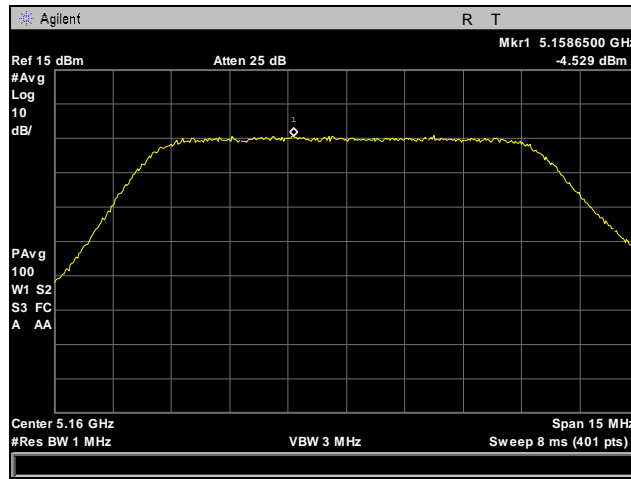
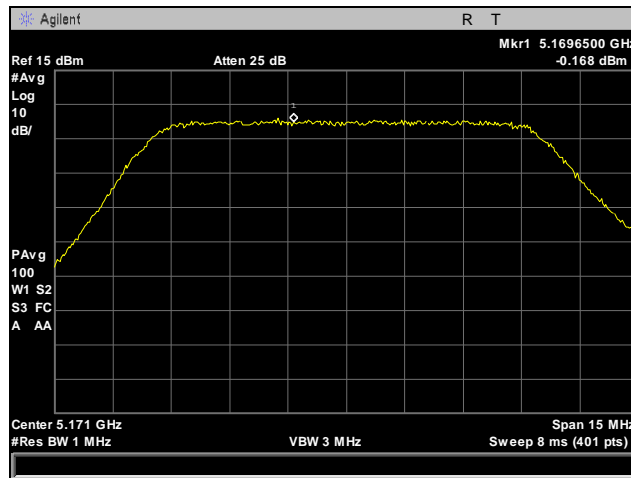


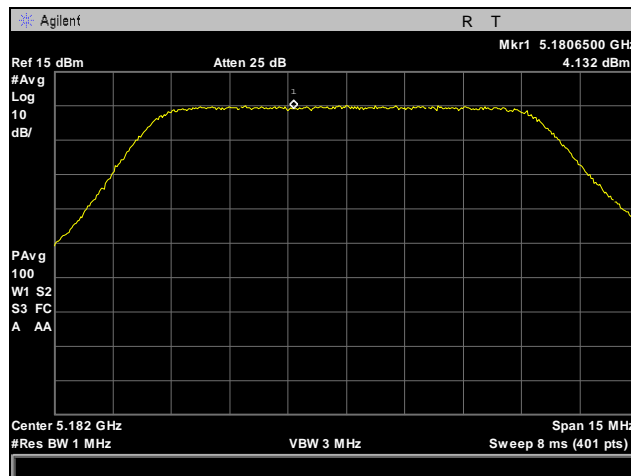
Peak Power Spectral Density, Antenna 1, 10 MHz, UNII 1



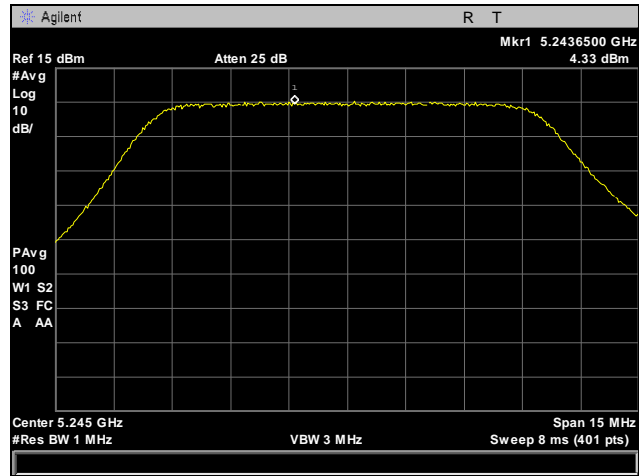
Plot 246. Peak Power Spectral Density, 5160 MHz, Antenna 1, 10 MHz



Plot 247. Peak Power Spectral Density, 5171 MHz, Antenna 1, 10 MHz

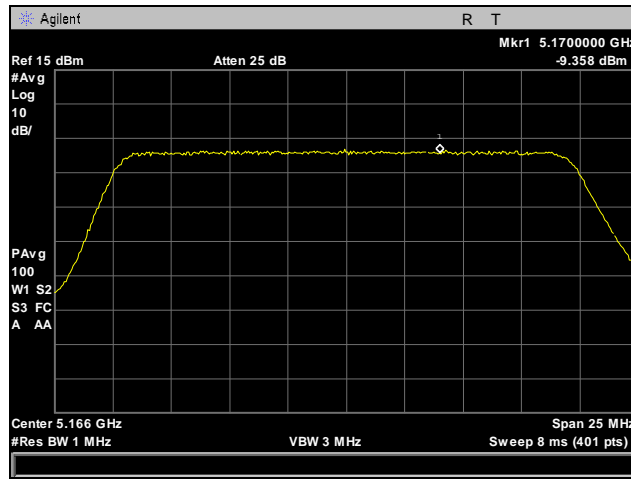


Plot 248. Peak Power Spectral Density, 5182 MHz, Antenna 1, 10 MHz

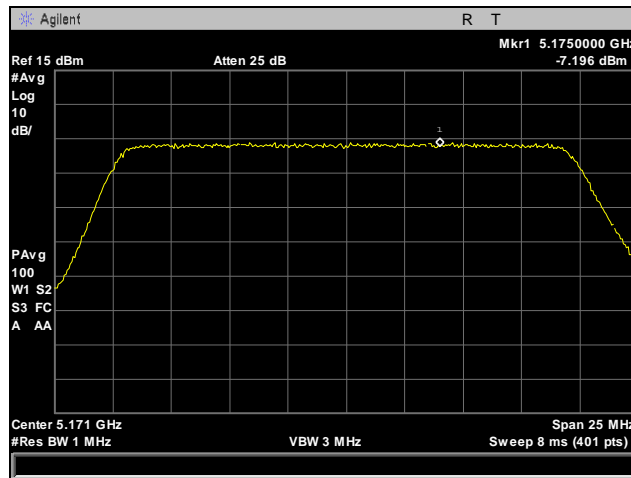


Plot 249. Peak Power Spectral Density, 5245 MHz, Antenna 1, 10 MHz

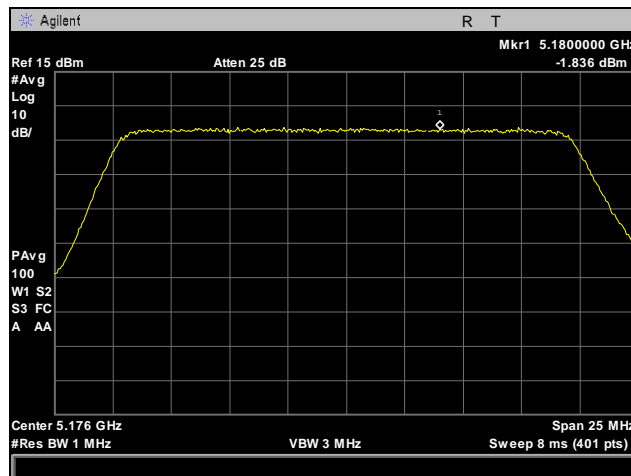
Peak Power Spectral Density, Antenna 0, 20 MHz, UNII 1



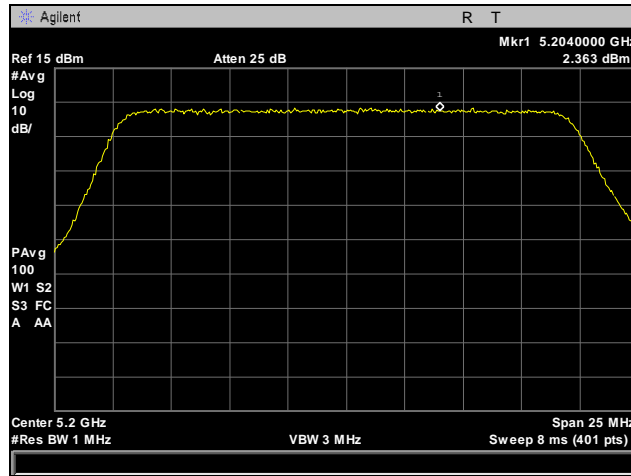
Plot 250. Peak Power Spectral Density, 5166 MHz, Antenna 0, 20 MHz



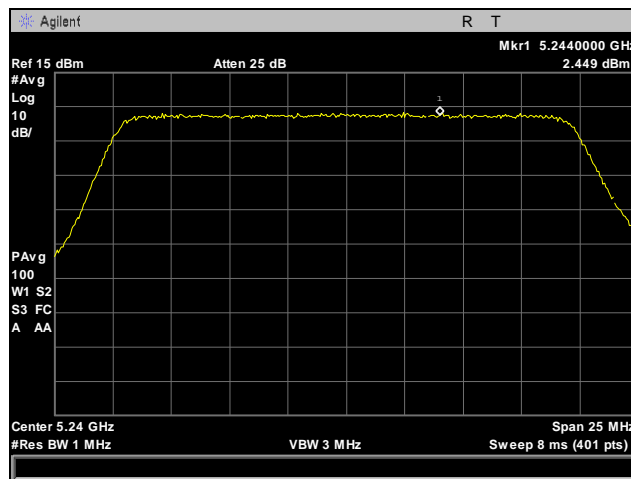
Plot 251. Peak Power Spectral Density, 5171 MHz, Antenna 0, 20 MHz



Plot 252. Peak Power Spectral Density, 5176 MHz, Antenna 0, 20 MHz

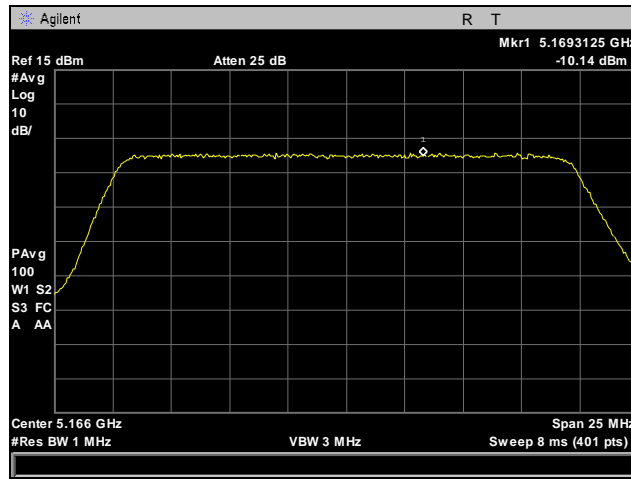


Plot 253. Peak Power Spectral Density, 5200 MHz, Antenna 0, 20 MHz

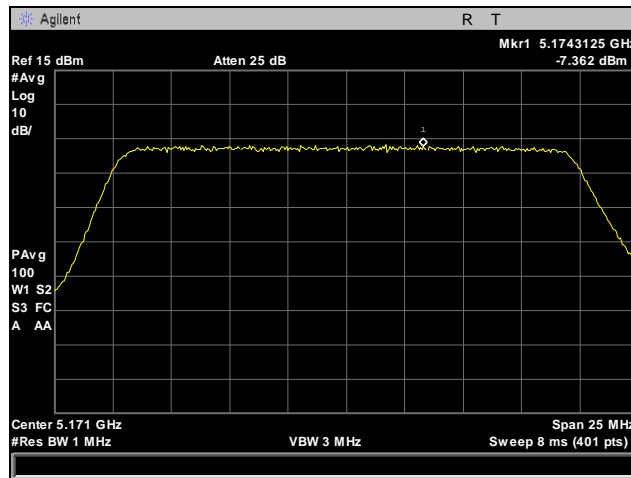


Plot 254. Peak Power Spectral Density, 5240 MHz, Antenna 0, 20 MHz

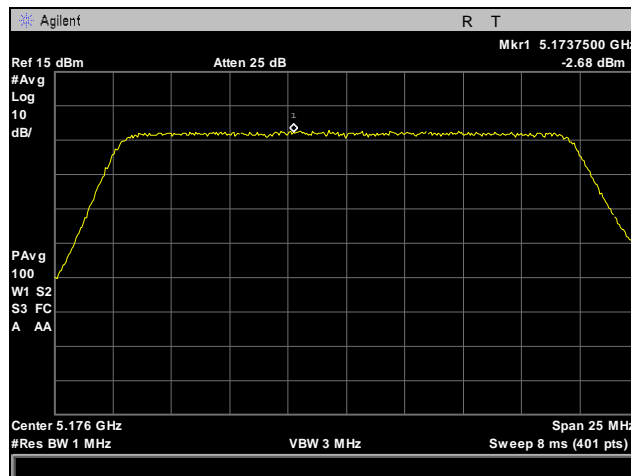
Peak Power Spectral Density, Antenna 1, 20 MHz, UNII 1



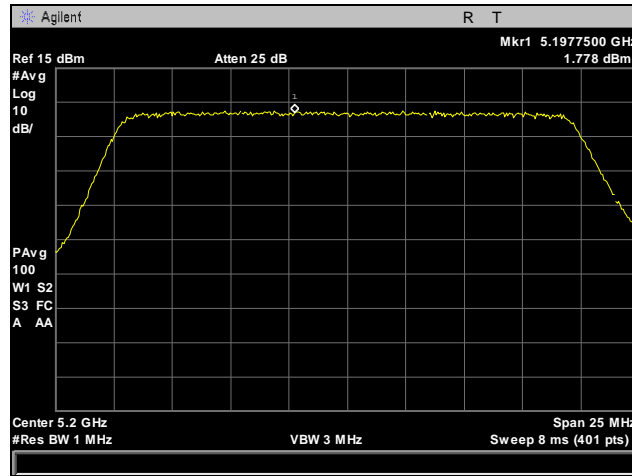
Plot 255. Peak Power Spectral Density, 5166 MHz, Antenna 1, 20 MHz



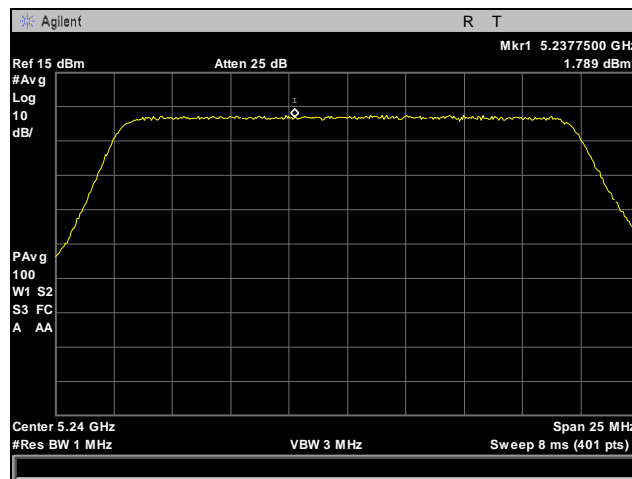
Plot 256. Peak Power Spectral Density, 5171 MHz, Antenna 1, 20 MHz



Plot 257. Peak Power Spectral Density, 5176 MHz, Antenna 1, 20 MHz

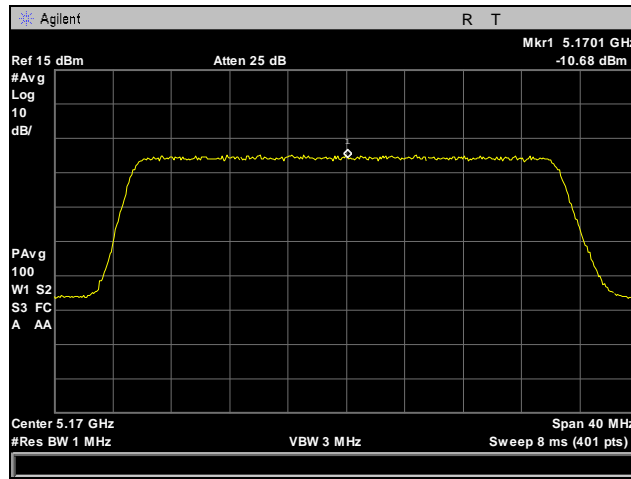


Plot 258. Peak Power Spectral Density, 5200 MHz, Antenna 1, 20 MHz

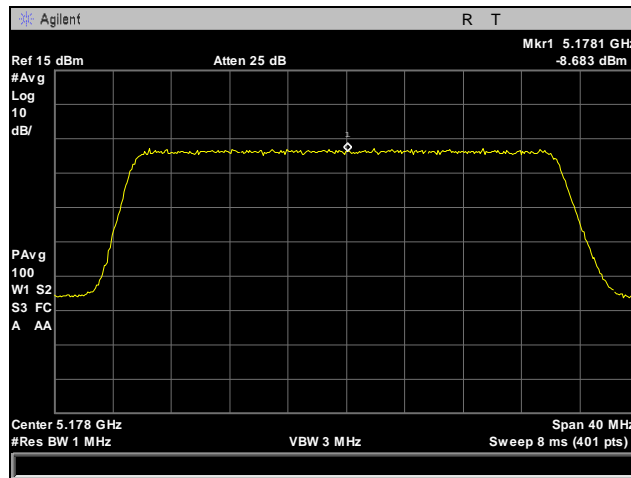


Plot 259. Peak Power Spectral Density, 5240 MHz, Antenna 1, 20 MHz

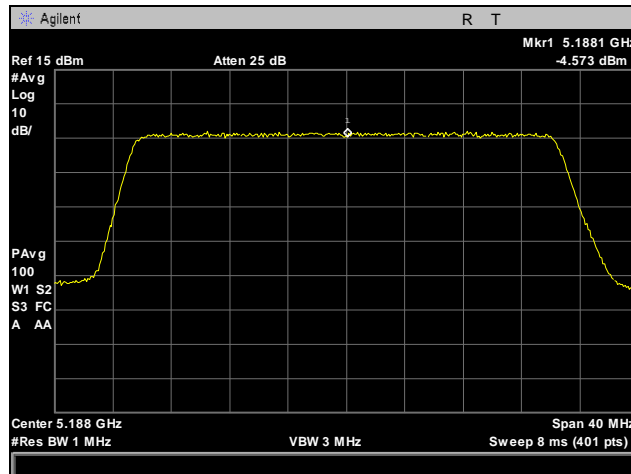
Peak Power Spectral Density, Antenna 0, 30 MHz, UNII 1



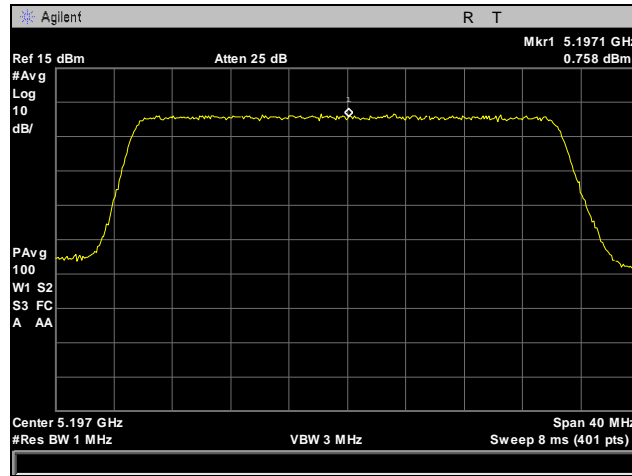
Plot 260. Peak Power Spectral Density, 5170 MHz, Antenna 0, 30 MHz



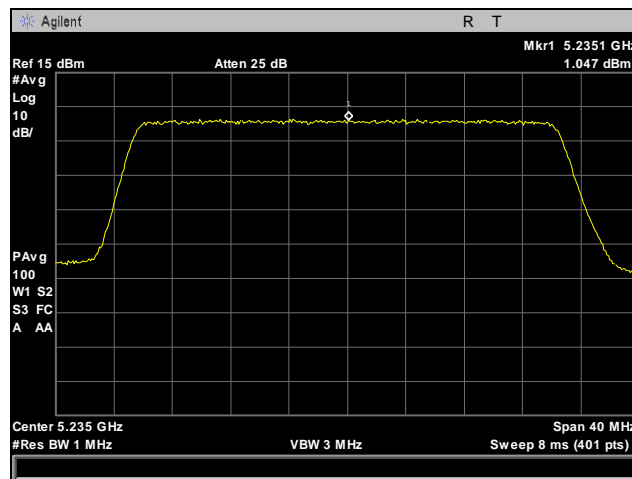
Plot 261. Peak Power Spectral Density, 5178 MHz, Antenna 0, 30 MHz



Plot 262. Peak Power Spectral Density, 5188 MHz, Antenna 0, 30 MHz

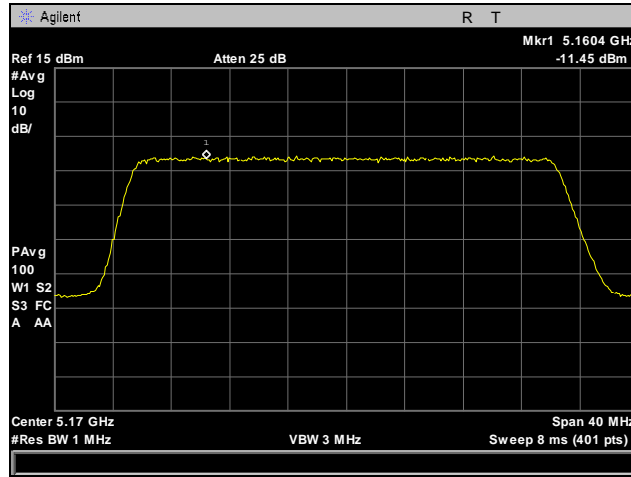


Plot 263. Peak Power Spectral Density, 5197 MHz, Antenna 0, 30 MHz

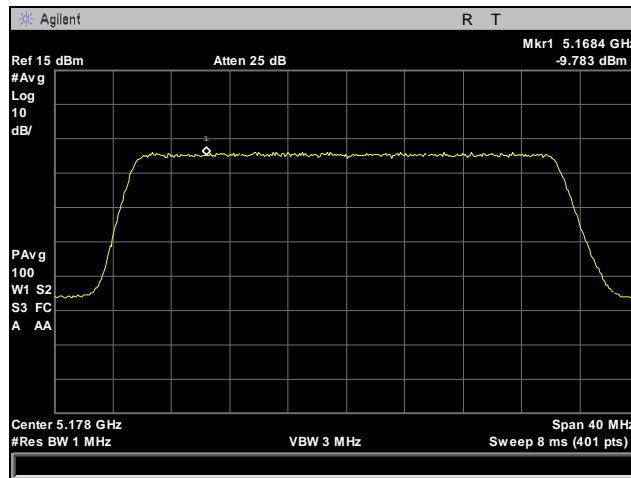


Plot 264. Peak Power Spectral Density, 5235 MHz, Antenna 0, 30 MHz

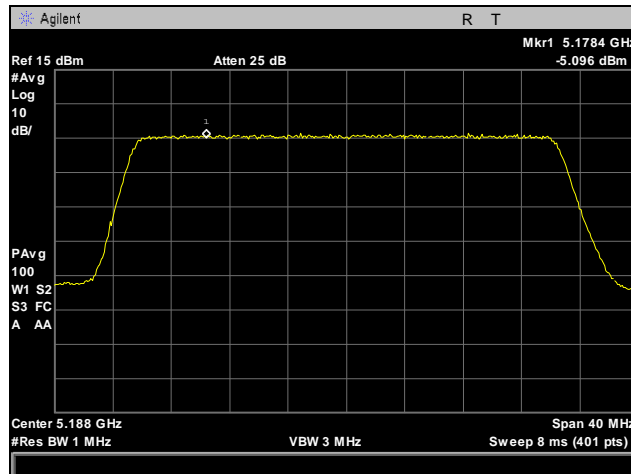
Peak Power Spectral Density, Antenna 1, 30 MHz, UNII 1



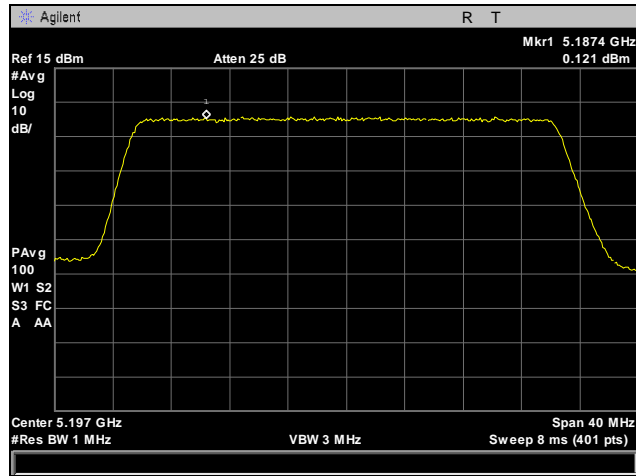
Plot 265. Peak Power Spectral Density, 5170 MHz, Antenna 1, 30 MHz



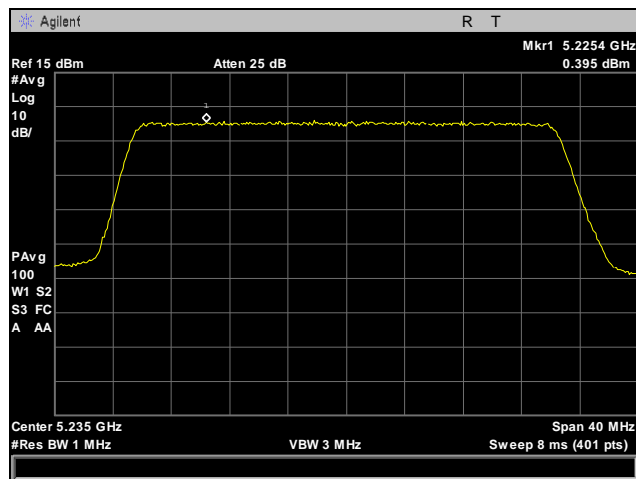
Plot 266. Peak Power Spectral Density, 5178 MHz, Antenna 1, 30 MHz



Plot 267. Peak Power Spectral Density, 5188 MHz, Antenna 1, 30 MHz

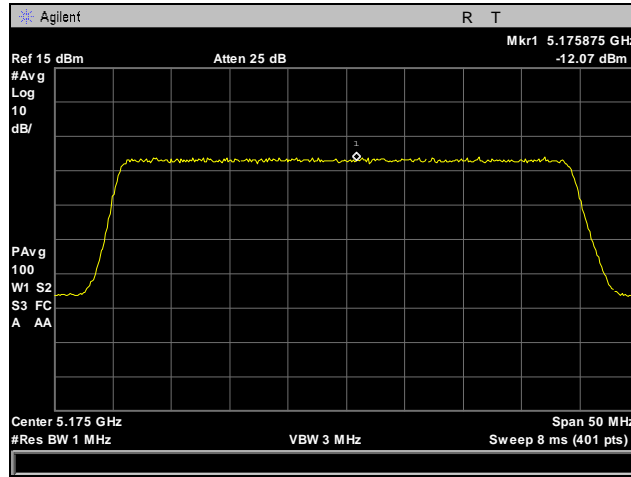


Plot 268. Peak Power Spectral Density, 5197 MHz, Antenna 1, 30 MHz

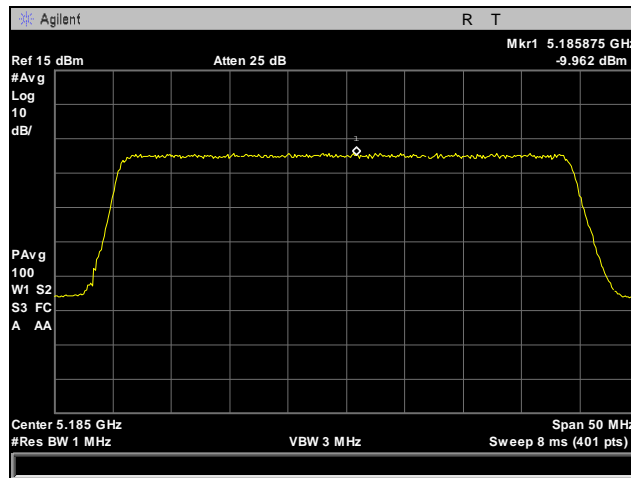


Plot 269. Peak Power Spectral Density, 5235 MHz, Antenna 1, 30 MHz

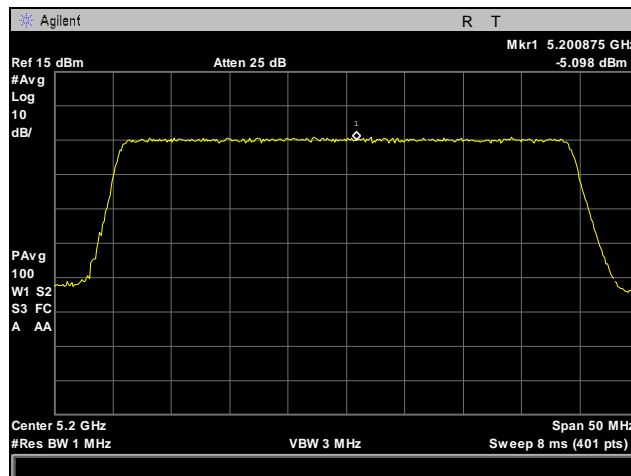
Peak Power Spectral Density, Antenna 0, 40 MHz, UNII 1



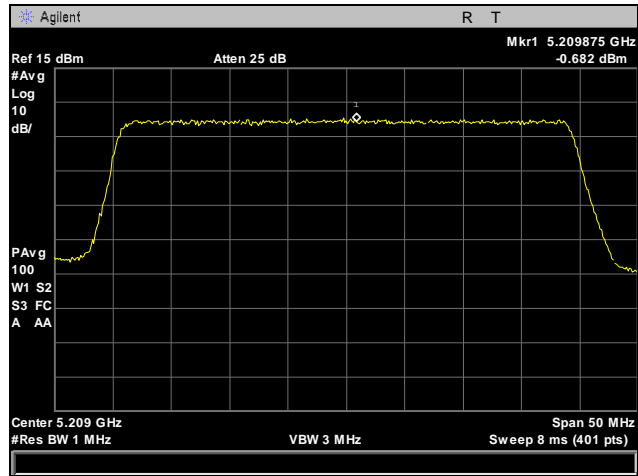
Plot 270. Peak Power Spectral Density, 5175 MHz, Antenna 0, 40 MHz



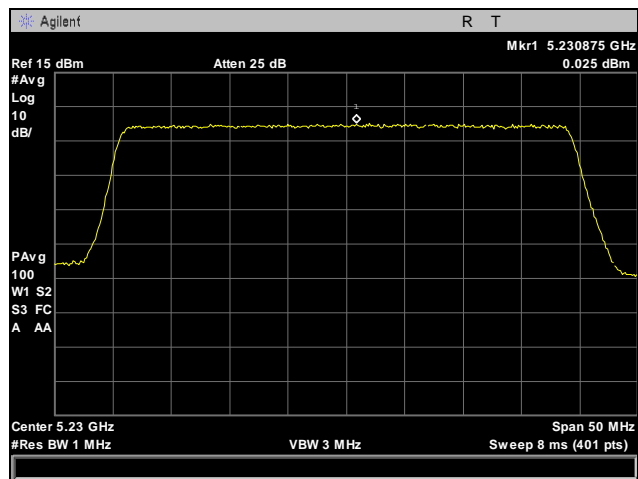
Plot 271. Peak Power Spectral Density, 5185 MHz, Antenna 0, 40 MHz



Plot 272. Peak Power Spectral Density, 5200 MHz, Antenna 0, 40 MHz

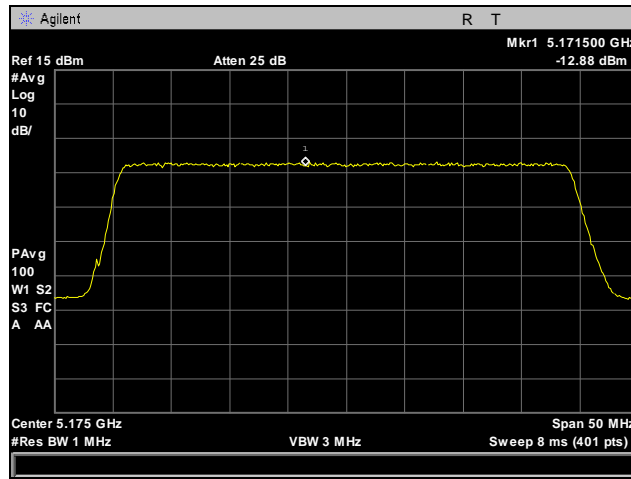


Plot 273. Peak Power Spectral Density, 5209 MHz, Antenna 0, 40 MHz

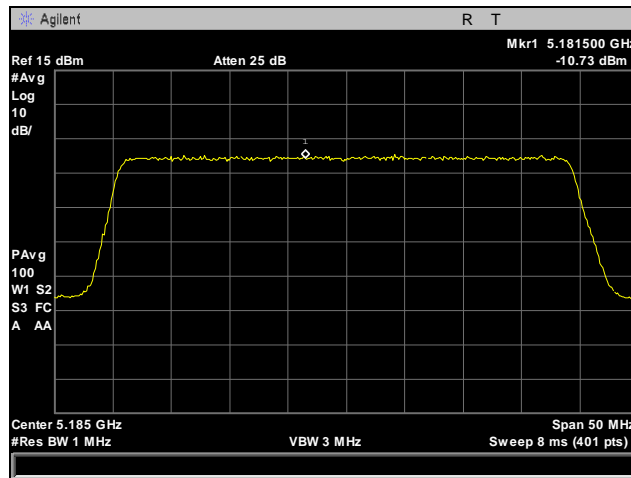


Plot 274. Peak Power Spectral Density, 5230 MHz, Antenna 0, 40 MHz

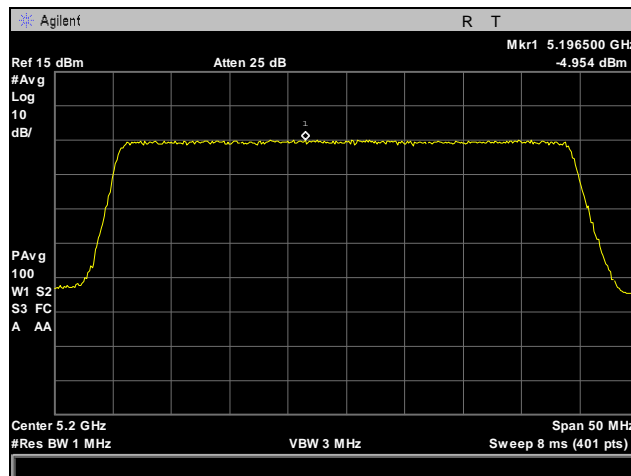
Peak Power Spectral Density, Antenna 1, 40 MHz, UNII 1



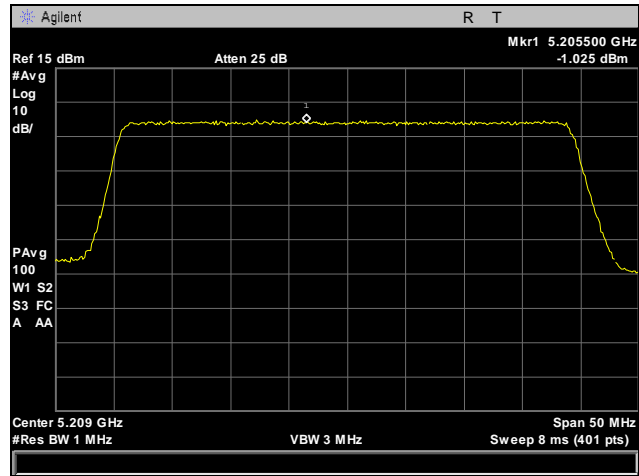
Plot 275. Peak Power Spectral Density, 5175 MHz, Antenna 1, 40 MHz



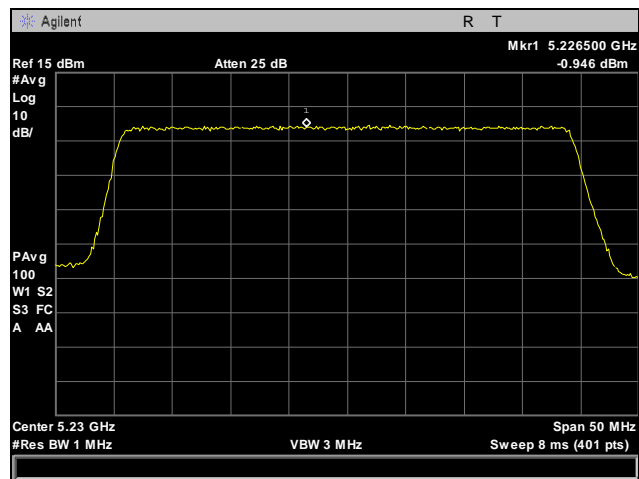
Plot 276. Peak Power Spectral Density, 5185 MHz, Antenna 1, 40 MHz



Plot 277. Peak Power Spectral Density, 5200 MHz, Antenna 1, 40 MHz

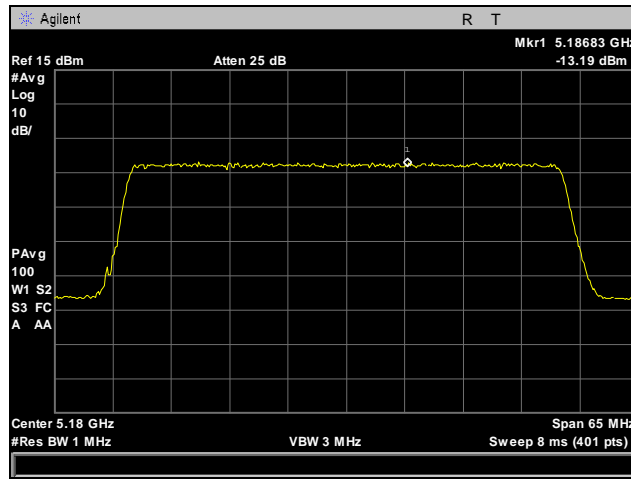


Plot 278. Peak Power Spectral Density, 5209 MHz, Antenna 1, 40 MHz

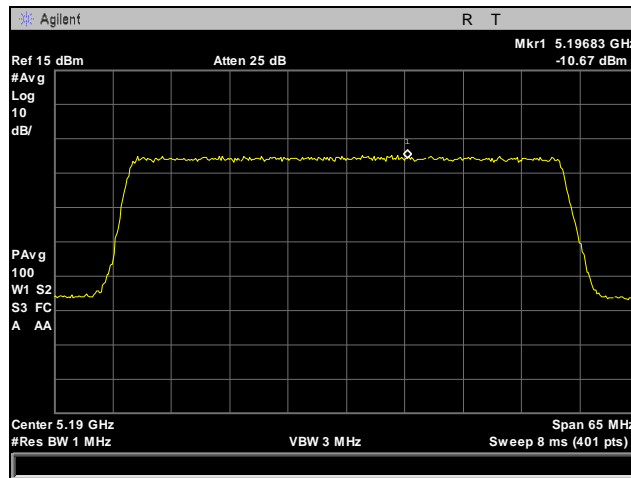


Plot 279. Peak Power Spectral Density, 5230 MHz, Antenna 1, 40 MHz

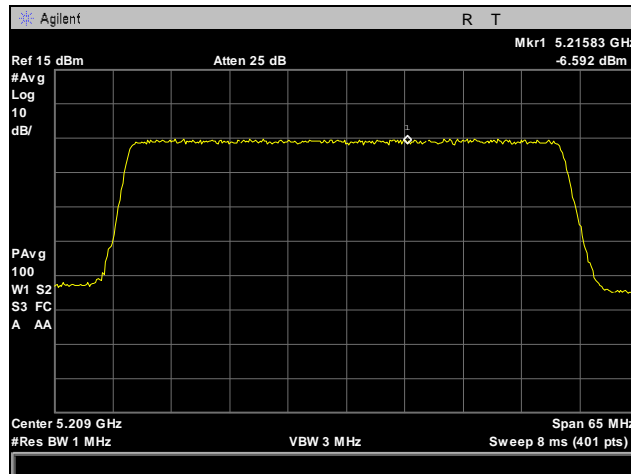
Peak Power Spectral Density, Antenna 0, 50 MHz, UNII 1



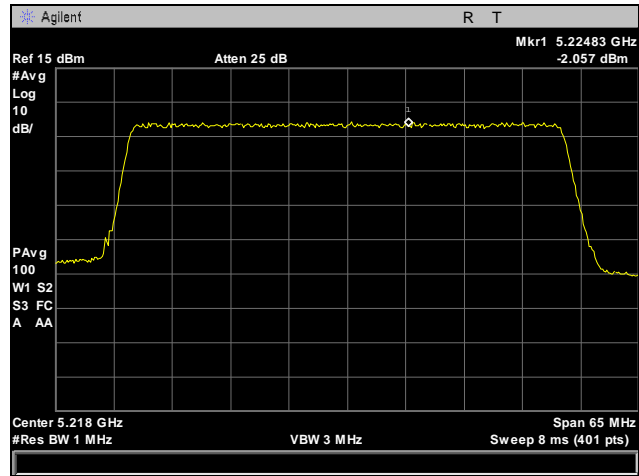
Plot 280. Peak Power Spectral Density, 5180 MHz, Antenna 0, 50 MHz



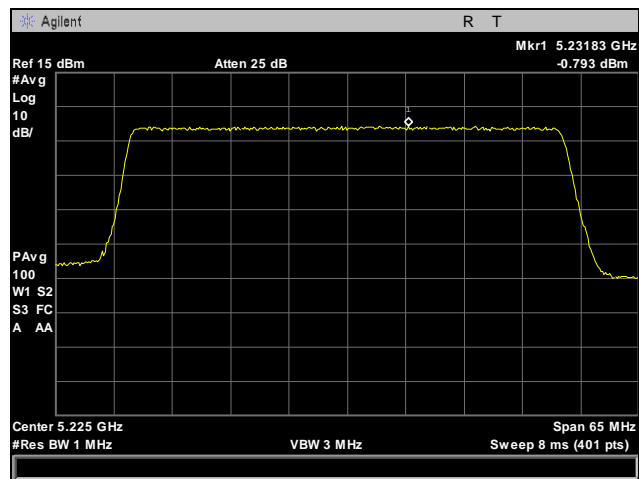
Plot 281. Peak Power Spectral Density, 5190 MHz, Antenna 0, 50 MHz



Plot 282. Peak Power Spectral Density, 5209 MHz, Antenna 0, 50 MHz

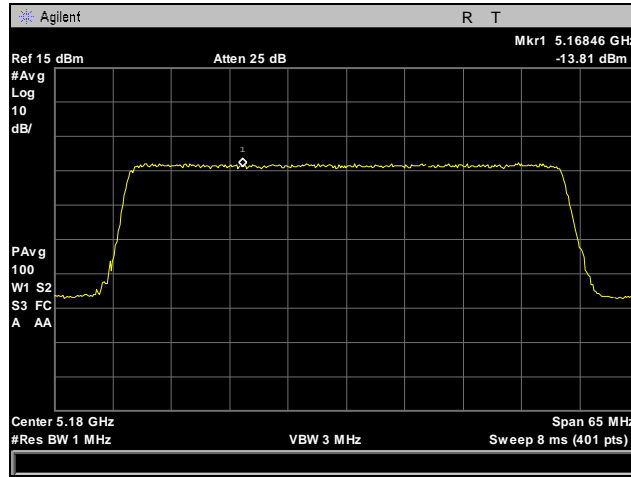


Plot 283. Peak Power Spectral Density, 5218 MHz, Antenna 0, 50 MHz

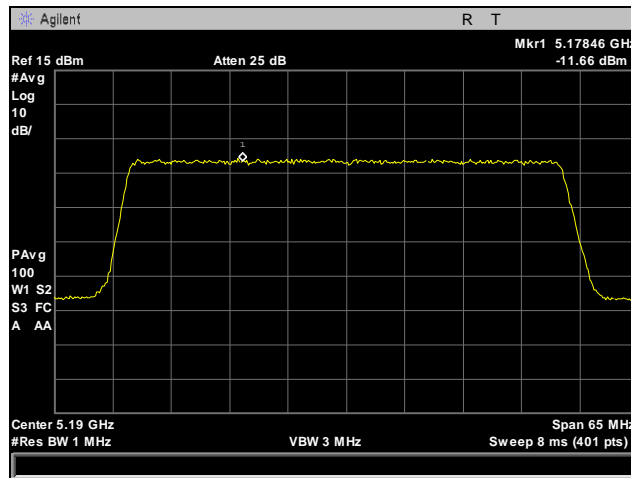


Plot 284. Peak Power Spectral Density, 5225 MHz, Antenna 0, 50 MHz

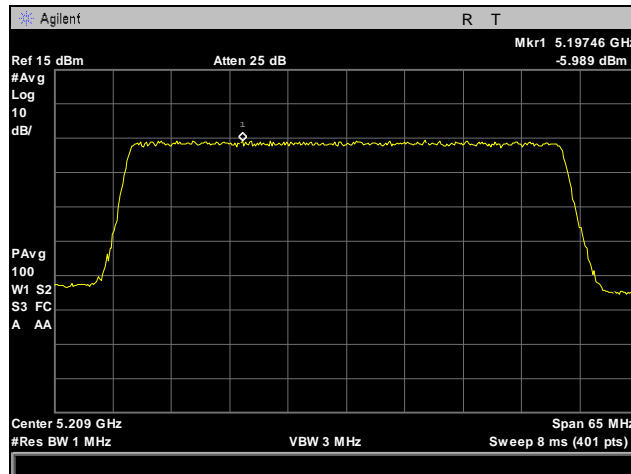
Peak Power Spectral Density, Antenna 1, 50 MHz, UNII 1



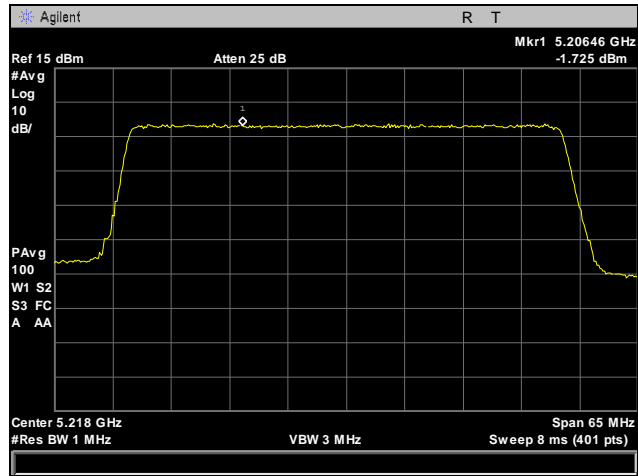
Plot 285. Peak Power Spectral Density, 5180 MHz, Antenna 1, 50 MHz



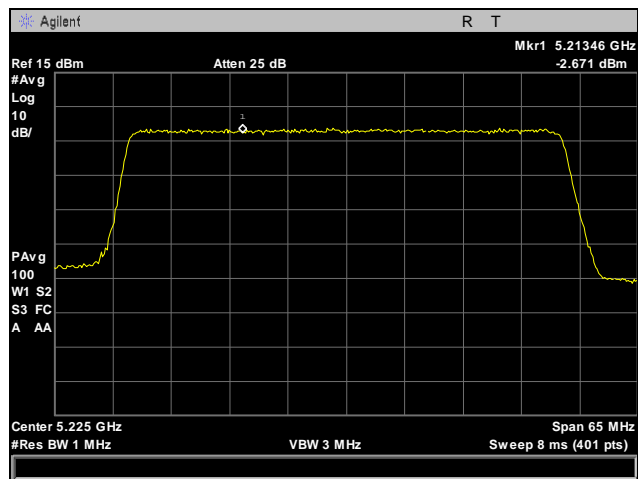
Plot 286. Peak Power Spectral Density, 5190 MHz, Antenna 1, 50 MHz



Plot 287. Peak Power Spectral Density, 5209 MHz, Antenna 1, 50 MHz

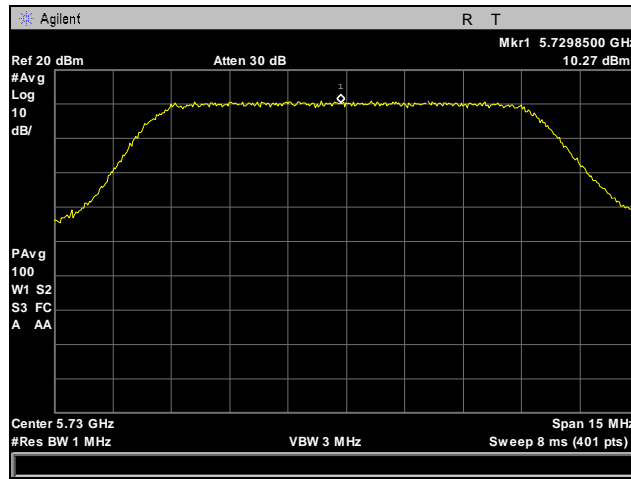


Plot 288. Peak Power Spectral Density, 5218 MHz, Antenna 1, 50 MHz

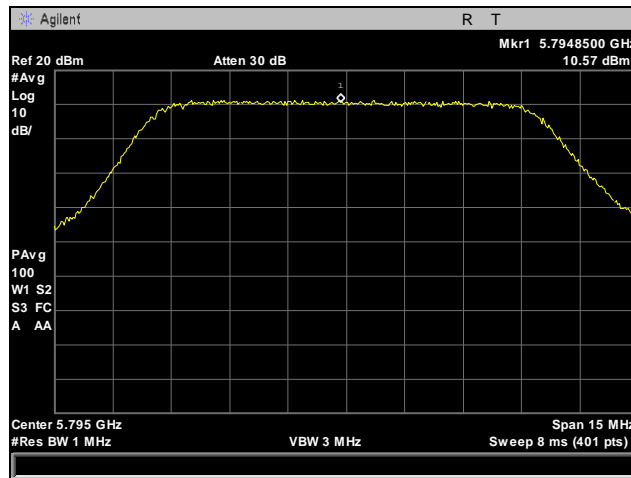


Plot 289. Peak Power Spectral Density, 5225 MHz, Antenna 1, 50 MHz

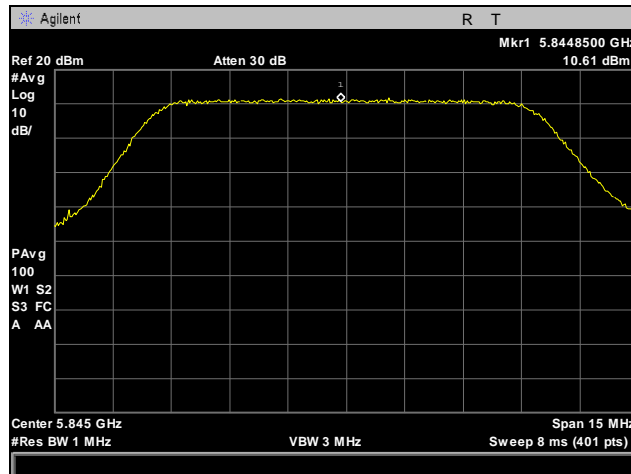
Peak Power Spectral Density, Antenna 0, 10 MHz, UNII 3



Plot 290. Peak Power Spectral Density, 5730 MHz, Antenna 0, 10 MHz

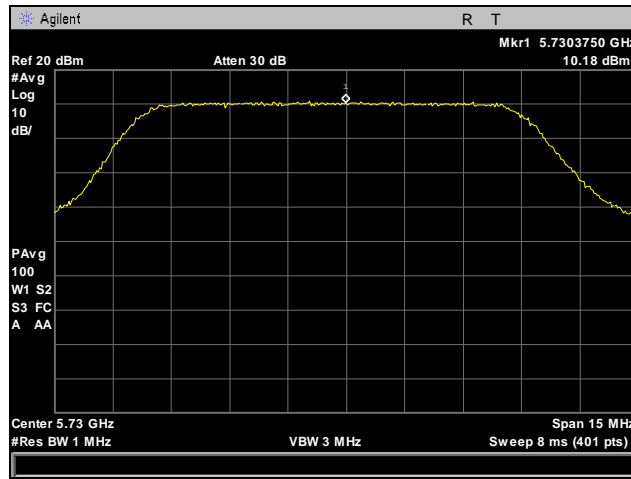


Plot 291. Peak Power Spectral Density, 5795 MHz, Antenna 0, 10 MHz

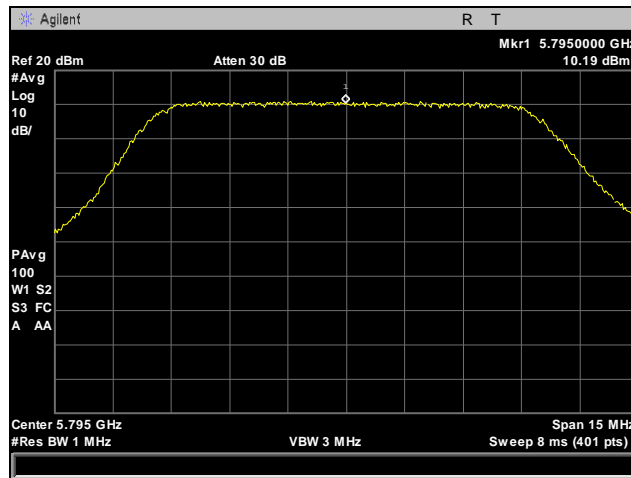


Plot 292. Peak Power Spectral Density, 5845 MHz, Antenna 0, 10 MHz

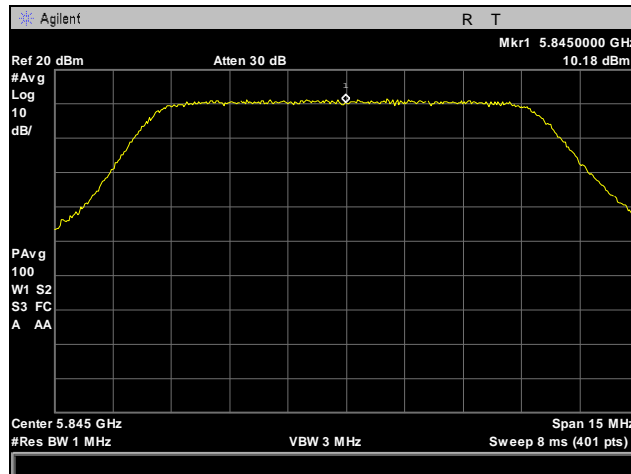
Peak Power Spectral Density, Antenna 1, 10 MHz, UNII 3



Plot 293. Peak Power Spectral Density, 5730 MHz, Antenna 1, 10 MHz

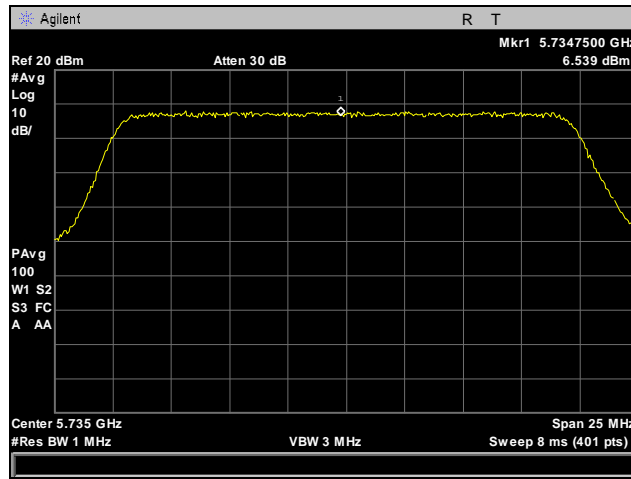


Plot 294. Peak Power Spectral Density, 5795 MHz, Antenna 1, 10 MHz

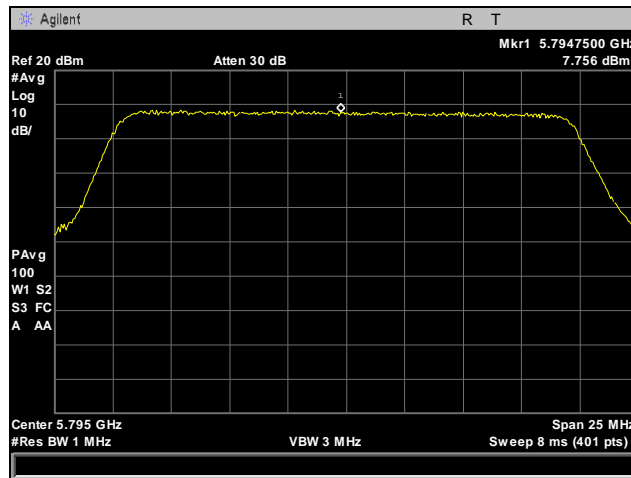


Plot 295. Peak Power Spectral Density, 5845 MHz, Antenna 1, 10 MHz

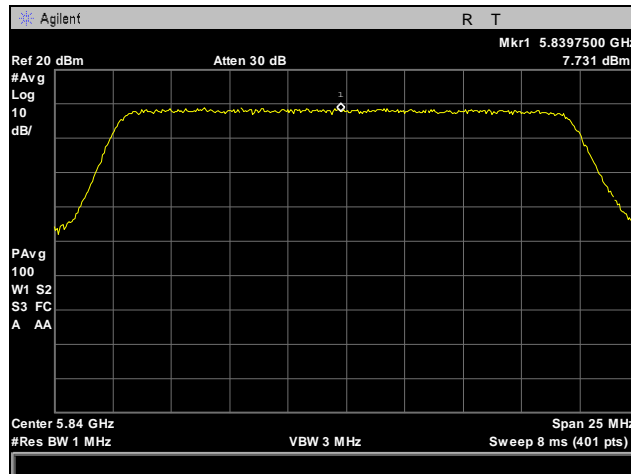
Peak Power Spectral Density, Antenna 0, 20 MHz, UNII 3



Plot 296. Peak Power Spectral Density, 5735 MHz, Antenna 0, 20 MHz

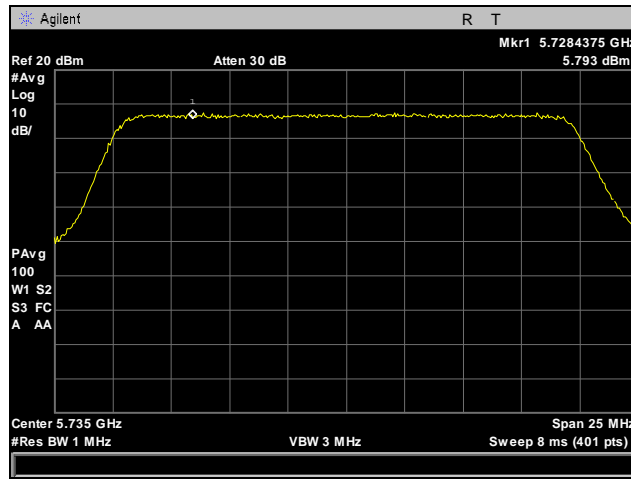


Plot 297. Peak Power Spectral Density, 5795 MHz, Antenna 0, 20 MHz

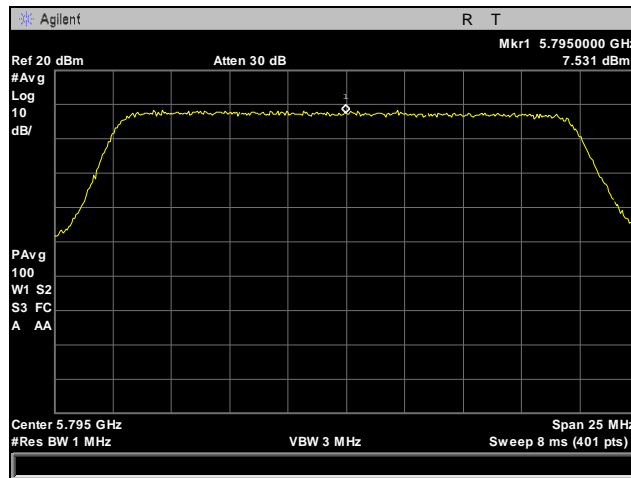


Plot 298. Peak Power Spectral Density, 5840 MHz, Antenna 0, 20 MHz

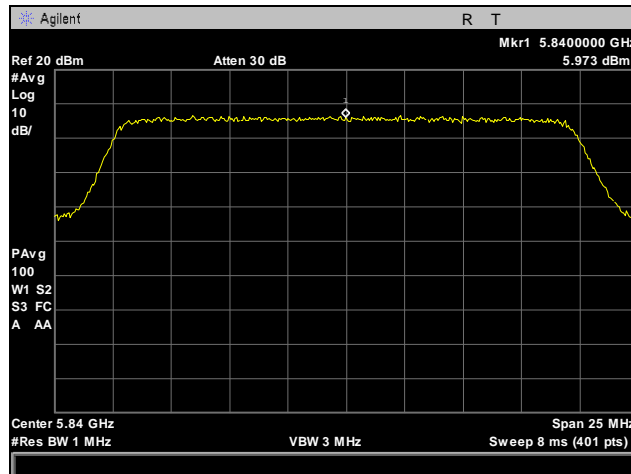
Peak Power Spectral Density, Antenna 1, 20 MHz, UNII 3



Plot 299. Peak Power Spectral Density, 5735 MHz, Antenna 1, 20 MHz

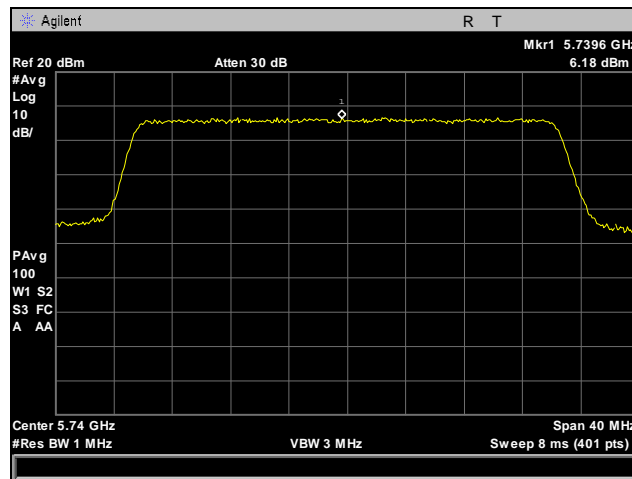


Plot 300. Peak Power Spectral Density, 5795 MHz, Antenna 1, 20 MHz

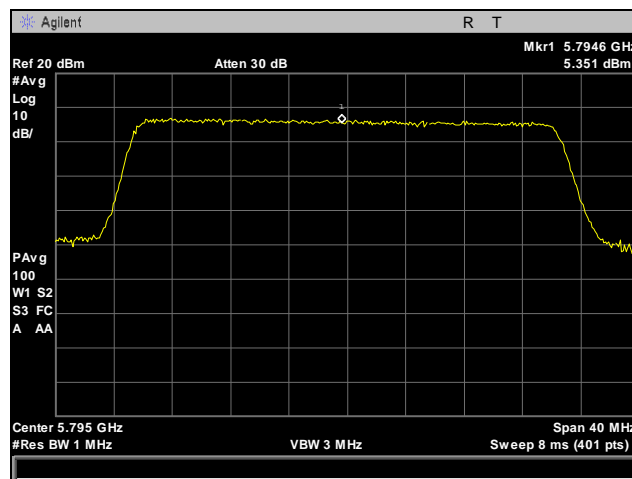


Plot 301. Peak Power Spectral Density, 5840 MHz, Antenna 1, 20 MHz

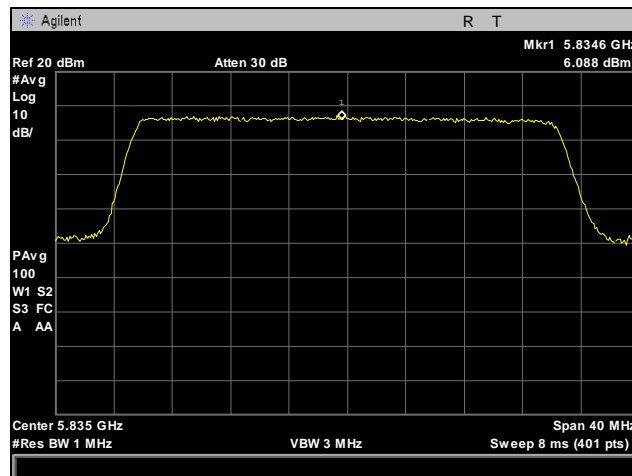
Peak Power Spectral Density, Antenna 0, 30 MHz, UNII 3



Plot 302. Peak Power Spectral Density, 5740 MHz, Antenna 0, 30 MHz

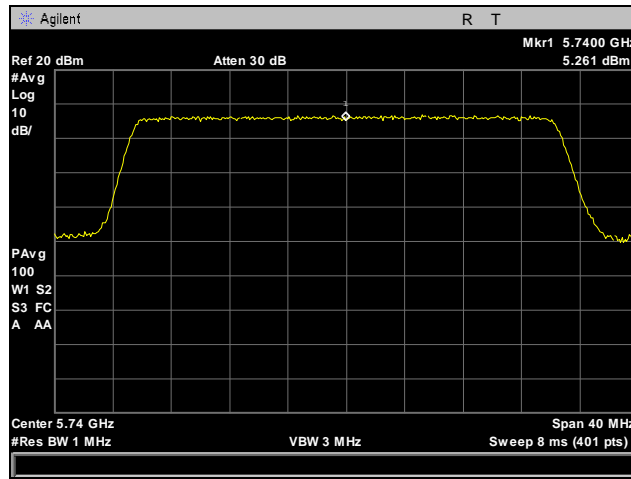


Plot 303. Peak Power Spectral Density, 5795 MHz, Antenna 0, 30 MHz

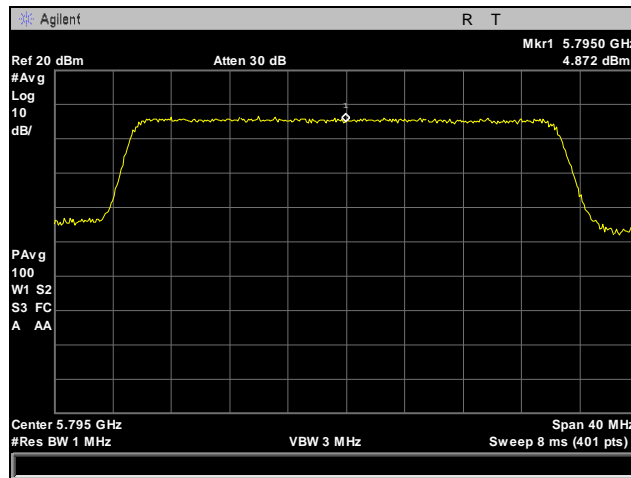


Plot 304. Peak Power Spectral Density, 5835 MHz, Antenna 0, 30 MHz

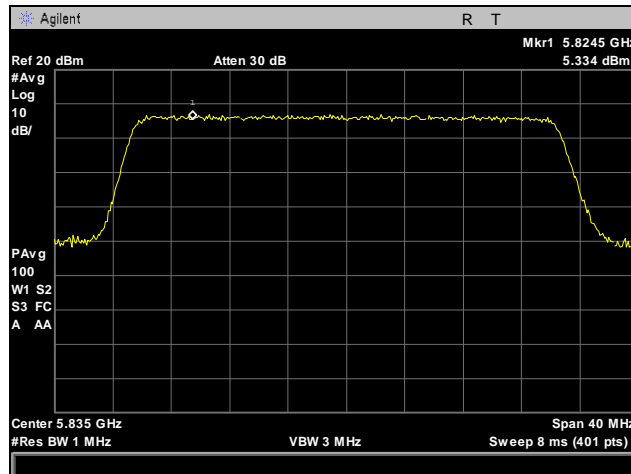
Peak Power Spectral Density, Antenna 1, 30 MHz, UNII 3



Plot 305. Peak Power Spectral Density, 5740 MHz, Antenna 1, 30 MHz

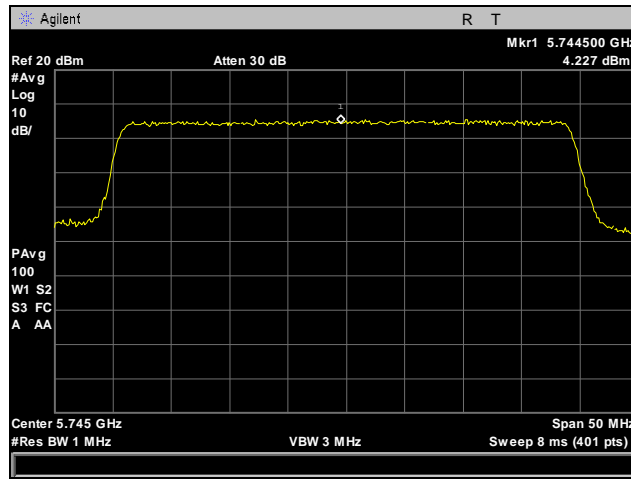


Plot 306. Peak Power Spectral Density, 5795 MHz, Antenna 1, 30 MHz

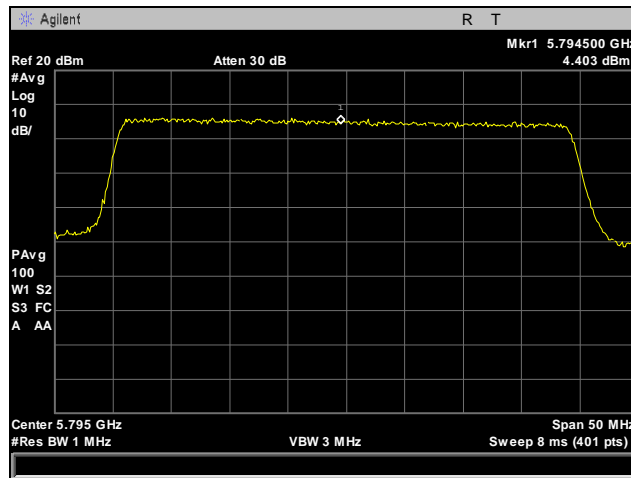


Plot 307. Peak Power Spectral Density, 5835 MHz, Antenna 1, 30 MHz

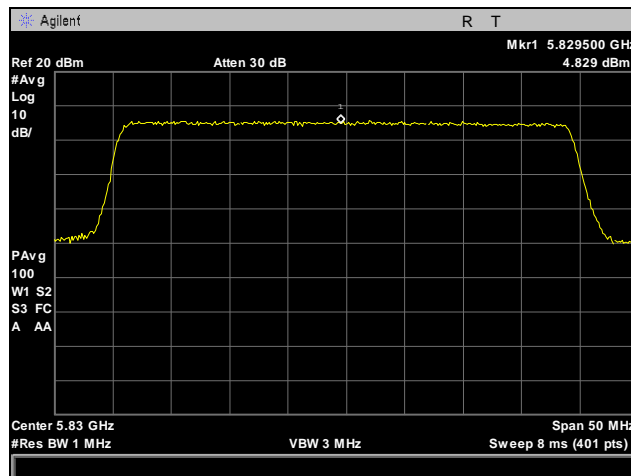
Peak Power Spectral Density, Antenna 0, 40 MHz, UNII 3



Plot 308. Peak Power Spectral Density, 5745 MHz, Antenna 0, 40 MHz

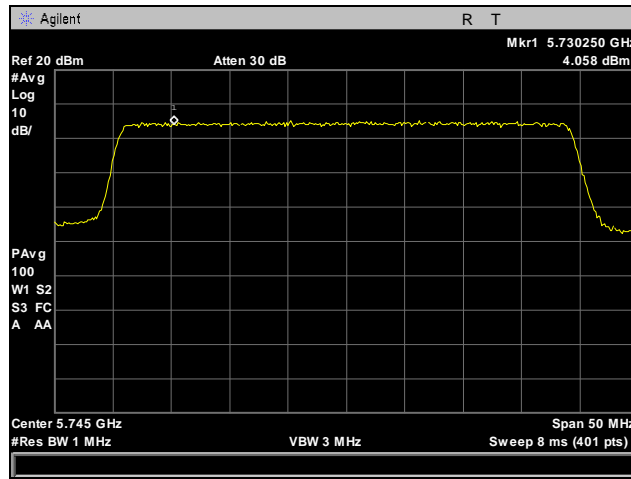


Plot 309. Peak Power Spectral Density, 5795 MHz, Antenna 0, 40 MHz

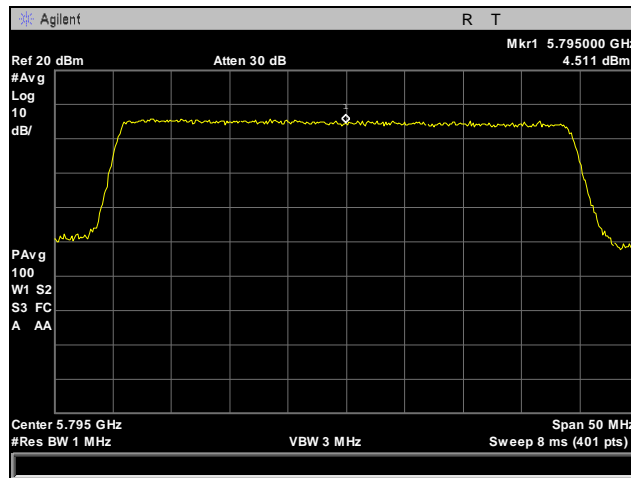


Plot 310. Peak Power Spectral Density, 5830 MHz, Antenna 0, 40 MHz

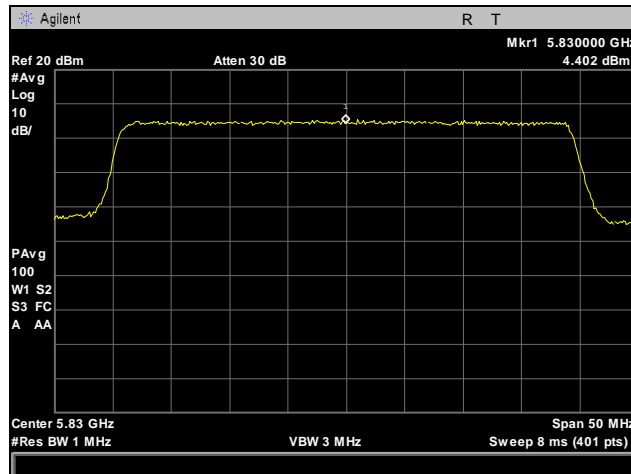
Peak Power Spectral Density, Antenna 1, 40 MHz, UNII 3



Plot 311. Peak Power Spectral Density, 5745 MHz, Antenna 1, 40 MHz

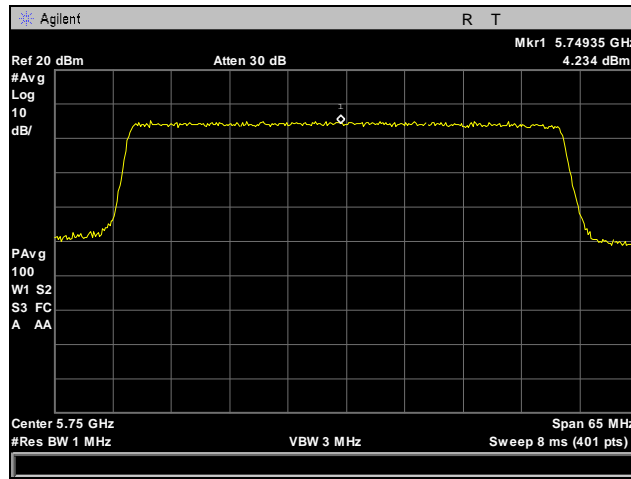


Plot 312. Peak Power Spectral Density, 5795 MHz, Antenna 1, 40 MHz

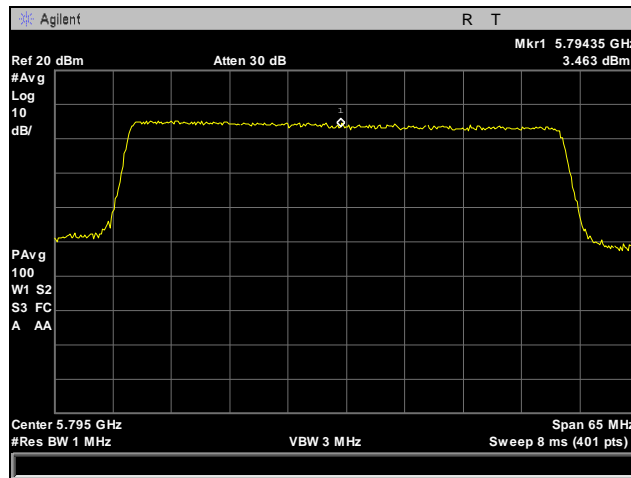


Plot 313. Peak Power Spectral Density, 5830 MHz, Antenna 1, 40 MHz

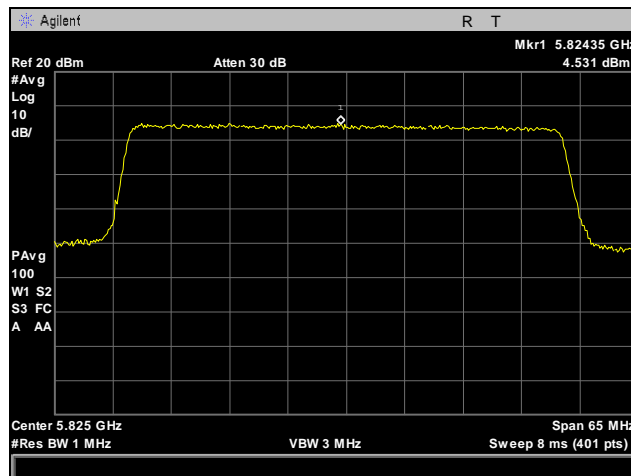
Peak Power Spectral Density, Antenna 0, 50 MHz, UNII 3



Plot 314. Peak Power Spectral Density, 5750 MHz, Antenna 0, 50 MHz

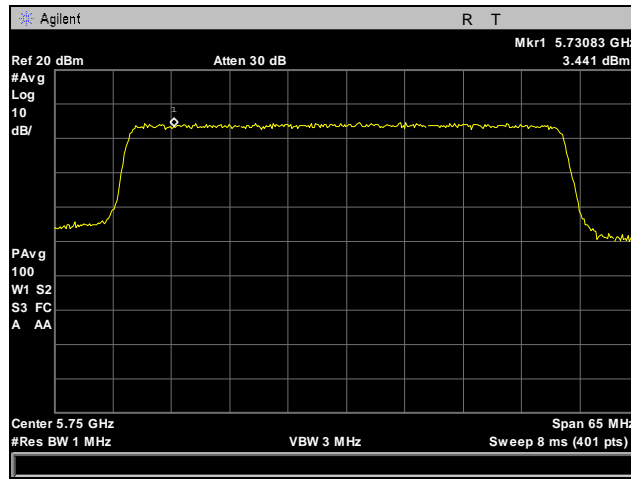


Plot 315. Peak Power Spectral Density, 5795 MHz, Antenna 0, 50 MHz

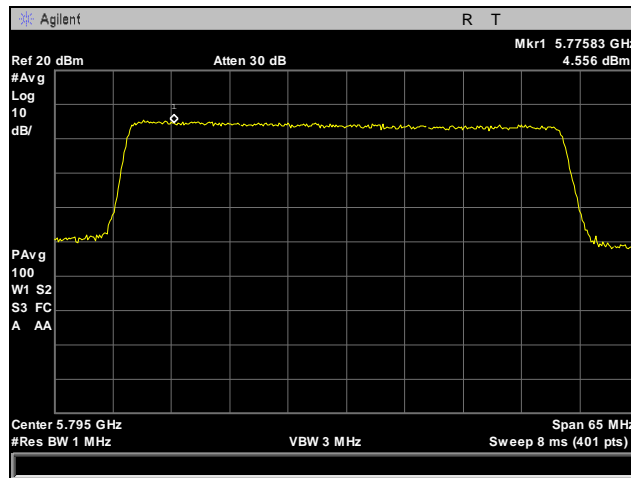


Plot 316. Peak Power Spectral Density, 5825 MHz, Antenna 0, 50 MHz

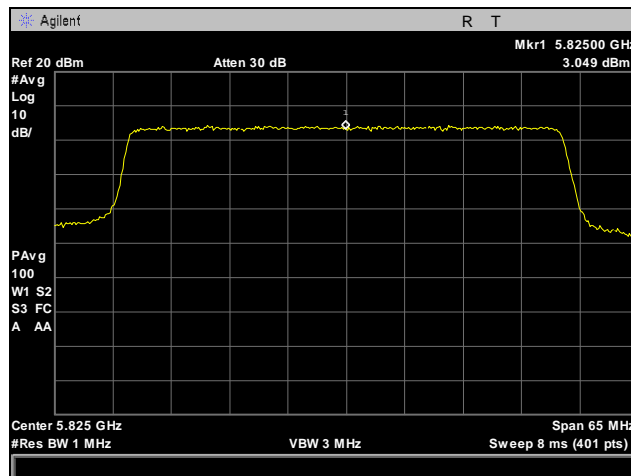
Peak Power Spectral Density, Antenna 1, 50 MHz, UNII 3



Plot 317. Peak Power Spectral Density, 5750 MHz, Antenna 1, 50 MHz



Plot 318. Peak Power Spectral Density, 5795 MHz, Antenna 1, 50 MHz



Plot 319. Peak Power Spectral Density, 5825 MHz, Antenna 1, 50 MHz

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.407(b)(1),(4), (6), (7) Undesirable Emissions

Test Requirements: § 15.407(b)(1), (6), (7); §15.205: Emissions outside the frequency band.

§ 15.407(b)(1): For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.

§ 15.407(b)(4): For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of –17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of –27 dBm/MHz.

§ 15.407(b)(6): Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209.

§ 15.407(b)(7): The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Test Procedure:

The transmitter was placed on an 80cm table inside in a semi-anechoic chamber. Measurements were performed with the EUT rotated 360 degrees and varying the adjustable antenna mast height to determine worst case orientation for maximum emissions. A preamp was used in the range from 7-18GHz to improve noise floor. Plots were corrected for cable loss, antenna, and preamp gain.

For frequencies from 30 MHz to 1 GHz, measurements were made using a quasi-peak detector with a 120 kHz bandwidth.

For measurements above 1 GHz, measurements were made with a Peak detector with 1 MHz resolution bandwidth. A notch filter was used to filter out the fundamental. Where the spurious emissions fell into a restricted band, measurements were also made with an average detector to make sure they complied with 15.209 limits. Only noise floor was seen above 18 GHz. Worst case emissions shown by antenna.

Test Results:

The EUT was compliant with the Radiated Emission limits for Intentional Radiators. See following pages for detailed test results. All emissions above 18 GHz were at the noise floor of the receiver. The emissions below 1 GHz, which appear to be over the limit, are from digital circuitry and not from the radio. The 30 MHz to 1 GHz, 1 GHz to 7 GHz and 7 GHz to 18 GHz plots are represented of using both a 29 dBi and 34 dBi antenna. Only Radiated Emission plots for UNII 3 are reported for below 1 GHz as they are typical of UNII 1 as well.

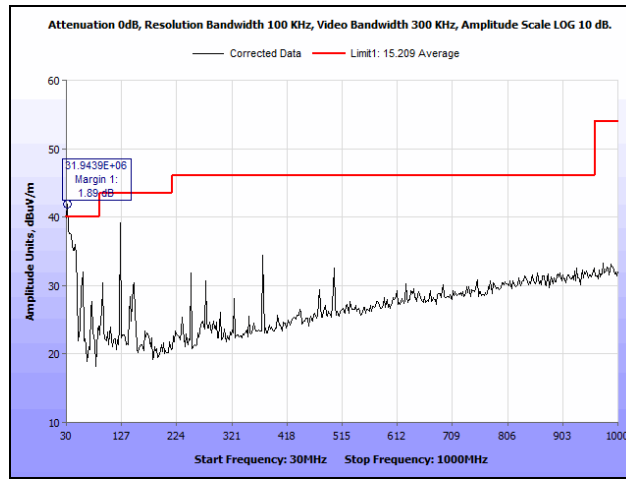
Test Engineer(s):

Jason Allnutt

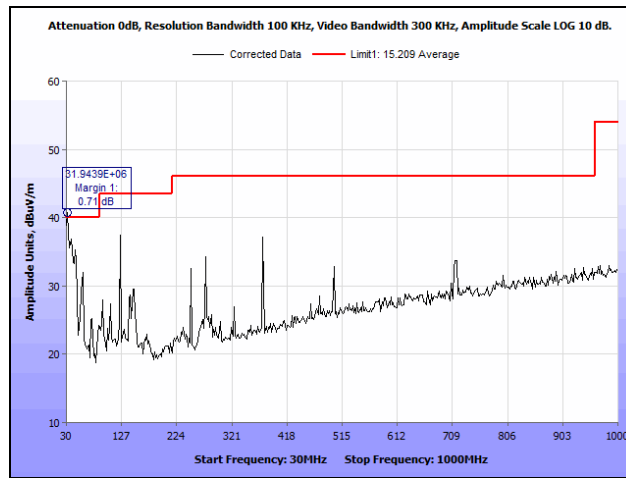
Test Date(s):

11/20/14 and 12/01/14

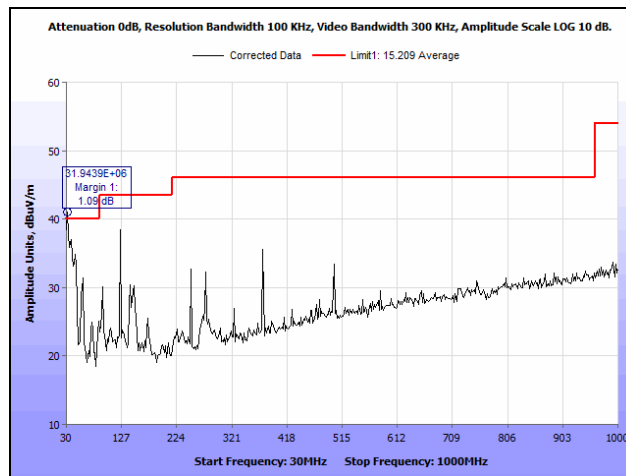
Radiated Spurious Emissions below 1 GHz, 10 MHz



Plot 320. Radiated Spurious Emissions, Low Channel, 10 MHz, 30 MHz – 1 GHz

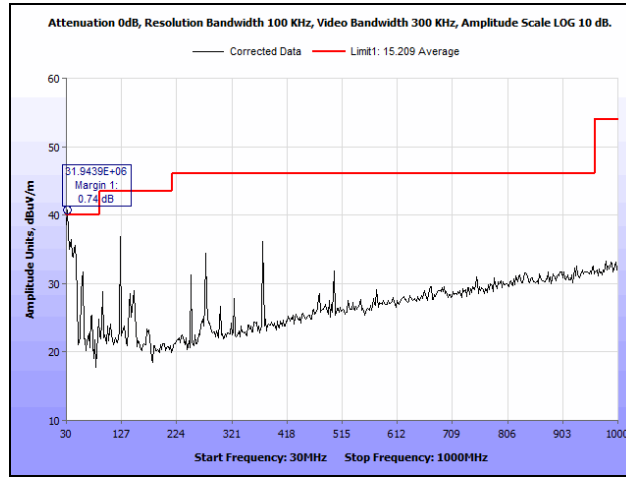


Plot 321. Radiated Spurious Emissions, Mid Channel, 10 MHz, 30 MHz – 1 GHz

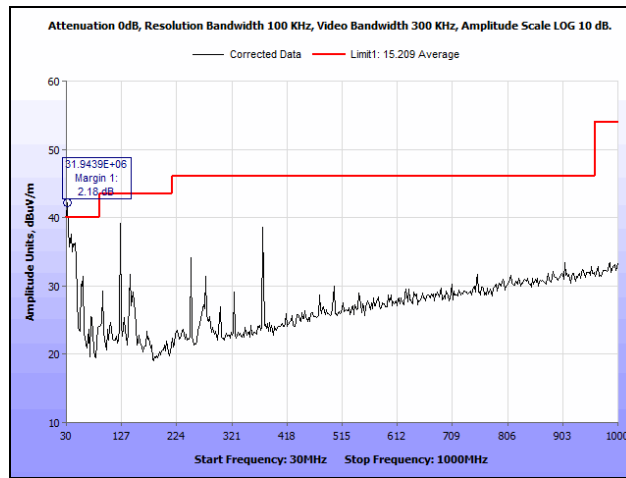


Plot 322. Radiated Spurious Emissions, High Channel, 10 MHz, 30 MHz – 1 GHz

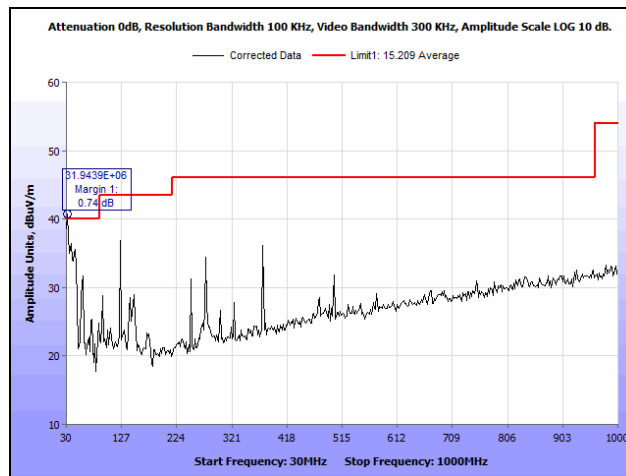
Radiated Spurious Emissions below 1 GHz, 20 MHz



Plot 323. Radiated Spurious Emissions, Low Channel, 20 MHz, 30 MHz – 1 GHz

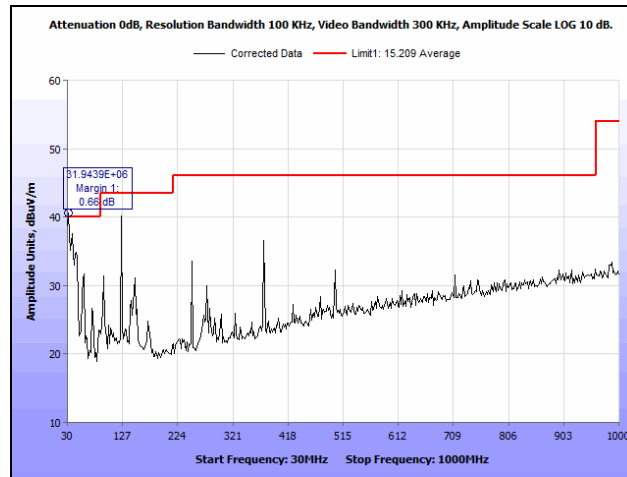


Plot 324. Radiated Spurious Emissions, Mid Channel, 20 MHz, 30 MHz – 1 GHz

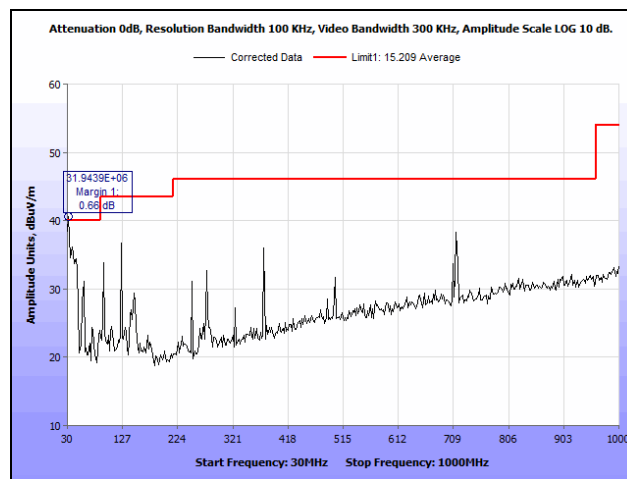


Plot 325. Radiated Spurious Emissions, High Channel, 20 MHz, 30 MHz – 1 GHz

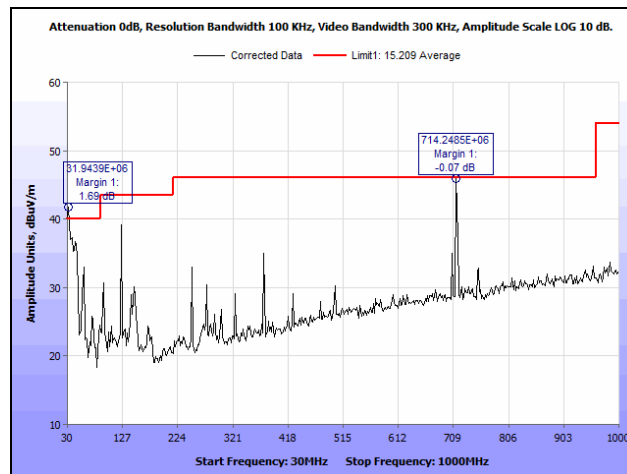
Radiated Spurious Emissions below 1 GHz, 30 MHz



Plot 326. Radiated Spurious Emissions, Low Channel, 30 MHz, 30 MHz – 1 GHz

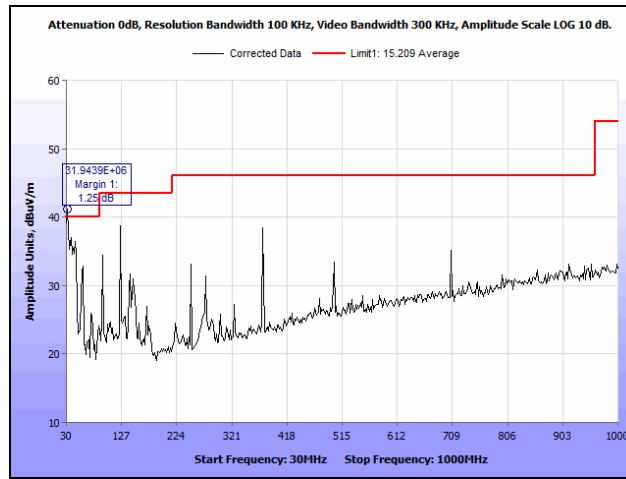


Plot 327. Radiated Spurious Emissions, Mid Channel, 30 MHz, 30 MHz – 1 GHz

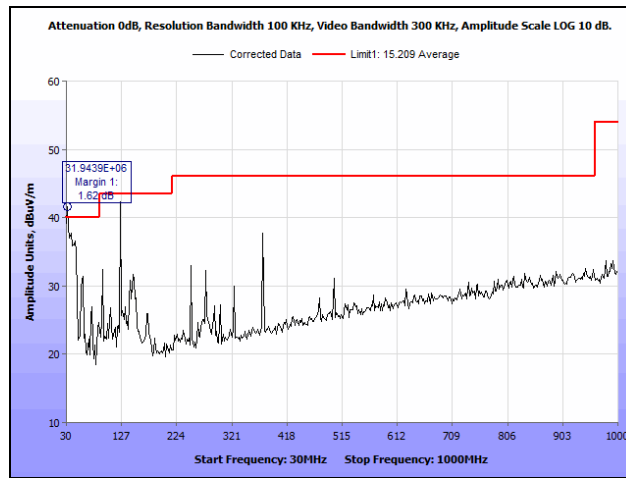


Plot 328. Radiated Spurious Emissions, High Channel, 30 MHz, 30 MHz – 1 GHz

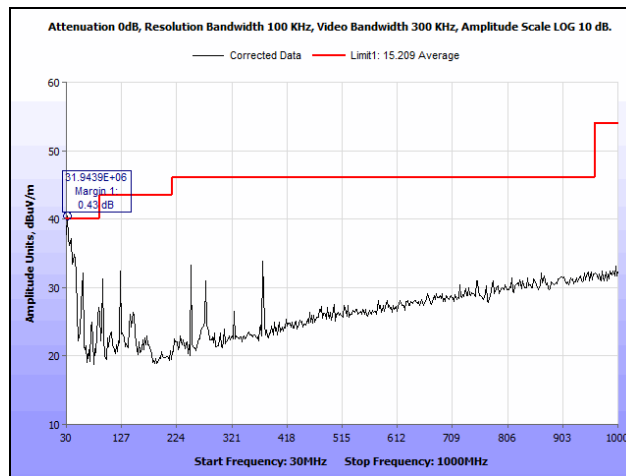
Radiated Spurious Emissions below 1 GHz, 40 MHz



Plot 329. Radiated Spurious Emissions, Low Channel, 40 MHz, 30 MHz – 1 GHz

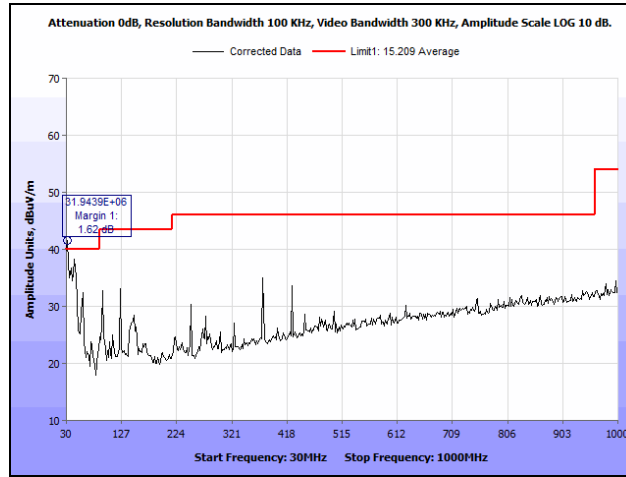


Plot 330. Radiated Spurious Emissions, Mid Channel, 40 MHz, 30 MHz – 1 GHz

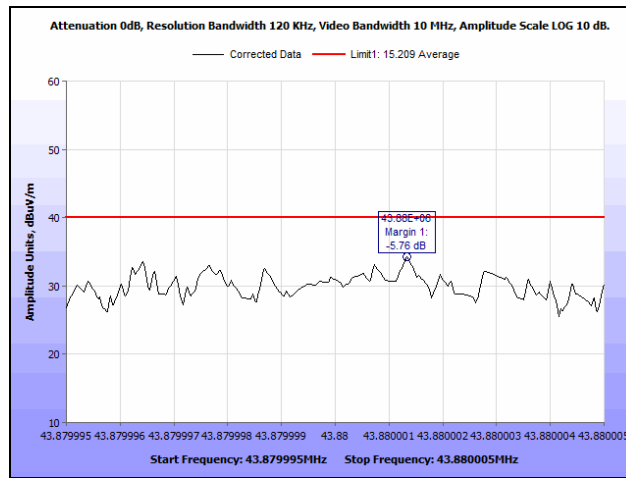


Plot 331. Radiated Spurious Emissions, High Channel, 40 MHz, 30 MHz – 1 GHz

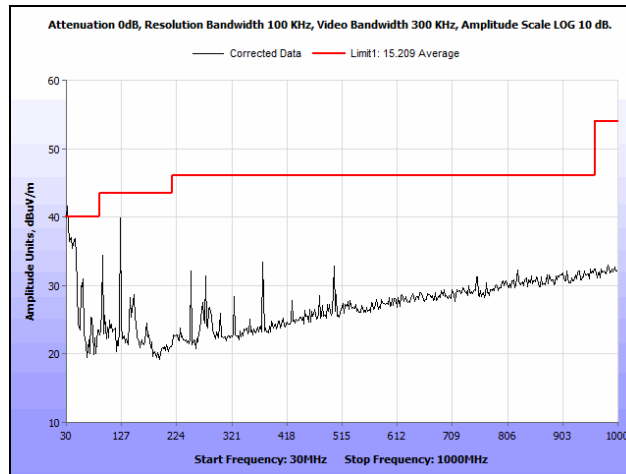
Radiated Spurious Emissions below 1 GHz, 50 MHz



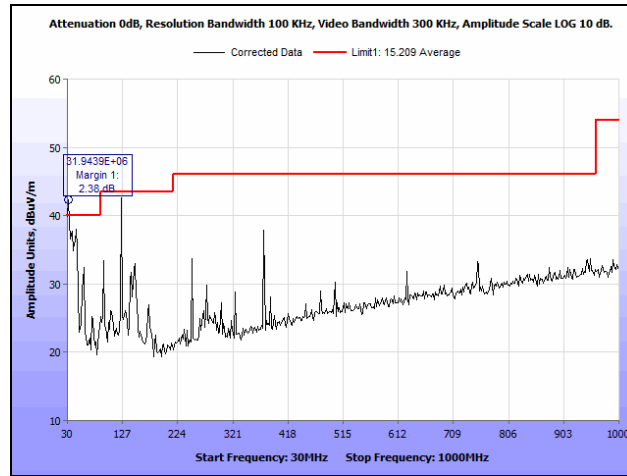
Plot 332. Radiated Spurious Emissions, Low Channel, 50 MHz, 30 MHz – 1 GHz



Plot 333. Radiated Spurious Emissions, Low Channel, 50 MHz, QP Measurement @ 43.88 MHz

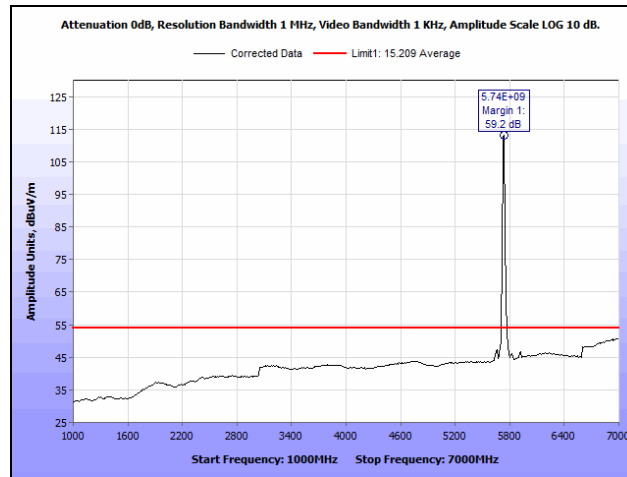


Plot 334. Radiated Spurious Emissions, Mid Channel, 50 MHz, 30 MHz – 1 GHz

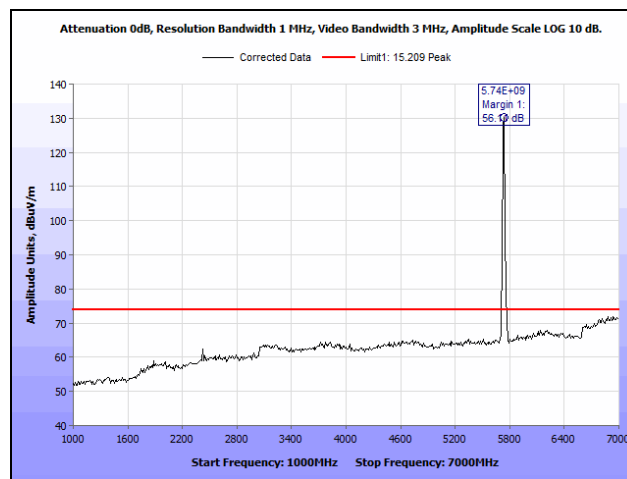


Plot 335. Radiated Spurious Emissions, High Channel, 50 MHz, 30 MHz – 1 GHz

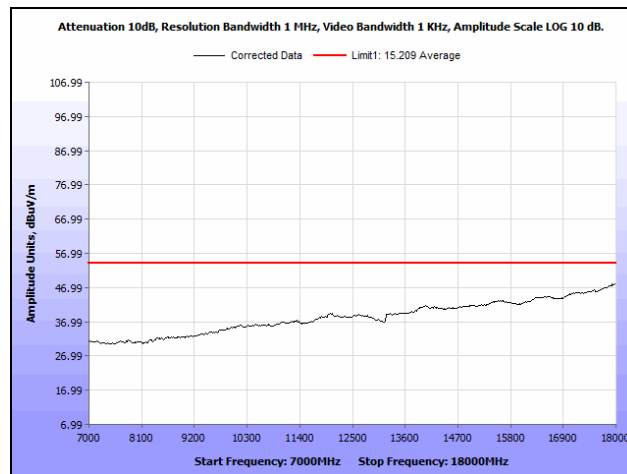
Radiated Spurious Emissions, 10 MHz, UNII 3, 23 dBi Antenna



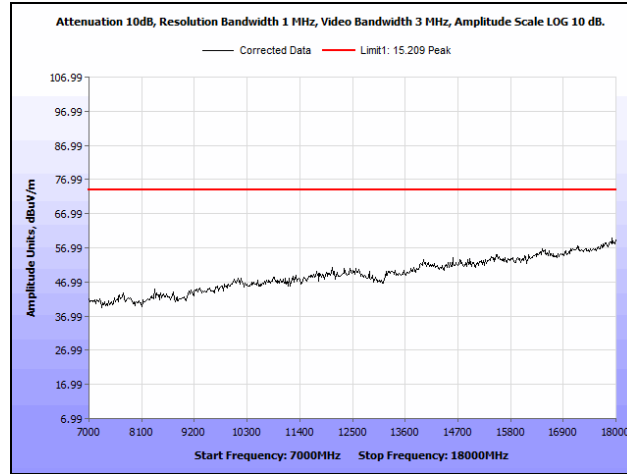
Plot 336. Radiated Spurious Emissions, 10 MHz, 5738 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



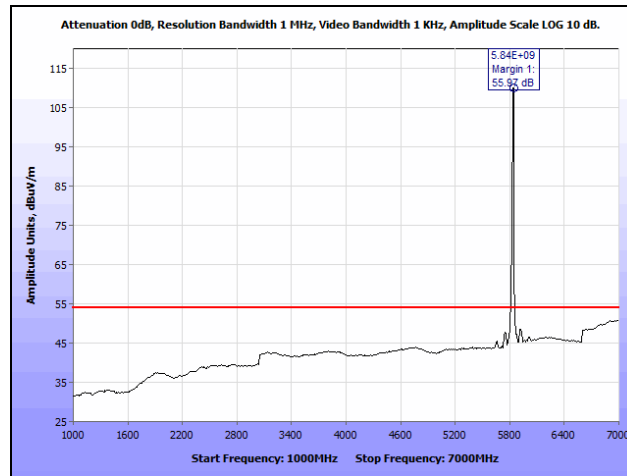
Plot 337. Radiated Spurious Emissions, 10 MHz, 5738 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



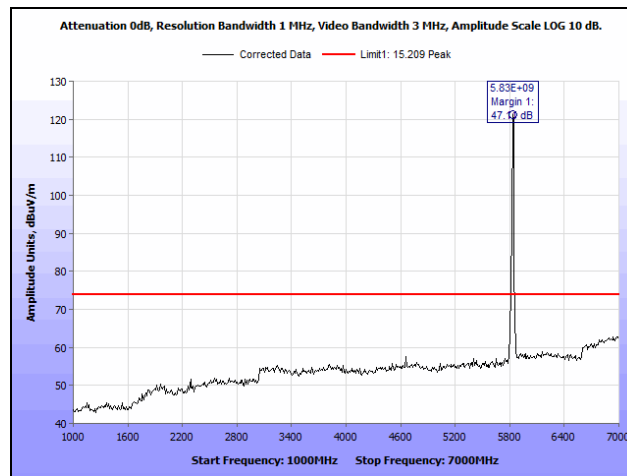
Plot 338. Radiated Spurious Emissions, 10 MHz, 5738 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



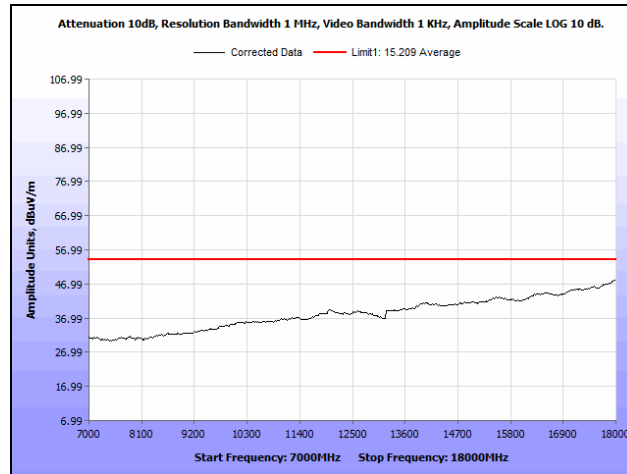
Plot 339. Radiated Spurious Emissions, 10 MHz, 5738 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



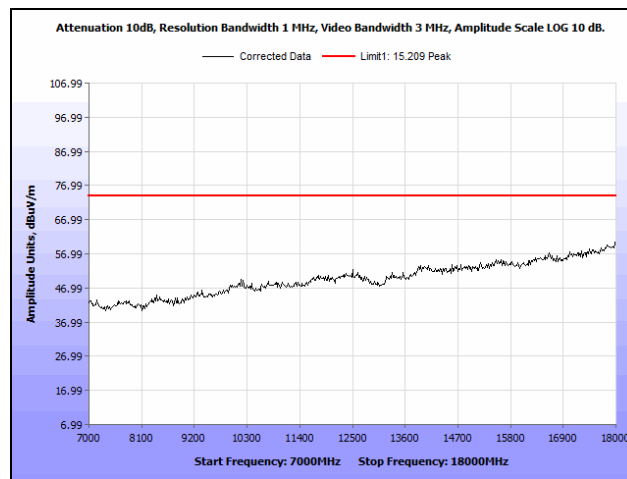
Plot 340. Radiated Spurious Emissions, 10 MHz, 5833 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



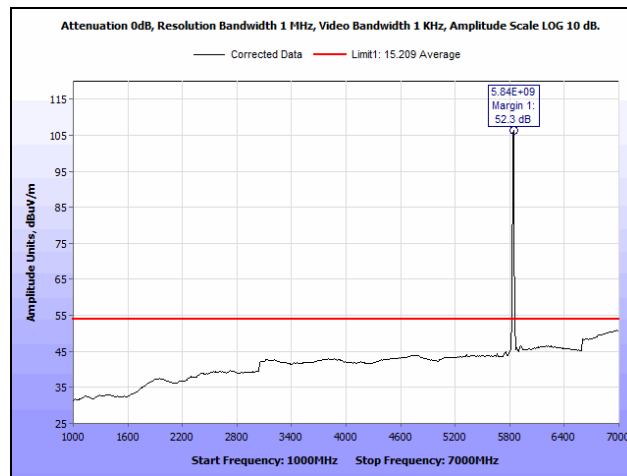
Plot 341. Radiated Spurious Emissions, 10 MHz, 5833 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



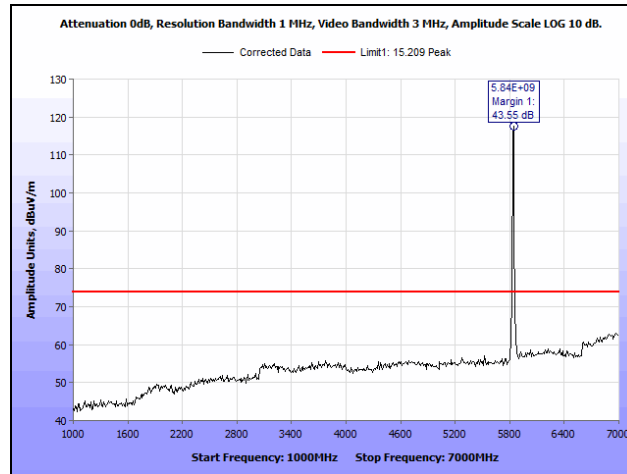
Plot 342. Radiated Spurious Emissions, 10 MHz, 5833 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



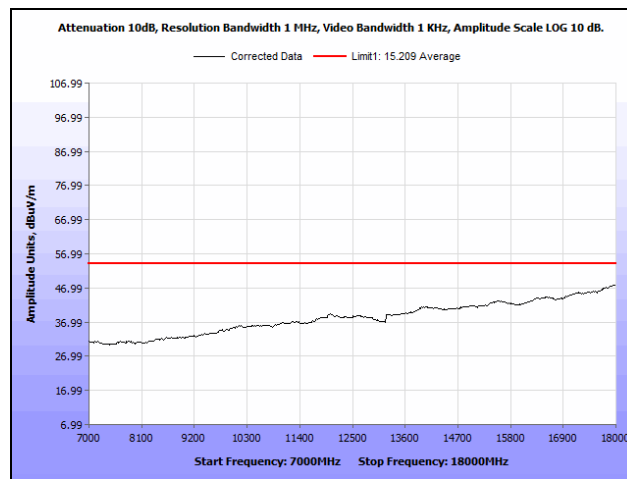
Plot 343. Radiated Spurious Emissions, 10 MHz, 5833 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



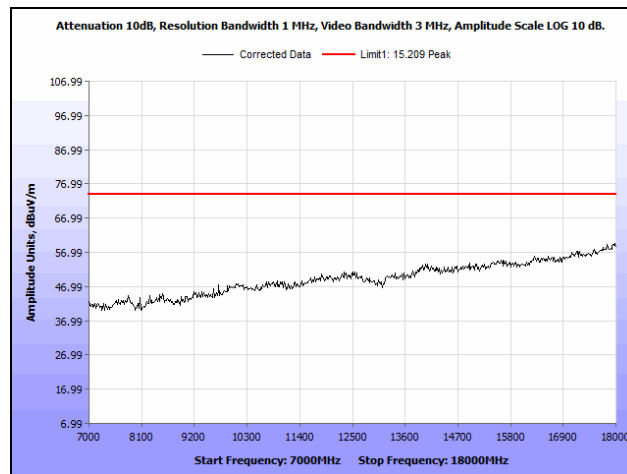
Plot 344. Radiated Spurious Emissions, 10 MHz, 5839 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



Plot 345. Radiated Spurious Emissions, 10 MHz, 5839 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna

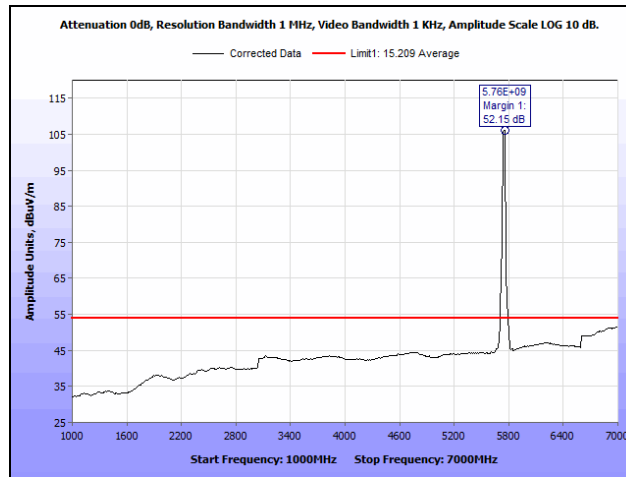


Plot 346. Radiated Spurious Emissions, 10 MHz, 5839 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna

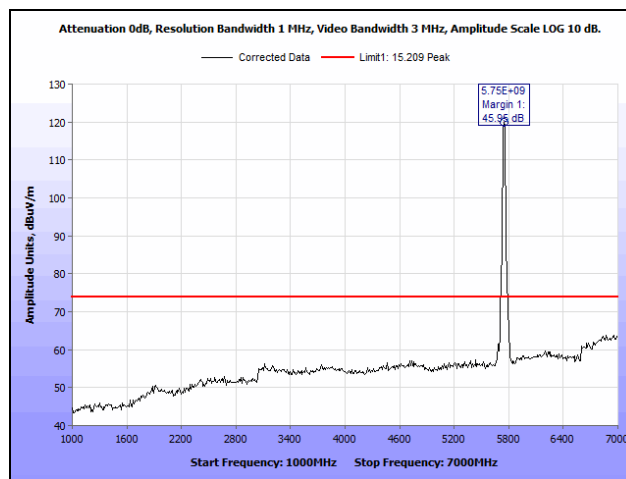


Plot 347. Radiated Spurious Emissions, 10 MHz, 5839 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna

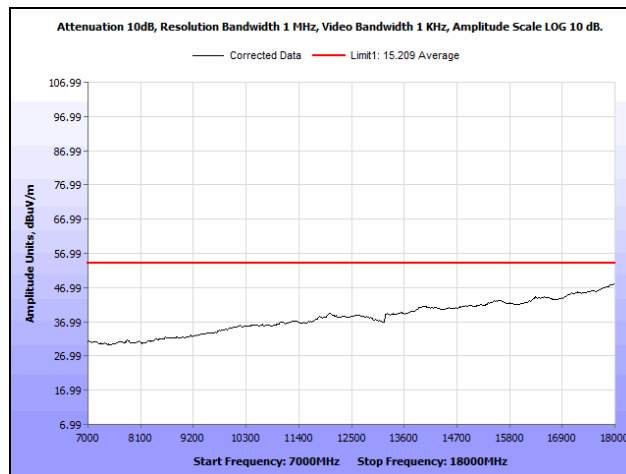
Radiated Spurious Emissions, 20 MHz, UNII 3, 23 dBi Antenna



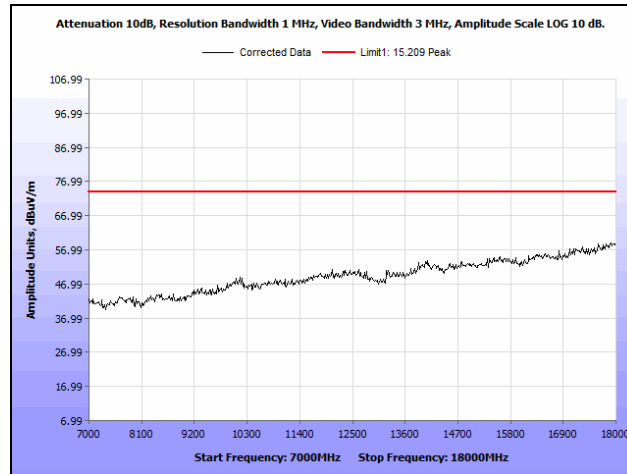
Plot 348. Radiated Spurious Emissions, 20 MHz, 5750 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



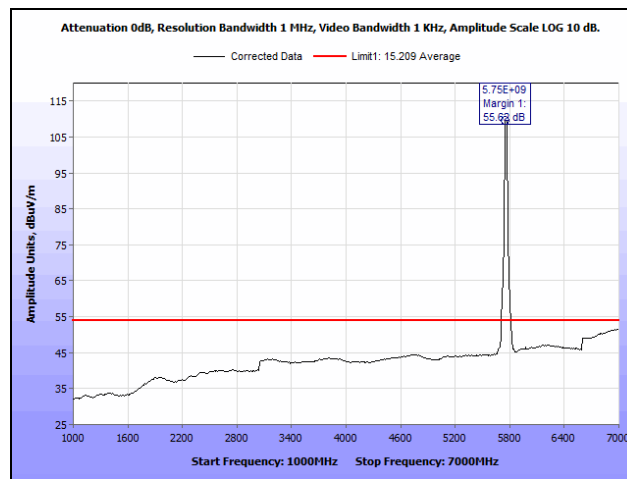
Plot 349. Radiated Spurious Emissions, 20 MHz, 5750 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



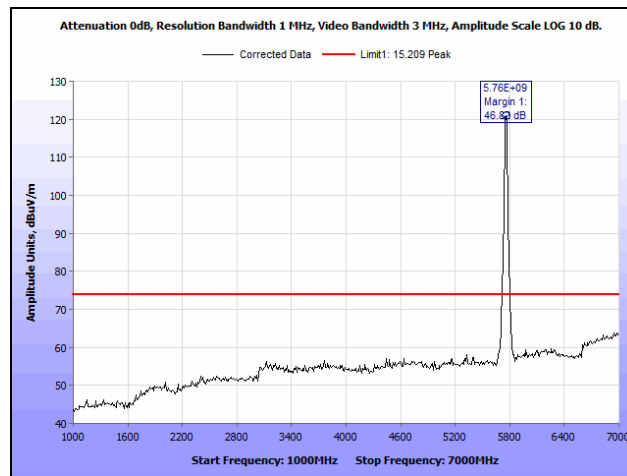
Plot 350. Radiated Spurious Emissions, 20 MHz, 5750 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



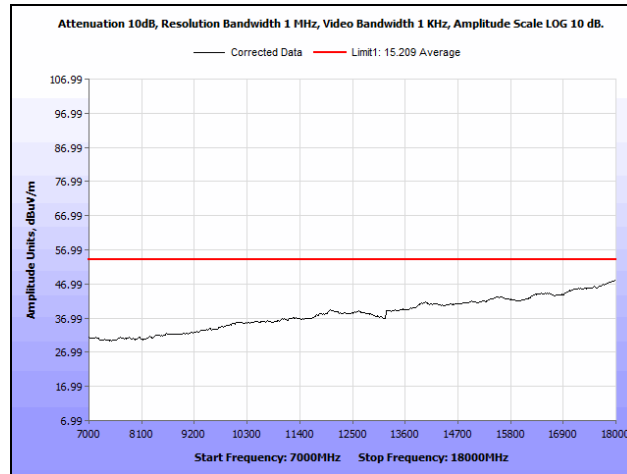
Plot 351. Radiated Spurious Emissions, 20 MHz, 5750 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



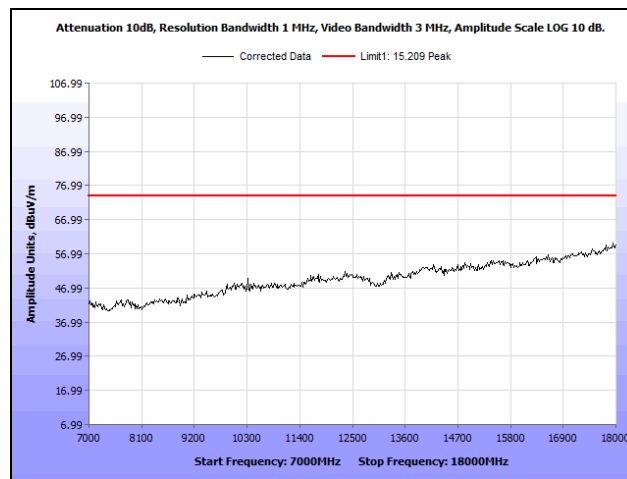
Plot 352. Radiated Spurious Emissions, 20 MHz, 5760 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



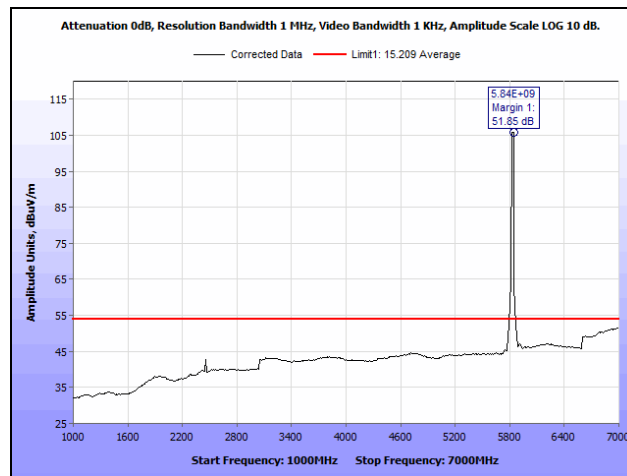
Plot 353. Radiated Spurious Emissions, 20 MHz, 5760 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



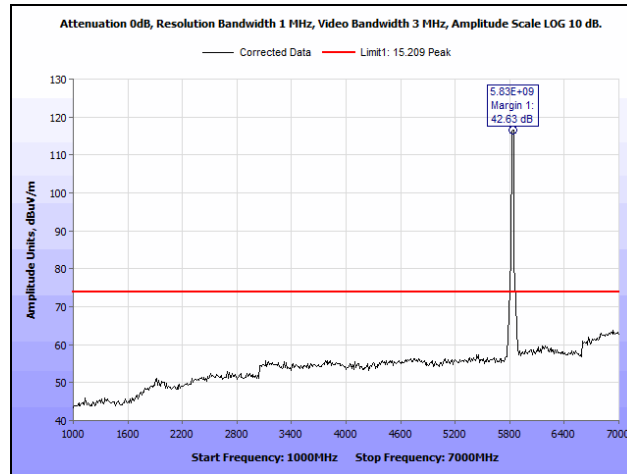
Plot 354. Radiated Spurious Emissions, 20 MHz, 5760 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



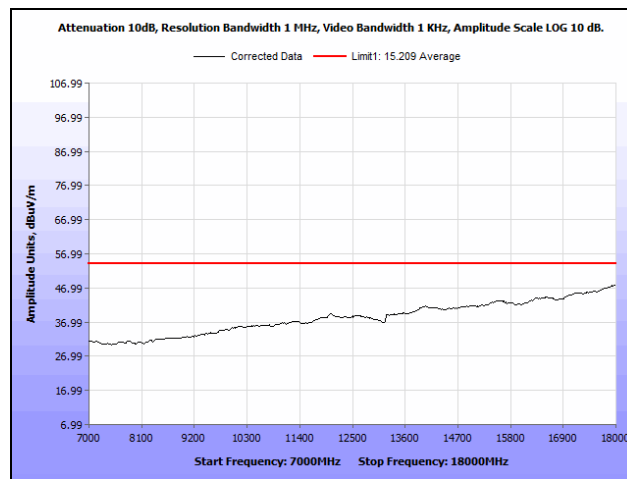
Plot 355. Radiated Spurious Emissions, 20 MHz, 5760 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



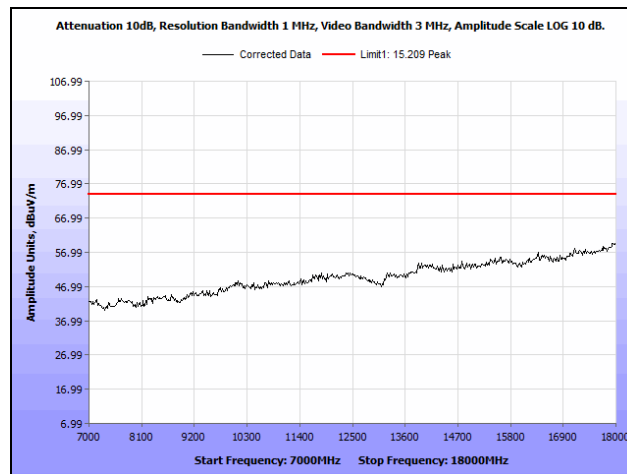
Plot 356. Radiated Spurious Emissions, 20 MHz, 5830 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



Plot 357. Radiated Spurious Emissions, 20 MHz, 5830 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna

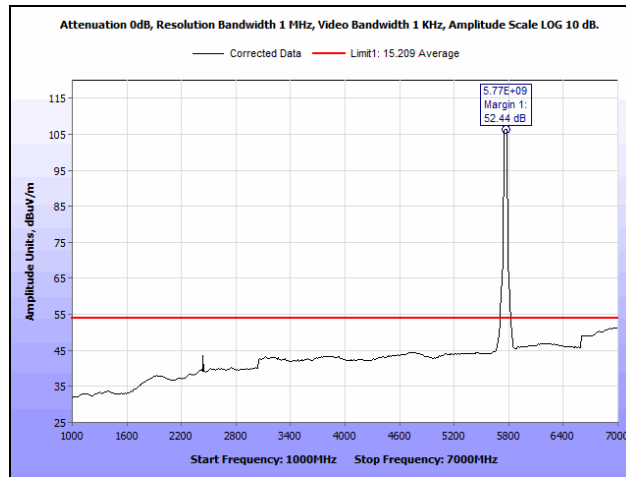


Plot 358. Radiated Spurious Emissions, 20 MHz, 5830 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna

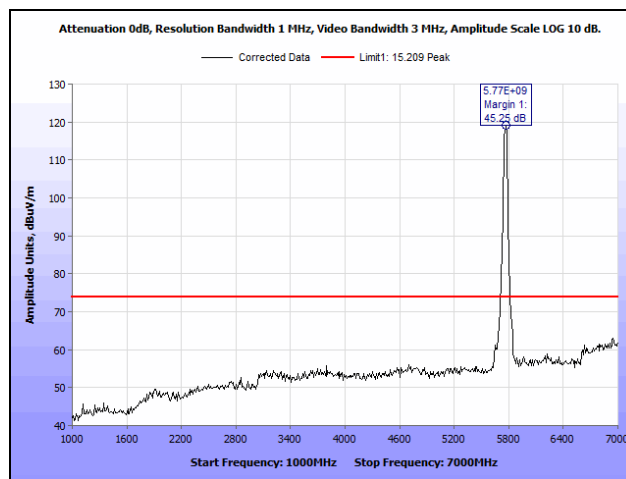


Plot 359. Radiated Spurious Emissions, 20 MHz, 5830 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna

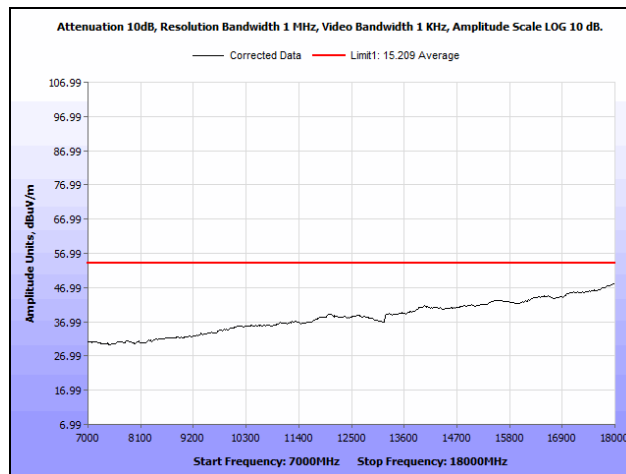
Radiated Spurious Emissions, 30 MHz, UNII 3, 23 dBi Antenna



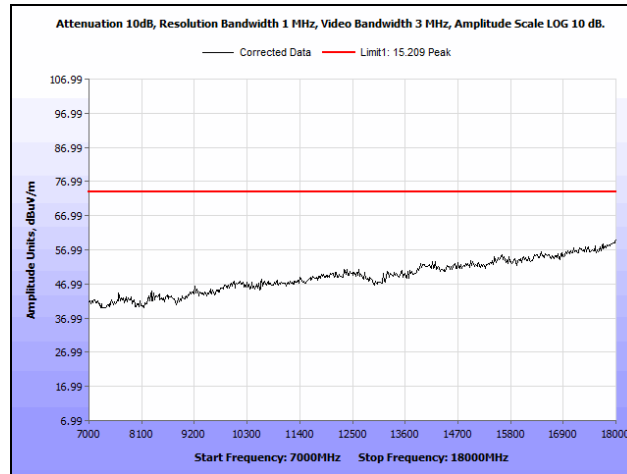
Plot 360. Radiated Spurious Emissions, 30 MHz, 5765 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



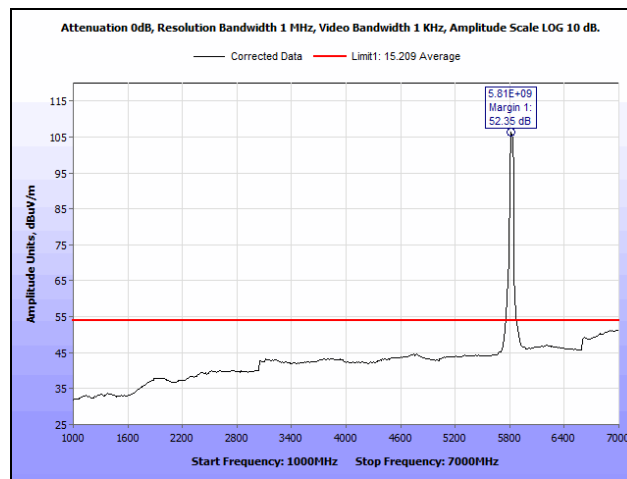
Plot 361. Radiated Spurious Emissions, 30 MHz, 5765 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



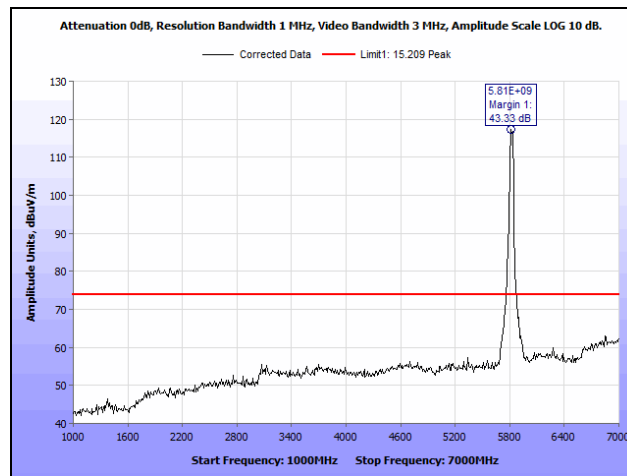
Plot 362. Radiated Spurious Emissions, 30 MHz, 5765 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



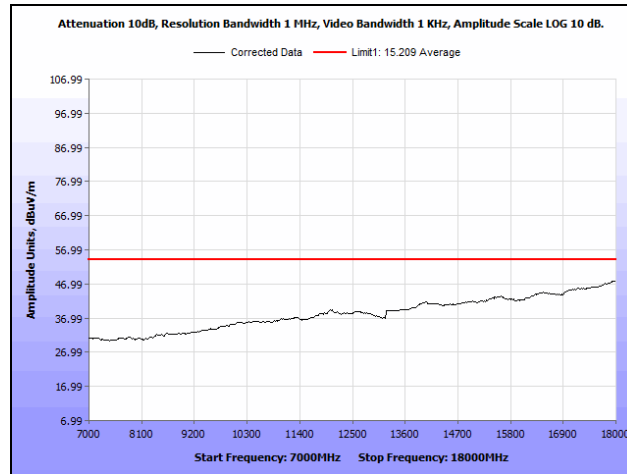
Plot 363. Radiated Spurious Emissions, 30 MHz, 5765 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



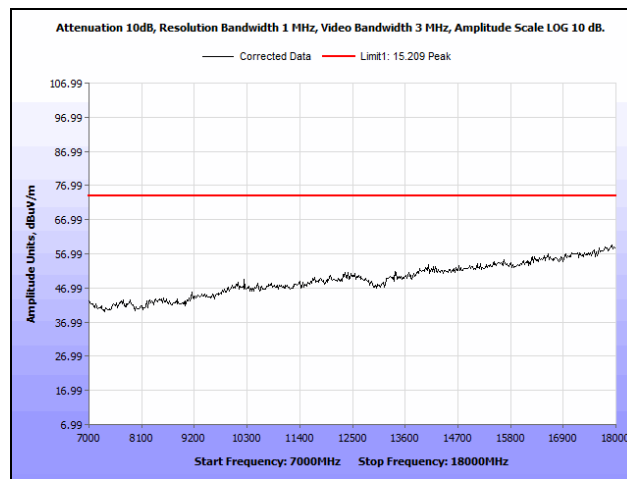
Plot 364. Radiated Spurious Emissions, 30 MHz, 5820 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



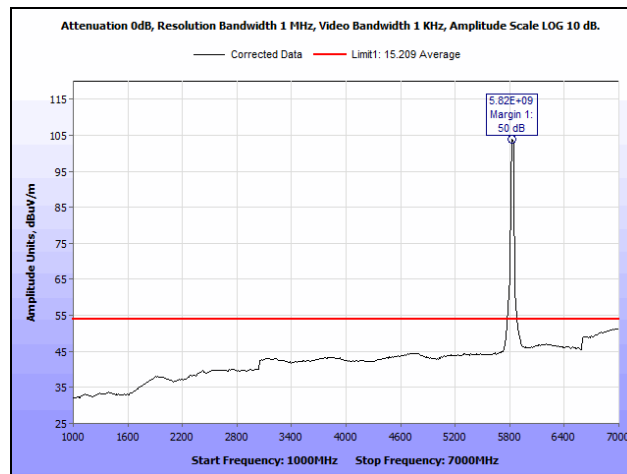
Plot 365. Radiated Spurious Emissions, 30 MHz, 5820 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



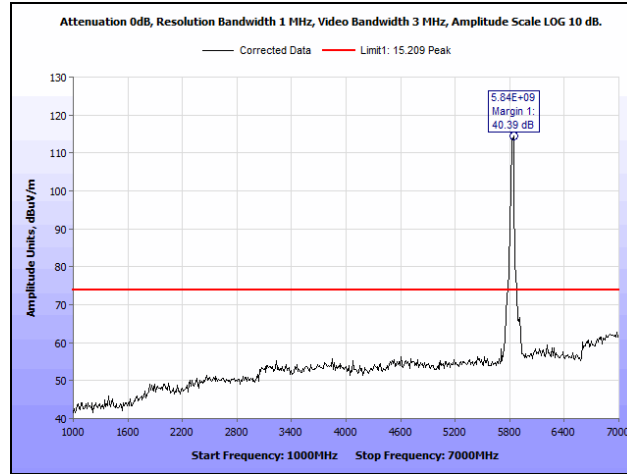
Plot 366. Radiated Spurious Emissions, 30 MHz, 5820 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



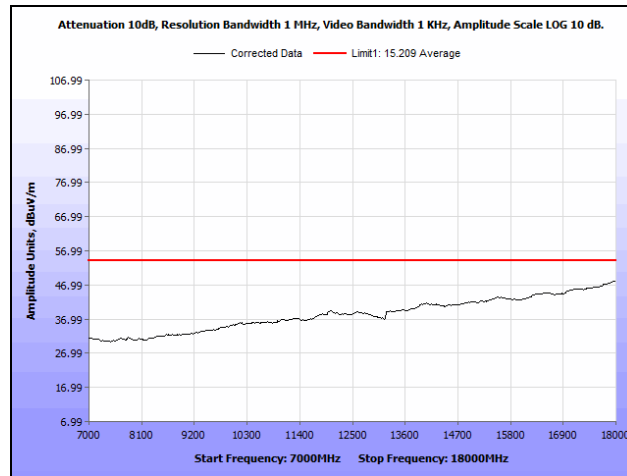
Plot 367. Radiated Spurious Emissions, 30 MHz, 5820 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



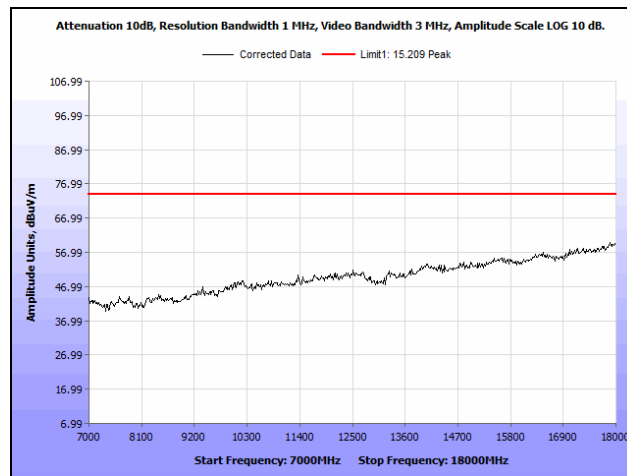
Plot 368. Radiated Spurious Emissions, 30 MHz, 5830 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



Plot 369. Radiated Spurious Emissions, 30 MHz, 5830 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna

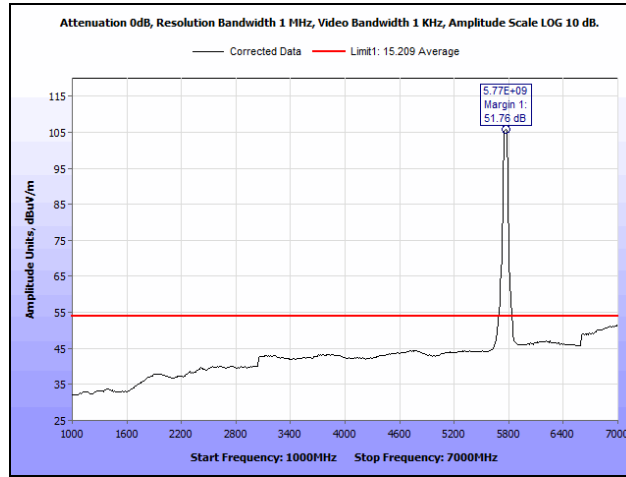


Plot 370. Radiated Spurious Emissions, 30 MHz, 5830 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna

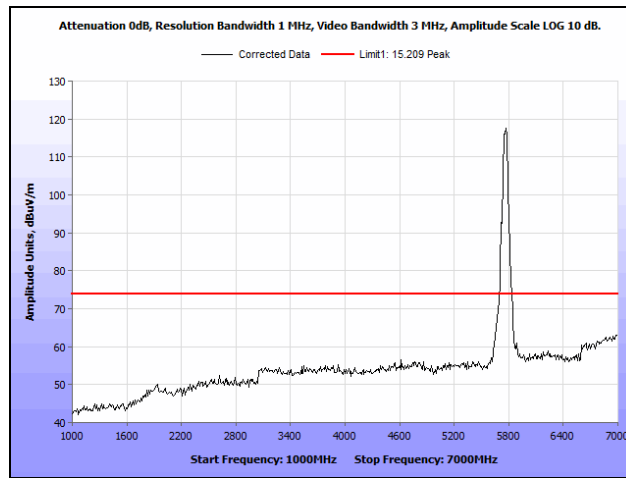


Plot 371. Radiated Spurious Emissions, 30 MHz, 5830 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna

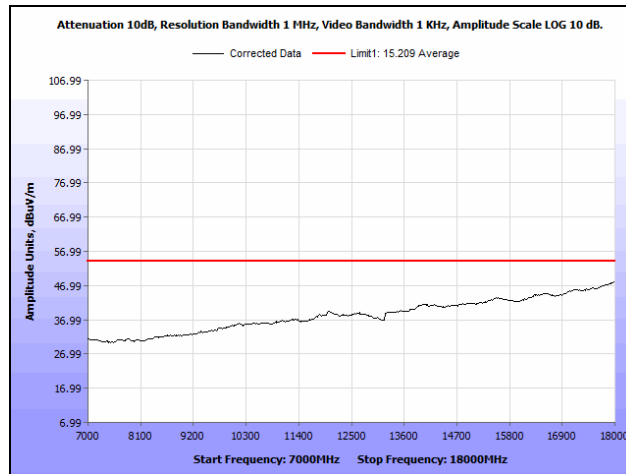
Radiated Spurious Emissions, 40 MHz, UNII 3, 23 dBi Antenna



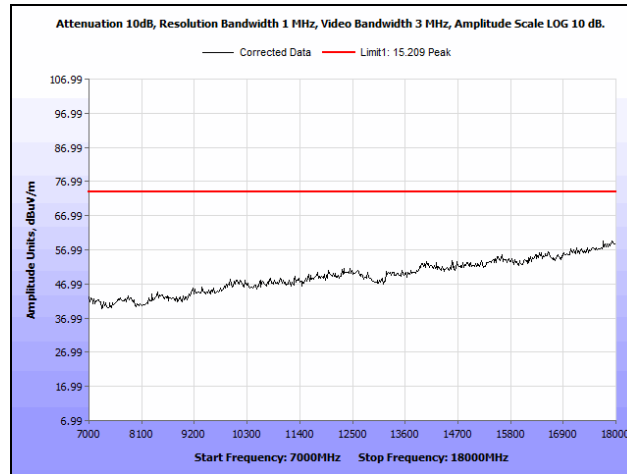
Plot 372. Radiated Spurious Emissions, 40 MHz, 5765 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



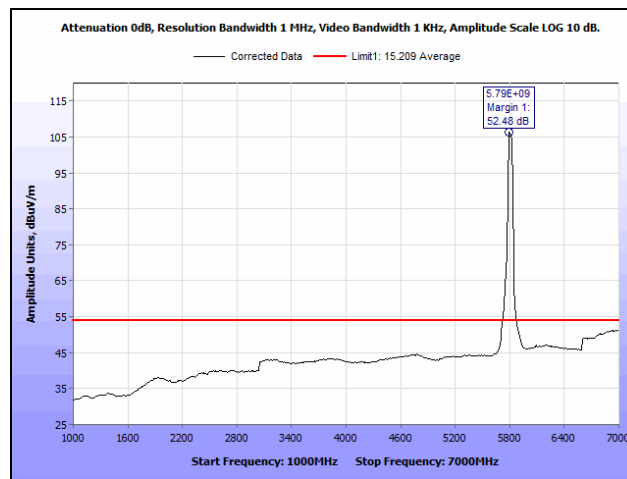
Plot 373. Radiated Spurious Emissions, 40 MHz, 5765 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



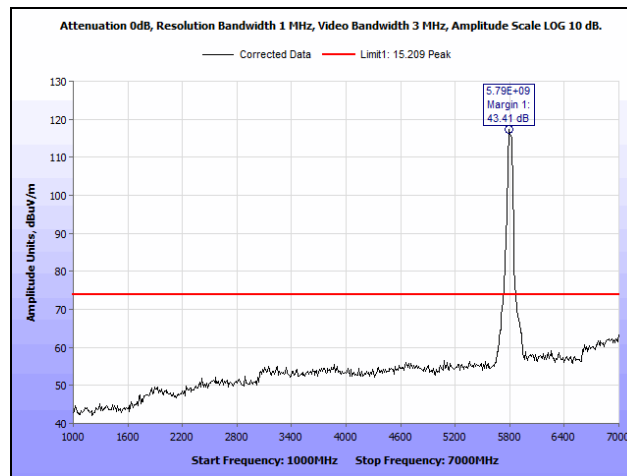
Plot 374. Radiated Spurious Emissions, 40 MHz, 5765 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



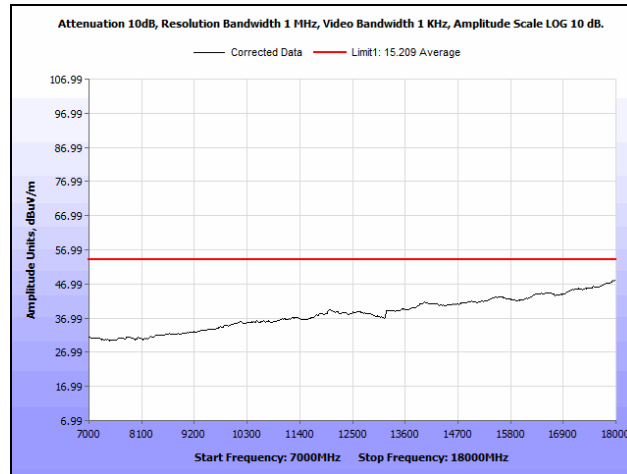
Plot 375. Radiated Spurious Emissions, 40 MHz, 5765 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



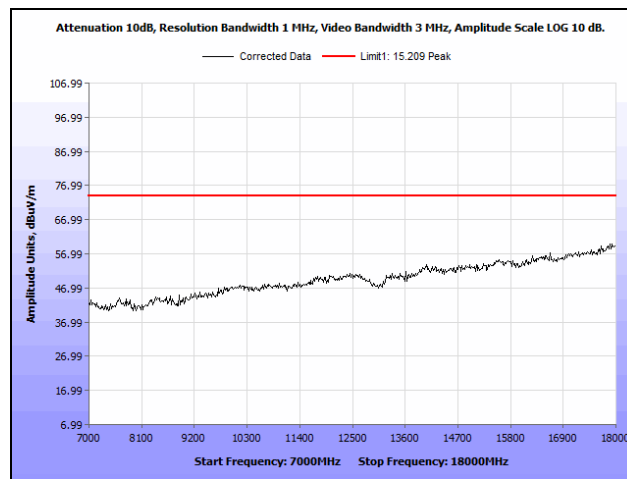
Plot 376. Radiated Spurious Emissions, 40 MHz, 5805 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



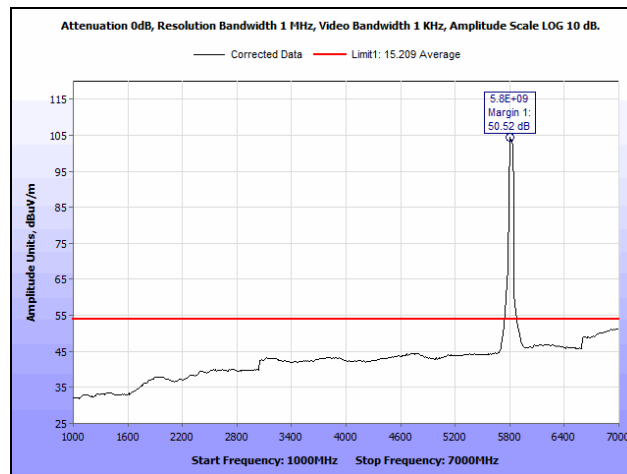
Plot 377. Radiated Spurious Emissions, 40 MHz, 5805 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



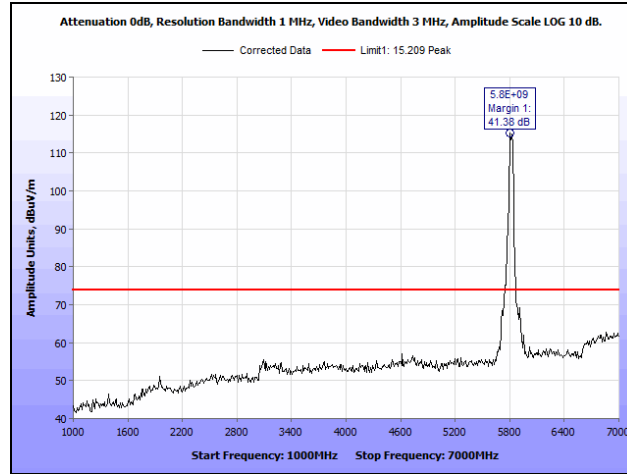
Plot 378. Radiated Spurious Emissions, 40 MHz, 5805 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



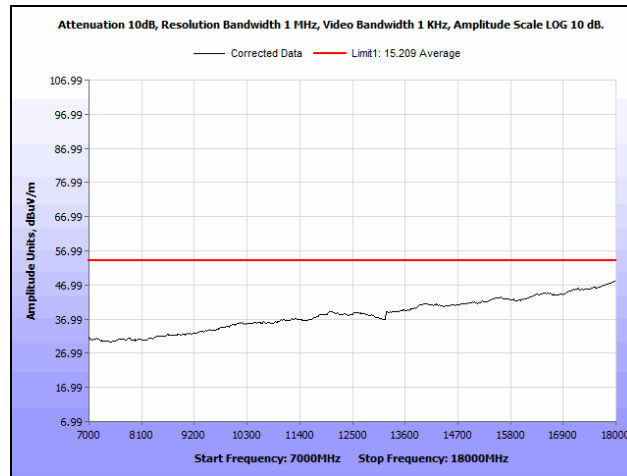
Plot 379. Radiated Spurious Emissions, 40 MHz, 5805 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



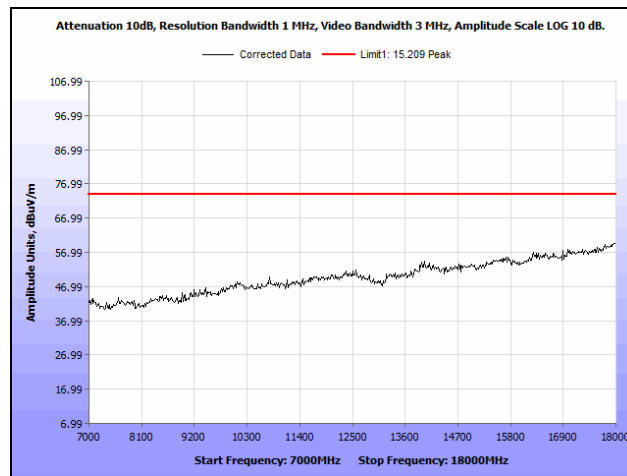
Plot 380. Radiated Spurious Emissions, 40 MHz, 5815 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



Plot 381. Radiated Spurious Emissions, 40 MHz, 5815 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna

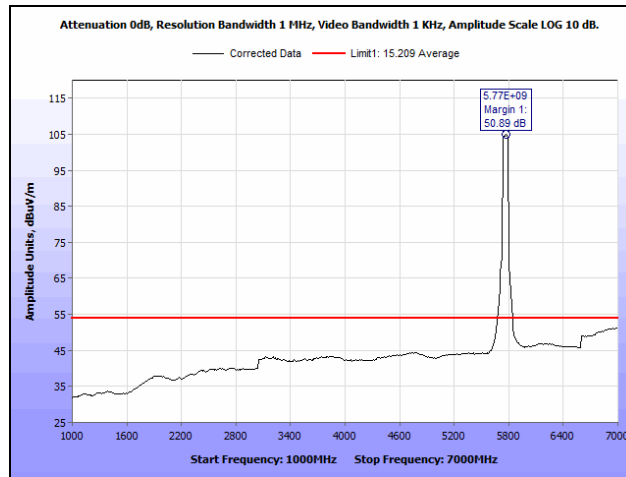


Plot 382. Radiated Spurious Emissions, 40 MHz, 5815 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna

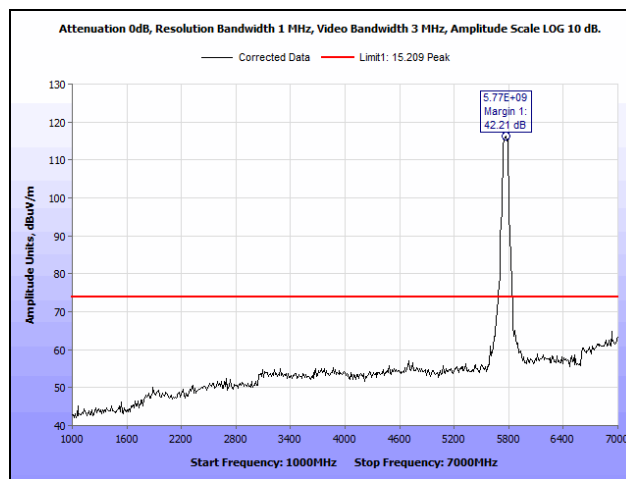


Plot 383. Radiated Spurious Emissions, 40 MHz, 5815 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna

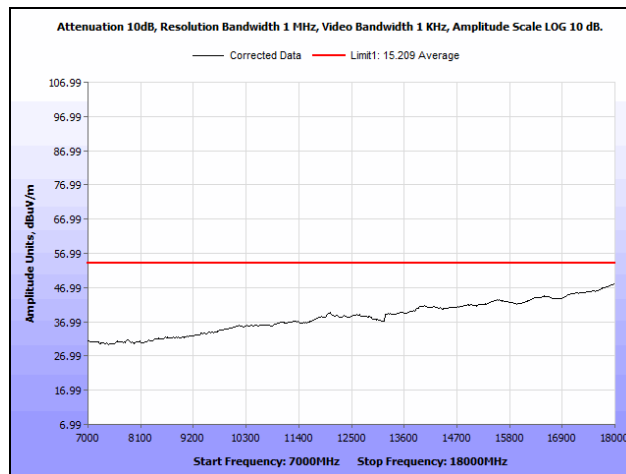
Radiated Spurious Emissions, 50 MHz, UNII 3, 23 dBi Antenna



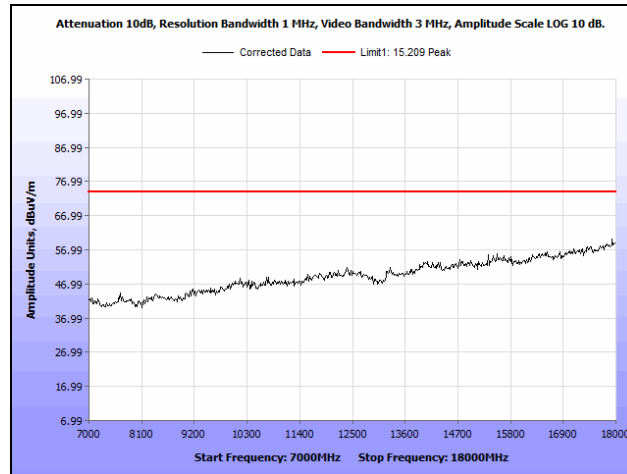
Plot 384. Radiated Spurious Emissions, 50 MHz, 5765 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



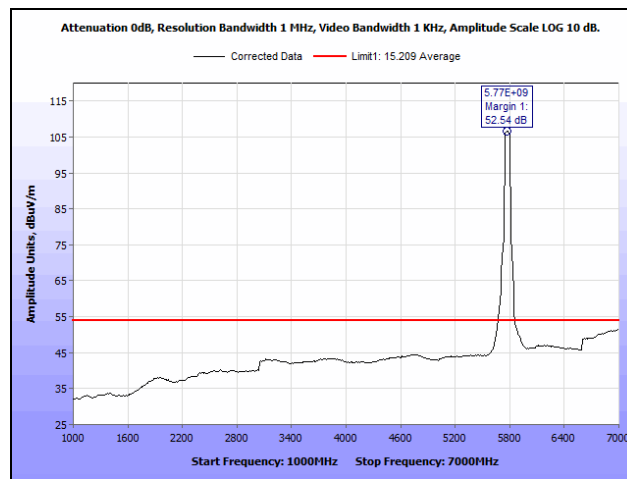
Plot 385. Radiated Spurious Emissions, 50 MHz, 5765 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



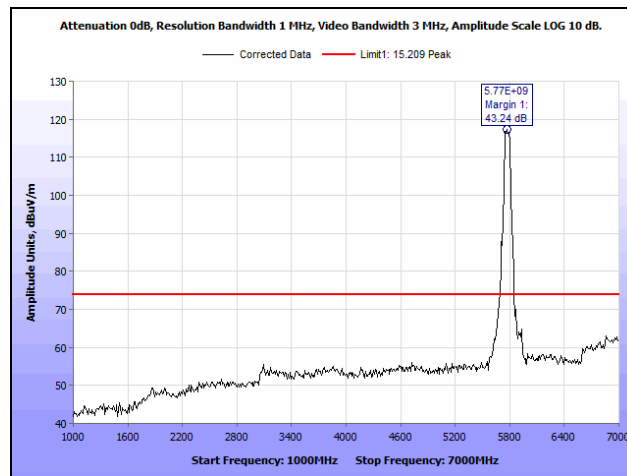
Plot 386. Radiated Spurious Emissions, 50 MHz, 5765 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



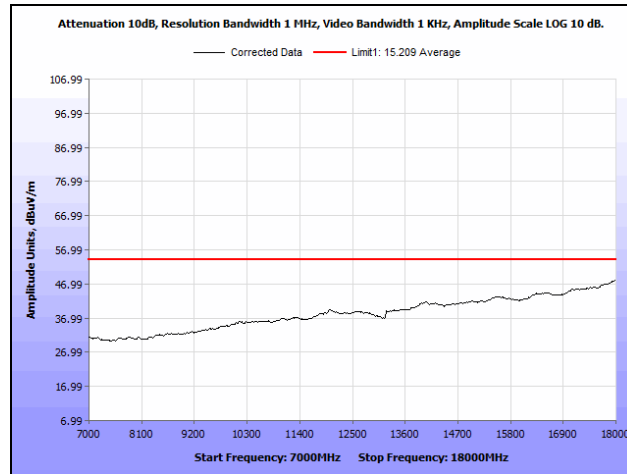
Plot 387. Radiated Spurious Emissions, 50 MHz, 5765 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



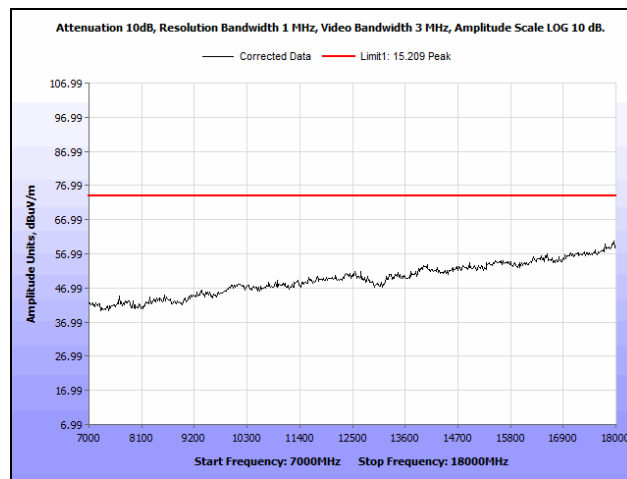
Plot 388. Radiated Spurious Emissions, 50 MHz, 5775 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



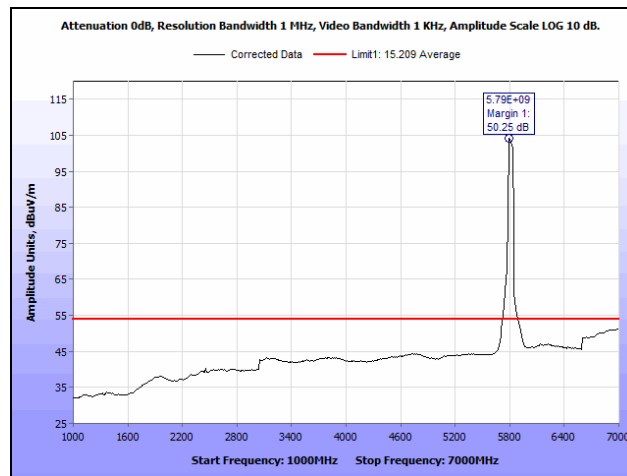
Plot 389. Radiated Spurious Emissions, 50 MHz, 5775 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna



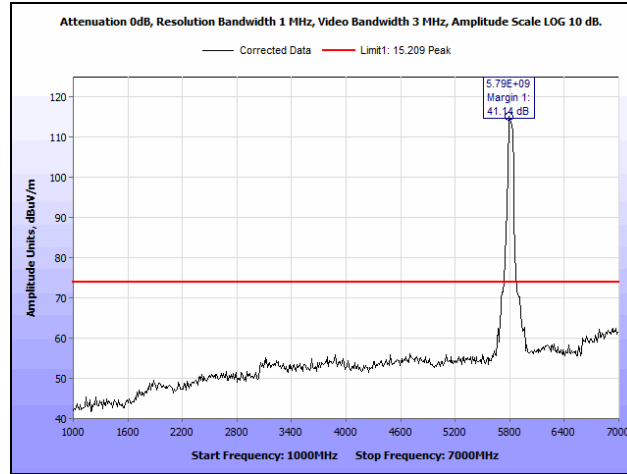
Plot 390. Radiated Spurious Emissions, 50 MHz, 5775 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna



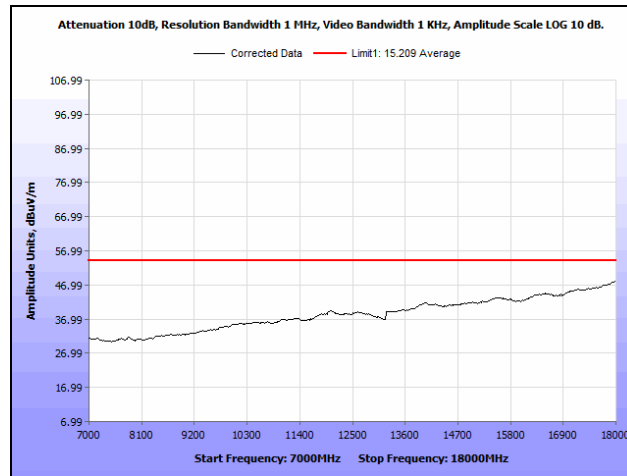
Plot 391. Radiated Spurious Emissions, 50 MHz, 5775 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna



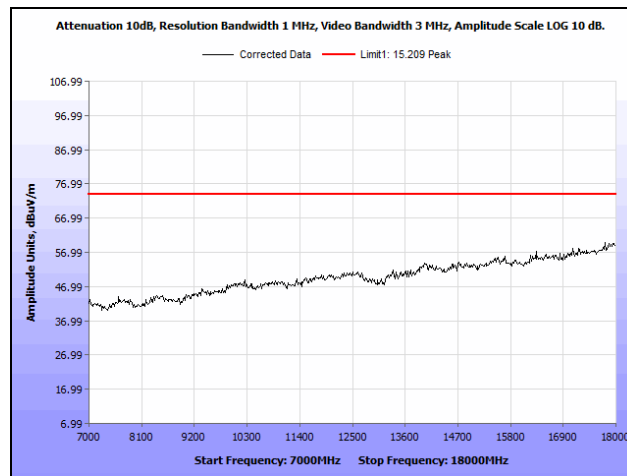
Plot 392. Radiated Spurious Emissions, 50 MHz, 5810 MHz, 1 GHz – 7 GHz, Average, UNII 3, 23 dBi Antenna



Plot 393. Radiated Spurious Emissions, 50 MHz, 5810 MHz, 1 GHz – 7 GHz, Peak, UNII 3, 23 dBi Antenna

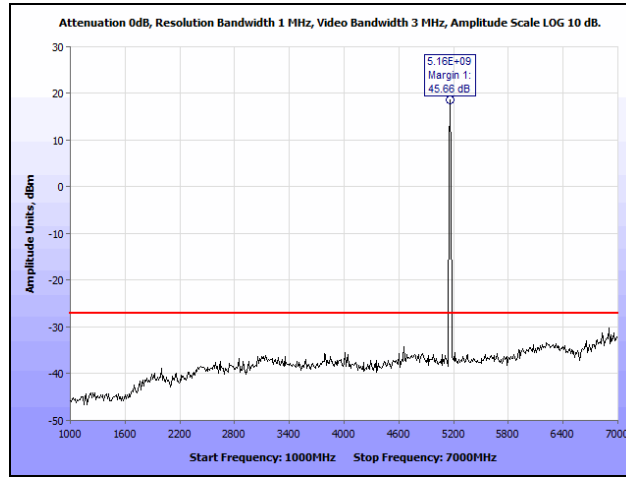


Plot 394. Radiated Spurious Emissions, 50 MHz, 5810 MHz, 7 GHz – 18 GHz, Average, UNII 3, 23 dBi Antenna

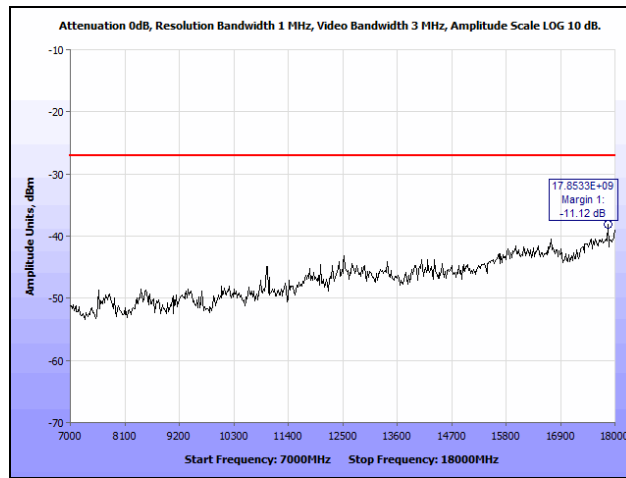


Plot 395. Radiated Spurious Emissions, 50 MHz, 5810 MHz, 7 GHz – 18 GHz, Peak, UNII 3, 23 dBi Antenna

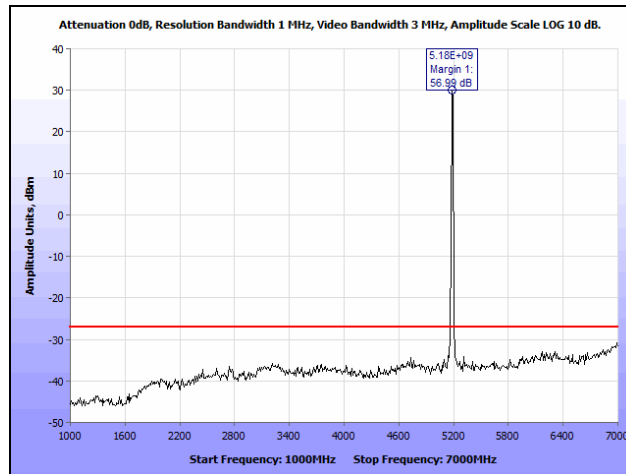
Radiated Band Edge, 10 MHz, UNII 1



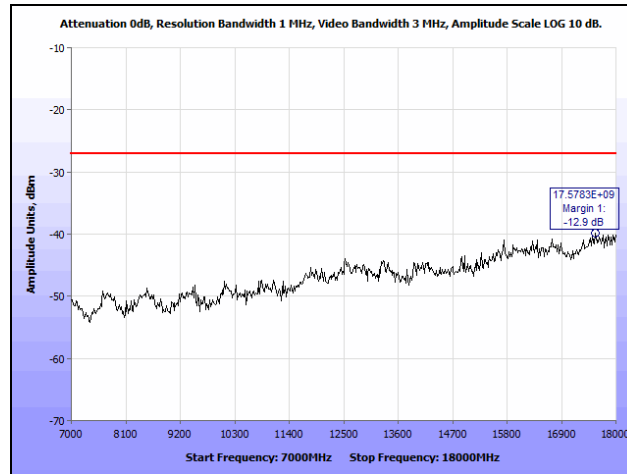
Plot 396. Radiated Band Edge, 5160 MHz, 10 MHz, 1 GHz – 7 GHz



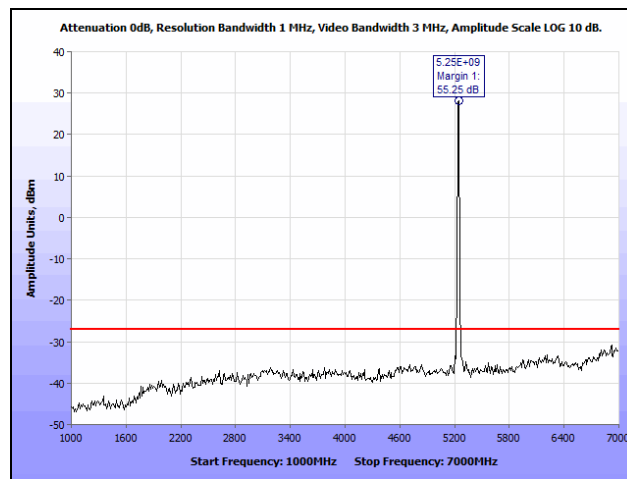
Plot 397. Radiated Band Edge, 5155 MHz, 10 MHz, 7 GHz – 18 GHz



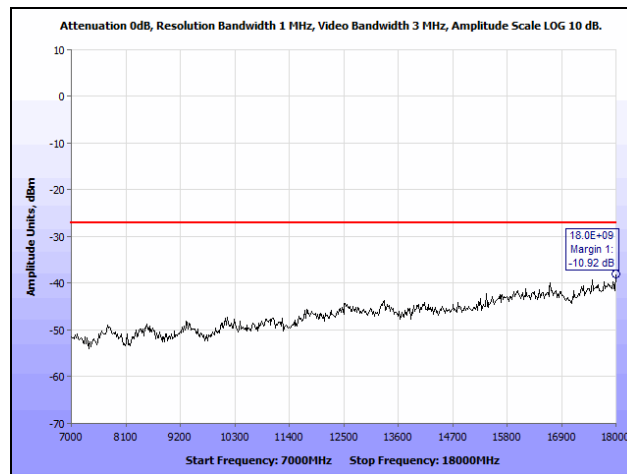
Plot 398. Radiated Band Edge, 5182 MHz, 10 MHz, 1 GHz – 7 GHz



Plot 399. Radiated Band Edge, 5200 MHz, 10 MHz, 7 GHz – 18 GHz

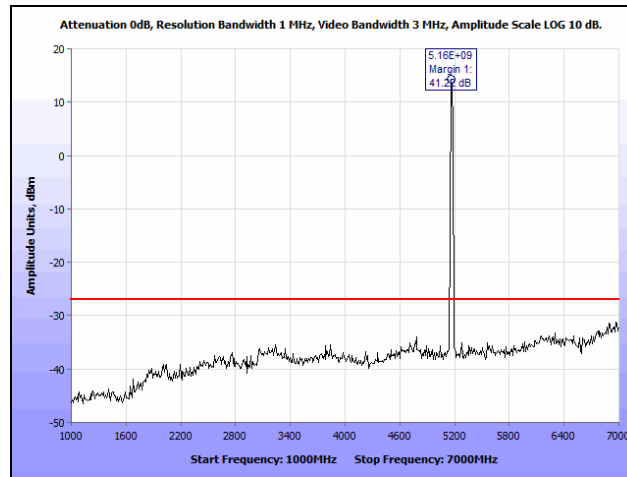


Plot 400. Radiated Band Edge, 5245 MHz, 10 MHz, 1 GHz – 7 GHz

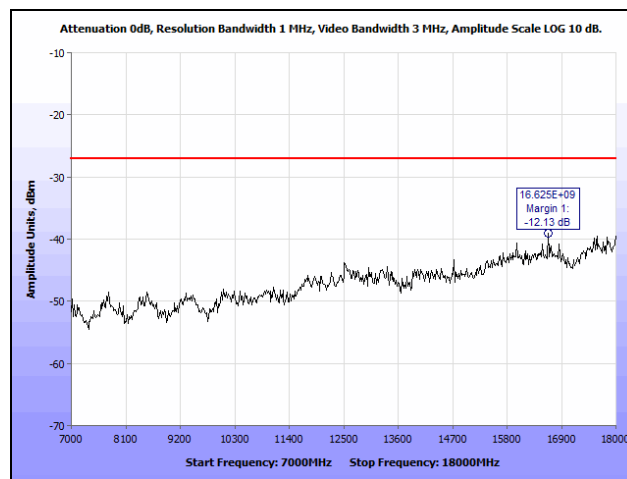


Plot 401. Radiated Band Edge, 5245 MHz, 10 MHz, 7 GHz – 18 GHz

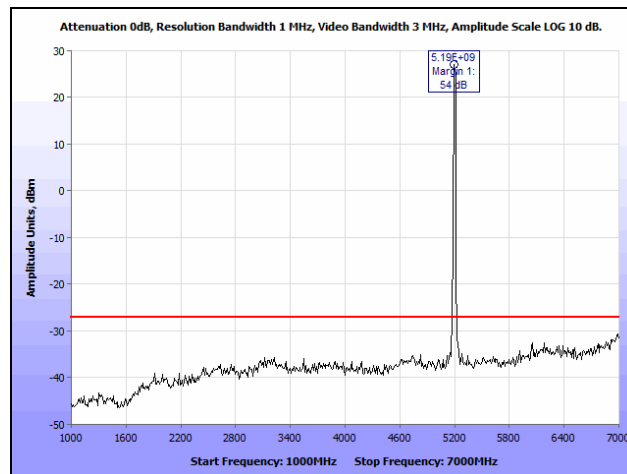
Radiated Band Edge, 20 MHz, UNII 1



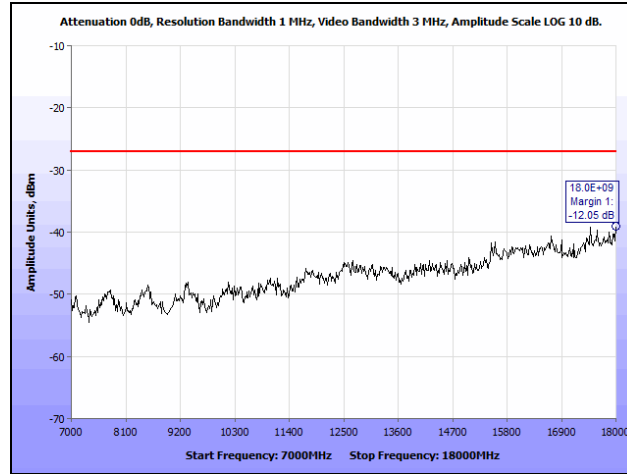
Plot 402. Radiated Band Edge, 5166 MHz, 20 MHz, 1 GHz – 7 GHz



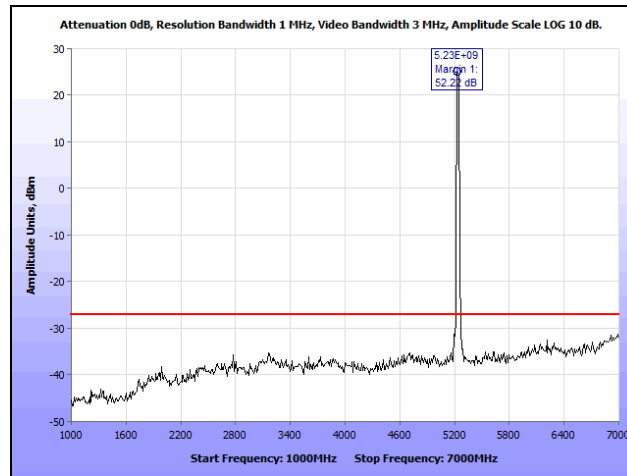
Plot 403. Radiated Band Edge, 5160 MHz, 20 MHz, 7 GHz – 18 GHz



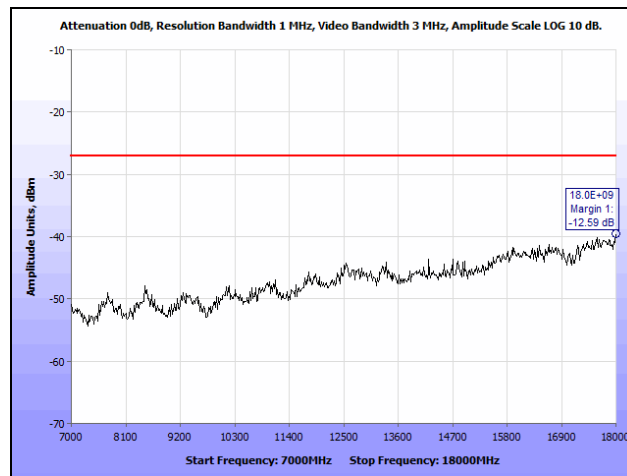
Plot 404. Radiated Band Edge, 5200 MHz, 20 MHz, 1 GHz – 7 GHz



Plot 405. Radiated Band Edge, 5200 MHz, 20 MHz, 7 GHz – 18 GHz

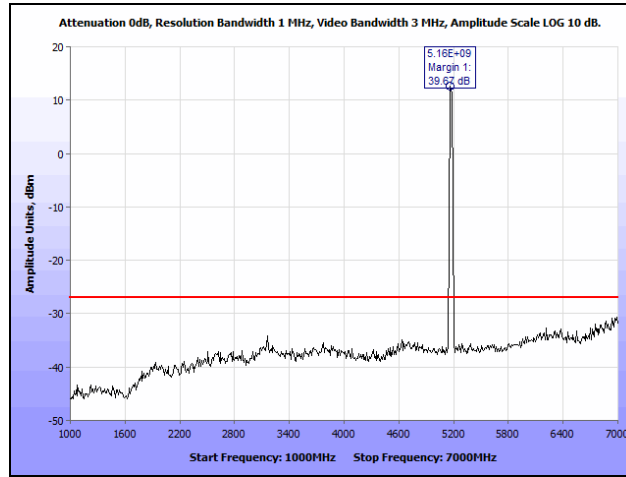


Plot 406. Radiated Band Edge, 5240 MHz, 20 MHz, 1 GHz – 7 GHz

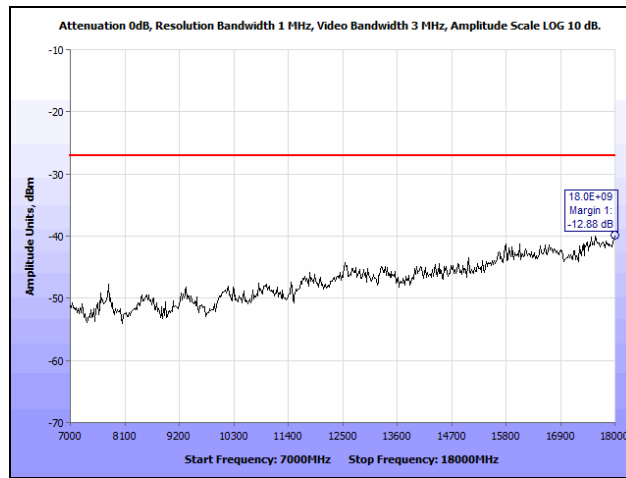


Plot 407. Radiated Band Edge, 5240 MHz, 20 MHz, 7 GHz – 18 GHz

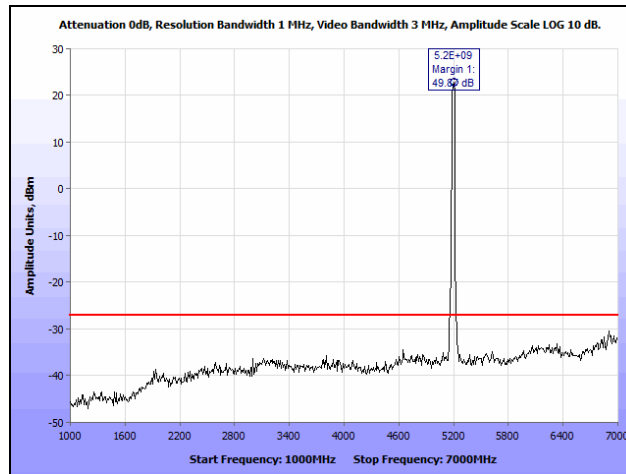
Radiated Band Edge, 30 MHz, UNII 1



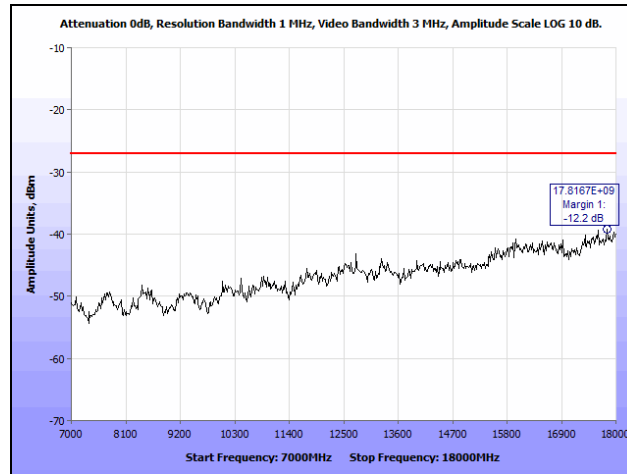
Plot 408. Radiated Band Edge, 5170 MHz, 30 MHz, 1 GHz – 7 GHz



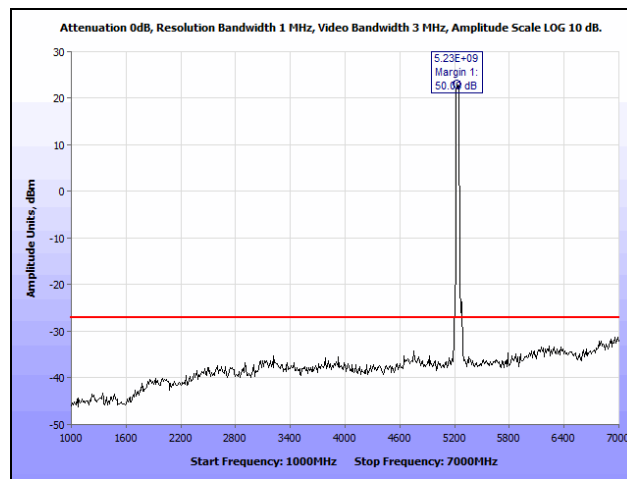
Plot 409. Radiated Band Edge, 5165 MHz, 30 MHz, 7 GHz – 18 GHz



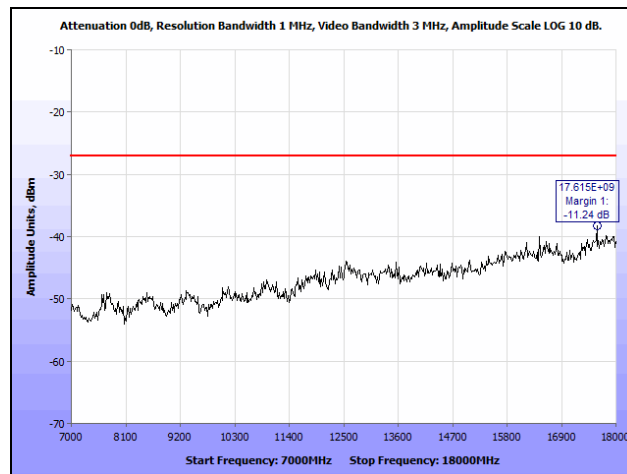
Plot 410. Radiated Band Edge, 5197 MHz, 30 MHz, 1 GHz – 7 GHz



Plot 411. Radiated Band Edge, 5200 MHz, 30 MHz, 7 GHz – 18 GHz

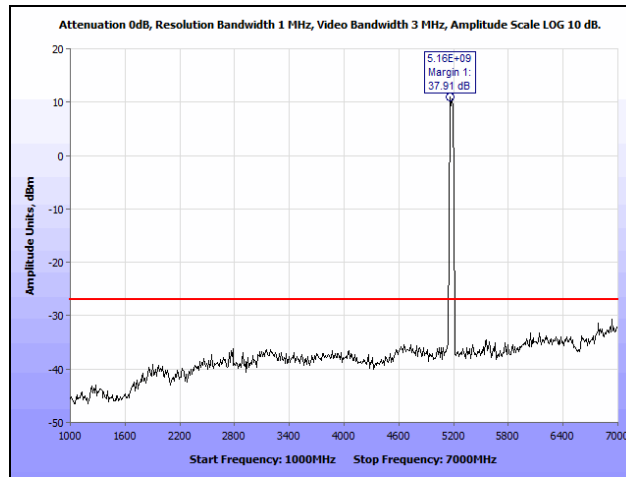


Plot 412. Radiated Band Edge, 5235 MHz, 30 MHz, 1 GHz – 7 GHz

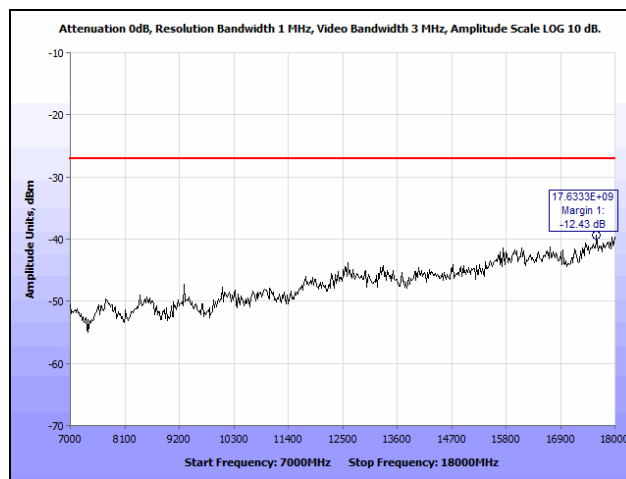


Plot 413. Radiated Band Edge, 5235 MHz, 30 MHz, 7 GHz – 18 GHz

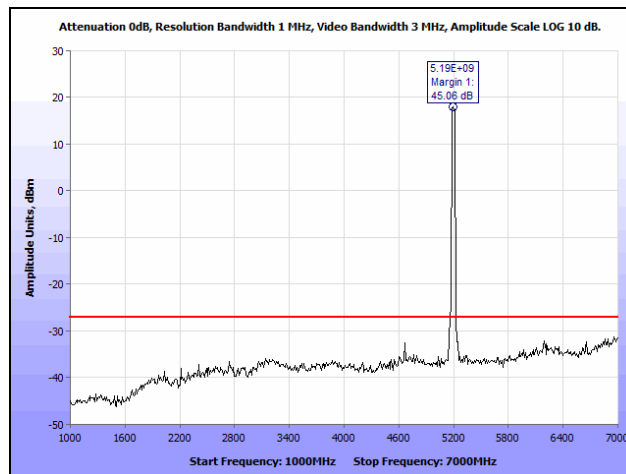
Radiated Band Edge, 40 MHz, UNII 1



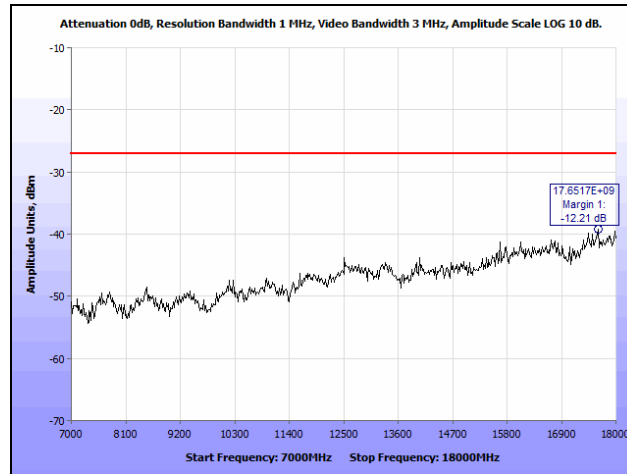
Plot 414. Radiated Band Edge, 5175 MHz, 40 MHz, 1 GHz – 7 GHz



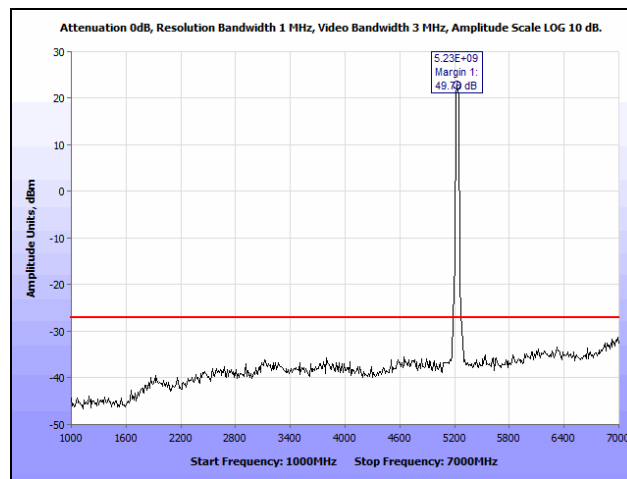
Plot 415. Radiated Band Edge, 5170 MHz, 40 MHz, 7 GHz – 18 GHz



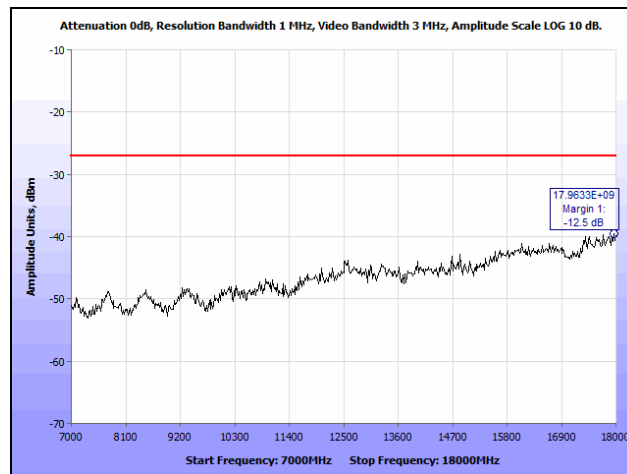
Plot 416. Radiated Band Edge, 5200 MHz, 40 MHz, 1 GHz – 7 GHz



Plot 417. Radiated Band Edge, 5200 MHz, 40 MHz, 7 GHz – 18 GHz

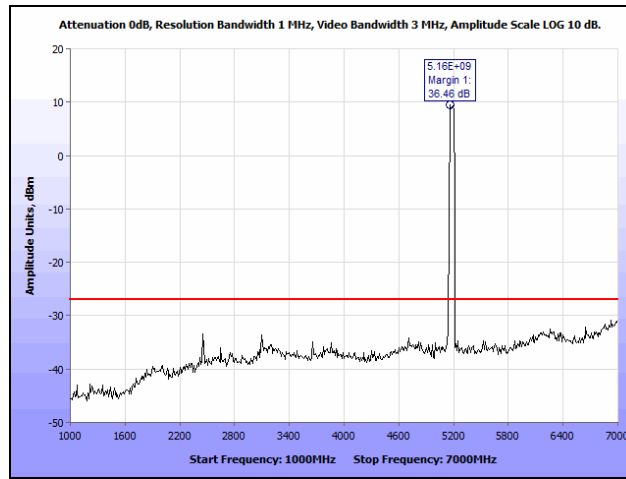


Plot 418. Radiated Band Edge, 5230 MHz, 40 MHz, 1 GHz – 7 GHz

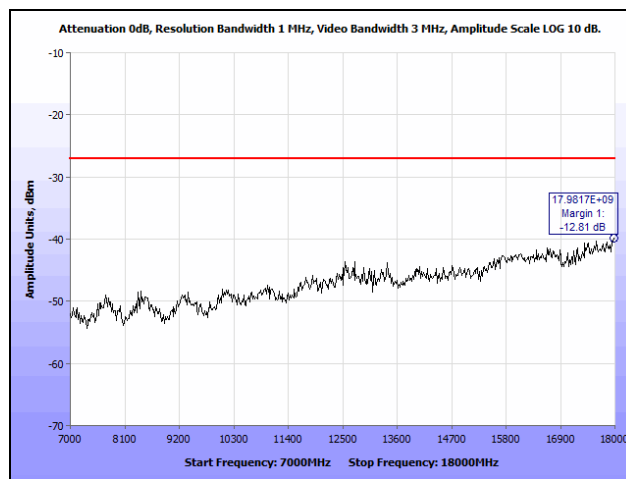


Plot 419. Radiated Band Edge, 5230 MHz, 40 MHz, 7 GHz – 18 GHz

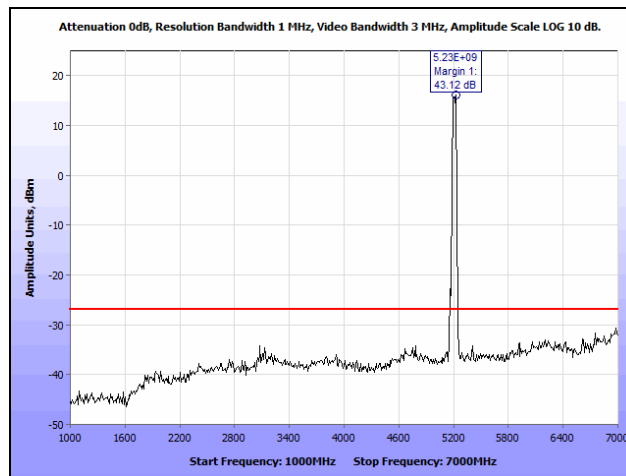
Radiated Band Edge, 50 MHz, UNII 1



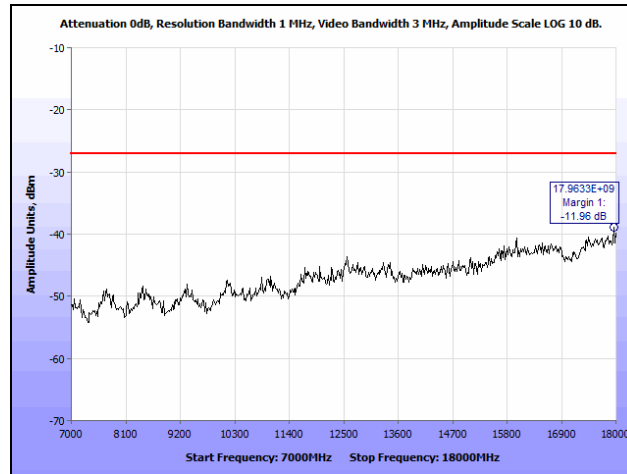
Plot 420. Radiated Band Edge, 5180 MHz, 50 MHz, 1 GHz – 7 GHz



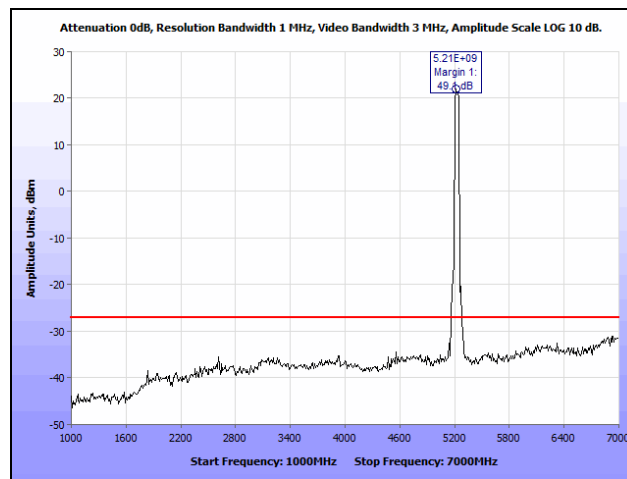
Plot 421. Radiated Band Edge, 5180 MHz, 50 MHz, 7 GHz – 18 GHz



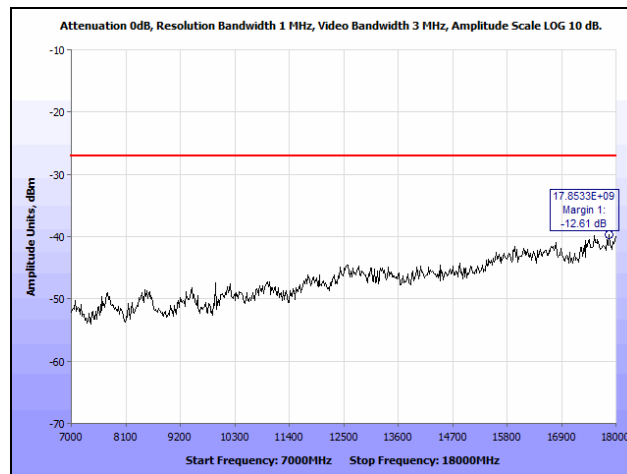
Plot 422. Radiated Band Edge, 5209 MHz, 50 MHz, 1 GHz – 7 GHz



Plot 423. Radiated Band Edge, 5209 MHz, 50 MHz, 7 GHz – 18 GHz

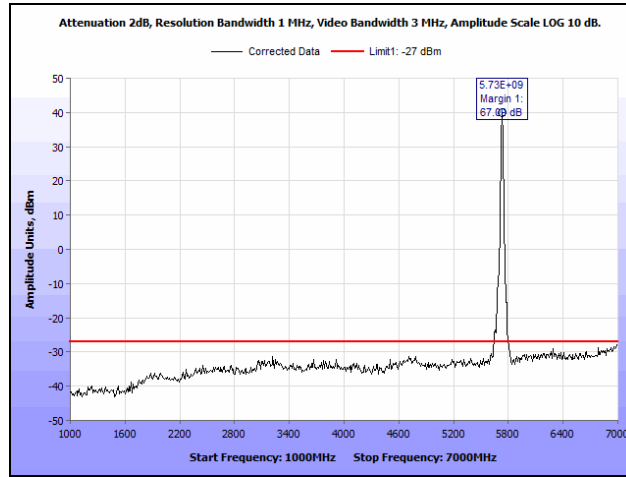


Plot 424. Radiated Band Edge, 5225 MHz, 50 MHz, 1 GHz – 7 GHz

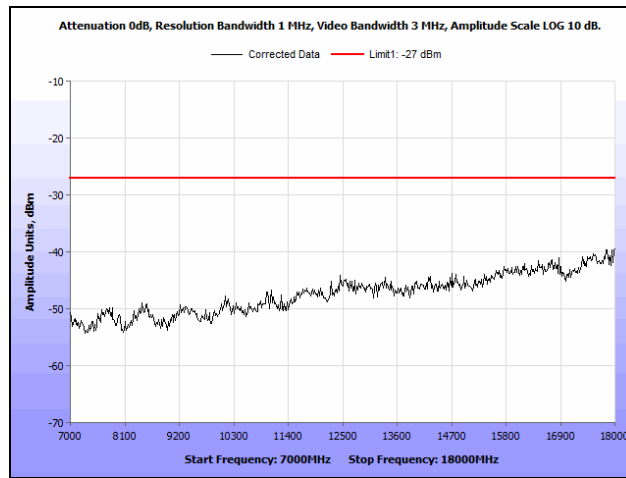


Plot 425. Radiated Band Edge, 5225 MHz, 50 MHz, 7 GHz – 18 GHz

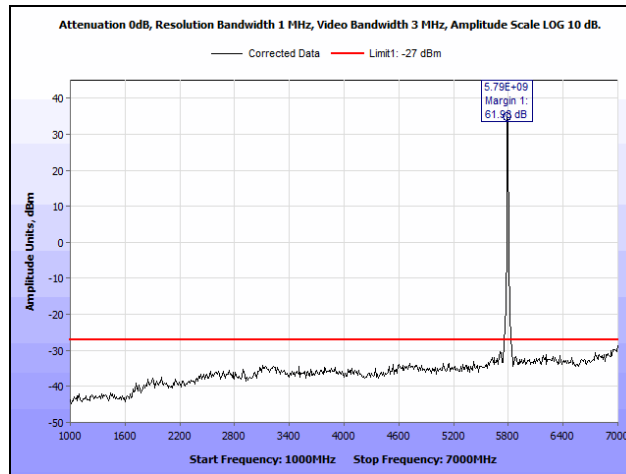
Radiated Band Edge, 10 MHz, UNII 3



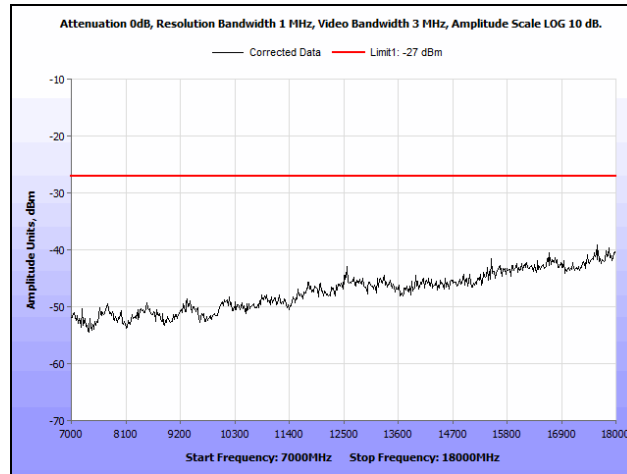
Plot 426. Radiated Band Edge, 5730 MHz, 10 MHz, 1 GHz – 7 GHz



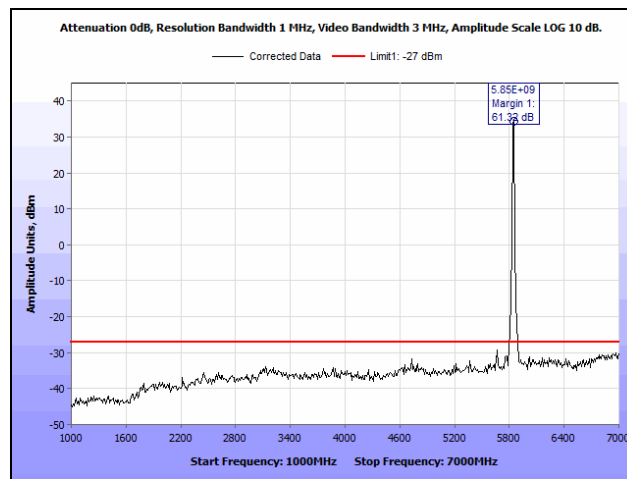
Plot 427. Radiated Band Edge, 5730 MHz, 10 MHz, 7 GHz – 18 GHz



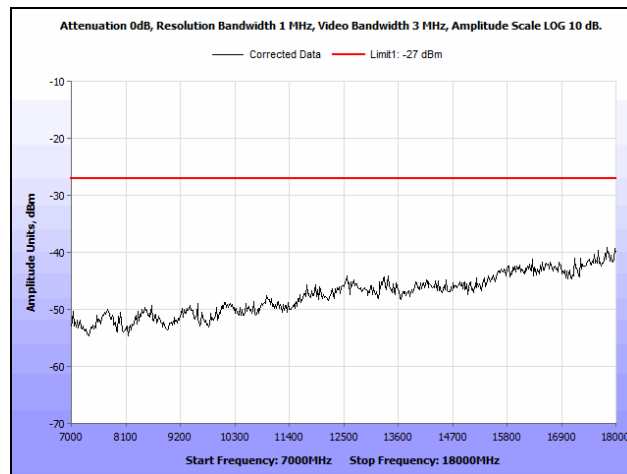
Plot 428. Radiated Band Edge, 5795 MHz, 10 MHz, 1 GHz – 7 GHz



Plot 429. Radiated Band Edge, 5795 MHz, 10 MHz, 7 GHz – 18 GHz

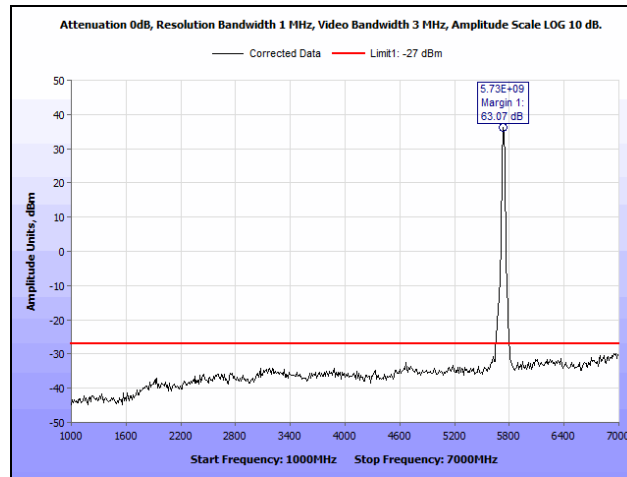


Plot 430. Radiated Band Edge, 5845 MHz, 10 MHz, 1 GHz – 7 GHz

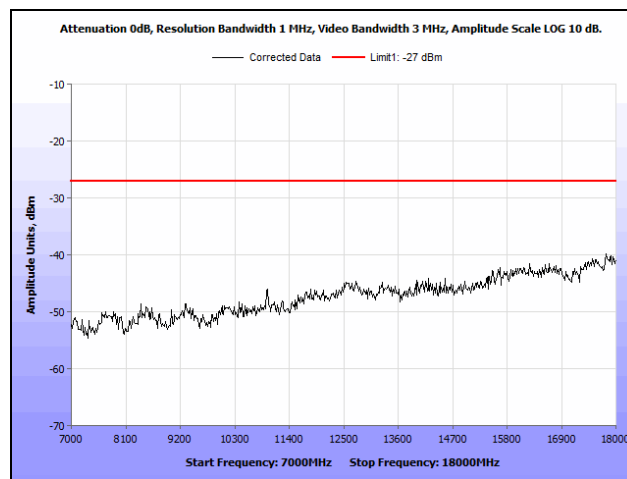


Plot 431. Radiated Band Edge, 5845 MHz, 10 MHz, 7 GHz – 18 GHz

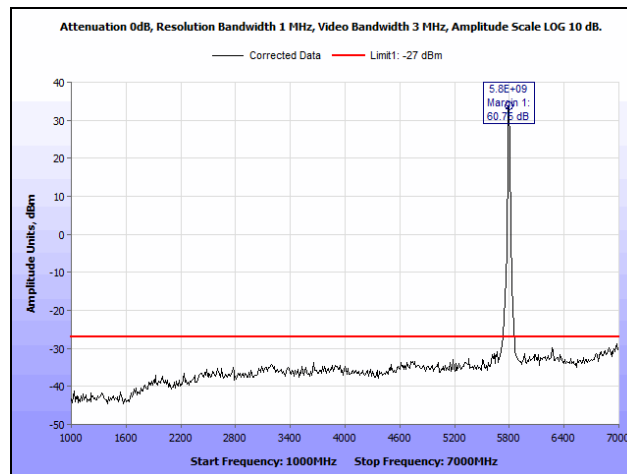
Radiated Band Edge, 20 MHz, UNII 3



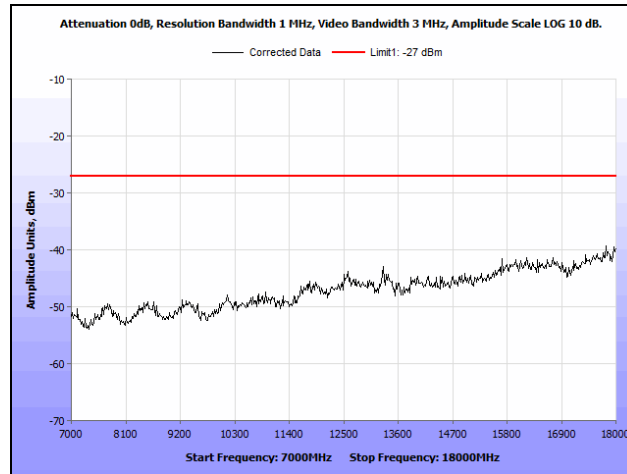
Plot 432. Radiated Band Edge, 5735 MHz, 20 MHz, 1 GHz – 7 GHz



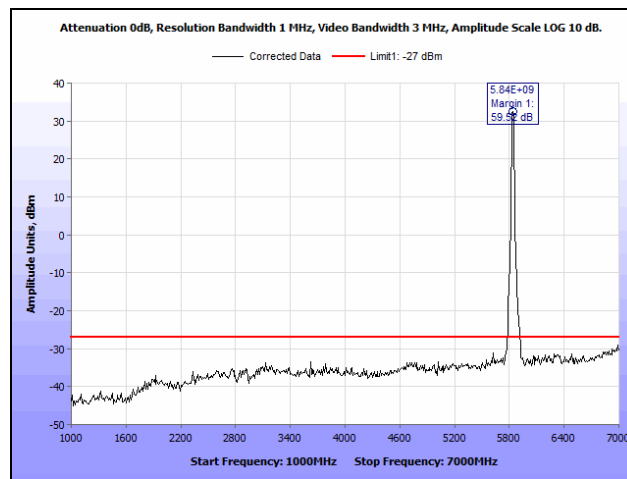
Plot 433. Radiated Band Edge, 5735 MHz, 20 MHz, 7 GHz – 18 GHz



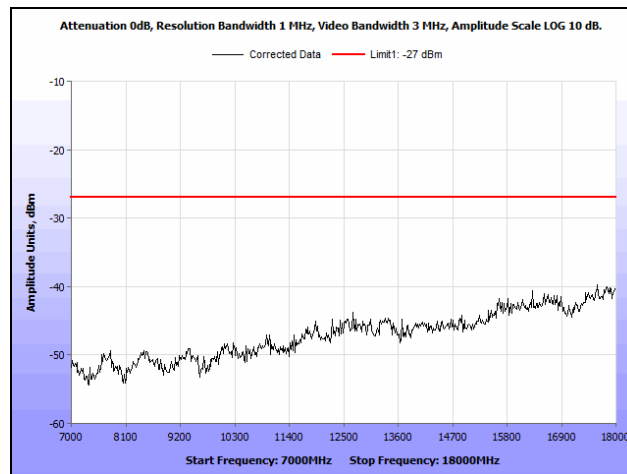
Plot 434. Radiated Band Edge, 5795 MHz, 20 MHz, 1 GHz – 7 GHz



Plot 435. Radiated Band Edge, 5795 MHz, 20 MHz, 7 GHz – 18 GHz

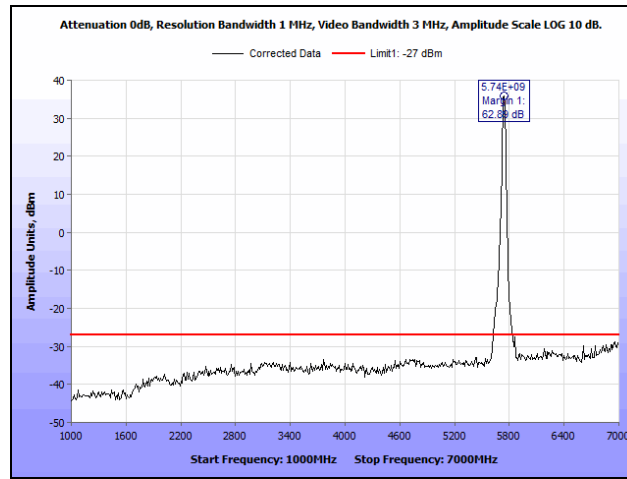


Plot 436. Radiated Band Edge, 5840 MHz, 20 MHz, 1 GHz – 7 GHz

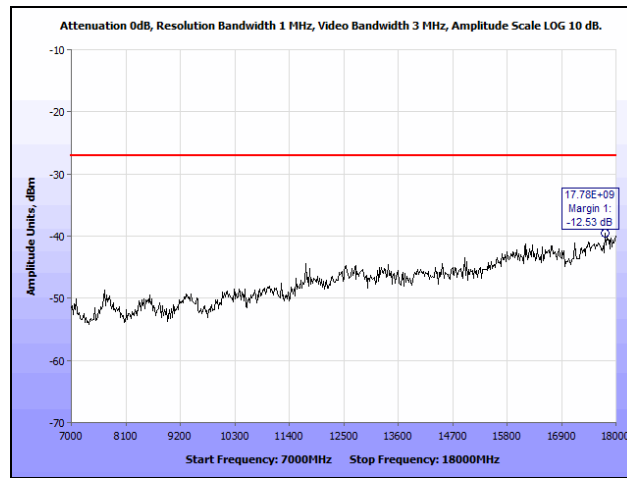


Plot 437. Radiated Band Edge, 5840 MHz, 20 MHz, 7 GHz – 18 GHz

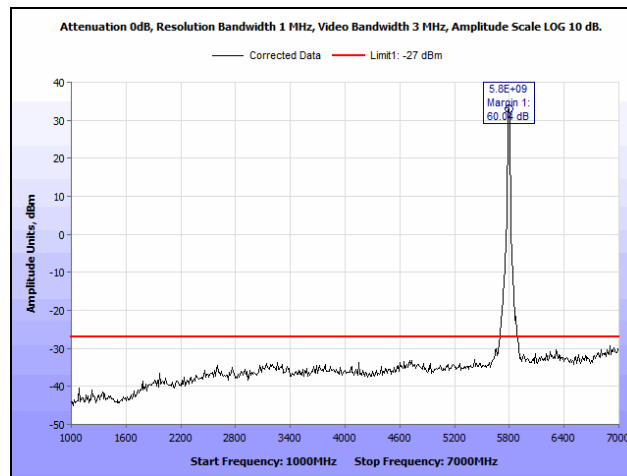
Radiated Band Edge, 30 MHz, UNII 3



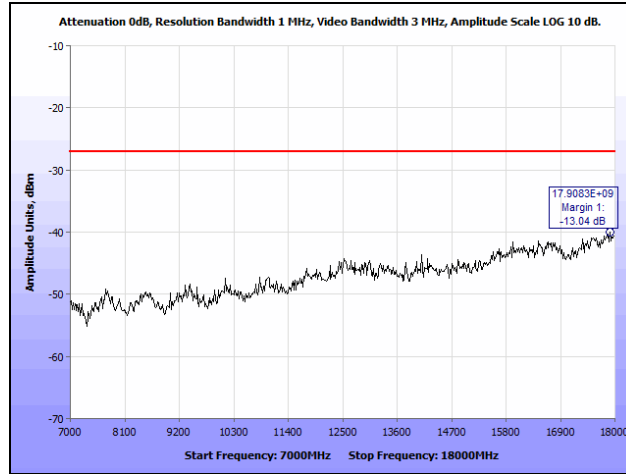
Plot 438. Radiated Band Edge, 5740 MHz, 30 MHz, 1 GHz – 7 GHz



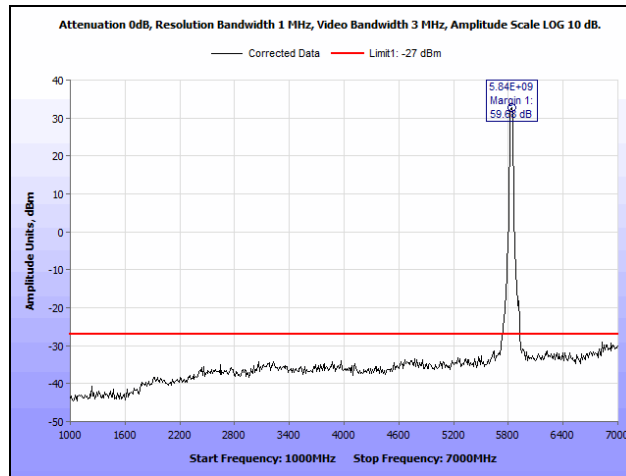
Plot 439. Radiated Band Edge, 5740 MHz, 30 MHz, 7 GHz – 18 GHz



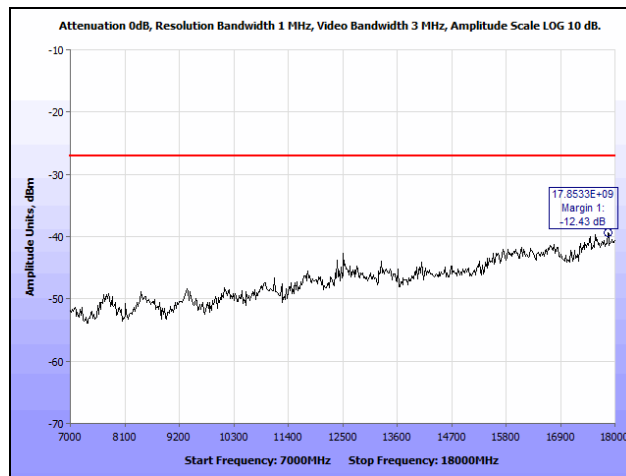
Plot 440. Radiated Band Edge, 5795 MHz, 30 MHz, 1 GHz – 7 GHz



Plot 441. Radiated Band Edge, 5795 MHz, 30 MHz, 7 GHz – 18 GHz

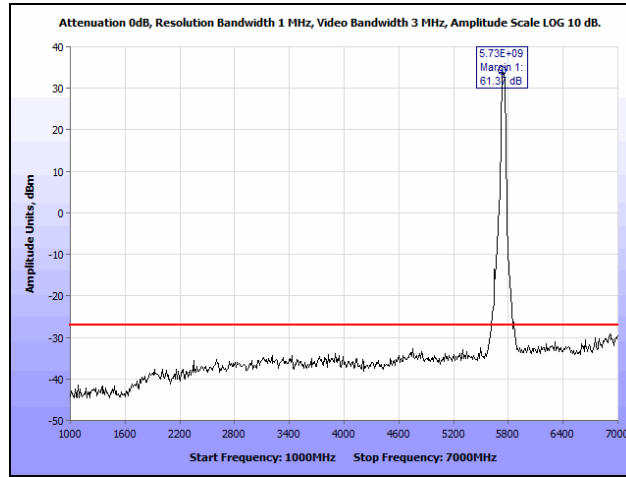


Plot 442. Radiated Band Edge, 5835 MHz, 30 MHz, 1 GHz – 7 GHz

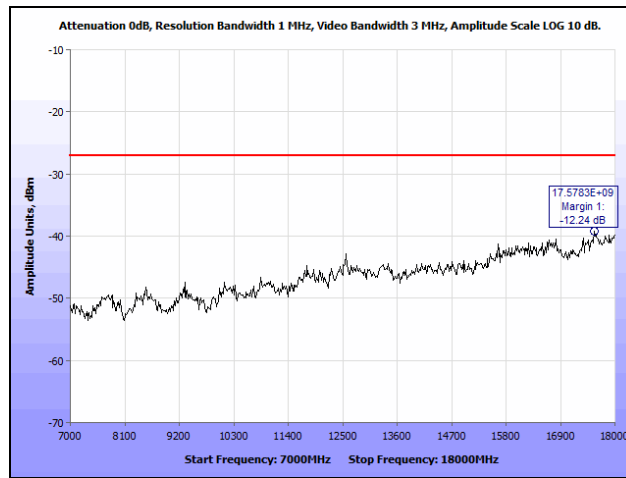


Plot 443. Radiated Band Edge, 5835 MHz, 30 MHz, 7 GHz – 18 GHz

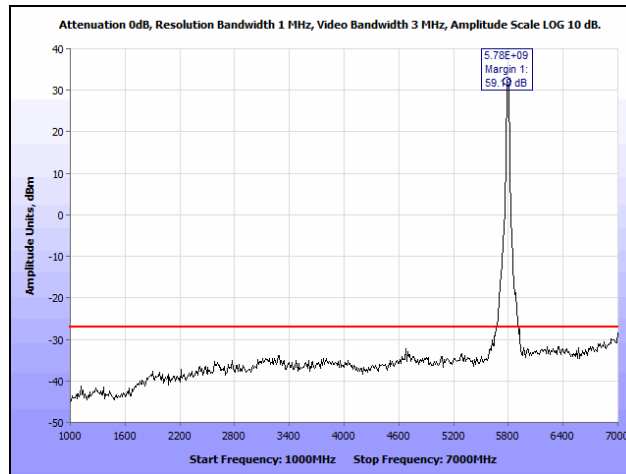
Radiated Band Edge, 40 MHz, UNII 3



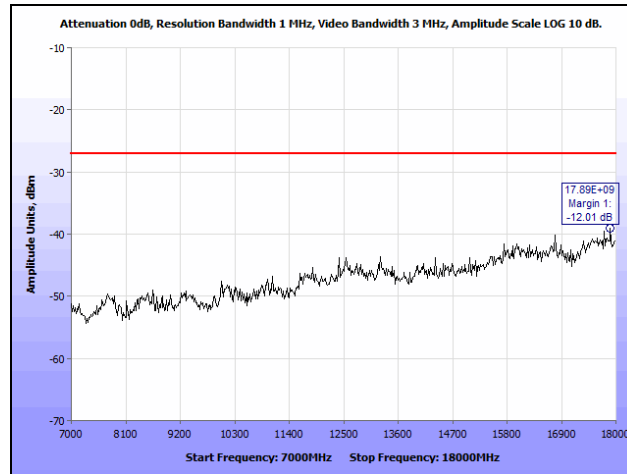
Plot 444. Radiated Band Edge, 5745 MHz, 40 MHz, 1 GHz – 7 GHz



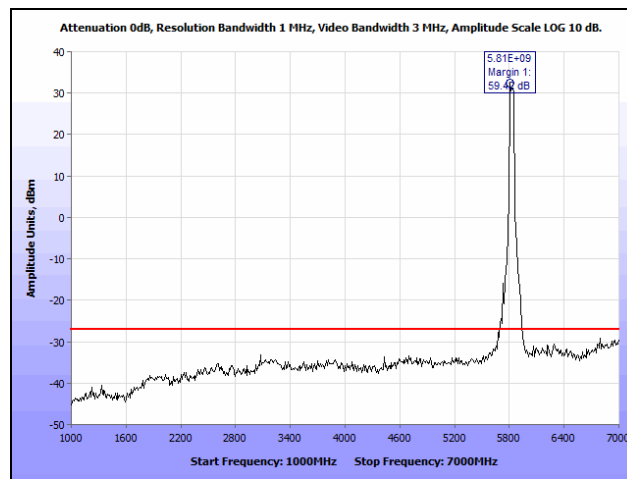
Plot 445. Radiated Band Edge, 5745 MHz, 40 MHz, 7 GHz – 18 GHz



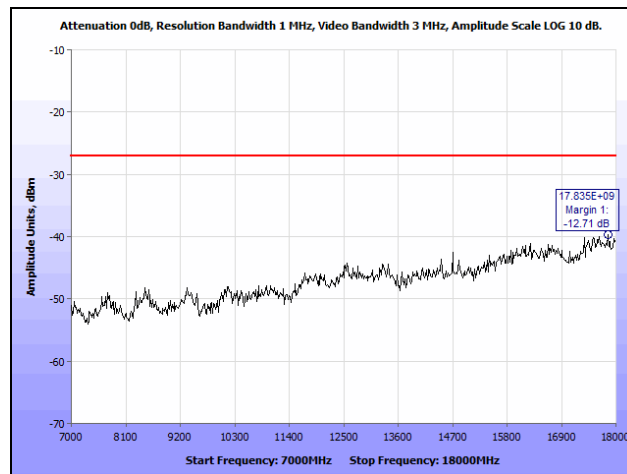
Plot 446. Radiated Band Edge, 5795 MHz, 40 MHz, 1 GHz – 7 GHz



Plot 447. Radiated Band Edge, 5795 MHz, 40 MHz, 7 GHz – 18 GHz

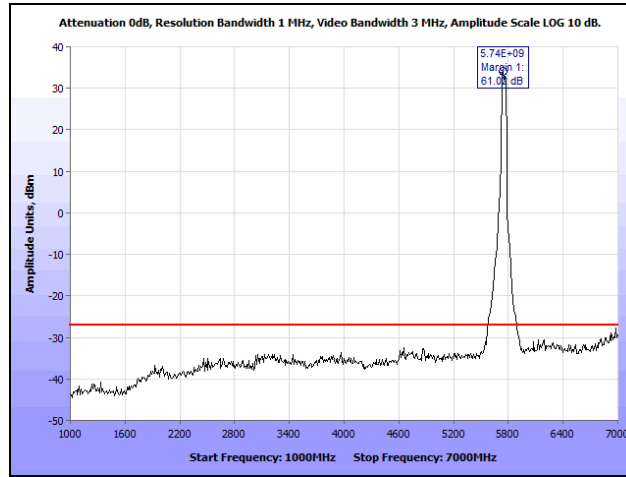


Plot 448. Radiated Band Edge, 5830 MHz, 40 MHz, 1 GHz – 7 GHz

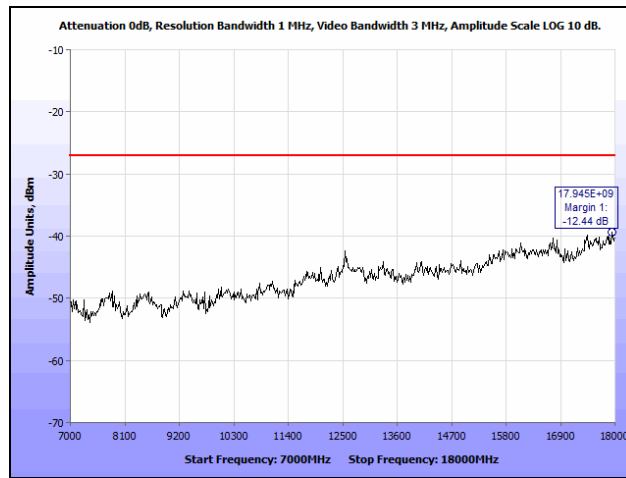


Plot 449. Radiated Band Edge, 5830 MHz, 40 MHz, 7 GHz – 18 GHz

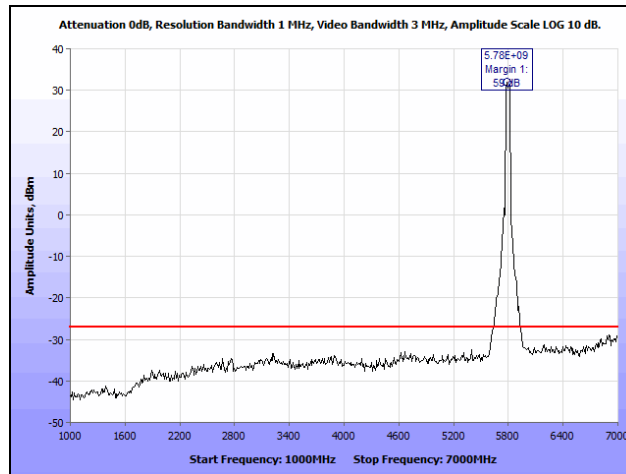
Radiated Band Edge, 50 MHz, UNII 3



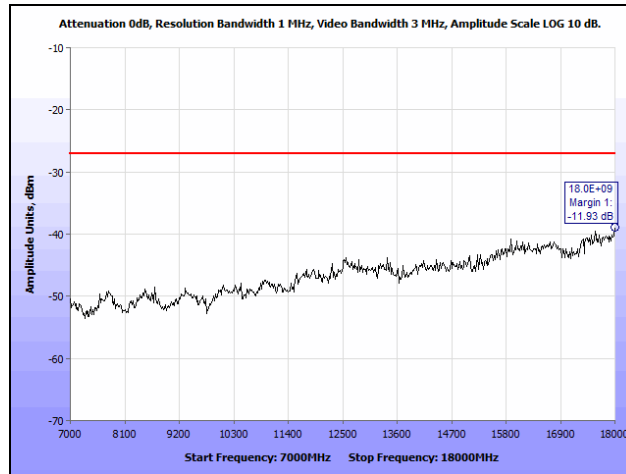
Plot 450. Radiated Band Edge, 5750 MHz, 50 MHz, 1 GHz – 7 GHz



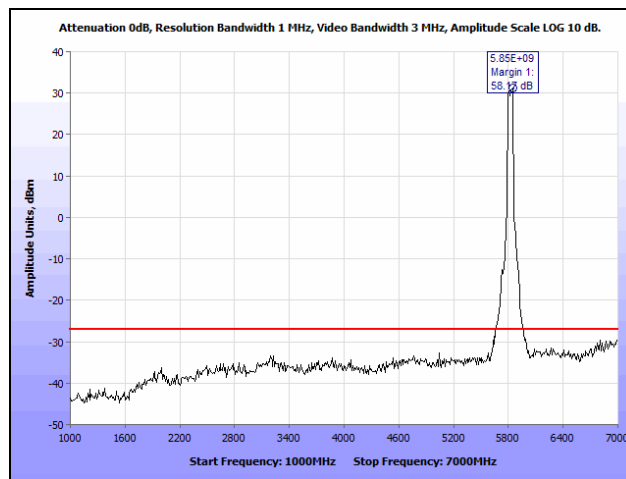
Plot 451. Radiated Band Edge, 5750 MHz, 50 MHz, 7 GHz – 18 GHz



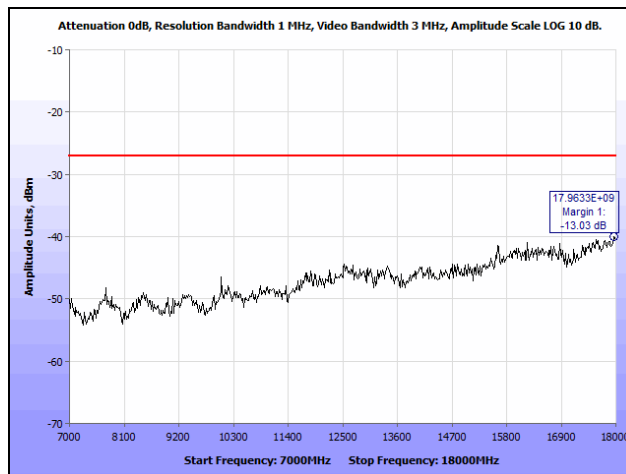
Plot 452. Radiated Band Edge, 5795 MHz, 50 MHz, 1 GHz – 7 GHz



Plot 453. Radiated Band Edge, 5795 MHz, 50 MHz, 7 GHz – 18 GHz

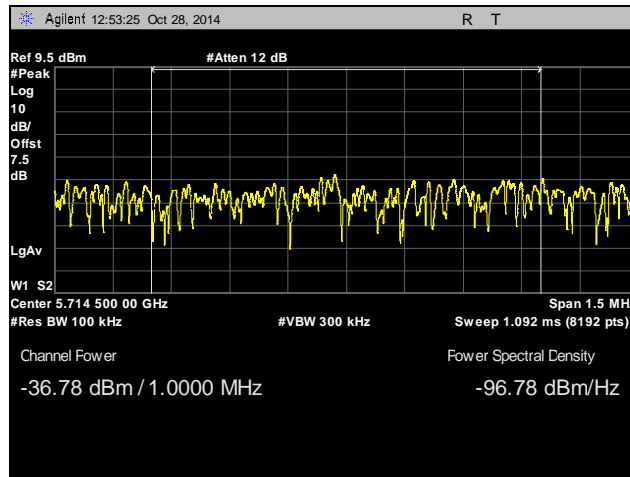


Plot 454. Radiated Band Edge, 5825 MHz, 50 MHz, 1 GHz – 7 GHz

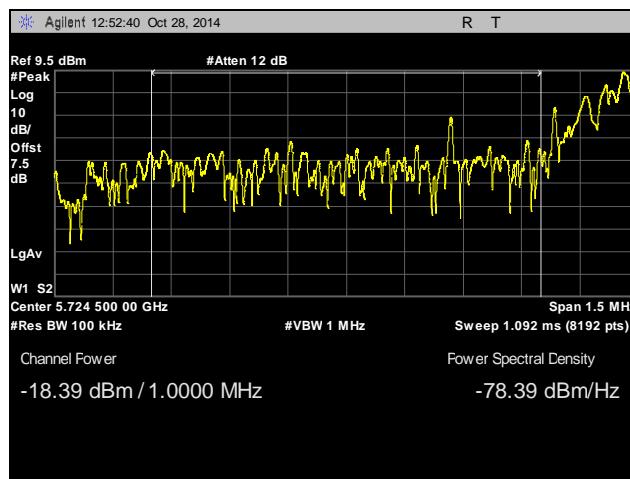


Plot 455. Radiated Band Edge, 5825 MHz, 50 MHz, 7 GHz – 18 GHz

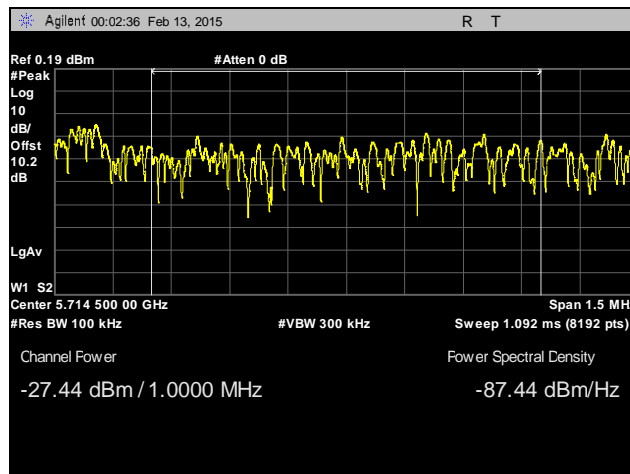
Radiated Band Edge, 10 MHz, UNII 3, 23 dBi Antenna



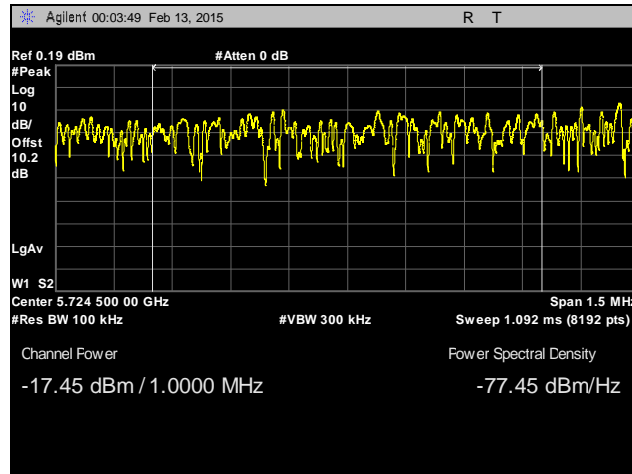
Plot 456. Radiated Band Edge, 5730 MHz, 5715 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna



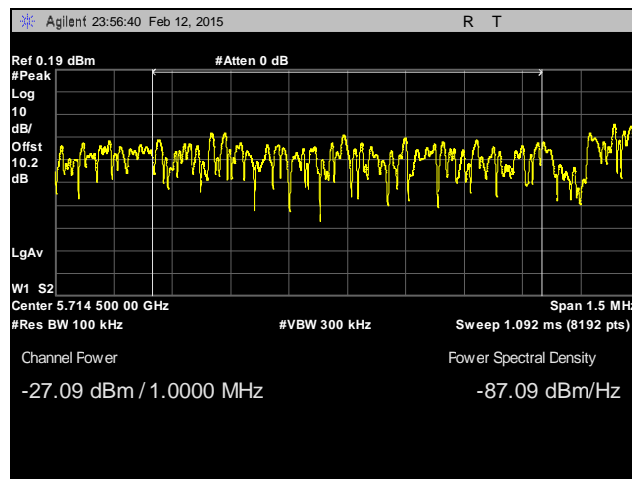
Plot 457. Radiated Band Edge, 5730 MHz, 5725 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



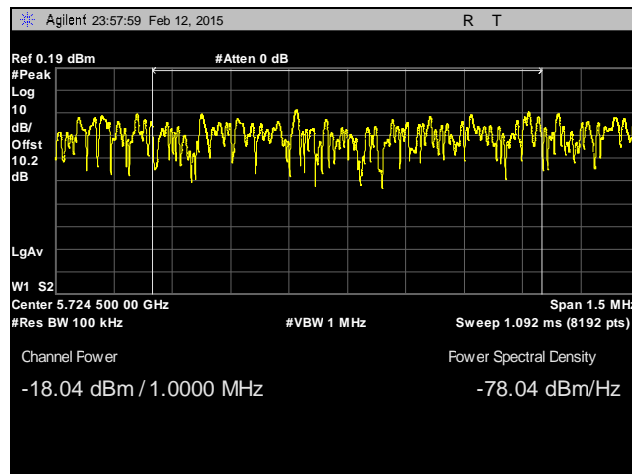
Plot 458. Radiated Band Edge, 5738 MHz, 5715 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna



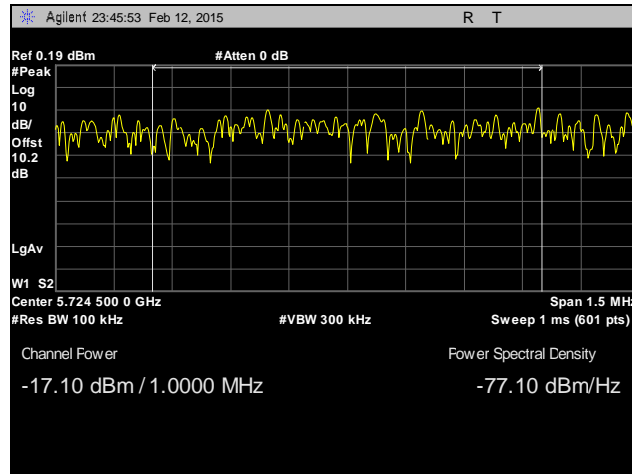
Plot 459. Radiated Band Edge, 5738 MHz, 5725 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



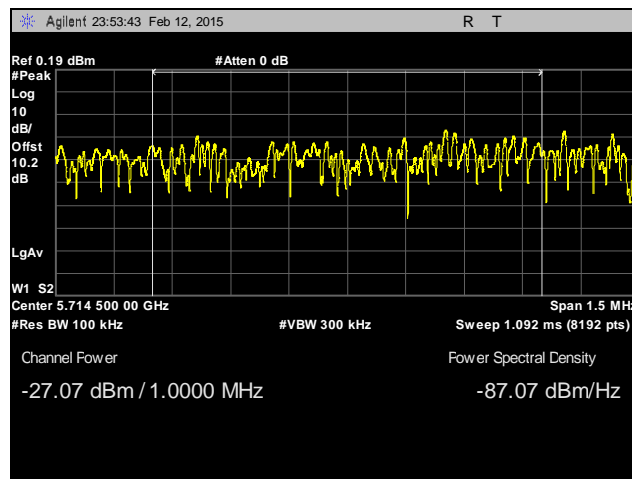
Plot 460. Radiated Band Edge, 5741 MHz, 5715 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna



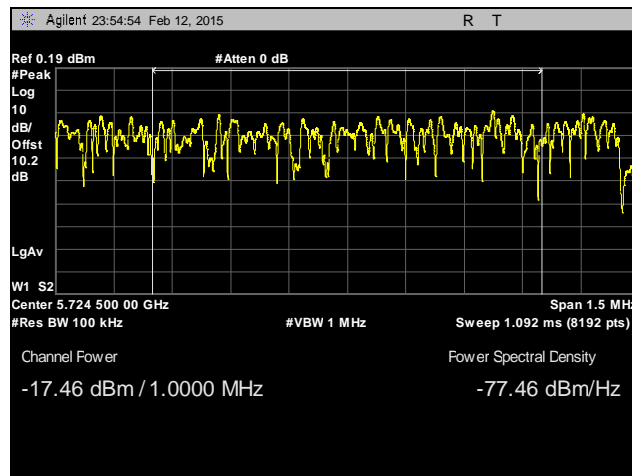
Plot 461. Radiated Band Edge, 5741 MHz, 5725 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



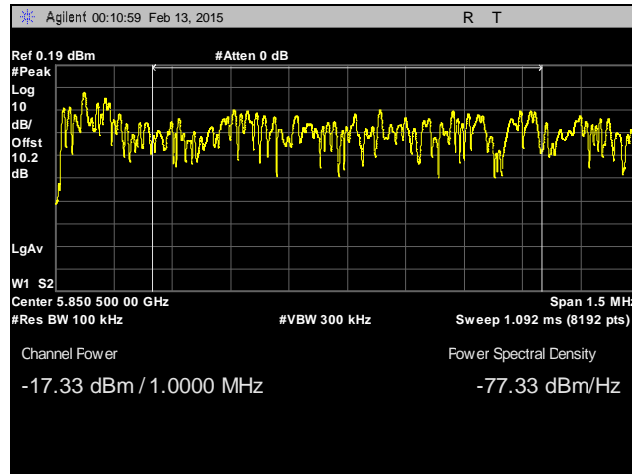
Plot 462. Radiated Band Edge, 5742 MHz, 5725 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



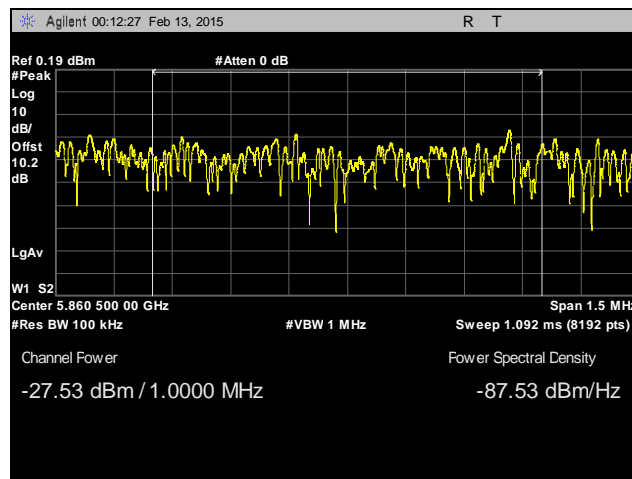
Plot 463. Radiated Band Edge, 5745 MHz, 5715 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna



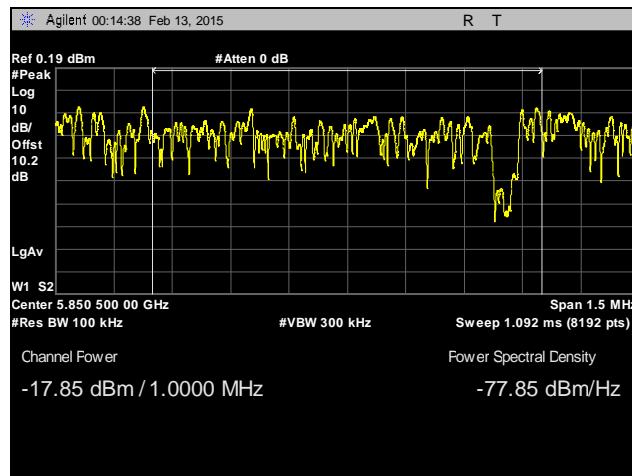
Plot 464. Radiated Band Edge, 5745 MHz, 5725 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



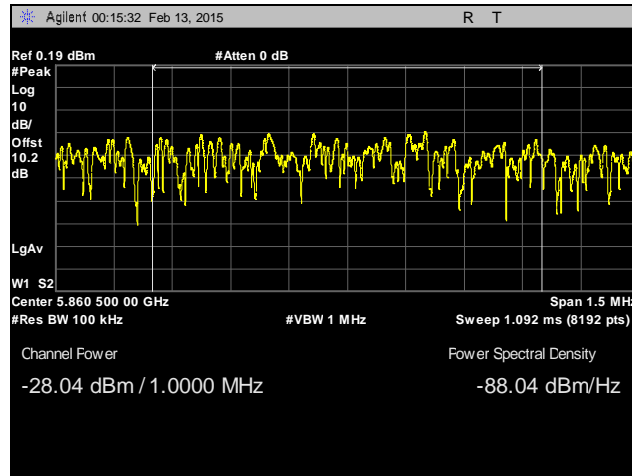
Plot 465. Radiated Band Edge, 5833 MHz, 5850 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



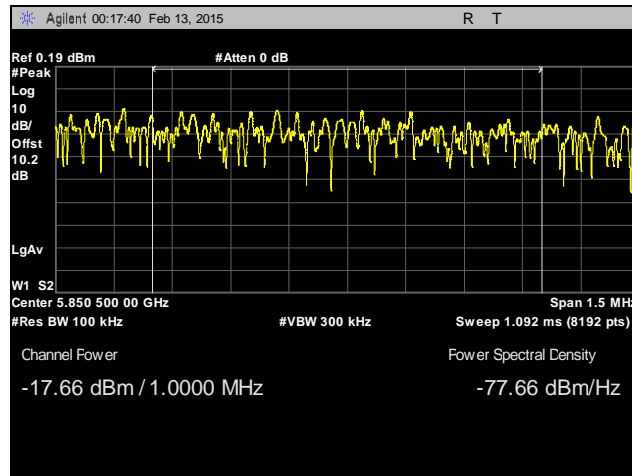
Plot 466. Radiated Band Edge, 5833 MHz, 5860 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna



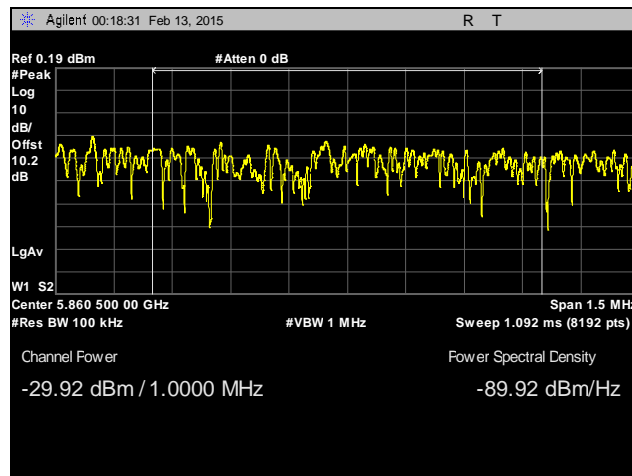
Plot 467. Radiated Band Edge, 5835 MHz, 5850 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



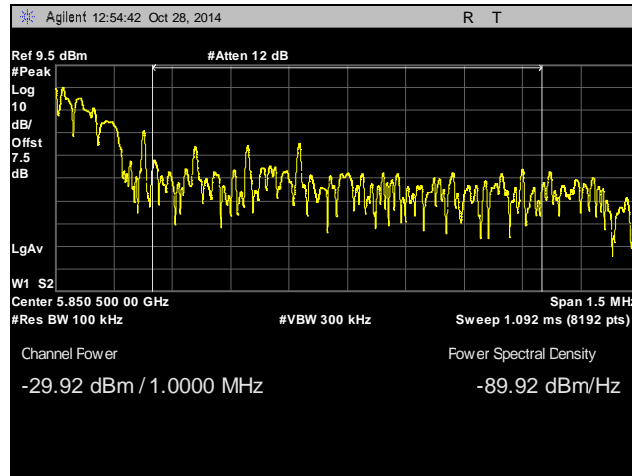
Plot 468. Radiated Band Edge, 5835 MHz, 5860 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna



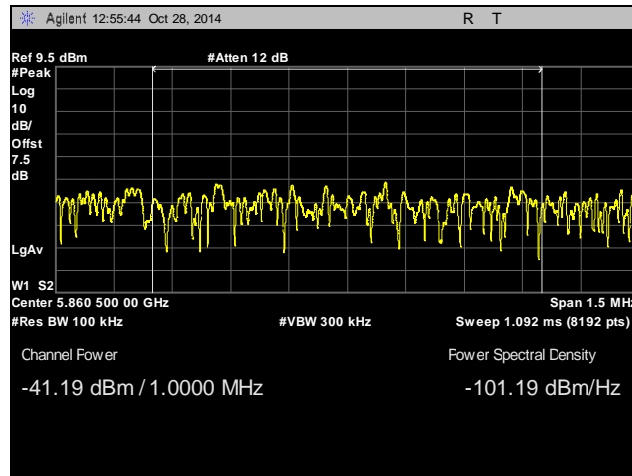
Plot 469. Radiated Band Edge, 5839 MHz, 5850 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna



Plot 470. Radiated Band Edge, 5839 MHz, 5860 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna

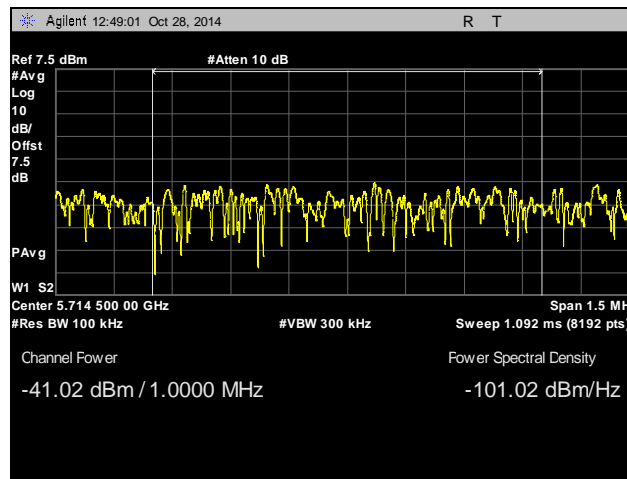


Plot 471. Radiated Band Edge, 5845 MHz, 5850 Band Edge, -17 dBm, 10 MHz, 23 dBi Antenna

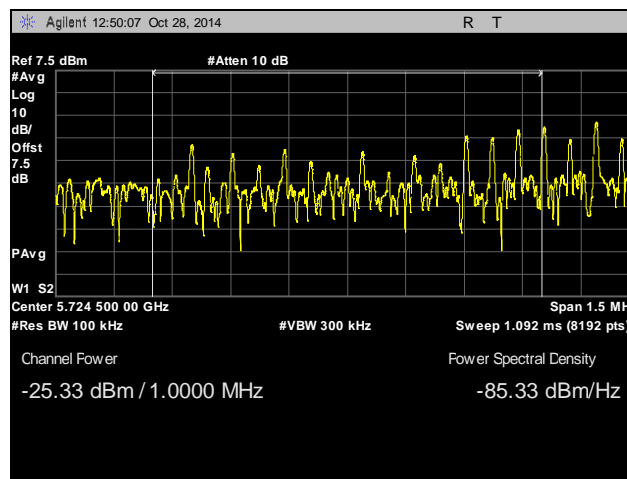


Plot 472. Radiated Band Edge, 5845 MHz, 5860 Band Edge, -27 dBm, 10 MHz, 23 dBi Antenna

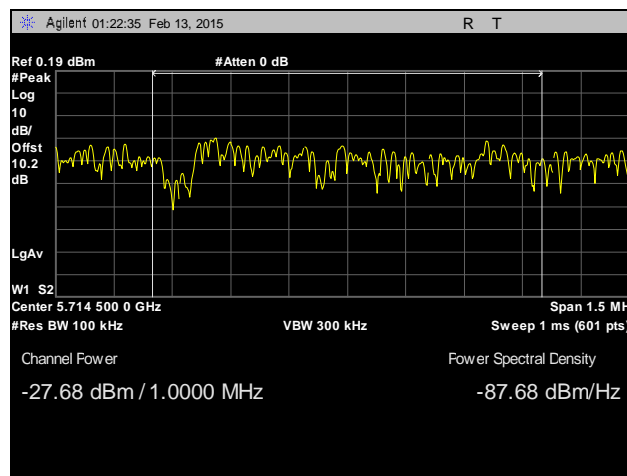
Radiated Band Edge, 20 MHz, UNII 3, 23 dBi Antenna



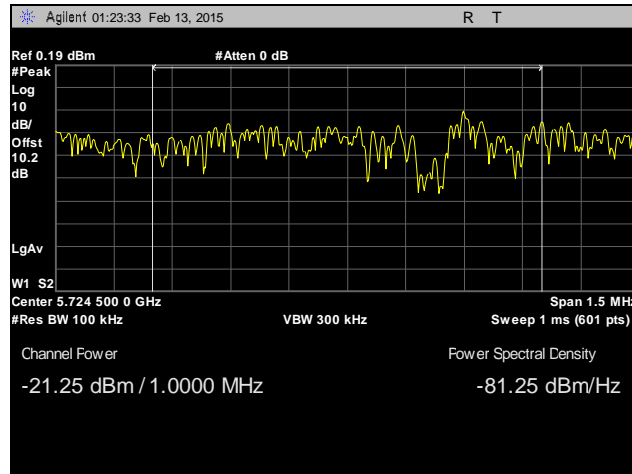
Plot 473. Radiated Band Edge, 5735 MHz, 5715 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna



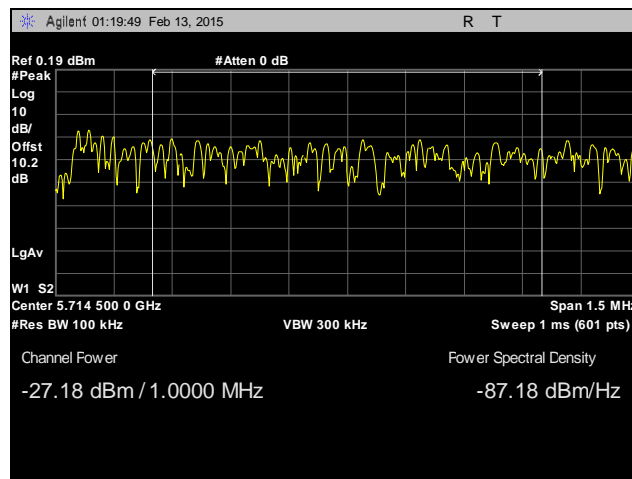
Plot 474. Radiated Band Edge, 5735 MHz, 5725 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



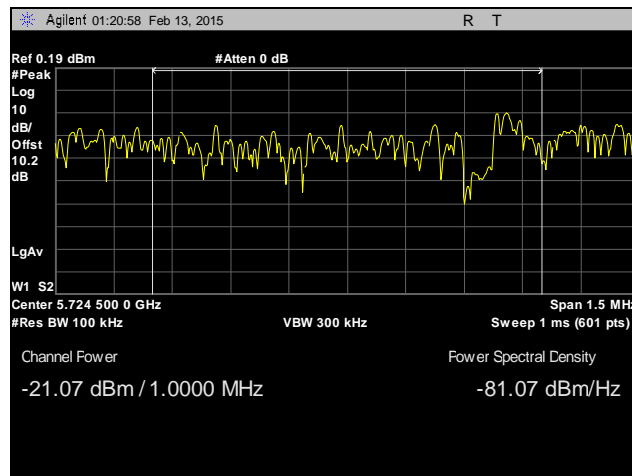
Plot 475. Radiated Band Edge, 5750 MHz, 5715 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna



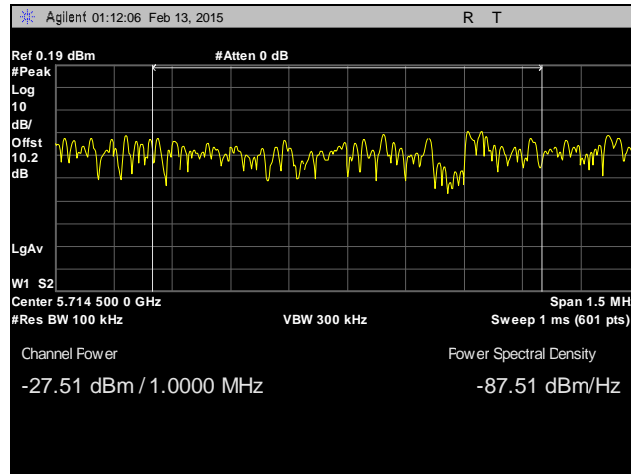
Plot 476. Radiated Band Edge, 5750 MHz, 5725 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



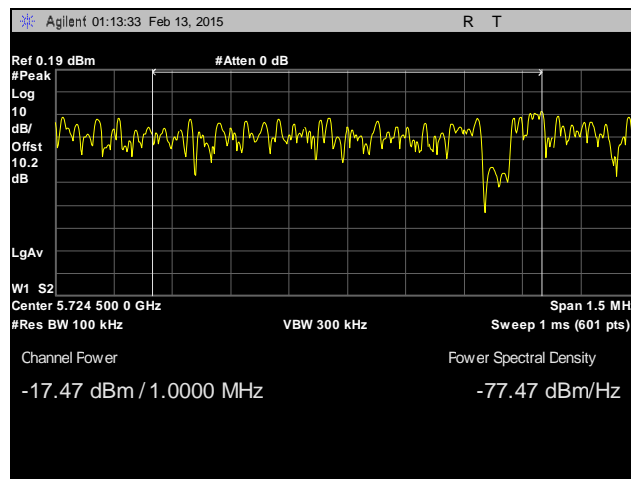
Plot 477. Radiated Band Edge, 5755 MHz, 5715 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna



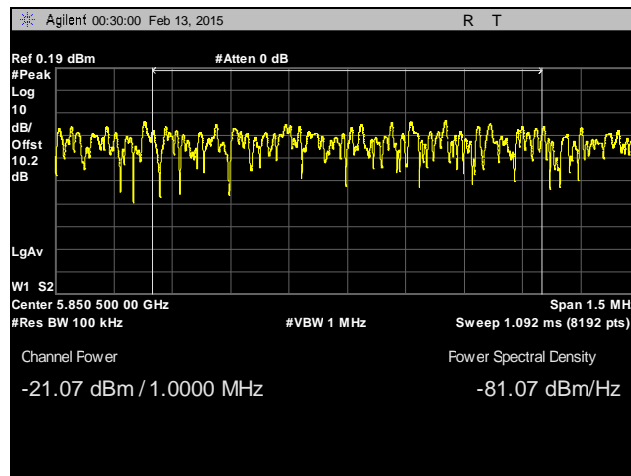
Plot 478. Radiated Band Edge, 5755 MHz, 5725 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



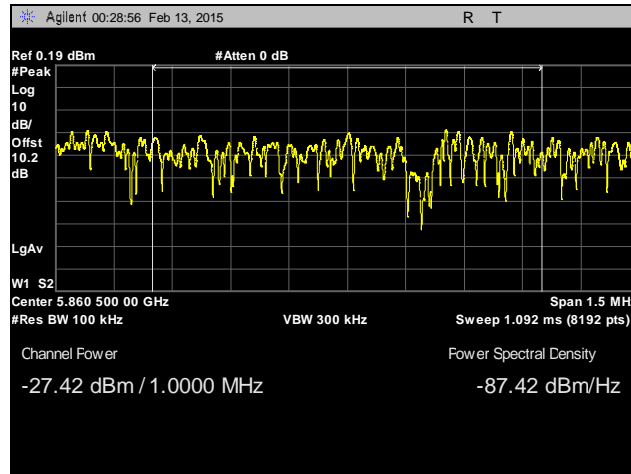
Plot 479. Radiated Band Edge, 5760 MHz, 5715 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna



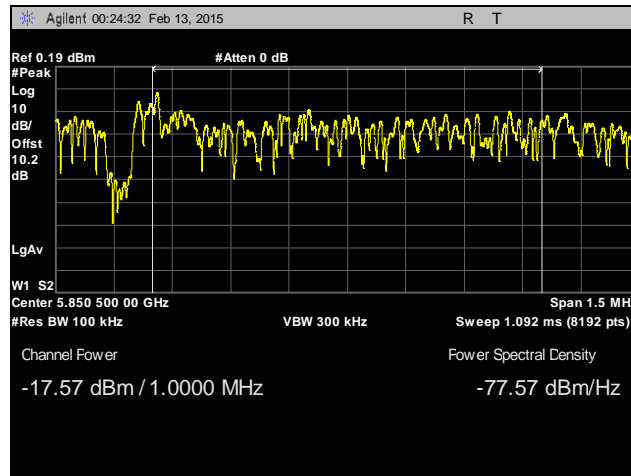
Plot 480. Radiated Band Edge, 5760 MHz, 5725 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



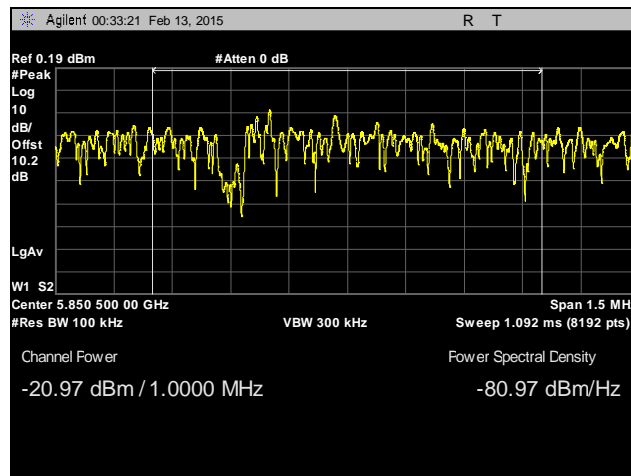
Plot 481. Radiated Band Edge, 5820 MHz, 5850 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



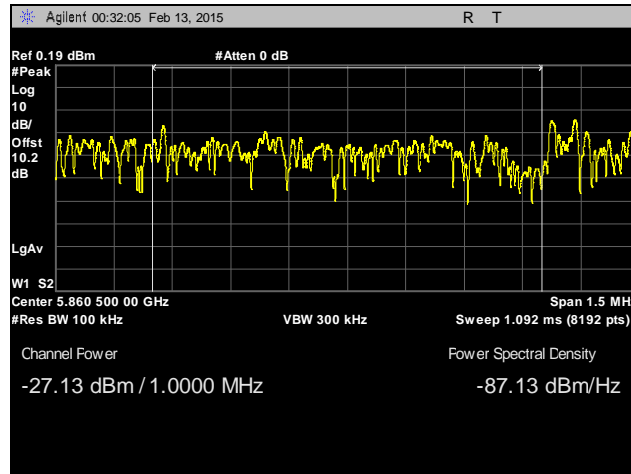
Plot 482. Radiated Band Edge, 5820 MHz, 5860 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna



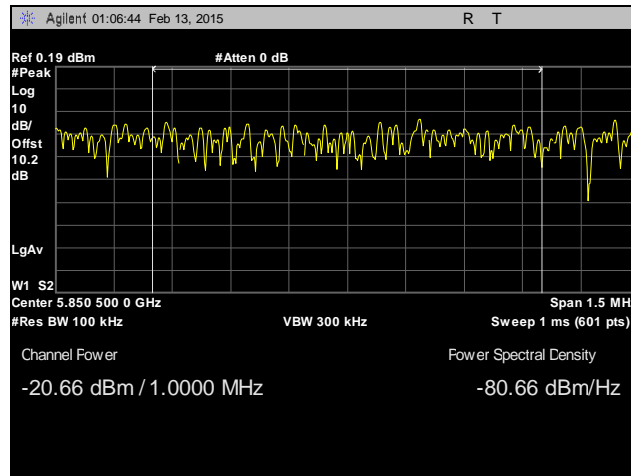
Plot 483. Radiated Band Edge, 5823 MHz, 5850 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



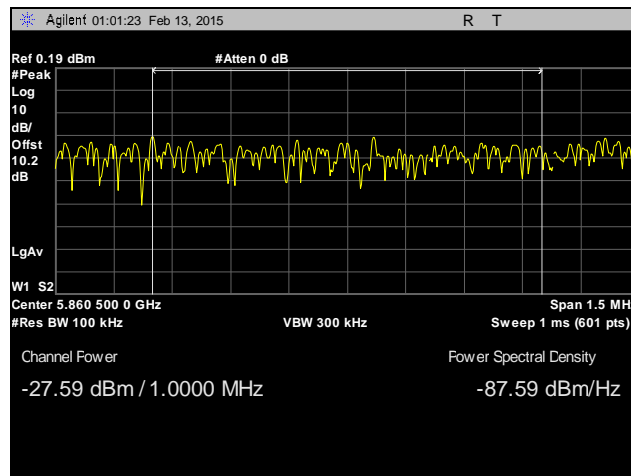
Plot 484. Radiated Band Edge, 5825 MHz, 5850 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



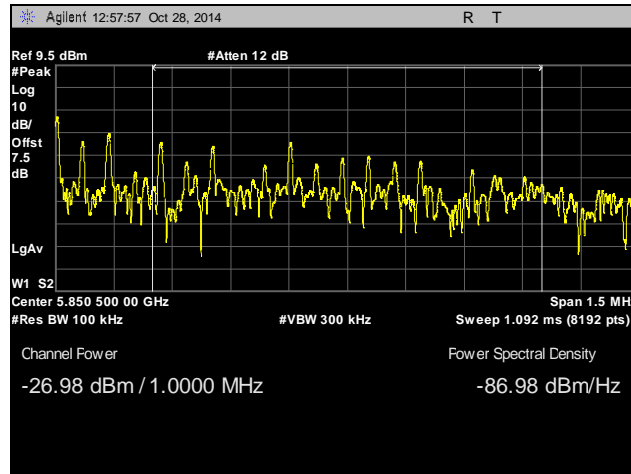
Plot 485. Radiated Band Edge, 5825 MHz, 5860 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna



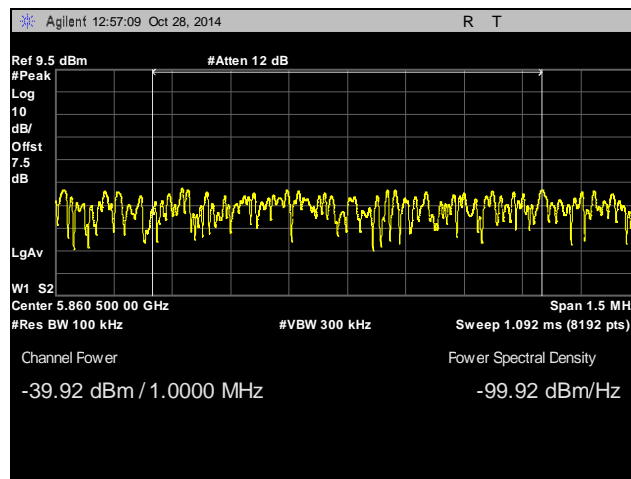
Plot 486. Radiated Band Edge, 5830 MHz, 5850 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna



Plot 487. Radiated Band Edge, 5830 MHz, 5860 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna

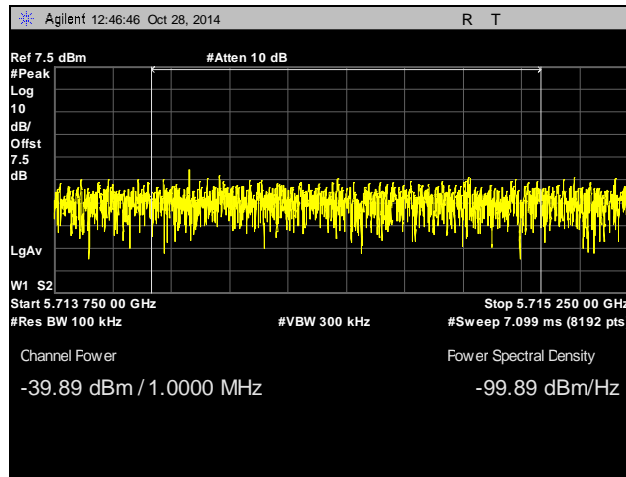


Plot 488. Radiated Band Edge, 5840 MHz, 5850 Band Edge, -17 dBm, 20 MHz, 23 dBi Antenna

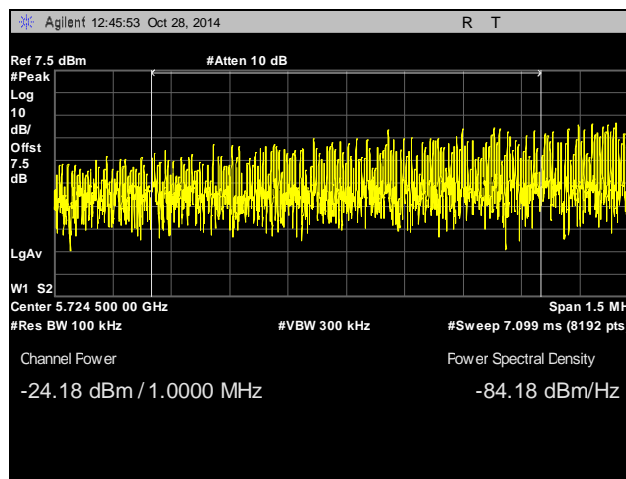


Plot 489. Radiated Band Edge, 5840 MHz, 5860 Band Edge, -27 dBm, 20 MHz, 23 dBi Antenna

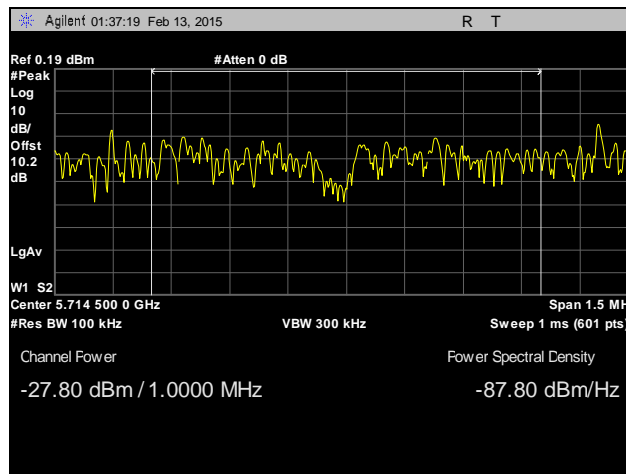
Radiated Band Edge, 30 MHz, UNII 3, 23 dBi Antenna



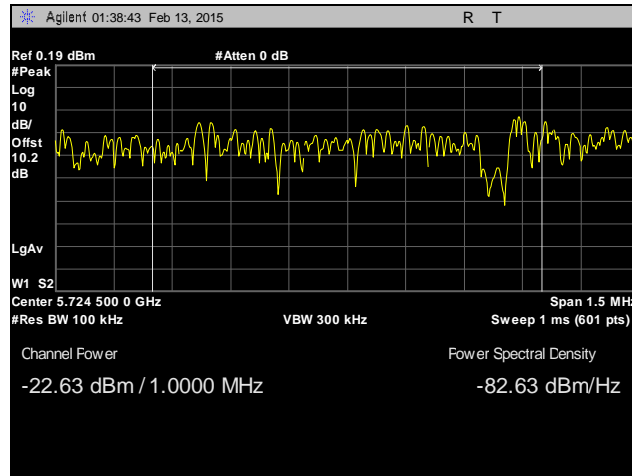
Plot 490. Radiated Band Edge, 5740 MHz, 5715 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna



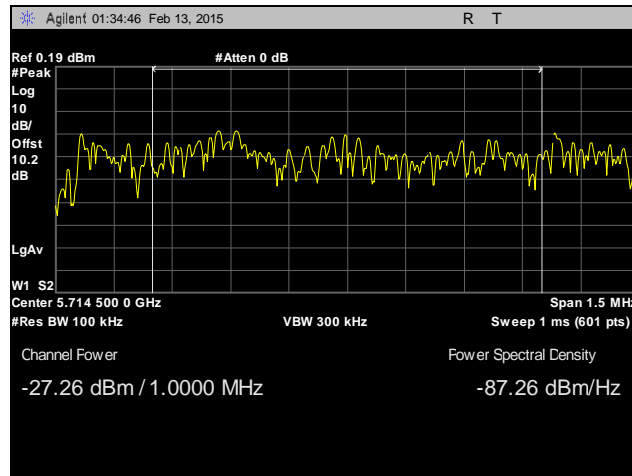
Plot 491. Radiated Band Edge, 5740 MHz, 5725 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



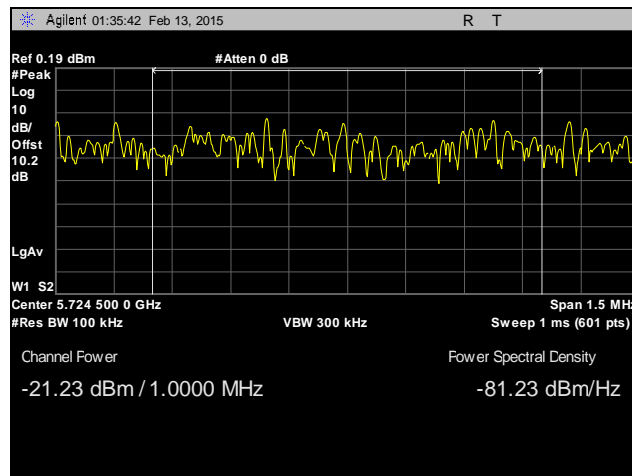
Plot 492. Radiated Band Edge, 5765 MHz, 5715 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna



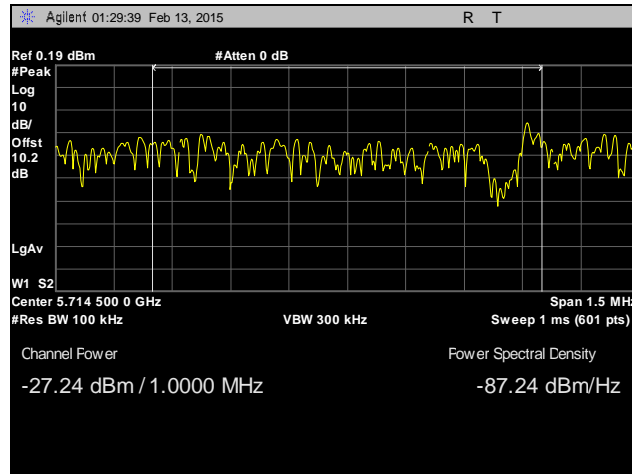
Plot 493. Radiated Band Edge, 5765 MHz, 5725 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



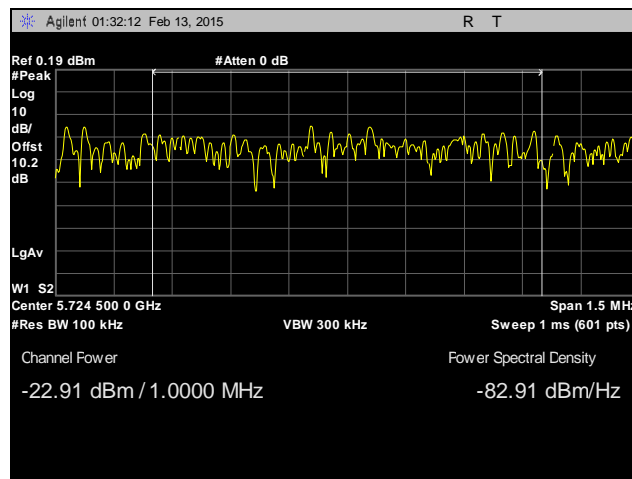
Plot 494. Radiated Band Edge, 5770 MHz, 5715 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna



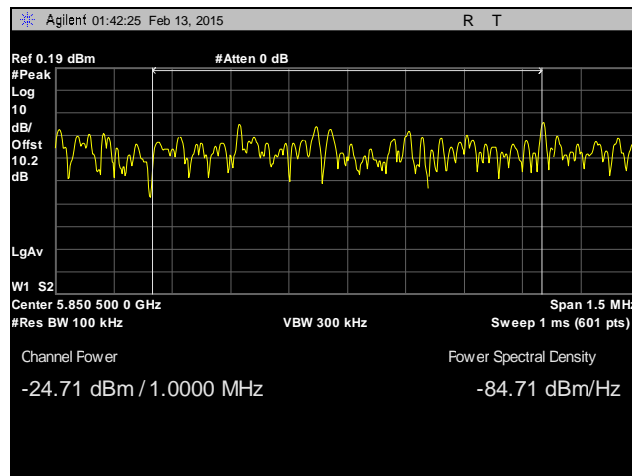
Plot 495. Radiated Band Edge, 5770 MHz, 5725 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



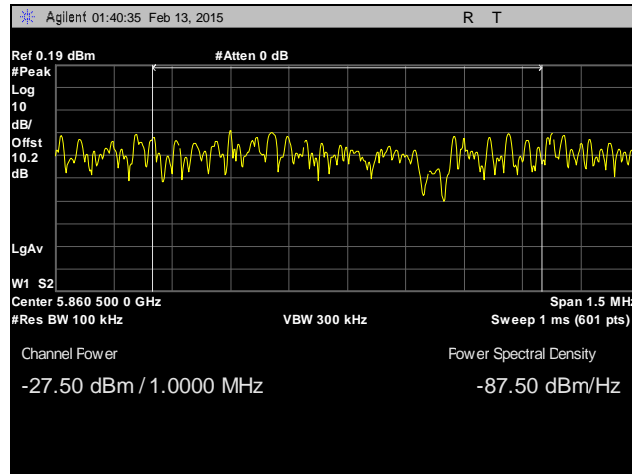
Plot 496. Radiated Band Edge, 5775 MHz, 5715 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna



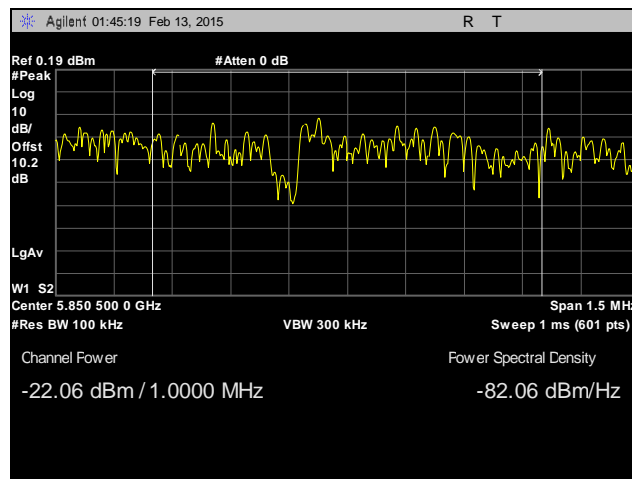
Plot 497. Radiated Band Edge, 5775 MHz, 5725 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



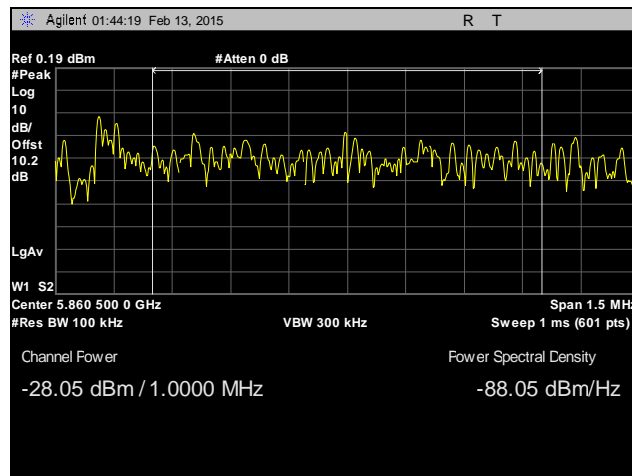
Plot 498. Radiated Band Edge, 5820 MHz, 5850 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



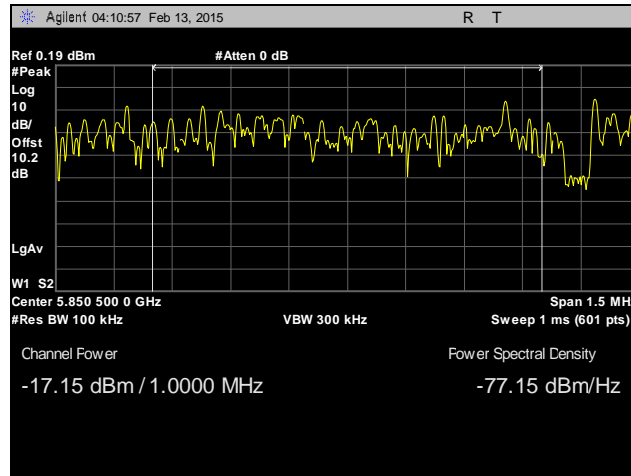
Plot 499. Radiated Band Edge, 5820 MHz, 5860 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna



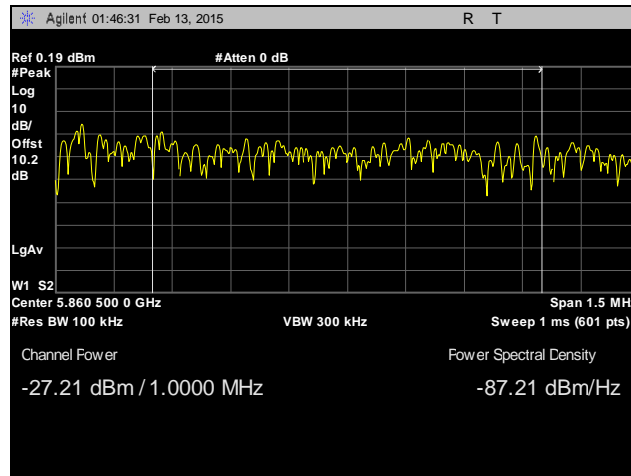
Plot 500. Radiated Band Edge, 5825 MHz, 5850 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



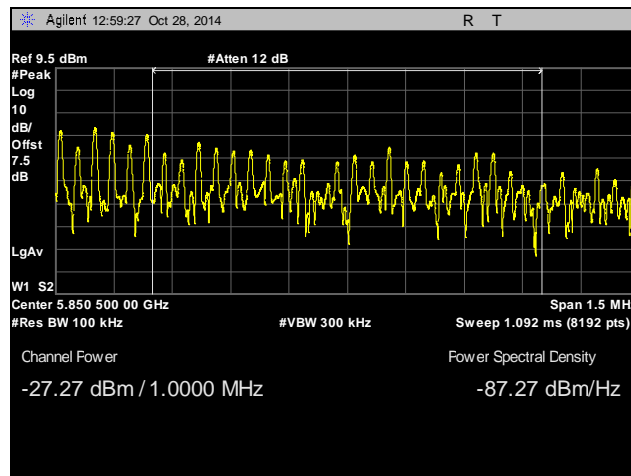
Plot 501. Radiated Band Edge, 5825 MHz, 5860 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna



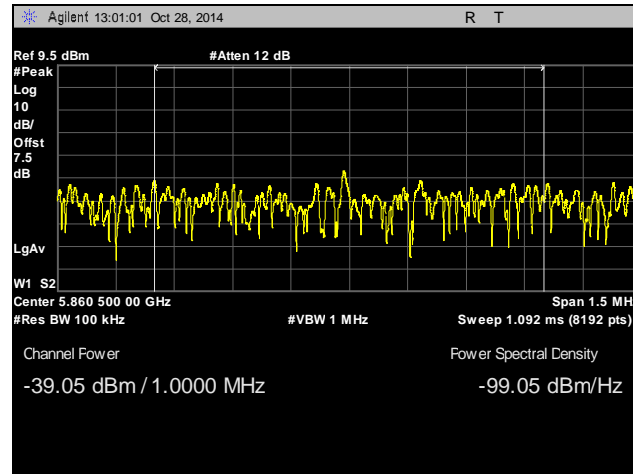
Plot 502. Radiated Band Edge, 5830 MHz, 5850 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna



Plot 503. Radiated Band Edge, 5830 MHz, 5860 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna

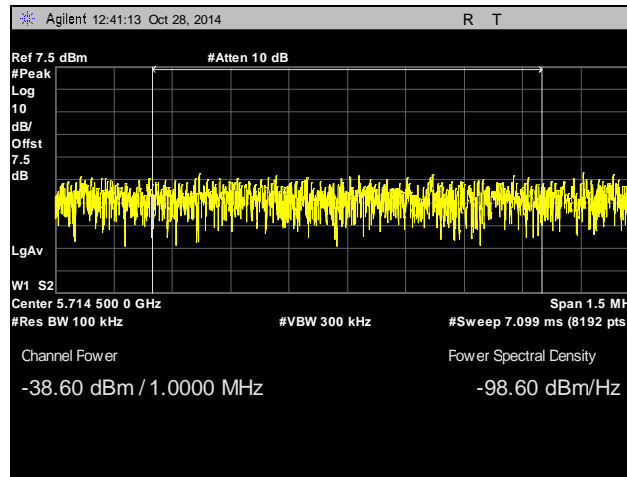


Plot 504. Radiated Band Edge, 5835 MHz, 5850 Band Edge, -17 dBm, 30 MHz, 23 dBi Antenna

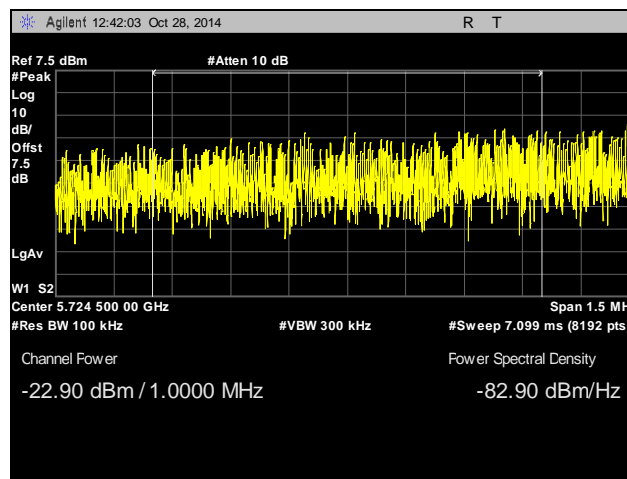


Plot 505. Radiated Band Edge, 5835 MHz, 5860 Band Edge, -27 dBm, 30 MHz, 23 dBi Antenna

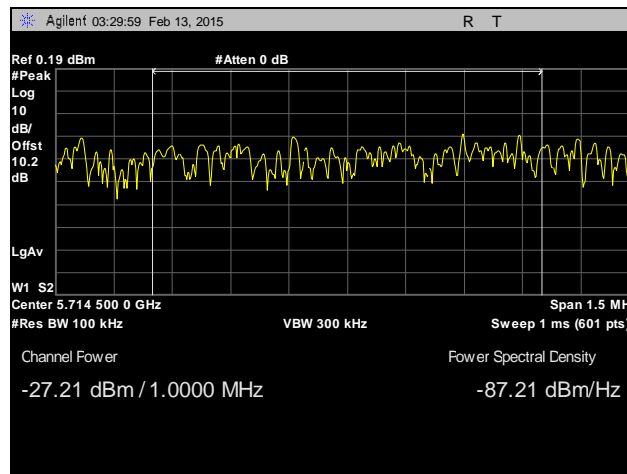
Radiated Band Edge, 40 MHz, UNII 3, 23 dBi Antenna



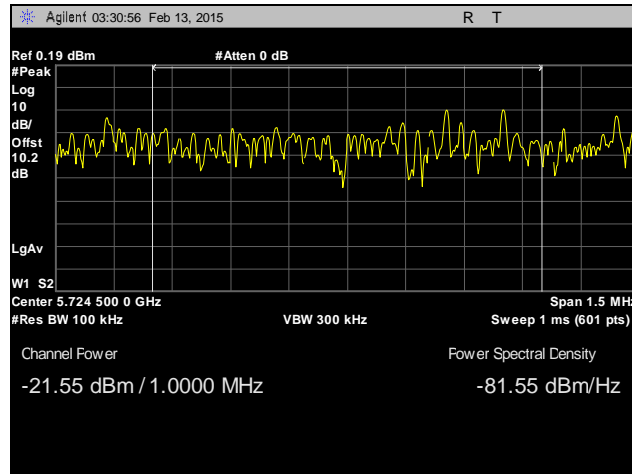
Plot 506. Radiated Band Edge, 5745 MHz, 5715 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna



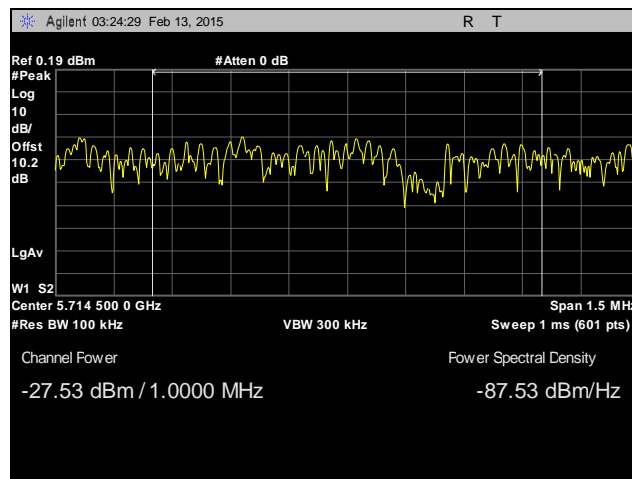
Plot 507. Radiated Band Edge, 5745 MHz, 5725 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



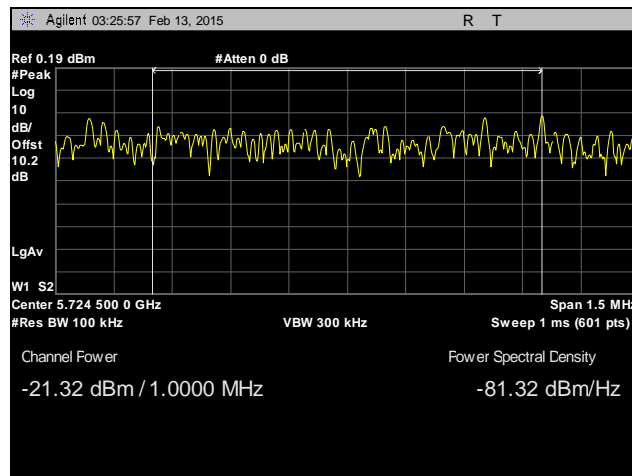
Plot 508. Radiated Band Edge, 5765 MHz, 5715 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna



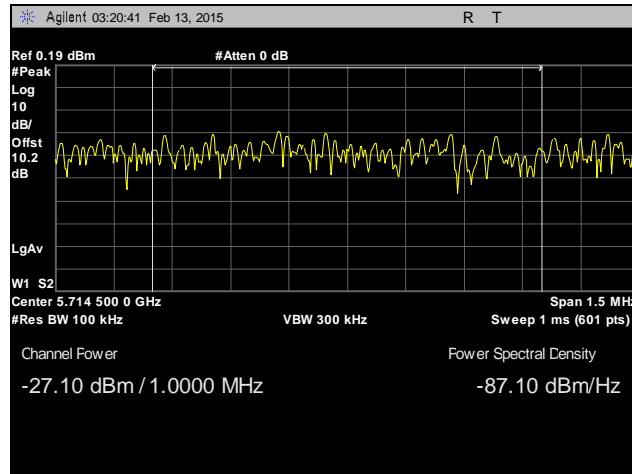
Plot 509. Radiated Band Edge, 5765 MHz, 5725 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



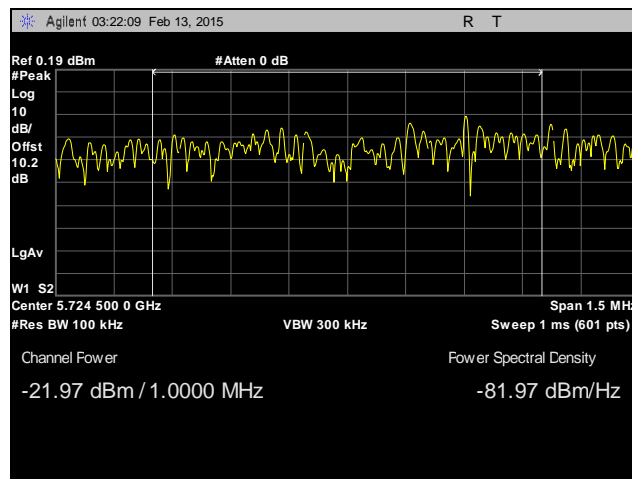
Plot 510. Radiated Band Edge, 5770 MHz, 5715 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna



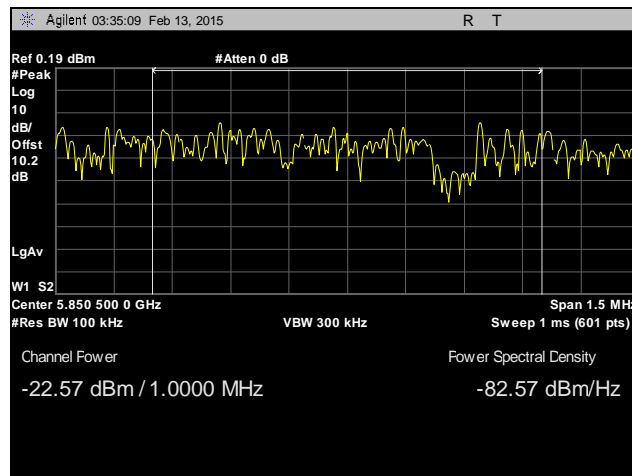
Plot 511. Radiated Band Edge, 5770 MHz, 5725 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



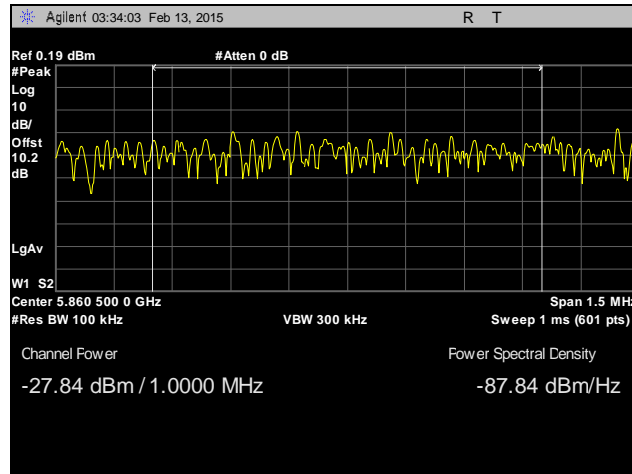
Plot 512. Radiated Band Edge, 5775 MHz, 5715 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna



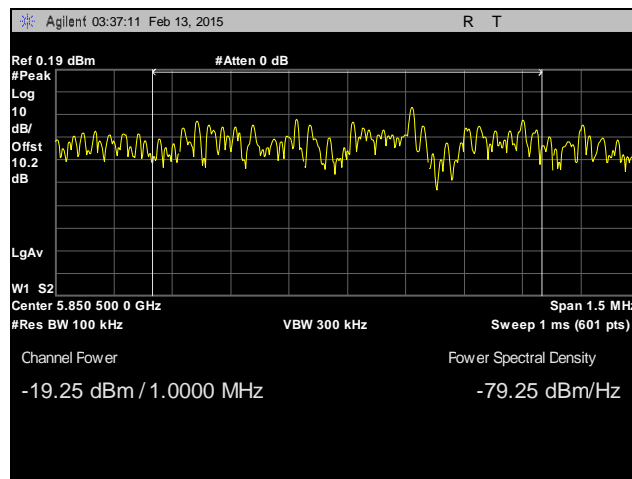
Plot 513. Radiated Band Edge, 5775 MHz, 5725 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



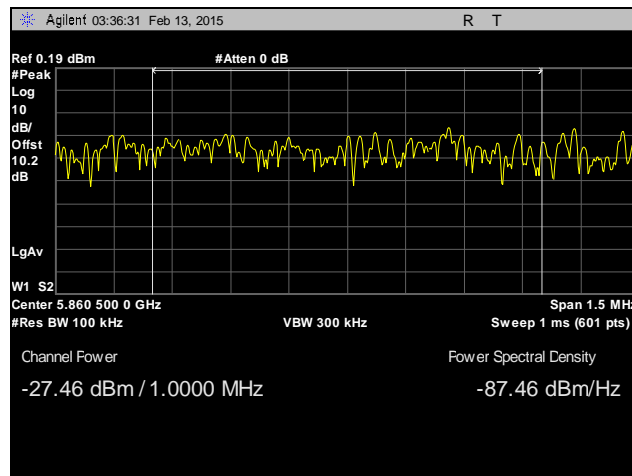
Plot 514. Radiated Band Edge, 5805 MHz, 5850 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



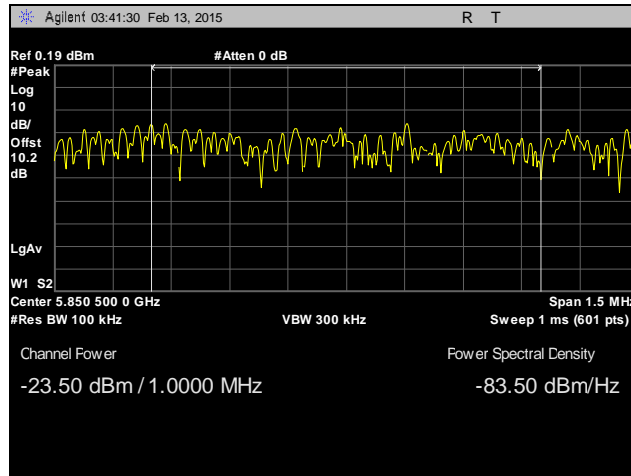
Plot 515. Radiated Band Edge, 5805 MHz, 5860 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna



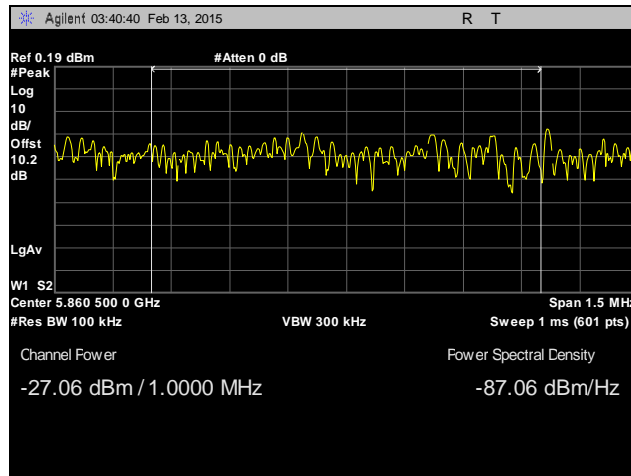
Plot 516. Radiated Band Edge, 5810 MHz, 5850 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



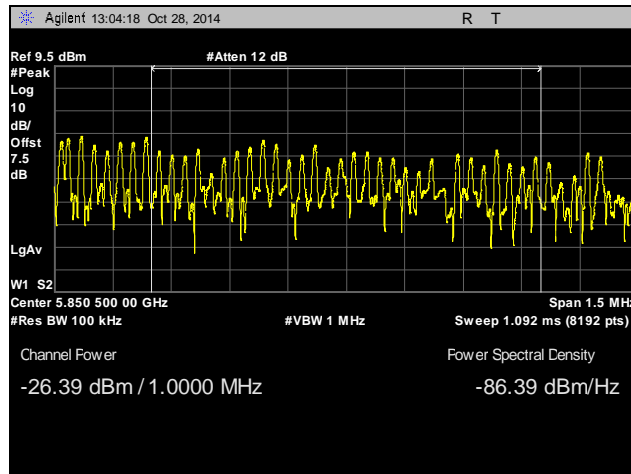
Plot 517. Radiated Band Edge, 5810 MHz, 5860 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna



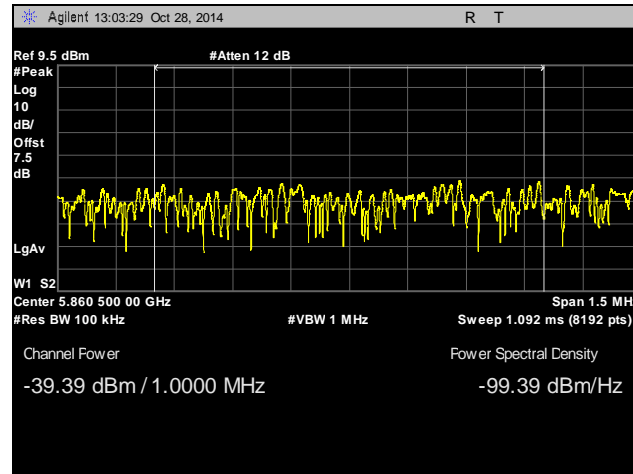
Plot 518. Radiated Band Edge, 5815 MHz, 5850 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna



Plot 519. Radiated Band Edge, 5815 MHz, 5860 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna

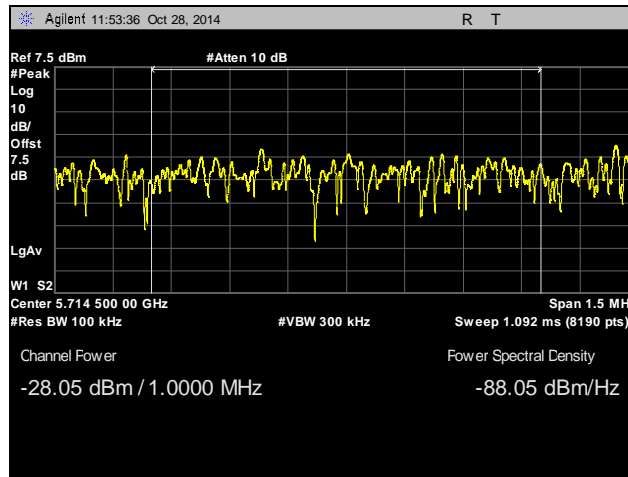


Plot 520. Radiated Band Edge, 5830 MHz, 5850 Band Edge, -17 dBm, 40 MHz, 23 dBi Antenna

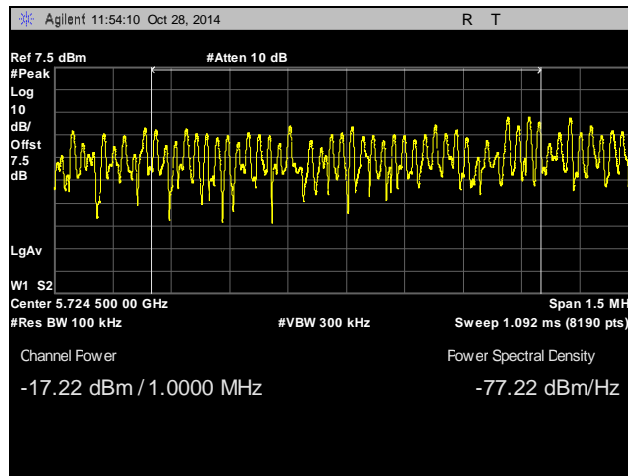


Plot 521. Radiated Band Edge, 5830 MHz, 5860 Band Edge, -27 dBm, 40 MHz, 23 dBi Antenna

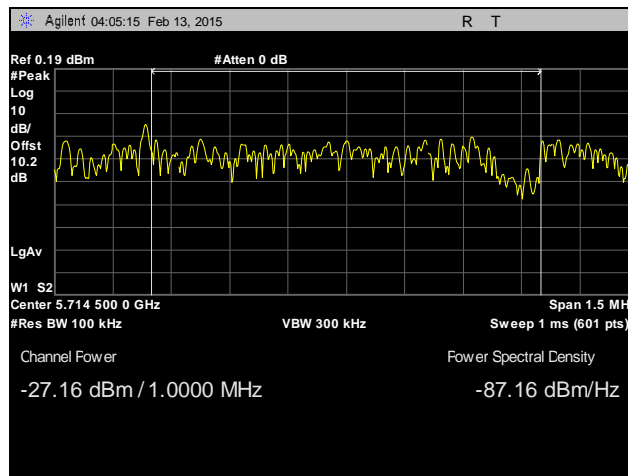
Radiated Band Edge, 50 MHz, UNII 3, 23 dBi Antenna



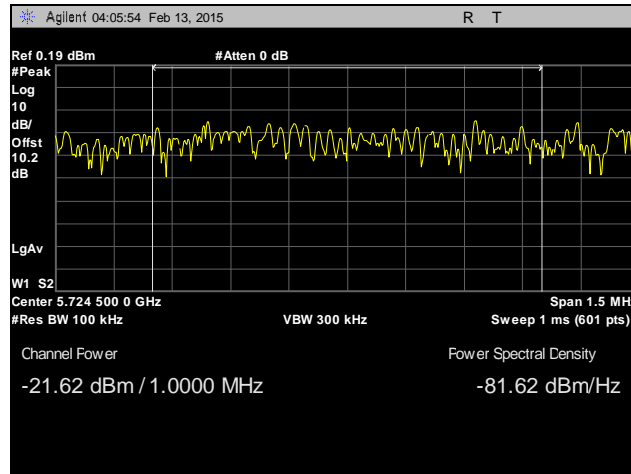
Plot 522. Radiated Band Edge, 5750 MHz, 5715 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna



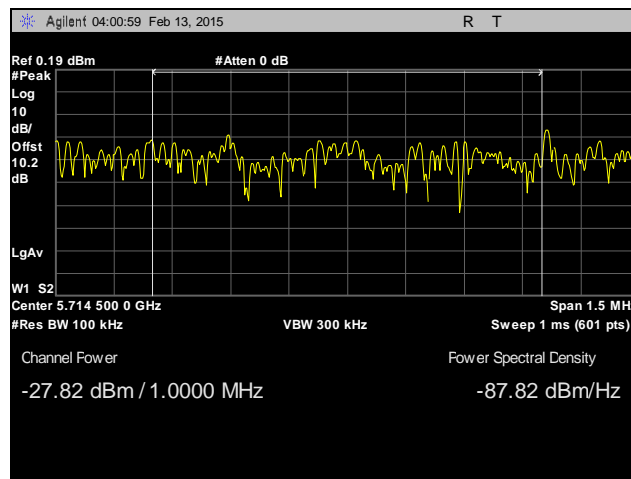
Plot 523. Radiated Band Edge, 5750 MHz, 5725 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



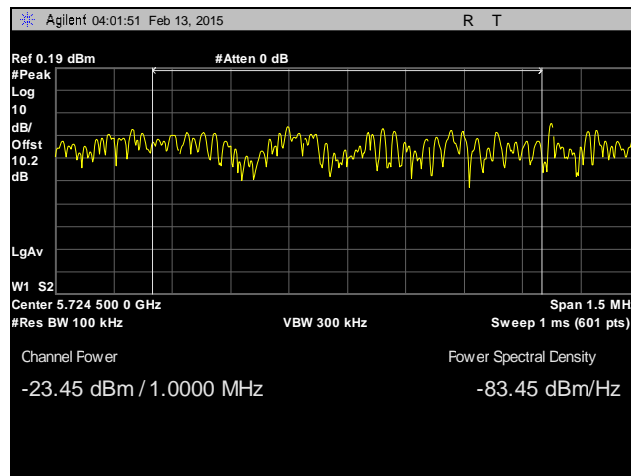
Plot 524. Radiated Band Edge, 5765 MHz, 5715 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna



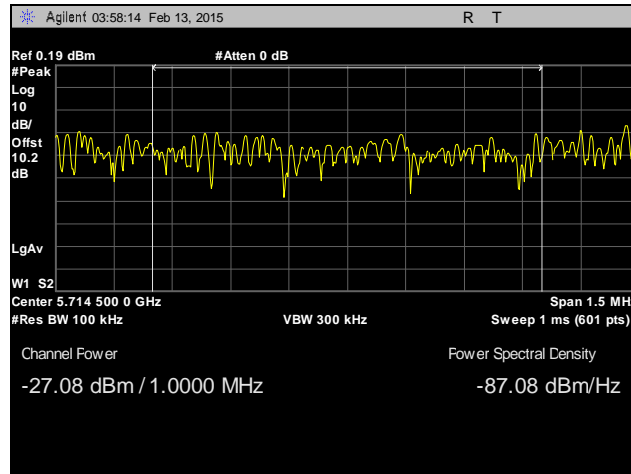
Plot 525. Radiated Band Edge, 5765 MHz, 5725 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



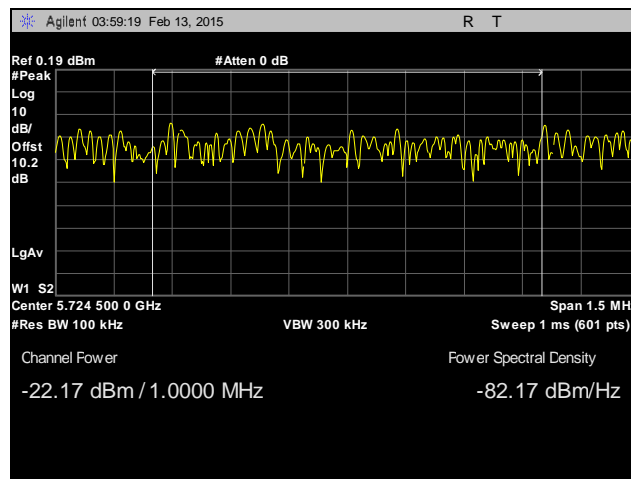
Plot 526. Radiated Band Edge, 5770 MHz, 5715 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna



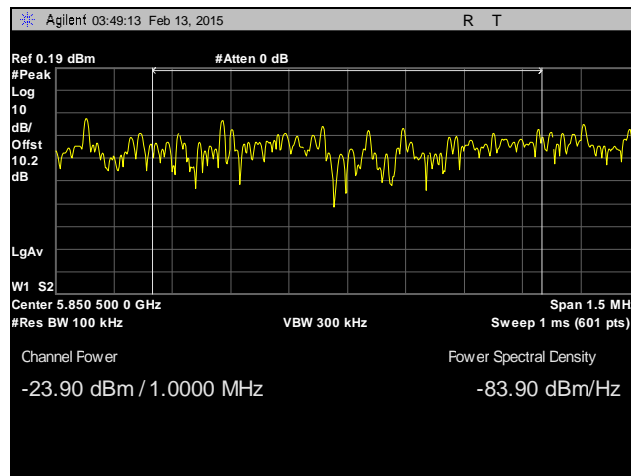
Plot 527. Radiated Band Edge, 5770 MHz, 5725 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



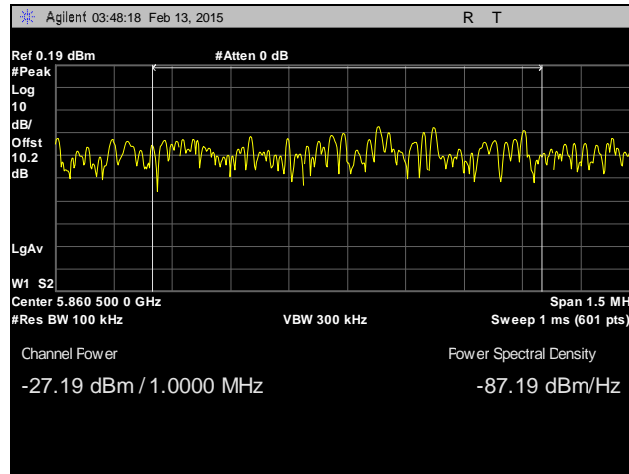
Plot 528. Radiated Band Edge, 5775 MHz, 5715 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna



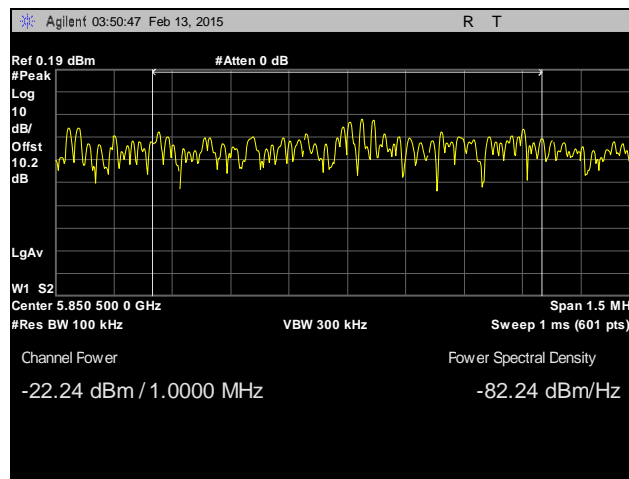
Plot 529. Radiated Band Edge, 5775 MHz, 5725 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



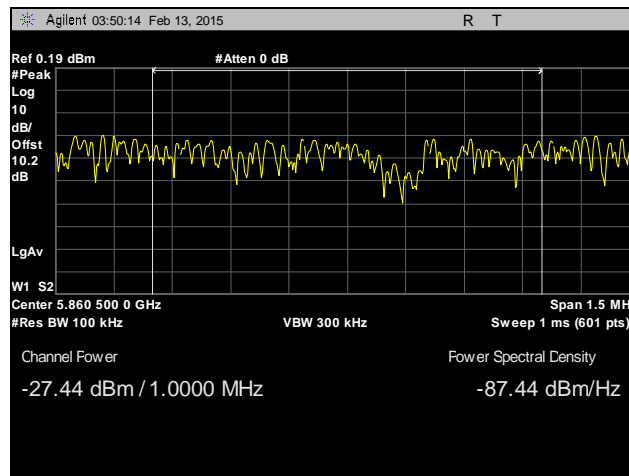
Plot 530. Radiated Band Edge, 5800 MHz, 5850 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



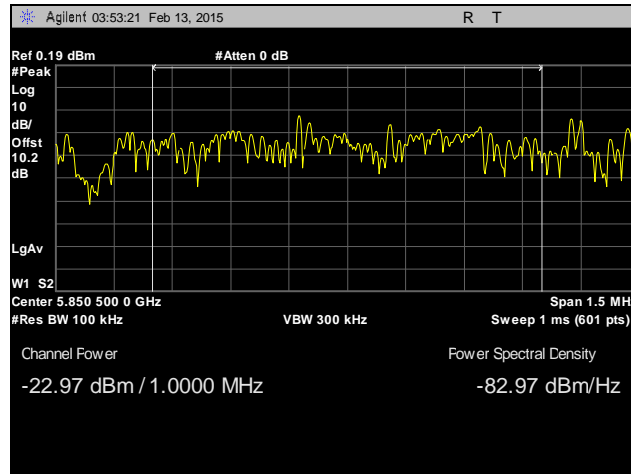
Plot 531. Radiated Band Edge, 5800 MHz, 5860 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna



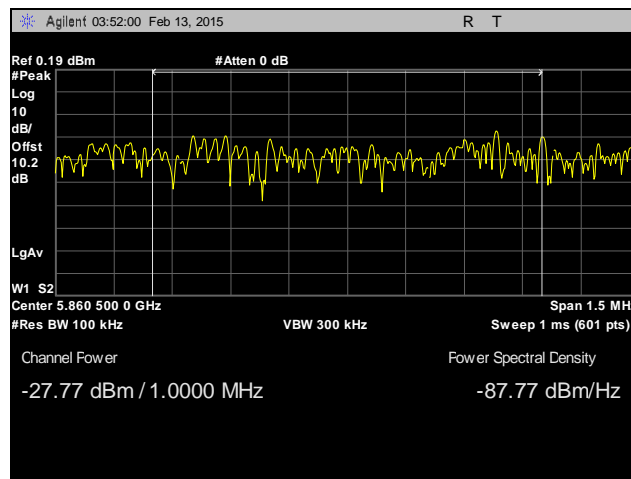
Plot 532. Radiated Band Edge, 5805 MHz, 5850 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



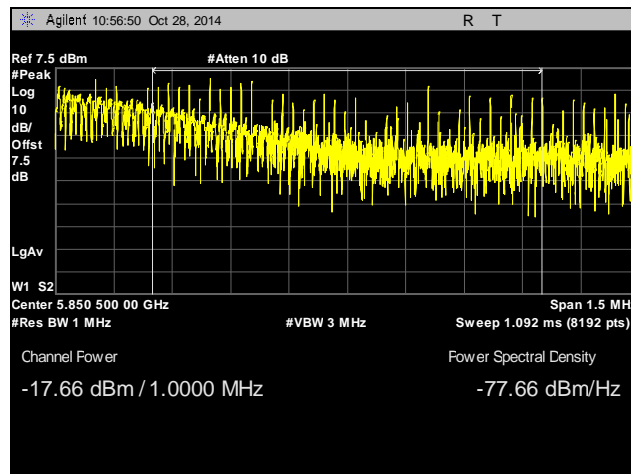
Plot 533. Radiated Band Edge, 5805 MHz, 5860 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna



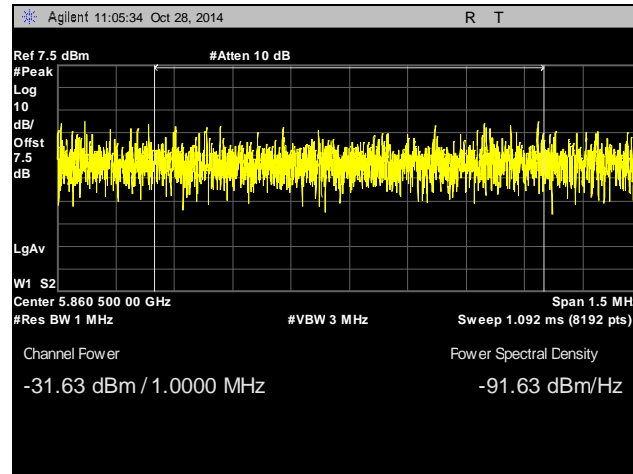
Plot 534. Radiated Band Edge, 5810 MHz, 5850 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna



Plot 535. Radiated Band Edge, 5810 MHz, 5860 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna

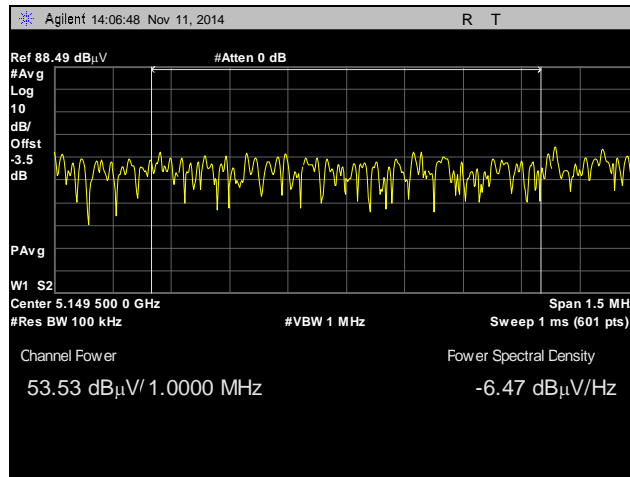


Plot 536. Radiated Band Edge, 5825 MHz, 5850 Band Edge, -17 dBm, 50 MHz, 23 dBi Antenna

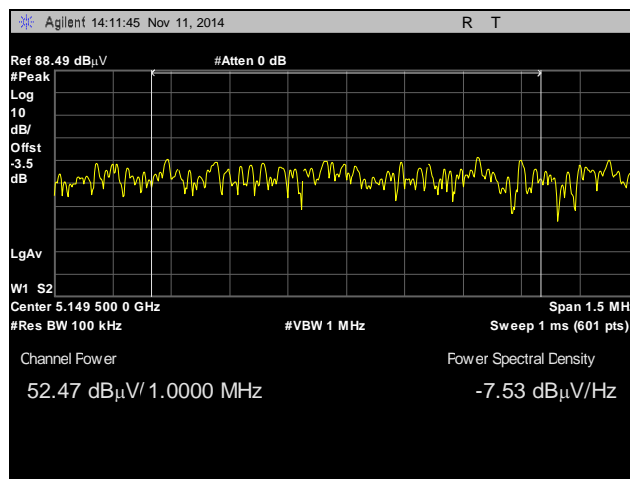


Plot 537. Radiated Band Edge, 5825 MHz, 5860 Band Edge, -27 dBm, 50 MHz, 23 dBi Antenna

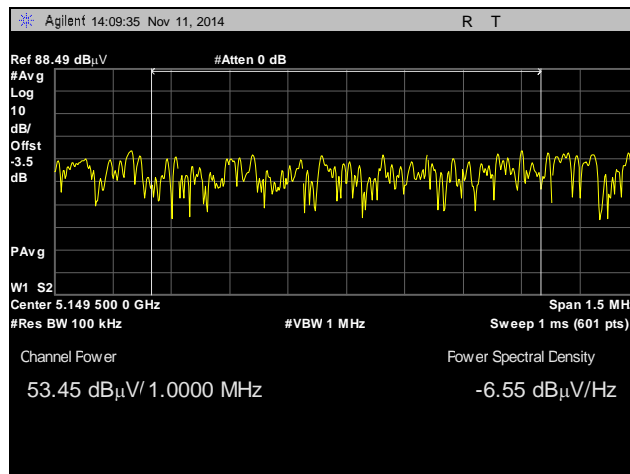
Radiated Restricted Band Emissions, 10 MHz, UNII 1



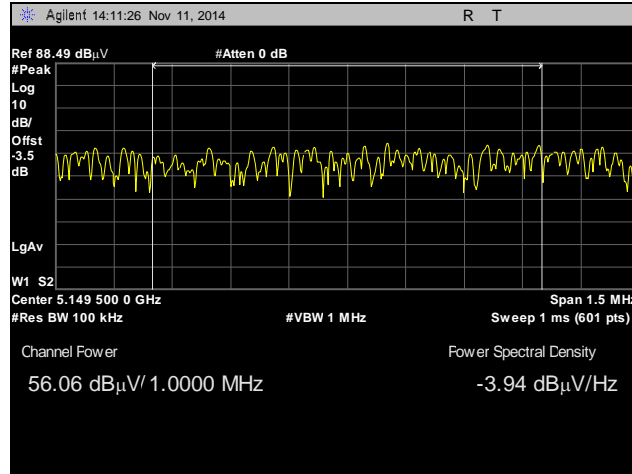
Plot 538. Radiated Restricted Band Emissions, 5160 MHz, Low Edge, 10 MHz, Average



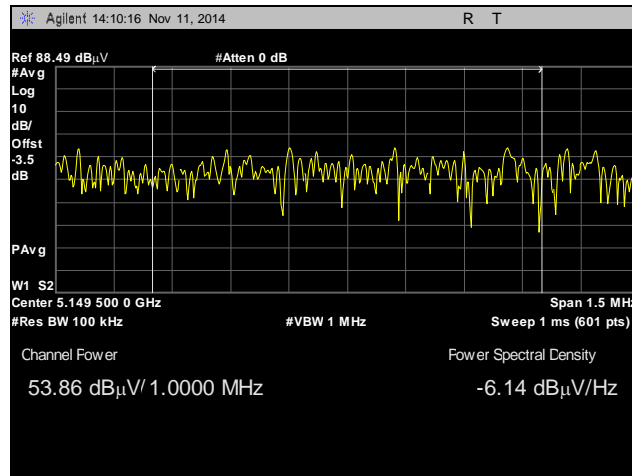
Plot 539. Radiated Restricted Band Emissions, 5160 MHz, Low Edge, 10 MHz, Peak



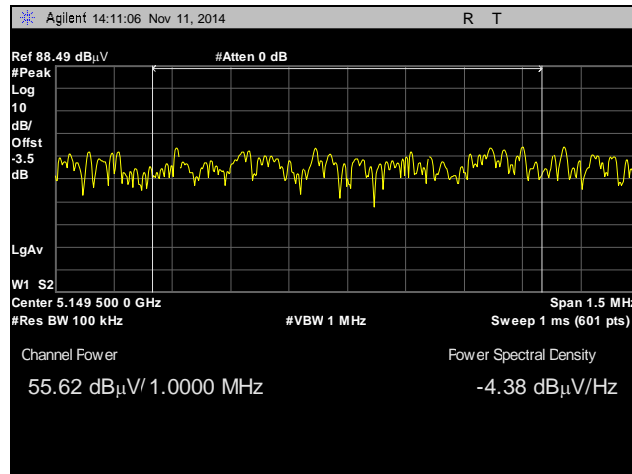
Plot 540. Radiated Restricted Band Emissions, 5171 MHz, Low Edge, 10 MHz, Average



Plot 541. Radiated Restricted Band Emissions, 5171 MHz, Low Edge, 10 MHz, Peak

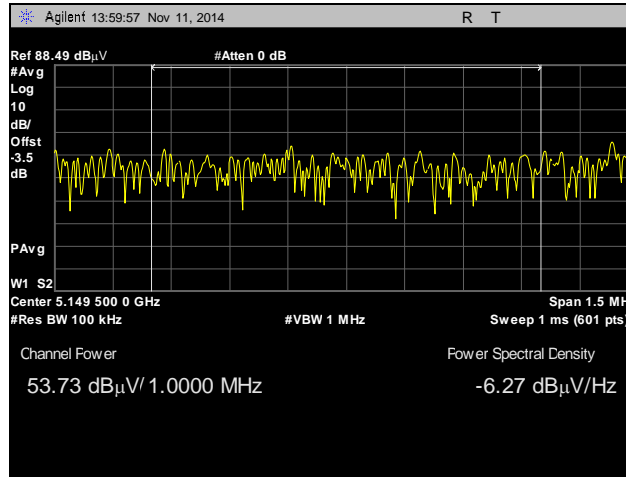


Plot 542. Radiated Restricted Band Emissions, 5182 MHz, Low Edge, 10 MHz, Average

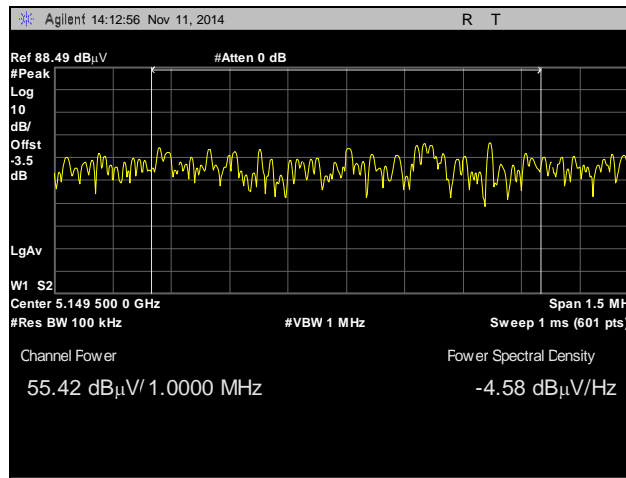


Plot 543. Radiated Restricted Band Emissions, 5182 MHz, Low Edge, 10 MHz, Peak

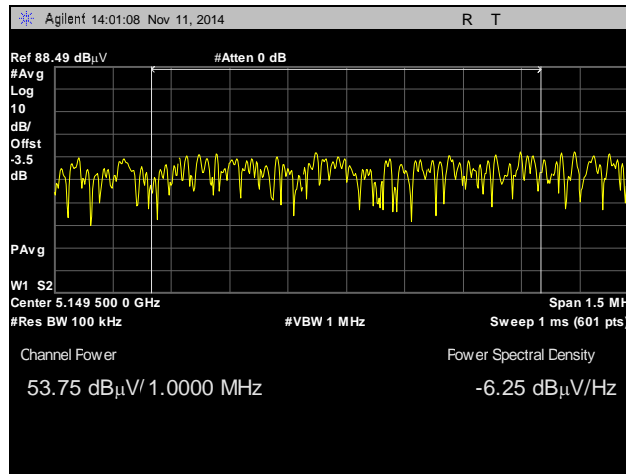
Radiated Restricted Band Emissions, 20 MHz, UNII 1



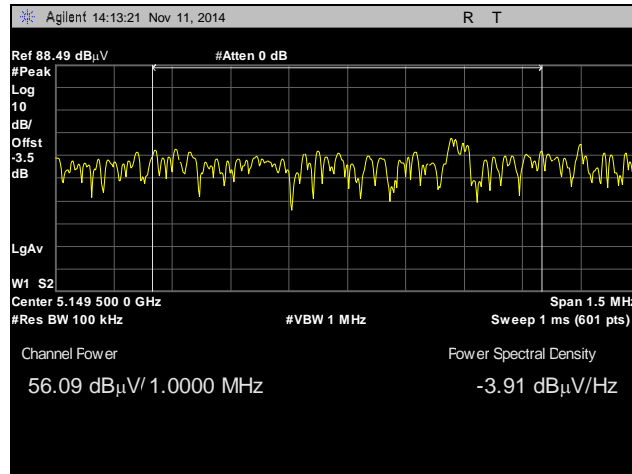
Plot 544. Radiated Restricted Band Emissions, 5166 MHz, Low Edge, 20 MHz, Average



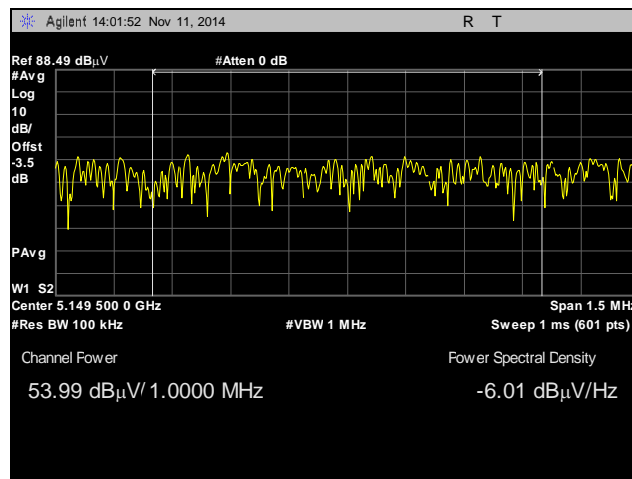
Plot 545. Radiated Restricted Band Emissions, 5166 MHz, Low Edge, 20 MHz, Peak



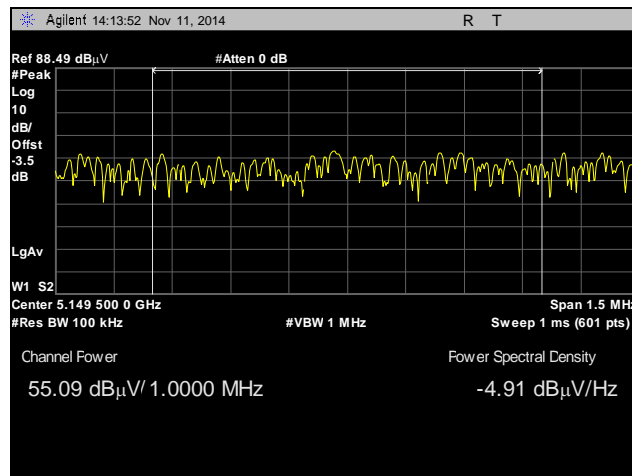
Plot 546. Radiated Restricted Band Emissions, 5171 MHz, Low Edge, 20 MHz, Average



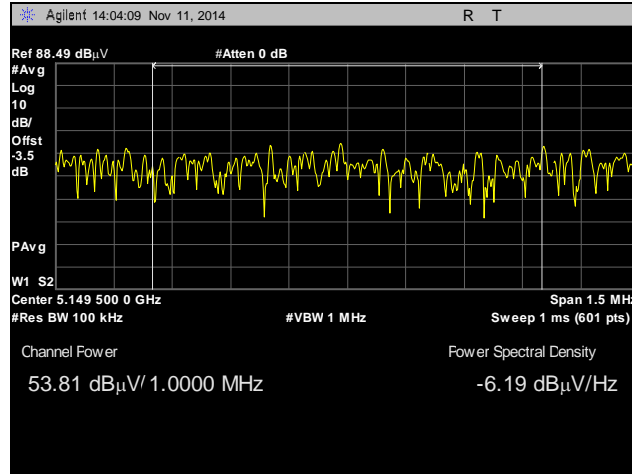
Plot 547. Radiated Restricted Band Emissions, 5171 MHz, Low Edge, 20 MHz, Peak



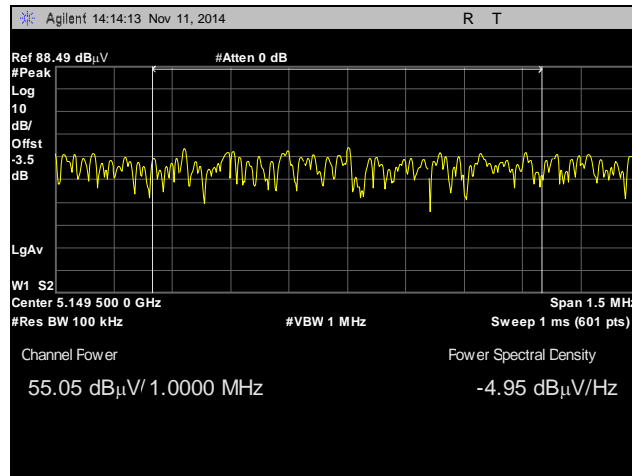
Plot 548. Radiated Restricted Band Emissions, 5176 MHz, Low Edge, 20 MHz, Average



Plot 549. Radiated Restricted Band Emissions, 5176 MHz, Low Edge, 20 MHz, Peak

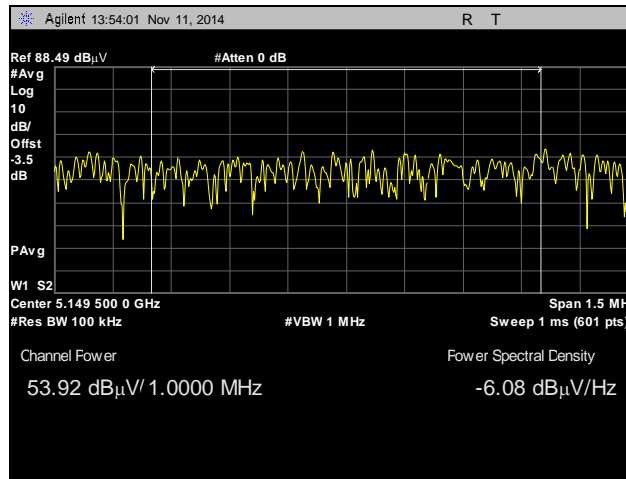


Plot 550. Radiated Restricted Band Emissions, 5200 MHz, Low Edge, 20 MHz, Average

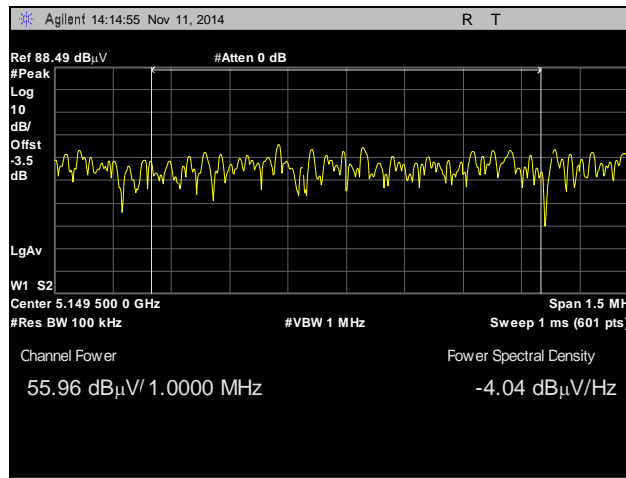


Plot 551. Radiated Restricted Band Emissions, 5200 MHz, Low Edge, 20 MHz, Peak

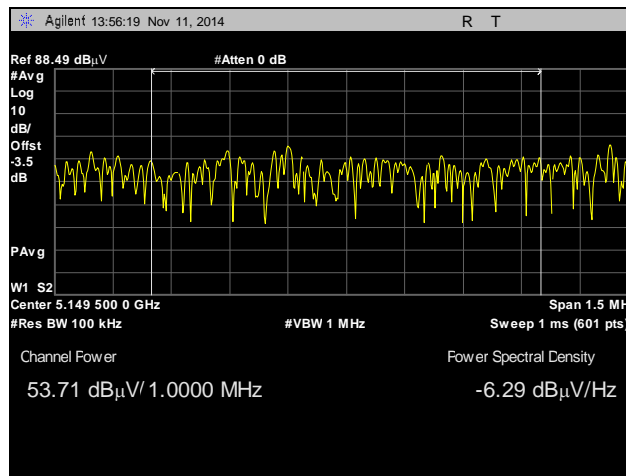
Radiated Restricted Band Emissions, 30 MHz, UNII 1



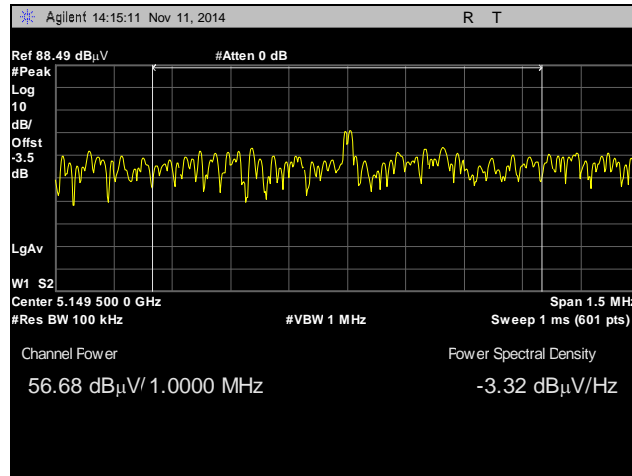
Plot 552. Radiated Restricted Band Emissions, 5170 MHz, Low Edge, 30 MHz, Average



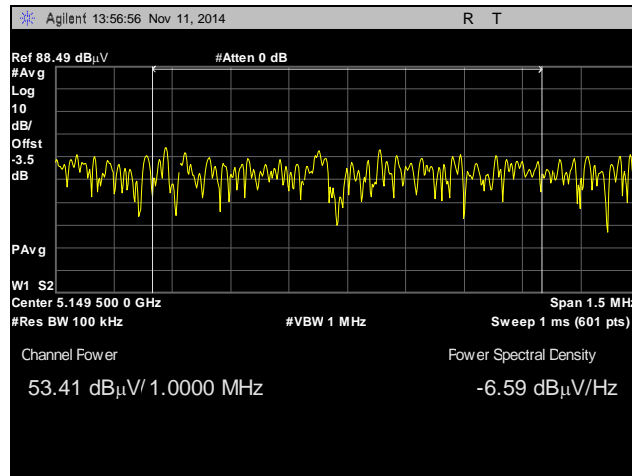
Plot 553. Radiated Restricted Band Emissions, 5170 MHz, Low Edge, 30 MHz, Peak



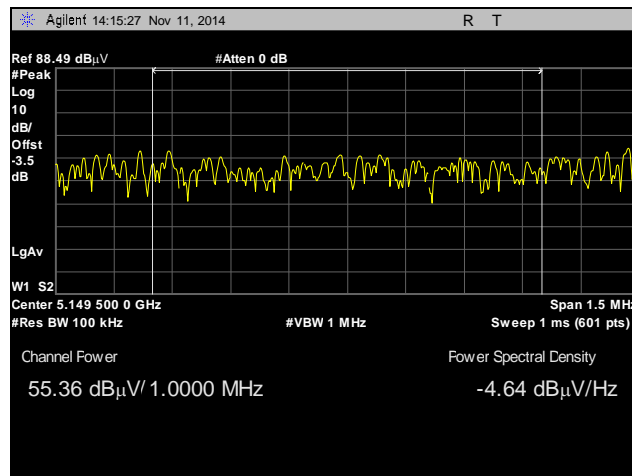
Plot 554. Radiated Restricted Band Emissions, 5178 MHz, Low Edge, 30 MHz, Average



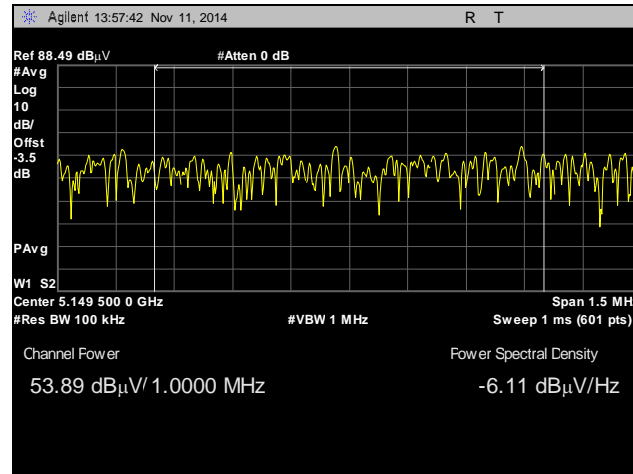
Plot 555. Radiated Restricted Band Emissions, 5178 MHz, Low Edge, 30 MHz, Peak



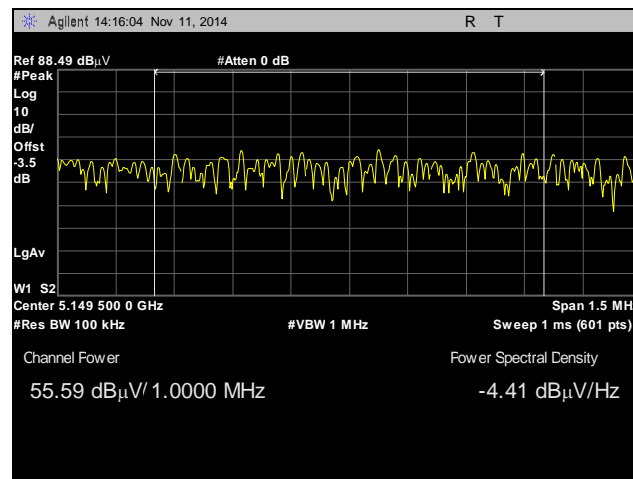
Plot 556. Radiated Restricted Band Emissions, 5188 MHz, Low Edge, 30 MHz, Average



Plot 557. Radiated Restricted Band Emissions, 5188 MHz, Low Edge, 30 MHz, Peak

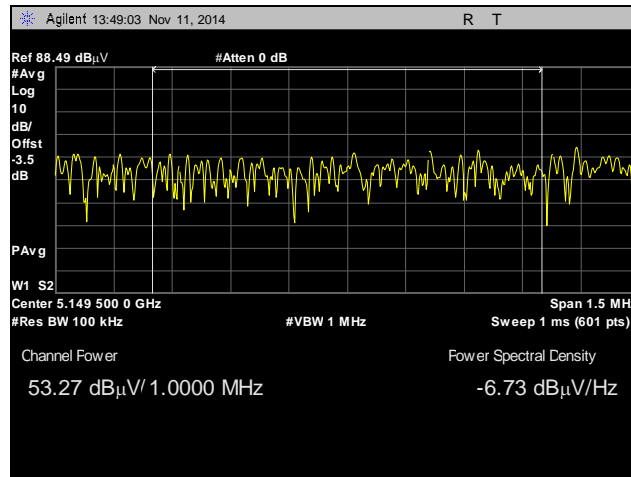


Plot 558. Radiated Restricted Band Emissions, 5197 MHz, Low Edge, 30 MHz, Average

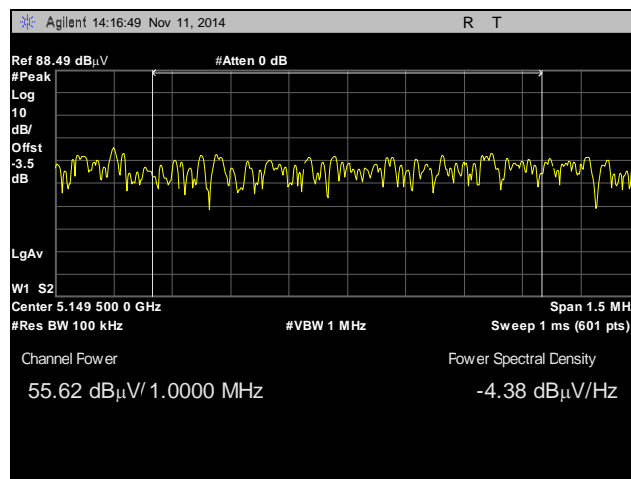


Plot 559. Radiated Restricted Band Emissions, 5197 MHz, Low Edge, 30 MHz, Peak

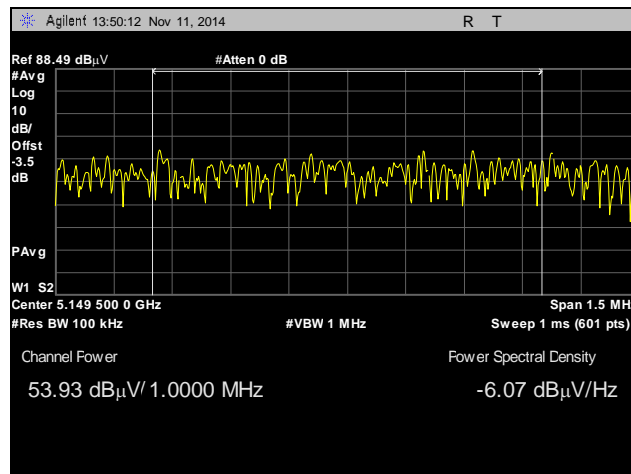
Radiated Restricted Band Emissions, 40 MHz, UNII 1



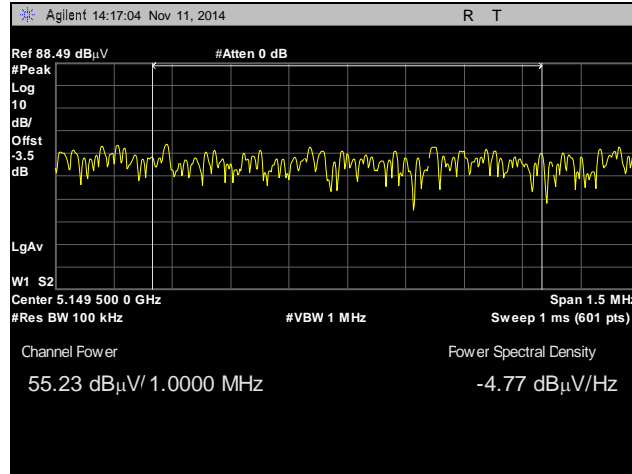
Plot 560. Radiated Restricted Band Emissions, 5175 MHz, Low Edge, 40 MHz, Average



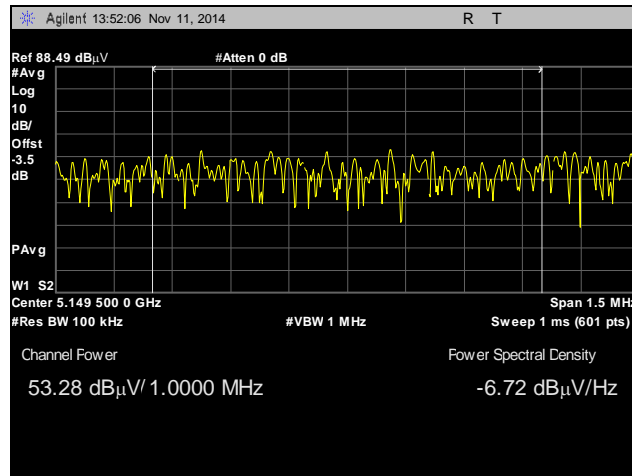
Plot 561. Radiated Restricted Band Emissions, 5175 MHz, Low Edge, 40 MHz, Peak



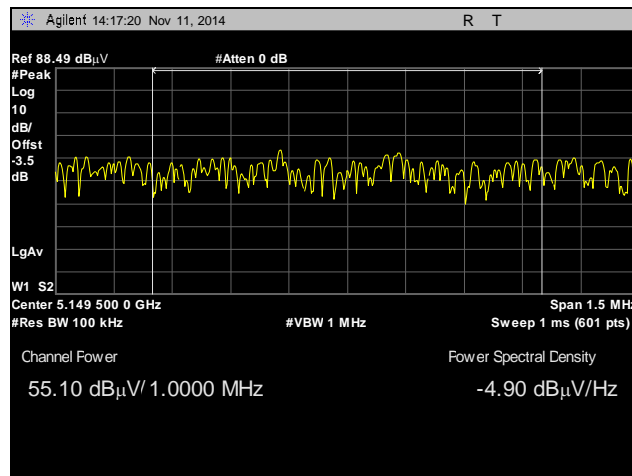
Plot 562. Radiated Restricted Band Emissions, 5185 MHz, Low Edge, 40 MHz, Average



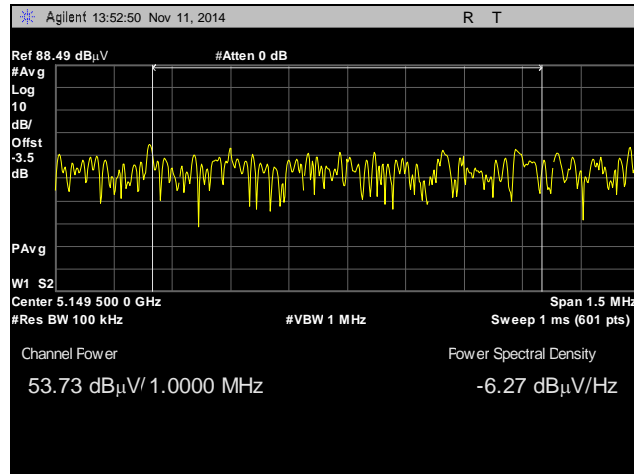
Plot 563. Radiated Restricted Band Emissions, 5185 MHz, Low Edge, 40 MHz, Peak



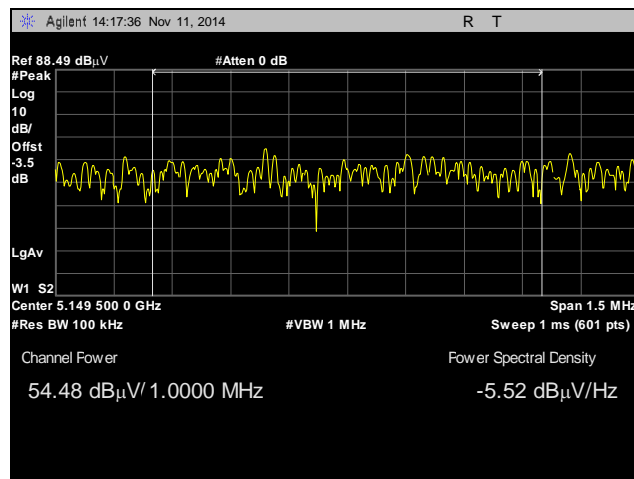
Plot 564. Radiated Restricted Band Emissions, 5200 MHz, Low Edge, 40 MHz, Average



Plot 565. Radiated Restricted Band Emissions, 5200 MHz, Low Edge, 40 MHz, Peak

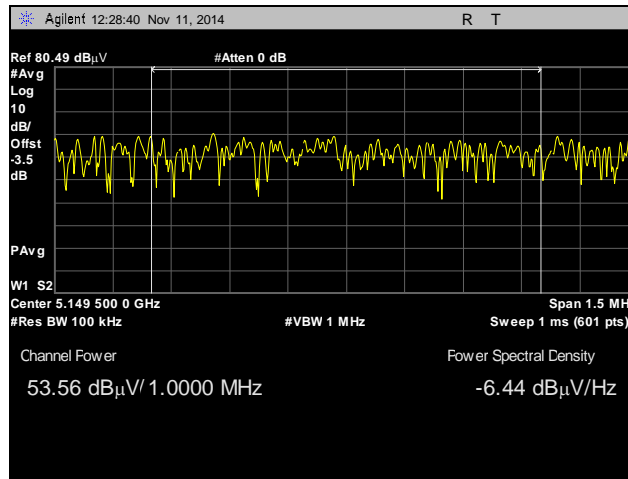


Plot 566. Radiated Restricted Band Emissions, 5209 MHz, Low Edge, 40 MHz, Average

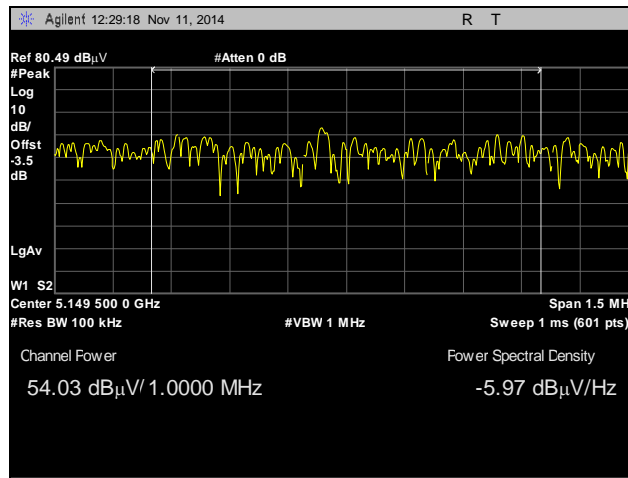


Plot 567. Radiated Restricted Band Emissions, 5209 MHz, Low Edge, 40 MHz, Peak

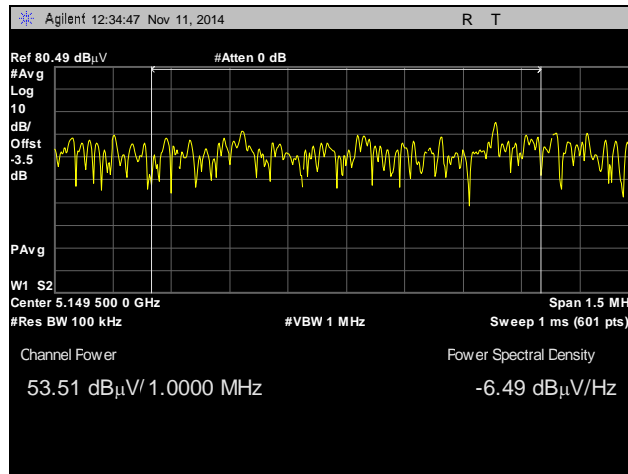
Radiated Restricted Band Emissions, 50 MHz, UNII 1



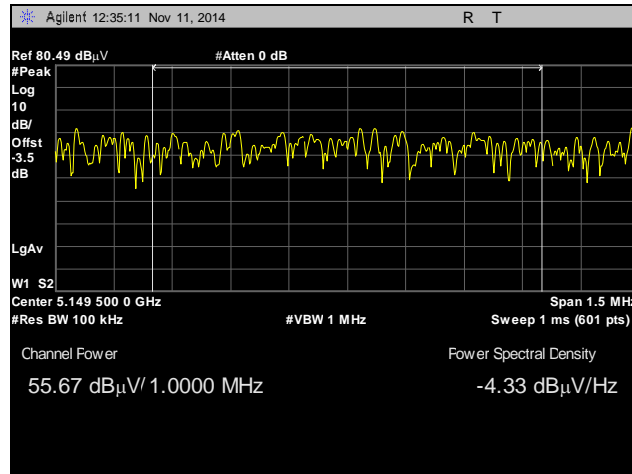
Plot 568. Radiated Restricted Band Emissions, 5180 MHz, Low Edge, 50 MHz, Average



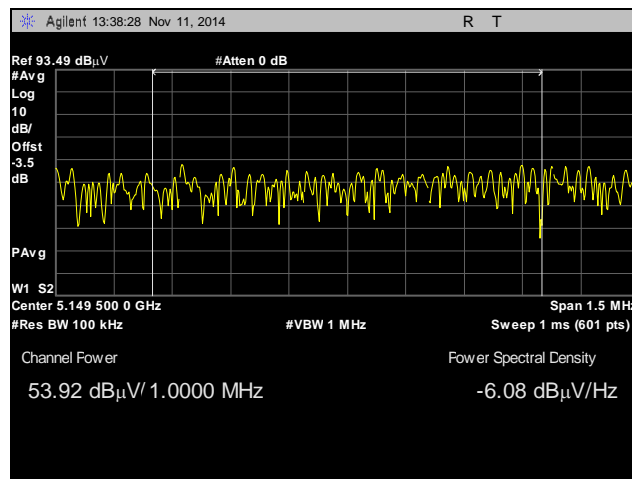
Plot 569. Radiated Restricted Band Emissions, 5180 MHz, Low Edge, 50 MHz, Peak



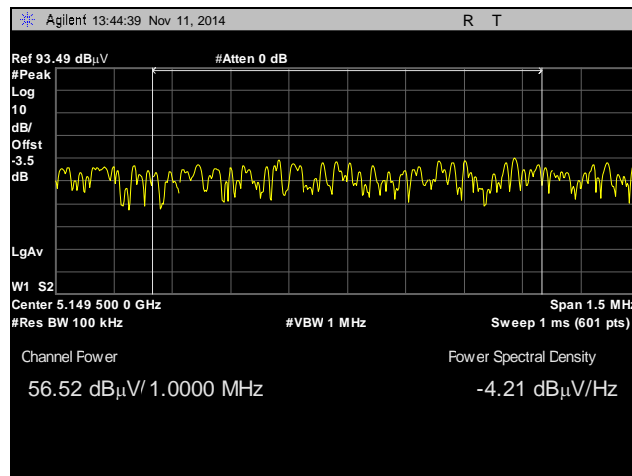
Plot 570. Radiated Restricted Band Emissions, 5190 MHz, Low Edge, 50 MHz, Average



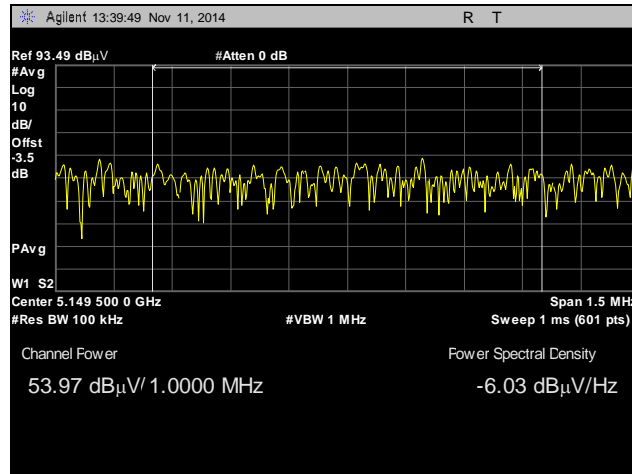
Plot 571. Radiated Restricted Band Emissions, 5190 MHz, Low Edge, 50 MHz, Peak



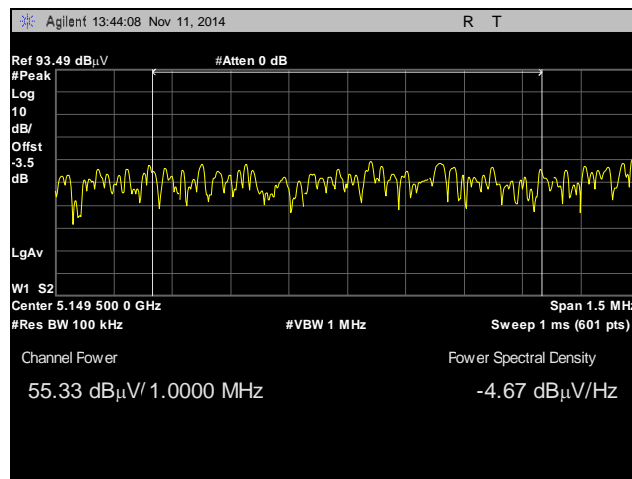
Plot 572. Radiated Restricted Band Emissions, 5209 MHz, Low Edge, 50 MHz, Average



Plot 573. Radiated Restricted Band Emissions, 5209 MHz, Low Edge, 50 MHz, Peak

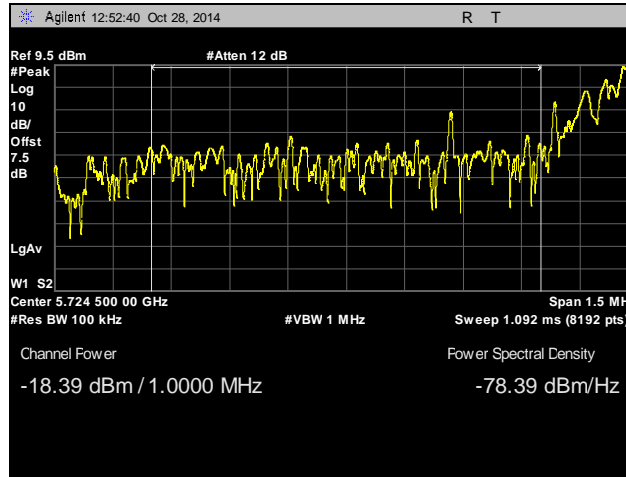


Plot 574. Radiated Restricted Band Emissions, 5218 MHz, Low Edge, 50 MHz, Average

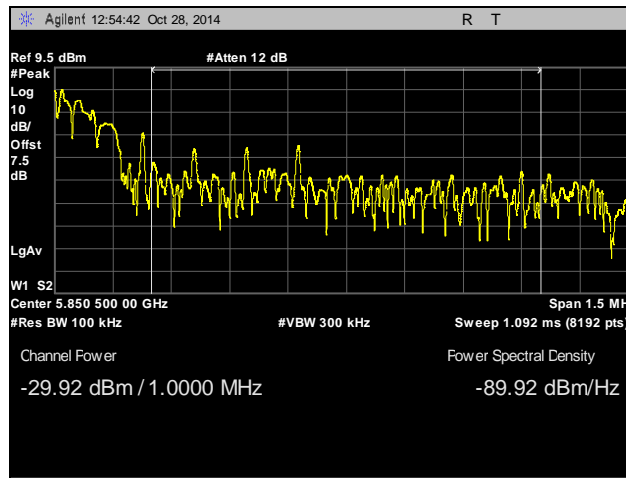


Plot 575. Radiated Restricted Band Emissions, 5218 MHz, Low Edge, 50 MHz, Peak

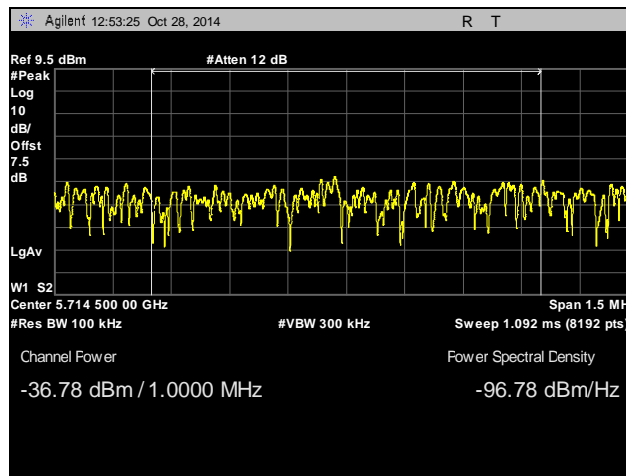
Radiated Band Edge Emissions, 10 MHz, UNII 3



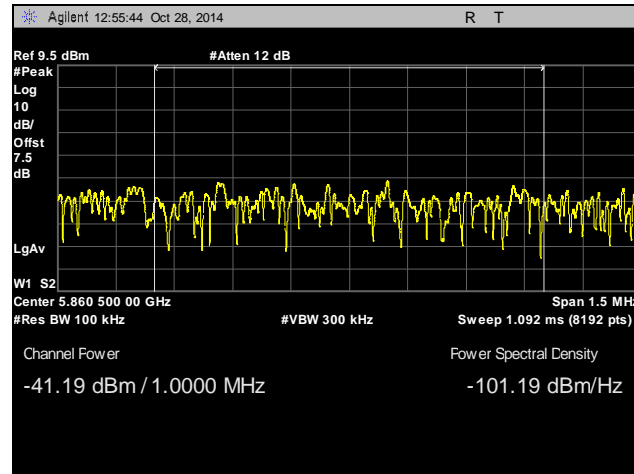
Plot 576. Radiated Restricted Band Emissions, 5730 MHz, Limit: Minus 17, 1 M Integration, 10 MHz



Plot 577. Radiated Restricted Band Emissions, 5845 MHz, Limit: Minus 17, 1 M Integration, 10 MHz

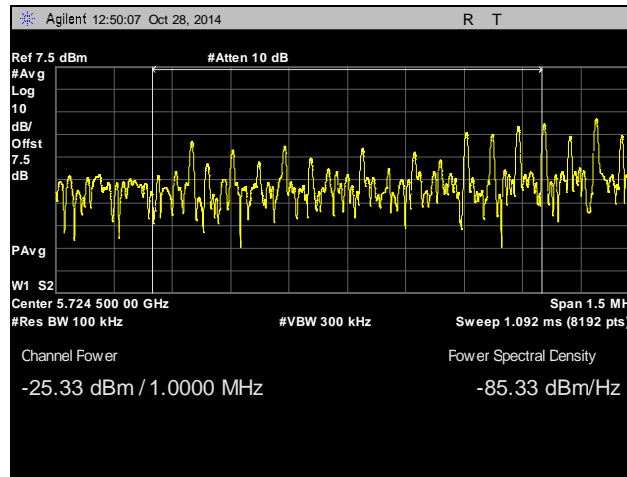


Plot 578. Radiated Restricted Band Emissions, 5730 MHz, Limit: Minus 27, 1 M Integration, 10 MHz

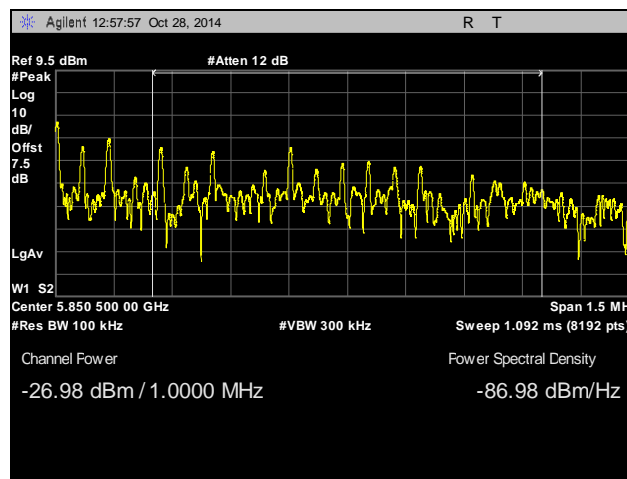


Plot 579. Radiated Restricted Band Emissions, 5845 MHz, Limit: Minus 27, 1 M Integration, 10 MHz

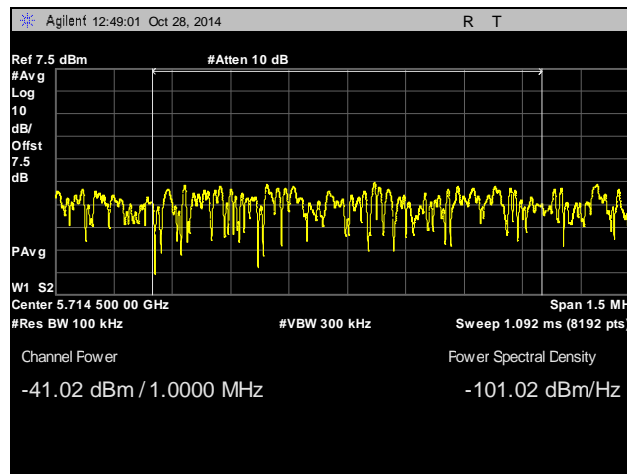
Radiated Band Edge Emissions, 20 MHz, UNII 3



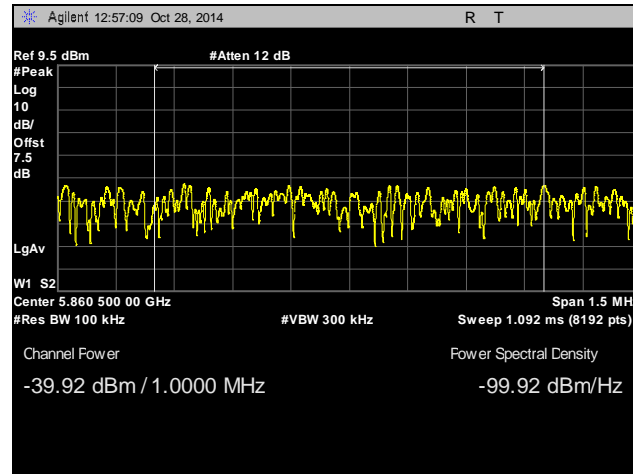
Plot 580. Radiated Restricted Band Emissions, 5735 MHz, Limit: Minus 17, 1 M Integration, 20 MHz



Plot 581. Radiated Restricted Band Emissions, 5840 MHz, Limit: Minus 17, 1 M Integration, 20 MHz

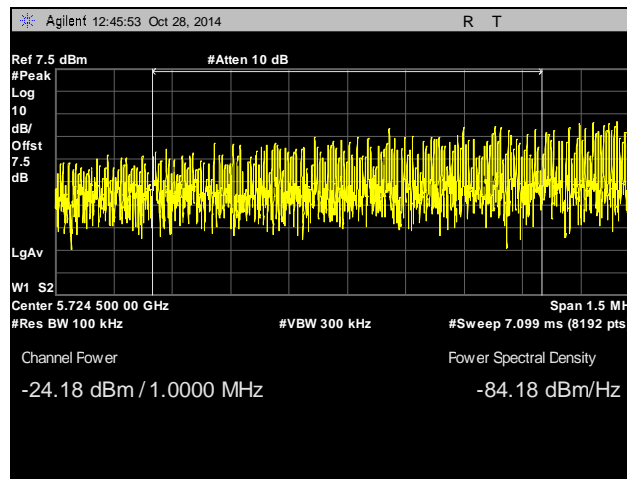


Plot 582. Radiated Restricted Band Emissions, 5735 MHz, Limit: Minus 27, 1 M Integration, 20 MHz

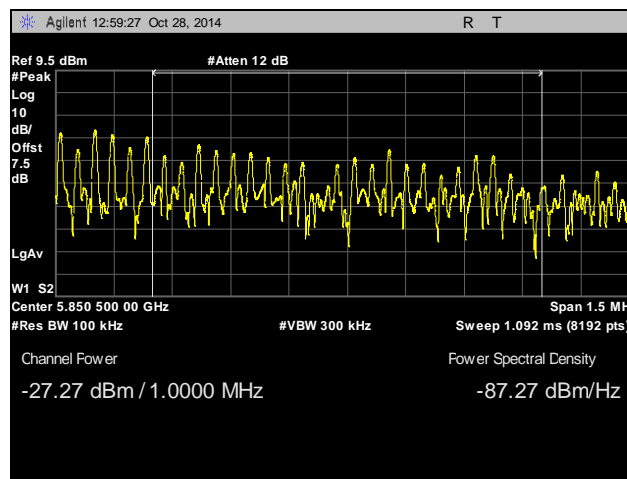


Plot 583. Radiated Restricted Band Emissions, 5840 MHz, Limit: Minus 27, 1 M Integration, 20 MHz

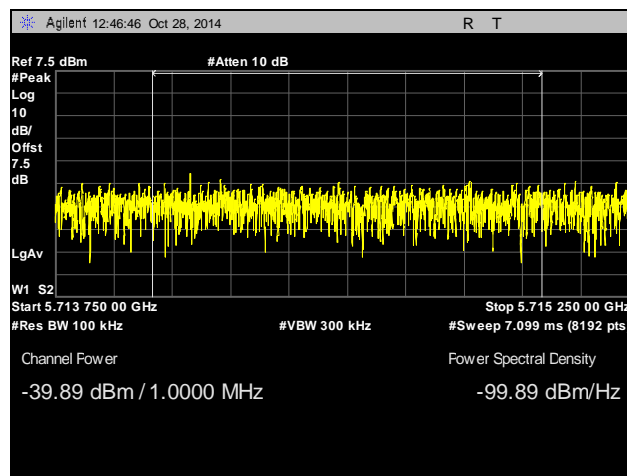
Radiated Band Edge Emissions, 30 MHz, UNII 3



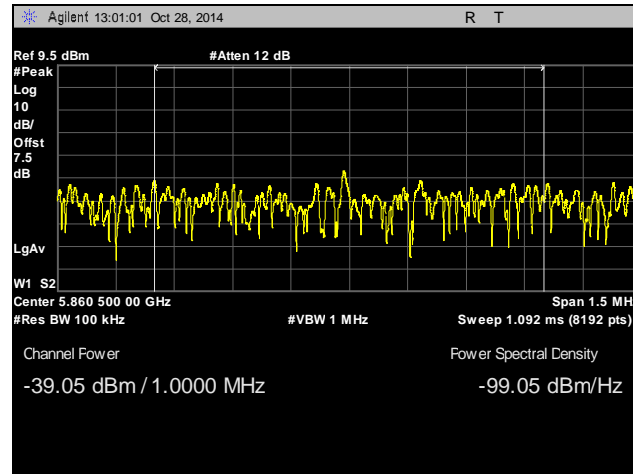
Plot 584. Radiated Restricted Band Emissions, 5740 MHz, Limit: Minus 17, 1 M Integration, 30 MHz



Plot 585. Radiated Restricted Band Emissions, 5835 MHz, Limit: Minus 17, 1 M Integration, 30 MHz

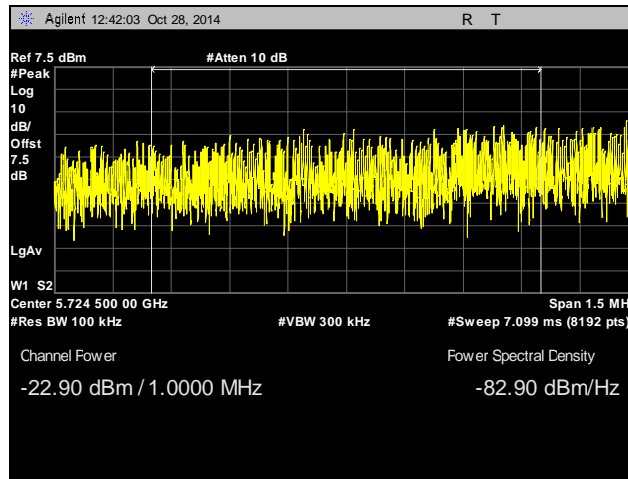


Plot 586. Radiated Restricted Band Emissions, 5740 MHz, Limit: Minus 27, 1 M Integration, 30 MHz

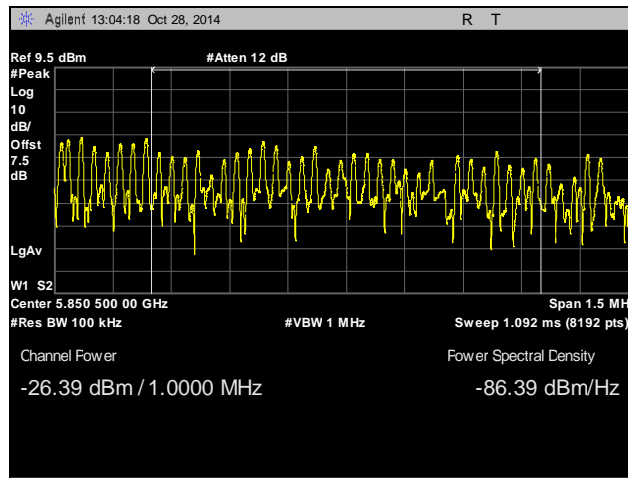


Plot 587. Radiated Restricted Band Emissions, 5835 MHz, Limit: Minus 27, 1 M Integration, 30 MHz

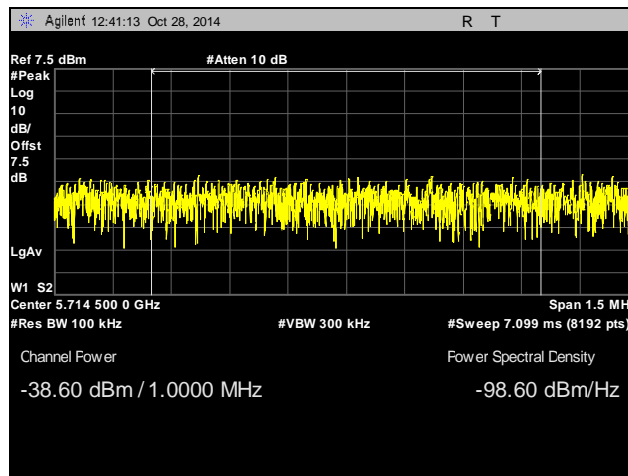
Radiated Band Edge Emissions, 40 MHz, UNII 3



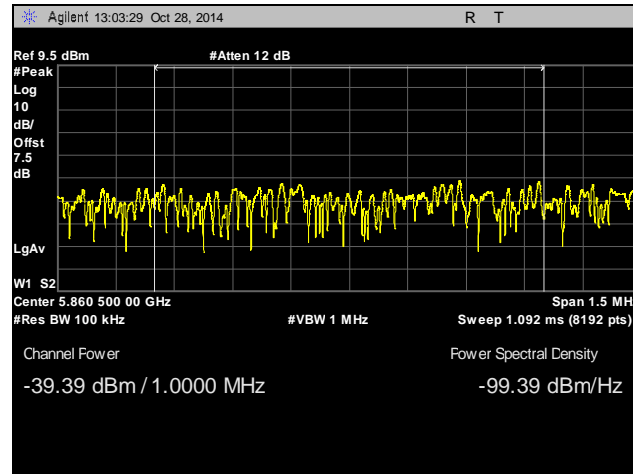
Plot 588. Radiated Restricted Band Emissions, 5745 MHz, Limit: Minus 17, 1 M Integration, 40 MHz



Plot 589. Radiated Restricted Band Emissions, 5830 MHz, Limit: Minus 17, 1 M Integration, 40 MHz

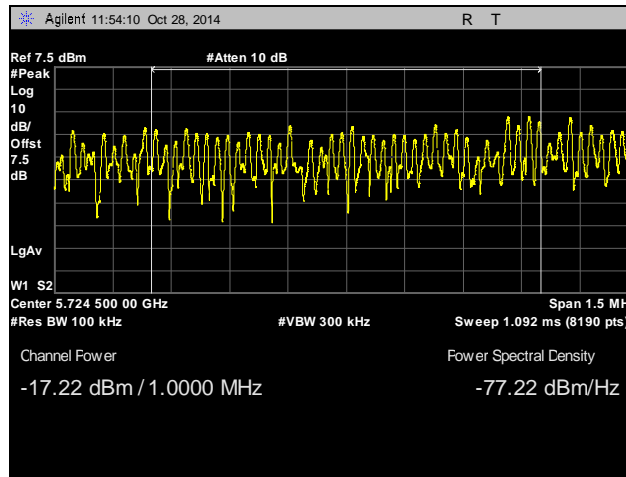


Plot 590. Radiated Restricted Band Emissions, 5745 MHz, Limit: Minus 27, 1 M Integration, 40 MHz

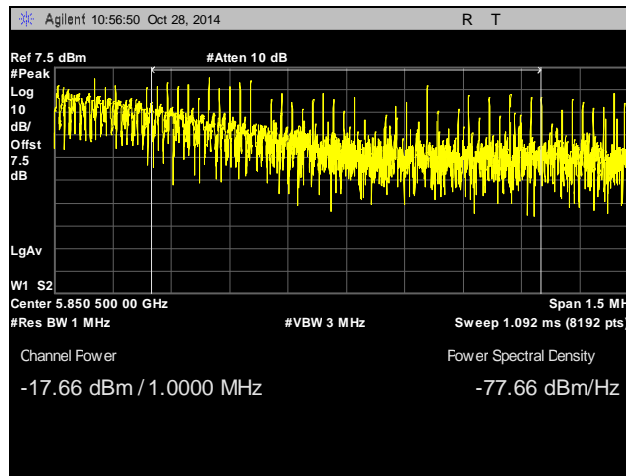


Plot 591. Radiated Restricted Band Emissions, 5830 MHz, Limit: Minus 27, 1 M Integration, 40 MHz

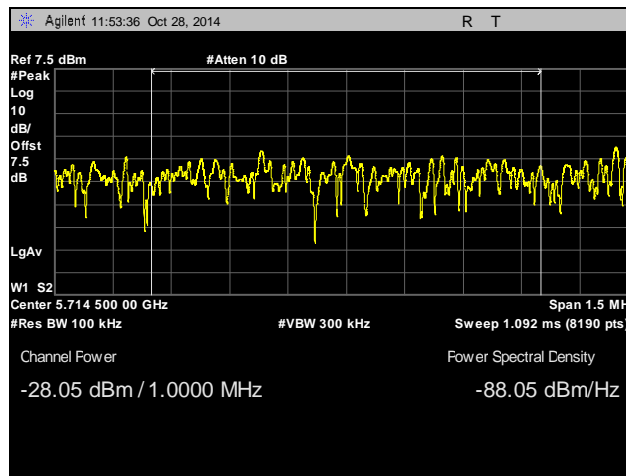
Radiated Band Edge Emissions, 50 MHz, UNII 3



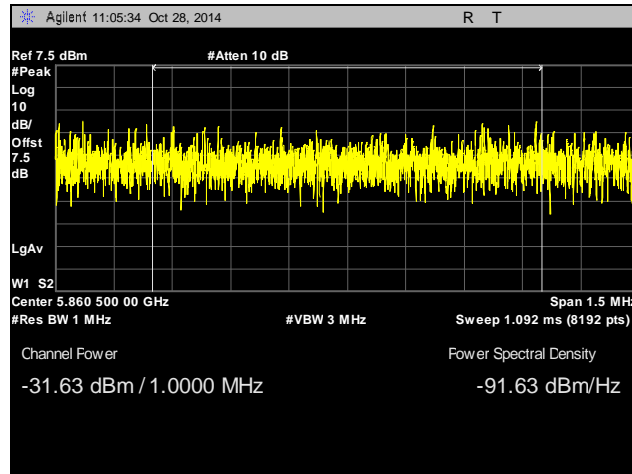
Plot 592. Radiated Restricted Band Emissions, 5750 MHz, Limit: Minus 17, 1 M Integration, 50 MHz



Plot 593. Radiated Restricted Band Emissions, 5825 MHz, Limit: Minus 17, 1 M Integration, 50 MHz

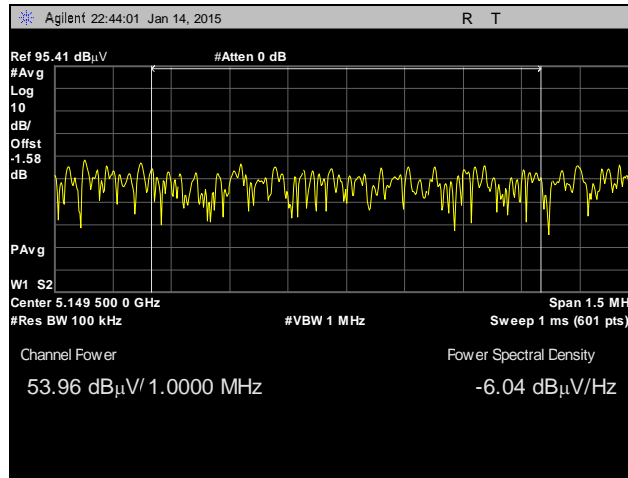


Plot 594. Radiated Restricted Band Emissions, 5750 MHz, Limit: Minus 27, 1 M Integration, 50 MHz

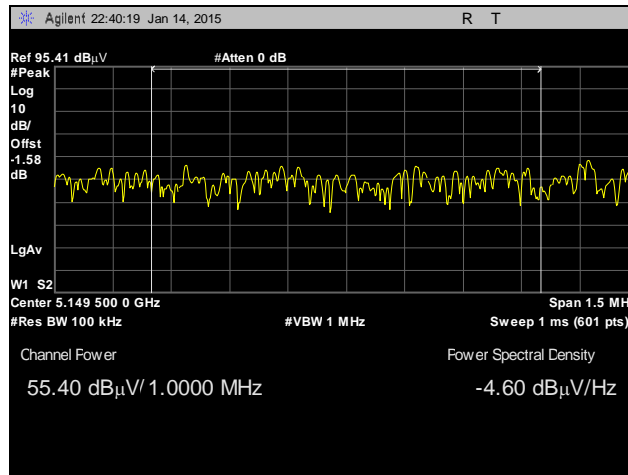


Plot 595. Radiated Restricted Band Emissions, 5825 MHz, Limit: Minus 27, 1 M Integration, 50 MHz

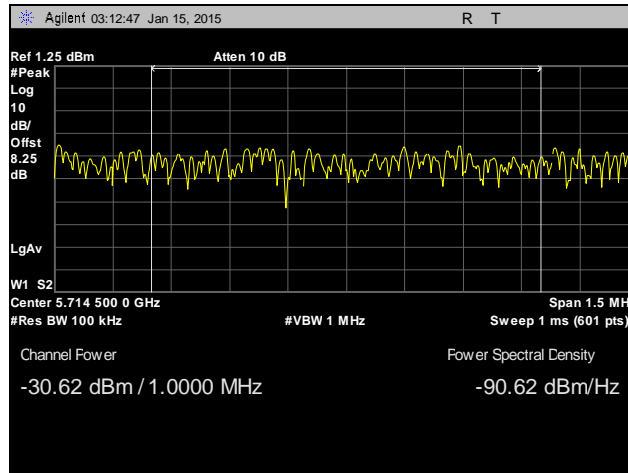
Band Edge, 10 MHz, 34 dBi Antenna



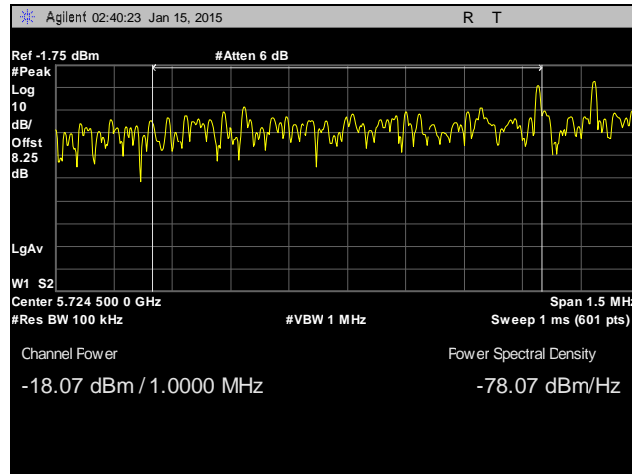
Plot 596. Radiated Emissions, 10 MHz, Channel 5160 MHz, Band Edge 5150, Average 54 Limit, 34 dBi Antenna



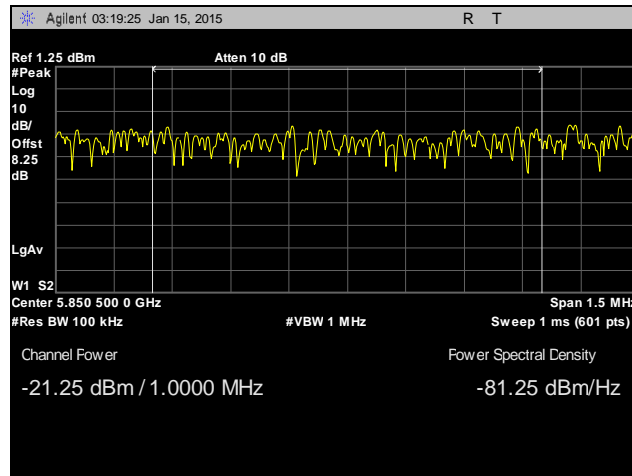
Plot 597. Radiated Emissions, 10 MHz, Channel 5160 MHz, Band Edge 5150, Peak 74 Limit, 34 dBi Antenna



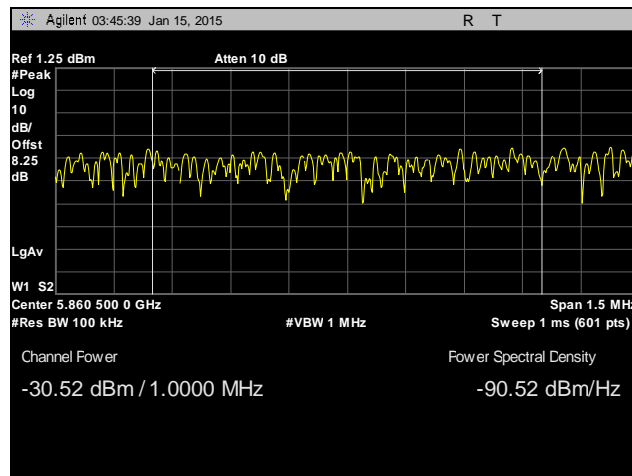
Plot 598. Radiated Emissions, 10 MHz, Channel 5730 MHz, Band Edge 5715, -27 dBm, 34 dBi Antenna



Plot 599. Radiated Emissions, 10 MHz, Channel 5730 MHz, Band Edge 5725, -17 dBm, 34 dBi Antenna

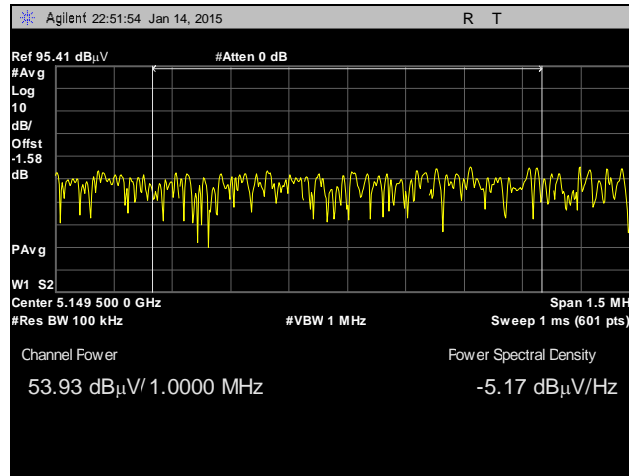


Plot 600. Radiated Emissions, 10 MHz, Channel 5845 MHz, Band Edge 5850, -17 dBm, 34 dBi Antenna

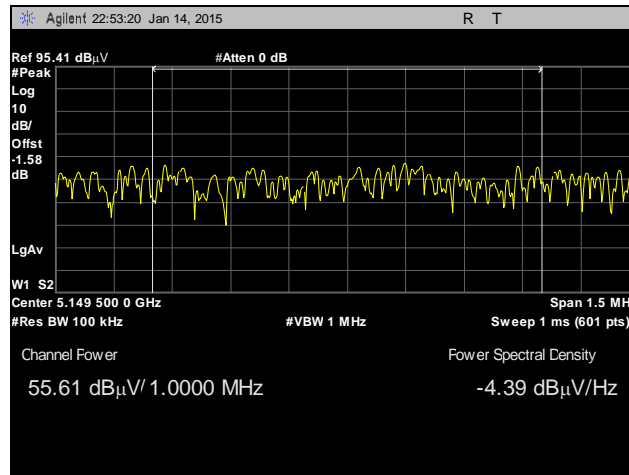


Plot 601. Radiated Emissions, 10 MHz, Channel 5845 MHz, Band Edge 5860, -27 dBm, 34 dBi Antenna

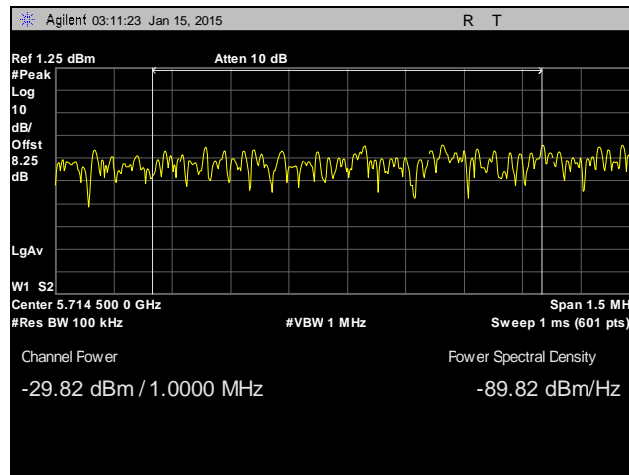
Band Edge, 20 MHz, 34 dBi Antenna



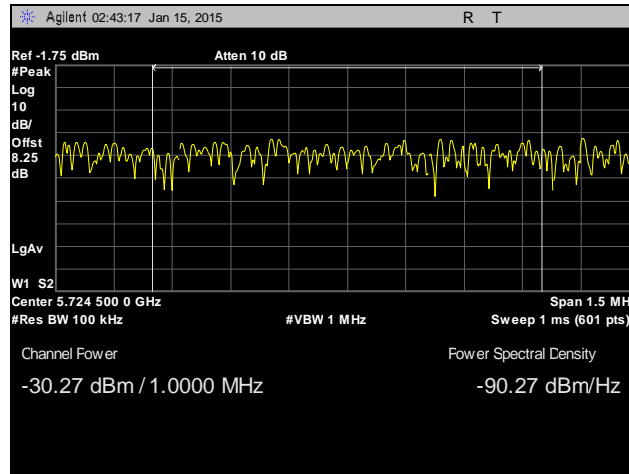
Plot 602. Radiated Emissions, 20 MHz, Channel 5166 MHz, Band Edge 5150, Average 54 Limit, 34 dBi Antenna



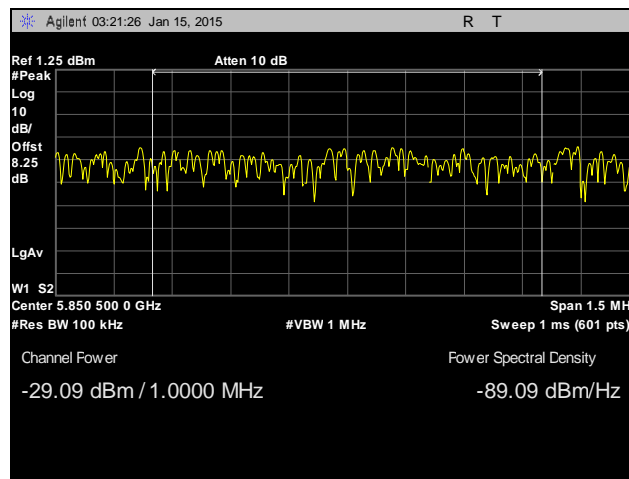
Plot 603. Radiated Emissions, 20 MHz, Channel 5166 MHz, Band Edge 5150, Peak 74 Limit, 34 dBi Antenna



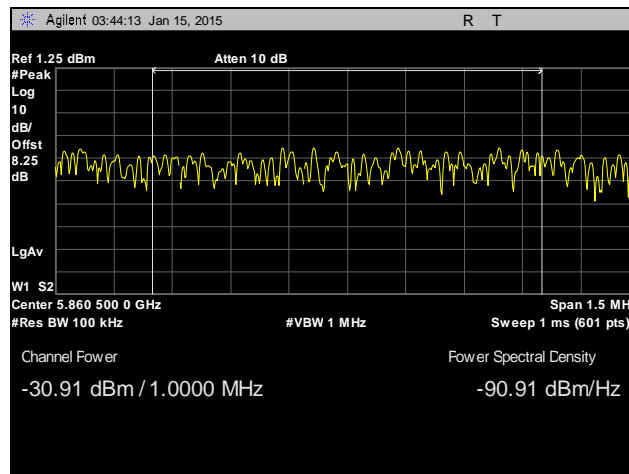
Plot 604. Radiated Emissions, 20 MHz, Channel 5735 MHz, Band Edge 5715, -27 dBm, 34 dBi Antenna



Plot 605. Radiated Emissions, 20 MHz, Channel 5735 MHz, Band Edge 5725, -17 dBm, 34 dBi Antenna

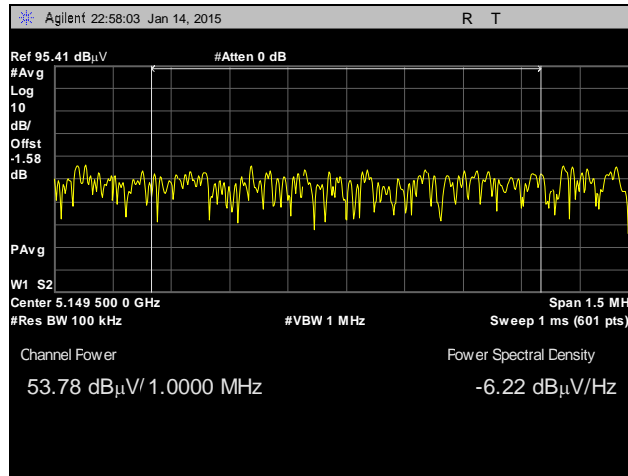


Plot 606. Radiated Emissions, 20 MHz, Channel 5840 MHz, Band Edge 5850, -17 dBm, 34 dBi Antenna

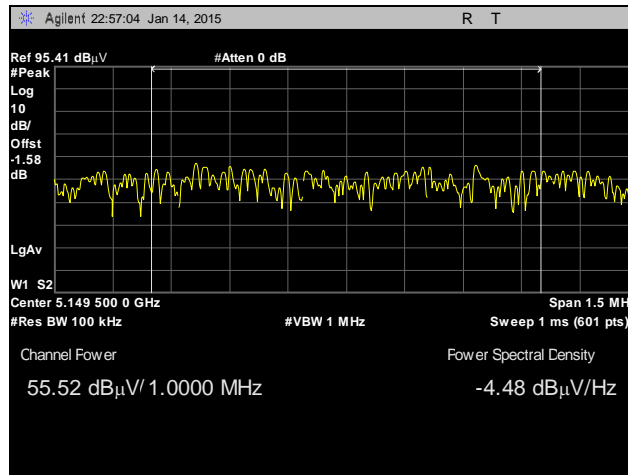


Plot 607. Radiated Emissions, 20 MHz, Channel 5840 MHz, Band Edge 5860, -27 dBm, 34 dBi Antenna

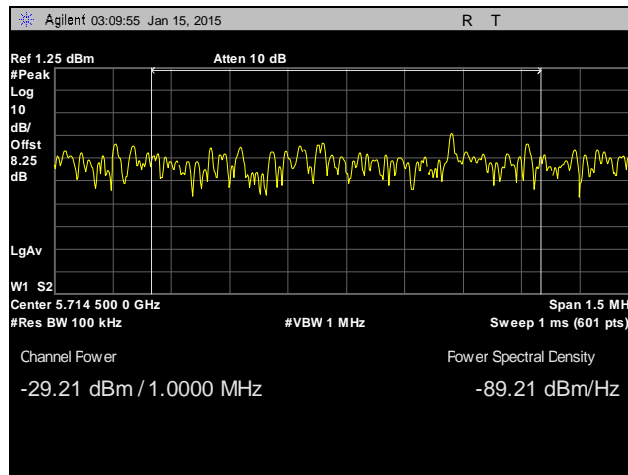
Band Edge, 30 MHz, 34 dBi Antenna



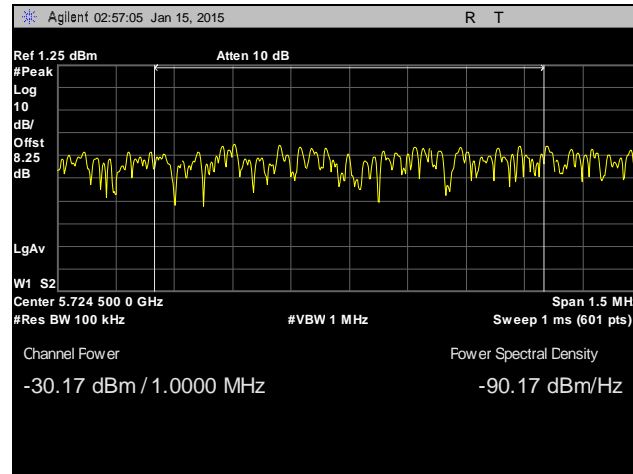
Plot 608. Radiated Emissions, 30 MHz, Channel 5170 MHz, Band Edge 5150, Average 54 Limit, 34 dBi Antenna



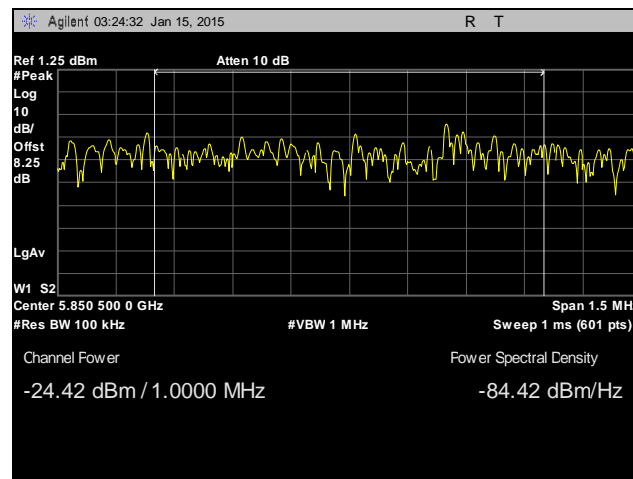
Plot 609. Radiated Emissions, 30 MHz, Channel 5170 MHz, Band Edge 5150, Peak 74 Limit, 34 dBi Antenna



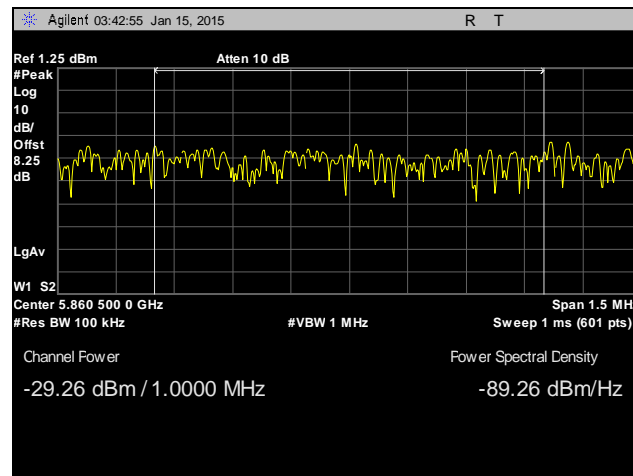
Plot 610. Radiated Emissions, 30 MHz, Channel 5740 MHz, Band Edge 5715, -27 dBm, 34 dBi Antenna



Plot 611. Radiated Emissions, 30 MHz, Channel 5740 MHz, Band Edge 5725, -17 dBm, 34 dBi Antenna

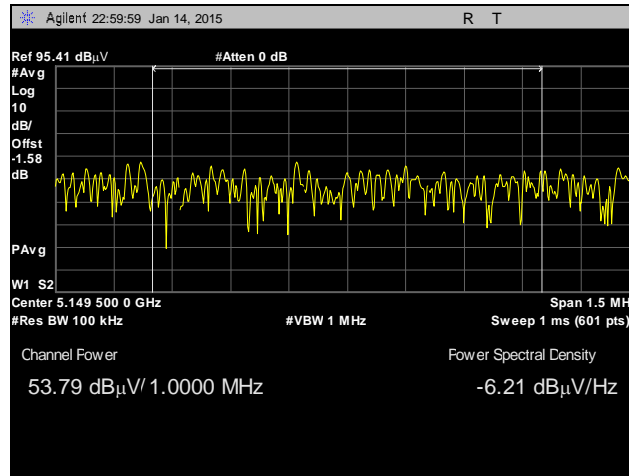


Plot 612. Radiated Emissions, 30 MHz, Channel 5835 MHz, Band Edge 5850, -17 dBm, 34 dBi Antenna

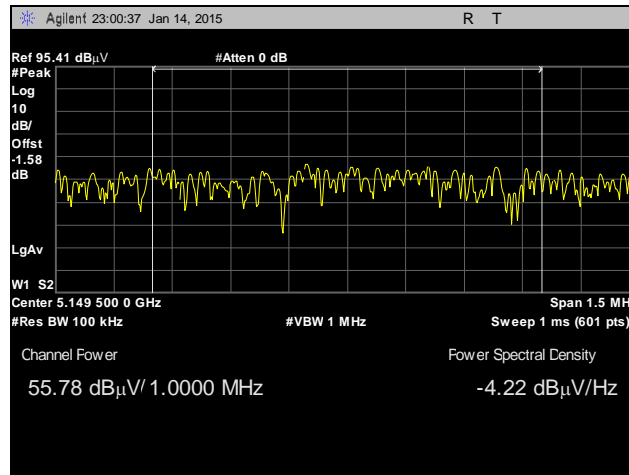


Plot 613. Radiated Emissions, 30 MHz, Channel 5835 MHz, Band Edge 5860, -27 dBm, 34 dBi Antenna

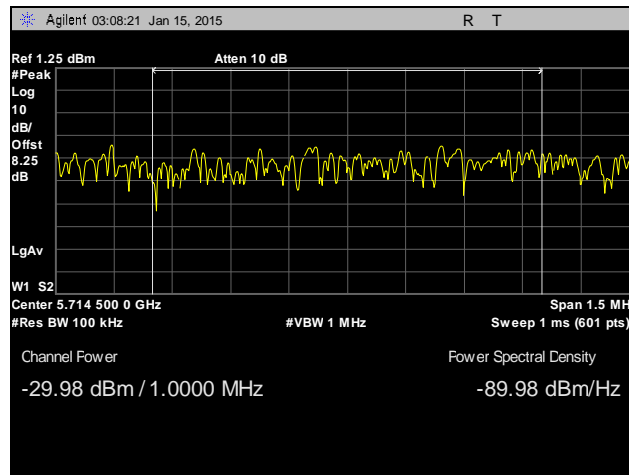
Band Edge, 40 MHz, 34 dBi Antenna



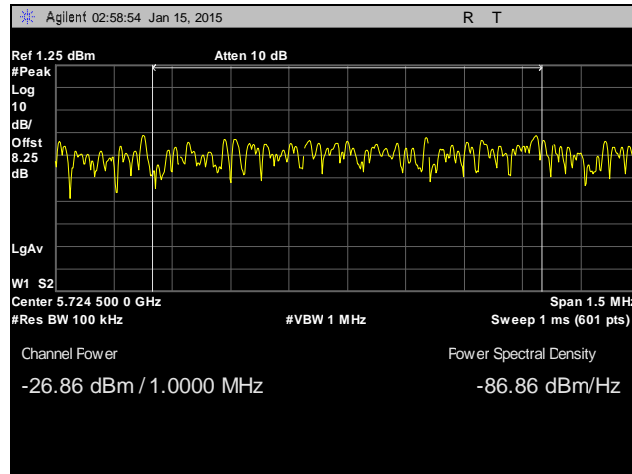
Plot 614. Radiated Emissions, 40 MHz, Channel 5175 MHz, Band Edge 5150, Average 54 Limit, 34 dBi Antenna



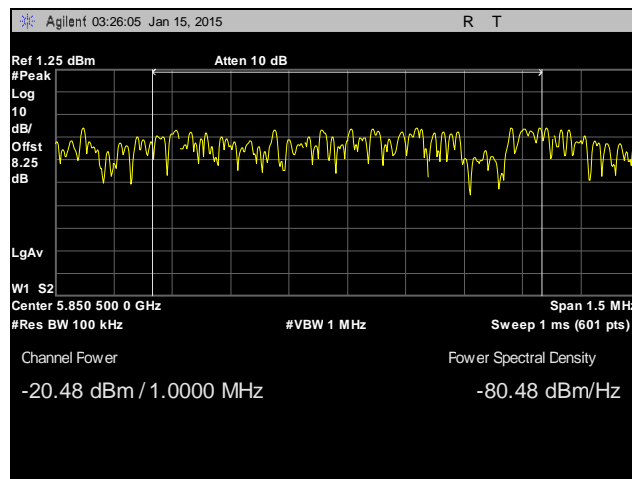
Plot 615. Radiated Emissions, 40 MHz, Channel 5175 MHz, Band Edge 5150, Peak 74 Limit, 34 dBi Antenna



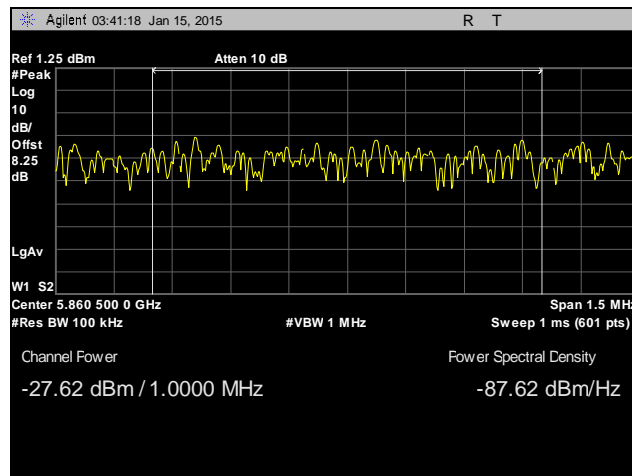
Plot 616. Radiated Emissions, 40 MHz, Channel 5745 MHz, Band Edge 5715, -27 dBm, 34 dBi Antenna



Plot 617. Radiated Emissions, 40 MHz, Channel 5745 MHz, Band Edge 5725, -17 dBm, 34 dBi Antenna

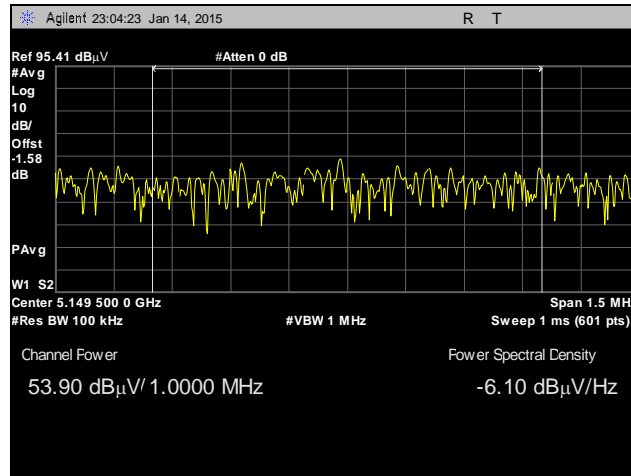


Plot 618. Radiated Emissions, 40 MHz, Channel 5830 MHz, Band Edge 5850, -17 dBm, 34 dBi Antenna

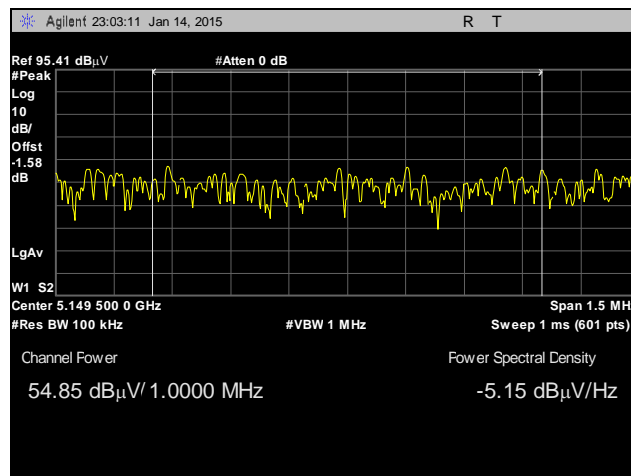


Plot 619. Radiated Emissions, 40 MHz, Channel 5830 MHz, Band Edge 5860, -27 dBm, 34 dBi Antenna

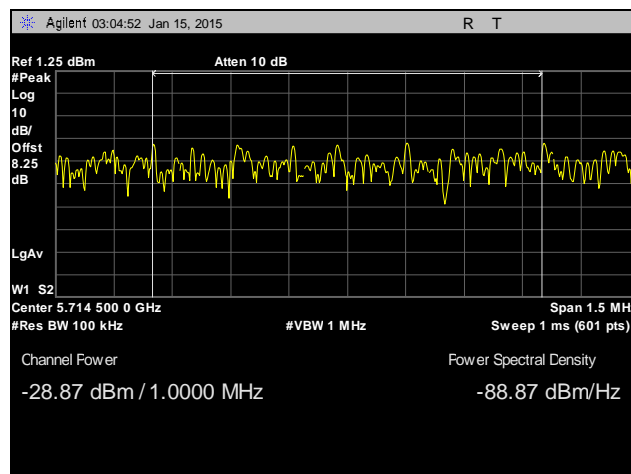
Band Edge, 50 MHz, 34 dBi Antenna



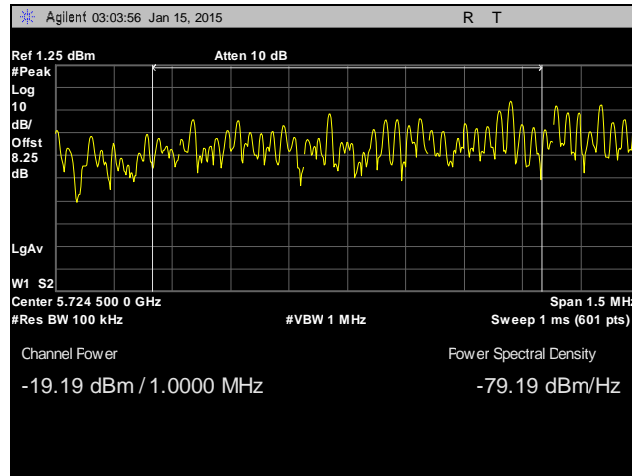
Plot 620. Radiated Emissions, 50 MHz, Channel 5180 MHz, Band Edge 5150, Average 54 Limit, 34 dBi Antenna



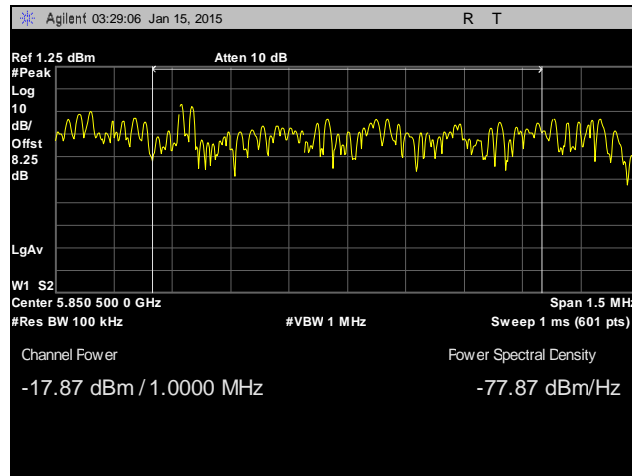
Plot 621. Radiated Emissions, 50 MHz, Channel 5180 MHz, Band Edge 5150, Peak 74 Limit, 34 dBi Antenna



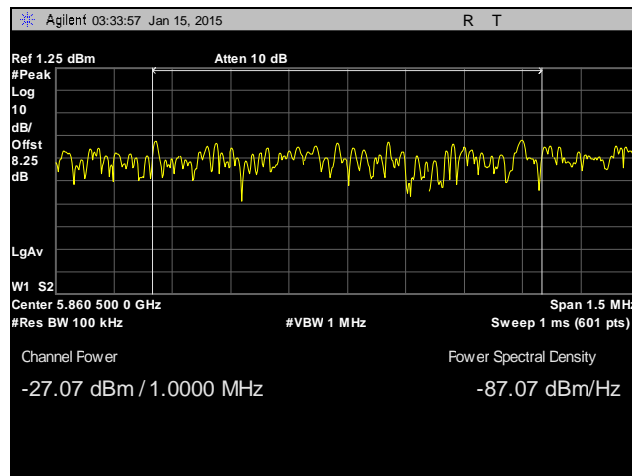
Plot 622. Radiated Emissions, 50 MHz, Channel 5750 MHz, Band Edge 5715, -27 dBm, 34 dBi Antenna



Plot 623. Radiated Emissions, 50 MHz, Channel 5750 MHz, Band Edge 5725, -17 dBm, 34 dBi Antenna



Plot 624. Radiated Emissions, 50 MHz, Channel 5825 MHz, Band Edge 5850, -17 dBm, 34 dBi Antenna



Plot 625. Radiated Emissions, 50 MHz, Channel 5825 MHz, Band Edge 5860, -27 dBm, 34 dBi Antenna

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.407(f) RF Exposure

RF Exposure Requirements: §1.1307(b)(1) and §1.1307(b)(2): Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines.

RF Radiation Exposure Limit: §1.1310: As specified in this section, the Maximum Permissible Exposure (MPE) Limit shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Sec. 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Sec. 2.1093 of this chapter.

MPE Limit Calculation: EUT's operating frequencies @ 5150 - 5250 MHz; highest conducted power = 57.42 mW (i.e.17.59 dBm) (avg) therefore, **Limit for Uncontrolled exposure: 1 mW/cm² or 10 W/m²**

EUT antenna gain = 29 dBi.

Equation from page 19 of OET 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where, S = Power Density

P = Power Input to antenna

G = Antenna Gain (numeric value = 10^(dB/10))

R = Distance to the center of Radiation of the antenna

$$P = 57.42 \text{ mW}$$

$$R = 61 \text{ cm}$$

$$G = 29 \text{ dBi (numeric value 794.33)}$$

$$S = 57.42 \times 794.33 / 4 \times \pi \times 61^2$$

$$S = .98 \text{ mW/cm}^2$$

Therefore, EUT meets the Uncontrolled Exposure limit at 61 cm. The MPE measurement is higher for a 29 dBi antenna and its associated conducted power.

MPE Limit Calculation: EUT's operating frequencies @ 5725 - 5850 MHz; highest conducted power = 217.84 mW (i.e. 23.38 dBm) (avg) therefore, **Limit for Uncontrolled exposure: 1 mW/cm² or 10 W/m²**

EUT maximum antenna gain = 29 dBi.

Equation from page 19 of OET 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where, S = Power Density

P = Power Input to antenna

G = Antenna Gain (numeric value = 10^{^(dB/10)})

R = Distance to the center of Radiation of the antenna

$$P = 217.84 \text{ mW}$$

$$R = 118 \text{ cm}$$

$$G = 29 \text{ dBi (numeric value 794.33)}$$

$$S = 217.84 \times 794.33 / 4 \times \pi \times 118^2$$

$$S = .99 \text{ mW/cm}^2$$

Therefore, EUT meets the Uncontrolled Exposure limit at 118 cm. The MPE measurement is higher for a 29 dBi antenna and its associated conducted power.

V. Test Equipment

Test Equipment

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2005.

MET #	Equipment	Manufacturer	Model#	Cal Date	Cal Due
1T4681	Spectrum Analyzer	Agilent Technologies	E4448A	2/26/2014	2/26/2015
1T4829	Spectrum Analyzer	Agilent	E4407B	9/30/2014	9/30/2015
1T4483	Antenna; Horn	ETS-Lindgren	7/13/1908	2/28/2014	8/28/2015
1T4564	LISN (24 AMP)	Solar Electronics	9252-50-R-24-BNC	6/3/2014	6/3/2015
1T4818	Comb Generator	Com-Power	CGO-520	See Note	See Note
1T4870	Therm./Clock/Humidity Monitor	Control Company	06-662-4, FB70258	03/14/2014	03/14/2016
1T4751	Antenna - Bilog	Sunol Sciences	JB6	07/20/2014	01/20/2016
1T4300A	SEMI-ANECHOIC 3m CHAMBER # 1 (VCCI)	EMC TEST SYSTEMS	NONE	07/24/2012	07/24/2015
1T4409	EMI Receiver	Rohde & Schwarz	ESIB7	07/18/2014	07/18/2016
1T4442	Pre-amplifier, Microwave	Miteq	AFS42-01001800-30-10P	See Note	See Note
1T4149	High-Frequency Anechoic Chamber	RAY-PROOF	3/21/1900	Not Required	Not Required

Table 65. Test Equipment List

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.

VI. Certification & User's Manual Information

Certification & User's Manual Information

J. Certification Information

The following is extracted from Title 47 of the Code of Federal Regulations, Part 2, Subpart I — Marketing of Radio frequency devices:

§ 2.801 Radio-frequency device defined.

As used in this part, a radio-frequency device is any device which in its operation is capable of Emitting radio-frequency energy by radiation, conduction, or other means. Radio- frequency devices include, but are not limited to:

- (a) The various types of radio communication transmitting devices described throughout this chapter.
- (b) *The incidental, unintentional and intentional radiators defined in Part 15 of this chapter.*
- (c) The industrial, scientific, and medical equipment described in Part 18 of this chapter.
- (d) Any part or component thereof which in use emits radio-frequency energy by radiation, conduction, or other means.

§ 2.803 Marketing of radio frequency devices prior to equipment authorization.

- (a) Except as provided elsewhere in this chapter, no person shall sell or lease, or offer for sale or lease (including advertising for sale or lease), or import, ship or distribute for the purpose of selling or leasing or offering for sale or lease, any radio frequency device unless:
 - (1) In the case of a device subject to certification, such device has been authorized by the Commission in accordance with the rules in this chapter and is properly identified and labeled as required by §2.925 and other relevant sections in this chapter; or
 - (2) In the case of a device that is not required to have a grant of equipment authorization issued by the Commission, but which must comply with the specified technical standards prior to use, such device also complies with all applicable administrative (including verification of the equipment or authorization under a Declaration of Conformity, where required), technical, labeling and identification requirements specified in this chapter.
- (d) Notwithstanding the provisions of paragraph (a) of this section, the offer for sale solely to business, commercial, industrial, scientific or medical users (but not an offer for sale to other parties or to end users located in a residential environment) of a radio frequency device that is in the conceptual, developmental, design or pre-production stage is permitted prior to equipment authorization or, for devices not subject to the equipment authorization requirements, prior to a determination of compliance with the applicable technical requirements *provided* that the prospective buyer is advised in writing at the time of the offer for sale that the equipment is subject to the FCC rules and that the equipment will comply with the appropriate rules before delivery to the buyer or to centers of distribution.

- (e)(1) Notwithstanding the provisions of paragraph (a) of this section, prior to equipment authorization or determination of compliance with the applicable technical requirements any radio frequency device may be operated, but not marketed, for the following purposes and under the following conditions:
- (i) *Compliance testing*;
 - (ii) Demonstrations at a trade show provided the notice contained in paragraph (c) of this section is displayed in a conspicuous location on, or immediately adjacent to, the device;
 - (iii) Demonstrations at an exhibition conducted at a business, commercial, industrial, scientific or medical location, but excluding locations in a residential environment, provided the notice contained in paragraphs (c) or (d) of this section, as appropriate, is displayed in a conspicuous location on, or immediately adjacent to, the device;
 - (iv) Evaluation of product performance and determination of customer acceptability, provided such operation takes place at the manufacturer's facilities during developmental, design or pre-production states; or
 - (v) Evaluation of product performance and determination of customer acceptability where customer acceptability of a radio frequency device cannot be determined at the manufacturer's facilities because of size or unique capability of the device, provided the device is operated at a business, commercial, industrial, scientific or medical user's site, but not at a residential site, during the development, design or pre-production stages.
- (e)(2) For the purpose of paragraphs (e)(1)(iv) and (e)(1)(v) of this section, the term *manufacturer's facilities* includes the facilities of the party responsible for compliance with the regulations and the manufacturer's premises, as well as the facilities of other entities working under the authorization of the responsible party in connection with the development and manufacture, but not the marketing, of the equipment.
- (f) For radio frequency devices subject to verification and sold solely to business, commercial, industrial, scientific and medical users (excluding products sold to other parties or for operation in a residential environment), parties responsible for verification of the devices shall have the option of ensuring compliance with the applicable technical specifications of this chapter at each end user's location after installation, provided that the purchase or lease agreement includes a proviso that such a determination of compliance be made and is the responsibility of the party responsible for verification of the equipment.

Certification & User's Manual Information

The following is extracted from Title 47 of the Code of Federal Regulations, Part 2, Subpart J — Equipment Authorization Procedures:

§ 2.901 Basis and Purpose

- (a) In order to carry out its responsibilities under the Communications Act and the various treaties and international regulations, and in order to promote efficient use of the radio spectrum, the Commission has developed technical standards for radio frequency equipment and parts or components thereof. The technical standards applicable to individual types of equipment are found in that part of the rules governing the service wherein the equipment is to be operated.¹ *In addition to the technical standards provided, the rules governing the service may require that such equipment be verified by the manufacturer or importer, be authorized under a Declaration of Conformity, or receive an equipment authorization from the Commission by one of the following procedures: certification or registration.*
- (b) The following sections describe the verification procedure, the procedure for a Declaration of Conformity, and the procedures to be followed in obtaining certification from the Commission and the conditions attendant to such a grant.

§ 2.907 Certification.

- (a) Certification is an equipment authorization issued by the Commission, based on representation and test data submitted by the applicant.
- (b) Certification attaches to all units subsequently marketed by the grantee which are identical (see Section 2.908) to the sample tested except for permissive changes or other variations authorized by the Commission pursuant to Section 2.1043.

¹ In this case, the equipment is subject to the rules of Part 15. More specifically, the equipment falls under Subpart B (of Part 15), which deals with unintentional radiators.

Certification & User's Manual Information

§ 2.948 Description of measurement facilities.

- (a) Each party making measurements of equipment that is subject to an equipment authorization under Part 15 or Part 18 of this chapter, regardless of whether the measurements are filed with the Commission or kept on file by the party responsible for compliance of equipment marketed within the U.S. or its possessions, shall compile a description of the measurement facilities employed.
 - (1) If the measured equipment is subject to the verification procedure, the description of the measurement facilities shall be retained by the party responsible for verification of the equipment.
 - (i) *If the equipment is verified through measurements performed by an independent laboratory, it is acceptable for the party responsible for verification of the equipment to rely upon the description of the measurement facilities retained by or placed on file with the Commission by that laboratory. In this situation, the party responsible for the verification of the equipment is not required to retain a duplicate copy of the description of the measurement facilities.*
 - (ii) If the equipment is verified based on measurements performed at the installation site of the equipment, no specific site calibration data is required. It is acceptable to retain the description of the measurement facilities at the site at which the measurements were performed.
 - (2) If the equipment is to be authorized by the Commission under the certification procedure, the description of the measurement facilities shall be filed with the Commission's Laboratory in Columbia, Maryland. The data describing the measurement facilities need only be filed once but must be updated as changes are made to the measurement facilities or as otherwise described in this section. At least every three years, the organization responsible for filing the data with the Commission shall certify that the data on file is current.

Certification & User's Manual Information

Label and User's Manual Information

The following is extracted from Title 47 of the Code of Federal Regulations, Part 15, Subpart A — General:

§ 15.19 Labeling requirements.

(a) *In addition to the requirements in Part 2 of this chapter, a device subject to certification or verification shall be labeled as follows:*

- (1) Receivers associated with the operation of a licensed radio service, e.g., FM broadcast under Part 73 of this chapter, land mobile operation under Part 90, etc., shall bear the following statement in a conspicuous location on the device:

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

- (2) A stand-alone cable input selector switch, shall bear the following statement in a conspicuous location on the device:

This device is verified to comply with Part 15 of the FCC Rules for use with cable television service.

- (3) All other devices shall bear the following statement in a conspicuous location on the device:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- (4) Where a device is constructed in two or more sections connected by wires and marketed together, the statement specified under paragraph (a) of this section is required to be affixed only to the main control unit.

- (5) When the device is so small or for such use that it is not practicable to place the statement specified under paragraph (a) of this section on it, the information required by this paragraph shall be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed. However, the FCC identifier or the unique identifier, as appropriate, must be displayed on the device.

§ 15.21 Information to user.

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Verification & User's Manual Information

The following is extracted from Title 47 of the Code of Federal Regulations, Part 15, Subpart B — Unintentional Radiators:

§ 15.105 Information to the user.

- (a) For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at own expense.

- (b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.