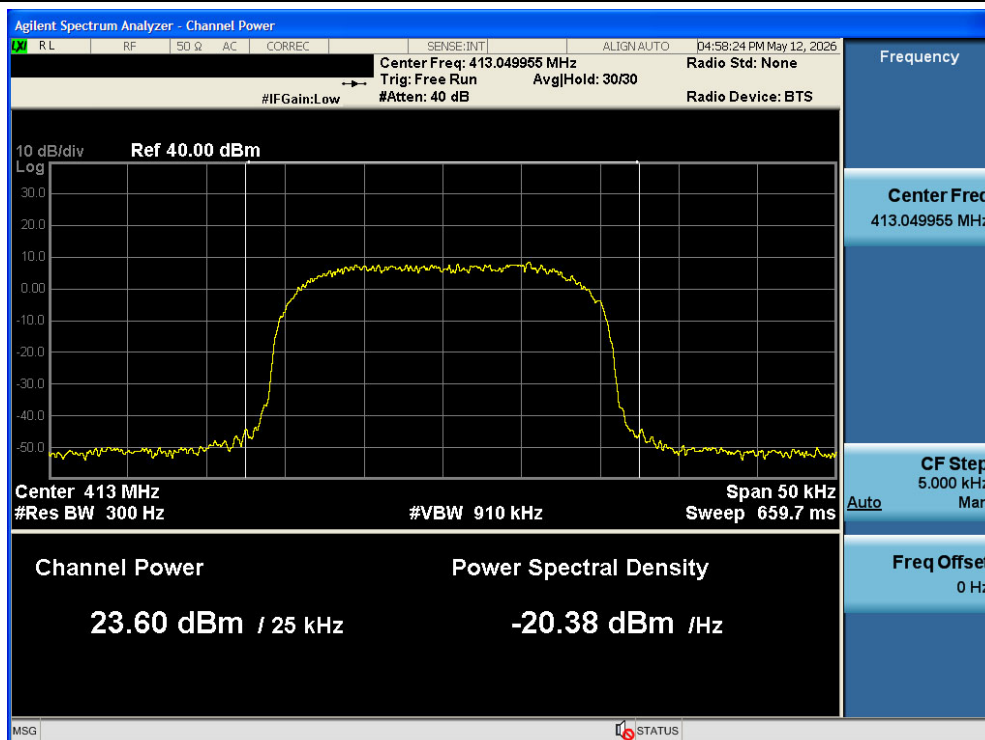
Test Band	Link	Signal	Center Frequency (MHz)	AGC Threshold Level (dBm)	Output Level (dBm)
VHF (150.05 ~ 173.4)	Downlink	IDEN	161.725	-15	23.69
UHF (406.1 ~ 420)			413.050	-15	23.60
UHF (421 ~ 430)			425.500	-15	23.76
UHF (450 ~ 512)			481.000	-15	23.54

Plot data of AGC Threshold

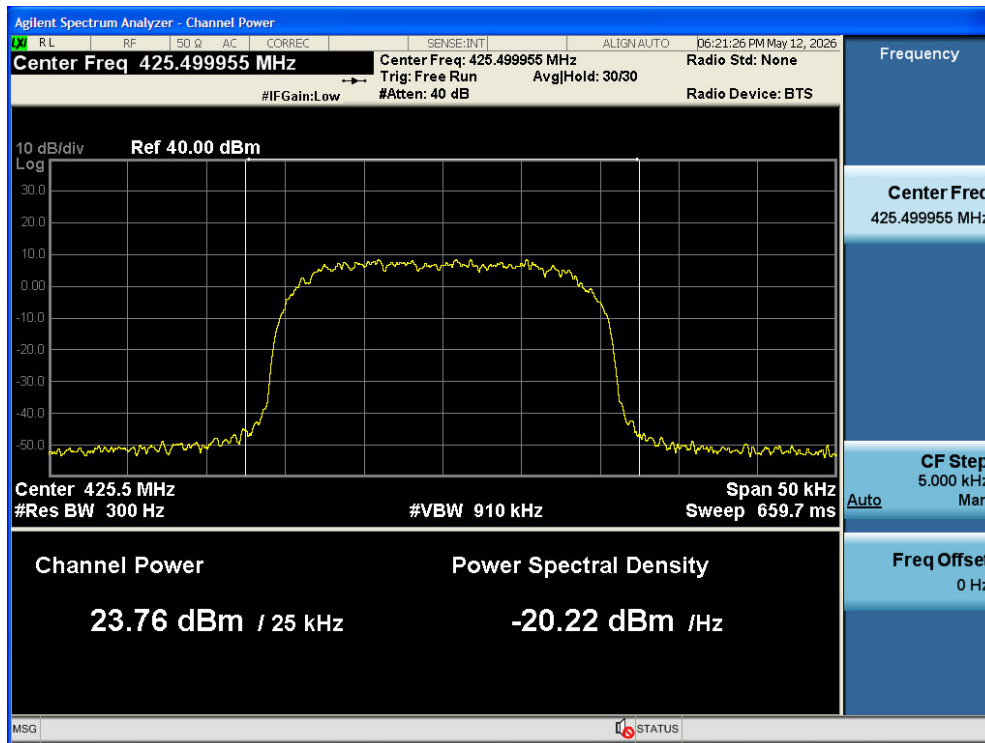
AGC Threshold / VHF (150.05 ~ 173.4) / Downlink / IDEN



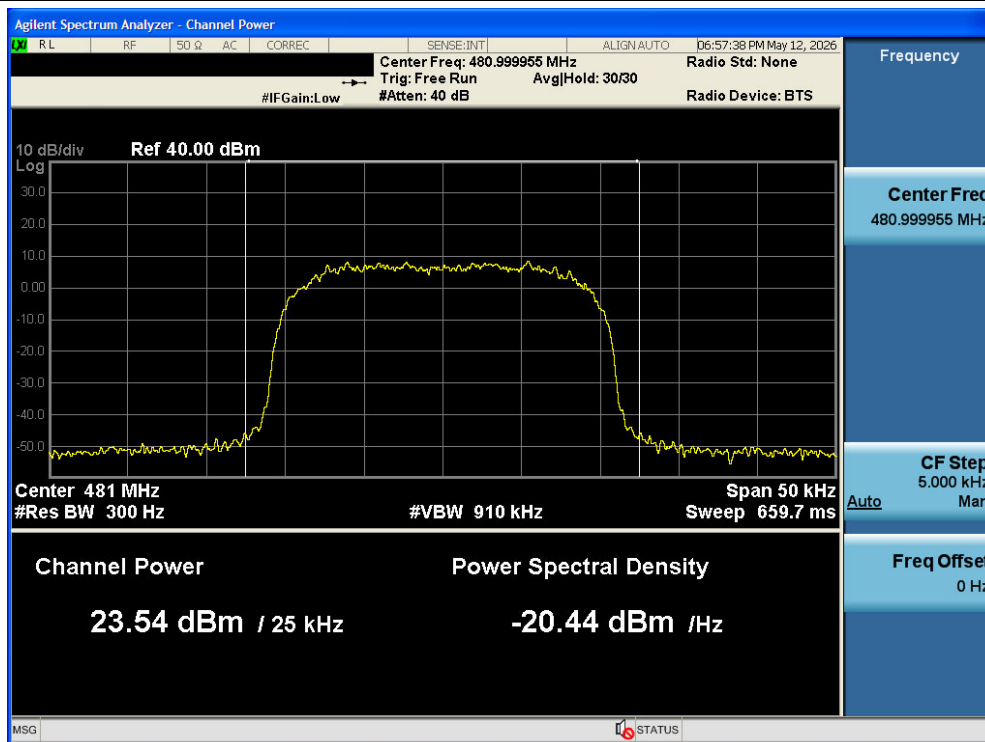
AGC Threshold / UHF (406.1 ~ 420) / Downlink / IDEN



AGC Threshold / VHF (421 ~ 430) / Downlink / IDEN



AGC Threshold / UHF (450 ~ 512) / Downlink / IDEN



5.2. OUT-OF-BAND REJECTION

Test Requirement:

KDB 935210 D05 v01r04

Out-of-band rejection required.

Test Procedures:

Measurements were in accordance with the test methods section 4.3 of KDB 935210 D05 v01r04.

A signal booster shall reject amplification of other signals outside of its passband. Adjust the internal gain control of the EUT to the maximum gain for which equipment certification is sought.

- a) Connect a signal generator to the input of the EUT.
- b) Configure a swept CW signal with the following parameters:
 - 1) Frequency range = ± 250 % of the manufacturer's specified pass band.
 - 2) The CW amplitude shall be 3 dB below the AGC threshold (see 4.2), and shall not activate the AGC threshold throughout the test.
 - 3) Dwell time = approximately 10 ms.
 - 4) Frequency step = 50 kHz.
- c) Connect a spectrum analyzer to the output of the EUT using appropriate attenuation.
- d) Set the RBW of the spectrum analyzer to between 1 % and 5 % of the manufacturer's rated passband, and VBW = $3 \times$ RBW.
- e) Set the detector to Peak and the trace to Max-Hold.
- f) After the trace is completely filled, place a marker at the peak amplitude, which is designated as f_0 , and with two additional markers (use the marker-delta method) at the 20 dB bandwidth (i.e., at the points where the level has fallen by 20 dB).
- g) Capture the frequency response plot for inclusion in the test report.

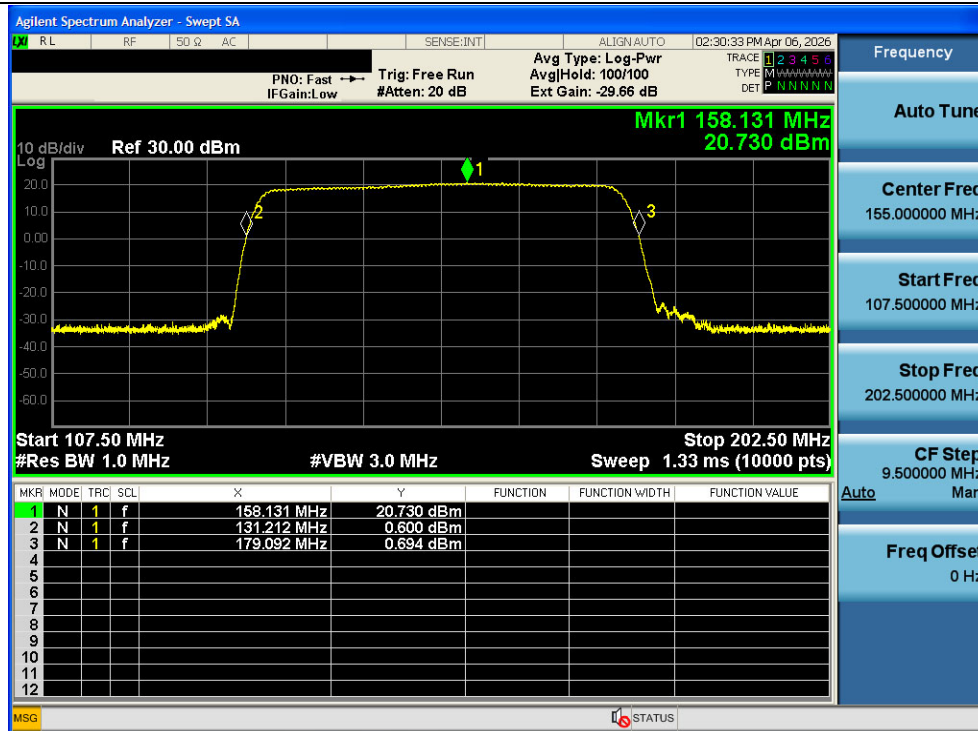
Note: The manufacturer's specified pass band is defined as follows

VHF: 136 ~ 174 MHz

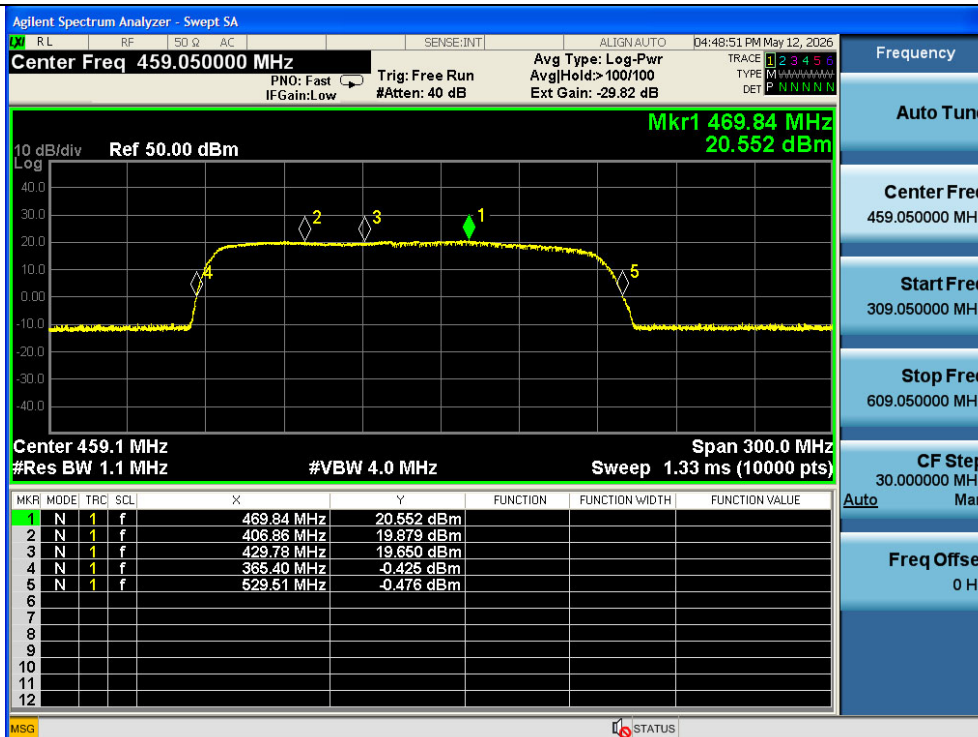
UHF: 380 ~ 512 MHz

Test Results:

VHF (136 ~ 174) / Downlink



UHF (380 ~ 512) / Downlink



5.3. OCCUPIED BANDWIDTH

Test Requirement:

§ 2.1049 Measurements required: Occupied bandwidth.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

§ 90.209 Bandwidth limitations.

Table 1 to § 90.209(b)(5) - Standard Channel Spacing/Bandwidth

Frequency band (MHz)	Channel spacing (kHz)	Authorized bandwidth (kHz)
150-174	¹ 7.5	^{1 3} 20/11.25/6
406-512 ²	¹ 6.25	^{1 3 6} 20/11.25/6

¹ For stations authorized on or after August 18, 1995.

² Bandwidths for radiolocation stations in the 420-450 MHz band and for stations operating in bands subject to this footnote will be reviewed and authorized on a case-by-case basis.

³ Operations using equipment designed to operate with a 25 kHz channel bandwidth will be authorized a 20 kHz bandwidth. Operations using equipment designed to operate with a 12.5 kHz channel bandwidth will be authorized a 11.25 kHz bandwidth. Operations using equipment designed to operate with a 6.25 kHz channel bandwidth will be authorized a 6 kHz bandwidth. All stations must operate on channels with a bandwidth of 12.5 kHz or less beginning January 1, 2013, unless the operations meet the efficiency standard of § 90.203(j)(3).

⁶ Operations using equipment designed to operate with a 25 kilohertz channel bandwidth may be authorized up to a 20 kilohertz bandwidth unless the equipment meets the Adjacent Channel Power limits of § 90.221 in which case operations may be authorized up to a 22 kilohertz bandwidth. Operations using equipment designed to operate with a 12.5 kilohertz channel bandwidth may be authorized up to an 11.25 kilohertz bandwidth.

§ 90.219 Use of signal boosters.

(e) Device Specifications. In addition to the general rules for equipment certification in § 90.203(a)(2) and part 2, subpart J of this chapter, a signal booster must also meet the rules in this paragraph.

(4) A signal booster must be designed such that all signals that it retransmits meet the following requirements:

(ii) There is no change in the occupied bandwidth of the retransmitted signals.

Test Procedures:

Measurements were in accordance with the test methods section 5.4.4 of ANSI C63.26-2015.

- a) 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 (typically a span of $1.5 \times \text{OBW}$ is sufficient).
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.
- d) Set the detection mode to peak, and the trace mode to max-hold.
- e) Omit
- f) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

Test Results:
Tabular data of Input Occupied Bandwidth

Test Band	Link	Signal	Center Frequency (MHz)	99 % OBW (kHz)	26 dB OBW (kHz)
VHF (150.05 ~ 173.4)	Downlink	IDEN	161.725	18.867	21.43
UHF (406.1 ~ 420)			413.050	18.734	21.17
UHF (421 ~ 430)			425.500	18.794	21.32
UHF (450 ~ 512)			481.000	18.729	21.22

Tabular data of Output Occupied Bandwidth

Test Band	Link	Signal	Center Frequency (MHz)	99 % OBW (kHz)	26 dB OBW (kHz)
VHF (150.05 ~ 173.4)	Downlink	IDEN	161.725	18.847	21.25
UHF (406.1 ~ 420)			413.050	18.656	21.22
UHF (421 ~ 430)			425.500	18.803	21.36
UHF (450 ~ 512)			481.000	18.798	21.34

Tabular data of Input Occupied Bandwidth at 3 dB above the AGC threshold

Test Band	Link	Signal	Center Frequency (MHz)	99 % OBW (kHz)	26 dB OBW (kHz)
VHF (150.05 ~ 173.4)	Downlink	IDEN	161.725	18.828	21.37
UHF (406.1 ~ 420)			413.050	18.912	21.25
UHF (421 ~ 430)			425.500	18.774	21.28
UHF (450 ~ 512)			481.000	18.562	21.14

Tabular data of Output Occupied Bandwidth at 3 dB above the AGC threshold

Test Band	Link	Signal	Center Frequency (MHz)	99 % OBW (kHz)	26 dB OBW (kHz)
VHF (150.05 ~ 173.4)	Downlink	IDEN	161.725	18.888	21.35
UHF (406.1 ~ 420)			413.050	18.770	21.30
UHF (421 ~ 430)			425.500	18.631	21.28
UHF (450 ~ 512)			481.000	18.636	21.15

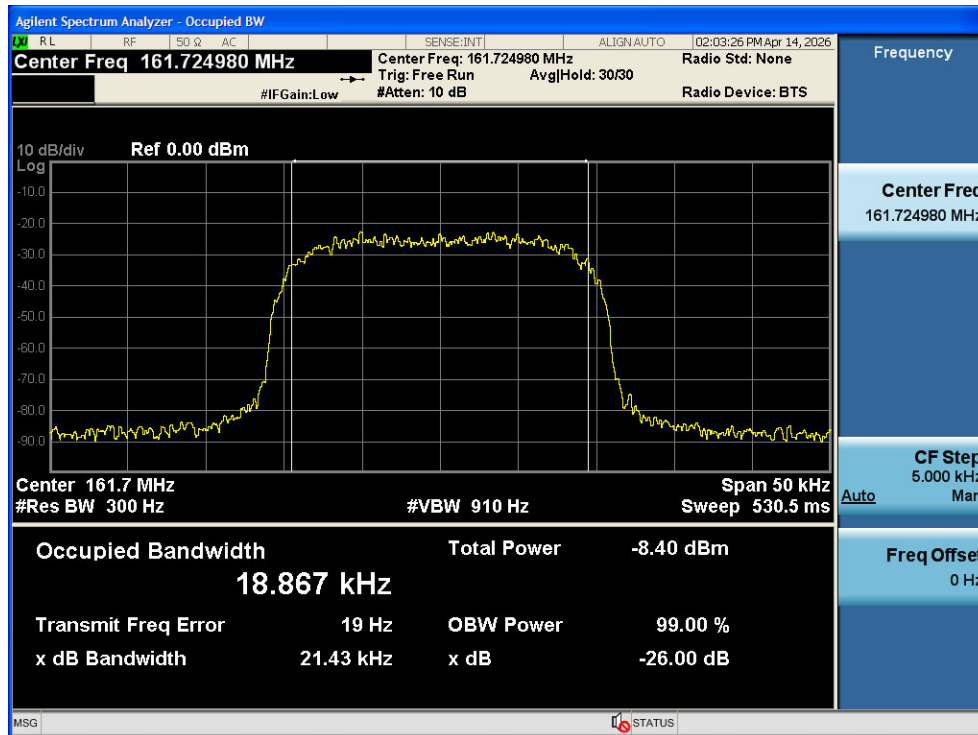
Measured Occupied Bandwidth Comparison

Test Band	Link	Signal	Variant of Input and output Occupied Bandwidth (%)	Variant of Input and Output Occupied Bandwidth at 3 dB above the AGC threshold (%)
VHF (150.05 ~ 173.4)	Downlink	IDEN	-0.84	-0.09
UHF (406.1 ~ 420)			0.24	0.24
UHF (421 ~ 430)			0.19	0.00
UHF (450 ~ 512)			0.57	0.05

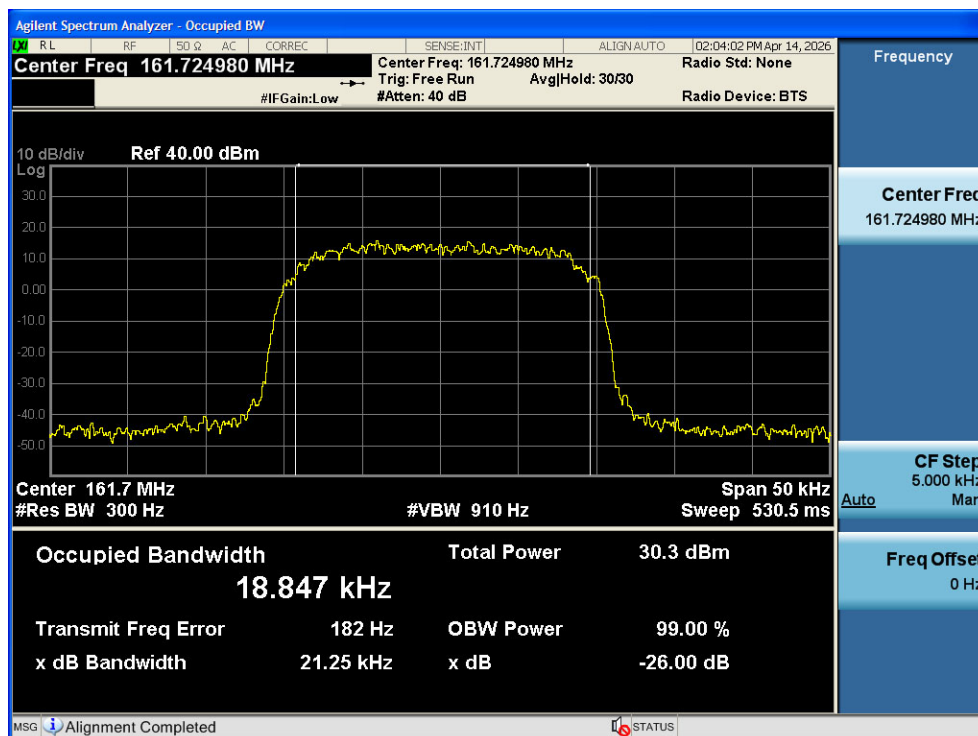
Note: The change in OBW between input and output is less than $\pm 5\%$.

Plot data of Occupied Bandwidth

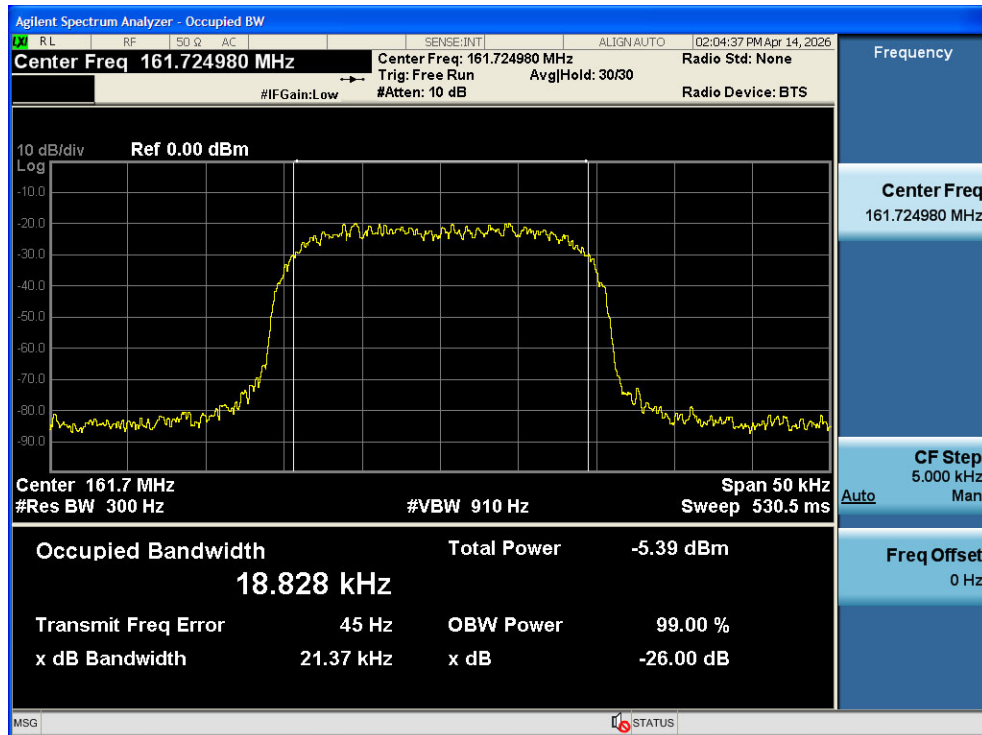
Input / VHF (150.05 ~ 173.4) / Downlink / IDEN



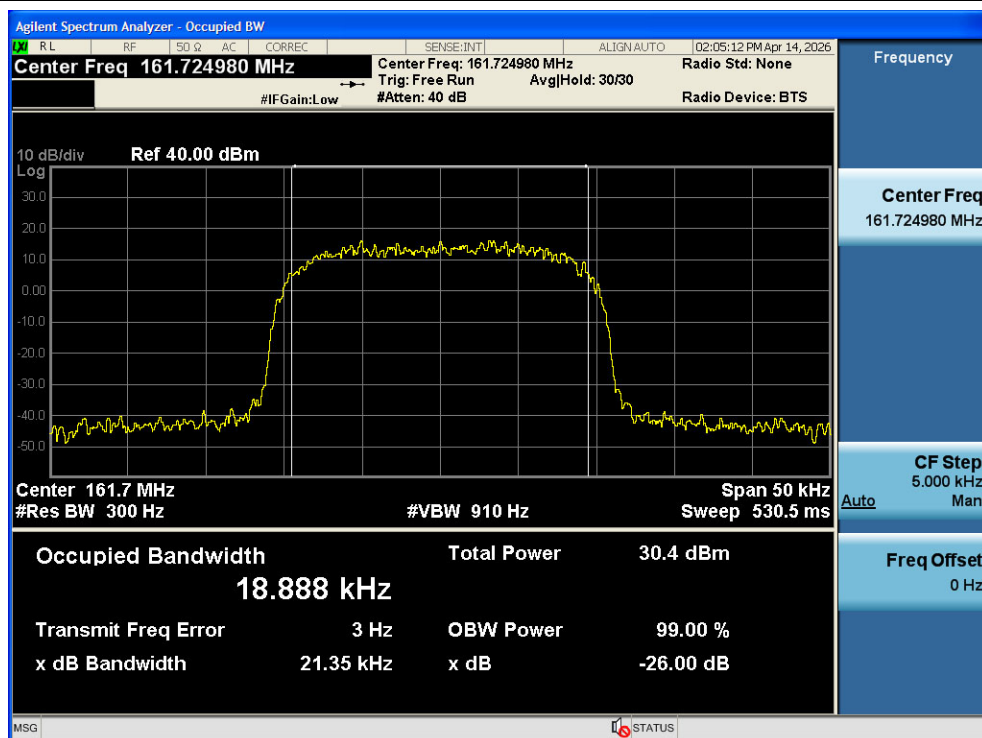
Output / VHF (150.05 ~ 173.4) / Downlink / IDEN



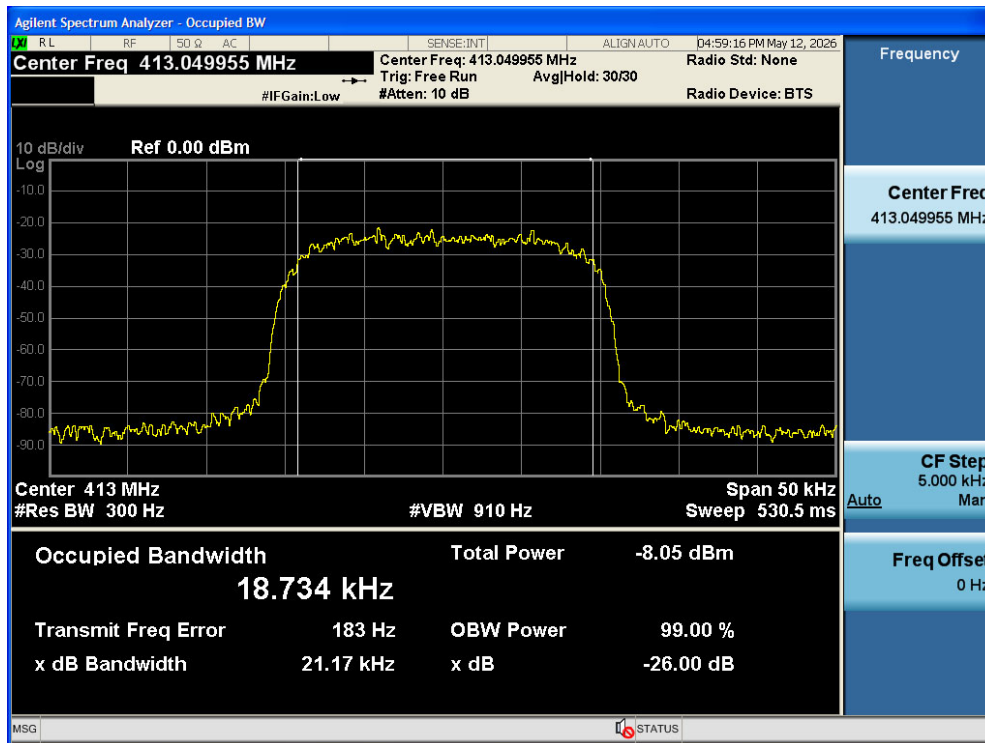
Input @ +3 dB AGC threshold / VHF (150.05 ~ 173.4) / Downlink / IDEN



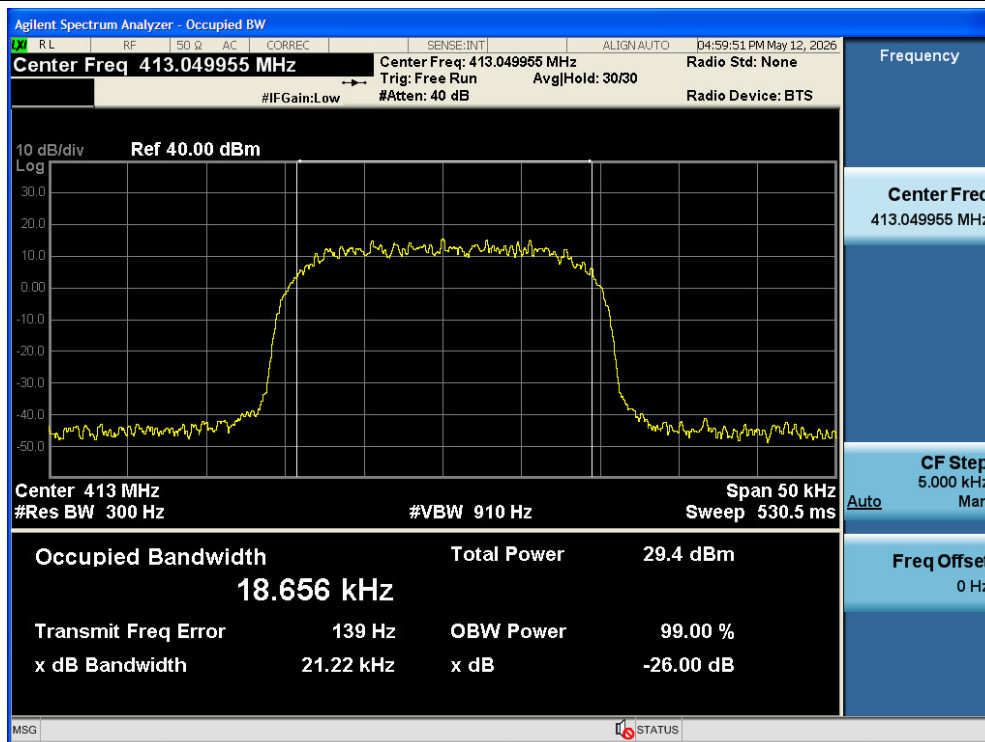
Output @ +3 dB AGC threshold / VHF (150.05 ~ 173.4) / Downlink / IDEN



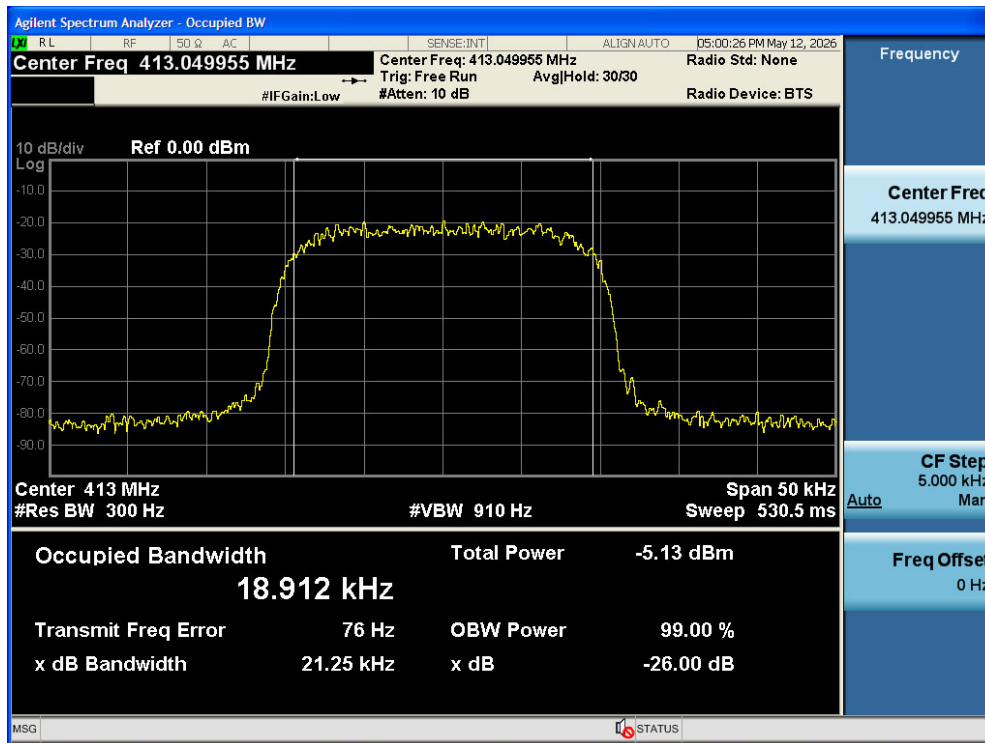
Input / UHF (406.1 ~ 420) / Downlink / IDEN



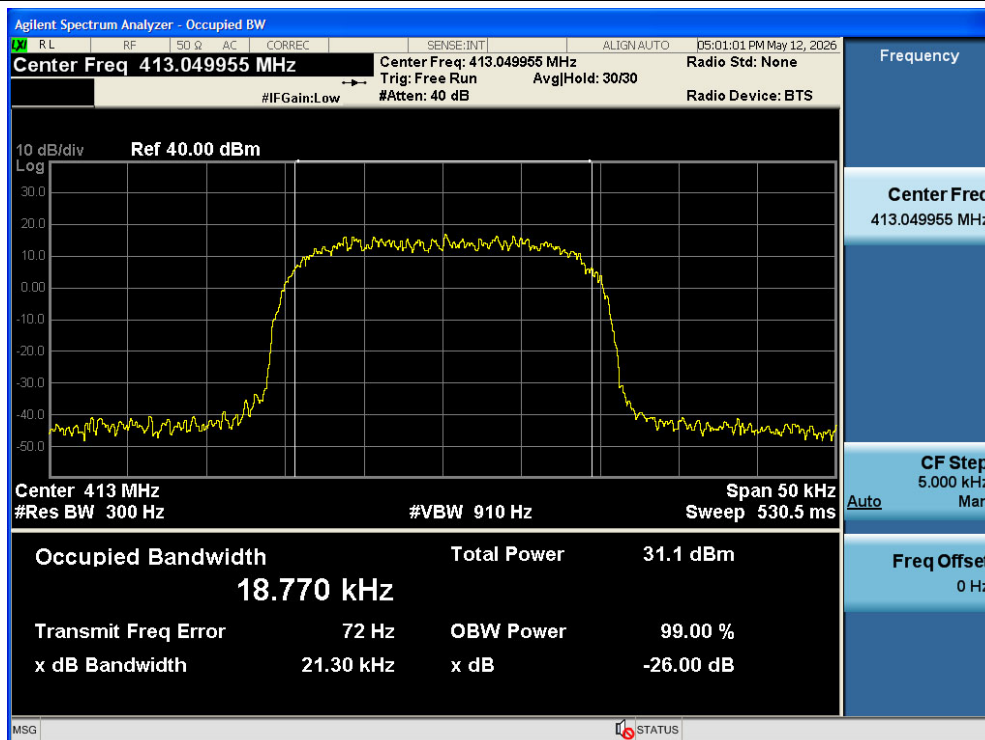
Output / UHF (406.1 ~ 420) / Downlink / IDEN



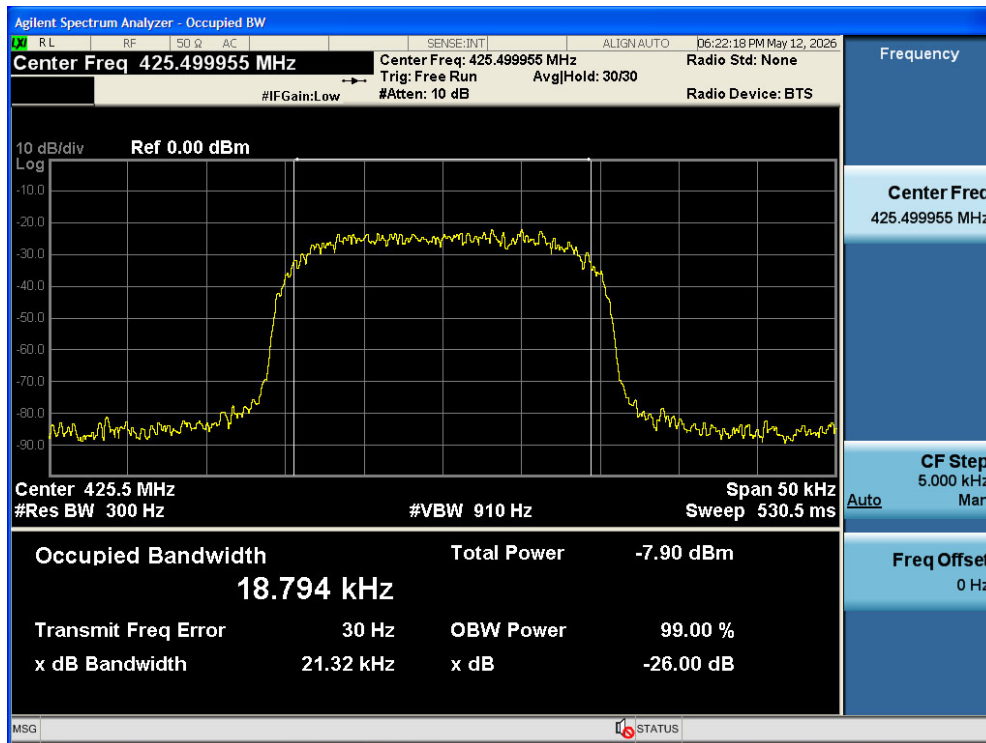
Input @ +3 dB AGC threshold / UHF (406.1 ~ 420) / Downlink / IDEN



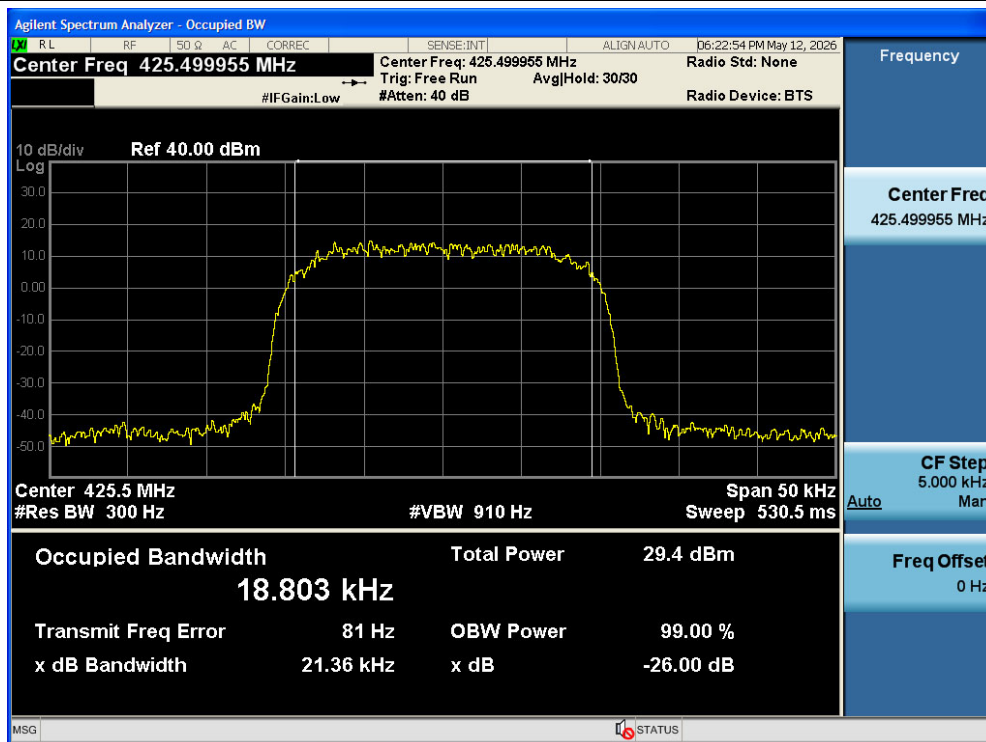
Output @ +3 dB AGC threshold / UHF (406.1 ~ 420) / Downlink / IDEN



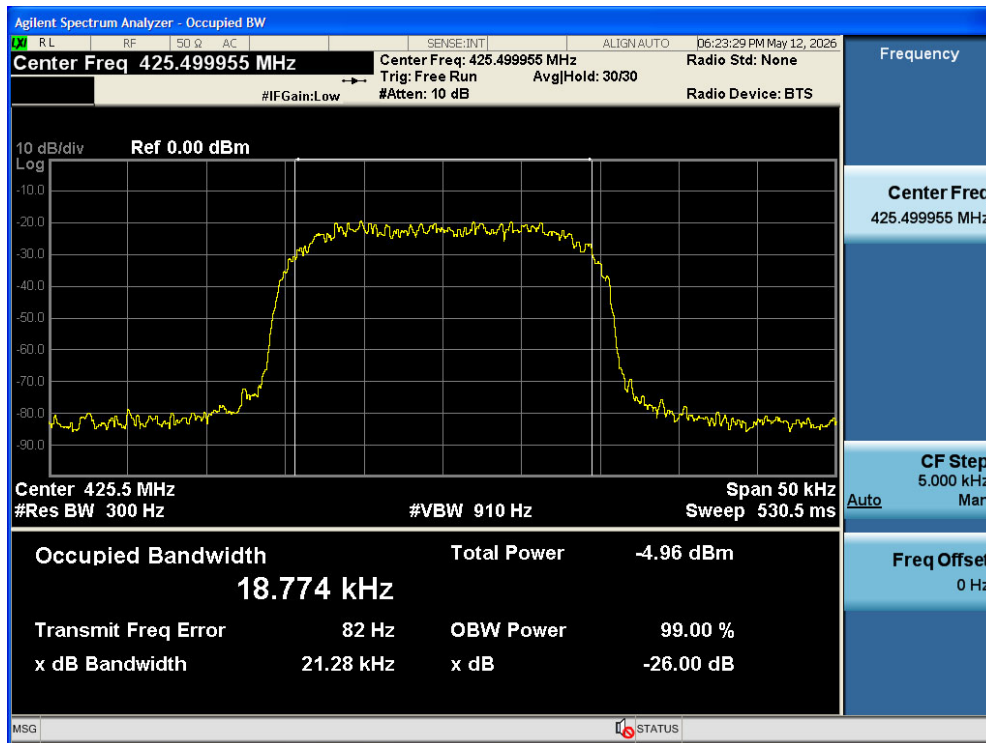
Input / UHF (421 ~ 430) / Downlink / IDEN



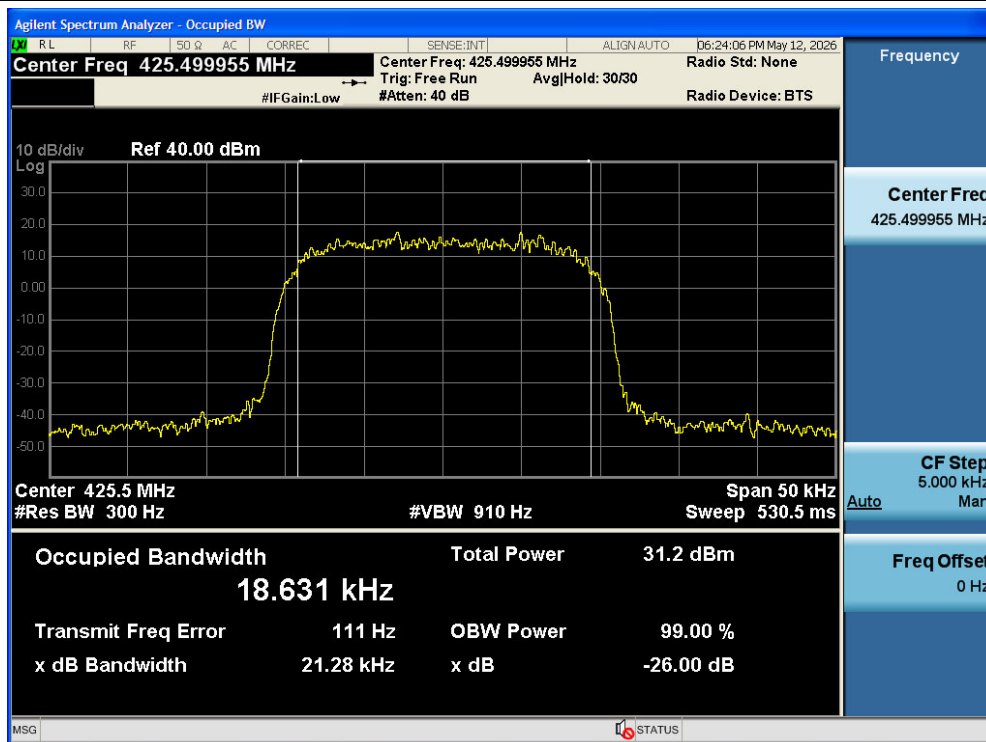
Output / UHF (421 ~ 430) / Downlink / IDEN



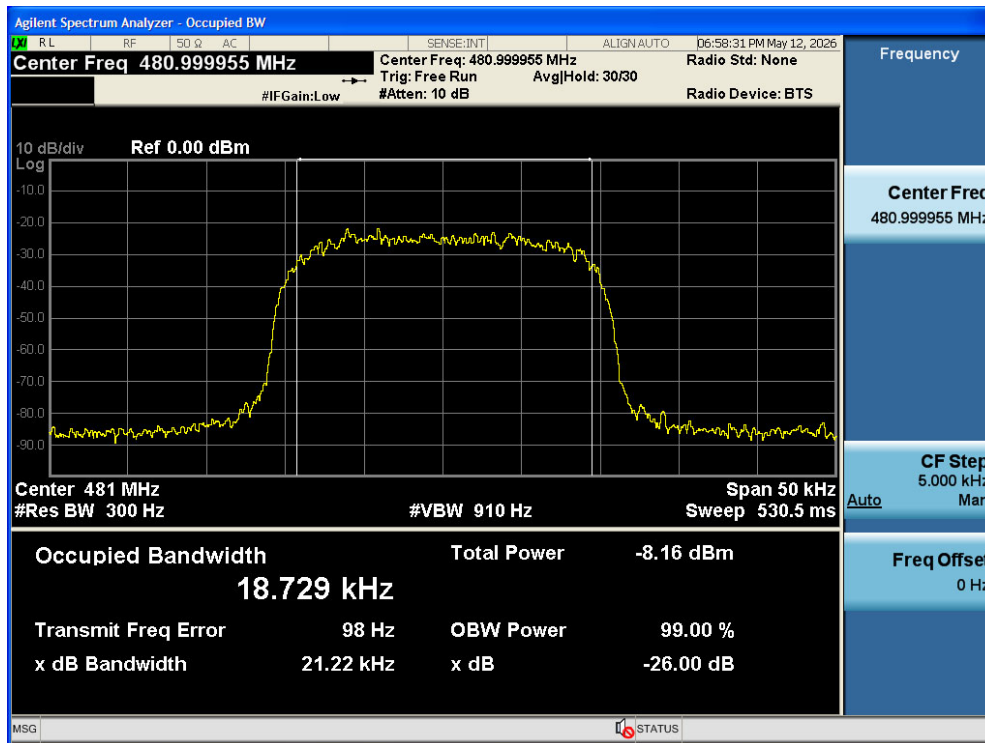
Input @ +3 dB AGC threshold / UHF (421 ~ 430) / Downlink / IDEN



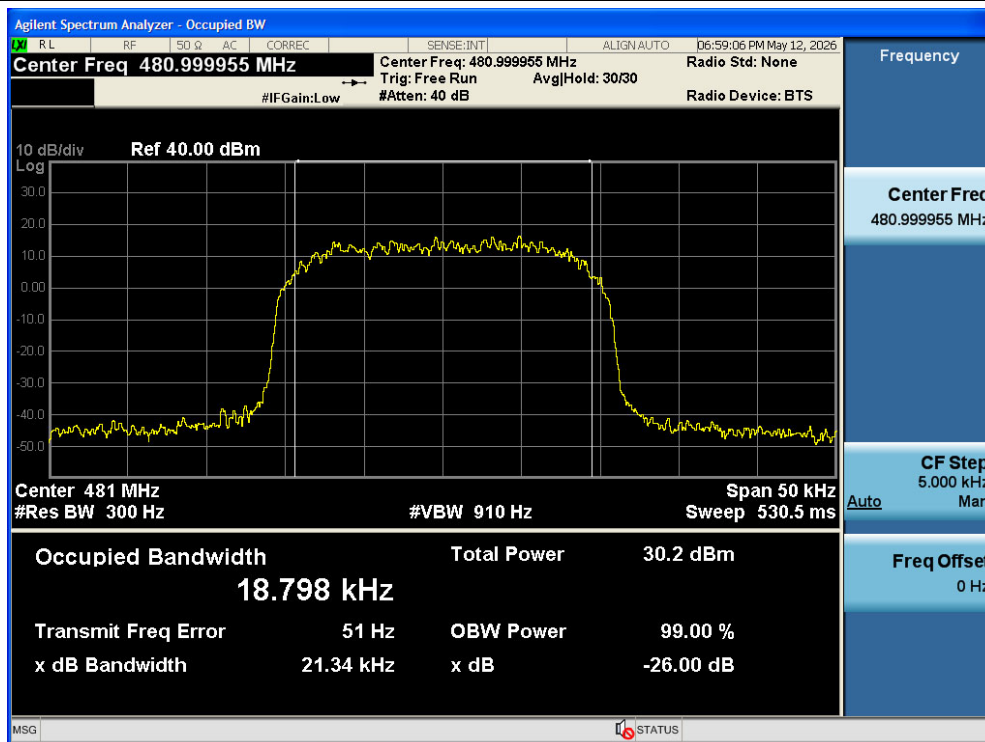
Output @ +3 dB AGC threshold / UHF (421 ~ 430) / Downlink / IDEN



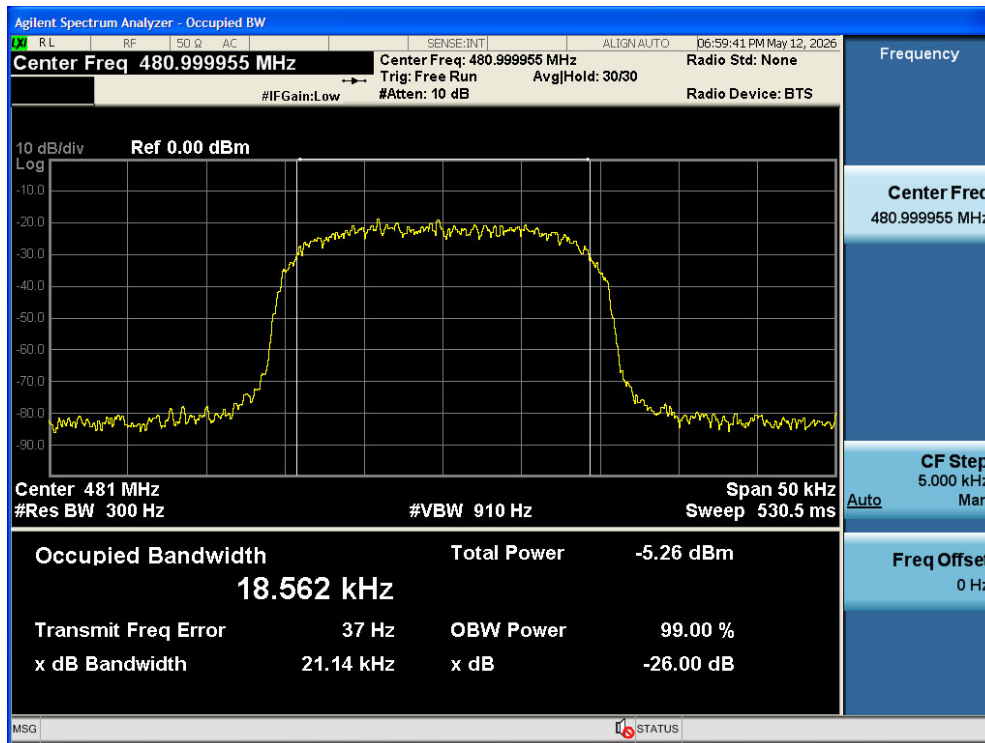
Input / UHF (450 ~ 512) / Downlink / IDEN



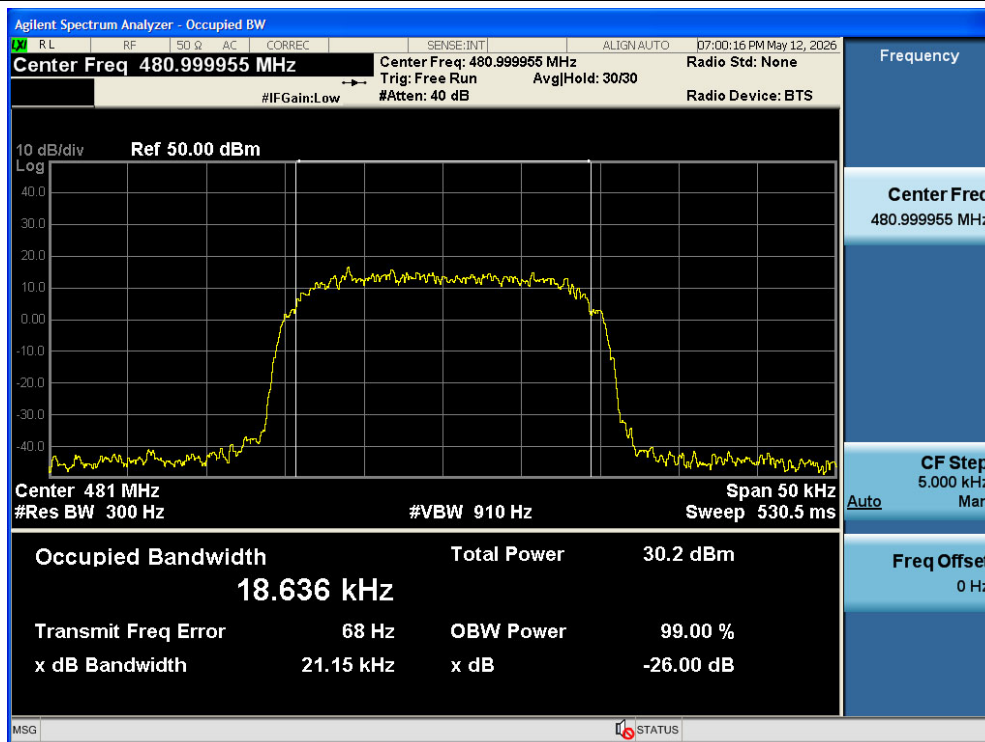
Output / UHF (450 ~ 512) / Downlink / IDEN



Input @ +3 dB AGC threshold / UHF (450 ~ 512) / Downlink / IDEN



Output @ +3 dB AGC threshold / UHF (450 ~ 512) / Downlink / IDEN



5.4. INPUT-VERSUS-OUTPUT SIGNAL COMPARISON

Test Requirement:

§ 90.210 Emission masks.

Except as indicated elsewhere in this part, transmitters used in the radio services governed by this part must comply with the emission masks outlined in this section. Unless otherwise stated, per paragraphs (d)(4), (e)(4), and (o) of this section, measurements of emission power can be expressed in either peak or average values provided that emission powers are expressed with the same parameters used to specify the unmodulated transmitter carrier power. For transmitters that do not produce a full power unmodulated carrier, reference to the unmodulated transmitter carrier power refers to the total power contained in the channel bandwidth. Unless indicated elsewhere in this part, the table in this section specifies the emission masks for equipment operating under this part.

Applicable Emission Masks		
Frequency band (MHz)	Mask for equipment with audio low pass filter	Mask for equipment without audio low pass filter
150-174 ²	B, D, or E	C, D or E
421-512 ^{2 5}	B, D, or E	C, D, or E
All other bands	B	C

² Equipment designed to operate with a 25 kHz channel bandwidth must meet the requirements of Emission Mask B or C, as applicable. Equipment designed to operate with a 12.5 kHz channel bandwidth must meet the requirements of Emission Mask D, and equipment designed to operate with a 6.25 kHz channel bandwidth must meet the requirements of Emission Mask E.

⁵ Equipment designed to operate on 25 kilohertz bandwidth channels must meet the requirements of either Emission Mask B or G, whichever is applicable, while equipment designed to operate on 12.5 kilohertz bandwidth channels must meet the requirements of Emission Mask D. Equipment designed to operate on 25 kilohertz bandwidth channels may alternatively meet the Adjacent Channel Power limits of § 90.221.

- (c) **Emission Mask C.** For transmitters that are not equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier output power (P) as follows:
- (1) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5 kHz, but not more than 10 kHz: At least $83 \log(f_d/5)$ dB;
 - (2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 10 kHz, but not more than 250 percent of the authorized bandwidth: At least $29 \log(f_d/11)$ dB or 50 dB, whichever is the lesser attenuation;
 - (3) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth: At least $43 + 10 \log(P)$ dB.
 - (4) In the 1427-1432 MHz band, licensees are encouraged to take all reasonable steps to ensure that unwanted emissions power does not exceed the following levels in the 1400-1427 MHz band:
 - (i) For stations of point-to-point systems in the fixed service: -45 dBW/27 MHz.
 - (ii) For stations in the mobile service: -60 dBW/27 MHz.

§ 90.219 Use of signal boosters.

- (e) **Device Specifications.** In addition to the general rules for equipment certification in § 90.203(a)(2) and part 2, subpart J of this chapter, a signal booster must also meet the rules in this paragraph.
- (4) A signal booster must be designed such that all signals that it retransmits meet the following requirements:
- (iii) The retransmitted signals continue to meet the unwanted emissions limits of § 90.210 applicable to the corresponding received signals (assuming that these received signals meet the applicable unwanted emissions limits by a reasonable margin).

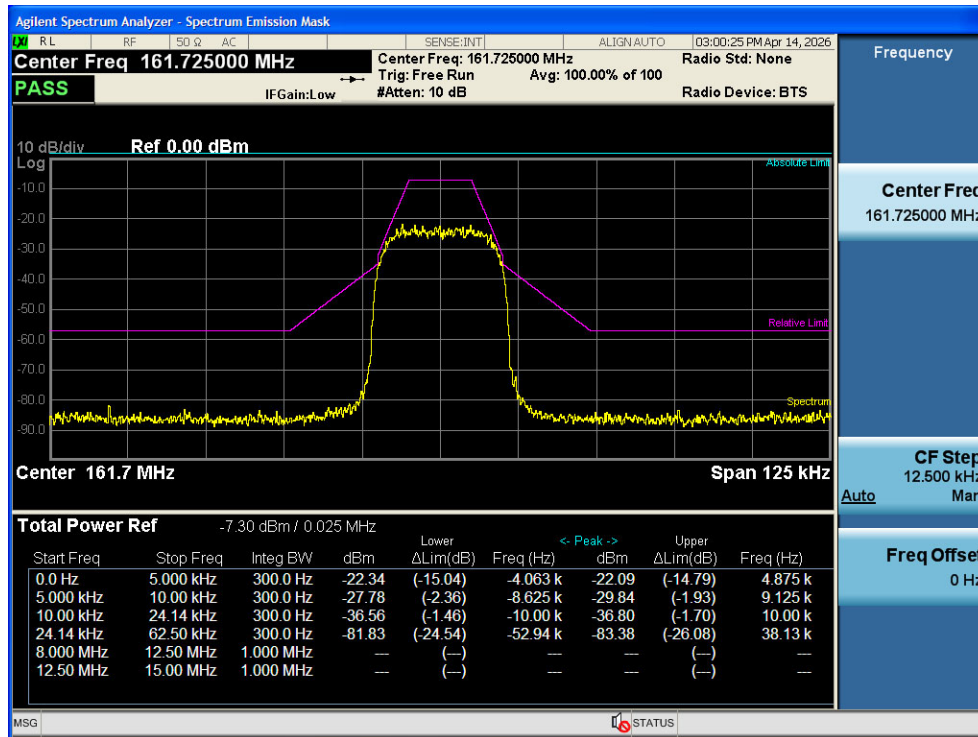
Test Procedures:

Measurements were in accordance with the test methods section 4.4 of KDB 935210 D05 v01r03.

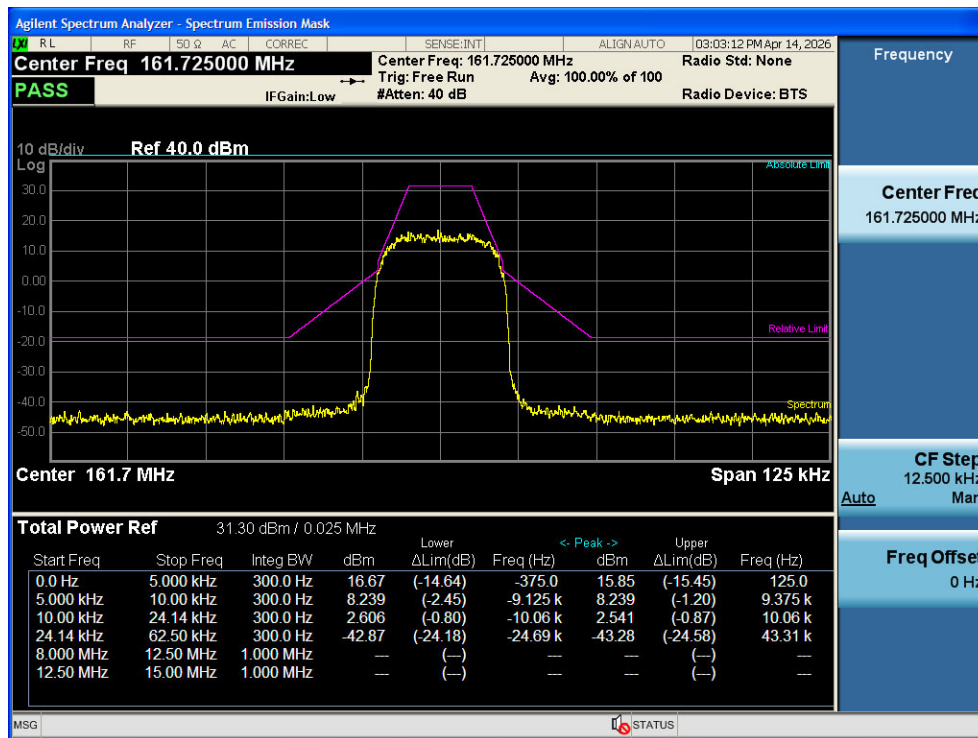
- a) Connect a signal generator to the input of the EUT.
- b) Configure the signal generator to transmit the appropriate test signal associated with the public safety emission designation.
- c) Configure the signal level to be just below the AGC threshold.
- d) Connect a spectrum analyzer to the output of the EUT using appropriate attenuation as necessary.
- e) Set the spectrum analyzer center frequency to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between 2 times to 5 times the EBW (or OBW).
- f) The nominal RBW shall be 300 Hz for 16K0F3E, and 100 Hz for all other emissions types.
- g) Set the reference level of the spectrum analyzer to accommodate the maximum input amplitude level, i.e., the level at f_0 per Out-of-band rejection test.
- h) Set spectrum analyzer detection mode to peak, and trace mode to max hold.
- i) Allow the trace to fully stabilize.
- j) Confirm that the signal is contained within the appropriate emissions mask.
- k) Use the marker function to determine the maximum emission level and record the associated frequency.
- l) Capture the emissions mask plot for inclusion in the test report (output signal spectra).
- m) Measure the EUT input signal power (signal generator output signal) directly from the signal generator using power measurement guidance provided in KDB Publication 971168 [R8] (input signal spectra).
- n) Compare the spectral plot of the output signal (determined in step k), to the input signal (determined in step l) to affirm they are similar (in passband and rolloff characteristic features and relative spectral locations).
- o) Repeat steps d) to n) with the input signal amplitude set 3 dB above the AGC threshold.
- p) Repeat steps b) to o) for all authorized operational bands and emissions types (see applicable regulatory specifications, e.g., Section 90.210).
- q) Include all accumulated spectral plots depicting EUT input signal and EUT output signal in the test report, and note any observed dissimilarities.

Plot data of Emission mask

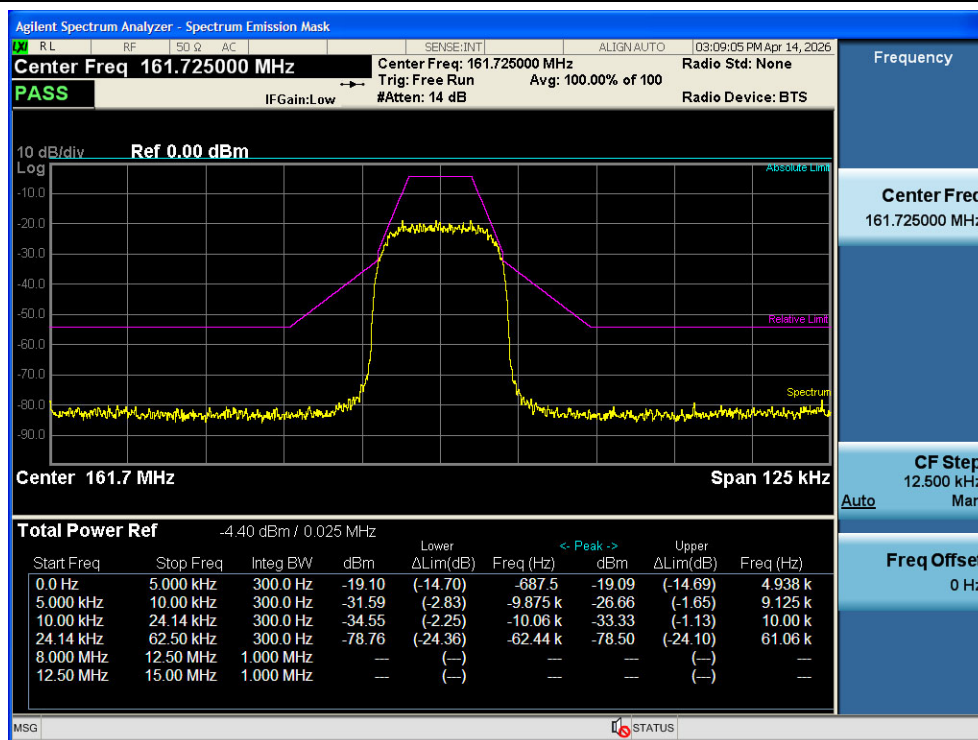
Input / VHF (150.05 ~ 173.4) / Downlink / IDEN / Mask C



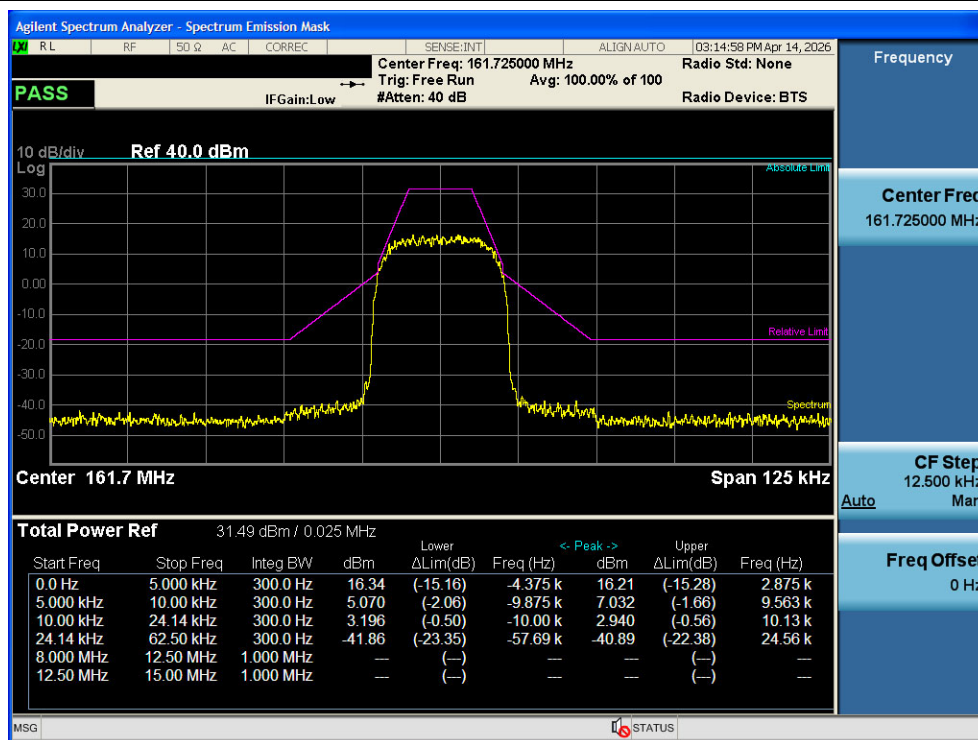
Output / VHF (150.05 ~ 173.4) / Downlink / IDEN / Mask C



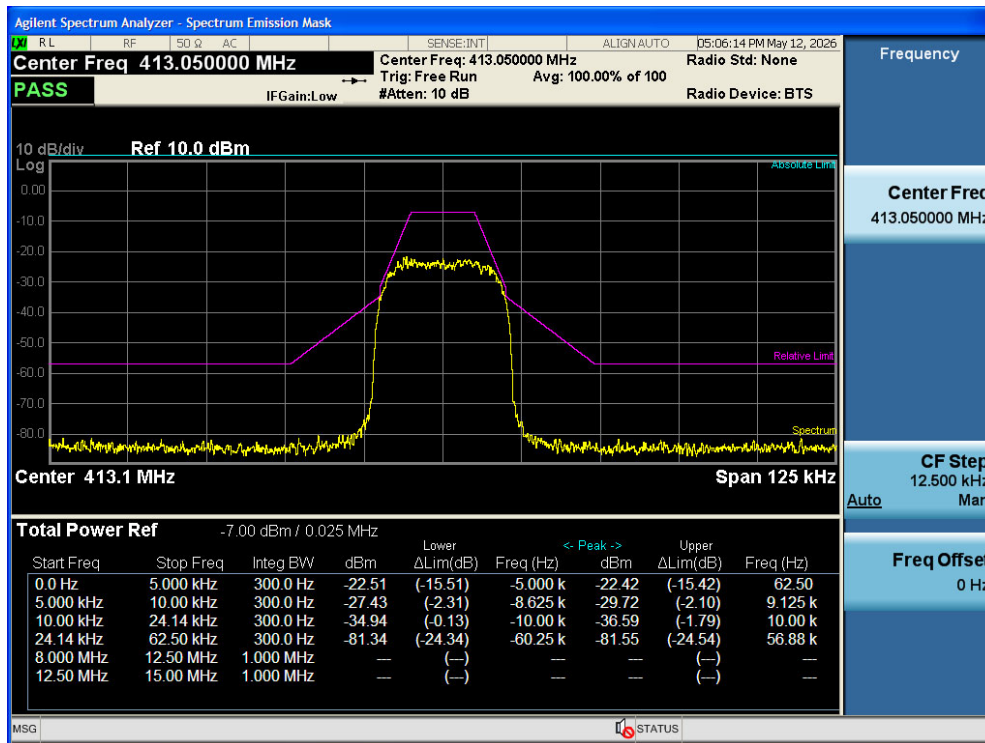
Input @ +3 dB AGC threshold / VHF (150.05 ~ 173.4) / Downlink / IDEN / Mask C



Output @ +3 dB AGC threshold / VHF (150.05 ~ 173.4) / Downlink / IDEN / Mask C



Input / UHF (406.1 ~ 420) / Downlink / IDEN / Mask C



Output / UHF (406.1 ~ 420) / Downlink / IDEN / Mask C

