

Plot 7-255. Power Spectral Density Plot MIMO SOUTH (160MHz BW (L) 802.11ax - 26 Tones (UNII Band 1) - Ch. 50)



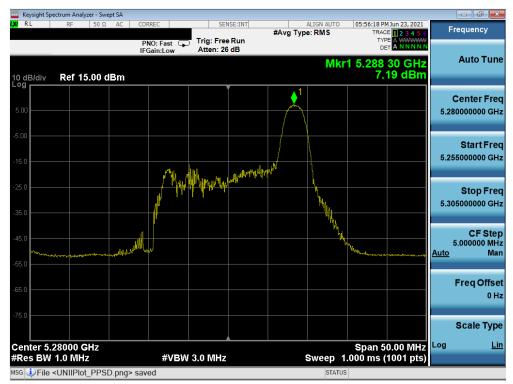
Plot 7-256. Power Spectral Density Plot MIMO SOUTH (160MHz BW (U) 802.11ax - 26 Tones (UNII Band 2A) - Ch. 50)

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 7-257. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



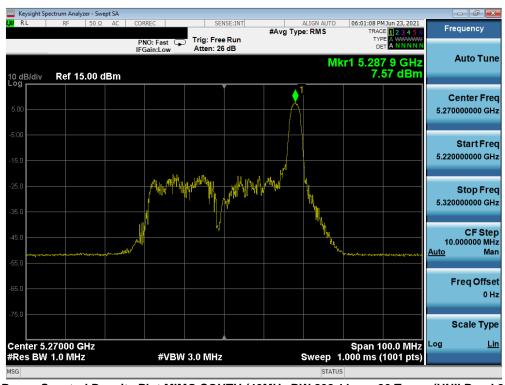
Plot 7-258. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-259. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



Plot 7-260. Power Spectral Density Plot MIMO SOUTH (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 7-261. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



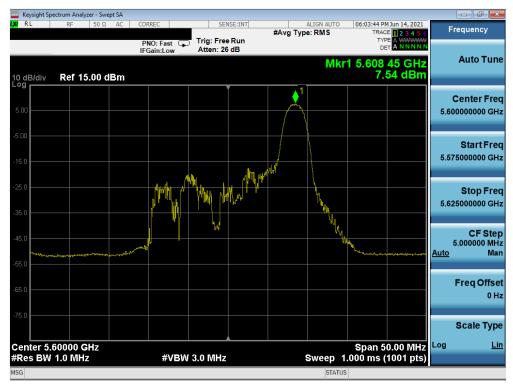
Plot 7-262. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-263. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



Plot 7-264. Power Spectral Density Plot MIMO SOUTH (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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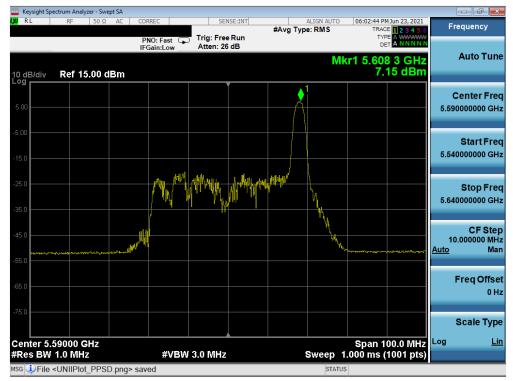
Plot 7-265. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



Plot 7-266. Power Spectral Density Plot MIMO SOUTH (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 7-267. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



Plot 7-268. Power Spectral Density Plot MIMO SOUTH (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) Micro	2SOff	pproved by: echnical Manager
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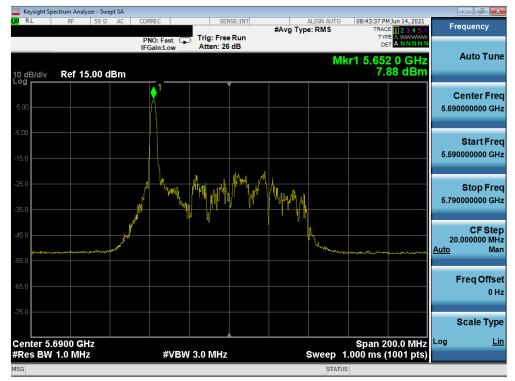
Plot 7-269. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



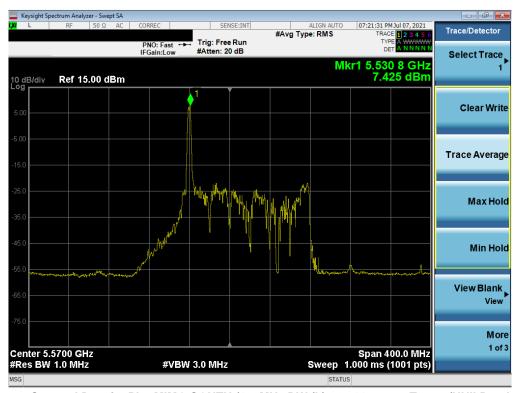
Plot 7-270. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION) Micro	2SOff	pproved by: echnical Manager
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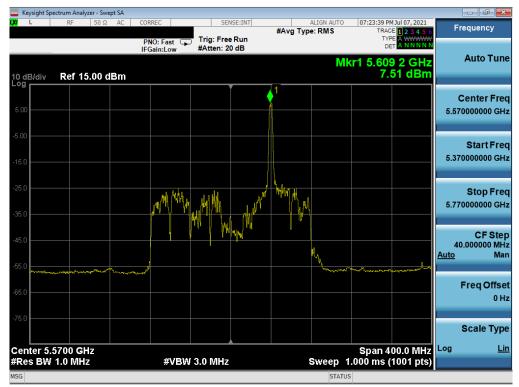
Plot 7-271. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 138)



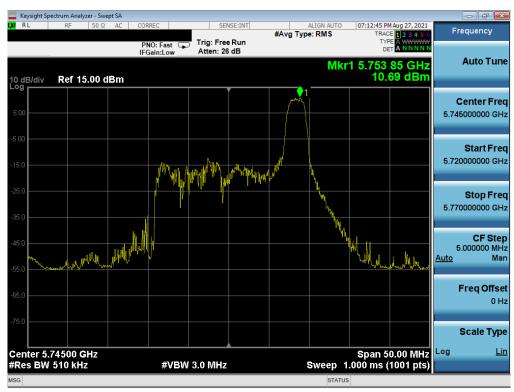
Plot 7-272. Power Spectral Density Plot MIMO SOUTH (160MHz BW (L) 802.11ax - 26 Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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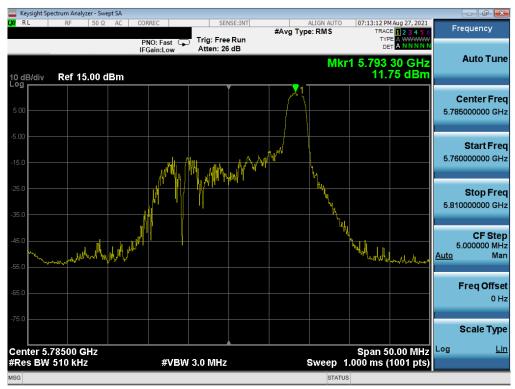
Plot 7-273. Power Spectral Density Plot MIMO SOUTH (160MHz BW (U) 802.11ax - 26 Tones (UNII Band 2C) - Ch. 114)



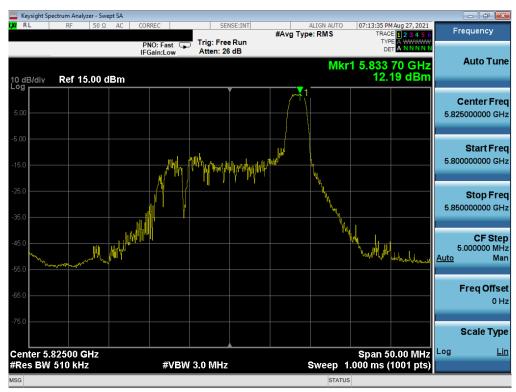
Plot 7-274. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)

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 7-275. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)



Plot 7-276. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) MICROS	Approved by: Technical Manager
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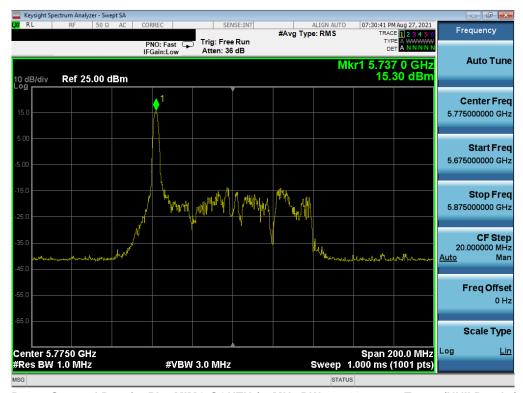
Plot 7-277. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)



Plot 7-278. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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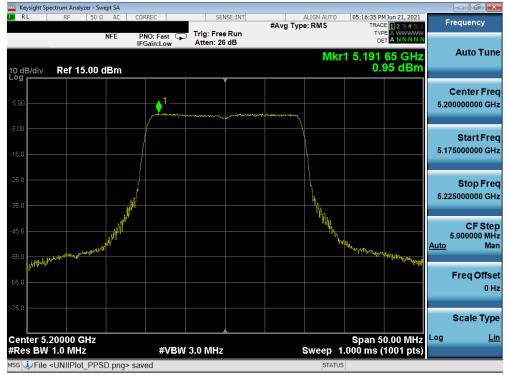
Plot 7-279. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)



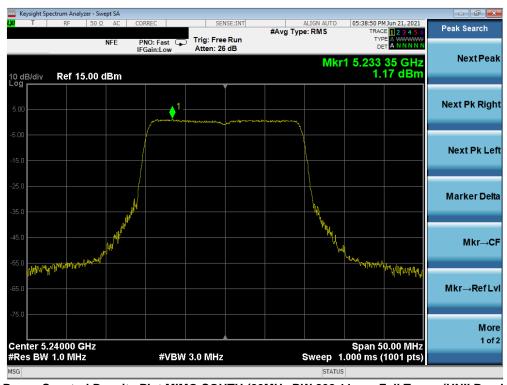
Plot 7-280. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 36)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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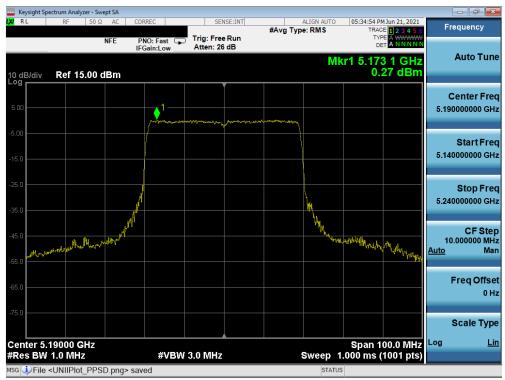
Plot 7-281. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 40)



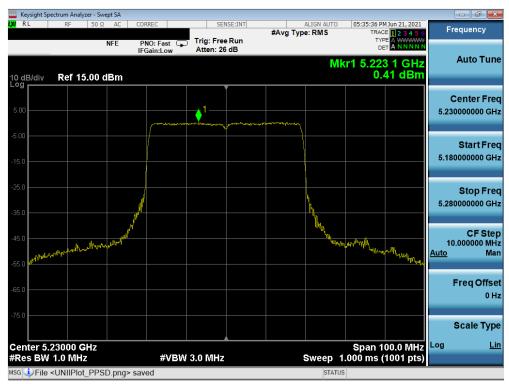
Plot 7-282. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 48)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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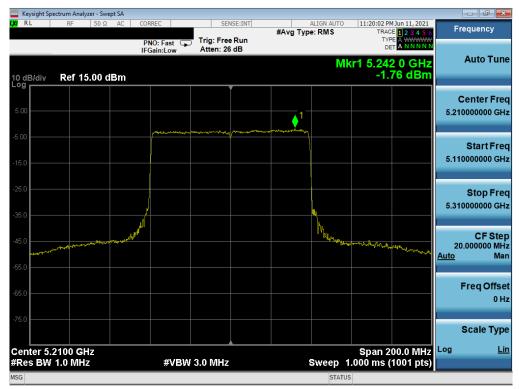
Plot 7-283. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 38)



Plot 7-284. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 46)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager	
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Plot 7-285. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 42)



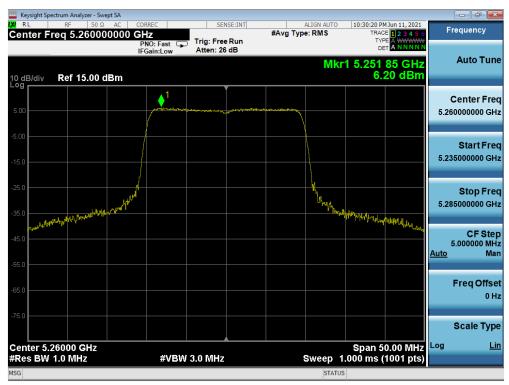
Plot 7-286. Power Spectral Density Plot MIMO SOUTH (160MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 50)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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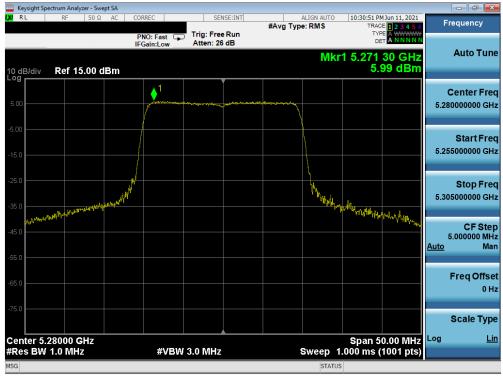
Plot 7-287. Power Spectral Density Plot MIMO SOUTH (160MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 50)



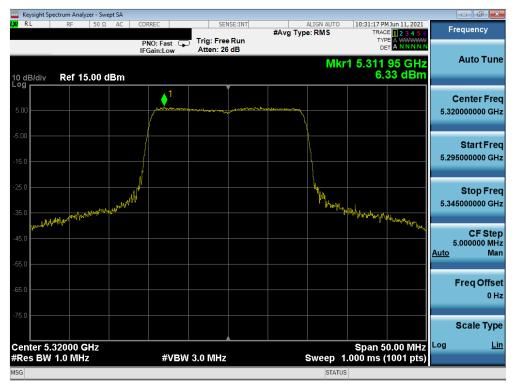
Plot 7-288. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 52)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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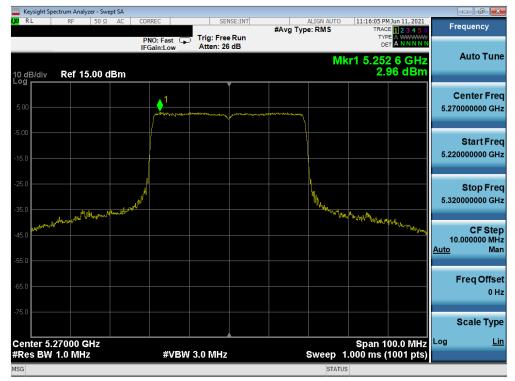
Plot 7-289. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 56)



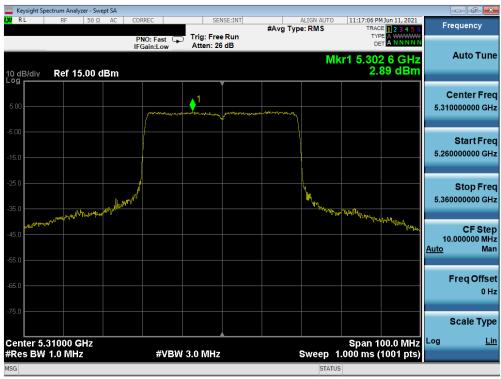
Plot 7-290. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 64)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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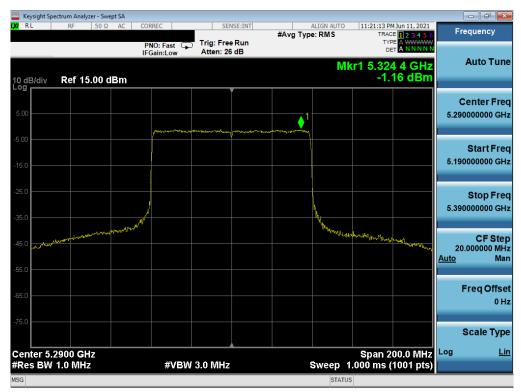
Plot 7-291. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 54)



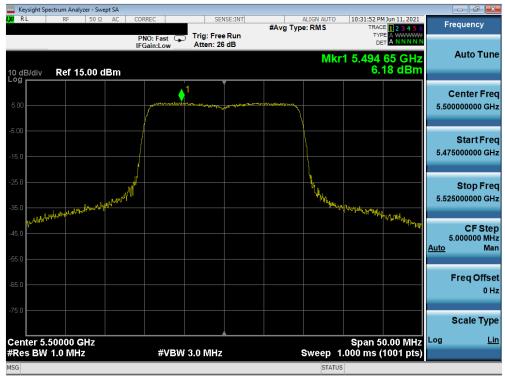
Plot 7-292. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 62)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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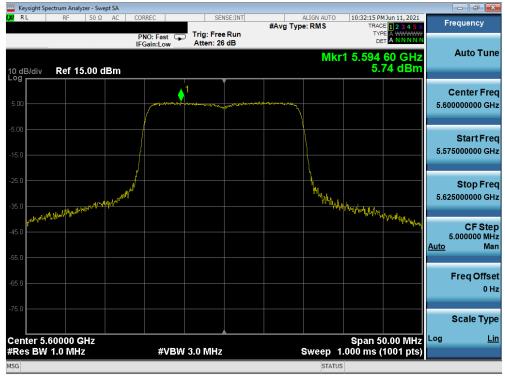
Plot 7-293. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 58)



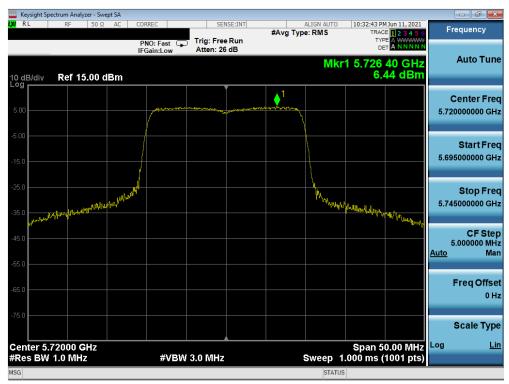
Plot 7-294. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 100)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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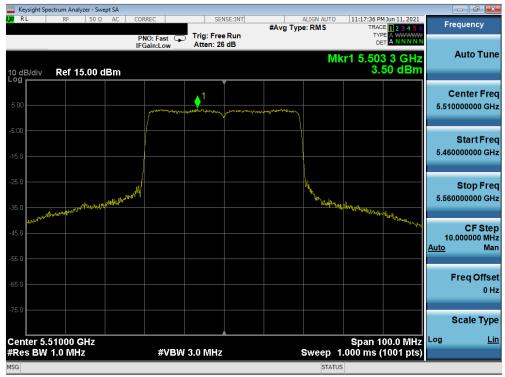
Plot 7-295. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)



Plot 7-296. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)

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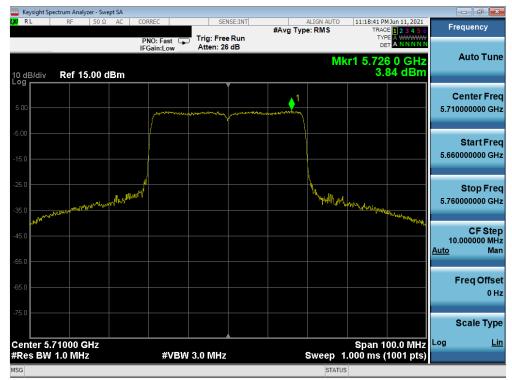
Plot 7-297. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)



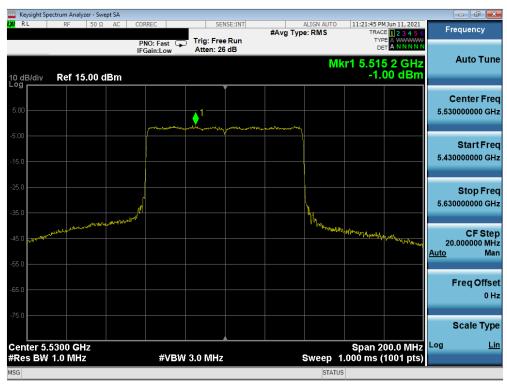
Plot 7-298. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 118)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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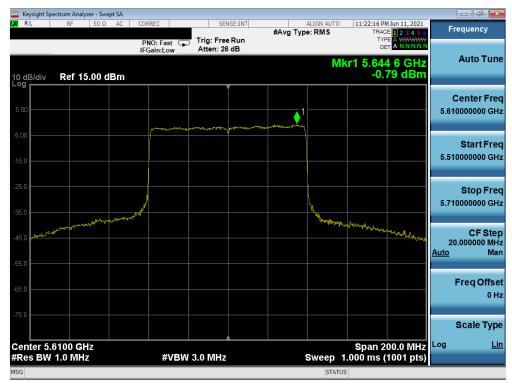
Plot 7-299. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)



Plot 7-300. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)

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Plot 7-301. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)



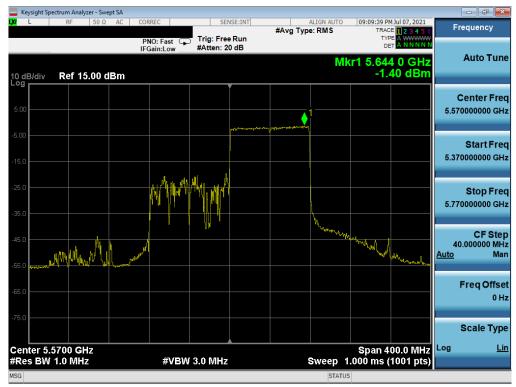
Plot 7-302. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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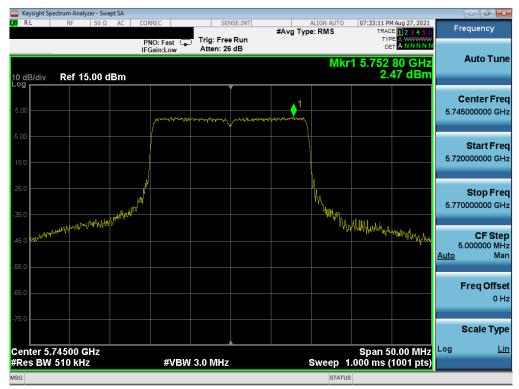
Plot 7-303. Power Spectral Density Plot MIMO SOUTH (160MHz (L) BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 114)



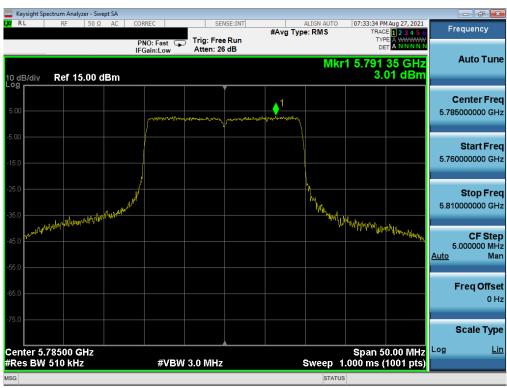
Plot 7-304. Power Spectral Density Plot MIMO SOUTH (160MHz (U) BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 114)

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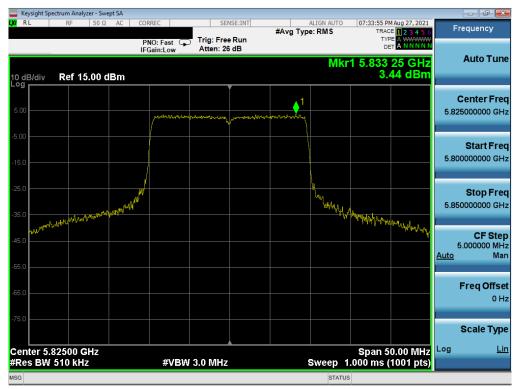
Plot 7-305. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



Plot 7-306. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

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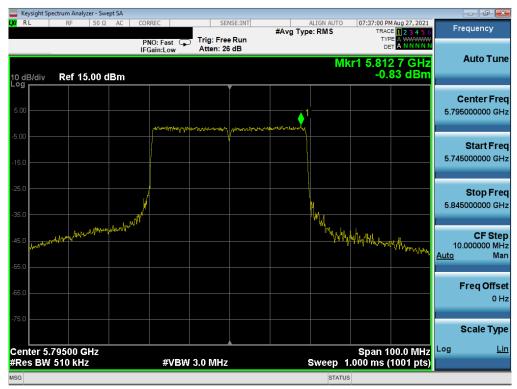
Plot 7-307. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)



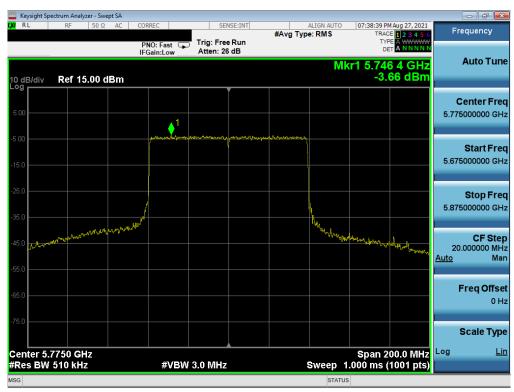
Plot 7-308. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-309. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 159)

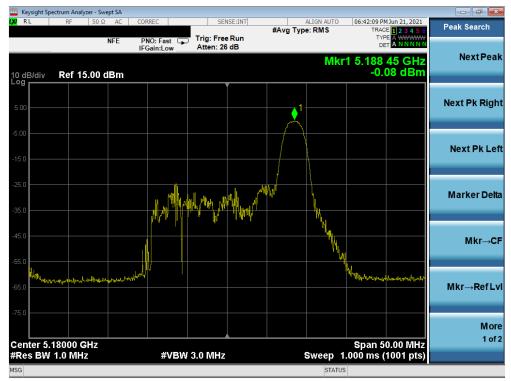


Plot 7-310. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 155)

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



Plot 7-311. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 36)



Plot 7-312. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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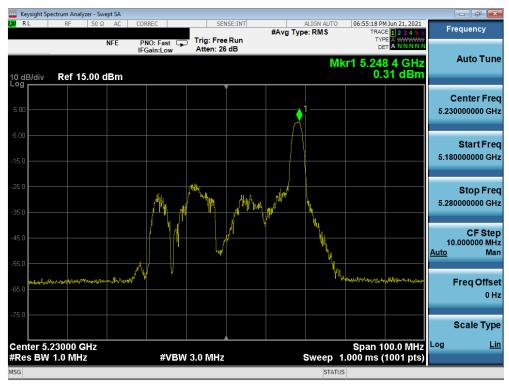
Plot 7-313. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



Plot 7-314. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 38)

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 7-315. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



Plot 7-316. Power Spectral Density Plot MIMO 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)	Microsoft	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dags 240 of 244
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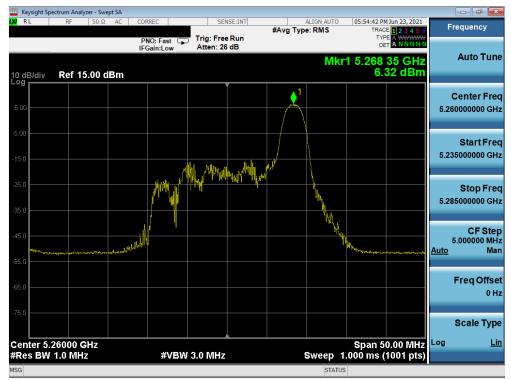
Plot 7-317. Power Spectral Density Plot MIMO NORTH (160MHz BW (L) 802.11ax - 26 Tones (UNII Band 1) - Ch. 50)



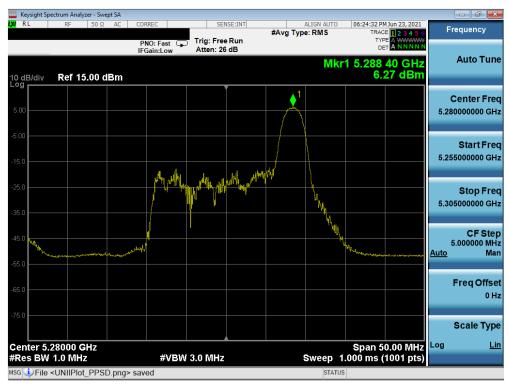
Plot 7-318. Power Spectral Density Plot MIMO NORTH (160MHz BW (U) 802.11ax - 26 Tones (UNII Band 2A) - Ch. 50)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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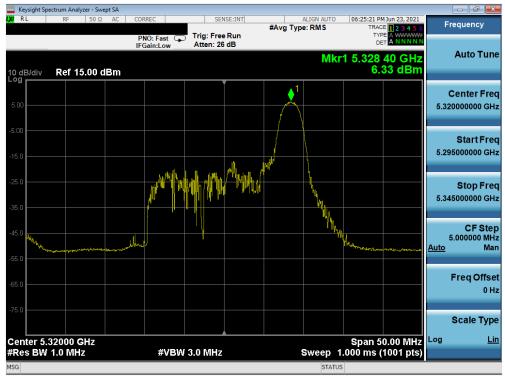
Plot 7-319. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



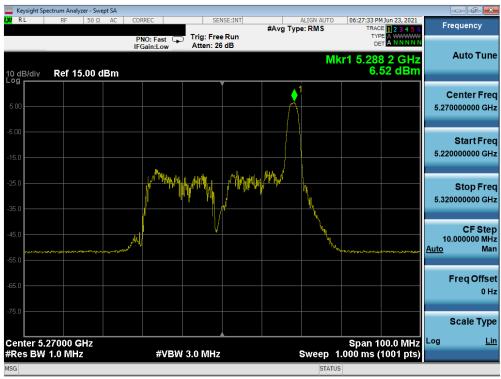
Plot 7-320. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

FCC ID: C3K1995 IC: 3048A-1995	Provid to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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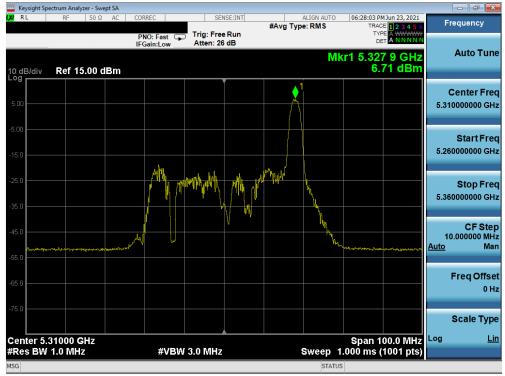
Plot 7-321. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



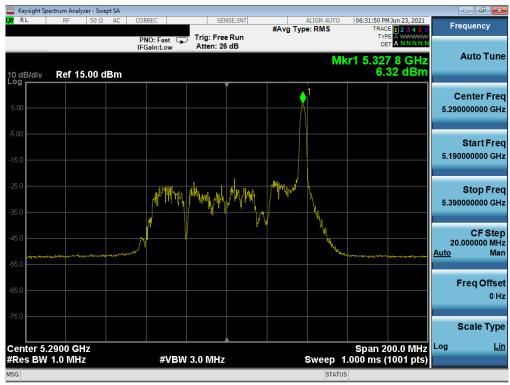
Plot 7-322. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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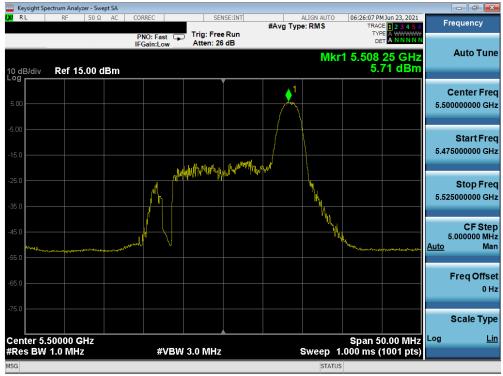
Plot 7-323. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



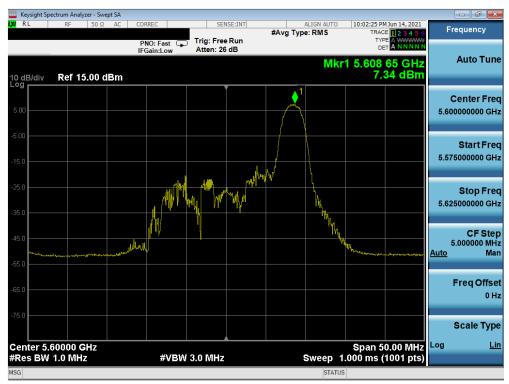
Plot 7-324. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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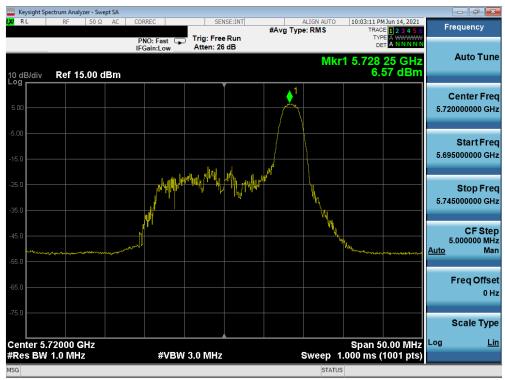
Plot 7-325. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



Plot 7-326. Power Spectral Density Plot MIMO 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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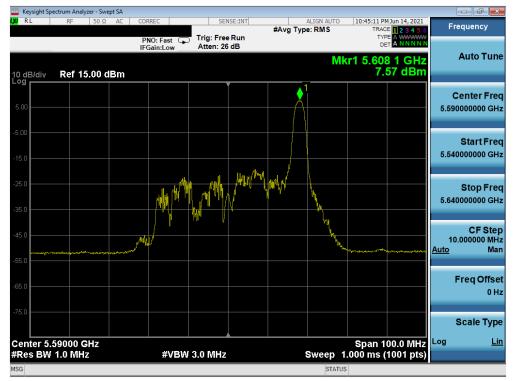
Plot 7-327. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



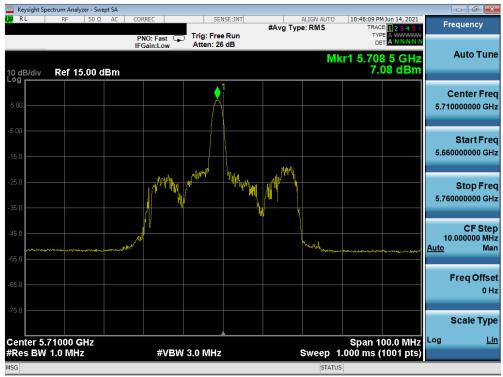
Plot 7-328. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 102)

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 7-329. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



Plot 7-330. Power Spectral Density Plot MIMO 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)	SOff	Approved by: Technical Manager
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Plot 7-331. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



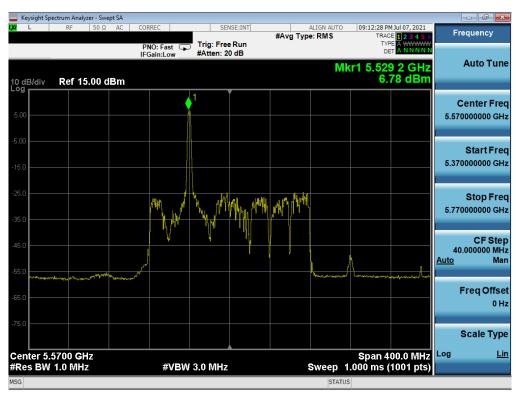
Plot 7-332. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	OSOTT	Approved by: Technical Manager
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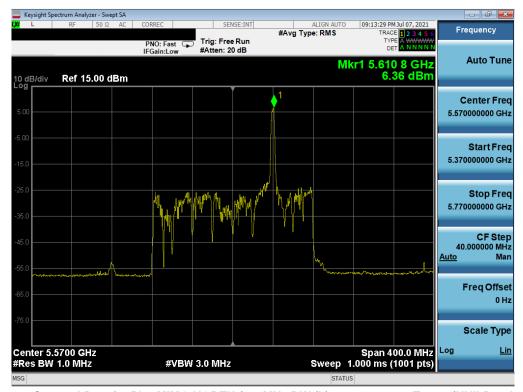
Plot 7-333. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 138)



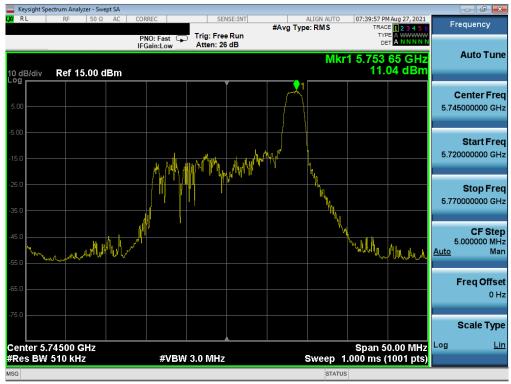
Plot 7-334. Power Spectral Density Plot MIMO NORTH (160MHz BW (U) 802.11ax - 26 Tones (UNII Band 2C) - Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsoft	Approved by: Technical Manager
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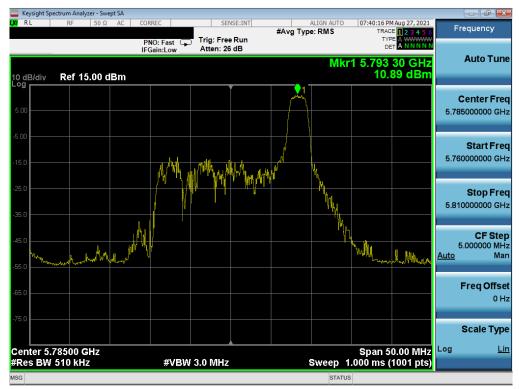
Plot 7-335. Power Spectral Density Plot MIMO NORTH (160MHz BW (L) 802.11ax - 26 Tones (UNII Band 2C) - Ch. 114)



Plot 7-336. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)

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 7-337. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)



Plot 7-338. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)

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 7-339. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)



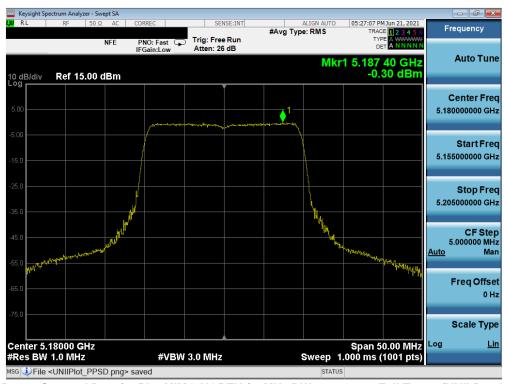
Plot 7-340. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)

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 7-341. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)



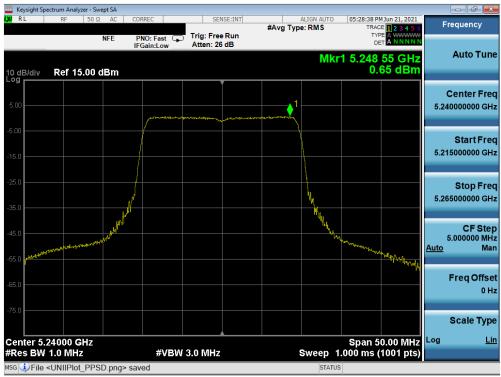
Plot 7-342. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 36)

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 7-343. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 40)



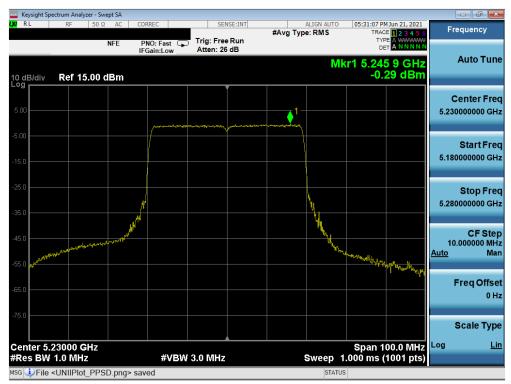
Plot 7-344. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 48)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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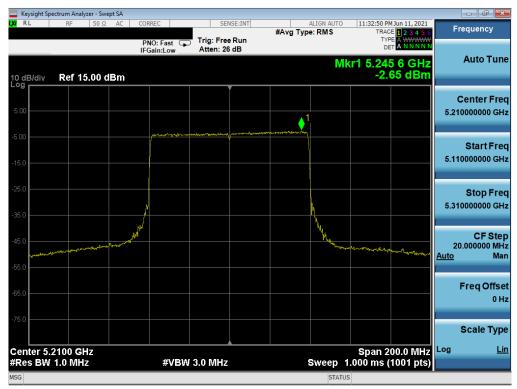
Plot 7-345. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 38)



Plot 7-346. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 46)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	/licrosoft	Approved by: Technical Manager
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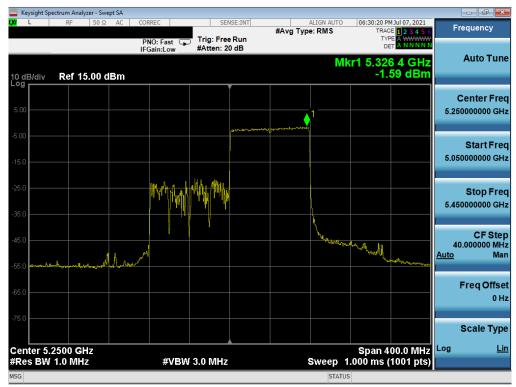
Plot 7-347. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 42)



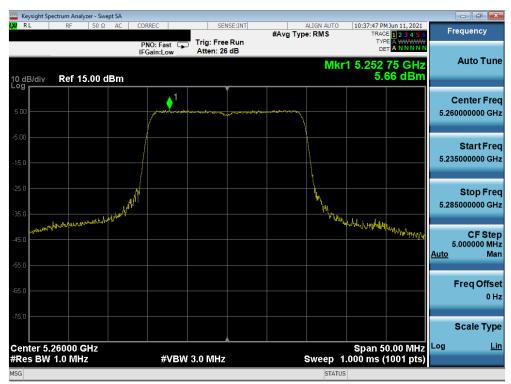
Plot 7-348. Power Spectral Density Plot MIMO NORTH (160MHz BW (U) 802.11ax - Full Tones (UNII Band 1) - Ch. 50)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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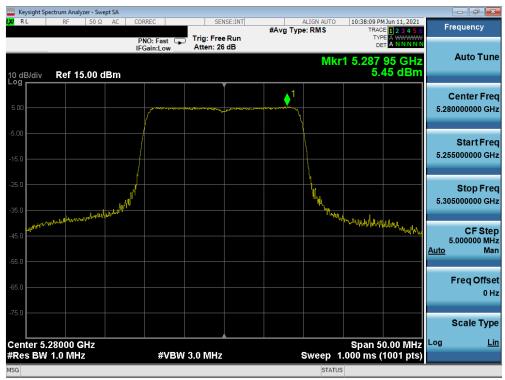
Plot 7-349. Power Spectral Density Plot MIMO NORTH (160MHz BW (L) 802.11ax - Full Tones (UNII Band 2A) - Ch. 50)



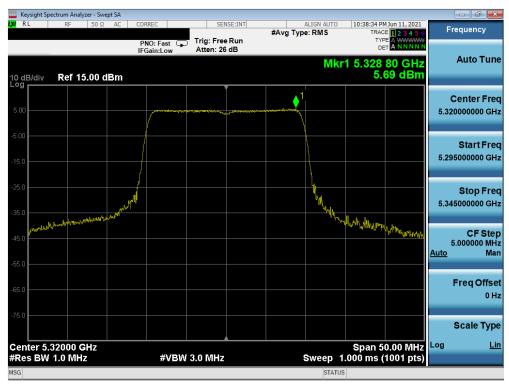
Plot 7-350. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 52)

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 7-351. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 56)



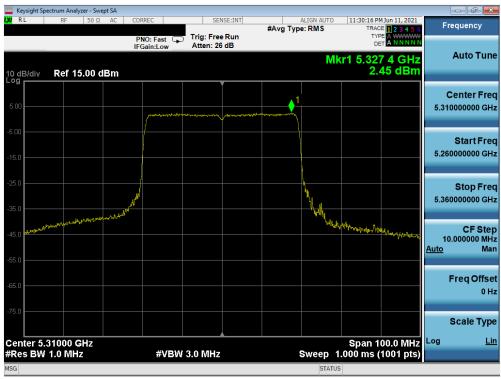
Plot 7-352. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 64)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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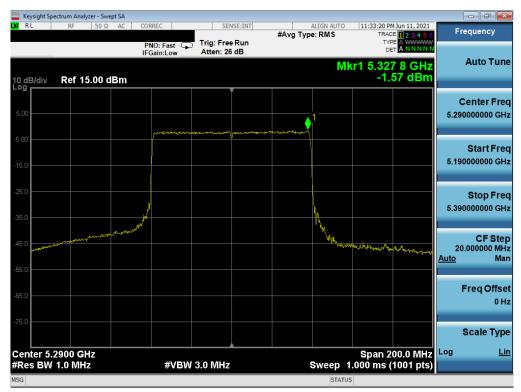
Plot 7-353. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 54)



Plot 7-354. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 62)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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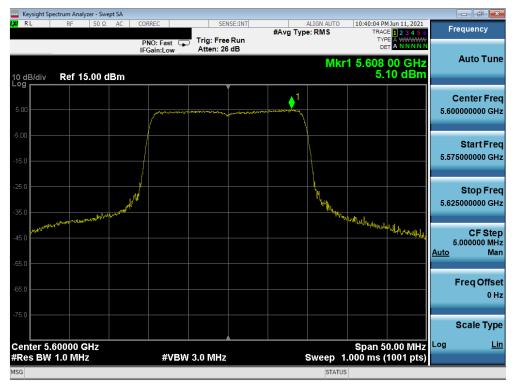
Plot 7-355. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 58)



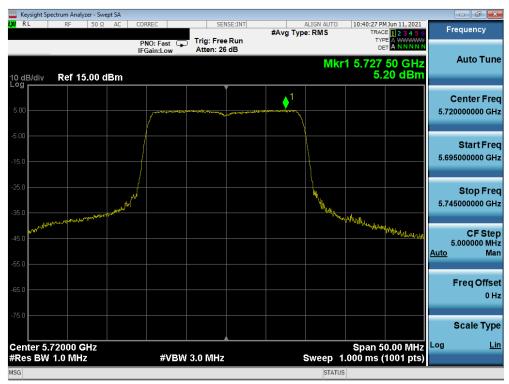
Plot 7-356. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 100)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	crosoft	Approved by: Technical Manager
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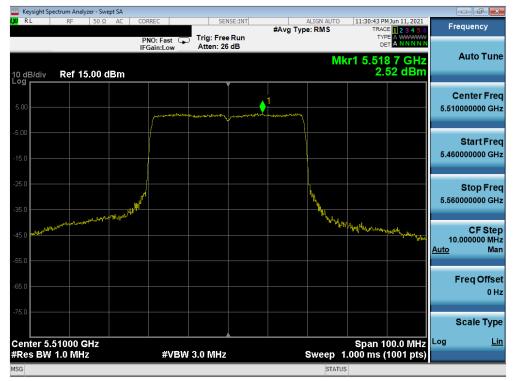
Plot 7-357. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)



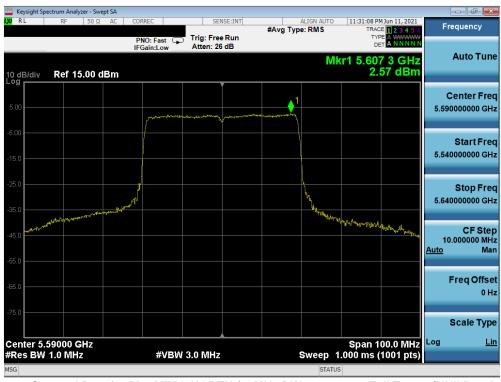
Plot 7-358. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	OSOTT	Approved by: Technical Manager
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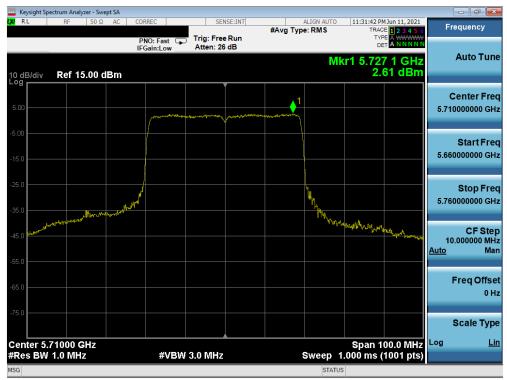
Plot 7-359. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)



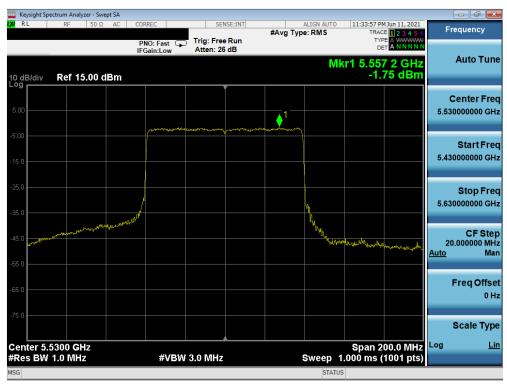
Plot 7-360. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 118)

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Plot 7-361. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)



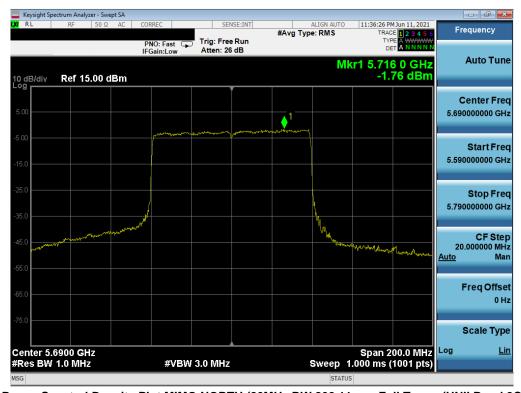
Plot 7-362. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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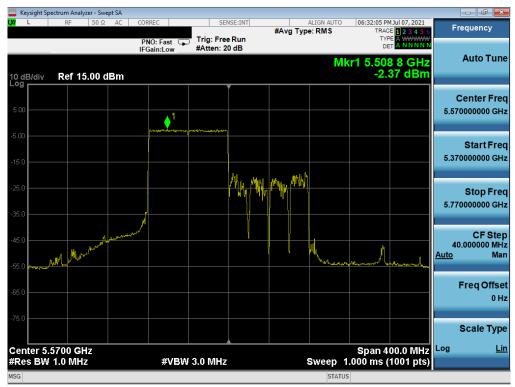
Plot 7-363. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)



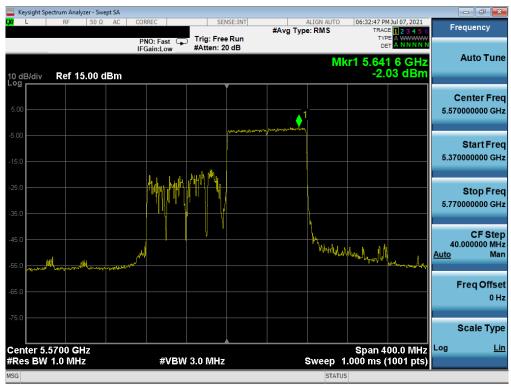
Plot 7-364. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)

FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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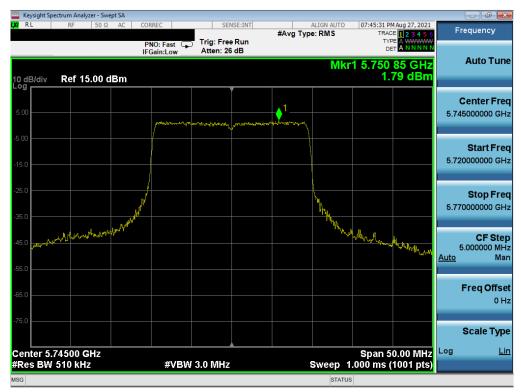
Plot 7-365. Power Spectral Density Plot MIMO NORTH (160MHz BW (L) 802.11ax – Full Tones (UNII Band 2C) – Ch. 114)



Plot 7-366. Power Spectral Density Plot MIMO NORTH (160MHz BW (U) 802.11ax – Full Tones (UNII Band 2C) – Ch. 114)

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Plot 7-367. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



Plot 7-368. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

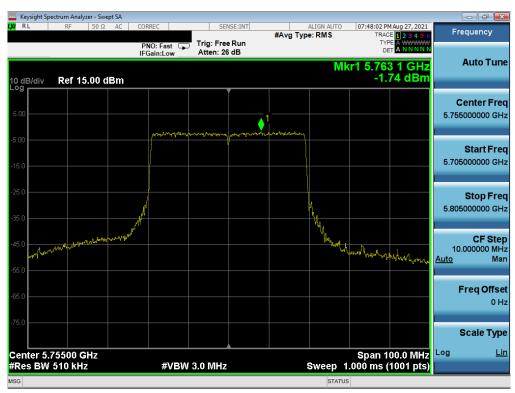
FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION) Microsof	Approved by: Technical Manager
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Plot 7-369. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)

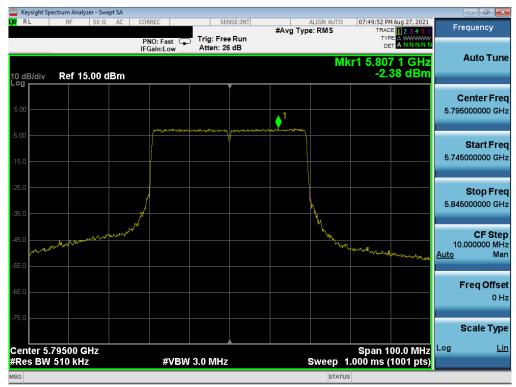


Plot 7-370. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

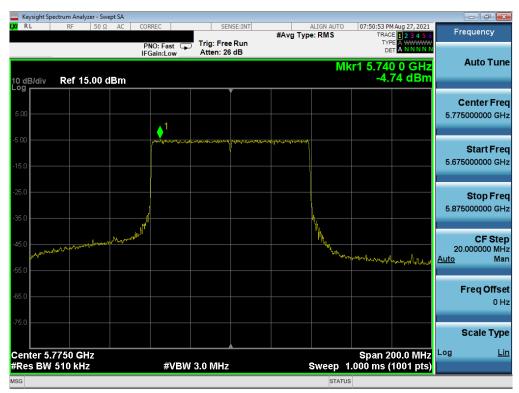
FCC ID: C3K1995 IC: 3048A-1995	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-371. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 159)



Plot 7-372. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 155)

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# 7.6 Radiated Spurious Emission Measurements – Above 1GHz §15.407(b) §15.205 §15.209; RSS-Gen [8.9]

#### **Test Overview and Limit**

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 26 Tones, 52 Tones, 106 Tones, 242 Tones, 484 Tones and 996 Tones), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-109 per Section 15.209 and RSS-Gen (8.9).

Frequency	Frequency Field Strength [μV/m]	
Above 960.0 MHz	500	3

Table 7-109. Radiated Limits

#### **Test Procedures Used**

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5 KDB 789033 D02 v02r01 – Section G

#### **Test Settings**

#### Average Measurements above 1GHz (Method AD)

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = power average (RMS)
- 5. Number of measurement points = 1001 (Number of points must be  $\geq 2 \times \text{span/RBW}$ )
- 6. Averaging type = power (RMS)
- 7. Sweep time = auto couple

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8. Trace was averaged over 100 sweeps

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## **Peak Measurements above 1GHz**

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

# Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = 120kHz
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

# **Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.

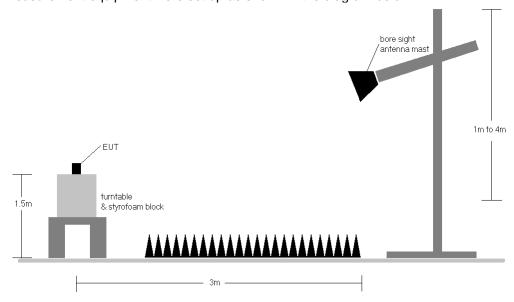


Figure 7-5. Test Instrument & Measurement Setup

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#### **Test Notes**

- 1. All emissions that lie in the restricted bands (denoted by a \* next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-109.
- 2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-109. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
- 3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
- 4. This unit was tested with its standard battery.
- 5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
- 6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
- 8. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 9. For radiated measurements, emissions were investigated for the fully-loaded RU configuration and for all of the partially-loaded RU configurations. Among all of the available partially-loaded RU configurations, only the configuration with the worst case emissions is reported.

## **Sample Calculations**

# **Determining Spurious Emissions Levels**

- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- O AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- o Margin [dB] = Field Strength Level  $[dB_{\mu}V/m]$  Limit  $[dB_{\mu}V/m]$

#### **Radiated Band Edge Measurement Offset**

The amplitude offset shown in the radiated restricted band edge plots in Section Radiated Spurious
 Emission Measurements – Above 1GHz was calculated using the formula:

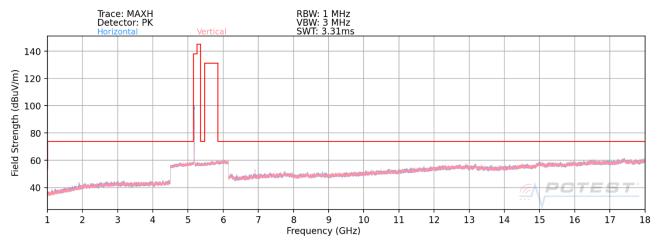
Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

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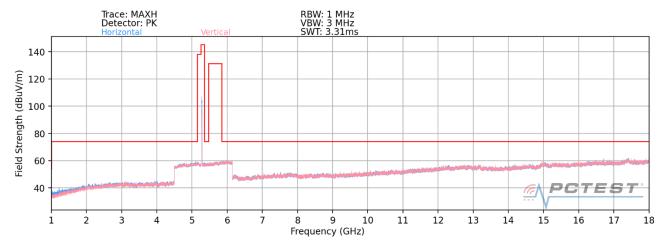


# 7.6.1 SISO SOUTH Radiated Spurious Emission Measurements

# 26 Tones



Plot 7-373. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11ax - U1 Ch. 40 - 26 Tones) Closed



Plot 7-374. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11ax - U2A Ch. 56 - 26 Tones) Closed

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