



LTE Band 12+NR n77H n77H,100MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)					
	DFT-s-pi/2 BPSK	DFT-s-QPSK				
3840	101.600	101.300				

n77H,100MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



12:57:24 16.05.2022

n77H,100MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



12:57:47 16.05.2022





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(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: By a factor of not less than: 43 +10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337MHz; By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB below 2288 MHz; By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2365 MHz.

Part 27.53(n) states for mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Part 27.53(I) states for mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

Compliance with this paragraph (I)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.





A.6.2 Measurement result

LTE Band 12+NR n2

OBW: 1RB-LOW_offset



18:20:51 16.05.2022







OBW: 1RB-HIGH_offset



18:22:31 16.05.2022

HIGH BAND EDGE BLOCK-1RB-HIGH_offset



18:23:08 16.05.2022





LOW BAND EDGE BLOCK-20M-100%RB

MultiView	Spectrum								•
Ref Level 26. Att TDF "1"	00 dBm Offse 33 dB • SWT	t 2.20 dB ● RBV 3 s ● VBV	V 200 kHz V 1 MHz Mo	de Auto Sweep					_
1 Frequency S	weep			2			8		O1Rm View
20 dBm								M1[1]	-27,37 dBm 1,850 000 0 GHz-
10 dBm									
0 dBm									
-10 dBm					1				
limit1_for_trace1					1				
-20 dBm				N	ł				
-30 dBm									
~40 dBm									
-50 dBm									
-60 dBm									
s70 dBm				S	2				
CF 1.85 GHz			501 pts			2.0 MHz/	~		Span 20.0 MHz
	-					-	Measuring		16.05.2022 18:24:35

18:24:35 16.05.2022

HIGH BAND EDGE BLOCK-20M-100%RB



18:25:58 16.05.2022





LTE Band 2+NR n5 OBW: 1RB-LOW_offset



11:32:11 16.05.2022







OBW: 1RB-HIGH_offset



11:33:47 16.05.2022

HIGH BAND EDGE BLOCK-1RB-HIGH_offset



11:34:24 16.05.2022





LOW BAND EDGE BLOCK-20M-100%RB

MultiView	Spectrum								•
Ref Level 26. Att TDF "1"	00 dBm Offset 34 dB • SWT	t 1.70 dB ● RBV 3 s ● VBV	V 200 kHz V 1 MHz Mo	de Auto Sweep					
1 Frequency S	weep								O1Rm View
20 dBm								M1[1]	-25,72 dBm -824,000 0 MHz-
10 dBm					~				
0 dBm									
-10 dBm									
limit1_for_trace1					1				
-20 dBm				M	ł	0			
-30 dBm		~~~							
-40 dBm									
-50 dBm									
-60 dBm									
s70 dBm−				S	2				
CF 824.0 MHz			501 pts		2	2.0 MHz/			Span 20.0 MHz
	-						Measuring		16.05.2022 11:35:51

11:35:52 16.05.2022

HIGH BAND EDGE BLOCK-20M-100%RB



11:37:15 16.05.2022





LTE Band 5+NR n30 OBW: 1RB-LOW_offset



17:19:35 16.05.2022

requency Sweep		
	a) as as	01Rr
IBm		M1[1] -27
IBm		
sm		
dBm		
_for_trace1		
dBm		
dBm		
dBm		
JBm		
dBm		





LOW BAND EDGE BLOCK-1RB-LOW_offset



17:20:59 16.05.2022

Channal Power



17:21:16 16.05.2022





OBW: 1RB-HIGH_offset



17:07:56 16.05.2022

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

MultiView Spectr	um				•
Ref Level 26.00 dBm Of Att 34 dB • SV TDE "1"	Hfset 1.20 dB ● RBW 3 kHz NT 3 s ● VBW 10 kHz Mode	: Auto Sweep			
1 Frequency Sweep					O1Rm View
20 dBm				M1[1]	-29.54 dBm 15 005 00 GHz -
10 dBm					
0 dBm					
-10 dBm					
limit1_for_trace1 -20 dBm					
M1 730 dBm					
-40 dBm	man and a state of the state of				
50 dbu	· · · · · · · · · · · · · · · · · · ·	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
-50 06/1					
-60 dBm					
-70 dBm	F01 - 1				0.016.011-
2.313 GHZ	501 pts	1	e Measuring		16.05.2022 17:08:37

17:08:38 16.05.2022





HIGH BAND EDGE BLOCK-1RB-HIGH_offset

MultiView	Spectrum								-
Ref Level 26.	00 dBm Offse	t 1.20 dB 🖷 RBV	V 1 MHz						
Att TDF "1"	34 dB 🖷 SWT	3 s 👄 VBV	V 5 MHz Mode	Auto Sweep					
1 Frequency S	weep		-	8		<u> </u>			IRm View
20 dBm								M1[1]	0.43 dBm 316 000 0 GHz -
10 40									
10 08m									
M1 0 dBm									
dubin									
10 dBm						-			
limit1_for_trace1					F				
-20 dBm									
-30 dBm-					-1				
-40 dBm									
-50 dBm									
-60 dBm-									
00 0011									
-70 dBm									
2.316 GHz			501 pts	6	4	.9 MHz/			2.365 GHz
	-						Measuring		16.05.2022 17:09:37

17:09:38 16.05.2022

Channal Power



17:09:54 16.05.2022





LOW BAND EDGE BLOCK-10M-100%RB

MultiView	Spectrum								
Ref Level 26 Att TDF "1"	.00 dBm Offse 34 dB • SWT	t 1.20 dB ● RBV 3 s ● VBV	V 100 kHz V 500 kHz Mo	de Auto Sweep					
1 Frequency S	Sweep					(O1Rm View
20 dBm								M1[1] 2.	-29.50 dBm 304 999 00 GHz-
10 dBm						c			
0 dBm									
-10 dBm									
limit1_for_trace1									
-20 dBm									
-30 dBm									M1
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm									
2.304 GHz	58		501 pts		10	0.0 kHz/		10	2.305 GHz
	~					7	Measuring		16.05.2022 17:11:27

17:11:27 16.05.2022

LOW BAND EDGE BLOCK-10M-100%RB

MultiView S	pectrum							
Ref Level 26.00 dB Att 34 d	m Offset 1.20 dB ● RB dB ● SWT 3 s ● VB	W 1 MHz NV 5 MHz Mode	Auto Sweep					
1 Frequency Sweet	0							01Rm View
20 dBm							M1[1]	-16.59 dBm
20 0011								000000000
10 dBm				2				
0 dBm								
10 40m								
-10 080								M1
-20 dBm								/
-30 dBm								
limit1_for_trace1								
-40 dBm								
-50 dBm				-				
-60 dBm								
-70 dBm								
2.288 GHz		501 pts		1	.6 MHz/		1	2.304 GHz
		pro				Measuring		16.05.2022 17:12:09

17:12:09 16.05.2022





HIGH BAND EDGE BLOCK-10M-100%RB

MultiView - Spectrum	
Ref Level 26.00 dBm Offset 1.20 dB RBW 100 kHz Att 34 dB SWT 3 s VBW 500 kHz Mode Auto Sweep The "1" 3 s VBW 500 kHz Mode Auto Sweep	_
1 Frequency Sweep	o 1Rm View
20 dBm-	M1[1] -30.39 dBm -2.315-001-00-GHz-
10 dBm	
0 d8m-	
-10 dBm	
-20 dBm-	
M1 30.d8m	
-40 dBm	
-50 dBm	
-60 d8m	
-70 dBm	
2.313 GHZ 201 pts 100.0 kHz/	2.316 GHZ suring 16.05.2022 17:13:01

17:13:01 16.05.2022

HIGH BAND EDGE BLOCK-10M-100%RB



17:13:43 16.05.2022





LTE Band 5+NR n66 OBW: 1RB-LOW_offset



18:27:06 16.05.2022







OBW: 1RB-HIGH_offset



18:28:46 16.05.2022

HIGH BAND EDGE BLOCK-1RB-HIGH_offset



18:29:23 16.05.2022





LOW BAND EDGE BLOCK-40M-100%RB

MultiView	Spectrum								
Ref Level 26. Att TDF "1"	00 dBm Offse 33 dB • SWT	t 2.20 dB • RB 3 s • VB	₩ 500 kHz N 3 MHz Mo	de Auto Sweep					
1 Frequency S	Sweep								O1Rm View
20 dBm								M1[1]	-16.19 dBm .710 000 0 GHz-
10 dBm									
0 dBm									
-10 dBm									
limit1_for_trace1									
-30 dBm									
-40 dBm									
-50 dBm							-		
-60 dBm									
570 dBm				9	2				
CF 1.71 GHz			501 pts			2.0 MHz/	16		Span 20.0 MHz
	-						Measuring		16.05.2022 18:30:49

18:30:50 16.05.2022

HIGH BAND EDGE BLOCK-40M-100%RB

MultiView	Spectrum							
Ref Level 26.0 Att	00 dBm Offset 2.20 dB 33 dB • SWT 3 s	RBW 500 kHz VBW 3 MHz Mod	le Auto Sweep					
1 Frequency S	weep							01Rm View
20 dBm							M1[1]	-16,44 dBm . 780 000 0 GHz -
10 dBm								
0. d9m								
0 dBm								
-10 dBm			1					
limit1_for_trace1			1	1				
-30 dBm								
-40 dBm								
-50 dBm					2			
-60 dBm		_						
-70 dBm			s	µ				52
CF 1.78 GHz		501 pts		2	.0 MHz/		1	Span 20.0 MHz
	-				7	Measuring		16.05.2022 18:32:12

18:32:12 16.05.2022





LTE Band 12+NR n77L OBW: 1RB-LOW_offset



12:58:55 16.05.2022







LOW BAND EDGE BLOCK-1RB-LOW_offset

MultiView	- Spectrum								
Ref Level 26.	.00 dBm Offse	t 9.50 dB 🖷 RBV	V 500 kHz						
Att TDF "1"	26 dB 🖷 SWT	3 s 🖷 VBV	V 3 MHz Mo	de Auto Sweep					
1 Frequency S	Sweep		8		8				o1Rm View
20 dBm								M1[1] 	-25.66 dBm 48 996 00 GHz-
10 dBm									
0 dBm									
-10 dBm									
limit1_for_trace1									
-20 dBm									
									mann
-30 dBm	5		100 100 100 00000	mmmm	mmm	www.www	www.Marah	Marker to to t	
	mon		100000000000000000000000000000000000000	1		-			
-40 dBm									
-50 dBm									
-60 d8m-									
00 0011									
-70 dBm									
3.445 GHz			501 pts		40	0.0 kHz/			3.449 GHz
	-						Measuring		16.05.2022 13:00:16

13:00:16 16.05.2022

OBW: 1RB-HIGH_offset



13:01:22 16.05.2022





HIGH BAND EDGE BLOCK-1RB-HIGH_offset



13:02:04 16.05.2022

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

MultiView	Spectrum								
Ref Level 26. Att	00 dBm Offse 26 dB = SWT	t 9.50 dB ● RB' 3 s ● VB'	WI 500 kHz WI 3 MHz Moo	de Auto Sweep					
TDF "1" 1 Frequency S	weep								01Rm View
20 dBm								M1[1]	-28.69 dBm 51 004 00 GHz -
10 dBm									
0 dBm									
-10 dBm									
limit1_for_trace1									
-20 dBm									
-30°dBm-~~~~	ann marth	mm-mm	· · · · · · · · · · · · · · · · · · ·	mmm		mmmmm	mmmmm		
-40 dBm						1.1.1.1.1			anow to have
-50 dBm									
-60 dBm									
-70 dBm									
3.551 GHz			501 pts		40	0.0 kHz/			3.555 GHz
Contraction in the	-		001 pts			/	Measuring		16.05.2022 13:02:44

13:02:44 16.05.2022





LOW BAND EDGE BLOCK-90M-100%RB

MultiView	Spectrum							-
Ref Level 26. Att TDF "1"	00 dBm Offset 9.5 26 dB - SWT	0 dB ● RBW 200 kHz 3 s ● VBW 1 MHz Mod	e Auto Sweep					_
1 Frequency S	weep							O1Rm View
20 dBm							M1[1] 	-27.71 dBm 49 996 00 GHz -
10 dBm								
0 dBm								a marine and a second s
-10 dBm							man	
limit1_for_trace1							MM	
-20 dBm-			MI	wwwww	MANNAN	MANNA IN III		
WWWWWWWWW	AMAMAMAMAMA	M.M.M.M.M.M.M.M.M.M.M.M.	144 444 444 444 444 444	CO. C.				
-40 dBm								
-50 dBm								
-60 dBm								
a–≩Q dBm			S2					
3.449 GHz		501 pts		20	0.0 kHz/			3.451 GHz
	~				7	Measuring		16.05.2022 13:04:17

13:04:17 16.05.2022

LOW BAND EDGE BLOCK-90M-100%RB

MultiView	• Spectrum								
Ref Level 26.	00 dBm Offse 26 dB • SWT	t 9.50 dB ● RBN 3 s ● VBN	V 500 kHz V 3 MHz Mo	de Auto Sweep					
1 Frequency S	Sweep								01Rm View
20 dBm								M1[1]	-29.82 dBm 4 8 996 00 GHz -
10 dBm					2				
0 dBm									
-10 dBm-									
limit1_for_trace1									
-20 dBm									
-30 dBm					000000000000000000000000000000000000000	MUMMAAAAAAAAAA	www.wrwn	WWWWWWW	MMMMMMMMM
1240 abm	n www.www.www.www.www.www.www.www.www.ww	www.www.www	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	VW~WWWWW	AAA AAA Aaa ada aaa	******			
-50 dBm									
-60 dBm									
-70 dBm									
3.445 GHz			501 nts		40	0.0 kHz/			3.449 GHz
2.110 0112			001 013				Measuring		16.05.2022
									13:04:57

13:04:57 16.05.2022





HIGH BAND EDGE BLOCK-90M-100%RB

MultiView	 Spectrum 	Ľ.							
Ref Level 26 Att TDF "1"	00 dBm Offse 26 dB • SWT	t 9.50 dB ● RB' 3 s ● VB'	₩ 200 kHz ₩ 1 MHz Mo	de Auto Sweep					_
1 Frequency S	Sweep						8		O1Rm View
20 dBm								M1[1] 	-32.53 dBm 50 099 80 GHz-
10 dBm									
0 dBm									
-10 dBm									
limit1_for_trace1 -20 dBm									
-30 dBm		m			M1				
-40 dBm				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				·····	*********
-50 dBm									
-60 dBm									
-70 dBm				s	1				S2
3.549 GHz			501 pts		20	00.0 kHz/			3.551 GHz
	~					Ŧ	Measuring		16.05.2022 13:06:26

13:06:26 16.05.2022

HIGH BAND EDGE BLOCK-90M-100%RB

MultiView	• Spectrum								
Ref Level 26 Att	00 dBm Offse 26 dB • SWT	t 9.50 dB • RBV 3 s • VBV	NV 500 kHz NV 3 MHz Mo	de Auto Sweep					
TDF "1" 1 Frequency S	Sweep								01Rm View
20 dBm								M1[1]	-29.32 dBm 51 523 00 GHz-
10 dBm									
0 dBm									
-10 dBm									
limit1_for_trace1 -20 dBm									
~- 30-dBm	M1			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		·····			
-40 dBm									
-50 dBm									
60 d0m									
-ou ubii									
-70 dBm- 3.551 GHz			501 pts		40	00.0 kHz/			3.555 GHz
							Measuring		16.05.2022 13:07:06

13:07:07 16.05.2022