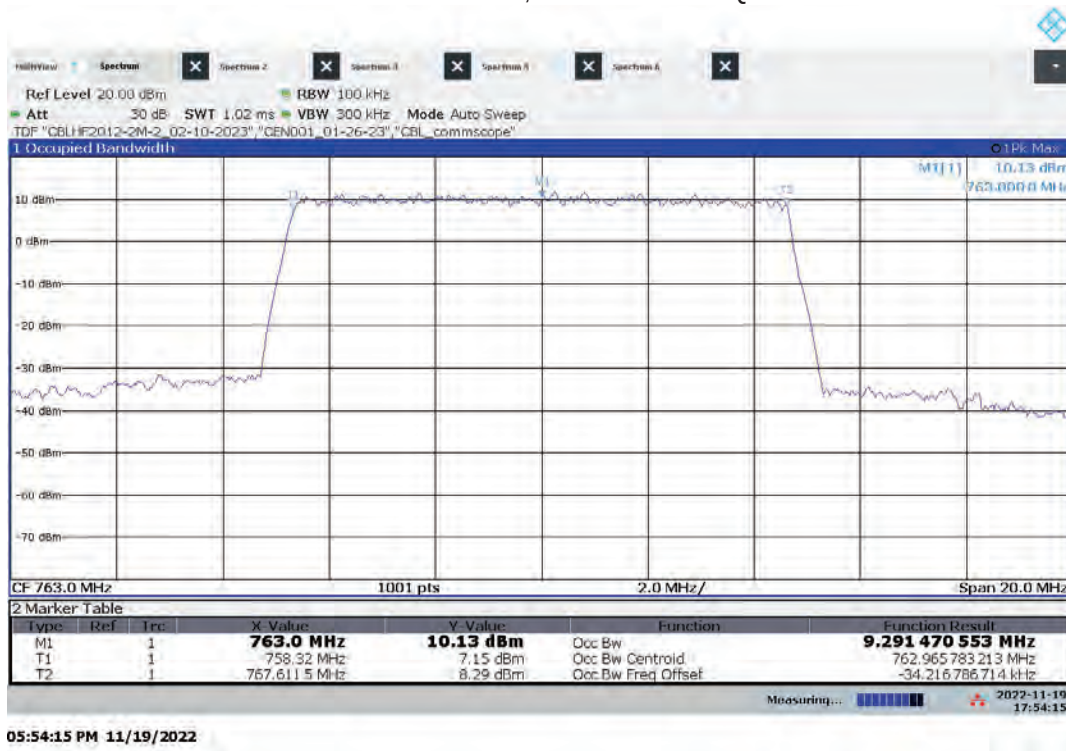
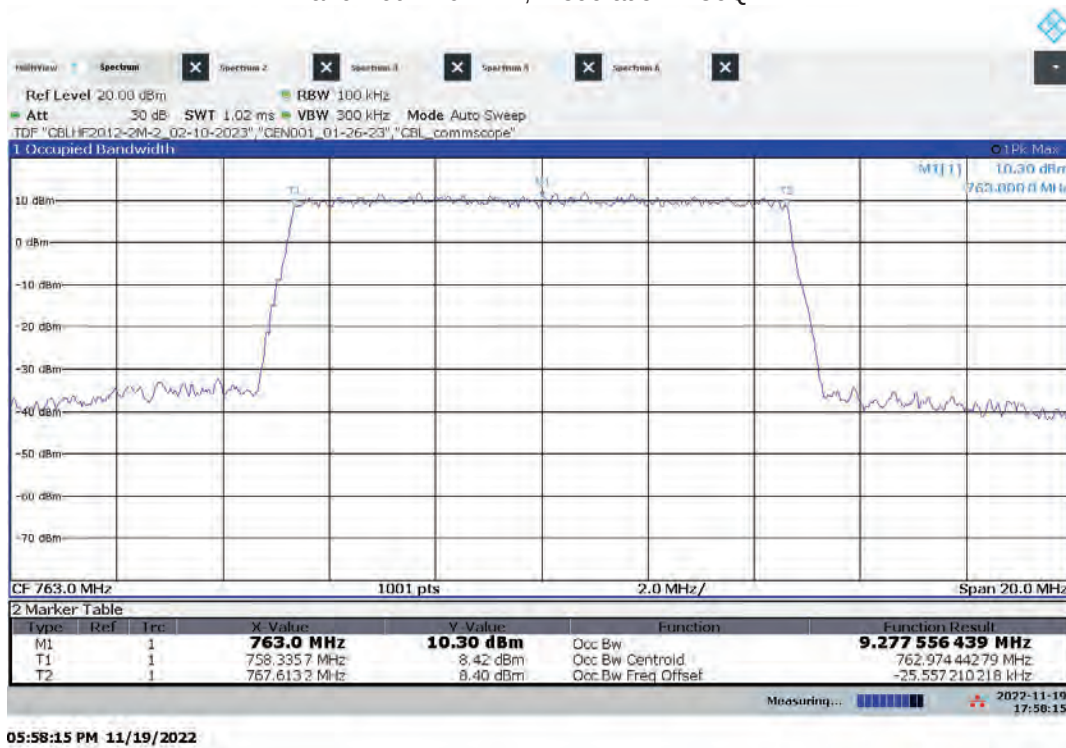


Lo-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM

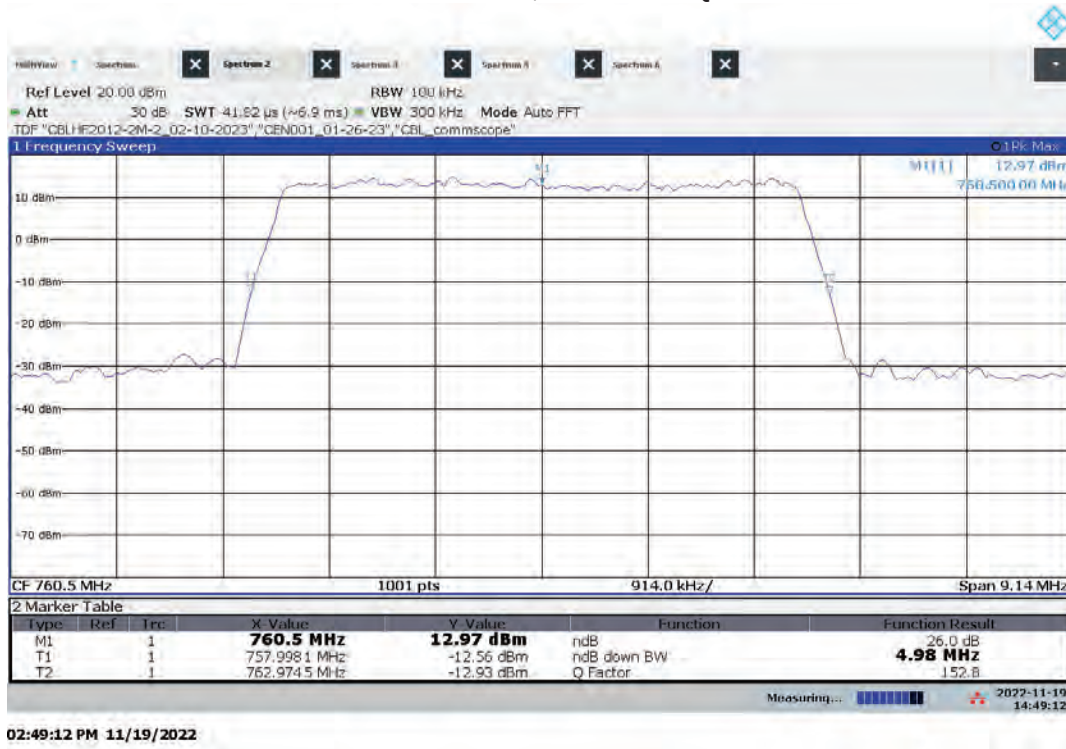


Lo-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM



Notes: Low and mid channels are the same frequency as high channel.

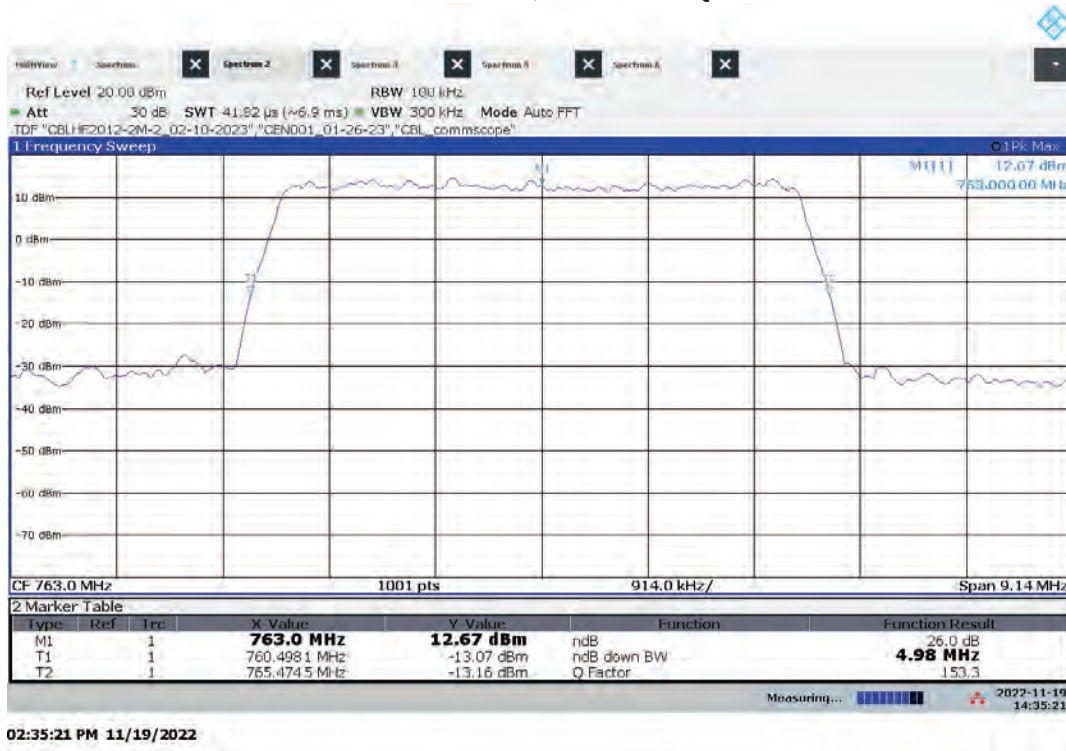
Lo-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



Lo-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



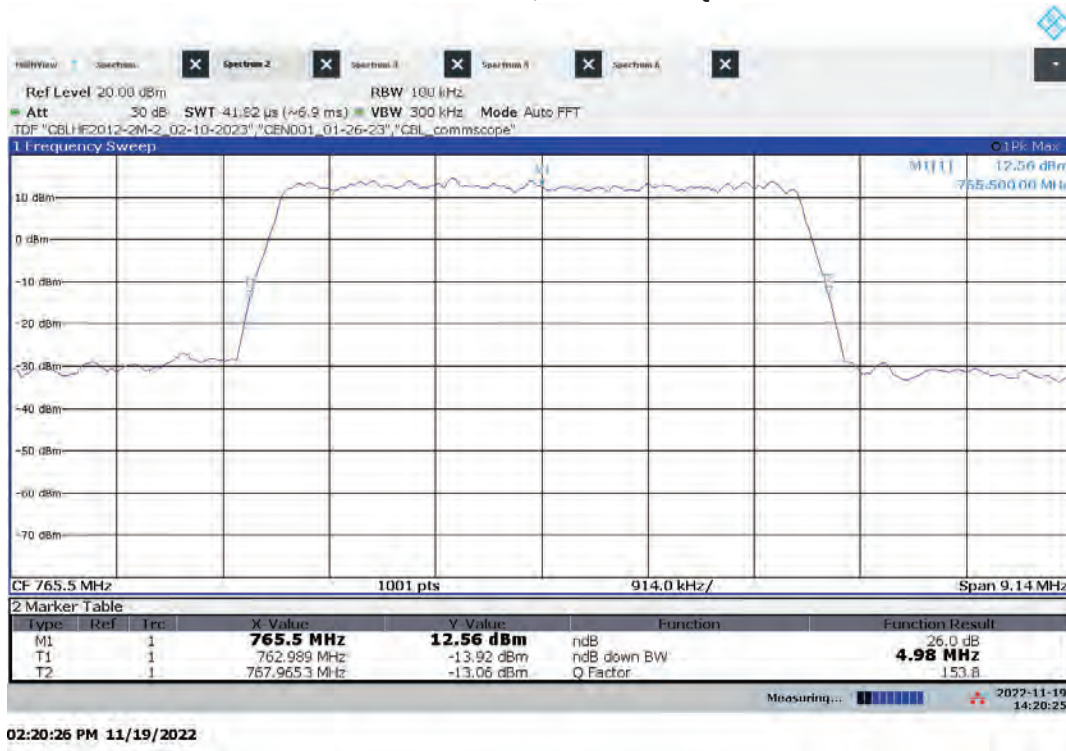
Lo-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



Lo-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



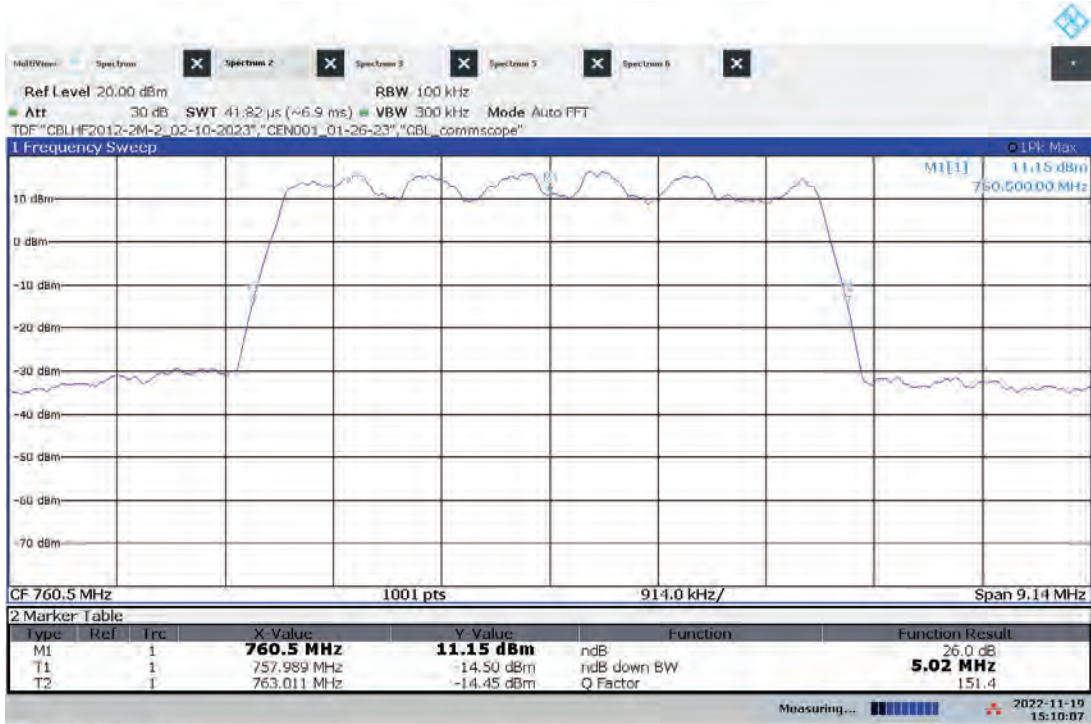
Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



Lo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

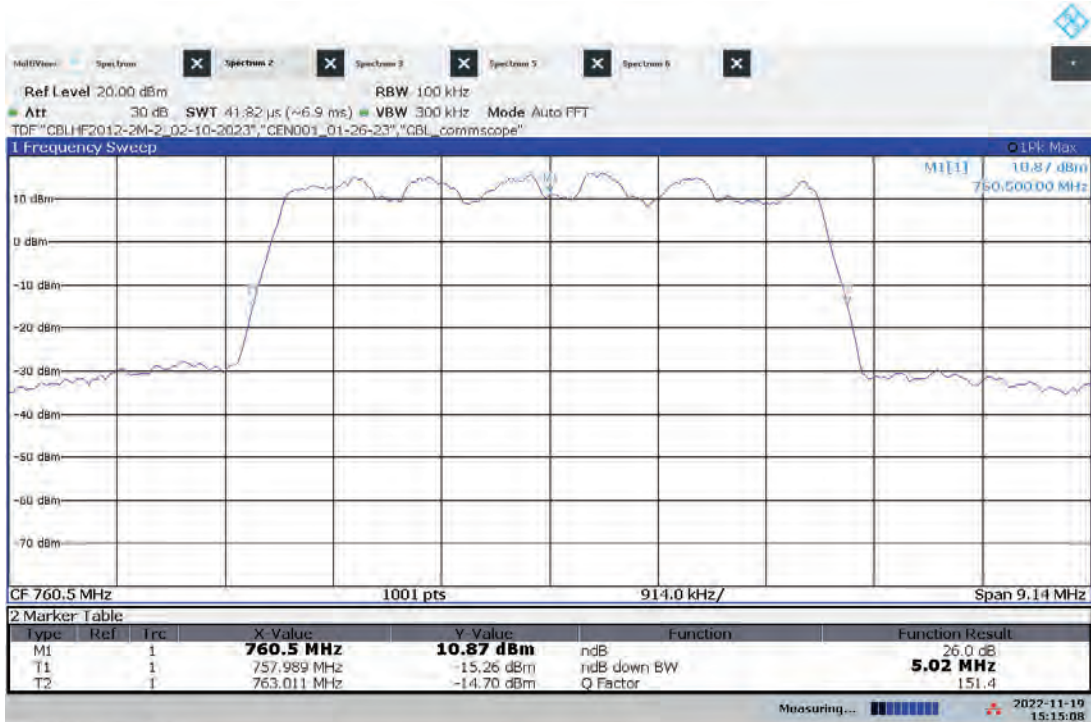


Lo-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



03:10:07 PM 11/19/2022

Lo-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



03:15:08 PM 11/19/2022

Lo-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM

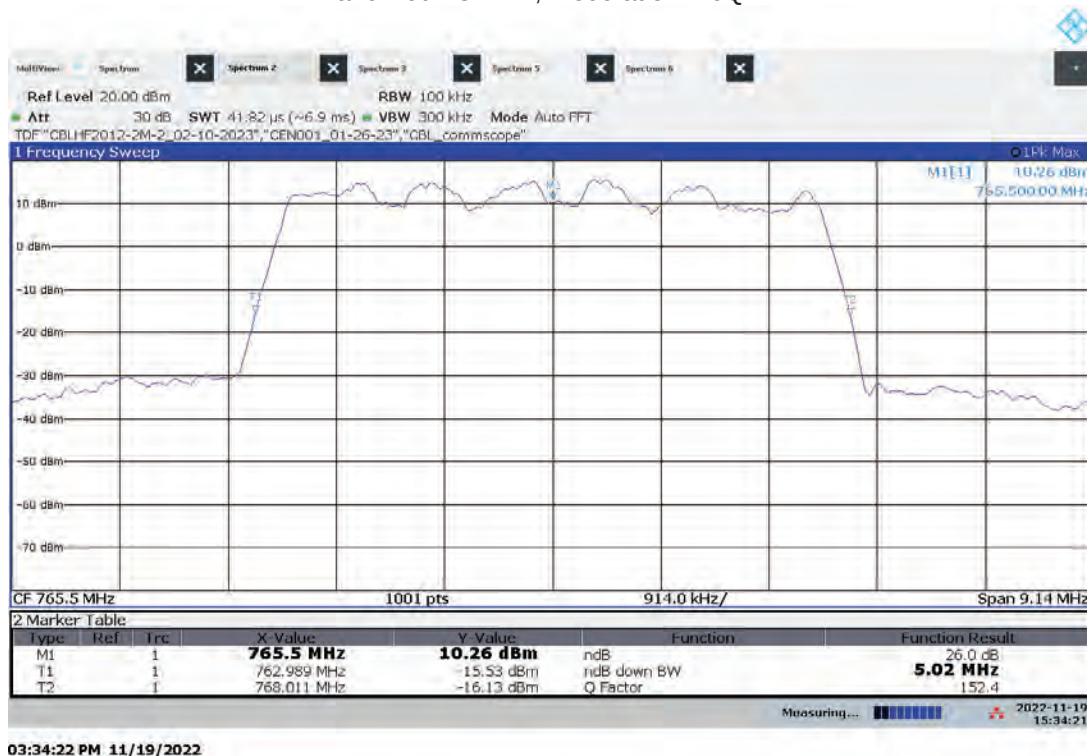


03:21:46 PM 11/19/2022

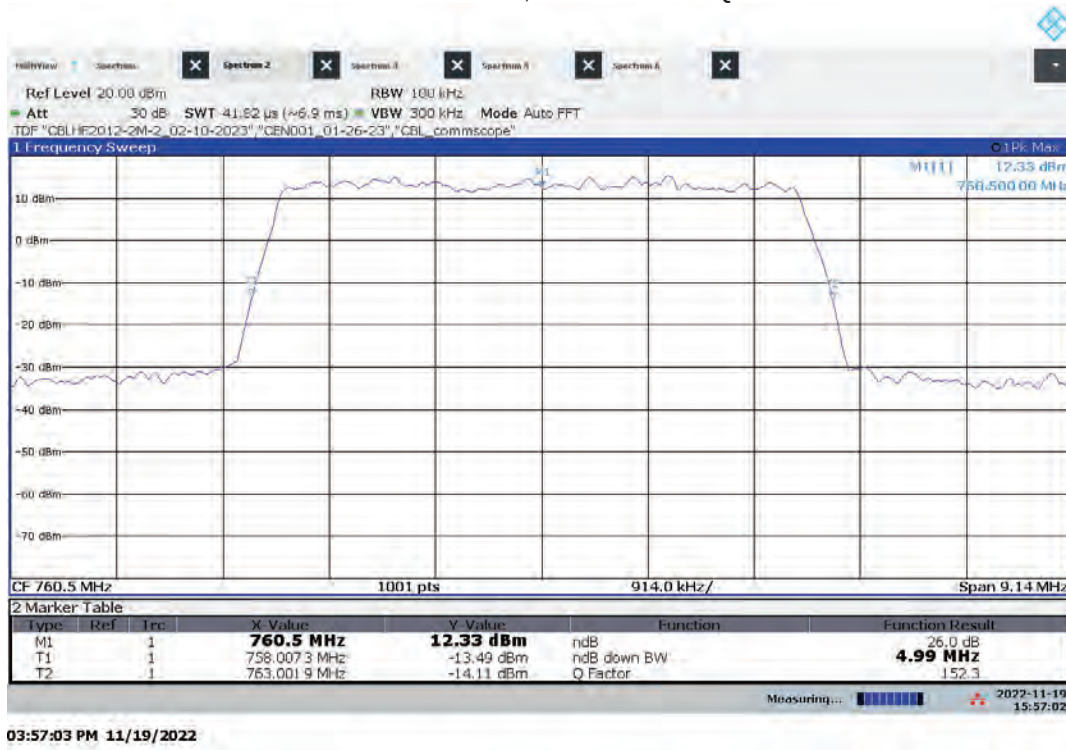
Lo-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



03:24:38 PM 11/19/2022

Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAMLo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM

Lo-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Lo-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Lo-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Lo-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



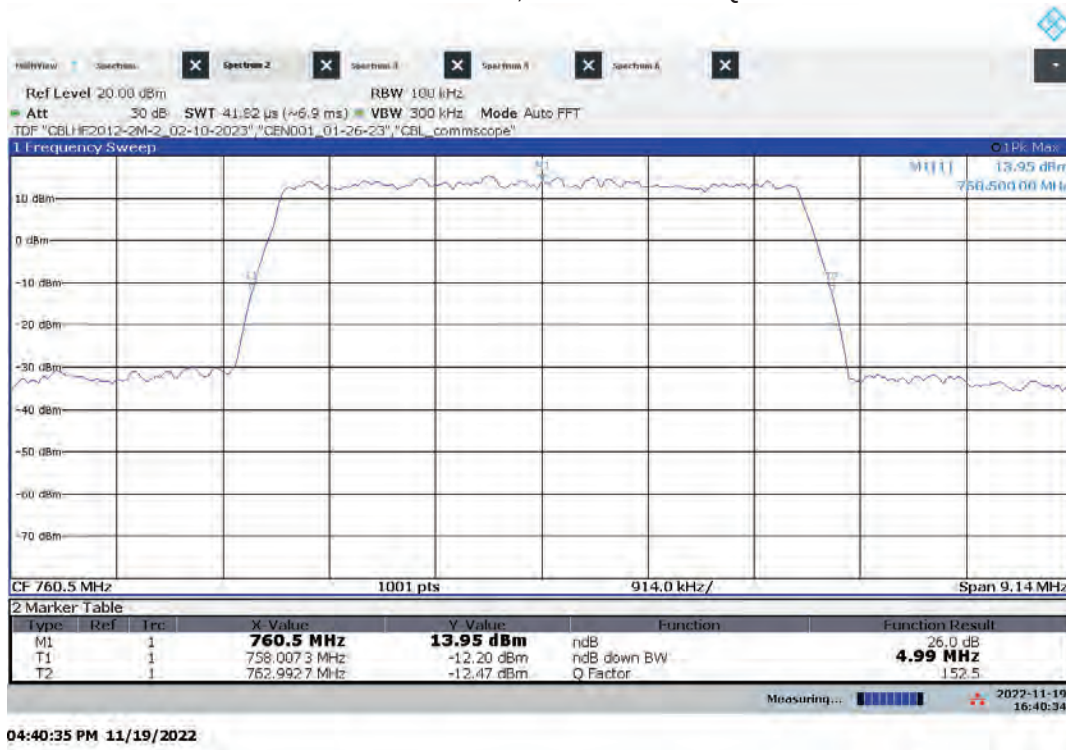
Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Lo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Lo-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



Lo-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



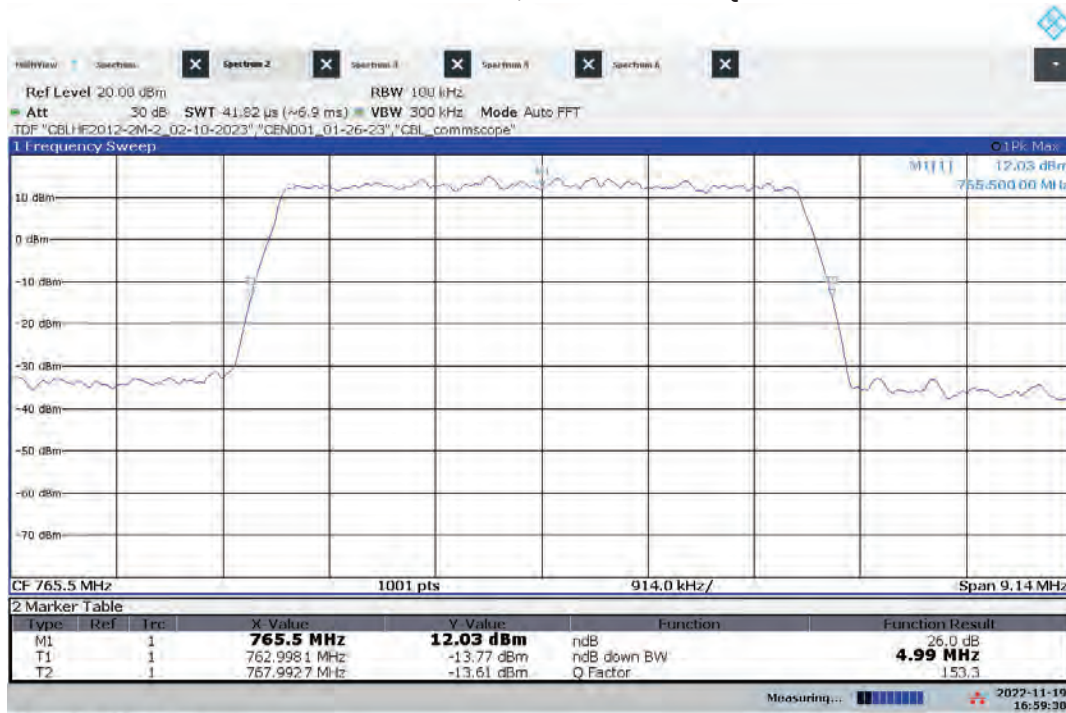
Lo-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



Lo-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

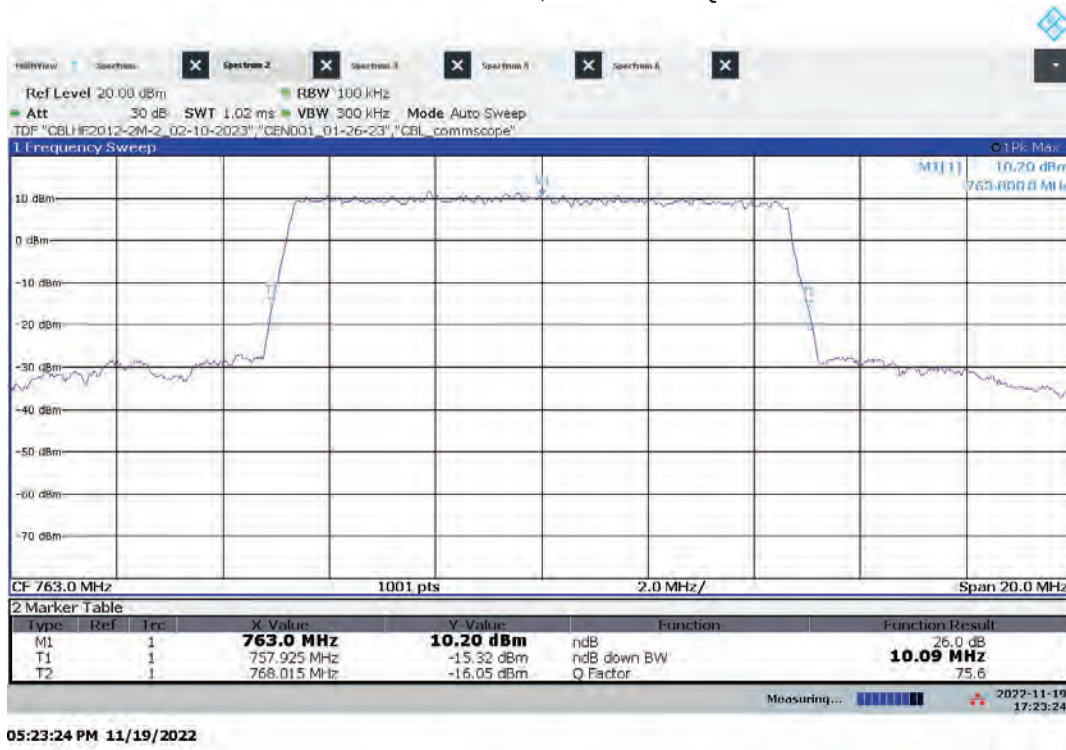
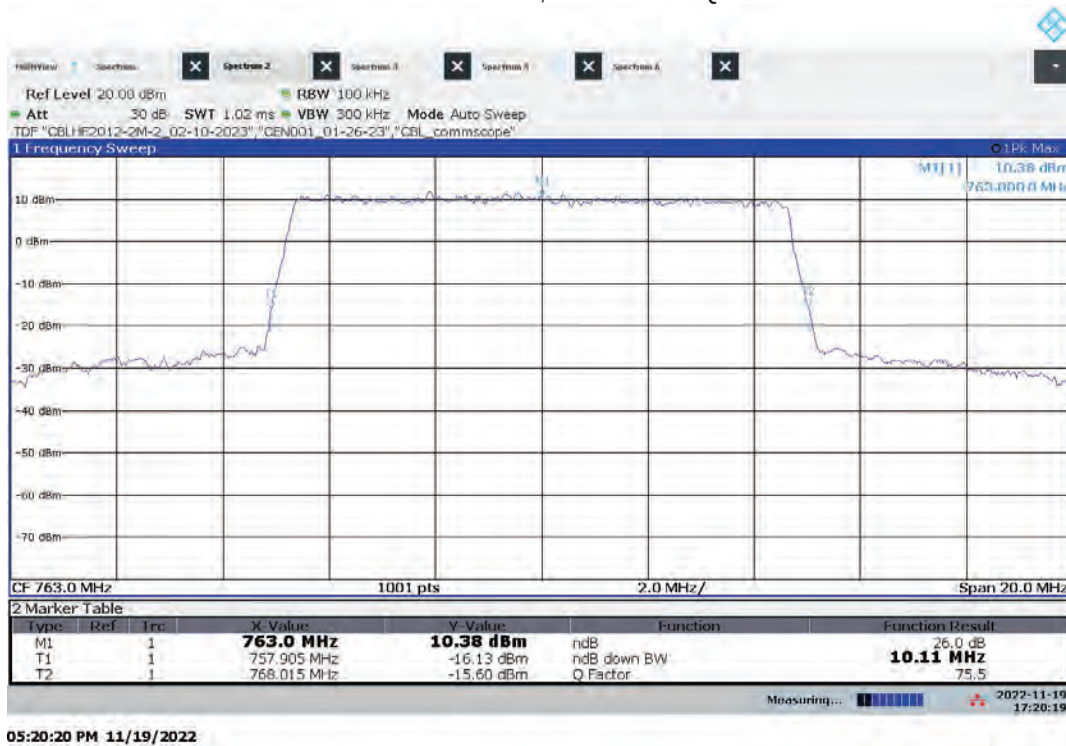


04:59:38 PM 11/19/2022

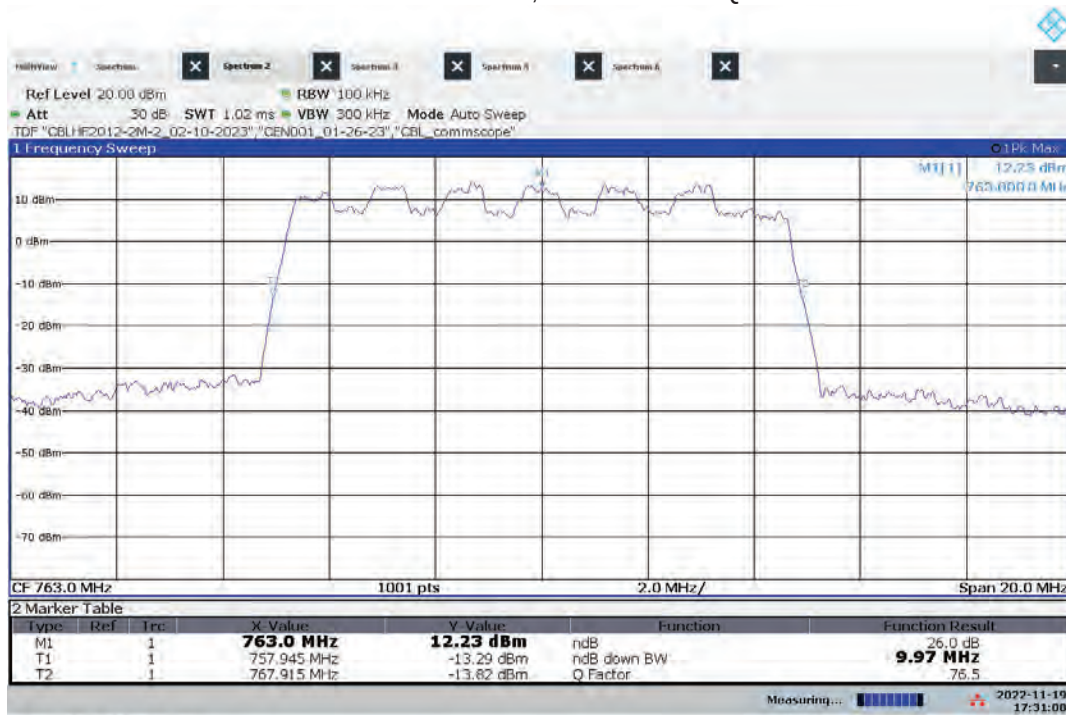
Lo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



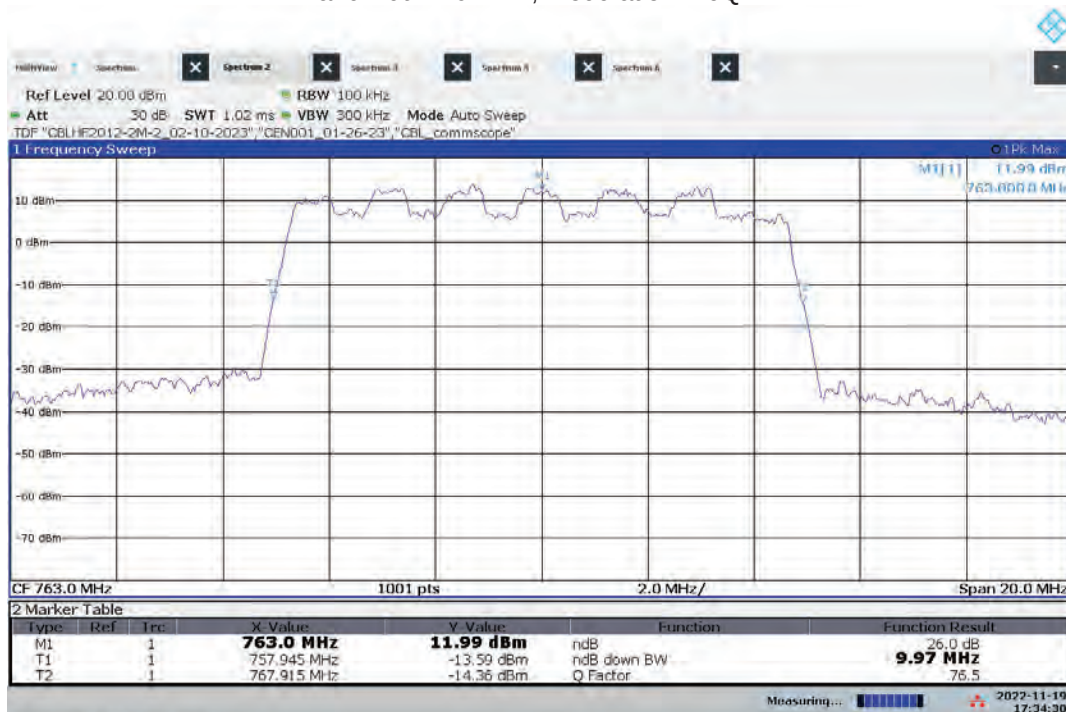
05:02:37 PM 11/19/2022

Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: QPSKLo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: QPSK

Notes: Low and mid channels are the same frequency as high channel.

Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 16QAM

05:31:08 PM 11/19/2022

Lo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 16QAM

05:34:30 PM 11/19/2022

Notes: Low and mid channels are the same frequency as high channel.

Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 64QAM



Lo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 64QAM

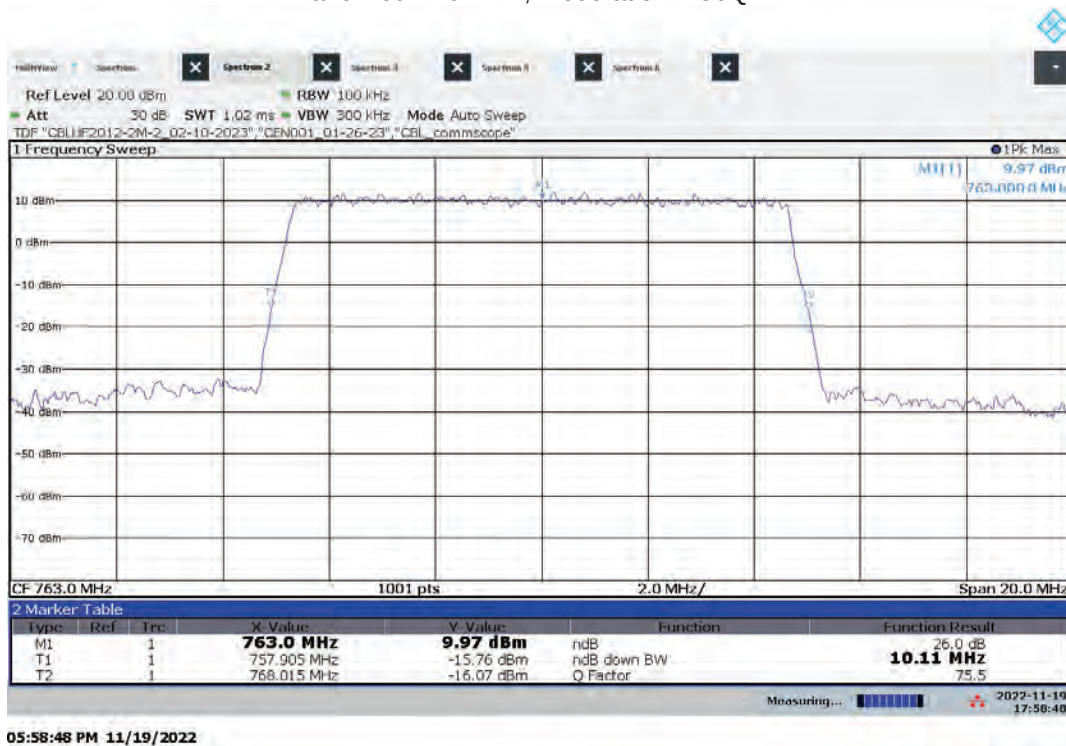


Notes: Low and mid channels are the same frequency as high channel.

Lo-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM



Lo-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM



Notes: Low and mid channels are the same frequency as high channel.

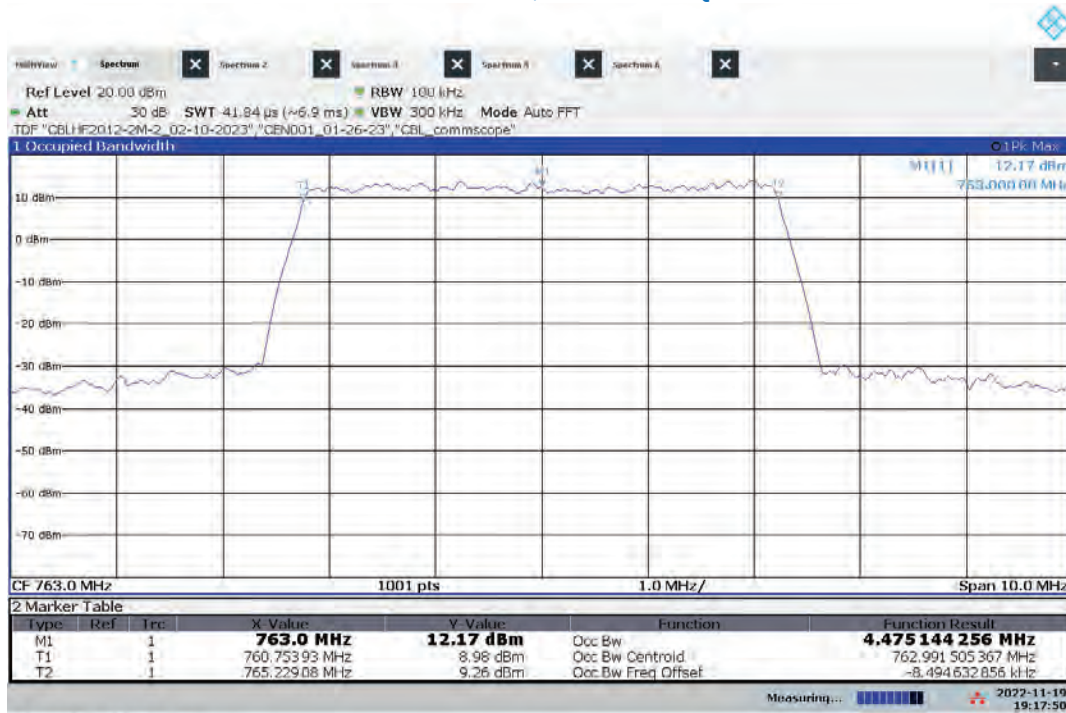
Hi-PIM – ANT0 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

07:04:03 PM 11/19/2022

Hi-PIM – ANT1 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

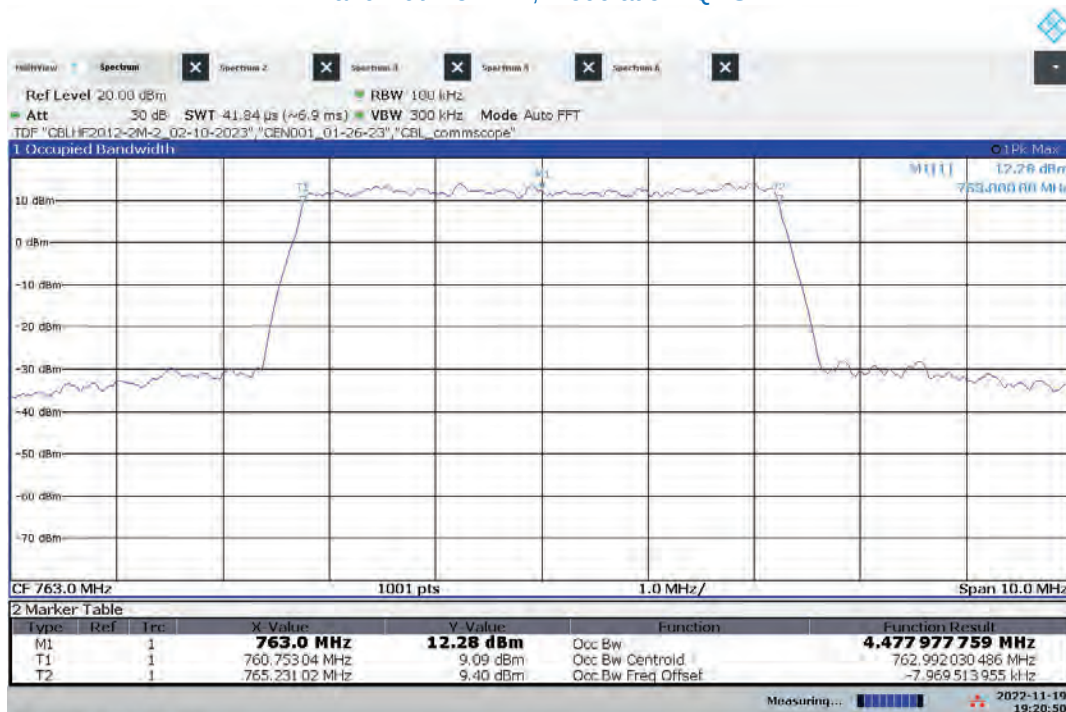
07:08:19 PM 11/19/2022

Hi-PIM – ANT0 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



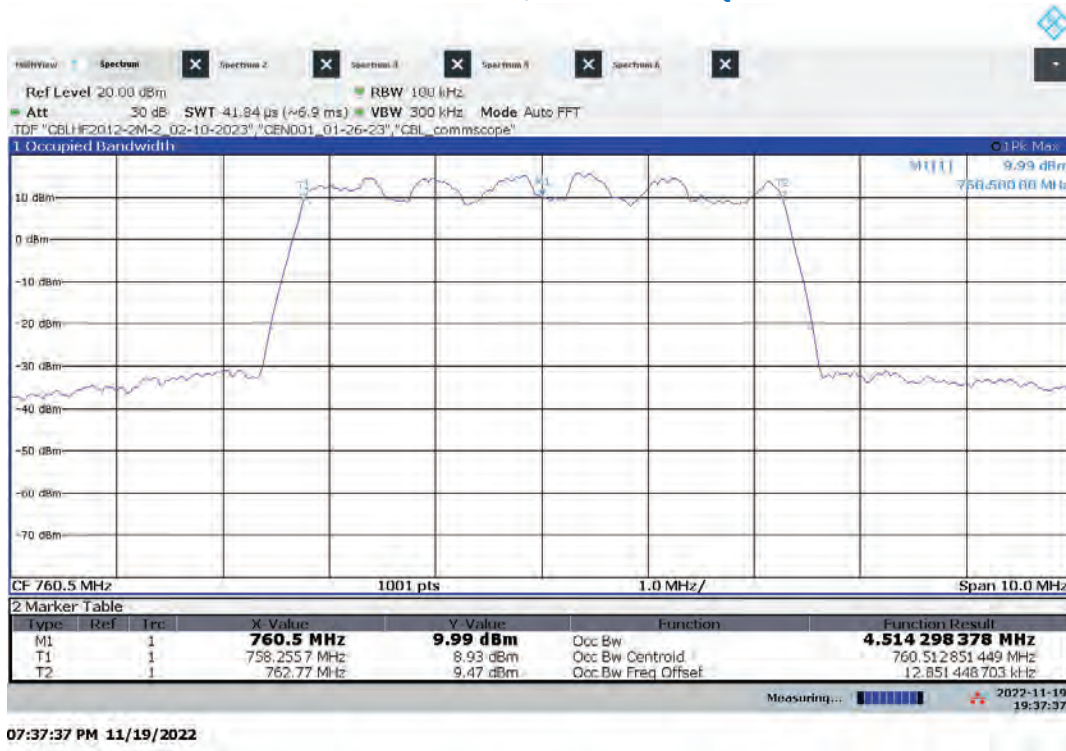
07:17:50 PM 11/19/2022

Hi-PIM – ANT1 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

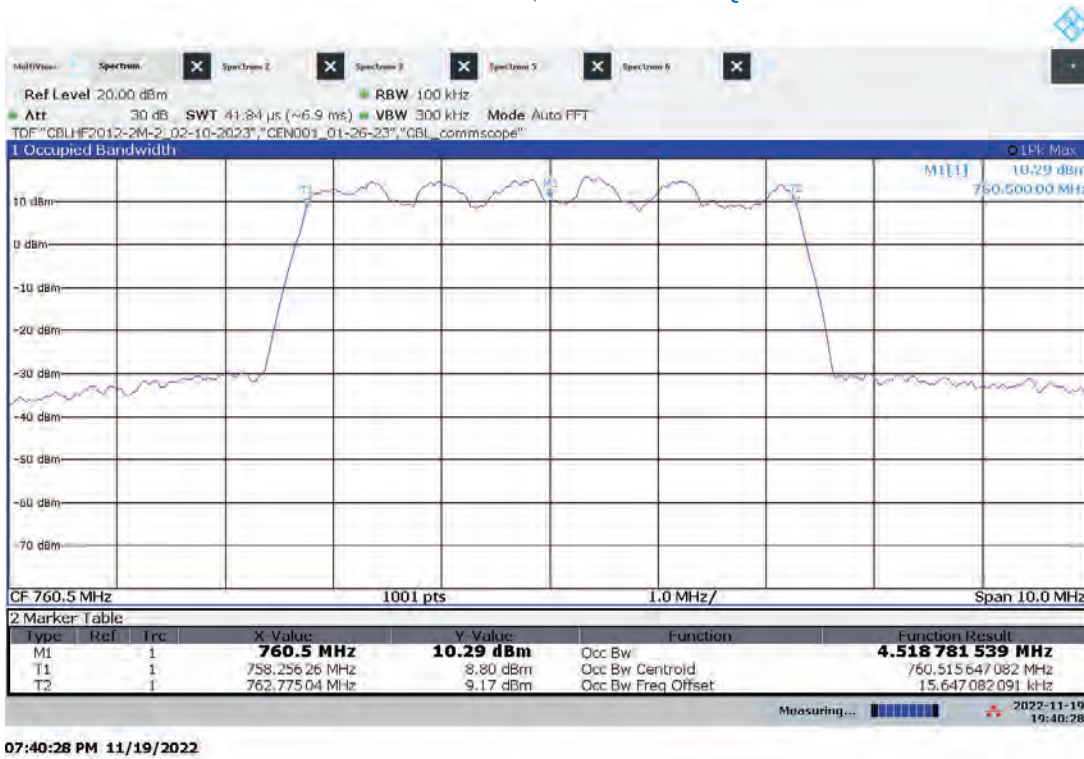


07:20:50 PM 11/19/2022

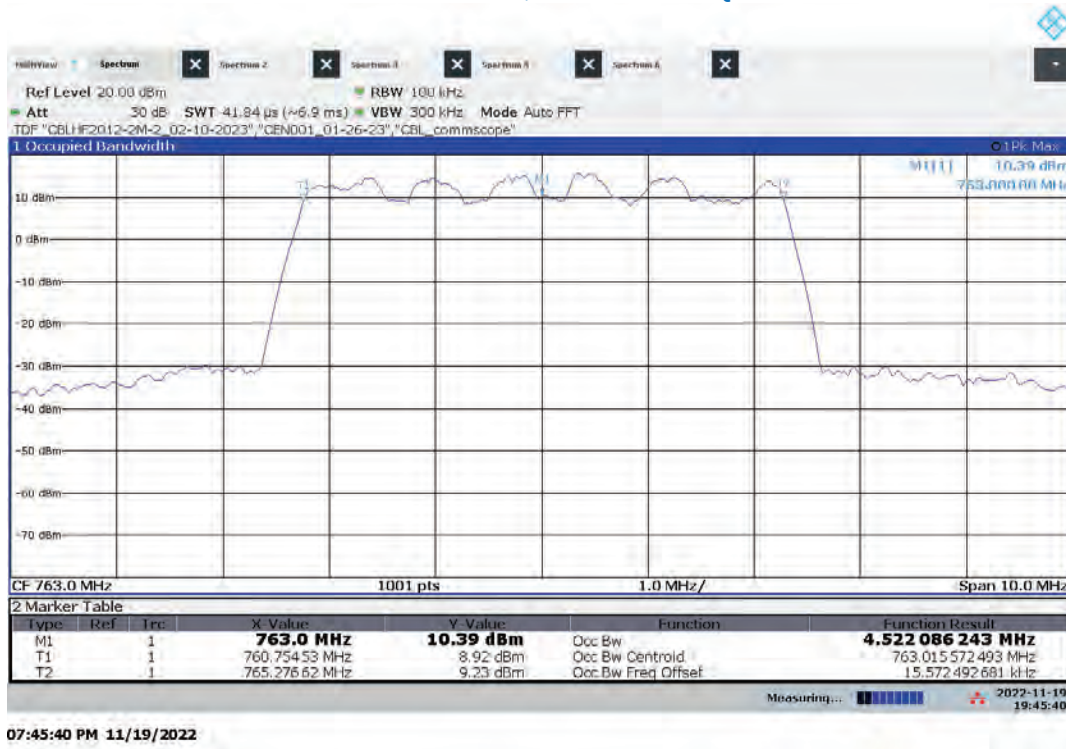
Hi-PIM – ANT0 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



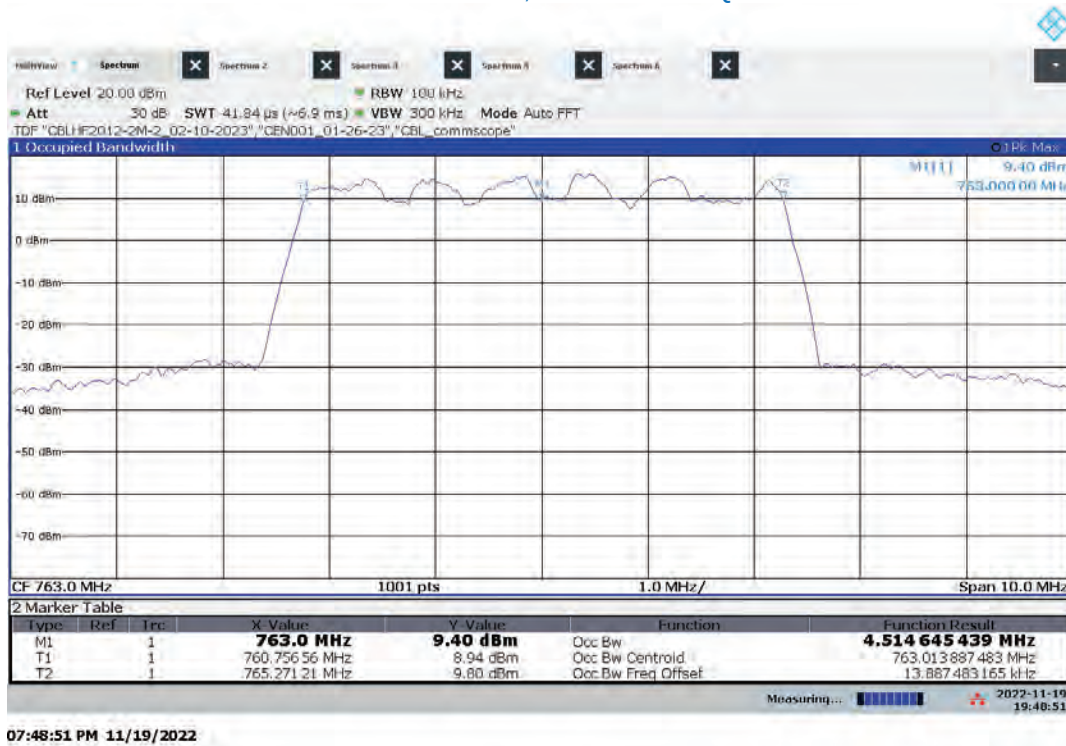
Hi-PIM – ANT1 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM

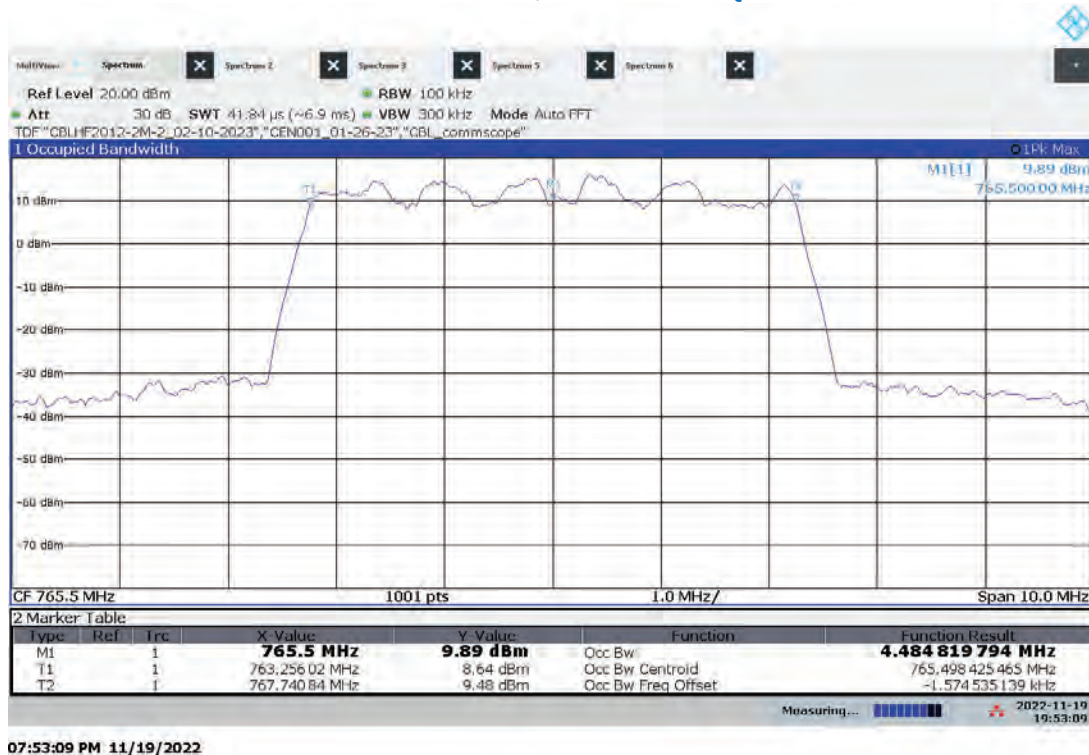


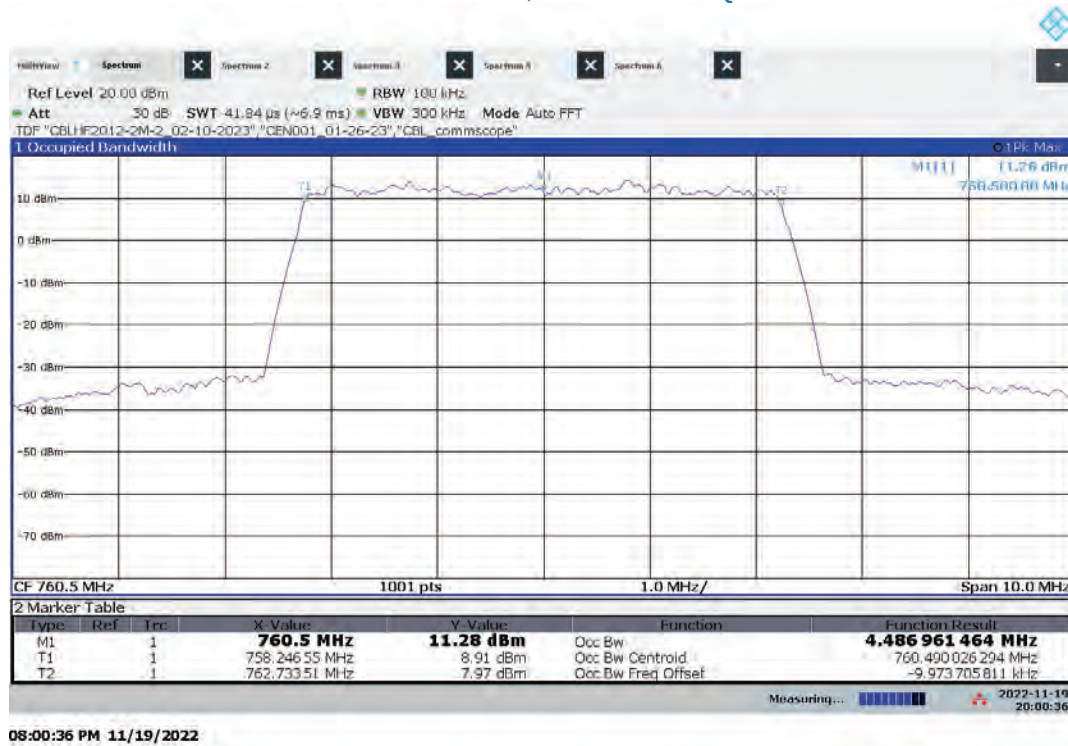
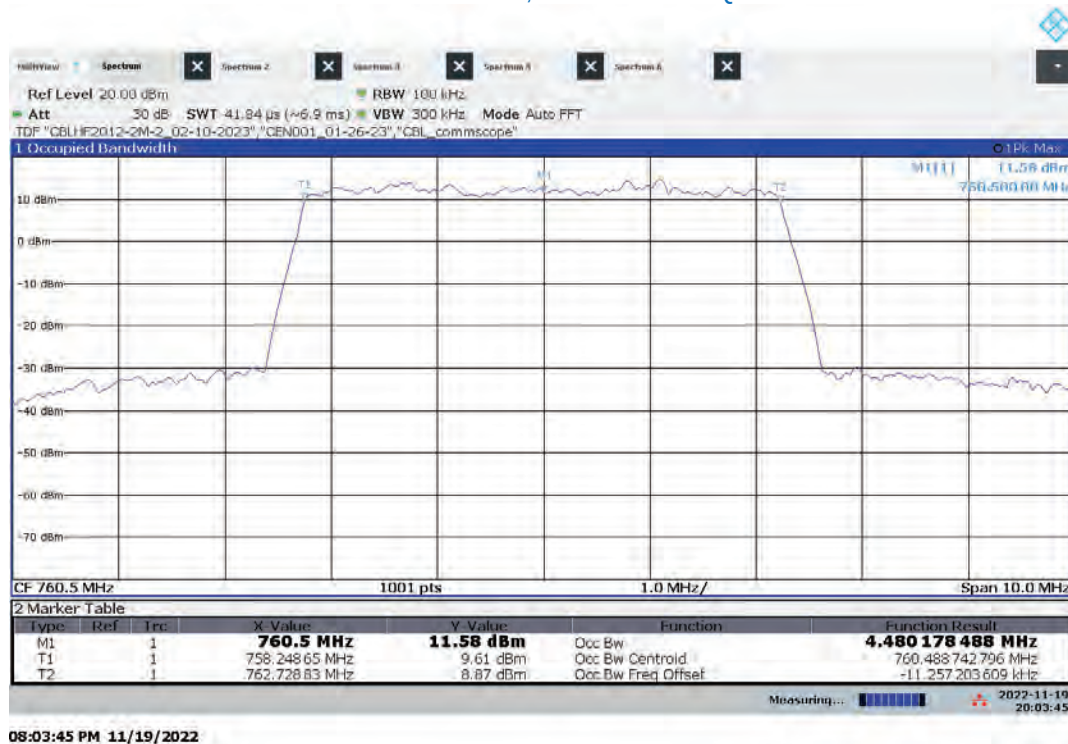
Hi-PIM – ANT0 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM

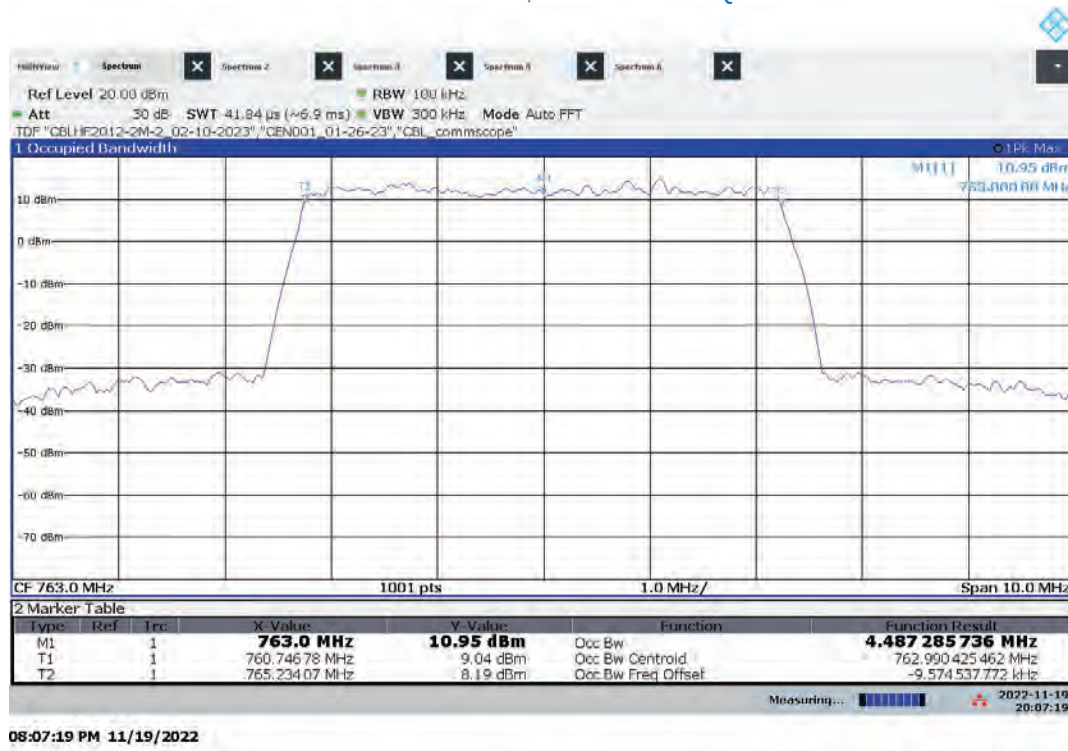


Hi-PIM – ANT1 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAMHi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM

Hi-PIM – ANT0 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAMHi-PIM – ANT1 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

Hi-PIM – ANT0 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAMHi-PIM – ANT1 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

08:14:16 PM 11/19/2022

Hi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

08:16:53 PM 11/19/2022

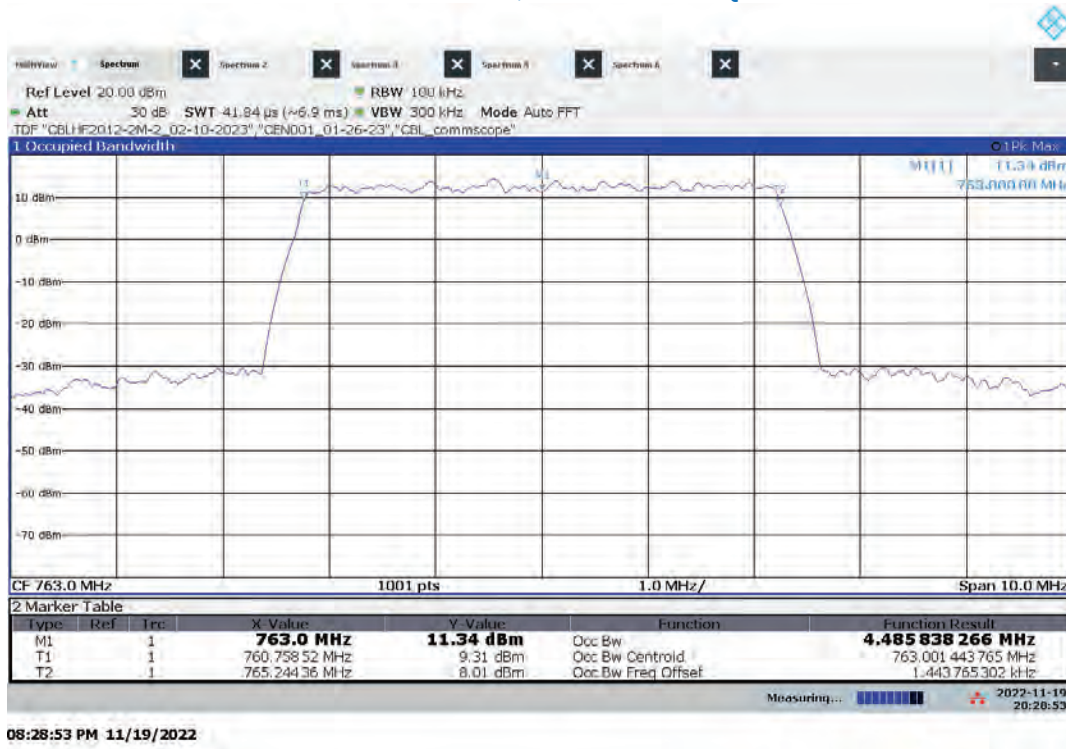
Hi-PIM – ANT0 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

08:21:06 PM 11/19/2022

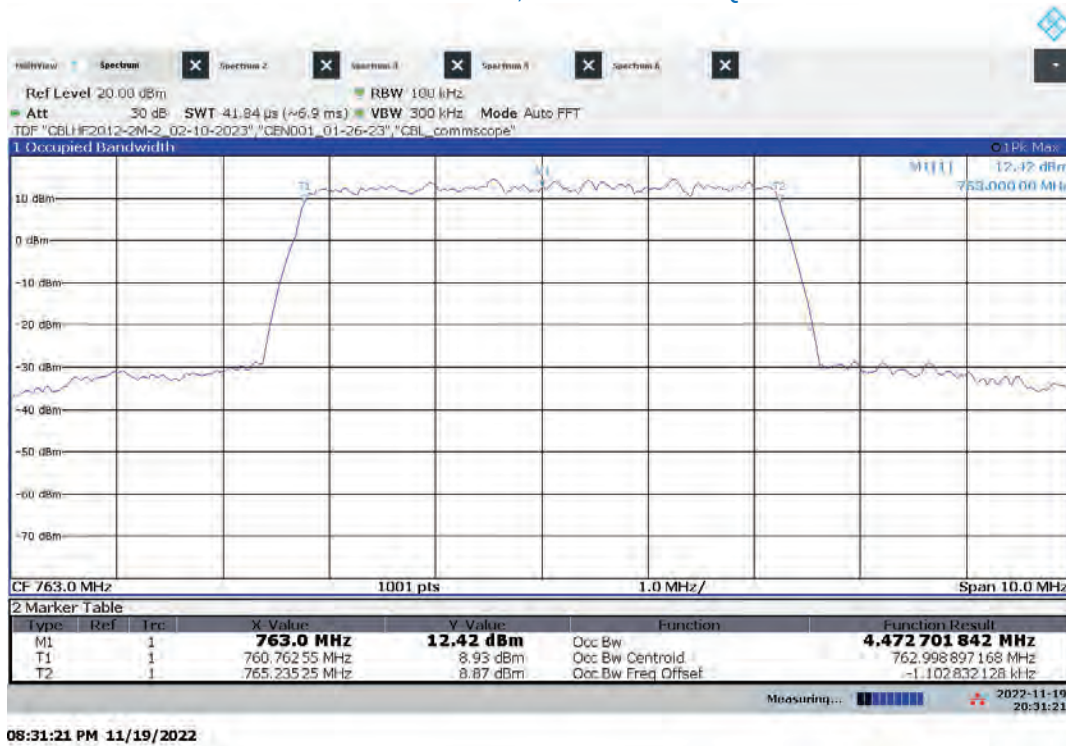
Hi-PIM – ANT1 Low Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

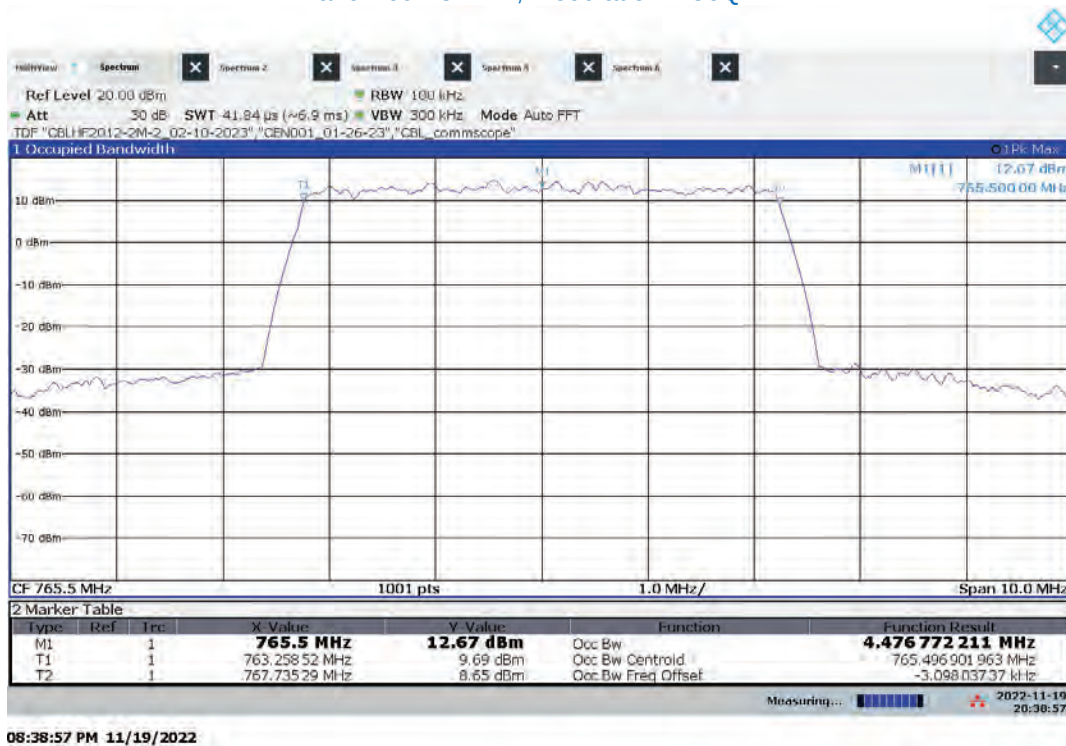
08:24:43 PM 11/19/2022

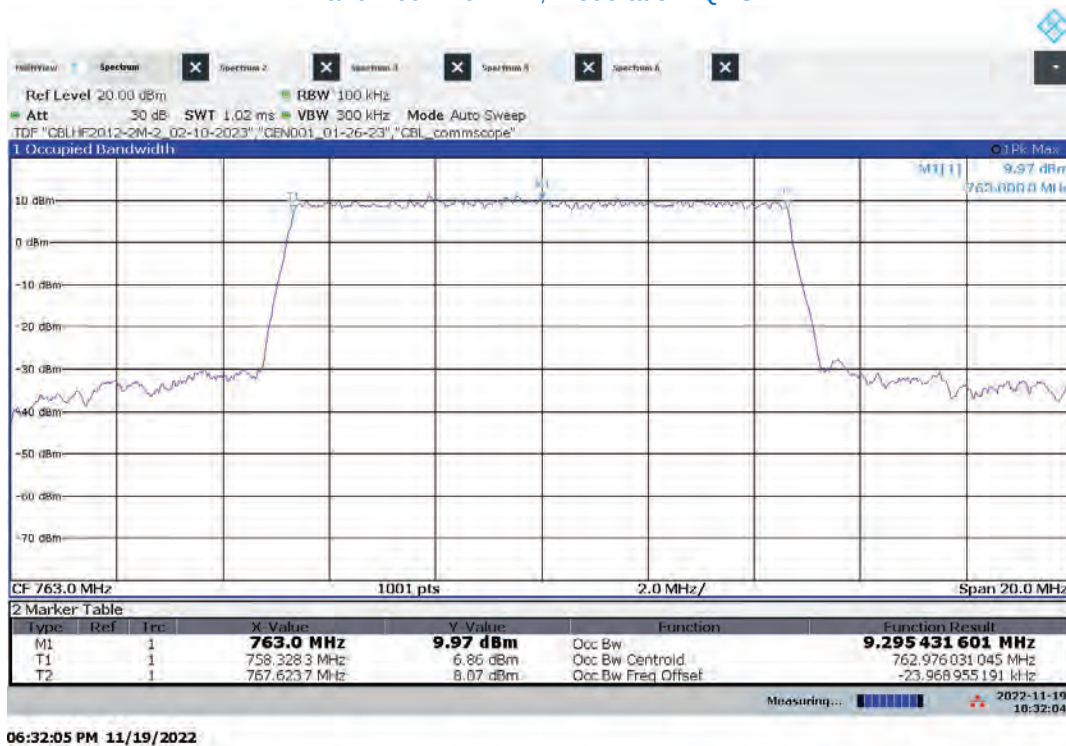
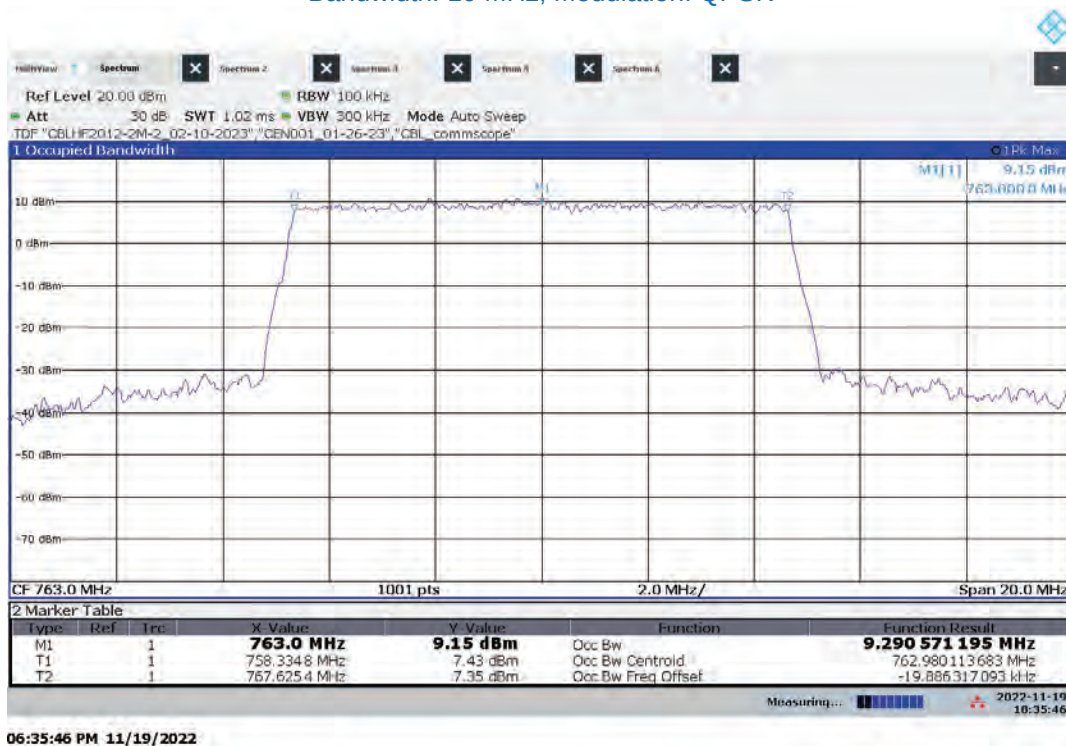
Hi-PIM – ANT0 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



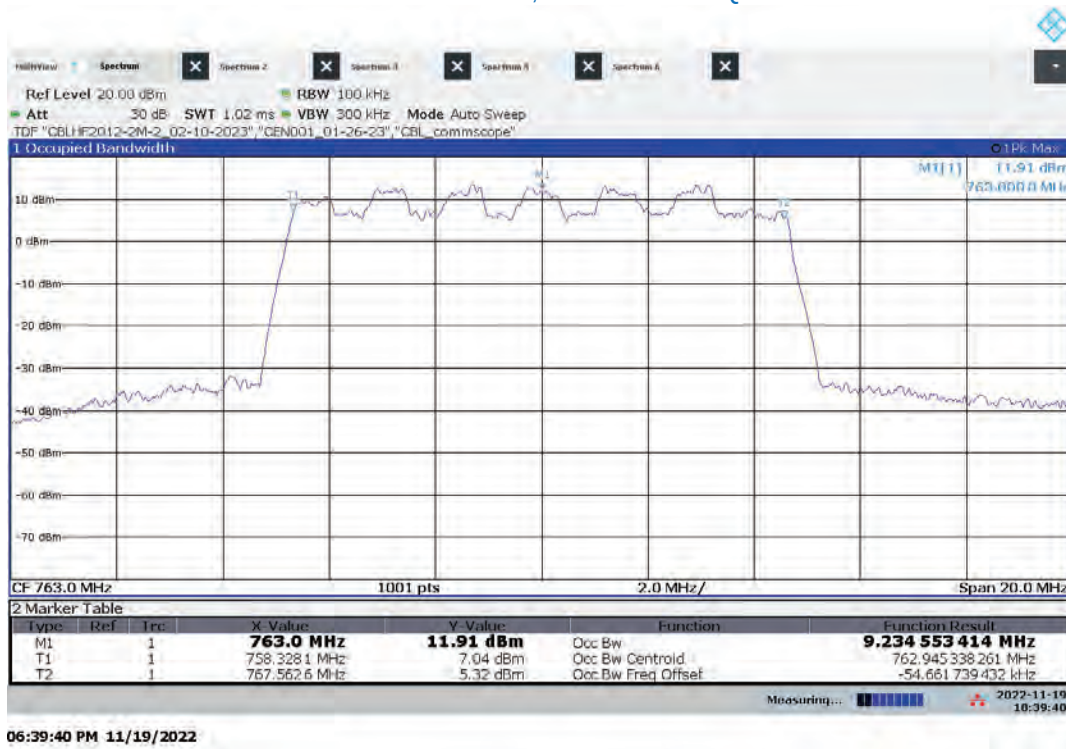
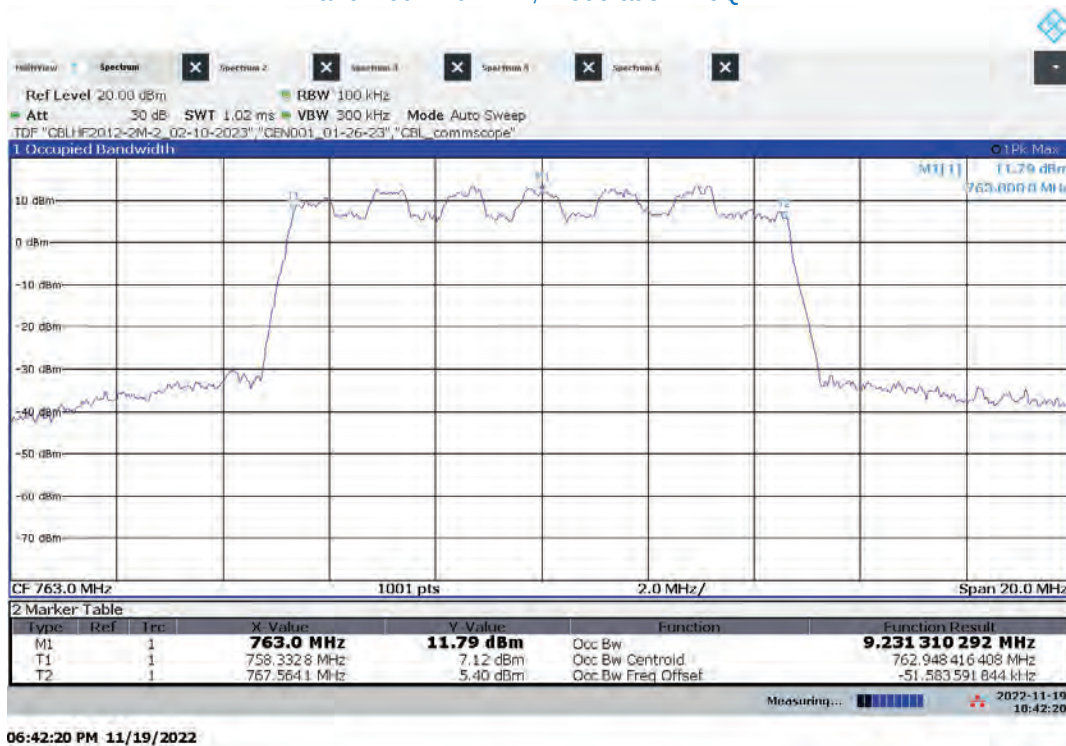
Hi-PIM – ANT1 Mid Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAMHi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

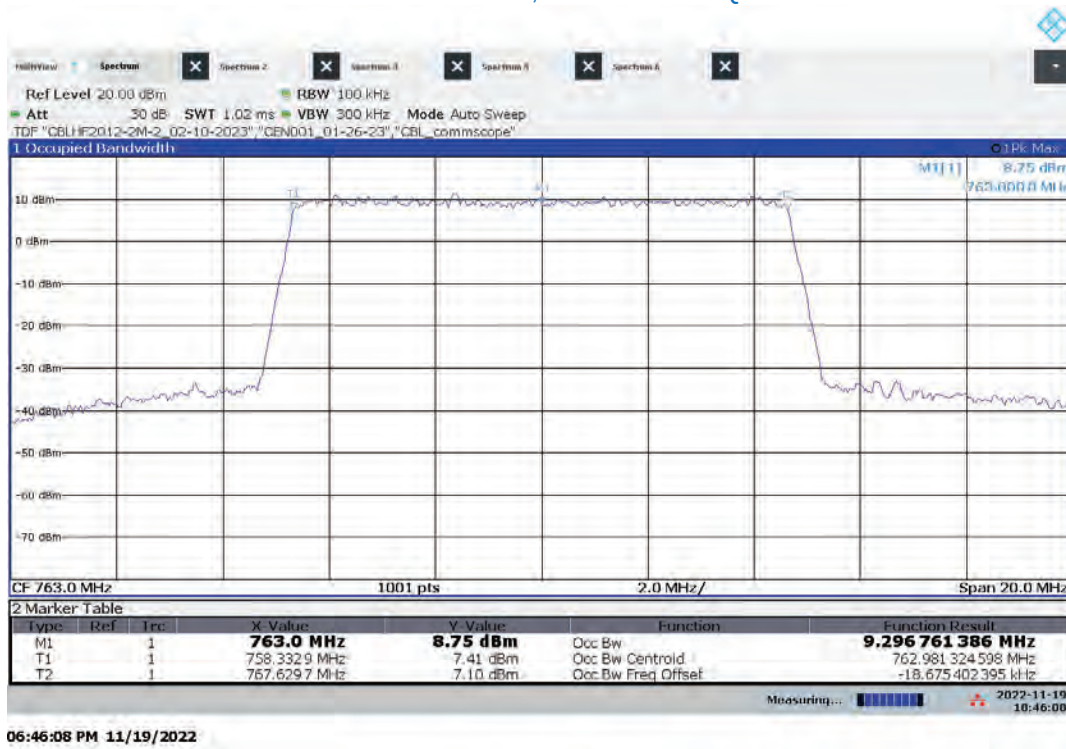
Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: QPSKHi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: QPSK

Notes: Low and mid channels are the same frequency as high channel.

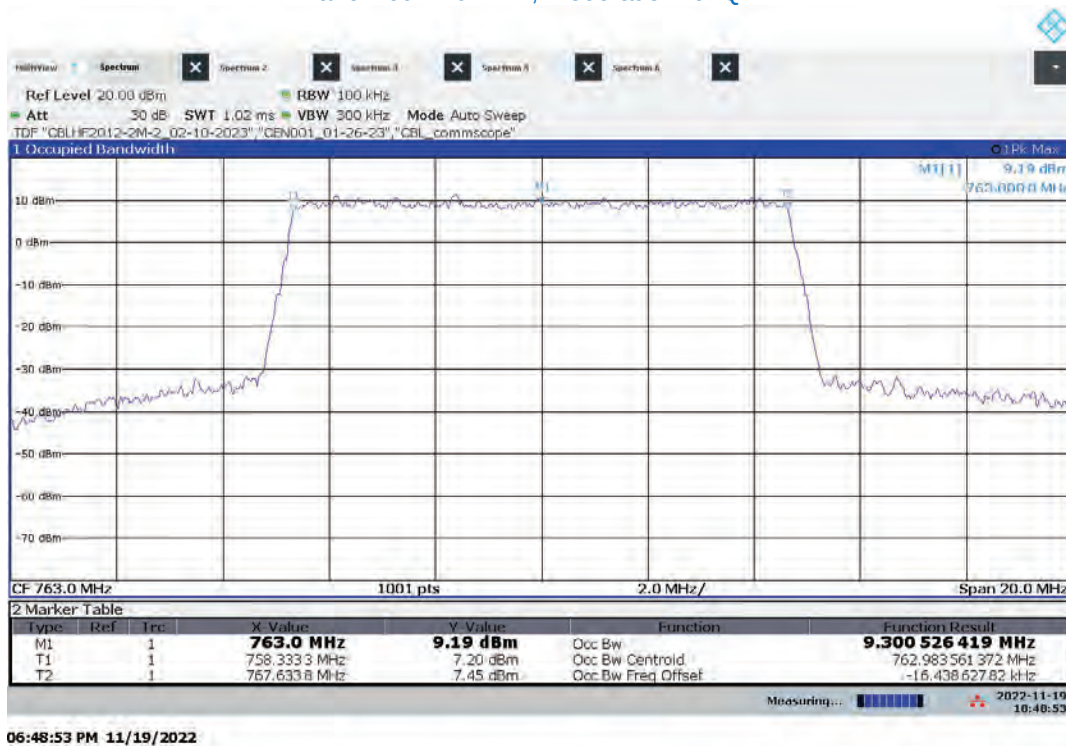
Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 16QAMHi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 16QAM

Notes: Low and mid channels are the same frequency as high channel.

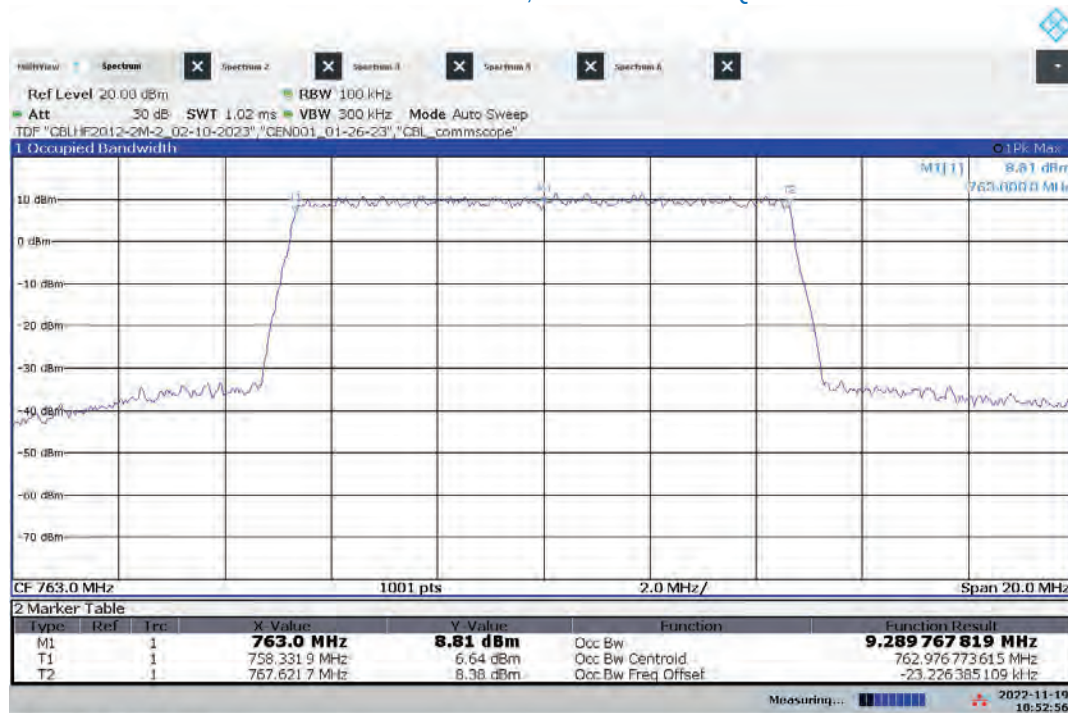
Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 64QAM



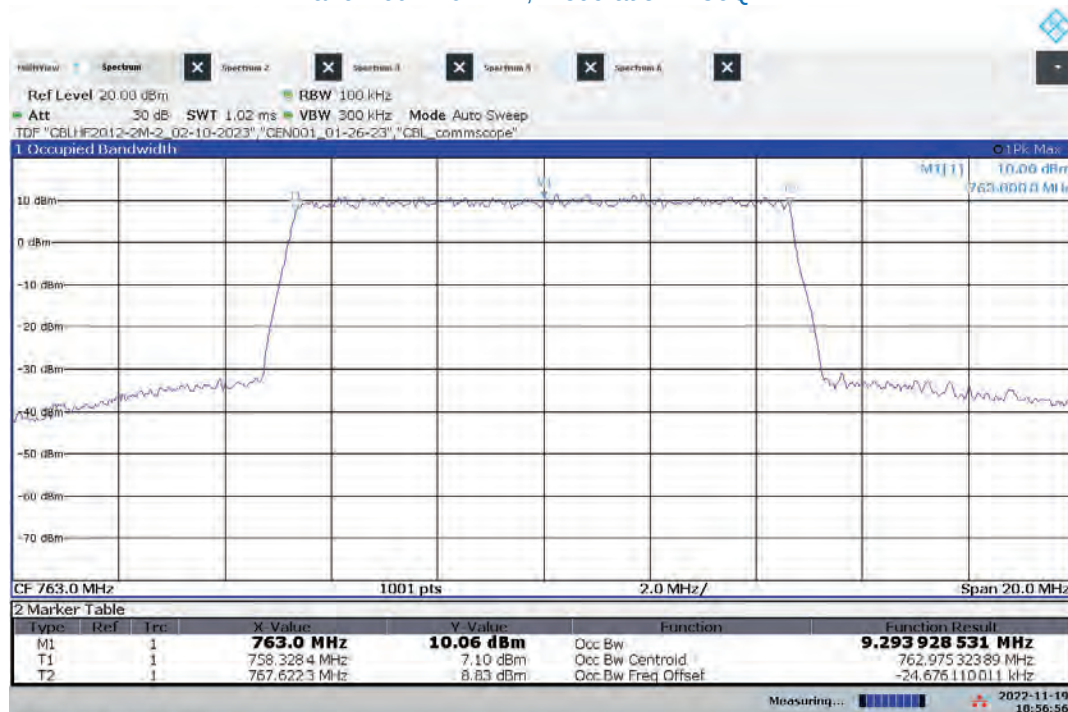
Hi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 64QAM



Notes: Low and mid channels are the same frequency as high channel.

Hi-PIM – ANT0 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM

06:52:56 PM 11/19/2022

Hi-PIM – ANT1 High Channel Occupied Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM

06:56:57 PM 11/19/2022

Notes: Low and mid channels are the same frequency as high channel.

Hi-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

07:04:53 PM 11/19/2022

Hi-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

07:08:48 PM 11/19/2022

Hi-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



07:18:44 PM 11/19/2022

Hi-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK



07:21:22 PM 11/19/2022

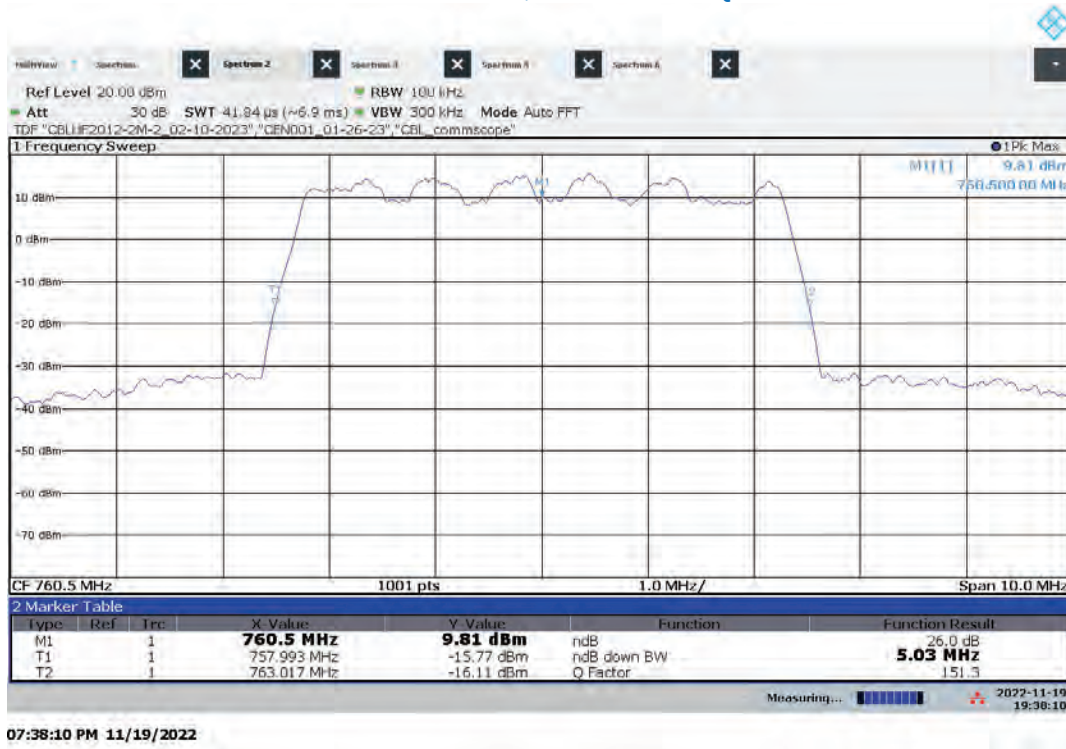
Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

07:26:45 PM 11/19/2022

Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: QPSK

07:29:50 PM 11/19/2022

Hi-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



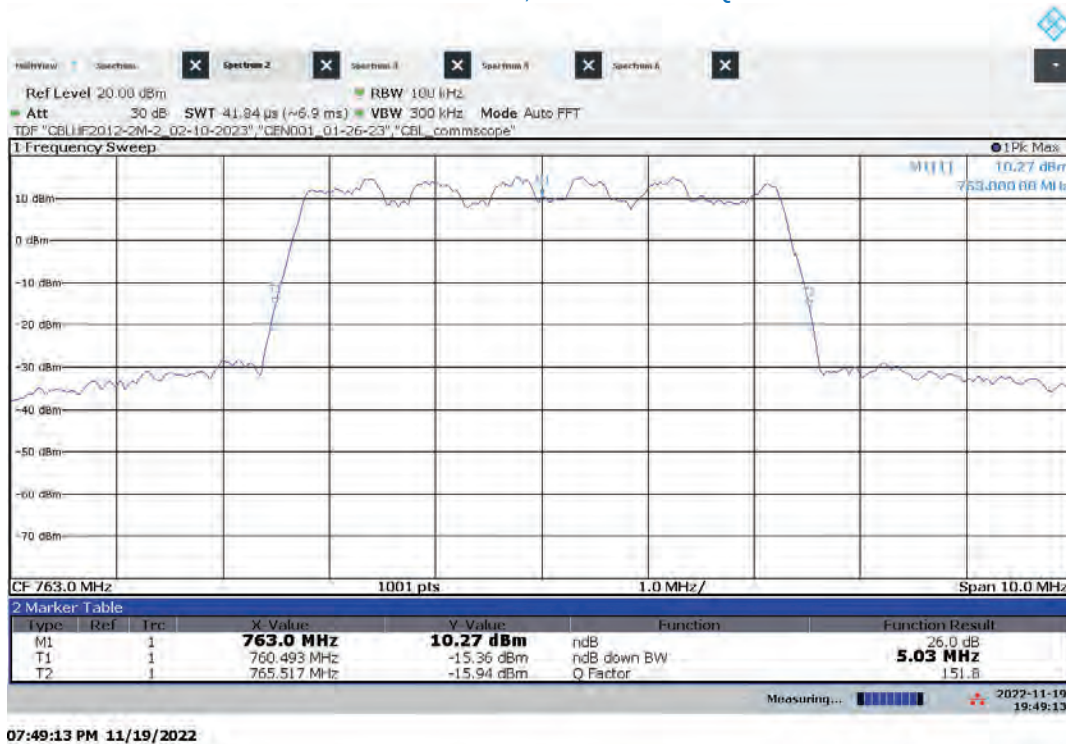
Hi-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



Hi-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



Hi-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 16QAM



Hi-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

08:01:28 PM 11/19/2022

Hi-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

08:04:06 PM 11/19/2022

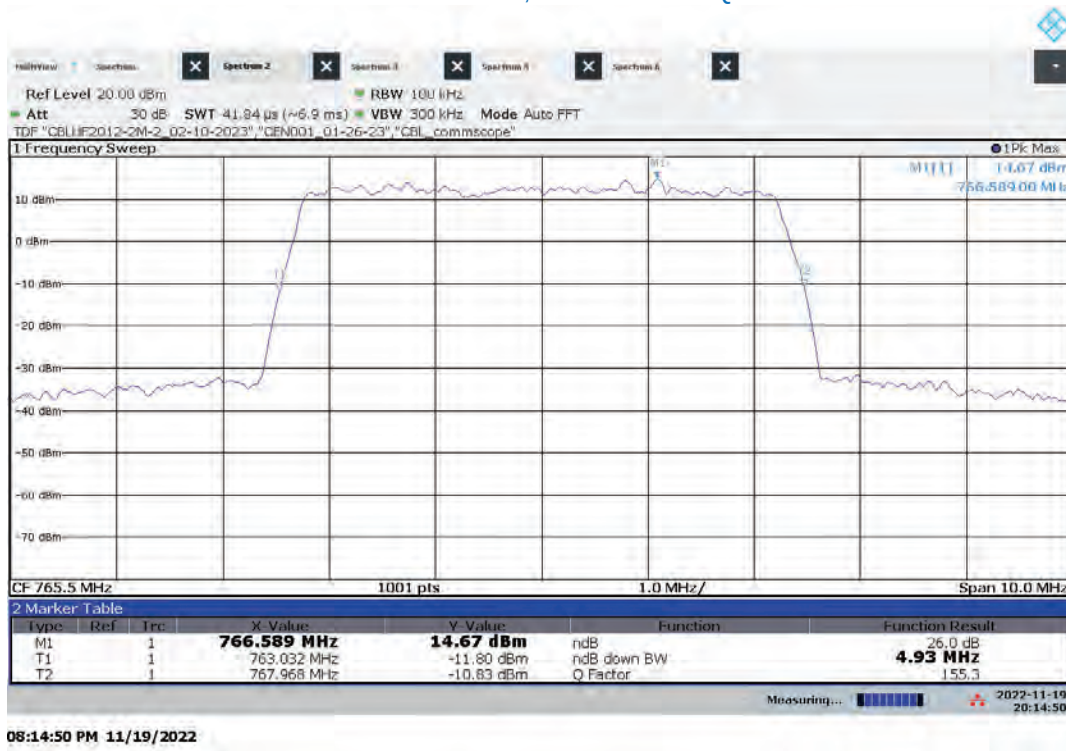
Hi-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

08:08:57 PM 11/19/2022

Hi-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM

08:11:06 PM 11/19/2022

Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 64QAM



Hi-PIM – ANT0 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

08:22:29 PM 11/19/2022

Hi-PIM – ANT1 Low Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

08:25:05 PM 11/19/2022

Hi-PIM – ANT0 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

08:29:28 PM 11/19/2022

Hi-PIM – ANT1 Mid Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

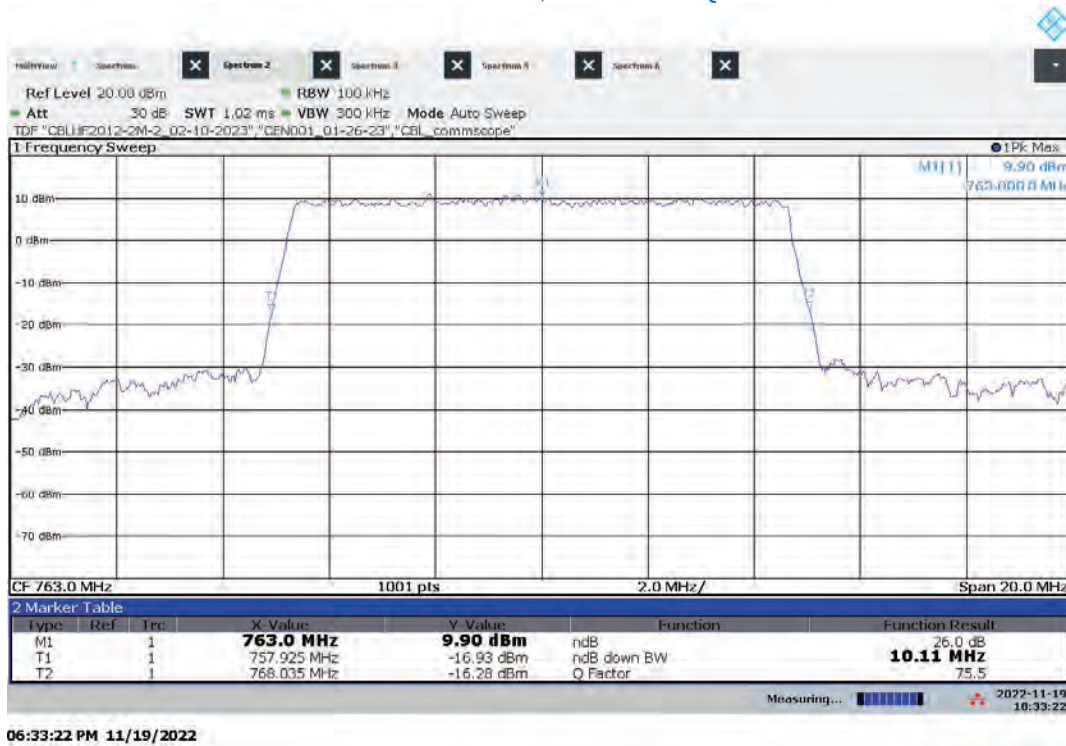
08:31:58 PM 11/19/2022

Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM

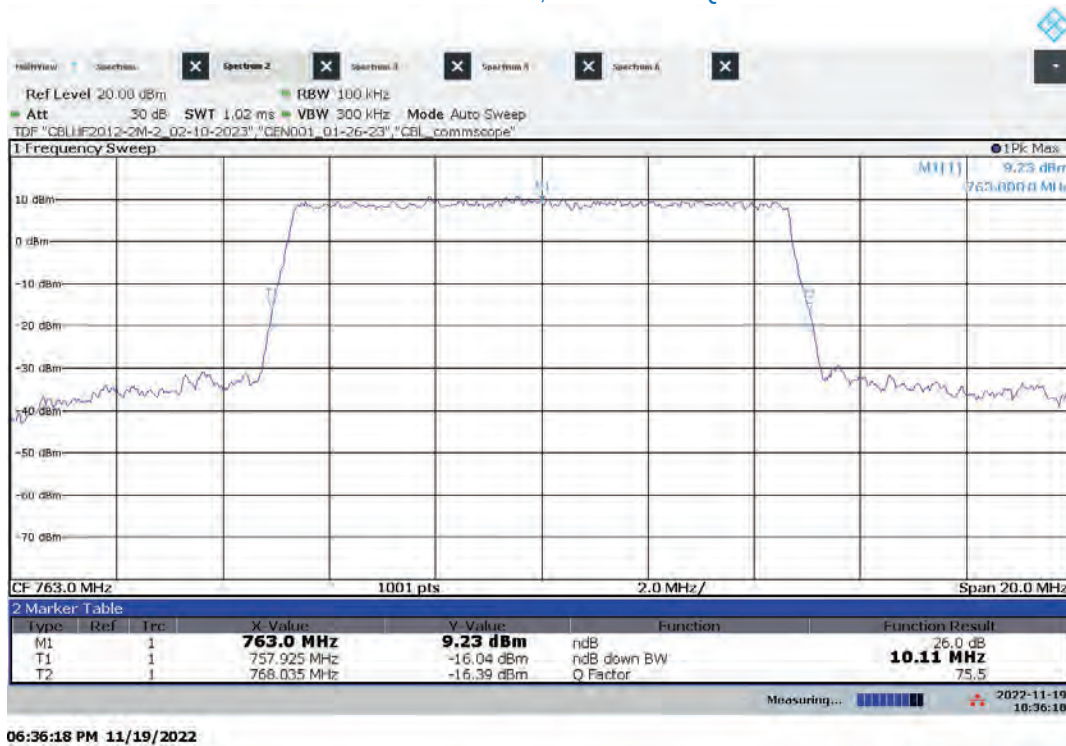


Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 5 MHz, Modulation: 256QAM



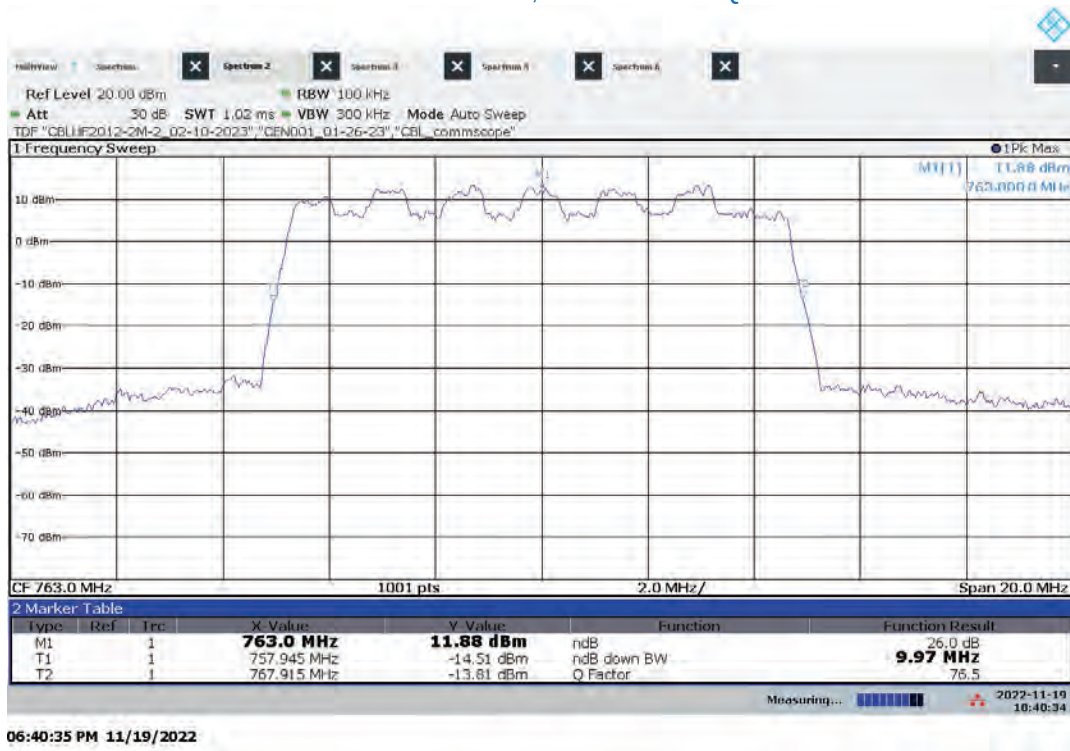
Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: QPSK

06:33:22 PM 11/19/2022

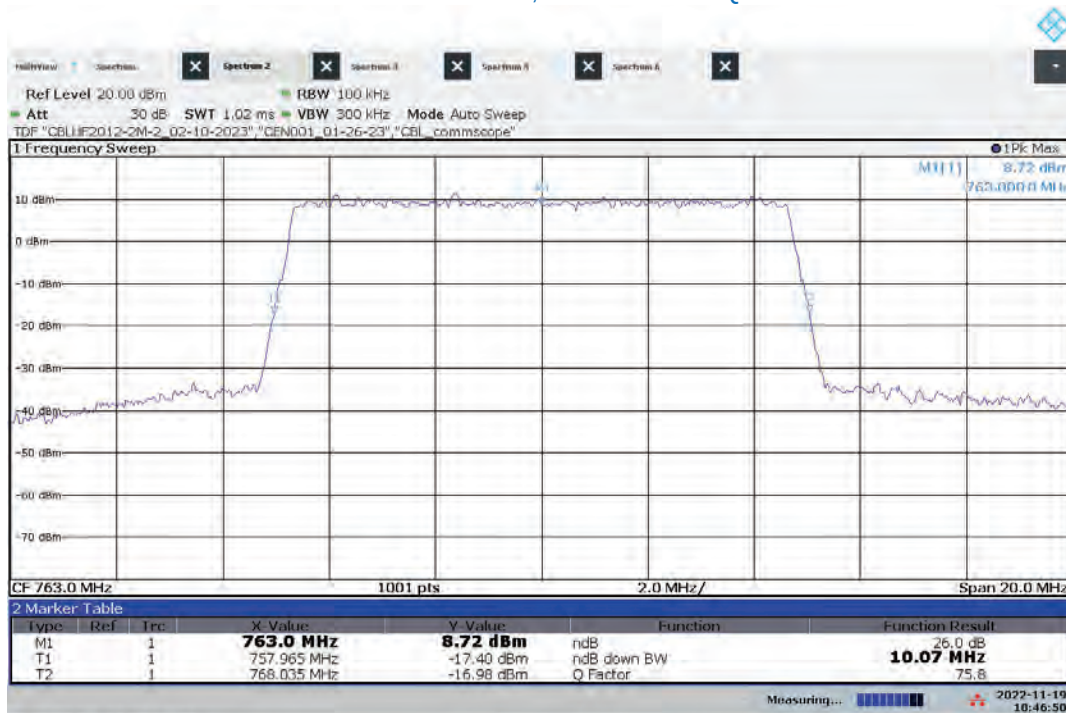
Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: QPSK

06:36:18 PM 11/19/2022

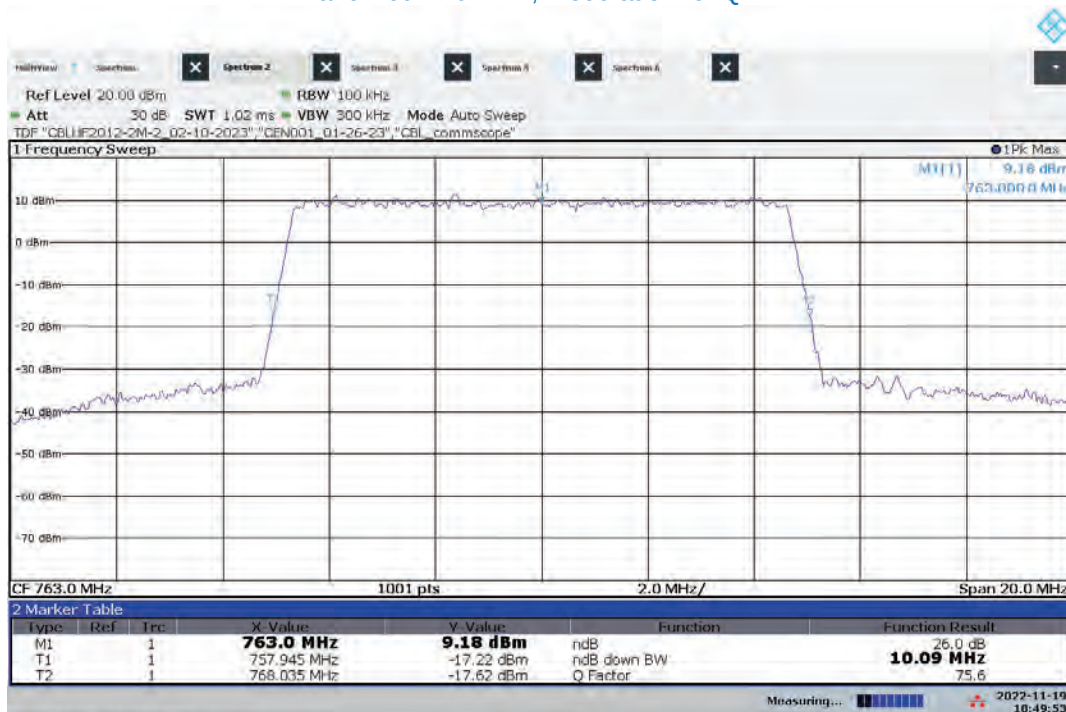
Notes: Low and mid channels are the same frequency as high channel.

Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 16QAMHi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 16QAM

Notes: Low and mid channels are the same frequency as high channel.

Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 64QAM

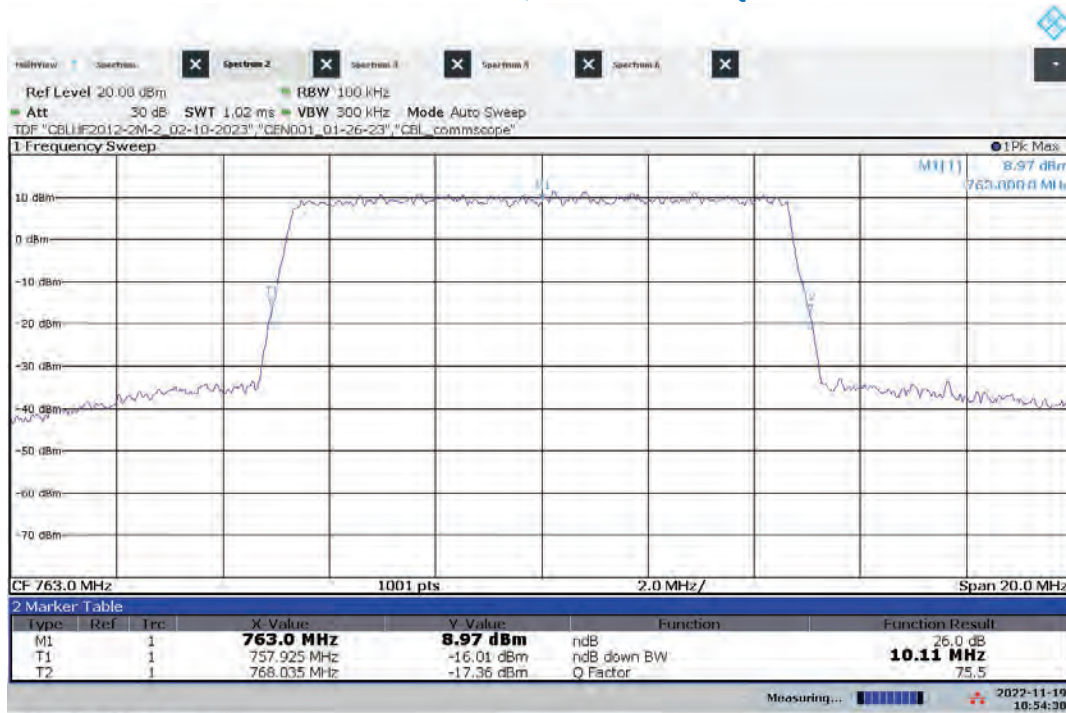
06:46:50 PM 11/19/2022

Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 64QAM

06:49:53 PM 11/19/2022

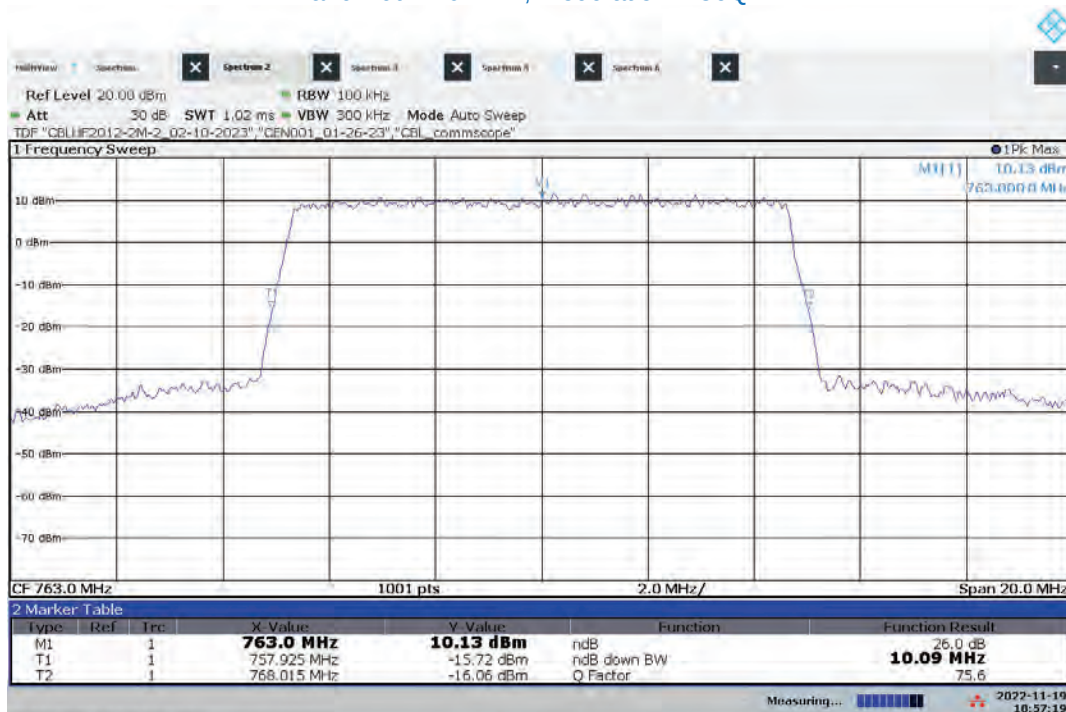
Notes: Low and mid channels are the same frequency as high channel.

Hi-PIM – ANT0 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM



06:54:38 PM 11/19/2022

Hi-PIM – ANT1 High Channel 26 dB Bandwidth
Bandwidth: 10 MHz, Modulation: 256QAM



06:57:19 PM 11/19/2022

Notes: Low and mid channels are the same frequency as high channel.

	Product Standard: CFR47 FCC Part 90			Limit applied: See Report Section 6.3 Pretest Verification w/BB source: N/A			
Test Date	Test Personnel/ Initials	Supervising Engineer/ Initials	Input Voltage	Mode	Atmospheric Data		
					Temp C°	Relative Humidity %	Atmospheric Pressure mbar
11/19/2022	Kouma Sinn <i>KPS</i>	Vathana F. Ven <i>VSV</i>	POE	Transmit	24	14	1009

Deviations, Additions, or Exclusions: None

8 Band Edges and Emissions Mask

8.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1051, 2.1057 and 90.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

8.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV005'	Weather Station	Davis	6250	MS191218083	02/11/2022	02/11/2023
ROS005-1'	Signal and Spectrum Analyzer	Rohde and Schwartz	FSW43	100646	11/02/2021	11/02/2022
CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/26/2022	01/26/2023
CBLHF2012-2M-2'	2m 9kHz-40GHz Coaxial Cable - SET2	Huber & Suhner	SF102	252675002	02/10/2022	02/10/2023
CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/26/2022	01/26/2023
None	Mini SMA cable	Provided by CommScope	None	None	VBU	Verified

Software Utilized:

Name	Manufacturer	Version
None	N/A	N/A

8.3 Results:

The sample tested was found to Comply.

Limits:

CFR47 FCC Part 90.543 (e)(1) and (e)(3) – For operations in the 758-768 MHz, the power of any emission outside the 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, in accordance with the following:

(e)(1): On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed stations.

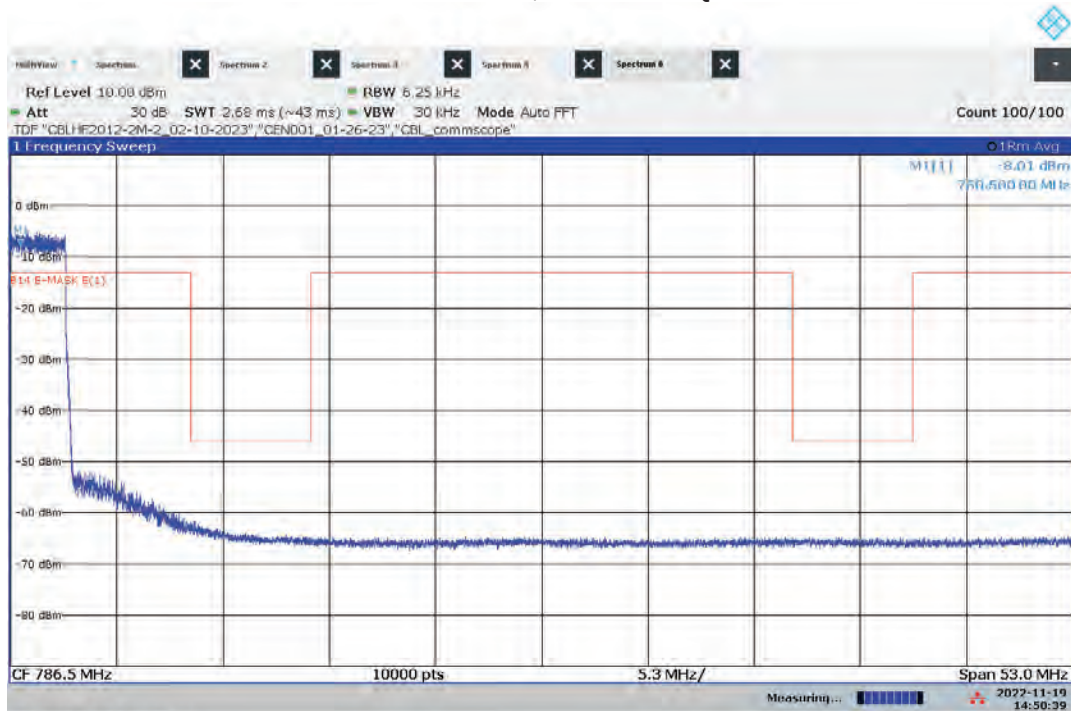
(e)(3): On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log(P)$ dB.

8.4 Setup Photographs:

Confidential – Photos not included in this report

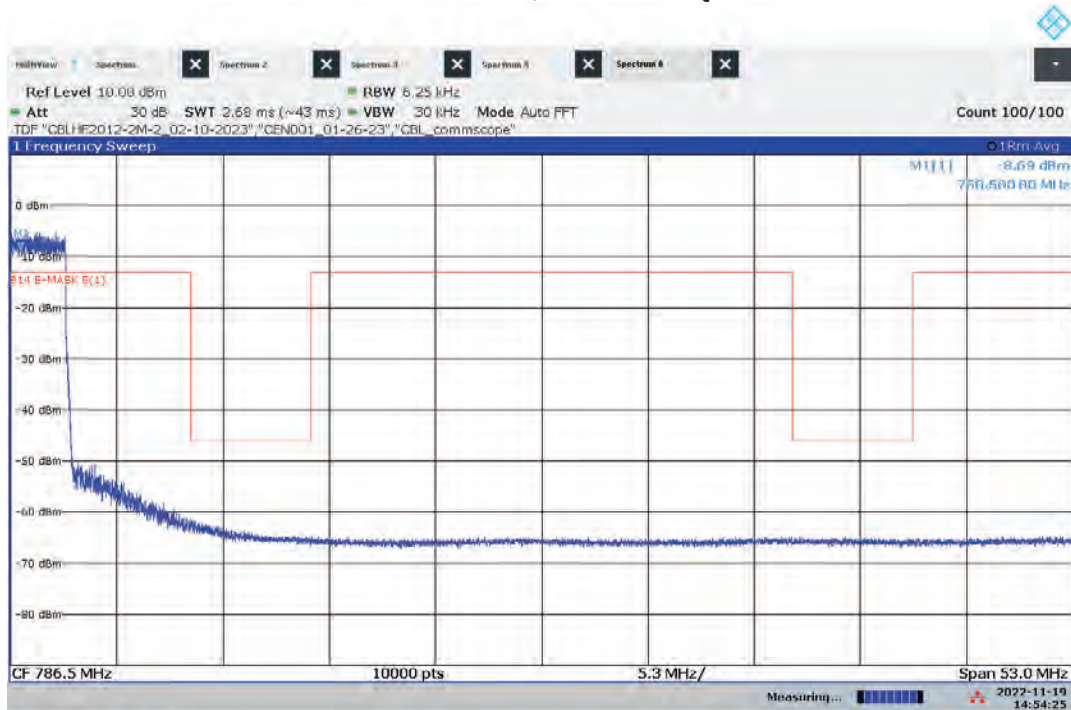
8.5 Plots/Data:

Lo-PIM – ANT0 Low Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: QPSK

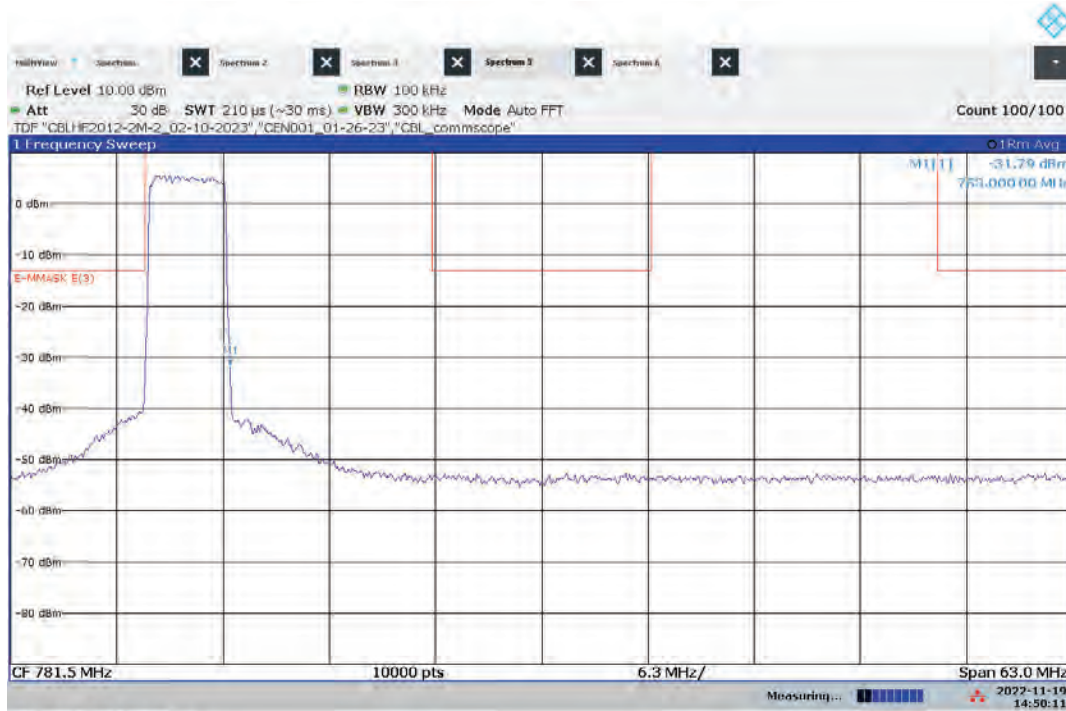


02:50:40 PM 11/19/2022

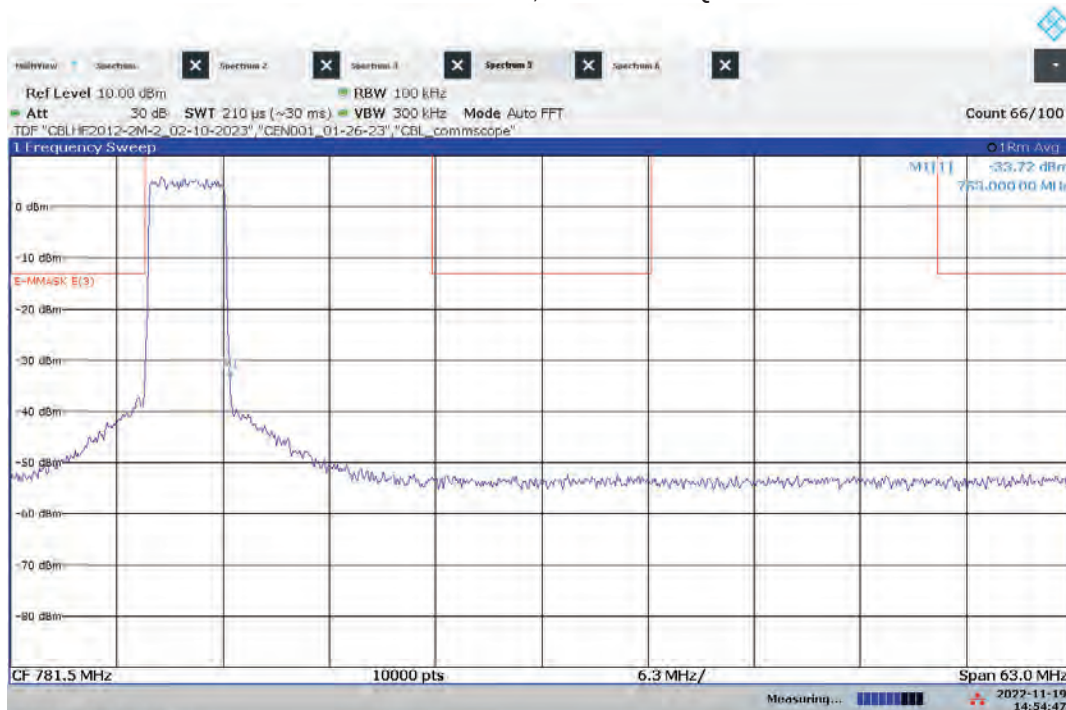
Lo-PIM – ANT1 Low Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: QPSK



02:54:25 PM 11/19/2022

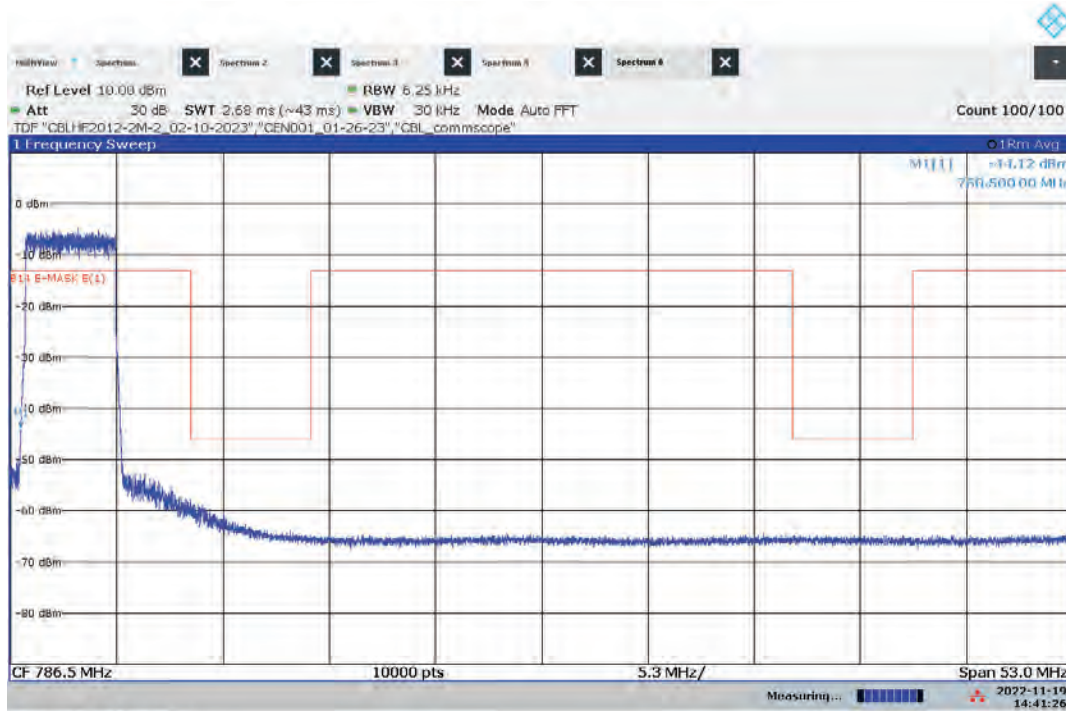
Lo-PIM – ANT0 Low Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: QPSK

02:50:11 PM 11/19/2022

Lo-PIM – ANT1 Low Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: QPSK

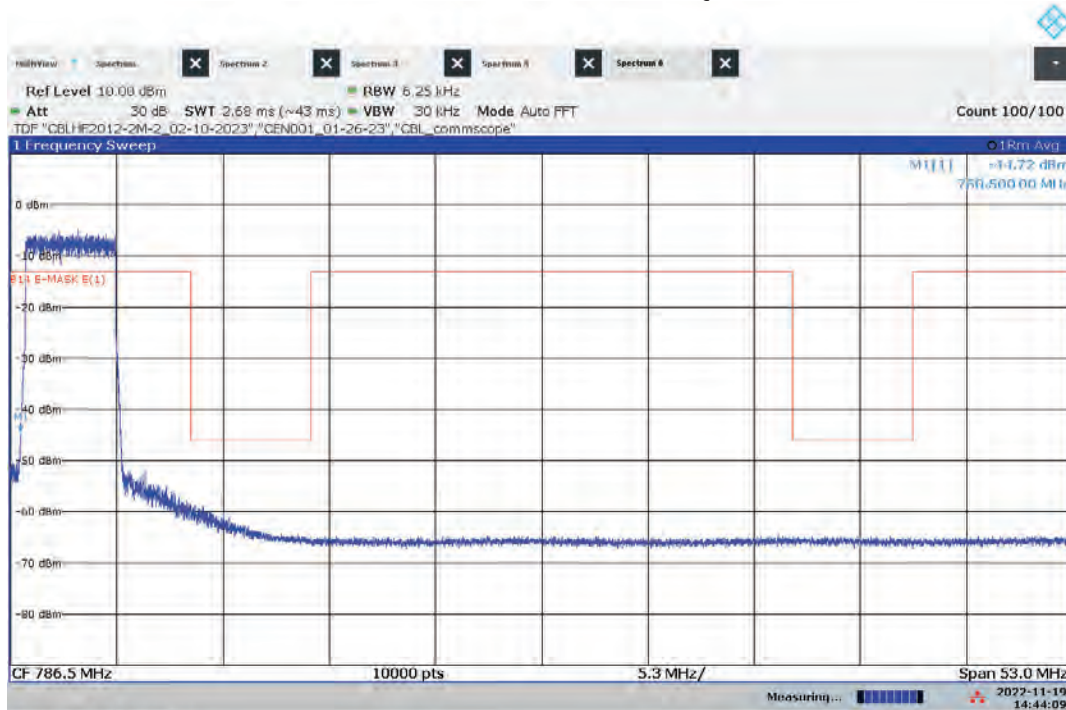
02:54:47 PM 11/19/2022

Lo-PIM – ANT0 Mid Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: QPSK



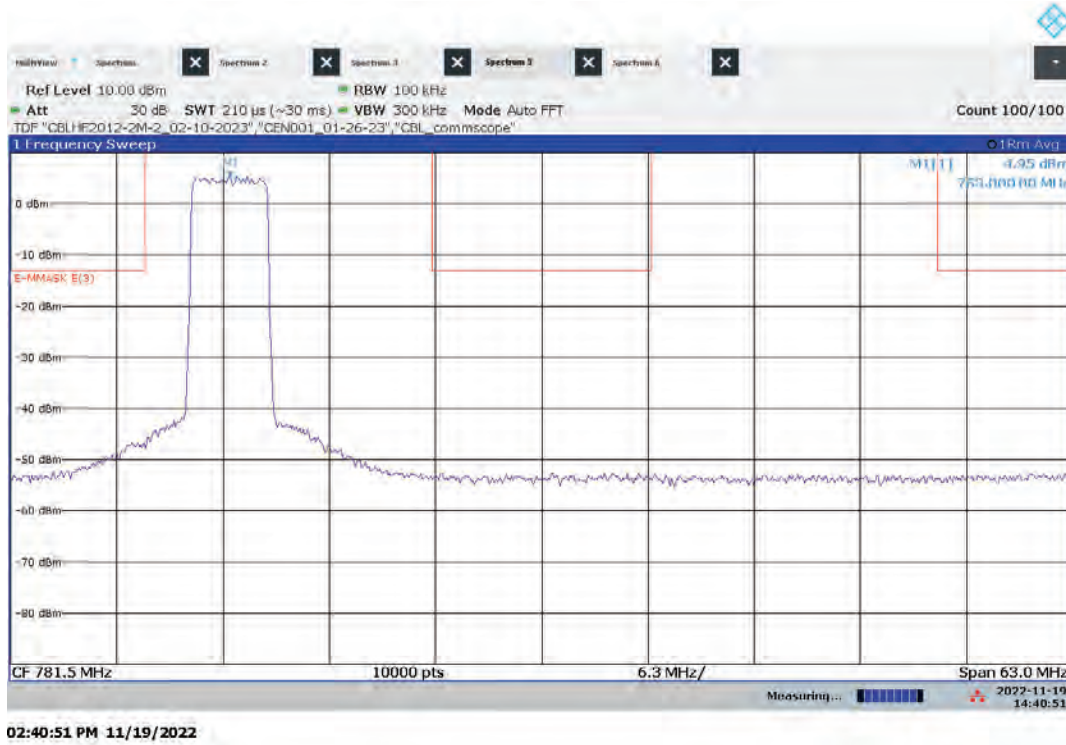
02:41:26 PM 11/19/2022

Lo-PIM – ANT1 Mid Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: QPSK

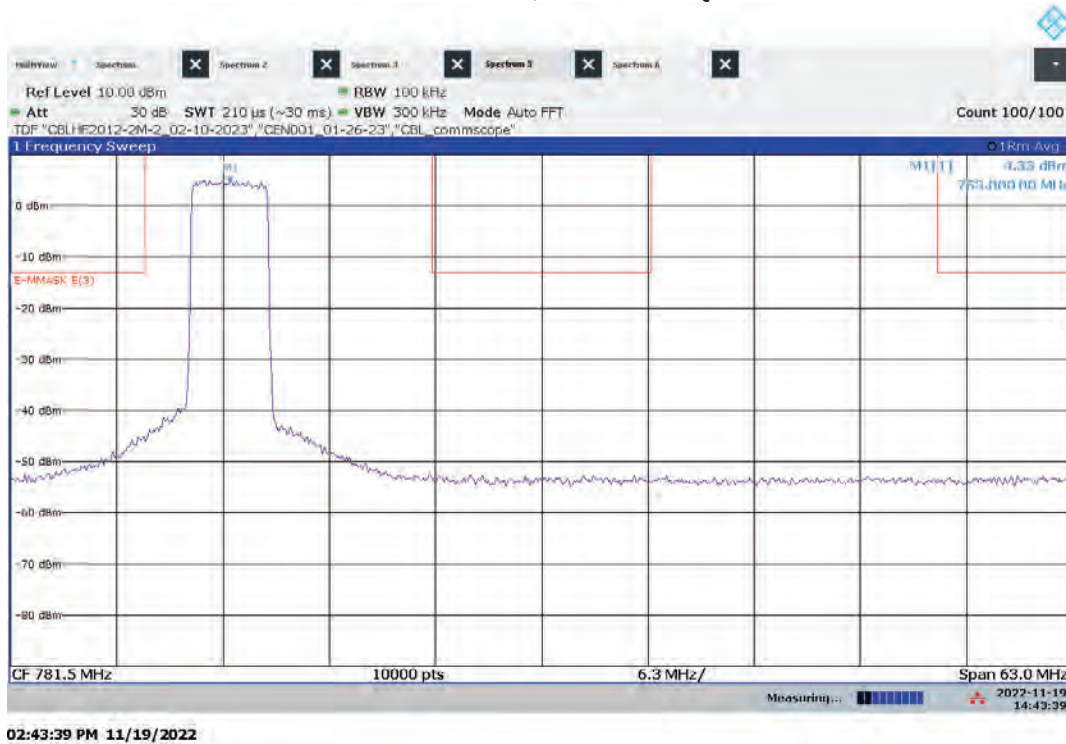


02:44:09 PM 11/19/2022

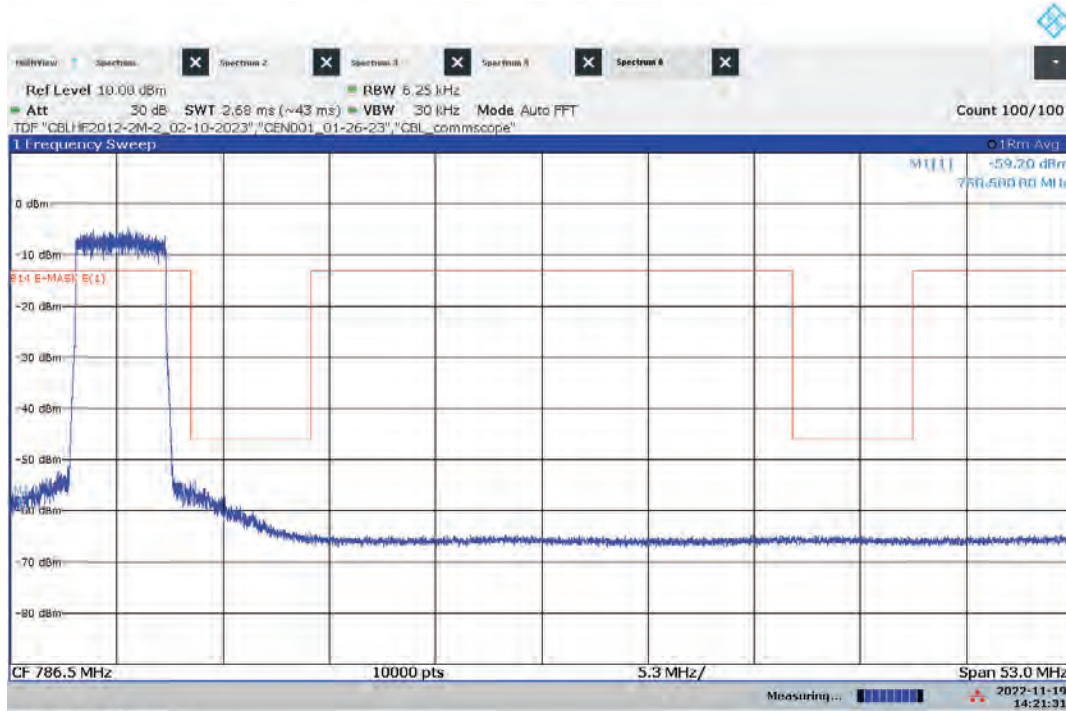
Lo-PIM – ANT0 Mid Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: QPSK



Lo-PIM – ANT1 Mid Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: QPSK

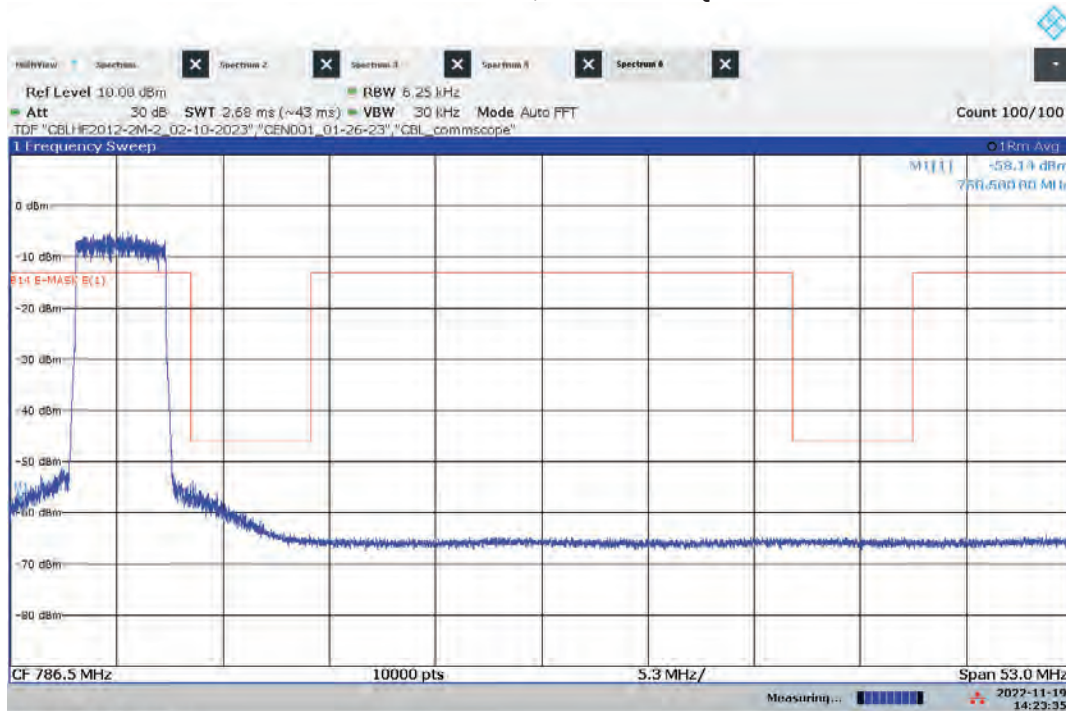


Lo-PIM – ANT0 High Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: QPSK



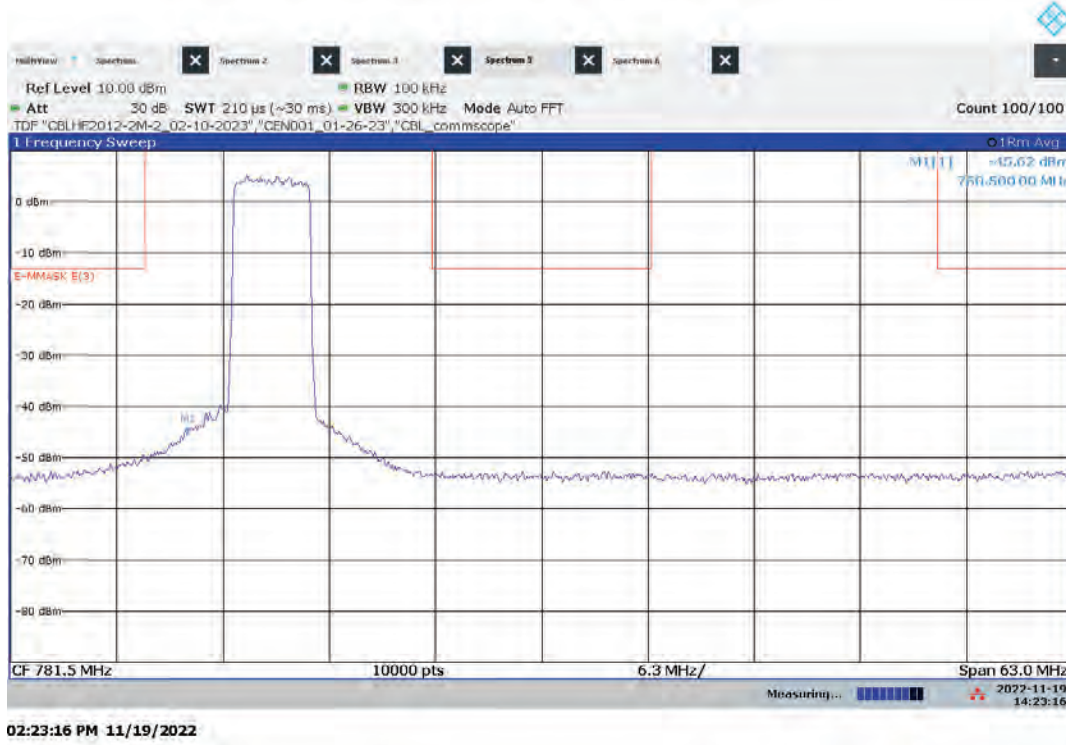
02:21:31 PM 11/19/2022

Lo-PIM – ANT1 High Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: QPSK

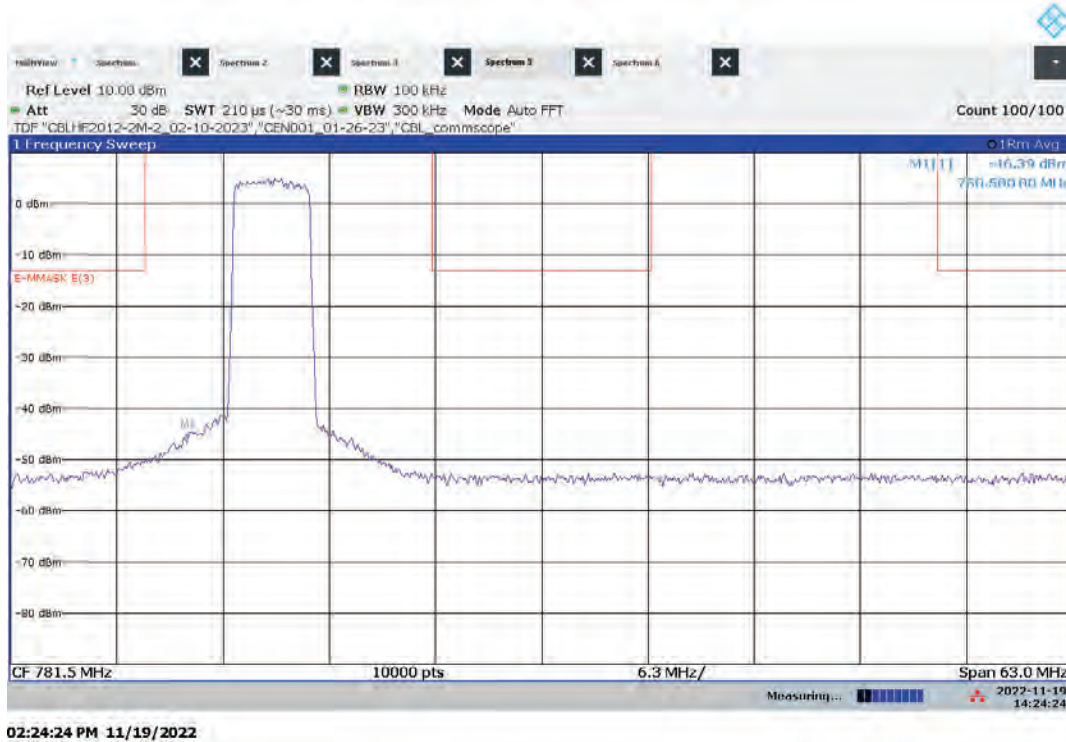


02:23:35 PM 11/19/2022

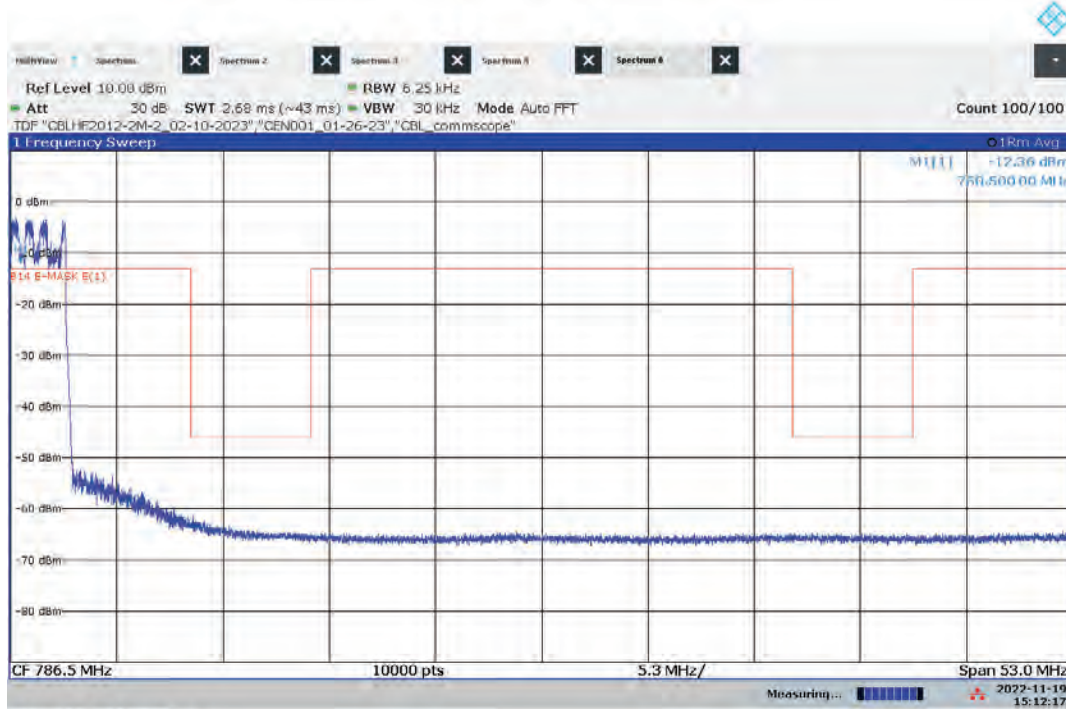
Lo-PIM – ANT0 High Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: QPSK



Lo-PIM – ANT1 High Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: QPSK

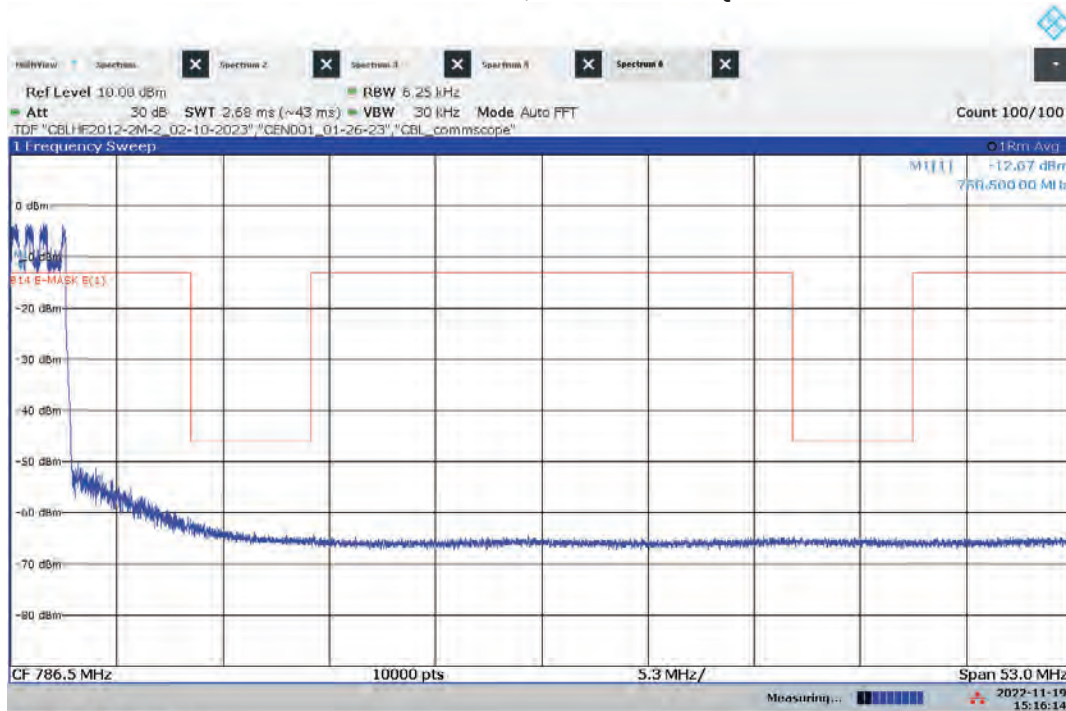


Lo-PIM – ANT0 Low Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: 16QAM



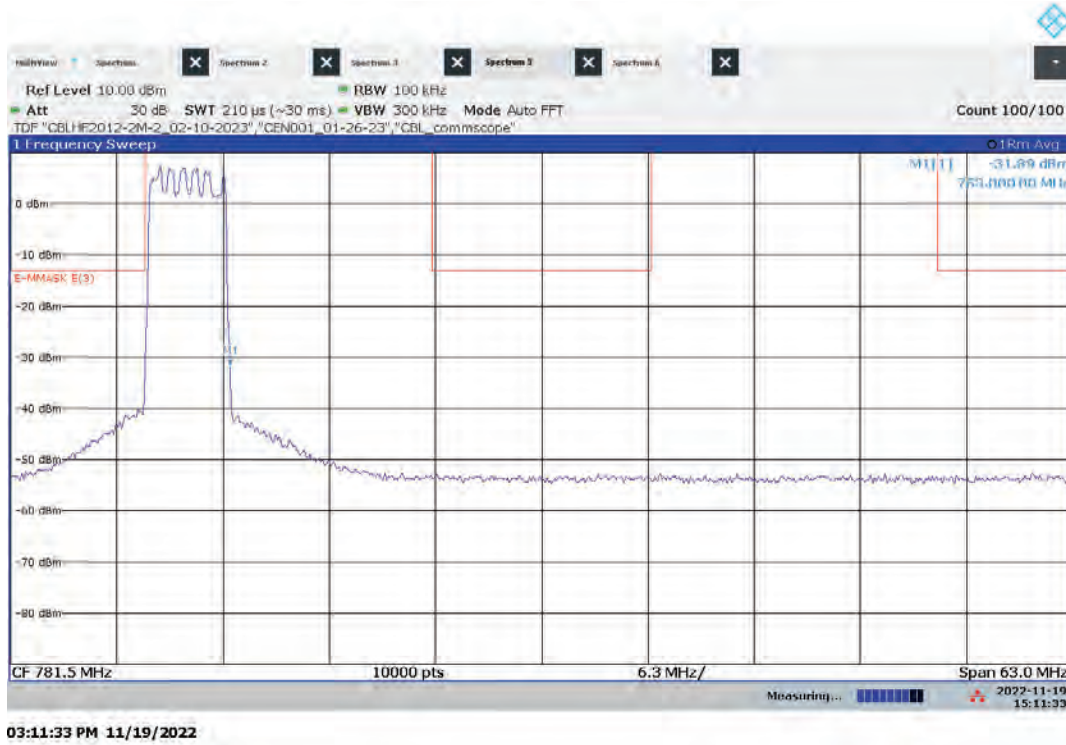
03:12:17 PM 11/19/2022

Lo-PIM – ANT1 Low Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: 16QAM

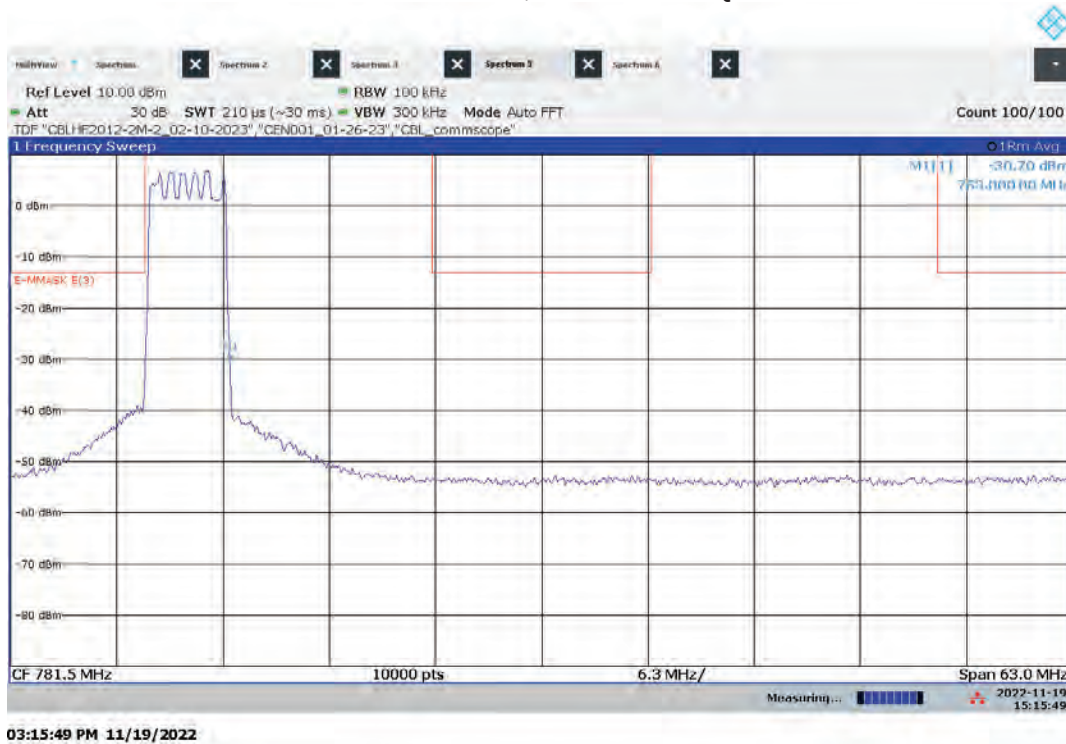


03:16:15 PM 11/19/2022

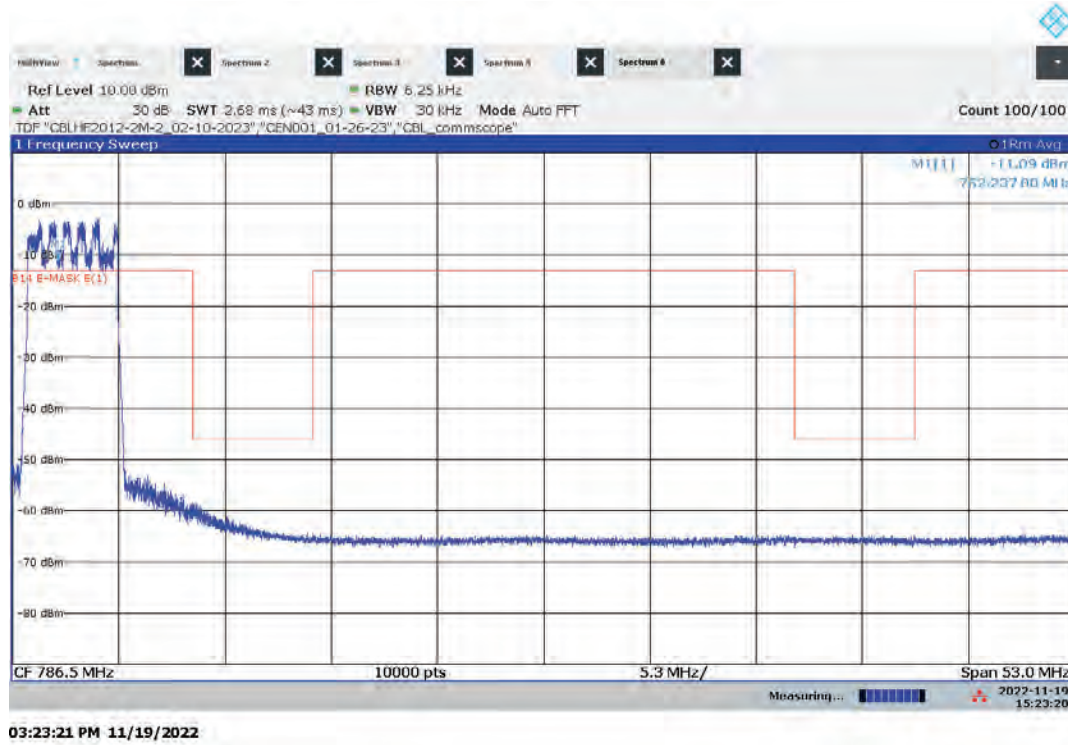
Lo-PIM – ANT0 Low Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: 16QAM



Lo-PIM – ANT1 Low Channel Emission/Band Edge (Mask e (3))
Bandwidth: 5 MHz, Modulation: 16QAM



Lo-PIM – ANT0 Mid Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: 16QAM



Lo-PIM – ANT1 Mid Channel Emission/Band Edge (Mask e (1))
Bandwidth: 5 MHz, Modulation: 16QAM

