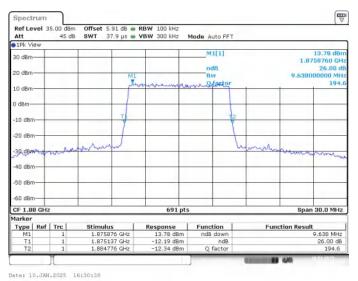




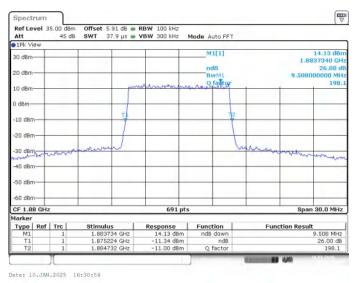
LTE band 2,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	9.638	9.508

LTE band 2 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 2 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



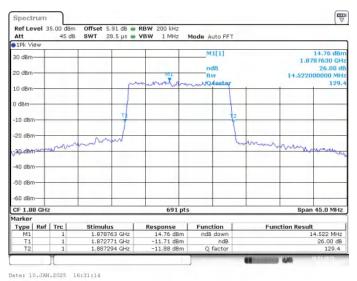




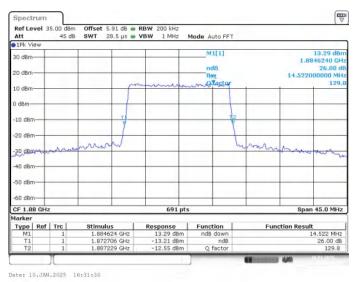
LTE band 2,15MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
1880	14.522	14.522

LTE band 2 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 2 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



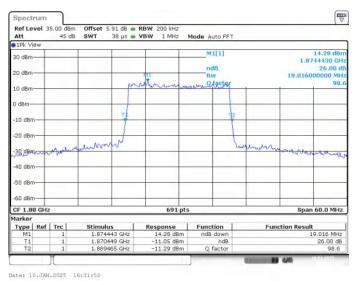




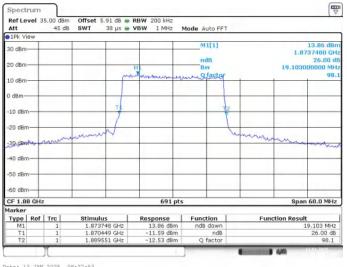
LTE band 2,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	19.016	19.103

LTE band 2, 20MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 2, 20MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 13.JAN.2025 08:27:53

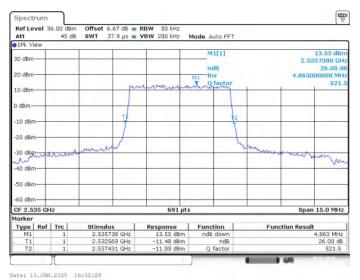




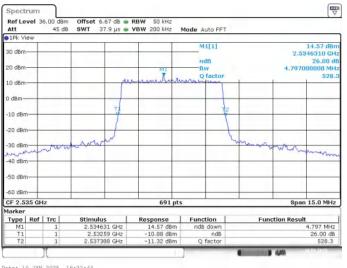
LTE band 7,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	4.863	4.797

LTE band 7, 5MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 7, 5MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:32:44

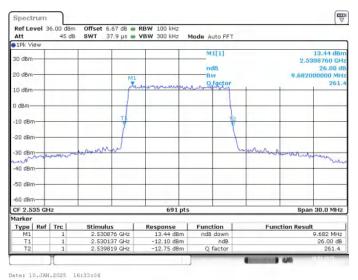




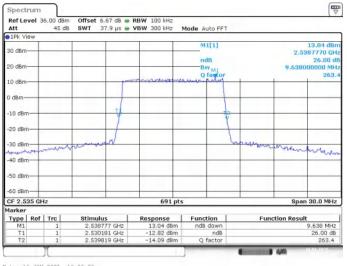
LTE band 7,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	9.682	9.638

LTE band 7, 10MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 7, 10MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:33:20

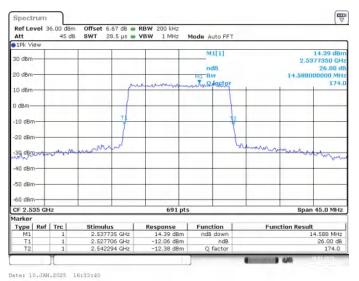




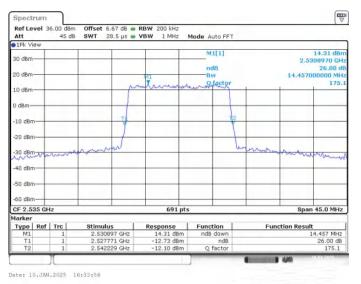
LTE band 7,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	14.588	14.457

LTE band 7 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 7 , 15MHz Bandwidth, MID, 16QAM (-26dBc BW)



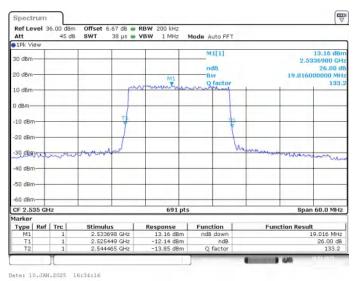




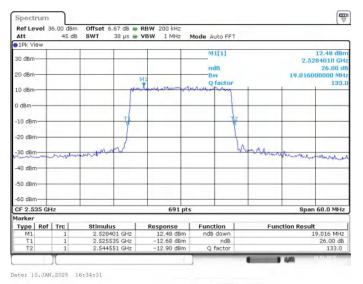
LTE band 7,20MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
2535	19.016	19.016

LTE band 7 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 7 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



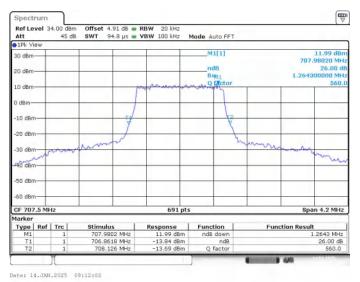




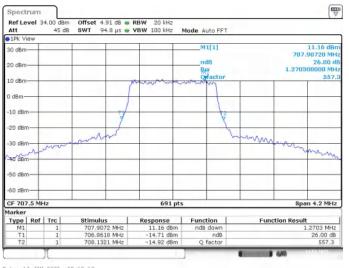
LTE band 12,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	1.264	1.270

LTE band 12, 1.4MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 12 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:12:18

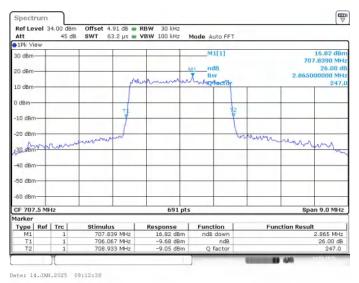




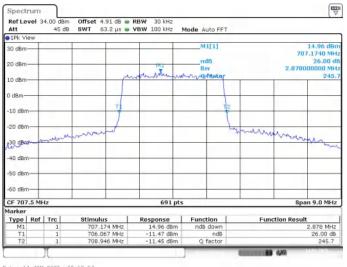
LTE band 12,3MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
707.5	2.865	2.878

LTE band 12, 3MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 12 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:12:54

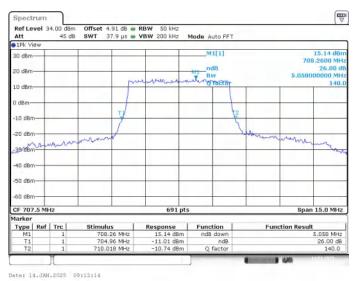




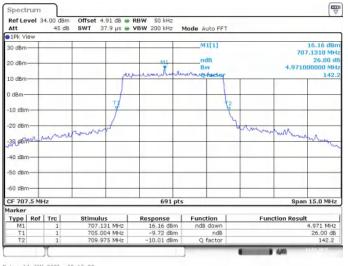
LTE band 12,5MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
707.5	5.058	4.971

LTE band 12, 5MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 12, 5MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 14.JAN.2025 09:13:29

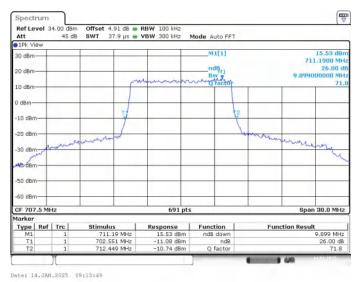




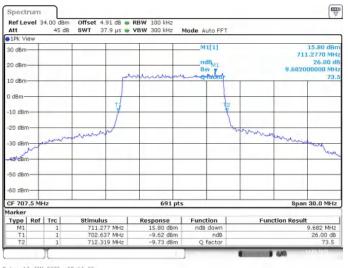
LTE band 12,10MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
707.5	9.899	9.682

LTE band 12 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 12 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:14:05

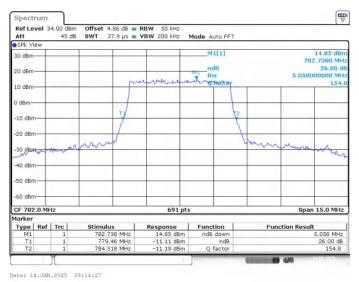




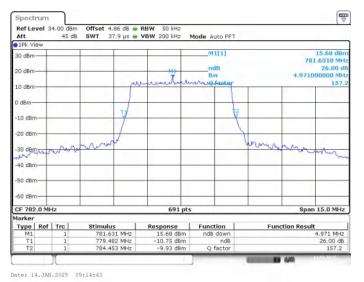
LTE band 13,5MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
782	5.058	4.971

LTE band 13 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 13 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



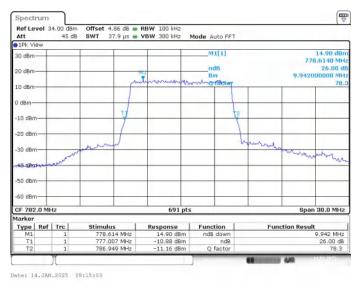




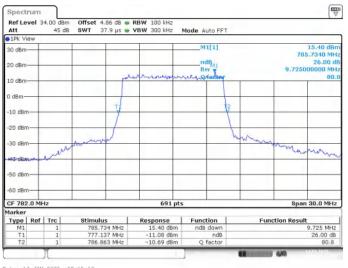
LTE band 13,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
782	9.942	9.725

LTE band 13 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 13, 10MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:15:19

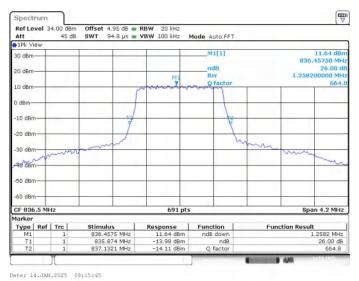




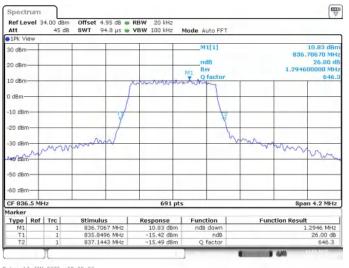
LTE band 26(824MHz~849MHz),1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	1.258	1.295

LTE band 26 , 1.4MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:39:03

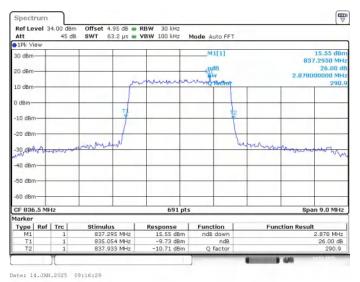




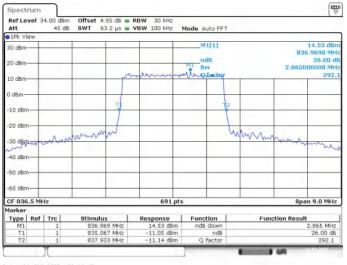
LTE band 26(824MHz~849MHz),3MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)		
	Frequency(MHz)	QPSK	16QAM
	836.5	2.878	2.865

LTE band 26, 3MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 3MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 14.JAN.2025 09:16:45

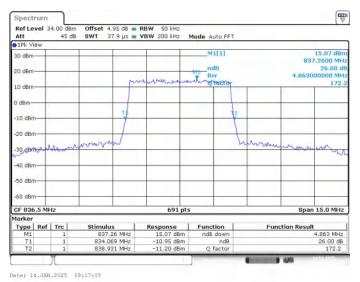




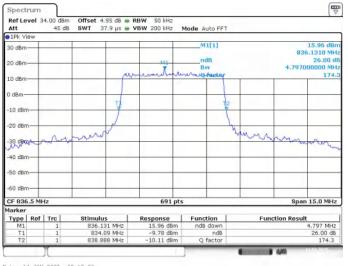
LTE band 26(824MHz~849MHz),5MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
836.5	4.863	4.797

LTE band 26 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:17:20

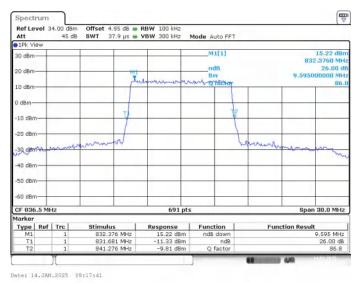




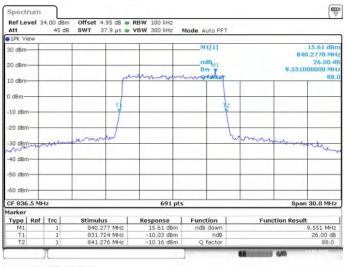
LTE band 26(824MHz~849MHz),10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	9.595	9.551

LTE band 26 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:17:56





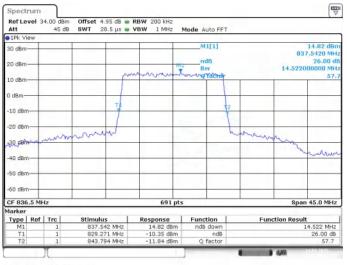
LTE band 26(824MHz~849MHz),15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	14.522	14.522

LTE band 26 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 15MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 14.JAN.2025 09:18:32

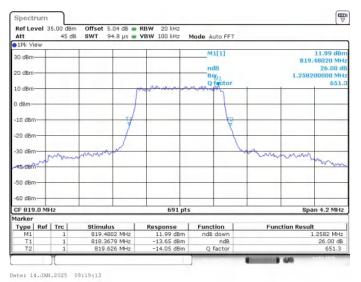




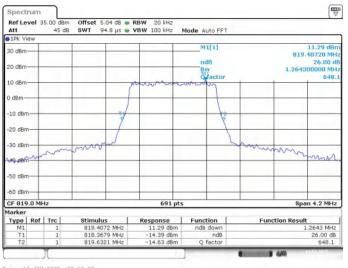
LTE band 26(814MHz~824MHz),1.4MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
819	1.258	1.264

LTE band 26 , 1.4MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 14.JAN.2025 09:19:29

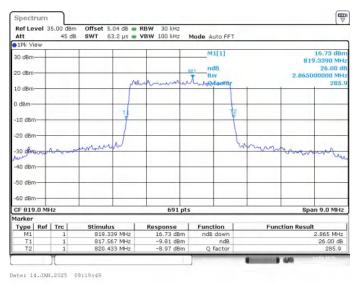




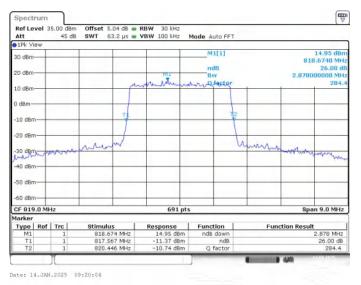
LTE band 26(814MHz~824MHz),3MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
819	2.865	2.878

LTE band 26, 3MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



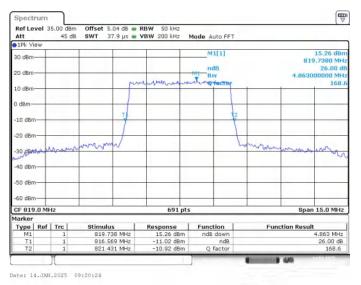




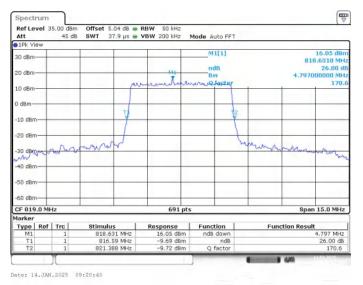
LTE band 26(814MHz~824MHz),5MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
819	4.863	4.797

LTE band 26 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



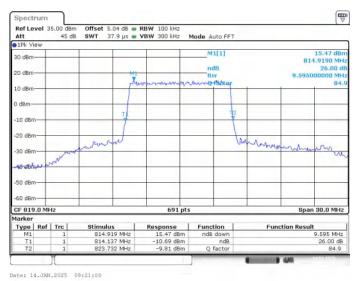




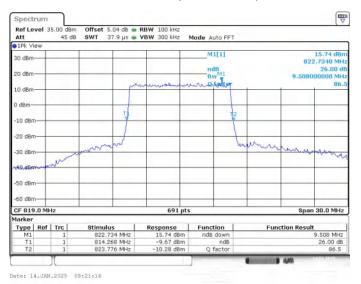
LTE band 26(814MHz~824MHz),10MHz(-26dBc)

Frequency(MHz)	Emission Band	width (-26dBc)(MHz)
	QPSK	16QAM
819	9.595	9.508

LTE band 26 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



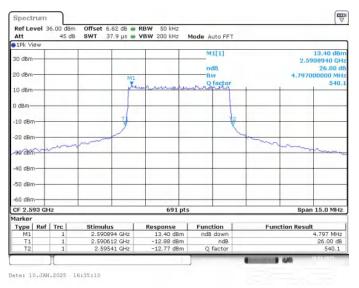




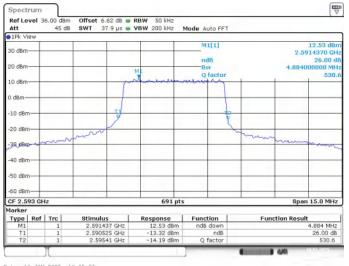
LTE band 41,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	4.797	4.884

LTE band 41, 5MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 41, 5MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:35:25

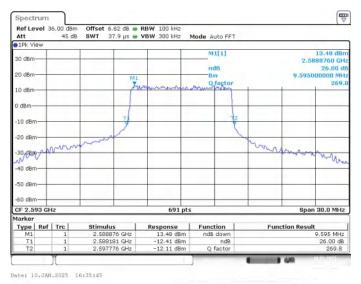




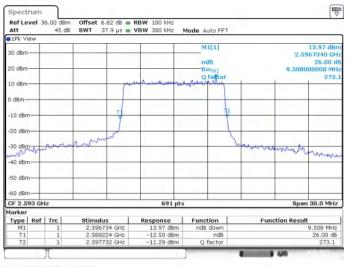
LTE band 41,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	9.595	9.508

LTE band 41 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 41 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



Date: 10.JAN.2025 16:36:01

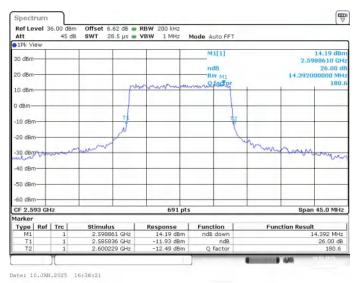




LTE band 41,15MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
2593	14.392	14.457

LTE band 41 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 41, 15MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:36:37

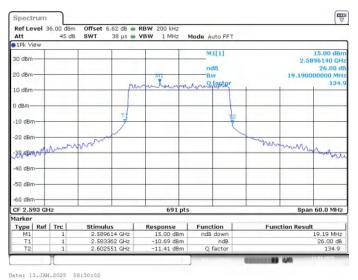




LTE band 41,20MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)		
Frequency(MHz)	QPSK	16QAM	
2593	19.190	19.016	

LTE band 41 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 41, 20MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:37:12

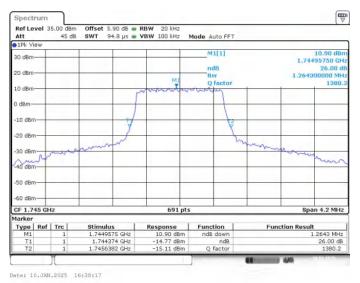




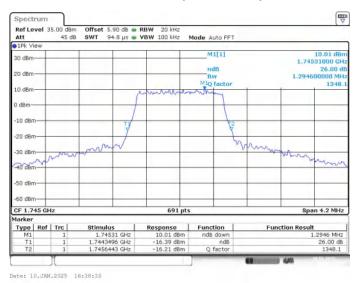
LTE band 66,1.4MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
1745	1.264	1.295

LTE band 66 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 66 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



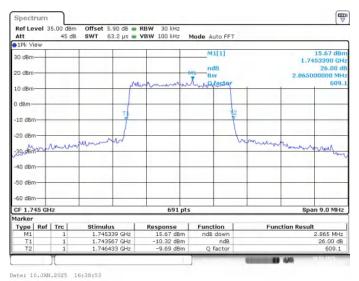




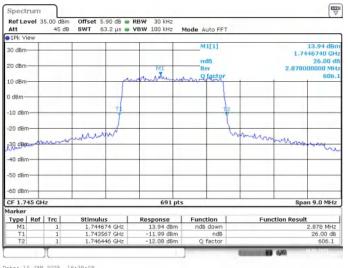
LTE band 66,3MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
1745	2.865	2.878

LTE band 66, 3MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 66 , 3MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:39:08

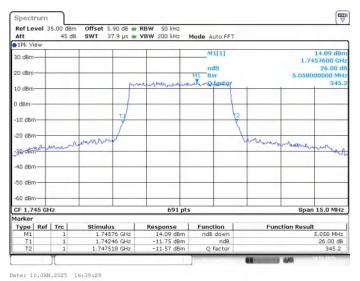




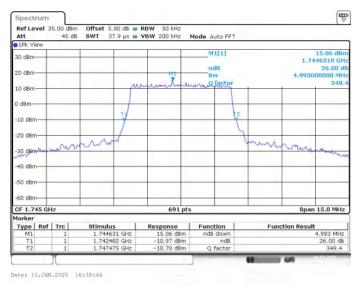
LTE band 66,5MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
1745	5.058	4.993

LTE band 66 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 66 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



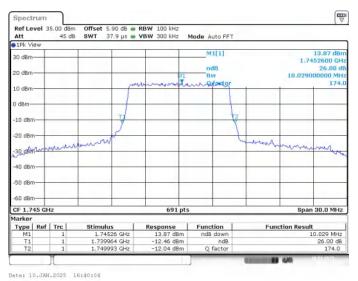




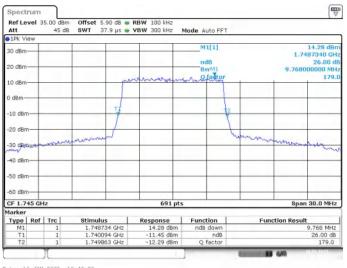
LTE band 66,10MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)		
Frequency(MHz)	QPSK	16QAM	
1745	10.029	9.768	

LTE band 66 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 66 , 10MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:40:20

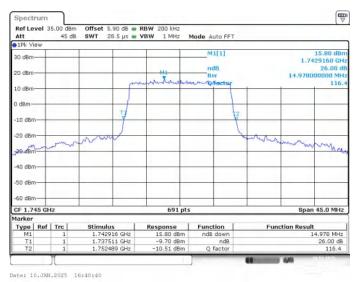




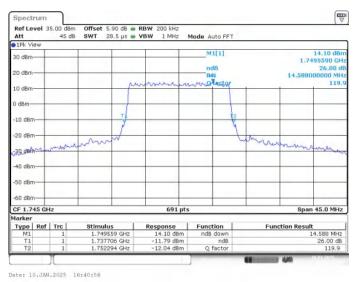
LTE band 66,15MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
1745	14.978	14.588

LTE band 66 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 66 , 15MHz Bandwidth, MID, 16QAM (-26dBc BW)



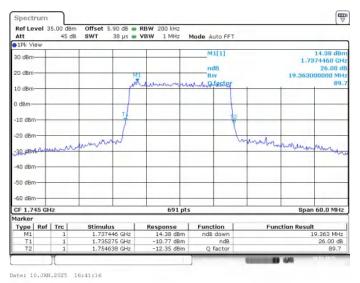




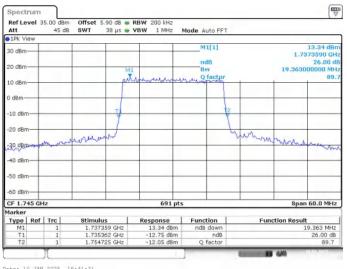
LTE band 66,20MHz(-26dBc)

	Emission Bandwidth (-26dBc)(MHz)	
Frequency(MHz)	QPSK	16QAM
1745	19.363	19.363

LTE band 66 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)



LTE band 66 , 20MHz Bandwidth, MID, 16QAM (-26dBc BW)



Date: 10.JAN.2025 16:41:31





A.6 Band Edge Compliance

A.6.1 Measurement limit

Part 22.917, Part 24.238 and Part 27.53(h) specify that the power of any emission 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.

Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Part 27.53(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, 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:(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the 776-788 MHz band, the power of any emission shall be attenuated outside the 776-788 MHz band, the power of any emission shall be attenuated outside the 776-788 MHz band, the power of any emission shall be attenuated outside the 776-788 MHz band, the power of any emission shall be attenuated outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116Log_{10}(f/6.1)$ decibels or $50 + 10 Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) decibels or 80 decibels, whichever is the lesser attenuation, where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency to the frequency the function of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency to the frequency to the function of the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency to find the frequency to the function of the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation.





removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

The spectrum analyzer readings are corrected by [10 log (1/duty cycle)] for the non-continuous transmitting scenario.





A.6.2 Measurement result

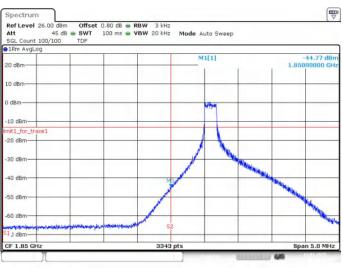
LTE band 2

OBW: 1RB-LOW_offset

Ref Le	vel 33	5.00 dBm 45 dB			Mode Auto FFT		
∎1Pk Vi	3W						
30 dBm-	-				M1[1] Occ Bw	2	13.73 dBr 1.85059580 GH 67.309064954 kH
20 dBm-	+			M			
10 dBm-	+						_
0 dBm—	+			T			
-10 dBm	+				4		
-20 dBm	+						
-30 dBm	-					_	
-40 dBm	+						
-50 dBm		the same	and the second states and the second states of the	-	- Walder	and the local days	-
-60 dBm		-					
CF 1.8	5 GHz			14010	ots		Span 35.0 MHz
larker							
Туре	Ref	Trc	Stimulus	Response	Function	Function	1 Result
M1	_	1	1.8505958 GHz	13.73 dBm -4.50 dBm	Occ Bw		
T1 T2	_	1	1.8504834 GHz 1.85075071 GHz	-4.50 dBm -10.12 dBm	UCC BW	2	67.309064954 kHz

Date: 13.JAN.2025 09:43:09

LOW BAND EDGE BLOCK-1RB-LOW_offset

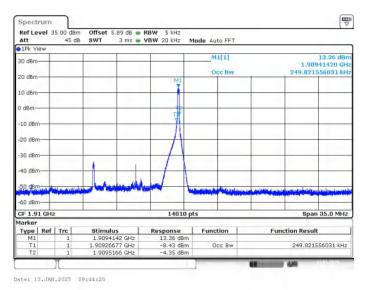


Date: 13.JAN.2025 09:43:59

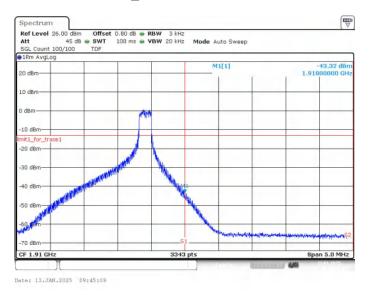




OBW: 1RB-HIGH_offset



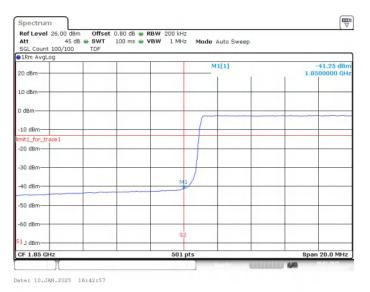
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



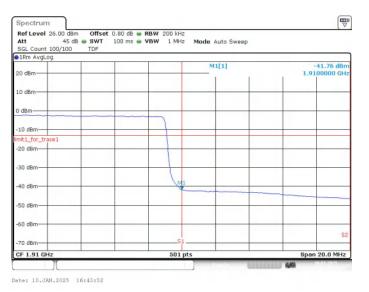




LOW BAND EDGE BLOCK-20MHz-100%RB



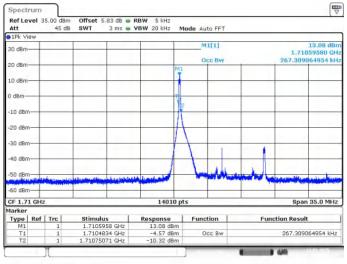
HIGH BAND EDGE BLOCK-20MHz-100%RB





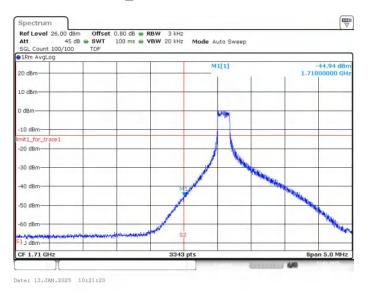


LTE band 4 OBW: 1RB-LOW_offset



Date: 13.JAN.2025 10:20:30

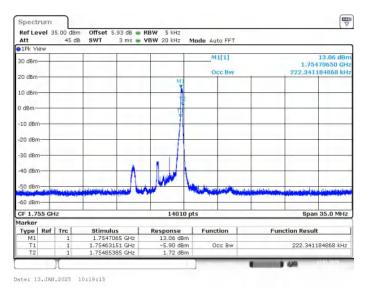
LOW BAND EDGE BLOCK-1RB-LOW_offset

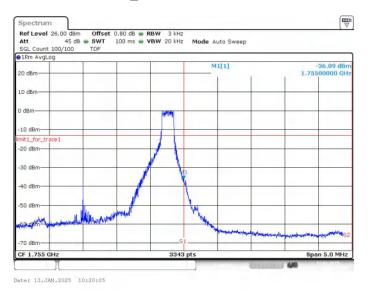






OBW: 1RB-HIGH_offset

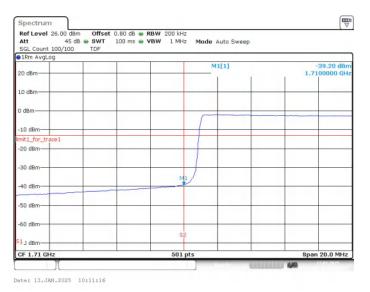




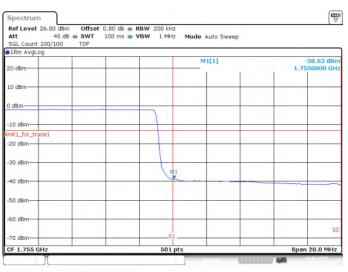




LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

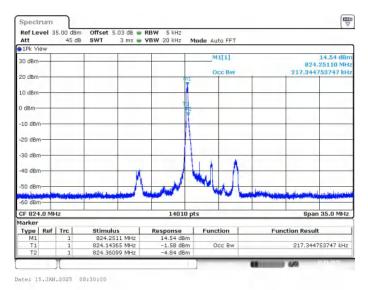


Date: 13.JAN.2025 10:12:11

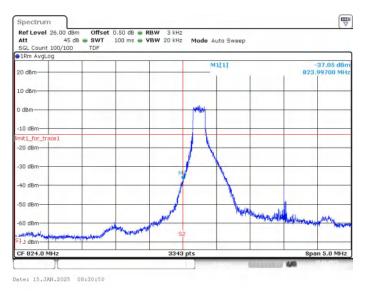




LTE band 5 OBW: 1RB-LOW_offset



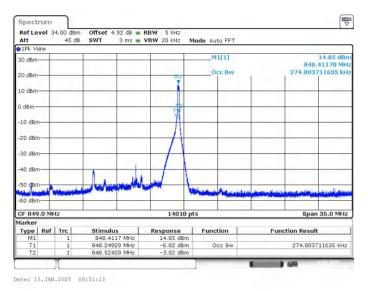
LOW BAND EDGE BLOCK-1RB-LOW_offset

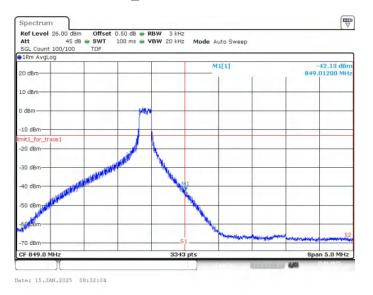






OBW: 1RB-HIGH_offset

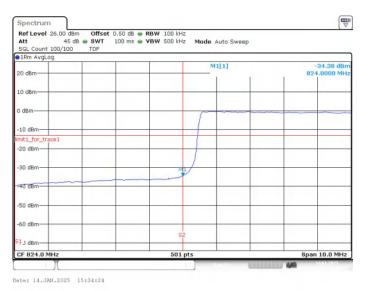




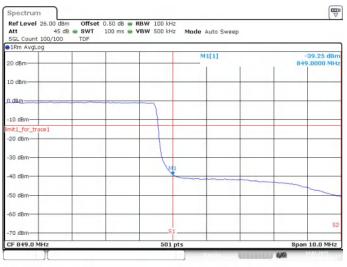




LOW BAND EDGE BLOCK-10MHz-100%RB



HIGH BAND EDGE BLOCK-10MHz-100%RB

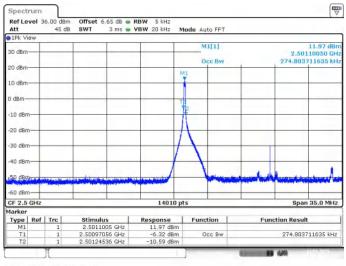


Date: 14.JAN.2025 15:35:19





LTE band 7 OBW: 1RB-LOW_offset



Date: 13.JAN.2025 09:45:36

LOW BAND EDGE BLOCK-1RB-LOW_offset

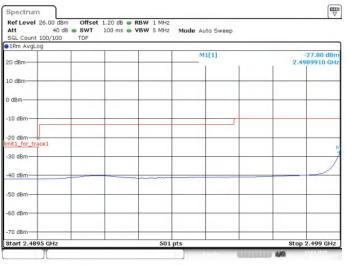
		0 dB RBW 10 kHz 0 ms VBW 50 kHz Mode Auto FFT	
20 dBm 2.4999900 (10 dBm 2.499900 (10 dBm 2.49900 (10 dBm 2.49900 (10 dBm 2.49900 (10 dBm 2.4900 (1Rm AvgLog		
0 dBm	20 dBm	M1[1]	-45.27 dBn 2.49999900 GH:
10.400 10.400 20 dBm -20 dBm -40 dBm -50 dBm -60 dBm	10 dBm		
20 dBm	0 dBm		
-30 dBm	mit1_for_trace1		
40 dBm 	-20 dBm		
50 dBm	-30 dBm		
60 dBm	40 dBm		_
	50 dBm-		
70 dBm	60 dBm		
	-70 dBm		

Date: 13.JAN.2025 09:46:33



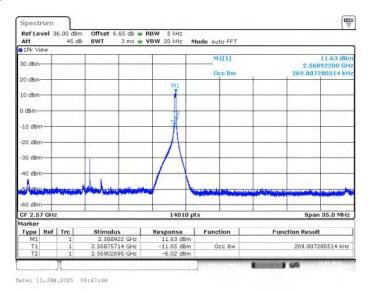


LOW BAND EDGE BLOCK-1RB-LOW_offset



Date: 13.JAN.2025 09:47:24

OBW: 1RB-HIGH_offset



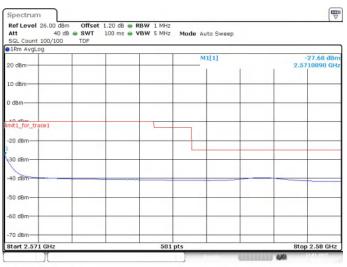




Spectrum Operation Offset 1.20 dB RBW 10 kHz Att 40 dB SWT 100 ms VBW 50 kHz Mode Auto FFT SGL count 100/100 TDF TDF TDF TDF SGL Count 10 1Rm AvgLog M1[1] 45.10 d 20 dBm 2.57 10 dBm 0 dBm hit1_for_t e t -20 dBm 30 dBm 40 dBm 50 dBm -60 dBm -70 dBm-Stop 2.571 GHz Start 2.57 GHz 501 pts 440 Date: 13.JAN.2025 09:48:43

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

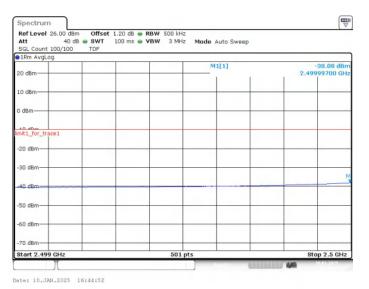


Date: 13.JAN.2025 09:49:35

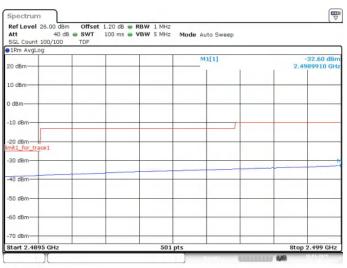




LOW BAND EDGE BLOCK-20MHz-100%RB



LOW BAND EDGE BLOCK-20MHz-100%RB

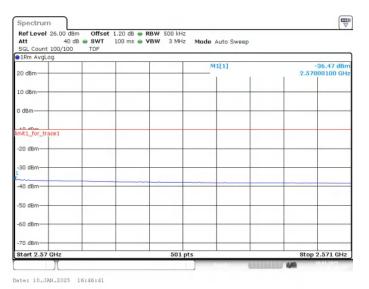


Date: 10.JAN.2025 16:45:43

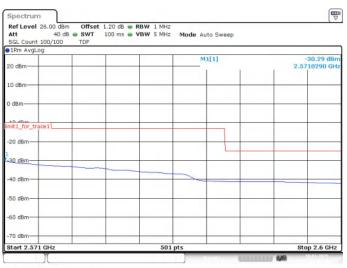




HIGH BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

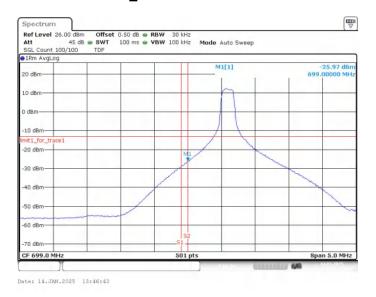


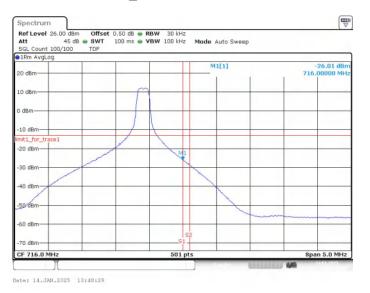
Date: 10.JAN.2025 16:47:33





LTE band 12 LOW BAND EDGE BLOCK-1RB-LOW_offset

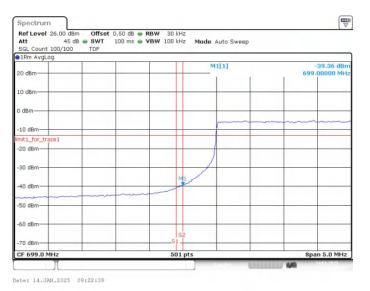




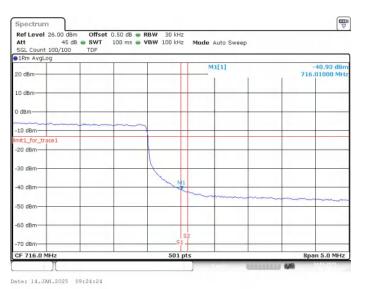




LOW BAND EDGE BLOCK-10MHz-100%RB



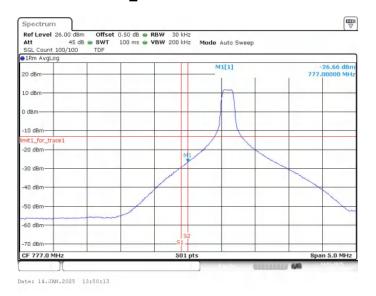
HIGH BAND EDGE BLOCK-10MHz-100%RB

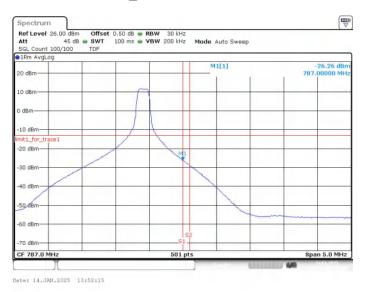






LTE band 13 LOW BAND EDGE BLOCK-1RB-LOW_offset

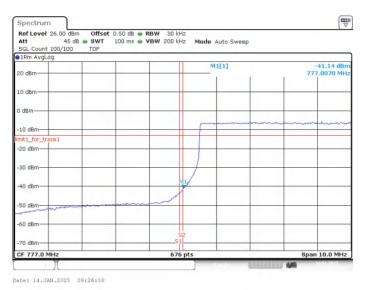




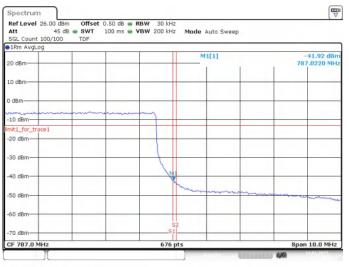




LOW BAND EDGE BLOCK-10MHz-100%RB



HIGH BAND EDGE BLOCK-10MHz-100%RB

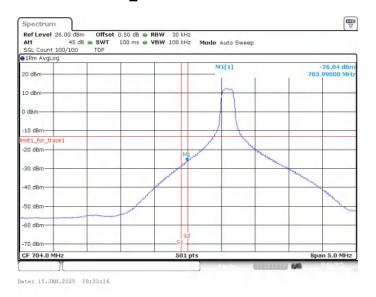


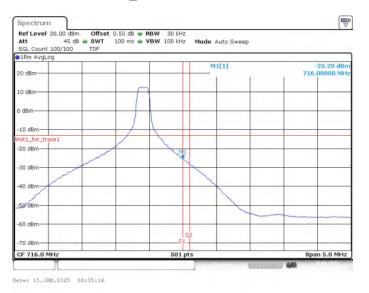
Date: 14.JAN.2025 09:28:10





LTE band 17 LOW BAND EDGE BLOCK-1RB-LOW_offset

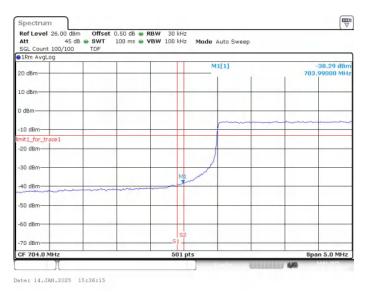




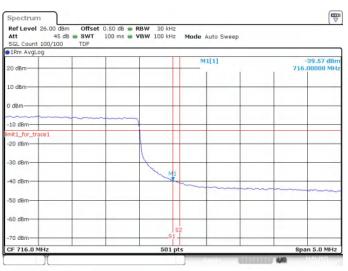




LOW BAND EDGE BLOCK-10MHz-100%RB



HIGH BAND EDGE BLOCK-10MHz-100%RB



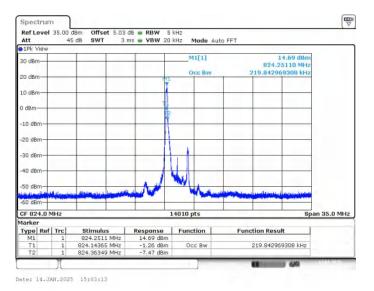
Date: 14.JAN.2025 15:38:01



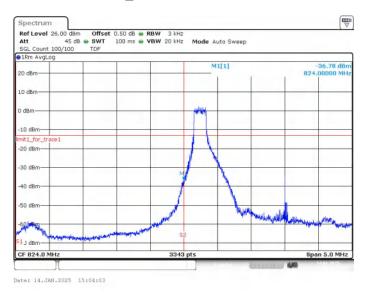


LTE band 26(824MHz~849MHz)

OBW: 1RB-LOW_offset



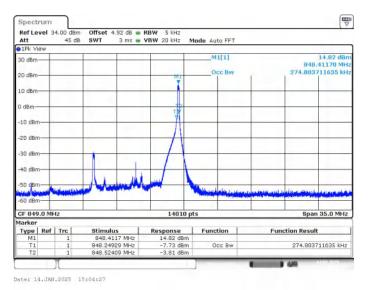
LOW BAND EDGE BLOCK-1RB-LOW_offset

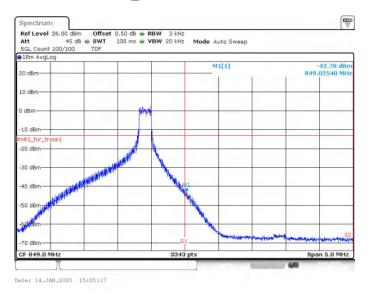






OBW: 1RB-HIGH_offset

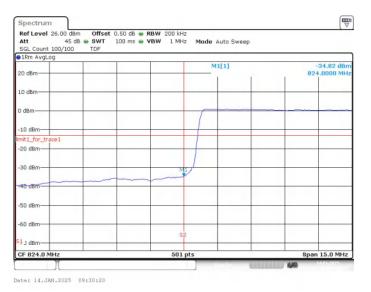




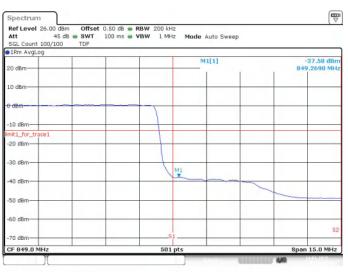




LOW BAND EDGE BLOCK-15MHz-100%RB



HIGH BAND EDGE BLOCK-15MHz-100%RB



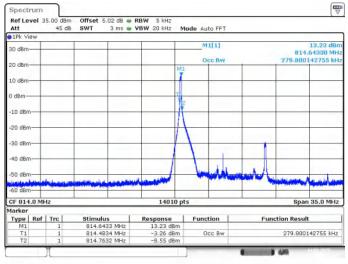
Date: 14.JAN.2025 09:31:15





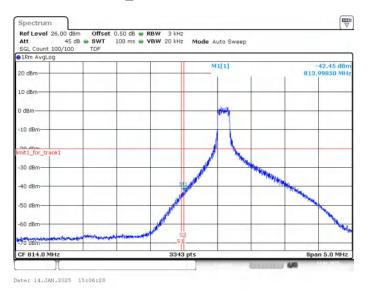
LTE band 26(814MHz~824MHz)

OBW: 1RB-LOW_offset



Date: 14.JAN.2025 15:05:38

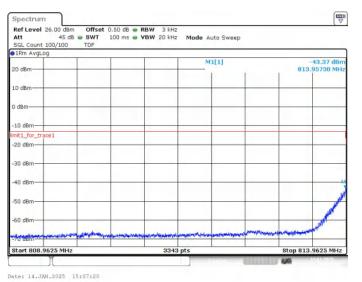
LOW BAND EDGE BLOCK-1RB-LOW_offset



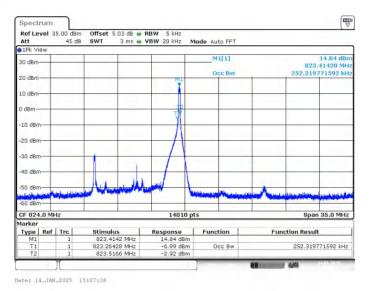




LOW BAND EDGE BLOCK-1RB-LOW_offset

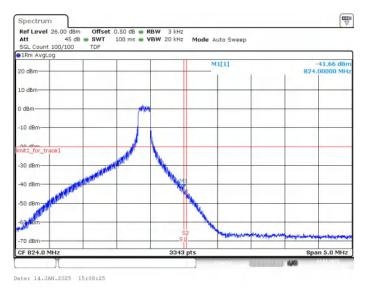


OBW: 1RB-HIGH_offset

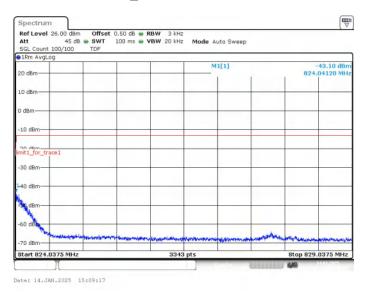








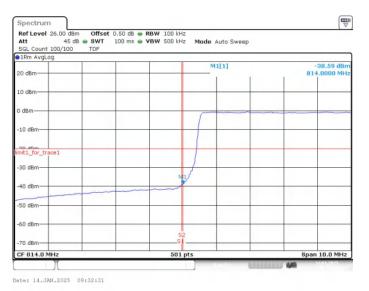
HIGH BAND EDGE BLOCK-1RB-HIGH_offset







LOW BAND EDGE BLOCK-10MHz-100%RB



LOW BAND EDGE BLOCK-10MHz-100%RB

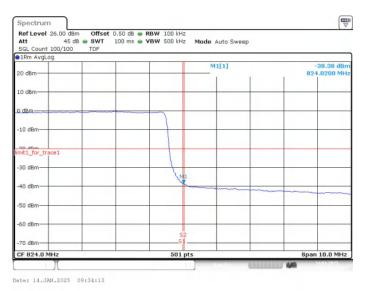
Att 45 dB SWT 100 SGL Count 100/100 TDF	dB 🖷 RBW 100 kHz ms 🖷 VBW 500 kHz Mode Auto Sweep	
20 dBm	M1[1]	-39.25 dBn 813.95750 MH
10 dBm		
) dBm		
10 dBm-		
nit1_for_trace1 20 dBm		
30 dBm-		
40 dBm		
50 dBm		
60 dBm		
70 dBm		
Start 808.9625 MHz	501 pts	Stop 813.9625 MHz

Date: 14.JAN.2025 09:33:22





HIGH BAND EDGE BLOCK-10MHz-100%RB



HIGH BAND EDGE BLOCK-10MHz-100%RB

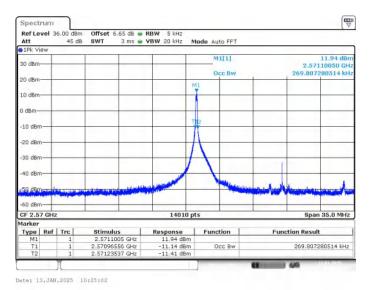
Att 45 dB SWT 1 SGL Count 100/100 TDF	50 dB 🖷 RBW 100 kHz 00 ms 🖷 VBW 500 kHz 🛛 Mode Auto Sweep	
20 dBm	M1[1]	-38.90 dBn 824.05250 MH:
10 dbm		024.03230 MIL
10 dBm		
) dBm		
10 dBm-		
nit1_for_trace1		
30 dBm		
40 d8m		
50 d8m		
60 dBm		
70 dBm-		
Start 824.0375 MHz	501 pts	Stop 829.0375 Mi

Date: 14.JAN.2025 09:35:04





LTE band 38 OBW: 1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset

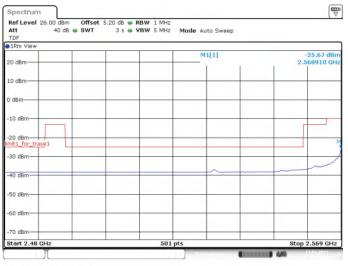
TDF	3 s 🖶 VBW 50 kH	Iz Mode Auto Sweep		
1Rm View		M1[1]		-42.49 dBm
20 dBm			2.56	999300 GH
LO dBm				
U UBIII				
) dBm				-
10.d0m				_
nit1_for_trace1				
20 dBm-				-
30 dBm-				
SU UBIN				
40 dBm				M
50 dBm เหตุรูเอาการจากจากสู่เพาะประการจากจากจาก		and a superior to company to should be should	And and a second and	manufactoria
ที่สาวของสาวสาวเมือง เมือง	AS ARAMAN AND A A A A A A A A A A A A A A A A A			
60 dBm				-
70 dBm				
Start 2,569 GHz	50	1 pts	Sto	p 2.57 GHz

Date: 13.JAN.2025 10:25:43



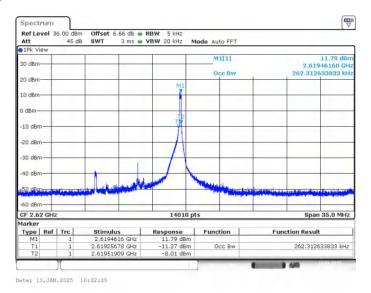


LOW BAND EDGE BLOCK-1RB-LOW_offset



Date: 13.JAN.2025 10:26:24

OBW: 1RB-HIGH_offset







Spectrum Ref Level 26.00 dBm Offset 5.20 dB RBW 10 kHz Att 40 dB SWT 3 s VBW 50 kHz Mode Auto Sweep TDF 1Rm Vie M1[1] 20 dBm 2.620 00100 GI 10 dBm 0 dBm hit1_for_ 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm -70 dBm-Start 2.62 GHz 501 pts Stop 2.621 GHz **III III** 440 Date: 13.JAN.2025 10:23:07

HIGH BAND EDGE BLOCK-1RB-HIGH_offset







Channel power

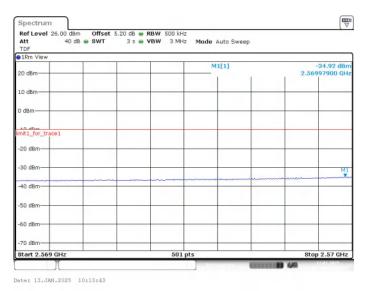
Att 40 dB 🖷 SWT	20 dB • RBW 10 kHz 3 s • VBW 30 kHz Mode Auto Sweet	0
TDF 1Rm View		
20 dBm-		
10 dBm	T-1	
D dBm		
-10 dBm		
-20 dBm		
-30 dBm		
40 dBm		
-50 dBm	wompower for an and the second	
CF 2.621 GHz		
CF 2.821 GHZ	500 pts	Span 2.0 MHz

Date: 13.JAN.2025 10:24:36





LOW BAND EDGE BLOCK-20MHz-100%RB



LOW BAND EDGE BLOCK-20MHz-100%RB

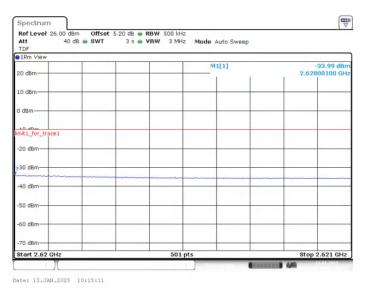


Date: 13.JAN.2025 10:14:24

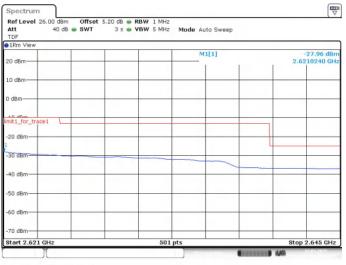




HIGH BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

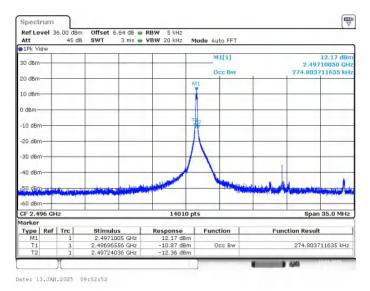


Date: 13.JAN.2025 10:15:53

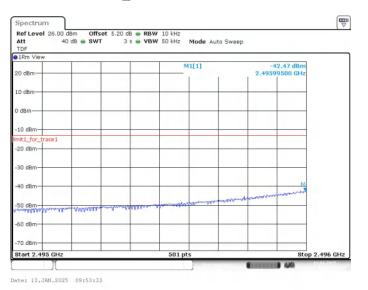




LTE band 41 OBW: 1RB-LOW_offset



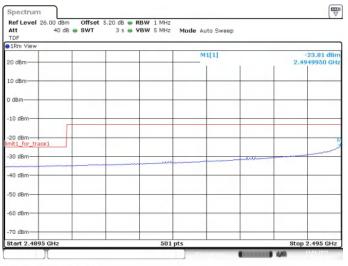
LOW BAND EDGE BLOCK-1RB-LOW_offset





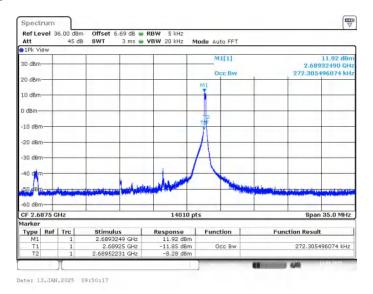


LOW BAND EDGE BLOCK-1RB-LOW_offset



Date: 13.JAN.2025 09:54:13

OBW: 1RB-HIGH_offset







Spectrum Ref Level 26.00 dBm Offset 5.20 dB RBW 10 kHz Att 40 dB SWT 3 s VBW 50 kHz Mode Auto Sweep TDF 1Rm Vie M1[1] 36.02 d 20 dBm 2.69 0100 G 10 dBm 0 dBm -10 dbm nit1_for_trace1 -20 dBm-30 dBm 40 dBm Ann her 50 dBm -60 dBm -70 dBm-Start 2.69 GHz 501 pts Stop 2.691 GHz Recently AN Date: 13.JAN.2025 09:50:57

HIGH BAND EDGE BLOCK-1RB-HIGH_offset







Channel power

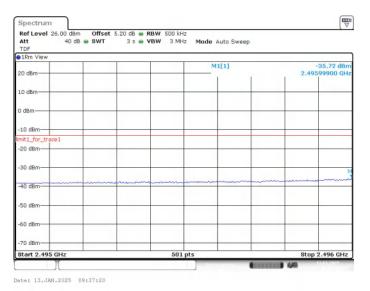
Att 40 dB 🖷 SWT	5.20 dB • RBW 10 kHz 3 s • VBW 30 kHz Mod	le Auto Sweep	0	
TDF 1Rm View		_		
20 dBm-				
10 dBm-	T_1.			
D dBm				
-10 dBm				
-20 dBm				
-30 dBm				
40 vilace				
-50 dBm		and the second se		
CF 2.691 GHz	500 pts			Span 2.0 MHz
Shannel Power Bandwidth 1.00 MHz	Power -31.6	8 dBm	Tx Total	31.68 dBm

Date: 13.JAN.2025 09:52:26





LOW BAND EDGE BLOCK-20MHz-100%RB



LOW BAND EDGE BLOCK-20MHz-100%RB

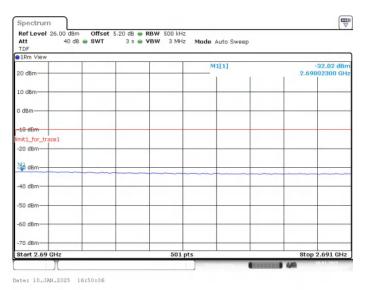


Date: 13.JAN.2025 09:38:01

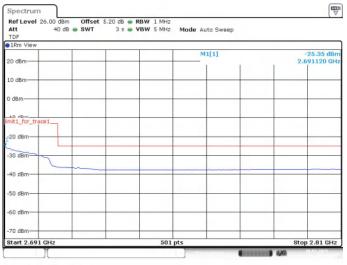




HIGH BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

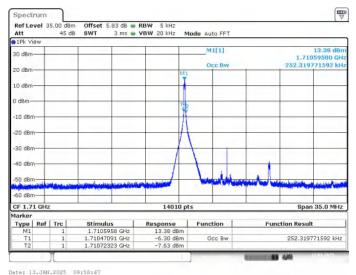


Date: 10.JAN.2025 16:50:46



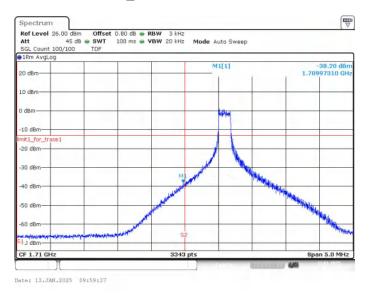


LTE band 66 OBW: 1RB-LOW_offset



Date: 1010/01/2020 0010014

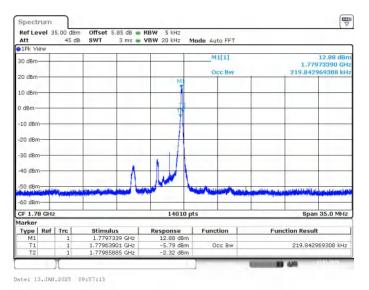
LOW BAND EDGE BLOCK-1RB-LOW_offset



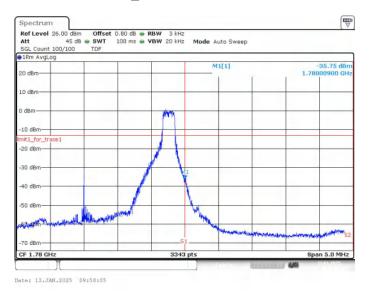




OBW: 1RB-HIGH_offset



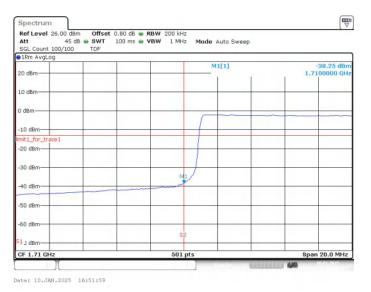
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



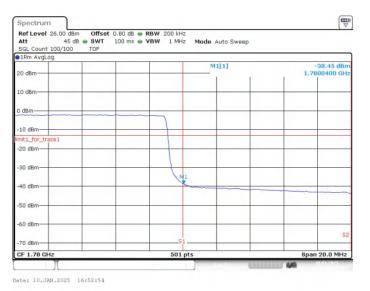




LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB







A.7 Conducted Spurious Emission

A.7.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated in the equipment, whichever is lower, without going below 9 kHz, up to at least the frequency given below:

(a) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(b) If the equipment operates at or above 10 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

- 2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
- 3. The number of sweep points of spectrum analyzer is greater than 2×span/RBW.

A. 7.2 Measurement Limit

Part 22.917, Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P) dB$.

Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Part 27.53(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, 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:(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

Part 27.53(f) states for operations in the 746–758 MHz,775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to -70dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals.





Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

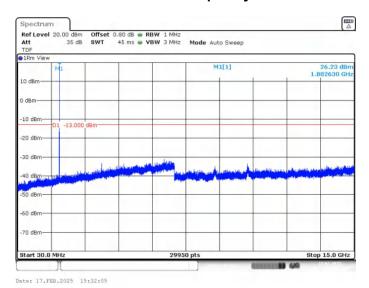
Part 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116Log₁₀(f/6.1) decibels or 50 + 10 Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.





A.7.3 Measurement result LTE band 2

NOTE: peak above the limit line is the carrier frequency.



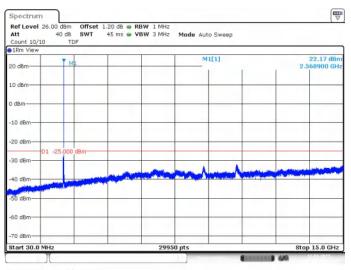
Spectrum Ref Level 20.00 dBm Att 35 dB TDF Offset 0.80 dB • RBW 1 MHz SWT 12.3 ms • VBW 3 MHz Mode Auto Sweep ●1Rm Viev M1[1] -31.99 dBr 15.730940 GH 10 dBm 1 dBm -10 dBm 01 -13.000 20 dBr 30 dBn ليا أدراده 40 dB 50 dBn 60 dBr 20 8310 pts Stop 19.1 GHz tart 15.0 GH Concernence and

Date: 17.FBB.2025 15:32:44





LTE band 7 NOTE: peak above the limit line is the carrier frequency.



Date: 13.JAN.2025 10:04:37

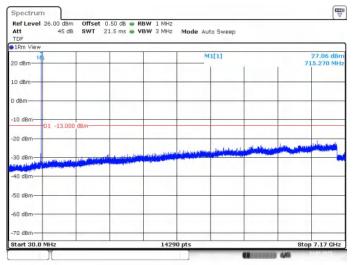
Ref Level 26.00 dBm Offset Att 40 dB SWT Count 10/10 TDF	1.20 dB • RBW 1 MHz 32.1 ms • VBW 3 MHz	Mode Auto Sweep	
1Rm View			
20 dBm		M1[1]	-29.13 dBm 15.766390 GH
10 dBm			
) dBm			
10 dBm-			
20 dBm			
30 dBn			and the state of the
40 dBm			
50 dBm			
60 dBm-			
-70 dBm			
Start 15.0 GHz	214	10 pts	Stop 25.7 GHz

Date: 13.JAN.2025 10:05:09





LTE band 12 NOTE: peak above the limit line is the carrier frequency.

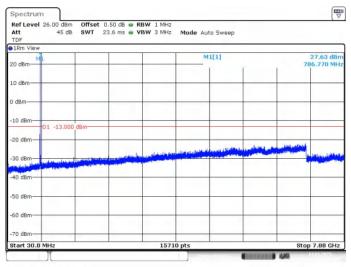


Date: 14.JAN.2025 15:30:32





LTE band 13 NOTE: peak above the limit line is the carrier frequency.



Date: 14.JAN.2025 15:27:24

Count 10/10 TI 1Rm View	DF				_			
20 dBm		-		M	1[1]			61.00 dBn 98857 MH:
LO dBm								
dBm								
10 dBm							-	
20 dBm		-						
30 dBm-01 -35.000	dBm							
40 dBm								
50 dBm								м1
60 dBm	and a straight	Whenthe	Marili Marchille	-	Hant Mitches	maniatumation	MINIMUMMI	Vinternit

Date: 14.JAN.2025 15:27:57





Att 45 Count 10/10		910.2 µs 🖷 '	BW 30 kH	iz Mode	Auto FFT			
1Rm View		-					-	61.91 dBm
20 dBm	_	-	-	M	1[1]			78645 MH
10 dBm								
dBm								
10 dBm		-					-	
-20 dBm								
20 0811								
30 dBm	_	-						
	000 dBm	-			10.5			
-40 dBm-								
-50 dBm								_
-60 dBm		A CONTRACT OF	11.000		d Latina			a contraction
70 dem	a helmedade Antique	e en frankrige fra	er and the second second	Million Marthew	WHITE HARD	epited/where	ed and a state of the state of	A STREET
Start 793.0 MHz			4170	nte			Stop	306.0 MHz

Date: 14.JAN.2025 15:28:30

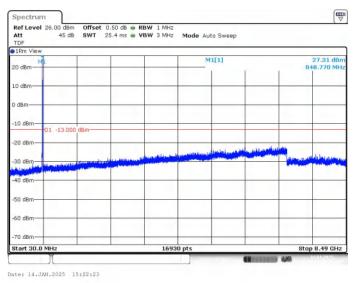
-48.25 dBr
1.603430 GH
MI

Date: 14.JAN.2025 15:29:03



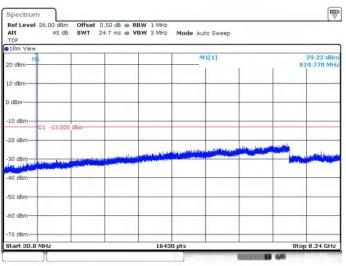


LTE band 26(824MHz~849MHz) NOTE: peak above the limit line is the carrier frequency.



LTE band 26(814MHz~824MHz)

NOTE: peak above the limit line is the carrier frequency.

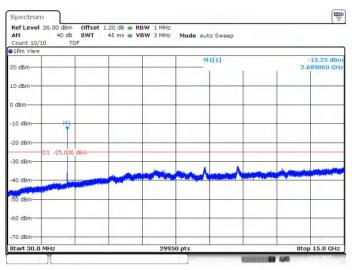


Date: 14.JAN.2025 15:23:12





LTE band 41 NOTE: peak above the limit line is the carrier frequency.



Date: 13.JAN.2025 10:06:10

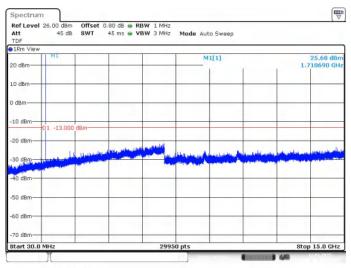
Ref Level 26.00 dBm Offset Att 40 dB SWT Count 10/10 TDF	1.20 dB • RBW 1 MHz 35.7 ms • VBW 3 MHz	Mode Auto Sweep	
1Rm View			
20 dBm-		M1[1]	-28.64 dBm 15.749440 GHz
10 dBm			
) dBm			
-10 dBm			
-20 dBm			
M1 01 -25.000 dBm 30 dBm	Real Contraction of the local		
40 dBm			
50 dBm-			
60 dBm-			
-70 dBm			
Start 15.0 GHz	2381	LO pts	 Stop 26.9 GHz

Date: 13.JAN.2025 10:06:43





LTE band 66 NOTE: peak above the limit line is the carrier frequency.



Date: 13.JAN.2025 10:07:56

Ref Level 26.00 dBm Att 45 dB TDF	Offset 0.80 dB SWT 8.4 ms	VBW 3 MHz	Mode Auto Sweep		
1Rm View			M1[1]		-21.83 dBm
20 dBm		-	1		15.822780 GH
10 dBm		_			_
0 dBm					_
-10 dBm-01 -13.000	dBm				
-20 dBm	M1	da i atta su an	mine to the state of the sure	1.000	
30 dBm					
40 d8m		_			-
50 d8m		-			
60 dBm					
70 dBm		_			
Start 15.0 GHz		5610	nts		Stop 17.8 GHz

Date: 13.JAN.2025 10:08:35





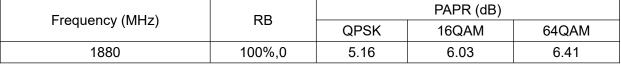
A.8 Peak-to-Average Power Ratio

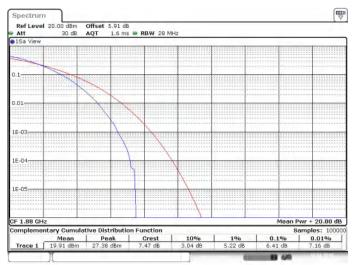
The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

- b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Record the maximum PAPR level associated with a probability of 0.1%.

Measurement results LTE Band 2, 20MHz



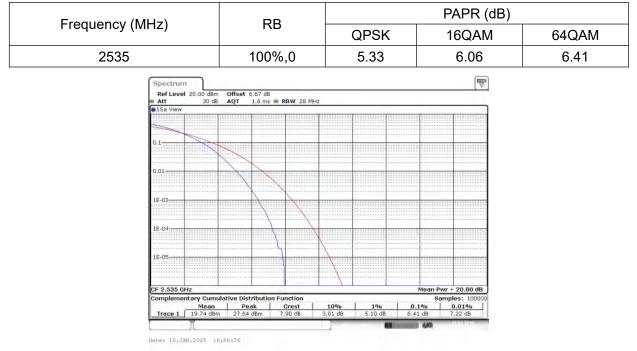


Date: 10.JAN.2025 16:56:21



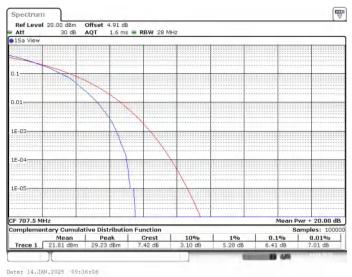


LTE Band 7, 20MHz



LTE Band 12, 10MHz

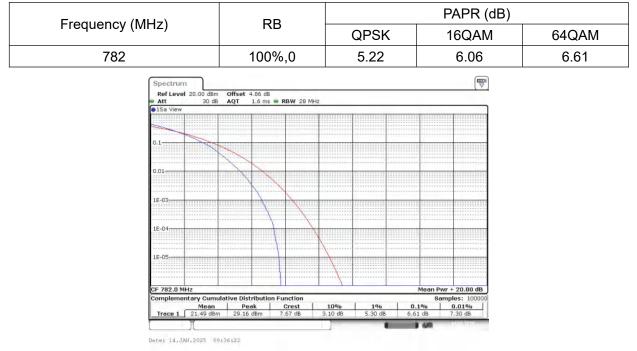
Frequency (MHz)	DD	PAPR (dB)		
Frequency (MHz)	RB	QPSK	PSK 16QAM 640	
707.5	100%,0	5.01	5.91	6.41





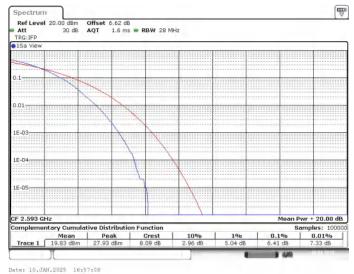


LTE Band 13, 10MHz



LTE Band 41, 20MHz

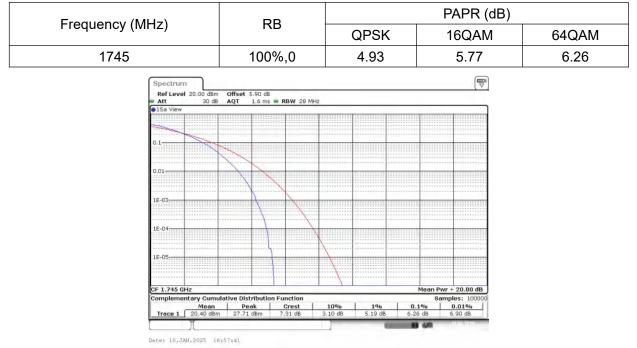
Frequency (MHz)	RB	PAPR (dB)		
Frequency (MHz)	RD	QPSK 16QAM 64	64QAM	
2593	100%,0	5.39	6.12	6.41







LTE Band 66, 20MHz







Annex B: Accreditation Certificate



END OF REPORT