

APPENDIX REPORT

Project No.	SHT2006062904EW	Radio Specification	WIFI 5G
Test sample No.	YPHT20060629002	Model No.	T350
Start test date	2020/7/8	Finish date	2020/7/8
Temperature	25°C	Humidity	50%
Test Engineer	Jiongsheng.Feng	Auditor	<i>William.wang</i>

Appendix clause	Test item	Result
A	Maximum Conducted Output Power	PASS
B	Maximum Power Spectral Density	PASS
C	26 dB Bandwidth	PASS
D	99% Occupy bandwidth	PASS
E	Band Edge	PASS
F	Frequency stability	PASS

Appendix A: Maximum Conducted Output Power

Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Conducted Output Power (dBm)	Limit (dBm)	Result
II	20	802.11n	CH _L	17.52	86.46	0.63	18.15	24.00	Pass
			CH _M	16.95	86.38	0.64	17.59		
			CH _H	17.13	86.38	0.64	17.77		
		802.11a	CH _L	17.59	87.15	0.60	18.19	24.00	Pass
			CH _M	16.91	87.15	0.60	17.51		
			CH _H	17.44	87.22	0.59	18.03		
	40	802.11n	CH _L	13.99	76.02	1.19	15.18	24.00	Pass
			CH _H	13.86	75.96	1.19	15.05		

Appendix B: Maximum Power Spectral Density

Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
II	20	802.11n	CH _L	7.07	86.46	0.63	7.70	11.00	Pass
			CH _M	6.98	86.38	0.64	7.62		
			CH _H	6.65	86.38	0.64	7.29		
		802.11a	CH _L	7.57	87.15	0.60	8.17	11.00	Pass
			CH _M	7.58	87.15	0.60	8.18		
			CH _H	7.47	87.22	0.59	8.06		
	40	802.11n	CH _L	1.14	76.02	1.19	2.33	11.00	Pass
			CH _H	0.80	75.96	1.19	1.99		

Test plot as follows:

Band II		802.11n (HT20)
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB = RBW 1 MHz Att 30 dB SWI 1.01 ms = VBW 3 MHz Mode Auto Sweep Count 100/100 11.1035240 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 7.07 dBm M1[1] 5.2559240 GHz CF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUL.2020 10:04:32	
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB = RBW 1 MHz Att 30 dB SWI 1.01 ms = VBW 3 MHz Mode Auto Sweep Count 100/100 11.1035240 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 6.98 dBm M1[1] 5.2753250 GHz CF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUL.2020 10:07:13	



Band II	802.11a
CH _L	MultiView Spectrum Ref Level 20.00 dBm Att 30 dB Offset 1.00 dB RBW 1 MHz SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] 7.57 dBm 5.2657840 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUL.2020 09:40:10
CH _M	MultiView Spectrum Ref Level 20.00 dBm Att 30 dB Offset 1.00 dB RBW 1 MHz SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] 7.58 dBm 5.2839260 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUL.2020 09:42:19
CH _H	MultiView Spectrum Ref Level 20.00 dBm Att 30 dB Offset 1.00 dB RBW 1 MHz SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] 7.47 dBm 5.3234170 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.32 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUL.2020 10:00:02

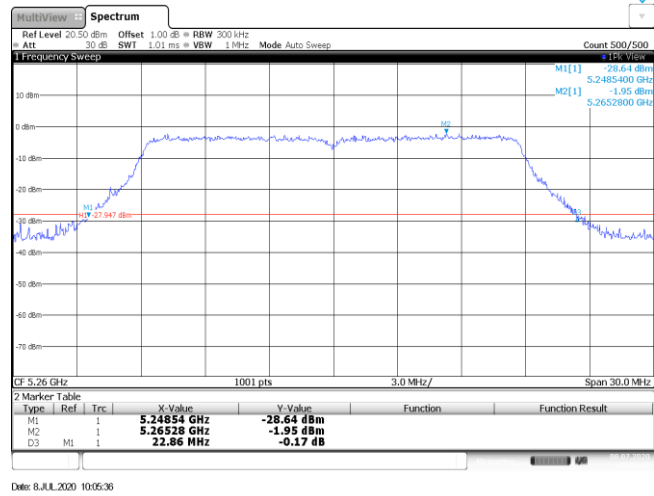
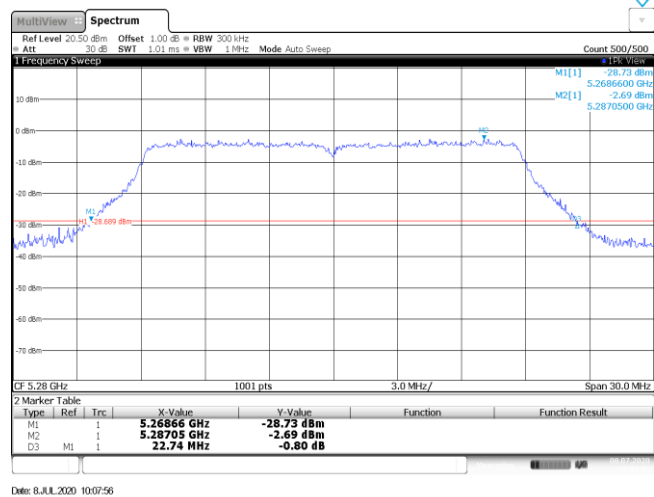
Band II		802.11n (HT40)
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 1.14 dBm 5.2783920 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.27 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 8.JUL.2020 10:13:07	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 0.80 dBm 5.3026870 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.31 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 8.JUL.2020 10:16:37	

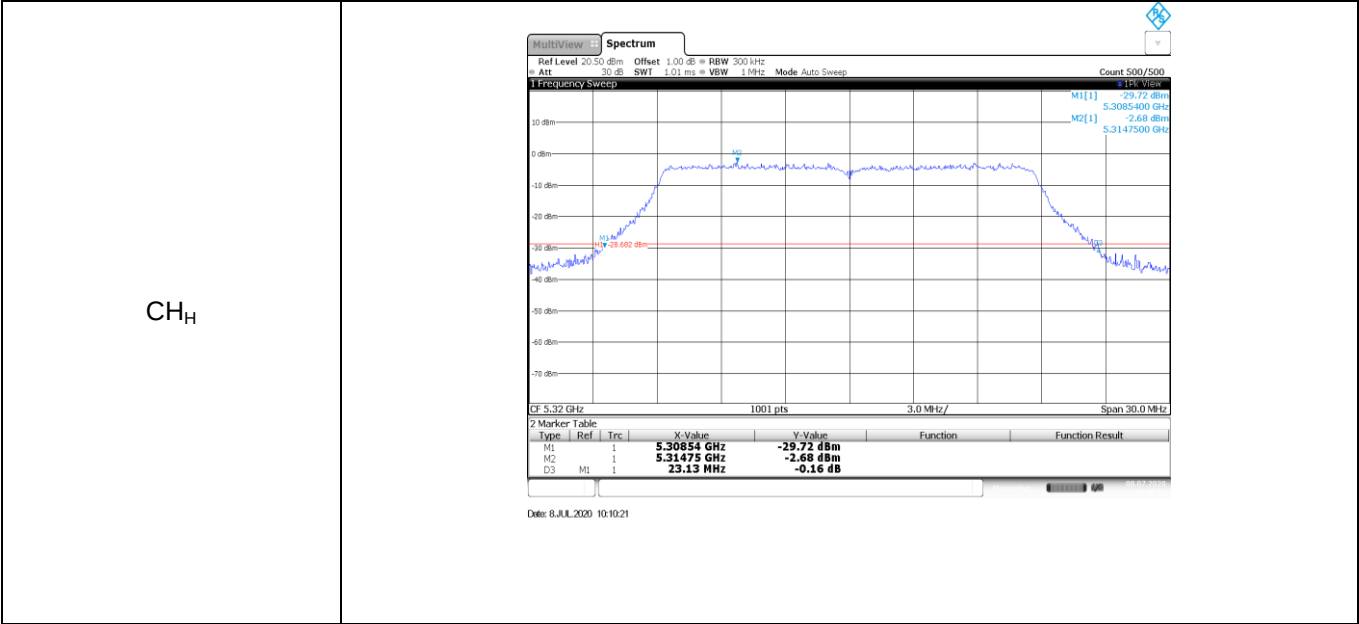
Appendix C: 26dB bandwidth

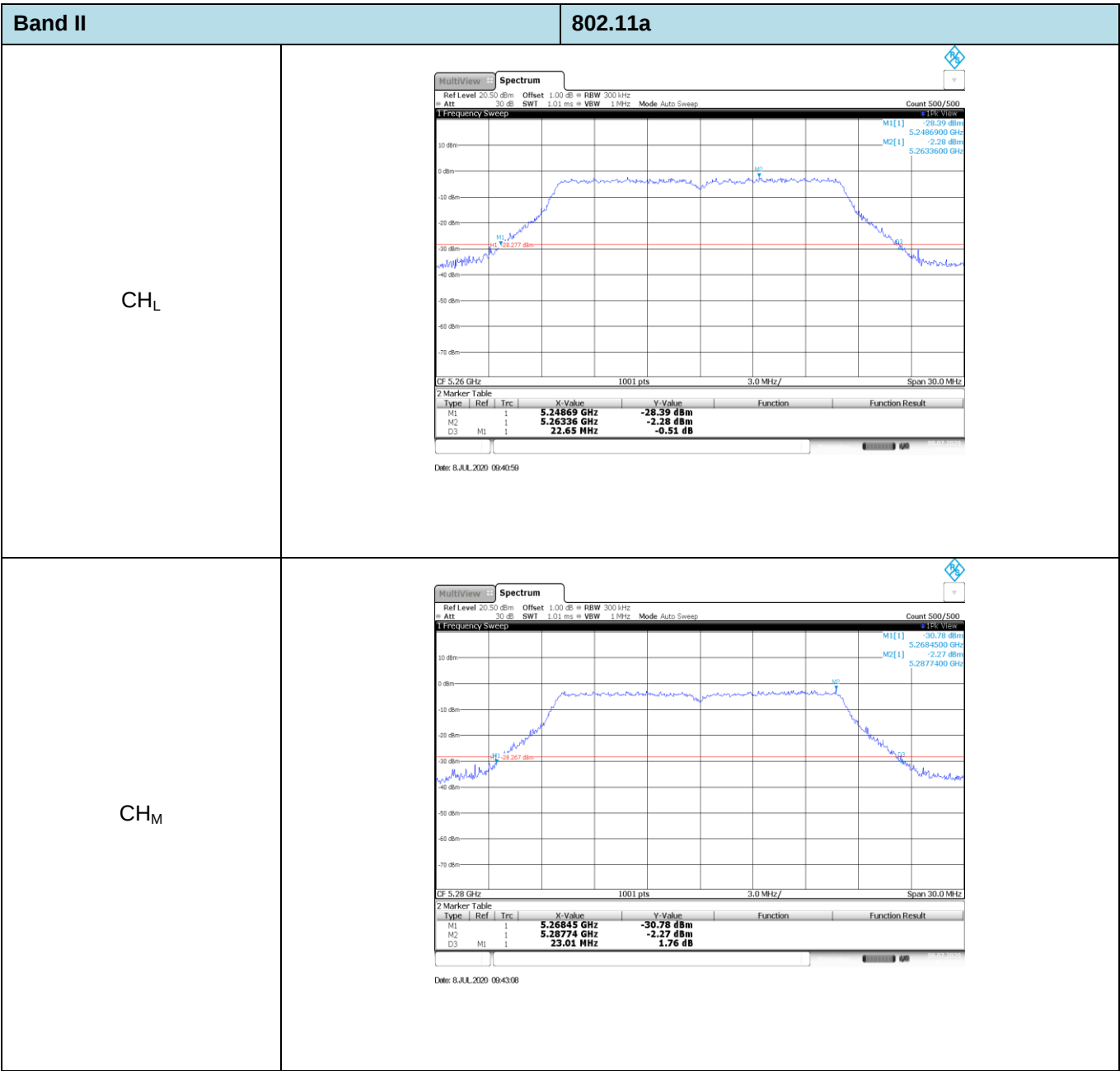
Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
II	20	802.11n	CH _L	22.86	Pass
			CH _M	22.74	
			CH _H	23.13	
		802.11a	CH _L	22.65	Pass
			CH _M	23.01	
			CH _H	22.89	
	40	802.11n	CH _L	44.34	Pass
			CH _H	43.86	

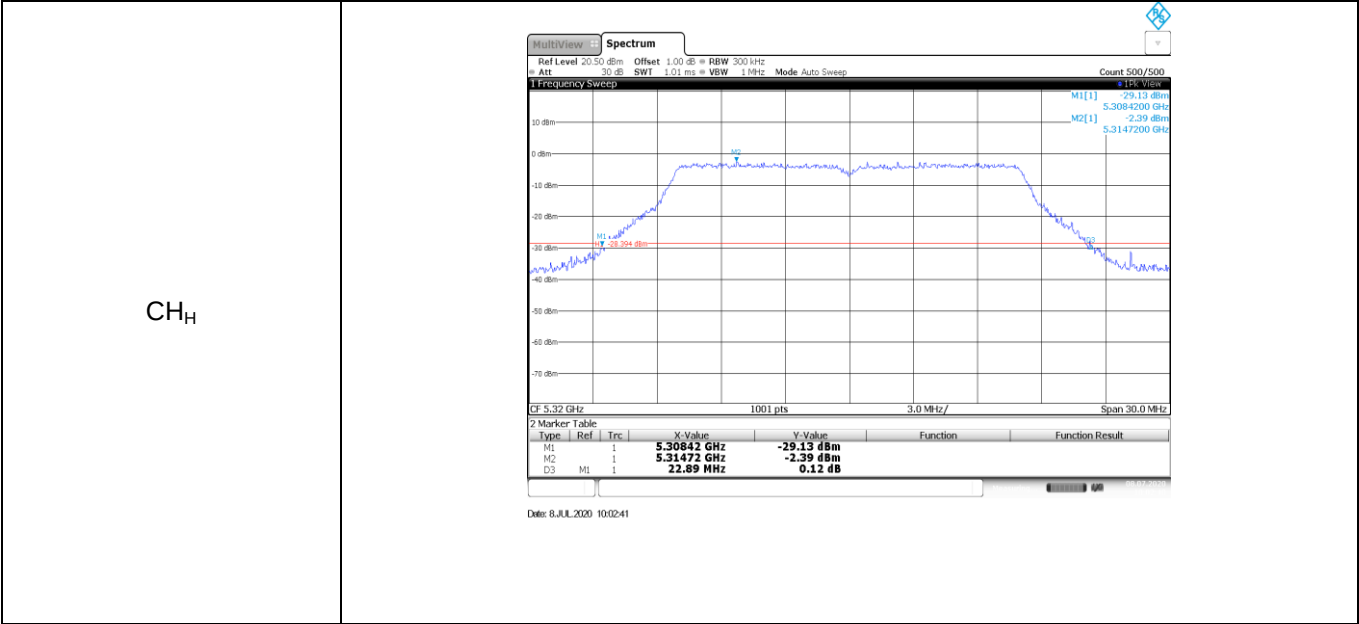
Band II

802.11n (HT20)

$$\text{CH}_L$$

$$\text{CH}_M$$


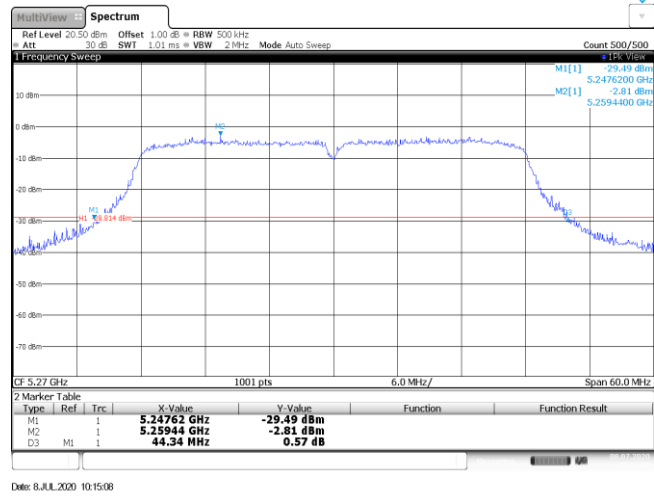
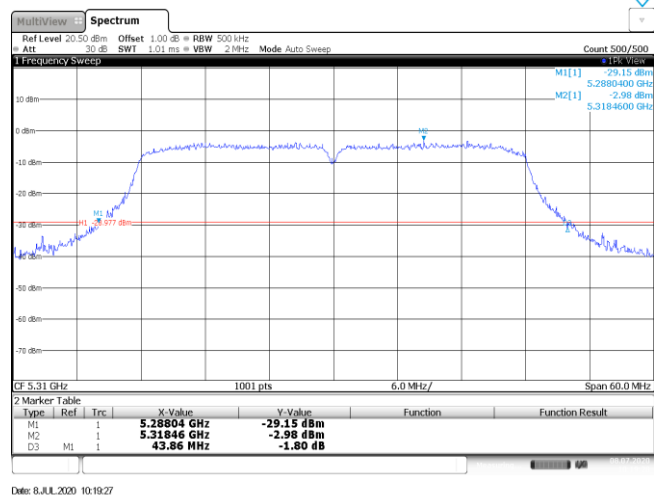






Band II

802.11n (HT40)

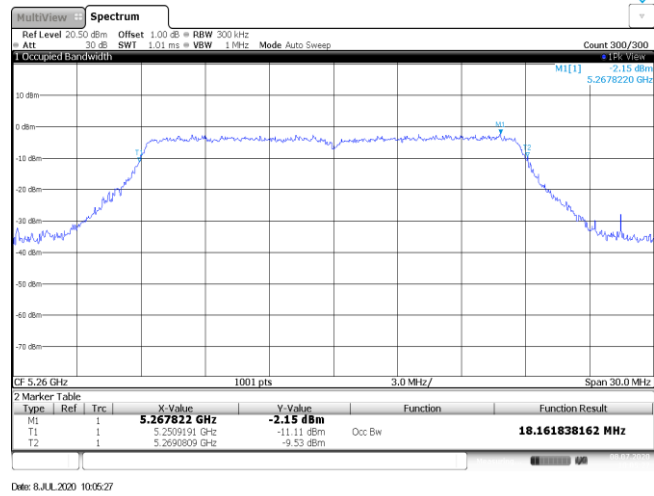
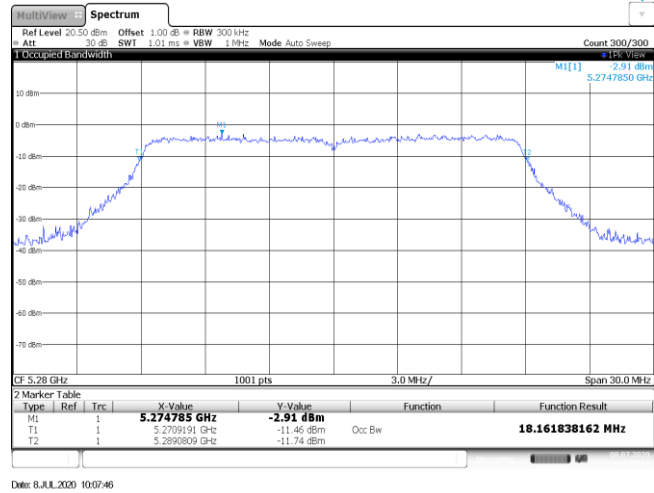
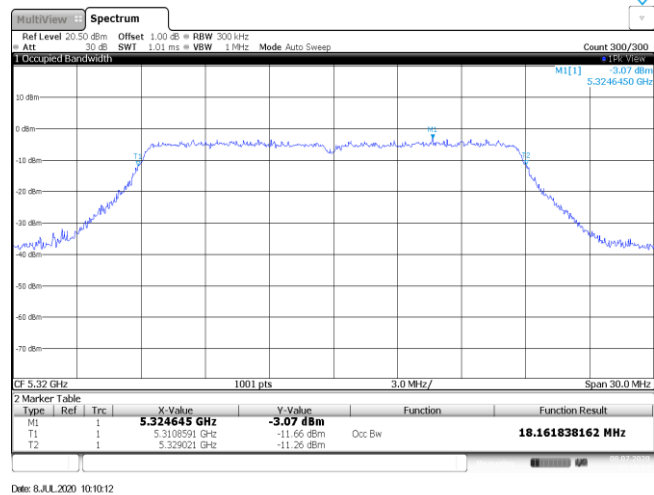
$$\text{CH}_L$$

$$\text{CH}_H$$


Appendix D: 99% Occupy bandwidth

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
II	20	802.11n	CH _L	18.16	Pass
			CH _M	18.16	
			CH _H	18.16	
		802.11a	CH _L	17.20	Pass
			CH _M	17.20	
			CH _H	17.17	
	40	802.11n	CH _L	36.38	Pass
			CH _H	36.32	

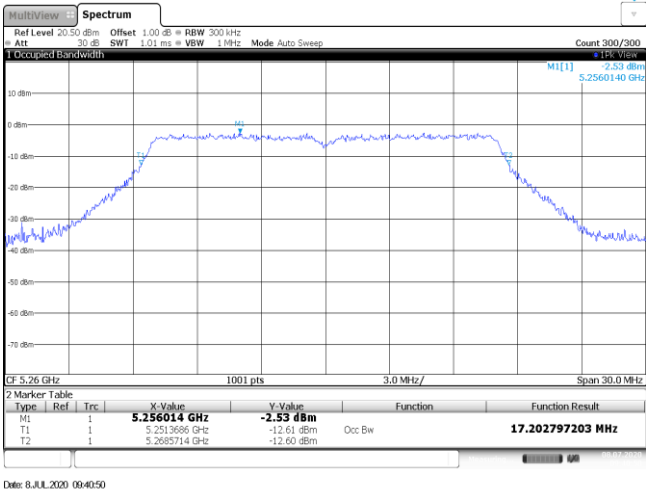
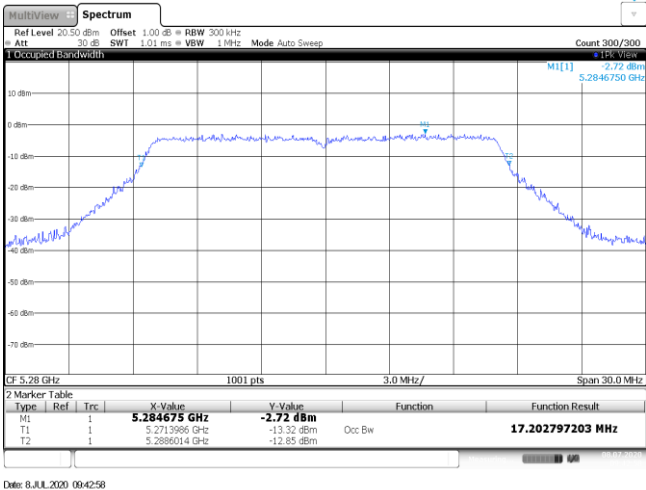
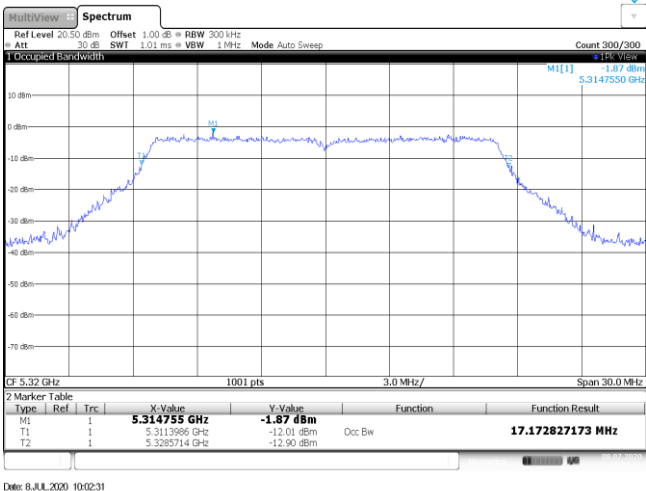
Band II

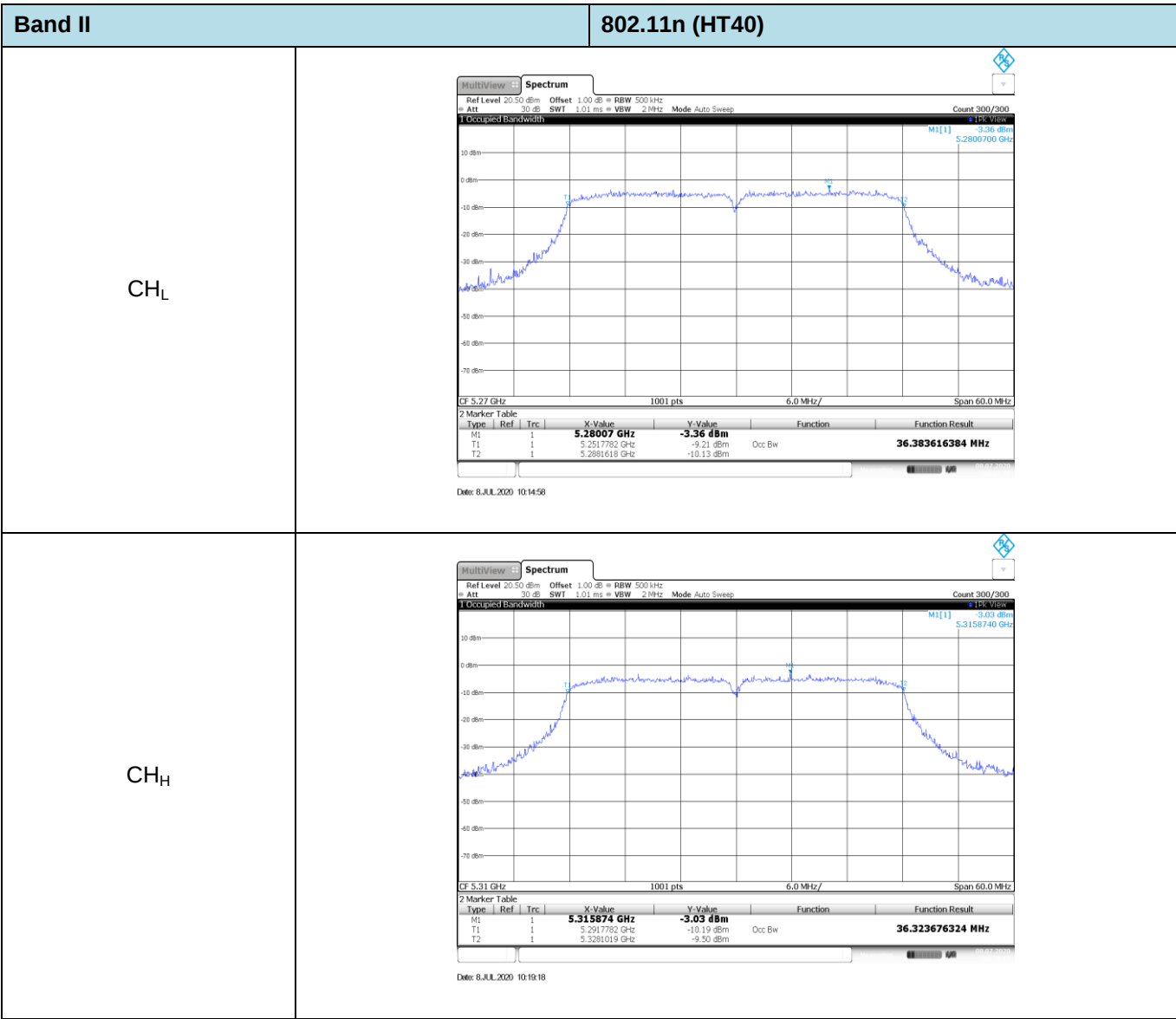
802.11n (HT20)

CH_LCH_MCH_H

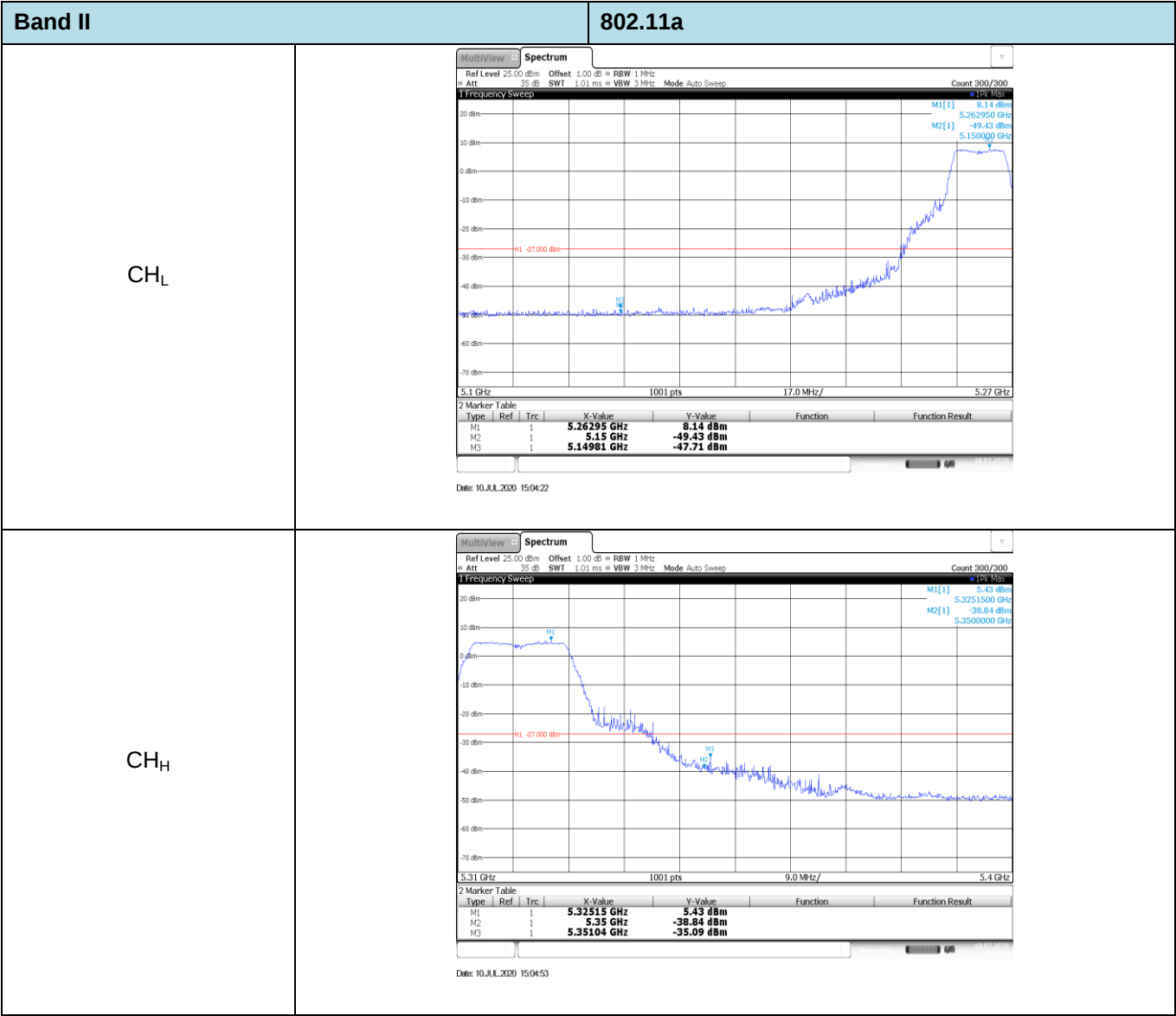
Band II

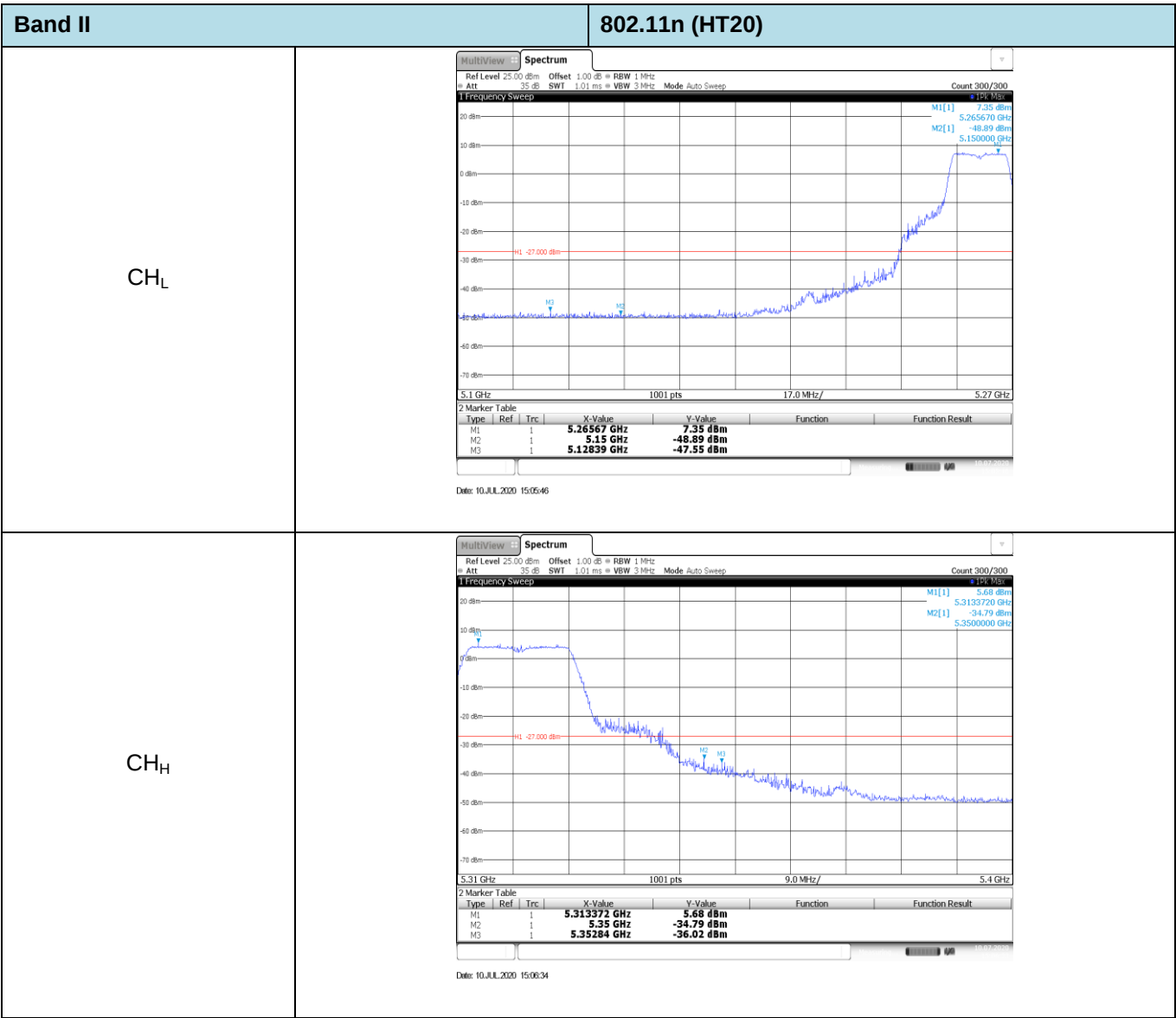
802.11a

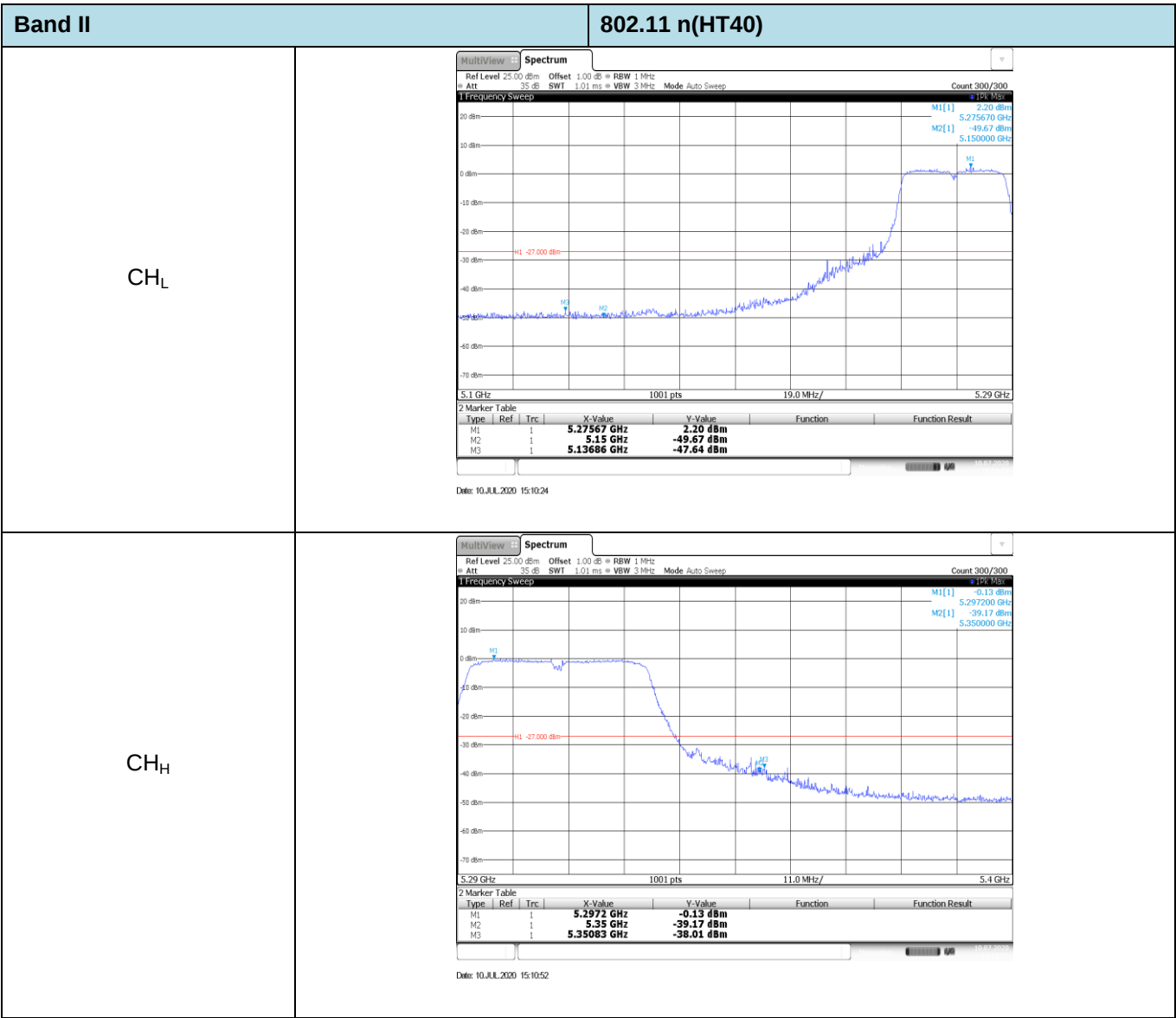
CH _L	 MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB BW 300 kHz Att 20 dB SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 200/200 1 Occupied Bandwidth M1[1] -2.53 dBm 5.256014 GHz OF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 5.256014 GHz -2.53 dBm T1 1 5.2513686 GHz -12.61 dBm Occ Bw 17.202797203 MHz T2 1 5.2603714 GHz -12.60 dBm Date: 8 JUL 2000 00:40:50
CH _M	 MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB BW 300 kHz Att 20 dB SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 200/200 1 Occupied Bandwidth M1[1] -2.72 dBm 5.284675 GHz OF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 5.284675 GHz -2.72 dBm T1 1 5.2713986 GHz -13.32 dBm Occ Bw 17.202797203 MHz T2 1 5.2980014 GHz -12.85 dBm Date: 8 JUL 2000 00:42:58
CH _H	 MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB BW 300 kHz Att 20 dB SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 200/200 1 Occupied Bandwidth M1[1] -1.87 dBm 5.314755 GHz OF 5.32 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 5.314755 GHz -1.87 dBm T1 1 5.3113986 GHz -12.01 dBm Occ Bw 17.172827173 MHz T2 1 5.3200014 GHz -12.90 dBm Date: 8 JUL 2000 10:02:31



Appendix E: Band edge







Appendix F: Frequency stability**Voltage VS Frequency stability**

Band: II			Test Frequency: 5260.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
T _N	V _L	-18000.00	-3.42205	PASS
T _N	V _N	-18000.00	-3.42205	PASS
T _N	V _H	-19000.00	-3.61217	PASS

Temperature VS Frequency stability

Band: II			Test Frequency: 5260.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
V _N	-20	-19000.00	-3.61217	PASS
V _N	-10	-20000.00	-3.80228	PASS
V _N	0	-20000.00	-3.80228	PASS
V _N	10	-20000.00	-3.80228	PASS
V _N	20	-21000.00	-3.99240	PASS
V _N	30	-21000.00	-3.99240	PASS
V _N	40	-21000.00	-3.99240	PASS
V _N	50	-22000.00	-4.18251	PASS

-----End of Report-----