

Figure 394 Spurious Emissions (9kHz $-1\rm{GHz})-16\rm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)



Figure 395 Spurious Emissions (1 GHz - 8.94 GHz) - 16QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 288 of 427



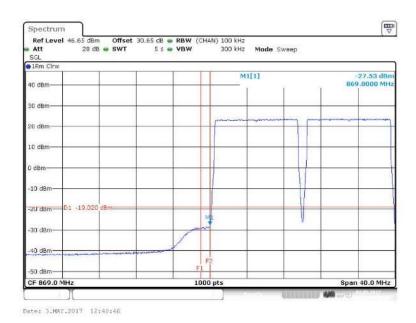


Figure 396 Spurious Emissions (Lower Band Edge) – 64QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

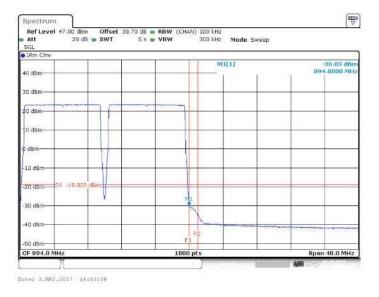


Figure 397 Spurious Emissions (Upper Band Edge) – 64QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 289 of 427



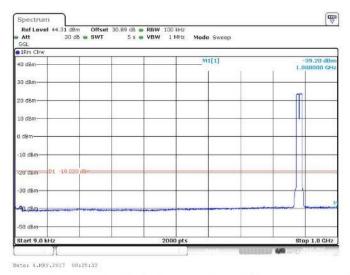


Figure 398 Spurious Emissions (9kHz $-1\rm{GHz})-64\rm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)



Figure 399 Spurious Emissions (1 GHz - 8.94 GHz) 64QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 290 of 427



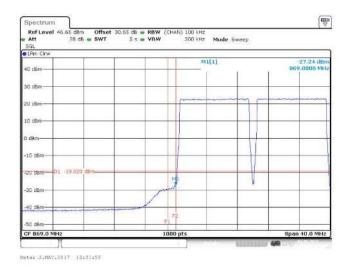


Figure 400 Spurious Emissions (Lower Band Edge) – 256QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

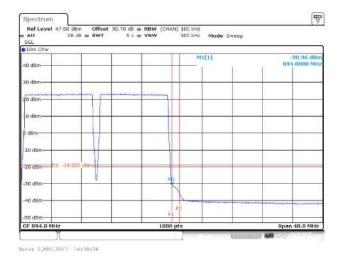


Figure 401 Spurious Emissions (Upper Band Edge) – 256QAM QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 291 of 427



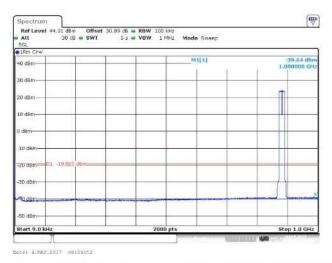


Figure 402 Spurious Emissions (9kHz $-1\,\mathrm{GHz}) - 256\mathrm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

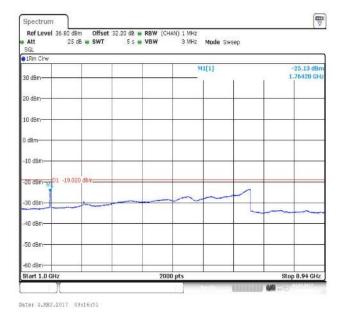


Figure 403 Spurious Emissions (1 GHz - 8.94 GHz) - 256QAM (876.5 MHz, 886.5 MHz 2 $\rm X$ 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 292 of 427



Config E ANT2:

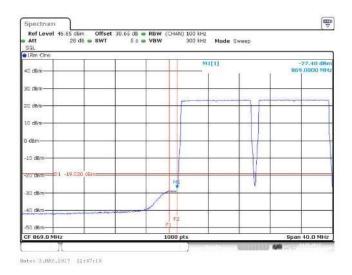


Figure 404 Spurious Emissions (Lower Band Edge) – QPSK (874 MHz, 884, 2 X 5 MHz Channel BW)

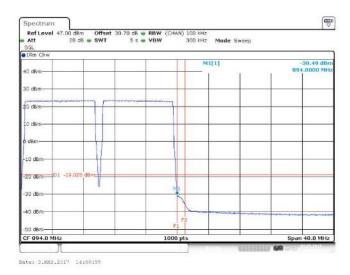


Figure 405 Spurious Emissions (Upper Band Edge) – QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 293 of 427



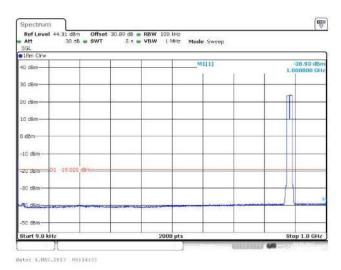


Figure 406 Spurious Emissions (9kHz $-1\,\mathrm{GHz}) - \mathrm{QPSK}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)



Figure 407 Spurious Emissions (1 GHz - 8.94 GHz) - QPSK (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 294 of 427



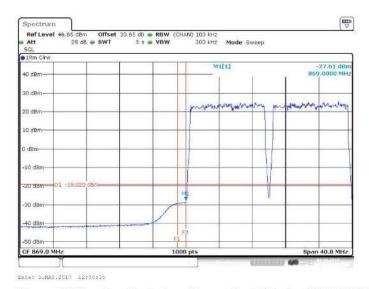


Figure 408 Spurious Emissions (Lower Band Edge) – 16QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

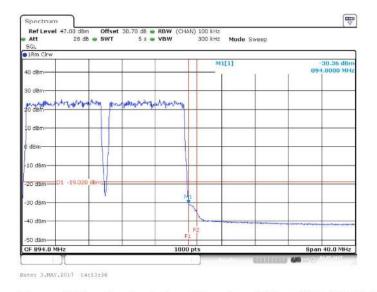


Figure 409 Spurious Emissions (Upper Band Edge) 16QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 295 of 427



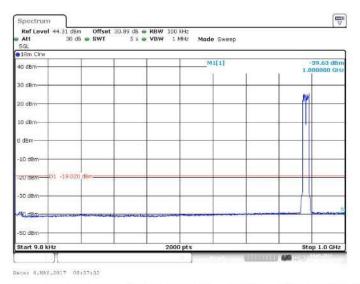


Figure 410 Spurious Emissions (9kHz $-1\rm{GHz})-16\rm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

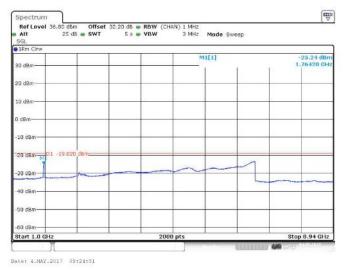


Figure 411 Spurious Emissions (1 GHz – 8.94 GHz) – 16QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 296 of 427



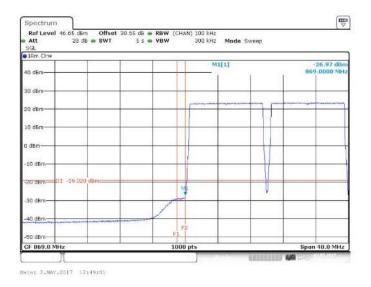


Figure 412 Spurious Emissions (Lower Band Edge) – 64QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

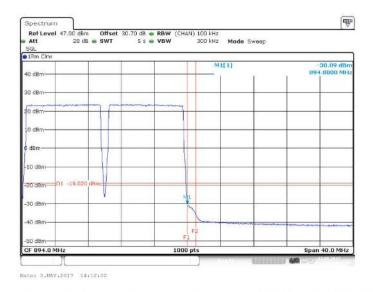


Figure 413 Spurious Emissions (Upper Band Edge) – 64QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 297 of 427



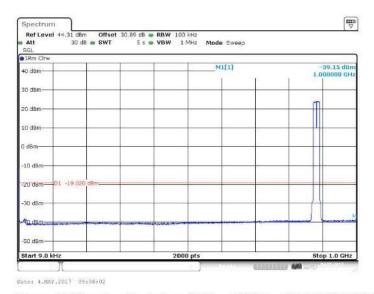


Figure 414 Spurious Emissions (9kHz - 1GHz) - 64QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)



Figure 415 Spurious Emissions (1 GHz - 8.94 GHz) 64QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 298 of 427



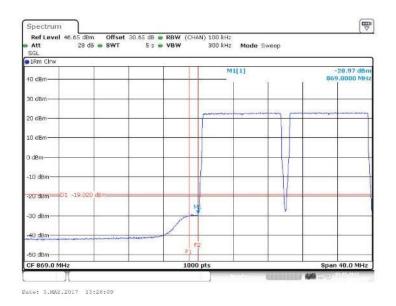


Figure 416 Spurious Emissions (Lower Band Edge) – 256QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

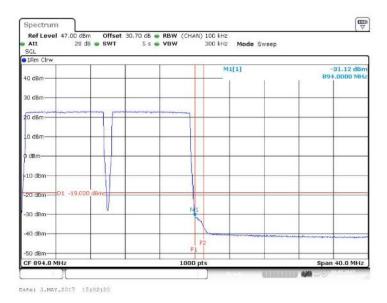


Figure 417 Spurious Emissions (Upper Band Edge) – 256QAM QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 299 of 427



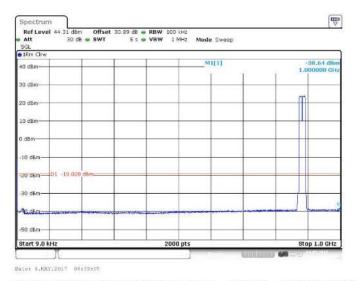


Figure 418 Spurious Emissions (9kHz $-1\,\mathrm{GHz})-256\mathrm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)



Figure 419 Spurious Emissions (1 GHz - 8.94 GHz) - 256QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 300 of 427



Config E ANT3:

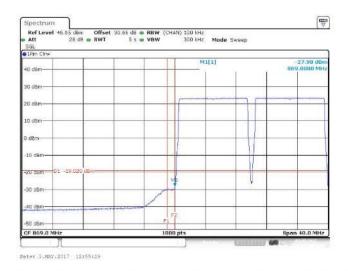


Figure 420 Spurious Emissions (Lower Band Edge) – QPSK (874 MHz, 884, 2 X 5 MHz Channel BW)

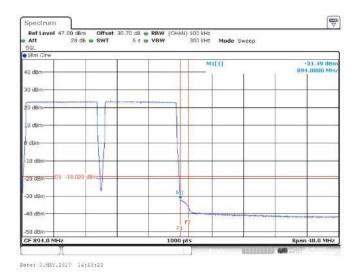


Figure 421 Spurious Emissions (Upper Band Edge) – QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 301 of 427



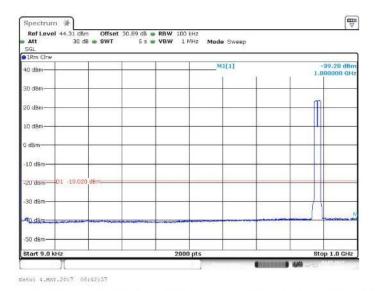


Figure 422 Spurious Emissions (9kHz – 1GHz) – QPSK (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

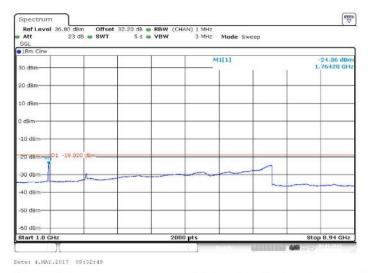


Figure 423 Spurious Emissions (1 GHz - 8.94 GHz) - QPSK (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 302 of 427



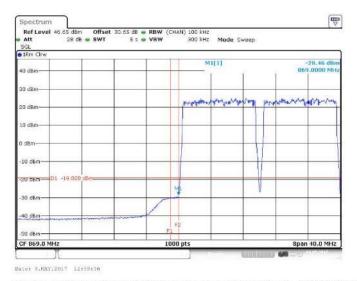


Figure 424 Spurious Emissions (Lower Band Edge) – 16QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

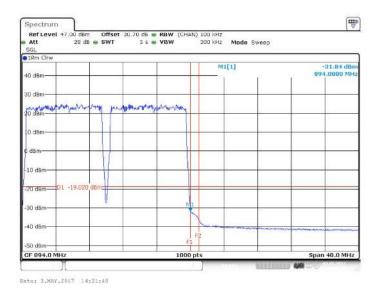


Figure 425 Spurious Emissions (Upper Band Edge) 16QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 303 of 427



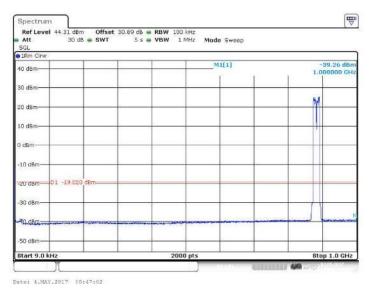


Figure 426 Spurious Emissions (9kHz - 1GHz) - 16QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

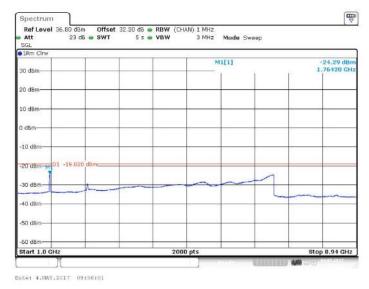


Figure 427 Spurious Emissions (1 GHz - 8.94 GHz) - 16QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 304 of 427



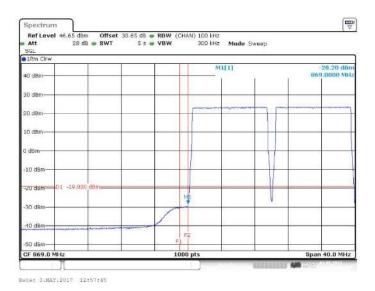


Figure 428 Spurious Emissions (Lower Band Edge) – 64QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

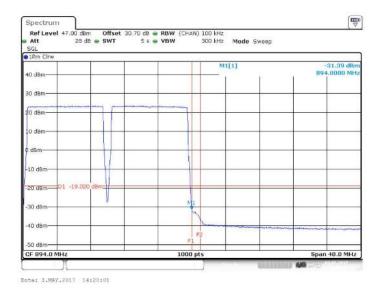


Figure 429 Spurious Emissions (Upper Band Edge) – 64QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 305 of 427



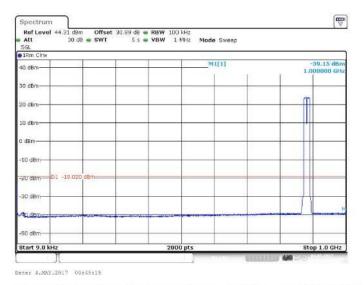


Figure 430 Spurious Emissions (9kHz $-1\rm{GHz})-64\rm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

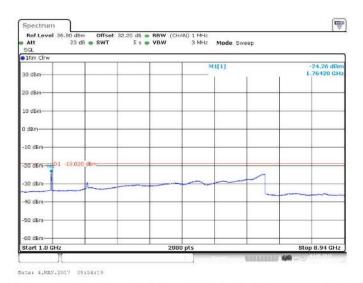


Figure 431 Spurious Emissions (1 GHz - 8.94 GHz) 64QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 306 of 427



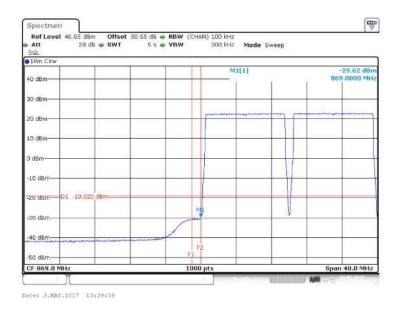


Figure 432 Spurious Emissions (Lower Band Edge) – 256QAM (874 MHz, $\,$ 884, $\,$ 2 X 5 MHz Channel BW)

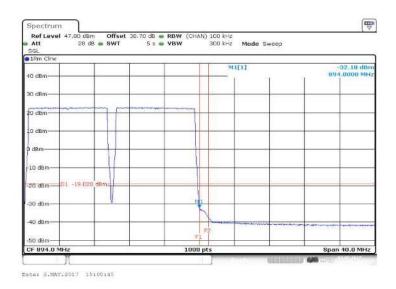


Figure 433 Spurious Emissions (Upper Band Edge) – 256QAM QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 307 of 427



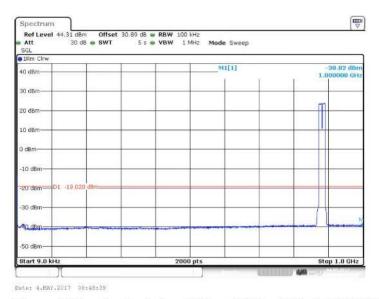


Figure 434 Spurious Emissions (9kHz $-1\,\mathrm{GHz})-256\mathrm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

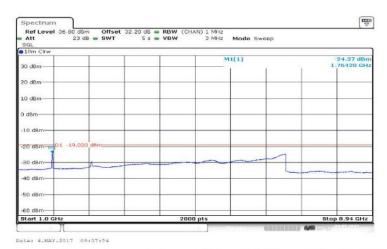


Figure 435 Spurious Emissions (1 GHz - 8.94 GHz) - 256QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 308 of 427



Config E ANT 4:

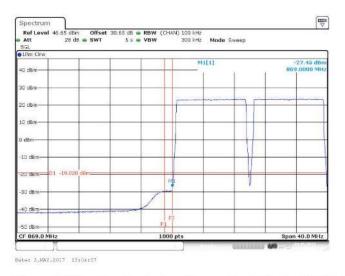


Figure 436 Spurious Emissions (Lower Band Edge) – QPSK (874 MHz, 884, 2 X 5 MHz Channel BW)

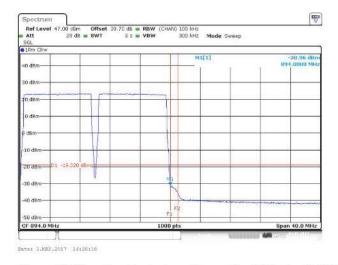


Figure 437 Spurious Emissions (Upper Band Edge) – QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 309 of 427



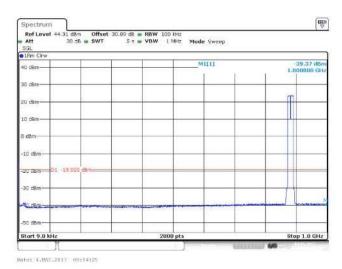


Figure 438 Spurious Emissions (9kHz $-1\rm{GHz}) - \rm{QPSK}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

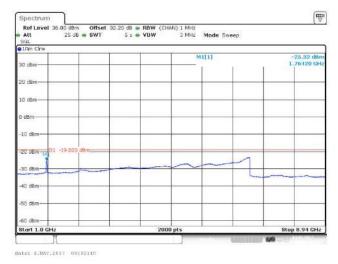


Figure 439 Spurious Emissions (1 GHz - 8.94 GHz) - QPSK (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 310 of 427



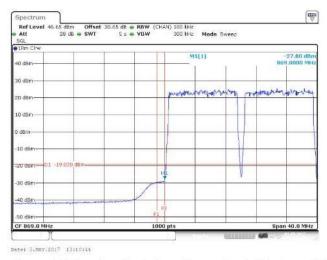


Figure 440 Spurious Emissions (Lower Band Edge) – 16QAM (874 MHz, 884, 2 \times 5 MHz Channel BW)

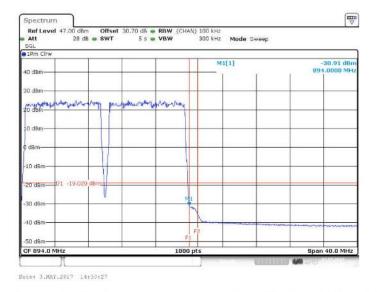


Figure 441 Spurious Emissions (Upper Band Edge) 16QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 311 of 427



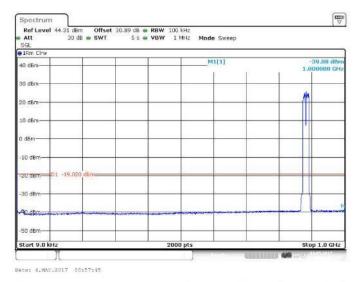


Figure 442 Spurious Emissions (9kHz - 1GHz) - 16QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

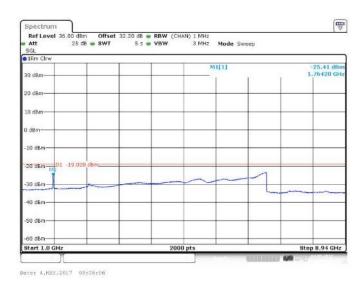


Figure 443 Spurious Emissions (1 GHz - 8.94 GHz) - 16QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 312 of 427



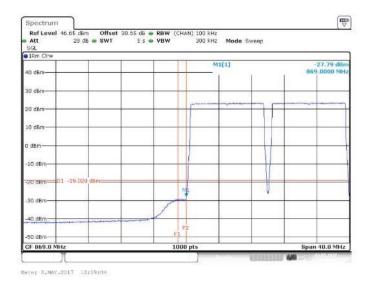


Figure 444 Spurious Emissions (Lower Band Edge) – 64QAM (874 MHz, 884, 2 X 5 MHz Channel BW)

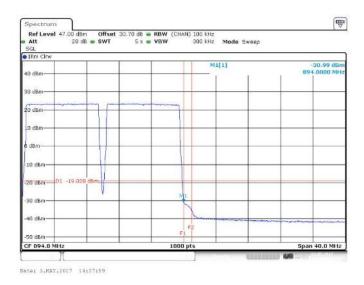


Figure 445 Spurious Emissions (Upper Band Edge) – 64QAM (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 23. May 2017 (2016)

Page 313 of 427



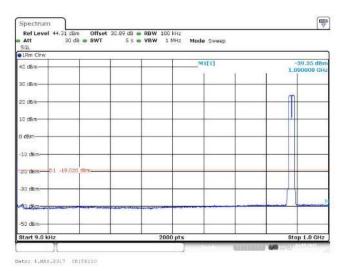


Figure 446 Spurious Emissions (9kHz $-1\rm{GHz})-64\rm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

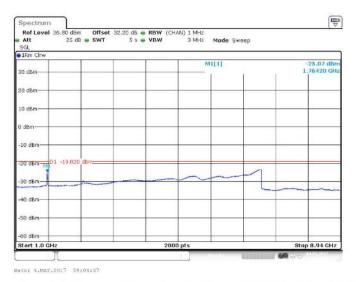


Figure 447 Spurious Emissions (1 GHz - 8.94 GHz) 64QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 314 of 427



 FCC ID:
 Test Report No:

 VBNAHCA-01
 D555647736

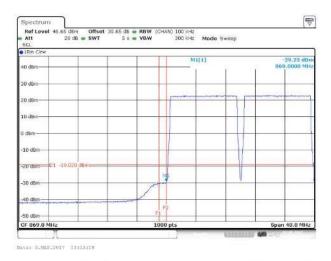


Figure 448 Spurious Emissions (Lower Band Edge) – 256QAM (874 MHz, 884, 2 \times 5 MHz Channel BW)

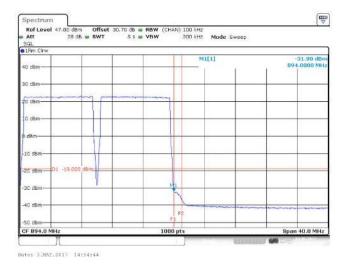


Figure 449 Spurious Emissions (Upper Band Edge) – 256QAM QPSK (879,0 MHz, 889.0 MHz, 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 315 of 427



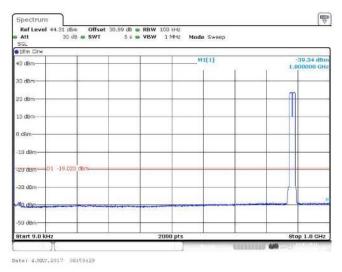


Figure 450 Spurious Emissions (9kHz $-1\,\mathrm{GHz})-256\mathrm{QAM}$ (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

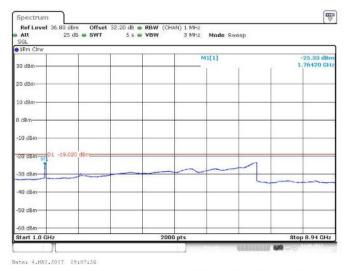


Figure 451 Spurious Emissions (1 GHz - 8.94 GHz) – 256QAM (876.5 MHz, 886.5 MHz 2 X 5 MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 316 of 427



 FCC ID:
 Test Report No:

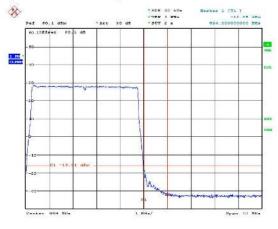
 VBNAHCA-01
 D555647736

Config F ANT1:



Bate: 31.APR.2017 13:33:05

Figure 452 Spurious Emissions (Lower Band Edge) – QPSK (871.5 MHz) (5MHz Channel BW)



Bace: 24.AFR.2017 14:55:06

Figure 453 Spurious Emissions (Upper Band Edge) – QPSK (891.5 MHz) (5MHz Channel BW)

FCC 47 CFR part 22 (2016)

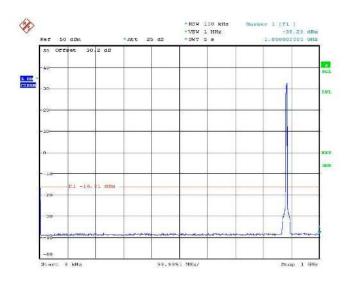
23. May 2017

Page 317 of 427



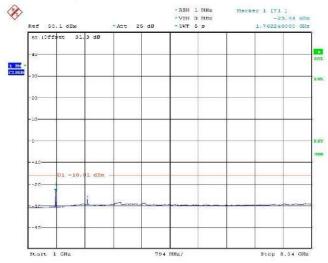
 FCC ID:
 Test Report No:

 VBNAHCA-01
 D555647736



Data: 24.APR.2017 14:26:05

Figure 454 Spurious Emissions (9kHz - 1GHz) - QPSK (881.5 MHz) (5MHz Channel BW)



Date: 24.APR.2017 14:17:27

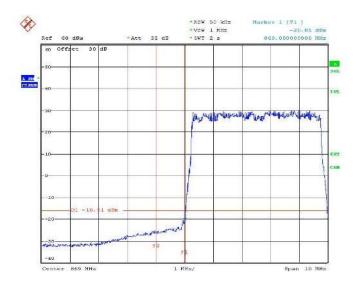
Figure 455 Spurious Emissions (1GHz - 8.94GHz) - QPSK (881.5 MHz) (5MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

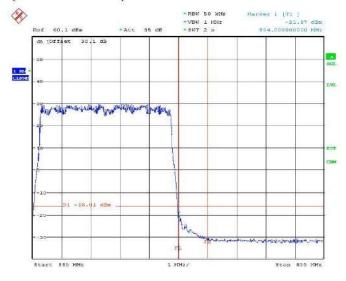
Page 318 of 427





Date: 21.APR.2017 13:35:50

Figure 456 Spurious Emissions (Lower Band Edge) – 16QAM (871.5 MHz) (5MHz Channel BW)



Date: 25.APR.2017 08:03:31

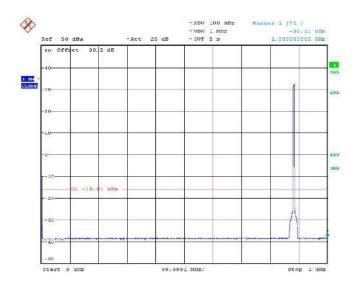
Figure 457 Spurious Emissions (Upper Band Edge) – 16QAM (891.5 MHz) (5MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

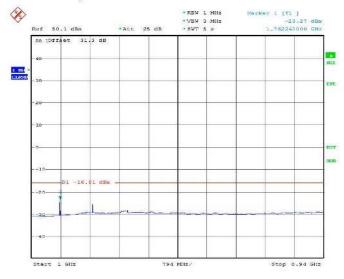
Page 319 of 427





Date: 24.APR.2017 14:22:33

Figure 458 Spurious Emissions (9kHz - 1GHz) - 16QAM (881.5 MHz) (5MHz Channel BW)



Date: 24.APR.2017 14:23:39

Figure 459 Spurious Emissions (1GHz – 8.94GHz) – 16QAM (881.5 MHz) (5MHz Channel BW)

FCC 47 CFR part 22 (2016)

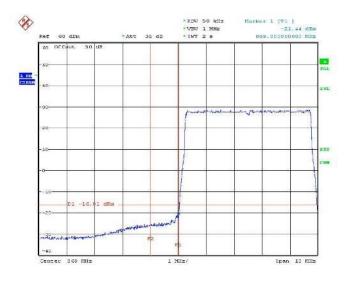
23. May 2017

Page 320 of 427



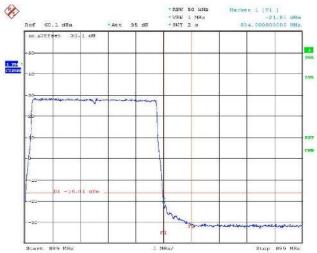
 FCC ID:
 Test Report No:

 VBNAHCA-01
 D555647736



Date: 21.APR.2017 13:38:54

Figure 460 Spurious Emissions (Lower Band Edge) – 64QAM (871.5 MHz) (5MHz Channel BW)



Date: 25,APR.2017 00:09:40

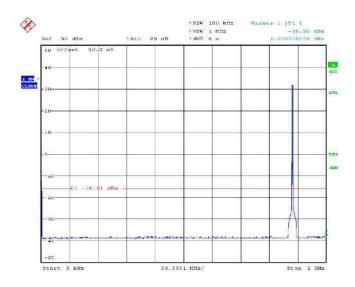
Figure 461 Spurious Emissions (Upper Band Edge) – 64QAM (891.5 MHz) (5MHz Channel BW)

FCC 47 CFR part 22 (2016)

Page 321 of 427

23. May 2017





Date: 24.APR.2017 14:31:05

Figure 462 Spurious Emissions (9kHz $-\,1{\rm GHz})$ - 64QAM (881.5 MHz) (5MHz Channel BW)



Date: 24.APR.2017 14:31:51

Figure 463 Spurious Emissions (1GHz - 8.94GHz) - 64QAM (881.5 MHz) (5MHz Channel BW)

FCC 47 CFR part 22 (2016)

23. May 2017

Page 322 of 427