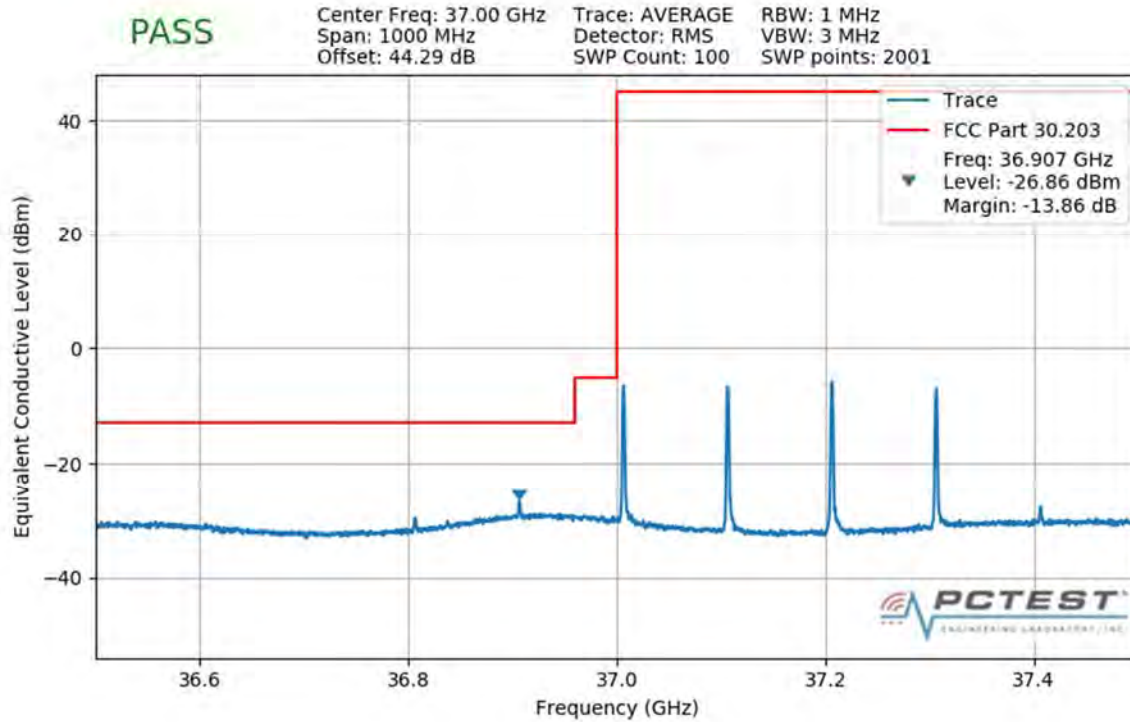
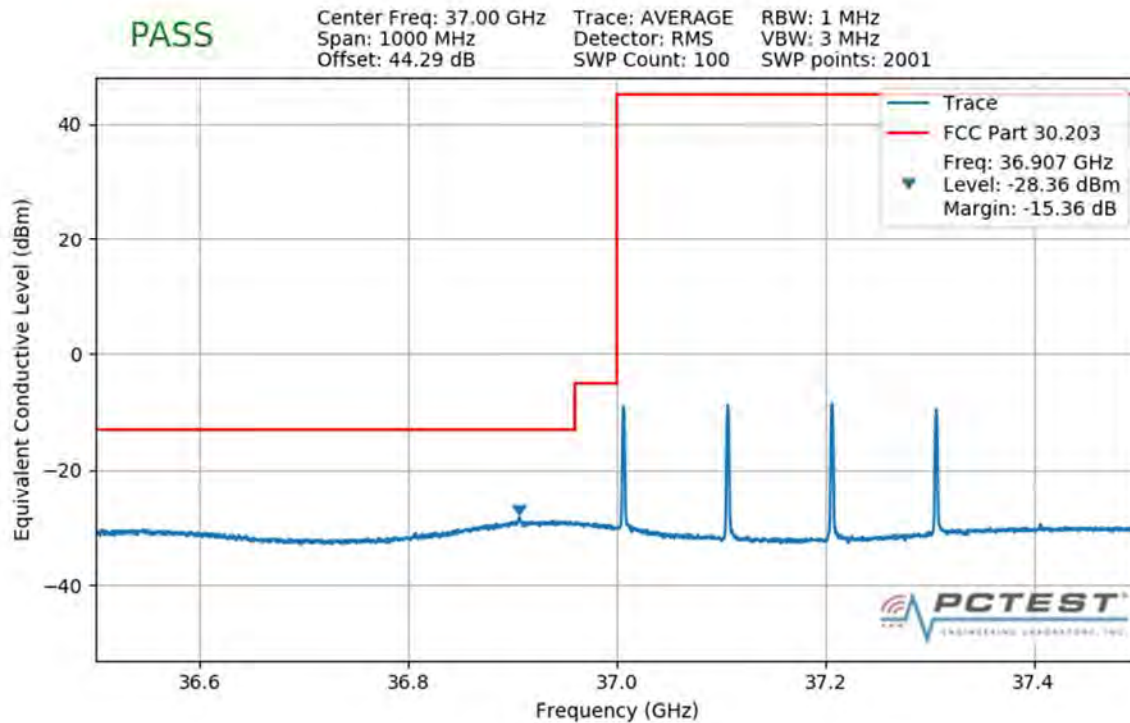


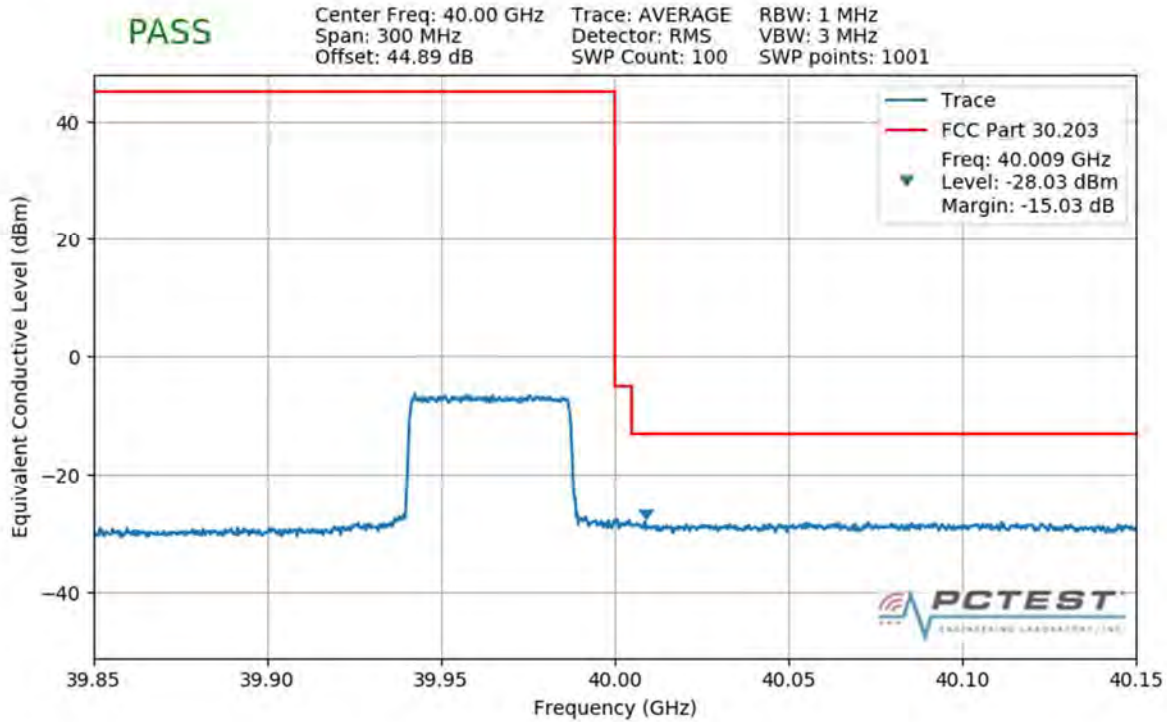


Plot 7-351. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

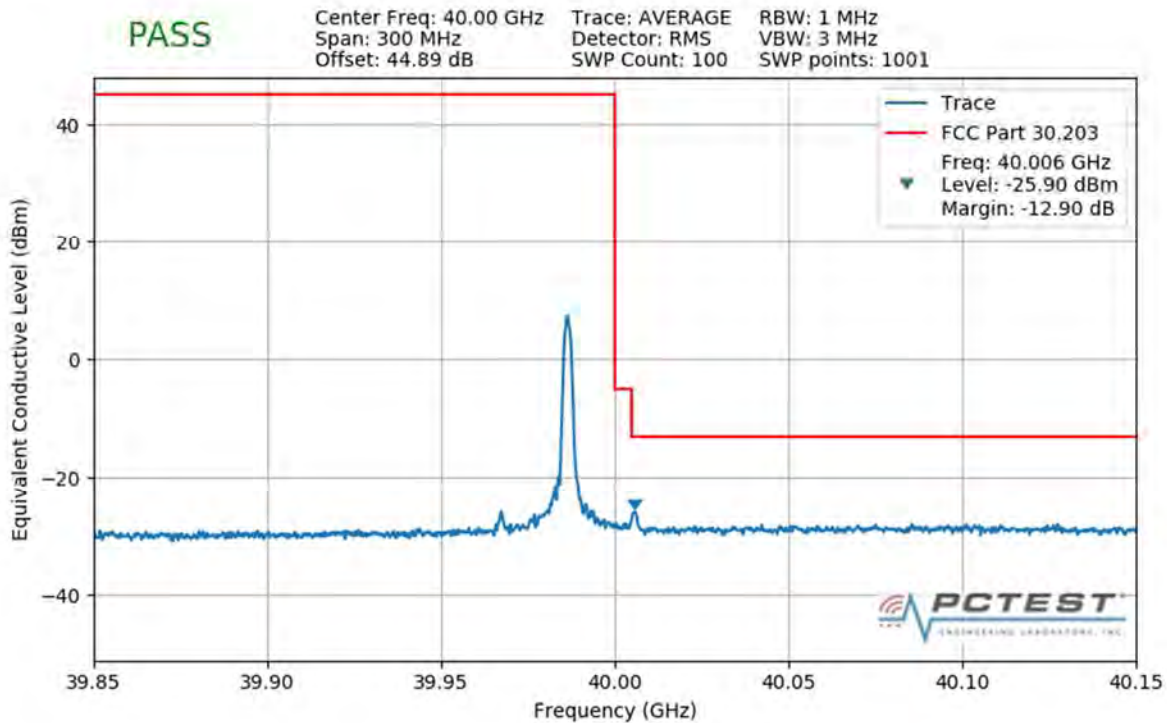


Plot 7-352. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 228 of 355

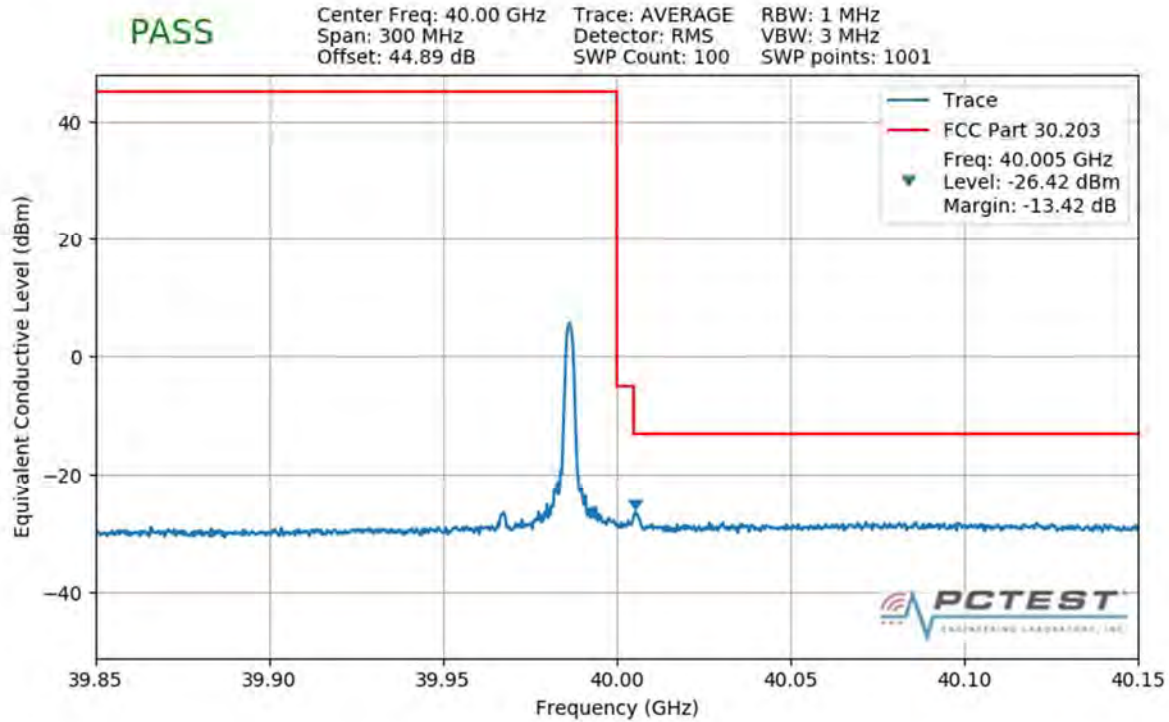


Plot 7-353. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

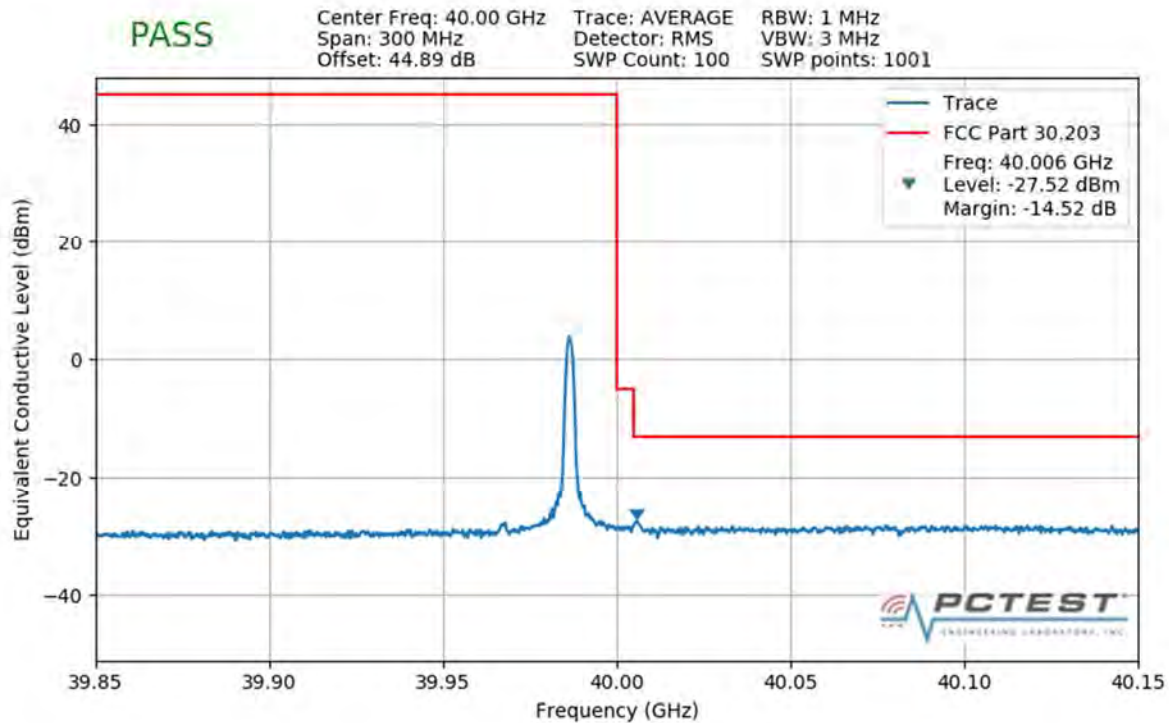


Plot 7-354. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 229 of 355

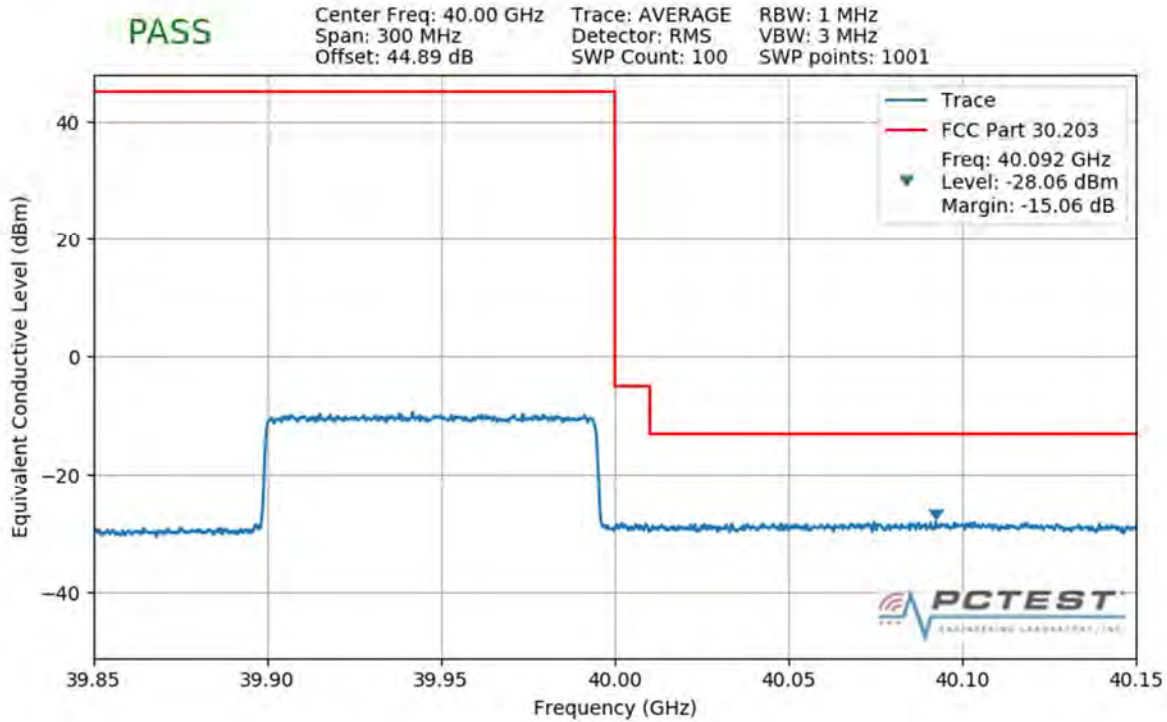


Plot 7-355. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

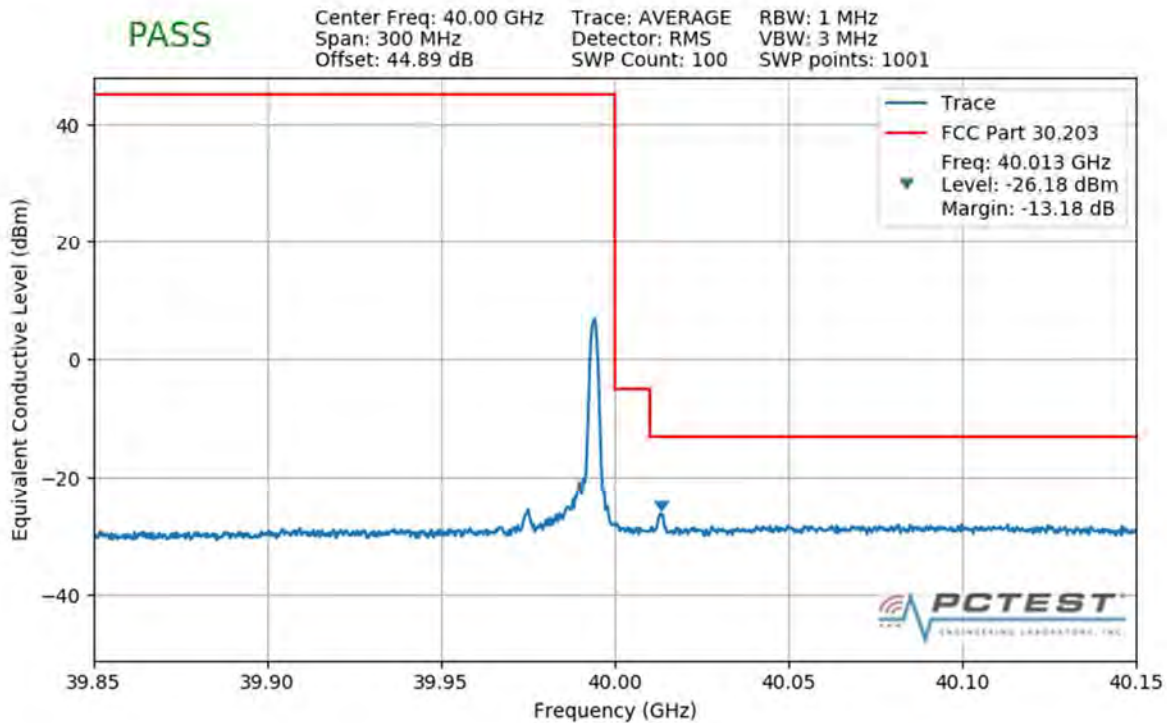


Plot 7-356. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 230 of 355

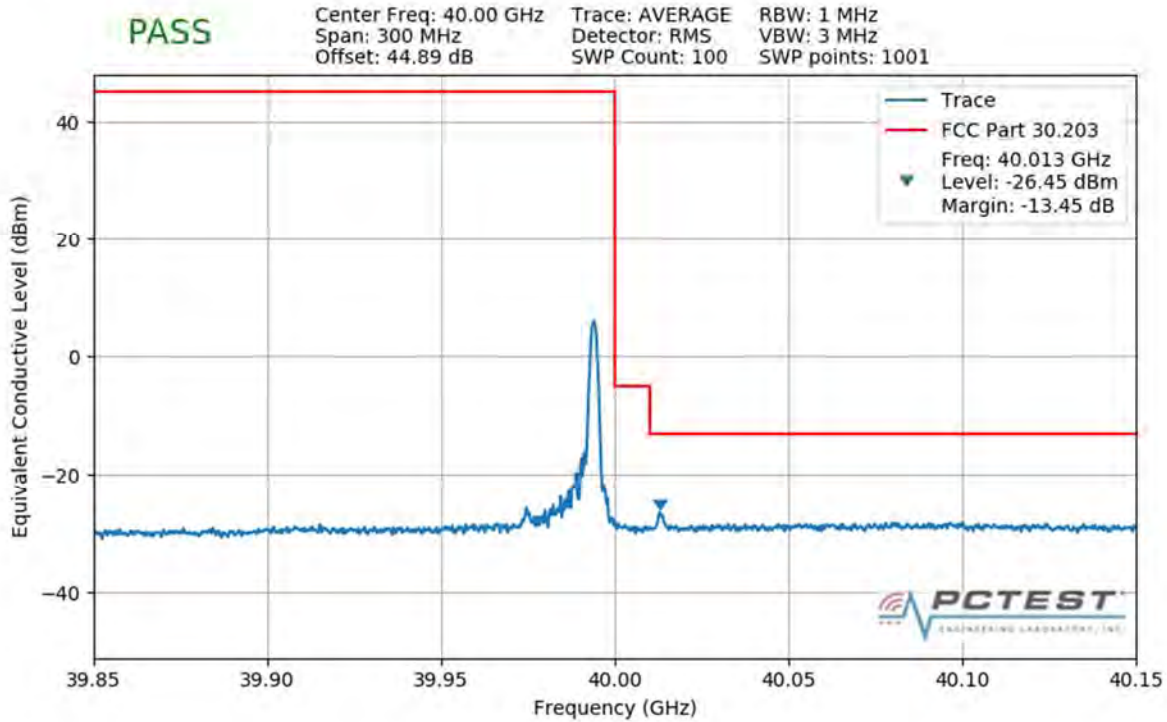


Plot 7-357. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

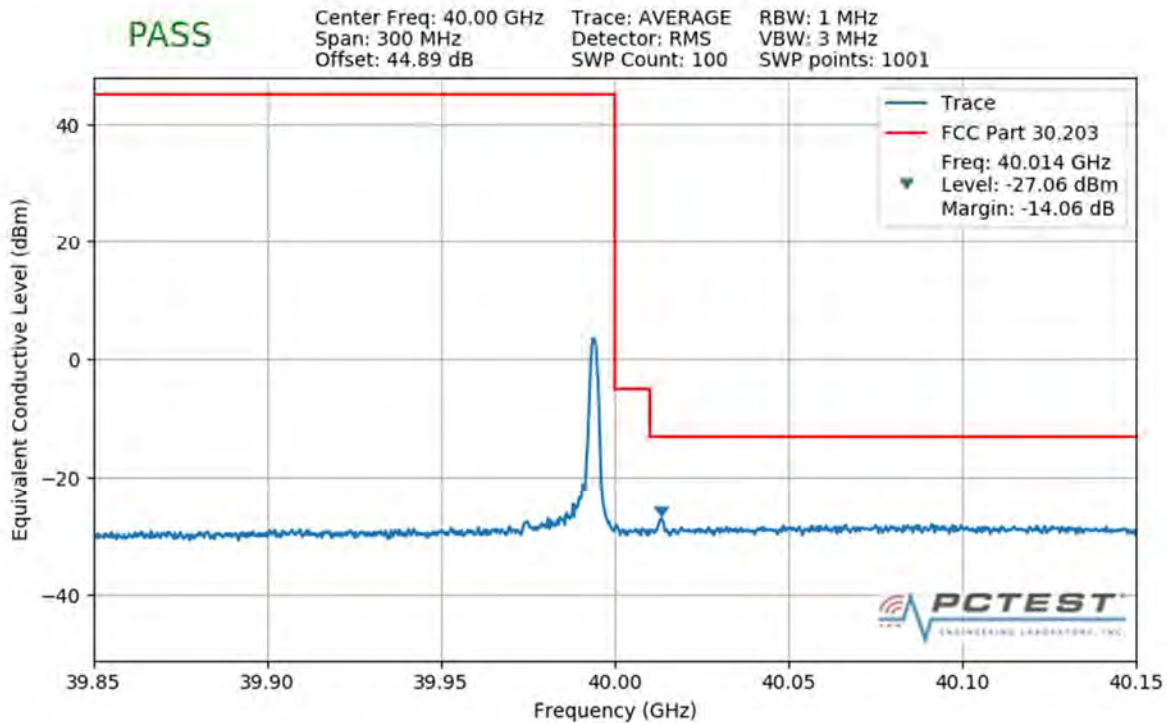


Plot 7-358. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 231 of 355

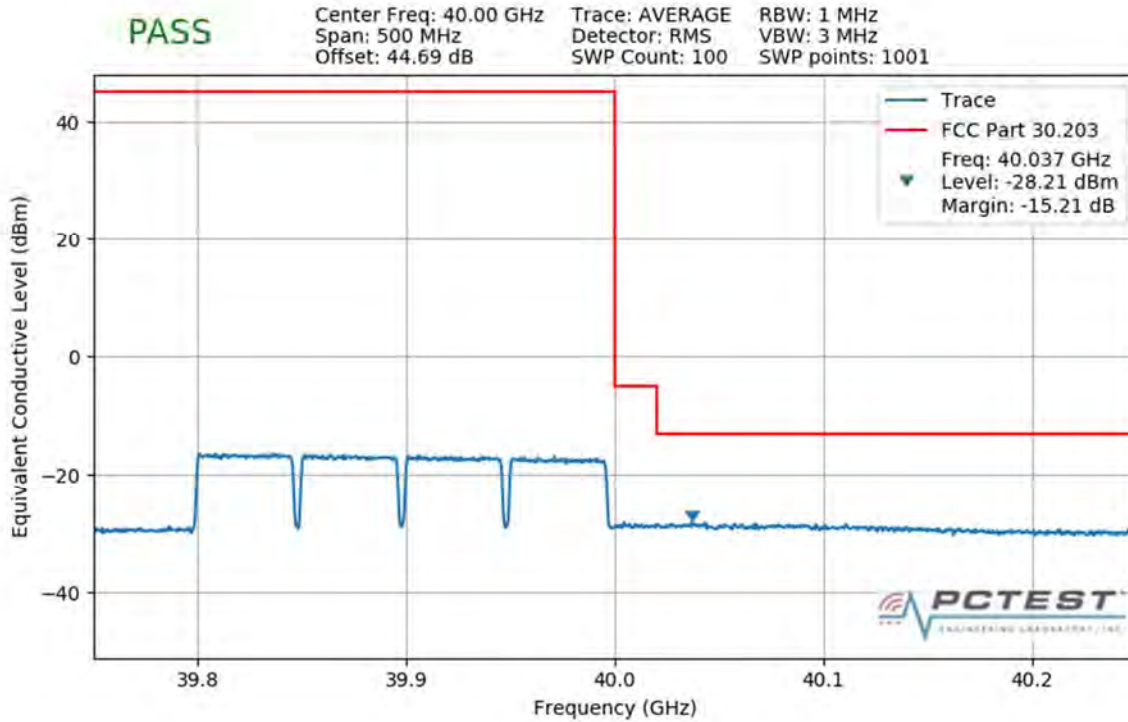


Plot 7-359. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

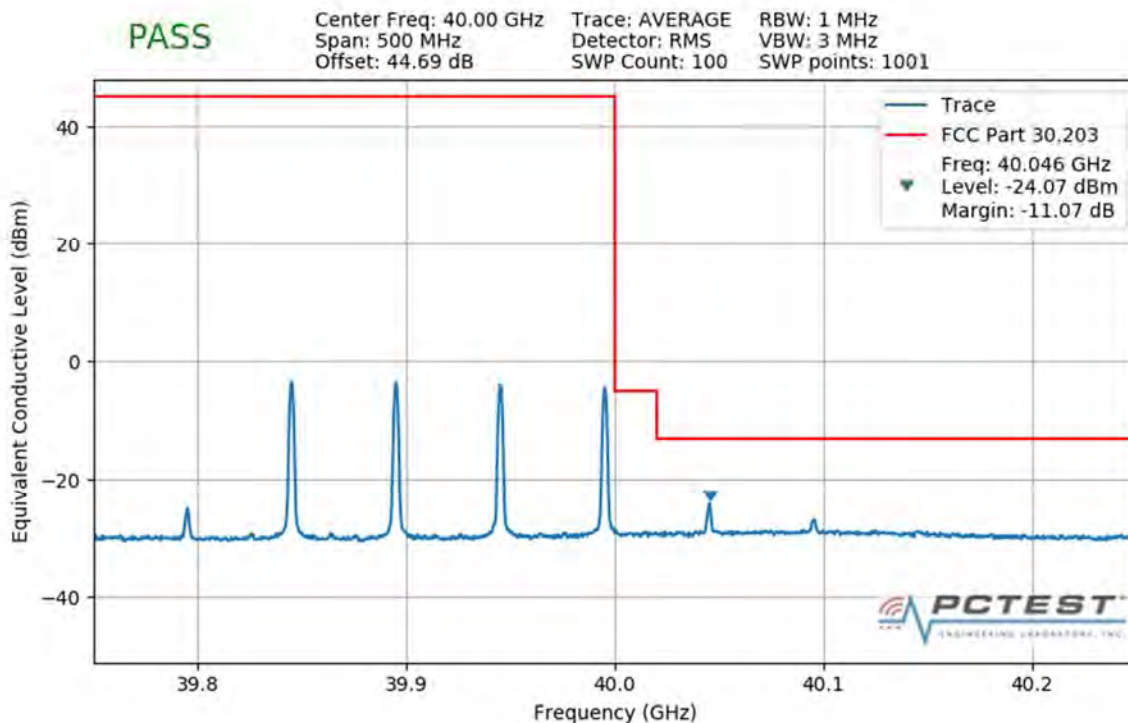


Plot 7-360. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 232 of 355

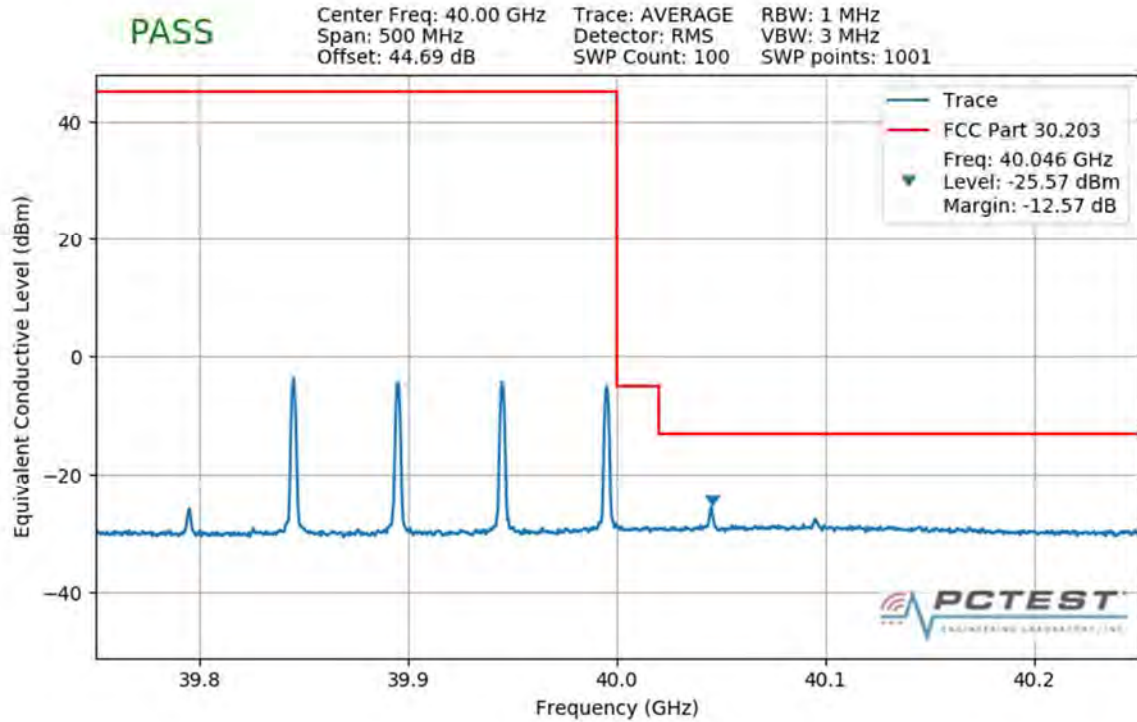


Plot 7-361. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

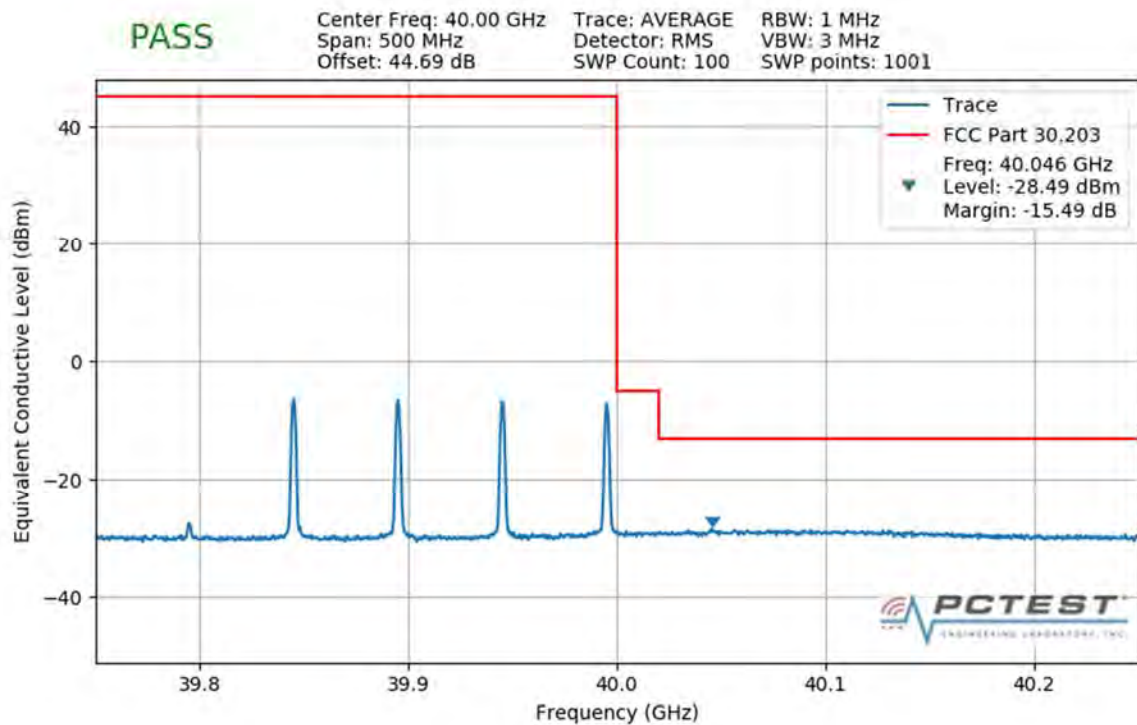


Plot 7-362. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 233 of 355

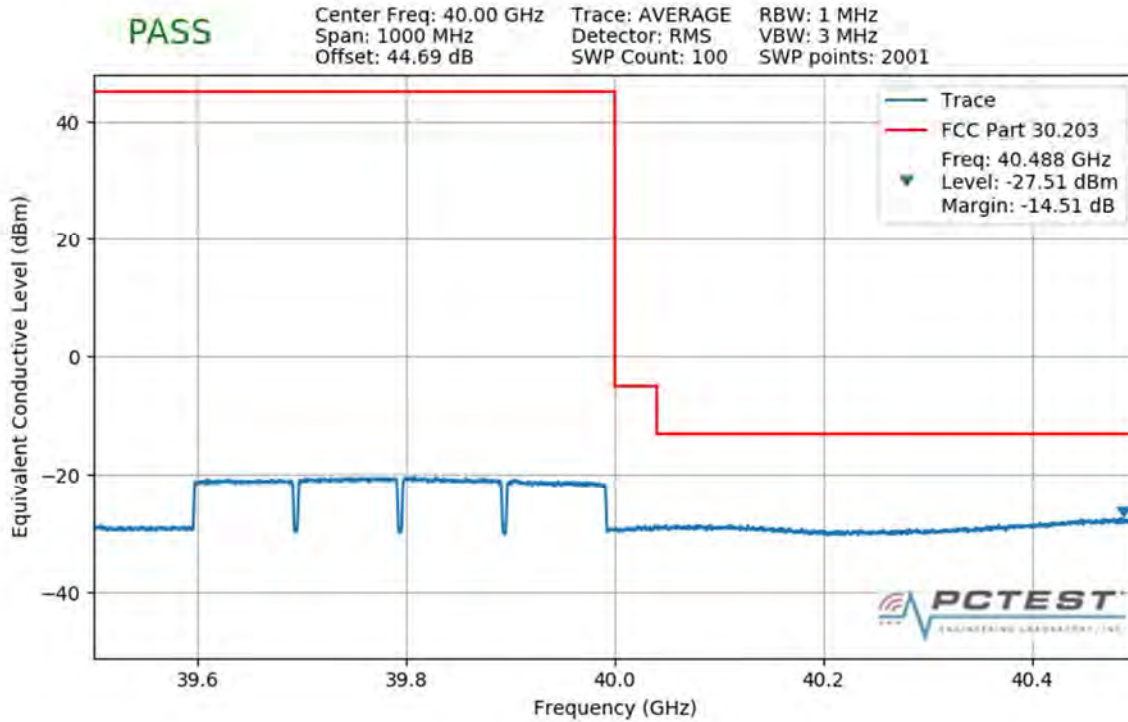


Plot 7-363. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

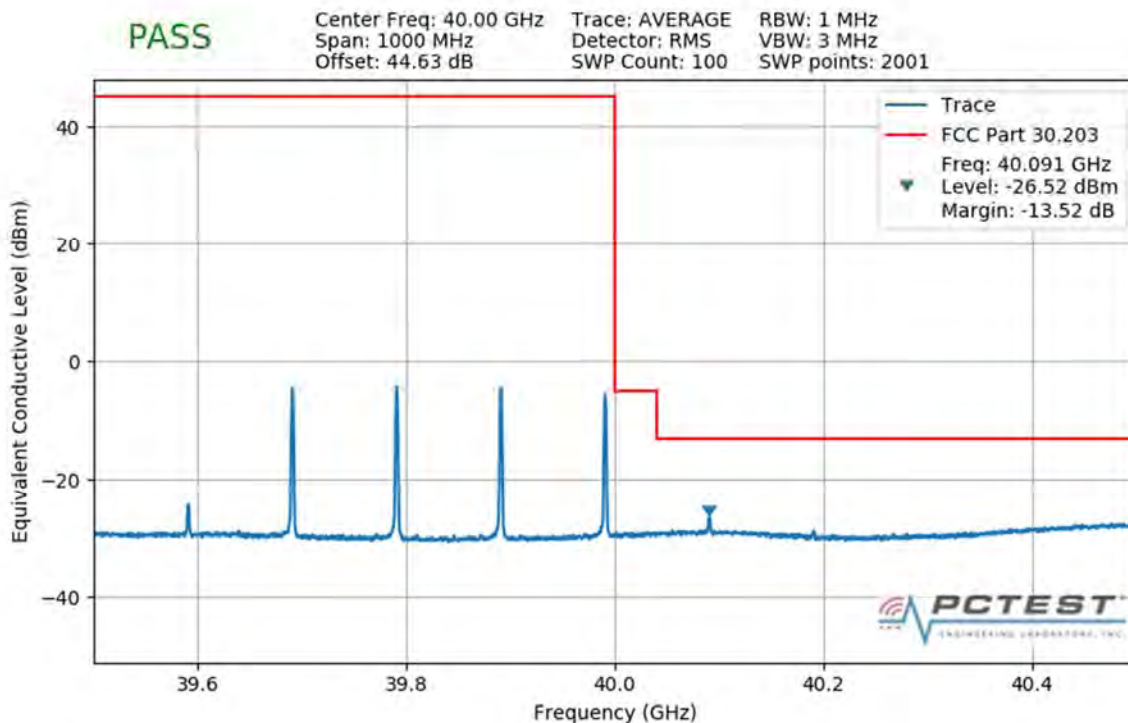


Plot 7-364. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 234 of 355

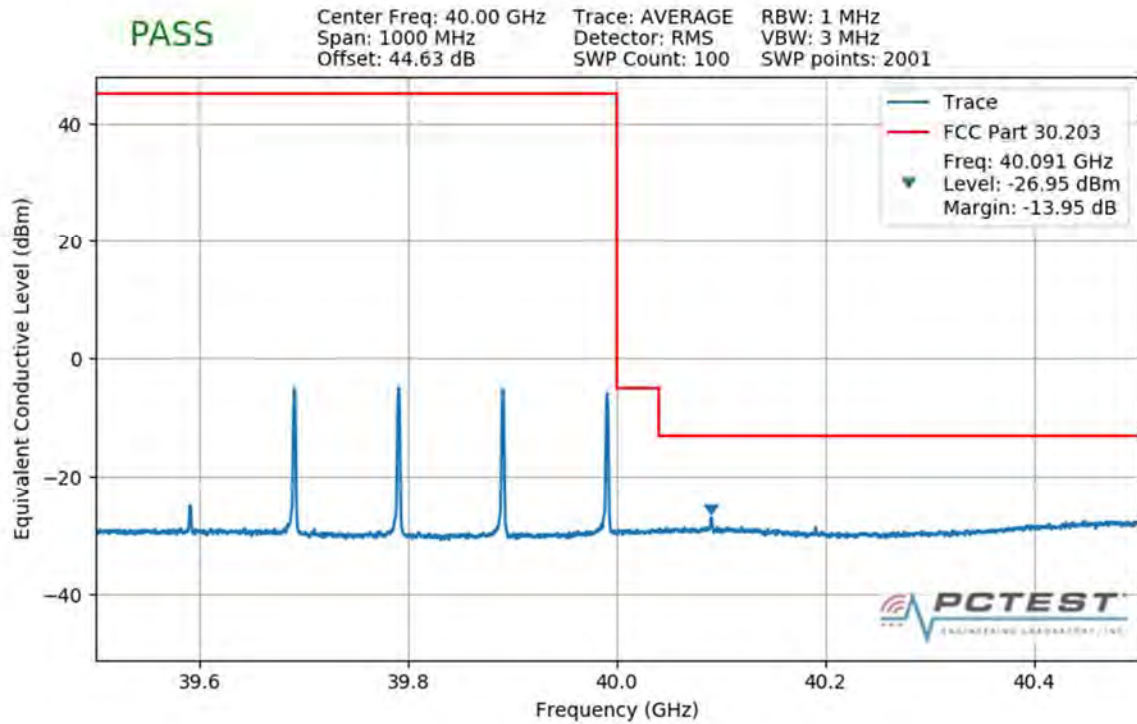


Plot 7-365. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

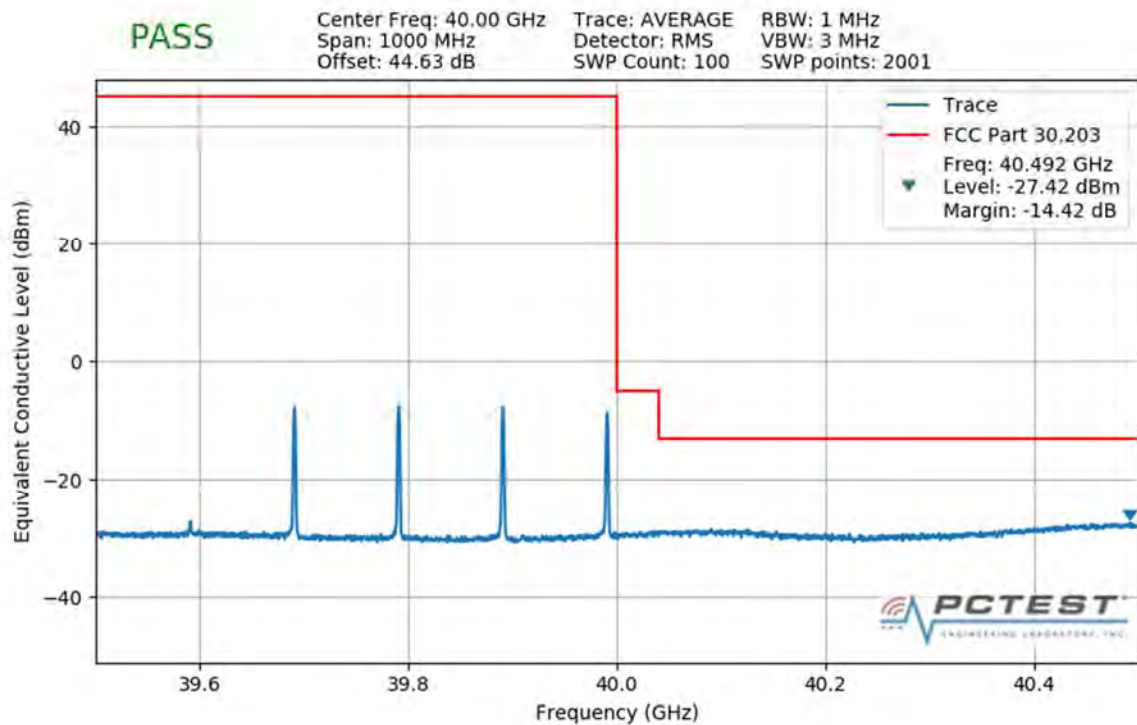


Plot 7-366. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 235 of 355

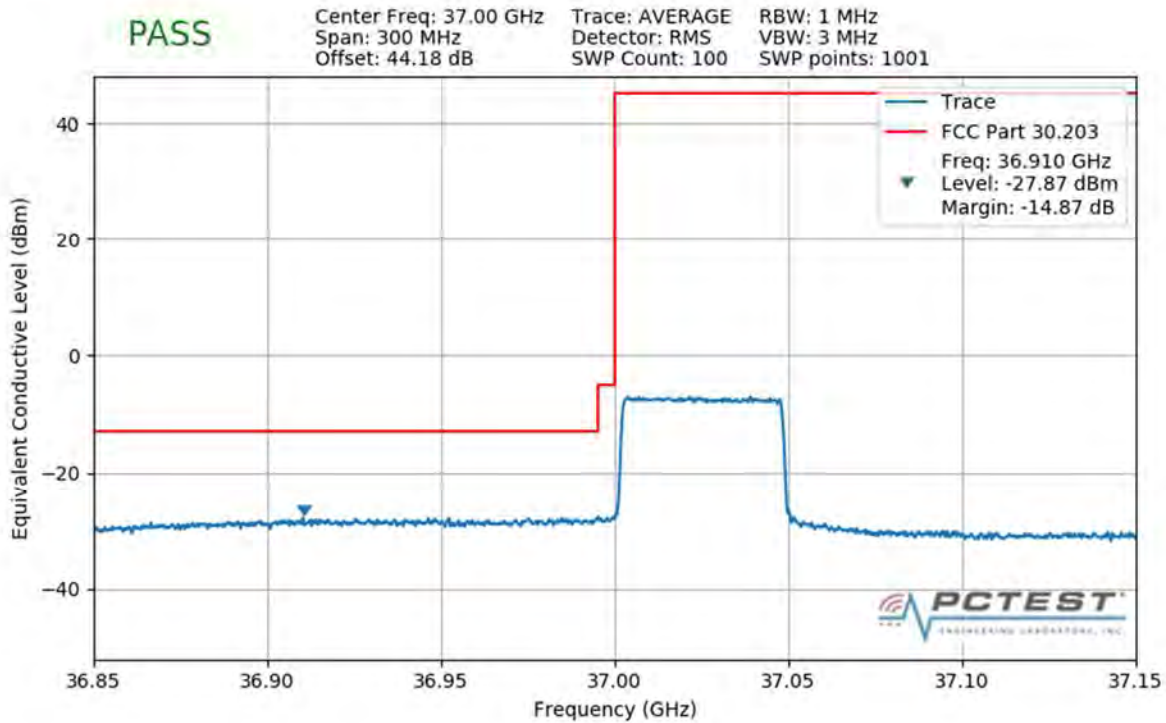


Plot 7-367. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)

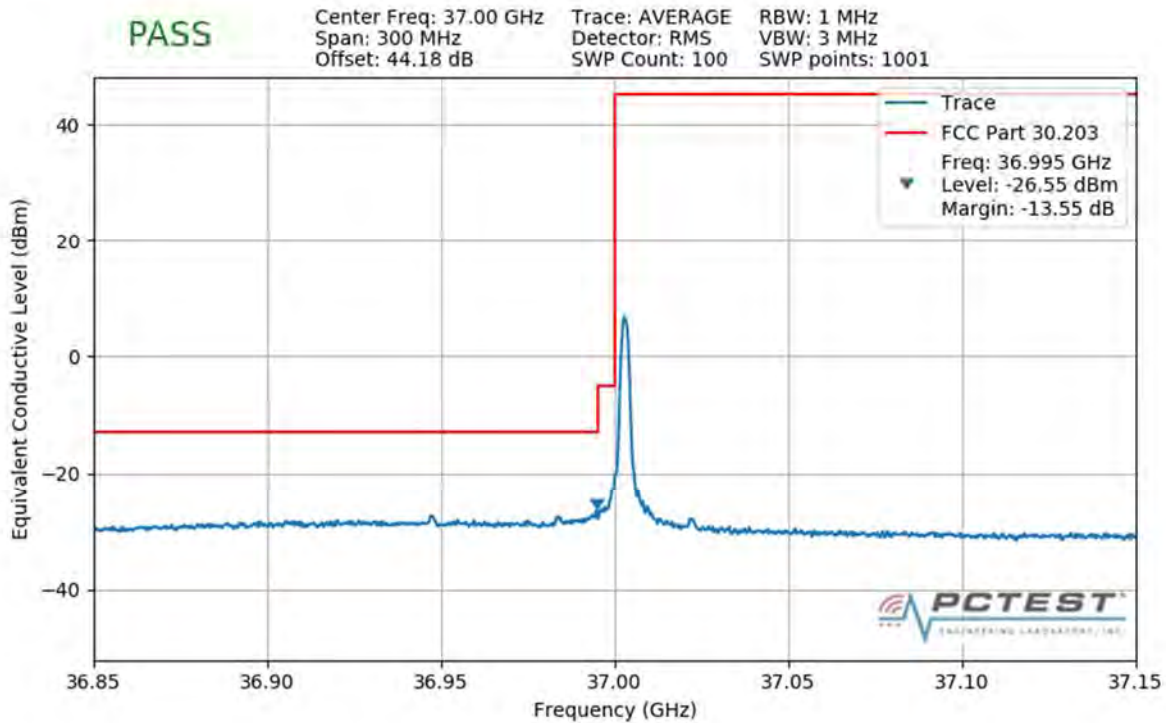


Plot 7-368. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 236 of 355

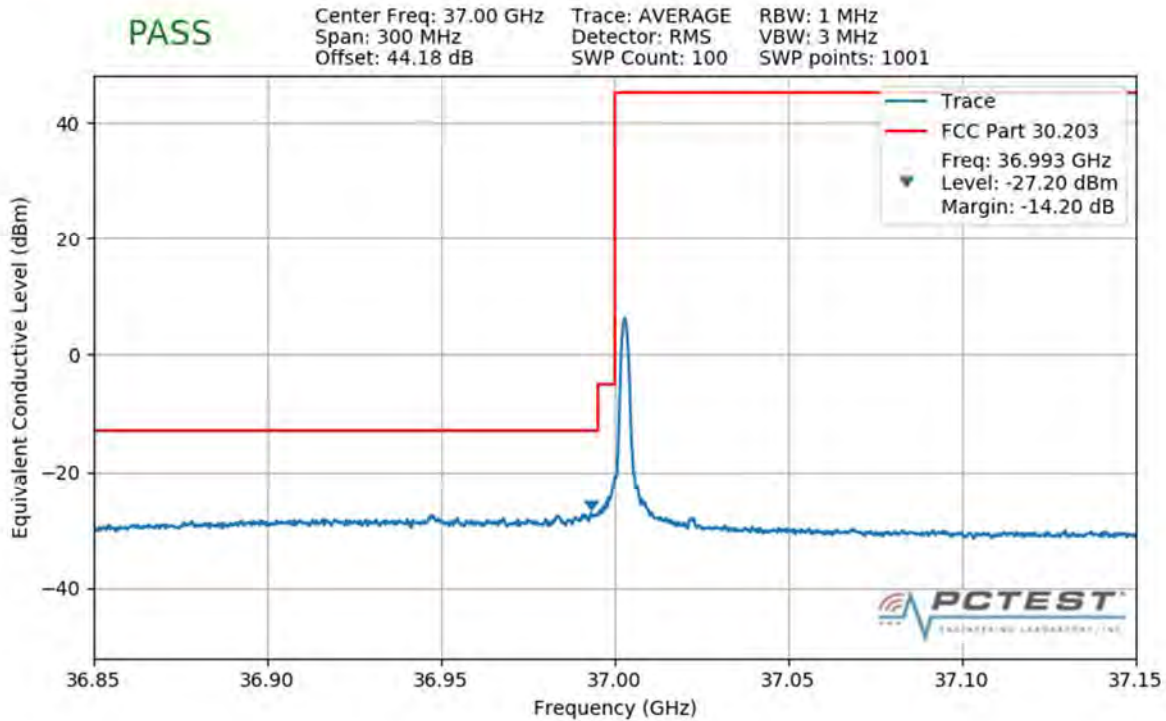


Plot 7-369. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

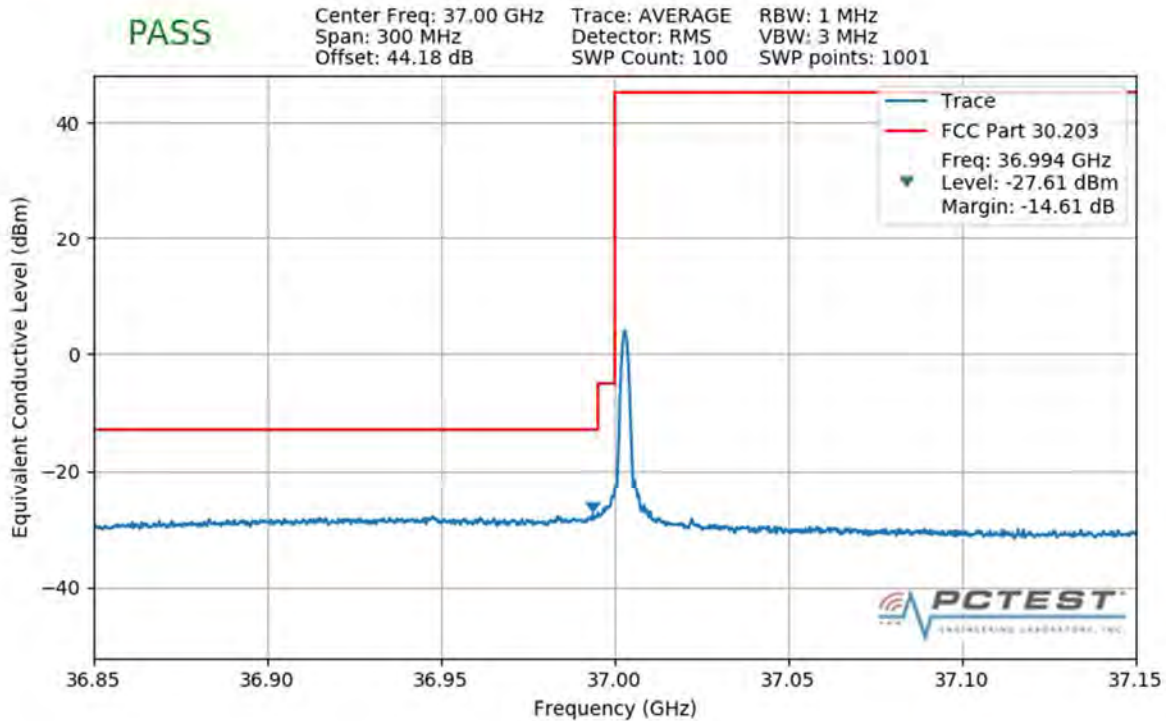


Plot 7-370. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 237 of 355

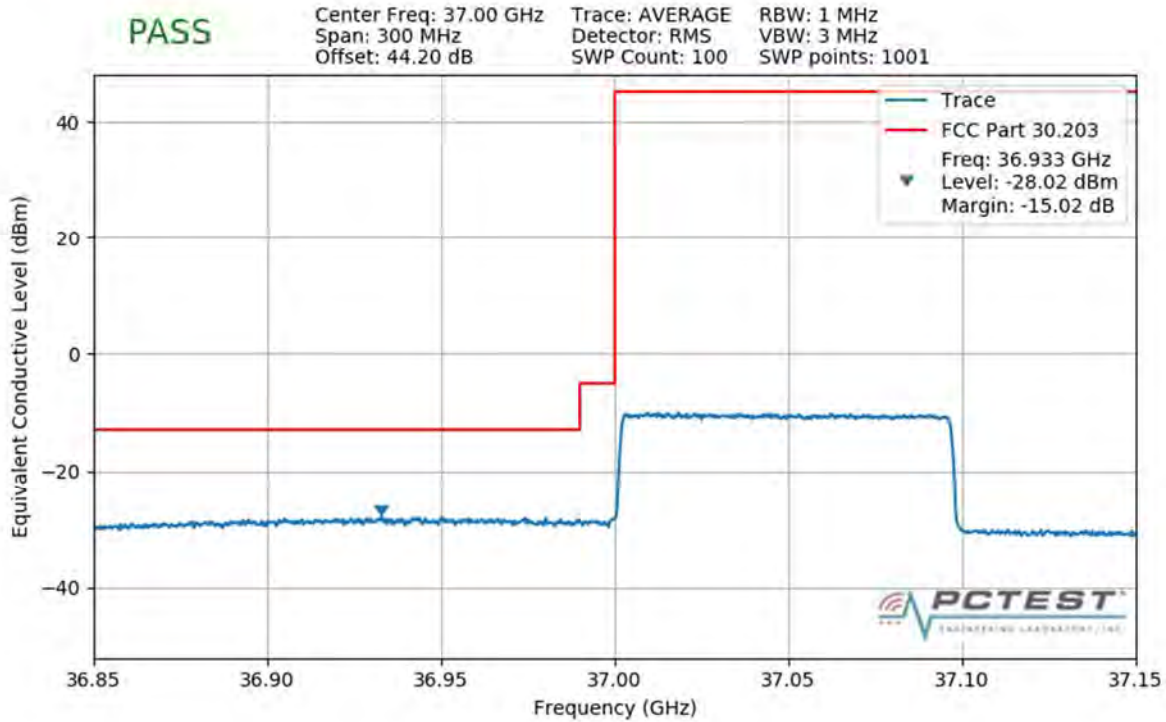


Plot 7-371. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

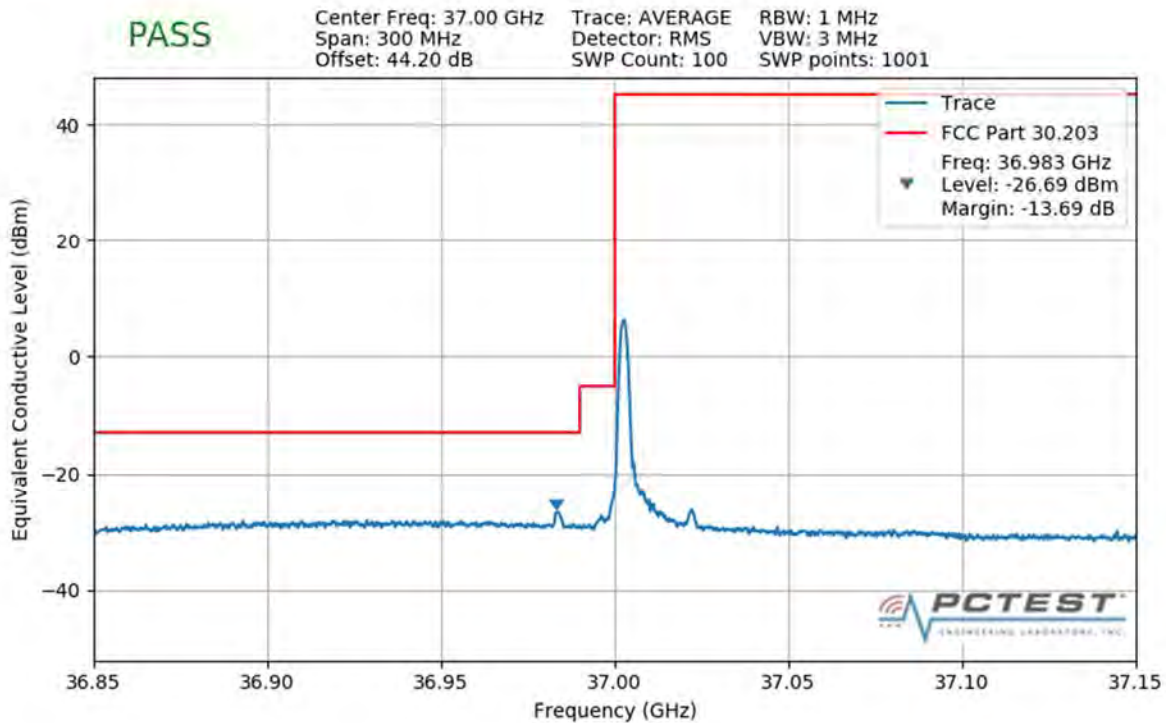


Plot 7-372. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 238 of 355

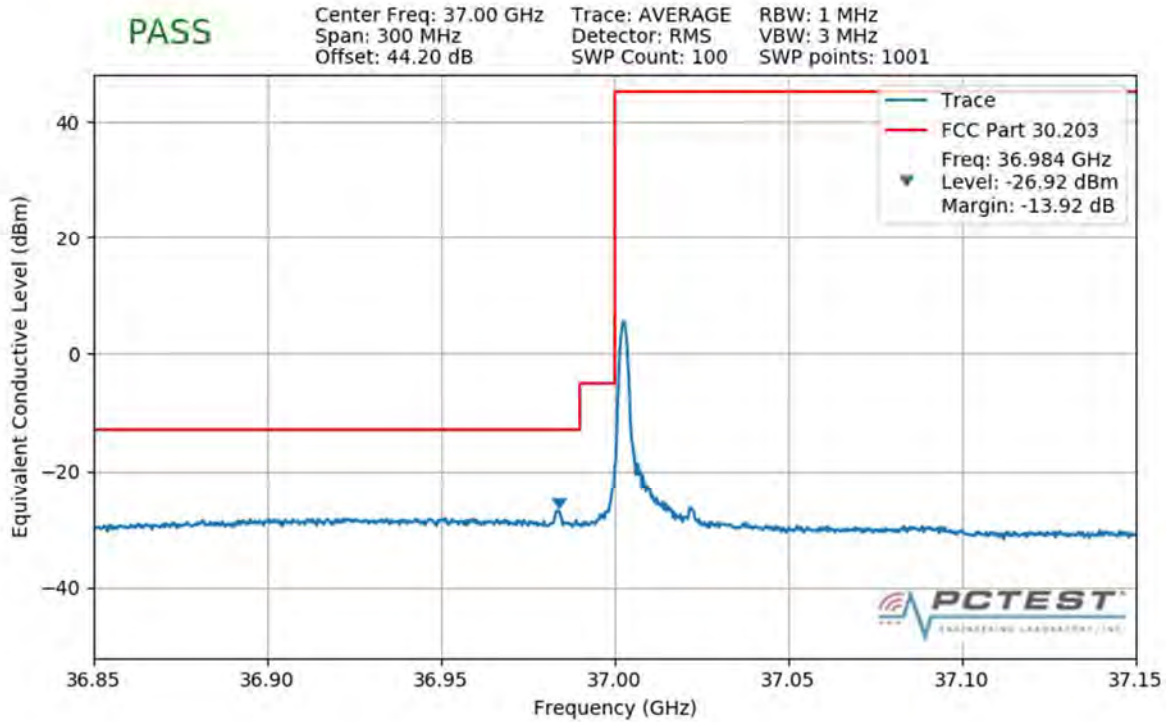


Plot 7-373. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

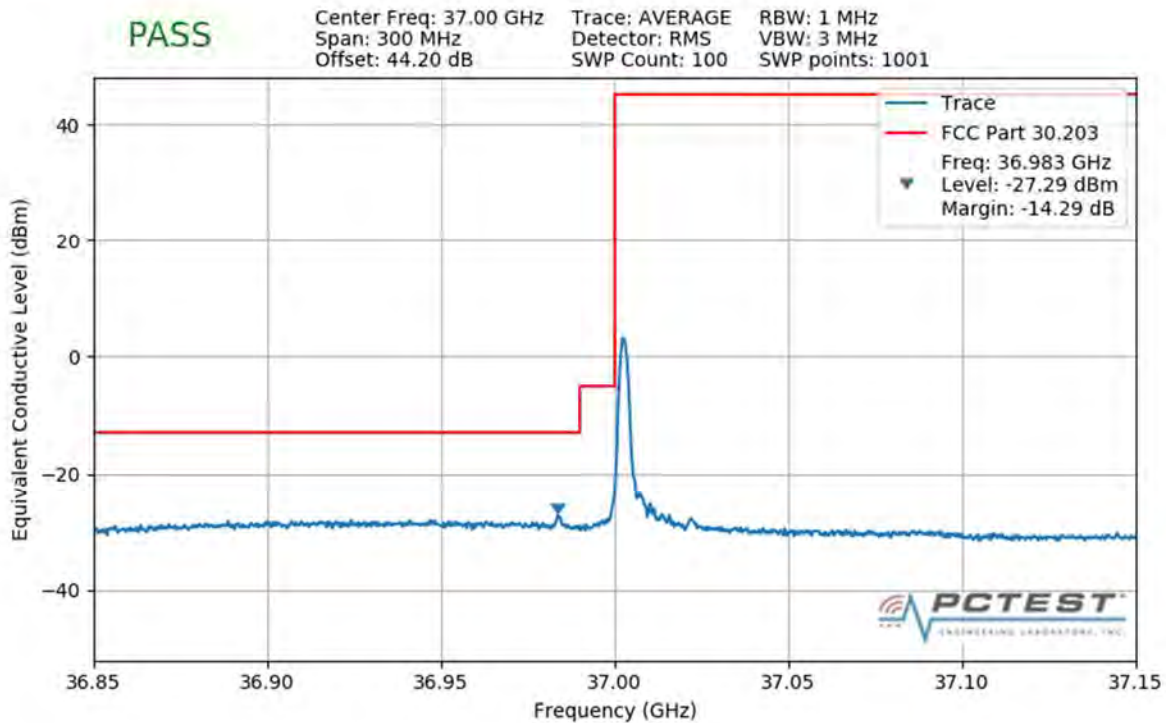


Plot 7-374. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 239 of 355

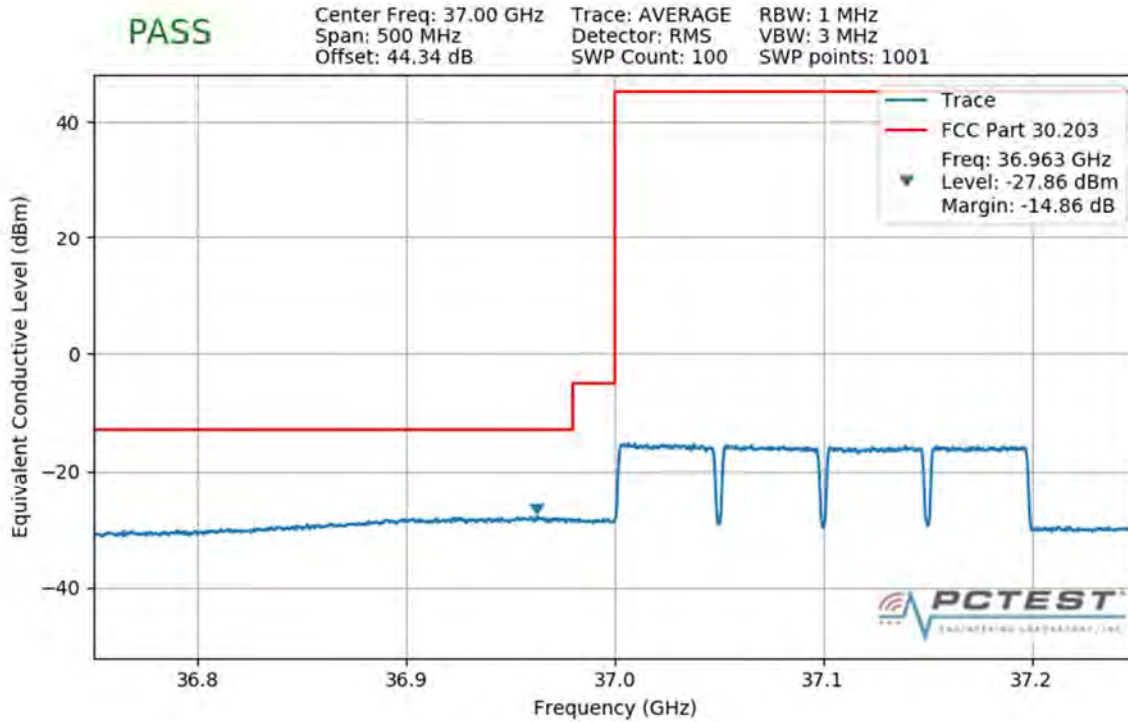


Plot 7-375. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

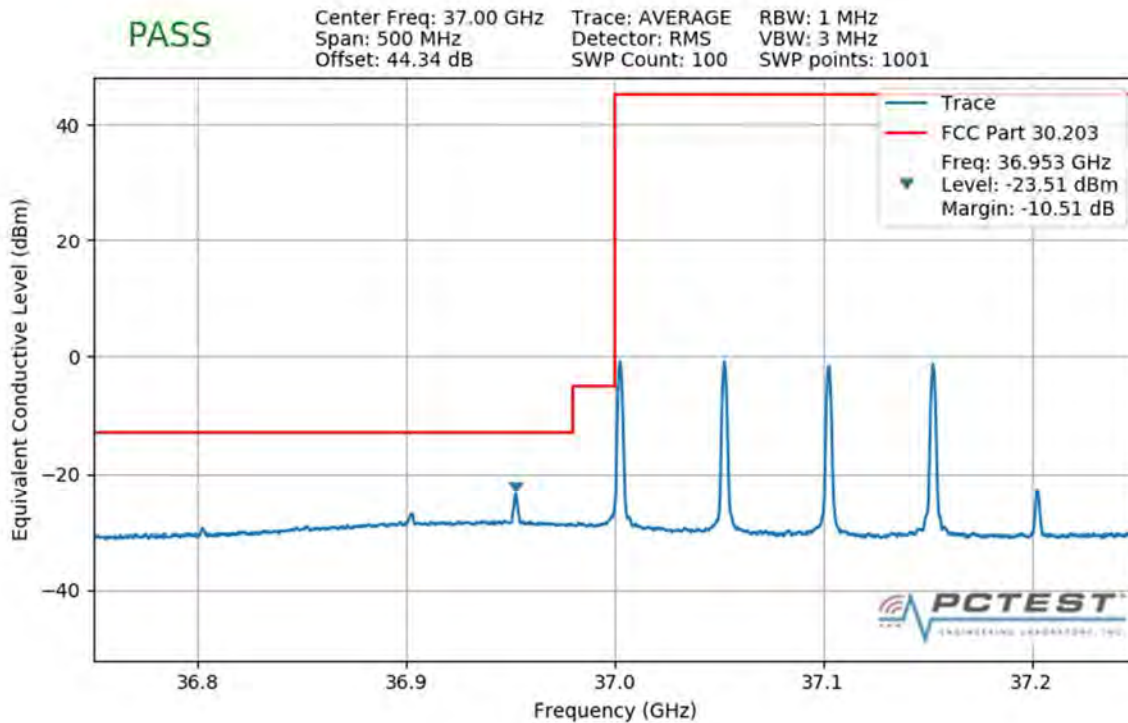


Plot 7-376. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 240 of 355

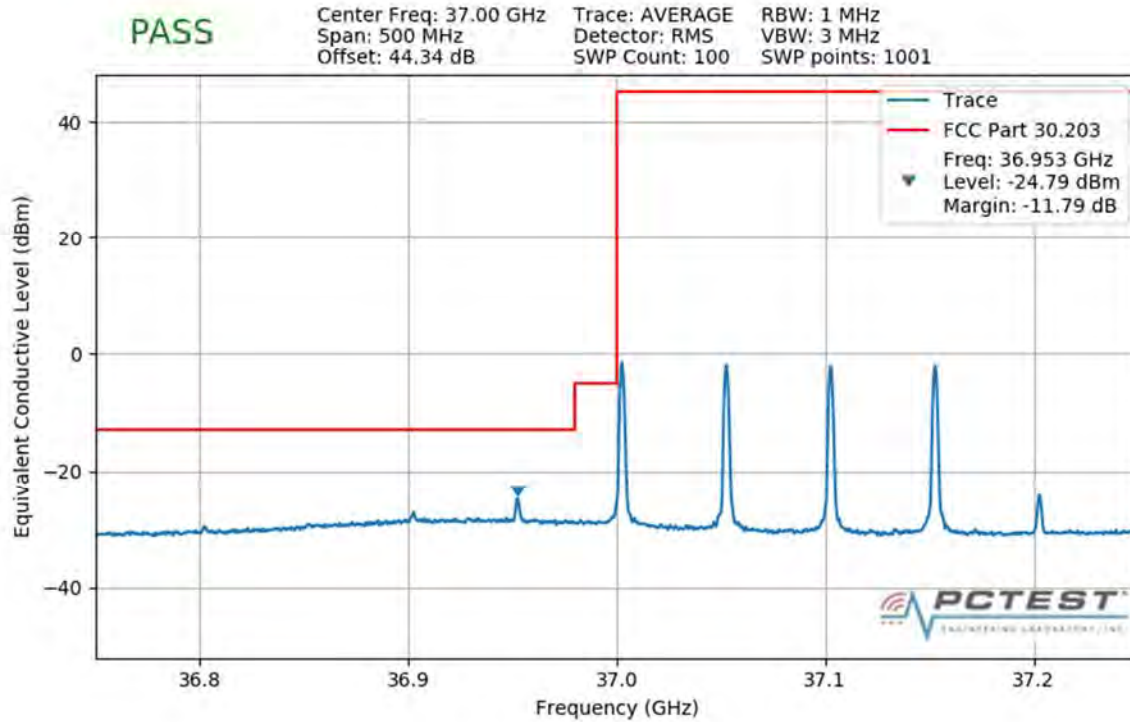


Plot 7-377. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

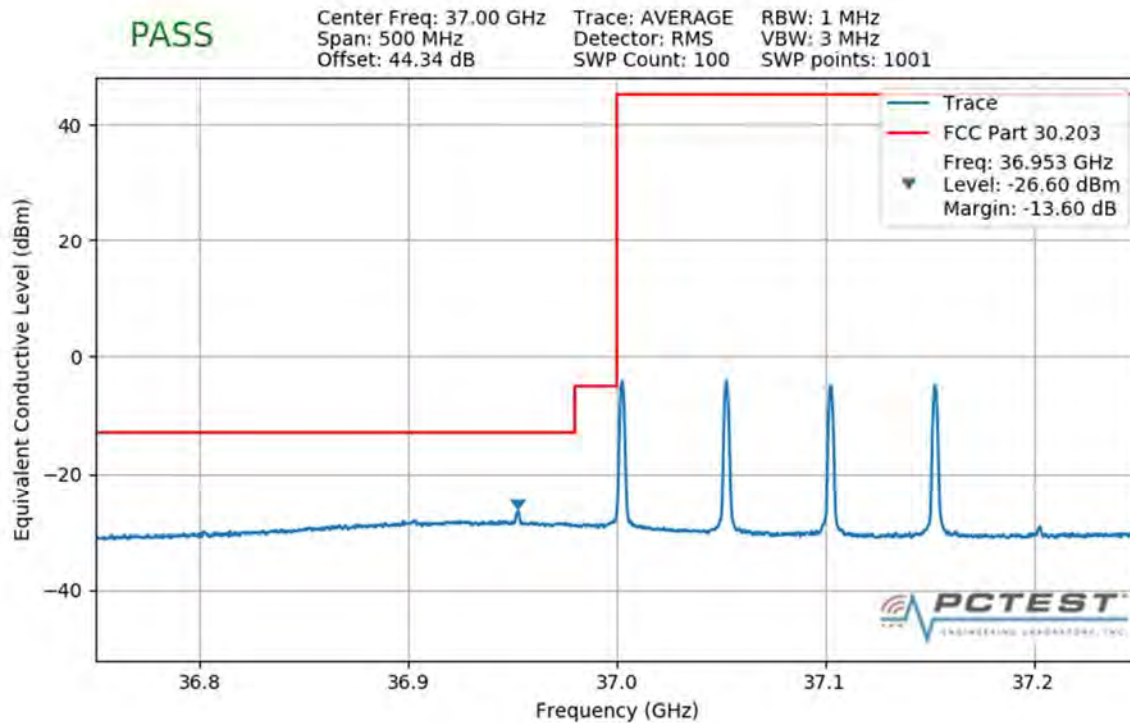


Plot 7-378. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 241 of 355

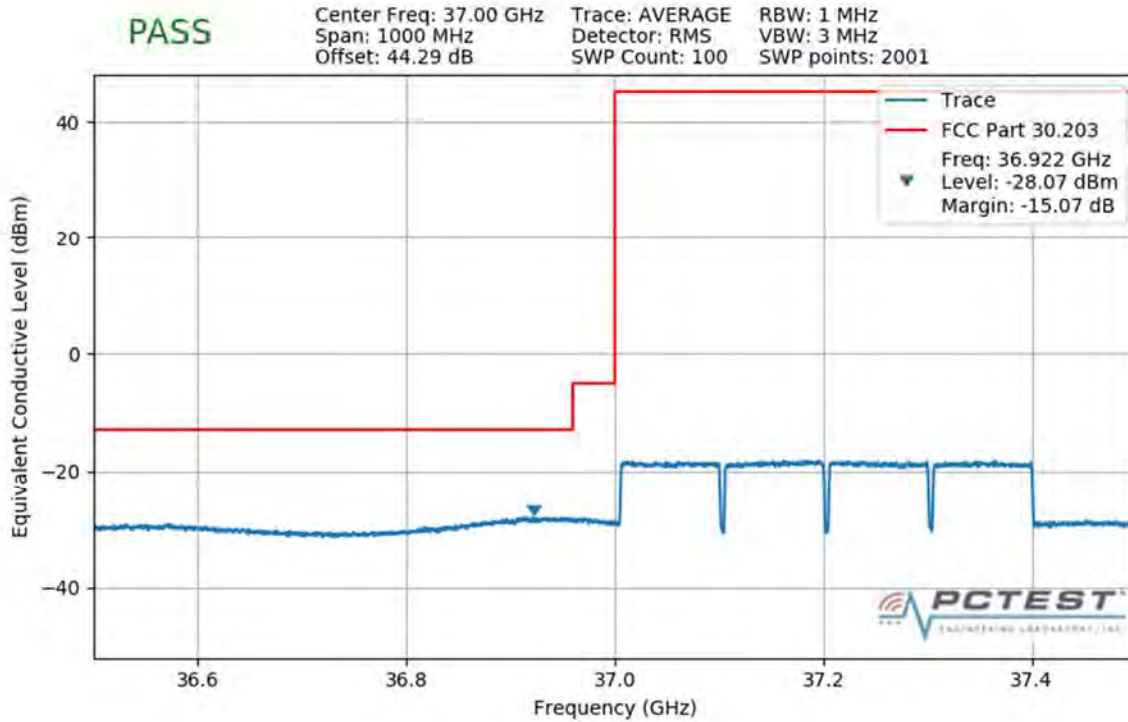


Plot 7-379. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

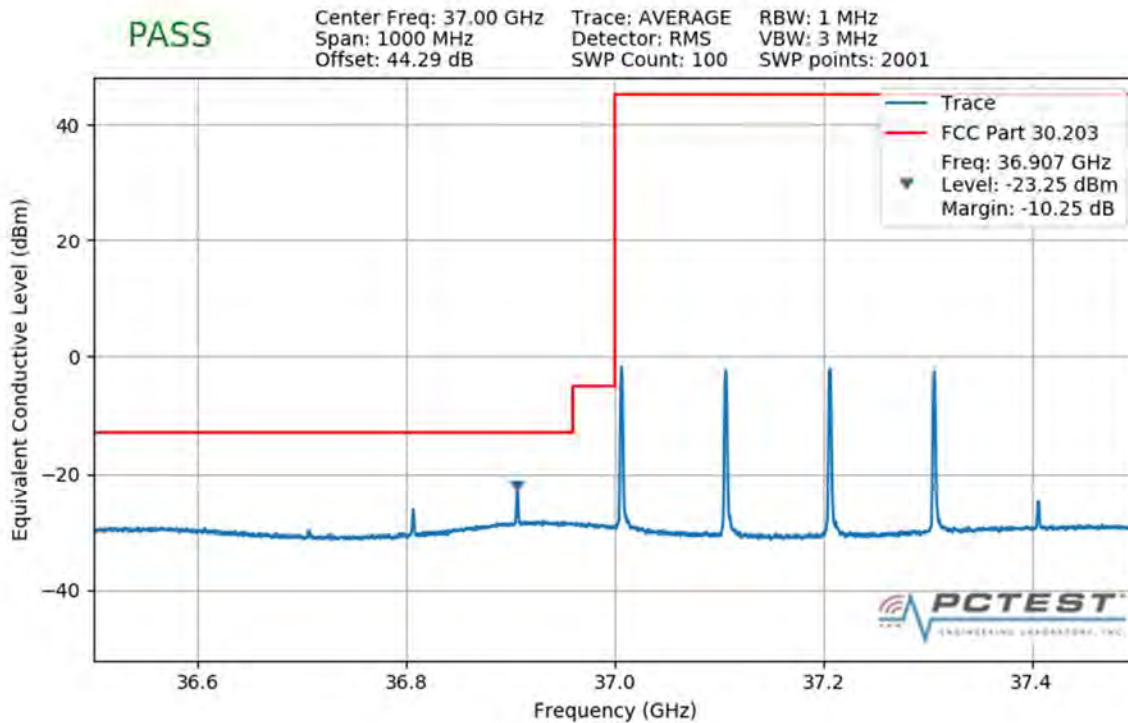


Plot 7-380. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 242 of 355

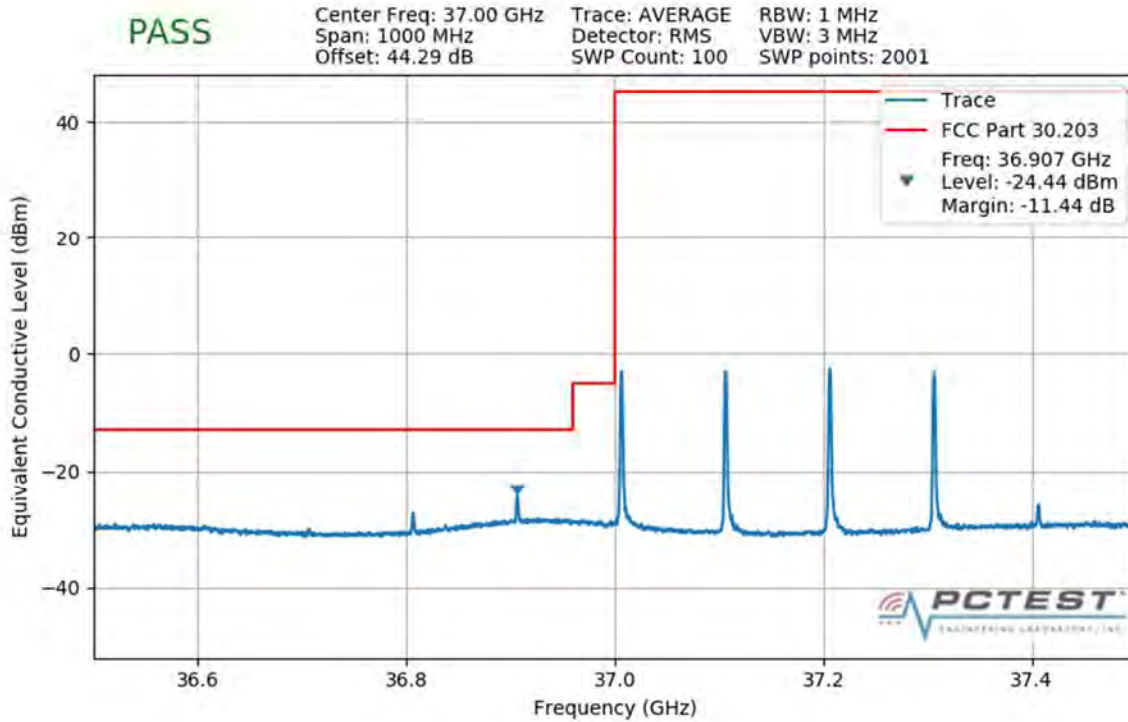


Plot 7-381. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

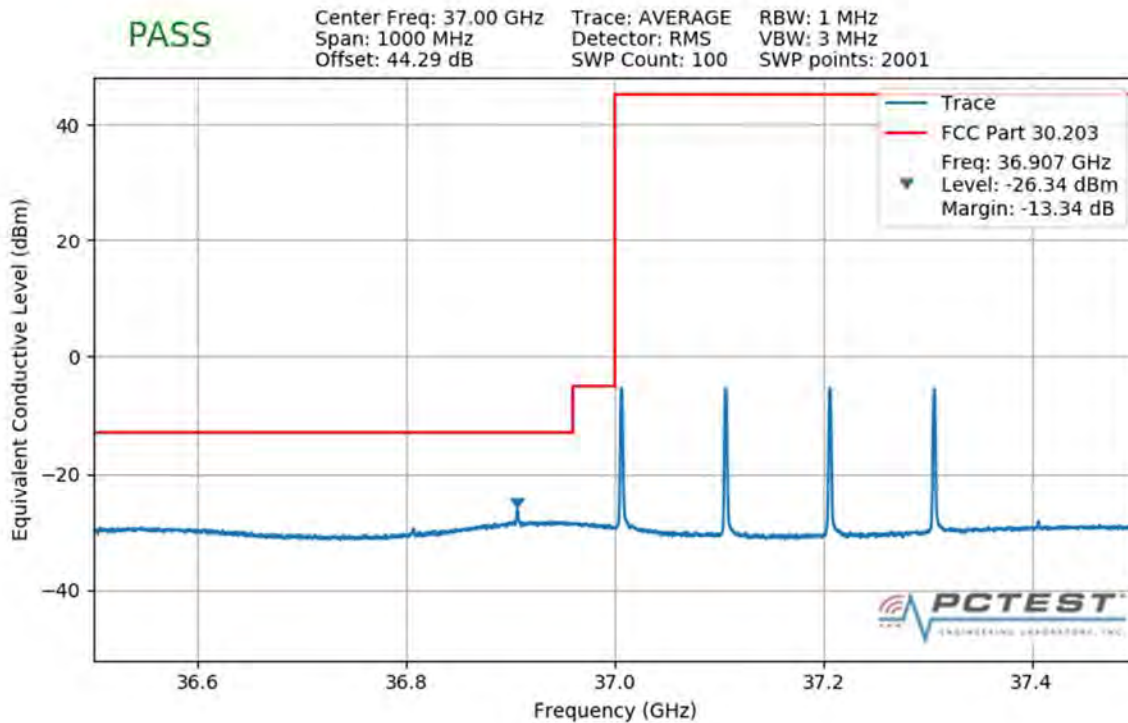


Plot 7-382. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 243 of 355

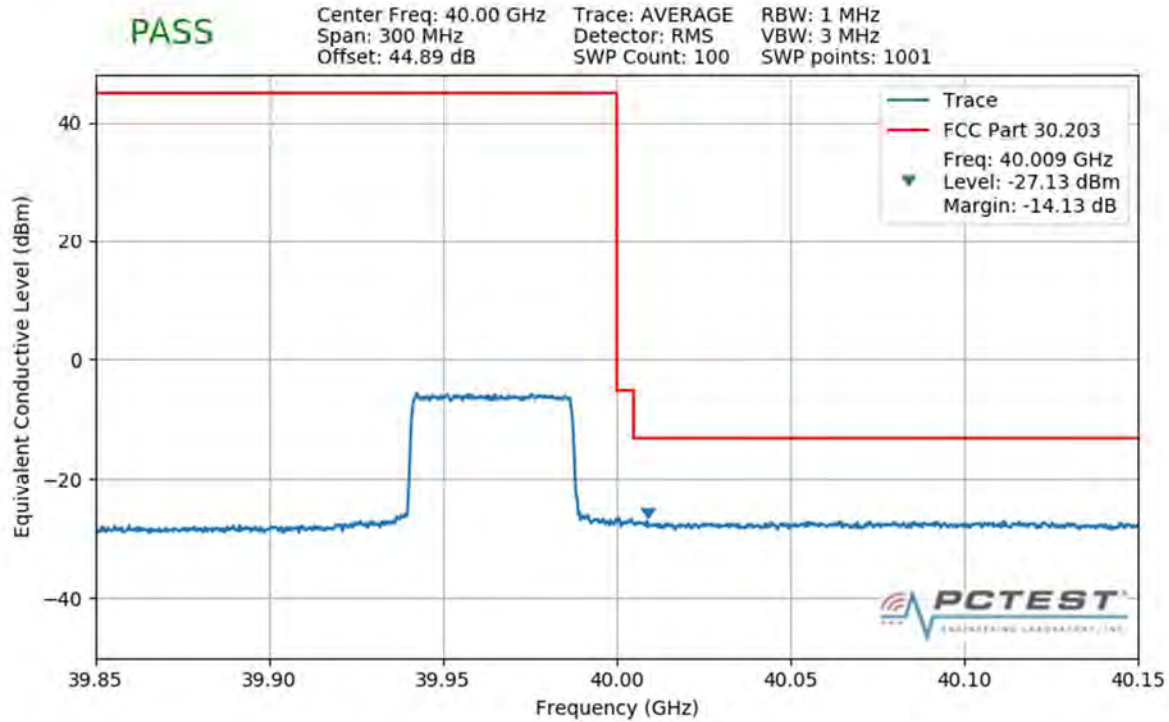


Plot 7-383. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

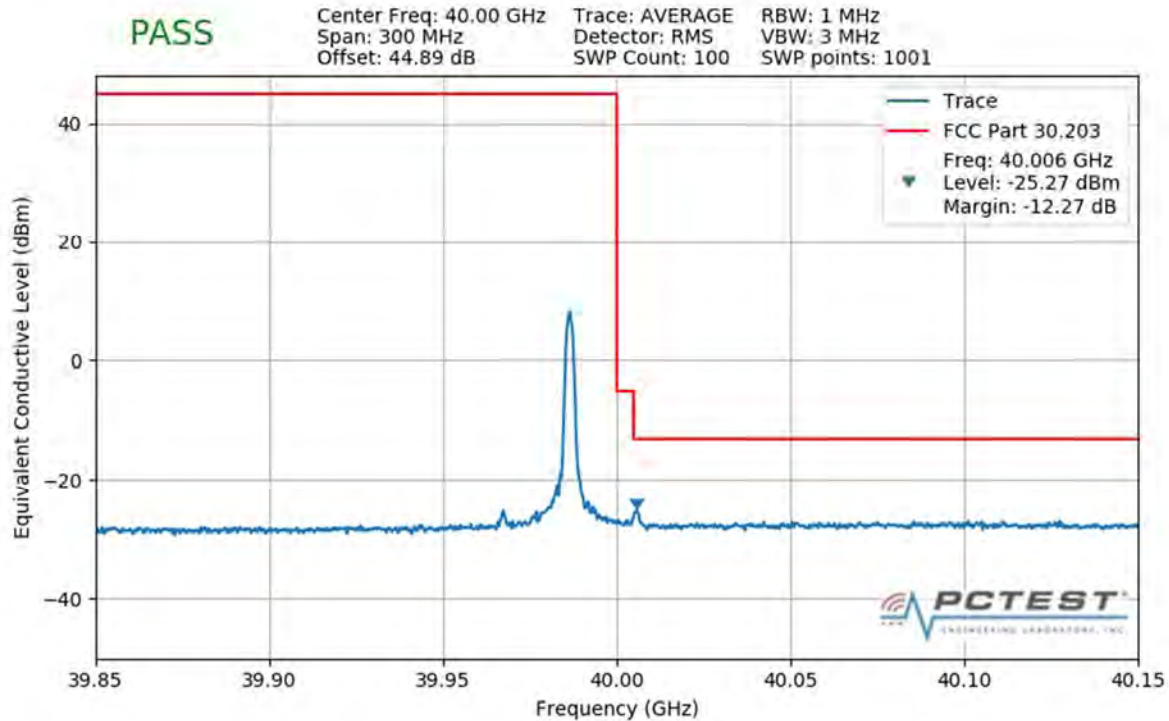


Plot 7-384. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 244 of 355

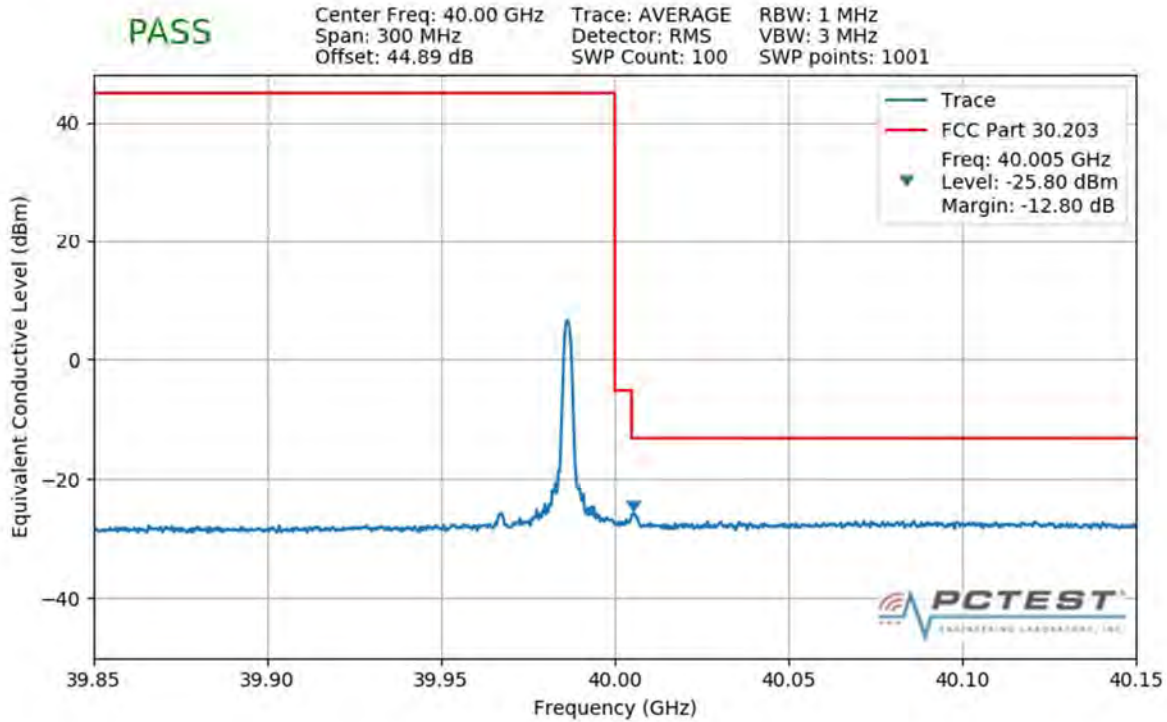


Plot 7-385. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

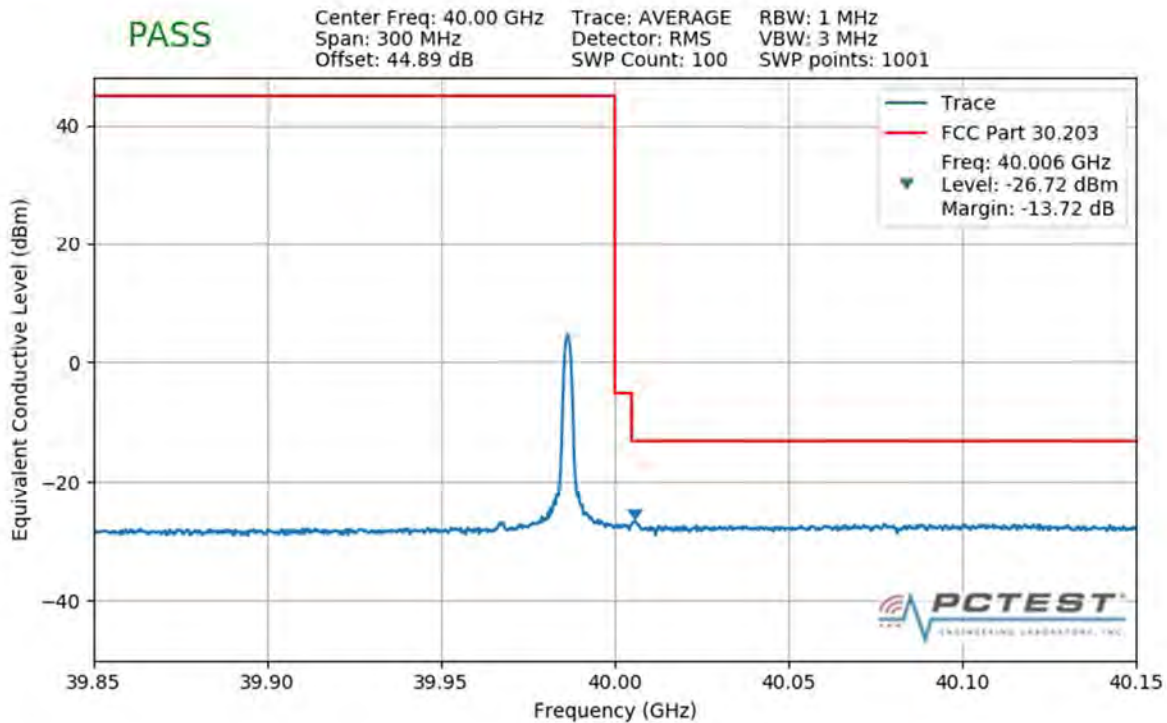


Plot 7-386. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 245 of 355

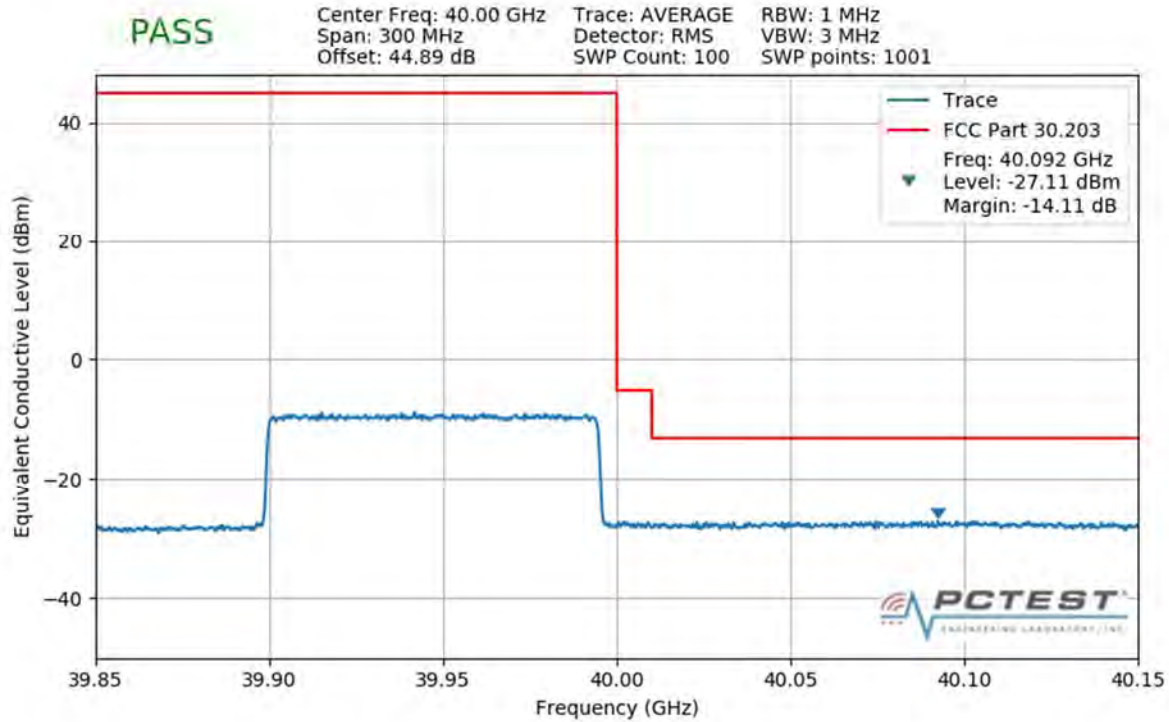


Plot 7-387. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

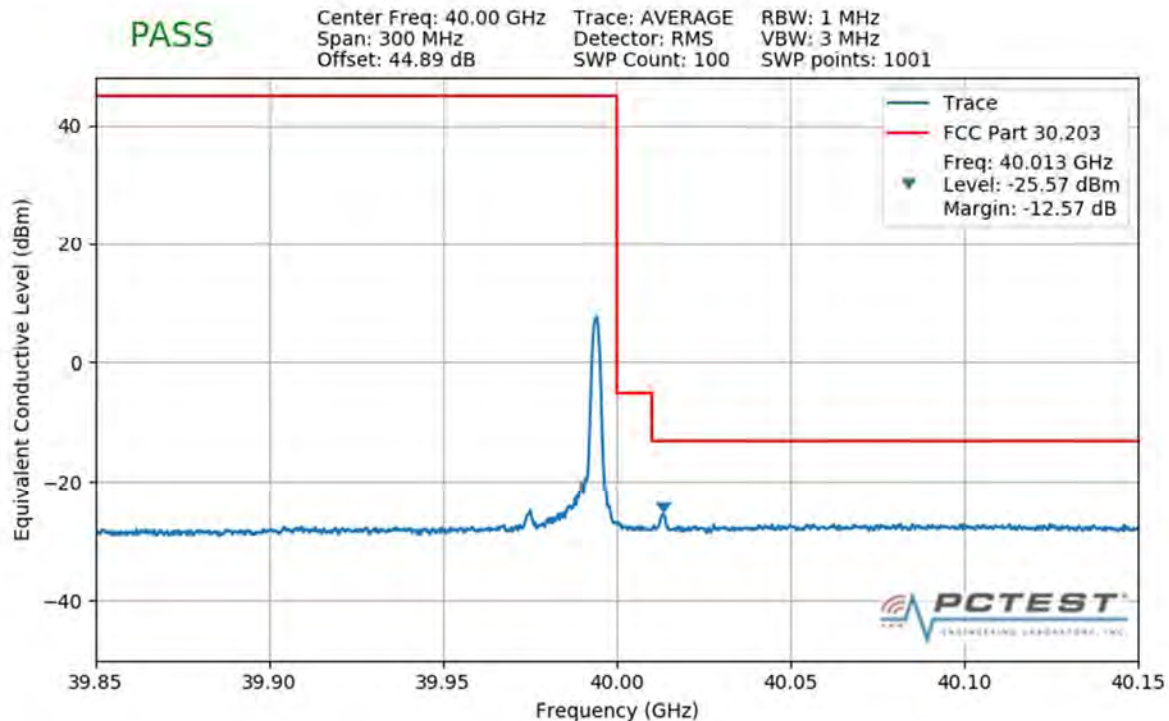


Plot 7-388. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 246 of 355

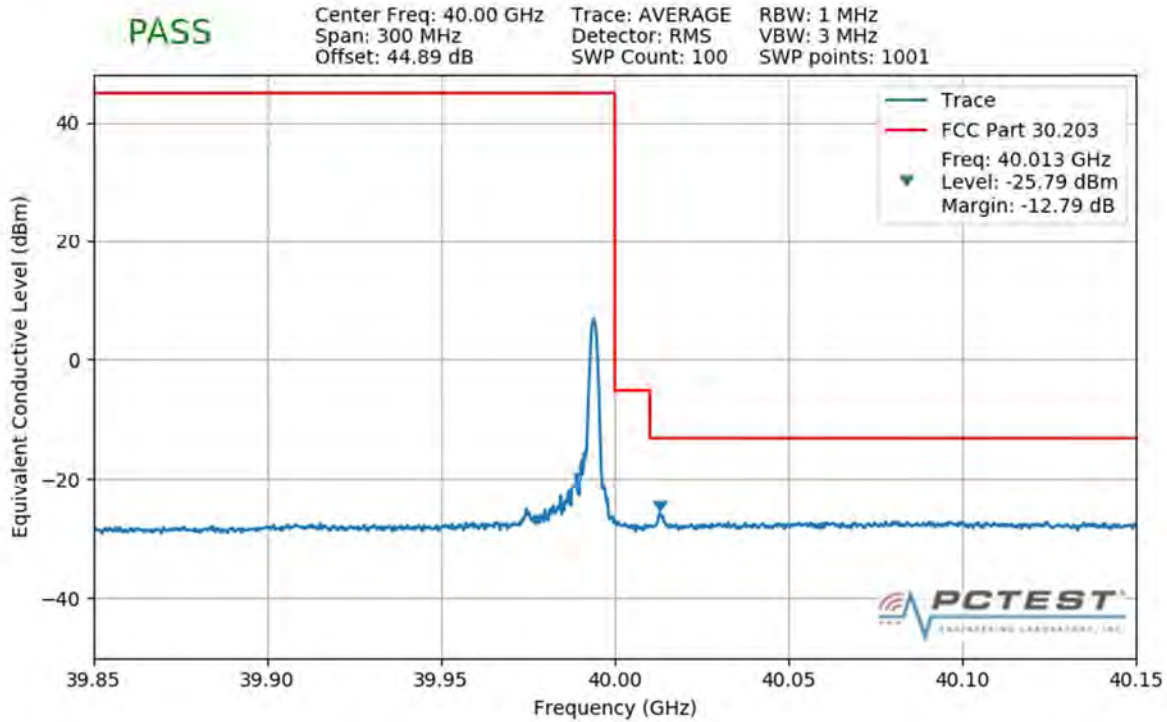


Plot 7-389. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

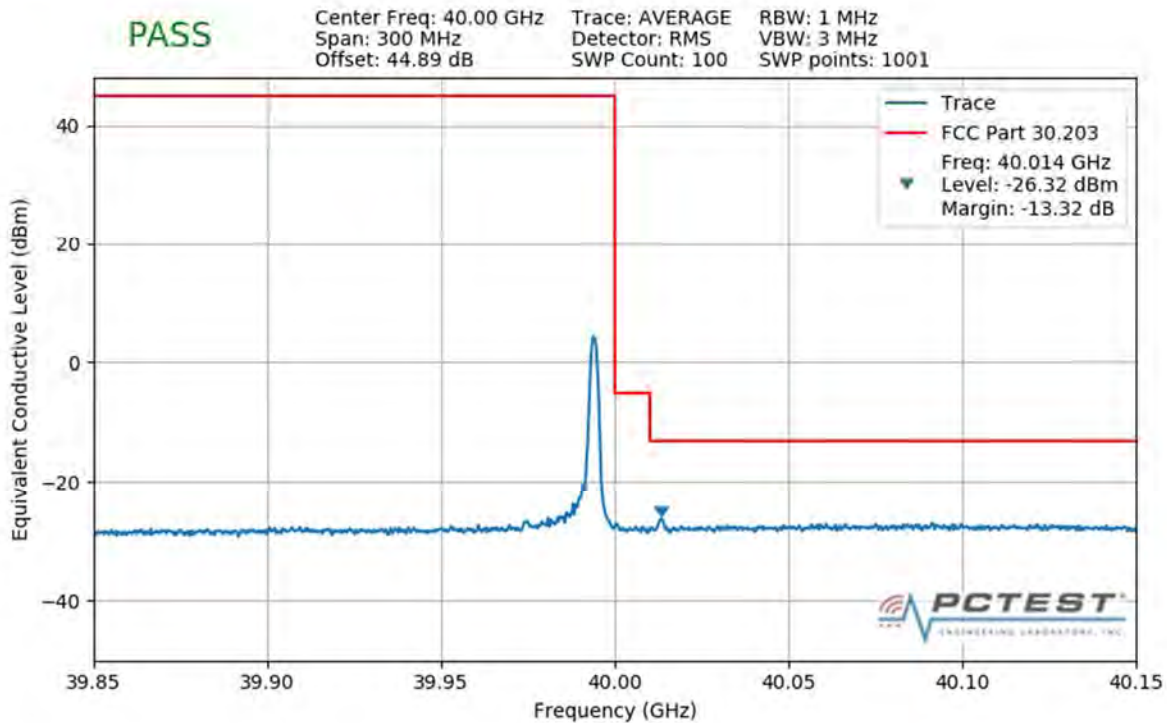


Plot 7-390. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 247 of 355

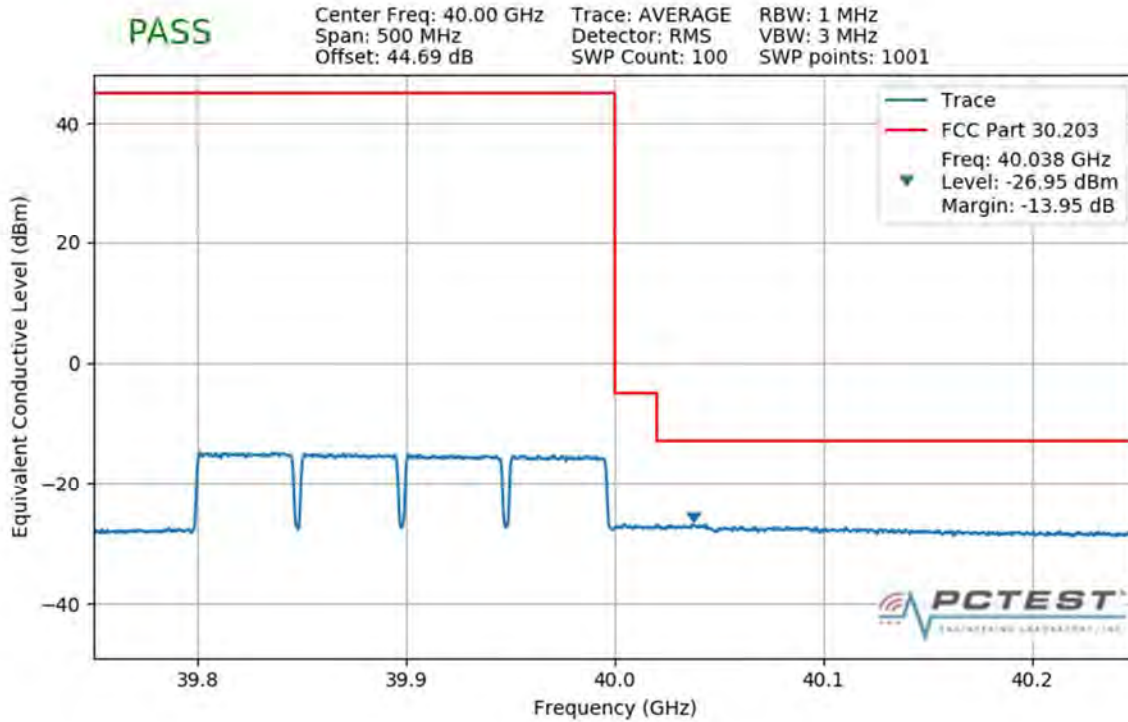


Plot 7-391. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

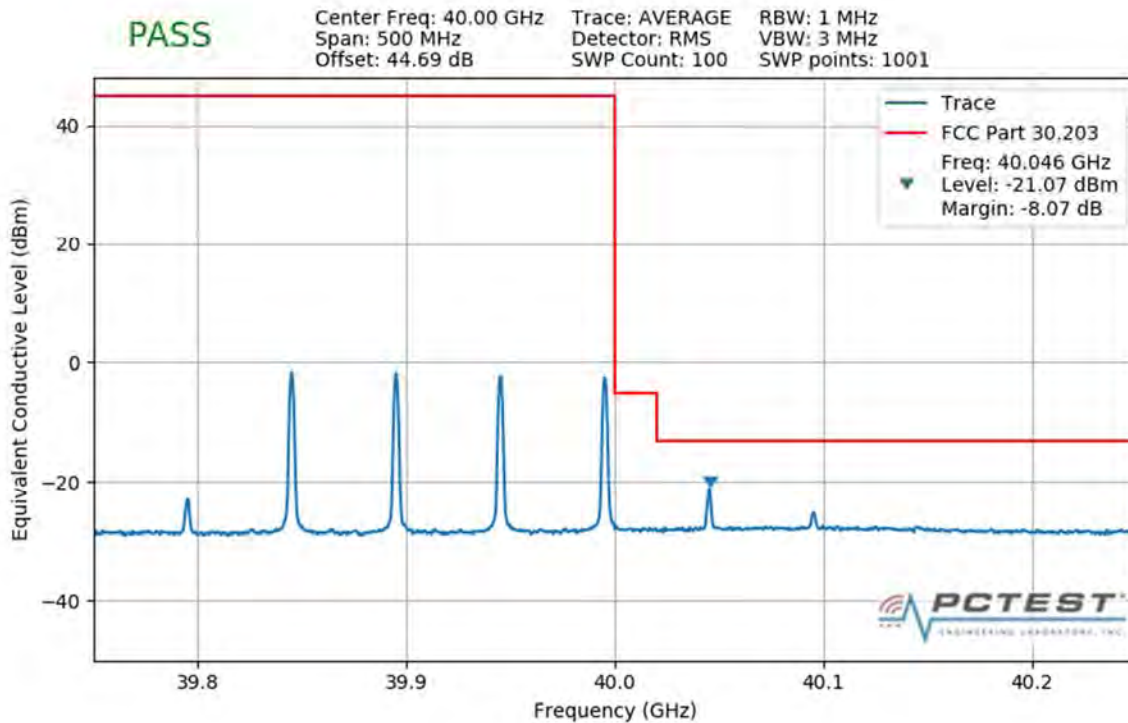


Plot 7-392. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 248 of 355

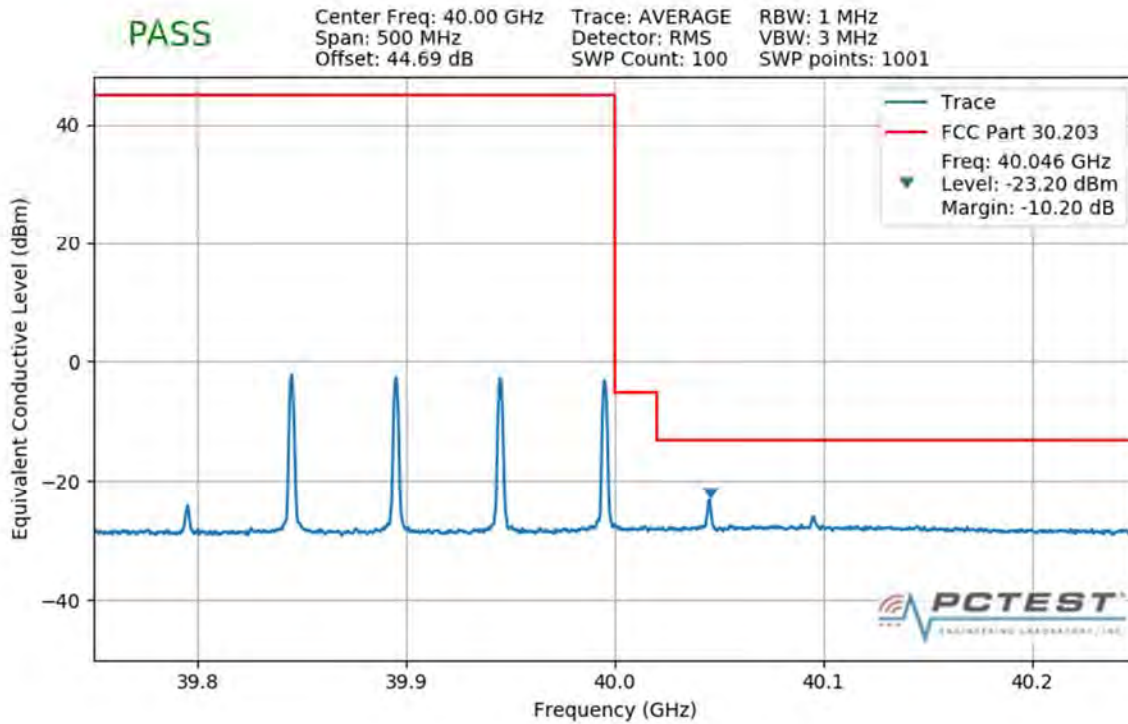


Plot 7-393. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

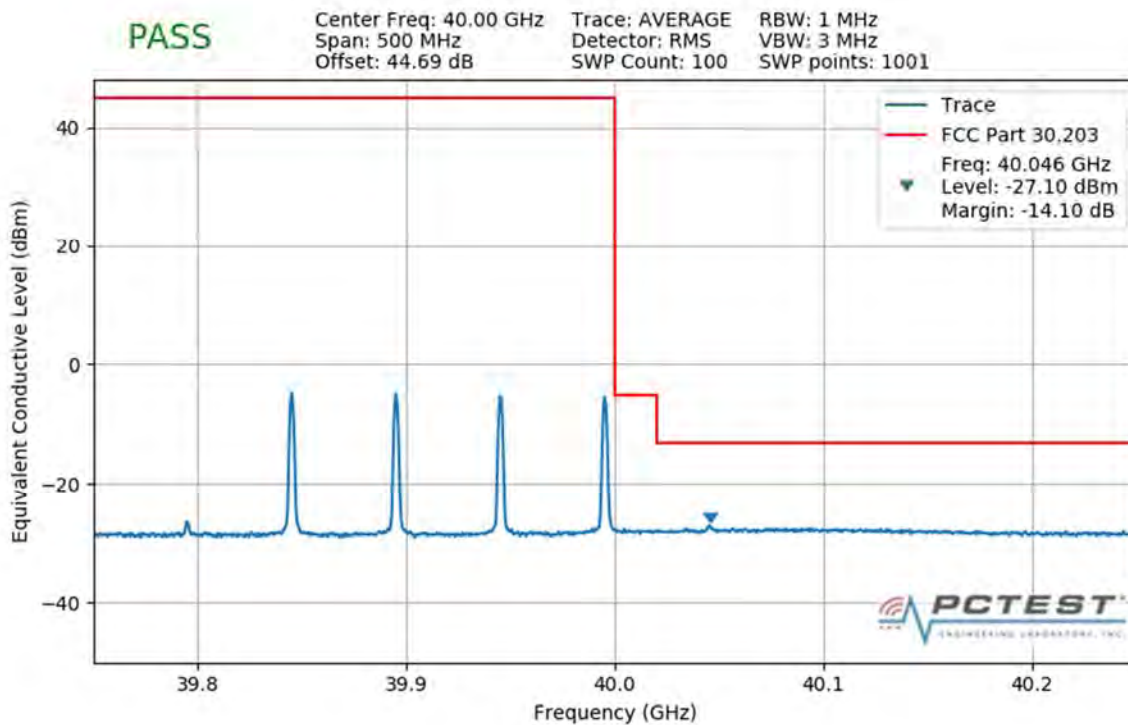


Plot 7-394. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 249 of 355

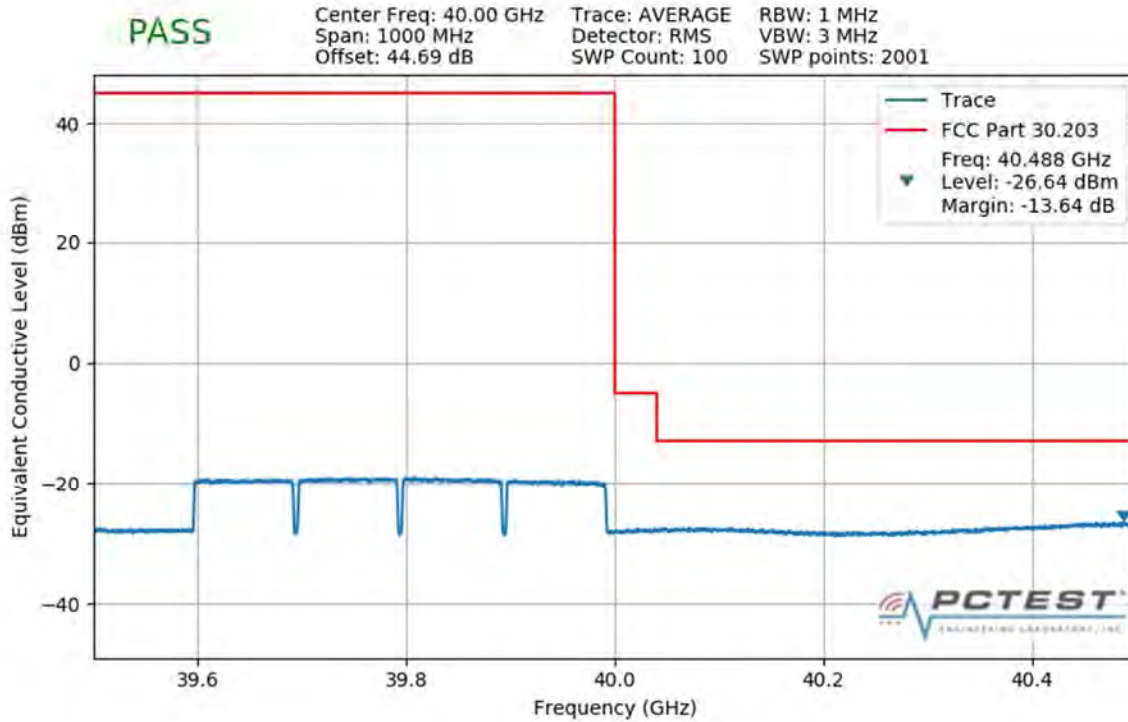


Plot 7-395. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

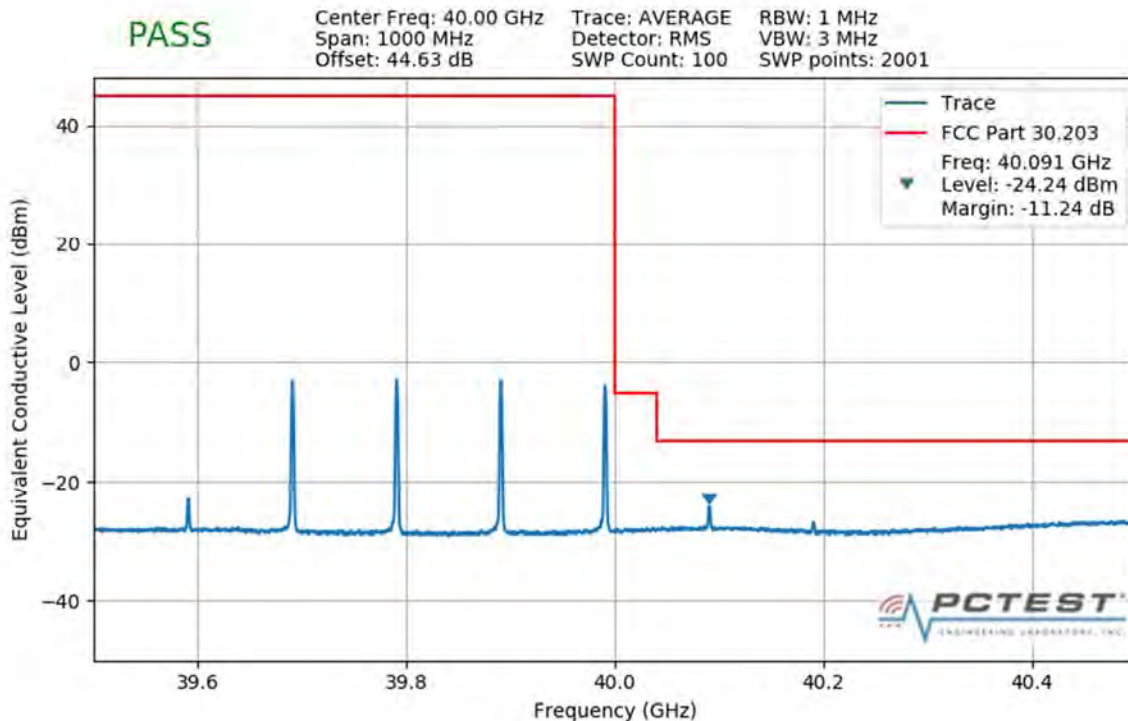


Plot 7-396. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 250 of 355

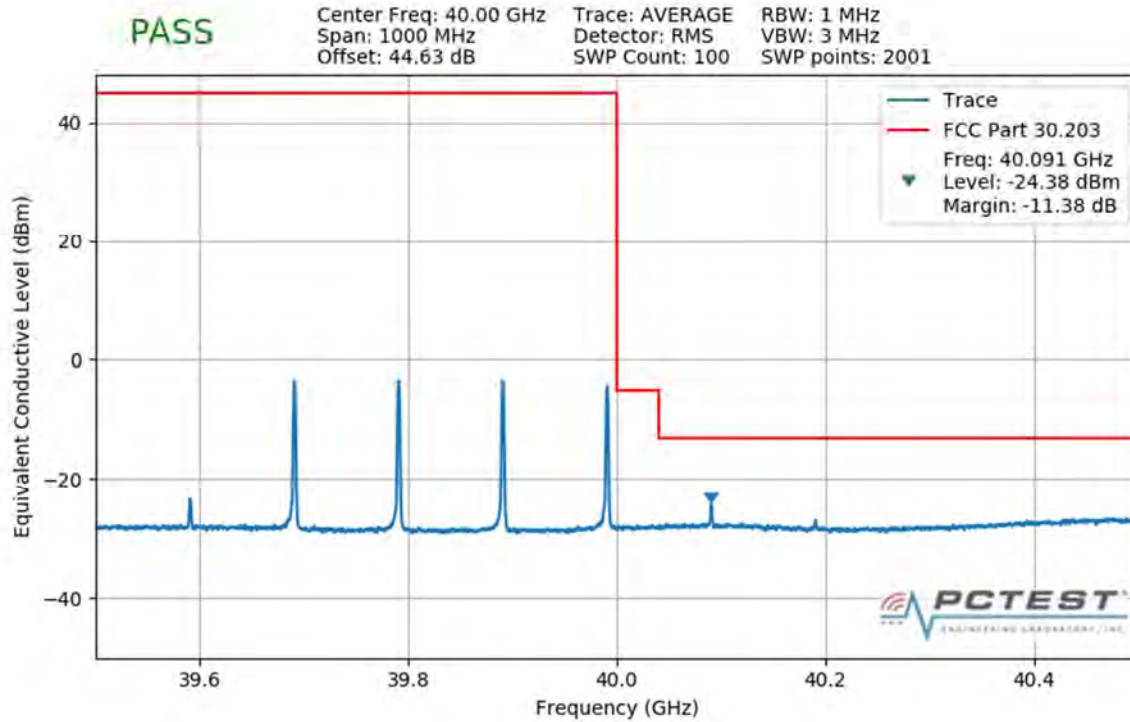


Plot 7-397. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

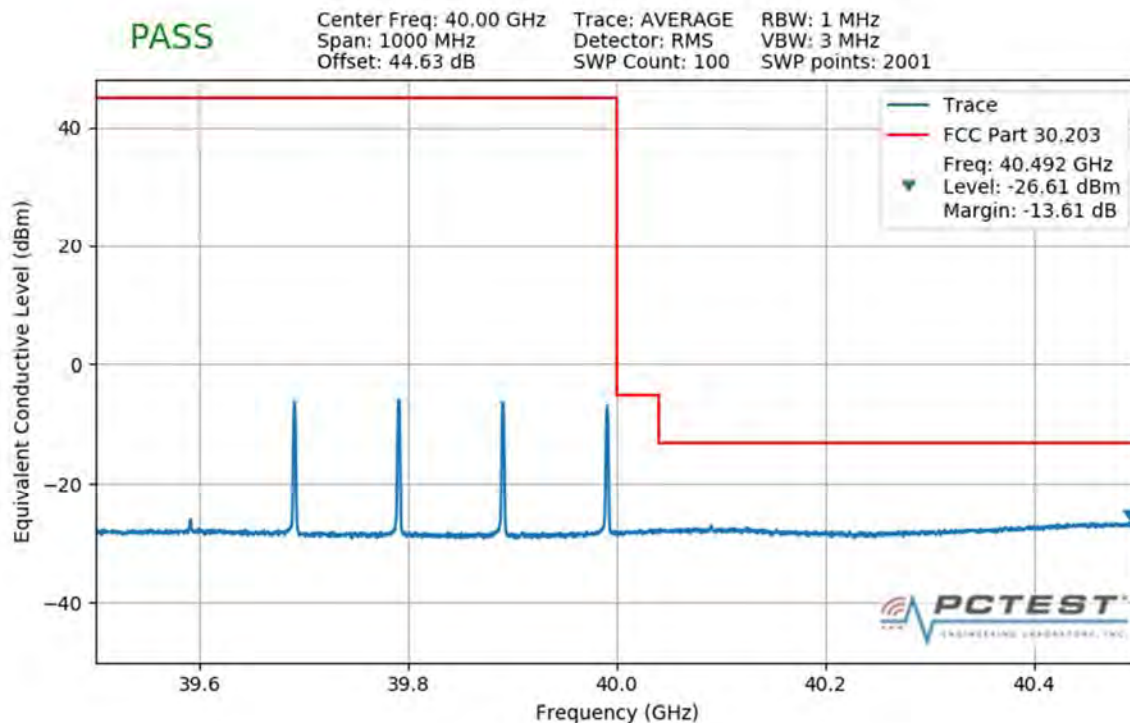


Plot 7-398. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 251 of 355



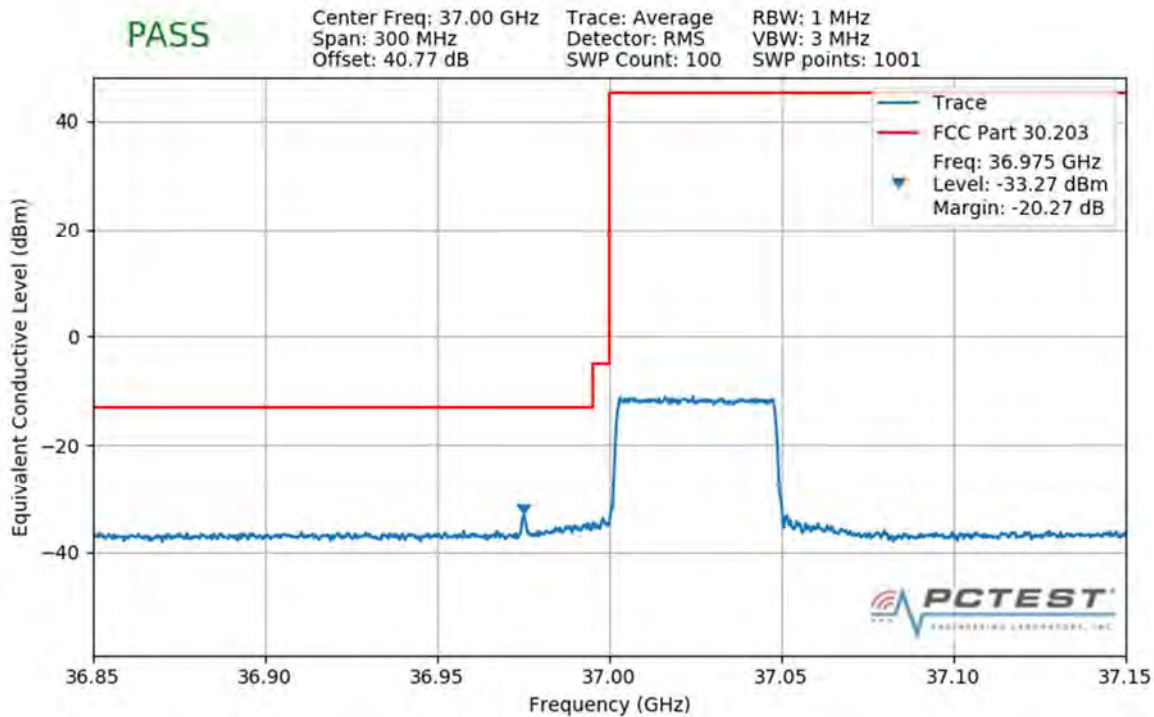
Plot 7-399. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)



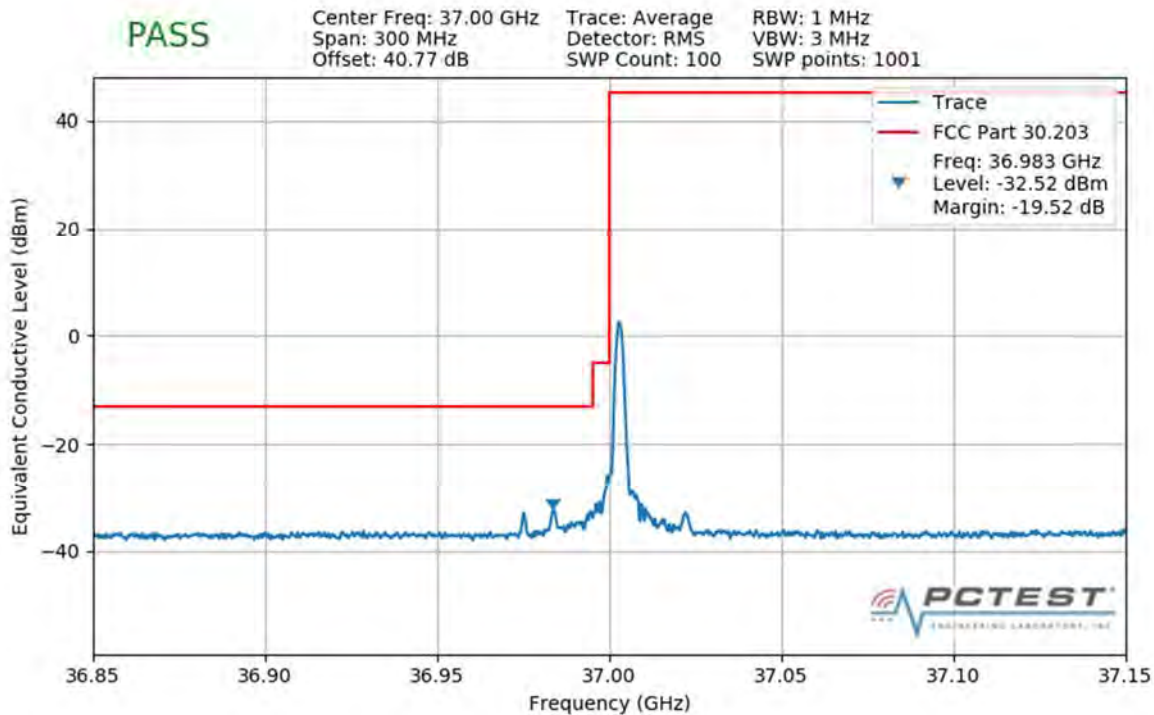
Plot 7-400. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 252 of 355

7.5.4 K Patch Band Edge H Beam

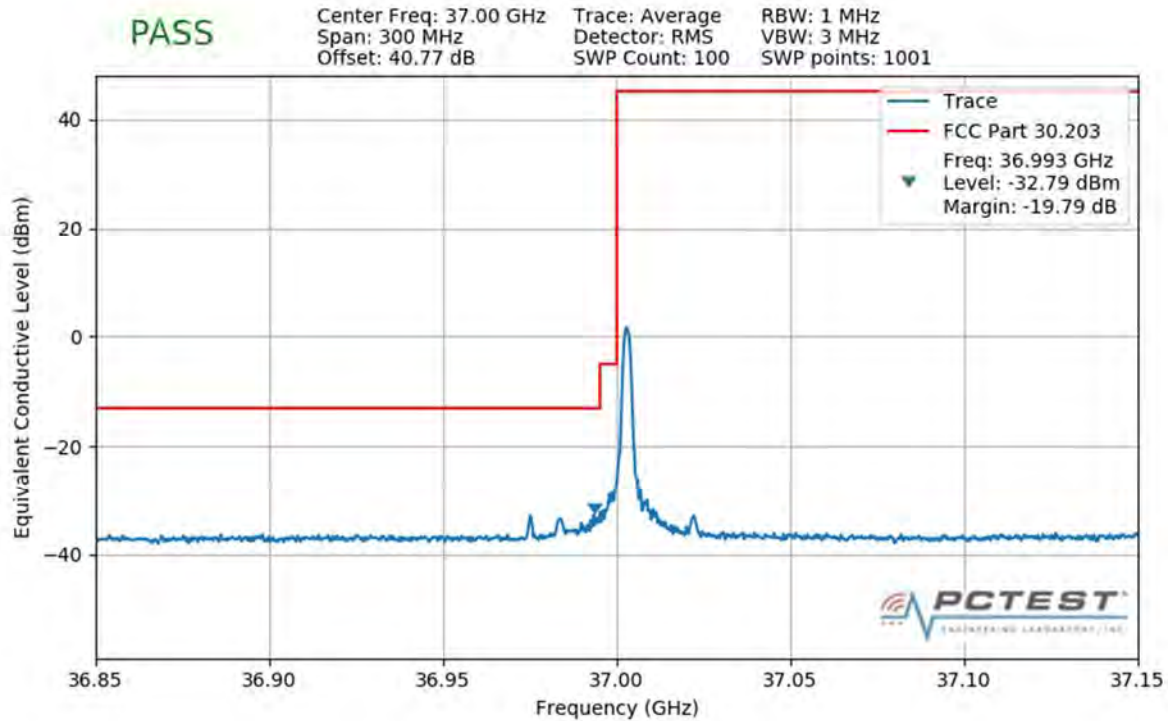


Plot 7-401. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

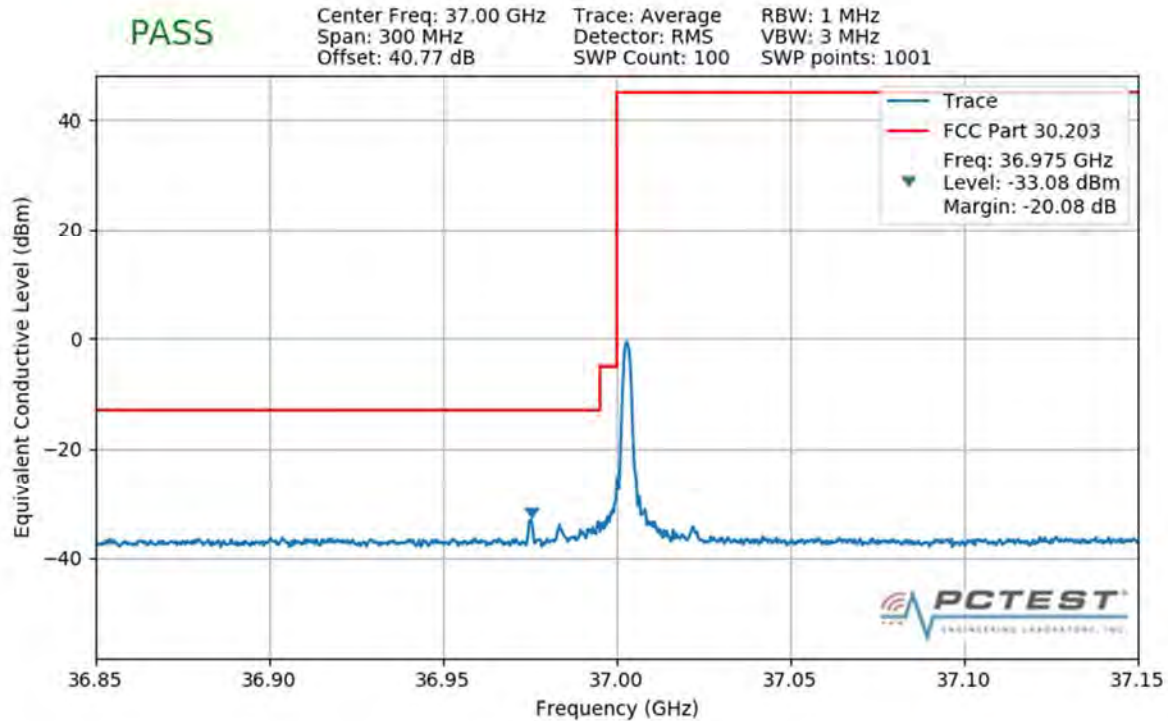


Plot 7-402. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 253 of 355

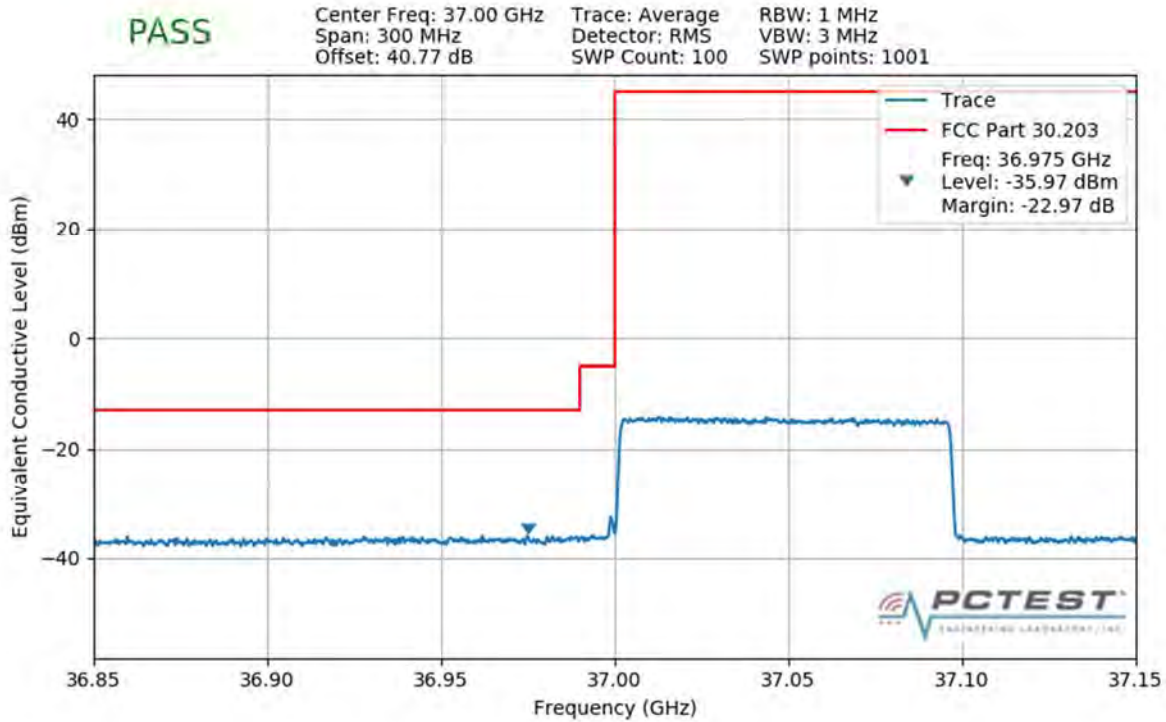


Plot 7-403. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

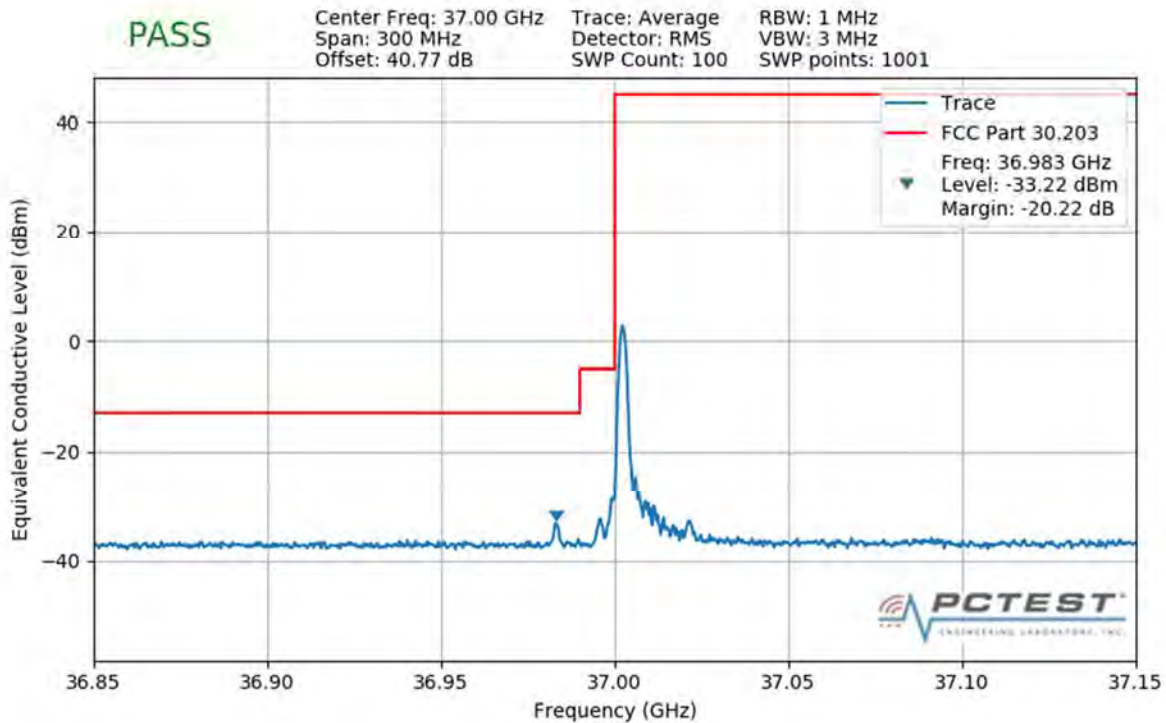


Plot 7-404. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 254 of 355

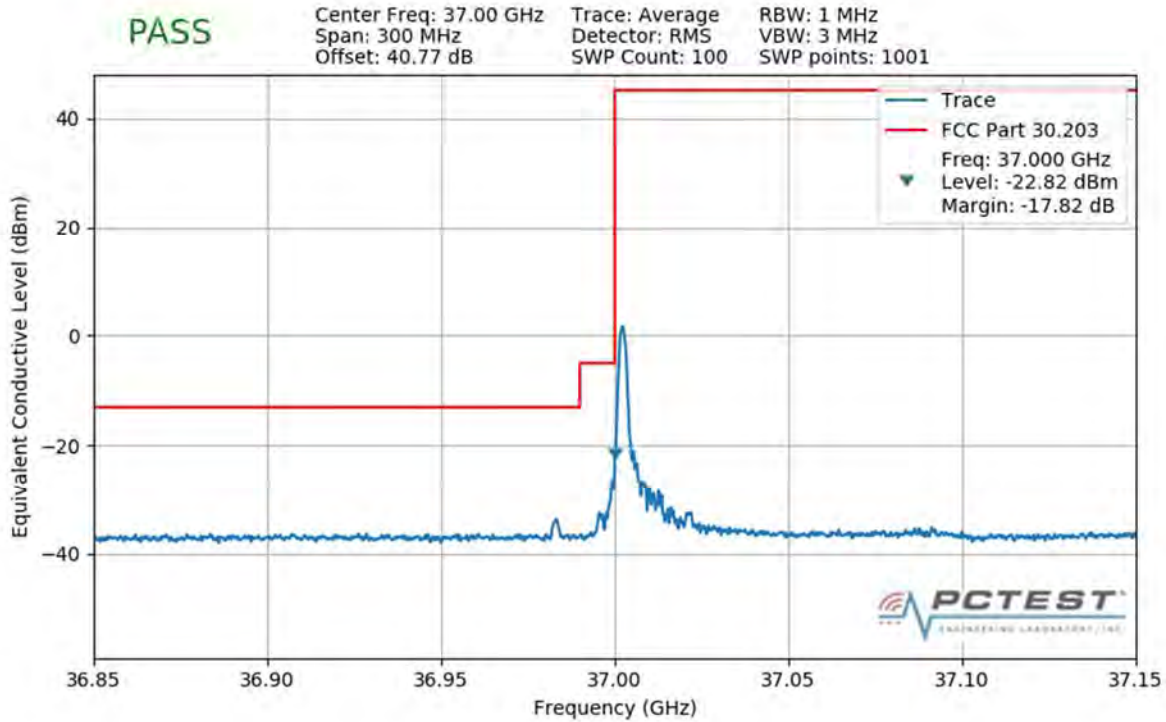


Plot 7-405. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

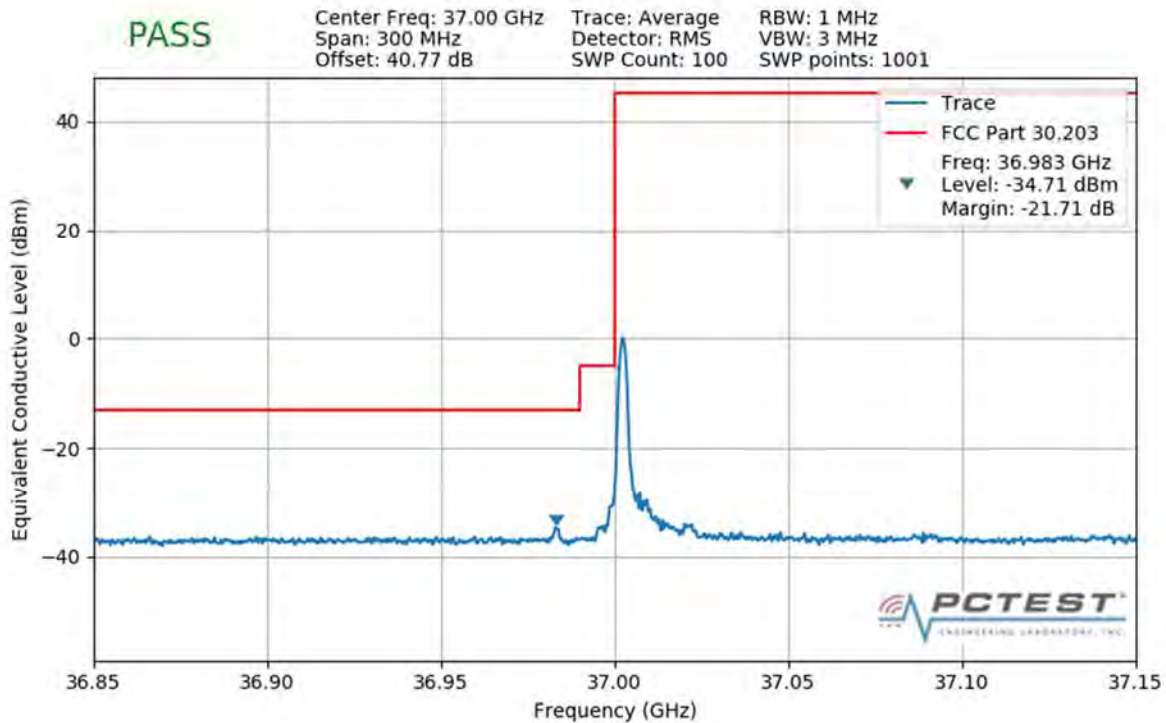


Plot 7-406. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 255 of 355

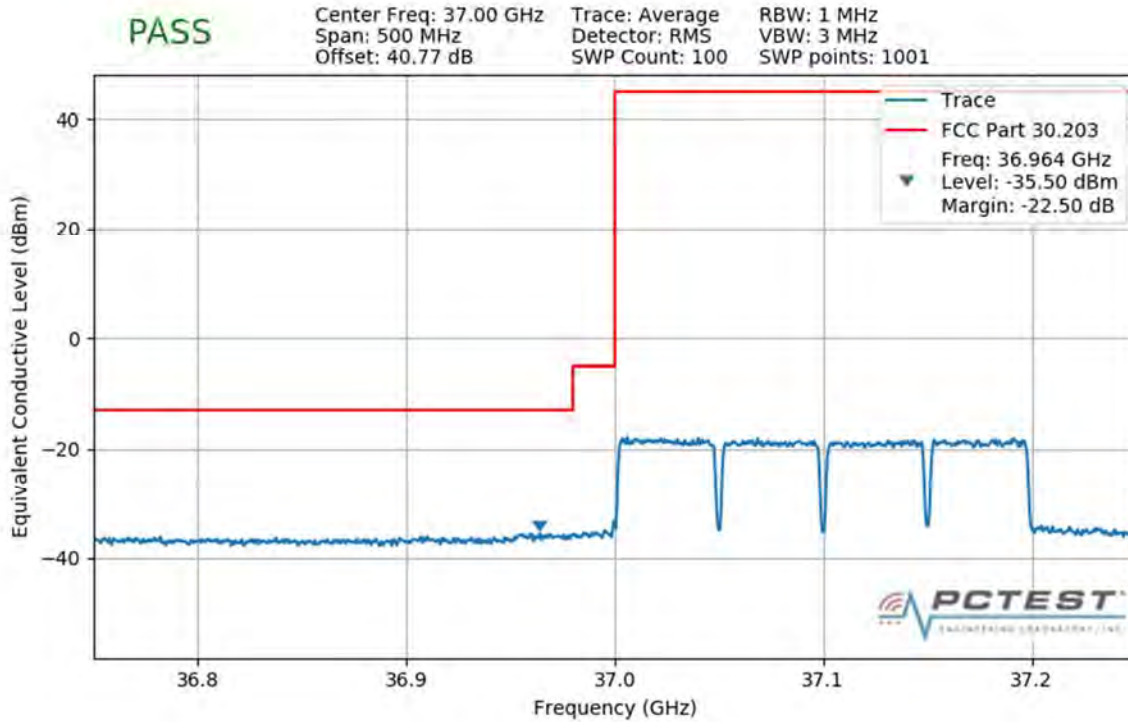


Plot 7-407. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

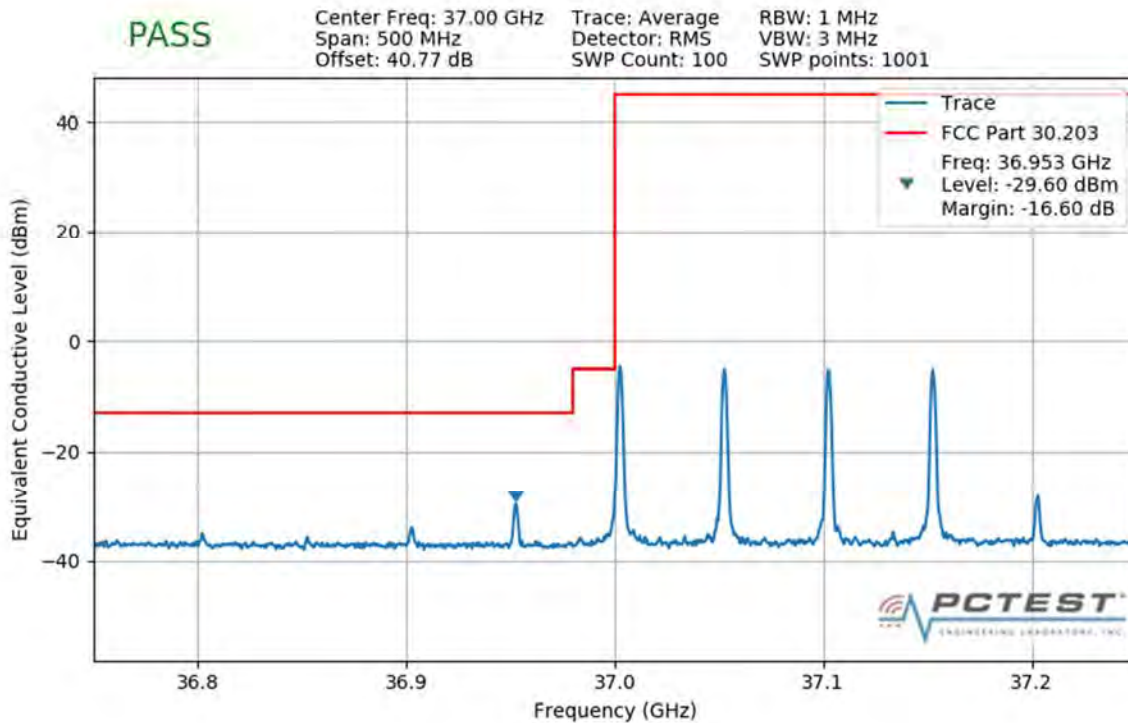


Plot 7-408. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 256 of 355

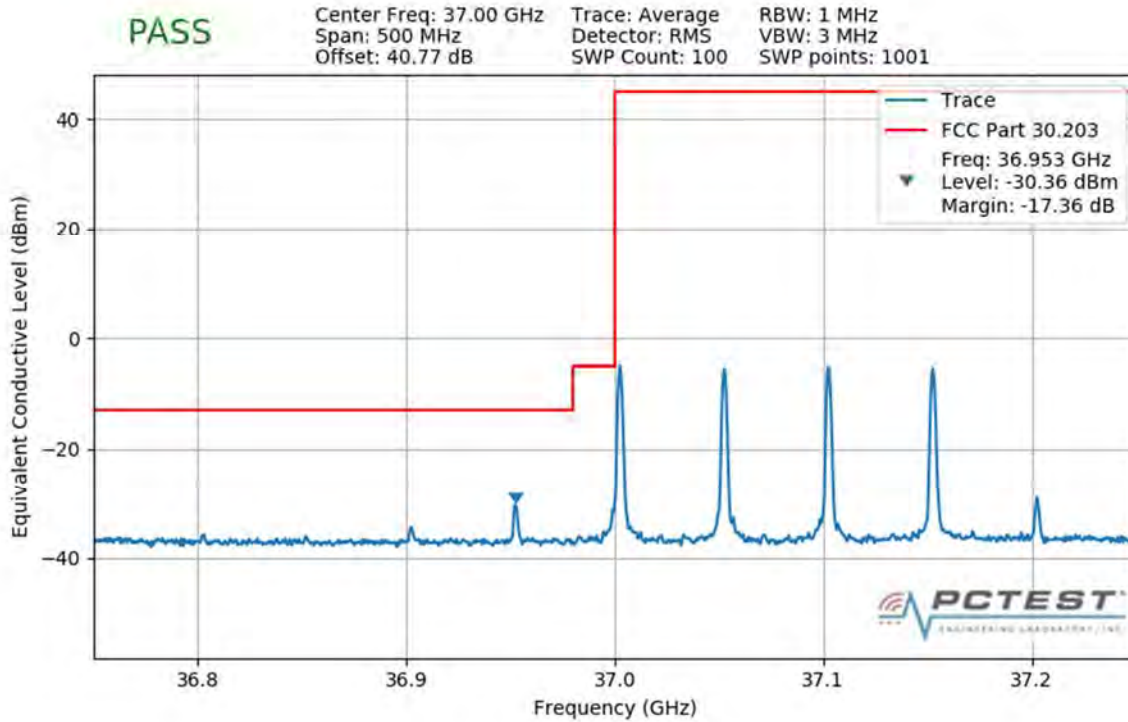


Plot 7-409. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

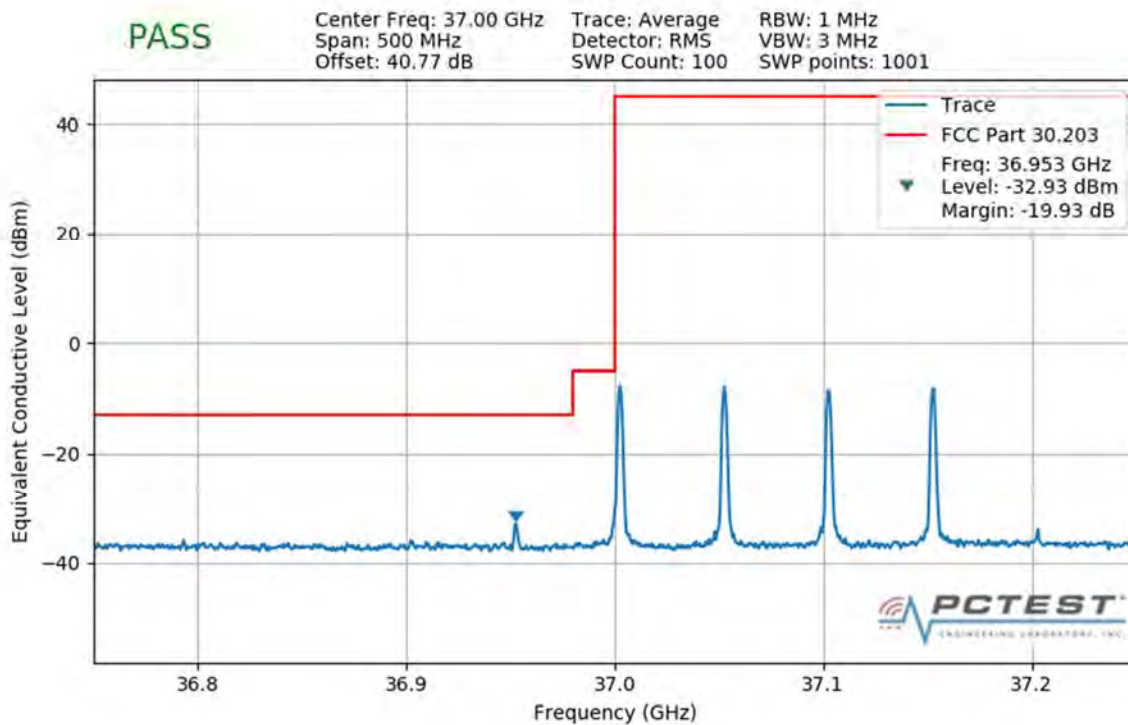


Plot 7-410. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 257 of 355

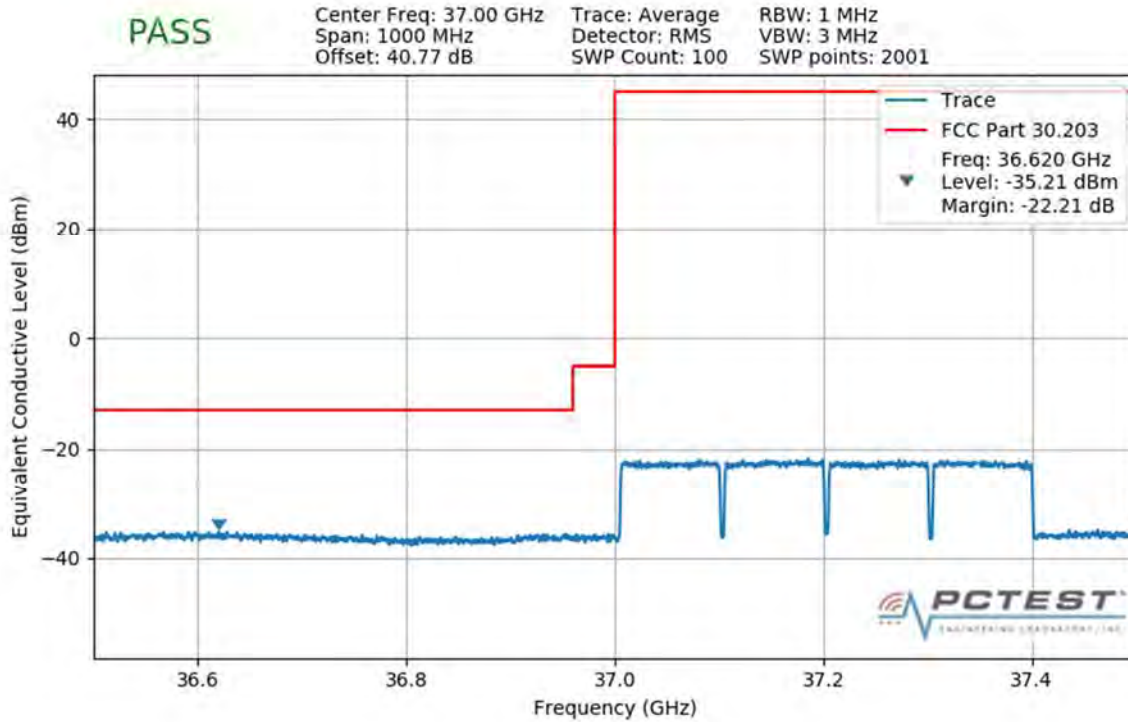


Plot 7-411. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

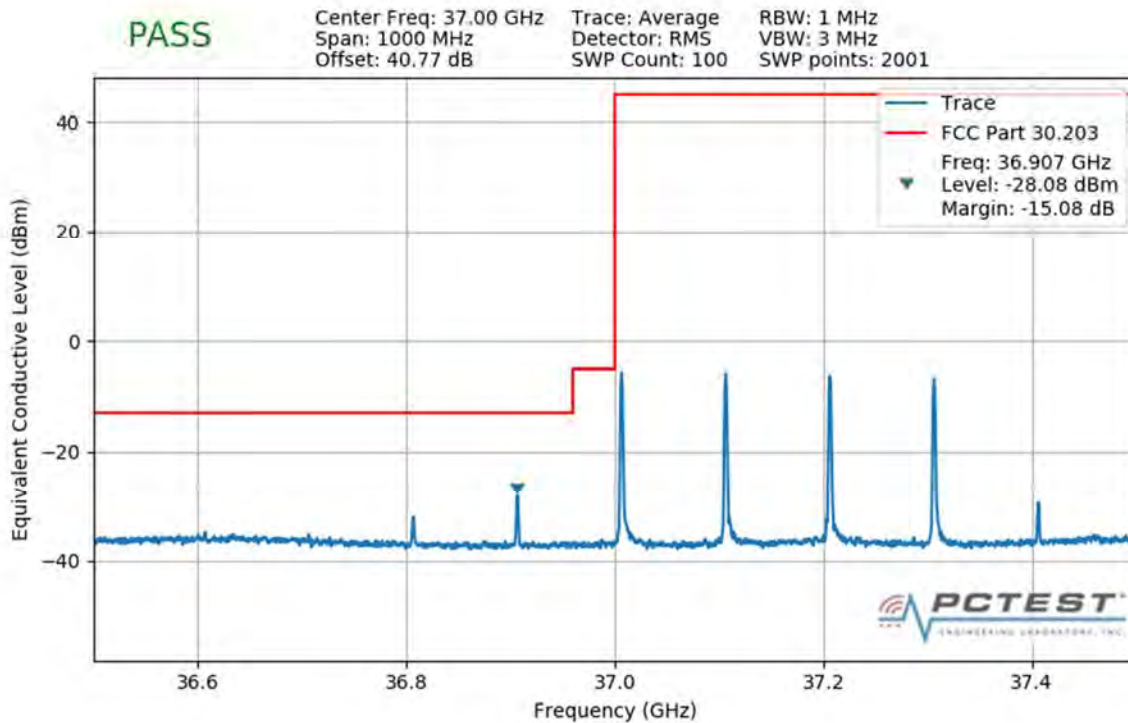


Plot 7-412. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 258 of 355

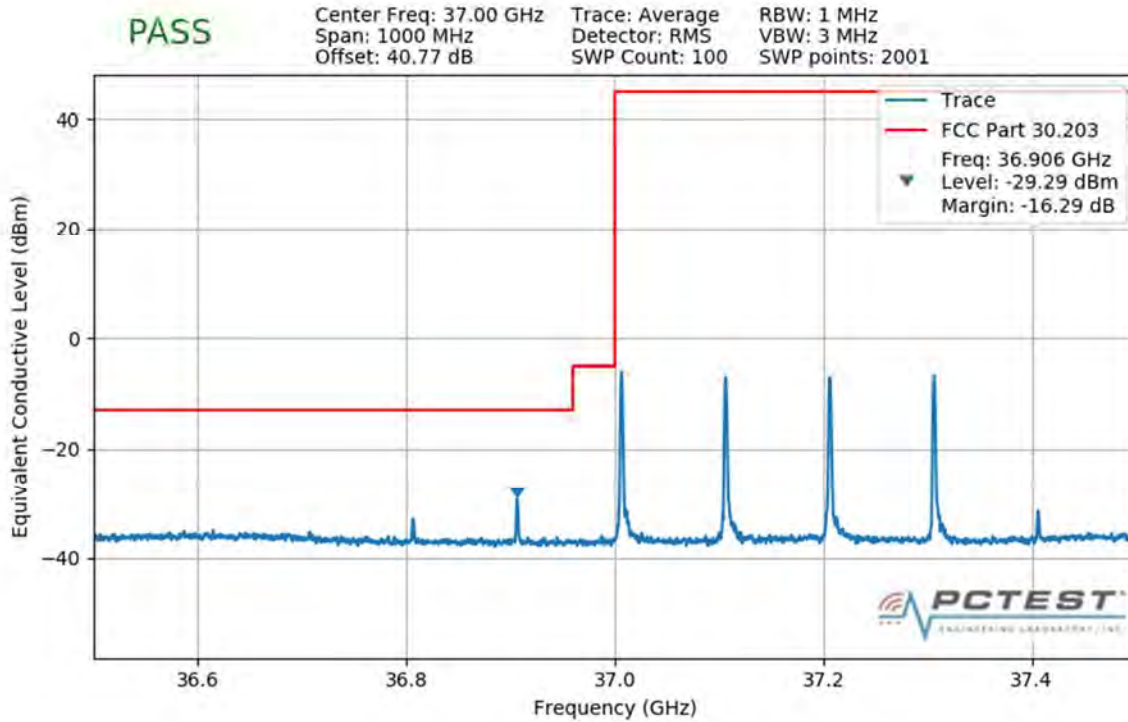


Plot 7-413. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

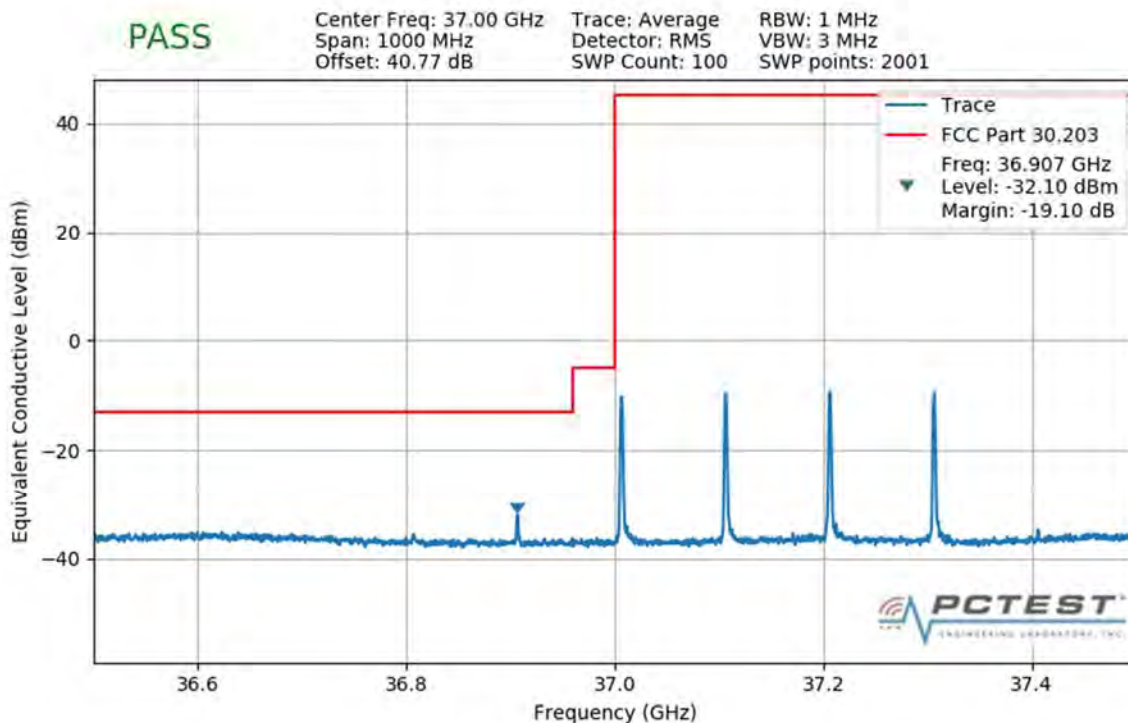


Plot 7-414. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 259 of 355

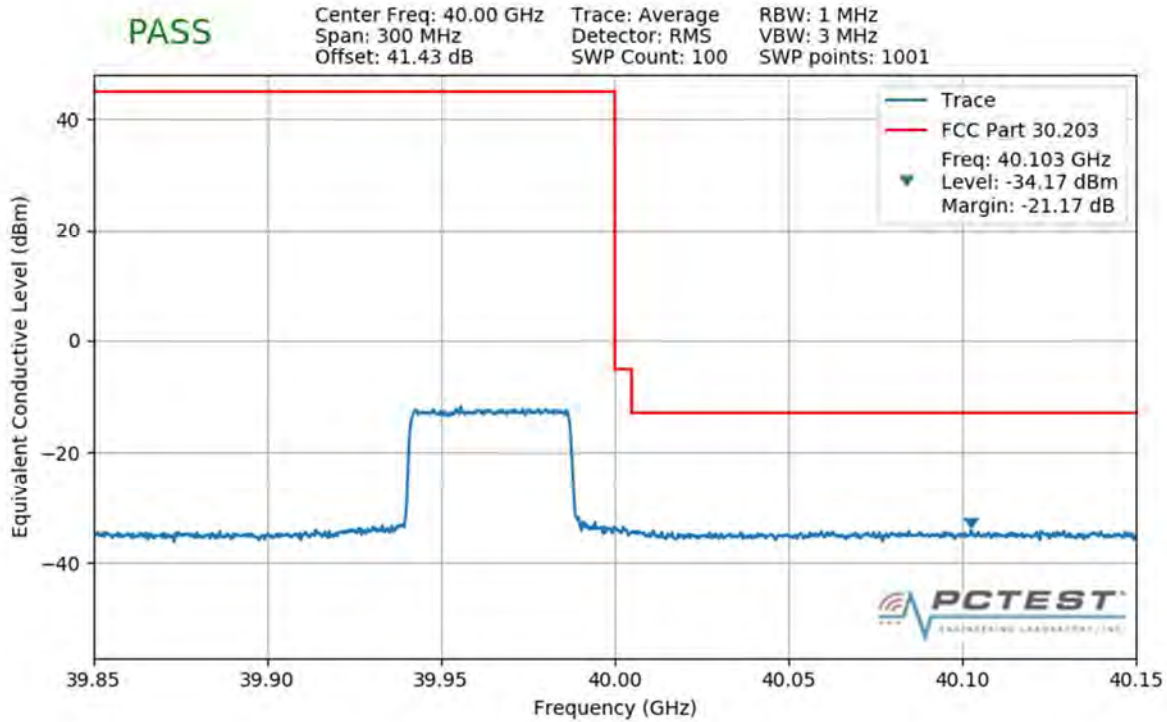


Plot 7-415. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

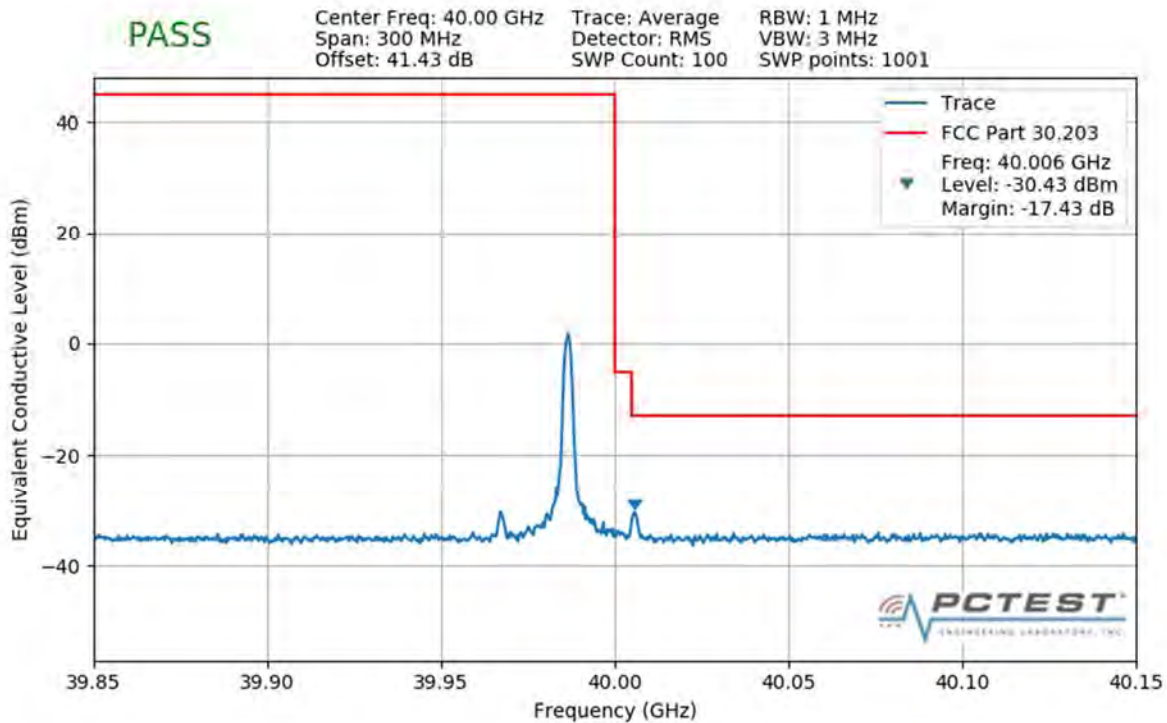


Plot 7-416. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 260 of 355

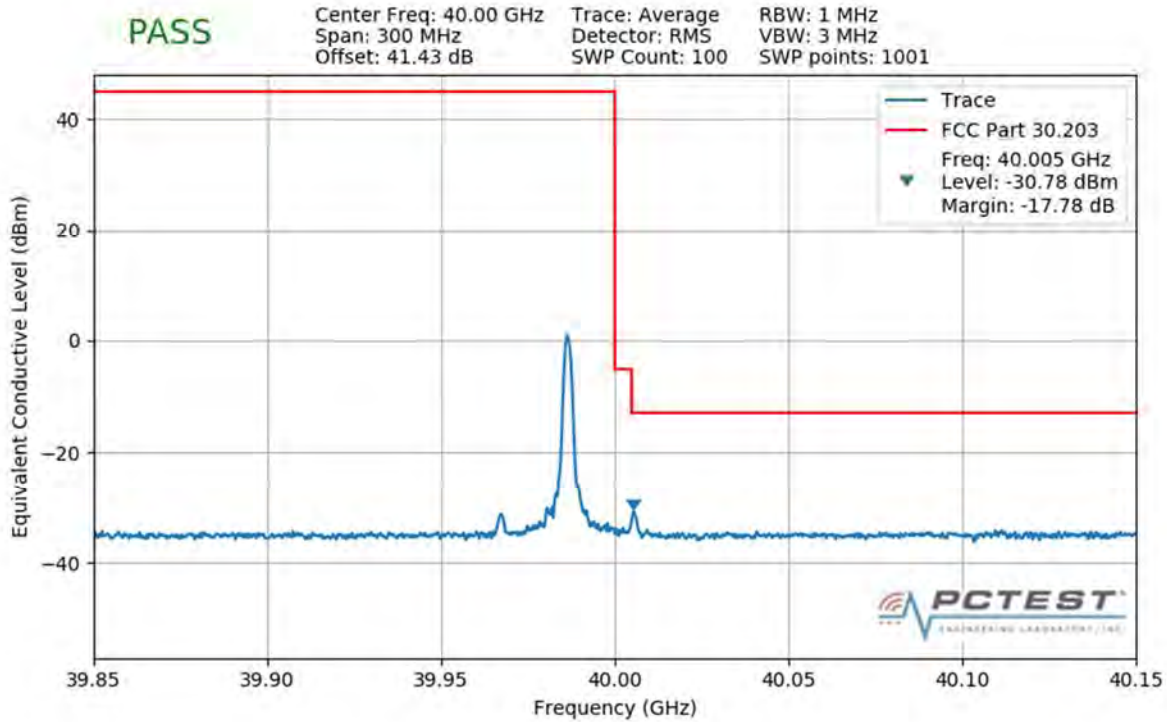


Plot 7-417. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

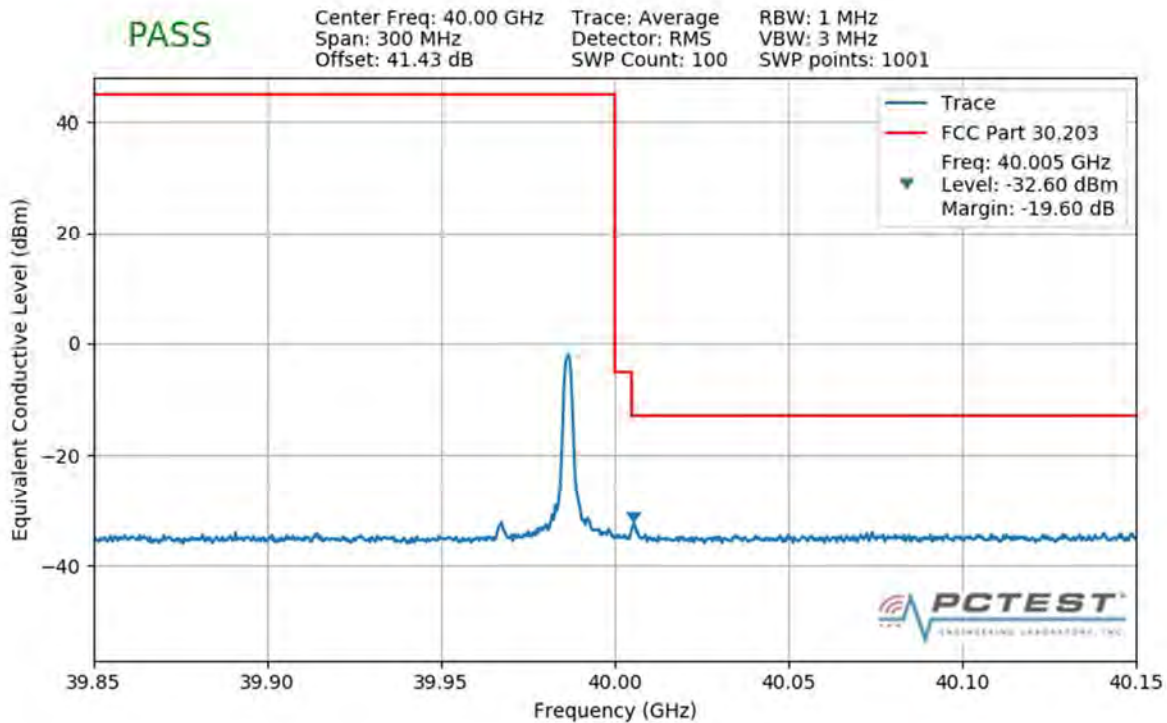


Plot 7-418. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 261 of 355

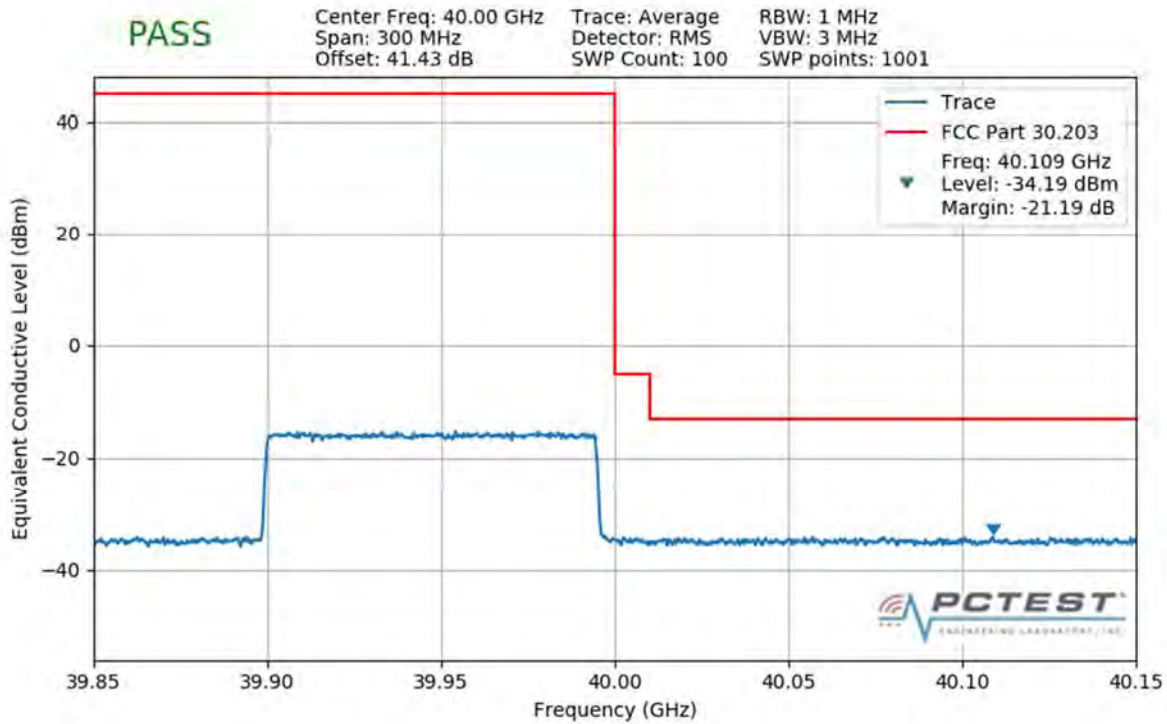


Plot 7-419. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

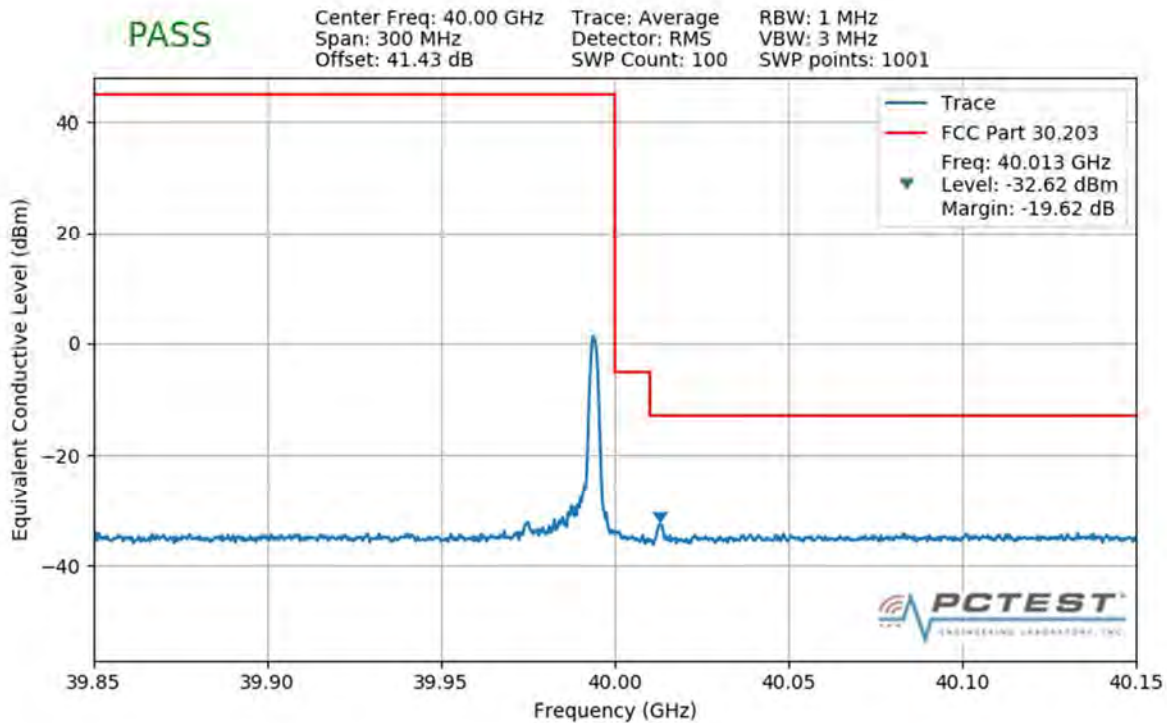


Plot 7-420. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 262 of 355

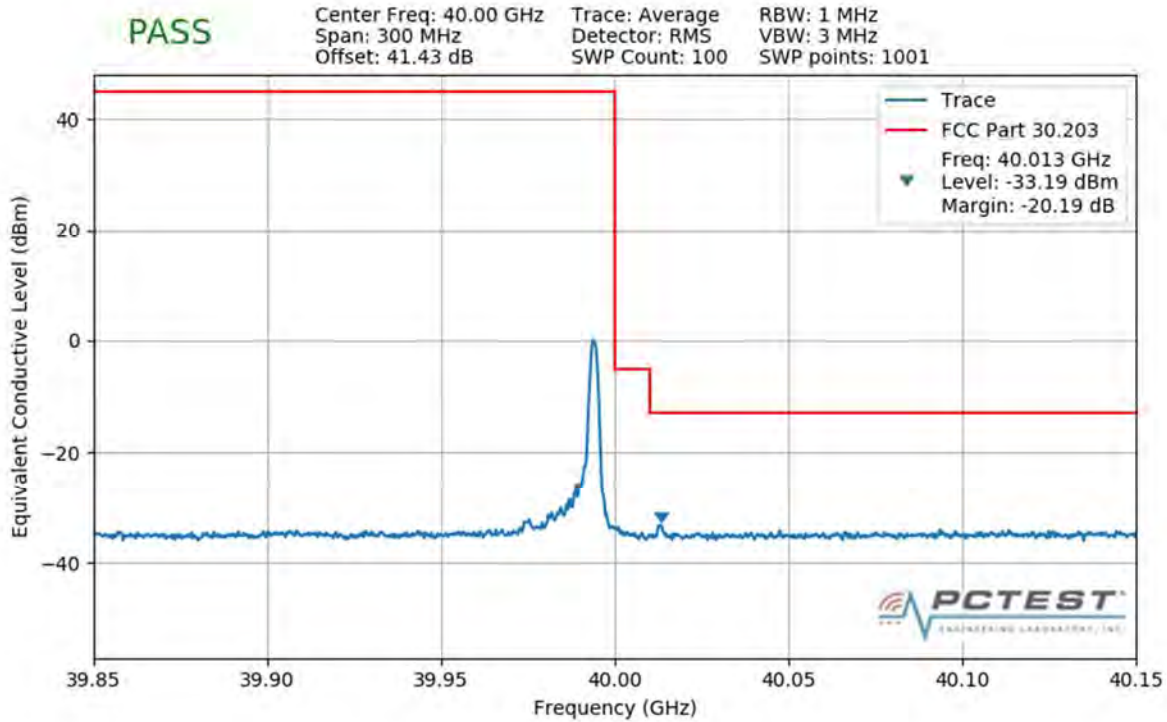


Plot 7-421. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

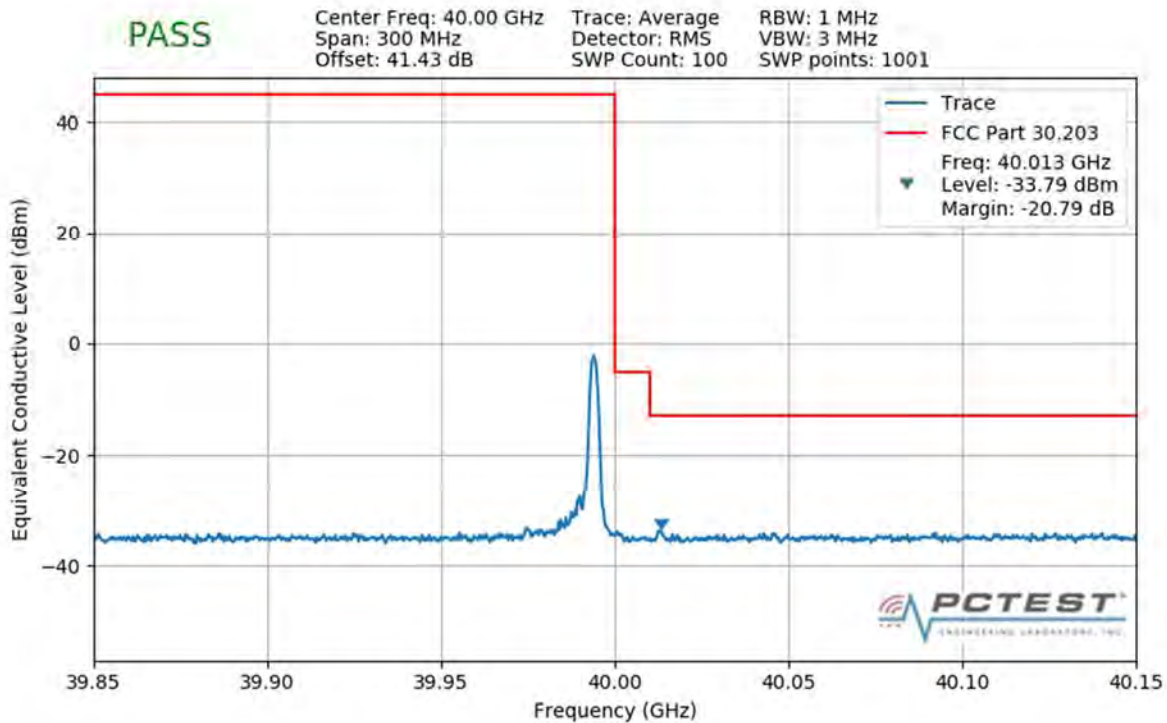


Plot 7-422. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 263 of 355

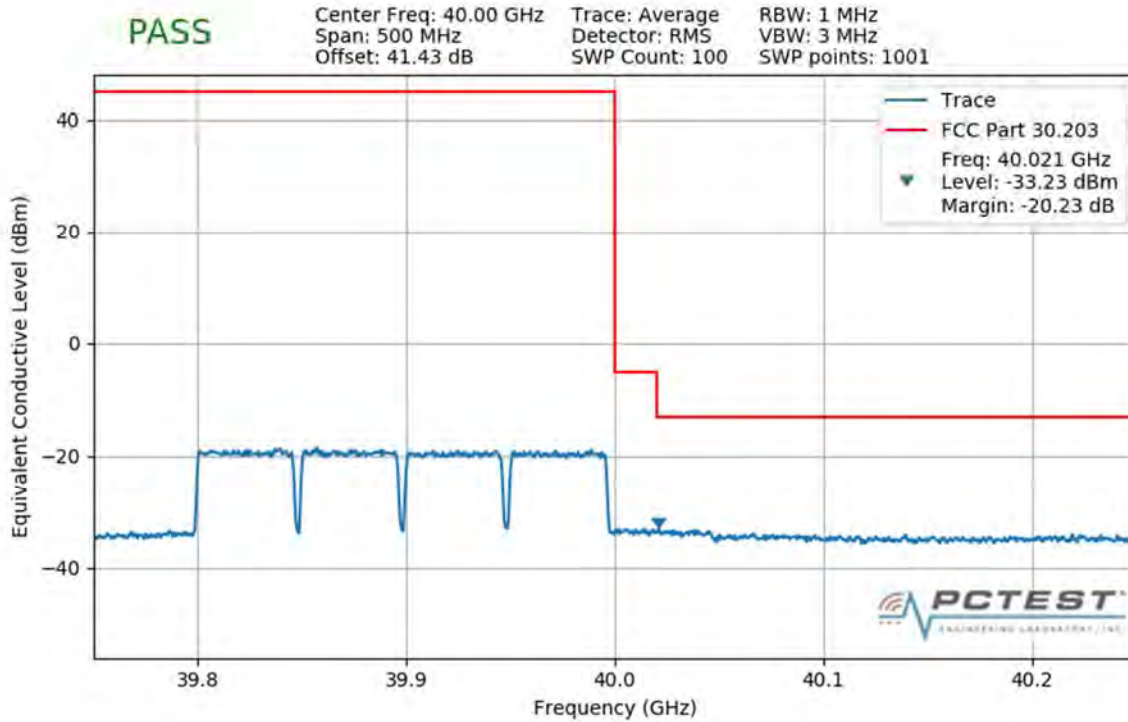


Plot 7-423. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

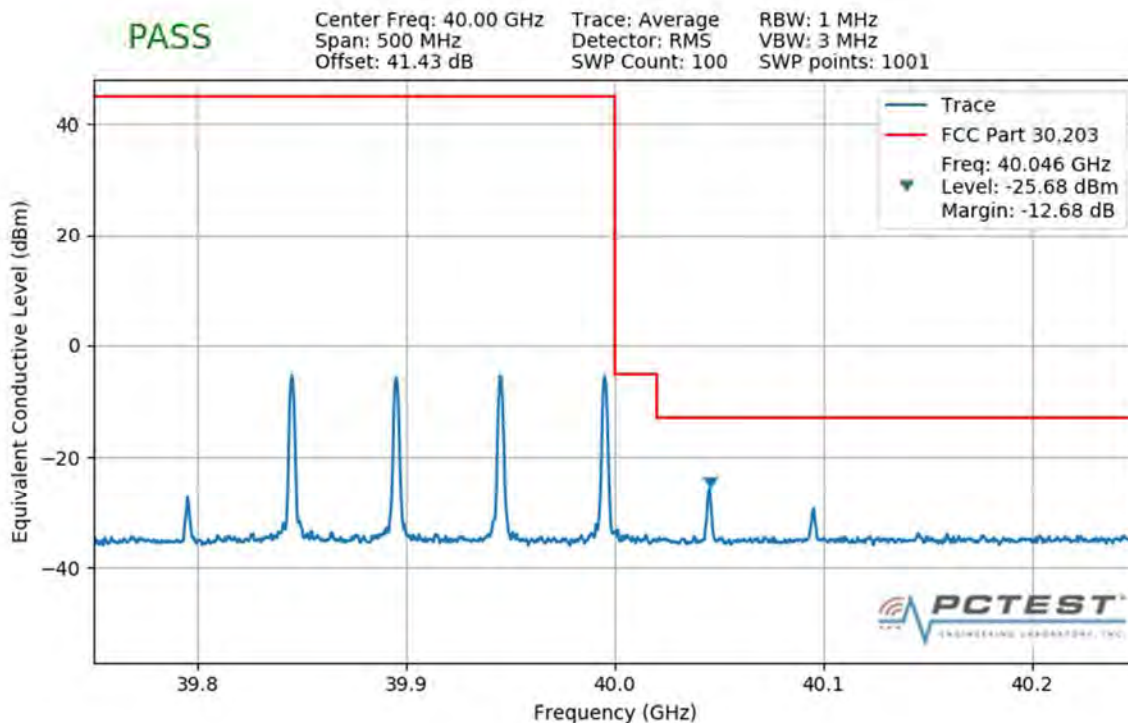


Plot 7-424. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 264 of 355

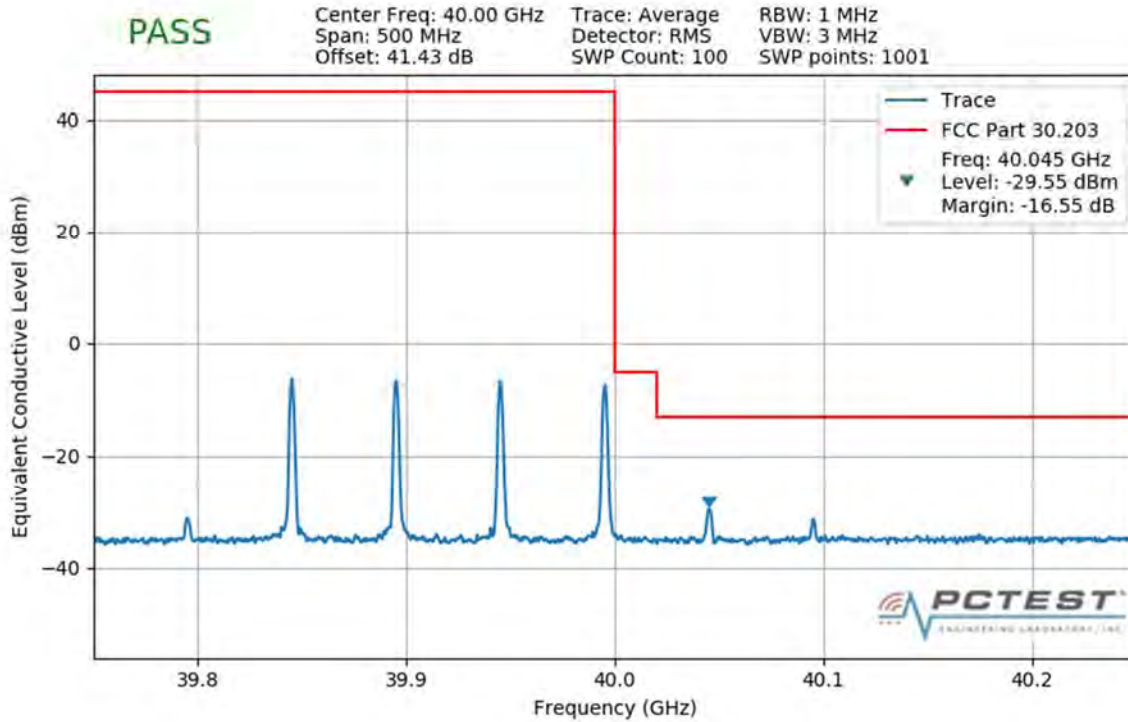


Plot 7-425. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

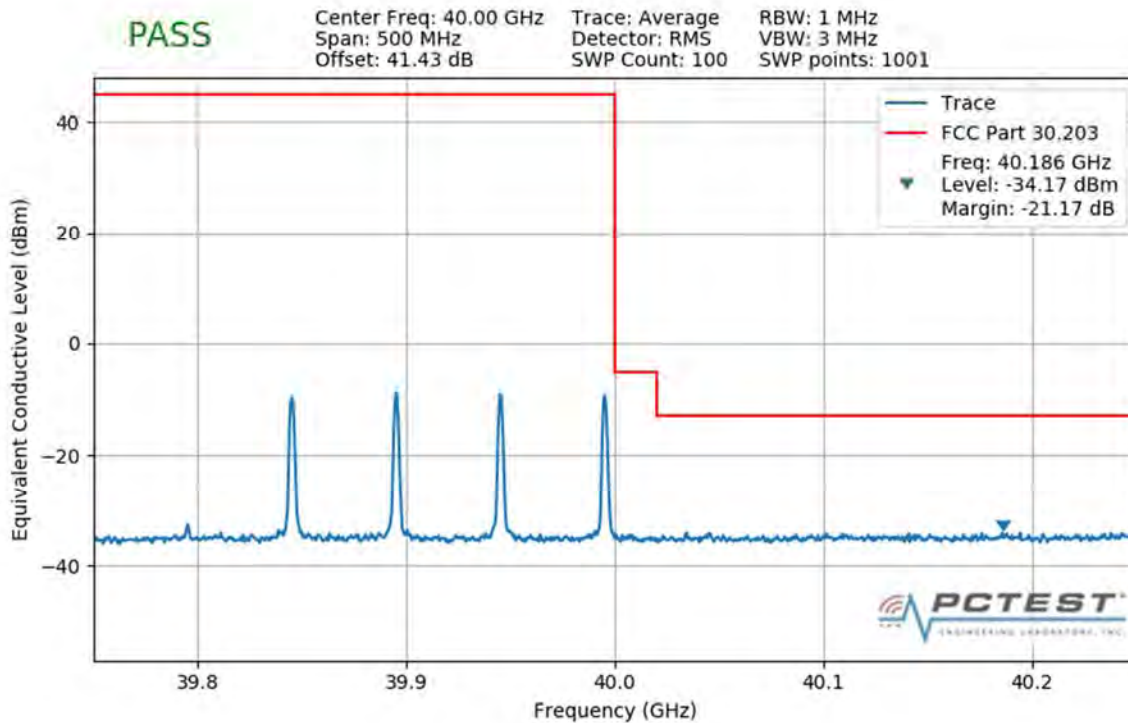


Plot 7-426. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 265 of 355

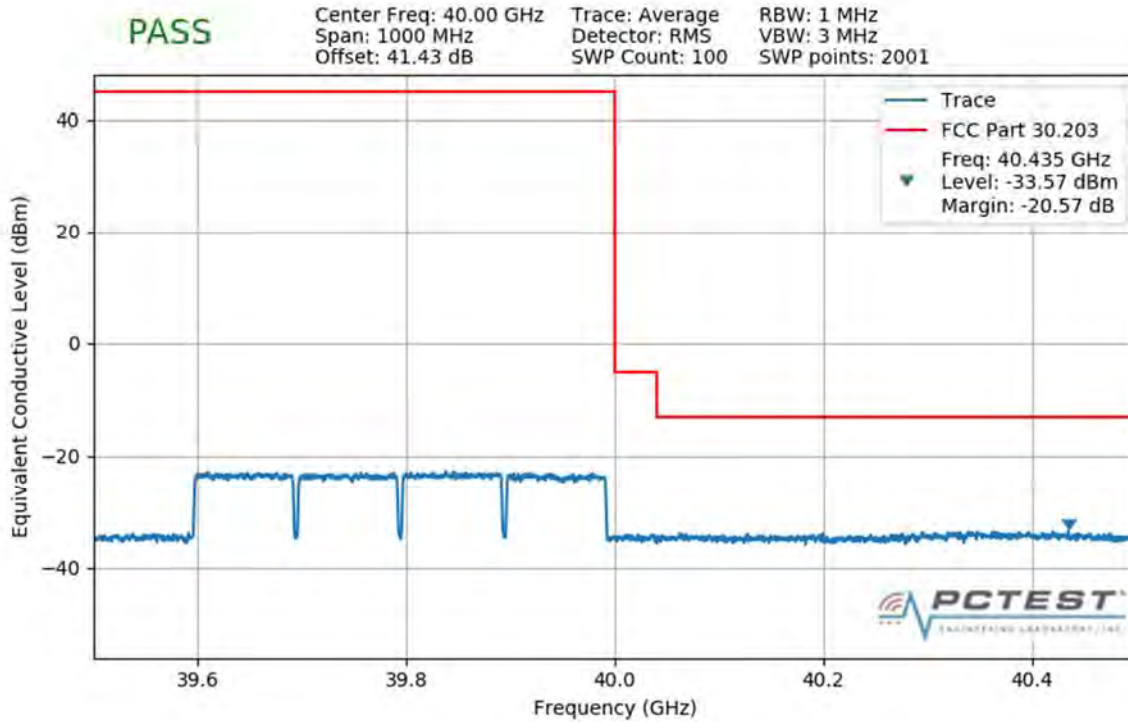


Plot 7-427. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

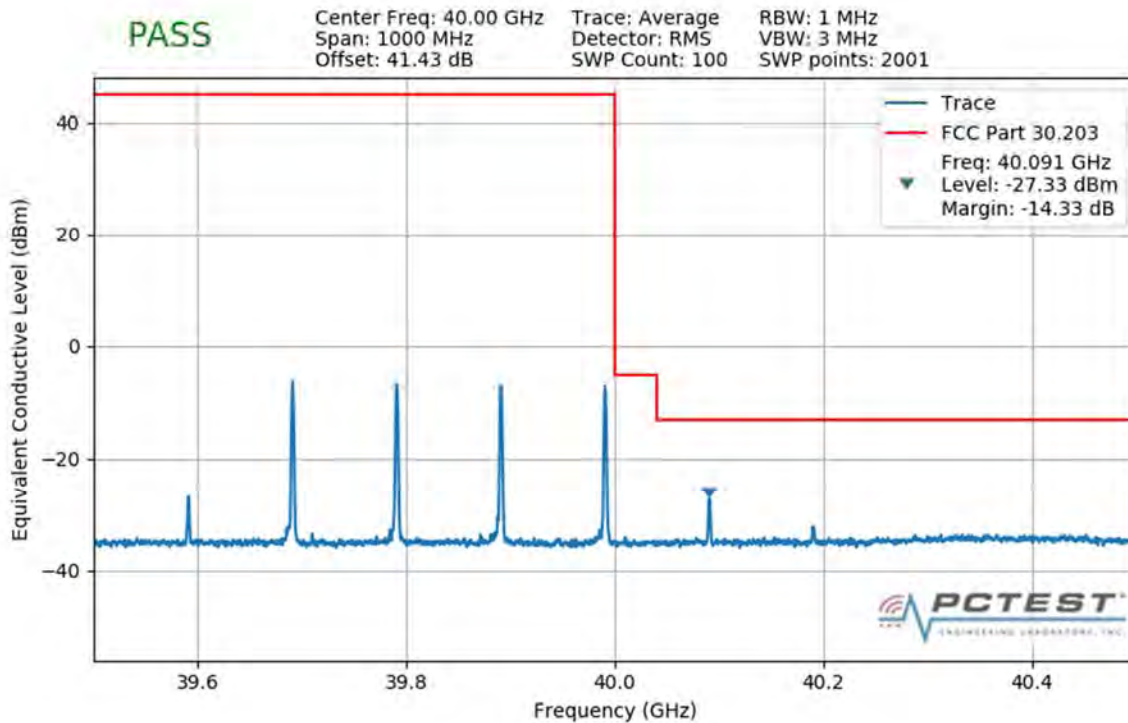


Plot 7-428. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 266 of 355

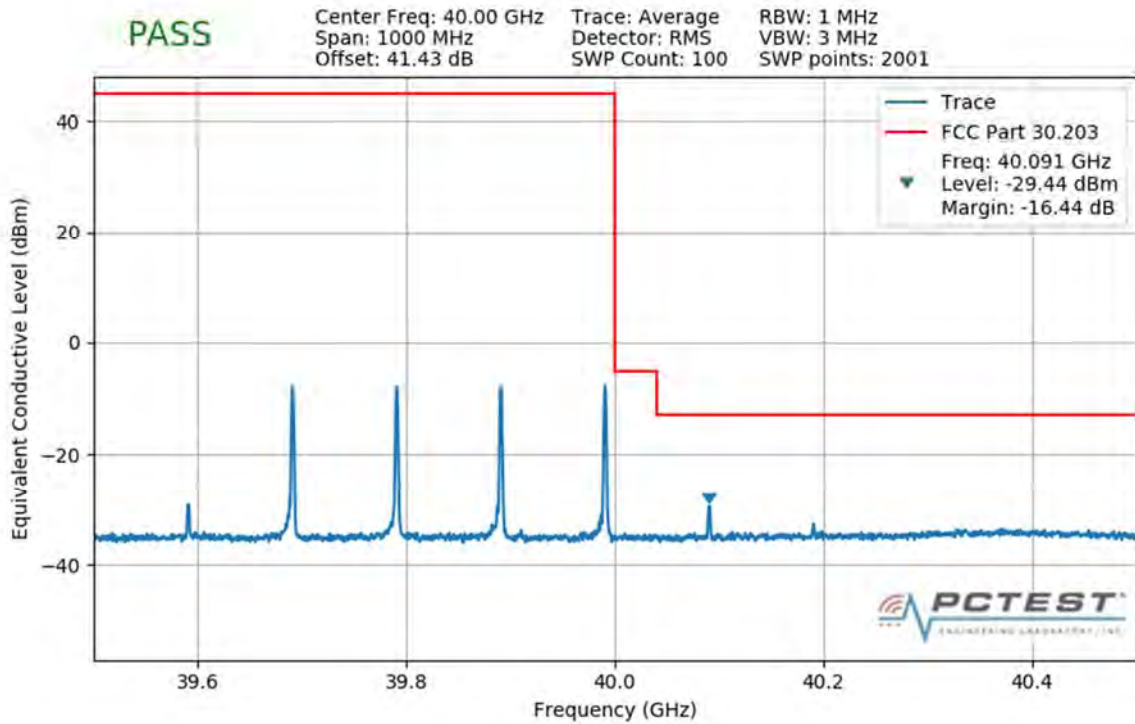


Plot 7-429. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

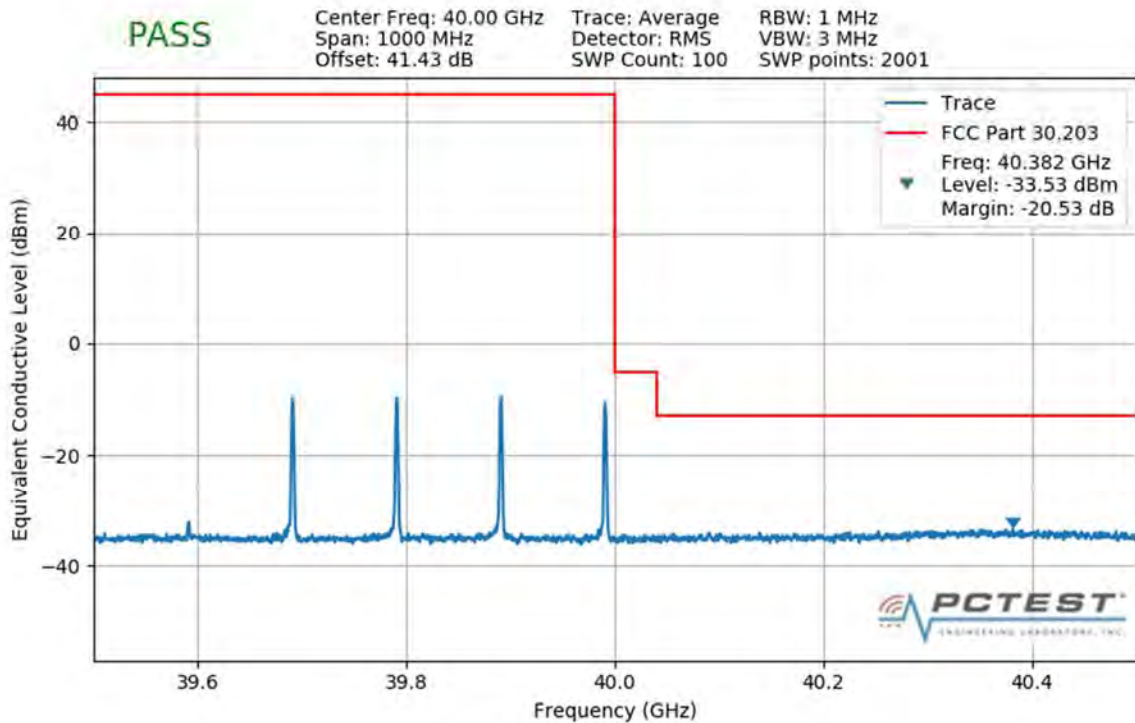


Plot 7-430. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 267 of 355

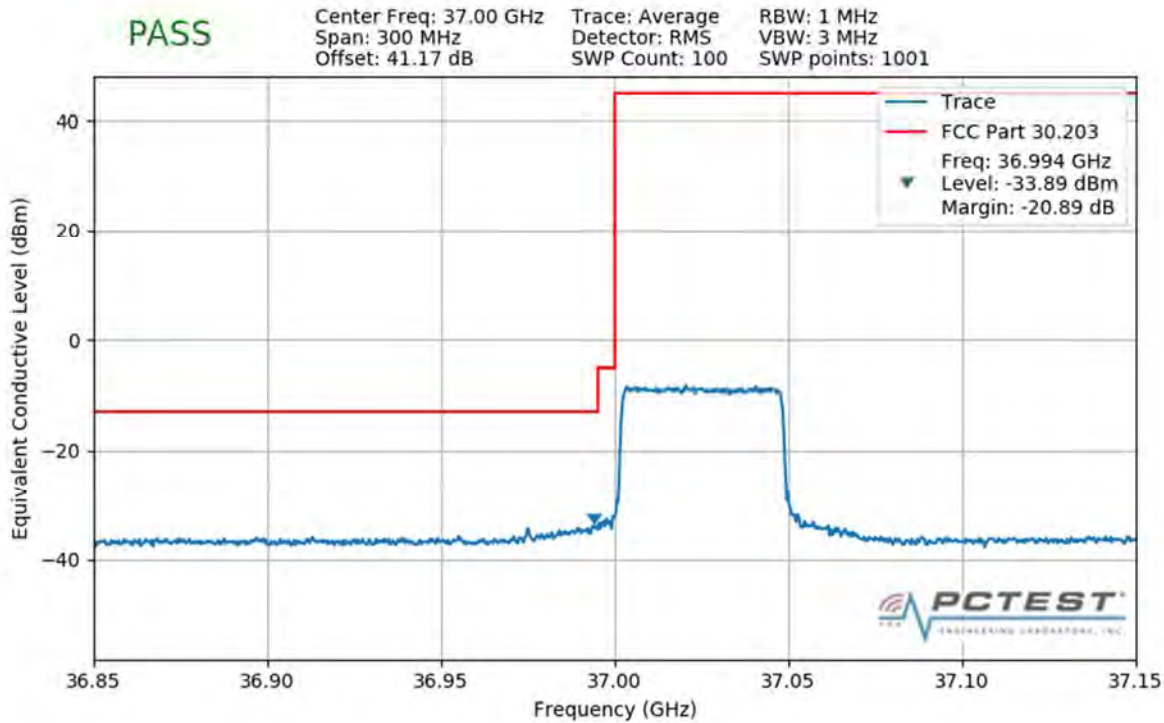


Plot 7-431. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)

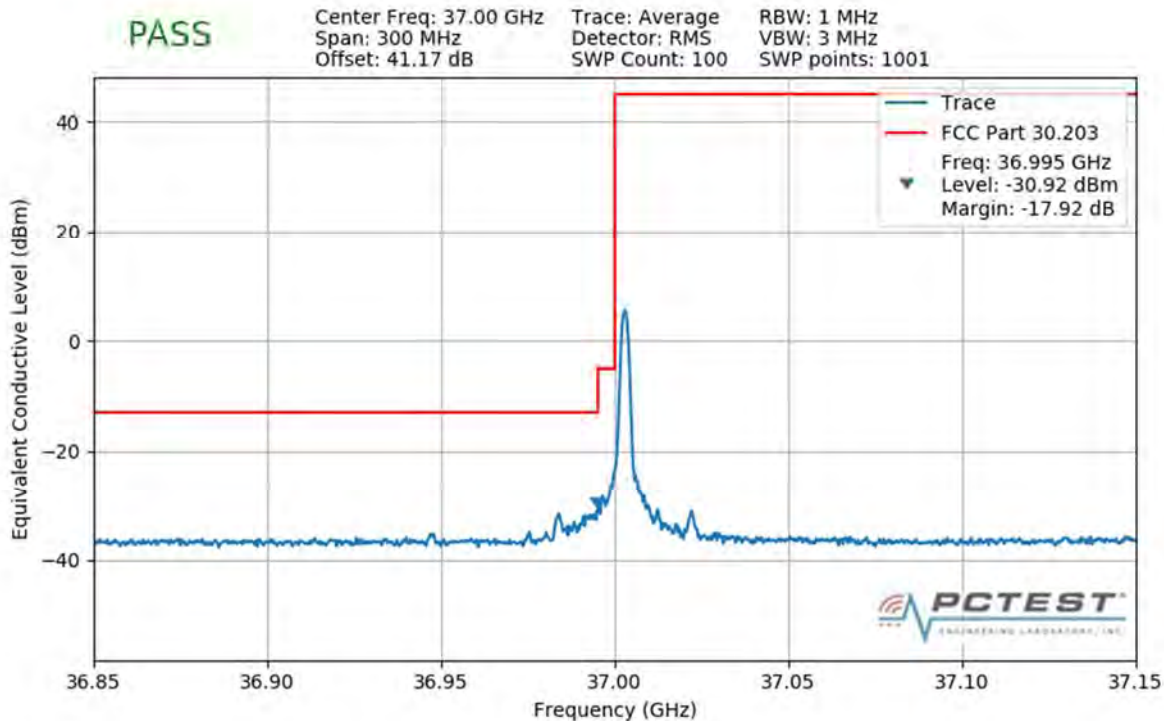


Plot 7-432. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 268 of 355

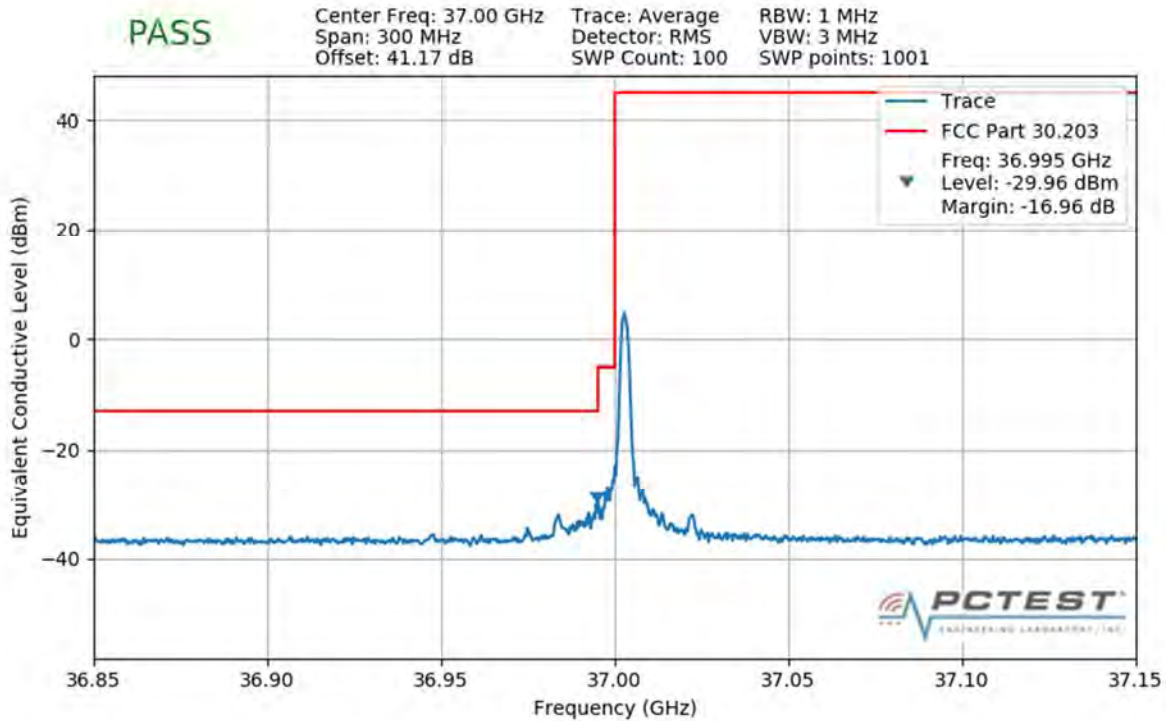


Plot 7-433. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

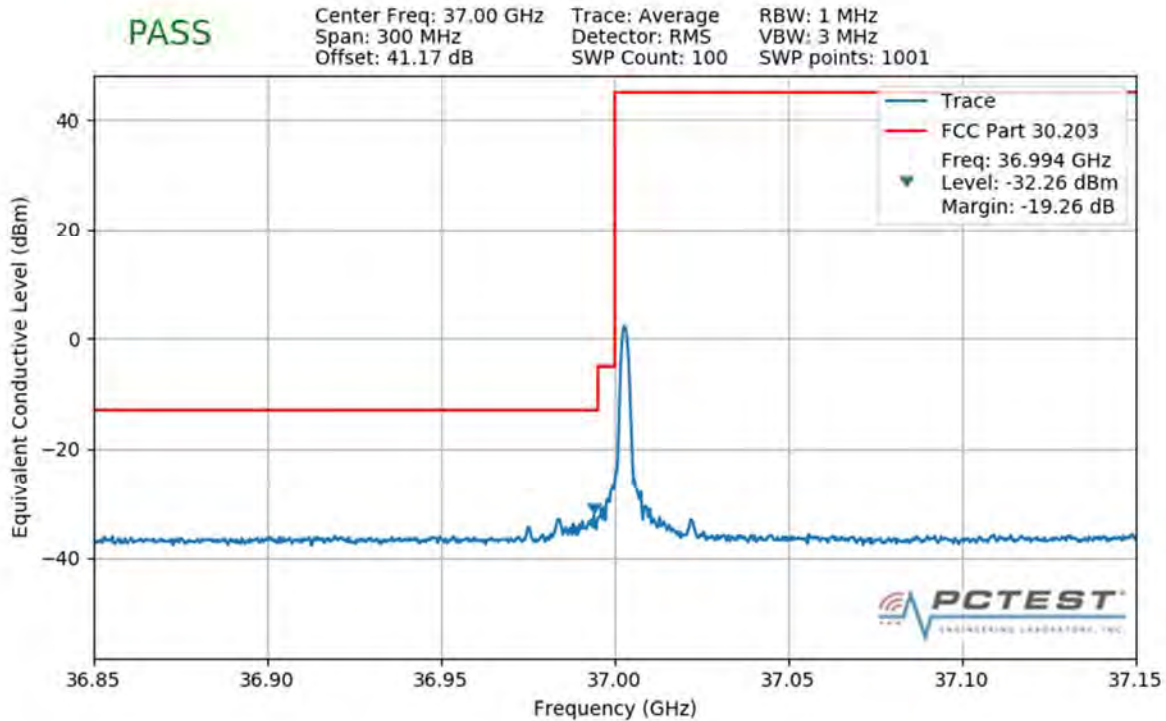


Plot 7-434. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	 MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)		Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset	Page 269 of 355

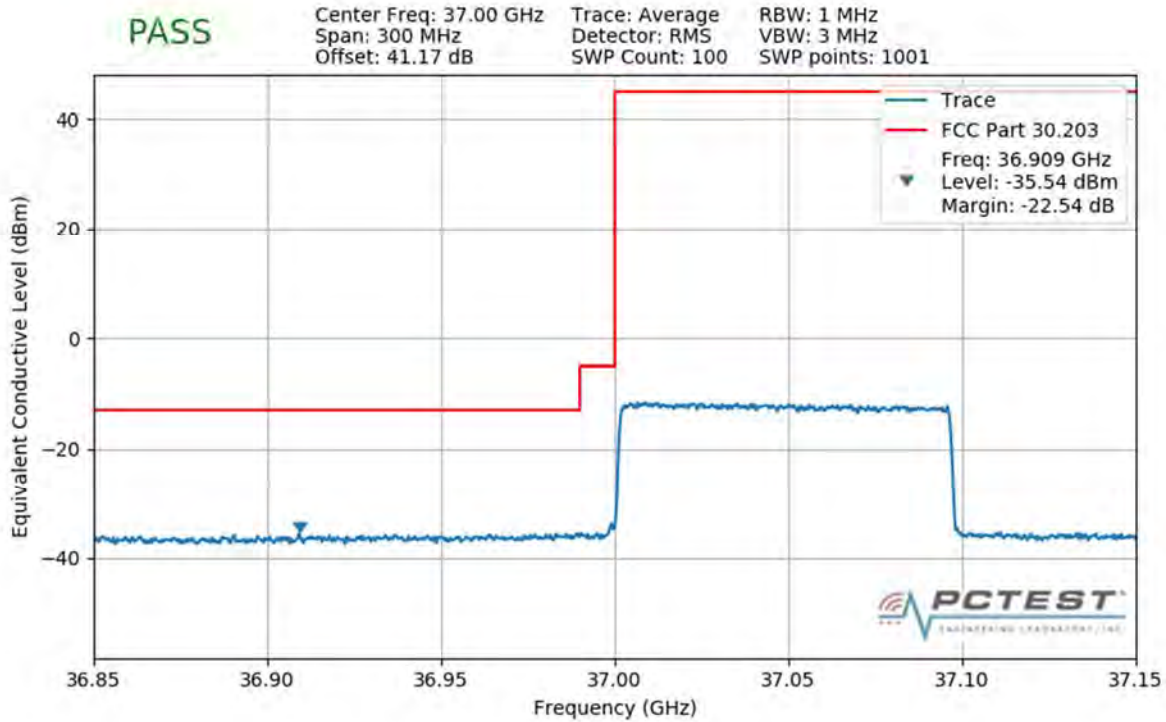


Plot 7-435. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

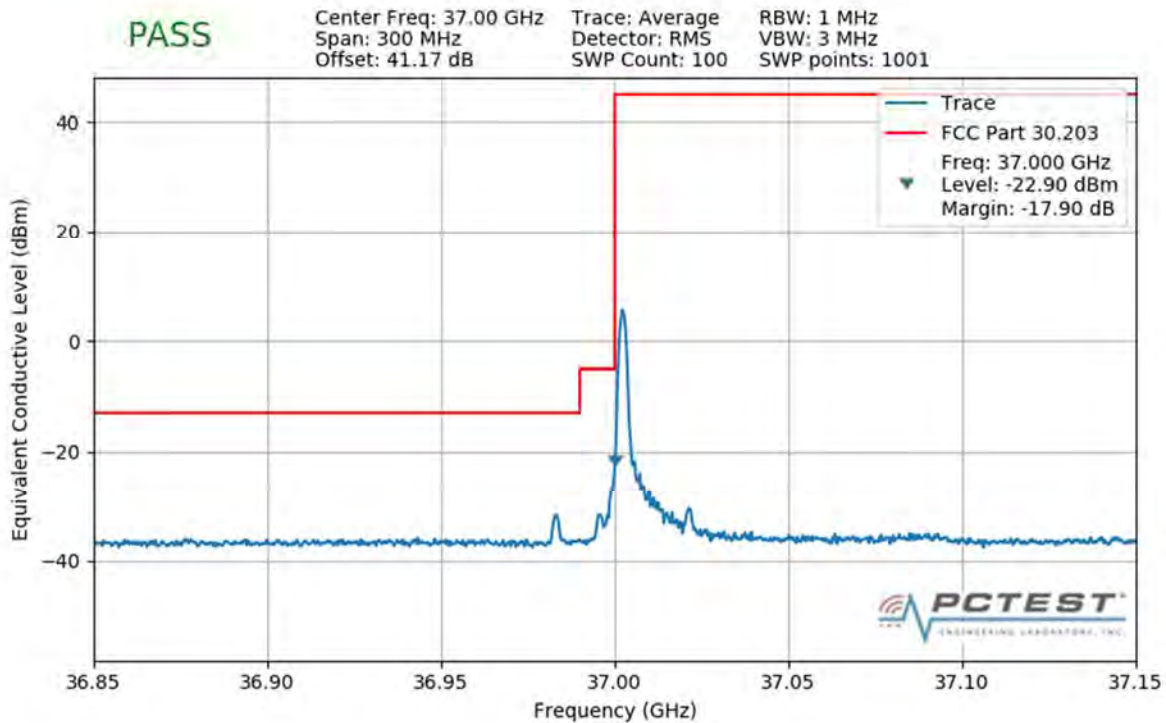


Plot 7-436. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 270 of 355

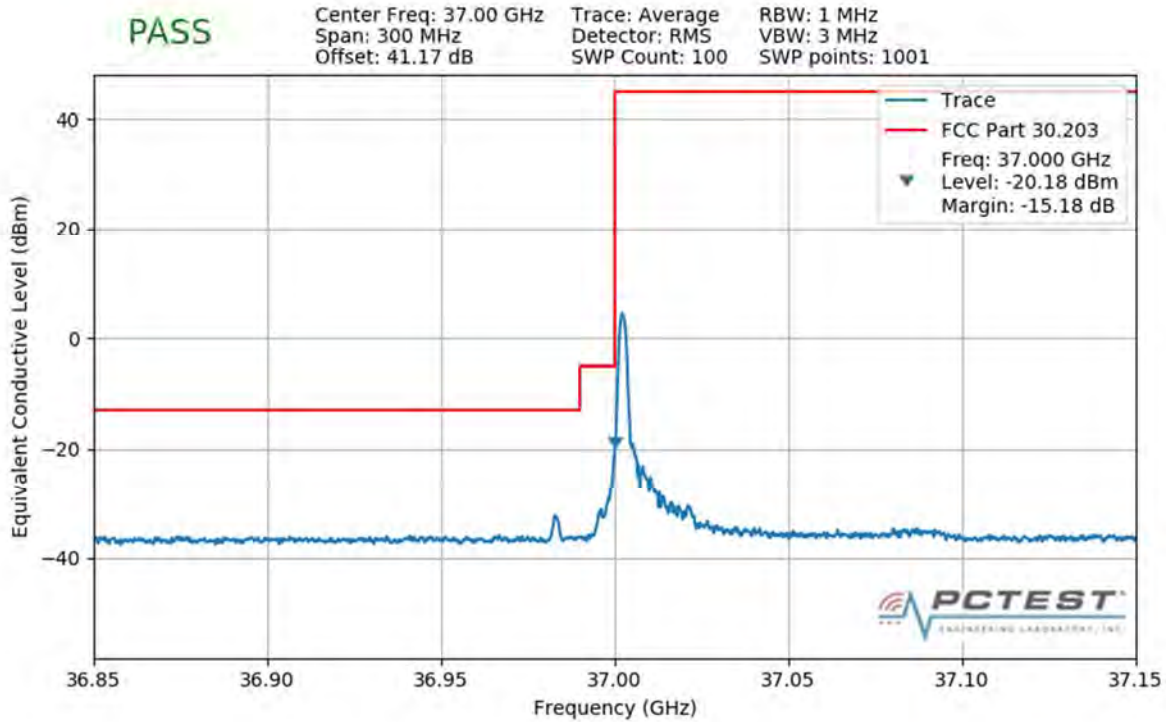


Plot 7-437. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

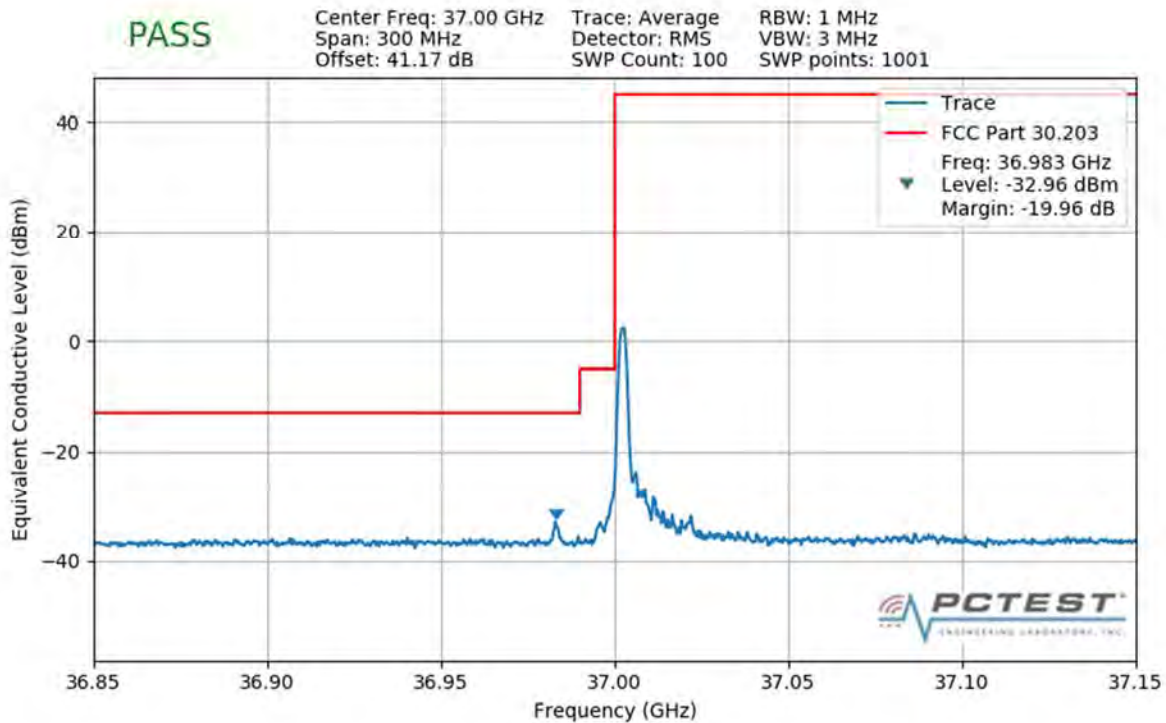


Plot 7-438. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 271 of 355

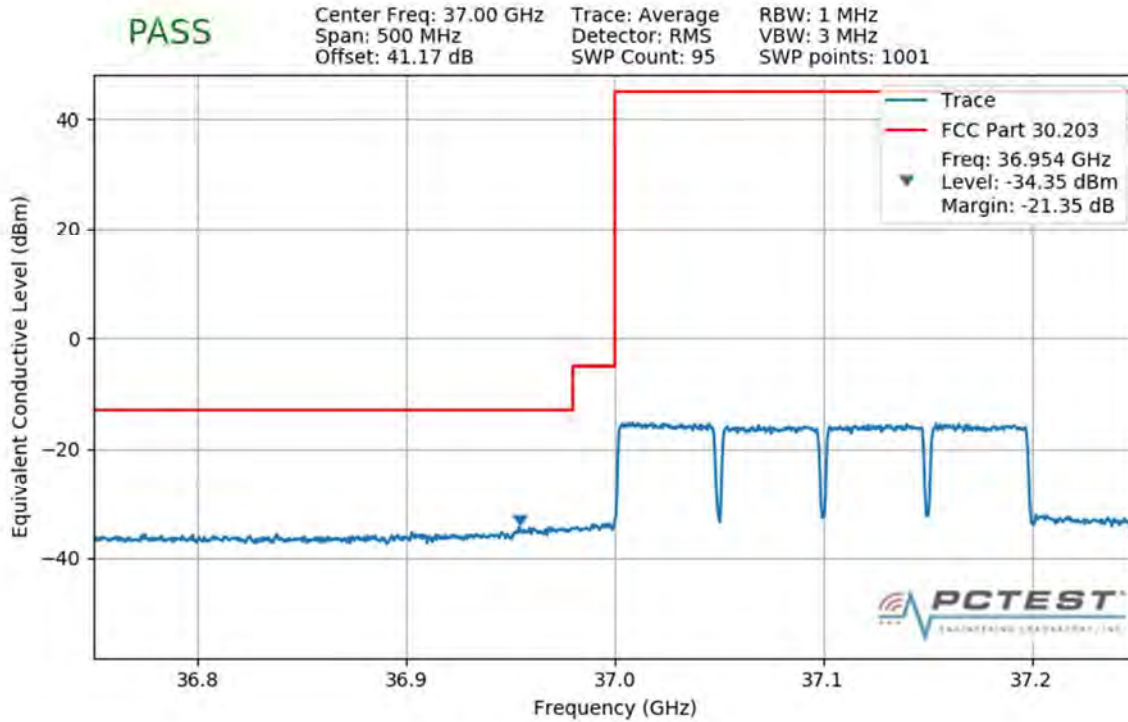


Plot 7-439. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

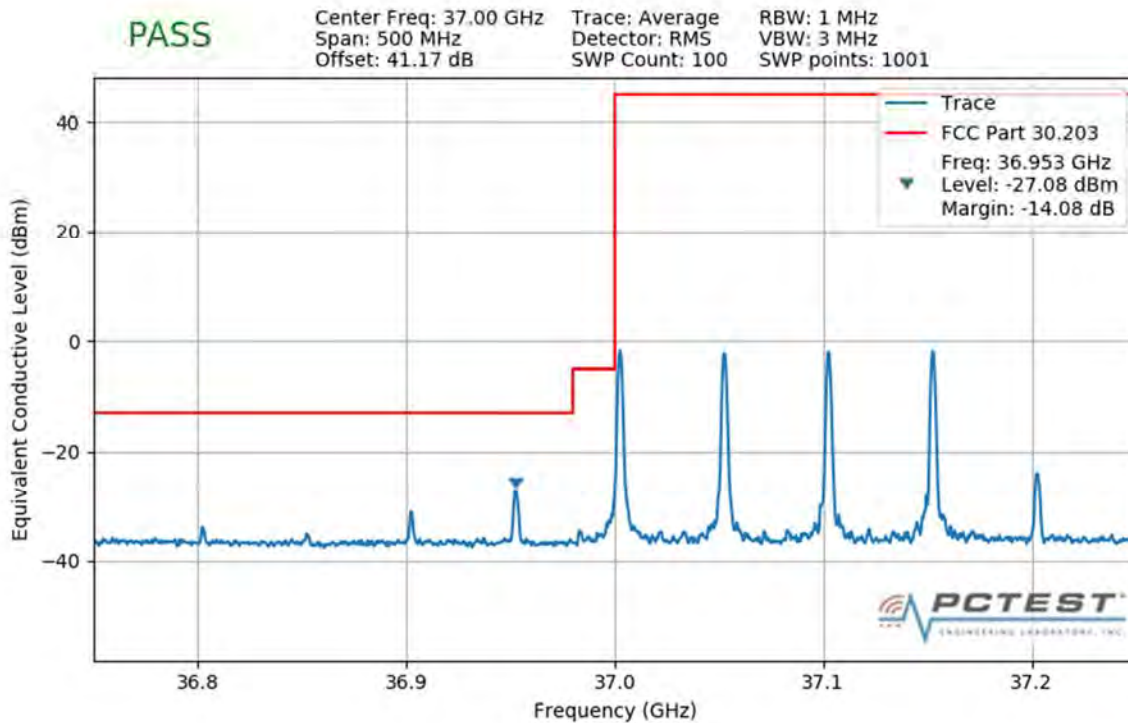


Plot 7-440. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 272 of 355

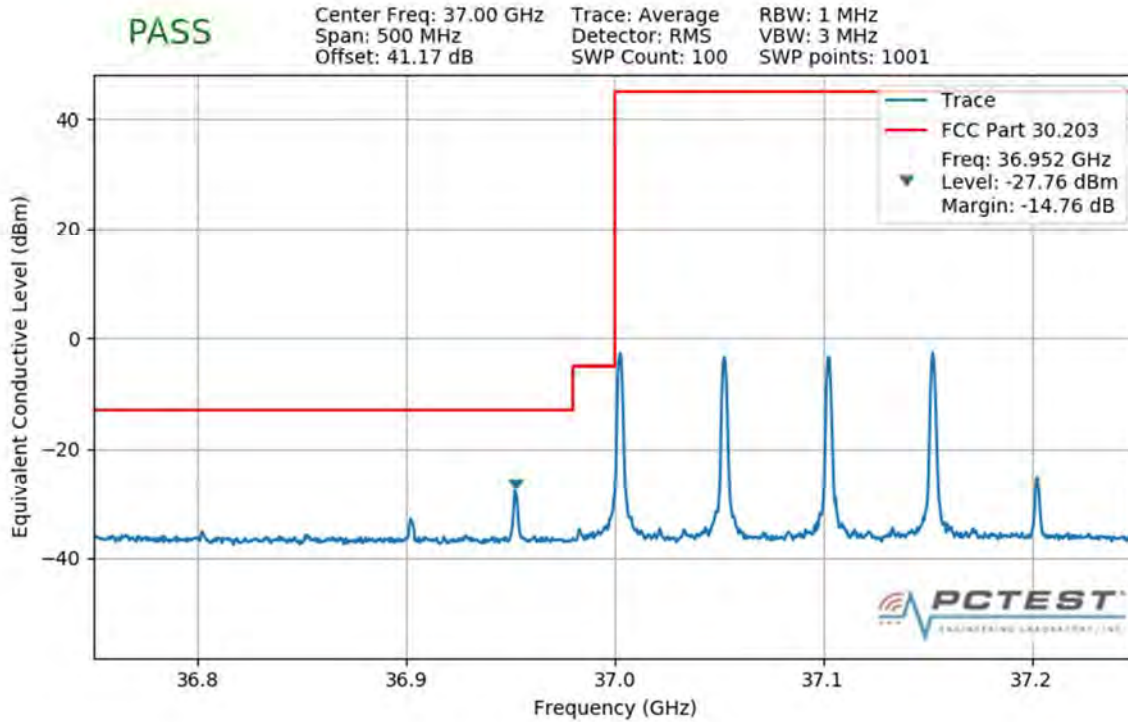


Plot 7-441. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

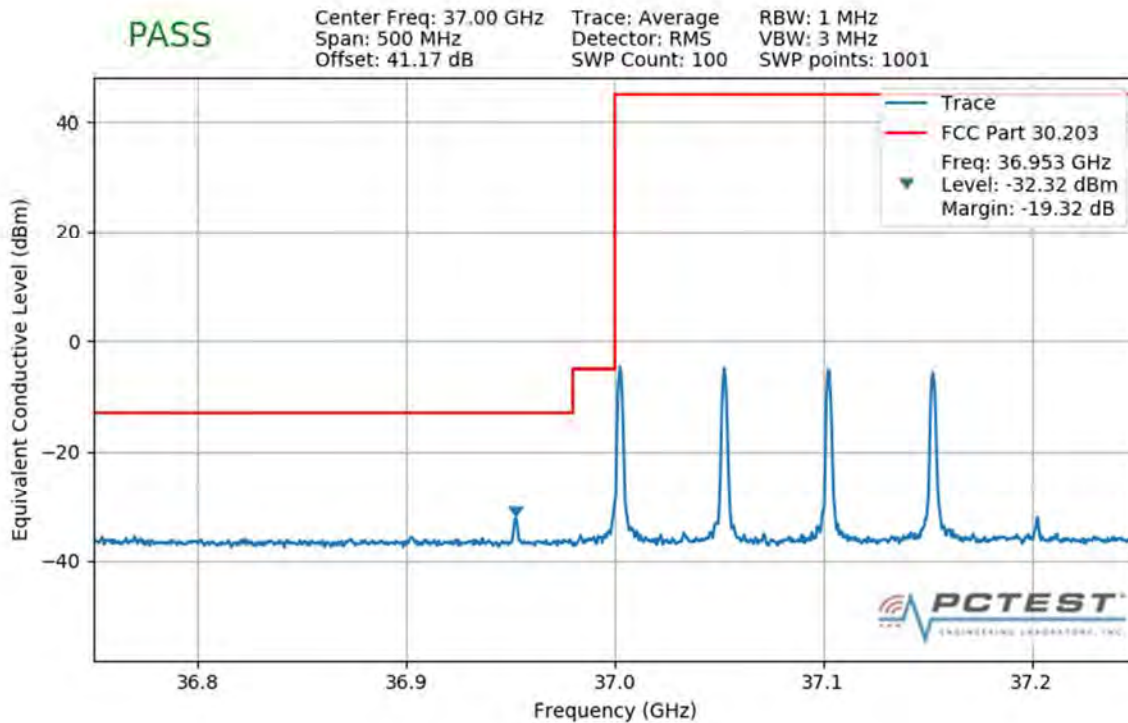


Plot 7-442. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 273 of 355

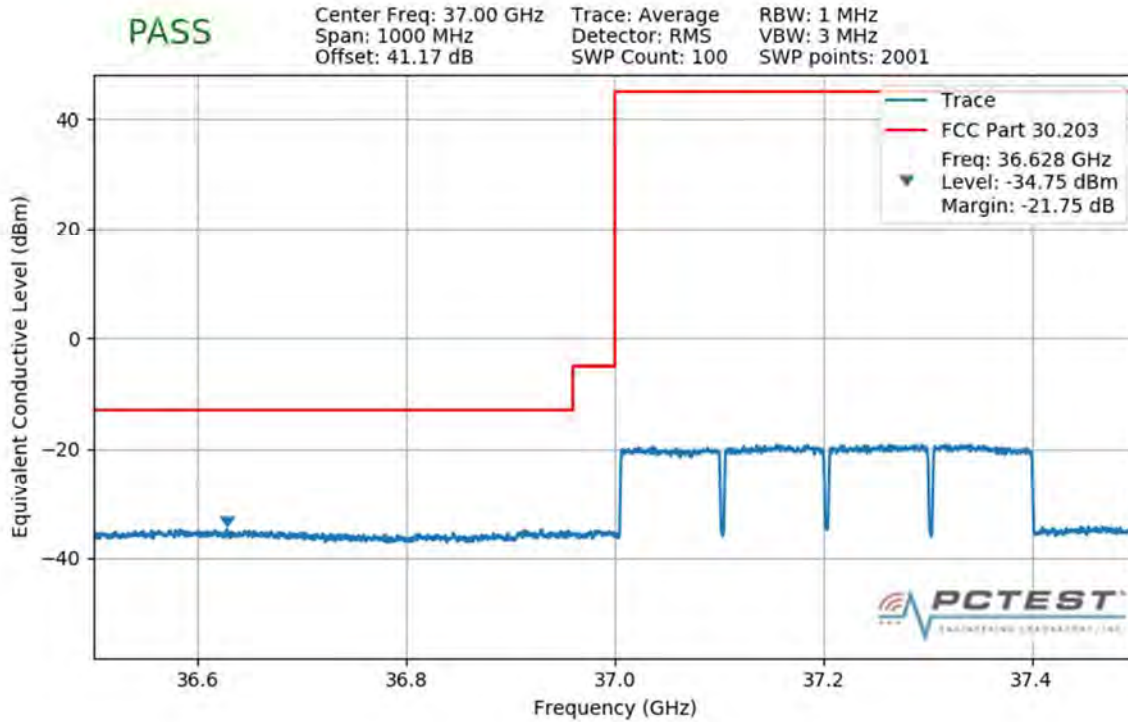


Plot 7-443. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

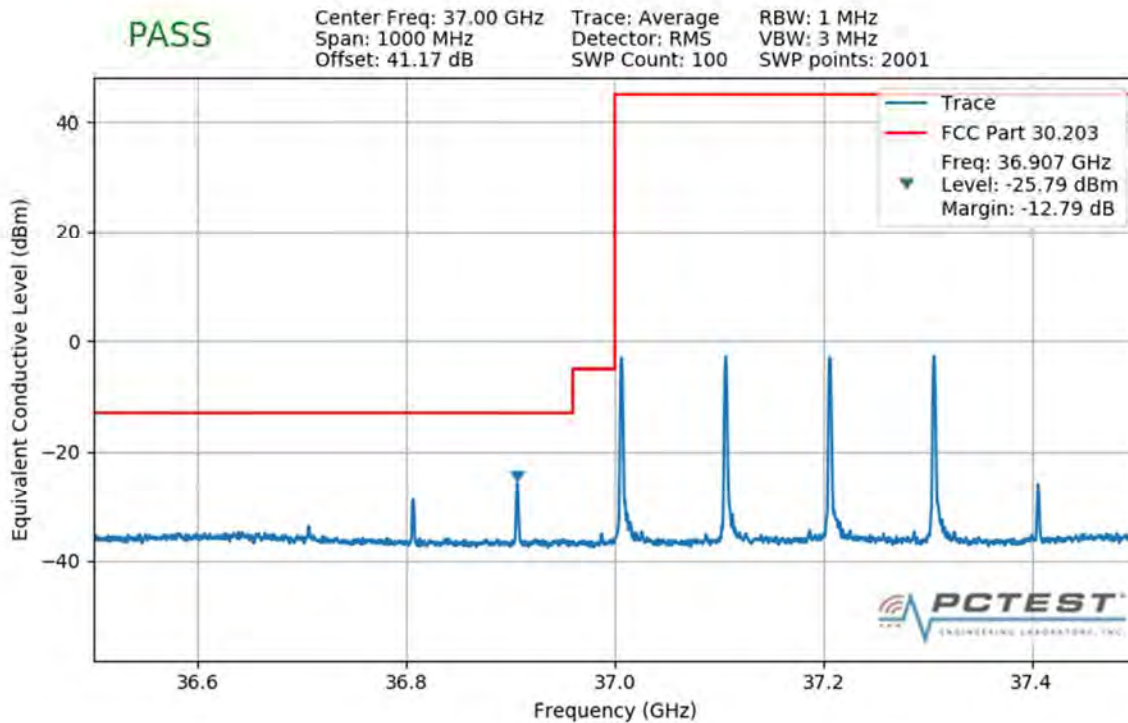


Plot 7-444. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 274 of 355

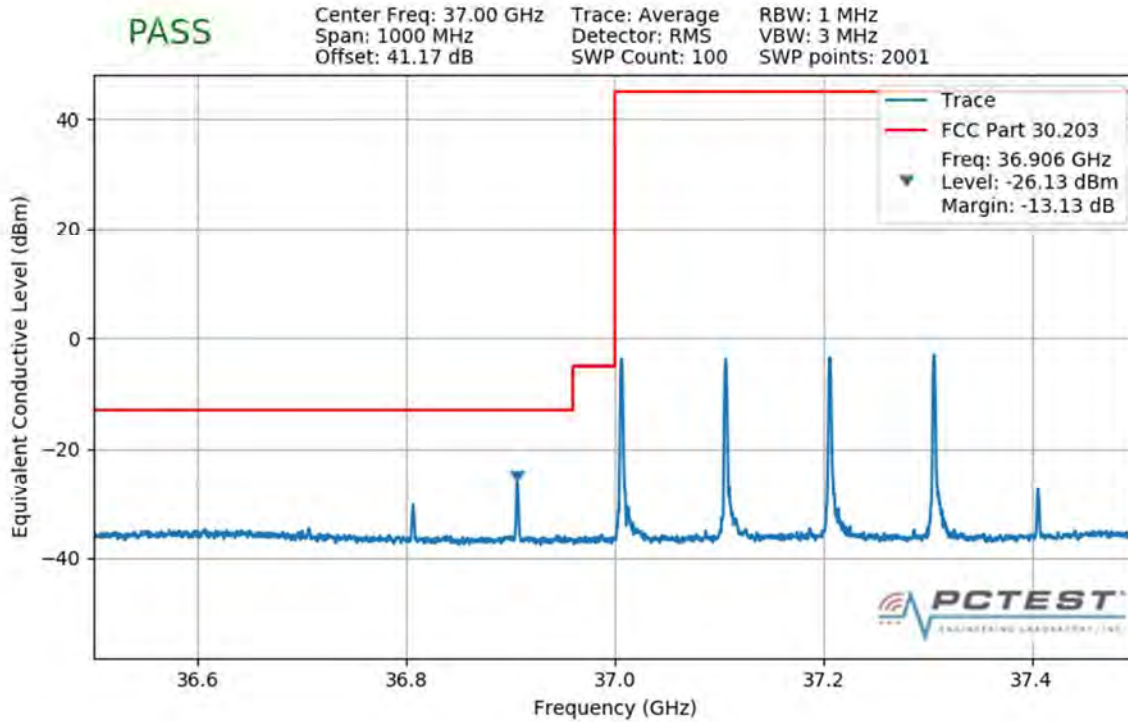


Plot 7-445. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

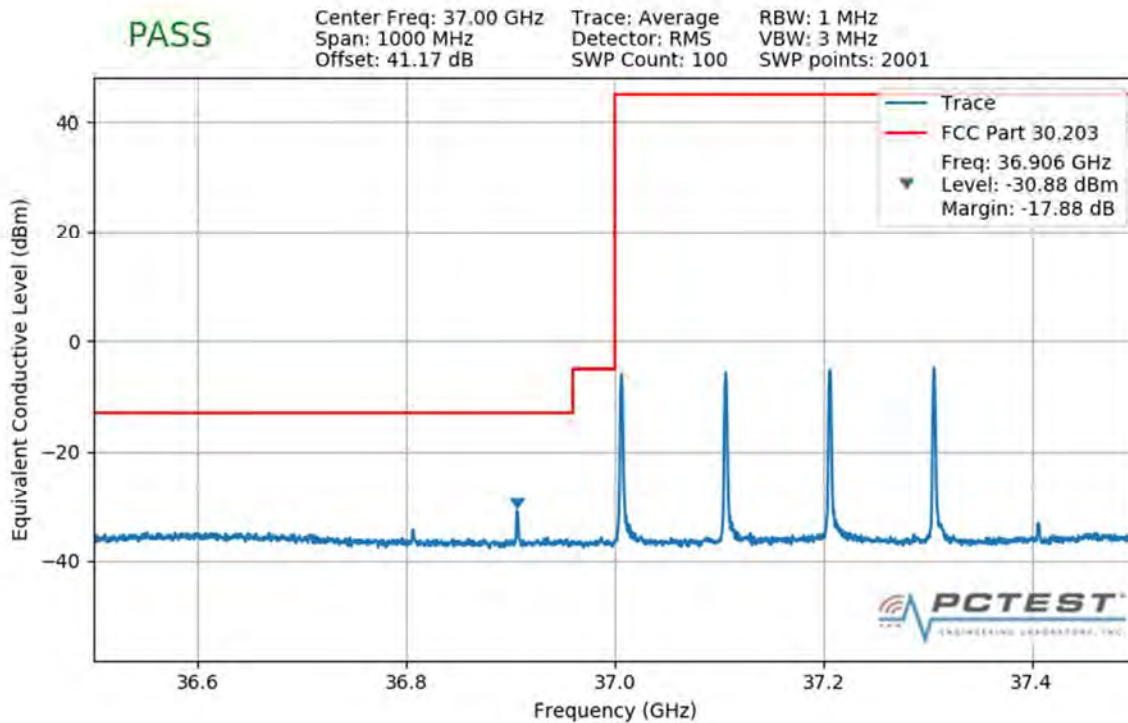


Plot 7-446. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 275 of 355

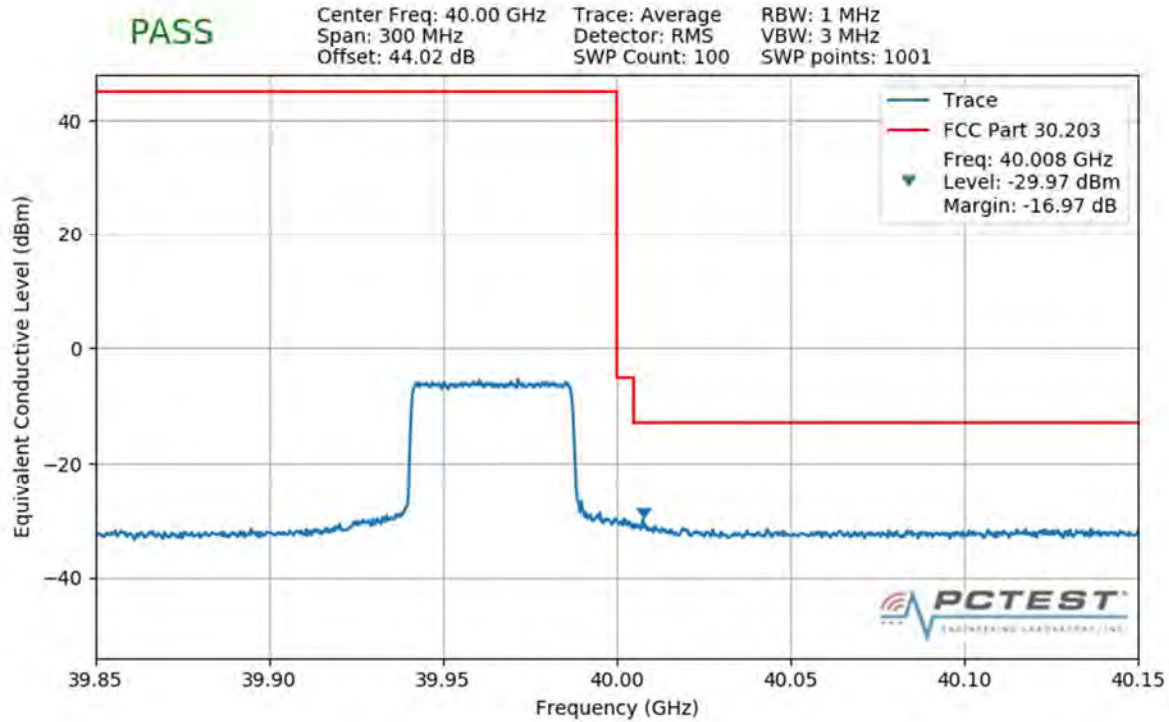


Plot 7-447. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

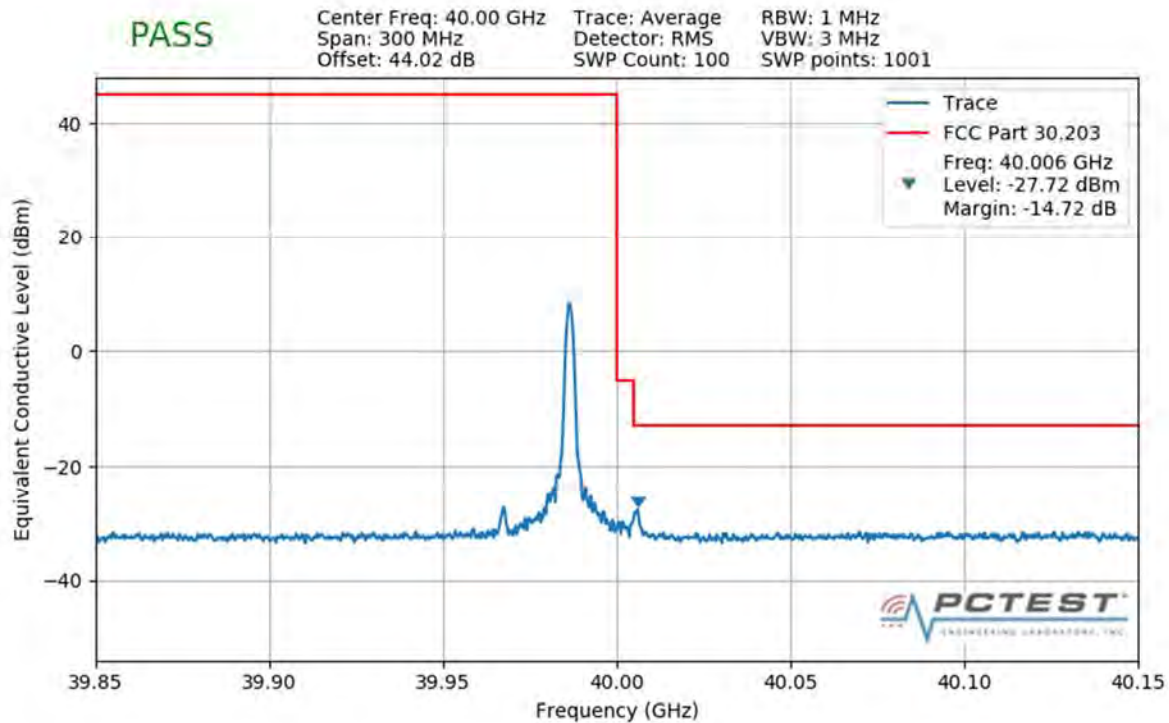


Plot 7-448. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 276 of 355

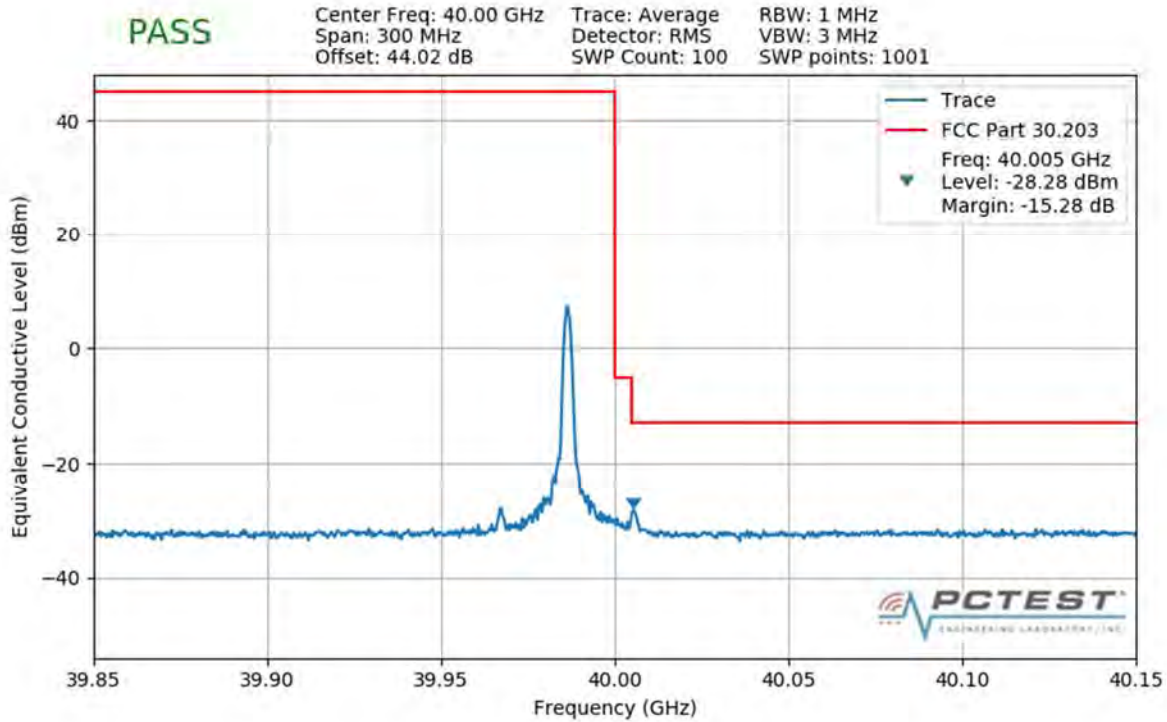


Plot 7-449. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

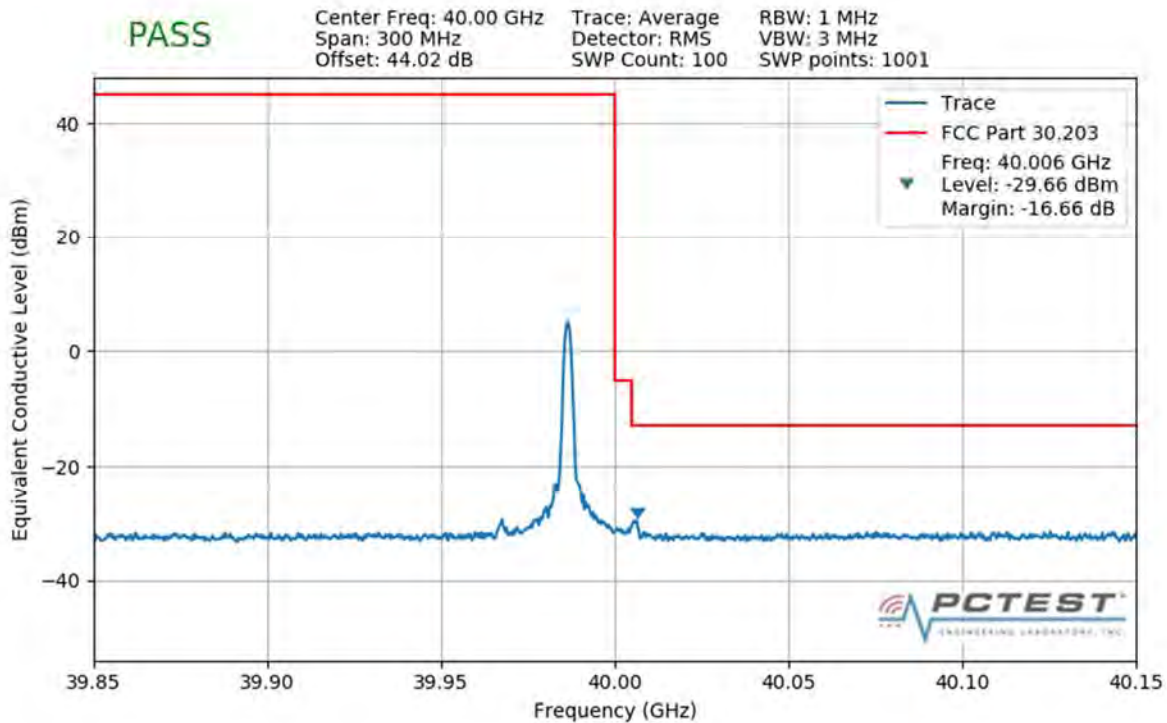


Plot 7-450. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 277 of 355

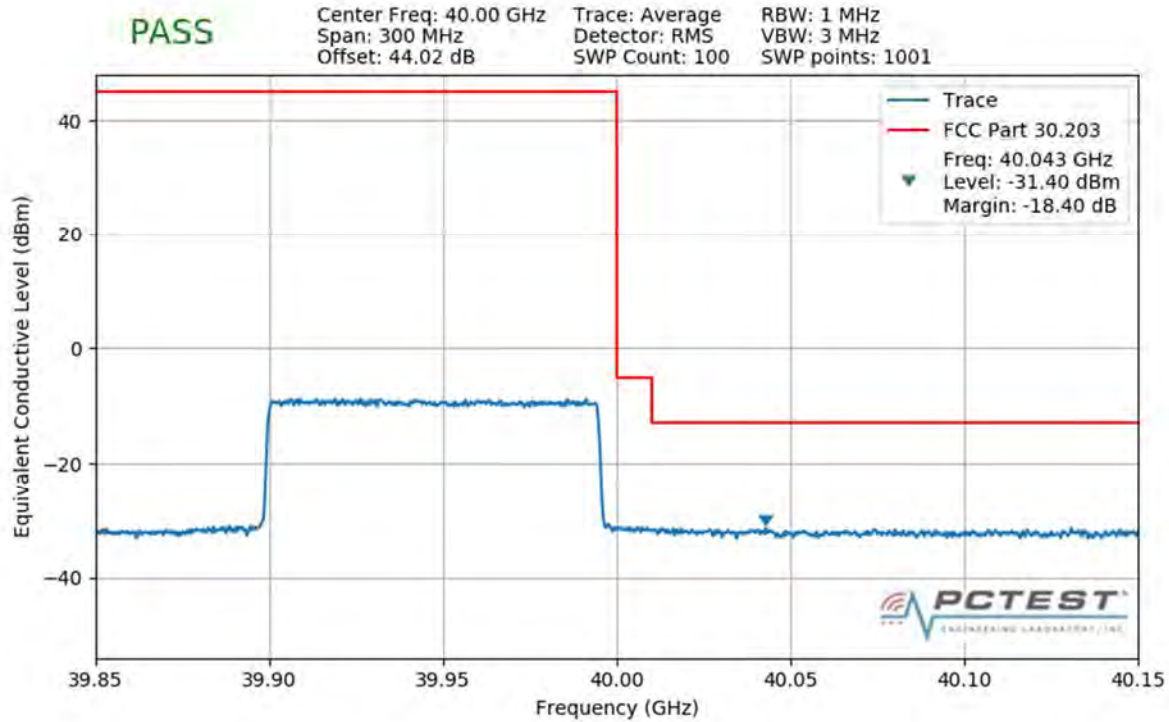


Plot 7-451. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

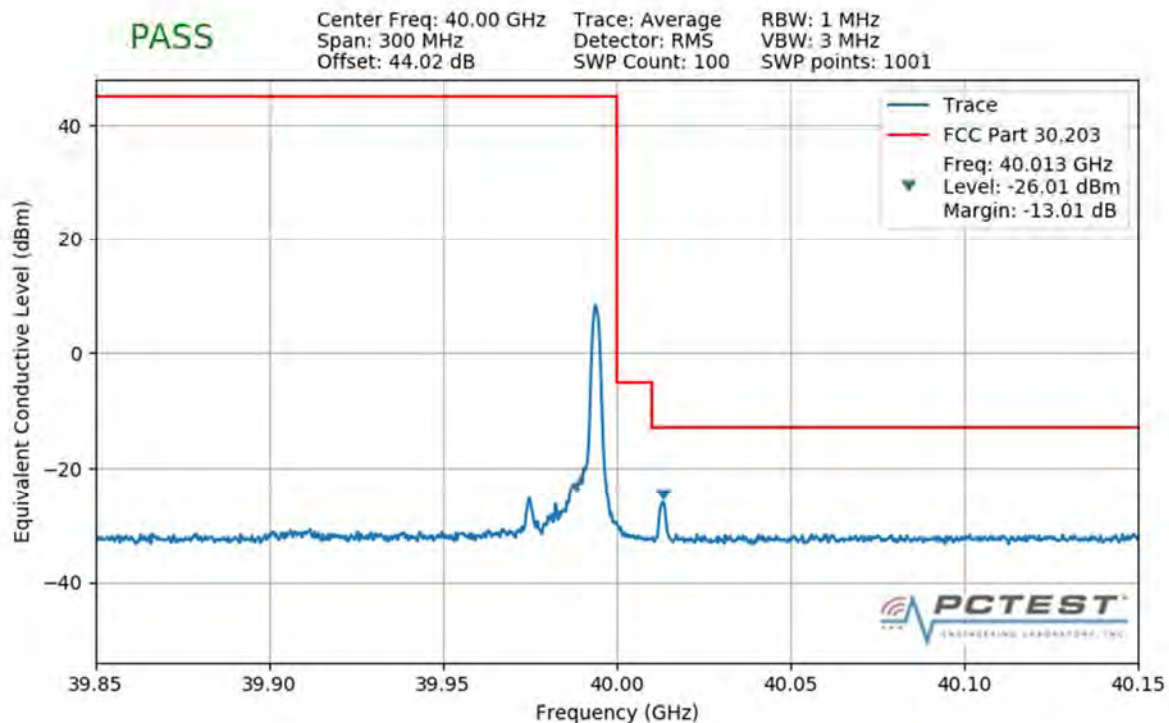


Plot 7-452. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 278 of 355

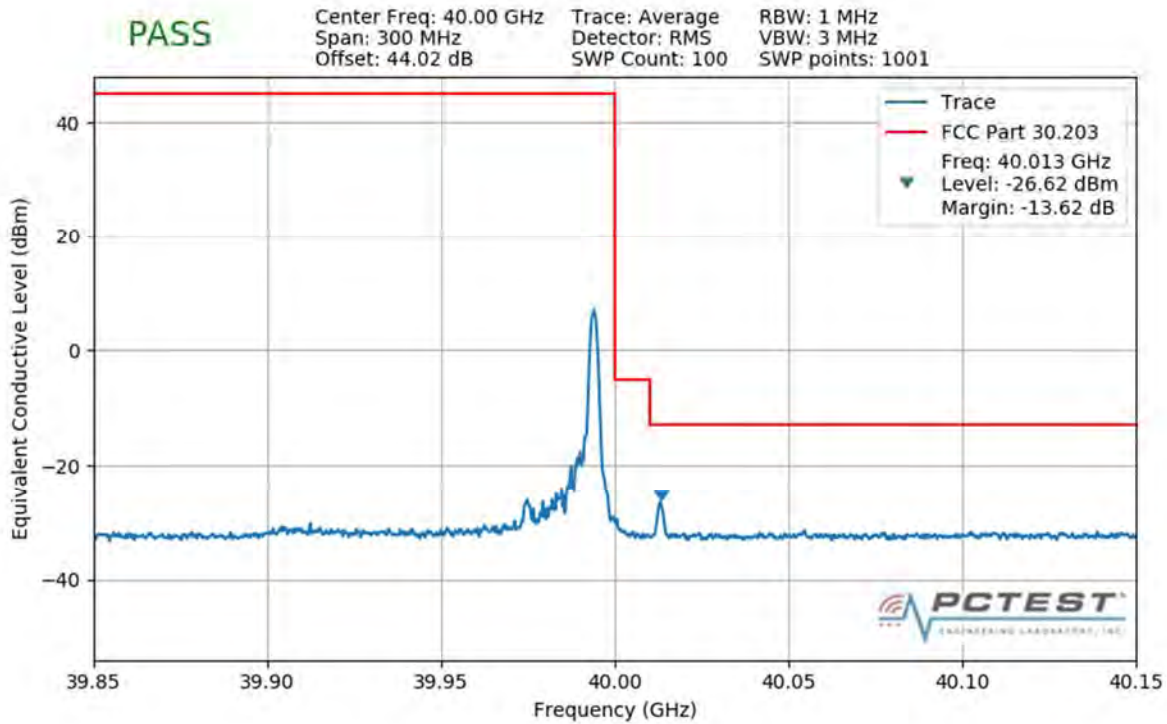


Plot 7-453. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

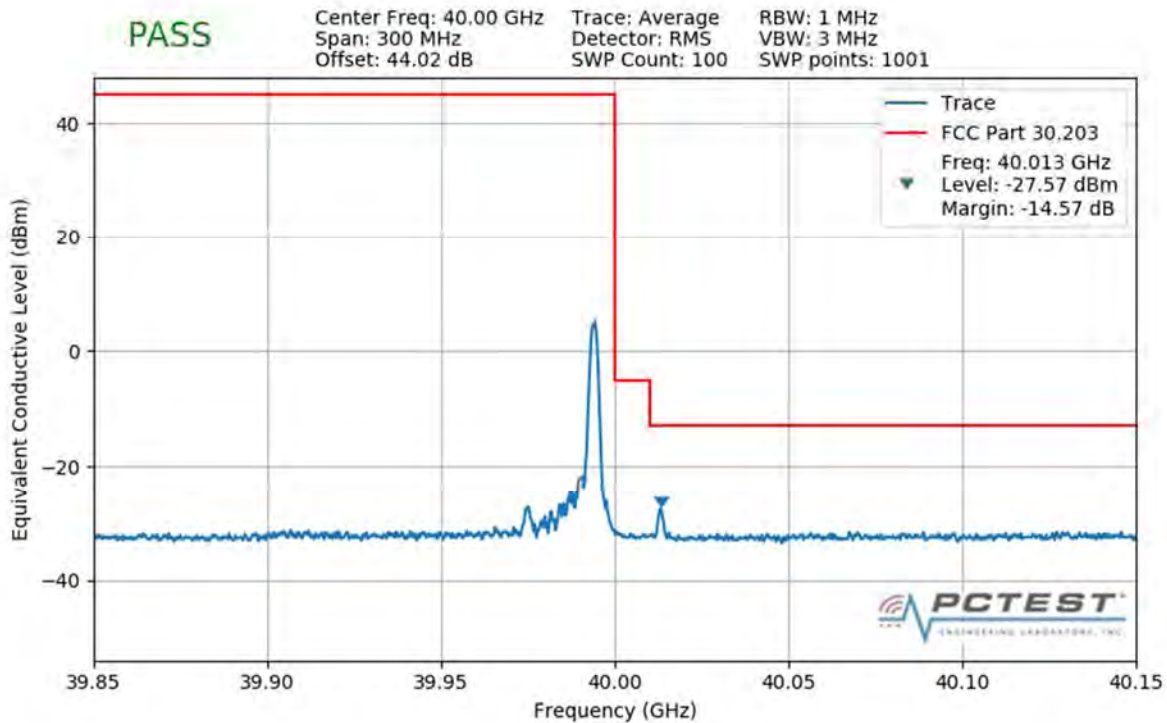


Plot 7-454. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 279 of 355

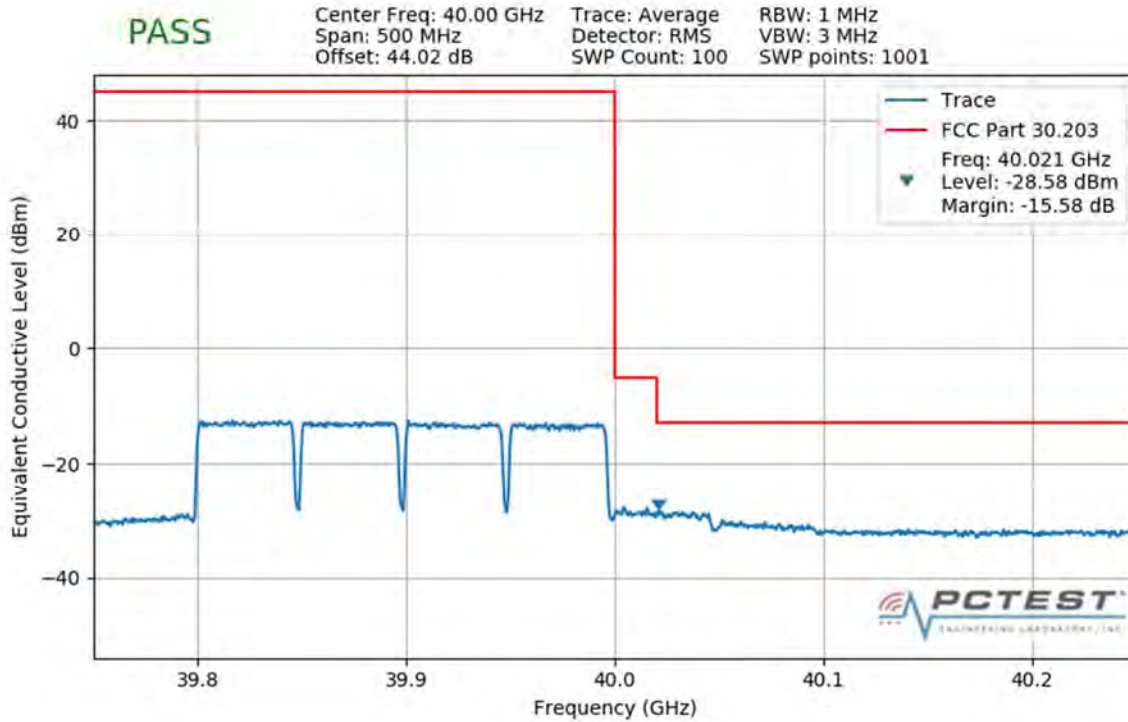


Plot 7-455. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

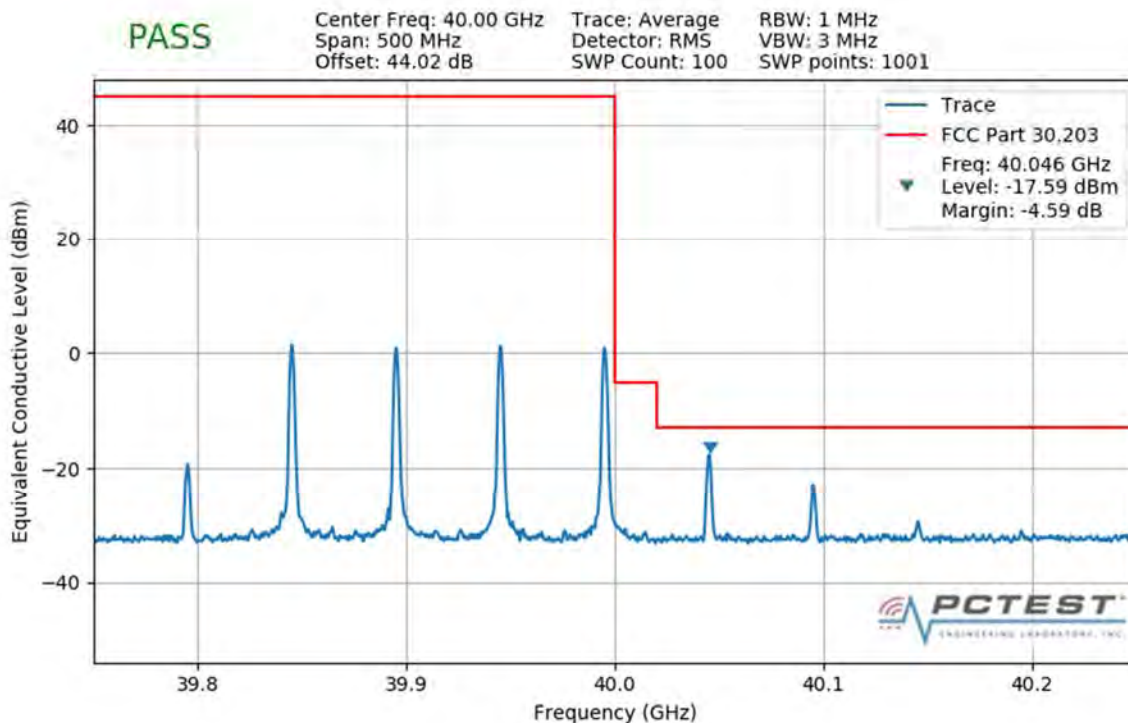


Plot 7-456. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 280 of 355

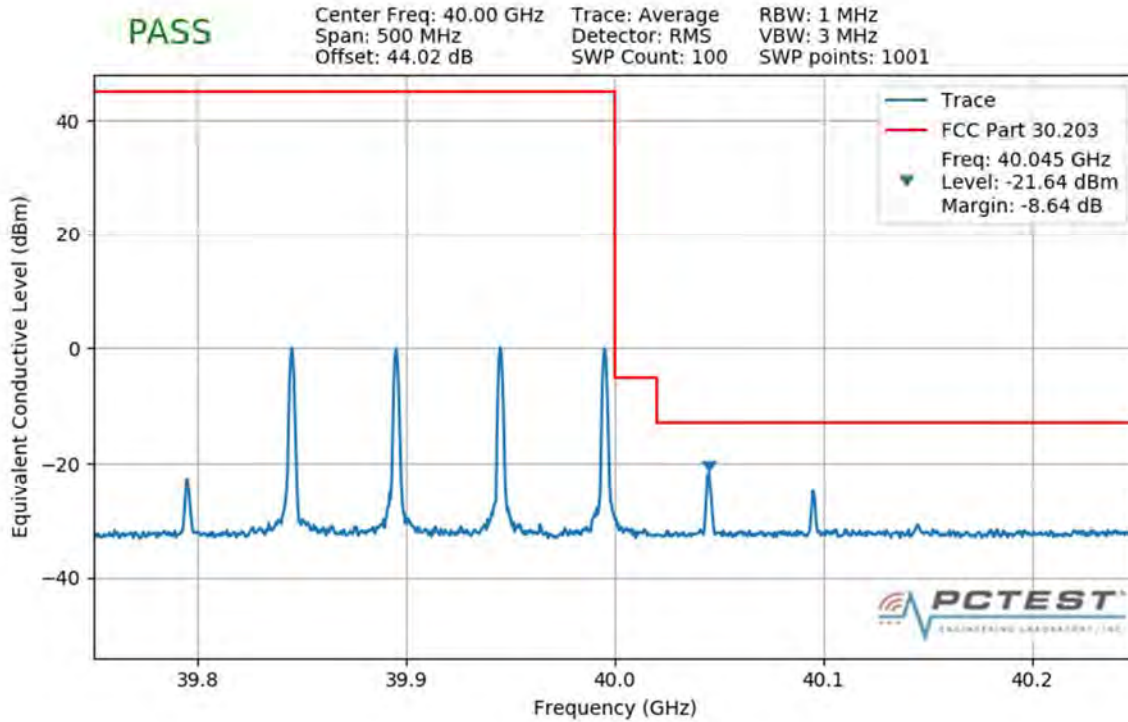


Plot 7-457. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

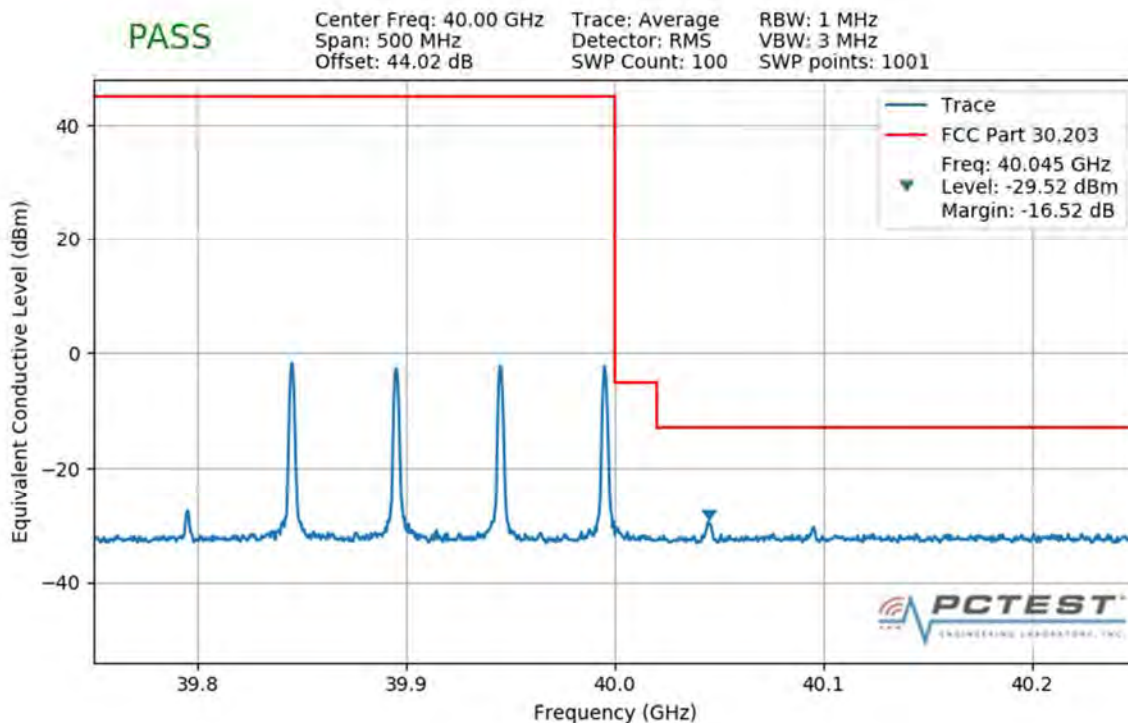


Plot 7-458. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 281 of 355

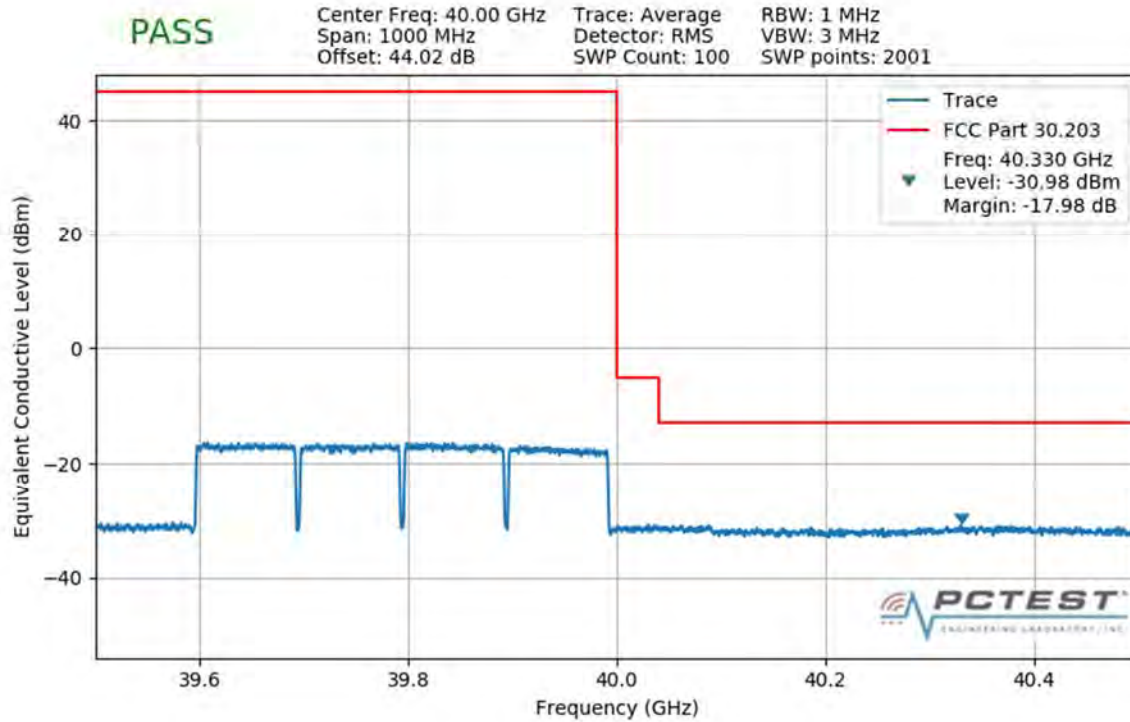


Plot 7-459. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

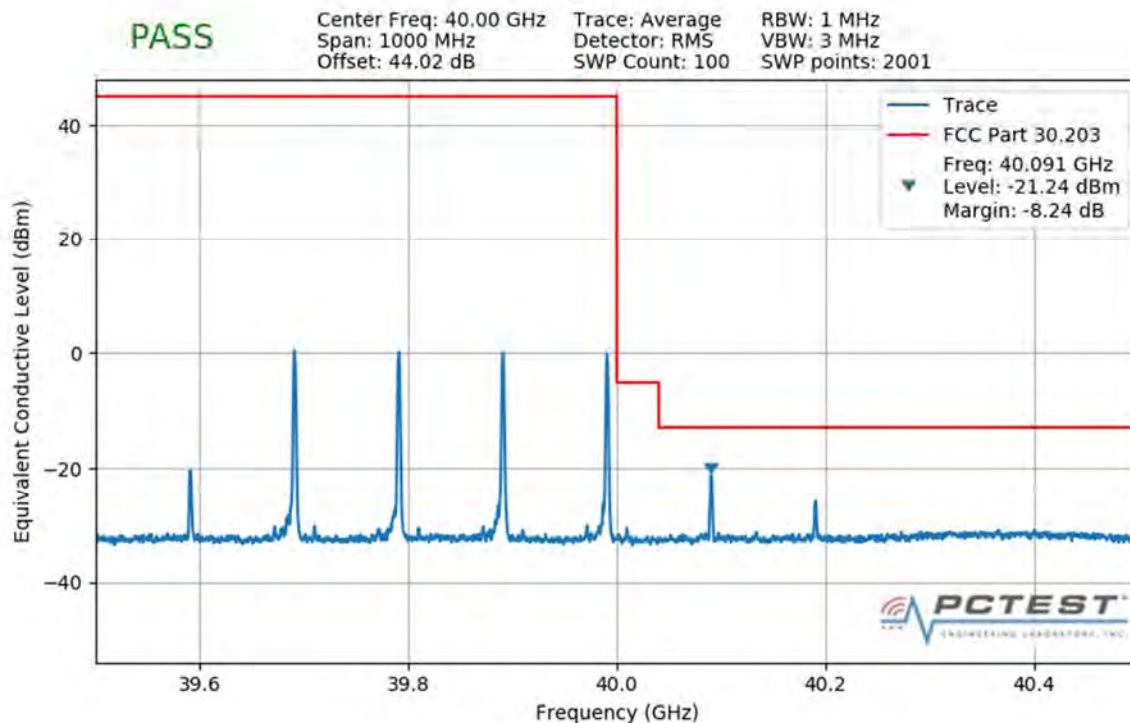


Plot 7-460. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 282 of 355

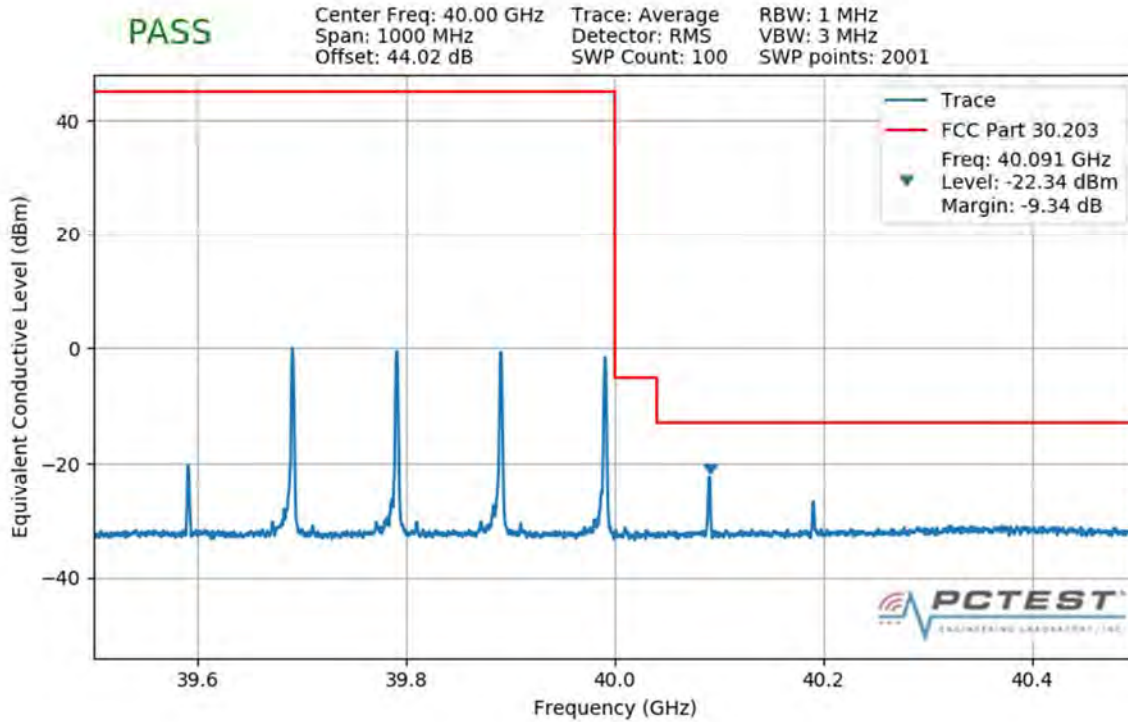


Plot 7-461. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

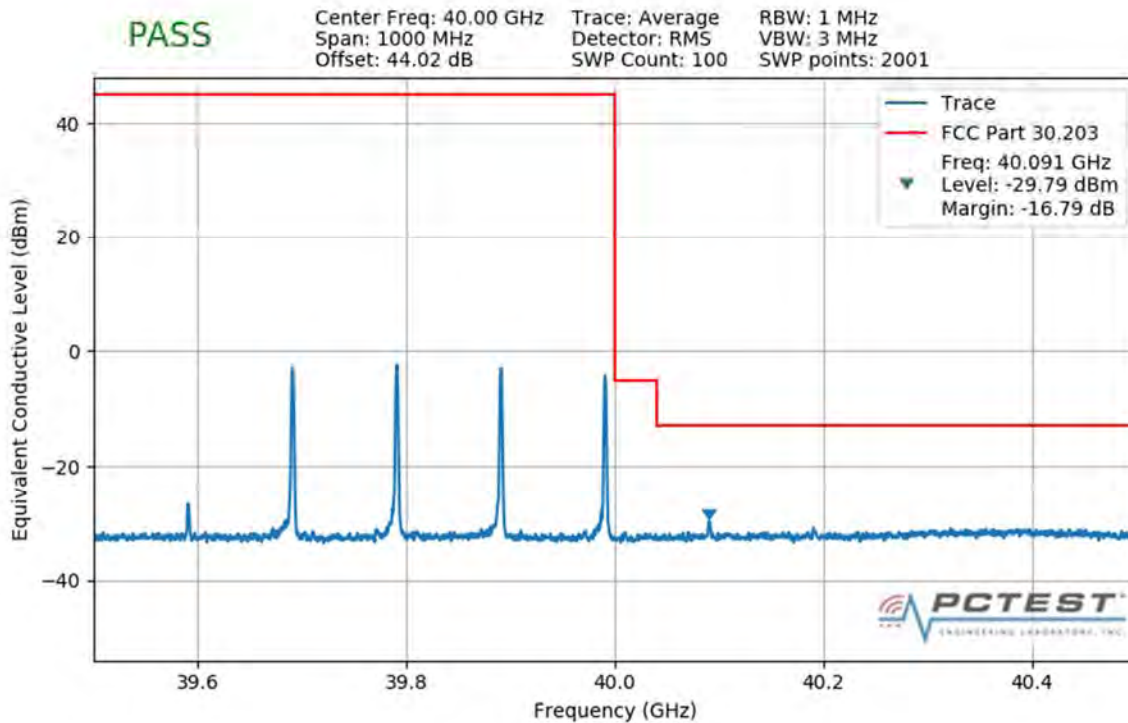


Plot 7-462. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 283 of 355

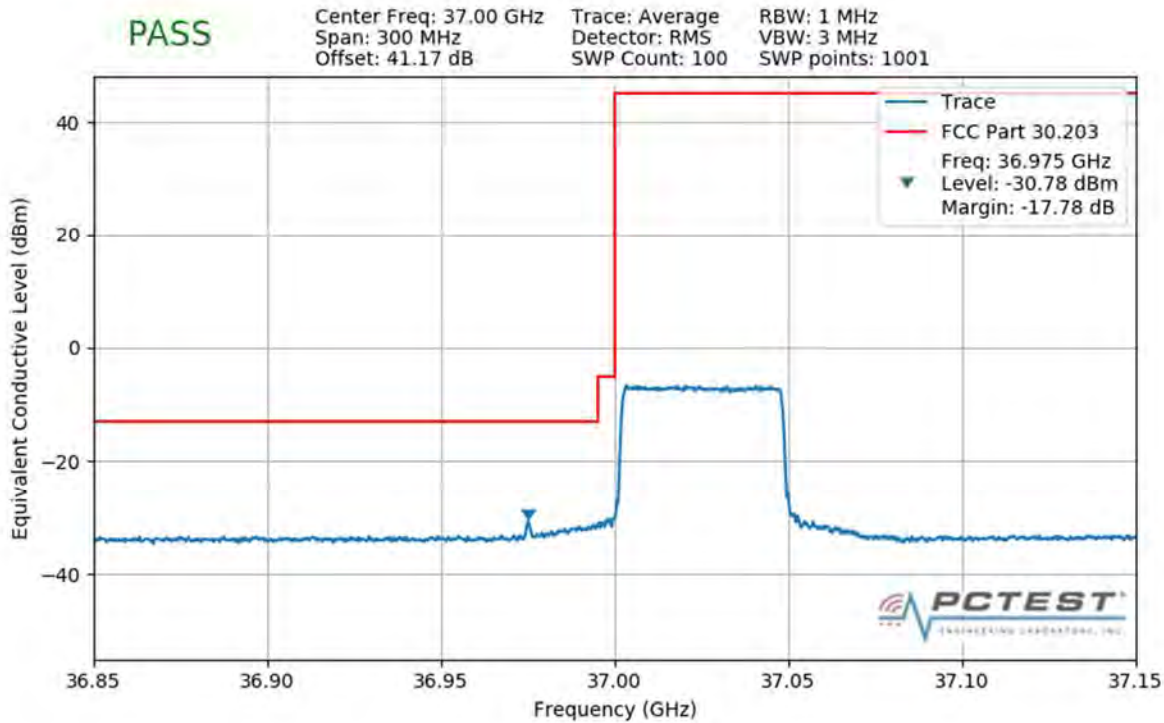


Plot 7-463. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)

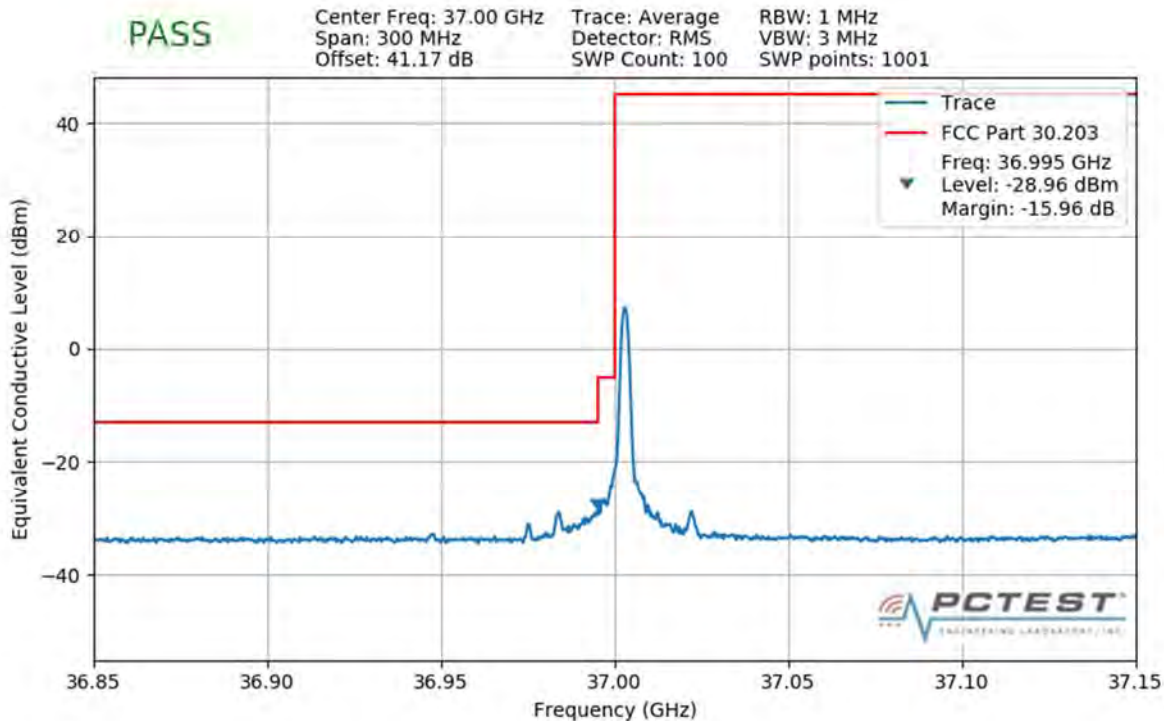


Plot 7-464. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 284 of 355

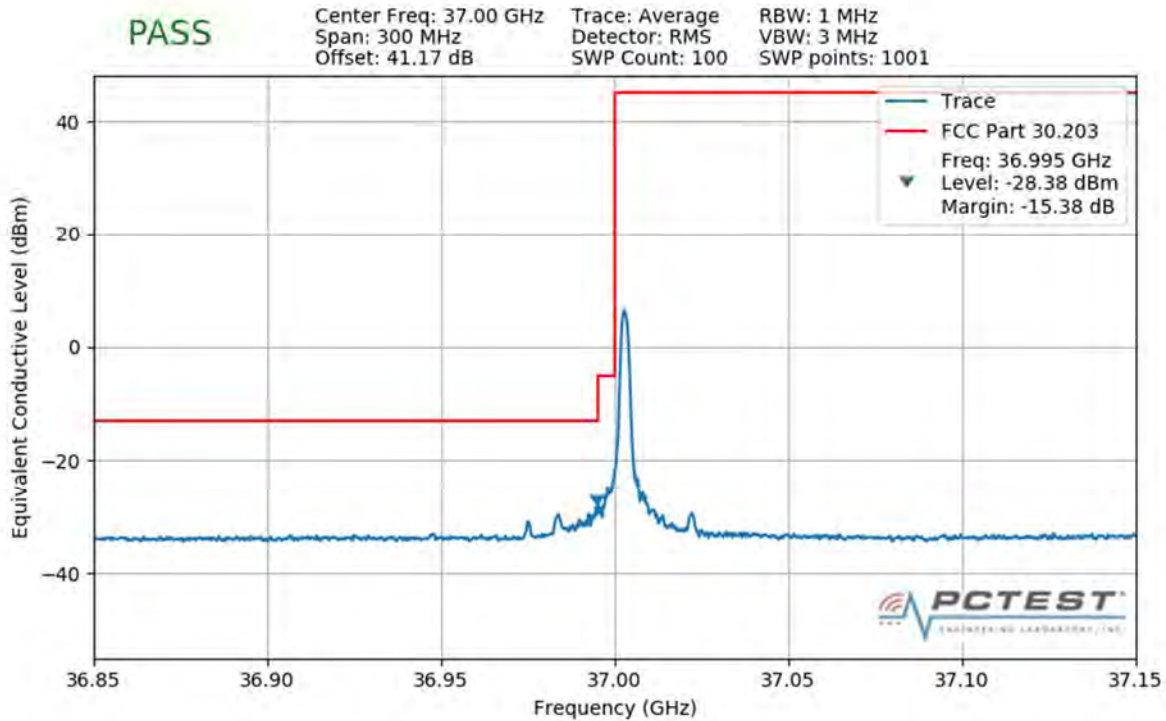


Plot 7-465. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

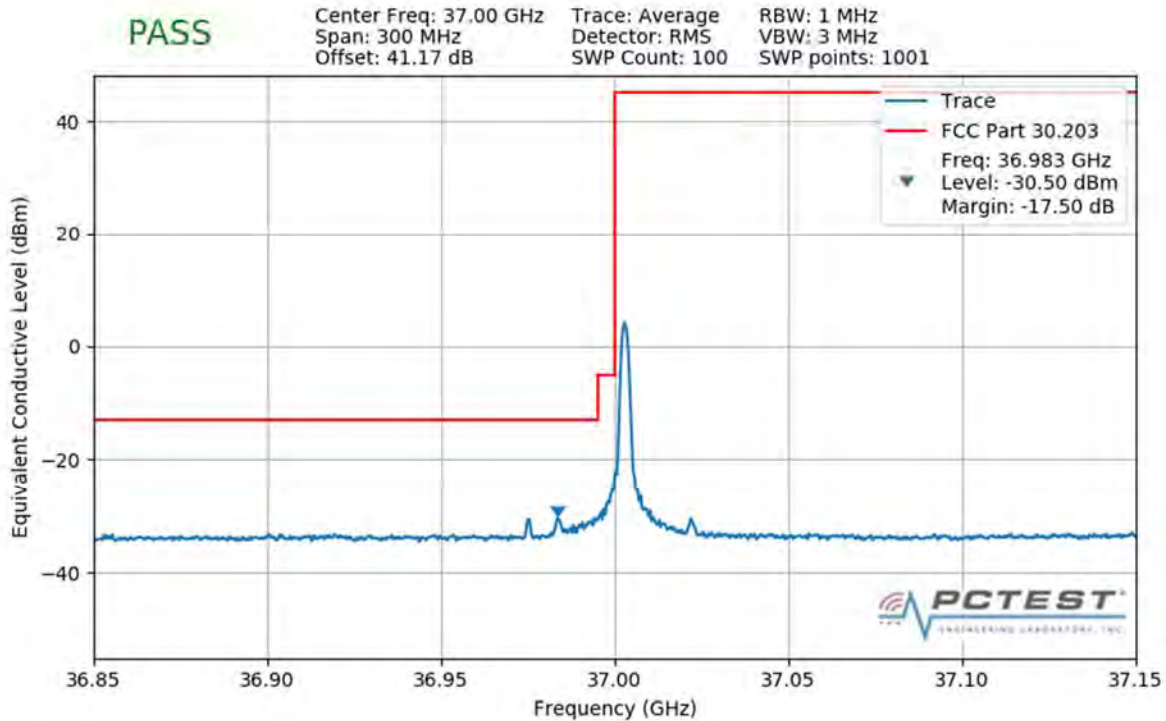


Plot 7-466. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.		MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset			Page 285 of 355

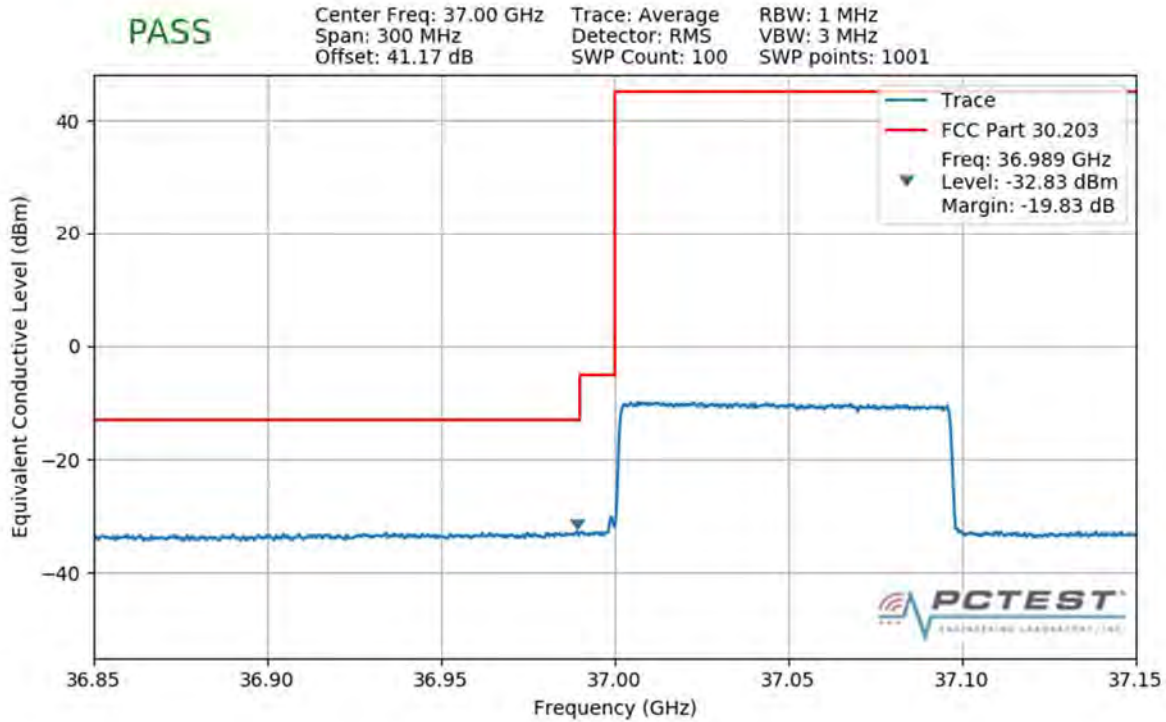


Plot 7-467. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

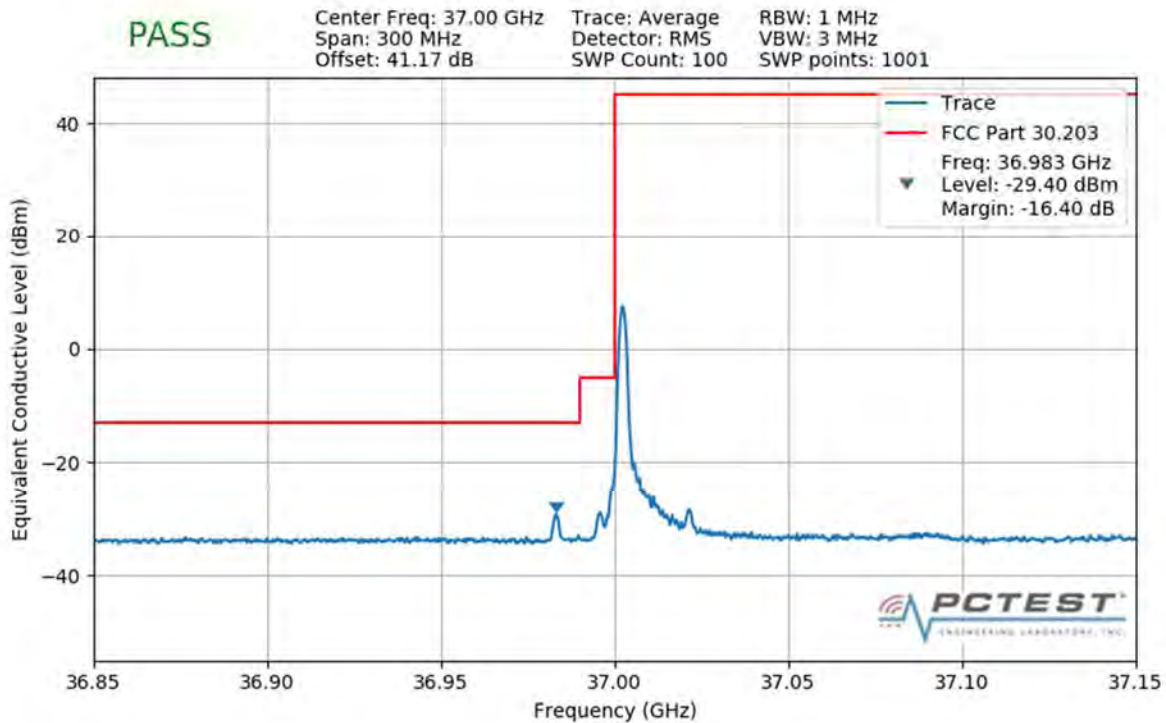


Plot 7-468. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 286 of 355

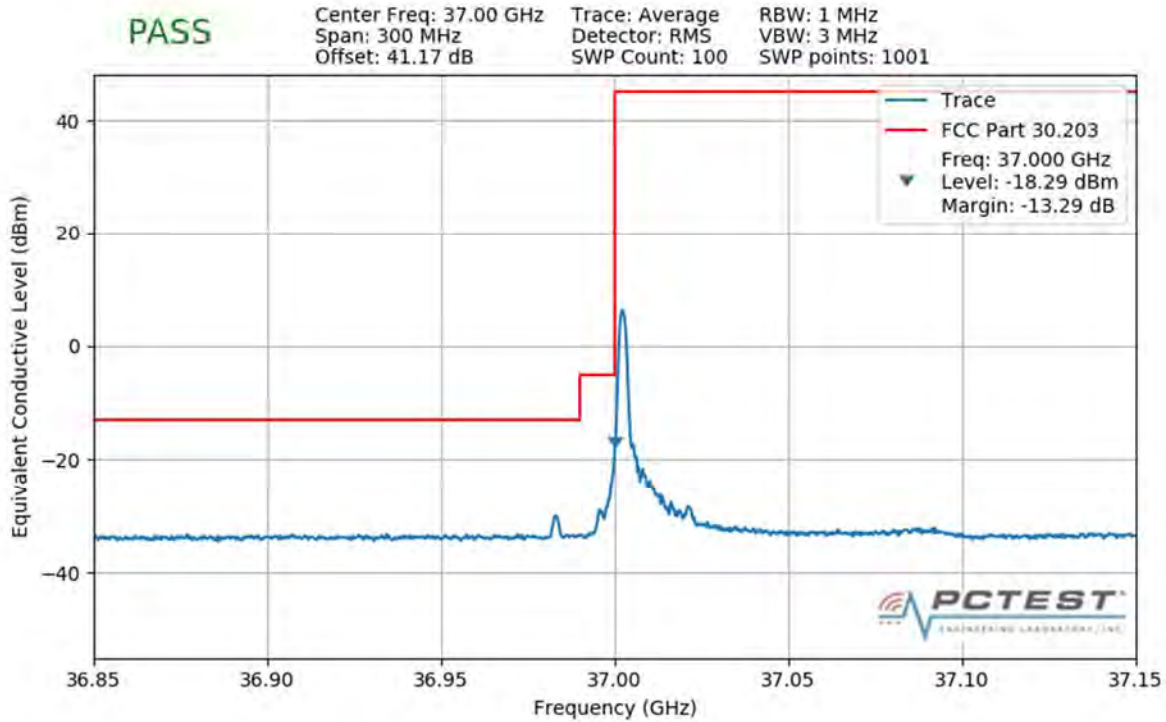


Plot 7-469. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

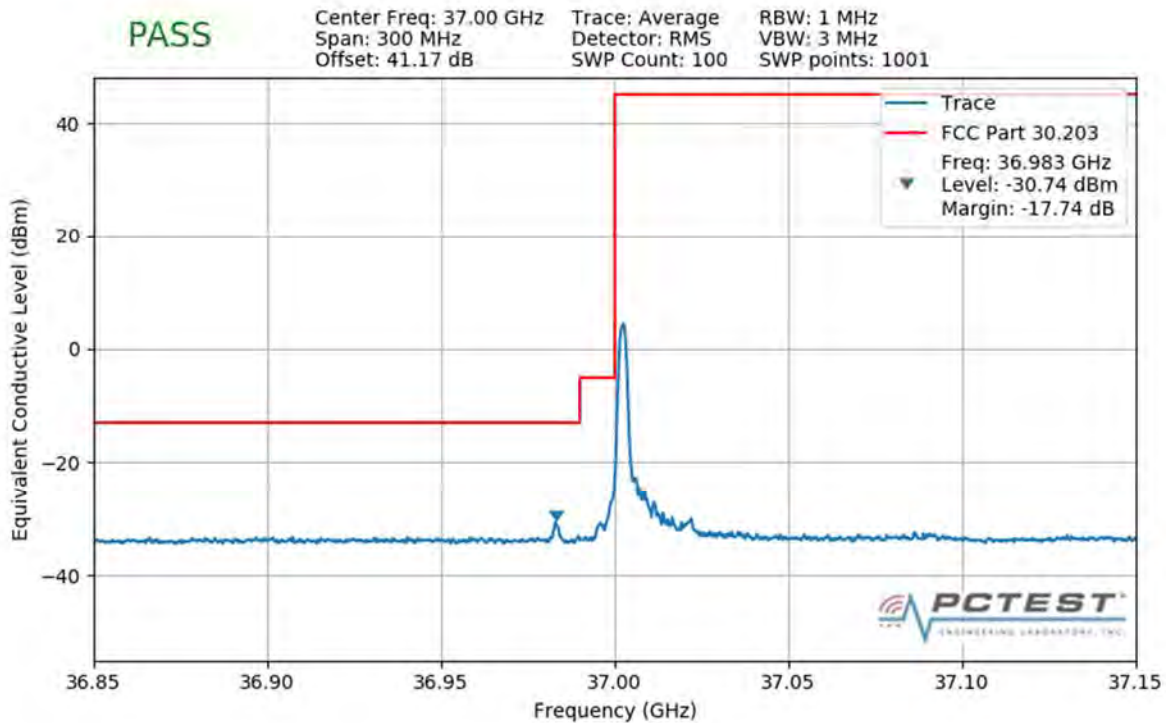


Plot 7-470. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 287 of 355

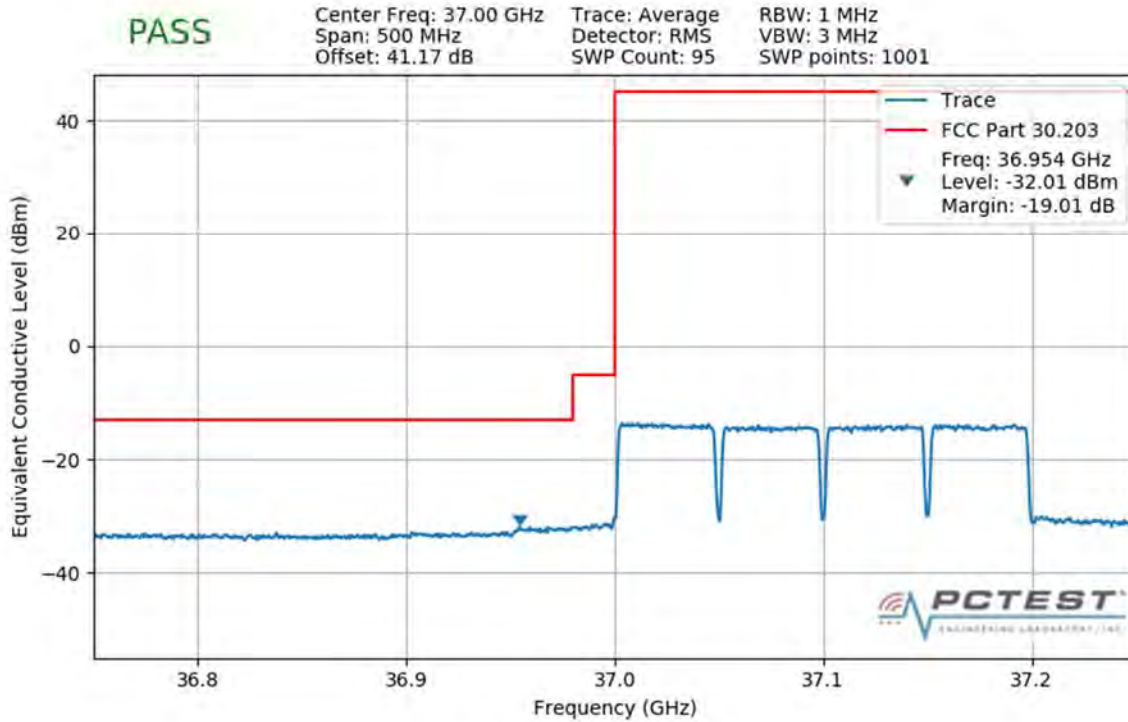


Plot 7-471. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

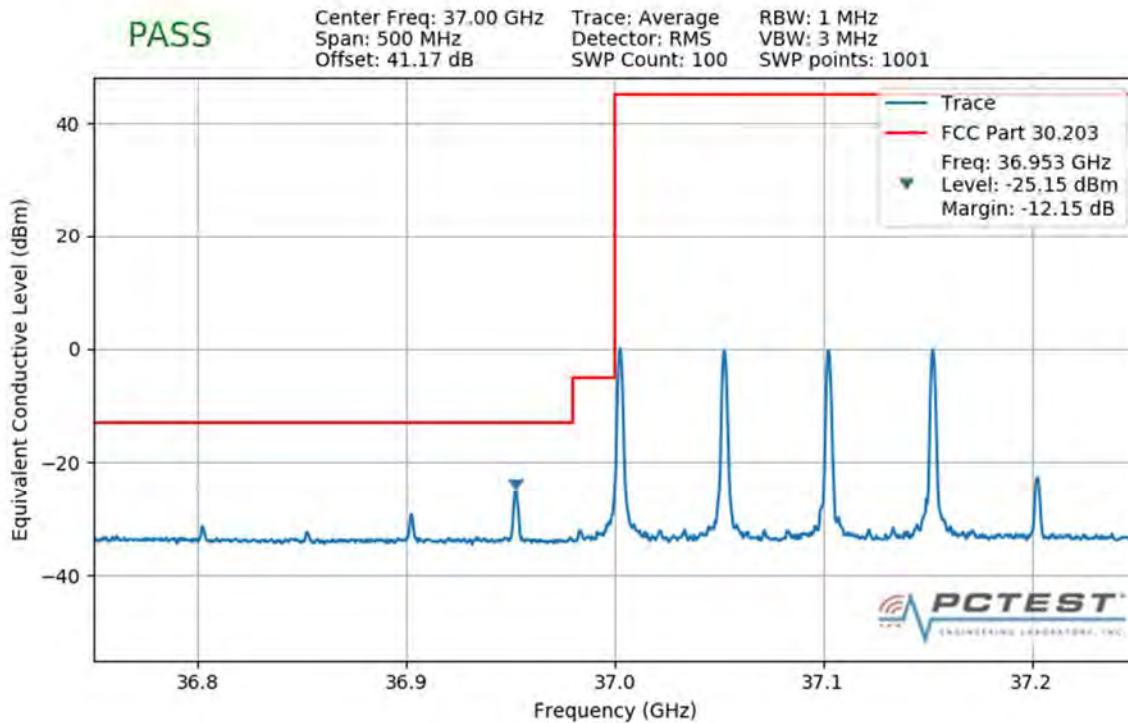


Plot 7-472. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 288 of 355

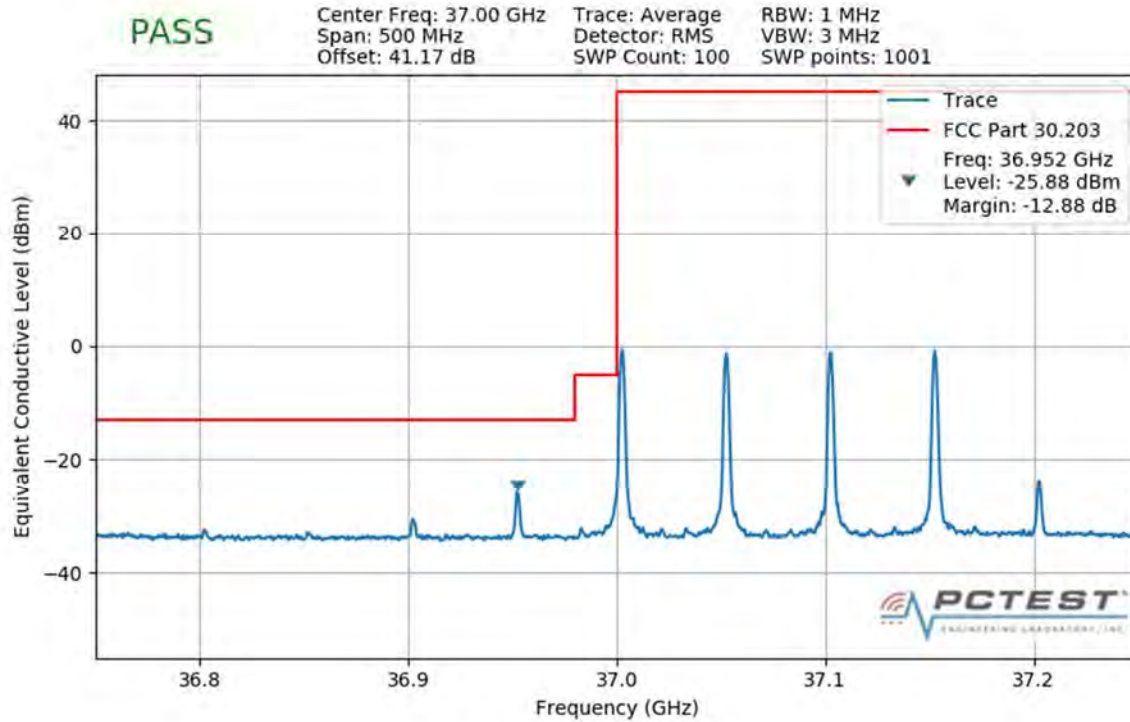


Plot 7-473. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

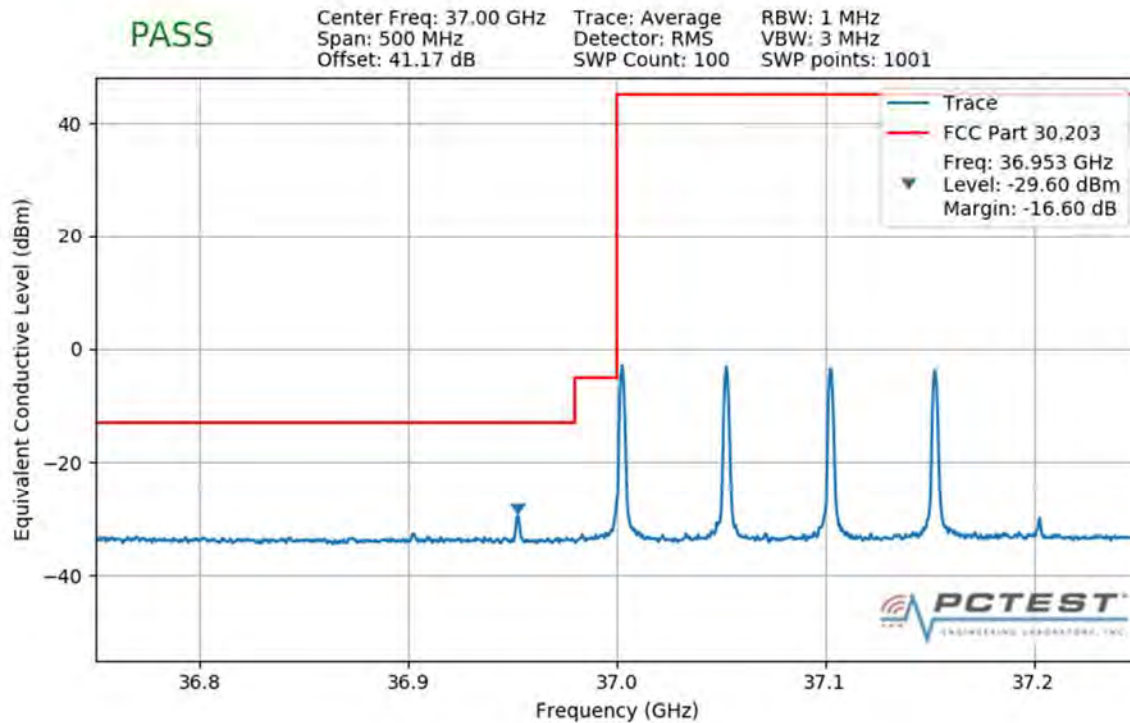


Plot 7-474. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 289 of 355

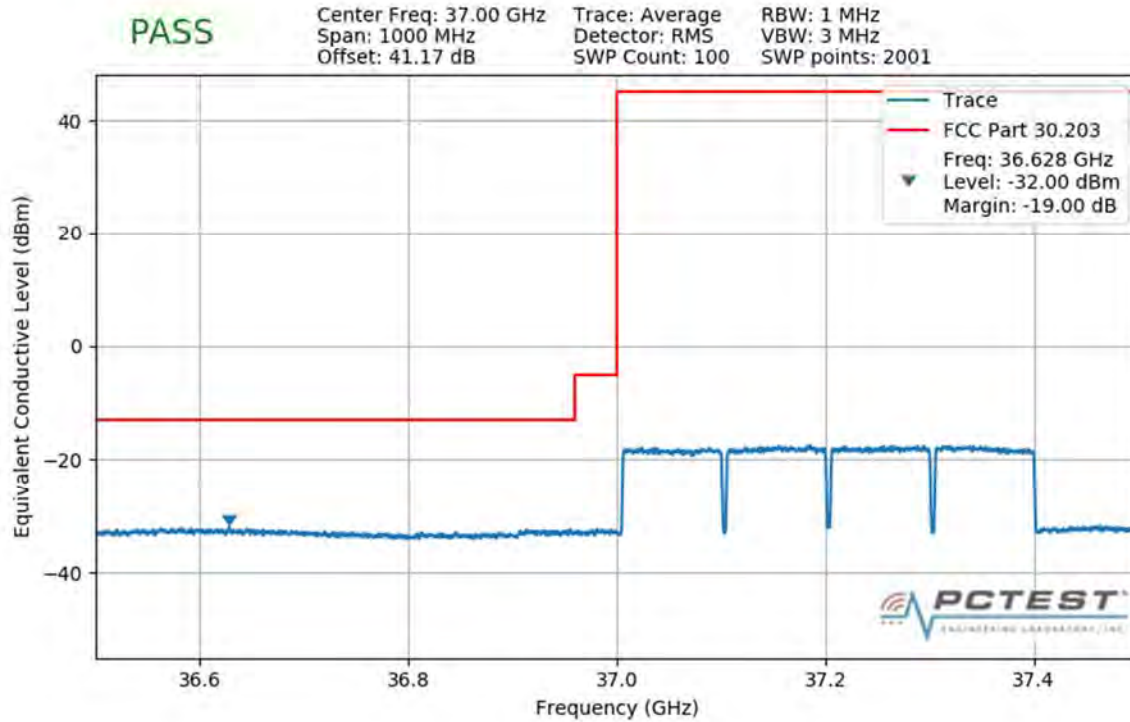


Plot 7-475. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

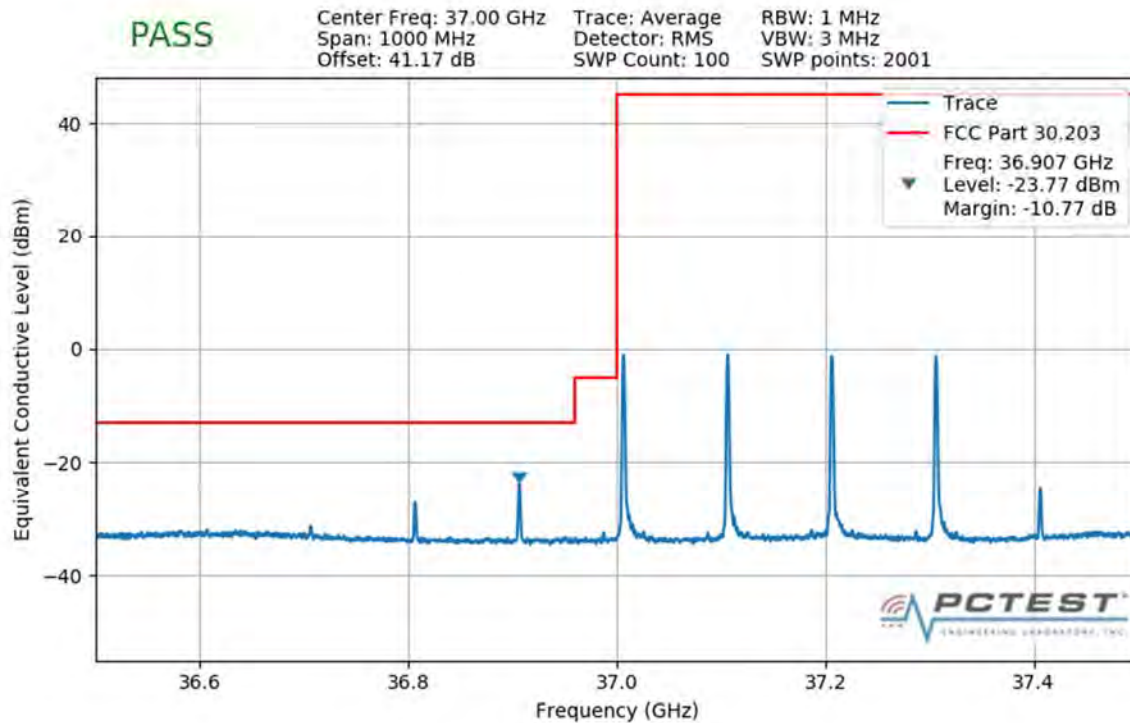


Plot 7-476. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 290 of 355

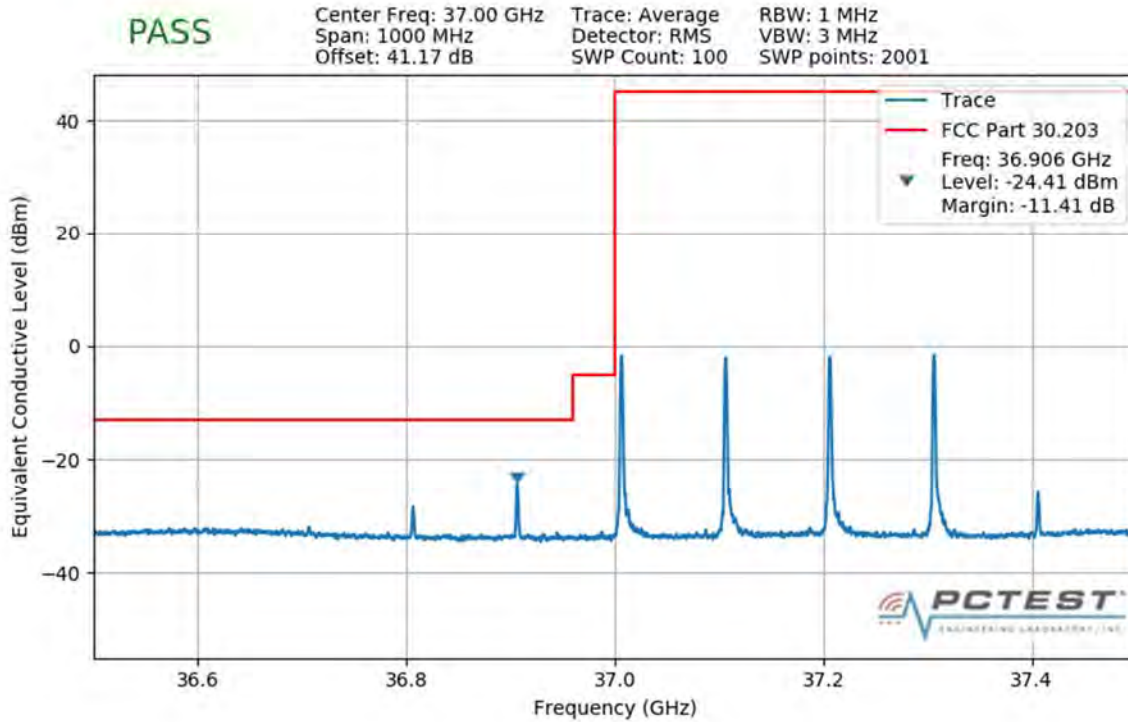


Plot 7-477. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

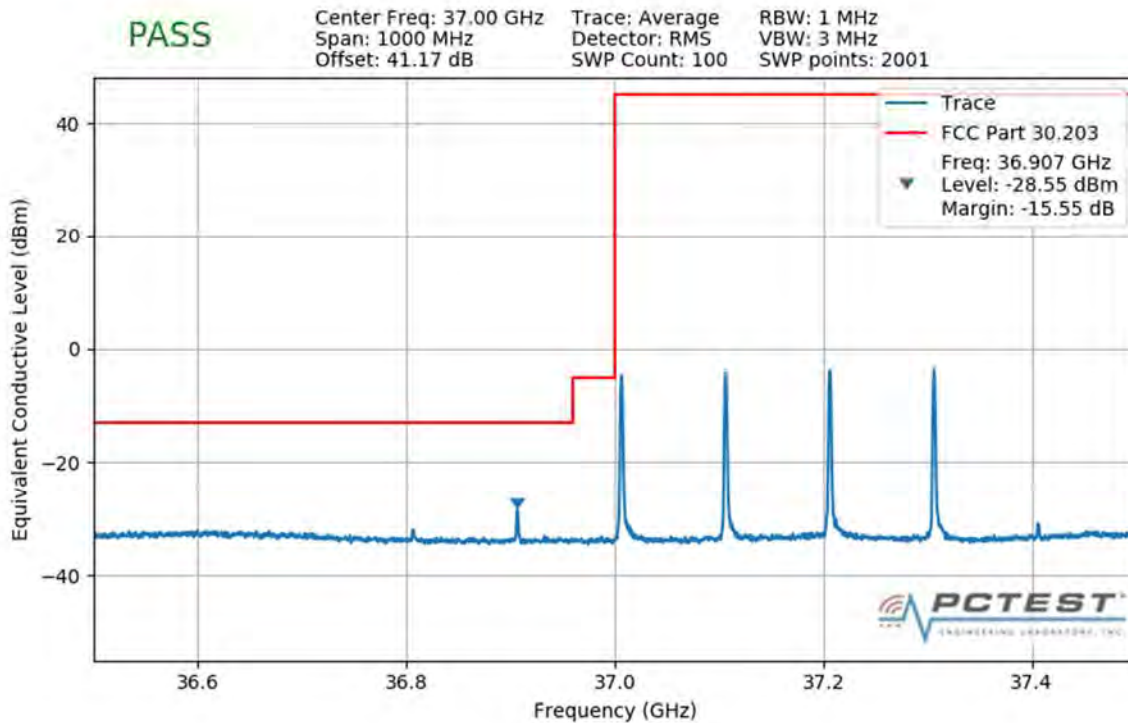


Plot 7-478. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 291 of 355

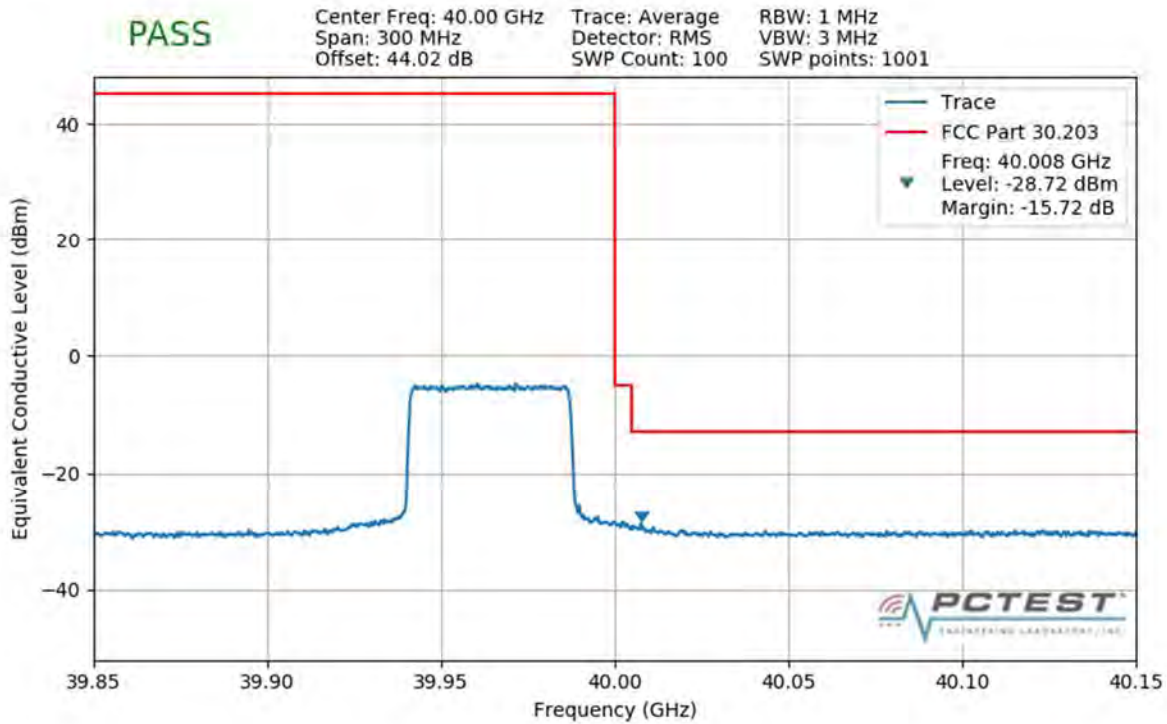


Plot 7-479. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

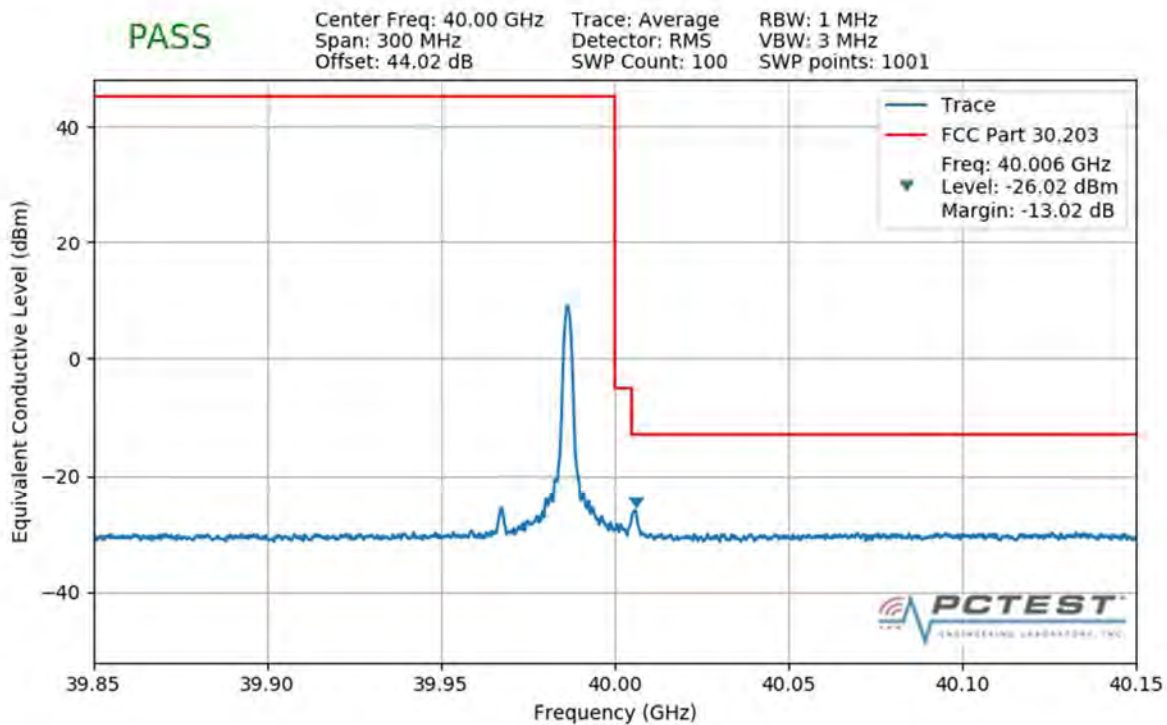


Plot 7-480. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 292 of 355

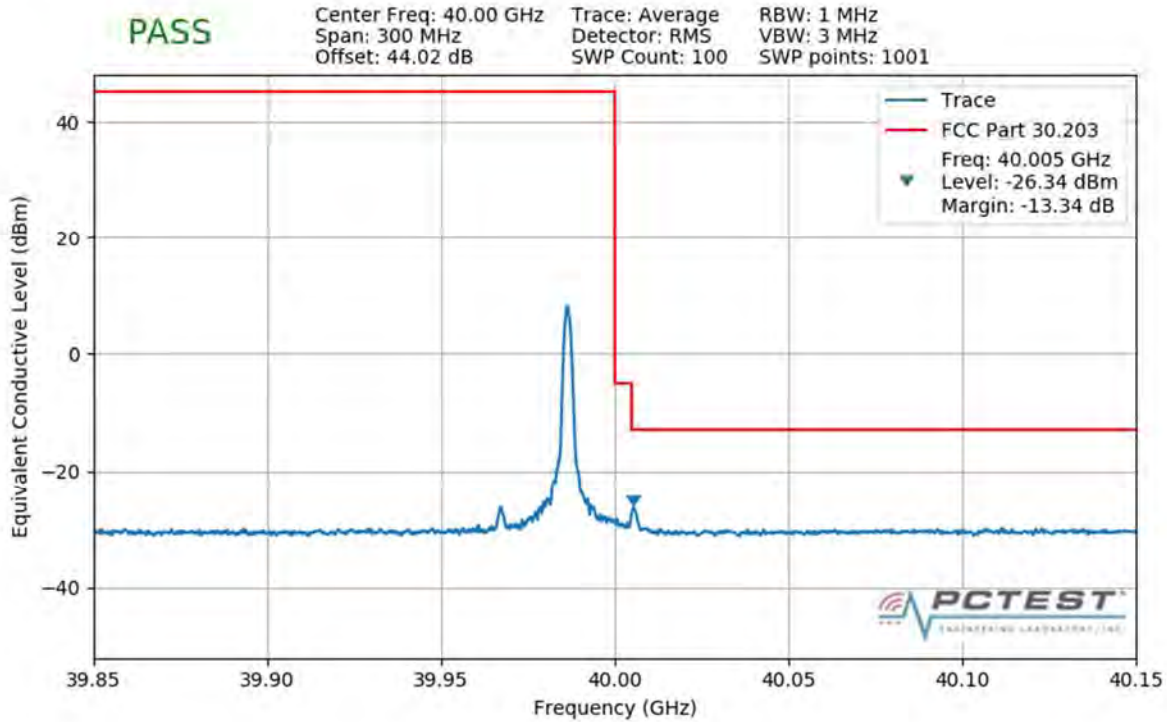


Plot 7-481. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

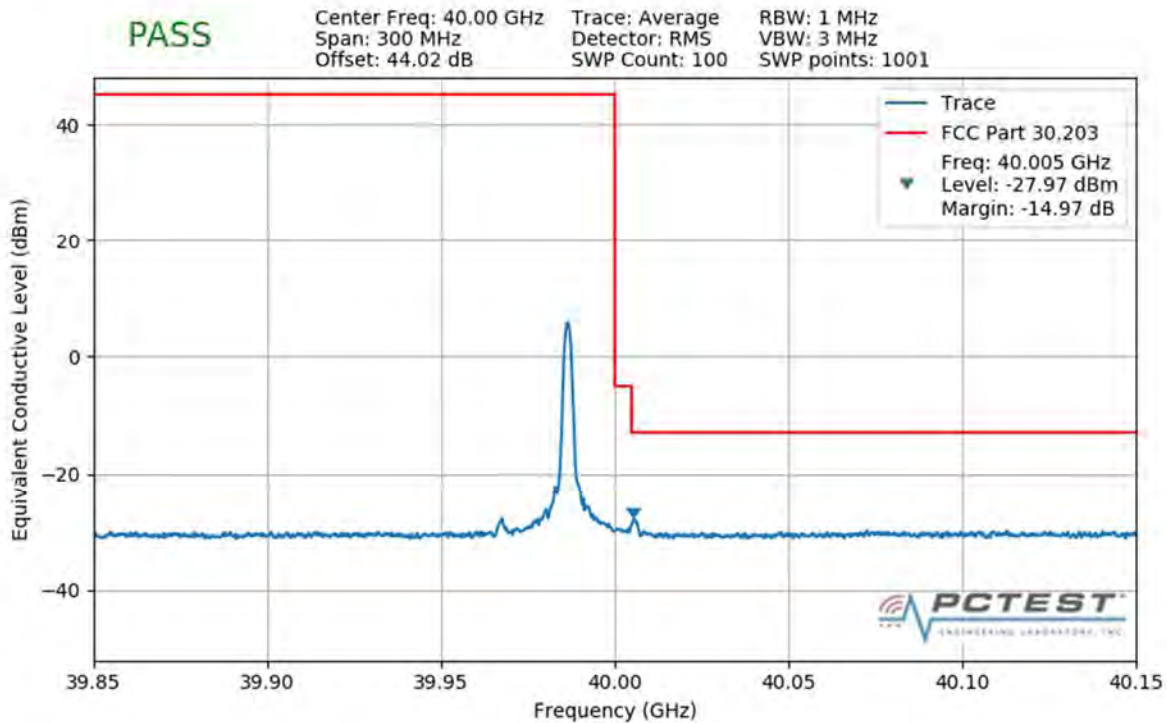


Plot 7-482. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 293 of 355

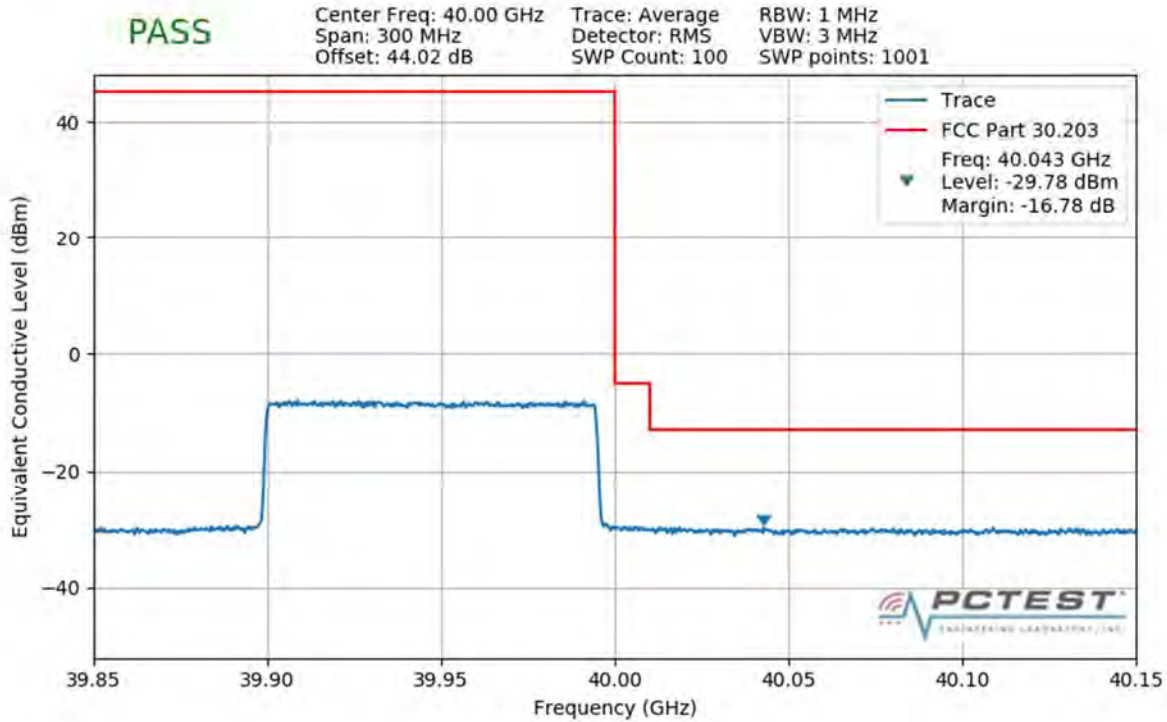


Plot 7-483. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

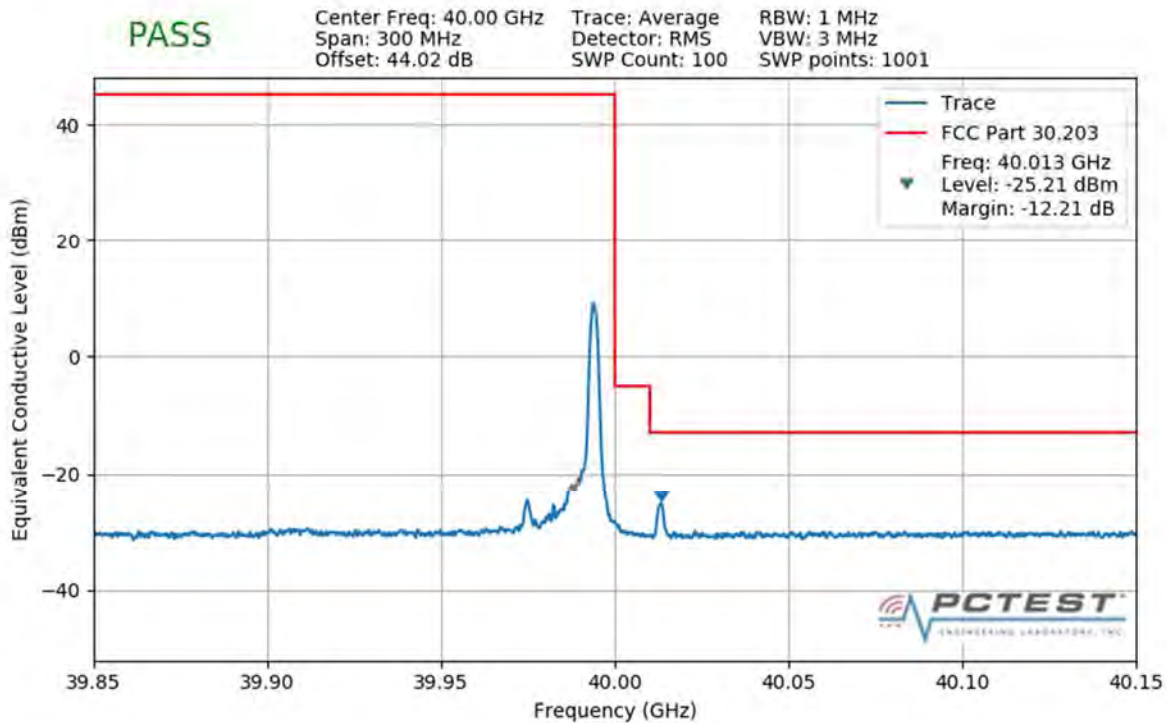


Plot 7-484. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 294 of 355

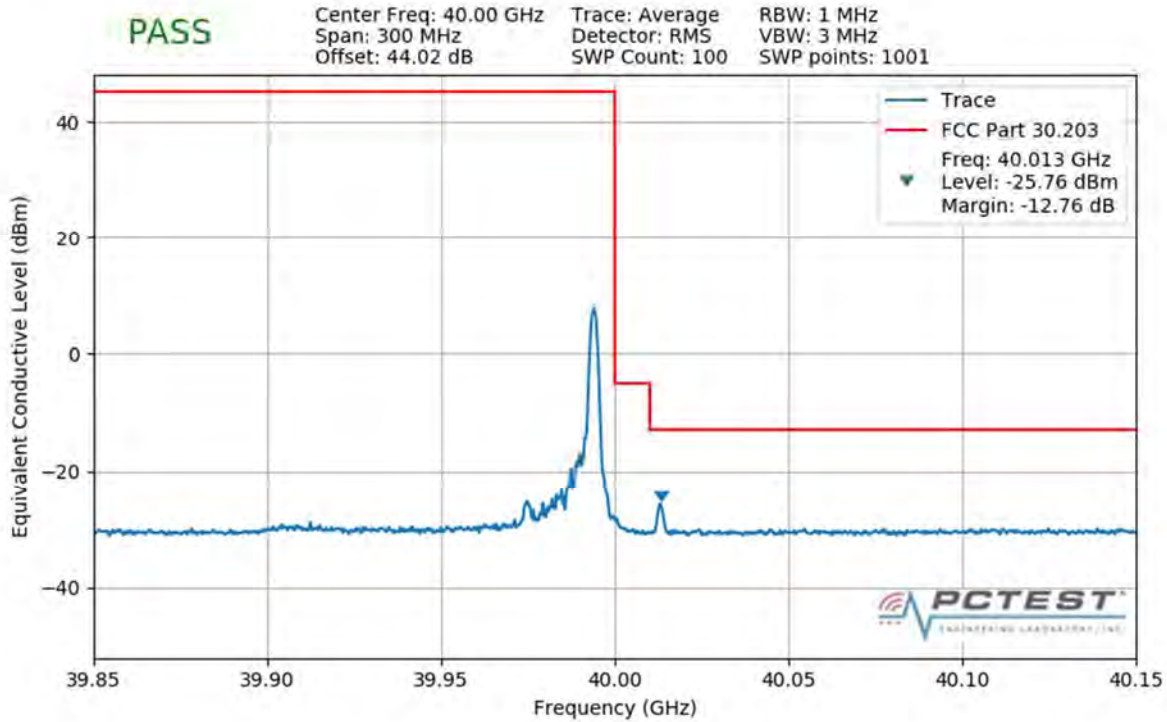


Plot 7-485. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

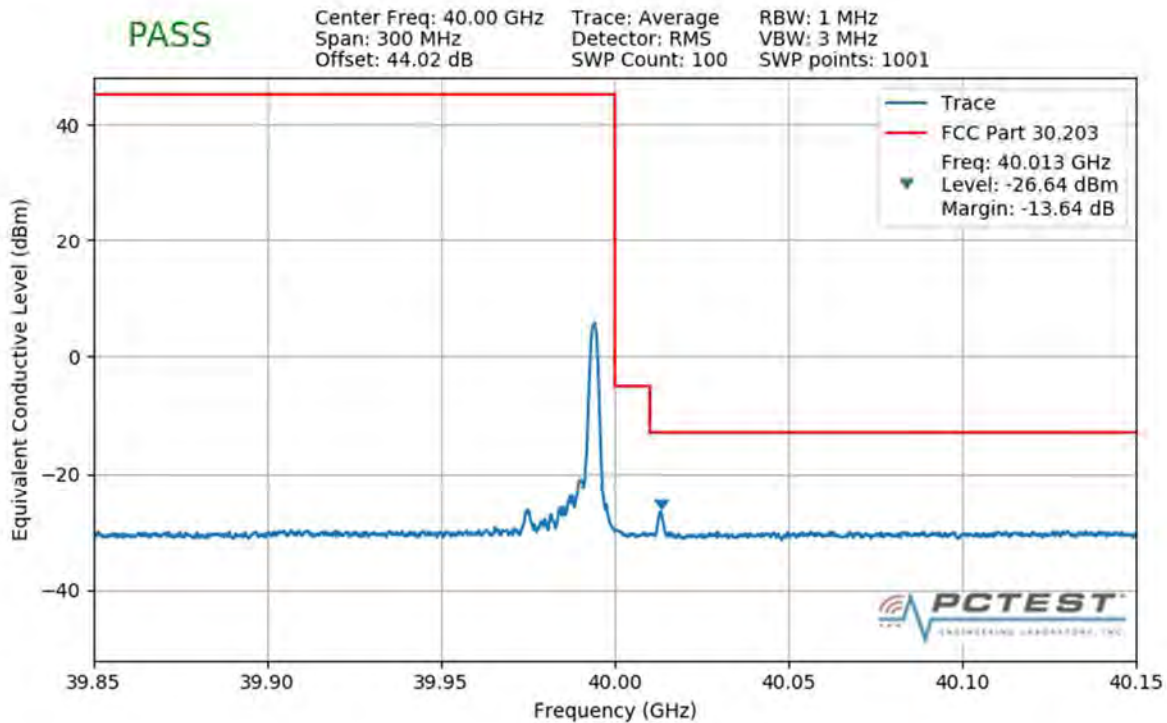


Plot 7-486. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 295 of 355

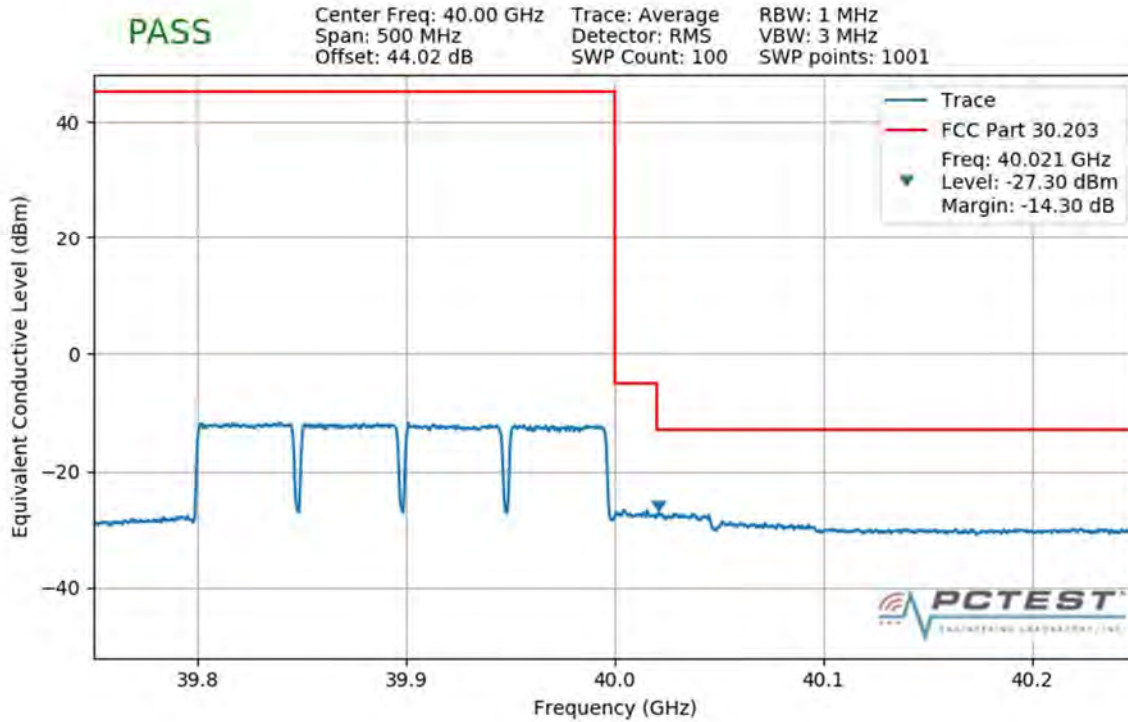


Plot 7-487. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

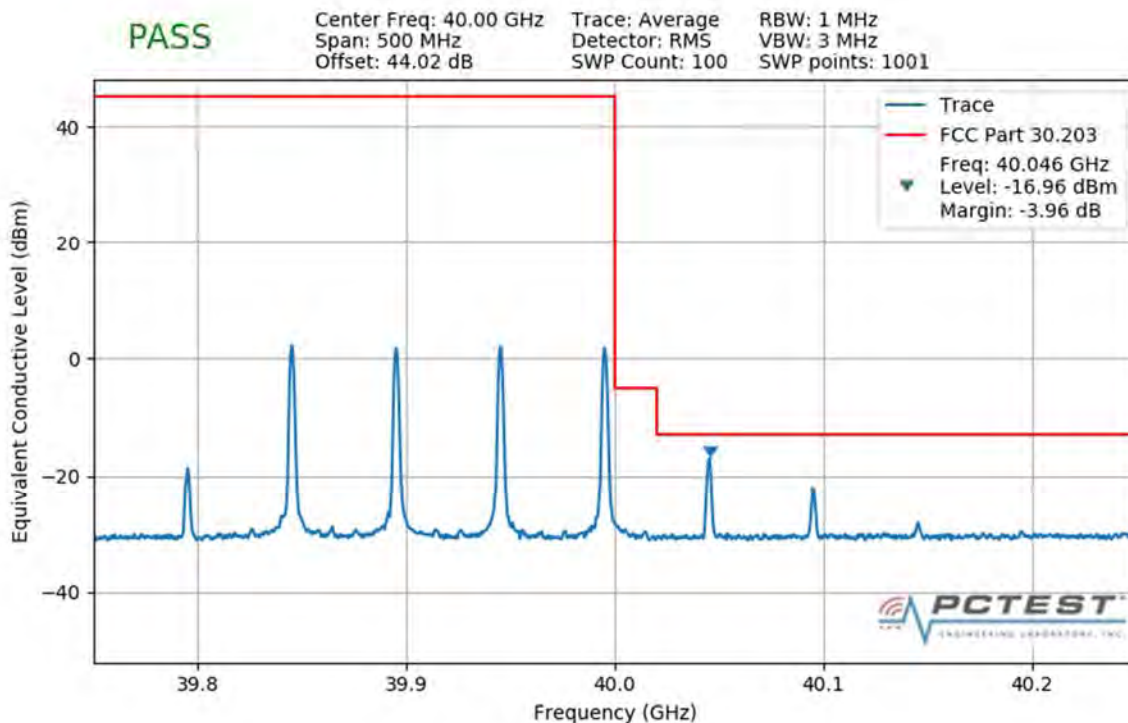


Plot 7-488. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 296 of 355

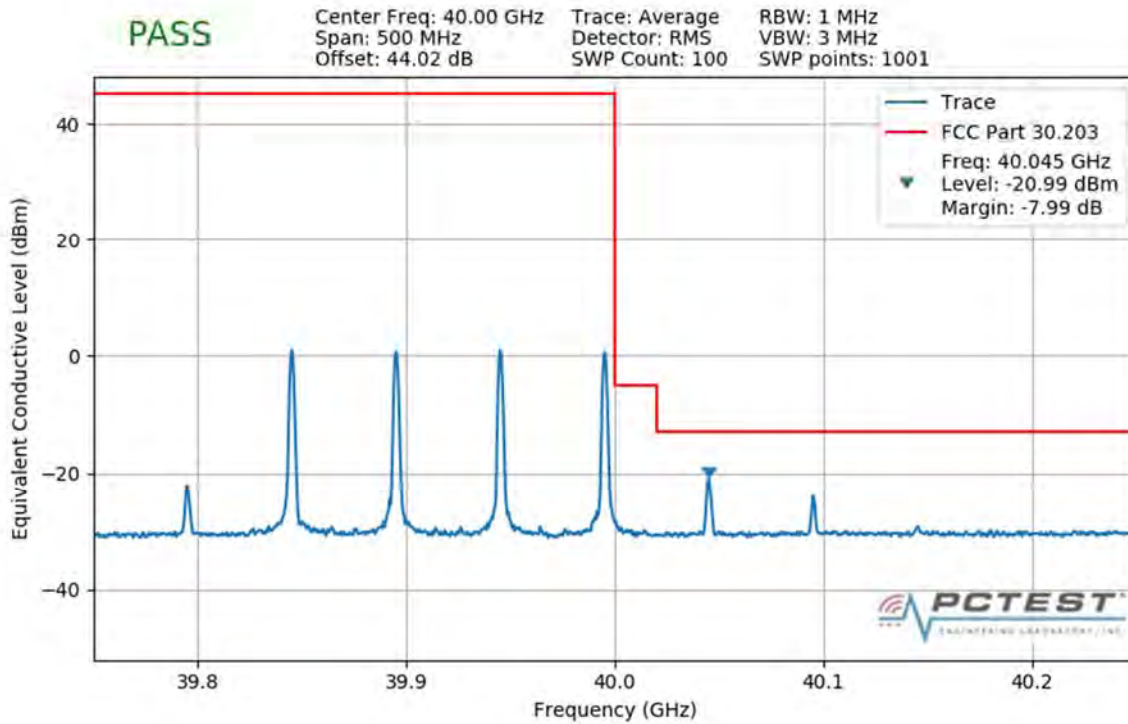


Plot 7-489. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

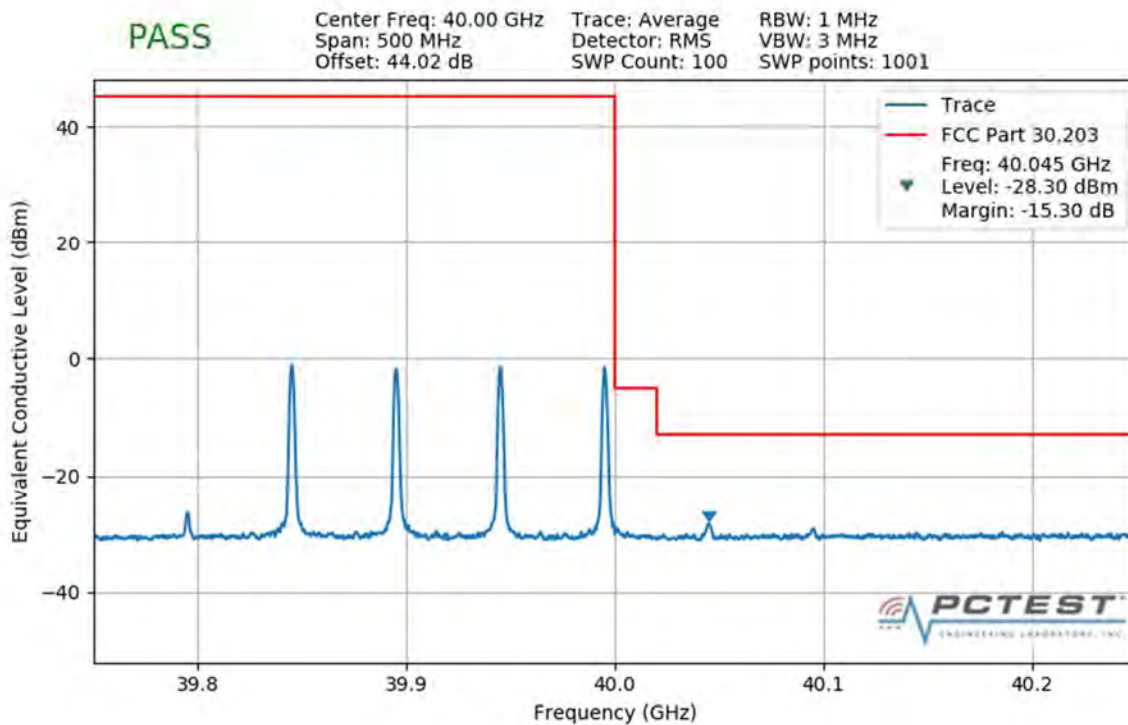


Plot 7-490. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 297 of 355

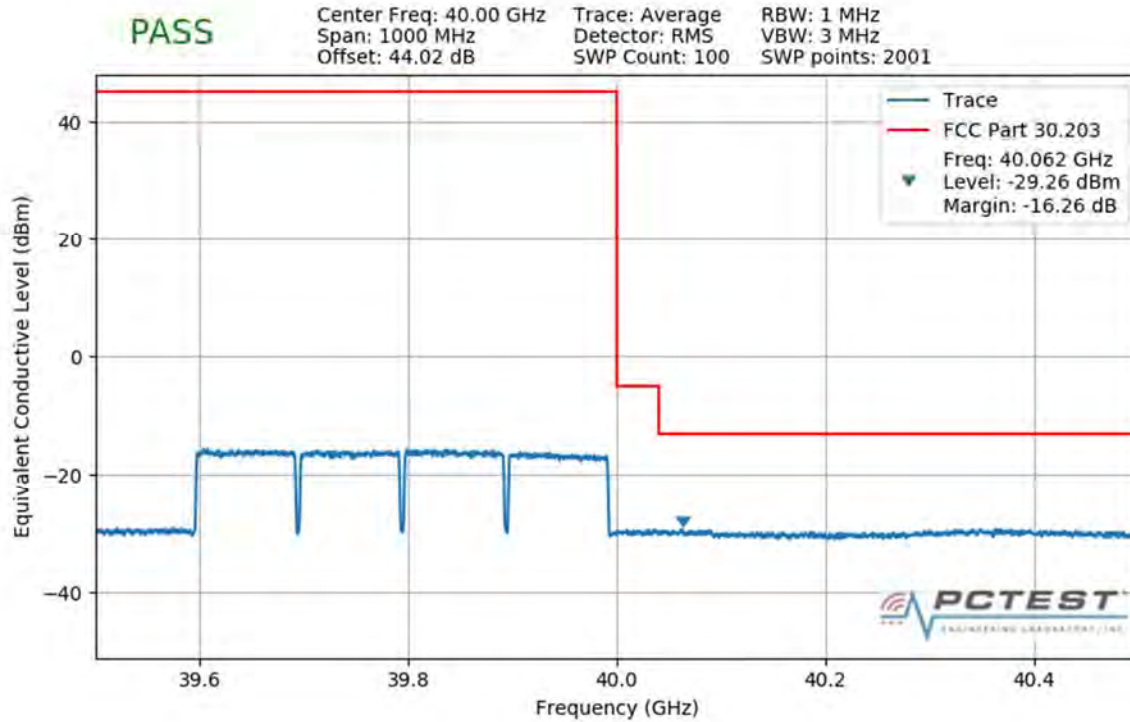


Plot 7-491. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

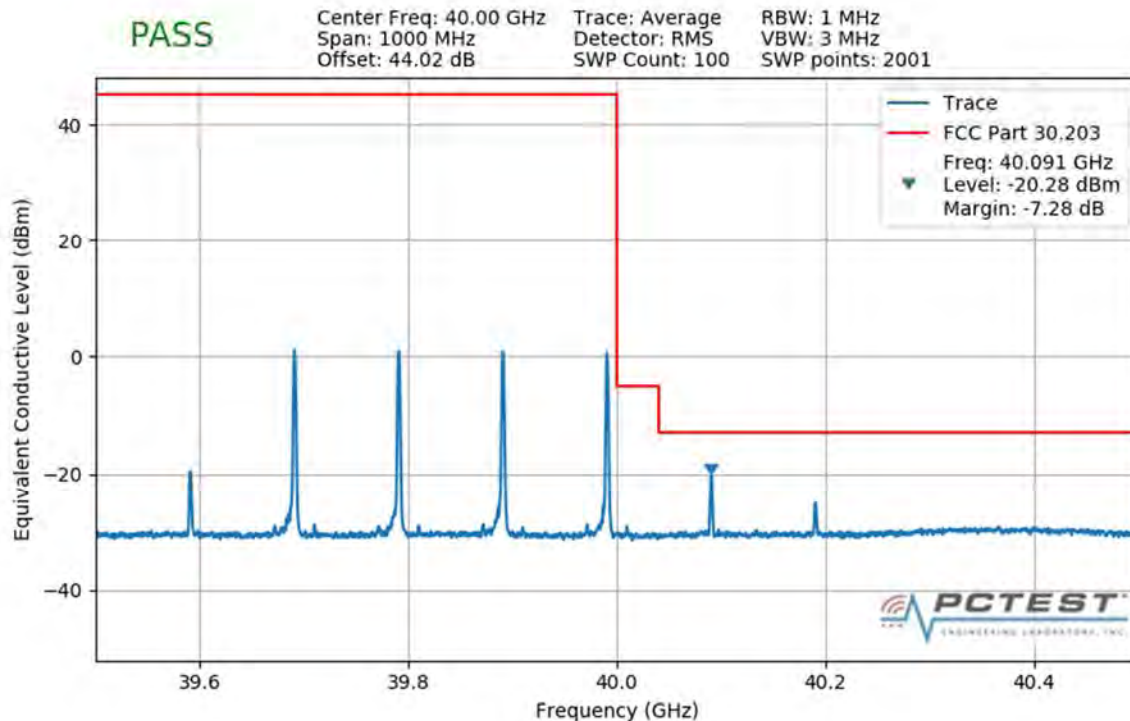


Plot 7-492. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 298 of 355

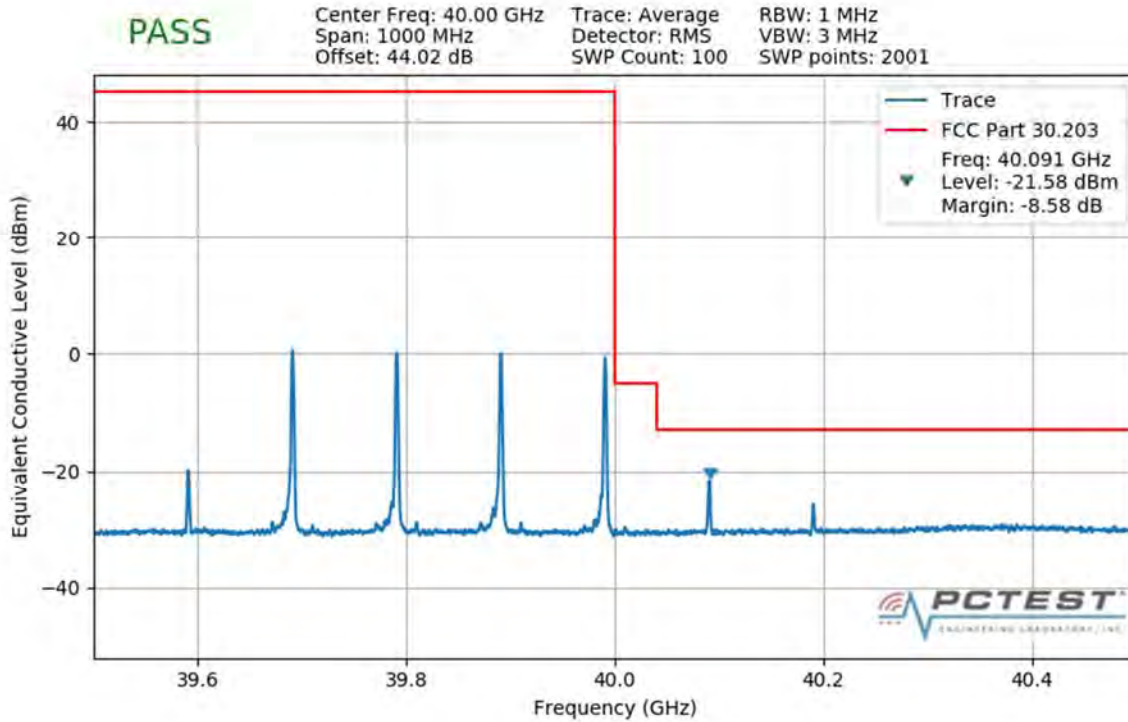


Plot 7-493. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

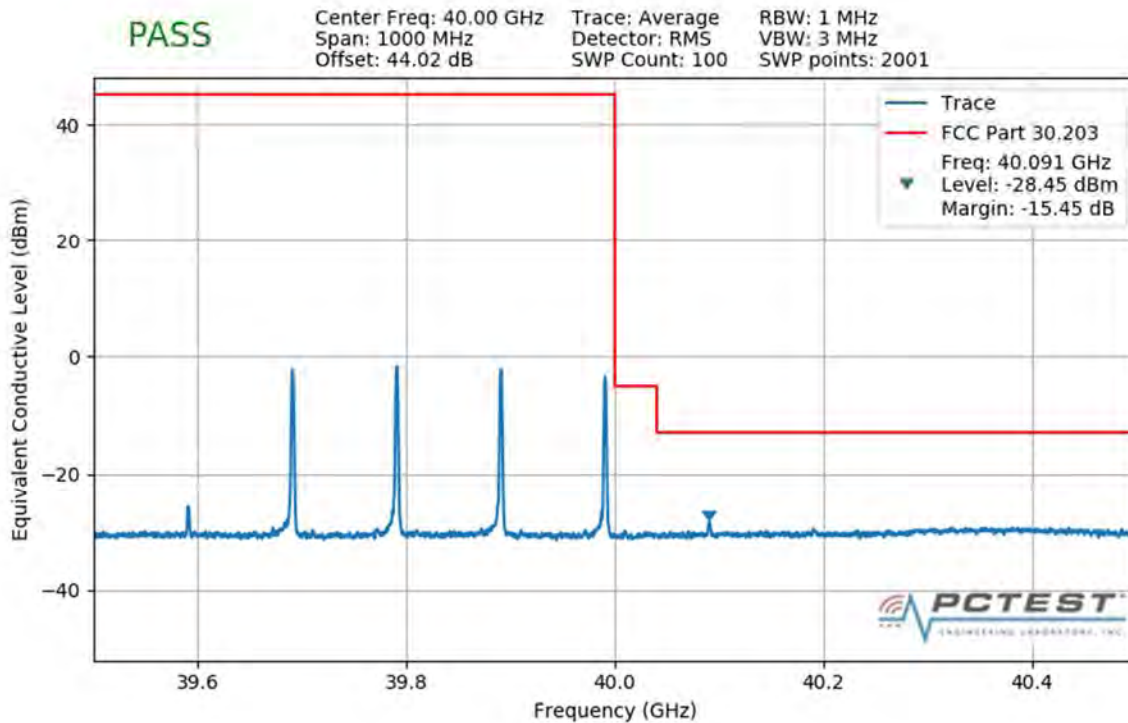


Plot 7-494. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 299 of 355



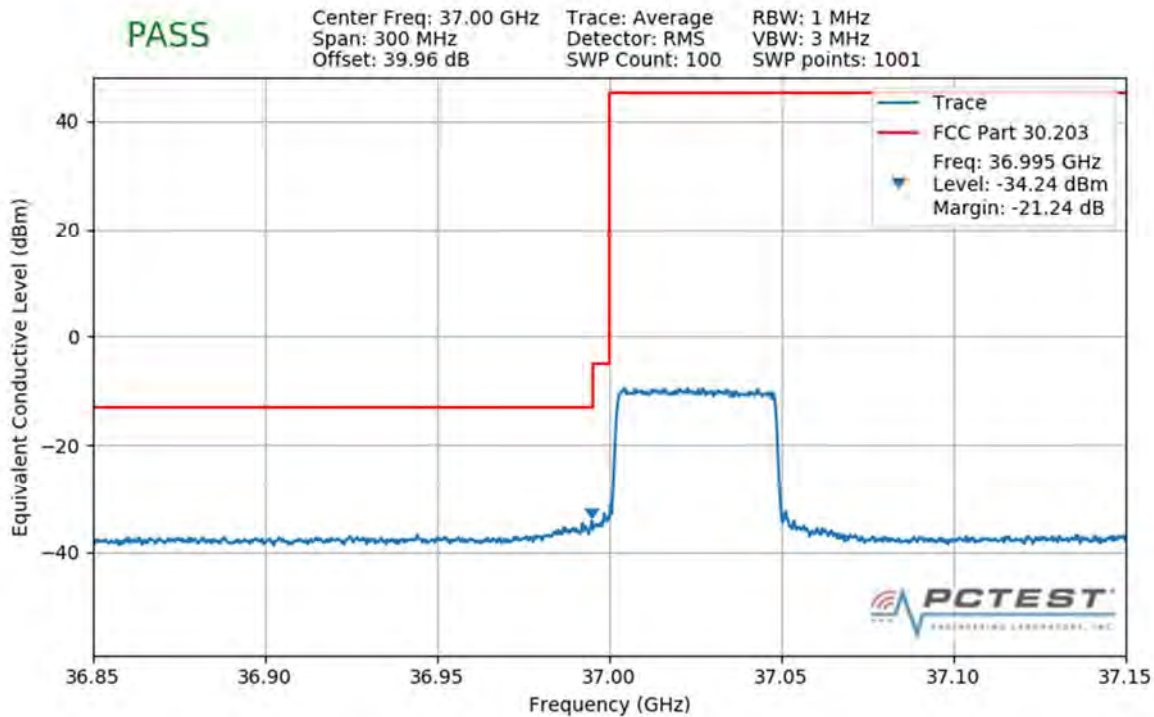
Plot 7-495. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)



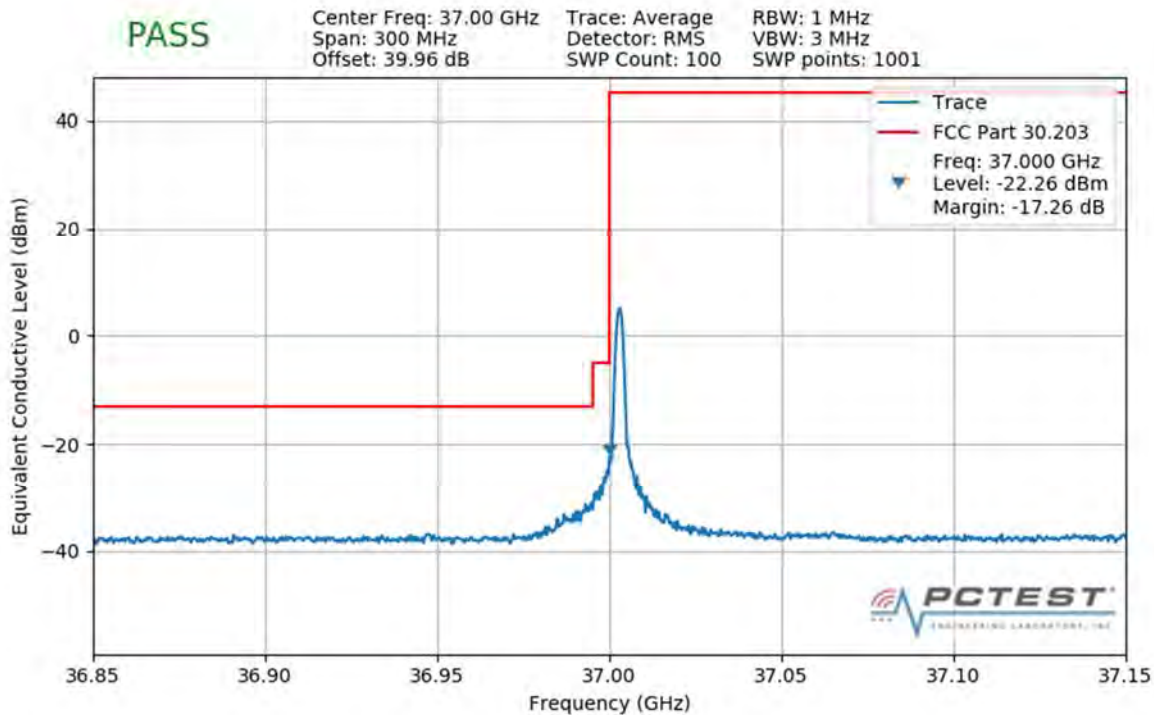
Plot 7-496. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
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7.5.5 L Patch Band Edge H Beam

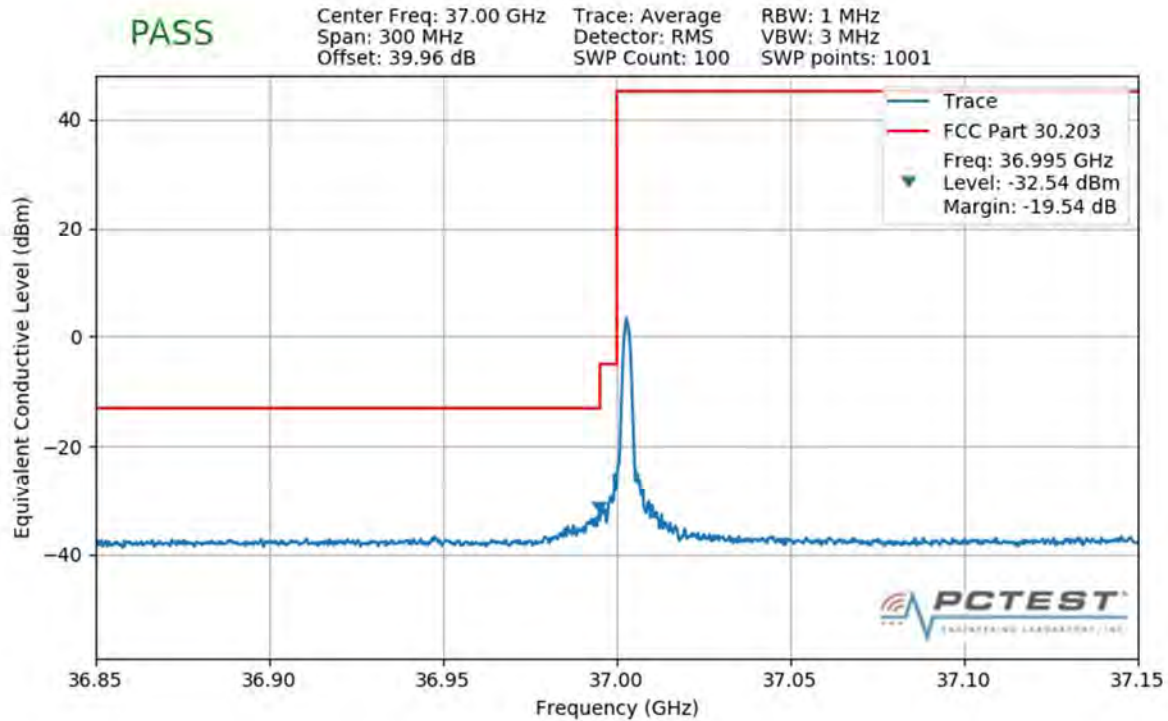


Plot 7-497. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

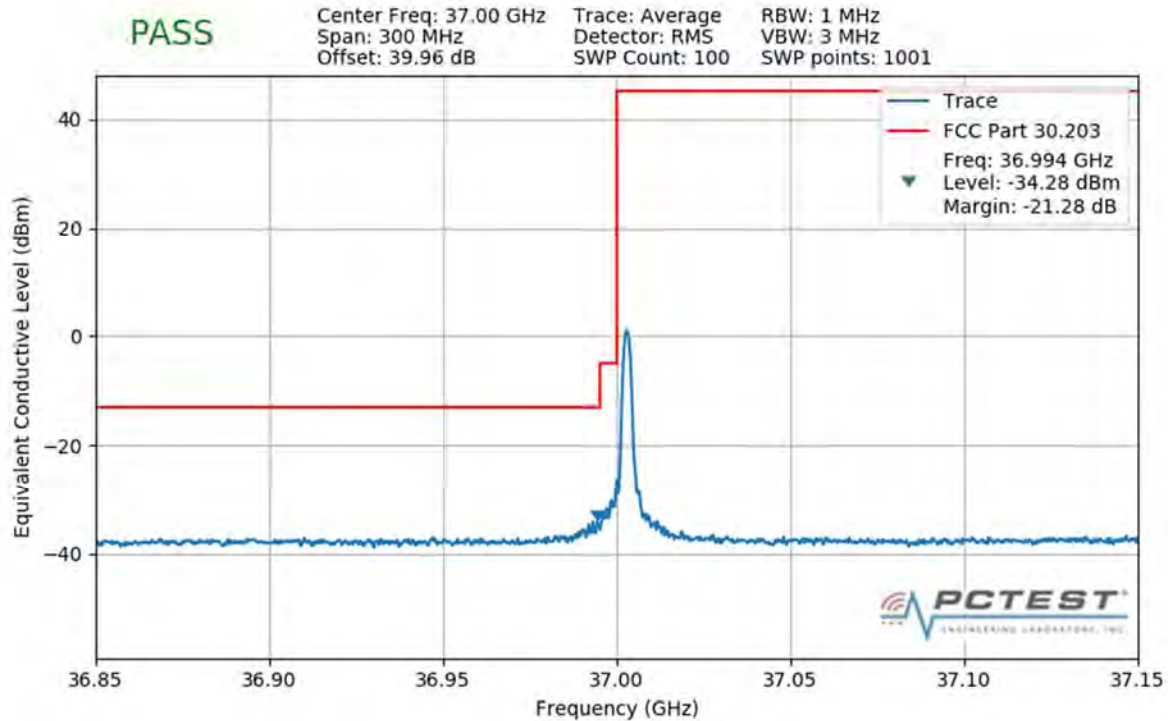


Plot 7-498. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 301 of 355

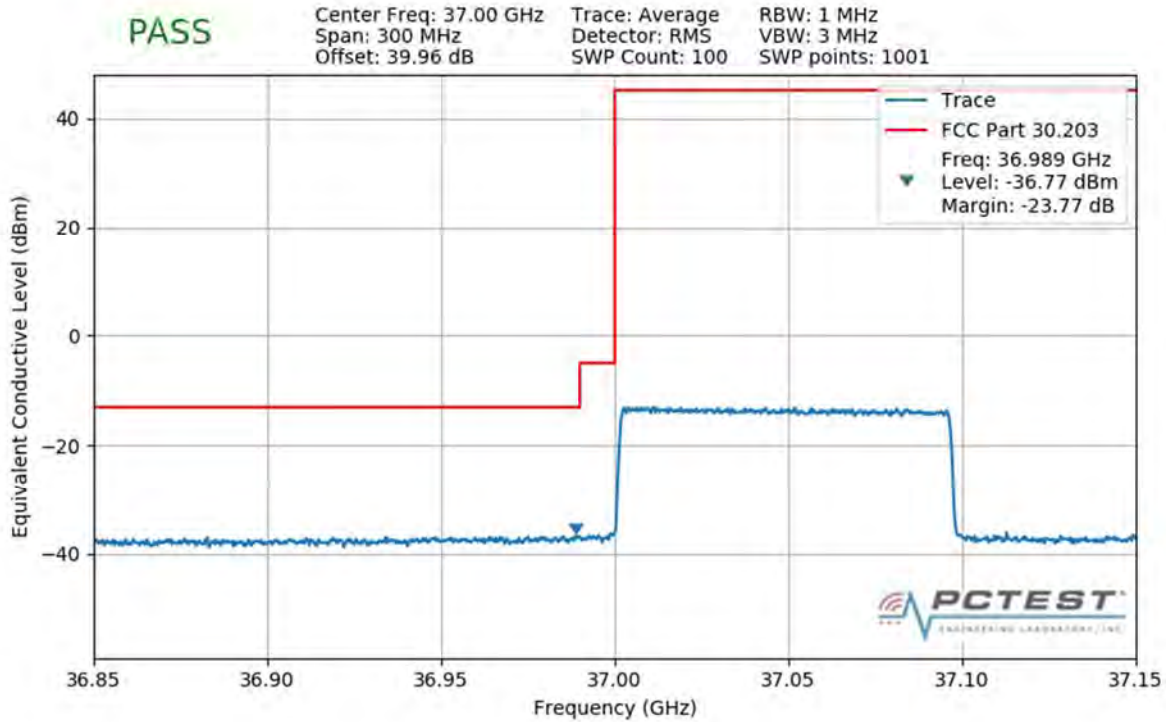


Plot 7-499. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

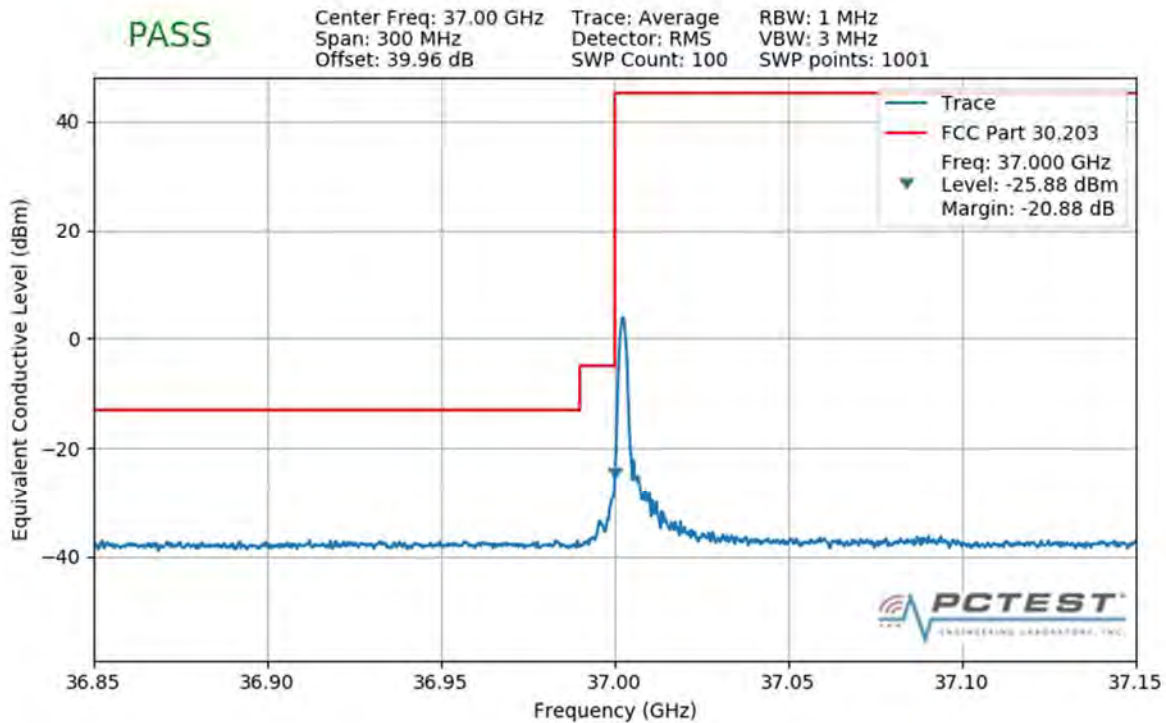


Plot 7-500. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 302 of 355

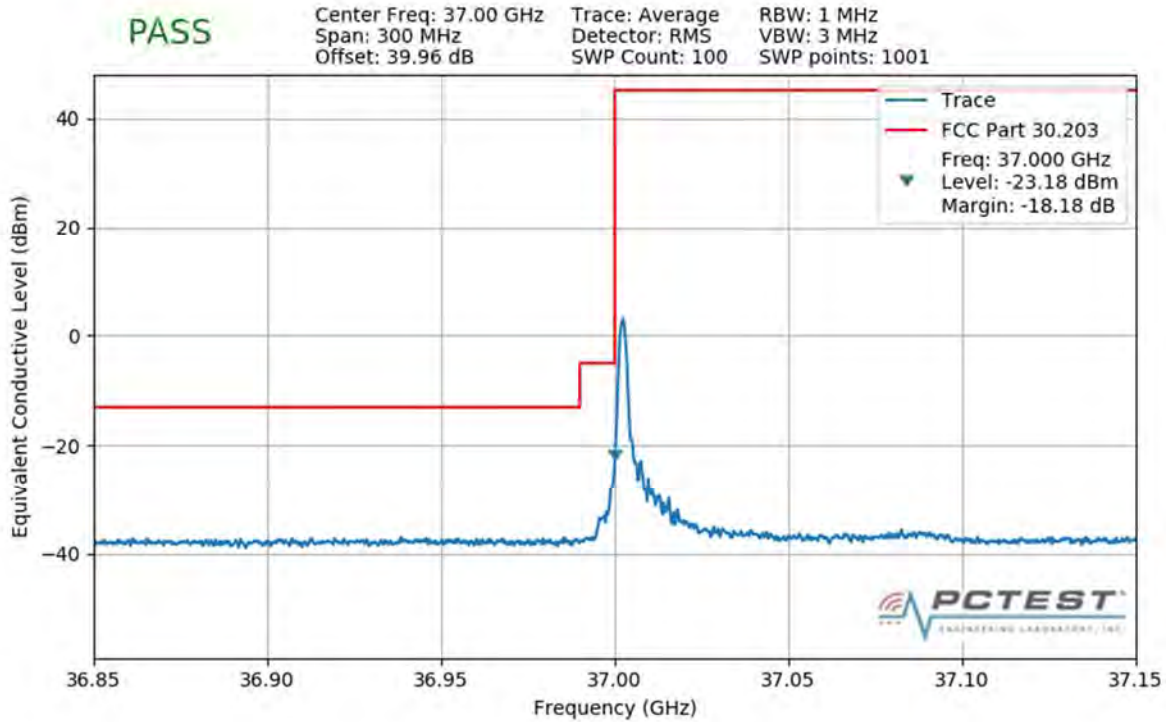


Plot 7-501. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

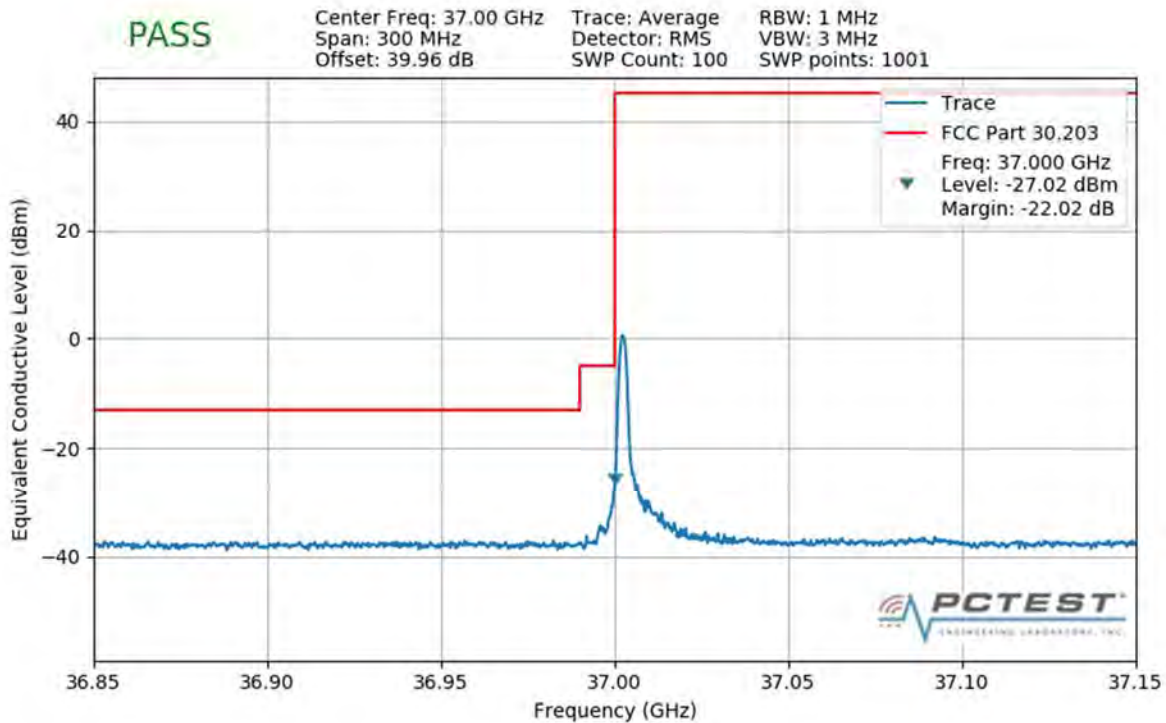


Plot 7-502. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 303 of 355

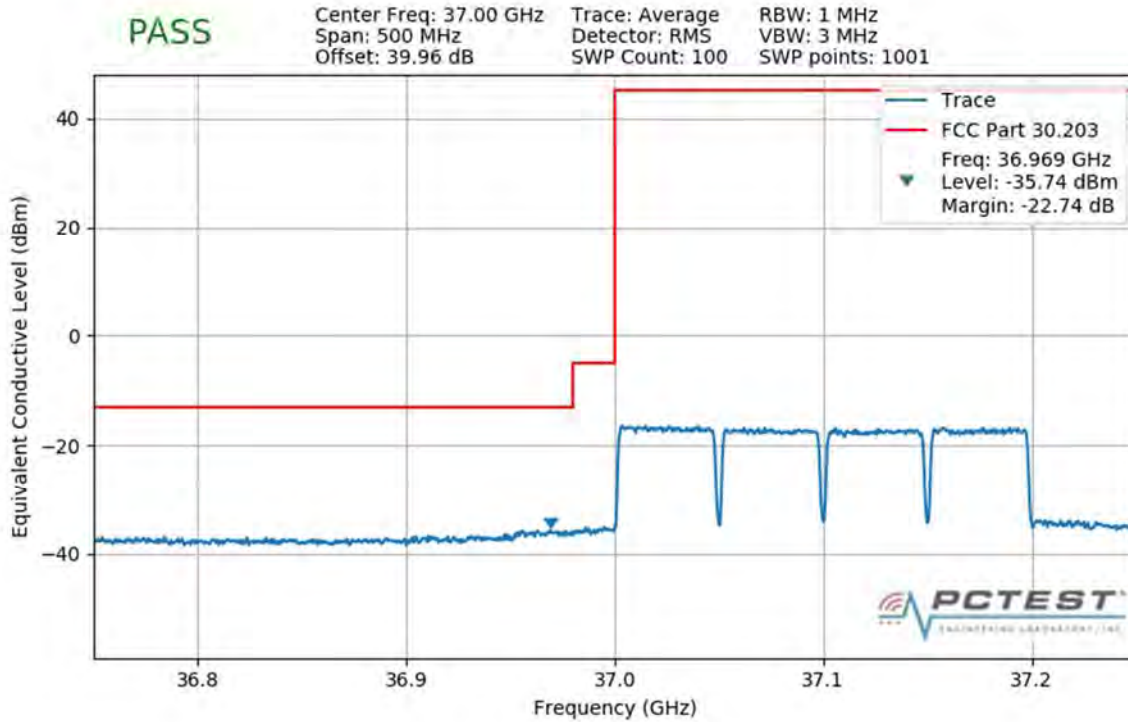


Plot 7-503. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

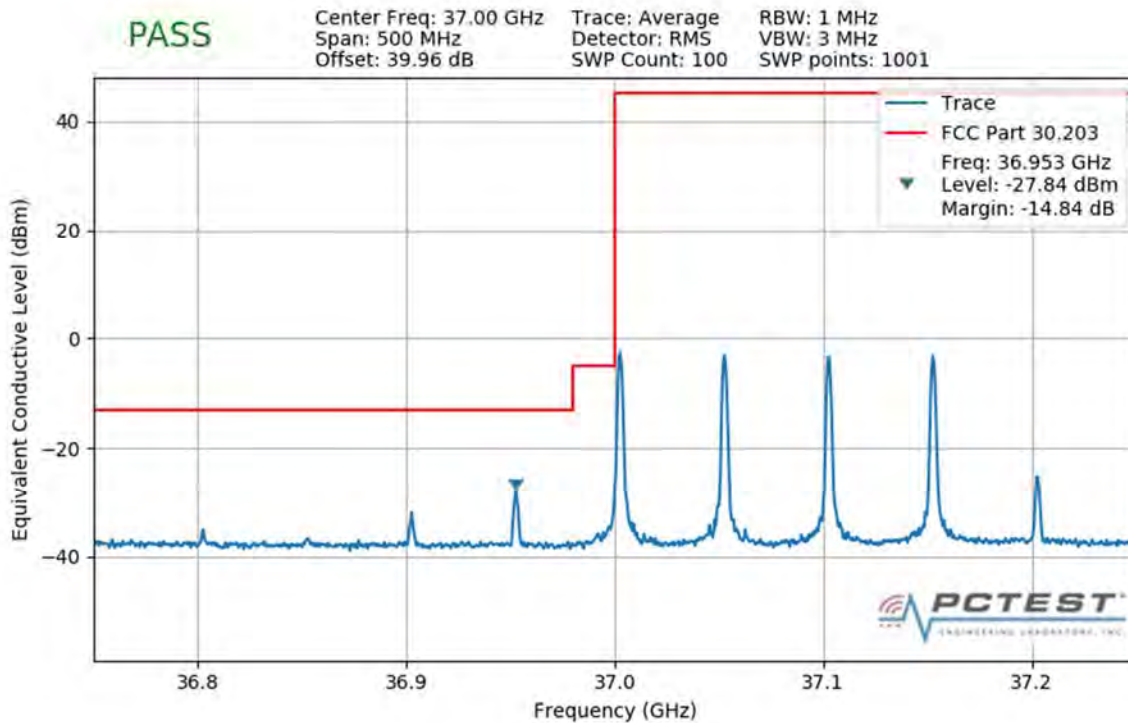


Plot 7-504. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 304 of 355

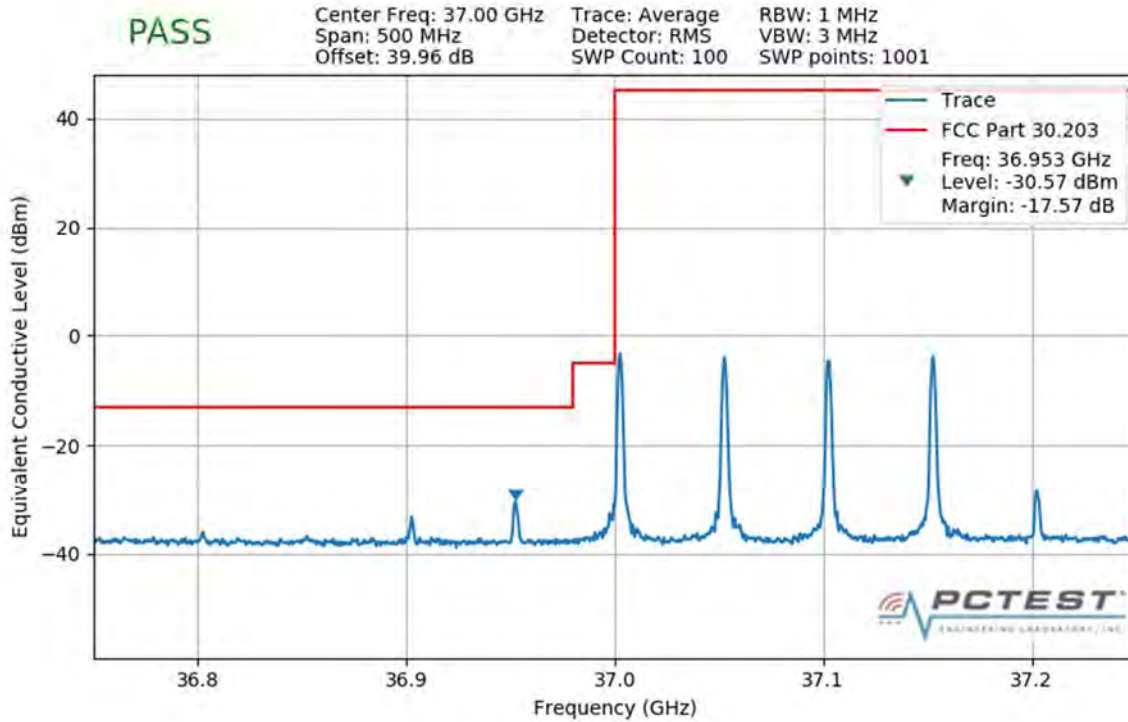


Plot 7-505. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

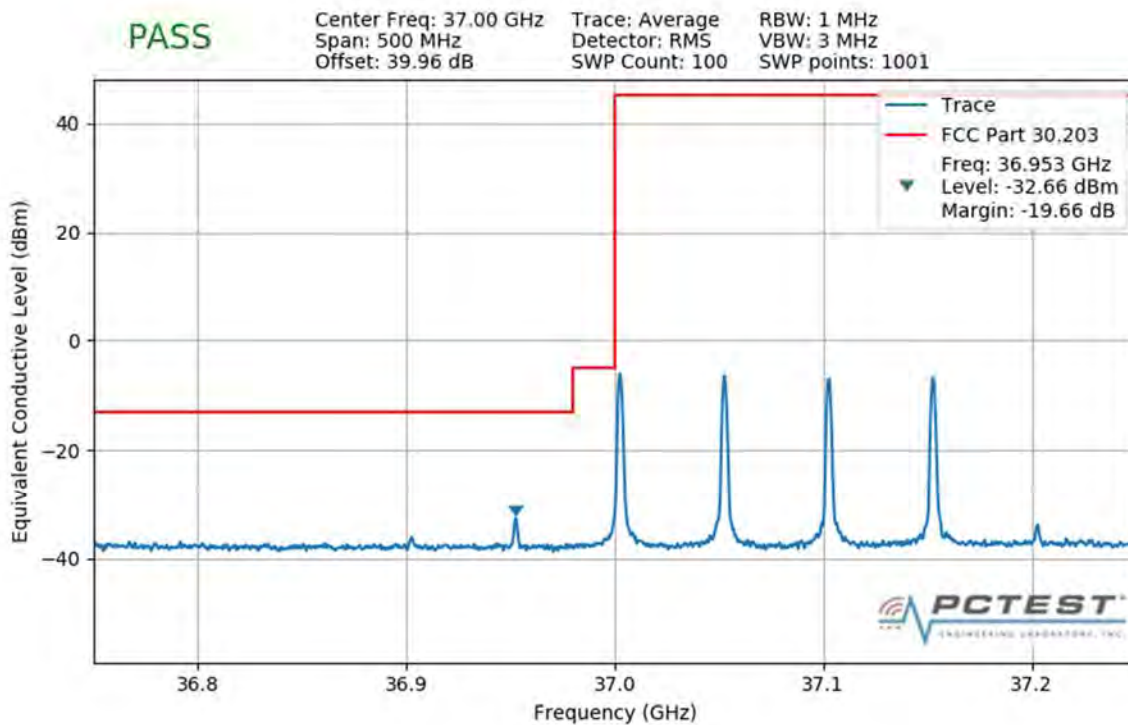


Plot 7-506. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 305 of 355

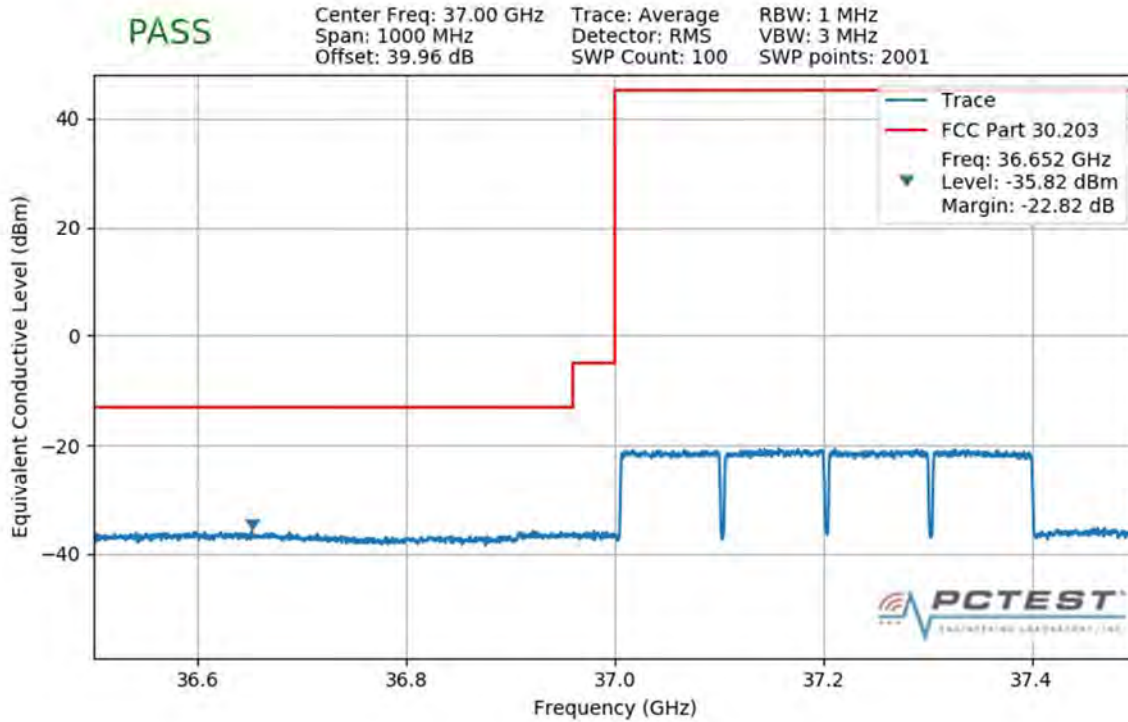


Plot 7-507. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

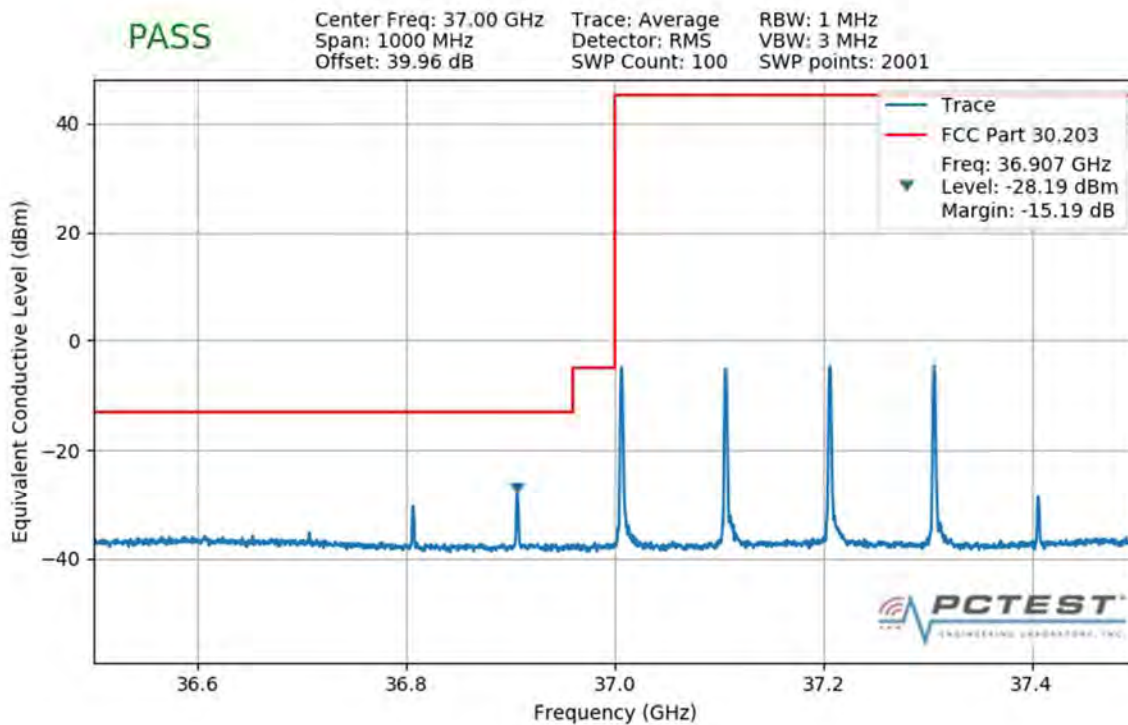


Plot 7-508. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 306 of 355

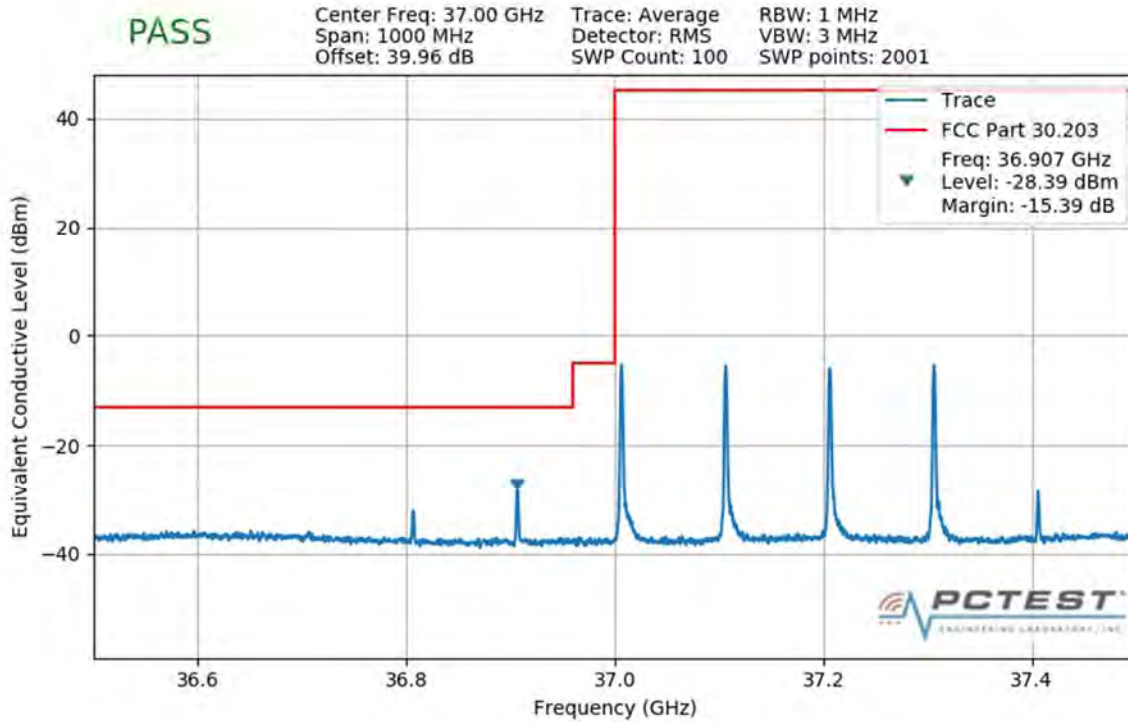


Plot 7-509. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

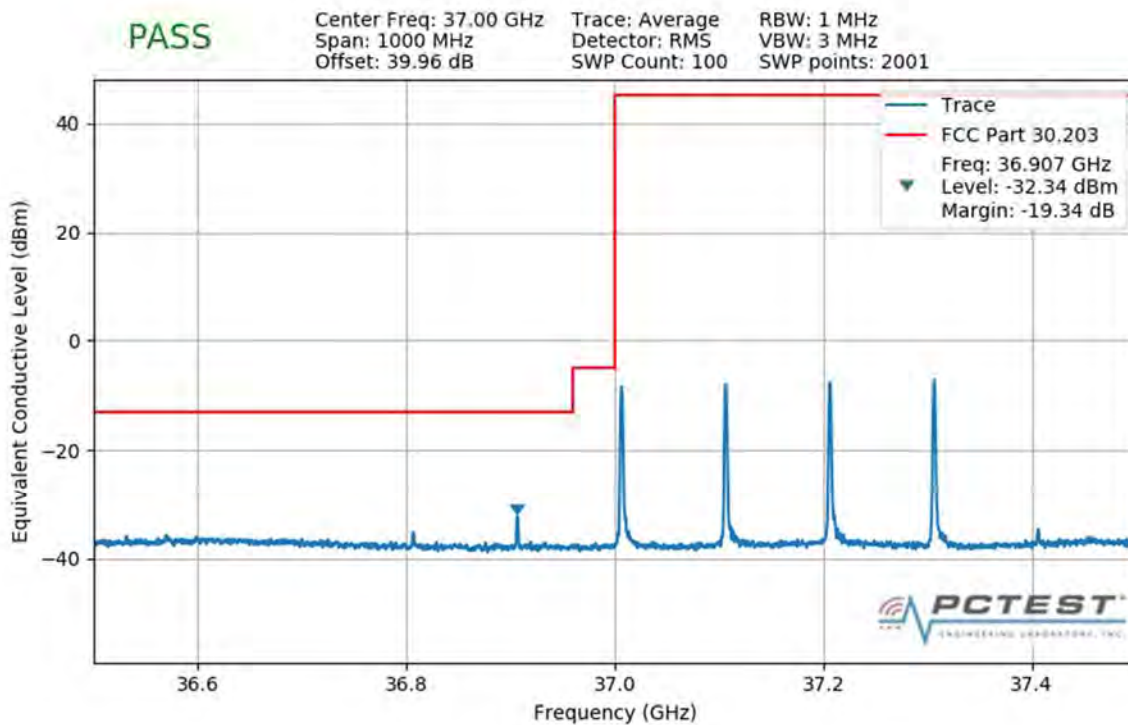


Plot 7-510. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 307 of 355

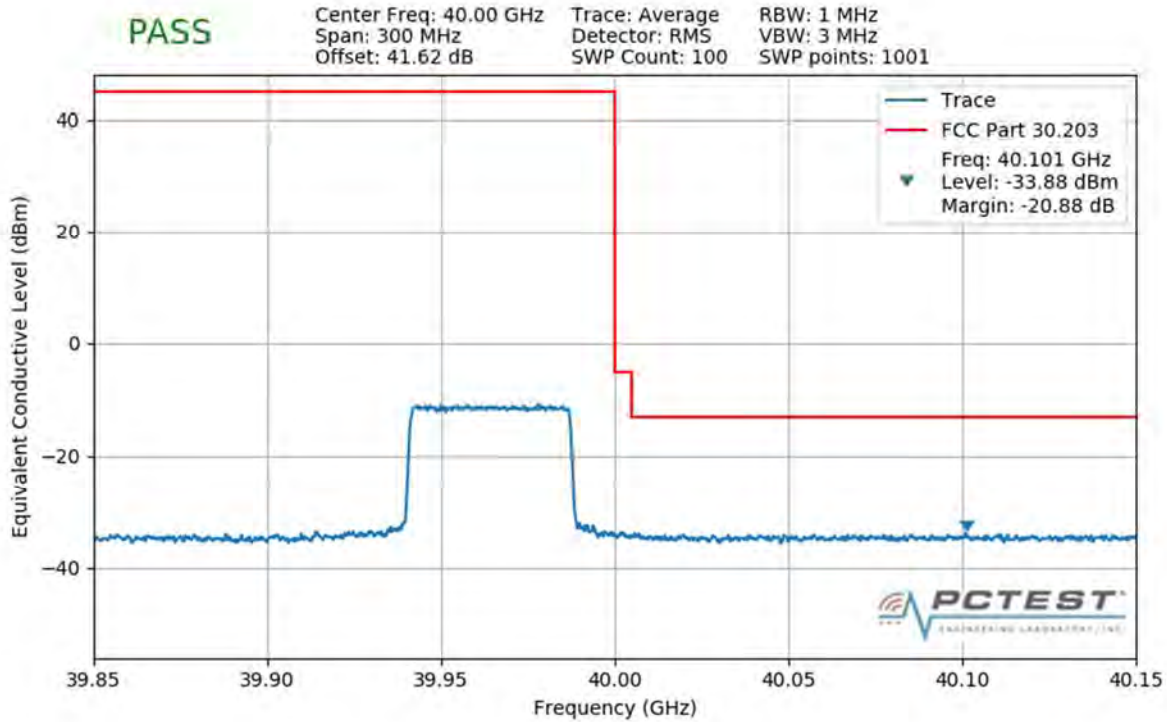


Plot 7-511. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

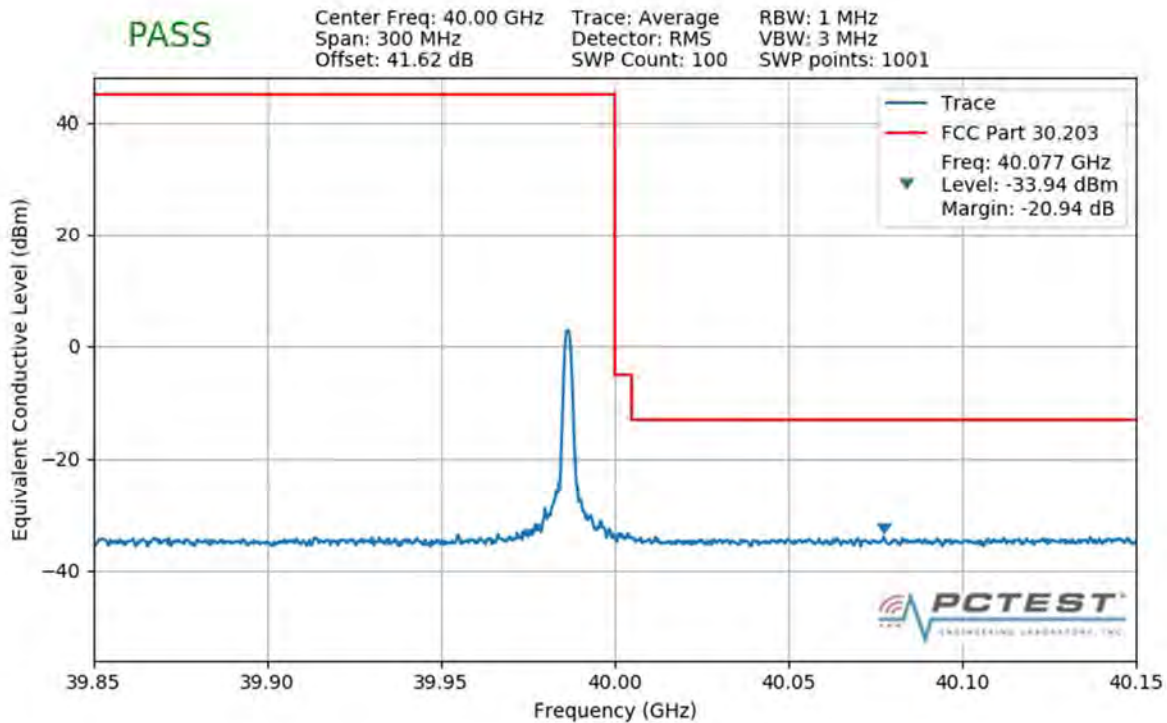


Plot 7-512. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 308 of 355

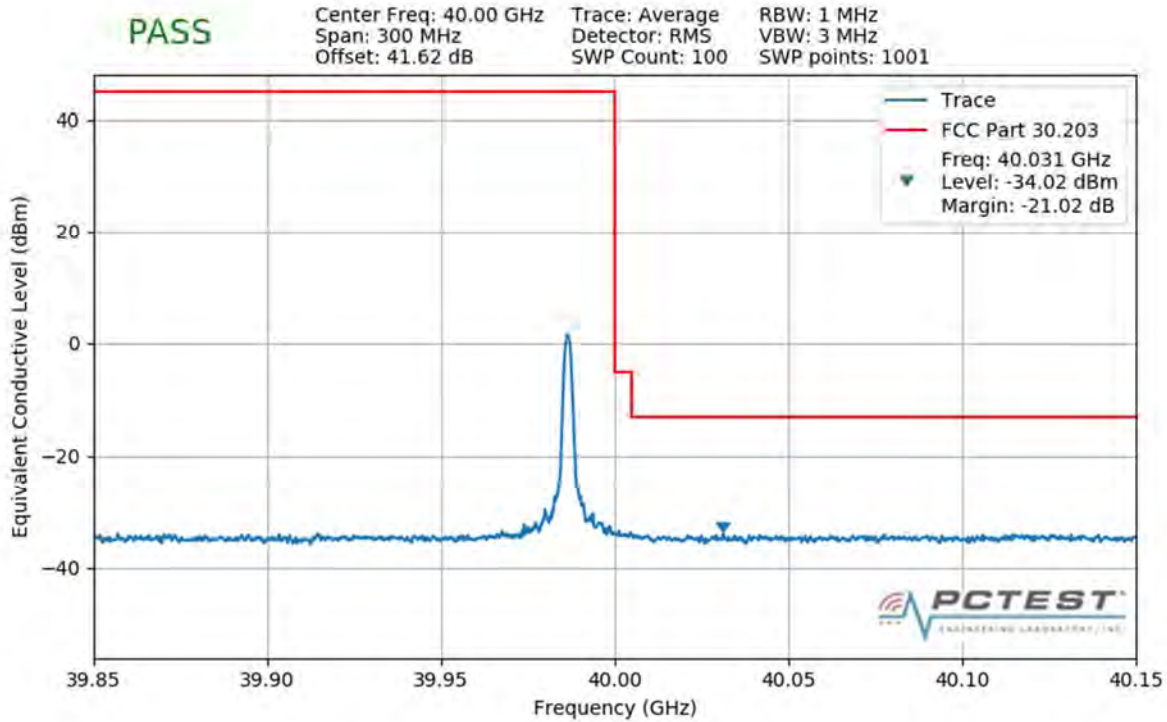


Plot 7-513. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

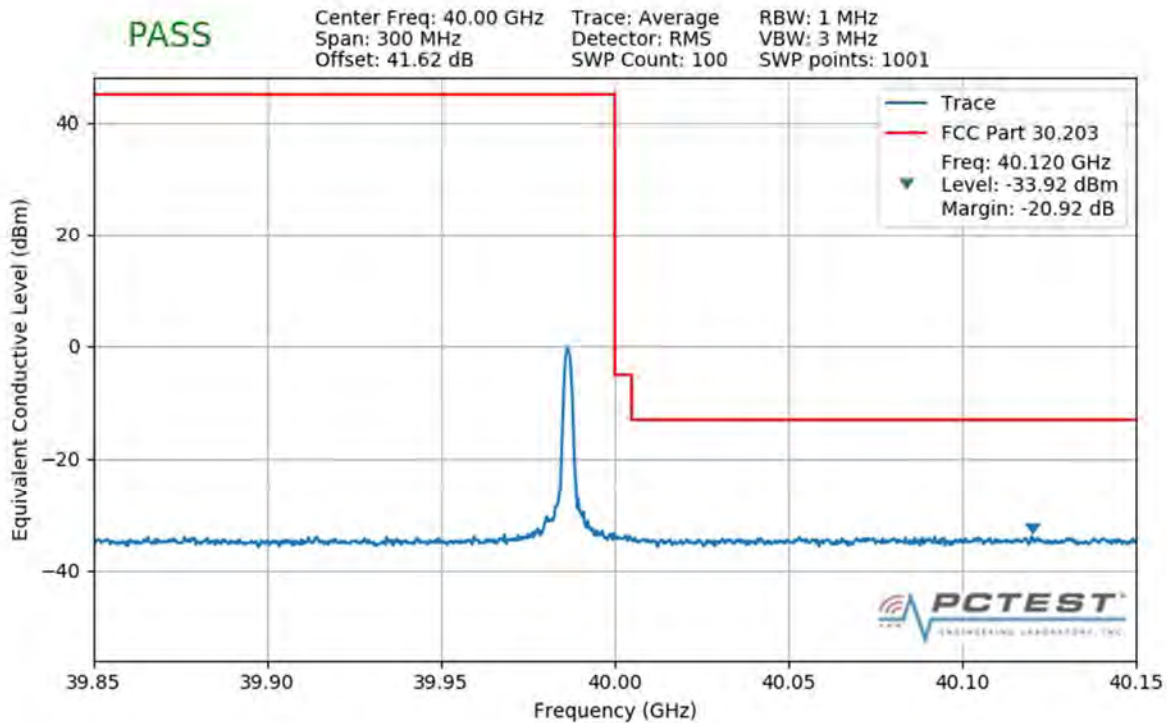


Plot 7-514. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 309 of 355

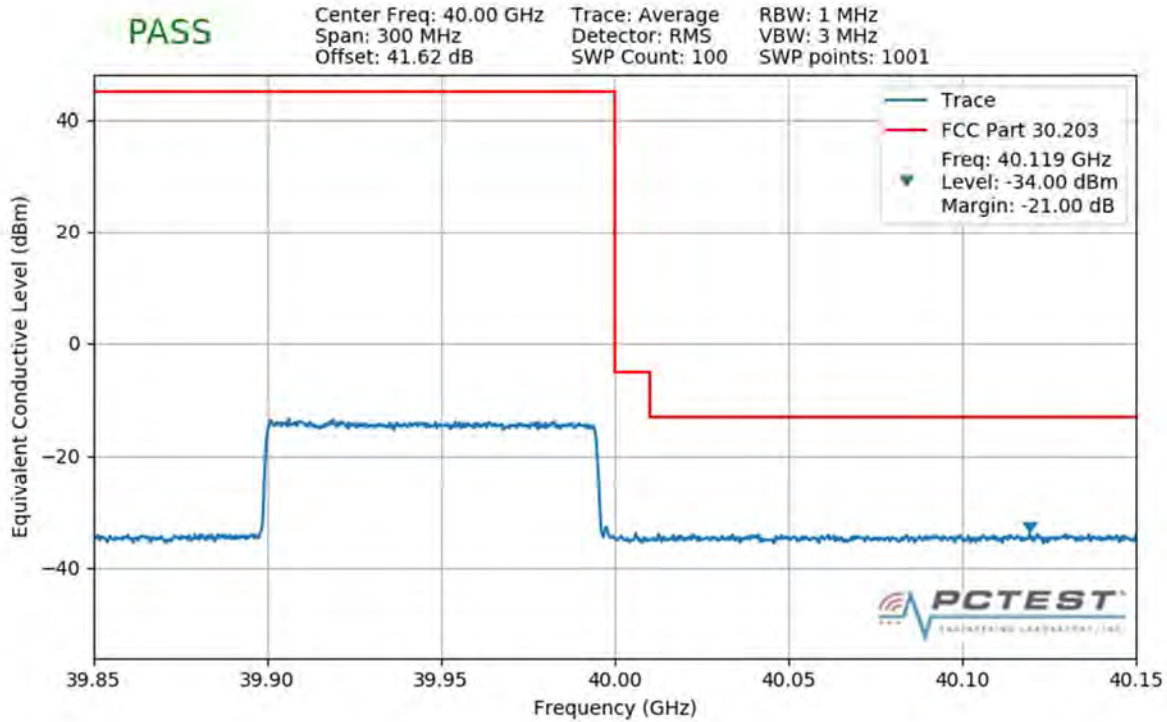


Plot 7-515. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

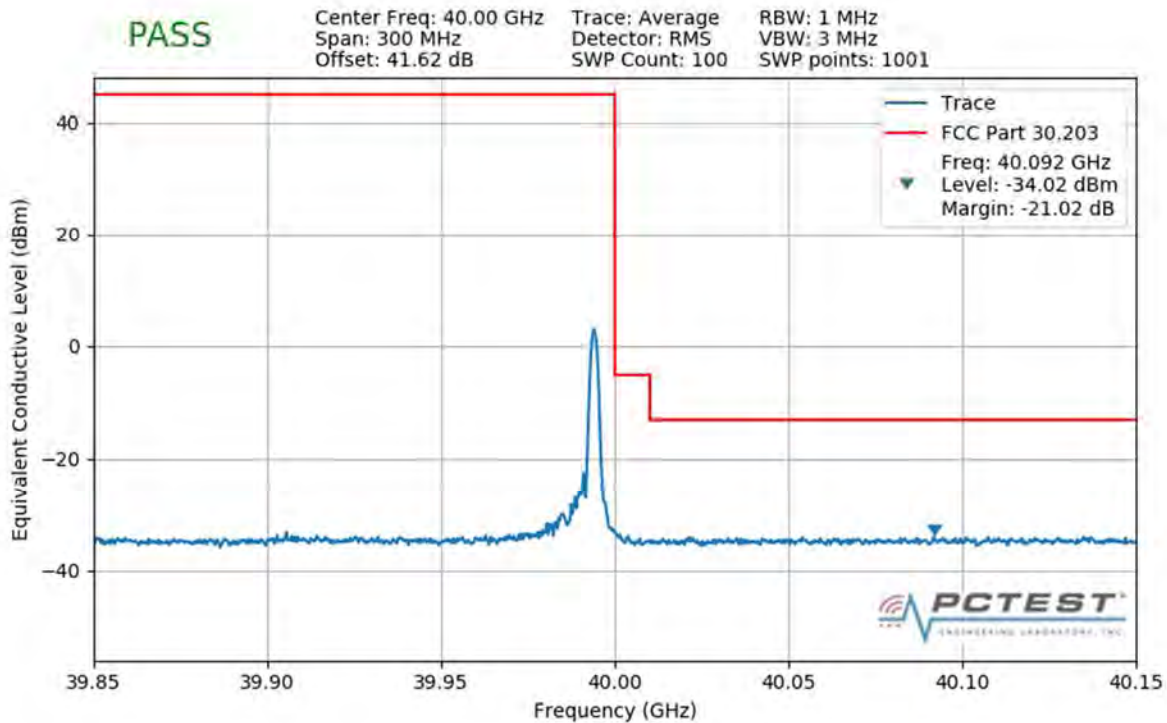


Plot 7-516. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 310 of 355

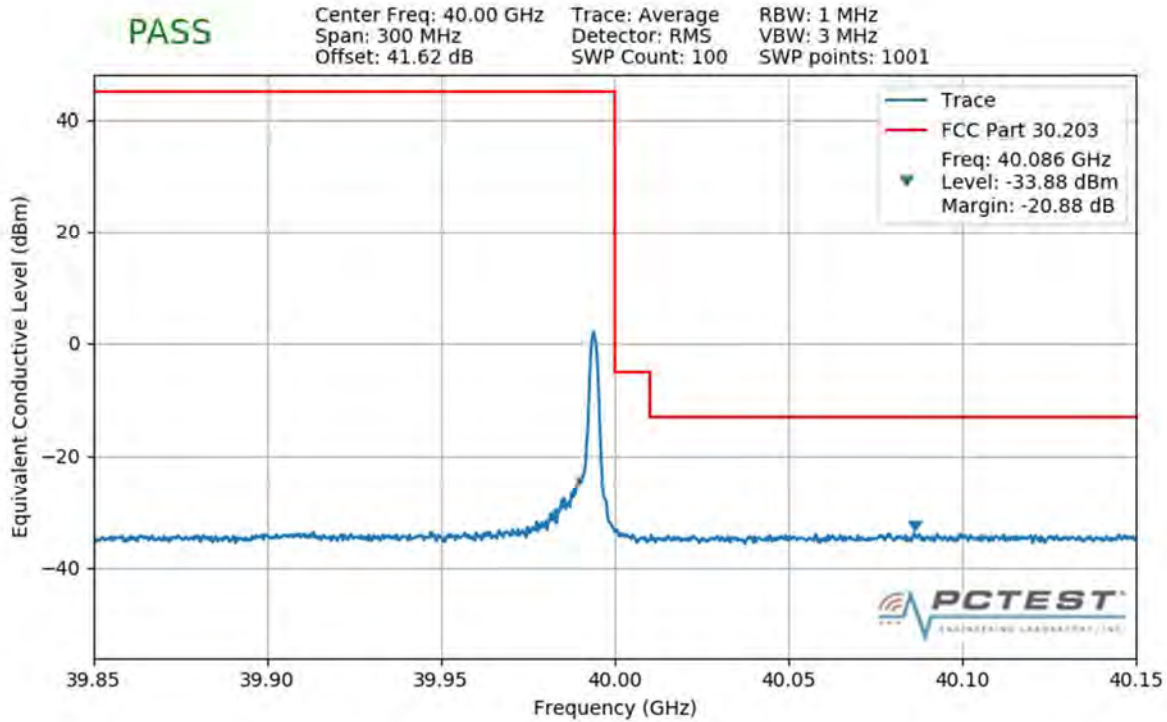


Plot 7-517. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

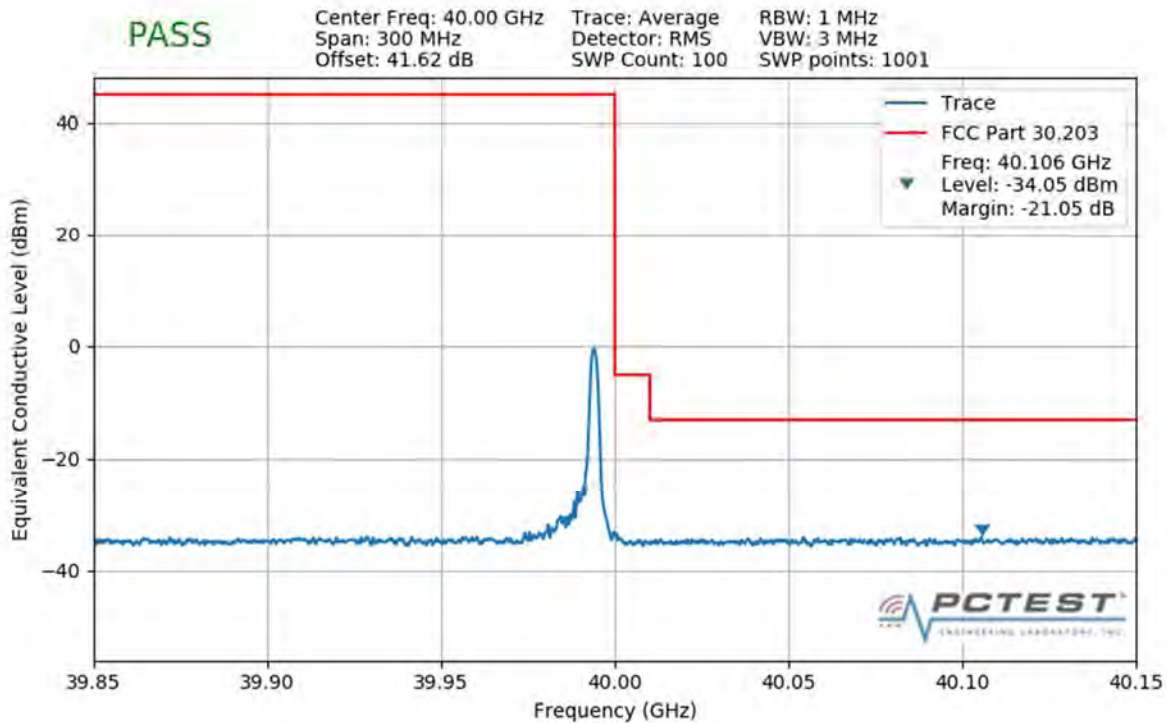


Plot 7-518. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 311 of 355

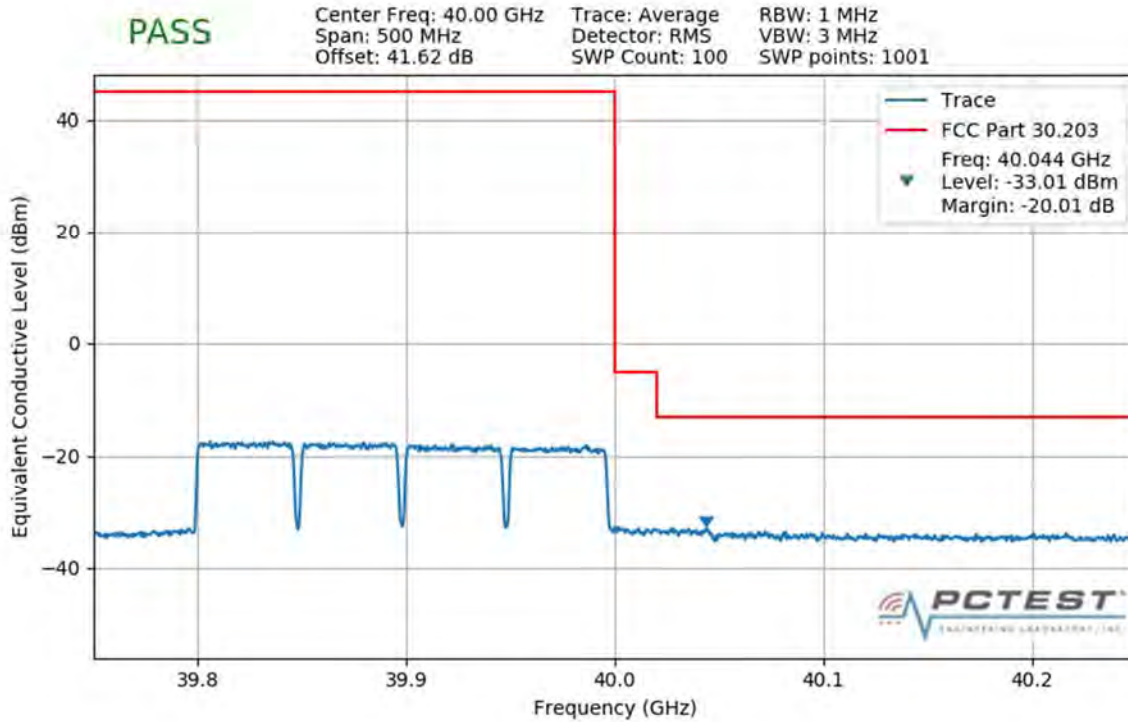


Plot 7-519. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

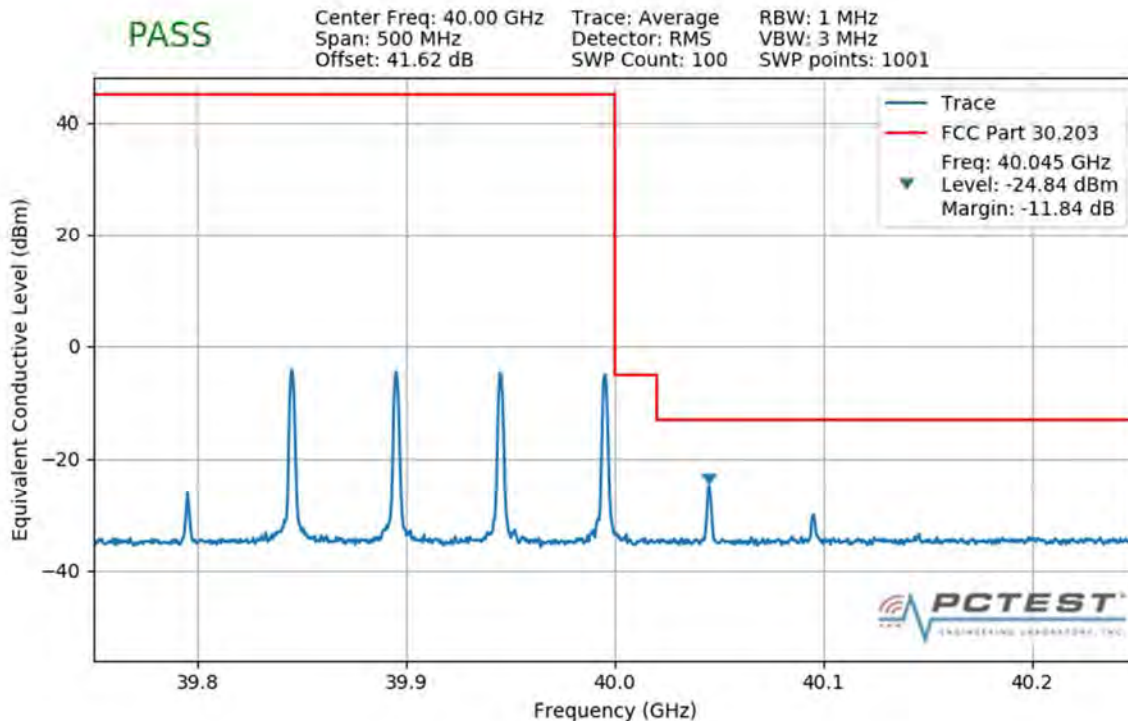


Plot 7-520. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 312 of 355

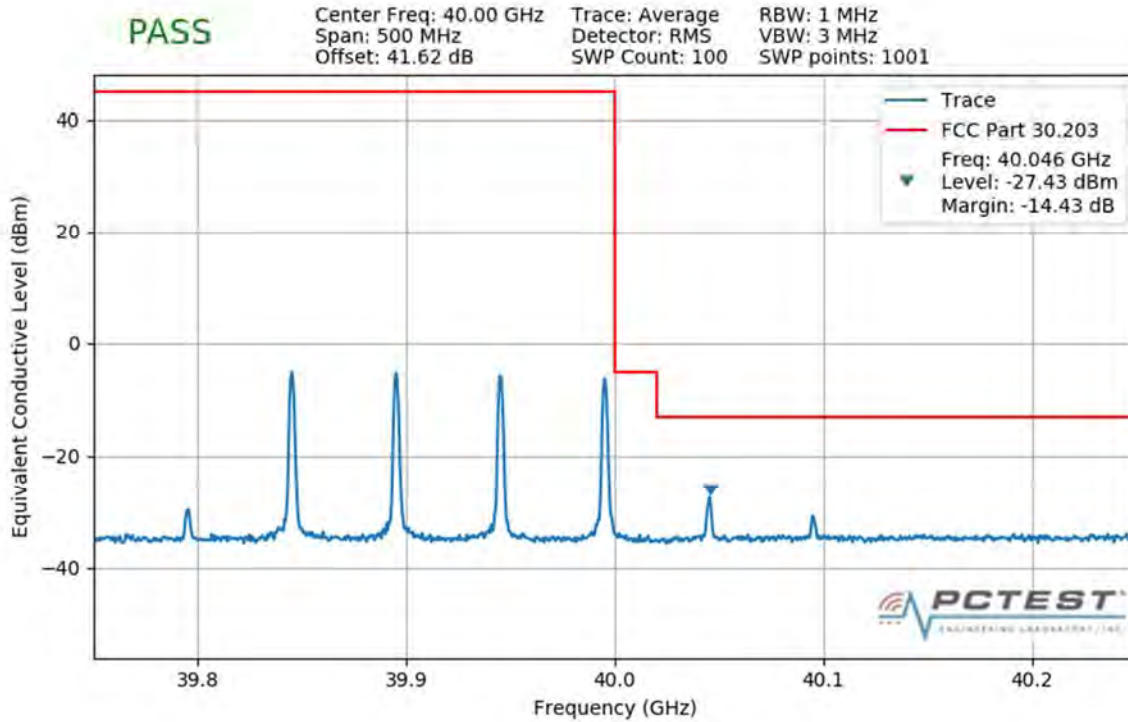


Plot 7-521. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

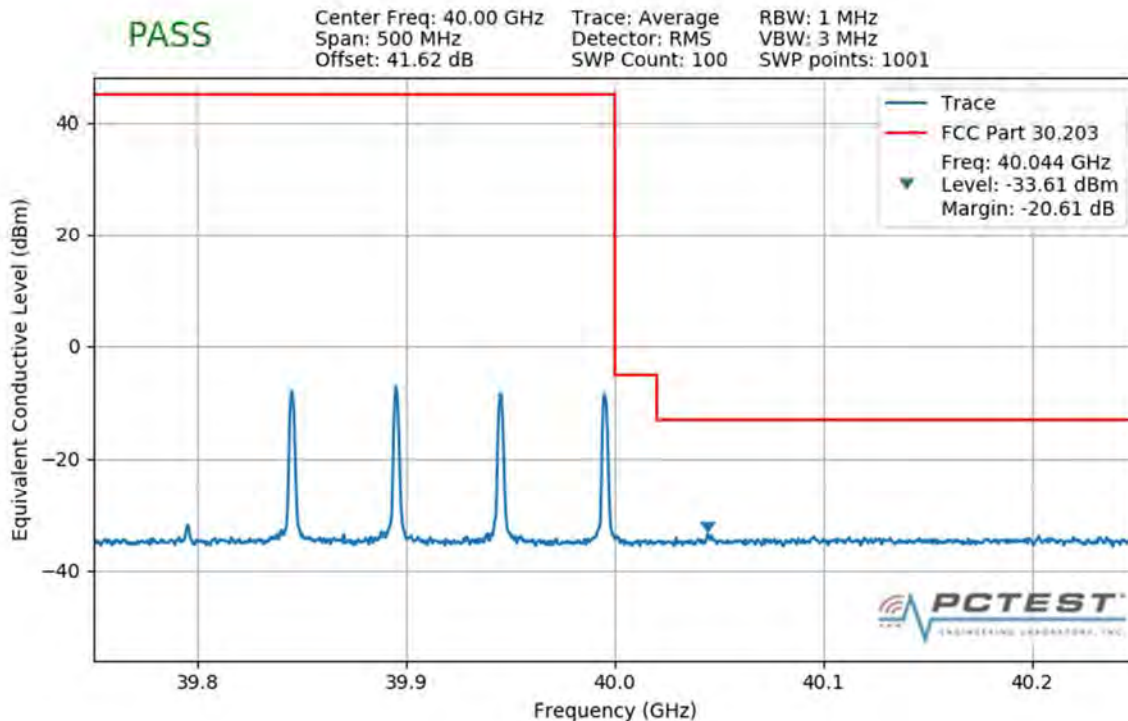


Plot 7-522. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 313 of 355

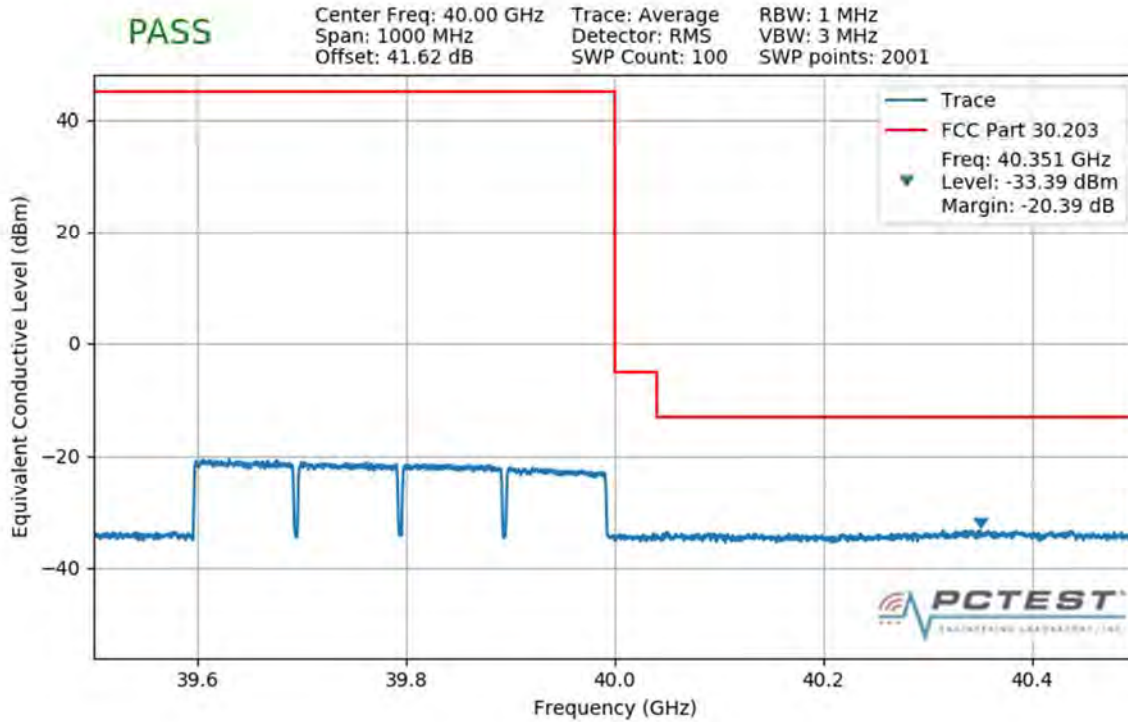


Plot 7-523. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

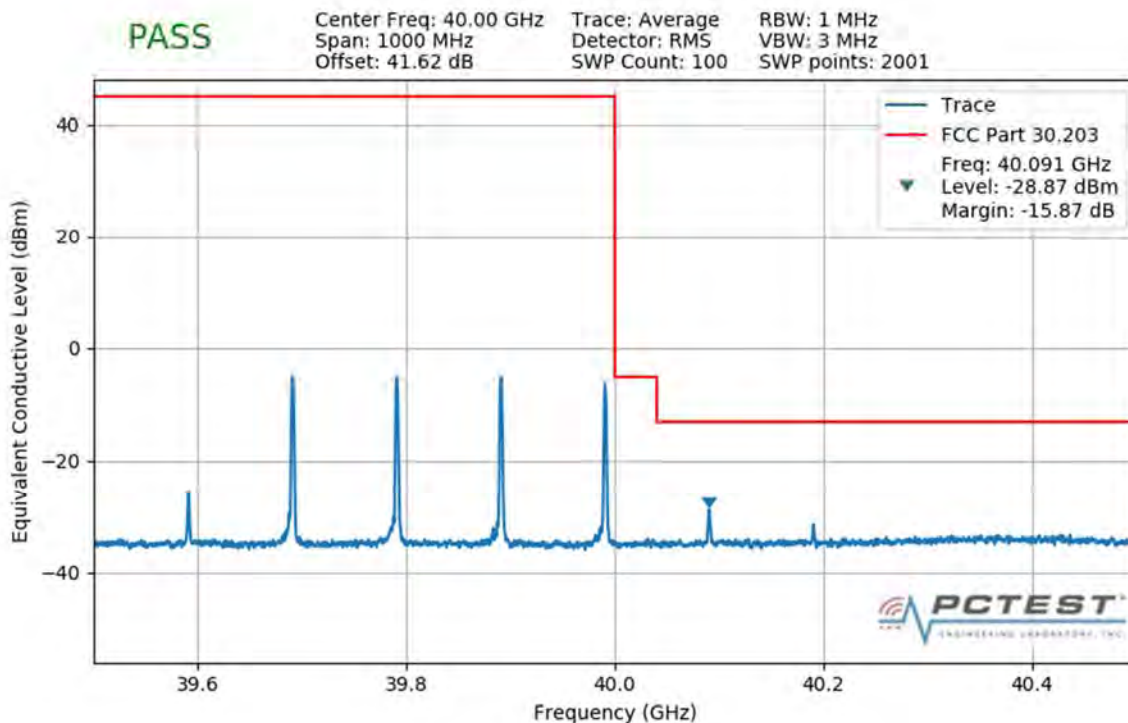


Plot 7-524. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 314 of 355

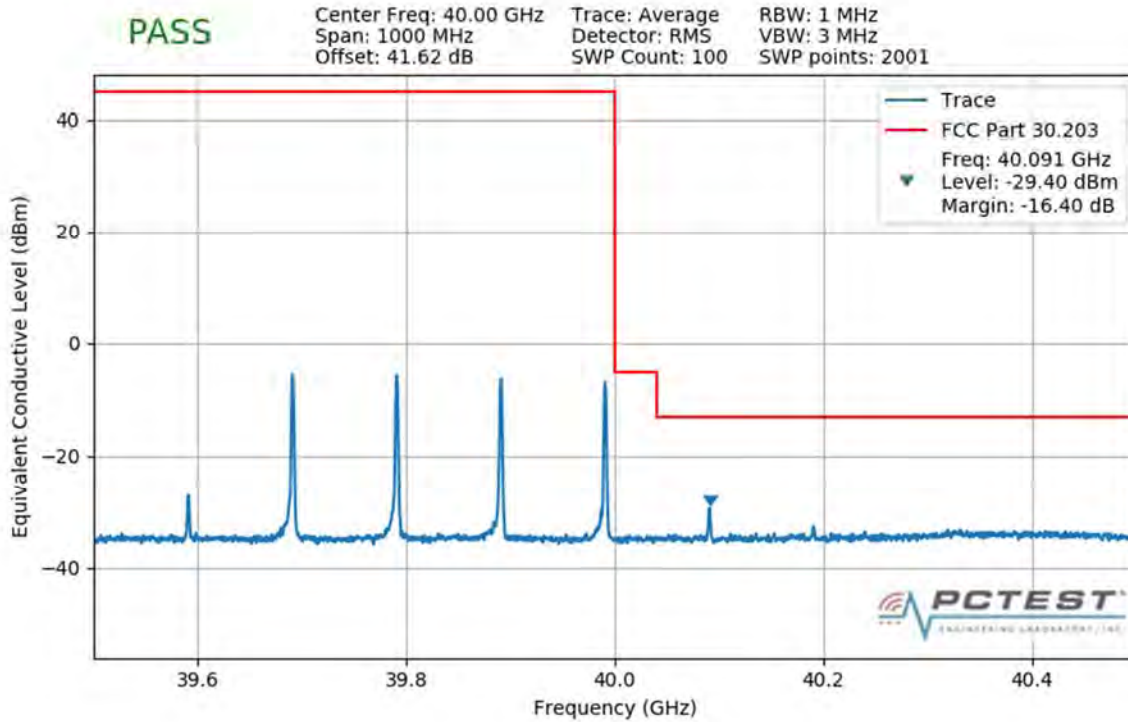


Plot 7-525. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

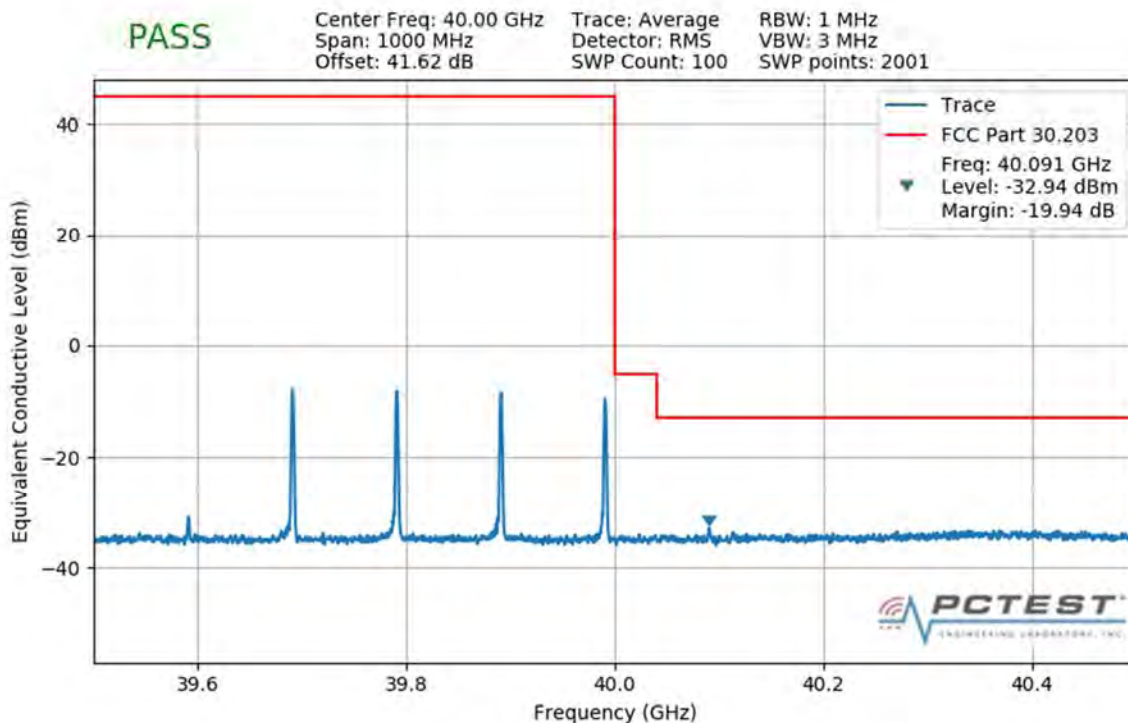


Plot 7-526. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 315 of 355

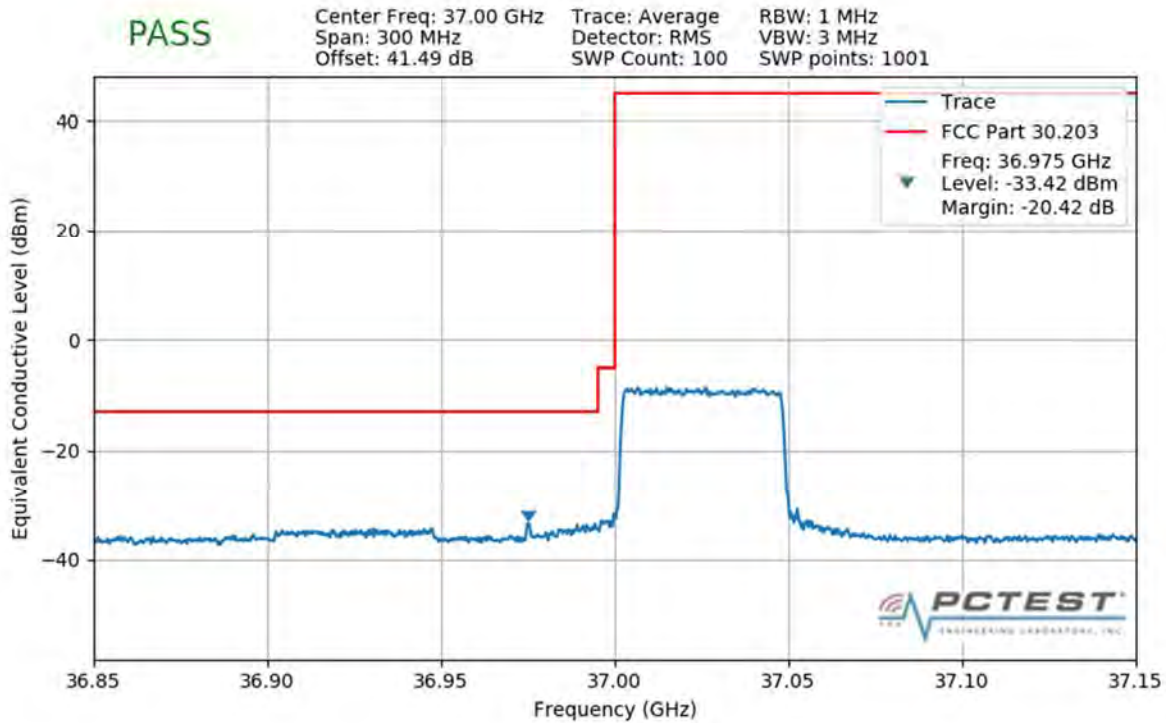


Plot 7-527. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)

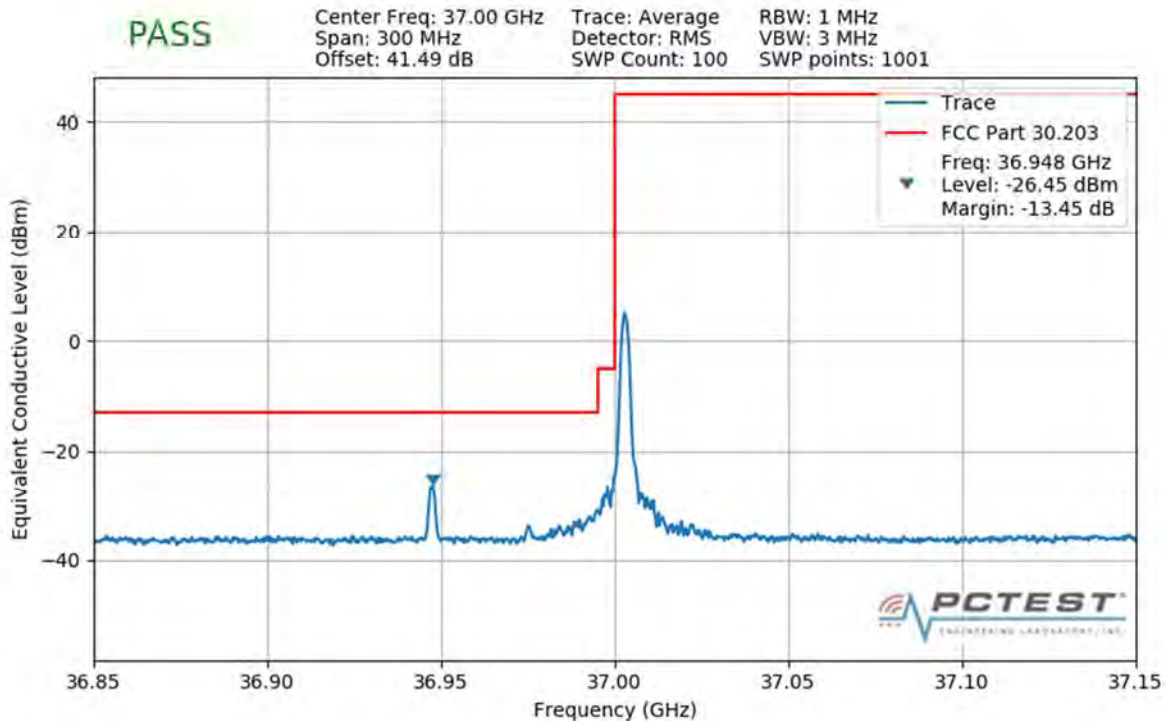


Plot 7-528. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 316 of 355

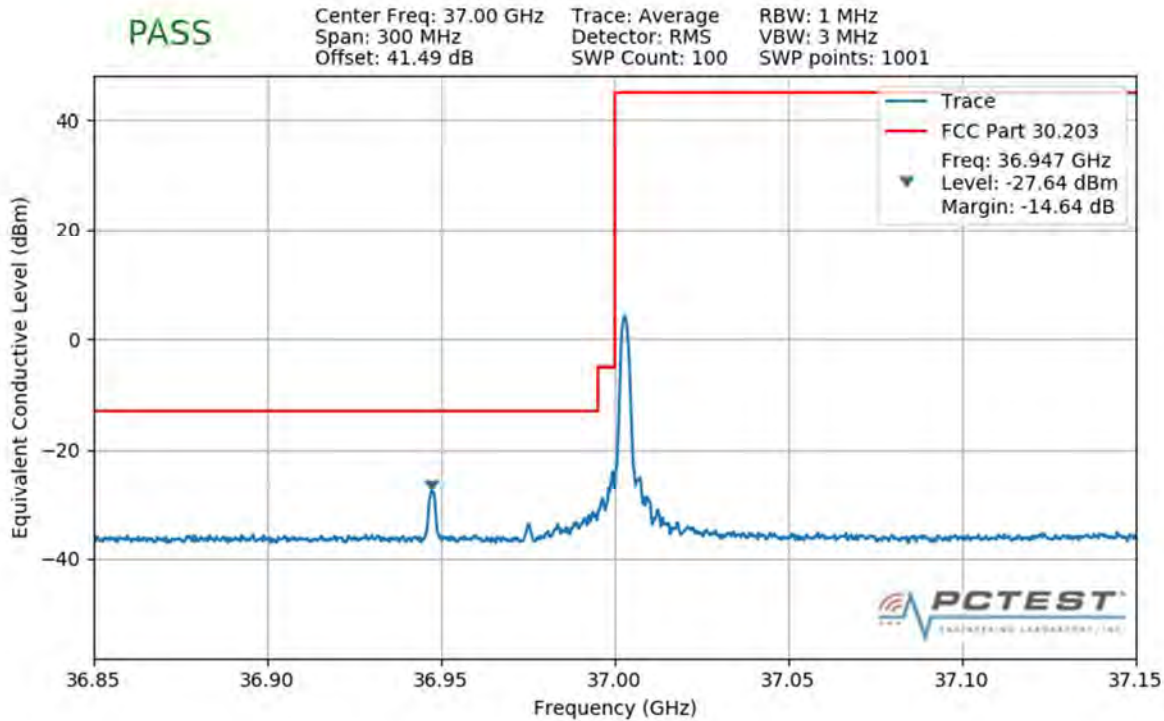


Plot 7-529. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

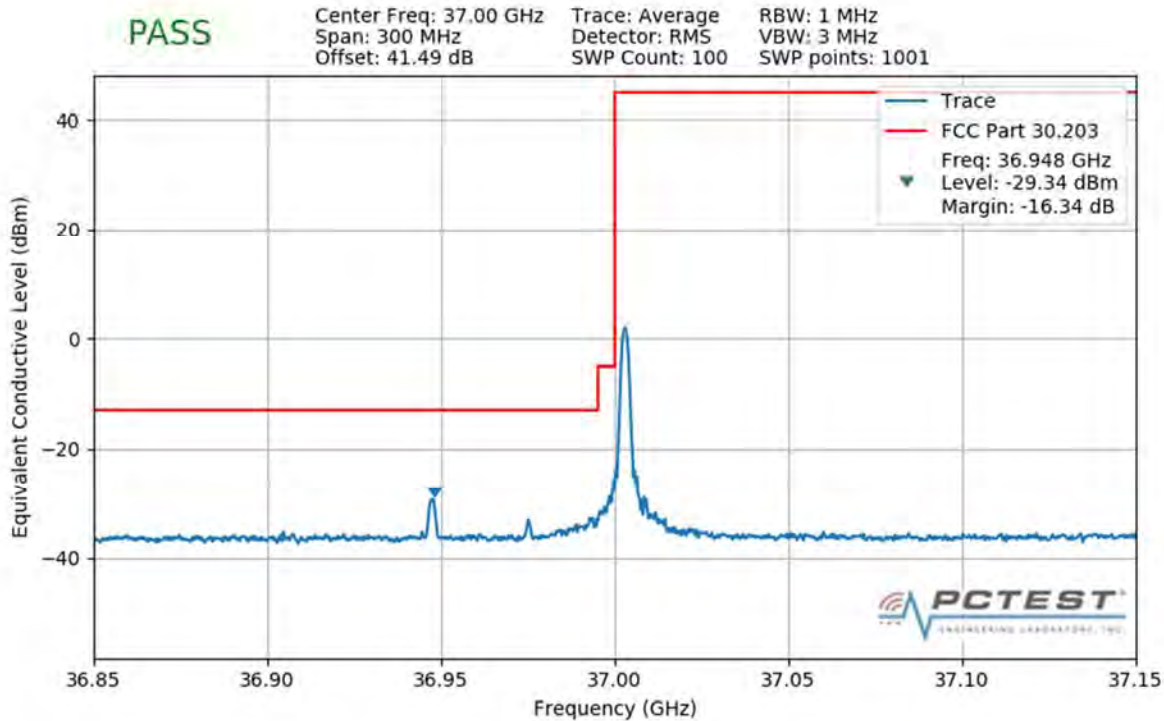


Plot 7-530. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)		Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset	Page 317 of 355

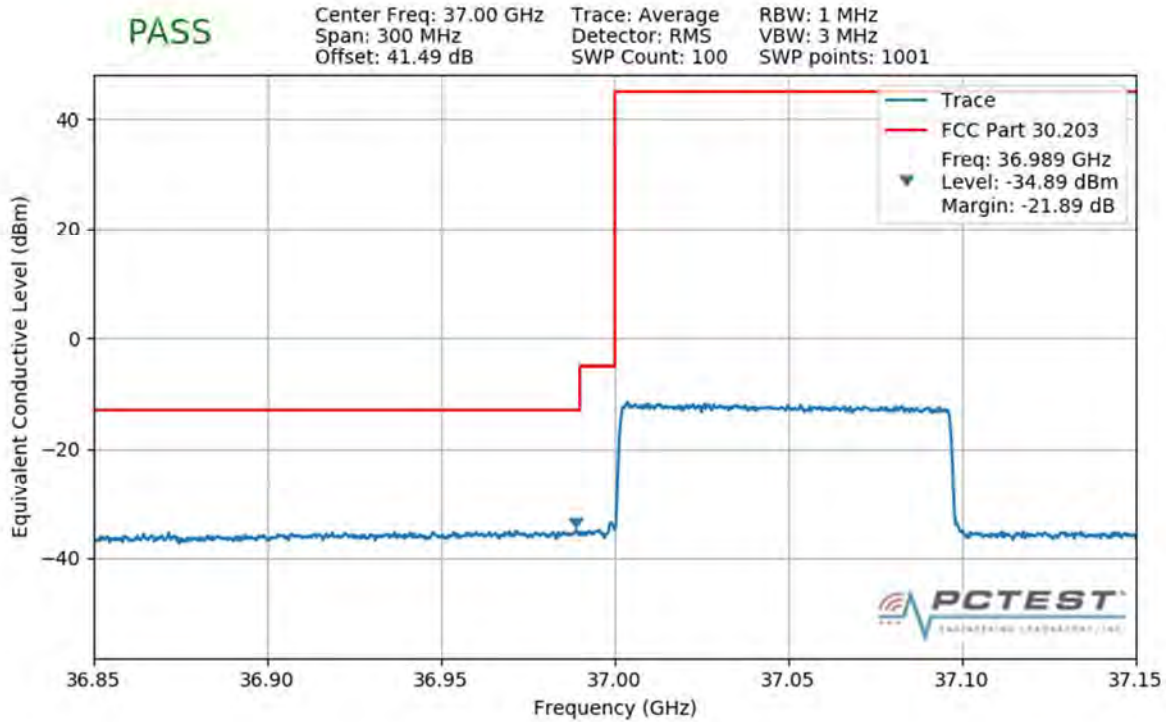


Plot 7-531. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

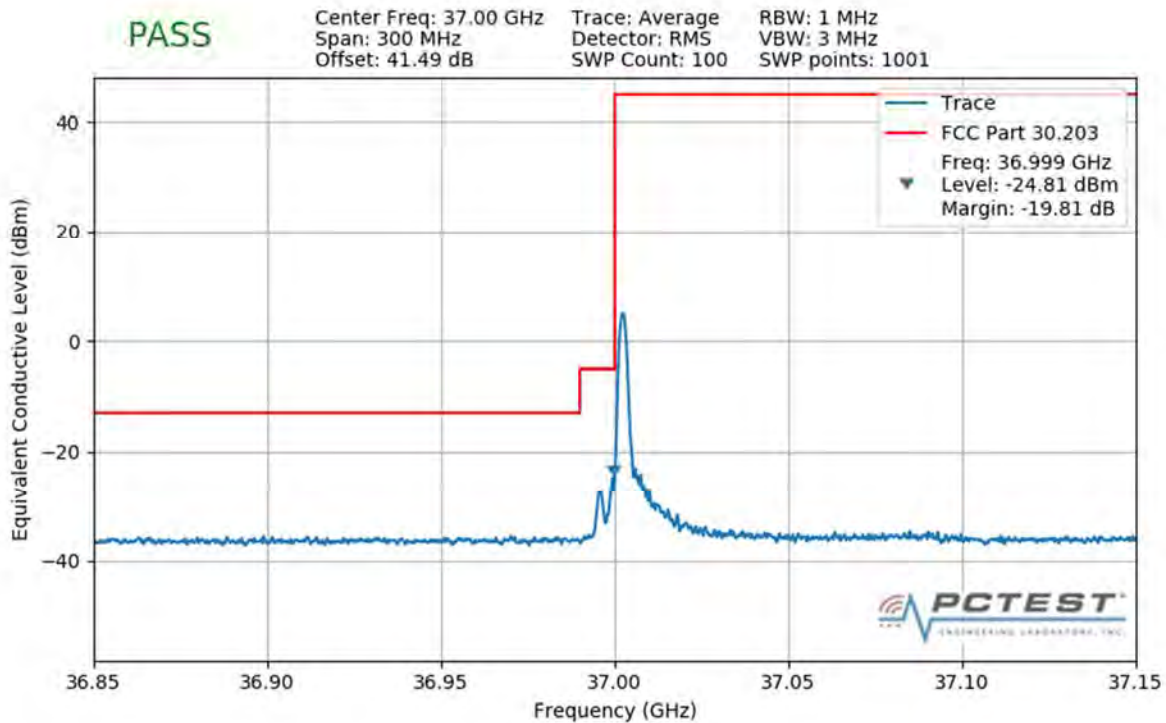


Plot 7-532. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 318 of 355

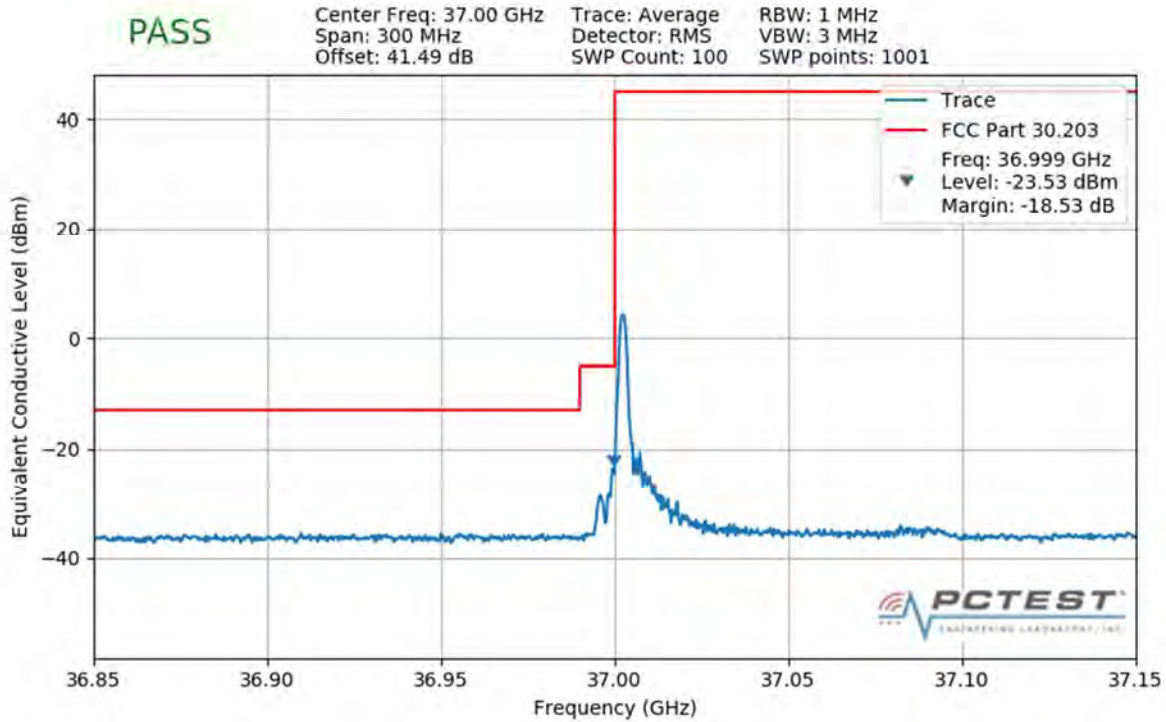


Plot 7-533. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

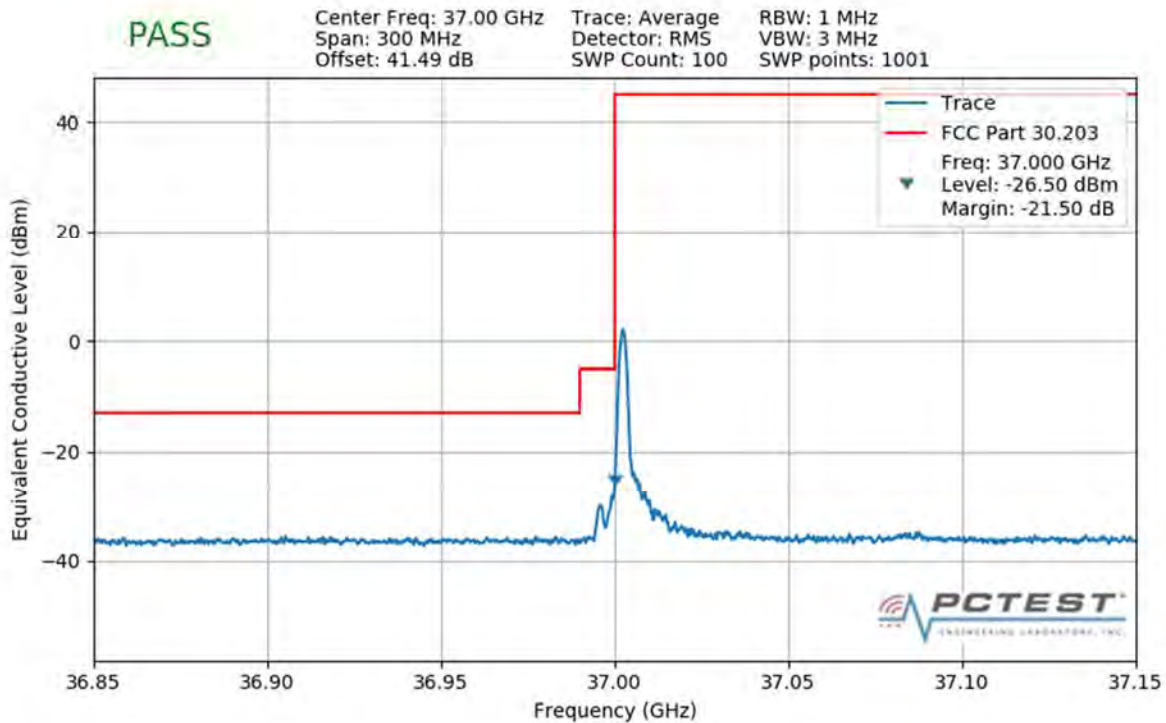


Plot 7-534. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 319 of 355

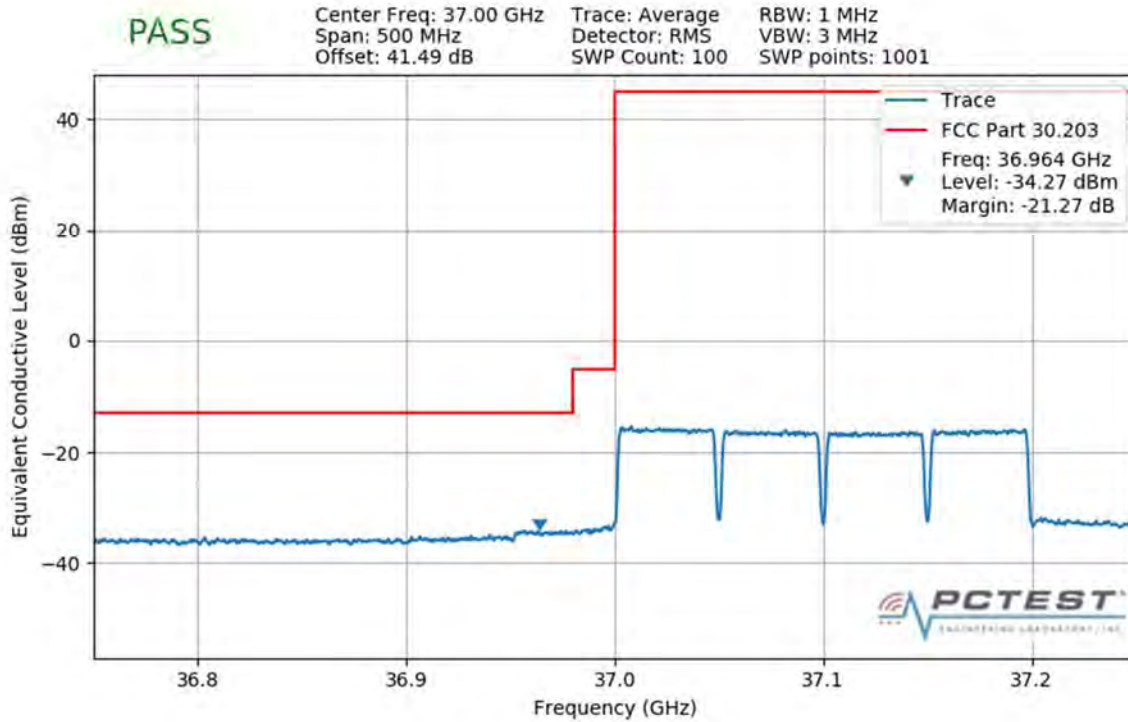


Plot 7-535. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

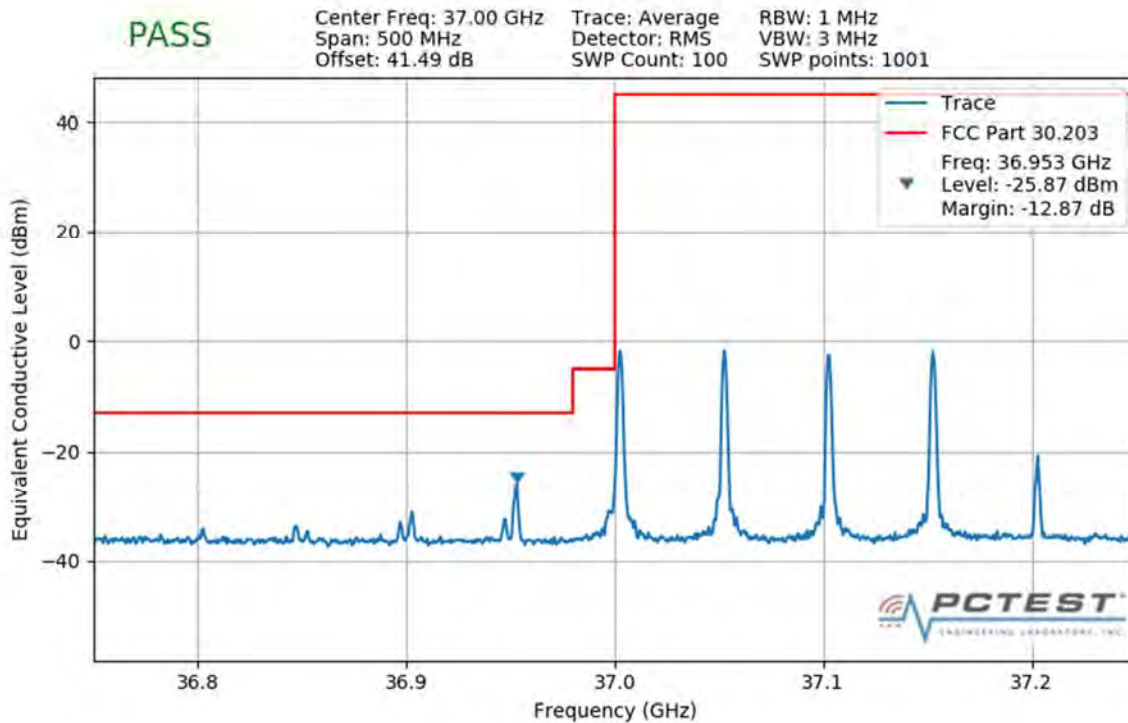


Plot 7-536. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 320 of 355

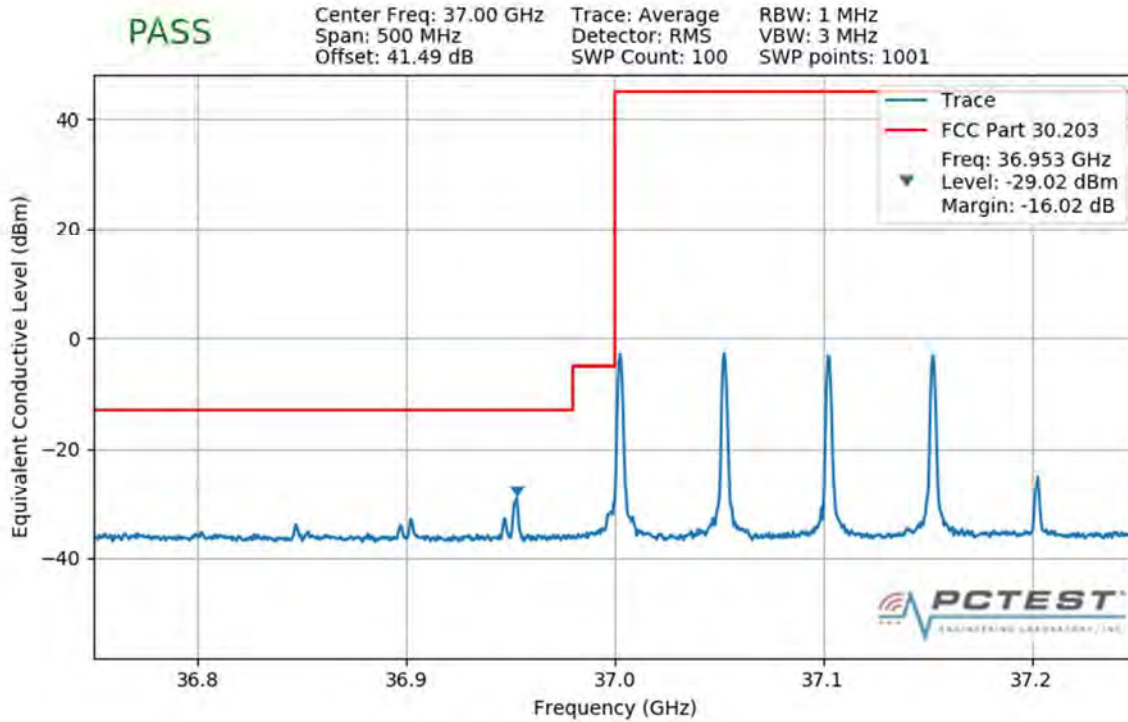


Plot 7-537. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

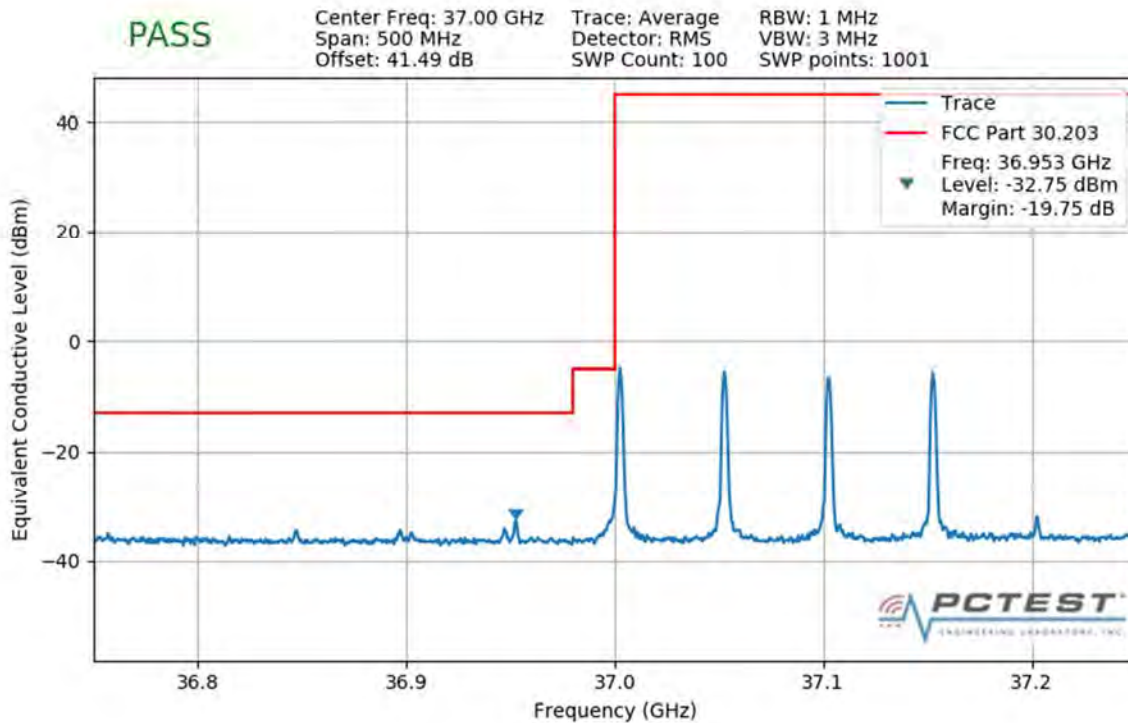


Plot 7-538. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 321 of 355

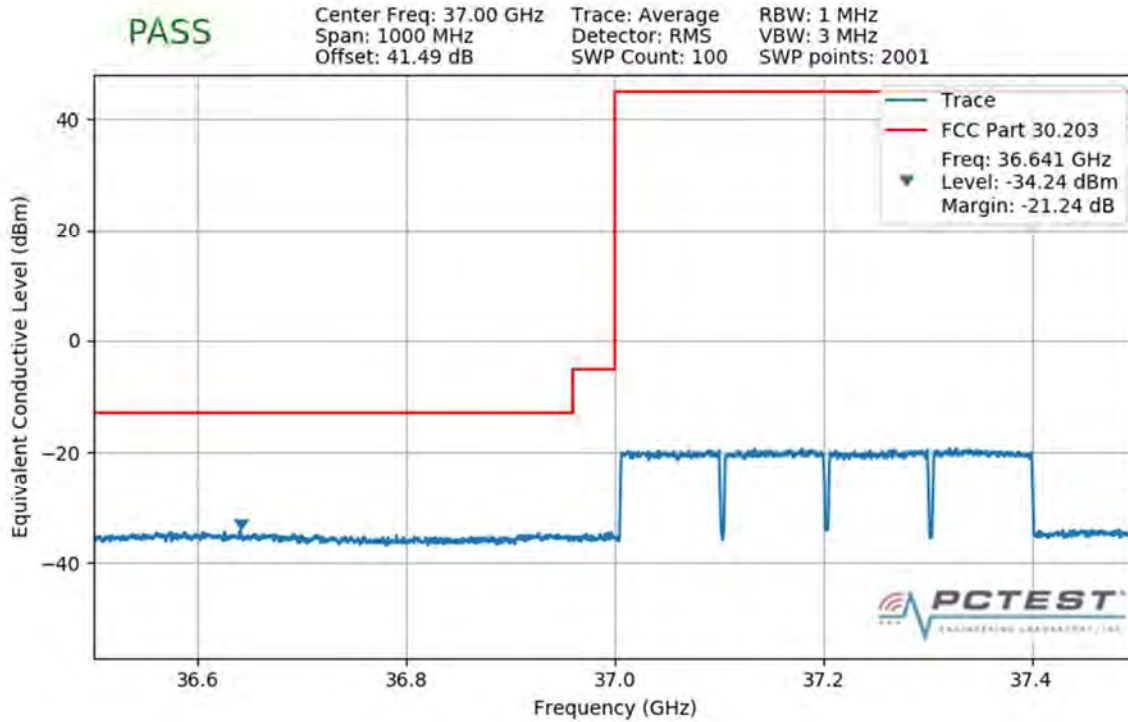


Plot 7-539. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

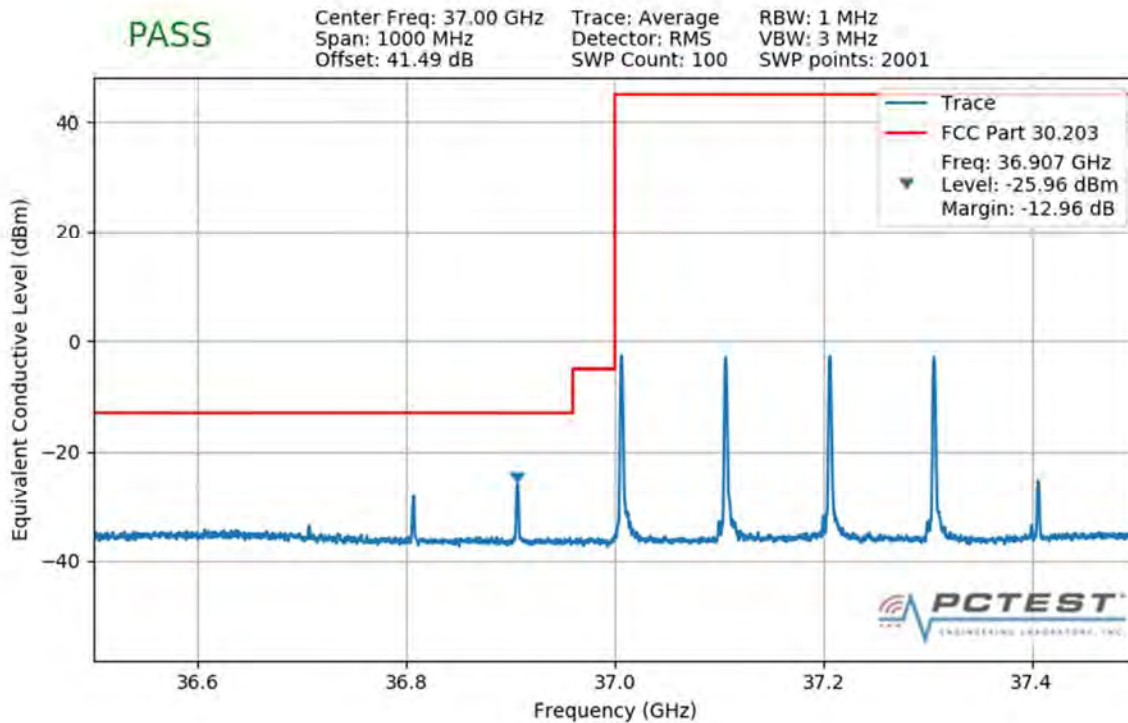


Plot 7-540. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 322 of 355

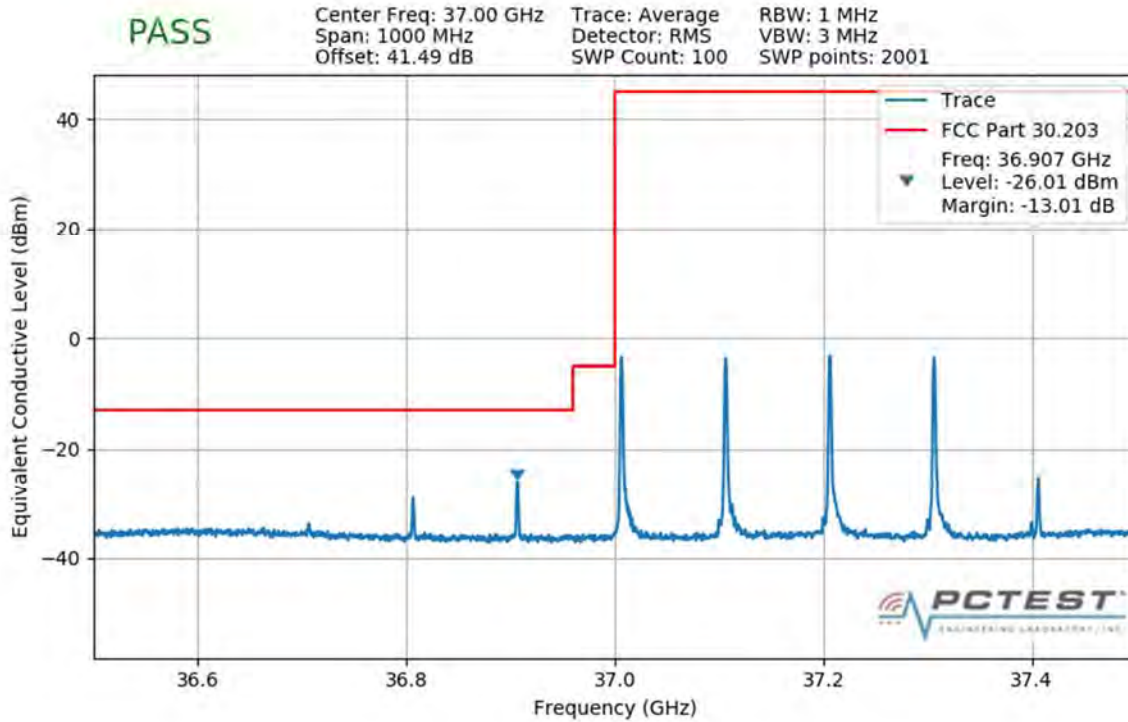


Plot 7-541. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

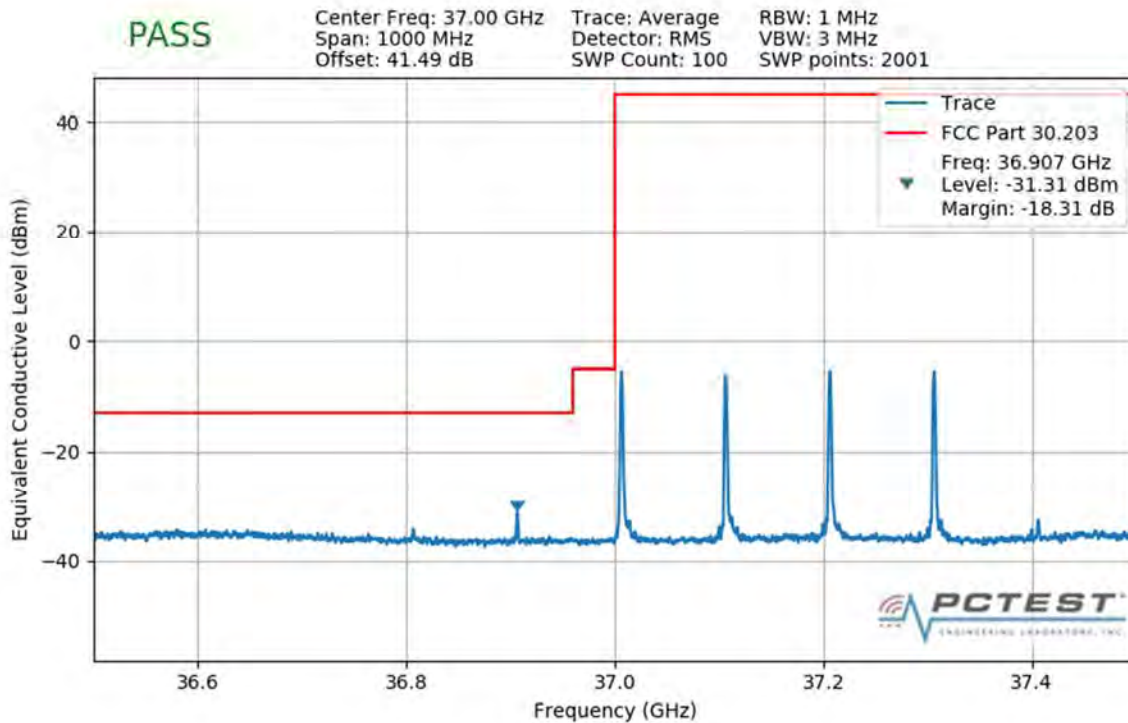


Plot 7-542. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 323 of 355

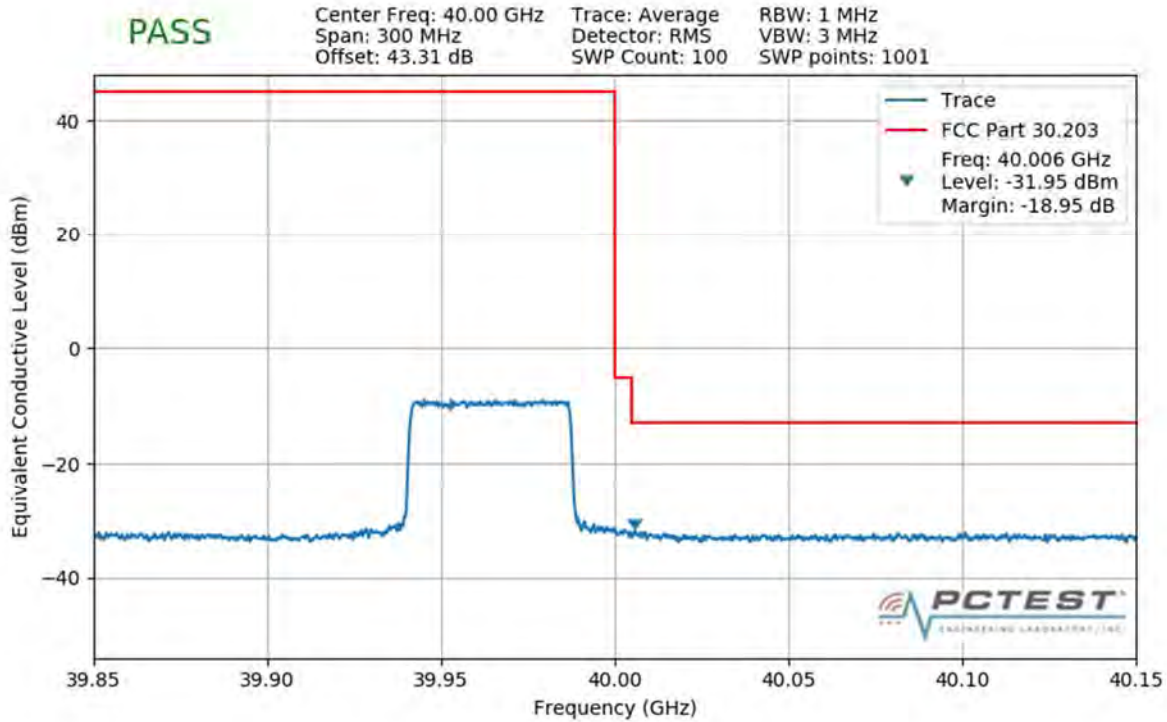


Plot 7-543. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

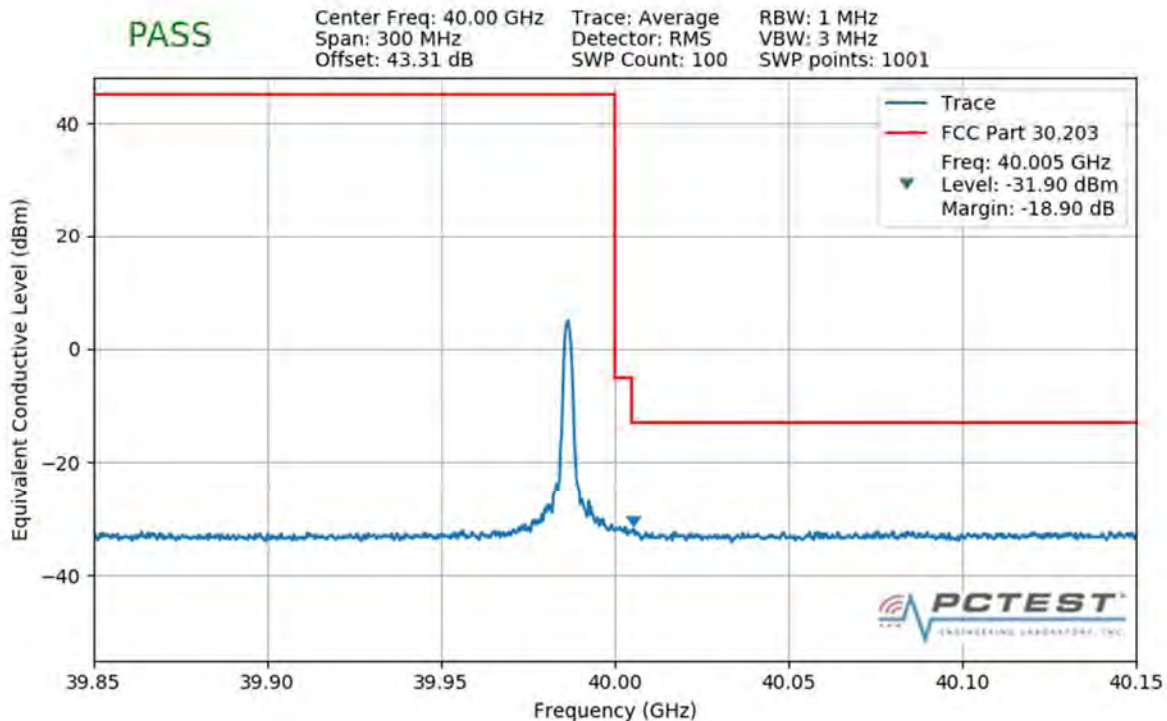


Plot 7-544. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 324 of 355

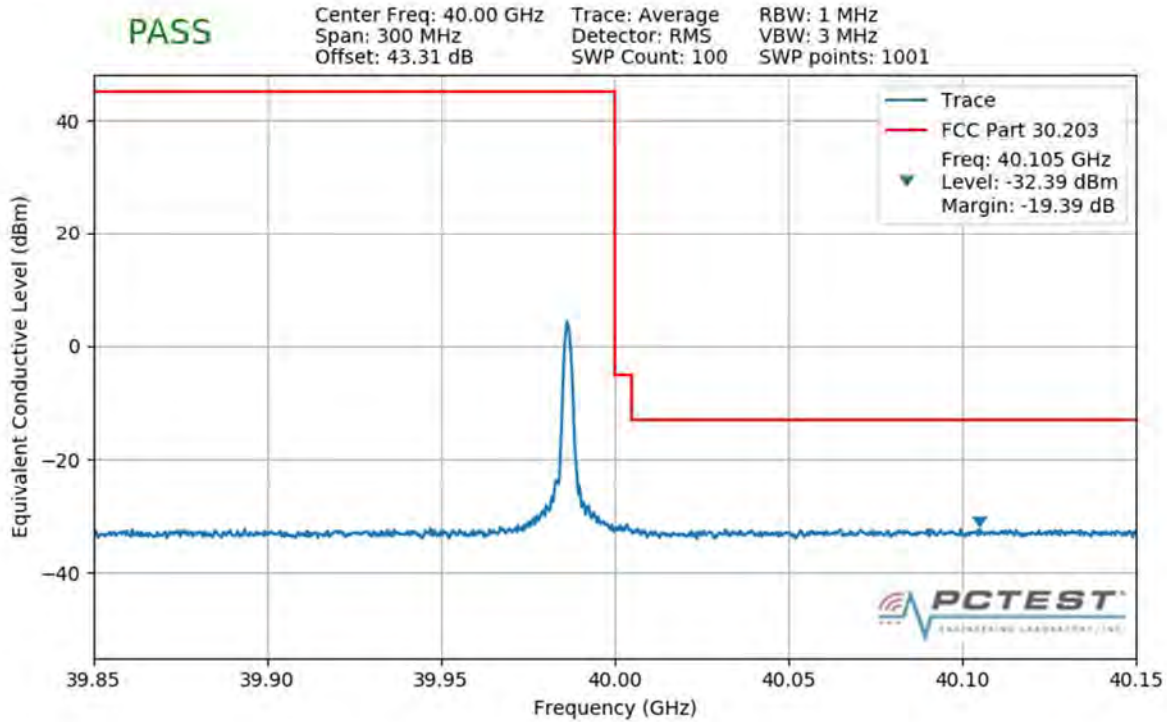


Plot 7-545. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

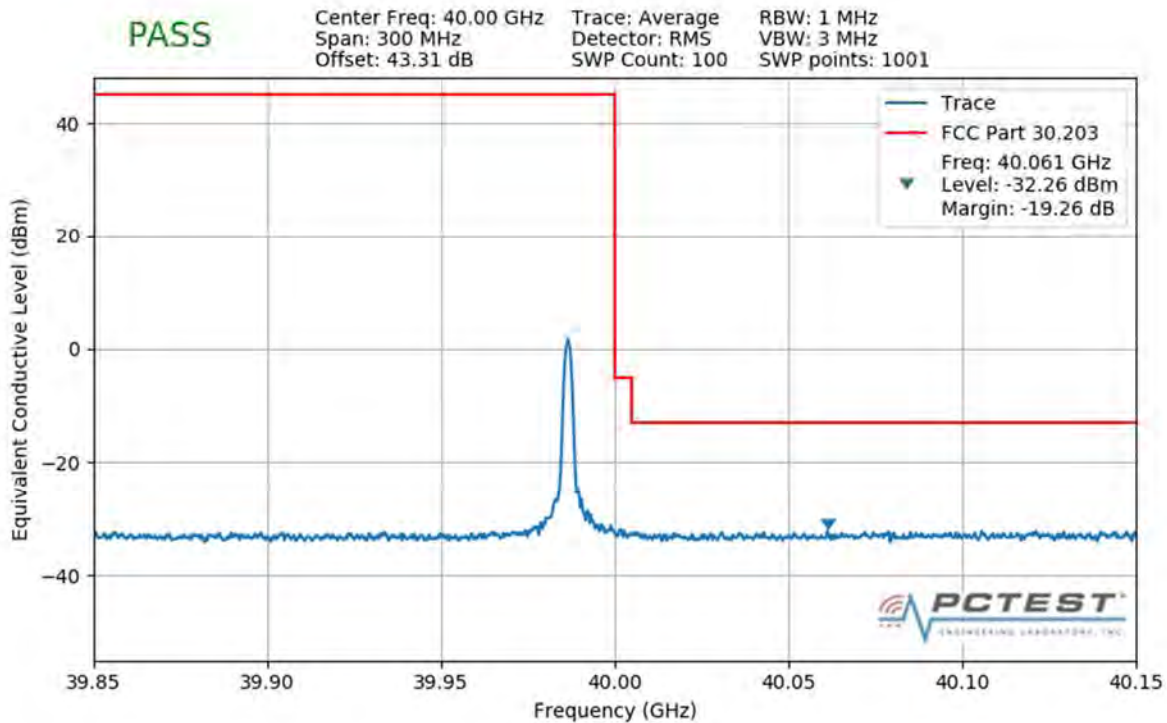


Plot 7-546. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
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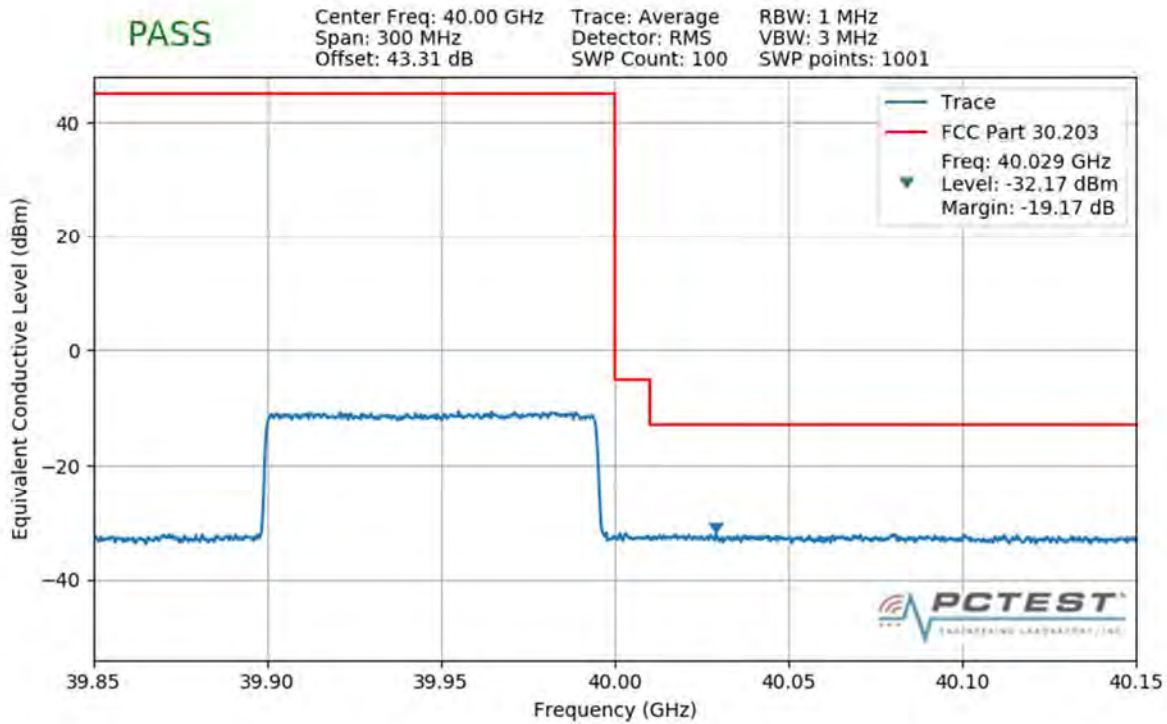


Plot 7-547. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

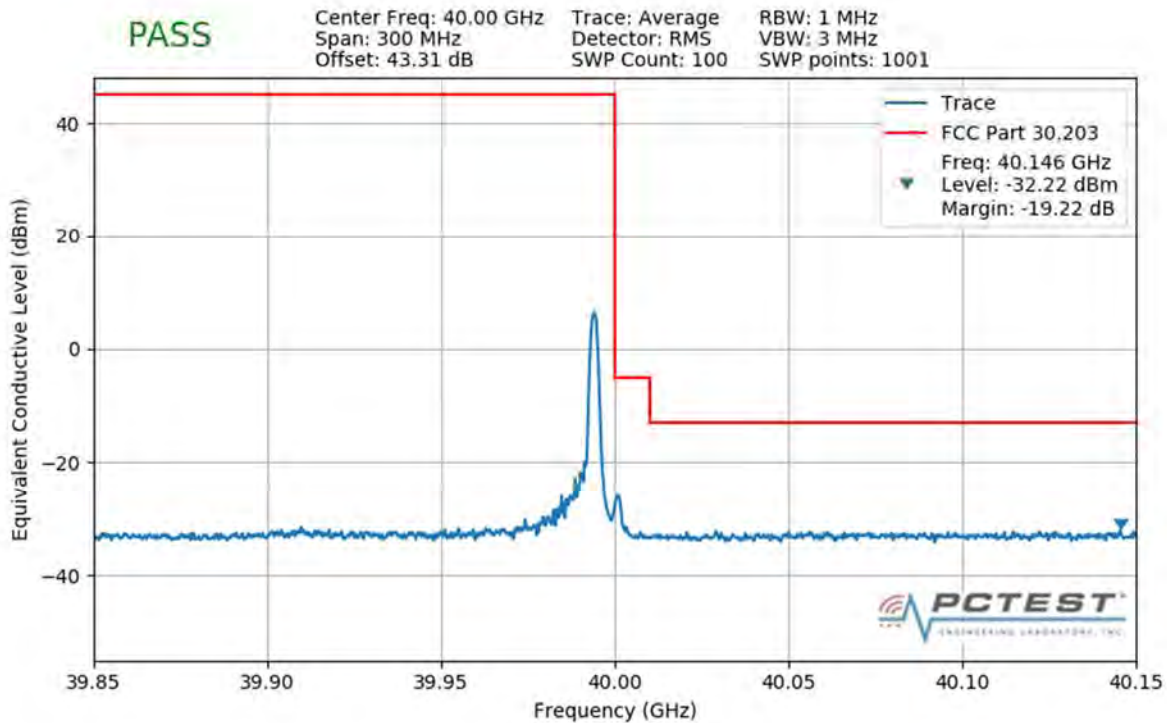


Plot 7-548. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 326 of 355

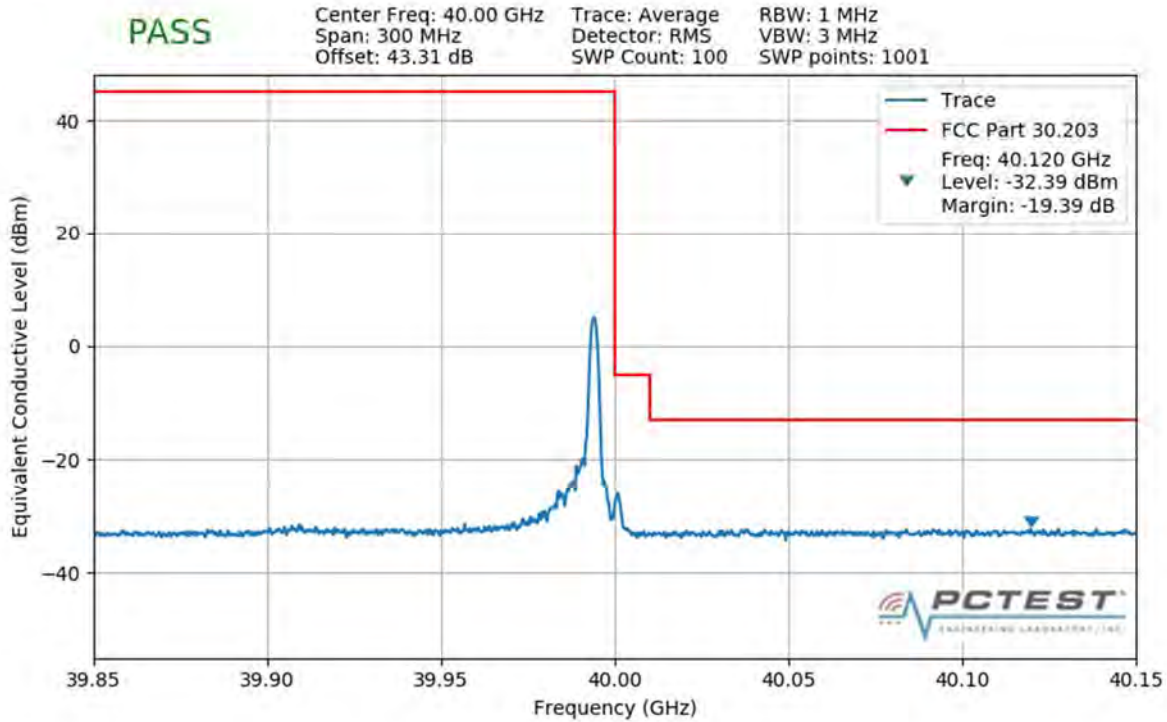


Plot 7-549. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

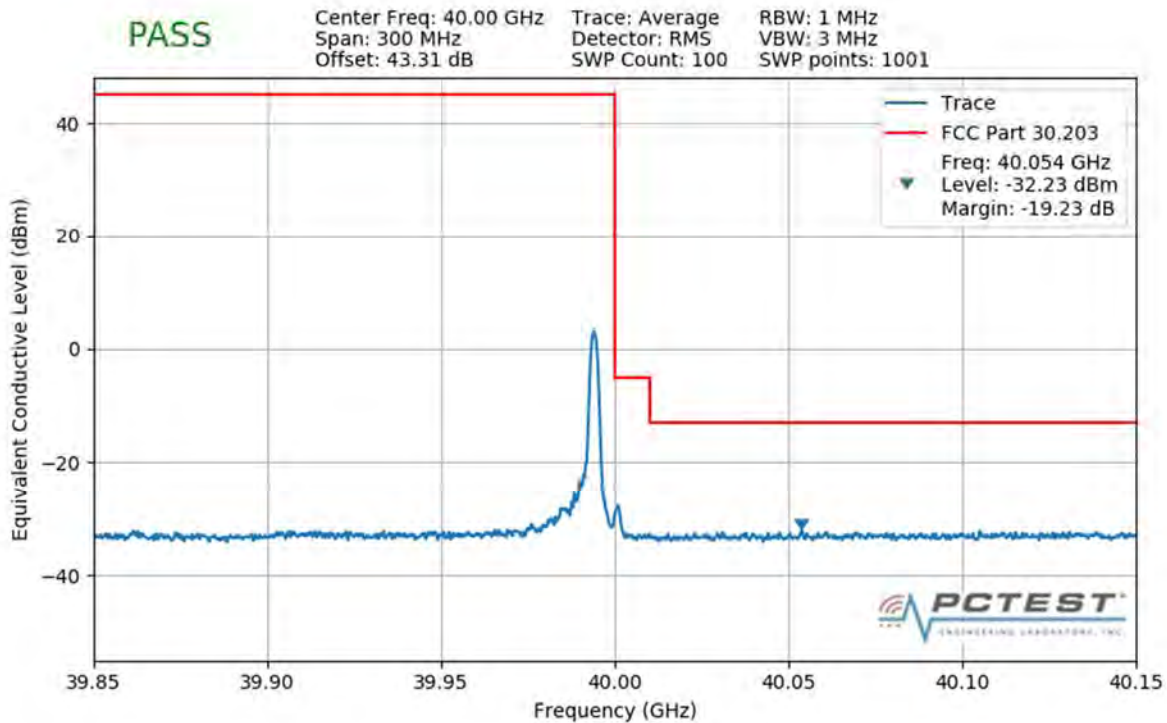


Plot 7-550. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 327 of 355

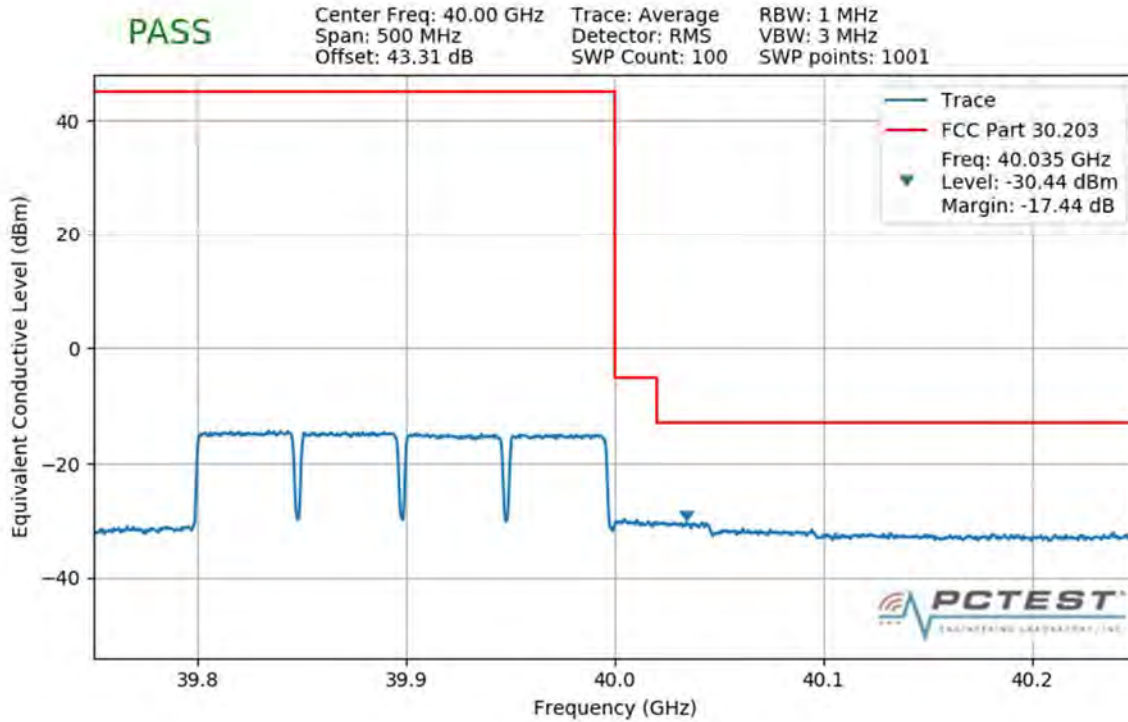


Plot 7-551. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

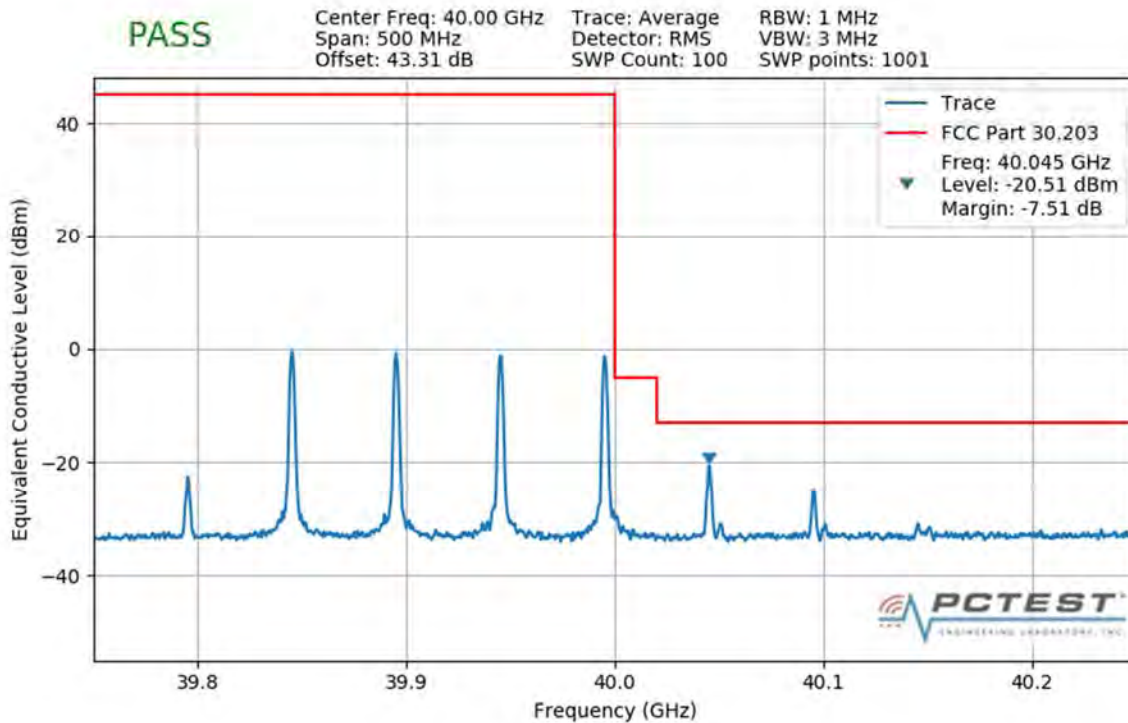


Plot 7-552. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 328 of 355

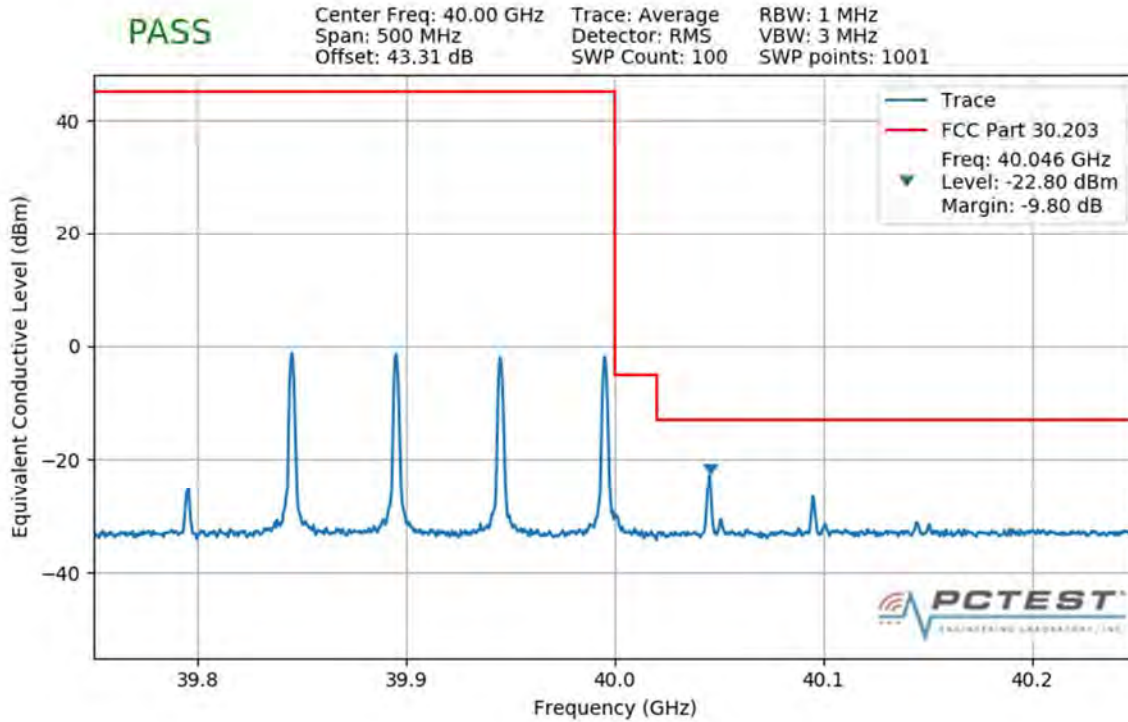


Plot 7-553. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

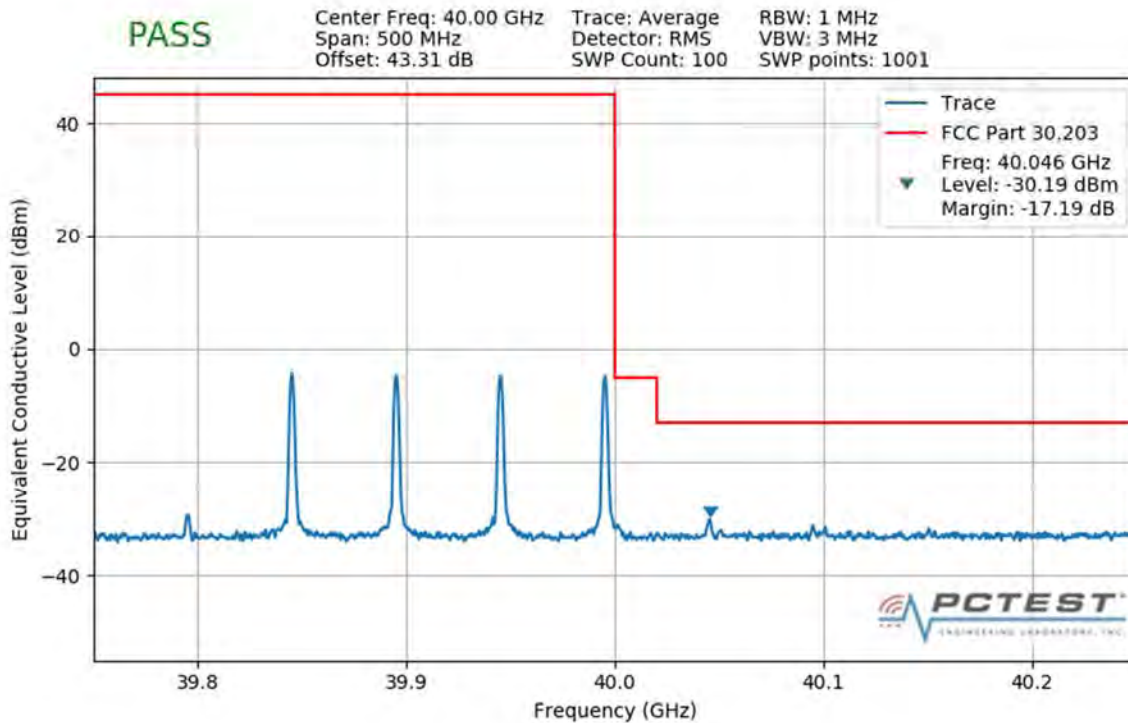


Plot 7-554. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 329 of 355

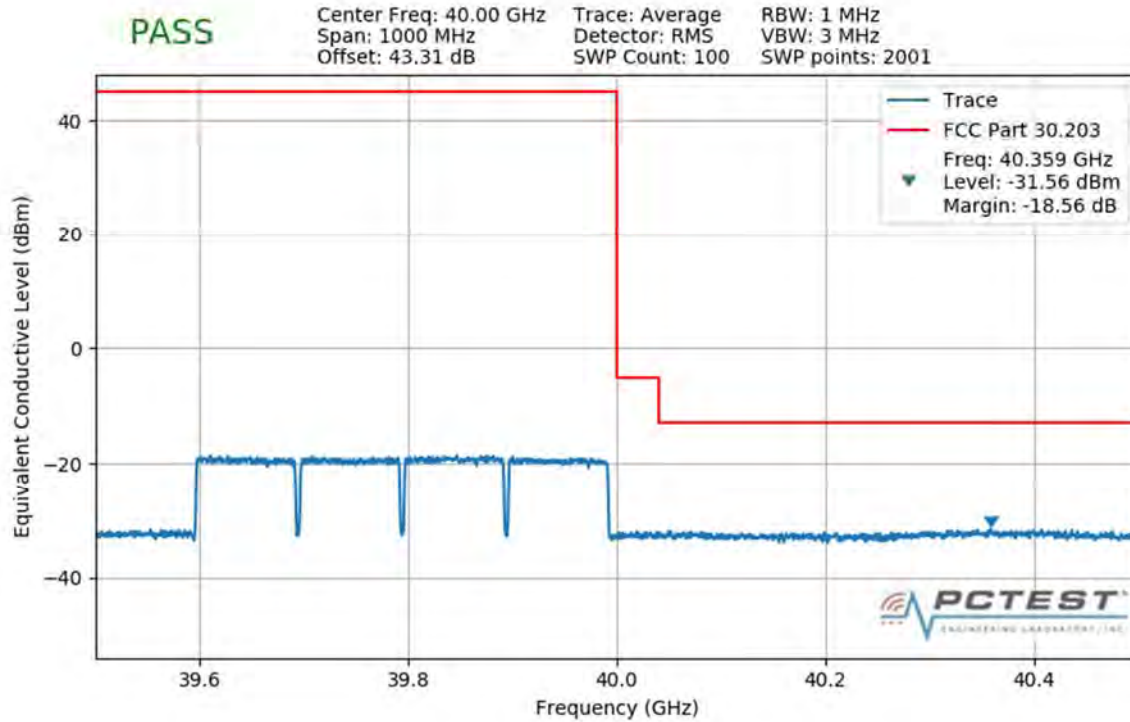


Plot 7-555. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

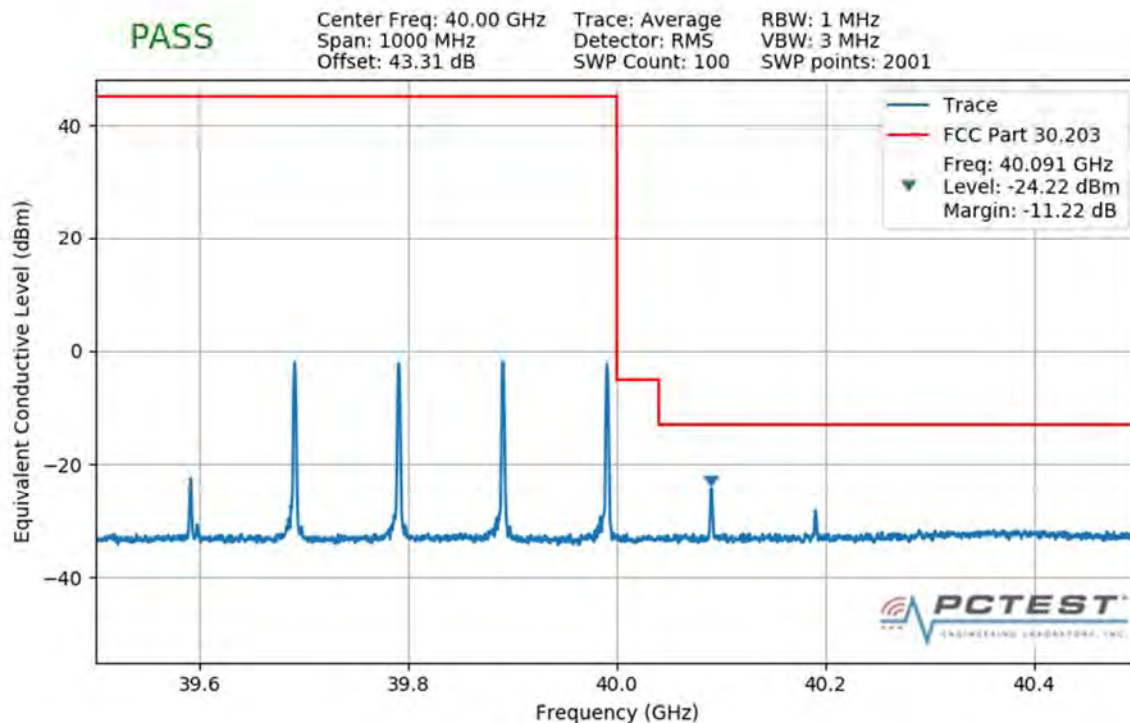


Plot 7-556. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 330 of 355

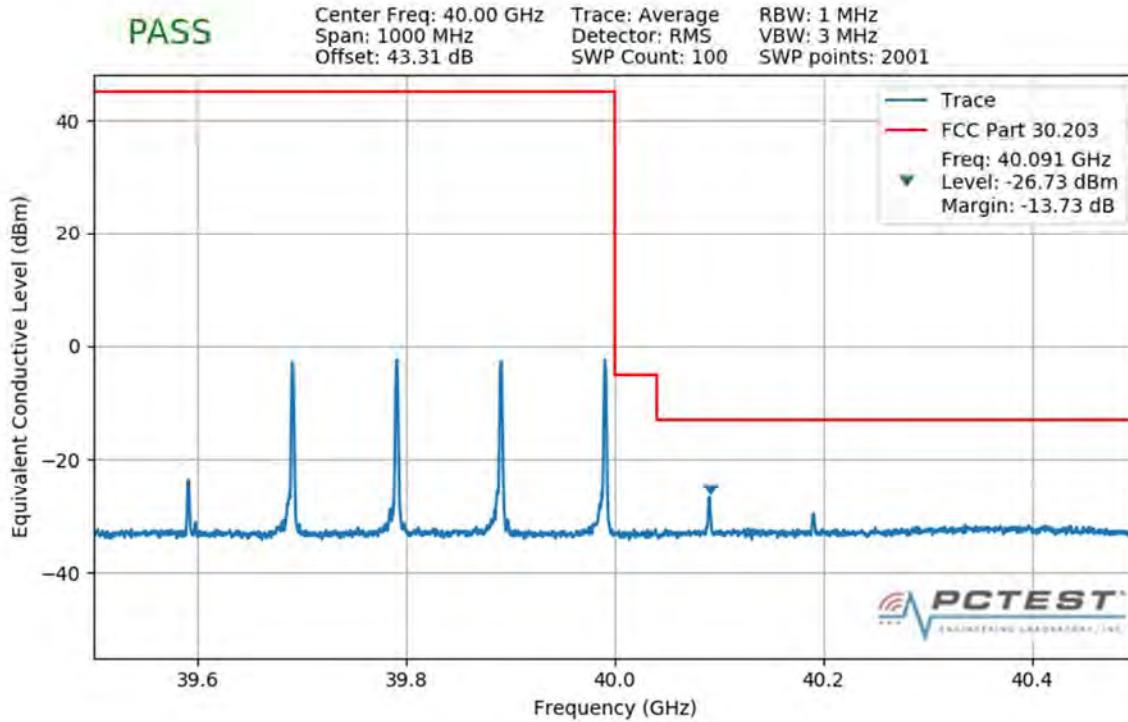


Plot 7-557. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

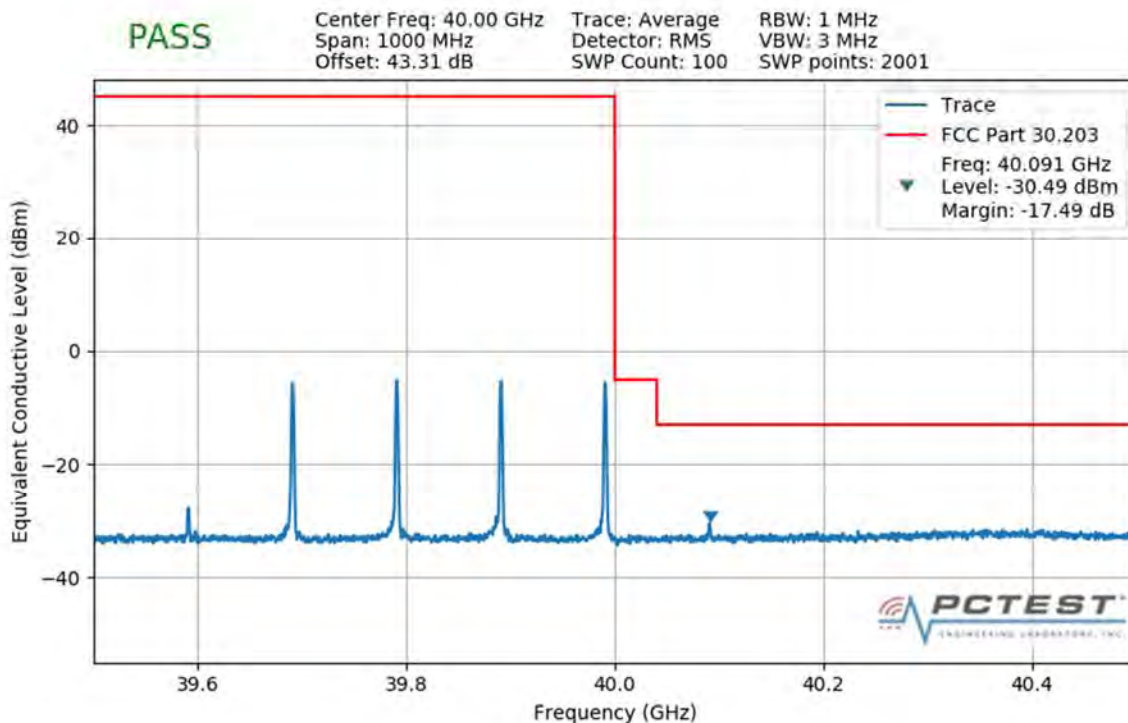


Plot 7-558. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 331 of 355

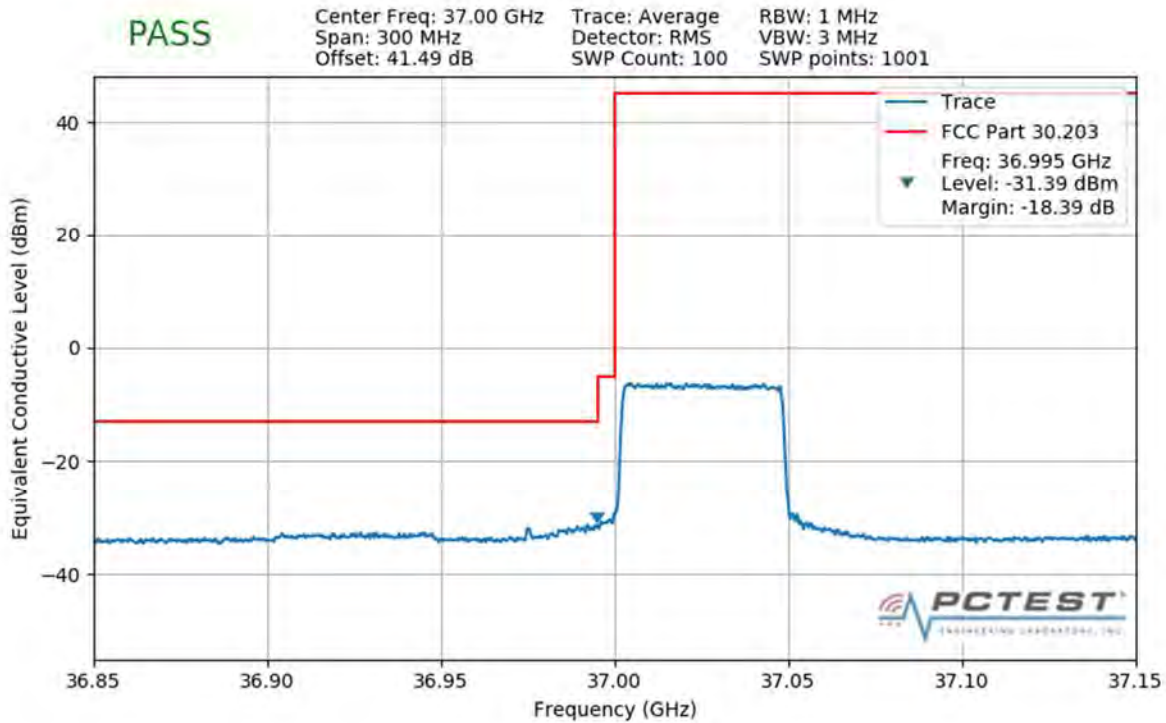


Plot 7-559. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)

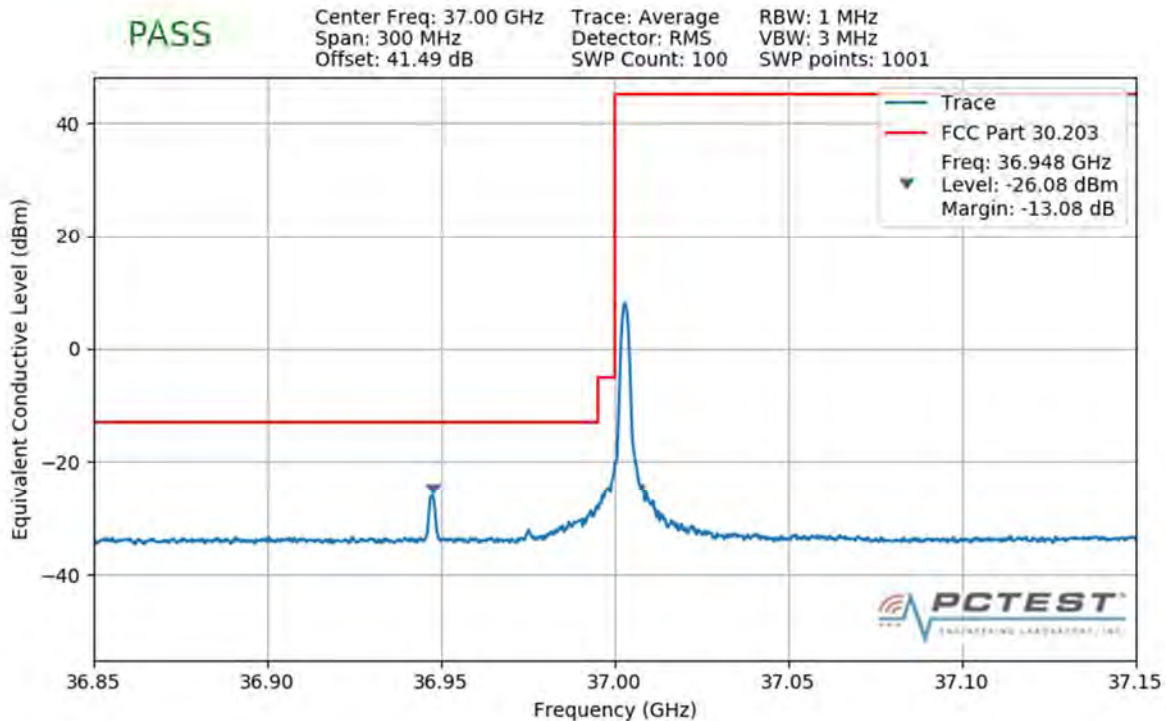


Plot 7-560. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMG977U	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 332 of 355



Plot 7-561. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)



Plot 7-562. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMG977U	 MEASUREMENT REPORT (CLASS III PERMISSIVE CHANGE)			Approved by: Quality Manager
Test Report S/N: 1M1904050053-02.A3L	Test Dates: 03/19/2018 - 04/09/2019	EUT Type: Portable Handset		Page 333 of 355