





































Spectrum Analyzer 1 Swept SA	+			Frequency	- ※	
KEYSIGHT Input RF	Input Z: 50 Ω #Atten: 10 dB Corrections: Off Preamp: Off Freq Ref: Int (S)	PNO: Fast #Avg Ty Gate: Off Trig: Fre IF Gain: Low	e: Power (RMS 1 2 3 4 5 6 e Run	Center Frequency	Settings	
RL Align: Auto	Freq Ref: Int (S)	IF Gain: Low Sig Track: Off	A WWWWW A A A A A A	6.825000000 GHz Span		
1 Spectrum V	Ref LvI Offset 26.	43 dB		800.000000 MHz		
Scale/Div 10 dB	Ref Level 10.00 d	em		Swept Span Zero Span		
0.00				Full Span		
-10.0				Start Freq 6.425000000 GHz		
-20.0				Stop Freq		
-30.0				7.225000000 GHz		
-40.0				AUTO TUNE		
-50.0				CF Step 80.000000 MHz		
-60.0				Auto Man		
-70.0				Freq Offset		
-80.0				0 Hz		
Center 6.8250 GHz #Res BW 1.6 MHz	#Video BW 5.01	MHz #S	Span 800.0 MHz weep 10.0 ms (10001 pts)	X Axis Scale Log Lin		
	? Aug 28, 2023			Signal Track		
الصيصيتيهم يدعر		MIMO Ant		Hopen 200m)		
Spectrum Analyzer 1 Swept SA	+		0020	Frequency		
KEYSIGHT Input: RF	Input Z: 50 Ω #Atten: 10 dB	PNO: Fast #Avg Ty	pe: Power (RMS 1 2 3 4 5 6 e Run	Center Frequency		
RL Align: Auto	Corrections: Off Preamp: Off Freq Ref: Int (S)	Gate: Off Trig: Fre IF Gain: Low Sig Track: Off	e Run A WWWWW	6.985000000 GHz	Settings	
1 Spectrum	Bot Lui Offect 26		~~~~~	Span 800.000000 MHz		
Scale/Div 10 dB	Ref Lvi Offset 26. Ref Level 10.00 d	Bm		Swept Span Zero Span		
Trace 1 Pass				Full Span		
-10.0				Start Freq		
-20.0				6.585000000 GHz		
-30.0				Stop Freq 7.385000000 GHz		
-40.0				AUTO TUNE		
-50.0				CF Step		
-60.0				80.000000 MHz		
-70.0				Auto Man		
-80.0				Freq Offset 0 Hz		
Center 6.9850 GHz	#Video BW 5.0 I	WHz	Span 800.0 MHz	X Axis Scale		
#Res BW 1.6 MHz		#5	weep 10.0 ms (10001 pts)	Log Lin		
4 h C L	? Aug 28, 2023 8:46:27 PM			Signal Track (Span Zoom)		
Construction of the second sec		MIMO_Ant	4_6985			
Spectrum Analyzer 1 Swept SA	+			Frequency	- 迷	
RL Coupling DC Align: Auto	Input Z: 50 Ω #Atten: 10 dB Corrections: Off Preamp: Off Freq Ref: Int (S)	PNO: Fast #Avg Ty Gate: Off Trig: Fre IF Gain: Low Sig Track: Off	AWWWW	Center Frequency 6.265000000 GHz	Settings	
DASS			A A A A A A	Span		
1 Spectrum v Scale/Div 10 dB	Ref Lvi Offset 25. Ref Level 10.00 d	92 dB Bm		1.60000000 GHz Swept Span		
Log Trace 1 Pass				Swept Span Zero Span		
10.0				Full Span		
20.0				Start Freq 5.465000000 GHz		
-30.0				Stop Freq 7.065000000 GHz		
-40.0				AUTO TUNE		
-50.0				CF Step		
-60.0				160.000000 MHz		
-70.0				Auto Man		
-80.0				Freq Offset 0 Hz		
Contor 6 2650 Olla		41/2	Sport 4 600 Bit	X Axis Scale		
Center 6.2650 GHz #Res BW 4 MHz	#Video BW 50 M	#12 #1	Span 1.600 GHz weep 10.0 ms (10001 pts)	Log Lin		
 - C -	? Aug 29, 2023 10:31:00 AM		JI 🔛 🗙	Signal Track (Span Zoom)		
	11BE320	MIMO_Ant	4_6265			



				_		
Spectrum Analyzer 1 Swept SA	• +				Frequency	- * ※
KEYSIGHT Input RF RL Coupling D Align Auto	C Input Z: 50 Ω #Atten: 10 Corrections: Off Preamp: 0 Freq Ref: Int (S)				Center Frequency 6.585000000 GHz	Settings
1 Spectrum	Ref Lvi Off	set 26.10 dB		s	Span 1.60000000 GHz	
Scale/Div 10 dB	Ref Level 1	0.00 dBm			Swept Span Zero Span	
Trace 1 Pass					Full Span	
-10.0				s	Start Freq	
-20.0					5.785000000 GHz	
-30.0					Stop Freq 7.385000000 GHz	
-40.0					AUTO TUNE	
-50.0					CF Step	
-60.0					160.000000 MHz	
-70.0					Man Freq Offset	
-80.0					0 Hz	
Center 6.5850 GHz #Res BW 4 MHz	#Video B	W 50 MHz	Span 1. #Sweep 10.0 ms (10	.600 GHz	CAxis Scale Log Lin	
	Aug 29, 2023			X	Signal Track	
	11BE	320MIMO	Ant4 6585	;		
Spectrum Analyzer 1 Swept SA	• +			_	Frequency	· ` *
KEYSIGHT Input: RF	Input Z: 50 Ω #Atten: 10) dB PNO: Fast Off Gate: Off	#Avg Type: Power (RMS 1 2 Trig: Free Run	2 3 4 5 6 🔽	Center Frequency	Settings
RL Counting D Align: Auto	Freq Ref: Int (S)	IF Gain: Low Sig Track: Off	- A W		6.905000000 GHz	Getariga
1 Spectrum V		set 26.61 dB			Span 1.60000000 GHz	
Scale/Div 10 dB	Ref Level 1	0.00 dBm			Swept Span Zero Span	
0.00 Trace 1 Pass				— i	Full Span	
-10.0					Start Freq	
-20.0					6.105000000 GHz Stop Freq	
-30.0		_			7.705000000 GHz	
-40.0		hmm			AUTO TUNE	
					CF Step 160.000000 MHz	
-50.0						
-60.0					Auto	_
-500 -600 -700						_
-20 0 -40 0 -70 0 -40 0				F	Auto Man Freq Offset 0 Hz	
-600		W 50 MHz	#Sweep 10.0 ms (10	.600 GHz 0001 pts)	Auto Man Freq Offset	_
	#Video B	W 50 MHz	Span 1./ #Sweep 10.0 ms (10	.600 GHz	Auto Man Freq Offset 0 Hz K Axis Scale	



11.7. APPENDIX G: CONTENTION BASED PROTOCOL

11.7.1. Test Result

Test Mode	Antenna	EUT Frequency	AWGN Frequency	Injected	Antenna Gain	Path Loss	Adjusted Power	Limit	UT Tx Status	Verdict
		[MHz]	[MHz]	[dBm]	[dBi]	[dB]	[dBm]	[dBm]	(Note1)	
				-72.69	-0.69	2	-70.00	-62	ON	PASS
		6115	6115	-66.89	-0.69	2	-64.20	-62	Minimal	PASS
				-65.18	-0.69	2	-62.49	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
		6435	6435	62.11	-0.69	2	64.80	-62	Minimal	PASS
11BE20	Ant5			-64.96	-0.69	2	-62.27	-62	OFF	PASS
TIDE20	Anto			-72.69	-0.69	2	-70.00	-62	ON	PASS
		6535	6535	-69.49	-0.69	2	-66.80	-62	Minimal	PASS
				-65.17	-0.69	2	-62.48	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
		6895	6895	-68.89	-0.69	2	-66.20	-62	Minimal	PASS
				-64.94	-0.69	2	-62.25	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
			6110	-67.19	-0.69	2	-64.50	-62	Minimal	PASS
				-65.09	-0.69	2	-62.40	-62	OFF	PASS
			6265	-72.69	-0.69	2	-70.00	-62	ON	PASS
		6265		-67.89	-0.69	2	-65.20	-62	Minimal	PASS
				-64.99	-0.69	2	-62.30	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
			6420	-67.29	-0.69	2	-64.60	-62	Minimal	PASS
				-65	-0.69	2	-62.31	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
			6430	-68.39	-0.69	2	-65.70	-62	Minimal	PASS
				-65.09	-0.69	2	-62.40	-62	OFF	PASS
11BE320	Ant5			-72.69	-0.69	2	-70.00	-62	ON	PASS
		6585	6585	-68.89	-0.69	2	-66.20	-62	Minimal	PASS
				-65.11	-0.69	2	-62.42	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
			6740	-67.79	-0.69	2	-65.10	-62	Minimal	PASS
				-64.9	-0.69	2	-62.21	-62	OFF	PASS
				-72.69	-0.69	2	-70.00	-62	ON	PASS
			6750	-67.99	-0.69	2	-65.30	-62	Minimal	PASS
				-64.87	-0.69	2	-62.18	-62	OFF	PASS
		6905		-72.69	-0.69	2	-70.00	-62	ON	PASS
			6905	-69.79	-0.69	2	-67.10	-62	Minimal	PASS
				-65.04	-0.69	2	-62.35	-62	OFF	PASS
			7060	-72.69	-0.69	2	-70.00	-62	ON	PASS

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-69.89	-0.69	2	-67.20	-62	Minimal	PASS
-64.81	-0.69	2	-62.12	-62	OFF	PASS

Note 1: The AWGN level is reported for the following conditions:

- OFF = AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds

- Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently

- ON = AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Note 2: Detection Level = Injected AWGN Power (dBm) – Antenna Gain (dBi) + Path Loss (dB)

Test Mode	Antenna	EUT Frequency [MHz]	AWC Interfer Freque [MH	ence ency	Test Number [n]	Number Detected [n]	Result [%]	Limit [%]	Verdict
		6115	Center	6115	10	10	100	90	PASS
11BE20MIMO	Ant4	6435	Center	6435	10	10	100	90	PASS
TIBEZOWINVO	AII14	6535	Center	6535	10	10	100	90	PASS
		6895	Center	6895	10	10	100	90	PASS
			Low	6110	10	10	100	90	PASS
		6265	Center	6265	10	10	100	90	PASS
			High	6420	10	10	100	90	PASS
			Low	6430	10	10	100	90	PASS
11BE320MIMO	Ant4	6585	Center	6585	10	10	100	90	PASS
			High	6740	10	10	100	90	PASS
			Low	6750	10	10	100	90	PASS
		6905	Center	6905	10	10	100	90	PASS
			High	7060	10	10	100	90	PASS

Test Mode	Antenna	Frequency[MHz]	Interfer Freque [MH	ency	Test Time	Is Detected	Verdict
			Center	6115	1	Yes	PASS
			Center	6115	2	Yes	PASS
			Center	6115	3	Yes	PASS
			Center	6115	4	Yes	PASS
		6115	Center	6115	5	Yes	PASS
		0115	Center	6115	6	Yes	PASS
			Center	6115	7	Yes	PASS
			Center	6115	8	Yes	PASS
			Center	6115	9	Yes	PASS
			Center	6115	10	Yes	PASS
			Center	6435	1	Yes	PASS
			Center	6435	2	Yes	PASS
11BE20MIMO	Ant4		Center	6435	3	Yes	PASS
TIDEZUIVIIIVIO	Ant4		Center	6435	4	Yes	PASS
		6435	Center	6435	5	Yes	PASS
		0435	Center	6435	6	Yes	PASS
			Center	6435	7	Yes	PASS
			Center	6435	8	Yes	PASS
			Center	6435	9	Yes	PASS
			Center	6435	10	Yes	PASS
			Center	6535	1	Yes	PASS
			Center	6535	2	Yes	PASS
		6535	Center	6535	3	Yes	PASS
		0000	Center	6535	4	Yes	PASS
			Center	6535	5	Yes	PASS
			Center	6535	6	Yes	PASS

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						I	
			Center	6535	7	Yes	PASS
			Center	6535	8	Yes	PASS
			Center	6535	9	Yes	PASS
			Center	6535	10	Yes	PASS
			Center	6895	1	Yes	PASS
			Center	6895	2	Yes	PASS
			Center	6895	3	Yes	PASS
			Center	6895	4	Yes	PASS
		6895	Center	6895	5	Yes	PASS
		0000	Center	6895	6	Yes	PASS
			Center	6895	7	Yes	PASS
			Center	6895	8	Yes	PASS
			Center	6895	9	Yes	PASS
			Center	6895	10	Yes	PASS
		-					
			Low	6110	1	Yes	PASS
			Low	6110	2	Yes	PASS
			Low	6110	3	Yes	PASS
			Low	6110	4	Yes	PASS
			Low	6110	5	Yes	PASS
			Low	6110	6	Yes	PASS
			Low	6110	7	Yes	PASS
			Low	6110	8	Yes	PASS
			Low	6110	9	Yes	PASS
			Low	6110	10	Yes	PASS
			Center	6265	1	Yes	PASS
			Center	6265	2	Yes	PASS
			Center	6265	3	Yes	PASS
			Center	6265	4	Yes	PASS
		6265	Center	6265	5	Yes	PASS
		0205	Center	6265	6	Yes	PASS
			Center	6265	7	Yes	PASS
			Center	6265	8	Yes	PASS
			Center	6265	9	Yes	PASS
			Center	6265	10	Yes	PASS
			High	6420	1	Yes	PASS
			High	6420	2	Yes	PASS
11BE320MIMO	Ant4		High	6420	3	Yes	PASS
			High	6420	4	Yes	PASS
			High	6420	5	Yes	PASS
			High	6420	6	Yes	PASS
			High	6420	7	Yes	PASS
			High	6420	8	Yes	PASS
			High	6420	9	Yes	PASS
			High	6420	10	Yes	PASS
			Low	6430	1	Yes	PASS
			Low	6430	2	Yes	PASS
			Low	6430	3	Yes	PASS
			Low	6430	4	Yes	PASS
			Low	6430	5	Yes	PASS
			Low	6430	6	Yes	PASS
			Low	6430	7	Yes	PASS
		6585	Low	6430	8	Yes	PASS
		0000	Low	6430	9	Yes	PASS
			Low	6430	9 10	Yes	PASS
			Center	6585	10	Yes	PASS
				6585	2	Yes	PASS
			Center				
			Center	6585	3	Yes	PASS
			Center	6585	4	Yes	PASS
			Center	6585	5	Yes	PASS



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 	0	0505	0	V	D 4 0 0
	Center	6585	6	Yes	PASS
	Center	6585	7	Yes	PASS
	Center	6585	8	Yes	PASS
	Center	6585	9	Yes	PASS
	Center	6585	10	Yes	PASS
	High	6740	1	Yes	PASS
	High	6740	2	Yes	PASS
	High	6740	3	Yes	PASS
	High	6740	4	Yes	PASS
	High	6740	5	Yes	PASS
	High	6740	6	Yes	PASS
	High	6740	7	Yes	PASS
	High	6740	8	Yes	PASS
	High	6740	9	Yes	PASS
	High	6740	10	Yes	PASS
	Low	6750	1	Yes	PASS
	Low	6750	2	Yes	PASS
	Low	6750	3	Yes	PASS
	Low	6750	4	Yes	PASS
	Low	6750	5	Yes	PASS
	Low	6750	6	Yes	PASS
	Low	6750	7	Yes	PASS
	Low	6750	8	Yes	PASS
	Low	6750	9	Yes	PASS
	Low	6750	10	Yes	PASS
	Center	6905	1	Yes	PASS
	Center	6905	2	Yes	
	••••••	0000	2	165	PASS
	Center	6905	3	Yes	PASS PASS
2005	Center	6905	3	Yes	PASS
6905	Center Center	6905 6905	3 4	Yes Yes	PASS PASS
6905	Center Center Center	6905 6905 6905 6905	3 4 5	Yes Yes Yes Yes	PASS PASS PASS PASS
6905	Center Center Center Center	6905 6905 6905	3 4 5 6	Yes Yes Yes	PASS PASS PASS
6905	Center Center Center Center Center	6905 6905 6905 6905 6905	3 4 5 6 7	Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center	6905 6905 6905 6905 6905 6905 6905	3 4 5 6 7 8	Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center Center	6905 6905 6905 6905 6905 6905 6905 6905	3 4 5 6 7 8 9	Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center Center High	6905 6905 6905 6905 6905 6905 6905	3 4 5 6 7 8 9 10	Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center Center	6905 6905 6905 6905 6905 6905 6905 6905	3 4 5 6 7 8 9 10 1	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center High High	6905 6905 6905 6905 6905 6905 6905 6905 6905 6905 6905 6905 7060	3 4 5 6 7 8 9 10 1 2	Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center High High High	6905 6905 6905 6905 6905 6905 6905 6905 6905 7060 7060 7060 7060 7060	3 4 5 6 7 8 9 10 1 2 3 4	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center High High High High	6905 6905 6905 6905 6905 6905 6905 6905 6905 7060 7060 7060 7060 7060 7060 7060 7060	3 4 5 6 7 8 9 10 1 2 3 4 5	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center High High High High High	6905 6905 6905 6905 6905 6905 6905 6905 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060	3 4 5 6 7 8 9 10 1 2 3 4	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center High High High High High High High	6905 6905 6905 6905 6905 6905 6905 6905 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060	3 4 5 6 7 8 9 10 1 2 3 4 5 6 7	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS
6905	Center Center Center Center Center Center Center High High High High High	6905 6905 6905 6905 6905 6905 6905 6905 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060 7060	3 4 5 6 7 8 9 10 1 2 3 4 5 6	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	PASS PASS PASS PASS PASS PASS PASS PASS



11.7.2. Test Graphs (worst case)



























































