ATTACHMENTE - BAND EDGE





Band Edge on Configuration LTE Band VII QPSK-5M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-5M / 1RB Channel Highest-CONDUCTED MODE





Band Edge on Configuration LTE Band VII QPSK-5M / 25RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-5M / 25RB Channel Highest-CONDUCTED MODE





Band Edge on Configuration LTE Band VII QPSK-10M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-10M / 1RB Channel Highest-CONDUCTED MODE



Band Edge on Configuration LTE Band VII QPSK-10M / 50RB Channel Lowest-CONDUCTED MODE

🇾 Agiler	nt Spectrum Analyzer - Swept SA							
Conto	RF 50 Ω AC	CH-	SENSE:INT		ALIGN AUTO	06:13:55 PM	4 Feb 18, 2016	Frequency
Genite		PNO: Wide Tri IFGain:Low #At	g: Free Run tten: 40 dB			TYF DE		
10 dB/	Ref Offset 11.5 dB div Ref 30.00 dBm				Mkr1	2.500 0 -30.0	00 GHz 43 dBm	Auto Tune
20.0							*	Center Freq 2.500000000 GHz
10.0								Start Freq
0.00					1	موروه والشار معر ماهورو ا	anterination attra forma	2.499000000 GHz
-10.0					/		-13.00 dBm	Stop Freq 2.501000000 GHz
-30.0	ngalgitelitugeneriyaansi yaana yaala kateeliri ogelishadibi	_{เป็นบา} รณศาสรรรษการกราวสารกราชการกราช	1	Arid Arthon				CF Step 200.000 kHz <u>Auto</u> Man
-40.0								Erog Offoot
-50.0								0 Hz
-60.0 —								
Cente #Res	er 2.500000 GHz BW 100 kHz	#VBW 300	kHz		#Sweep	Span 2 1.000 s (.000 MHz 1001 pts)	
MSG					STATUS			

Band Edge on Configuration LTE Band VII QPSK-10M / 50RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-15M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-15M / 1RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-15M / 75RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-15M / 75RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-20M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-20M / 1RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-20M / 100RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band VII QPSK-20M / 100RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-5M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-5M / 1RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-5M / 25RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-5M / 25RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-10M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-10M / 1RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-10M / 50RB Channel Lowest-CONDUCTED MODE

🎉 Agilent Spe	ctrum Analyzer - Swept SA								
LXI RL	RF 50 Ω AC		SEN	ISE:INT		ALIGN AUTO	08:30:37 A	M Feb 19, 2016	Frequency
Center F	req 2.5700000	PNO: Wide IFGain:Low	Trig: Free #Atten: 40	Run) dB	Avgiype	. Log-F Wi	TY		
10 dB/div	Ref Offset 12 dB Ref 30.00 dBm					Mkr1	2.570 0 -28.9	00 GHz 34 dBm	Auto Tune
20.0								*	Center Freq 2.570000000 GHz
0.00								1997 - 1	Start Freq 2.569000000 GHz
-10.0					- and the second	/		-13.00 dBm	Stop Freq 2.571000000 GHz
-30.0			and the second se	1	WWWWWW				CF Step 200.000 kHz <u>Auto</u> Man
-50.0									Freq Offset 0 Hz
-60.0									
Center 2. #Res BW	570000 GHz 100 kHz	#VBW	300 kHz			#Sweep	Span 2 1.000 <u>s (</u>	.000 MHz 1001 pts)	
MSG						STATUS			

Band Edge on Configuration LTE Band XXXVIII QPSK-10M / 50RB Channel Highest-CONDUCTED MODE

Report No.: BTL-FCCP-4-1602C003

Band Edge on Configuration LTE Band XXXVIII QPSK-15M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-15M / 1RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-15M / 75RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-15M / 75RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-20M / 1RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-20M / 1RB Channel Highest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-20M / 100RB Channel Lowest-CONDUCTED MODE

Band Edge on Configuration LTE Band XXXVIII QPSK-20M / 100RB Channel Highest-CONDUCTED MODE

ATTACHMENTF - FREQUENCY STABILITY

LTE Band VII QPSKChannel Middle 5M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	6.67	0.002631164	2.5
10	3.64	0.001435897	2.5
20	-3.81	0.001502959	2.5
30	0.59	0.000232742	2.5
40	2.94	0.001159763	2.5
Max. Deviation (ppm)	6.67	0.002631164	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	3.76	0.001483235	2.5
108	-3.66	0.001443787	2.5
132	-3.56	0.001404339	2.5
Max. Deviation (ppm)	3.76	0.001483235	2.5

LTE Band VII QPSKChannel Middle 10M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	2.81	0.001108481	2.5
10	4.69	0.001850099	2.5
20	-1.48	0.000583826	2.5
30	3.65	0.001439842	2.5
40	-3.48	0.001372781	2.5
Max. Deviation (ppm)	4.69	0.001850099	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	4.82	0.001901381	2.5
108	-2.58	0.001017751	2.5
132	-1.26	0.000497041	2.5
Max. Deviation (ppm)	4.82	0.001901381	2.5

LTE Band VII QPSKChannel Middle 15M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	0.84	0.000331361	2.5
10	-1.76	0.00069428	2.5
20	-1.58	0.000623274	2.5
30	3.82	0.001506903	2.5
40	2.69	0.001061144	2.5
Max. Deviation (ppm)	2.69	0.001506903	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	-2.96	0.001167653	2.5
108	0.72	0.000284024	2.5
132	1.67	0.000658777	2.5
Max. Deviation (ppm)	2.96	0.001167653	2.5

LTE Band VII QPSKChannel Middle 20M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.63	0.000642998	2.5
10	-3.67	0.001447732	2.5
20	-1.46	0.000575937	2.5
30	-3.48	0.001372781	2.5
40	3.82	0.001506903	2.5
Max. Deviation (ppm)	3.82	0.001506903	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	1.62	0.000639053	2.5
108	-4.38	0.001727811	2.5
132	-3.84	0.001514793	2.5
Max. Deviation (ppm)	4.38	0.001727811	2.5

LTE Band XXXVIII QPSKChannel Middle 5M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-2.86	0.001102119	2.5
10	6.63	0.002554913	2.5
20	1.81	0.000697495	2.5
30	-3.92	0.001510597	2.5
40	-3.61	0.001391137	2.5
Max. Deviation (ppm)	6.63	0.002554913	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	3.48	0.00134104	2.5
108	-6.67	0.002570328	2.5
132	-3.73	0.00143738	2.5
Max. Deviation (ppm)	6.67	0.002570328	2.5

LTE Band XXXVIII QPSKChannel Middle 10M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.29	0.001267823	2.5
10	-4.62	0.001780347	2.5
20	-2.94	0.001132948	2.5
30	-3.68	0.001418112	2.5
40	-3.52	0.001356455	2.5
Max. Deviation (ppm)	3.29	0.001780347	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	-2.62	0.001009634	2.5
108	5.92	0.00228131	2.5
132	0.97	0.000373796	2.5
Max. Deviation (ppm)	5.92	0.00228131	2.5

LTE Band XXXVIII QPSKChannel Middle 15M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.54	0.001364162	2.5
10	-5.93	0.002285164	2.5
20	-2.21	0.000851638	2.5
30	-1.32	0.000508671	2.5
40	3.46	0.001333333	2.5
Max. Deviation (ppm)	5.93	0.002285164	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	3.28	0.001263969	2.5
108	2.62	0.001009634	2.5
132	3.27	0.001260116	2.5
Max. Deviation (ppm)	3.28	0.001263969	2.5

LTE Band XXXVIII QPSKChannel Middle 20M/1RB 0 offset

Voltage vs. Frequency Stabi ility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-3.25	0.001252408	2.5
10	3.91	0.001506744	2.5
20	2.76	0.001063584	2.5
30	-2.19	0.000843931	2.5
40	2.23	0.000859345	2.5
Max. Deviation (ppm)	3.91	0.001506744	2.5

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
102	-1.69	0.000651252	2.5
108	4.21	0.001622351	2.5
132	2.63	0.001013487	2.5
Max. Deviation (ppm)	4.21	0.001622351	2.5

ATTACHMENTG - PEAK TO AVERAGE RATIO

Peak to Average Ratio of Configuration-LTE Band VII QPSK-5M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-5M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII QPSK-5M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-10M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-10M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII QPSK-10M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-15M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-15M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII QPSK-15M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-20M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII QPSK-20M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII QPSK-20M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-5M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-5M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-5M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-10M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-10M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-10M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-15M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-15M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-15M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-20M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-20M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band VII 16-QAM-20M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-5M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-5M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-5M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band XXXVIII

Peak to Average Ratio of Configuration-LTE Band XXXVIII **QPSK-10M/1RB** channel Middle

QPSK-10M/1RB channel Highest Agilent Spectrum Analyzer - Power Stat CCDF SENSE:INT ALIGN AUTO Center Freq: 2.610648000 GHz R Trig: Video Counts:10.0 M/10.0 Mpt #Atten: 40 dB Counts:10.0 M/10.0 Mpt 09:42:36 AM Feb 19, 2016 Radio Std: None Frequency Center Freq 2.610648000 GHz #IFGain:Low 100 % Gaussian Average Power **Center Freq** 22.35 dBm 2.610648000 GHz 50.03 % at 0dB 10 % 1% 2.90 dB 10.0 % 0.1 % 4.79 dB 1.0 % CF Step 5.000000 MHz Man 5.93 dB 0.1 % 0.01 % <u>Auto</u> 0.01 % 6.34 dB 0.001 % 6.39 dB **Freq Offset** 0.0001 % 6.42 dB 0.001 % 0 Hz 7.14 dB Peak 29.49 dBm 0.0001 % 0 dB Info BW 25.000 MHz 20 dB

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-10M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-15M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-15M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-15M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-20M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band XXXVIII QPSK-20M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII

Peak to Average Ratio of Configuration-LTE Band XXXVIII

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-5M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-5M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-10M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-10M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-15M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-15M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-15M/1RB channel Highest

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-20M/1RB channel Lowest

Peak to Average Ratio of Configuration-LTE Band XXXVIII 16-QAM-20M/1RB channel Middle

Peak to Average Ratio of Configuration-LTE Band XXXVIII

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