Appendix A: Test Data for E-UTRA Band 2

Product Name: Battery Operated LTE Cellular GPS Tracker Test Model: CUT-4LH

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Wang Chuang

A.1 Conducted Output Power

	Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)								
Madulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict			
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict			
		1	0	22.90	22.49	PASS			
		1	3	22.78	22.14	PASS			
		1	5	22.68	21.97	PASS			
	LCH	3	0	22.79	22.00	PASS			
		3	2	22.74	21.90	PASS			
		3	3	22.70	21.87	PASS			
		6	0	22.18	21.27	PASS			
		1	0	23.02	22.45	PASS			
		1	3	22.99	22.56	PASS			
QPSK /		1	5	22.93	22.40	PASS			
16QAM	MCH	3	0	22.94	21.92	PASS			
TOQAM		3	2	22.91	22.05	PASS			
		3	3	22.93	21.95	PASS			
		6	0	22.19	21.17	PASS			
		1	0	22.60	22.22	PASS			
		1	3	22.83	21.74	PASS			
		1	5	22.73	22.66	PASS			
	НСН	3	0	22.91	21.84	PASS			
		3	2	22.77	22.02	PASS			
		3	3	22.73	22.08	PASS			
		6	0	22.81	22.02	PASS			

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Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)								
	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]) (a reliet		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	22.82	22.39	PASS		
		1	7	22.77	22.39	PASS		
		1	14	22.48	21.93	PASS		
	LCH	8	0	22.84	21.95	PASS		
		8	4	22.79	21.88	PASS		
		8	7	22.66	21.82	PASS		
		15	0	22.81	21.75	PASS		
		1	0	22.98	22.57	PASS		
		1	7	23.02	22.16	PASS		
QPSK /		1	14	22.89	22.22	PASS		
16QAM	MCH	8	0	22.04	21.15	PASS		
TOQAIVI		8	4	22.01	21.10	PASS		
		8	7	22.02	21.11	PASS		
		15	0	22.15	21.09	PASS		
		1	0	22.94	22.35	PASS		
		1	7	22.72	21.92	PASS		
		1	14	22.61	22.19	PASS		
	НСН	8	0	22.81	21.87	PASS		
		8	4	22.83	21.89	PASS		
		8	7	22.80	21.84	PASS		
		15	0	22.78	21.87	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)								
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict			
modulation	Onlaimor	Size	Offset	QPSK	16QAM	Vortalot			
		1	0	22.88	22.19	PASS			
		1	12	22.82	22.50	PASS			
		1	24	22.41	21.76	PASS			
	LCH	12	0	22.88	22.03	PASS			
		12	6	22.74	21.95	PASS			
		12	13	22.63	21.84	PASS			
		25	0	22.74	21.79	PASS			
	МСН	1	0	23.16	22.67	PASS			
		1	12	22.81	22.04	PASS			
QPSK /		1	24	22.80	22.22	PASS			
16QAM		12	0	22.14	21.26	PASS			
IOQAIVI		12	6	22.09	21.19	PASS			
		12	13	22.08	21.22	PASS			
		25	0	22.09	21.13	PASS			
		1	0	22.76	21.84	PASS			
		1	12	22.73	21.94	PASS			
		1	24	22.44	21.69	PASS			
	НСН	12	0	22.85	21.83	PASS			
		12	6	22.89	21.90	PASS			
		12	13	22.87	21.92	PASS			
		25	0	22.83	21.90	PASS			

		Conducted	d Output Pow	ver Test Result (Channel Band	dwidth: 10 MHz)	
Modulation Channel		RB Configuration Size Offset		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		1	0	22.96	22.36	PASS
		1	24	23.15	22.53	PASS
		1	49	22.02	21.54	PASS
	LCH	25	0	22.78	21.69	PASS
		25	12	22.56	21.68	PASS
		25	25	22.48	21.55	PASS
		50	0	22.57	21.60	PASS
	МСН	1	0	23.27	22.65	PASS
		1	24	23.02	22.18	PASS
		1	49	22.66	21.95	PASS
QPSK /		25	0	22.09	21.12	PASS
16QAM		25	12	22.07	21.06	PASS
		25	25	22.11	21.18	PASS
		50	0	22.03	21.07	PASS
		1	0	22.43	21.98	PASS
		1	24	22.86	22.35	PASS
		1	49	22.32	21.76	PASS
	НСН	25	0	22.46	21.57	PASS
		25	12	22.74	21.79	PASS
		25	25	22.81	21.93	PASS
		50	0	22.70	21.78	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)								
	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdiet		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	22.86	22.18	PASS		
		1	37	23.17	21.93	PASS		
		1	74	22.12	21.45	PASS		
	LCH	37	0	22.68	21.66	PASS		
		37	18	22.43	21.47	PASS		
		37	38	22.36	21.36	PASS		
		75	0	22.44	21.52	PASS		
		1	0	23.09	22.31	PASS		
	MCH	1	37	22.29	21.53	PASS		
		1	74	22.46	21.89	PASS		
QPSK / 16QAM		37	0	22.11	21.14	PASS		
TOQAM		37	18	22.94	21.96	PASS		
		37	38	22.73	21.71	PASS		
		75	0	22.82	21.88	PASS		
		1	0	22.26	21.62	PASS		
		1	37	22.18	21.72	PASS		
		1	74	22.87	22.20	PASS		
	НСН	37	0	22.24	21.30	PASS		
		37	18	22.42	21.44	PASS		
		37	38	22.64	21.81	PASS		
		75	0	22.43	21.47	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)								
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict			
		Size	Offset	QPSK	16QAM				
		1	0	22.75	21.86	PASS			
		1	49	22.43	21.70	PASS			
		1	99	22.90	22.03	PASS			
	LCH	50	0	22.40	21.41	PASS			
		50	25	22.36	21.34	PASS			
		50	50	22.43	21.48	PASS			
		100	0	22.47	21.58	PASS			
	МСН	1	0	22.93	22.13	PASS			
		1	49	22.73	21.99	PASS			
		1	99	22.33	21.44	PASS			
QPSK /		50	0	22.98	21.97	PASS			
16QAM		50	25	22.85	21.94	PASS			
		50	50	22.58	21.61	PASS			
		100	0	22.77	21.81	PASS			
		1	0	22.26	21.69	PASS			
		1	49	22.85	22.17	PASS			
		1	99	22.84	22.06	PASS			
	НСН	50	0	22.26	21.31	PASS			
		50	25	22.28	21.34	PASS			
		50	50	22.68	21.74	PASS			
		100	0	22.45	21.48	PASS			

A.2 Peak-to-Average Ratio

	Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
MODULATION	Channel	[dB]	[dB]	Verdict				
	LCH	5.13	<13	PASS				
QPSK	MCH	5.26	<13	PASS				
	НСН	4.21	<13	PASS				
	LCH	6	<13	PASS				
16QAM	MCH	6.21	<13	PASS				
	НСН	5.03	<13	PASS				

	Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
wouldton	Channel	[dB]	[dB]	Verdict				
	LCH	5.12	<13	PASS				
QPSK	MCH	5.29	<13	PASS				
	НСН	4.49	<13	PASS				
	LCH	6.04	<13	PASS				
16QAM	MCH	6.25	<13	PASS				
	НСН	5.3	<13	PASS				

	Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
MODULATION	Ghannei	[dB]	[dB]	Verdict				
	LCH	5.04	<13	PASS				
QPSK	MCH	5.26	<13	PASS				
	HCH	4.45	<13	PASS				
	LCH	5.88	<13	PASS				
16QAM	MCH	6.17	<13	PASS				
	HCH	5.38	<13	PASS				

	Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
MODULATION	Channel	[dB]	[dB]	Verdict				
	LCH	4.96	<13	PASS				
QPSK	MCH	5.21	<13	PASS				
	НСН	4.95	<13	PASS				
	LCH	5.85	<13	PASS				
16QAM	MCH	6.05	<13	PASS				
	НСН	5.76	<13	PASS				

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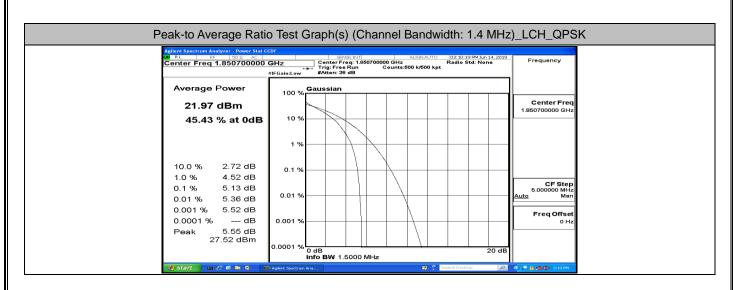
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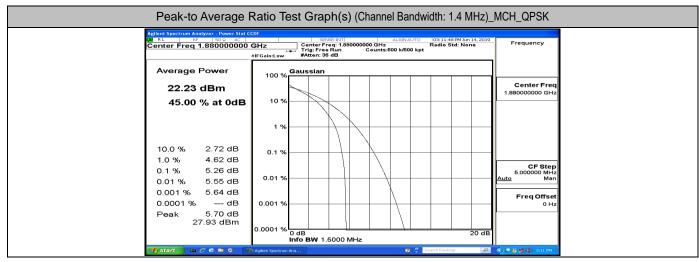
	Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)							
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict				
	LCH	4.86	<13	PASS				
QPSK	MCH	5.02	<13	PASS				
	HCH	5.1	<13	PASS				
	LCH	6.14	<13	PASS				
16QAM	MCH	6.36	<13	PASS				
	HCH	6.37	<13	PASS				

Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Wouldtion	Channel	[dB]	[dB]	Verdict		
	LCH	5.74	<13	PASS		
QPSK	MCH	5.73	<13	PASS		
	НСН	5.87	<13	PASS		
	LCH	6.76	<13	PASS		
16QAM	MCH	6.9	<13	PASS		
	НСН	6.88	<13	PASS		

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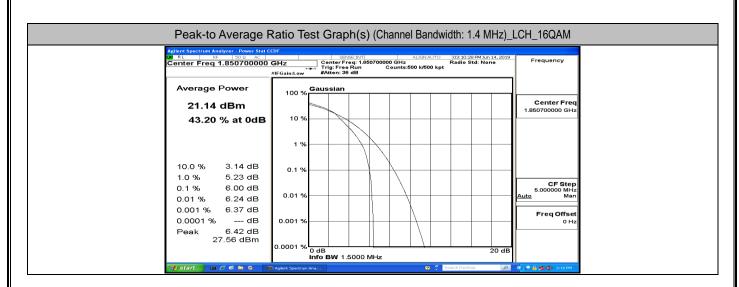
Peak-to Average	Ratio Test Graph(s) (Channel B	andwidth: 1.4 MHz)_	HCH_QPSK
Genter Freq 1.909300000	GHz Center Freq: 1.999300000 GHz Trig: Free Run Counts:500 k/t #IFGain:Low #Atten: 36 dB	00 kpt	Frequency
22.04 dBm 52.23 % at 0dB	100 %		Center Freq 1.909300000 GHz
10.0 % 2.39 dB 1.0 % 3.73 dB	0.1 %		CF Step
0.1 % 4.21 dB 0.01 % 4.39 dB 0.001 % 4.47 dB	0.01 %		5.000000 MHz <u>Auto</u> Man Freq Offset
0.0001 % dB Peak 4.49 dB 26.53 dBm	0.0001 %	20 dB	0 Hz
	Info BW 1.5000 MHz	😰 🍧 Search Desktop 🔊 🔊	🔹 🔎 🔒 🏨 🕲 - 3:13 PM

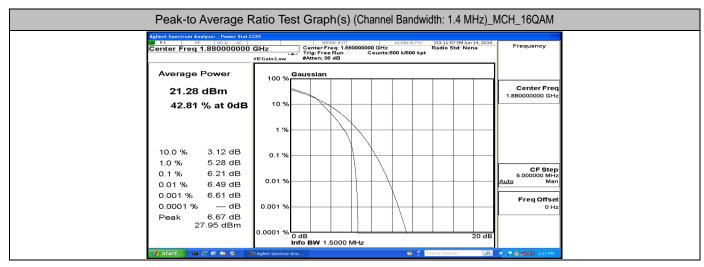
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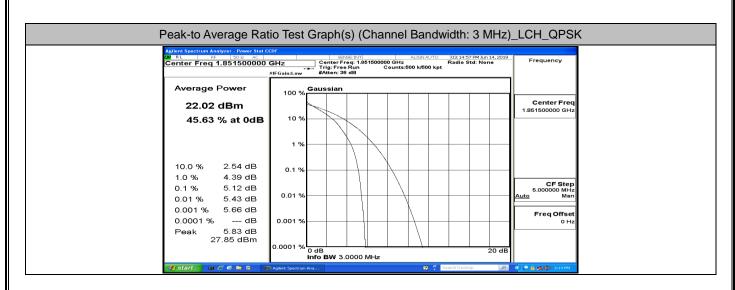


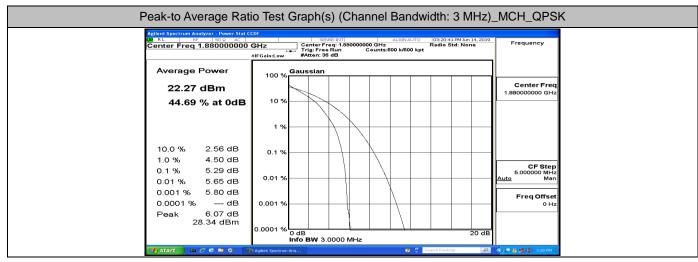


Agilent Spectrum Analyzer - Power Stat C		
Center Freq 1.909300000	GHz	
21.13 dBm 47.86 % at 0dB	10 %	Center Freq 1.909300000 GHz
10.0 % 2.86 dB 1.0 % 4.41 dB	0.1 %	
0.1 % 5.03 dB 0.01 % 5.25 dB 0.001 % 5.32 dB	0.01 %	CF Step 5.00000 MHz <u>Auto</u> Man
0.0001 % dB Peak 5.35 dB	0.001 %	20 dB
	Info BW 1.5000 MHz	2000 2000

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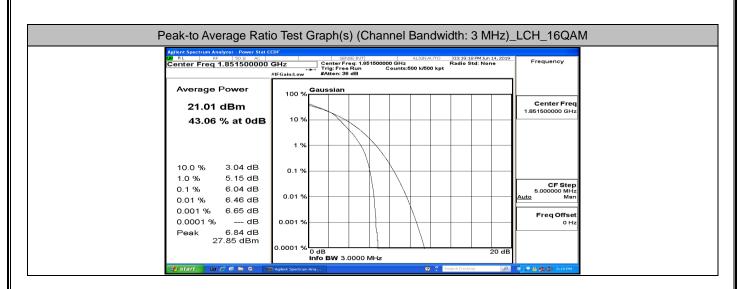


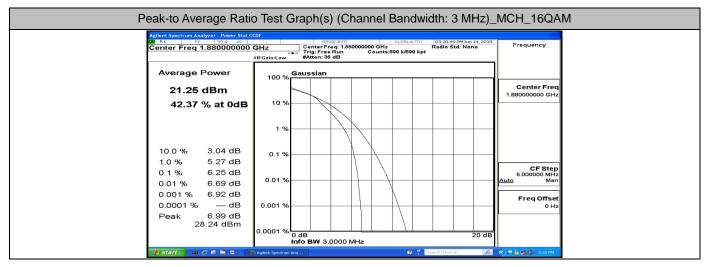


Peak-to Average Ra					-	_HCH_QPSI
02 RL RF 50 Ω AC Center Freq 1.908500000	#IFGain:Low #/	Atten: 36 dB	ALIGNAU 0 GHz counts:500 k/500	Radio Sto	MJun 14,2019 I: None	Frequency
Average Power 22.03 dBm 50.62 % at 0dB	100 %	ssian				Center Freq 1.908500000 GHz
	1 %					
10.0 % 2.33 dB 1.0 % 3.85 dB	0.1 %	$ \rangle$				
0.1 % 4.49 dB 0.01 % 4.81 dB	0.01 %					CF Step 5.000000 MHz <u>Auto</u> Man
0.001 % 5.06 dB 0.0001 % dB Peak 5.10 dB	0.001 %					Freq Offset 0 Hz
27.13 dBm	0.0001 % 0 dB Info	BW 3.0000 MHz			20 dB	
🎒 start 📄 📾 🖉 😂 🕒 🚺	🚺 Agilent Spectrum Ana			🦿 Search Desktop	2	🔇 🔎 🔒 🍕 🔞 - 3122 PM

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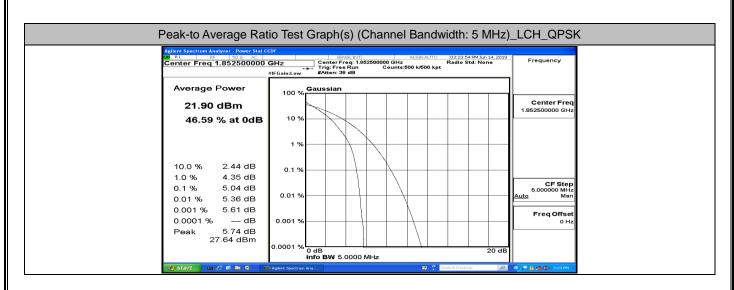


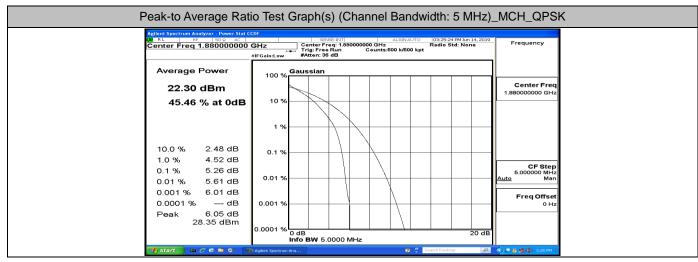


Peak-to Average Rati	o Test Graph(s) (Channel Bandwidth: 3 N	/Hz)_HCH_16QA
28 RL RF 50 Ω AC Center Freq 1.908500000	SENSE:INT ALIGNAUTO 03:22:21 PM 3	
Average Power 21.06 dBm 46.73 % at 0dB	100 % Gaussian	Center Freq 1.908500000 GHz
10.0 % 2.87 dB 1.0 % 4.56 dB	0.1 %	
0.1 % 5.30 dB 0.01 % 5.63 dB 0.001 % 5.95 dB	0.01 %	CF Step 5.000000 MHz <u>Auto</u> Man
0.0001 % dB Peak 6.12 dB	0.001 %	Freq Offset 0 Hz
	Agenet Spectrum Ana 12 Central Analysis	20 dB

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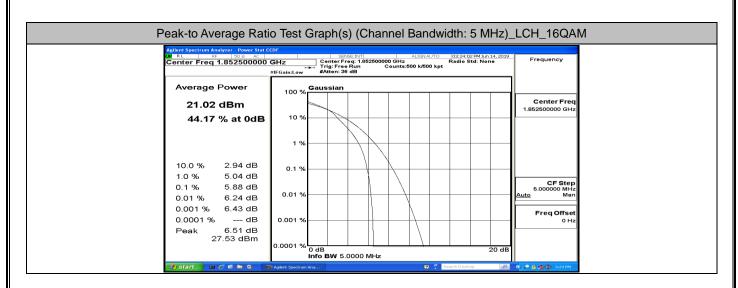


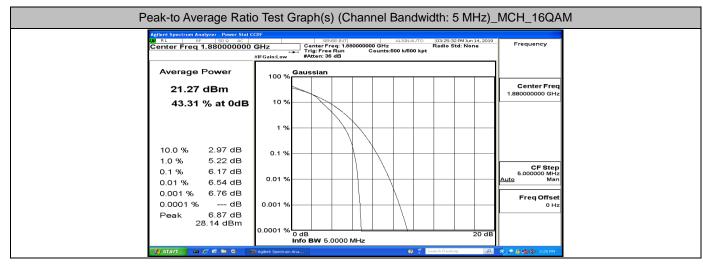


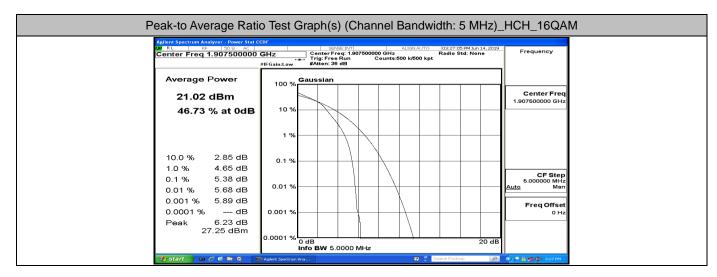
Agilent Spectrum Analyzer - Power Stat (
Center Freq 1.907500000	//IFGainLow #Atten: 86 dB	9 Frequency
22.08 dBm 50.33 % at 0dB		Center Freq 1.907500000 GHz
10.0 % 2.30 dB	1%	
1.0 % 3.88 dB 0.1 % 4.45 dB 0.01 % 4.76 dB	0.01 %	CF Step 5.000000 MHz <u>Auto</u> Man
0.001 % 4.90 dB 0.0001 % dB Peak 5.04 dB 27.12 dBm	0.001 %	Freq Offset 0 Hz
	0.0001 % 0 dB 200 d info BW 5.0000 MHz 20 d 20 d	3 Кој 🗢 🔒 🏩 🔞 3126 РМ

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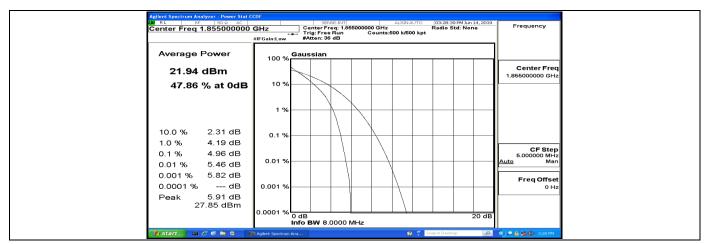
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK

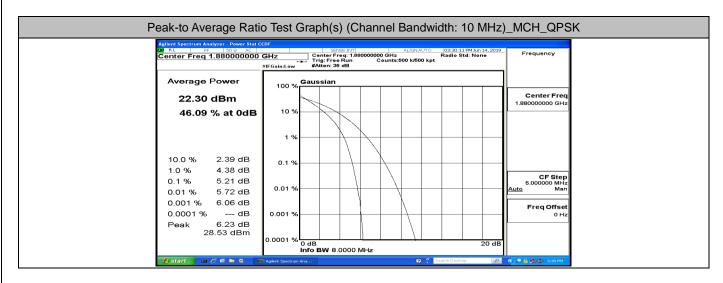
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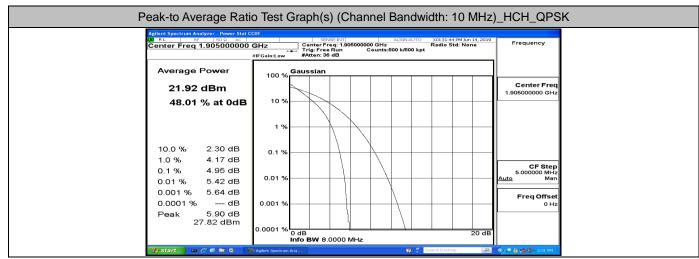
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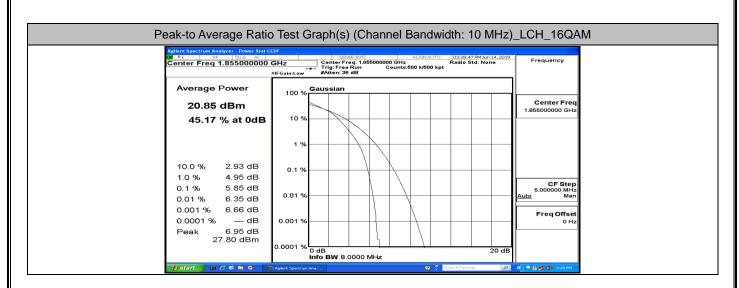


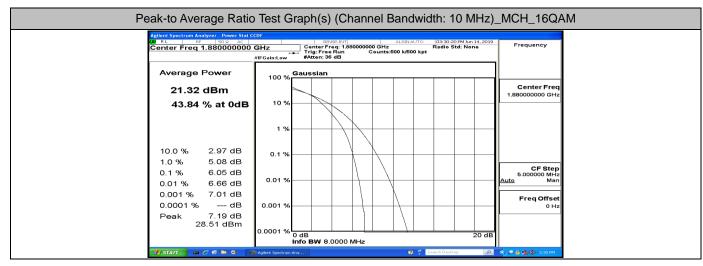




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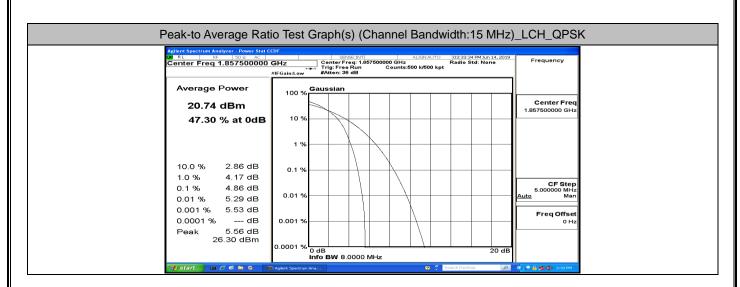


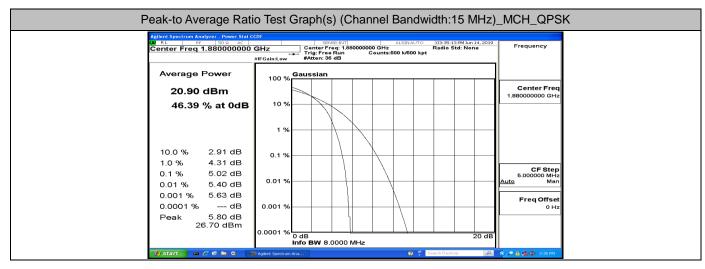


Peak-to Average Ratio	F			_HCH_16QA
Center Freq 1,905000000 Average Power	FGain:Low #Atten: 36 dB	ALIGNAUTO 03:33 000000 GHz Radio Counts:500 k/500 kpt	1:53 PMJun 14, 2019 • Std: None	Frequency
20.99 dBm 45.49 % at 0dB	100 % Gadsstall 10 %			Center Freq 1.905000000 GHz
10.0 % 2.93 dB	1 %			
1.0 % 4.88 dB 0.1 % 5.76 dB 0.01 % 6.21 dB	0.01 %			CF Step 5.000000 MHz <u>Auto</u> Man
0.001 % 6.60 dB 0.0001 % dB Peak 6.70 dB 27.69 dBm	0.001 %			Freq Offset 0 Hz
	0.0001 % 0 dB Info BW 8.0000 M	Hz 🙄 🖉 Search De	20 dB	🤹 , • 🔒 🕵 Фолония

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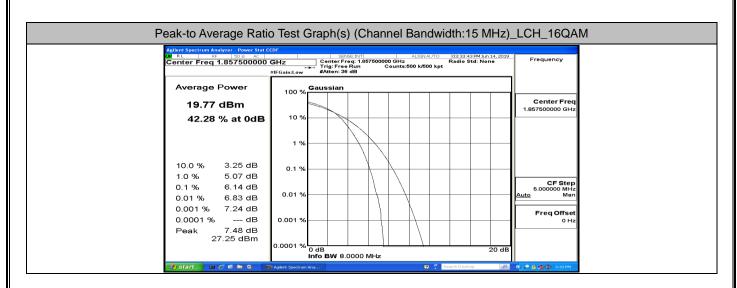


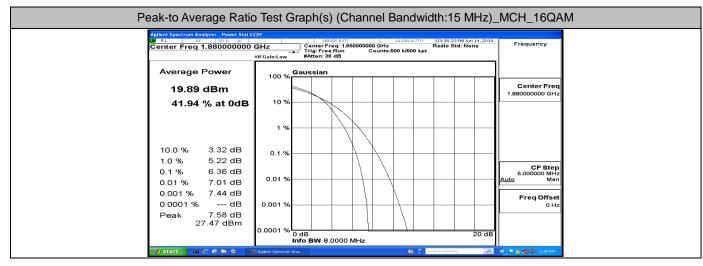


Agilent Spectrum Analyzer - Power Stat C μα RL RF 50 Ω AC	SENSE:INT ALIGNAUTO 03:36:	15 MHz)_HCH_QP
Center Freq 1.902500000 Average Power	HTG::Free Run Counts:500 k/500 kpt Htd: #FGain:Low #Atten: 36 dB	
20.45 dBm 46.54 % at 0dB	10 %	Center Fre 1.902500000 GH
10.0 % 2.94 dB 1.0 % 4.37 dB 0.1 % 5.10 dB	0.1 %	CF Ste
0.01 % 5.51 dB 0.001 % 5.80 dB 0.0001 % dB Peak 5.97 dB	0.001 %	Auto Ma
26.42 dBm	0.0001 % 0 dB	20 dB

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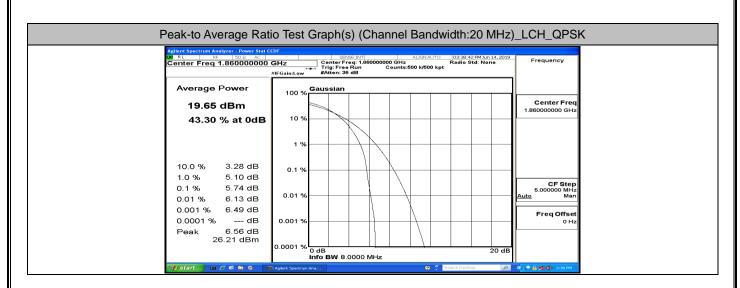


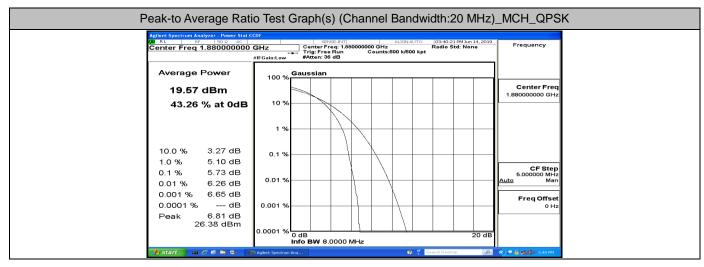


Aglent Spectrum Analyzer - Power Stat C C RL RF 50 0 AC Center Freq 1.902500000	SENSE:INT ALIGN AUTO 03:37:04 PM Jun 14, 20	
Average Power 19.48 dBm 41.99 % at 0dB	100 % Gaussian 10 %	Center Freq 1.902500000 GHz
10.0 % 3.33 dB 1.0 % 5.22 dB	0.1 %	
0.1 % 6.37 dB 0.01 % 7.07 dB 0.001 % 7.53 dB 0.0001 % dB	0.01 %	CF Step 5.00000 MHz Auto Man Freq Offset 0 Hz
Peak 7.74 dB	0.0001 % 0 dB info BW 8.0000 MHz 20 d	

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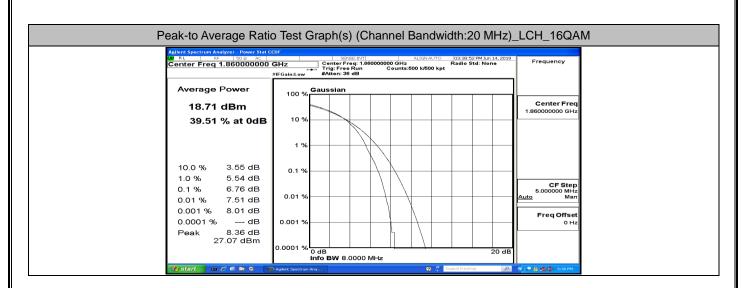
Agilent Spectrum Analyzer - Power Stat	tio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK
02 RL RF 100 AC Center Freq 1.900000000) GH2 Center Freq 1300000000 GH2 Radio Std: None //IFGain:Low #Atten: 36 dB
Average Power 18.77 dBm	100 % Gaussian Center Freq 1.90000000 GHz
42.93 % at 0dB	
10.0 % 3.26 dB	0.1 %
1.0 % 5.15 dB 0.1 % 5.87 dB 0.01 % 6.45 dB	0.01 %
0.001 % 6.72 dB 0.0001 % dB Peak 7.08 dB	0.001 % Freq Offset
25.85 dBm	0.0001 % 0 dB 20 dB 10 0 0 MHz
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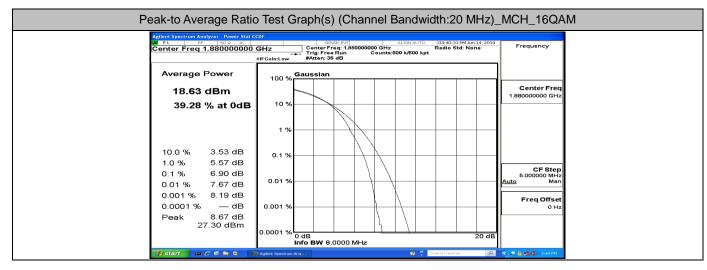
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SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.

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Peak-to Average Ratio	SENSE:INT ALIGN AUTO 03:42:11 PM Jun 14, 2019	AM
Average Power 17.78 dBm	FGaintlow #Atten: 36 dB 100 % Gaussian Center Freq	
39.12 % at 0dB	10 % 1.90000000 GHz	
10.0 % 3.50 dB 1.0 % 5.61 dB	0.1 %	5
0.1 % 6.88 dB 0.01 % 7.59 dB 0.001 % 8.29 dB	0.01 %	
0.0001 % dB Peak 8.58 dB 26.36 dBm	0.001 % 0 dB 0 Hz 20 dB	
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A.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)							
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict			
MODULATION	Channel	(MHz)	(MHz)	Verdict			
	LCH	1.0800	1.286	PASS			
QPSK	MCH	1.0758	1.228	PASS			
	НСН	1.0816	1.343	PASS			
	LCH	1.0817	1.264	PASS			
16QAM	MCH	1.0815	1.256	PASS			
	НСН	1.0775	1.321	PASS			

	EBW & OBW T	est Result (Channel Ban	dwidth: 3 MHz)	
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
MODULATION	Ghanne	(MHz)	(MHz)	Verdict
	LCH	2.6889	2.902	PASS
QPSK	MCH	2.6825	2.897	PASS
	НСН	2.6860	2.977	PASS
	LCH	2.6847	2.899	PASS
16QAM	MCH	2.6909	2.935	PASS
	НСН	2.6898	2.938	PASS

	EBW & OBW T	est Result (Channel Ban	dwidth: 5 MHz)	
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
MODULATION	Channel	(MHz)	(MHz)	Verdict
	LCH	4.4792	4.837	PASS
QPSK	MCH	4.4773	4.874	PASS
	НСН	4.4718	4.811	PASS
	LCH	4.4800	4.828	PASS
16QAM	MCH	4.4660	4.829	PASS
	HCH	4.4758	4.891	PASS

	EBW & OBW Te	est Result (Channel Band	dwidth: 10 MHz)	
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation	Channel	(MHz)	(MHz)	Verdict
	LCH	8.9199	9.476	PASS
QPSK	MCH	8.9512	9.467	PASS
	НСН	8.9350	9.422	PASS
	LCH	8.9111	9.415	PASS
16QAM	MCH	8.9329	9.499	PASS
	НСН	8.9367	9.534	PASS

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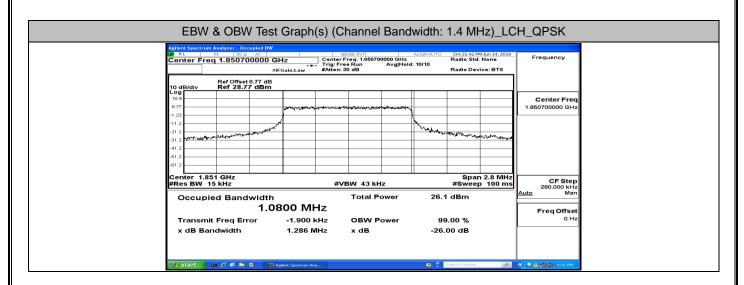
	EBW & OBW T	est Result (Channel Band	width: 15 MHz)	
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
	LCH	13.377	14.01	PASS
QPSK	MCH	13.401	14.18	PASS
	HCH	13.405	14.10	PASS
	LCH	13.367	14.02	PASS
16QAM	MCH	13.409	14.01	PASS
	HCH	13.403	14.05	PASS

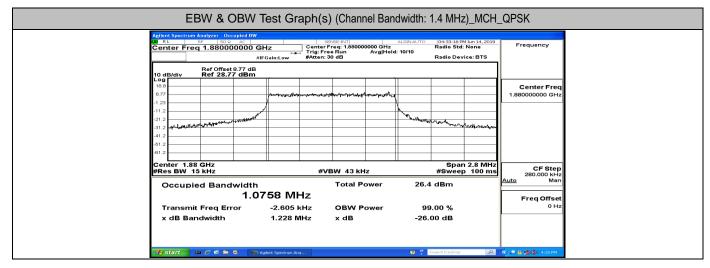
	EBW & OBW Te	est Result (Channel Band	dwidth: 20 MHz)	
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
	LCH	17.815	18.59	PASS
QPSK	MCH	17.870	18.69	PASS
	НСН	17.904	18.73	PASS
	LCH	17.824	18.56	PASS
16QAM	MCH	17.876	18.63	PASS
	НСН	17.895	18.75	PASS

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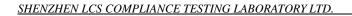
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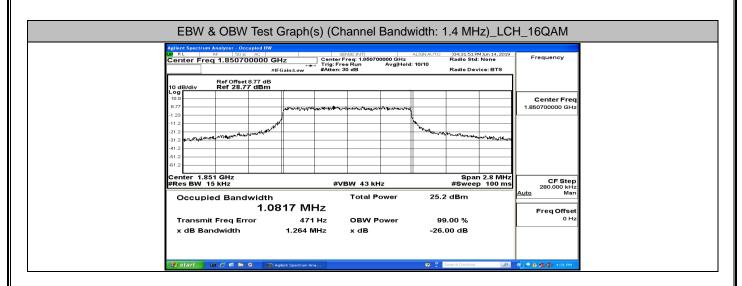


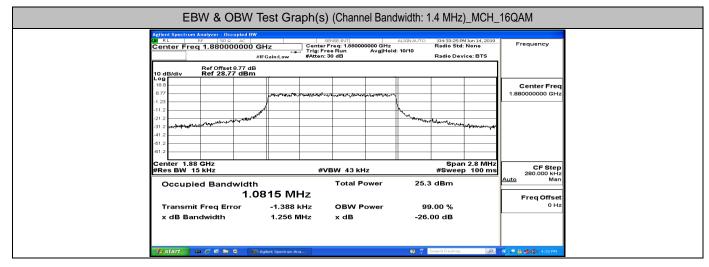
Agilent Spectrum Analyzer - Occupied BW		SE:INT	ALIGNAUTO 04:34	4:53 PM Jun 14, 2019						
DX RL RF 50 Ω AC Center Freq 1.909300000 GH #IFC	Frequency									
Ref Offset 8.84 dB 10 dB/div Ref 28.84 dBm Log	10 dB/div Ref 28.84 dBm									
8.84	Juniorania and American Malescone	wheel was the second			Center Freq 1.909300000 GHz					
-1.16 -11.2 -21.2 -31.2			hand a stand and a stand and a stand and a stand and a stand a	Active Barrison of Charles						
-31.2 **** -41.2 -61.2										
Genter 1.909 GHz	#1/8	W 43 KHz	8	Span 2.8 MHz veep 100 ms	CF Step					
Occupied Bandwidth		Total Power	26.0 dBn	280.000 kHz <u>Auto</u> Man						
Transmit Freq Error		OBW Power	99.00 %	-	Freq Offset 0 Hz					
x dB Bandwidth	1.343 MHz	x dB	-26.00 di	В						

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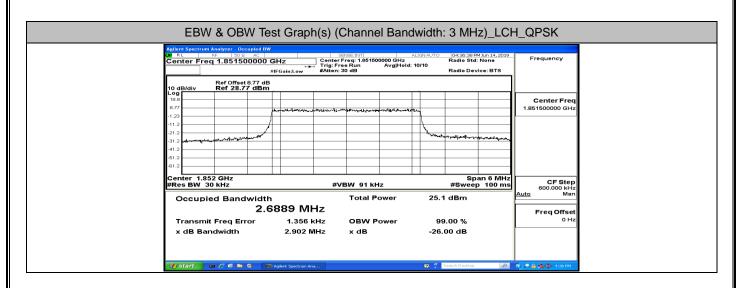


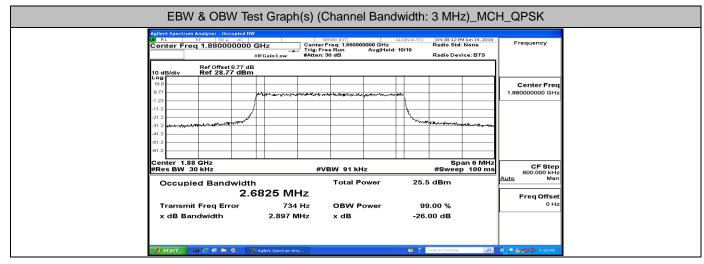
	pectrum J	W & O	upied BW	est Gra	• • •						16QAM			
Cente	Center Freq 1.909300000 GHz Center Freq: 1.009300000 GHz Radio Std: None Trij: Free Run Avg Held: 10/10 Radio Device: BTS #IFGainit.ow #Atten: 30 dB Radio Device: BTS											су		
10 dB/c Log 18.8	div	Ref Offset Ref 28.84	8.84 dB I dBm								Cente			
-1.16			and the state	1	10	helennastelperae.	artiketyetyetyety	Mary Mary Mary			1.909300000 GHz			
-31.2 Mar -41.2	trynorskiller	no anon na istano							adden and a started	harrente				
-61.2 Cente #Res I					-43./8	3W 43 kH				n 2.8 MHz p 100 ms	CF	Step		
		d Bandy		75 MI		Total P		25.1	dBm	p 100 ms	Auto	00 kHz Man		
	Transmit Freq Error -879 Hz x dB Bandwidth 1.321 MHz					OBW P x dB	ower	99.00 % -26.00 dB			Freq	0 Hz		
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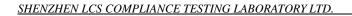
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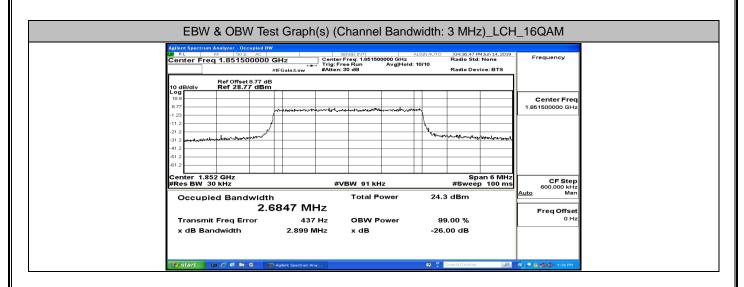


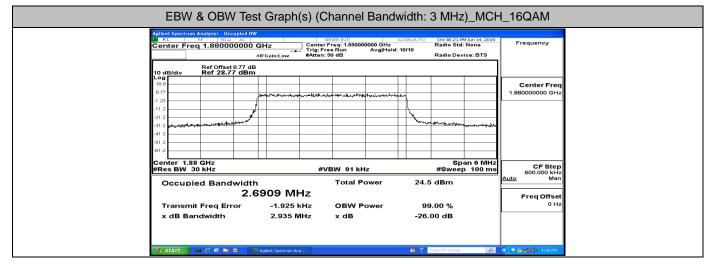
Ant					n(s) (C	hanne	el Bano	dwidth	: 3 MH	z)_HCl	H_QPSK
	nter F	RF 50 Ω Freq 1.90850 Ref Offset	AC 00000 8.84 dB	GHz #IFGain:Low				ALIGN AUTO : 10/10	04:39:47 F Radio Std Radio Dev		Frequency
10 Lo 18 8.0	8	Ref 28.8	4 dBm	an in the second	*\}~~ & _#***	forfull without May	n from motive line	-			Center Freq 1.908500000 GHz
-11 -21 -31	2 2 2		and the					harma	www.ananana	and a state of the	
-41 -61 -61	2	.909 GHz								an 6 MHz	
#R	es BW	30 kHz				BW 91 kH Total P		25.		p 100 ms	CF Step 600.000 kHz Auto Man
									99.00 % -26.00 dB		Freq Offset 0 Hz
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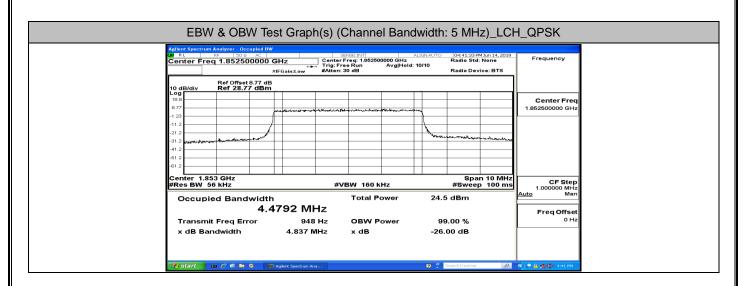


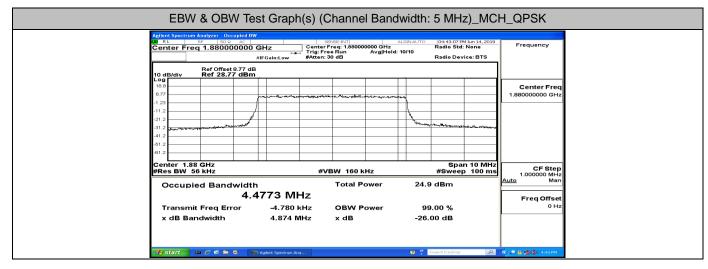
Agilent Spectrum Analyzer - Occupied BY		ENSE:INT	ALIGN AUTO 04:39:56 PM Jun 14, 2019	
Center Freq 1.908500000	Frequency			
Ref Offset 8.84 dB 10 dB/div Ref 28.84 dBm Log	3 1 ₁			
18.8	proner sources and	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~	Center Freq 1.908500000 GHz
-1.16 -11.2 -21.2			hun	
-21.2 -31.2 -41.2			And a second and a second seco	
-61.2				
Center 1.909 GHz #Res BW 30 kHz	#V	BW 91 kHz	Span 6 MHz #Sweep 100 ms	CF Step 600.000 kHz
Occupied Bandwidt	^h 6898 MHz	Total Power	24.3 dBm	Auto Man Freq Offset
Transmit Freq Error x dB Bandwidth	-2.857 kHz 2.938 MHz	OBW Power x dB	99.00 % -26.00 dB	0 Hz
X GD Bandwidth	2.355 WHZ	X GD	-20.00 GB	

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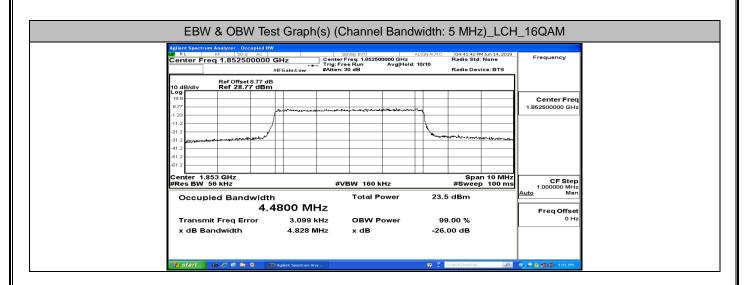


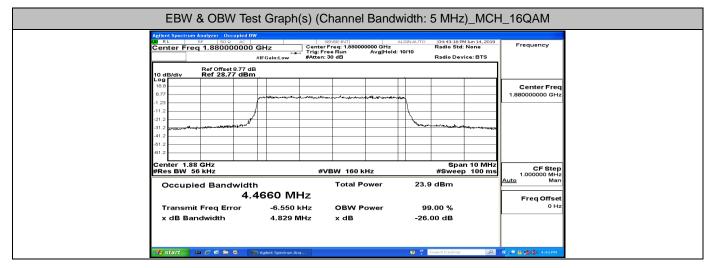
Agilent Spectrum Analyzer - Occupied	IBW		width: 5 MHz)_H0							
	Mail IP 500 AC Constraints ALIGNATTO Det 44-39 MAJ 13, 2019 Center Freq 1.907500000 GHz Constraints Freq 1.907500000 GHz Alignature Radio Strik None #/FGaliniLow #Atten: 30 dB Avg Hold: 10/10 Radio Device: BTS									
10 dB/div Ref 28.84 dE	3m		~	Center Freq 1.907500000 GHz						
-1.16 -11.2 -21.2 -31.2			hand when a start when when							
-31.2										
Center 1.908 GHz #Res BW 56 kHz	#V	BW 160 kHz	Span 10 MH #Sweep 100 m	s 1.000000 MHz						
Occupied Bandwic 4	ith 4718 MHz	Total Power	24.6 dBm	Auto Man Freq Offset						
Transmit Freq Error x dB Bandwidth	-1.559 kHz 4.811 MHz	OBW Power x dB	99.00 % -26.00 dB	0 Hz						
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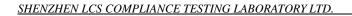
IC: 25015-FL01



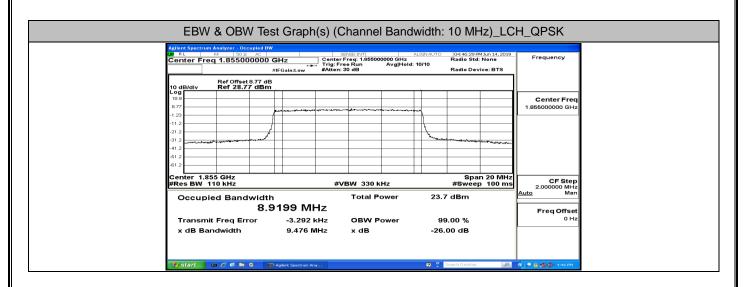


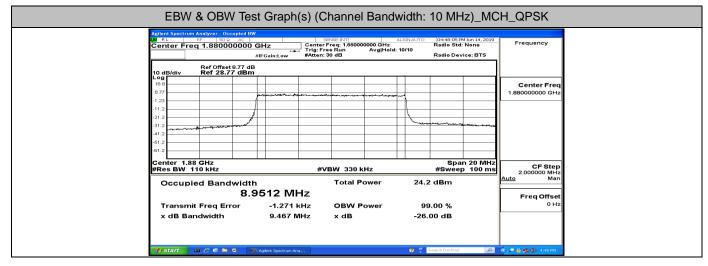
Agilent Spectrum Analyzer - Occupi	.C		VSE:INT		LIGN AUTO		M Jun 14, 2019	Frequency			
Center Freq 1.9075000	Center Freq 1.907500000 GHz Center Freq: 1.907500000 GHz Radio Std: None Trig: Free Run Avg Hold: 10/10 #IFGain:Low #Atten: 30 dB Radio Device: BTS										
Ref Offset 8.8	4 dB										
10 aB/alv Rei 28.84 C								Center Freq			
8.84	and an						~				
-11.2					<u> </u>						
-21.2	~*				mant		- Hendersonald				
-41.2											
-61.2											
Center 1.908 GHz #Res BW 56 kHz		#VE	3W 160 K	Hz			n 10 MHz 5 100 ms	CF Step 1.000000 MHz			
Occupied Bandw	idth		Total Po	ower	23.6	dBm		Auto Man			
	4.4758 MI	Ηz						Freq Offset			
Transmit Freq Error			OBW P	ower		9.00 %		0 Hz			
x dB Bandwidth	4.891 N	IHZ	x dB		-26.	00 dB					

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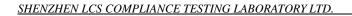
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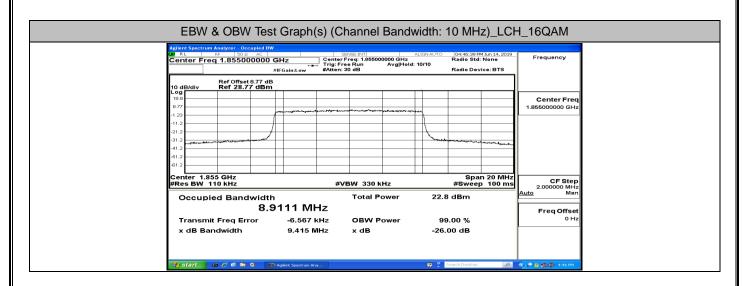


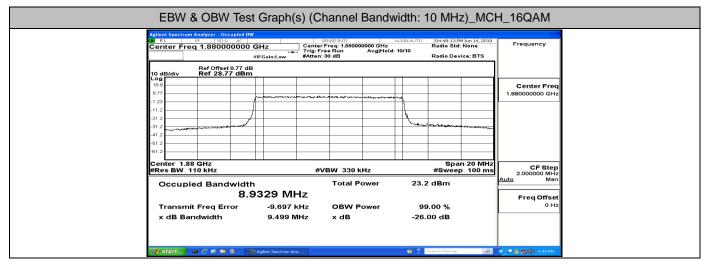
_	rum Analyzer - Occ RF 50 Q	upied BW	at Graphi		INSE:INT	Danc	ALIGNAU			1Jun 14, 2019	H_QPSK
Center F	Freq 1.90500	1	GHz #IFGain:Low	Center I Trig: Fre #Atten: 3	Freq: 1.90500 e Run 30 dB	Avg Hol	d: 10/10		adio Std: adio Devi		Frequency
10 dB/div Log	Ref Offset Ref 28.8	8.84 dB 4 dBm	r i i i								
18.8									Center Freq 1.905000000 GHz		
-11.2											
-31.2 -41.2		and the second second							American.	La ford to be a state of the st	
-61.2											
	1.905 GHz / 110 kHz			#V	BW 330 k	KHZ		#		100 MHz 100 ms	CF Step 2.000000 MHz
Occu	pied Band		350 MH	Iz	Total P	ower	2	3.8 dl	Bm		Auto Man Freq Offset
Transmit Freq Error 9.512 kHz x dB Bandwidth 9.422 MHz					OBW Power x dB			99.00 % -26.00 dB			0 Hz
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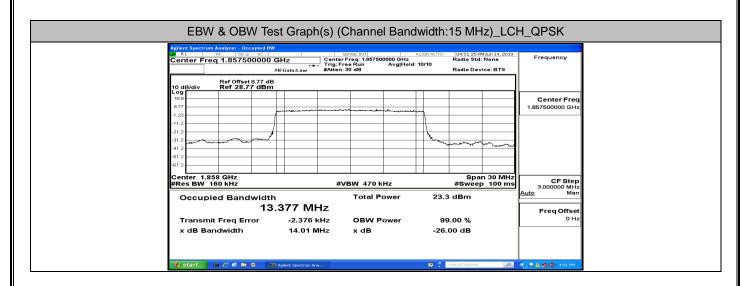


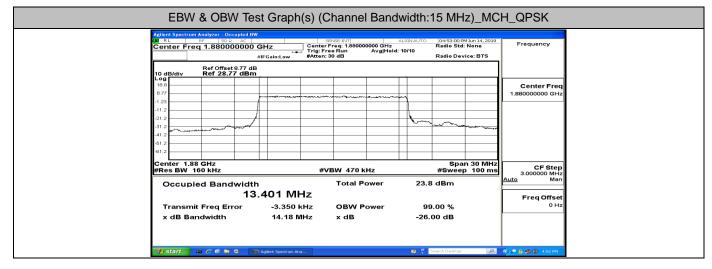
Agilent Spectrum Analyzer - Occup	ied BW	s) (Channel		.IGN AUTO		MJun 14, 2019	
Center Freq 1.9050000	Frequency						
Ref Offset 8.8 10 dB/div Ref 28.84 (
18.8 8.84	Prain Street Martin Pray	مرور ورور ورور ورور ورور ورور ورور ورور	A	6			Center Freq 1.905000000 GHz
-1.16 -11.2 -21.2				l			
-31.2 -41.2				"Bringer		a annow deriver and	
-61.2							
Center 1.905 GHz #Res BW 110 kHz		#VBW 330	kHz			n 20 MHz p 100 ms	CF Step 2.000000 MHz
Occupied Bandw	^{idth} 8.9367 MH	Total F	ower	22.9) dBm		Auto Man Freq Offset
Transmit Freq Error	Hz OBW F	Power	99.00 %			0 Hz	
x dB Bandwidth	9.534 M	Hz xdB		-26.	00 dB		
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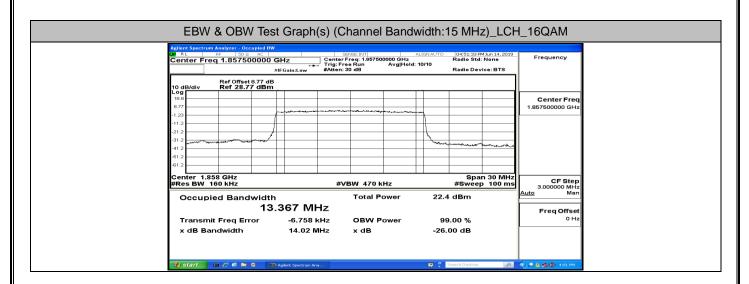


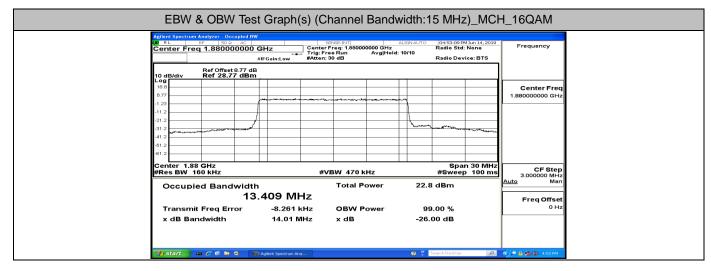
Agilent Spectrum Analyzer - Occupied B		NGE-INIT	ALIGNAUTO 04:54:36 PM Jun 14, 2019	Frequency					
Off RL FF 50.9 AC SERVENT ALIGNATIO 00151350FM3.n13,2019 Center Freq 1.9025000000 GHz Center Freq: 1.902500000 GHz Center Freq: 1.90250000 GHz Radio Stati None #IFGaint.cow #IFGaint.cow Trig: Free Run Avg Hold: 10/10 Radio Device: BTS									
Ref Offset 8.84 dB 10 dB/div Ref 28.84 dBm									
Log 18.8 8.84	järis jamming production proves			Center Freq 1.902500000 GHz					
-1.16 -11.2 -21.2									
-31.2 -41.2									
-61.2									
Center 1.903 GHz #Res BW 160 kHz	#VE	3W 470 kHz	Span 30 MHz #Sweep 100 ms	CF Step 3.000000 MHz					
Occupied Bandwidt	h 3.405 MHz	Total Power	23.3 dBm	Auto Man					
Transmit Freq Error	6.372 kHz	OBW Power	99.00 %	Freq Offset 0 Hz					
x dB Bandwidth	14.10 MHz	x dB	-26.00 dB						

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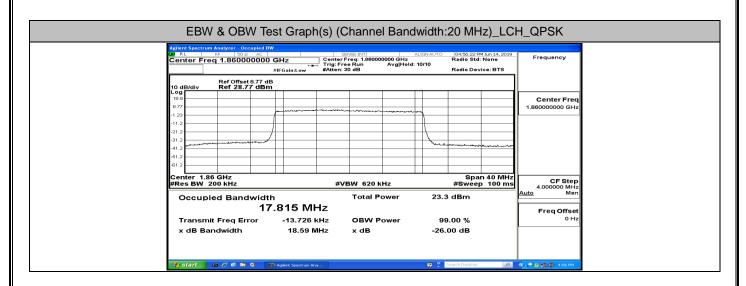


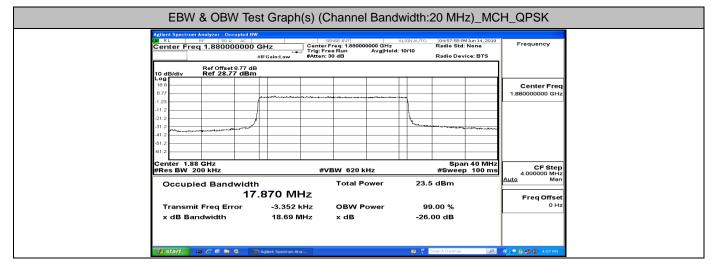
Center Freq 1.902500000 GHz Center Freq 1.302500000 GHz Radio Std: None Radio Std: None Freque In dB/div Ref Offset8.84 dB In dB/div Ref Offset8.84 dB In dB/div In dB/div Ref Offset8.84 dB In dB/div				ALIGNAU	TO 04:54:45 F	M Jun 14, 2019					
Ref Offset 8.84 dB Centul 10 dB/dlv Ref 28.84 dB 10 a Image: Centul 18.8 Image: Centul 11.1 Image: Centul 11.2 Image: Centul	Center Freq 1.902500000 GHz Center Freq: 1.902500000 GHz Radio Std: None										
Log 18.9 18.9 1.10 21.2 21.2 31.2 41.2 61.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	Ref Offset 8.84 dB										
8.84	Log	aBm									
1.16 112 2.12 3.12 4.12 6							Center Freq 1.902500000 GHz				
212 312 412 612 612											
	24.2			`~	-ma - and - more	A Price - William					
-61.2											
	Center 1.903 GHz				C n/	n 20 Milia					
The BW 160 kHz Third Third The State of the			#VBW 470 kHz				CF Step 3.000000 MHz				
Occupied Bandwidth Total Power 22.3 dBm	Occupied Bandy	vidth	Total Powe	r 2	2.3 dBm						
13.403 MHz		13.403 MHz	z				Freq Offset				
Transmit Freg Error 12.599 kHz OBW Power 99.00 %	Transmit Freg Erro	or 12.599 kH	Z OBW Powe	r	99.00 %		0 Hz				
		14.05 MH			26.00 dB						

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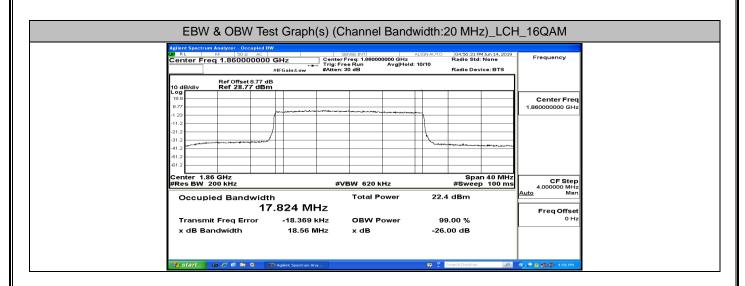


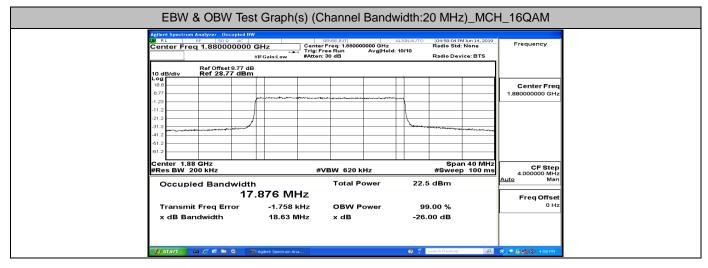
	BW & OBW		(s) (Cha	nnel Bano	dwidth::	20 MH	z)_HC	H_QPSK			
Center	M RL PF 500 or ACC SERVENT ALXANZTO 0x392/28 FM Jan 14, 2010 Center Freq 1.90000000 GHz Center Freq 1.90000000 GHz Radio Std: None Radio Std: None #/FGain:Low #/FGain:Low #Atten: 30 dB Radio Device: BTS										
10 dB/di Log 18.8 8.84 -1.16	v Ref 28.84 di	Bm						Center Freq 1.90000000 GHz			
-11.2 -21.2 -31.2					han						
	1.9 GHz						n 40 MHz	CF Step			
	w 200 kHz upied Bandwig	_{dth} 17.904 MH	То	620 kHz tal Power	#Sweep 100 ms 23.1 dBm			4.000000 MHz <u>Auto</u> Man Freq Offset			
	nsmit Freq Error 3 Bandwidth	-3.723 ⊧ 18.73 №		BW Power IB	99.00 % -26.00 dB			0 Hz			
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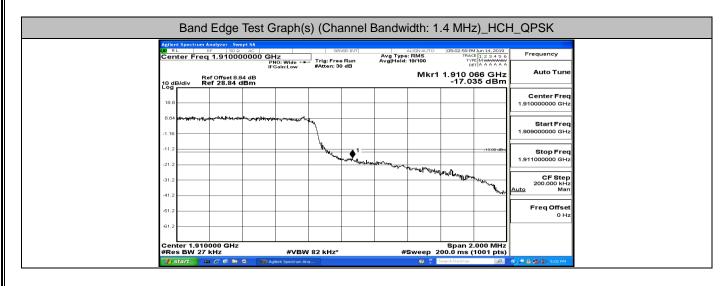


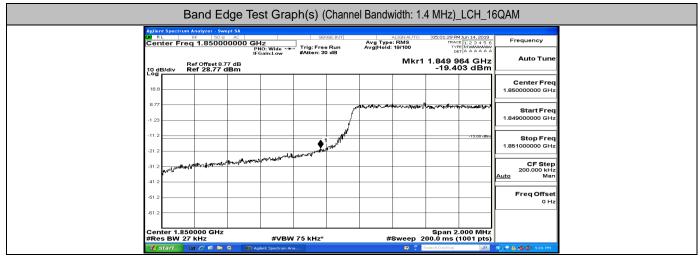
Center Freq 1.900000000 GHz Center Freq: 1.900000000 GHz Rac	19:37 PM Jun 14, 2019 Frequency								
	lio Device: BTS								
Ref Offset 8.84 dB 10 dB/div Ref 28.84 dBm									
18.8	Center Free 1.900000000 GH								
	A A CARPELLA OF BUILDING AND AND								
61.2 61.2 61.2 61.2 61.2 61.2 61.2 61.2									
Center 1.9 GHz #Res BW 200 kHz #VBW 620 kHz #S	Span 40 MHz Sweep 100 ms 4.000000 MH								
Occupied Bandwidth Total Power 22.2 dB 17.895 MHz	m <u>Auto</u> Mar Freg Offse								
Transmit Freq Error -17.932 kHz OBW Power 99.00 x dB Bandwidth 18.75 MHz x dB -26.00 c	% он								

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A.4 Band Edge

				Graph(s) (Ch	annel	Bandw	idth: 1	.4 MH	z)_LCŀ	I_QPSK
LXI R	L	RF 50 eq 1.850	Ω AC 000000 G	Hz PNO: Wide ↔		e Run	Avg Type Avg Hold:	ALIGNAUTO : RMS 19/100	05:01:19 P	M Jun 14, 2019 CE 1 2 3 4 5 6 PE MWWWWW ET A A A A A A	Frequency
10 d	B/div	Ref Offset 8 Ref 28.77	8.77 dB	- Gain:Low				Mkr1	1.849 9	96 GHz 00 dBm	Auto Tune
18.8											Center Freq 1.85000000 GHz
-1.23						/	and all complete states and	₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	yedya biyada eya ya da ila da ya	1 ⁹⁸ ************************************	Start Freq 1.849000000 GHz
-11.2						1. Jacob				-13.00 dBm	Stop Freq 1.85100000 GHz
-21.2	10 MM	mallhouracter	marnerarthat	water after the sea the form	rjet gradit mene	<i>.</i>					CF Step
-41.2											200.000 kHz <u>Auto</u> Man
-51.2											Freq Offset 0 Hz
Cer	nter 1.8	50000 GH	z		<u> </u>					2.000 MHz	
	s BW 2 start	27 KHZ	0	#VBW	82 kHz*		#	•	00.0 ms (Search Desktop	(1001 pts)	(5). 户 品 读 (10) 5:01 PM

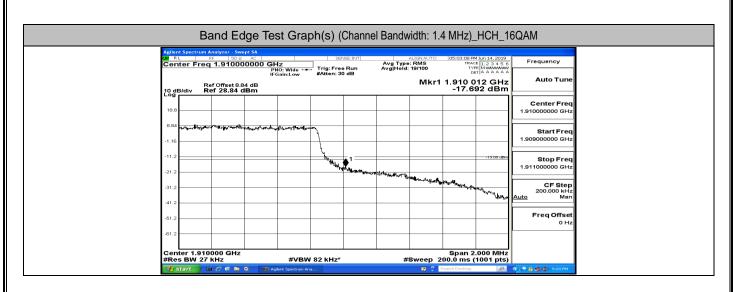


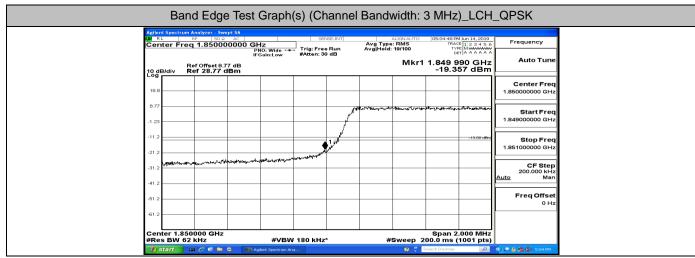


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FCC ID: 2ASKHFL01

IC: 25015-FL01





_		-		Graph	(s) (Cł	annel	Bandv	vidth: 3	3 MHz))_HCH	_QPSK
LXI RL	R	nalyzer - Swej F 50 Ω 1.910000	AC 0000 G	SHz PNO:Wide ↔		NSE:INT	Avg Type Avg Hold:	ALIGNAUTO RMS	05:06:29 PM TRAC	E 1 2 3 4 5 6 E MWWWWW T A A A A A A	Frequency
10 dB/di	Re iv Re	f Offset 8.84	1 dB	IFGain:Low	#Atten: 3	0 dB			1.910 0	08 GHz 57 dBm	Auto Tune
18.8											Center Freq 1.91000000 GHz
8.84	awadan wa	mulaenthe	v New York	***************************************	m y						Start Freq 1.909000000 GHz
-11.2					hay	•1====				-13.00 dBm	Stop Freq
-21.2						***********		provinsional and a sector		AUT_MAR	CF Step
-41.2											200.000 kHz <u>Auto</u> Man
-61.2											Freq Offset 0 Hz
Center		000 GHz								.000 MHz	
#Res B		kHz i 🌈 🞯 😂 🔇		#VBW	180 kHz	*	#	Sweep 2	00.0 ms (🤹 , 🗢 🔒 🍕 🔞 - 5106 PM

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