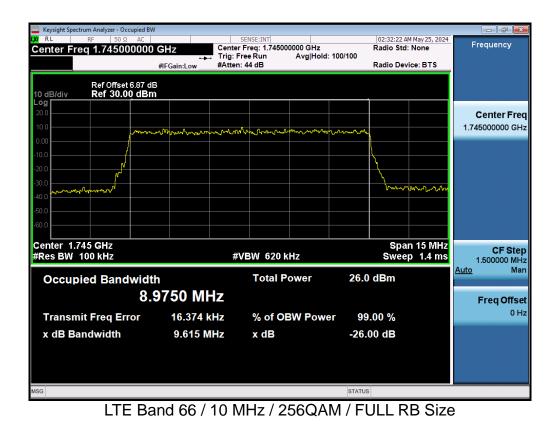


Keysight Spectrum Analyze	r - Occupied BW						
x RL RF Center Freq 1.77		Hz Center Trig: F	SENSE:INT Freq: 1.775000000 GHz ree Run Avg Ho : 44 dB	ld: 100/100	11:15:42 Pl Radio Std: Radio Dev		Frequency
	ffset 6.87 dB 80.00 dBm						
20.0 10.0			᠘ᡁᠣᢕᠧᡵᡊᡀᡘᢛᡟᡃᡗᠧᡥ᠇ᢦ᠕ᢩᠵᠬᢛ᠕ᠬ	man			Center Fr 1.775000000 G
0.00	1						
30.0 40.0					- Vm	ᠬᠬ᠆ᡁᠴᡅᠰ᠕ᢧᢣ	
50.0 60.0							
enter 1.775 GHz Res BW 100 kHz		#	VBW 620 kHz			n 15 MHz p 1.4 ms	CF St 1.500000 M
Occupied Ba		73 MHz	Total Power	27.8	dBm		<u>Auto</u> M
Transmit Freq		-4.363 kHz	% of OBW Pov	ver 99	.00 %		Freq Offs 0
x dB Bandwid	th	9.548 MHz	x dB	-26.0	00 dB		
G				STATUS			

LTE Band 66 / 10 MHz / 64QAM / FULL RB Size



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Keysight Spectrum Analyzer - Occupied	d BW					
RL         RF         50 Ω         AC           Center Freq         1.7450000		SENSE:INT Center Freq: 1.74500 Trig: Free Run #Atten: 44 dB	0000 GHz Avg Hold: 100/100	04:32:34 PM Radio Std: Radio Devi		Frequency
Ref Offset 6.87 10 dB/div <b>Ref 30.00 d</b>				_		
20.0 10.0	when alone a second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ᡃᢦᠬᡙᠲᢦᡘ᠆ᠬ᠉᠋ᡀᡘᡢᠫ	~~		Center Freq 1.745000000 GHz
-10.0						
-30.0 -30.0 -40.0 mm, fr Ann Mann				hum	ᠬᢦᠰᡐᠵᡇᡅᡪᡗᢕ	
-50.0						
Center 1.745 GHz #Res BW 51 kHz		#VBW 300 k	Hz		7.5 MHz 2.733 ms	CF Step 750.000 kHz
Occupied Bandwi		Total P	ower 29	9.9 dBm		<u>Auto</u> Man
Z Transmit Freq Error	4.4778 MH 5.440 ki		3W Power	99.00 %		Freq Offset 0 Hz
x dB Bandwidth	4.801 MI	Hz x dB	-2	6.00 dB		
MSG			STA	TUS		

LTE Band 66 / 5 MHz / QPSK / FULL RB Size

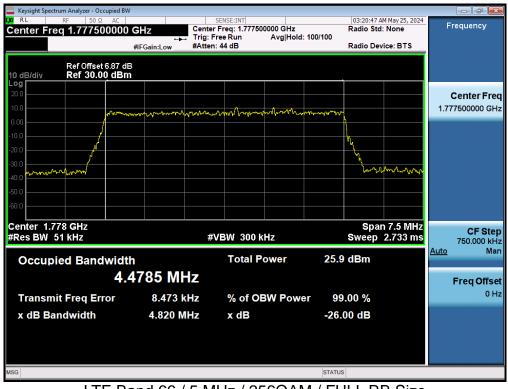


LTE Band 66 / 5 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied B	1				
α RL RF 50Ω AC Center Freq 1.745000000	Trig: F	SENSE:INT r Freq: 1.745000000 GHz Free Run Avg Hold 1: 44 dB	Radio Std		Frequency
Ref Offset 6.87 d 10 dB/div <b>Ref 30.00 dBr</b> -og					
20.0	ᢣᡀᠳᠬ᠊᠊ᡗ᠆᠕᠆᠕ᠬᢓᠯᡟᡗᠰᡁᢂᡟᡟᠬᠳᡐ᠇ᢑ	montermanter	annorman		Center Fre 1.745000000 GH
40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0			to the	$\sim$	
50.0					
enter 1.745 GHz Res BW 51 kHz	#	VBW 300 kHz		n 7.5 MHz 2.733 ms	CF Ste 750.000 ki
Occupied Bandwid	հ 4774 MHz	Total Power	27.9 dBm		Auto Ma Freg Offs
Transmit Freq Error	4.597 kHz	% of OBW Powe	er 99.00 %		01
x dB Bandwidth	4.813 MHz	x dB	-26.00 dB		
G			STATUS		

LTE Band 66 / 5 MHz / 64QAM / FULL RB Size



LTE Band 66 / 5 MHz / 256QAM / FULL RB Size



🤤 Keysight Spectrum Analyzer - Occu	upied BW					
LXIRL RF 50Ω		SENSE:INT Center Freq: 1.74500	000 GHz	05:11:04 PM Radio Std:	May 24, 2024	Frequency
Center Freq 1.74500	0000 GHZ	Trig: Free Run	Avg Hold: 100/100	Raulo Stu.	None	
	#IFGain:Low	#Atten: 44 dB		Radio Devi	ice: BTS	
Ref Offset 6	5.87 dB					
10 dB/div Ref 30.00						
20.0						
		aman	0			Center Freq
10.0	ᢧᢪᢦᡁᡟᡊ᠆ᢆᢦᡄᢪᠧ᠋ᡔᡕᠵᡅᠫᡟ᠆ᡐᠰᠫ	~Phant have been from the work		~~~		1.745000000 GHz
0.00						
-10.0						
-20.0						
-30.0				<u>_</u>		
-40.0 MMMM				6400	llown <sub>www</sub> all	
-50.0						
-60.0						
-00.0						
Center 1.745 GHz				Span	4.5 MHz	CF Step
#Res BW 30 kHz		#VBW 180 k	Hz	Sweep	4.667 ms	450.000 kHz
		Total P		).8 dBm		<u>Auto</u> Man
Occupied Bandy			ower 28	9.8 aBm		
	2.6862 MH	lz				Freq Offset
Tana a sa it Eas a Eas		N - 6 05		00 00 0/		0 Hz
Transmit Freq Erro	or -834	HZ % OT UE	SW Power	99.00 %		
x dB Bandwidth	2.922 M	Hz x dB	-2	6.00 dB		
MSG			STA	TUS		
			014			



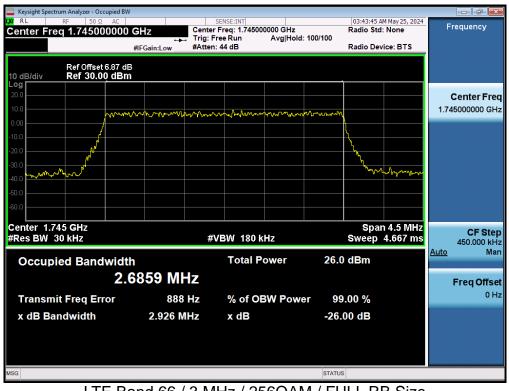


LTE Band 66 / 3 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied B	N				
RL RF 50Ω AC Center Freq 1.745000000	Trig: f	SENSE:INT r Freq: 1.745000000 GHz Free Run Avg Hold n: 44 dB	Radio d: 100/100	26 AM May 25, 2024 Std: None Device: BTS	Frequency
Ref Offset 6.87 d 10 dB/div Ref 30.00 dB/ Log					
20.0 10.0	monodowa	M.AArabasanana Marana	Vml woto Veron		Center Fre 1.745000000 GH
-10.0					
-30.0 -40.0				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
-50.0					
Center 1.745 GHz #Res BW 30 kHz	#	VBW 180 kHz		oan 4.5 MHz p   4.667 ms	CF Ste 450.000 kH
Occupied Bandwid	<sup>th</sup> 6919 MHz	Total Power	27.6 dBm		<u>Auto</u> Ma
Transmit Freq Error	-3.093 kHz	% of OBW Pow	er 99.00 %		Freq Offse 0 ⊢
x dB Bandwidth	2.922 MHz	x dB	-26.00 dB		
SG			STATUS		

LTE Band 66 / 3 MHz / 64QAM / FULL RB Size



LTE Band 66 / 3 MHz / 256QAM / FULL RB Size



🔤 Keysight Spectrum Analyzer - Occu	·					
RL RF 50 Ω     Center Freq 1.779300		SENSE:INT		Radio Std:	1 May 24, 2024 None	Frequency
	#IFGain:Low	↔ Trig: Free Run w #Atten: 44 dB	Avg Hold: 100/	100 Radio Devi	ice: BTS	
Ref Offset 6 10 dB/div Ref 30.00						
Log 20.0 10.0		man and a second	ana ang ang ang ang ang ang ang ang ang	~		Center Freq 1.779300000 GHz
0.00 -10.0						
-20.0						
-40.0 Vm/0-4/Mpm//hpm//				- mang	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
-60.0						
Center 1.779 GHz #Res BW 15 kHz		#VBW 82	kHz		2.1 MHz 8.733 ms	<b>CF Step</b> 210.000 kHz
Occupied Bandy	width	Tota	l Power	29.0 dBm		<u>Auto</u> Man
	1.0806	MHz				Freq Offset
Transmit Freq Erro	or -1.3	62 kHz % of	<b>OBW Power</b>	99.00 %		0 Hz
x dB Bandwidth	1.20	4 MHz x dB		-26.00 dB		
MSG				STATUS		

LTE Band 66 / 1.4 MHz / QPSK / FULL RB Size



LTE Band 66 / 1.4 MHz / 16QAM / FULL RB Size



www.www.com analyzer - Occupied BW			
Marl RF 50Ω AC Center Freq 1.710700000	GHz SENSE:INT Center Freq: 1.710700000 GH Trig: Free Run Avg t #FGain:Low #Atten: 44 dB	I2:45:19 AM May 25, 2024 Hz Radio Std: None Hold: 100/100 Radio Device: BTS	Frequency
Ref Offset 6.86 dB 10 dB/div <b>Ref 30.00 dBm</b> Log			
20.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Center Freq 1.710700000 GHz
-10.0			
-30.0 -40.0 Manmana and a second seco		mann	
-60.0 Center 1.711 GHz		Span 2.1 MHz	
#Res BW 15 kHz	#VBW 82 kHz	Sweep 8.733 ms	CF Step 210.000 kHz Auto Man
Occupied Bandwidth 1.0	Total Power	27.8 dBm	Freq Offset
Transmit Freq Error	1.944 kHz % of OBW Pe	ower 99.00 %	0 Hz
x dB Bandwidth	1.221 MHz x dB	-26.00 dB	
MSG		STATUS	

LTE Band 66 / 1.4 MHz / 64QAM / FULL RB Size

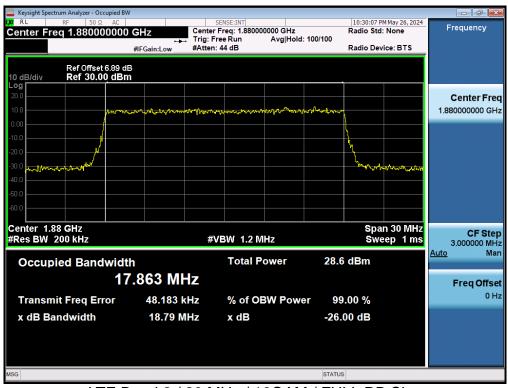


LTE Band 66 / 1.4 MHz / 256QAM / FULL RB Size

# 8.1.7. LTE Band 2

Keysight Spectrum Analyzer - Occupied BW SENSE:INT Center Freq: 1.880000000 GHz Trig: Free Run Avg|Hol #Atten: 44 dB R 07:00:20 PM May 26, 2024 Radio Std: None Center Freq 1.880000000 GHz Frequency Avg|Hold: 100/100 #IFGain:Low Radio Device: BTS Ref Offset 6.89 dB Ref 30.00 dBm 0 dB(div рg **Center Freq** 1.880000000 GHz Center 1.88 GHz #Res BW 200 kHz Span 30 MHz Sweep 1 ms CF Step 3.000000 MHz #VBW 1.2 MHz Auto Man **Total Power** 29.7 dBm **Occupied Bandwidth** 17.850 MHz Freq Offset 0 Hz **Transmit Freq Error** 12.240 kHz % of OBW Power 99.00 % x dB Bandwidth 18.95 MHz x dB -26.00 dB

LTE Band 2 / 20 MHz / QPSK / FULL RB Size

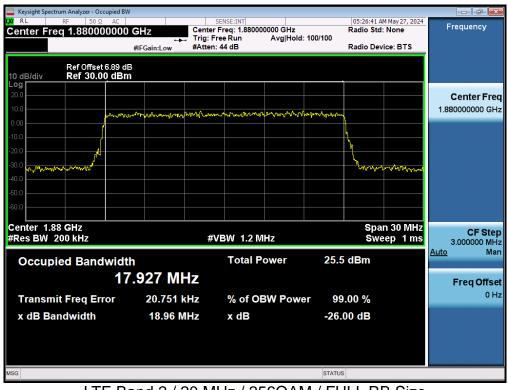


LTE Band 2 / 20 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BW					
RL         RF         50 Ω         AC           Center Freq         1.8800000000		SENSE:INT	Radio St	AM May 27, 2024 d: None	Frequency
	Trig: F	Free Run Avg Hold: :: 44 dB		evice: BTS	
Ref Offset 6.89 dE 10 dB/div Ref 30.00 dBm					
20.0 10.0	walter of the second second second	๛๏๗๛๛๛๛๚๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	man		Center Freq 1.88000000 GHz
-10.00					
-20.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				******	
-40.0					
-60.0					
Center  1.88 GHz #Res BW  200 kHz	#	VBW 1.2 MHz		an 30 MHz /eep   1 ms	CF Step 3.000000 MHz
Occupied Bandwidt	n	Total Power	27.6 dBm		<u>Auto</u> Man
17	.872 MHz				Freq Offset
Transmit Freq Error	34.695 kHz	% of OBW Powe	er 99.00 %		0 Hz
x dB Bandwidth	18.93 MHz	x dB	-26.00 dB		
MSG			STATUS		

LTE Band 2 / 20 MHz / 64QAM / FULL RB Size



LTE Band 2 / 20 MHz / 256QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BW						
KL RF 50 Ω AC     Center Freq 1.902500000 (		SENSE:INT nter Freq: 1.9025000		07:41:50 P Radio Std	M May 26, 2024 None	Frequency
	tipe Tri	g: Free Run tten: 44 dB	Avg Hold: 100/100	Radio Dev	ice: BTS	
Ref Offset 6.89 dB 10 dB/div Ref 30.00 dBm				_		
20.0 10.0	waynanthagan	mar and a second and a second	wayl mayawy allow			Center Freq 1.902500000 GHz
-10.0				-		
-20.0 100 100 100 100 100 100 100 100 100				hole hole and hole an	mmmm	
-40.0						
Center 1.903 GHz #Res BW 150 kHz		#VBW 910 kH	z		22.5 MHz ep 1 ms	<b>CF Step</b> 2.250000 MHz
Occupied Bandwidth		Total Po	wer 29	.6 dBm		<u>Auto</u> Man
13.	411 MHz					Freq Offset
Transmit Freq Error	12.479 kHz	% of OBV	N Power 9	99.00 %		0 Hz
x dB Bandwidth	14.26 MHz	x dB	-20	6.00 dB		
MSG			STAT	US		

LTE Band 2 / 15 MHz / QPSK / FULL RB Size



LTE Band 2 / 15 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied B	N				
X RL RF 50 Ω AC Center Freq 1.857500000	Trig: I	SENSE:INT r Freq: 1.857500000 GHz Free Run Avg Hold n: 44 dB	Radio St : 100/100	AM May 27, 2024 d: None evice: BTS	Frequency
Ref Offset 6.89 d 10 dB/div Ref 30.00 dBr					
20.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	marna	mum		Center Fre 1.857500000 G⊦
20.0 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			N N N N N N N N N N N N N N N N N N N	ᠬ᠆᠁ᡊᡣᢛᠰᢩ᠕ᢥ	
50.0					
center 1.858 GHz Res BW 150 kHz	#	VBW 910 kHz		122.5 MHz veep 1ms	CF Ste 2.250000 MH
Occupied Bandwid		Total Power	27.5 dBm		<u>Auto</u> Ma
1;	3.407 MHz				Freq Offs
Transmit Freq Error	42.589 kHz	% of OBW Powe	er 99.00 %		01
x dB Bandwidth	14.15 MHz	x dB	-26.00 dB		
6G			STATUS		

LTE Band 2 / 15 MHz / 64QAM / FULL RB Size



LTE Band 2 / 15 MHz / 256QAM / FULL RB Size



🔤 Keysight Spectrum Analyzer - Occu							
RL         RF         50 Ω           Center Freq 1.905000		SENSE:INT Center Freq: 1.90500	0000 GHz		5 PM May 26, 2024 td: None	Freque	ncy
	#IFGain:Low	Trig: Free Run #Atten: 44 dB	Avg Hold: 10		evice: BTS		
Ref Offset 6 10 dB/div Ref 30.00							
20.0	many	ᢦ᠆ᢩᠺᠧᡔ <sup>ᡱ</sup> ᡄᠮᠧ᠆ᡗᢛᡘᡃᠬᡏᡒᡀᡊᢤᡨᠰᡙᡤ	www.www.w	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Cent 1.905000	e <b>r Freq</b> 000 GHz
-20.0							
-30.0 2000					ᢉ᠇ᢛ᠆ᠰᢧ᠁ᡒᢠᡃᡟᢪᡟ᠂ᠰᡁᡇ		
-60.0							
Center 1.905 GHz #Res BW 100 kHz		#VBW 620 k	Hz		oan 15 MHz eep 1.4 ms	1.500	CF Step
Occupied Bandy		Total P	ower	29.4 dBm		<u>Auto</u>	Man
	8.9578 MH					Fred	<b>Offset</b> 0 Hz
Transmit Freq Erro			3W Power				0112
x dB Bandwidth	9.554 MI	Hz x dB		-26.00 dB			
MSG				STATUS			

LTE Band 2 / 10 MHz / QPSK / FULL RB Size

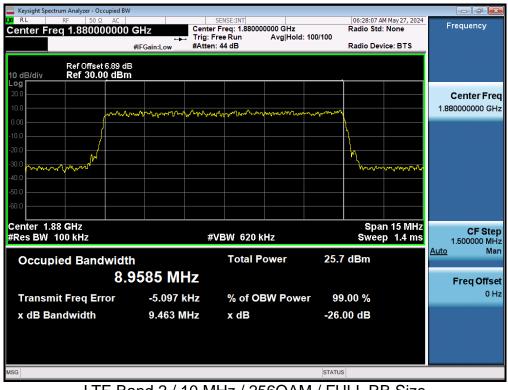


LTE Band 2 / 10 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied	BW				
RL         RF         50 Ω         AC           Center Freq 1.85500000         Δ <thδ< th=""><th>Trig: I</th><th>SENSE:INT r Freq: 1.855000000 GHz Free Run Avg Holo n: 44 dB</th><th>Radi d: 100/100</th><th>55:09 AM May 27, 2024 o Std: None o Device: BTS</th><th>Frequency</th></thδ<>	Trig: I	SENSE:INT r Freq: 1.855000000 GHz Free Run Avg Holo n: 44 dB	Radi d: 100/100	55:09 AM May 27, 2024 o Std: None o Device: BTS	Frequency
Ref Offset 6.89 10 dB/div Ref 30.00 dB Log					
20.0	ᡔᢇᢧᢎᢊᡊᠯᡡᡗᠴᡗᡡ᠋᠆ᡥᢦᡢᢧᡨᢦ᠊ᡐ᠋ᢪᡒᡀ	Margar Maran Maran	matur		Center Fred 1.855000000 GH:
-10.0					
-30.0			\_	ᢦ᠋ᡶᠰ᠇ᠯ᠕ᡁᡨᠬᠬ᠕ᡟ	
-50.0					
Center 1.855 GHz #Res BW 100 kHz	#	VBW 620 kHz	S	Span 15 MHz weep   1.4 ms	CF Ste 1.500000 MH
Occupied Bandwid	լ <sub>th</sub> .9733 MHz	Total Power	27.9 dB	m	<u>Auto</u> Ma
O Transmit Freq Error	-14 Hz	% of OBW Pow	ver 99.00	%	Freq Offse 0 H
x dB Bandwidth	9.607 MHz	x dB	-26.00 d	В	
ASG			STATUS		

LTE Band 2 / 10 MHz / 64QAM / FULL RB Size

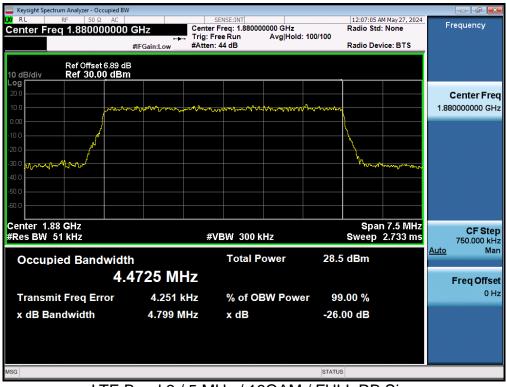


LTE Band 2 / 10 MHz / 256QAM / FULL RB Size





LTE Band 2 / 5 MHz / QPSK / FULL RB Size



LTE Band 2 / 5 MHz / 16QAM / FULL RB Size



	ım Analyzer - Occupied BV	1			AM May 27, 2024		
	RF 50Ω AC q <b>1.907500000</b>	50 Ω AC SENSEINT 507500000 GHz #IFGain:Low #Atten: 44 dB				Frequency	
10 dB/div Log	Ref Offset 6.9 dB Ref 30.00 dBn						
20.0 10.0		white manager way where the second	LAN Mar	- Mar Mar J		Center Fred 1.907500000 GH;	
0.00 -10.0	^						
-20.0 -30.0	mm				And more		
-40.0							
-60.0 Center 1.90					n 7.5 MHz	CF Ster	
#Res BW 5	1 kHz	#	#VBW 300 kHz	z Sweep 2.733 ms 750.000 l			
Occupie	ed Bandwidt		Total Power	28.1 dBm		<u>Auto</u> Mar	
		4820 MHz				Freq Offse	
	t Freq Error	-14.615 kHz	% of OBW Powe			UN	
x dB Ban	dwidth	4.827 MHz	x dB	-26.00 dB			
ISG				STATUS			

LTE Band 2 / 5 MHz / 64QAM / FULL RB Size

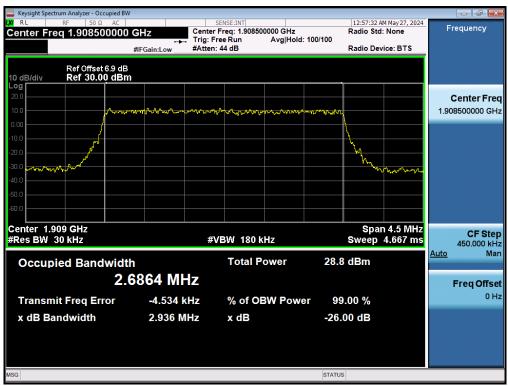


LTE Band 2 / 5 MHz / 256QAM / FULL RB Size



LX RL RF 50 Ω AC SENSE:INT 09:15:21 PM May 26, 2024	
	requency
Trig: Free Run Avg Hold: 100/100	
#IFGain:Low #Atten: 44 dB Radio Device: BTS	
Ref Offset 6.89 dB 10 dB/div Ref 30.00 dBm	
Log	
	Center Freq
	80000000 GHz
-10.0	
-20.0	
-30.0 monor and the second sec	
-40.0	
-50.0	
-60.0	
-00.0	
Center 1.88 GHz Span 4.5 MHz	CF Step
#Res BW 30 kHz #VBW 180 kHz Sweep 4.667 ms	450.000 kHz
Occupied Bandwidth Total Power 29.6 dBm	Man
2.6814 MHz	Freq Offset
Transmit Freq Error 218 Hz % of OBW Power 99.00 %	0 Hz
x dB Bandwidth 2.901 MHz x dB -26.00 dB	
MSG STATUS	

LTE Band 2 / 3 MHz / QPSK / FULL RB Size



LTE Band 2 / 3 MHz / 16QAM / FULL RB Size



🔤 Keysight Spectrum Analyzer - Occu	upied BW					
M RL   RF   50 Ω Center Freq 1.908500	0000 GHz Cen	SENSE:INT ter Freq: 1.908500000 GHz : Free Run Avg Holo ien: 44 dB	04:25:48 AM Radio Std:   d: 100/100 Radio Devid			
Ref Offset 6 10 dB/div Ref 30.00 Log						
20.0	ann an the formation and the second and the second se	ᠬ᠇ᠬᡃᡊᠼᡔᢍᠬᡊᠰᠿᡧᡀᠬᡅᡥᡝᠬ	M. Mr. Awar	Center Free 1.908500000 GH		
-20.0			h h h h h h h h h h h h h h h h h h h			
-30.0				n		
-60.0						
Center 1.909 GHz #Res BW 30 kHz		#VBW 180 kHz	450.000 Kr			
Occupied Band	width 2.6869 MHz	Total Power	27.8 dBm	<u>Auto</u> Ma		
Transmit Freq Erre		% of OBW Pow	er 99.00 %	<b>Freq Offse</b> 0 H		
x dB Bandwidth	2.896 MHz	x dB	-26.00 dB			
MSG			STATUS			

LTE Band 2 / 3 MHz / 64QAM / FULL RB Size



LTE Band 2 / 3 MHz / 256QAM / FULL RB Size



	um Analyzer - Occupied BV	V					
Center Fre	RF 50 Ω AC q 1.850700000	uniz →→ Tr	SENSE:INT enter Freq: 1.85070 ig: Free Run	0000 GHz Avg Hold: 100/1		Frequency	
		#IFGain:Low #A	Atten: 44 dB		Radio De	/ice: BTS	
10 dB/div	Ref Offset 6.89 dl <b>Ref 30.00 dBn</b>						
Log 20.0							Center Freq
10.0		An and a second and	ware much home	Low Mar more			1.850700000 GHz
					N I		1.850700000 GH2
0.00					\ <u>\</u>		
-10.0					N N		
-20.0							
-30.0	wardans				holynally	ware for the second second	
-40.0							
-50.0							
-60.0							
Center 1.85 #Res BW 1			#VBW 82 kH				CF Step
#Res Dw	J KHZ		#VDVV 02 KN	2	oweep	6.7 JJ 1115	210.000 kHz Auto Man
Occupi	ed Bandwidt	h	Total P	ower	29.6 dBm		Auto Mari
		0815 MHz					
							Freq Offset
Transmi	it Freq Error	-763 Hz	% of OE	3W Power	99.00 %		0 Hz
	ndwidth	1.208 MHz	x dB		-26.00 dB		
		1.200 11112					
					07.17.10		
MSG					STATUS		

LTE Band 2 / 1.4 MHz / QPSK / FULL RB Size

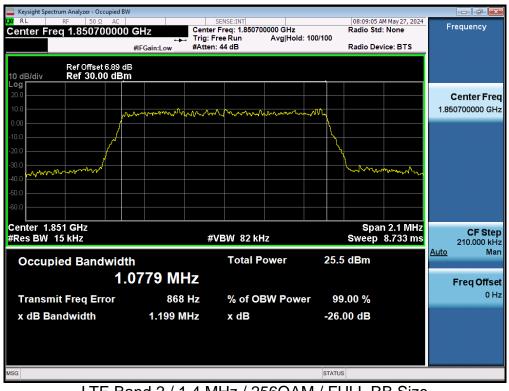


LTE Band 2 / 1.4 MHz / 16QAM / FULL RB Size



🔤 Keysight Spectrum A		3W					
Center Freq 1	50 Ω AC 1.85070000	00 GHz Center Freq: 1.850700000 GHz R Trig: Free Run Avg Hold: 100/100				AM May 27, 2024 I: None vice: BTS	Frequency
	tef Offset 6.89 tef 30.00 dB						
20.0		hand	www.wayson	maly was for the second	~		Center Fre 1.850700000 GH
-10.0	کم کر				hon vi		
-30.0 -40.0	m				harry	Marchan	
50.0 60.0							
Center 1.851 ( Res BW 15 k			#VBW 82 k	Hz		n 2.1 MHz 8.733 ms	CF Ste 210.000 kH
Occupied		<sup>ith</sup> .0811 Mi	Total F <b>H7</b>	ower	27.7 dBm		<u>Auto</u> Ma
Transmit F		1.866		BW Power	99.00 %		<b>Freq Offs</b> 이 H
x dB Bandv	width	1.199 N	1Hz x dB		-26.00 dB		
SG					STATUS		

LTE Band 2 / 1.4 MHz / 64QAM / FULL RB Size



LTE Band 2 / 1.4 MHz / 256QAM / FULL RB Size

# 8.1.8. LTE Band 7

ectrum Analyzer - Occupied BW Keysight Sp RI 12:47:58 PM Jun 19, 2024 Radio Std: None Center Freq: 2.560000000 GHz Trig: Free Run Avg|Hol #Atten: 44 dB Center Freq 2.560000000 GHz Frequency Avg|Hold: 100/100 #IFGain:Low Radio Device: BTS Ref Offset 6.74 dB Ref 30.00 dBm 0 dB(div рg **Center Freq** 2.560000000 GHz Center 2.56 GHz Span 30 MHz CF Step 3.000000 MHz #Res BW 200 kHz #VBW 1.2 MHz Sweep 1 ms Auto Man **Total Power** 30.4 dBm **Occupied Bandwidth** 17.866 MHz Freq Offset 0 Hz **Transmit Freq Error** 18.997 kHz % of OBW Power 99.00 % x dB Bandwidth 19.15 MHz x dB -26.00 dB

LTE Band 7 / 20 MHz / QPSK / FULL RB Size

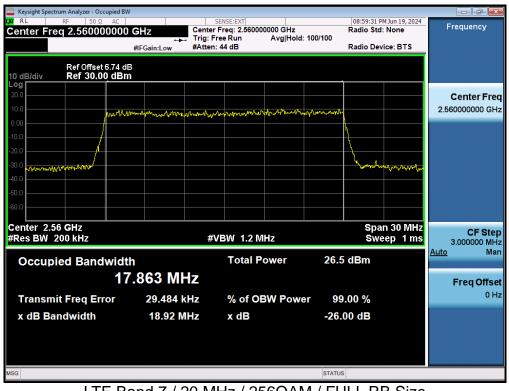


LTE Band 7 / 20 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BW						
X RL RF 50 Ω AC Center Freq 2.560000000	GHz Center Trig: F	SENSE:EXT Freq: 2.560000000 GHz Free Run Avg Hole : 44 dB	d: 100/100	06:14:53 PM Radio Std: 1 Radio Devic	None	Frequency
Ref Offset 6.74 dE						
20.0 10.0	holectration	workertunter of the second	Marcallan			<b>Center Fre</b> 2.560000000 GH
				1		
30.0 40.0				N	~\VTr+c+kd <sup>ar</sup> Ybe	
60.0						
Center 2.56 GHz Res BW 200 kHz	#	VBW 1.2 MHz			30 MHz ep 1 ms	CF Ste 3.000000 MH
Occupied Bandwidt	n .884 MHz	Total Power	28.4	dBm		<u>Auto</u> Ma
				00.0/		Freq Offs 0 H
Transmit Freq Error x dB Bandwidth	-2.030 kHz 19.10 MHz	% of OBW Pow x dB	/er 99. -26.0	00 % 0 dB		
	19.10 MHZ	X UB	-20.0			
SG			STATUS			

LTE Band 7 / 20 MHz / 64QAM / FULL RB Size



LTE Band 7 / 20 MHz / 256QAM / FULL RB Size



🔤 Keysight Spectrum Analyzer - Occup	ied BW						
LX RL RF 50Ω		SENSE:EXT Center Freq: 2.507500	000 GHz	01:01:52 PM Ju Radio Std: No		Frequency	
Center Freq 2.507500		Trig: Free Run	Avg Hold: 100/100				
	#IFGain:Low	#Atten: 44 dB		Radio Device:	BTS		
Ref Offset 6.7							
10 dB/div Ref 30.00	dBm			•,			
20.0						Center Freq	
10.0	the all Aslances from a	Ray martha A man	mananana			2.507500000 GHz	
0.00	the second of her hill and the second of her second of the					2.507500000 GH2	
-10.0				h,			
-20.0				+ h			
-30.0 www.www.				Mrsun Mr	ᠵᢧᠭᡟᡃᡟᡃᡊᡅᡔᠬ		
-40.0							
-50.0							
-60.0							
				0	C BALL		
Center 2.508 GHz #Res BW 150 kHz		#VBW 910 kH	17	Span 22.5 MHz Sweep 1 ms 2 250000 M			
#RCS DW TJU KHZ		#VDVV STOR	12	Gweep		2.250000 MHz Auto Man	
Occupied Bandw	/idth	Total Po	wer 29.	9 dBm		<u>Auto</u> Wan	
· ·	13.418 MH	7					
	13.410 MIT	Z				Freq Offset	
Transmit Freq Erro	r 29.502 kH	Iz % of OB	W Power 9	9.00 %		0 Hz	
x dB Bandwidth	14.33 MH	lz xdB	-26	.00 dB			
k ab banaman	14100 111		20				
MSG			STATU	15			

LTE Band 7 / 15 MHz / QPSK / FULL RB Size

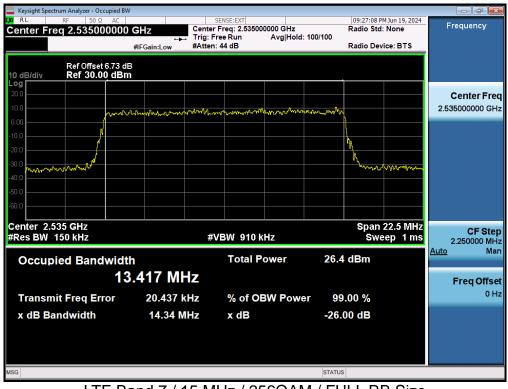


LTE Band 7 / 15 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupier	BW				
C RL RF 50 Ω AC Center Freq 2.5625000	00 GHz Cent	SENSE:EXT   er Freq: 2.562500000 GHz Free Run Avg Hole en: 44 dB	Ra d: 100/100	6:55:57 PM Jun 19, 2024 Idio Std: None Idio Device: BTS	Frequency
Ref Offset 6.74 10 dB/div Ref 30.00 dl					
20.0	ᡊᡊᡔᡎᠻᡇᡘ᠆ᠬᡟᡀᡔᡥ᠊ᡳᠰᡨᠵᠰᢑᠩᡔ	ally to a stand a stand and a stand	and and a		Center Fre 2.562500000 G⊢
10.0 20.0					
40.0				L. J. Margaran Margar Margaran Margaran Marg	
50.0					
enter 2.563 GHz Res BW 150 kHz		#VBW 910 kHz		Span 22.5 MHz Sweep 1 ms	CF Ste 2.250000 MH
Occupied Bandwi	<sup>dth</sup>  3.432 MHz	Total Power	28.5 di	Зm	<u>Auto</u> Ma
Transmit Freq Error	18.856 kHz	% of OBW Pow	ver 99.00	) %	Freq Offs 01
x dB Bandwidth	14.42 MHz	x dB	-26.00	dB	
G			STATUS		

LTE Band 7 / 15 MHz / 64QAM / FULL RB Size



LTE Band 7 / 15 MHz / 256QAM / FULL RB Size



🤤 Keysight Spectrum Analyzer - Oc	cupied BW					
⊠ RL RF 50 Ω Center Freq 2.53500	AC D00000 GHz #IEGain:Low	Center Freq: 2.535000000 GHz         Radio S           Trig: Free Run         Avg Hold: 100/100				Frequency
Ref Offset 10 dB/div Ref 30.0	t 6.73 dB					Center Freq
10.0 0.00 -10.0		<u>Marcharologianter and a station of the second se</u>	ᡁᡗᢧᢦᢁᢞᢩᠥᡘᠴᢧᠯᡞᡅ᠆ᡧᠬᡅ᠆ᡧ			2.535000000 GHz
-20.0 -30.0					wrw <sup>w</sup> wu	
-50.0 -60.0 Center 2.535 GHz				Snan	15 MHz	
#Res BW 100 kHz Occupied Banc	lwidth	#VBW 620 kH Total Pov		Sweep dBm	1.4 ms	<b>CF Step</b> 1.500000 MHz <u>Auto</u> Man
	8.9433 MI	lz				Freq Offset
Transmit Freq Er x dB Bandwidth	ror 16.368 k 9.520 M			.00 % 00 dB		0 Hz
MSG			STATUS	;		

LTE Band 7 / 10 MHz / QPSK / FULL RB Size



LTE Band 7 / 10 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BW					
X RL RF 50 Ω AC Center Freq 2.535000000	Trig: F	SENSE:EXT r Freq: 2.535000000 GHz Free Run Avg Hold n: 44 dB	Radi d: 100/100	13:25 PM Jun 19, 2024 o Std: None o Device: BTS	Frequency
Ref Offset 6.73 dE					
<b>-09</b> 20.0 10.0	where the second s	www.	provent and the state		Center Fre 2.535000000 GH
0.00					
20.0 1			<u> </u>	mallurymondy	
40.0					
enter 2.535 GHz				Span 15 MHz	CF Ste
Res BW 100 kHz	#	VBW 620 kHz	S	weep 1.4 ms	1.500000 M
Occupied Bandwidt	հ 9511 MHz	Total Power	28.4 dBr	n	<u>Auto</u> M
O.: Transmit Freq Error	-425 Hz	% of OBW Pow	ver 99.00 <sup>o</sup>	%	Freq Offs 0
x dB Bandwidth	9.570 MHz	x dB	-26.00 d	В	
G			STATUS		

LTE Band 7 / 10 MHz / 64QAM / FULL RB Size



LTE Band 7 / 10 MHz / 256QAM / FULL RB Size





LTE Band 7 / 5 MHz / QPSK / FULL RB Size



LTE Band 7 / 5 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BV	V				
04 RL RF 50Ω AC Center Freq 2.535000000	Trig: I	sense:ext r Freq: 2.535000000 GHz Free Run Avg Hol n: 44 dB	Radio d: 100/100	4:40 PM Jun 19, 2024 o Std: None o Device: BTS	Frequency
Ref Offset 6.73 d 10 dB/div Ref 30.00 dBn					
20.0	and a gloring and a second and a	ᠴᠧᠰ᠆ᢧᠲᠬᠴᠯᢩ᠕᠆ᠬᠬᢔᠱ᠆ᠰᡐᡣᠯᢦᢛᠯᡐᢙᠰ	nann		Center Freq 2.535000000 GHz
-10.0					
-30.0 -40.0 -50.0			ـــــــــــــــــــــــــــــــــــــ	www.monty.have	
-60.0 Center 2.535 GHz				Span 7.5 MHz	
#Res BW 51 kHz	#	VBW 300 kHz		ep 2.733 ms	CF Step 750.000 kHz
Occupied Bandwidt	հ 4757 MHz	Total Power	28.6 dBr	n	<u>Auto</u> Man Freg Offsel
Transmit Freq Error	1.845 kHz	% of OBW Pow	ver 99.00 %	6	0 Hz
x dB Bandwidth	4.855 MHz	x dB	-26.00 dl	В	
MSG			STATUS		

LTE Band 7 / 5 MHz / 64QAM / FULL RB Size



LTE Band 7 / 5 MHz / 256QAM / FULL RB Size

## 8.1.9. LTE Band 38

ctrum Analyzer - Occupied BW Keysight Sp SENSE:INT Center Freq: 2.61000000 GHz Trig: Free Run Avg|Hol #Atten: 44 dB RI 07:16:05 PM Jul 09, 2024 Radio Std: None Center Freq 2.610000000 GHz Frequency Avg|Hold: 50/50 Radio Device: BTS #IFGain:Low Ref 30.00 dBm 0 dBidis **Center Freq** 2.610000000 GHz Center 2.61 GHz #Res BW 200 kHz Span 30 MHz Sweep 1 ms CF Step 3.000000 MHz #VBW 1.2 MHz Auto Man **Total Power** 29.0 dBm **Occupied Bandwidth** 17.895 MHz Freq Offset 0 Hz **Transmit Freq Error** 21.056 kHz % of OBW Power 99.00 % x dB Bandwidth 18.72 MHz x dB -26.00 dB

LTE Band 38 / 20 MHz / QPSK / FULL RB Size

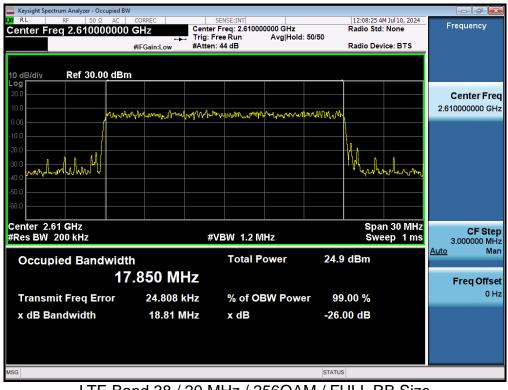


LTE Band 38 / 20 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analysis	zer - Occupied I	BW								×
LXI RL RF	50 Ω AC			GE:INT a: 2.6100000	00 GHz		10:31:59 P Radio Std	M Jul 09, 2024	Frequency	
Center Freq 2.6	1000000		Trig: Free	Run /	Avg Hold:	50/50				
,		#IFGain:Low	#Atten: 44	dB			Radio Dev	ice: BTS		
	30.00 dB	m								
Log 20.0									Center Fr	nor
10.0				- 10					2.61000000 G	
0.00	Source .	www.yobewwy.J	M. W. W. W. W. W.	h/ Mall My Marchard	พแทรงไม่	<u>የን/ኮዲዮብ</u> ሎብሎ			2.0100000000	112
-10.0							Ì			
-20.0	.							1		
-30.0	WW I						linery	elo llarge		
40.0										
-50.0										
-60.0										
Center 2.61 GHz							- Eno	n 20 MUn		
#Res BW 200 kH			#VB	Span 30 MHz VBW 1.2 MHz Sweep 1 ms				CF Step		
									3.000000 M Auto N	1HZ Ian
Occupied B	andwid	lth		Total Pov	ver	26.9	dBm		<u>//dro</u> //	
		7.822 M	H7						_	
		1.022 1	11 1/2						Freq Offs	
Transmit Free	q Error	4.804	kHz	% of OBV	V Powe	er 99	.00 %		0	Hz
x dB Bandwid	dth	18.78	MHz	x dB		-26.	00 dB			
						201				
100						STATUS				
MSG						STATUS				

LTE Band 38 / 20 MHz / 64QAM / FULL RB Size



LTE Band 38 / 20 MHz / 256QAM / FULL RB Size



🔤 Keysight Spectrum Analyzer - Occup	ied BW					
$[X]$ RL RF 50 $\Omega$	SENSE:INT	07:24:57 Pt Radio Std:	4 Jul 09, 2024	Frequency		
Center Freq 2.577500	Trig: Free Run					
	#IFGain:Low	#Atten: 44 dB		Radio Devi	ice: BTS	
10 dB/div Ref 30.00	dBm					
20.0						Contor From
						Center Freq 2.577500000 GHz
	Mana wa da a	mall and a second and the	-100 مېرىيىيىرىيەر 1990- 1990- يېكىيىمىرىۋىمىرىكىلىك	man		2.577500000 GH2
0.00						
-10.0				1. 8 /		
-20.0				- iwi ii	1 8	
-30.0 Marmharm					my	
-40.0					V 4	
-50.0						
-60.0						
Center 2.578 GHz #Res BW 150 kHz		#VBW 910		22.5 MHz ep 1 ms	CF Step	
WINCS DW 150 KHZ		#VDVV 5101	OWC	сртпа	2.250000 MHz Auto Man	
Occupied Bandw	vidth	Total P	ower	28.9 dBm		Adto Mari
-	13.459 MH	17				
	13.433 MI	12				Freq Offset
Transmit Freq Erro	r 24.774 k	Hz % of O	3W Power	99.00 %		0 Hz
x dB Bandwidth	14.89 M	lHz x dB		-26.00 dB		
x ab banamaan	14100 1			20100 42		
MSG				STATUS		

LTE Band 38 / 15 MHz / QPSK / FULL RB Size

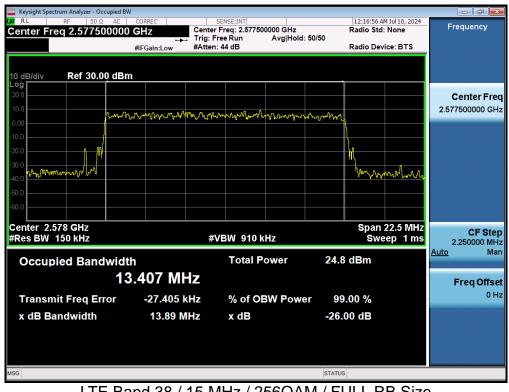


LTE Band 38 / 15 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BV	V				
KL RF 50 Ω AC     Center Freq 2.595000000	50 Ω AC CORREC SENSE:INT			PM Jul 09, 2024 d: None evice: BTS	Frequency
10 dB/div Ref 30.00 dBn	n				
20.0	v. Marta Martin	Mr. M.	ummenhyty		Center Freq 2.595000000 GHz
-10.0			і <u>і</u> Ц		
-30.0 mm / / / / / / / / / / / / / / / / / /			- (ff	mmmm	
Center 2.595 GHz				1 22.5 MHz	
#Res BW 150 kHz	#	#VBW 910 kHz			CF Step 2.250000 MHz
Occupied Bandwidt		Total Power	27.1 dBm		<u>Auto</u> Man
13	Freq Offset				
Transmit Freq Error	10.095 kHz	% of OBW Pow	ver 99.00 %		0 Hz
x dB Bandwidth	14.09 MHz	x dB	-26.00 dB		
MSG			STATUS		

LTE Band 38 / 15 MHz / 64QAM / FULL RB Size



LTE Band 38 / 15 MHz / 256QAM / FULL RB Size



Keysight Spectrum Analyzer - Occu	•					
M         RF         50 Ω         AC         CORREC         SENSE:INT           Center Freq         2.595000000 GHz         Center Freq: 2.595000000 GHz					1Jul 09, 2024 None	Frequency
	Trig: Free Run #Atten: 44 dB	0 Radio Devi	ice: BTS			
	#IFGain:Low	million. H ub		Rualo Berr		
10 dB/div Ref 30.00	dBm					
20.0						Center Freq
10.0	ᡂᡊᢇᢇᡎᠬᡁᠰᢛᡐᡗᢆᢦᠰ	part who what have a fight of the second of	~ Ulm Mong mars	water and the second		2.595000000 GHz
0.00				<u>\</u>		
-10.0				<b>}</b>		
-20.0				<sup>1</sup> \/\	٦.	
-30.0 Million of Marine					malaa m	
-40.0				,	1.   x.v	
-50.0						
-60.0						
Center 2.595 GHz					n 15 MHz	CF Step
#Res BW 100 kHz		#VBW 620 k	Swee	o 1.4 ms	1.500000 MHz	
Occupied Bandv	Total P	ower	29.5 dBm		<u>Auto</u> Man	
	8.9301 MI	Hz				Freq Offset
Transmit Freq Erro	or 17.852 l	KHz % of Ol	BW Power	99.00 %		0 Hz
x dB Bandwidth	9.490 N	IHz x dB		-26.00 dB		
MSG				STATUS		

LTE Band 38 / 10 MHz / QPSK / FULL RB Size

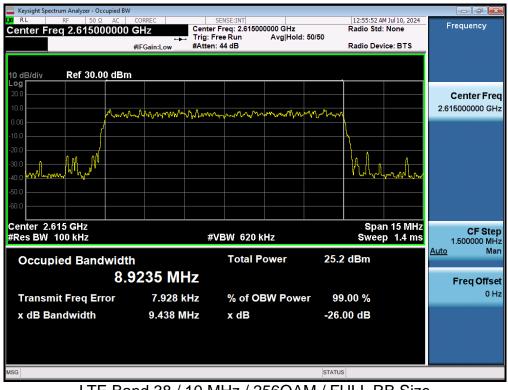


LTE Band 38 / 10 MHz / 16QAM / FULL RB Size



Keysight Spectrum Analyzer - Occupied BW					
C RL RF 50 Ω AC Center Freq 2.575000000	Trig	HZ Center Freq: 2.575000000 GHz Trig: Free Run Avg Hold: 50/50		PM Jul 09, 2024 d: None	Frequency
	#IFGain:Low #Att	ten: 44 dB	Radio De	evice: BTS	
10 dB/div Ref 30.00 dBn	1				
20.0					Center Fre
					2.575000000 GH
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10.0			ha		
20.0			1 N.		
40.0			1001	white white	
50.0					
60.0					
				47 841	
Center 2.575 GHz Res BW 100 kHz		#VBW 620 kHz		an 15 MHz en 14 ms	CF Ste 1.500000 M
		#VBW 620 kHz Sweep 1.4 ms			
<b>Occupied Bandwidt</b>	h	Total Power	27.1 dBm		<u>Auto</u> M
	9395 MHz				
0.					Freq Offs
Transmit Freq Error	-4.645 kHz	% of OBW Pow	er 99.00 %		0
x dB Bandwidth	9.494 MHz	x dB	-26.00 dB		
6G			074710		
6			STATUS		

LTE Band 38 / 10 MHz / 64QAM / FULL RB Size



LTE Band 38 / 10 MHz / 256QAM / FULL RB Size





LTE Band 38 / 5 MHz / QPSK / FULL RB Size

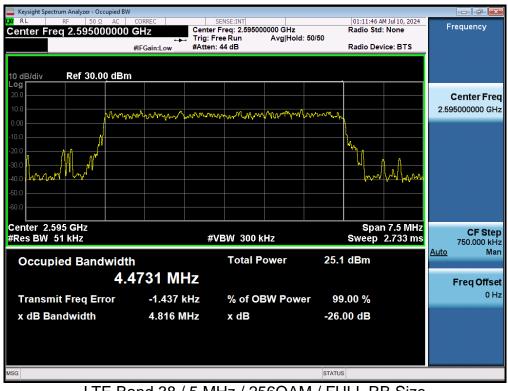


LTE Band 38 / 5 MHz / 16QAM / FULL RB Size



www.www.www.www.www.www.www.www.www.ww	AC CORREC						
RL RF 50 Ω     Center Freq 2.61750	SENSE:INT Center Freq: 2.61750	11:44:02 PM Radio Std:	1Jul 09, 2024 None	Freque	ency		
	Trig: Free Run #Atten: 44 dB	i0 Radio Devi	Radio Device: BTS				
10 dB/div Ref 30.00	) dBm						
20.0						Cent	er Freg
10.0	month and and a	ma an	a when a wanter	1 <sup>1</sup> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		2.617500	•
0.00	The state of the s	- Chill of the age of a set in		· v ]			
-10.0							
-20.0					٨		
-30.0					Labell		
-50.0							
-60.0							
					7.6 8411-		
Center 2.618 GHz #Res BW 51 kHz		#VBW 300 k	Hz		7.5 MHz 2.733 ms		F Step
		T-4-1 D				Auto	Man
Occupied Bandy		Total P	ower	27.0 dBm			
	4.4757 M⊦	IZ				Fred	Offset
Transmit Freq Erre	or -6.308 k	Hz % of O	3W Power	99.00 %			0 Hz
x dB Bandwidth	4.730 M	Hz xdB		-26.00 dB			
MSG				STATUS			

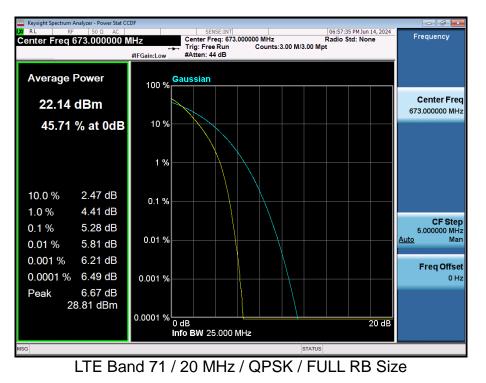
LTE Band 38 / 5 MHz / 64QAM / FULL RB Size



LTE Band 38 / 5 MHz / 256QAM / FULL RB Size

### 8.2. PEAK TO AVERAGE RATIO

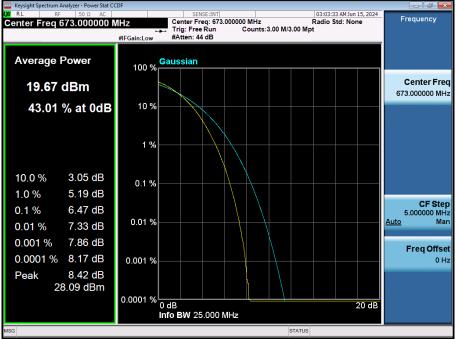
#### 8.2.1. LTE Band 71



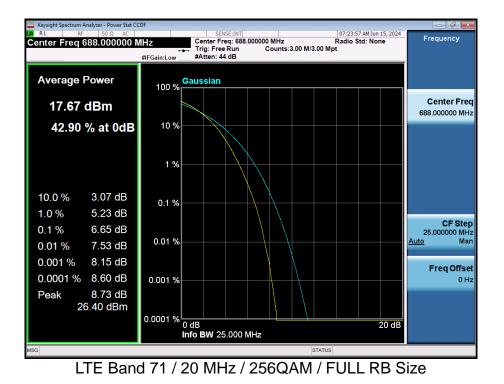


LTE Band 71 / 20 MHz / 16QAM / FULL RB Size

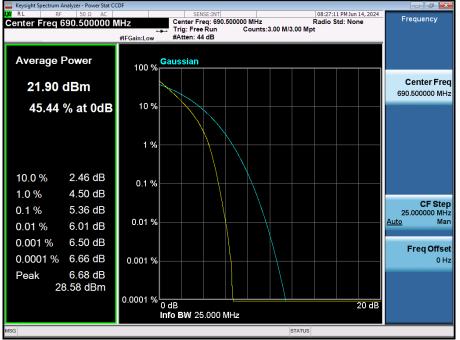




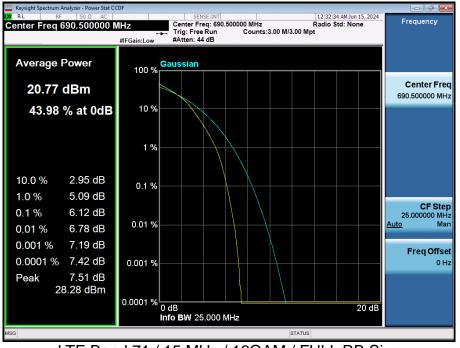
LTE Band 71 / 20 MHz / 64QAM / FULL RB Size





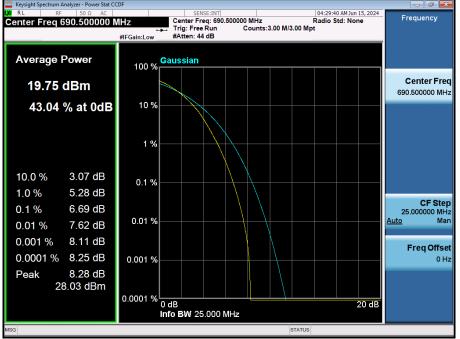


LTE Band 71 / 15 MHz / QPSK / FULL RB Size



LTE Band 71 / 15 MHz / 16QAM / FULL RB Size



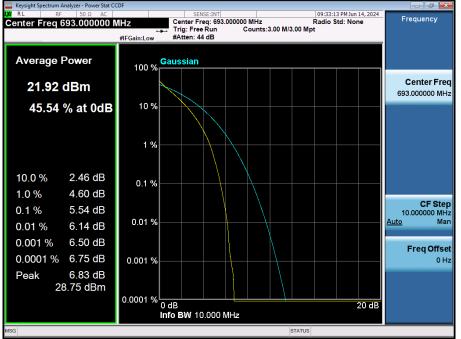


LTE Band 71 / 15 MHz / 64QAM / FULL RB Size

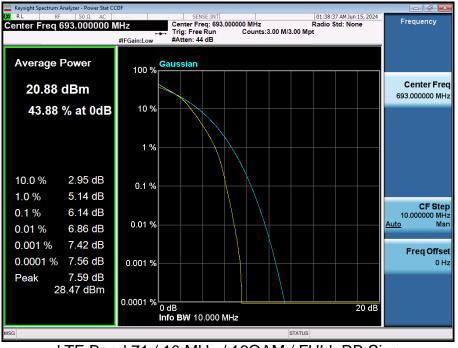


LTE Band 71 / 15 MHz / 256QAM / FULL RB Size



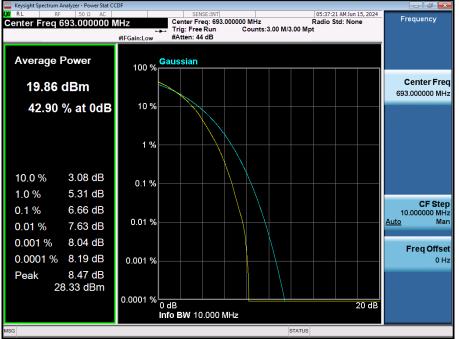


LTE Band 71 / 10 MHz / QPSK / FULL RB Size



LTE Band 71 / 10 MHz / 16QAM / FULL RB Size

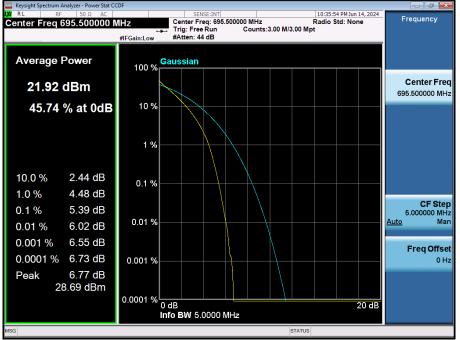




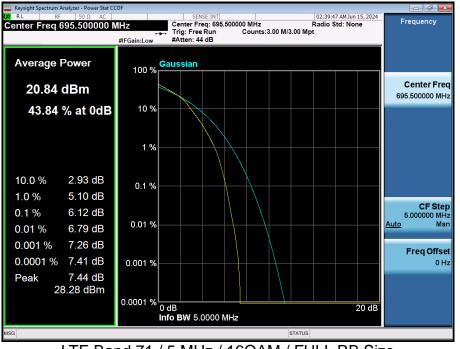
LTE Band 71 / 10 MHz / 64QAM / FULL RB Size





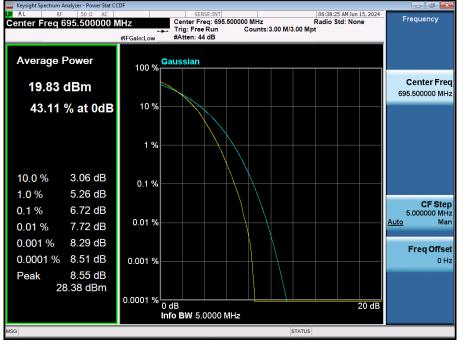






LTE Band 71 / 5 MHz / 16QAM / FULL RB Size



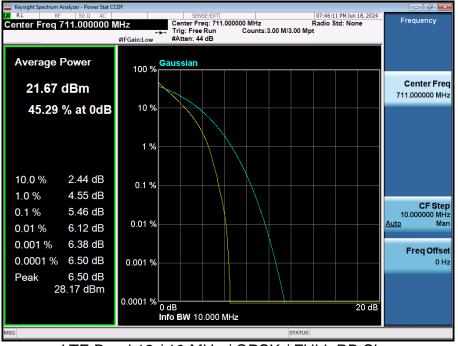


LTE Band 71 / 5 MHz / 64QAM / FULL RB Size



LTE Band 71 / 5 MHz / 256QAM / FULL RB Size

### 8.2.2. LTE Band 12(17)

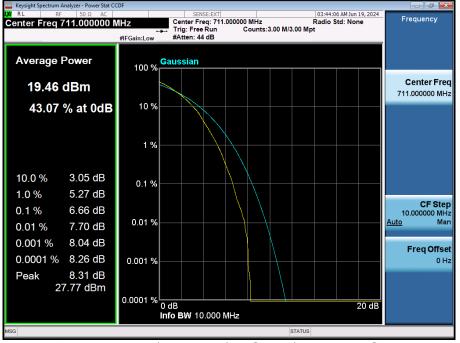


LTE Band 12 / 10 MHz / QPSK / FULL RB Size



LTE Band 12 / 10 MHz / 16QAM / FULL RB Size





LTE Band 12 / 10 MHz / 64QAM / FULL RB Size



LTE Band 12 / 10 MHz / 256QAM / FULL RB Size