

Plot 7-171. Power Spectral Density Plot SISO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)



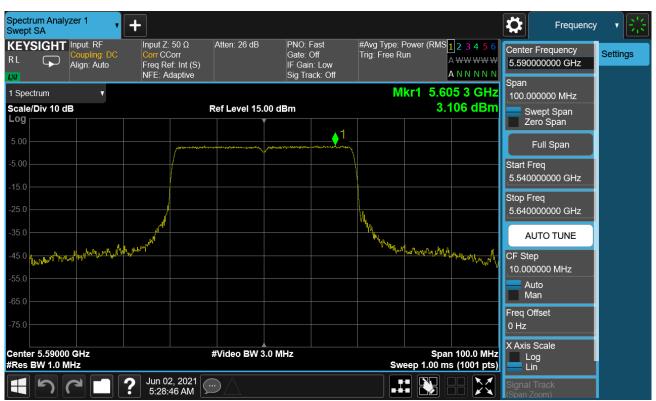
Plot 7-172. Power Spectral Density Plot SISO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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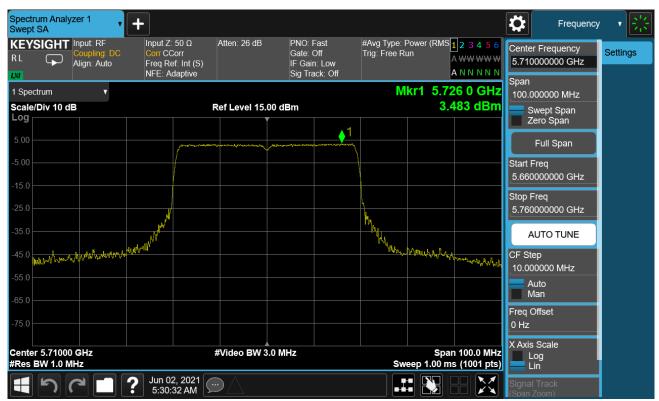
Plot 7-173. Power Spectral Density Plot SISO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)



Plot 7-174. Power Spectral Density Plot SISO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 118)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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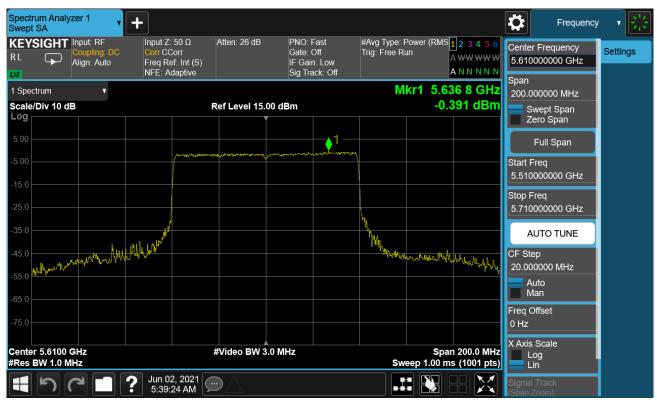
Plot 7-175. Power Spectral Density Plot SISO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)



Plot 7-176. Power Spectral Density Plot SISO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION) Microsc	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 420 of 244
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Plot 7-177. Power Spectral Density Plot SISO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)



Plot 7-178. Power Spectral Density Plot SISO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-179. Power Spectral Density Plot SISO SOUTH (160MHz BW (L) 802.11ax - Full Tones (UNII Band 2C) - Ch. 114)



Plot 7-180. Power Spectral Density Plot SISO SOUTH (160MHz BW (U) 802.11ax - Full Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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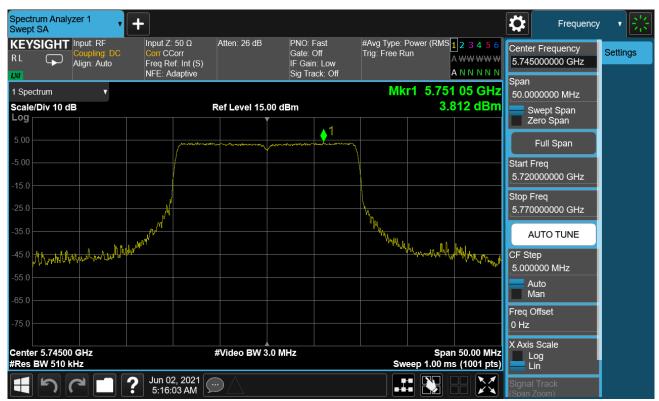


	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	3.81	30.00	-26.19
	5785	157	ax (20MHz)	242T	MCS0	3.66	30.00	-26.34
و ع	5825	165	ax (20MHz)	242T	MCS0	3.21	30.00	-26.79
Band	5755	151	ax (40MHz)	484T	MCS0	0.61	30.00	-29.39
	5795	159	ax (40MHz)	484T	MCS0	0.11	30.00	-29.89
	5775	155	ax (80MHz)	996T	MCS0	-3.41	30.00	-33.41

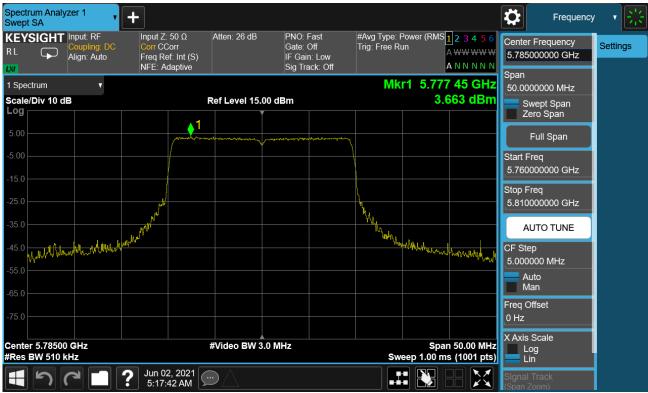
Table 7-96. Band 3 Conducted Power Spectral Density Measurements SISO SOUTH (Full Tones)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Micros	SOTT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 141 of 241	
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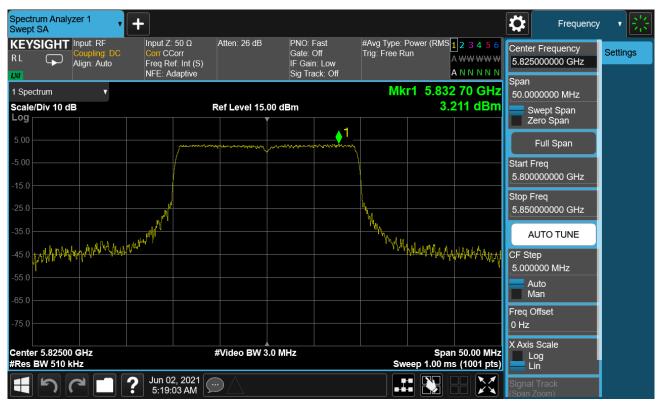
Plot 7-181. Power Spectral Density Plot SISO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



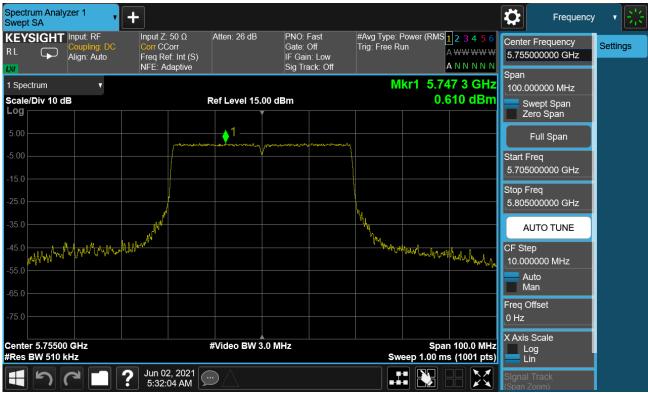
Plot 7-182. Power Spectral Density Plot SISO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	licrosoft	Approved by: Technical Manager				
Test Report S/N:	Test Dates:	EUT Type:		Dogo 442 of 244				
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Plot 7-183. Power Spectral Density Plot SISO SOUTH (20 MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)



Plot 7-184. Power Spectral Density Plot SISO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION) Microso	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 142 of 244
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Plot 7-185. Power Spectral Density Plot SISO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 159)



Plot 7-186. Power Spectral Density Plot SISO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 155)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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SISO NORTH Power Spectral Density Measurements (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	26T	MCS0	0.46	11.00	-10.54
	5200	40	ax (20MHz)	26T	MCS0	0.54	11.00	-10.46
D 1	5240	48	ax (20MHz)	26T	MCS0	0.51	11.00	-10.49
Band 1	5190	38	ax (40MHz)	26T	MCS0	0.58	11.00	-10.42
_	5230	46	ax (40MHz)	26T	MCS0	0.85	11.00	-10.15
	5210	42	ax (80MHz)	26T	MCS0	0.62	11.00	-10.38
Band 1/2A	5250	50	ax (160 MHz L)	26T	MCS0	-0.76	11.00	-11.76
Ba 1/;	5250	50	ax (160 MHz U)	26T	MCS0	6.82	11.00	-4.18
	5260	52	ax (20MHz)	26T	MCS0	6.04	11.00	-4.96
4	5280	56	ax (20MHz)	26T	MCS0	5.98	11.00	-5.02
Band 2A	5320	64	ax (20MHz)	26T	MCS0	5.99	11.00	-5.01
gan	5270	54	ax (40MHz)	26T	MCS0	6.58	11.00	-4.43
ш	5310	62	ax (40MHz)	26T	MCS0	6.65	11.00	-4.35
	5290	58	ax (80MHz)	26T	MCS0	5.58	11.00	-5.42
	5500	100	ax (20MHz)	26T	MCS0	5.53	11.00	-5.47
	5600	120	ax (20MHz)	26T	MCS0	5.28	11.00	-5.72
	5720	144	ax (20MHz)	26T	MCS0	5.49	11.00	-5.51
	5510	102	ax (40MHz)	26T	MCS0	6.49	11.00	-4.51
2C	5590	118	ax (40MHz)	26T	MCS0	6.62	11.00	-4.38
Band 2C	5710	142	ax (40MHz)	26T	MCS0	6.79	11.00	-4.21
Ba	5530	106	ax (80MHz)	26T	MCS0	5.92	11.00	-5.08
	5610	122	ax (80MHz)	26T	MCS0	5.84	11.00	-5.16
	5690	138	ax (80MHz)	26T	MCS0	7.24	11.00	-3.76
	5570	114	ax (160 MHz L)	26T	MCS0	6.56	11.00	-4.44
	5570	114	ax (160 MHz U)	26T	MCS0	6.39	11.00	-4.61

Table 7-97. Conducted Power Spectral Density Measurements SISO NORTH (26 Tones)

		Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	I Antenna Gain	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Γ		5180	36	ax (20MHz)	26T	MCS0	0.46	-2.10	-1.64	10.0	-11.64
		5200	40	ax (20MHz)	26T	MCS0	0.54	-2.10	-1.56	10.0	-11.56
	_	5240	48	ax (20MHz)	26T	MCS0	0.51	-2.10	-1.59	10.0	-11.59
	Band	5190	38	ax (40MHz)	26T	MCS0	0.58	-2.10	-1.52	10.0	-11.52
	Ä	5230	46	ax (40MHz)	26T	MCS0	0.85	-2.10	-1.25	10.0	-11.25
		5210	42	ax (80MHz)	26T	MCS0	0.62	-2.10	-1.48	10.0	-11.48
		5210	50	ax (160 MHz L)	26T	MCS0	-0.76	-2.10	-2.86	10.0	-12.86

Table 7-98. Bands 1 e.i.r.p. Conducted Power Spectral Density Measurements SISO NORTH (26 Tones) ISED

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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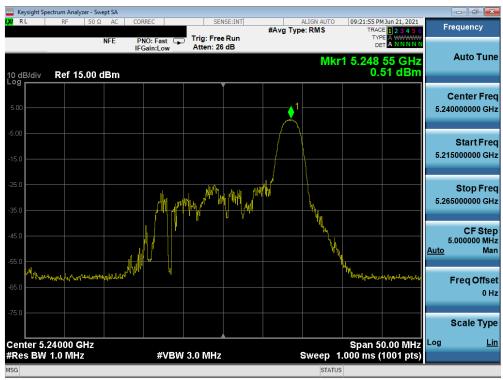
Plot 7-187. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 36)



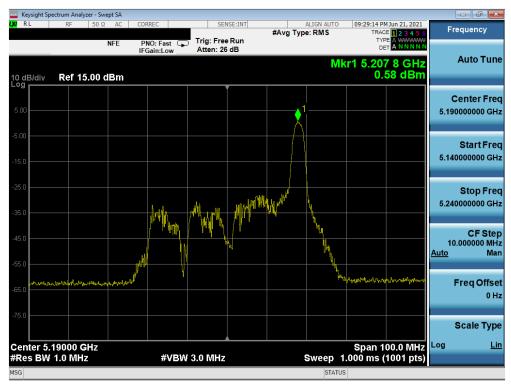
Plot 7-188. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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Plot 7-189. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



Plot 7-190. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 38)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-191. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



Plot 7-192. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 42)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Micros	oft Approved by: Technical Manager
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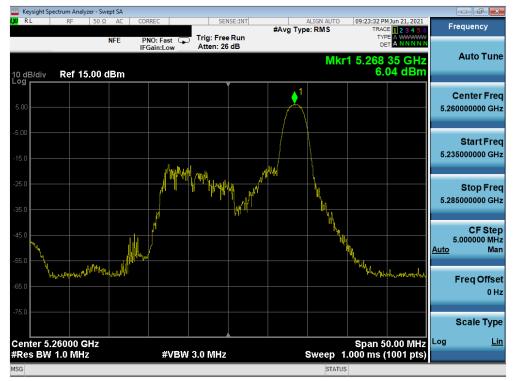
Plot 7-193. Power Spectral Density Plot SISO NORTH (160MHz BW (L) 802.11ax - 26 Tones (UNII Band 1) - Ch. 50)



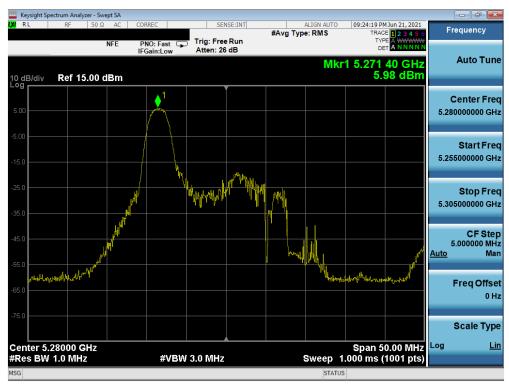
Plot 7-194. Power Spectral Density Plot SISO NORTH (160MHz BW (U) 802.11ax - 26 Tones (UNII Band 2A) - Ch. 50)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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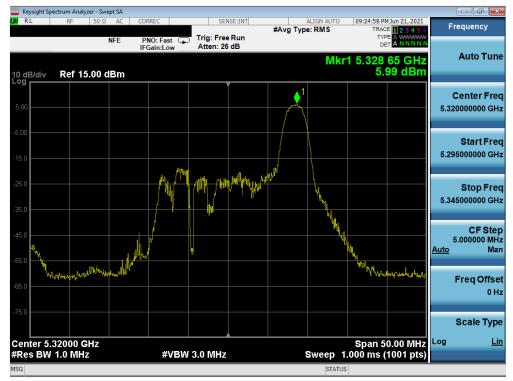
Plot 7-195. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



Plot 7-196. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Micros	Approved by: Technical Manager
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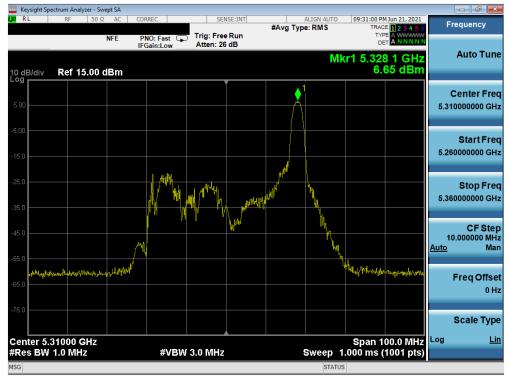
Plot 7-197. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



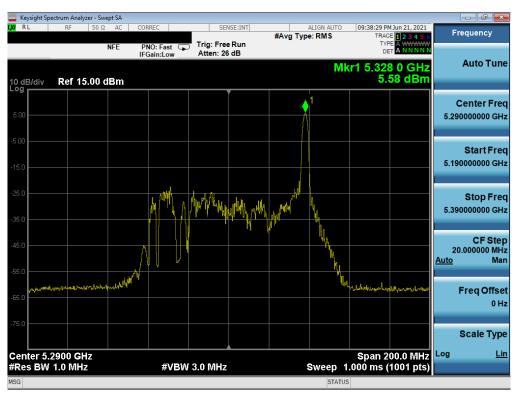
Plot 7-198. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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Plot 7-199. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



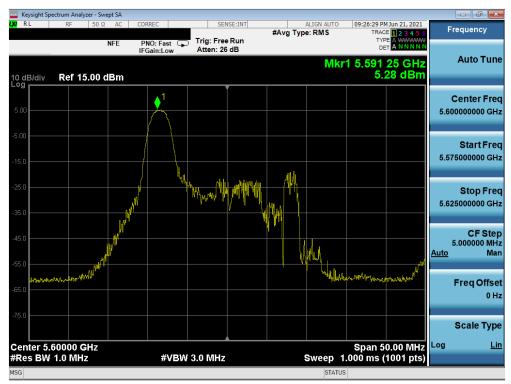
Plot 7-200. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsof	Approved by: Technical Manager
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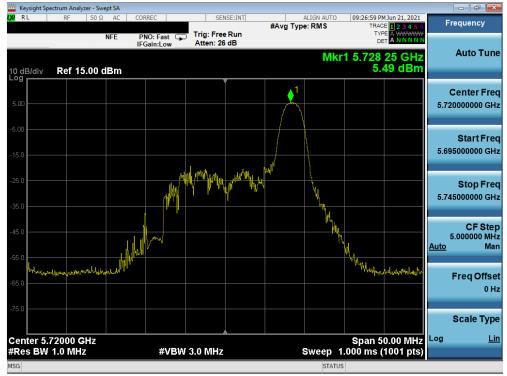
Plot 7-201. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



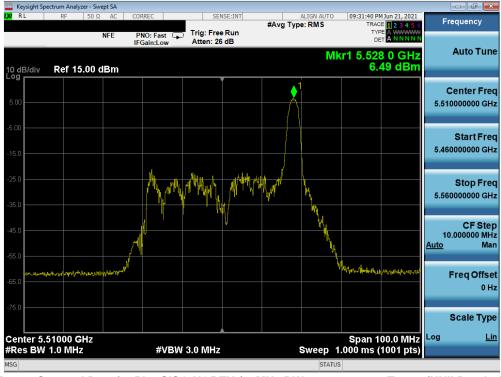
Plot 7-202. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 120)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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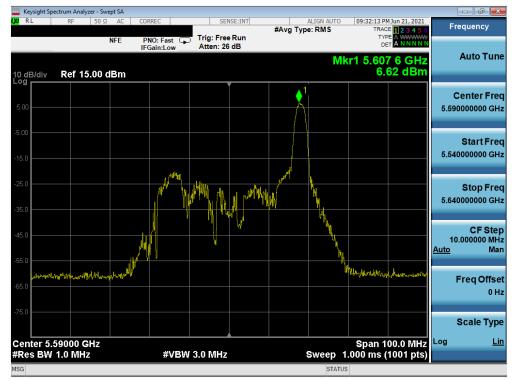
Plot 7-203. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



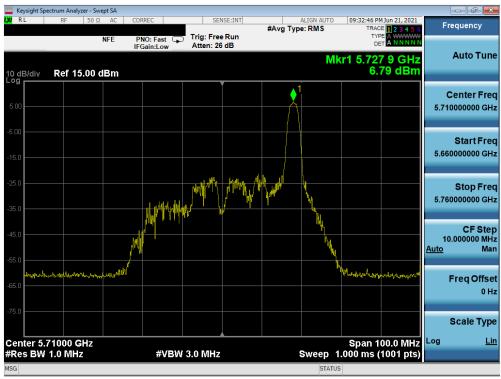
Plot 7-204. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 102)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-205. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



Plot 7-206. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 142)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-207. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



Plot 7-208. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-209. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 138)



Plot 7-210. Power Spectral Density Plot SISO NORTH (160MHz BW (L) 802.11ax - 26 Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-211. Power Spectral Density Plot SISO NORTH (160MHz BW (U) 802.11ax - 26 Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	26T	MCS0	10.76	30.00	-19.24
	5785	157	ax (20MHz)	26T	MCS0	10.61	30.00	-19.39
9 y	5825	165	ax (20MHz)	26T	MCS0	10.72	30.00	-19.28
Band	5755	151	ax (40MHz)	26T	MCS0	11.59	30.00	-18.41
	5795	159	ax (40MHz)	26T	MCS0	11.61	30.00	-18.39
	5775	155	ax (80MHz)	26T	MCS0	11.12	30.00	-18.88

Table 7-99. Band 3 Conducted Power Spectral Density Measurements SISO NORTH (26 Tones)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	osoft	Approved by: Technical Manager
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Plot 7-212. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)



Plot 7-213. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-214. Power Spectral Density Plot SISO NORTH (20 MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)



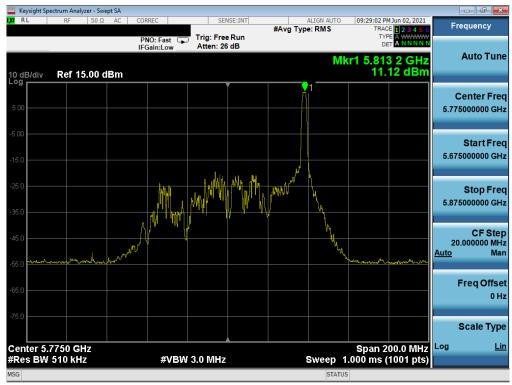
Plot 7-215. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 464 of 244
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Plot 7-216. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)



Plot 7-217. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 160 of 244
1M2105060048-15-R1.C3K	05/20/2021 - 09/08/2021	Portable Handset		Page 162 of 341
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SISO NORTH Power Spectral Density Measurements (Full Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	242T	MCS0	2.31	11.00	-8.69
	5200	40	ax (20MHz)	242T	MCS0	2.29	11.00	-8.71
d 1	5240	48	ax (20MHz)	242T	MCS0	2.66	11.00	-8.34
Band 1	5190	38	ax (40MHz)	484T	MCS0	0.77	11.00	-10.24
	5230	46	ax (40MHz)	484T	MCS0	1.23	11.00	-9.77
	5210	42	ax (80MHz)	996T	MCS0	-2.15	11.00	-13.15
Band 1/2A	5250	50	ax (160 MHz L)	996T	MCS0	-2.39	11.00	-13.39
Ba 1/2	5250	50	ax (160 MHz U)	996T	MCS0	-1.33	11.00	-12.33
	5260	52	ax (20MHz)	242T	MCS0	6.32	11.00	-4.68
	5280	56	ax (20MHz)	242T	MCS0	6.02	11.00	-4.98
Band 2A	5320	64	ax (20MHz)	242T	MCS0	5.94	11.00	-5.06
Band	5270	54	ax (40MHz)	484T	MCS0	3.05	11.00	-7.95
	5310	62	ax (40MHz)	484T	MCS0	2.67	11.00	-8.33
	5290	58	ax (80MHz)	996T	MCS0	-1.58	11.00	-12.58
	5500	100	ax (20MHz)	242T	MCS0	6.20	11.00	-4.80
	5600	120	ax (20MHz)	242T	MCS0	5.42	11.00	-5.58
	5720	144	ax (20MHz)	242T	MCS0	6.18	11.00	-4.82
	5510	102	ax (40MHz)	484T	MCS0	2.71	11.00	-8.29
ပ္သ	5590	118	ax (40MHz)	484T	MCS0	2.52	11.00	-8.48
Band 2C	5710	142	ax (40MHz)	484T	MCS0	2.93	11.00	-8.07
Ba	5530	106	ax (80MHz)	996T	MCS0	-1.01	11.00	-12.01
	5610	122	ax (80MHz)	996T	MCS0	-0.78	11.00	-11.78
	5690	138	ax (80MHz)	996T	MCS0	-0.25	11.00	-11.25
	5570	114	ax (160 MHz L)	996T	MCS0	-2.42	11.0	-13.42
	5570	114	ax (160 MHz U)	996T	MCS0	-2.10	11.0	-13.10

Table 7-100. Conducted Power Spectral Density Measurements SISO NORTH (Full Tones)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	242T	MCS0	2.31	-2.10	0.21	10.0	-9.79
	5200	40	ax (20MHz)	242T	MCS0	2.29	-2.10	0.19	10.0	-9.81
-	5240	48	ax (20MHz)	242T	MCS0	2.66	-2.10	0.56	10.0	-9.44
Band	5190	38	ax (40MHz)	484T	MCS0	0.77	-2.10	-1.33	10.0	-11.33
Δ.	5230	46	ax (40MHz)	484T	MCS0	1.23	-2.10	-0.87	10.0	-10.87
	5210	42	ax (80MHz)	996T	MCS0	-2.15	-2.10	-4.25	10.0	-14.25
	5210	50	ax (160 MHz L)	996T	MCS0	-2.39	-2.10	-4.49	10.0	-14.49

Table 7-101. Bands 1 e.i.r.p. Conducted Power Spectral Density Measurements SISO NORTH (Full Tones) (ISED)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	osoft Approve	ed by: al Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 16	4 of 2.41
1M2105060048-15-R1.C3K	05/20/2021 - 09/08/2021	Portable Handset	Page 164	4 01 341
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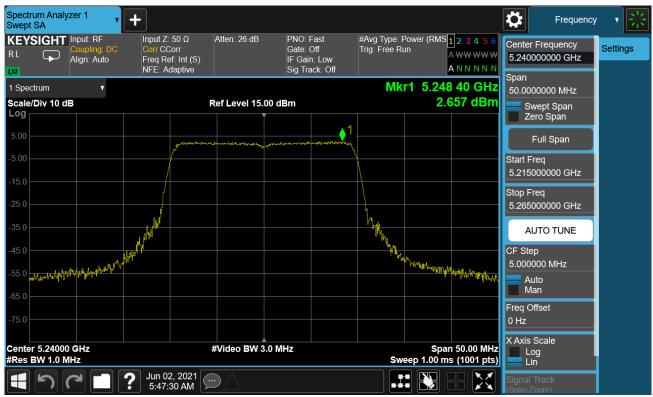
Plot 7-218. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 36)



Plot 7-219. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 40)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Crosoft Approved by: Technical Manager
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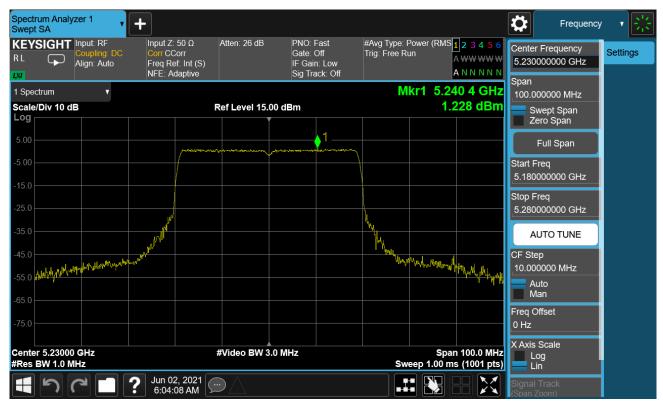
Plot 7-220. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 48)



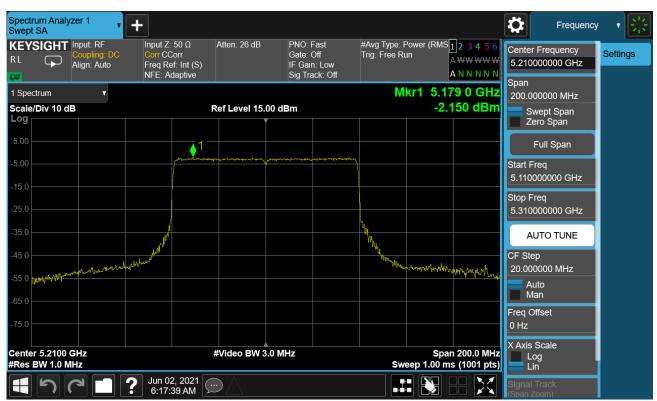
Plot 7-221. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 38)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 166 of 341
1M2105060048-15-R1.C3K	05/20/2021 - 09/08/2021	Portable Handset		
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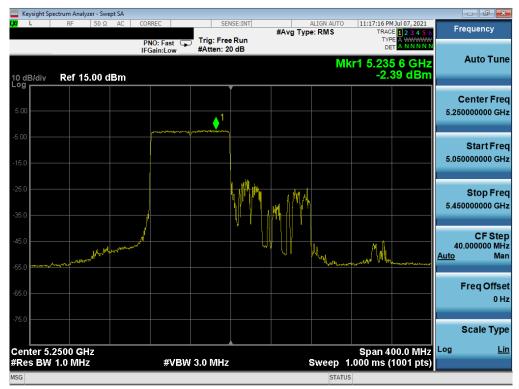
Plot 7-222. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 46)



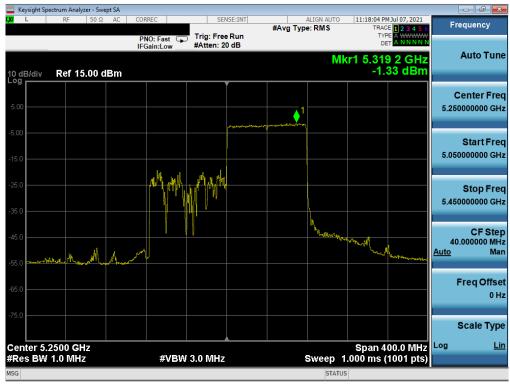
Plot 7-223. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 42)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION) Micro	Approved by: Technical Manager
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Plot 7-224. Power Spectral Density Plot SISO NORTH (160MHz BW (L) 802.11ax - Full Tones (UNII Band 1) - Ch. 50)



Plot 7-225. Power Spectral Density Plot SISO NORTH (160MHz BW (U) 802.11ax - Full Tones (UNII Band 2A) - Ch. 50)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 168 of 341	
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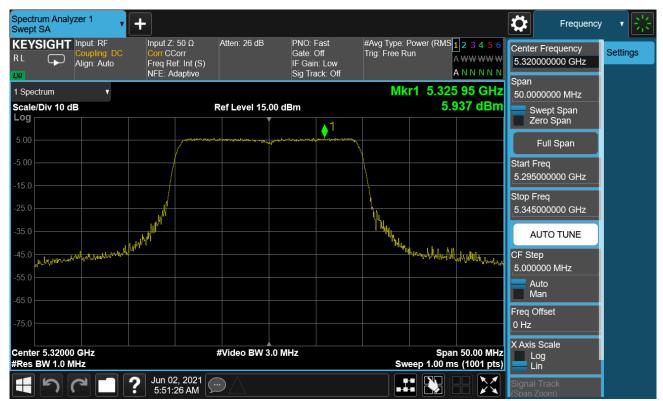
Plot 7-226. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 52)



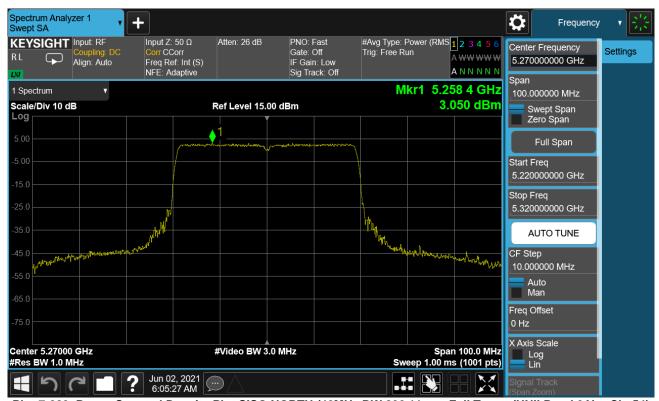
Plot 7-227. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 56)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	crosoff	pproved by: echnical Manager
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1M2105060048-15-R1.C3K	05/20/2021 - 09/08/2021	Portable Handset	Pa	Page 169 of 341
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Plot 7-228. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 64)



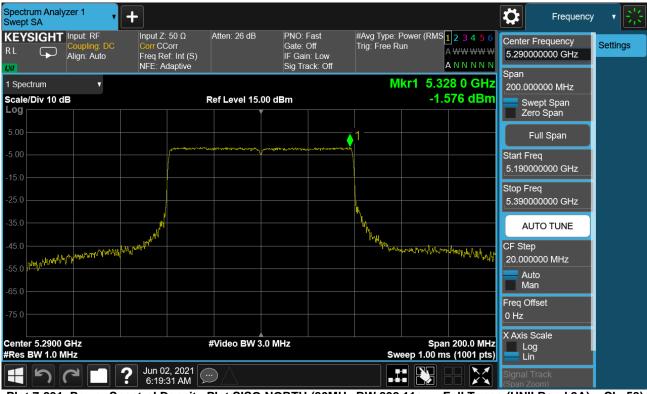
Plot 7-229. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 54)

FCC ID: C3K1995 IC: 3048A-1995	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsof	Approved by: Technical Manager
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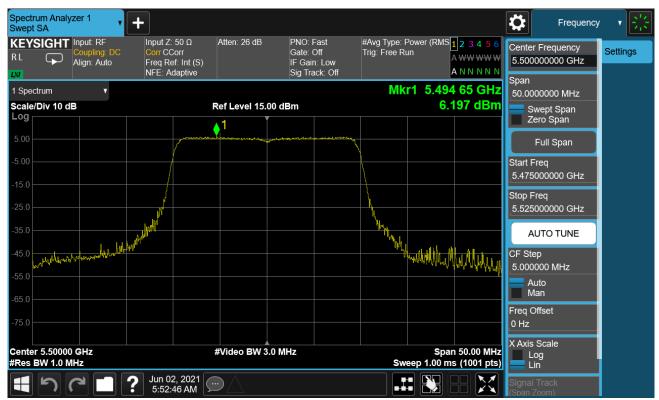
Plot 7-230. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 62)



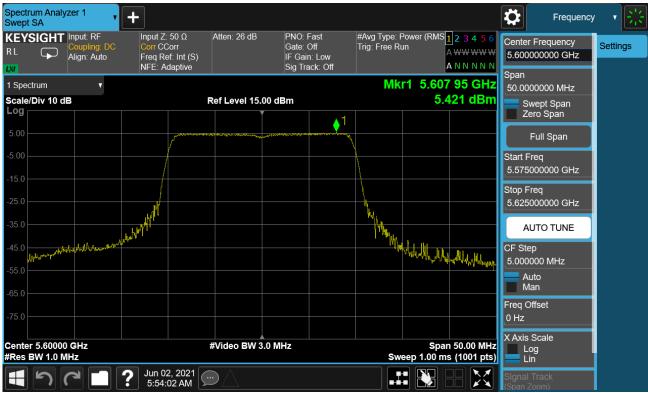
Plot 7-231. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 58)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		D 474 -f 044	
1M2105060048-15-R1.C3K	05/20/2021 - 09/08/2021	Portable Handset		Page 171 of 341	
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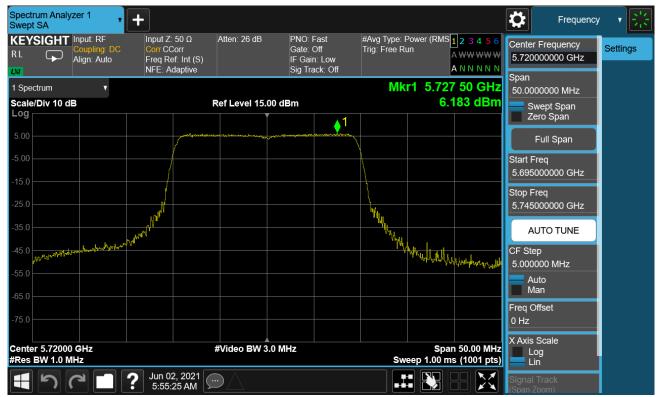
Plot 7-232. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 100)



Plot 7-233. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	OSOft Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 172 of 341
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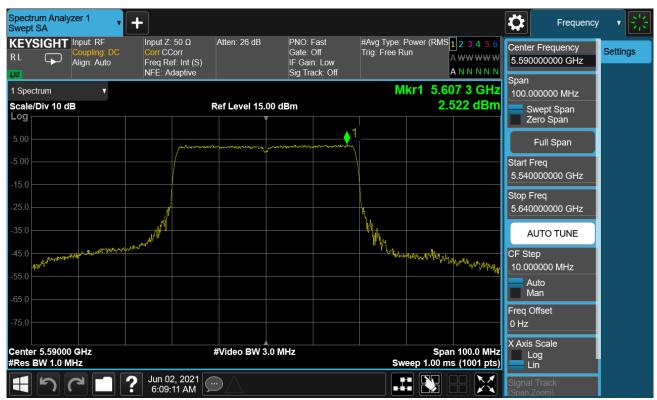
Plot 7-234. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)



Plot 7-235. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-236. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 118)



Plot 7-237. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION) Micro	Soft Approved by: Technical Manager
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Plot 7-238. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)



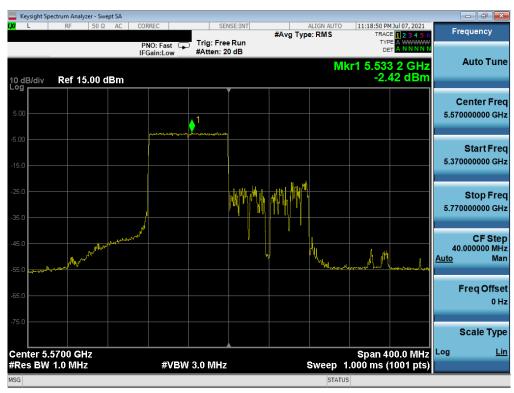
Plot 7-239. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION) Micro	Approved by: Technical Mana	ager
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Plot 7-240. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)



Plot 7-241. Power Spectral Density Plot SISO NORTH (160MHz BW (L) 802.11ax - Full Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager	
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Plot 7-242. Power Spectral Density Plot SISO NORTH (160MHz BW (U) 802.11ax - Full Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	3.44	30.00	-26.57
	5785	157	ax (20MHz)	242T	MCS0	2.98	30.00	-27.02
ဗ	5825	165	ax (20MHz)	242T	MCS0	2.98	30.00	-27.02
Band	5755	151	ax (40MHz)	484T	MCS0	-1.05	30.00	-31.05
	5795	159	ax (40MHz)	484T	MCS0	-1.00	30.00	-31.00
	5775	155	ax (80MHz)	996T	MCS0	-3.97	30.00	-33.97

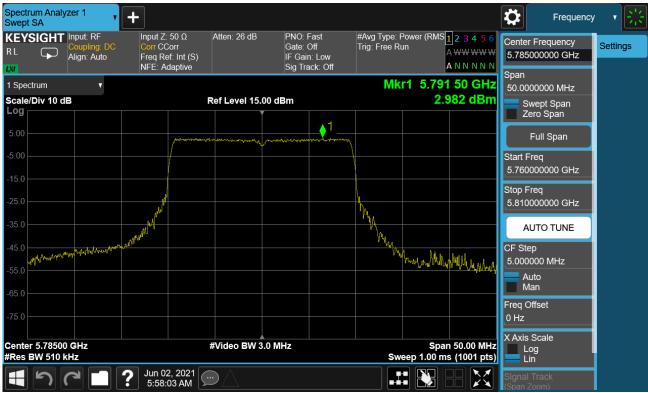
Table 7-102. Band 3 Conducted Power Spectral Density Measurements SISO NORTH (Full Tones)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	rosoft	Approved by: Technical Manager	
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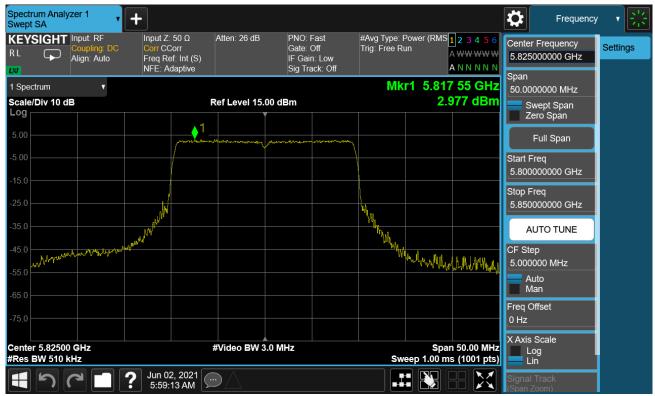
Plot 7-243. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



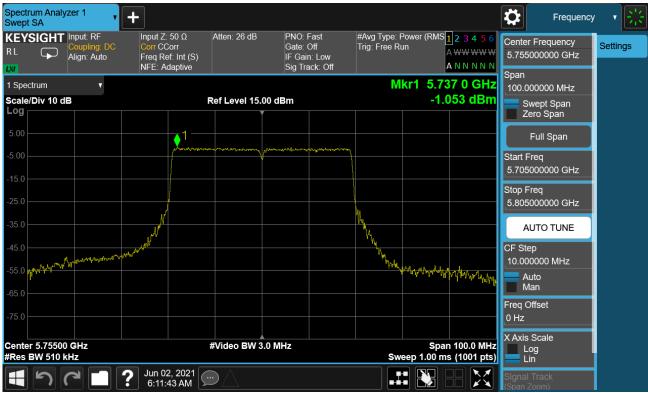
Plot 7-244. Power Spectral Density Plot SISO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-245. Power Spectral Density Plot SISO NORTH (20 MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)



Plot 7-246. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Crosoft Approved by: Technical Manager	
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Plot 7-247. Power Spectral Density Plot SISO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 159)



Plot 7-248. Power Spectral Density Plot SISO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 155)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 404 of 244
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Summed MIMO Power Spectral Density Measurements (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	South Power Density [dBm]	North Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	26T	MCS0	1.12	-0.08	3.57	10.98	-7.41
	5200	40	ax (20MHz)	26T	MCS0	1.40	0.28	3.89	10.98	-7.09
<u> </u>	5240	48	ax (20MHz)	26T	MCS0	1.04	0.34	3.71	10.98	-7.27
Band 1	5190	38	ax (40MHz)	26T	MCS0	1.20	-0.63	3.39	10.98	-7.59
_	5230	46	ax (40MHz)	26T	MCS0	1.18	0.31	3.78	10.98	-7.20
	5210	42	ax (80MHz)	26T	MCS0	0.99	0.38	3.71	10.98	-7.27
Band 1/2A	5250	50	ax (160 MHz L)	26T	MCS0	1.25	-1.18	3.21	10.98	-7.77
Ba 1//	5250	50	ax (160 MHz U)	26T	MCS0	7.16	6.74	9.96	10.53	-0.57
	5260	52	ax (20MHz)	26T	MCS0	7.46	6.32	9.94	10.53	-0.59
a	5280	56	ax (20MHz)	26T	MCS0	7.19	6.27	9.77	10.53	-0.76
d 2A	5320	64	ax (20MHz)	26T	MCS0	7.38	6.33	9.89	10.53	-0.64
Band	5270	54	ax (40MHz)	26T	MCS0	7.57	6.52	10.09	10.53	-0.44
ш	5310	62	ax (40MHz)	26T	MCS0	7.53	6.71	10.15	10.53	-0.38
	5290	58	ax (80MHz)	26T	MCS0	7.30	6.32	9.84	10.53	-0.69
	5500	100	ax (20MHz)	26T	MCS0	7.10	5.71	9.47	10.61	-1.14
	5600	120	ax (20MHz)	26T	MCS0	7.54	7.34	10.45	10.61	-0.16
	5720	144	ax (20MHz)	26T	MCS0	7.70	6.57	10.18	10.61	-0.43
	5510	102	ax (40MHz)	26T	MCS0	7.42	7.27	10.36	10.61	-0.25
20	5590	118	ax (40MHz)	26T	MCS0	7.15	7.57	10.38	10.61	-0.23
Band 2C	5710	142	ax (40MHz)	26T	MCS0	7.63	7.08	10.37	10.61	-0.24
Ba	5530	106	ax (80MHz)	26T	MCS0	7.77	7.22	10.51	10.61	-0.10
	5610	122	ax (80MHz)	26T	MCS0	7.72	7.39	10.57	10.61	-0.04
	5690	138	ax (80MHz)	26T	MCS0	7.88	6.37	10.20	10.61	-0.41
	5570	114	ax (160 MHz L)	26T	MCS0	7.43	6.78	10.12	10.61	-0.49
	5570	114	ax (160 MHz U)	26T	MCS0	7.51	6.36	9.98	10.61	-0.63

Table 7-103. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	South Power Density [dBm]	North Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	26T	MCS0	1.12	-0.08	3.57	6.02	9.59	10.0	-0.41
	5200	40	ax (20MHz)	26T	MCS0	1.40	0.28	3.89	6.02	9.90	10.0	-0.10
-	5240	48	ax (20MHz)	26T	MCS0	1.04	0.34	3.71	6.02	9.73	10.0	-0.27
Band	5190	38	ax (40MHz)	26T	MCS0	1.20	-0.63	3.39	6.02	9.41	10.0	-0.59
m	5230	46	ax (40MHz)	26T	MCS0	1.18	0.31	3.78	6.02	9.79	10.0	-0.21
	5210	42	ax (80MHz)	26T	MCS0	0.99	0.38	3.71	6.02	9.73	10.0	-0.27
	5210	50	ax (160 MHz L)	26T	MCS0	1.25	-1.18	3.21	6.02	9.23	10.0	-0.77

Table 7-104. Bands 1 e.i.r.p. Conducted Power Spectral Density Measurements MIMO (26 Tones) (ISED)

_		Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	South Power Density [dBm]	North Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density	Margin [dB]
		5745	149	ax (20MHz)	26T	MCS0	10.69	11.04	13.88	30.00	-16.12
		5785	157	ax (20MHz)	26T	MCS0	11.75	10.89	14.35	30.00	-15.65
	9	5825	165	ax (20MHz)	26T	MCS0	12.19	9.83	14.18	30.00	-15.82
	Band	5755	151	ax (40MHz)	26T	MCS0	12.10	11.74	14.93	30.00	-15.07
	_	5795	159	ax (40MHz)	26T	MCS0	12.41	11.08	14.81	30.00	-15.19
		5775	155	ax (80MHz)	26T	MCS0	15.30	11.67	16.86	30.00	-13.14

Table 7-105. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	South Power Density [dBm]	North Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	242T	MCS0	0.94	-0.30	3.37	10.98	10.98
	5200	40	ax (20MHz)	242T	MCS0	0.95	0.56	3.77	10.98	10.98
<u>6</u>	5240	48	ax (20MHz)	242T	MCS0	1.17	0.65	3.93	10.98	10.98
Band 1	5190	38	ax (40MHz)	484T	MCS0	0.27	-1.23	2.59	10.98	10.98
	5230	46	ax (40MHz)	484T	MCS0	0.41	-0.29	3.08	10.98	10.98
	5210	42	ax (80MHz)	996T	MCS0	-1.76	-2.65	0.83	10.98	10.98
Band 1/2A	5250	50	ax (160 MHz L)	996T	MCS0	-1.91	-2.36	0.88	10.98	-10.10
Ba 1//	5250	50	ax (160 MHz U)	996T	MCS0	-1.09	-1.59	1.68	10.53	-8.85
	5260	52	ax (20MHz)	242T	MCS0	6.20	5.66	8.95	10.53	10.53
	5280	56	ax (20MHz)	242T	MCS0	5.99	5.45	8.74	10.53	10.53
Band 2A	5320	64	ax (20MHz)	242T	MCS0	6.33	5.69	9.04	10.53	10.53
Banc	5270	54	ax (40MHz)	484T	MCS0	2.96	2.34	5.67	10.53	10.53
	5310	62	ax (40MHz)	484T	MCS0	2.89	2.45	5.69	10.53	10.53
	5290	58	ax (80MHz)	996T	MCS0	-1.16	-1.57	1.65	10.53	10.53
	5500	100	ax (20MHz)	242T	MCS0	6.18	4.78	8.54	10.61	10.61
	5600	120	ax (20MHz)	242T	MCS0	5.74	5.10	8.44	10.61	10.61
	5720	144	ax (20MHz)	242T	MCS0	6.44	5.20	8.87	10.61	10.61
	5510	102	ax (40MHz)	484T	MCS0	3.50	2.52	6.05	10.61	10.61
ပ္ပ	5590	118	ax (40MHz)	484T	MCS0	2.98	2.57	5.79	10.61	10.61
Band 2C	5710	142	ax (40MHz)	484T	MCS0	3.84	2.61	6.28	10.61	10.61
ä	5530	106	ax (80MHz)	996T	MCS0	-1.00	-1.75	1.65	10.61	10.61
	5610	122	ax (80MHz)	996T	MCS0	-0.79	-1.83	1.73	10.61	10.61
	5690	138	ax (80MHz)	996T	MCS0	-0.46	-1.76	1.95	10.61	10.61
	5570	114	ax (160 MHz L)	996T	MCS0	-1.55	-2.37	1.07	10.61	-9.54
	5570	114	ax (160 MHz U)	996T	MCS0	-1.40	-2.03	1.31	10.61	-9.30

Table 7-106. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	South Power Density [dBm]	North Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	242T	MCS0	0.94	-0.30	3.37	6.02	9.39	10.0	-0.61
	5200	40	ax (20MHz)	242T	MCS0	0.95	0.56	3.77	6.02	9.79	10.0	-0.21
-	5240	48	ax (20MHz)	242T	MCS0	1.17	0.65	3.93	6.02	9.95	10.0	-0.05
Band	5190	38	ax (40MHz)	484T	MCS0	0.27	-1.23	2.59	6.02	8.61	10.0	-1.39
ω	5230	46	ax (40MHz)	484T	MCS0	0.41	-0.29	3.08	6.02	9.10	10.0	-0.90
	5210	42	ax (80MHz)	996T	MCS0	-1.76	-2.65	0.83	6.02	6.85	10.0	-3.15
	5210	50	ax (160 MHz L)	996T	MCS0	-1.91	-2.36	0.88	6.02	6.90	10.0	-3.10

Table 7-107. Bands 1 e.i.r.p. Conducted Power Spectral Density Measurements MIMO (Full Tones) (ISED)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	South Power Density [dBm]	North Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	2.47	1.79	5.15	30.00	-24.85
	5785	157	ax (20MHz)	242T	MCS0	3.01	1.87	5.49	30.00	-24.51
9	5825	165	ax (20MHz)	242T	MCS0	3.44	2.23	5.89	30.00	-24.11
Band	5755	151	ax (40MHz)	484T	MCS0	-2.56	-1.74	0.88	30.00	-29.12
	5795	159	ax (40MHz)	484T	MCS0	-0.83	-2.38	1.47	30.00	-28.53
	5775	155	ax (80MHz)	996T	MCS0	-3.66	-4.74	-1.16	30.00	-31.16

Table 7-108. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at South Antenna and North Antenna were first measured separately with reduced South Antenna and North Antenna powers per manufacture's tune-up document. The measured values were then summed in linear power units then converted back to dBm.

Sample Directional Gain Calculation:

Assuming the antenna gain is 6.2 dBi for SOUTH and -2.10 dBi for NORTH.

Directional gain =
$$10 \log[(10^{G_1/20} + 10^{G_2/20} + ... + 10^{G_N/20})^2 / N_{ANT}] dBi$$

= $10 \log[(10^{6.2/20} + 10^{-2.10/20} / 2] dBi$
= $(6.02) dBi$

Sample MIMO Calculation:

Assuming the average conducted power spectral density was measured to be 5.88 dBm for SOUTH and 6.27 dBm for NORTH.

$$(5.88 \text{ dBm} + 6.27 \text{ dBm}) = (3.87 \text{ mW} + 4.24 \text{ mW}) = 8.11 \text{mW} = 9.09 \text{ dBm}$$

Sample e.i.r.p Power Spectral Density Calculation:

Assuming the average MIMO power density was calculated to be 9.09 dBm with directional gain of -5.12 dBi.

$$9.09 \text{ dBm} + (-5.12) \text{ dBi} = 3.97 \text{ dBm}$$

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MIMO SOUTH Power Spectral Density Measurements (26 Tones)



Plot 7-249. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 36)

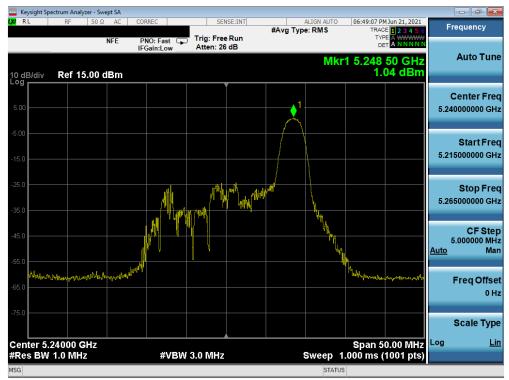


Plot 7-250. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

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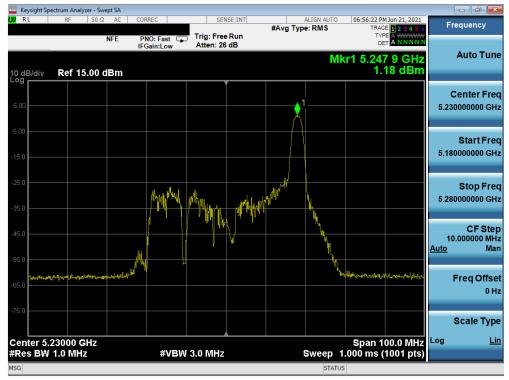
Plot 7-251. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



Plot 7-252. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 38)

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Plot 7-253. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



Plot 7-254. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 42)

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