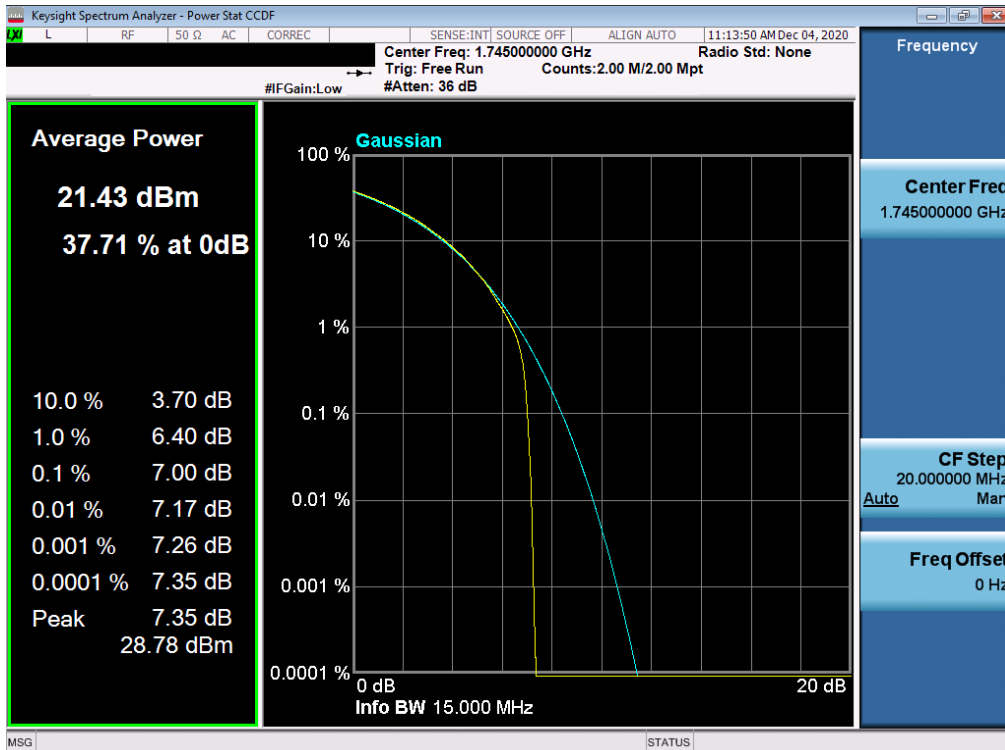
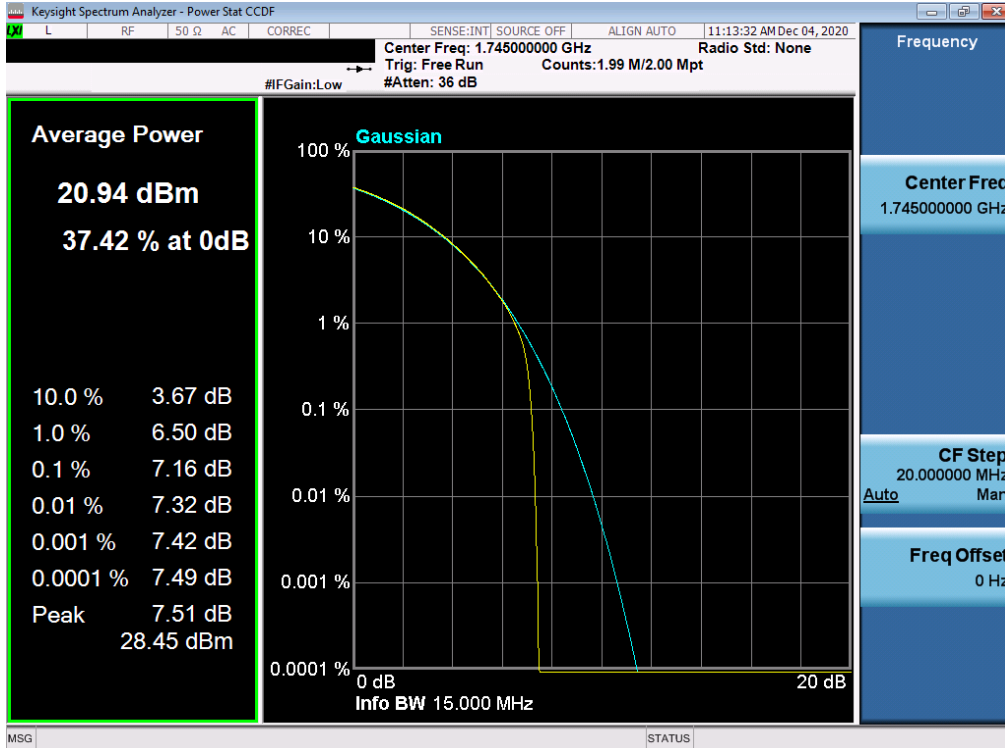


Plot 7-402. PAR Plot (NR Band n66 – Antenna I - 15.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

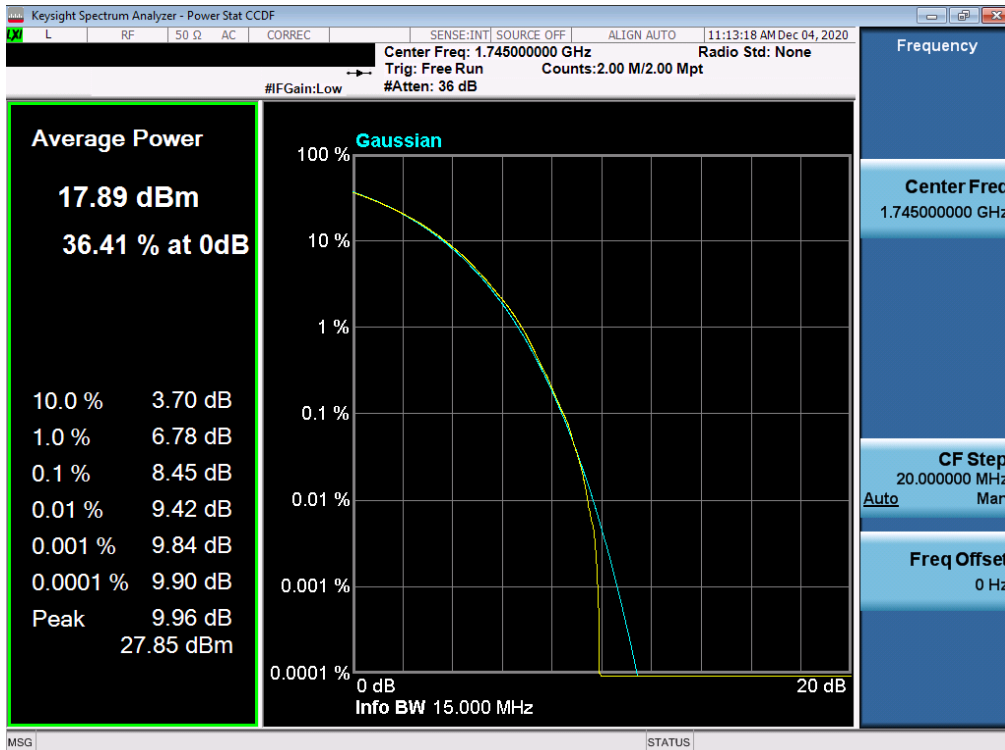


Plot 7-403. PAR Plot (NR Band n66 – Antenna I - 15.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 229 of 332

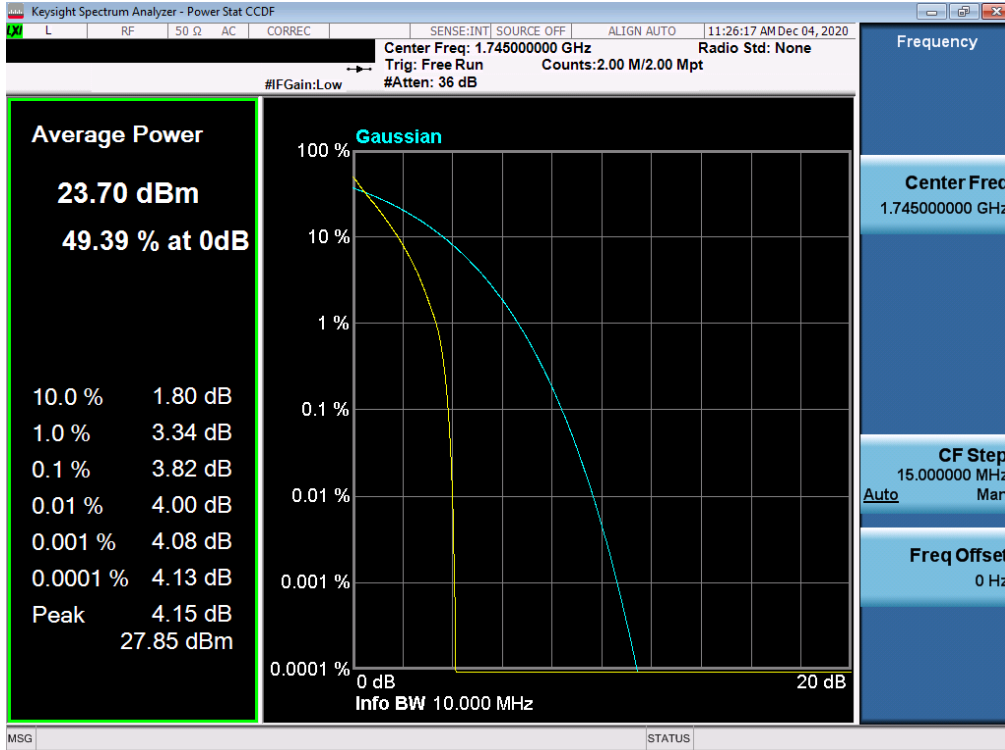


Plot 7-404. PAR Plot (NR Band n66 – Antenna I - 15.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

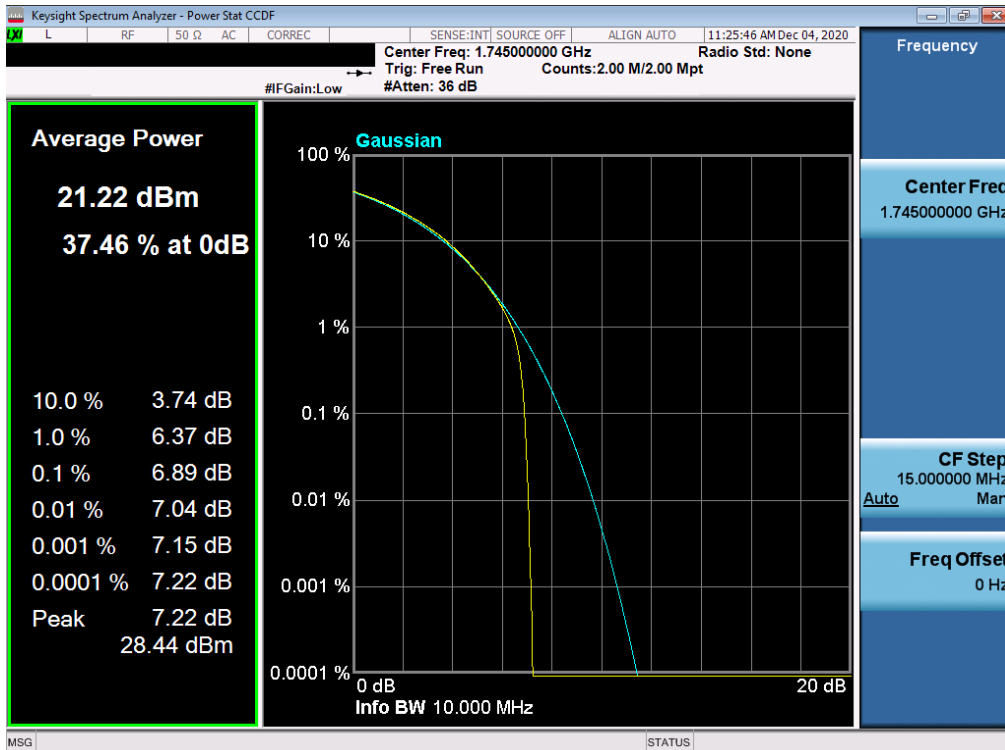


Plot 7-405. PAR Plot (NR Band n66 – Antenna I - 15.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 230 of 332

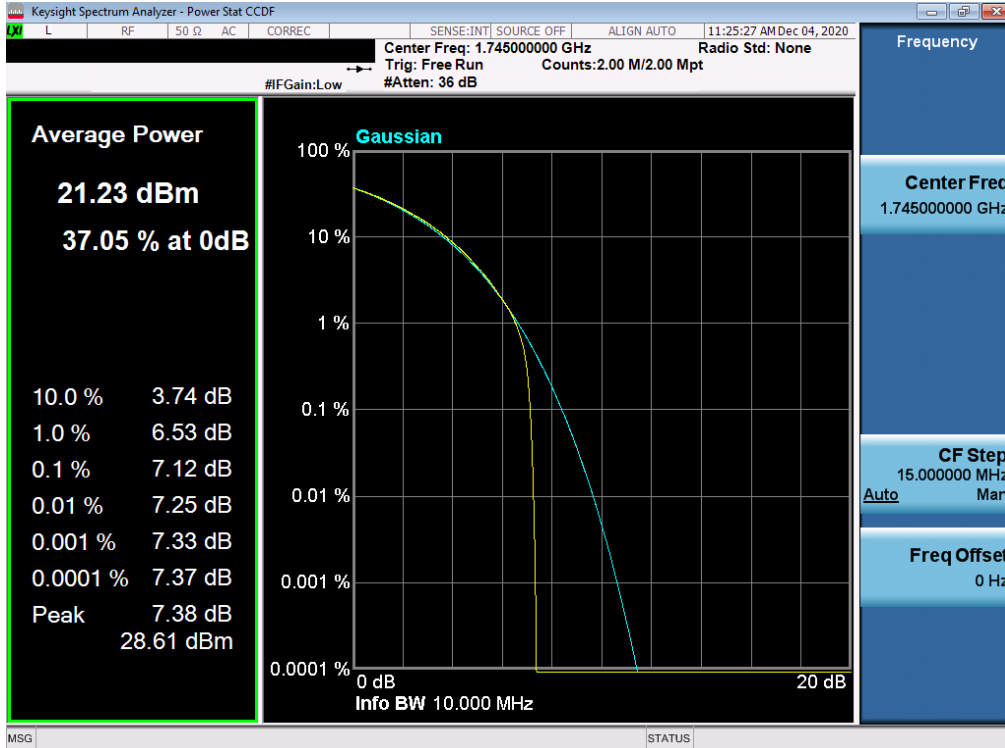


Plot 7-406. PAR Plot (NR Band n66 – Antenna I - 10.0MHz DFT-s-OFDM BPSK - Full RB)

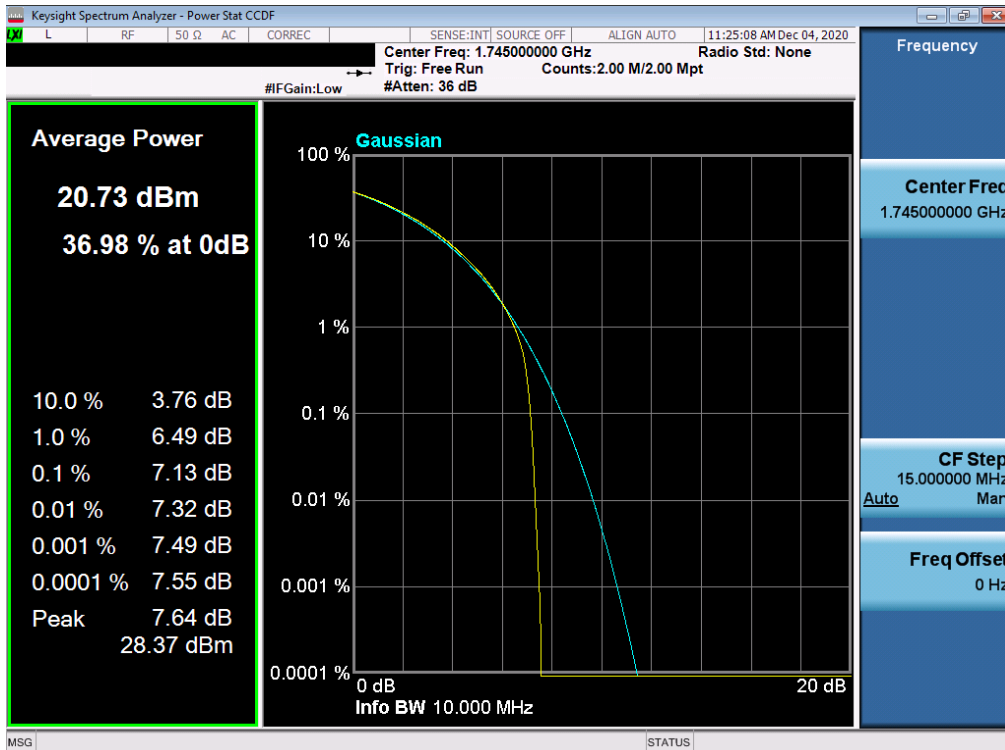


Plot 7-407. PAR Plot (NR Band n66 – Antenna I - 10.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 231 of 332

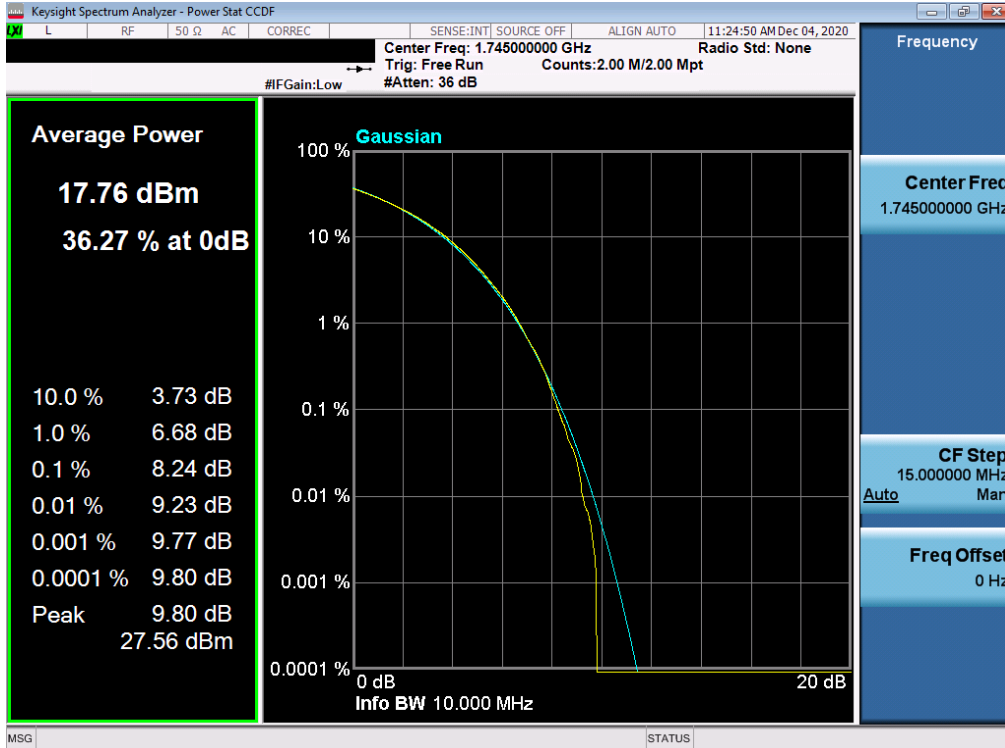


Plot 7-408. PAR Plot (NR Band n66 – Antenna I - 10.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

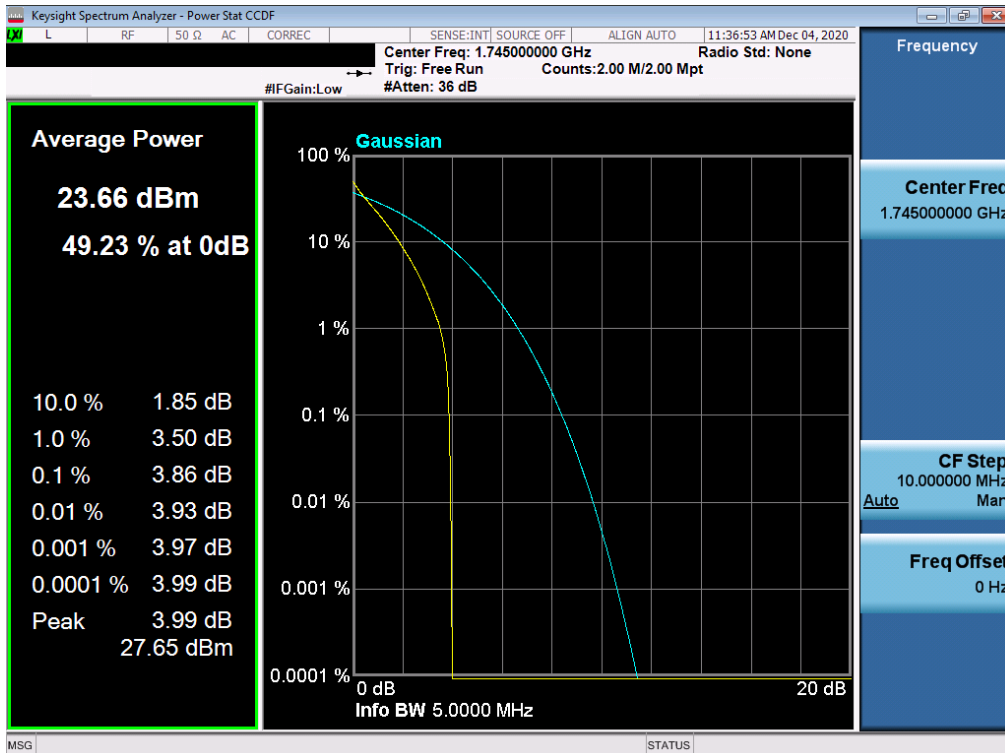


Plot 7-409. PAR Plot (NR Band n66 – Antenna I - 10.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 232 of 332

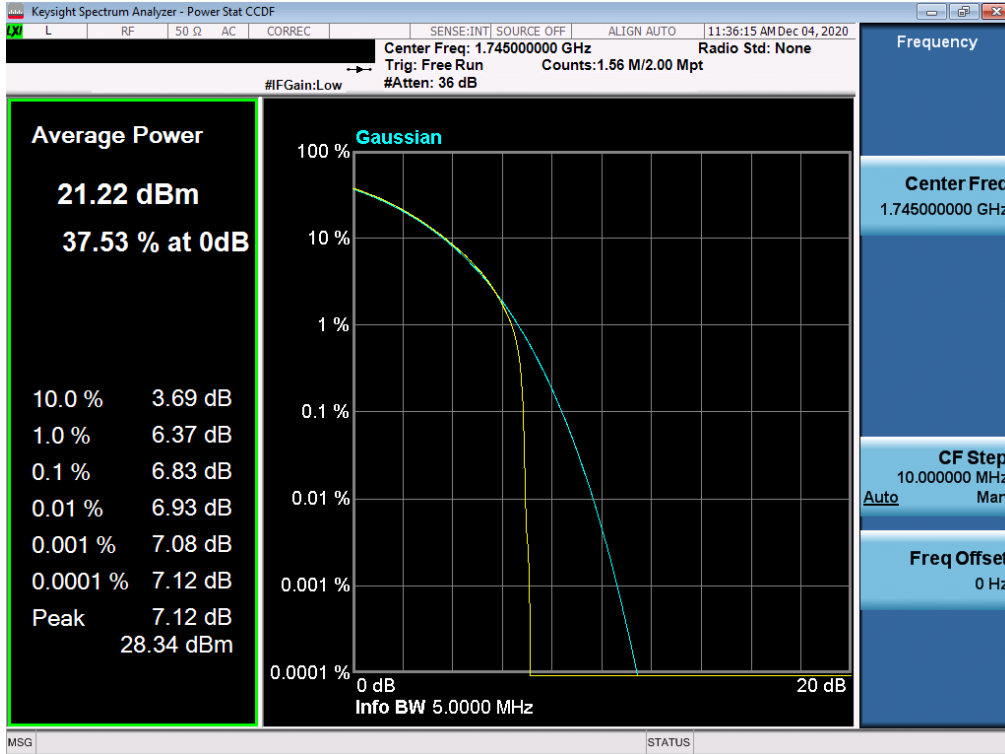


Plot 7-410. PAR Plot (NR Band n66 – Antenna I - 10.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

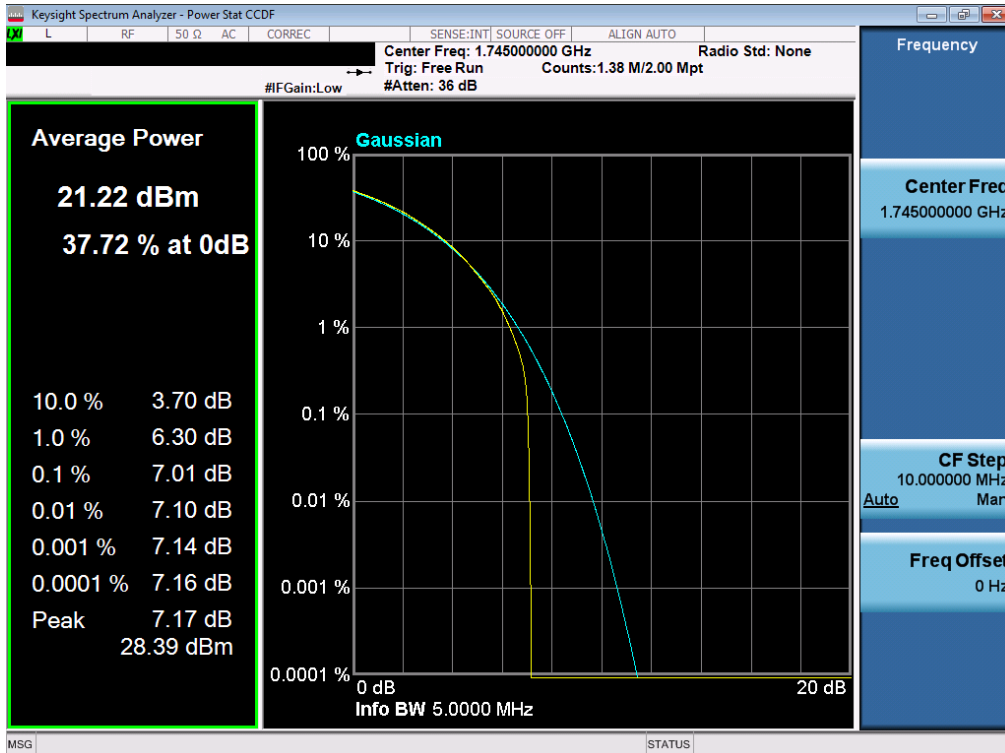


Plot 7-411. PAR Plot (NR Band n66 – Antenna I - 5.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 233 of 332

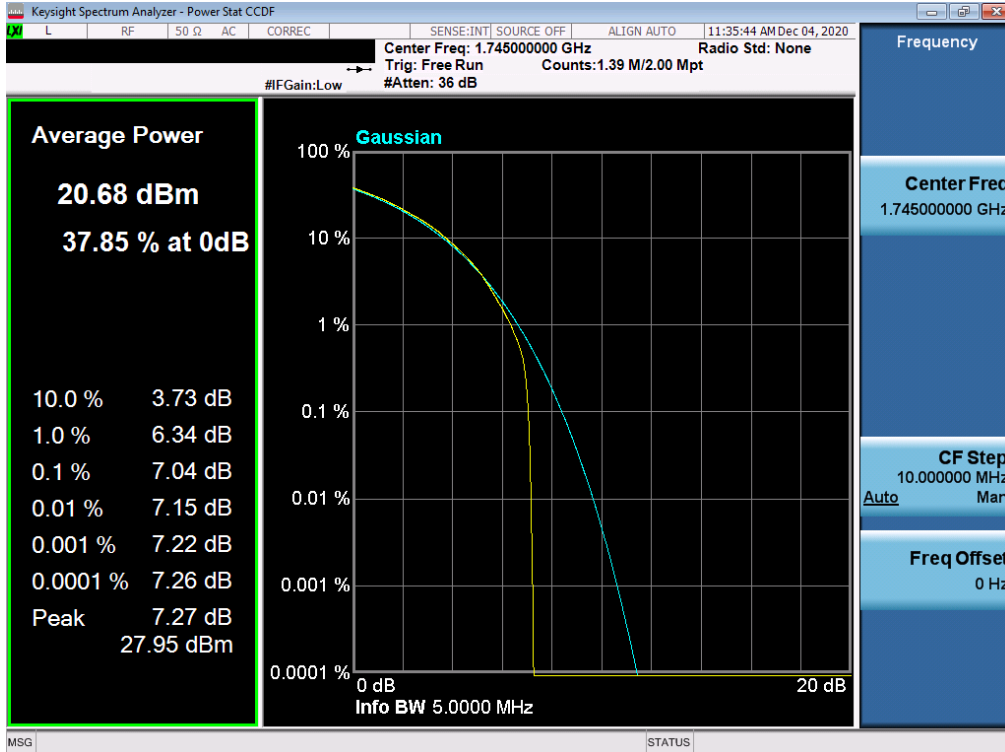


Plot 7-412. PAR Plot (NR Band n66 – Antenna I - 5.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

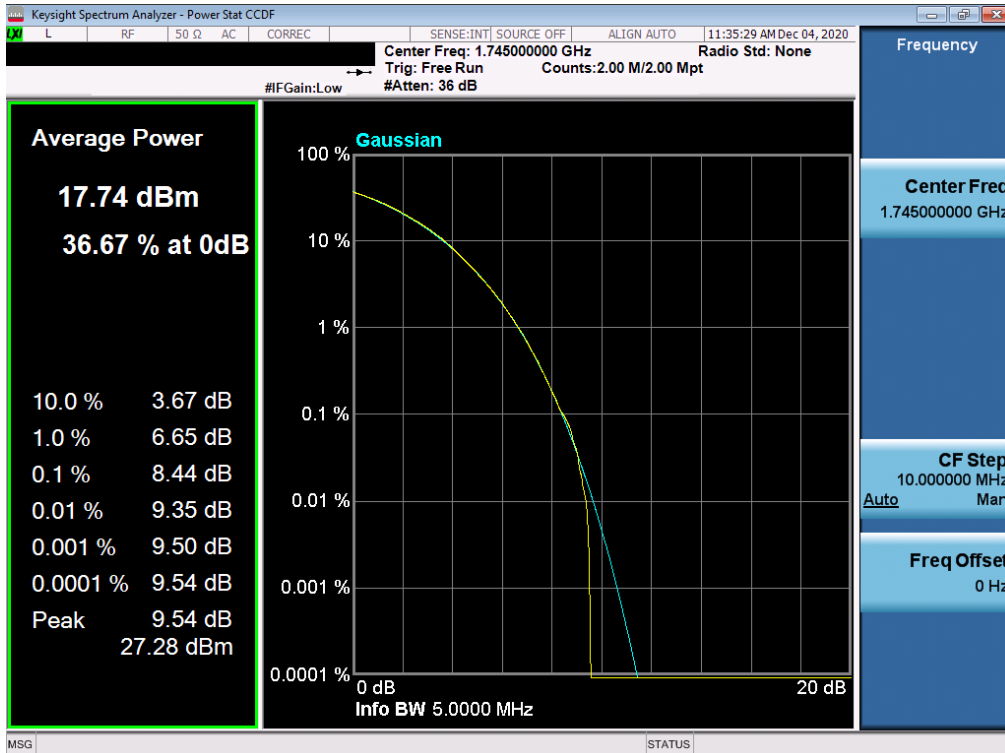


Plot 7-413. PAR Plot (NR Band n66 – Antenna I - 5.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 234 of 332



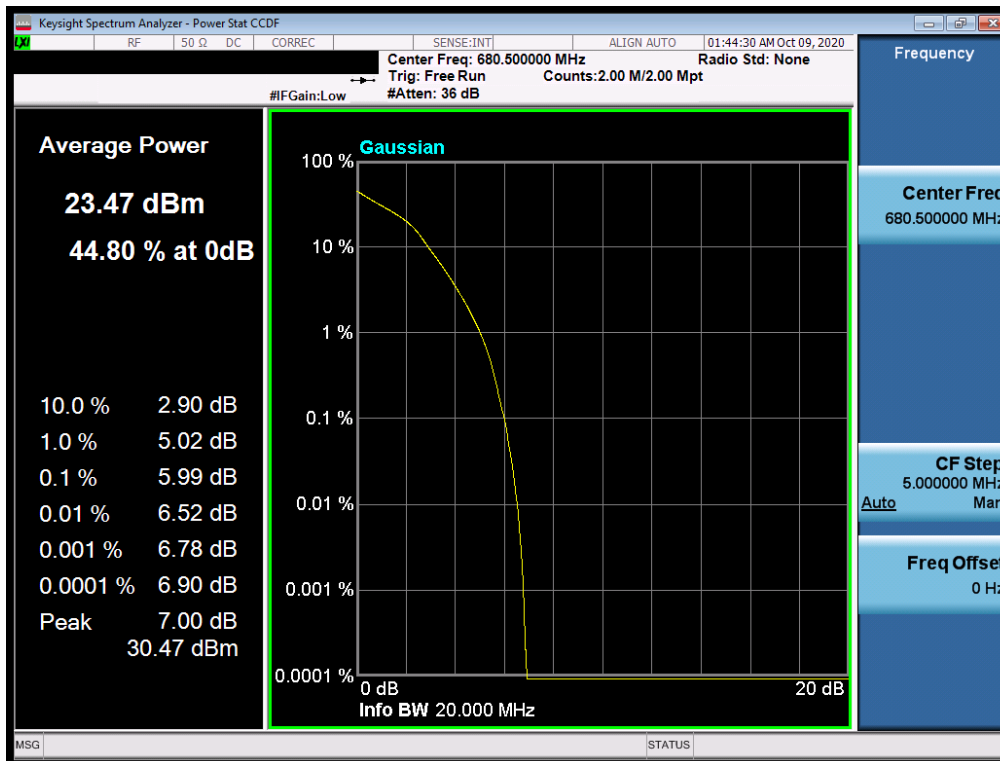
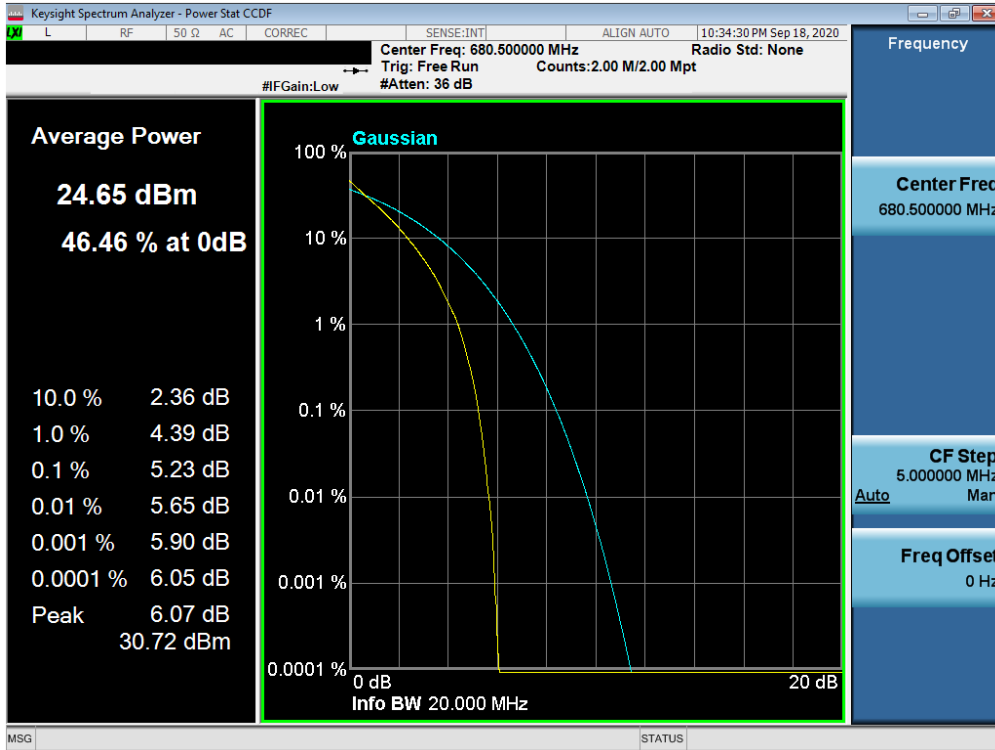
Plot 7-414. PAR Plot (NR Band n66 – Antenna I - 5.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)



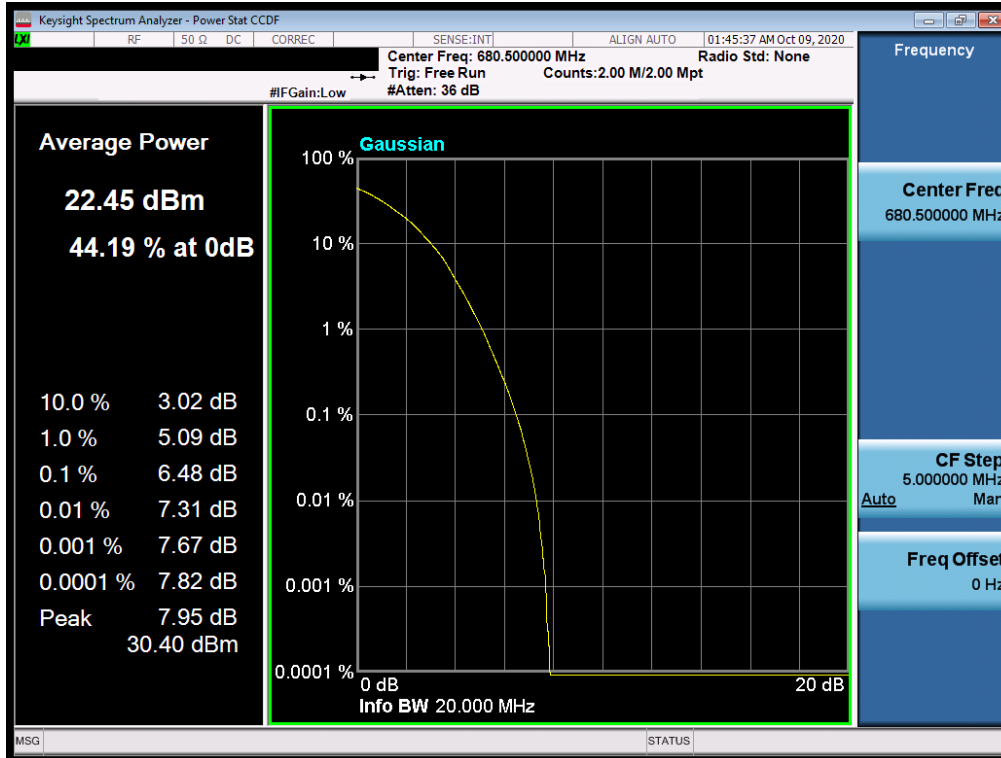
Plot 7-415. PAR Plot (NR Band n66 – Antenna I - 5.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 235 of 332

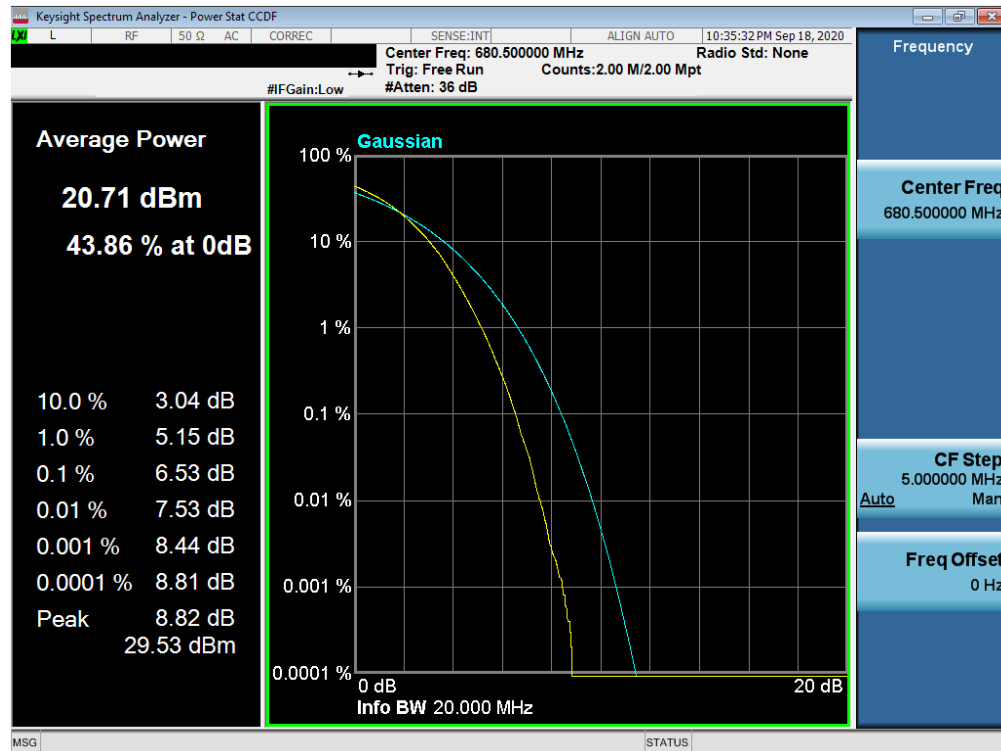
LTE Band 71



FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 236 of 332

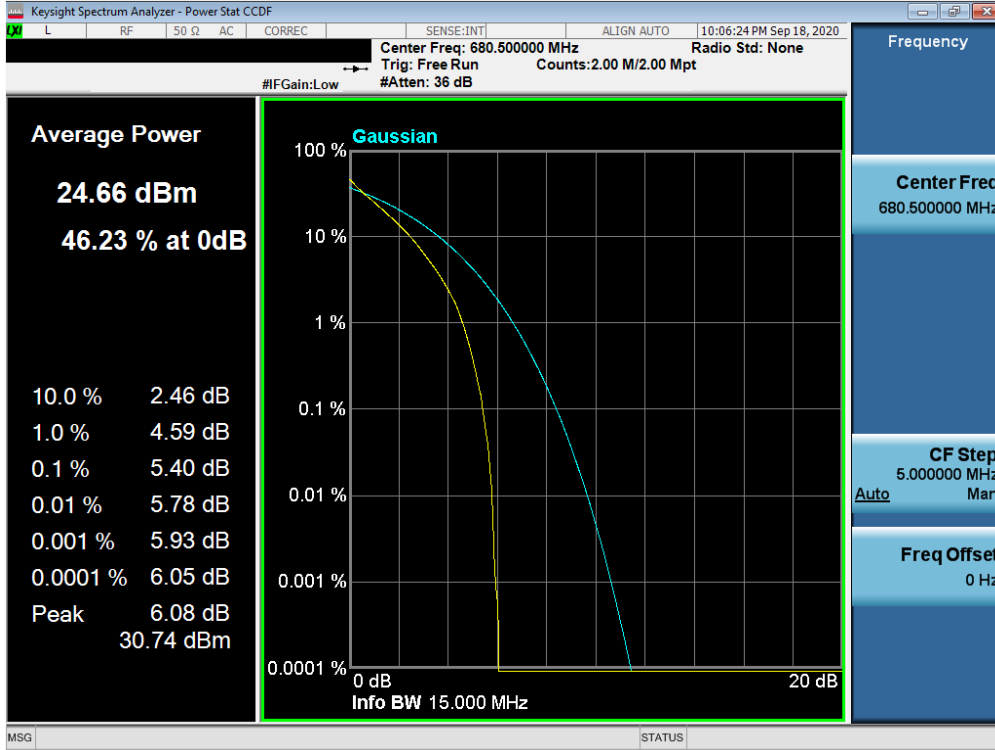


Plot 7-418. PAR Plot (LTE Band 71 - 20MHz 64-QAM - Full RB Configuration)

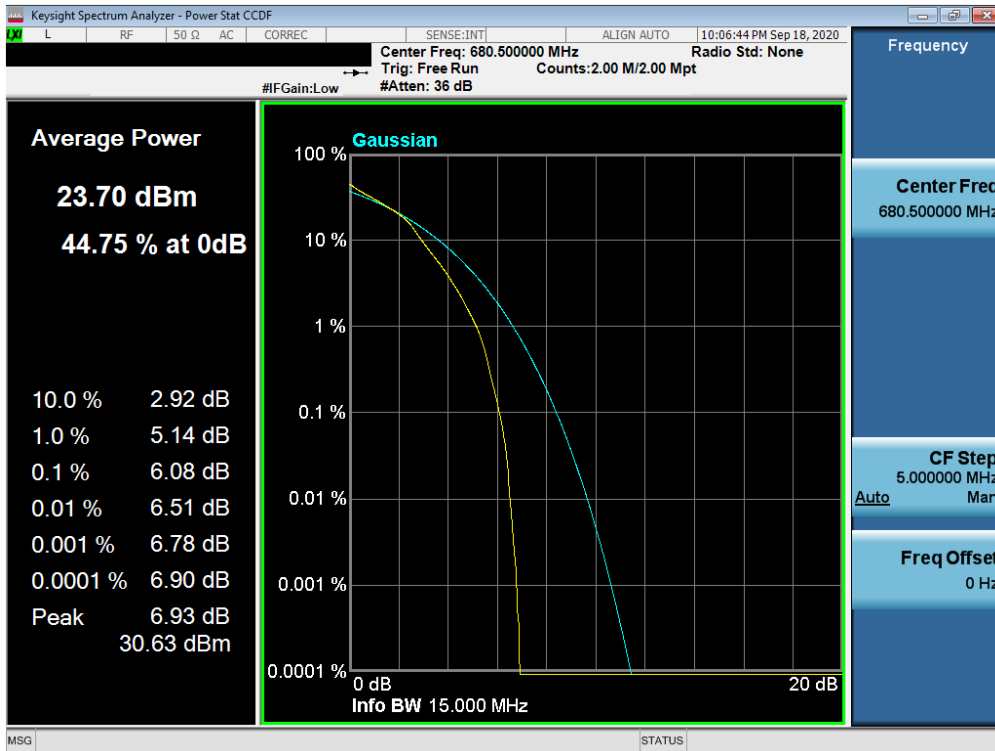


Plot 7-419. PAR Plot (LTE Band 71 - 20MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 237 of 332

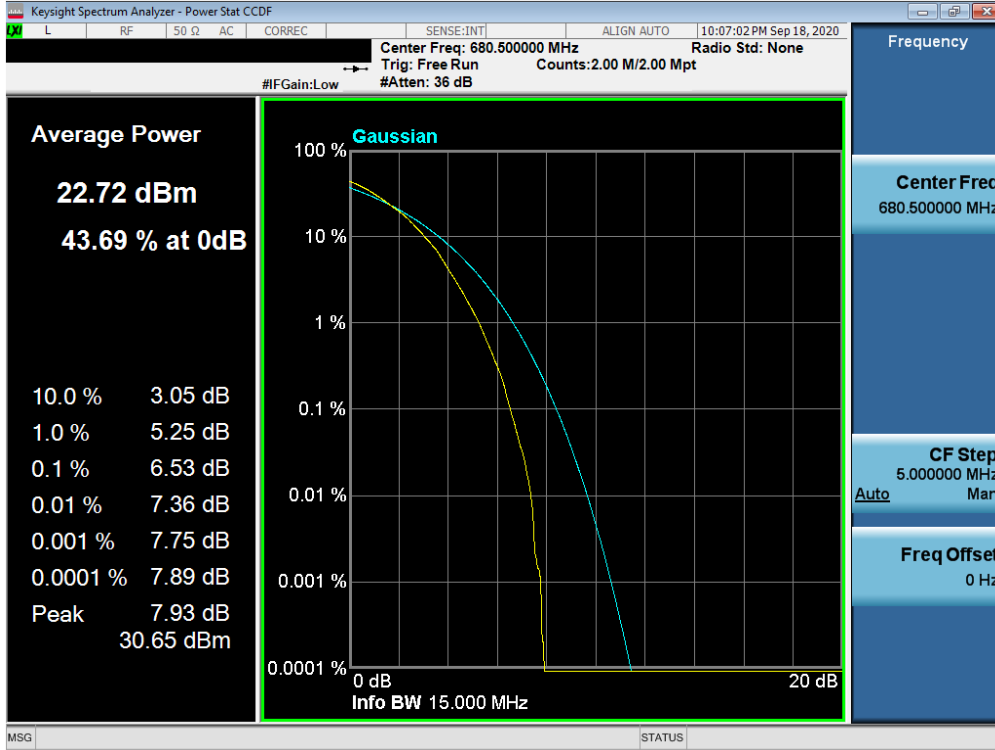


Plot 7-420. PAR Plot (LTE Band 71 - 15MHz QPSK - Full RB Configuration)

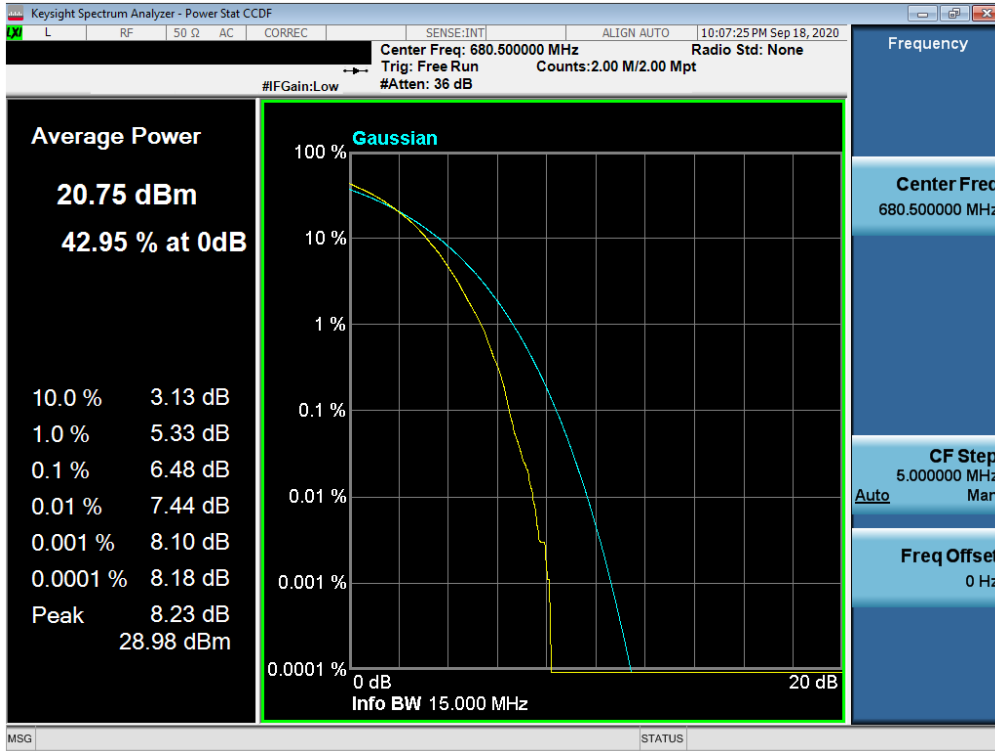


Plot 7-421. PAR Plot (LTE Band 71 - 15MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 238 of 332

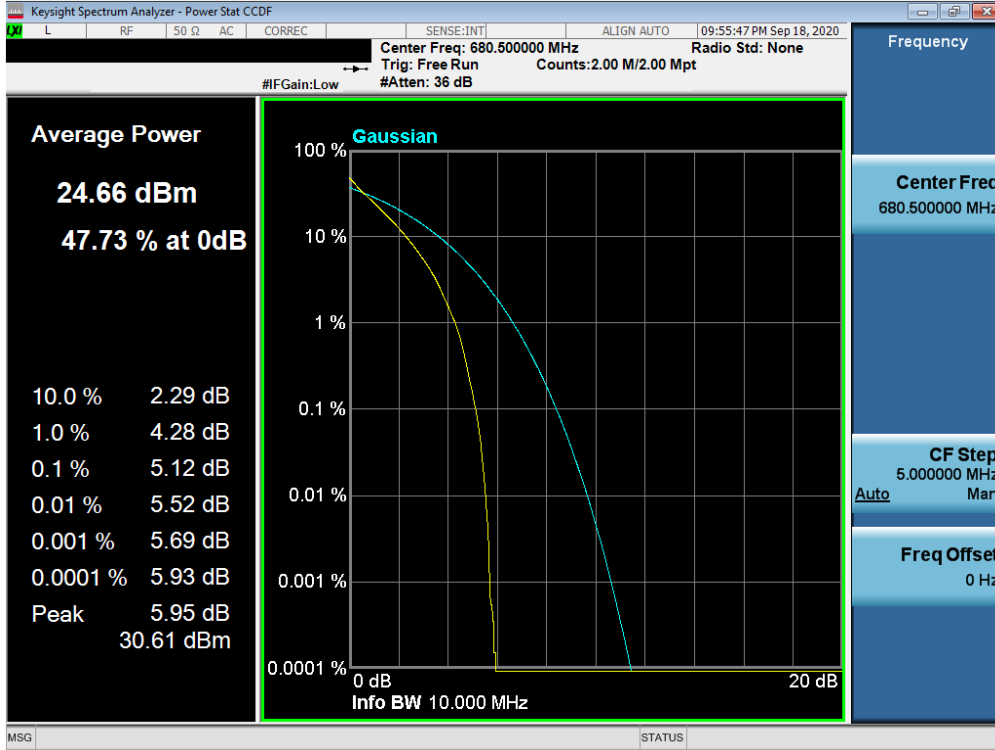


Plot 7-422. PAR Plot (LTE Band 71 - 15MHz 64-QAM - Full RB Configuration)

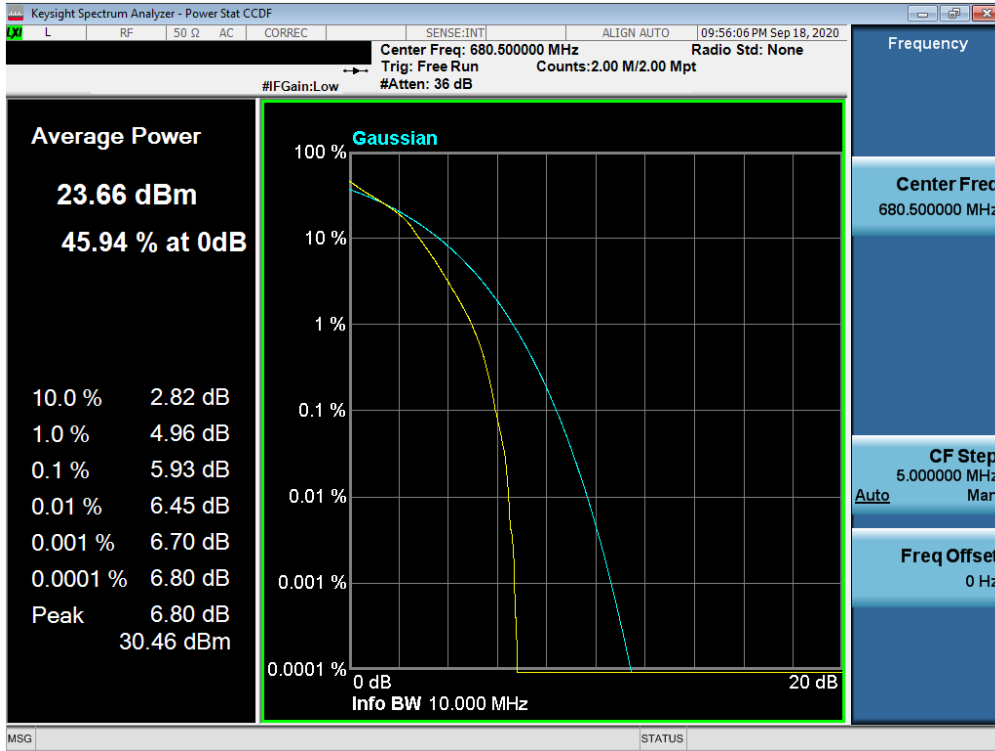


Plot 7-423. PAR Plot (LTE Band 71 - 15MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 239 of 332

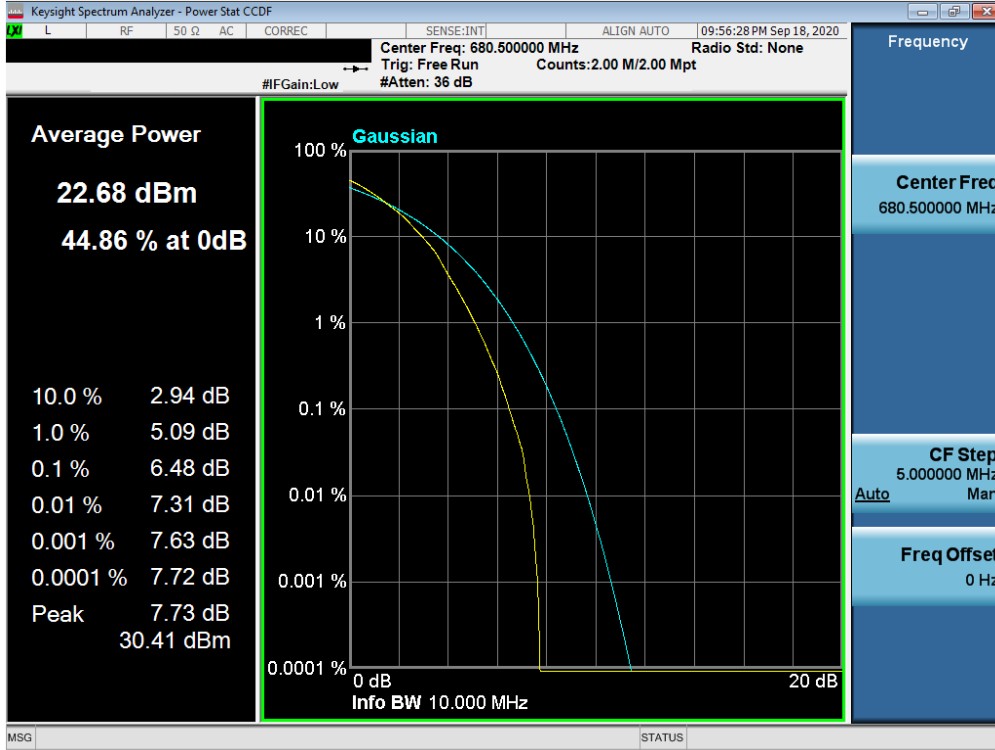


Plot 7-424. PAR Plot (LTE Band 71 - 10MHz QPSK - Full RB Configuration)

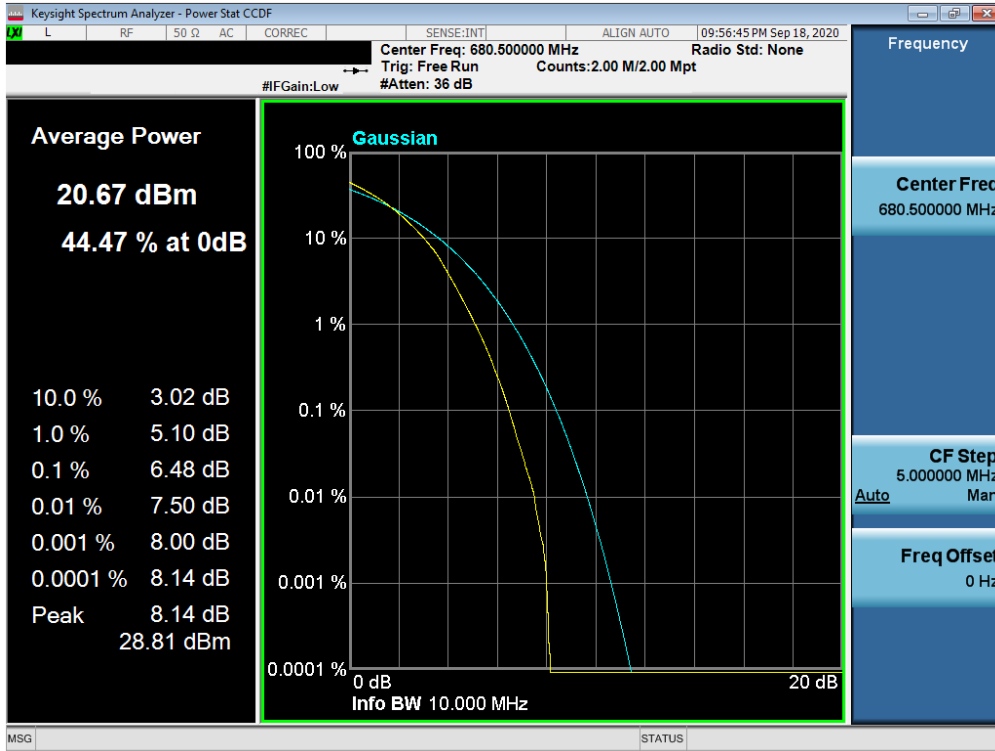


Plot 7-425. PAR Plot (LTE Band 71 - 10MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 240 of 332

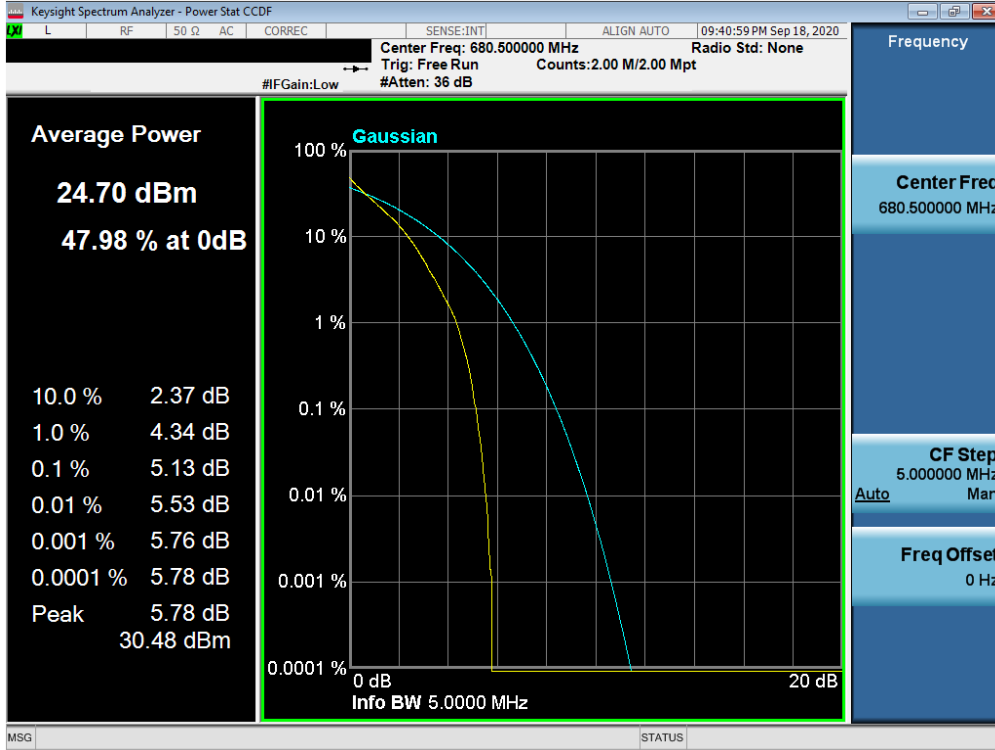


Plot 7-426. PAR Plot (LTE Band 71 - 10MHz 64-QAM - Full RB Configuration)

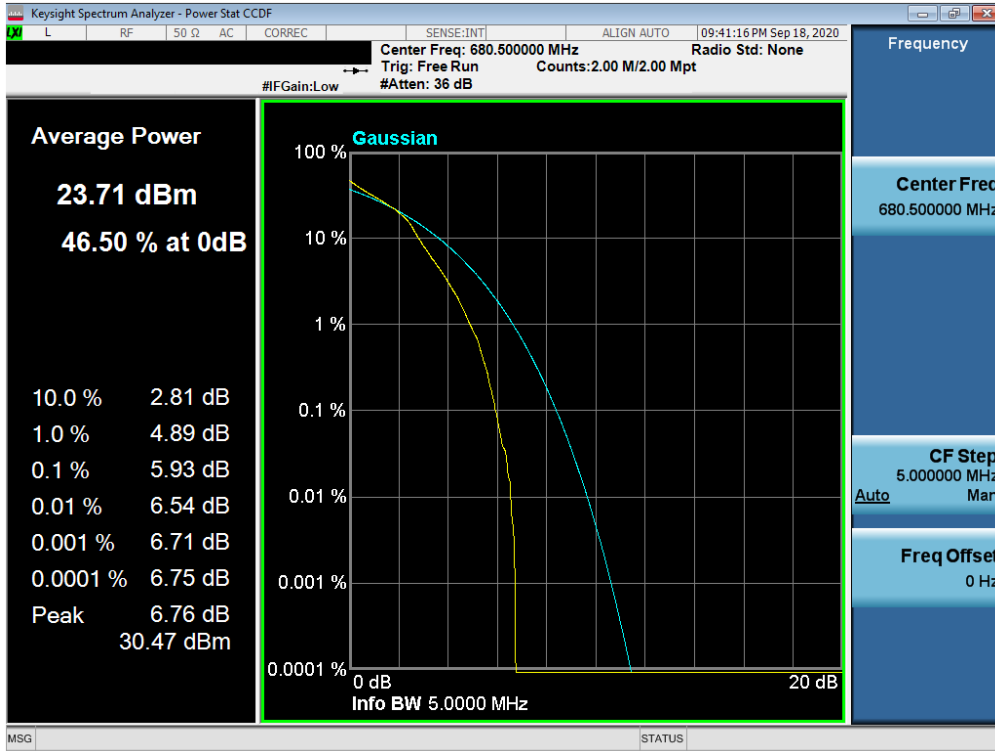


Plot 7-427. PAR Plot (LTE Band 71 - 10MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 241 of 332

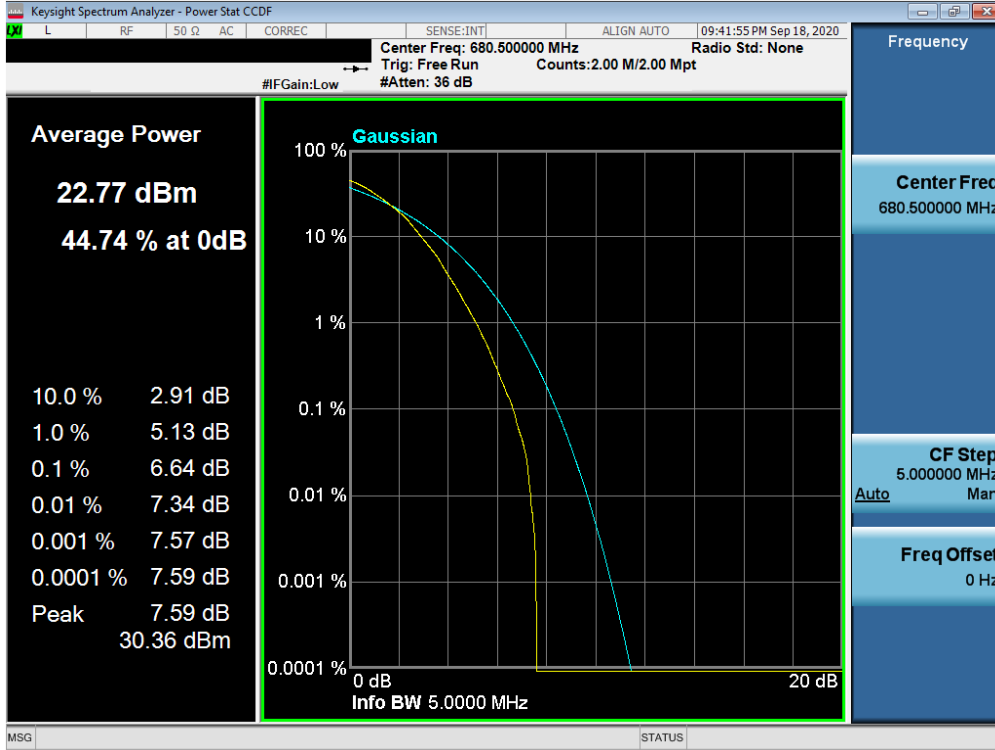


Plot 7-428. PAR Plot (LTE Band 71 - 5MHz QPSK - Full RB Configuration)

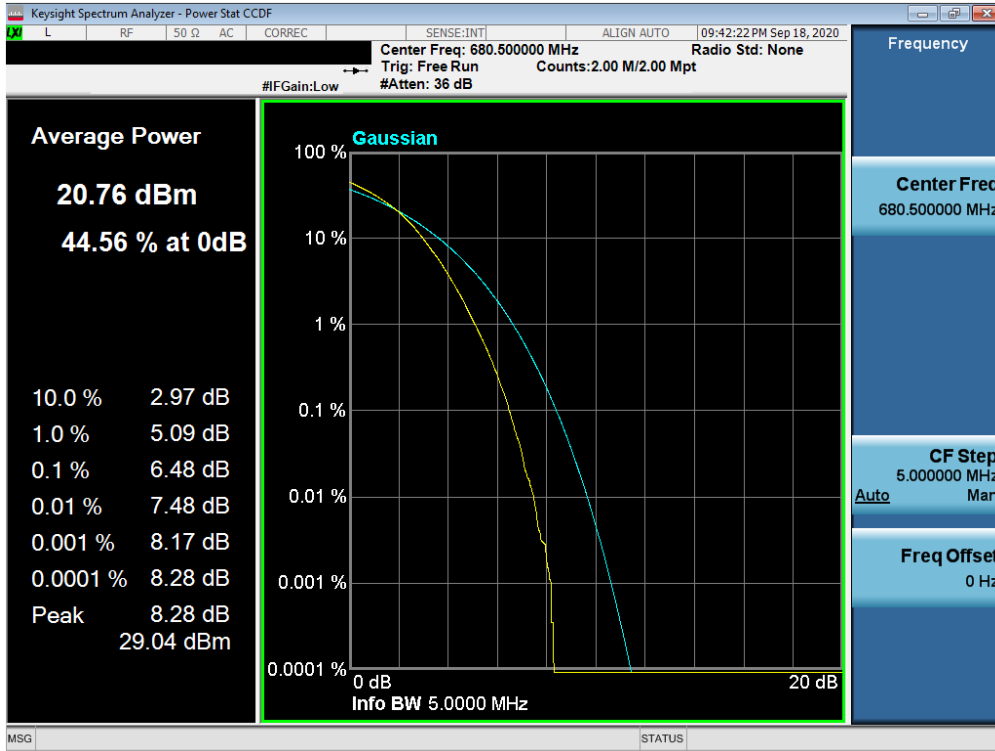


Plot 7-429. PAR Plot (LTE Band 71 - 5MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 242 of 332



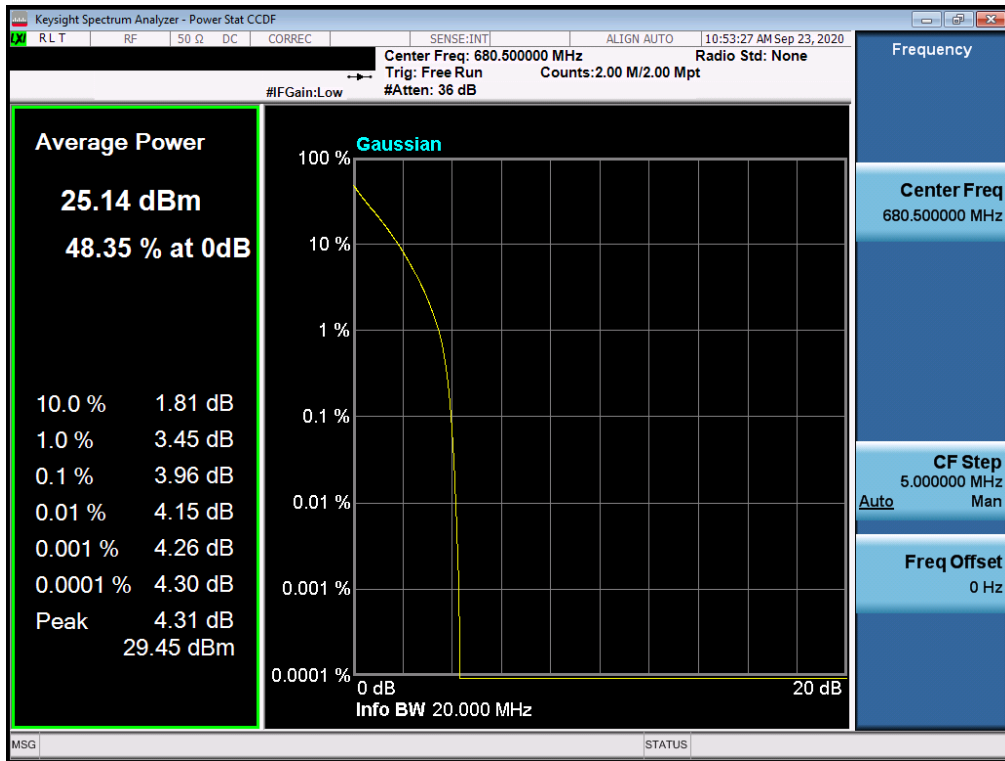
Plot 7-430. PAR Plot (LTE Band 71 - 5MHz 64-QAM - Full RB Configuration)



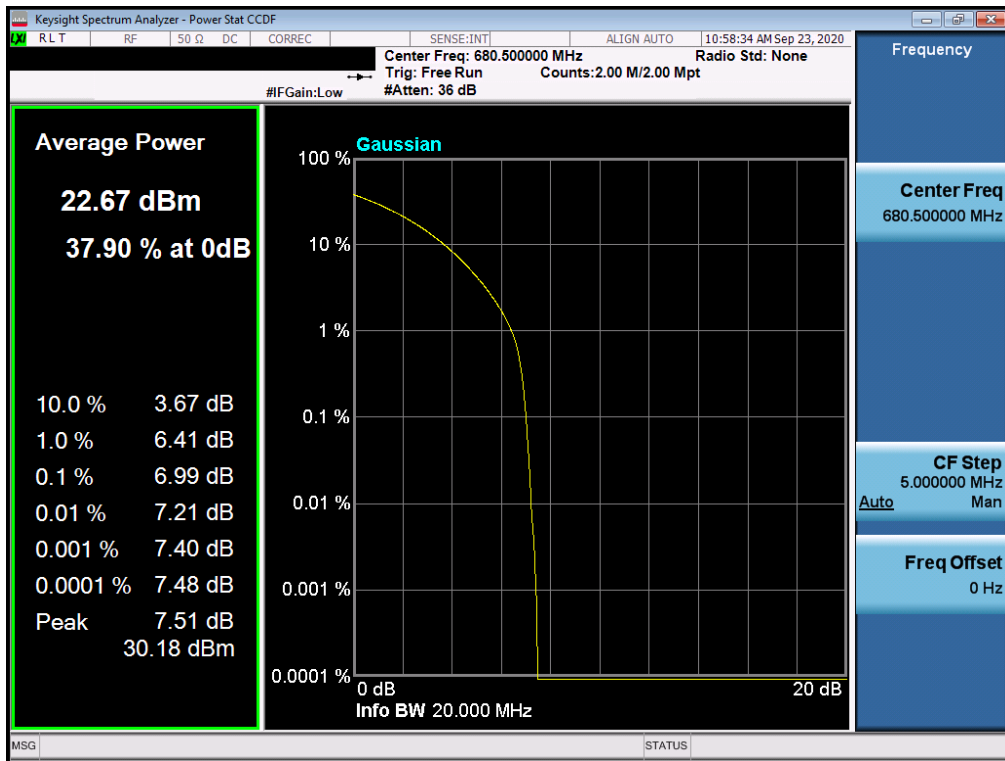
Plot 7-431. PAR Plot (LTE Band 71 - 5MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 243 of 332

NR Band n71

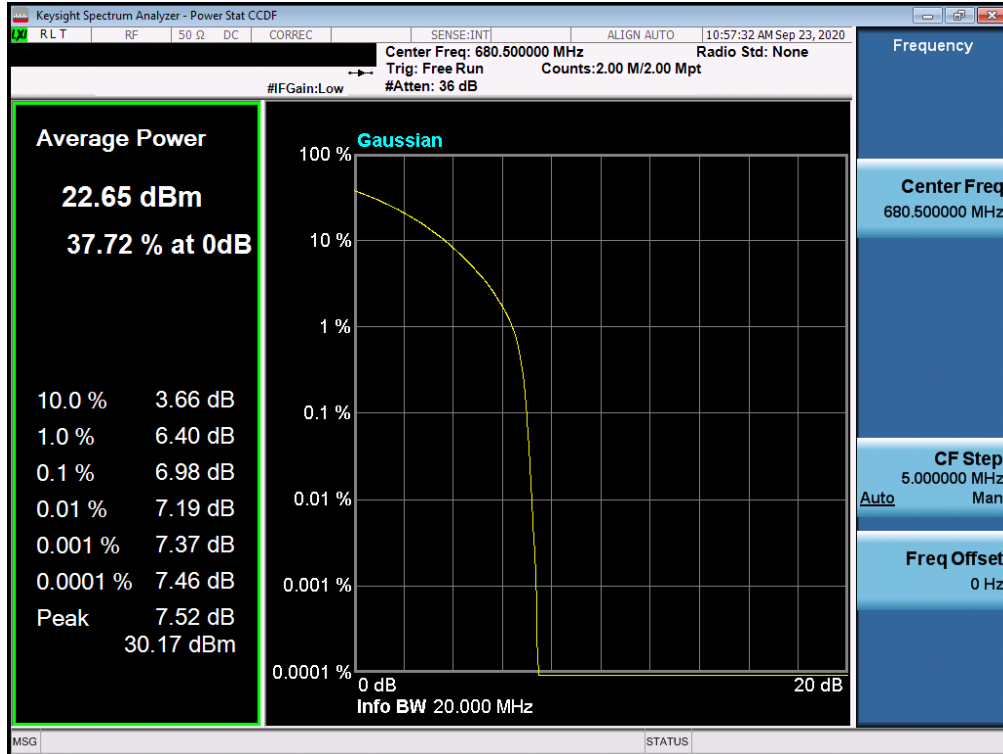


Plot 7-432. PAR Plot (NR Band n71 - 20.0MHz DFT-s-OFDM BPSK - Full RB)

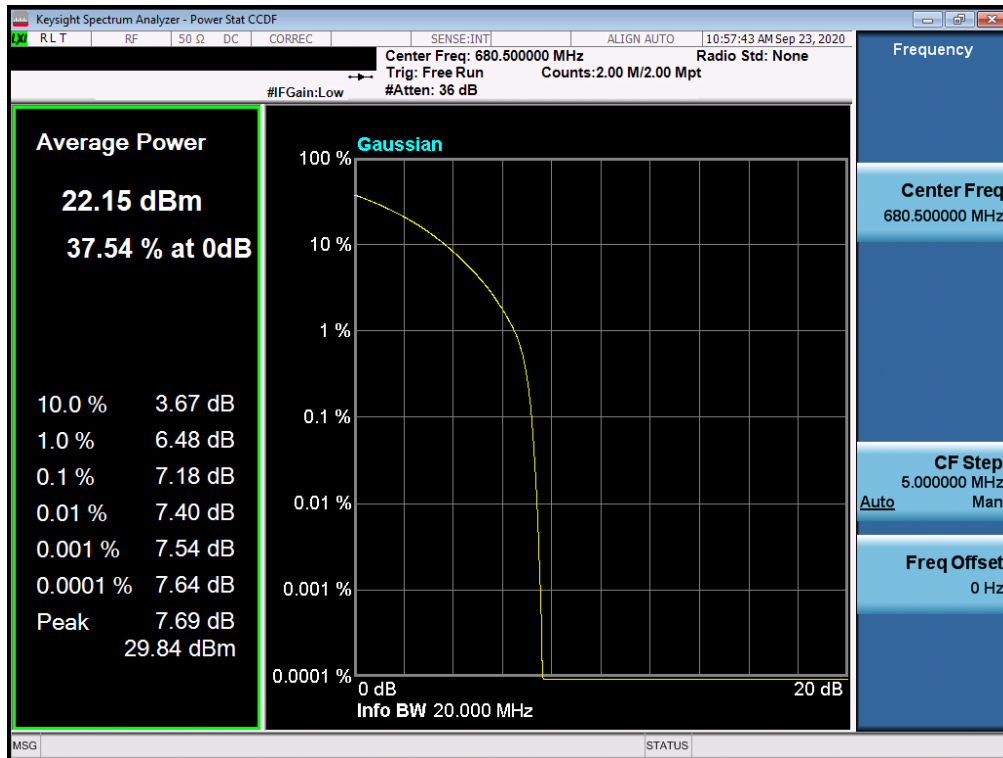


Plot 7-433. PAR Plot (NR Band n71 - 20.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 244 of 332

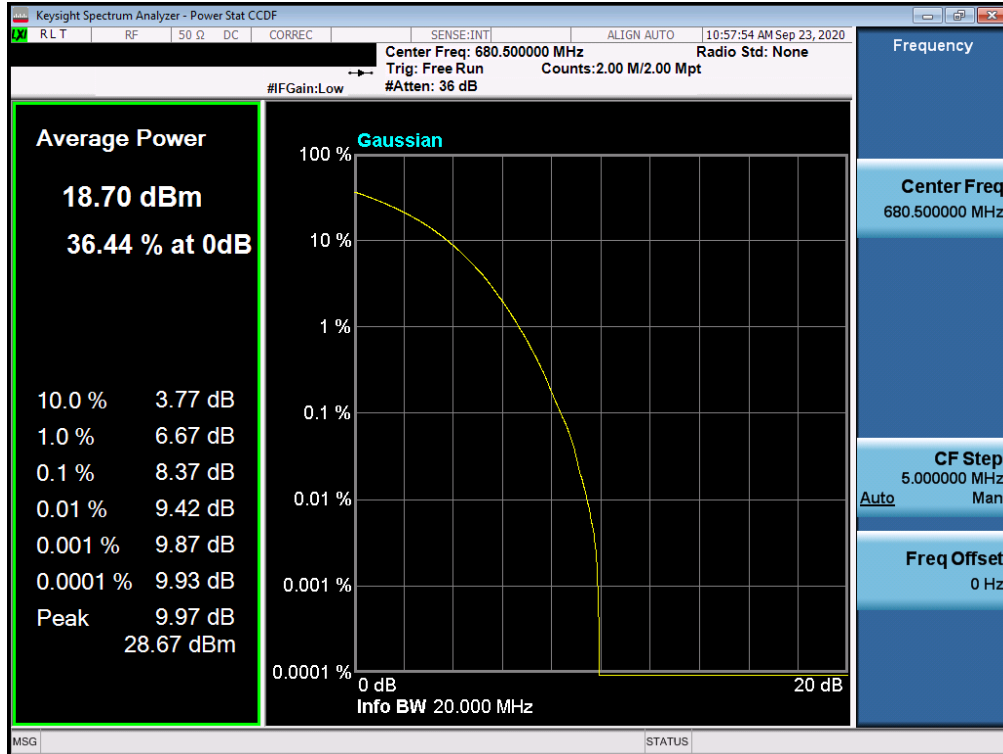


Plot 7-434. PAR Plot (NR Band n71 - 20.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

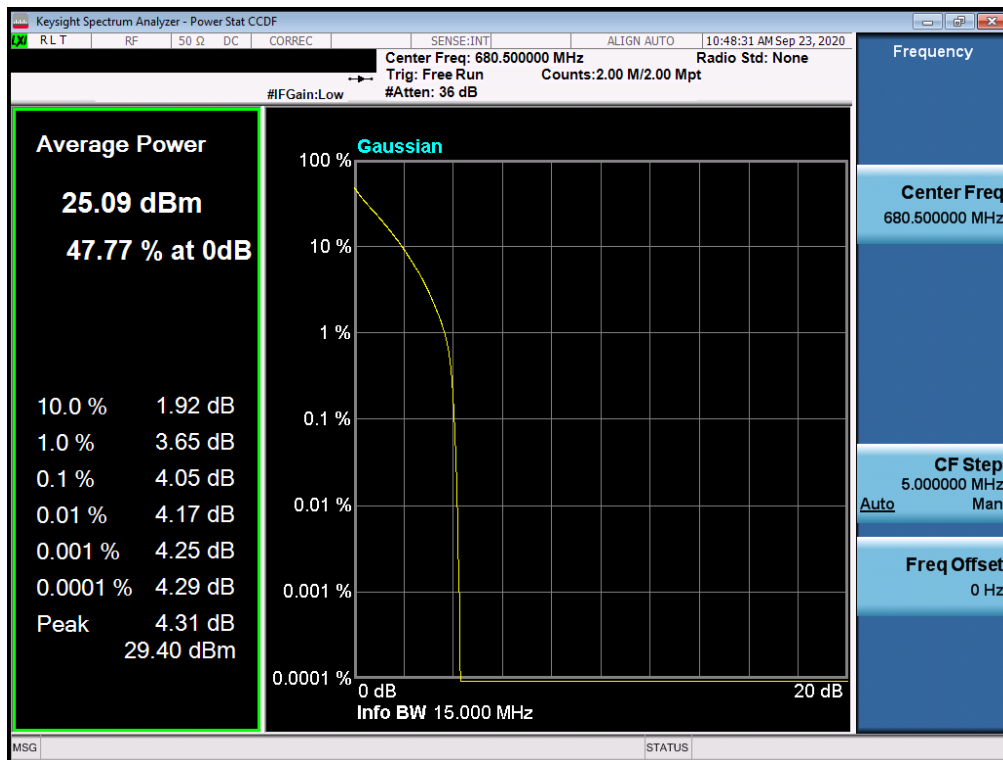


Plot 7-435. PAR Plot (NR Band n71 - 20.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 245 of 332

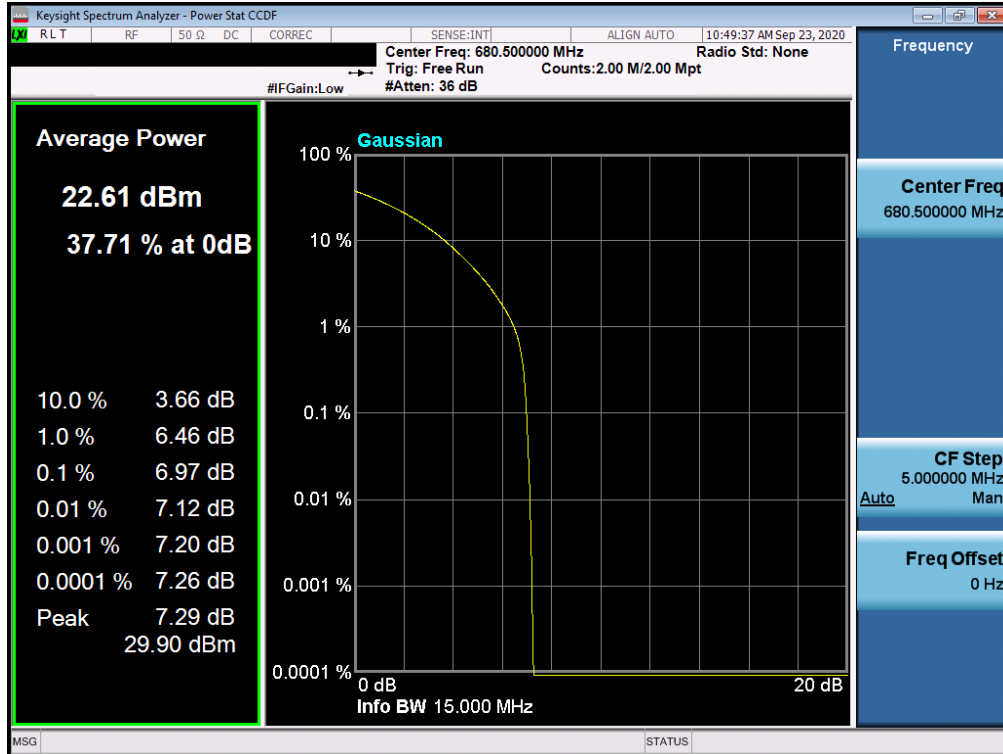


Plot 7-436. PAR Plot (NR Band n71 - 20.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

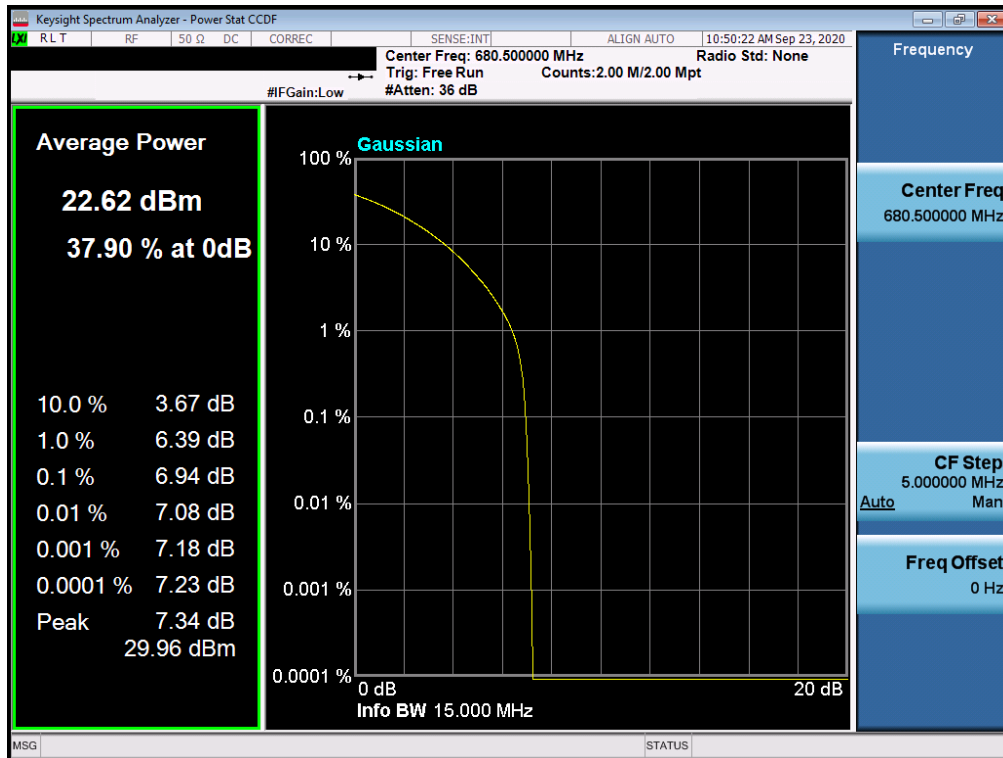


Plot 7-437. PAR Plot (NR Band n71 - 15.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 246 of 332

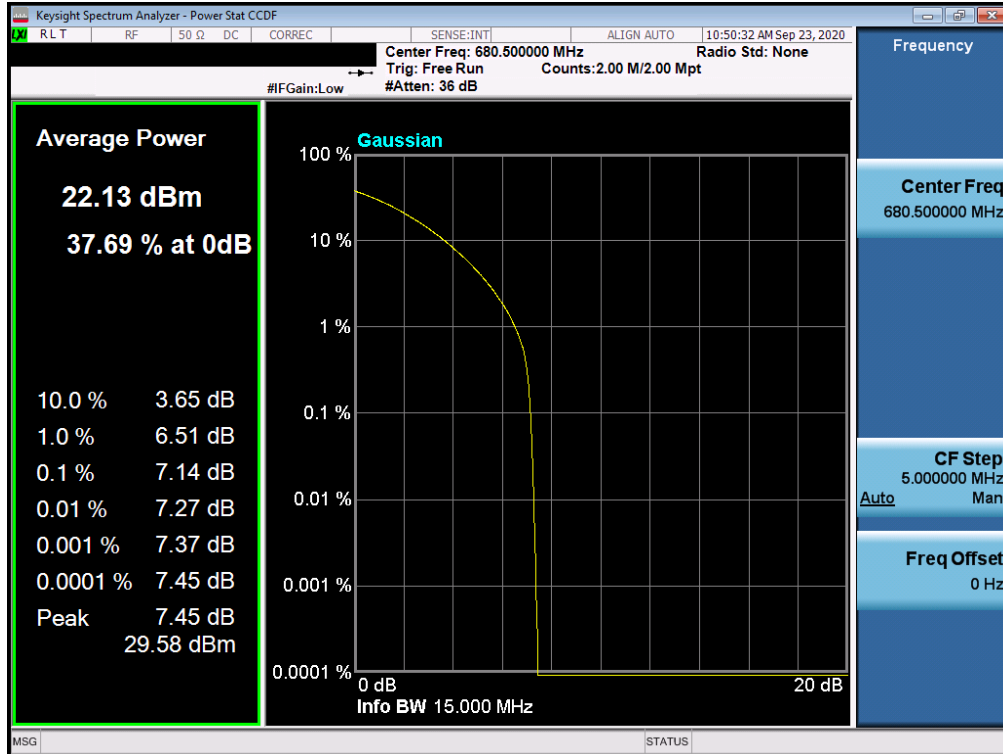


Plot 7-438. PAR Plot (NR Band n71 - 15.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

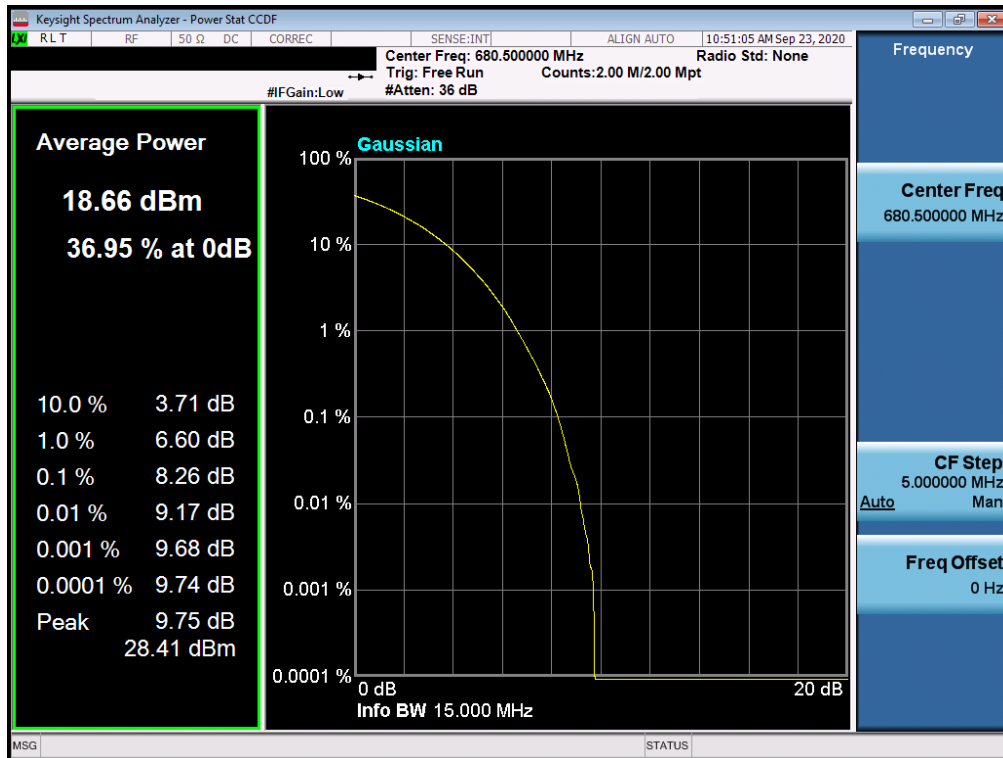


Plot 7-439. PAR Plot (NR Band n71 - 15.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 247 of 332

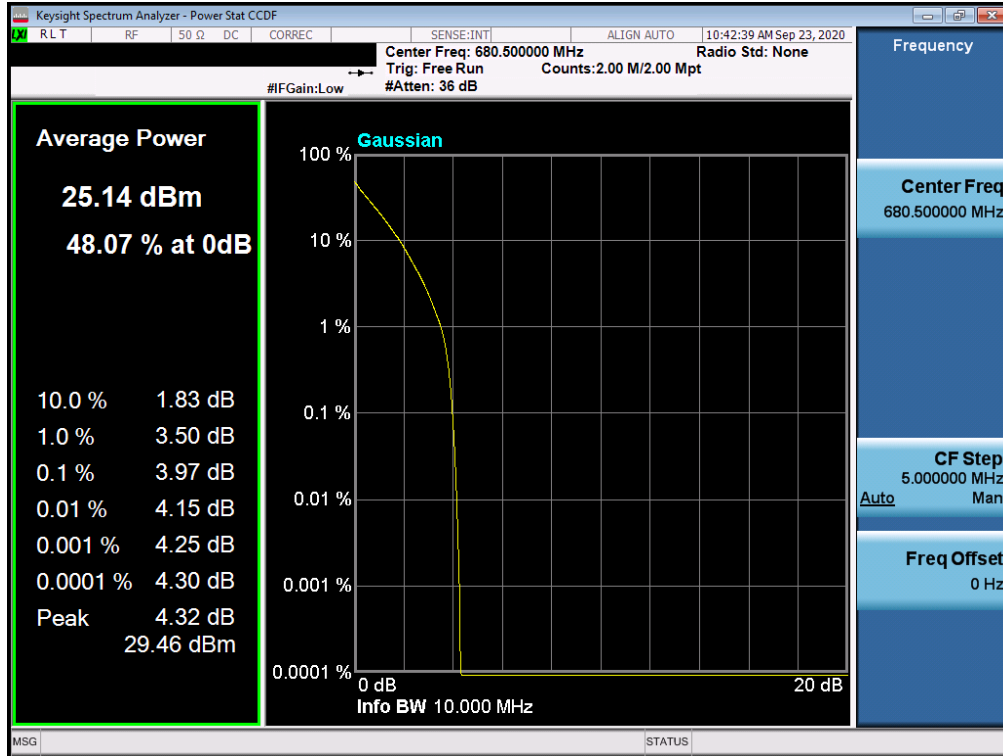


Plot 7-440. PAR Plot (NR Band n71 - 15.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

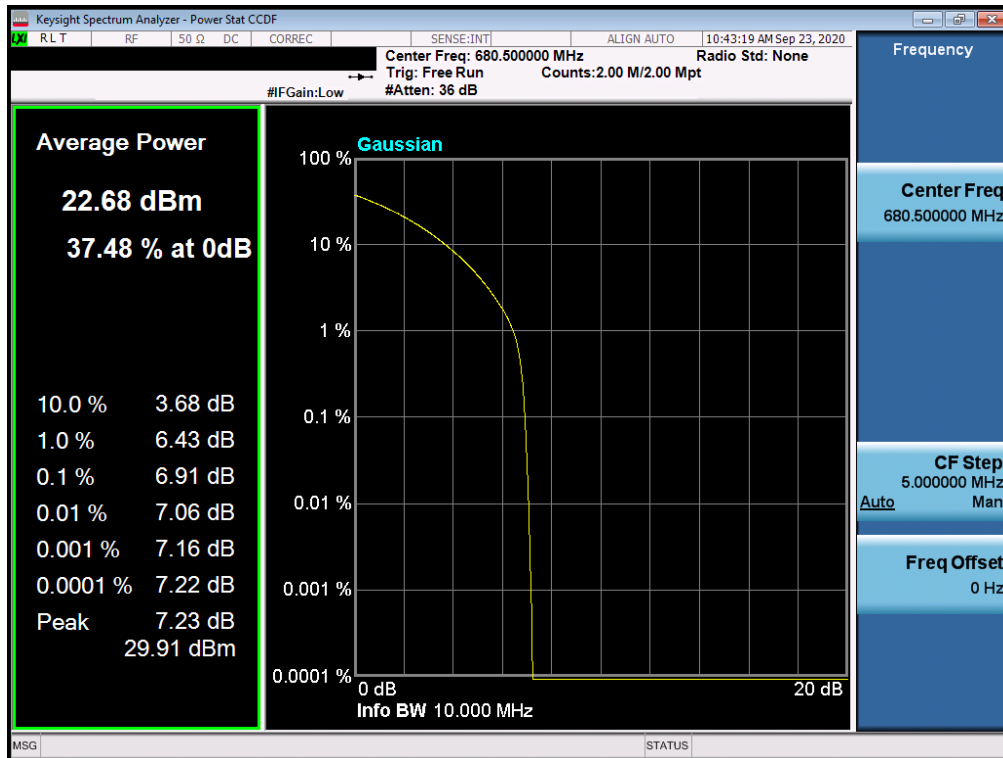


Plot 7-441. PAR Plot (NR Band n71 - 15.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 248 of 332

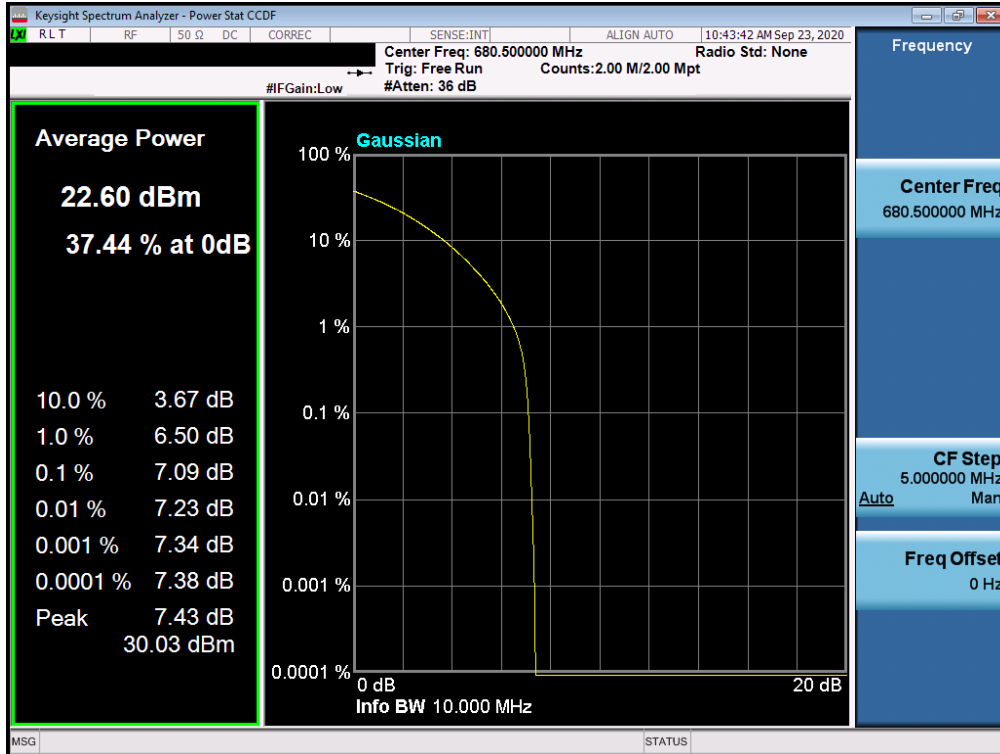


Plot 7-442. PAR Plot (NR Band n71 - 10.0MHz DFT-s-OFDM BPSK - Full RB)

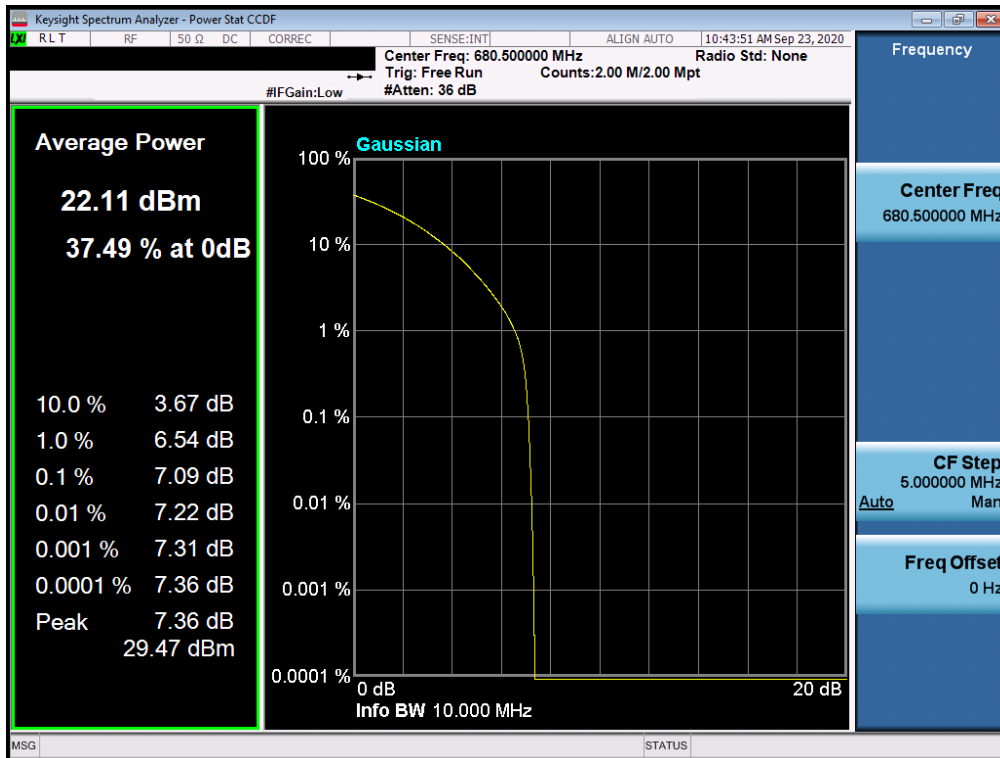


Plot 7-443. PAR Plot (NR Band n71 - 10.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 249 of 332

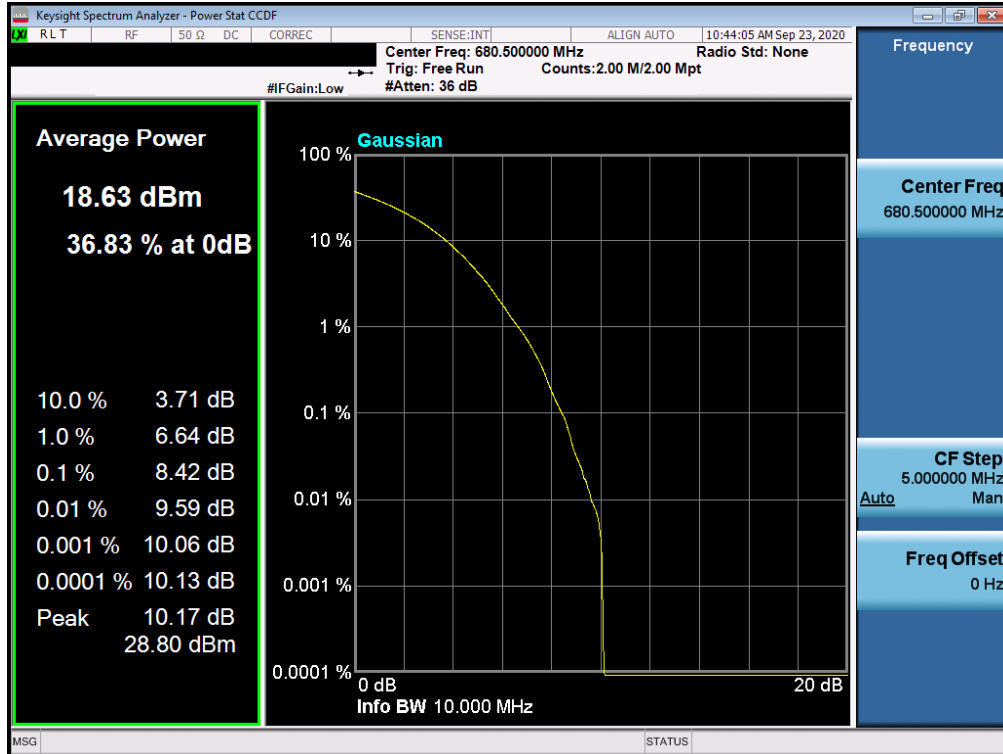


Plot 7-444. PAR Plot (NR Band n71 - 10.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

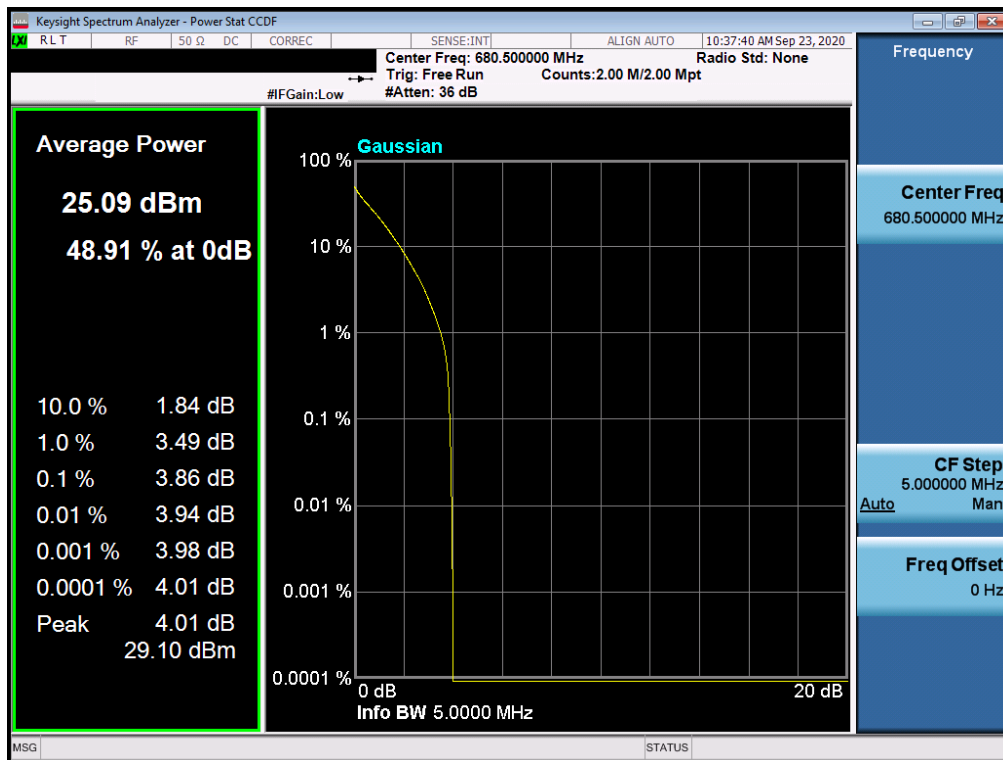


Plot 7-445. PAR Plot (NR Band n71 - 10.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 250 of 332

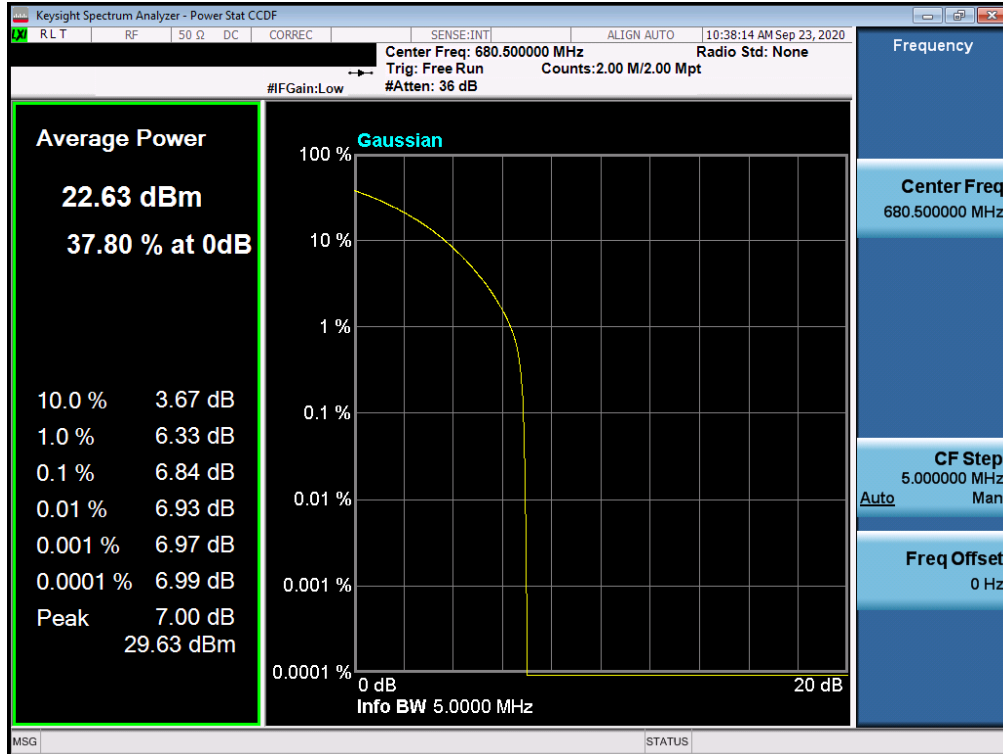


Plot 7-446. PAR Plot (NR Band n71 - 10.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

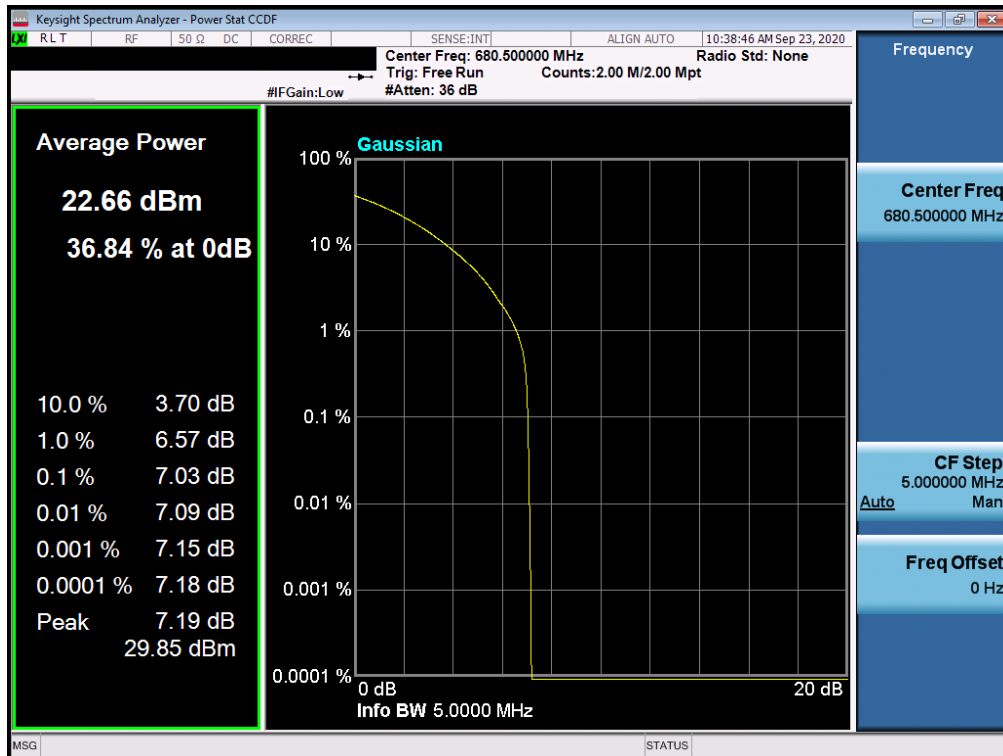


Plot 7-447. PAR Plot (NR Band n71 - 5.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 251 of 332

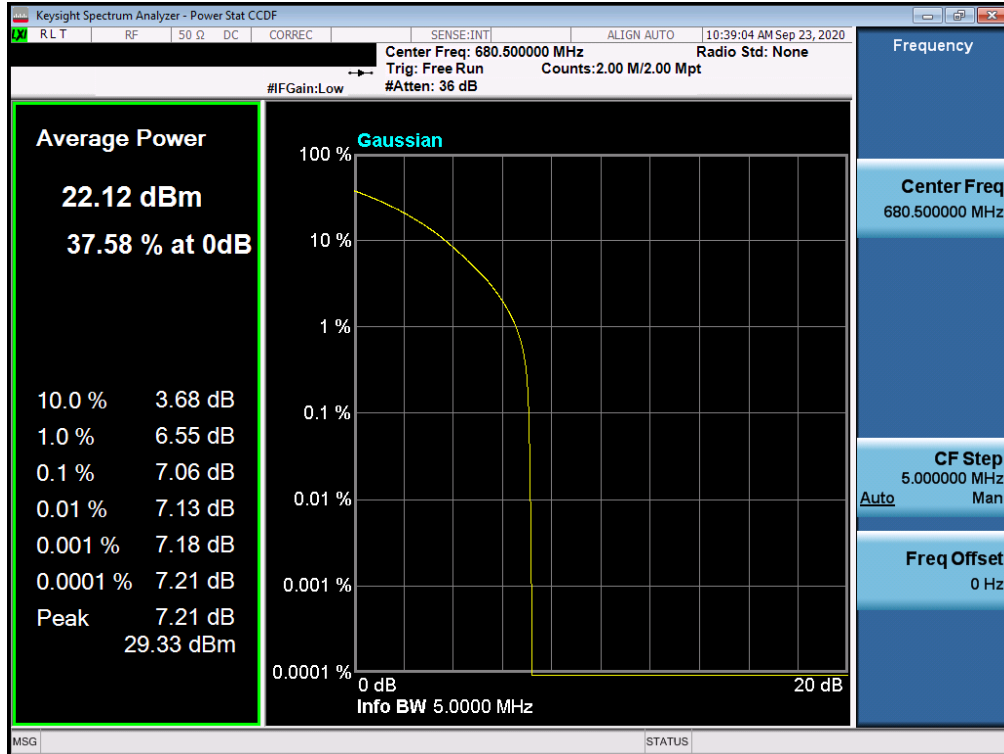


Plot 7-448. PAR Plot (NR Band n71 - 5.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

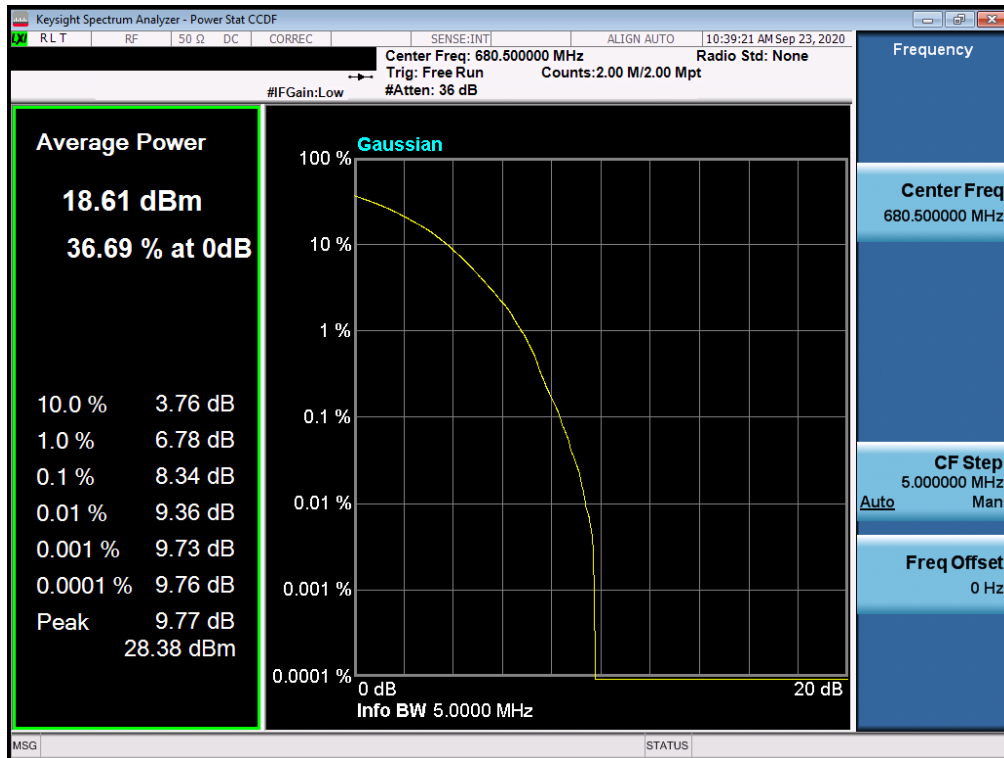


Plot 7-449. PAR Plot (NR Band n71 - 5.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 252 of 332



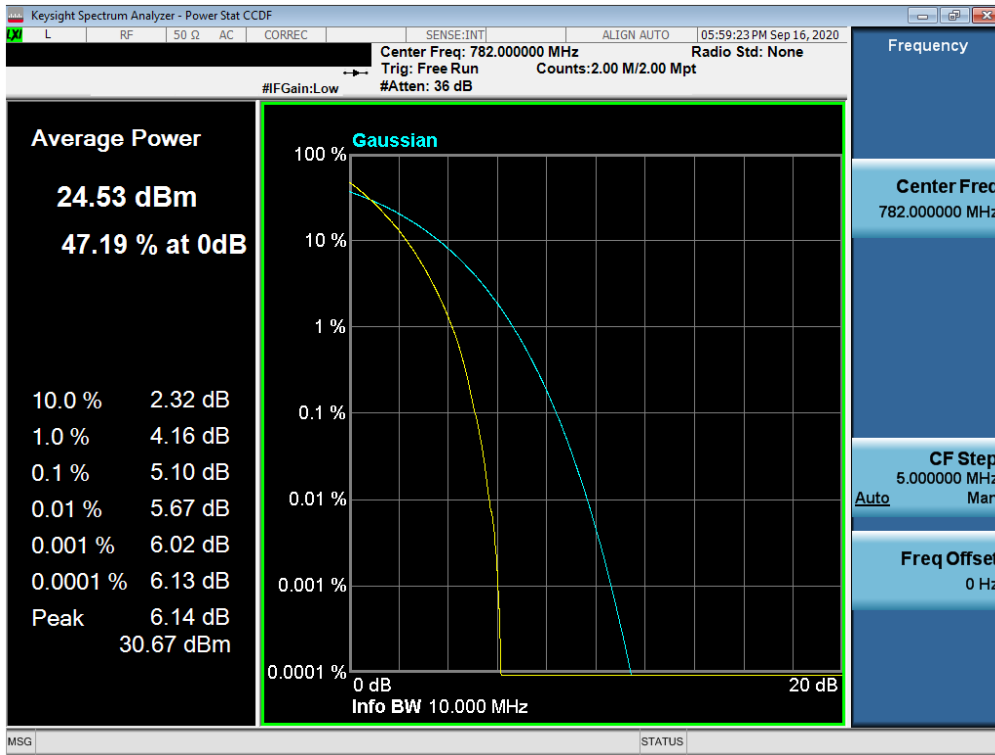
Plot 7-450. PAR Plot (NR Band n71 - 5.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)



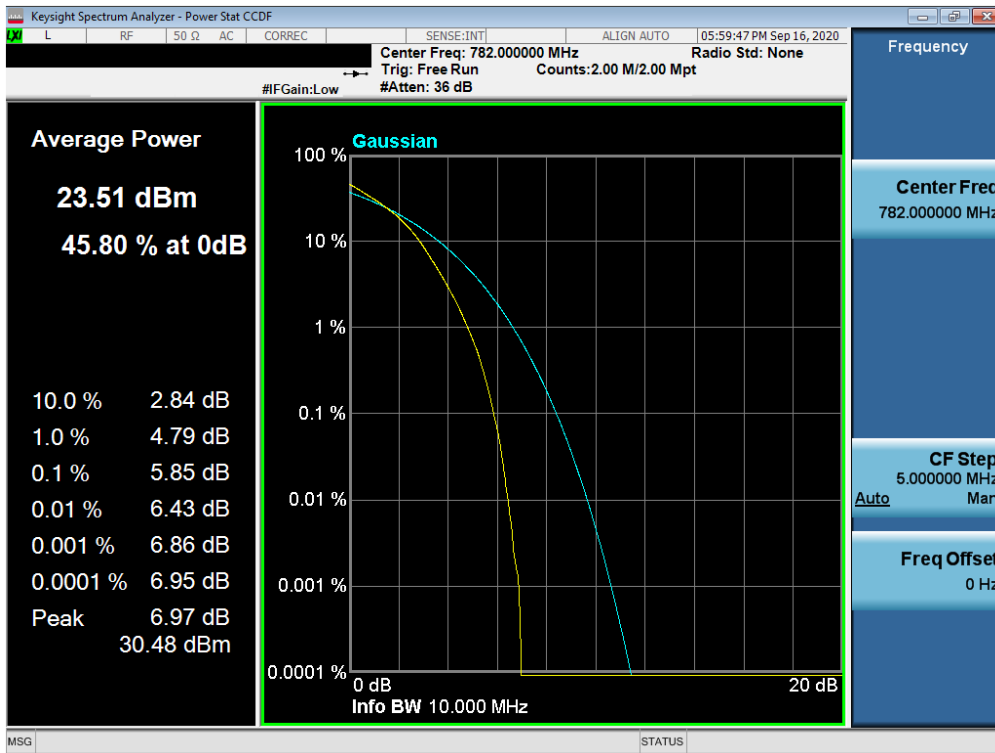
Plot 7-451. PAR Plot (NR Band n71 - 5.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 253 of 332

LTE Band 13

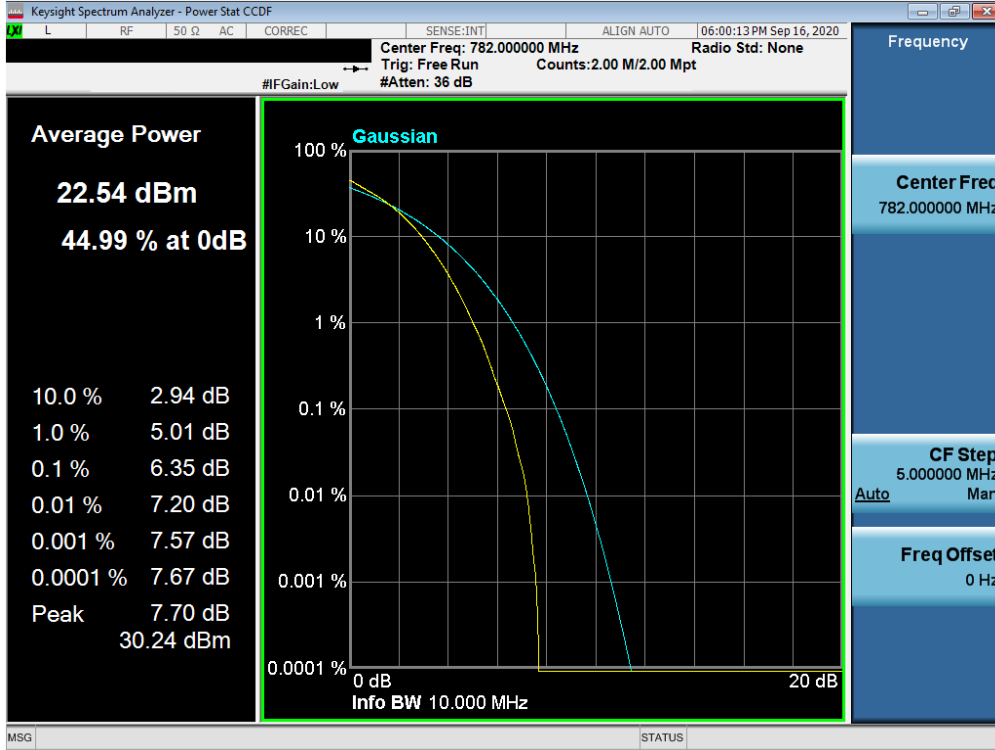


Plot 7-452. PAR Plot (LTE Band 13 - 10 MHz QPSK - Full RB Configuration)

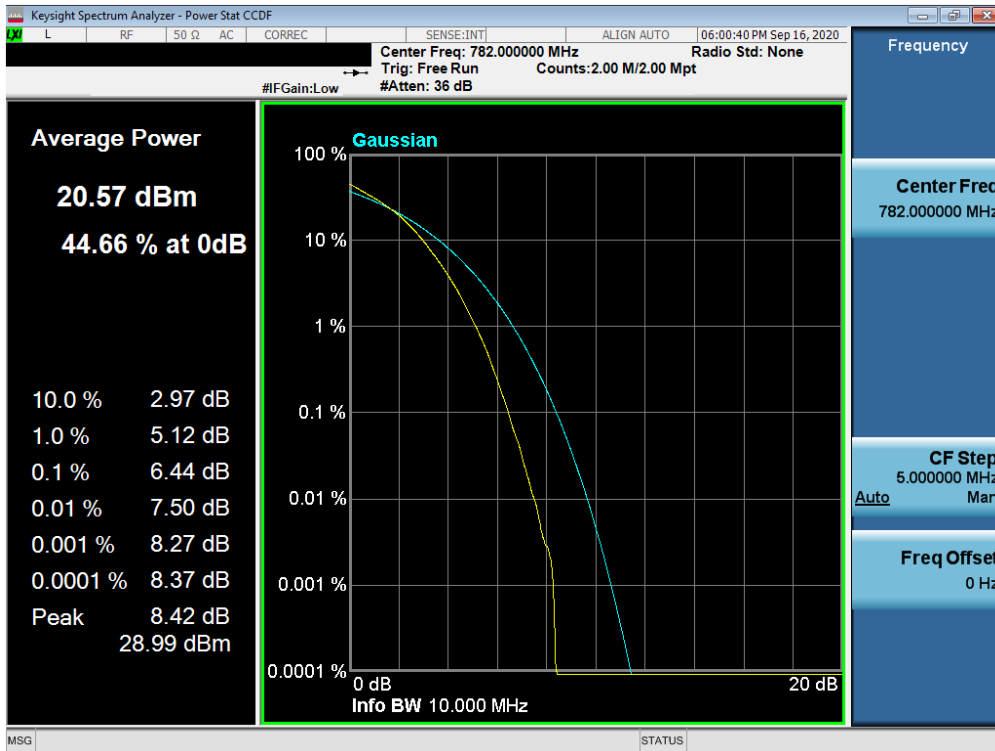


Plot 7-453. PAR Plot (LTE Band 13 - 10 MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 254 of 332

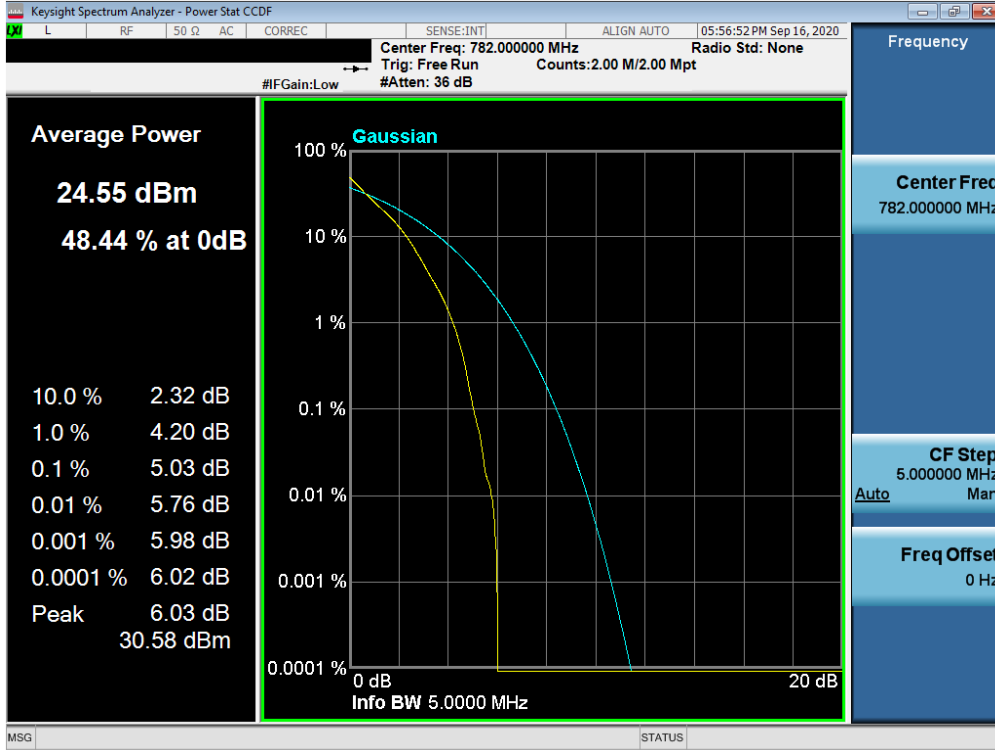


Plot 7-454. PAR Plot (LTE Band 13 - 10 MHz 64-QAM - Full RB Configuration)

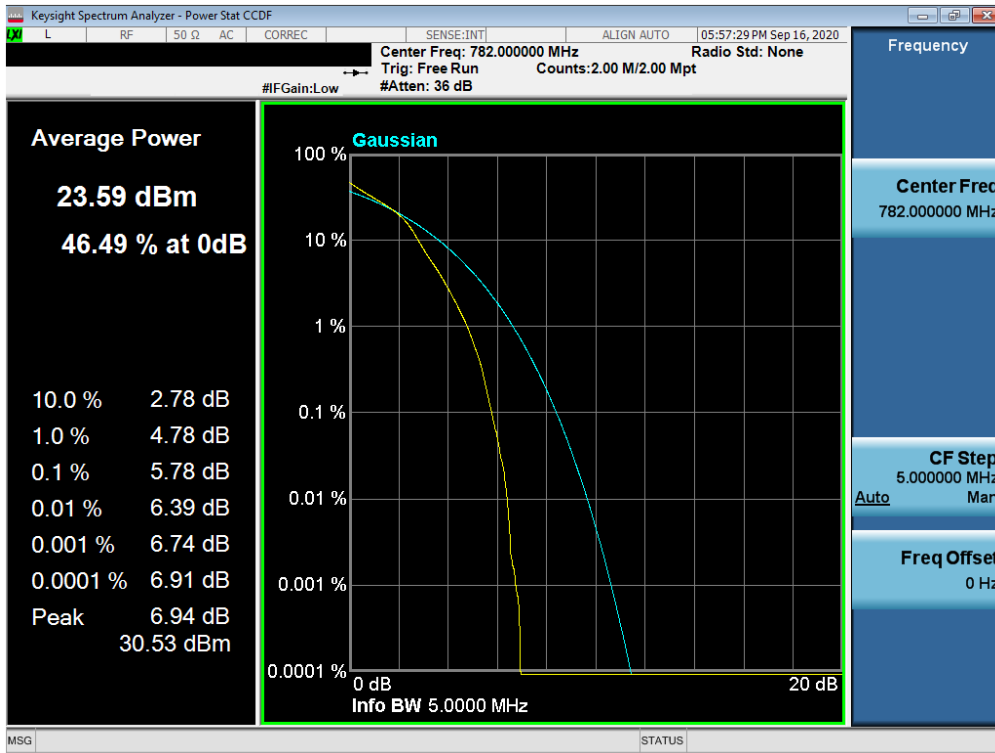


Plot 7-455. PAR Plot (LTE Band 13 - 10 MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 255 of 332

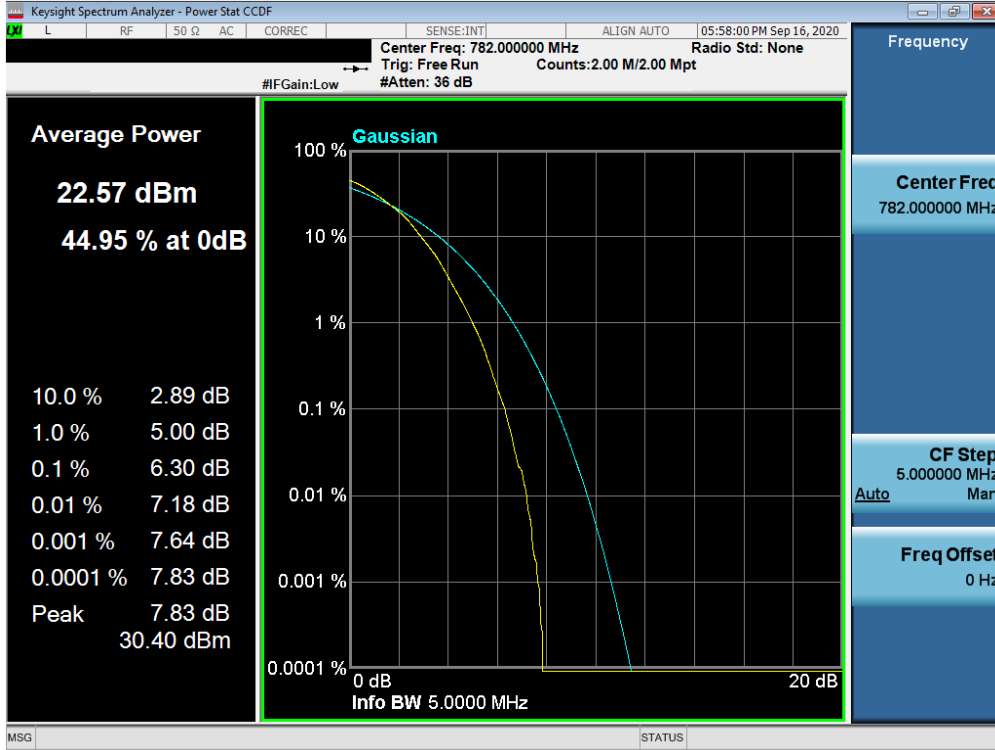


Plot 7-456. PAR Plot (LTE Band 13 - 5MHz QPSK - Full RB Configuration)

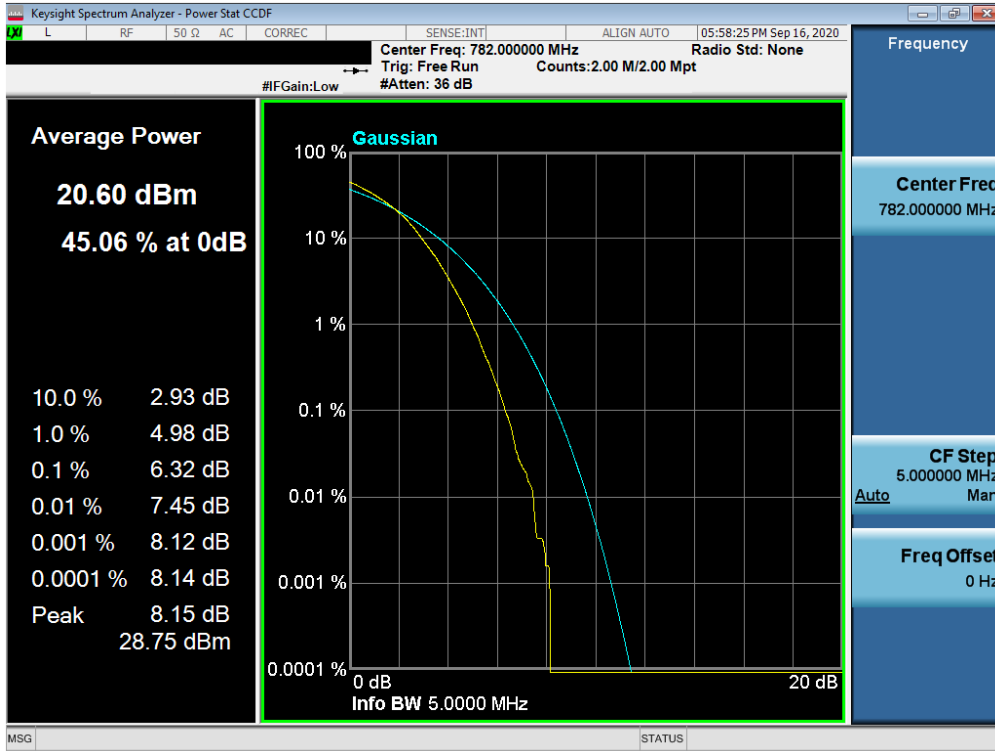


Plot 7-457. PAR Plot (LTE Band 13 - 5MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 256 of 332



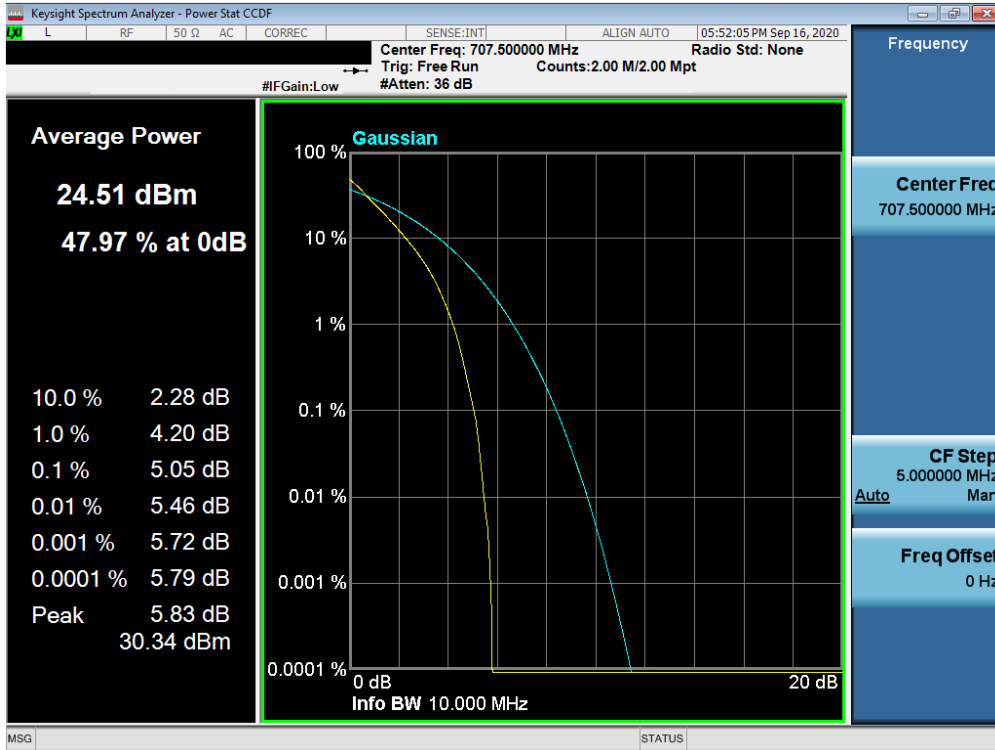
Plot 7-458. PAR Plot (LTE Band 13 - 5MHz 64-QAM - Full RB Configuration)



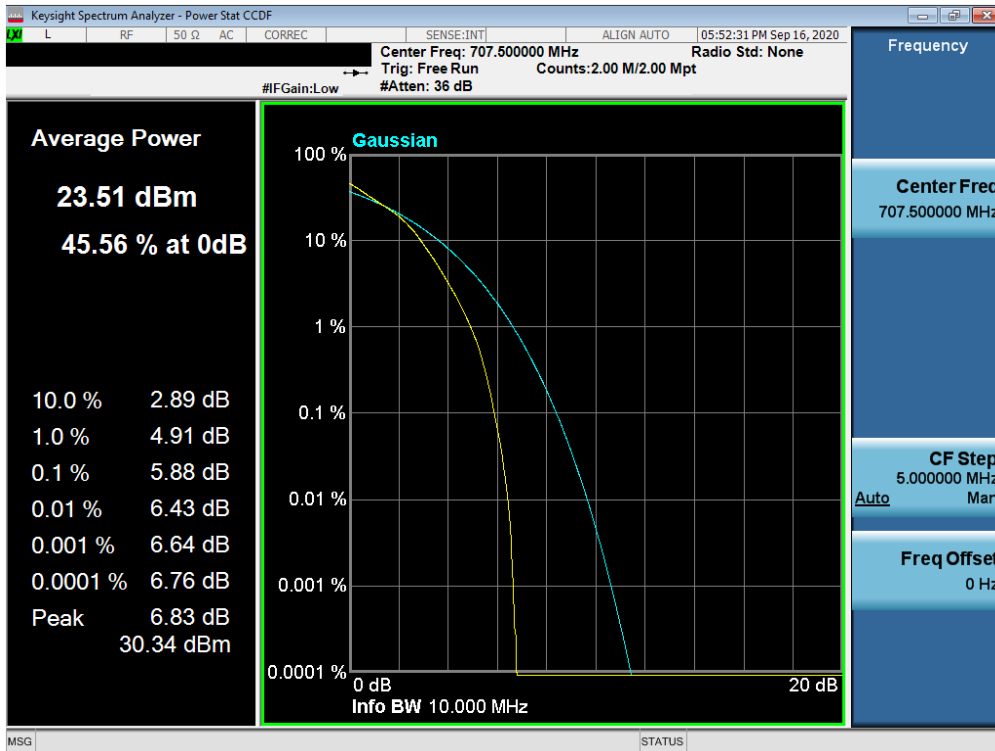
Plot 7-459. PAR Plot (LTE Band 13 - 5MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 257 of 332

LTE Band 12

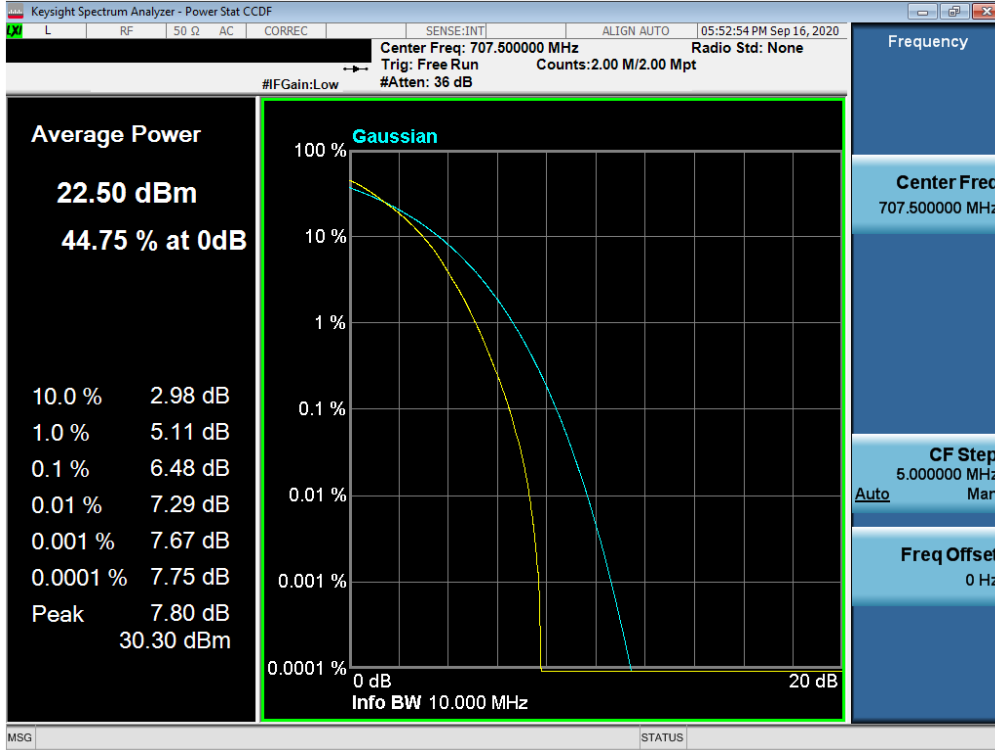


Plot 7-460. PAR Plot (LTE Band 12 - 10MHz QPSK - Full RB Configuration)

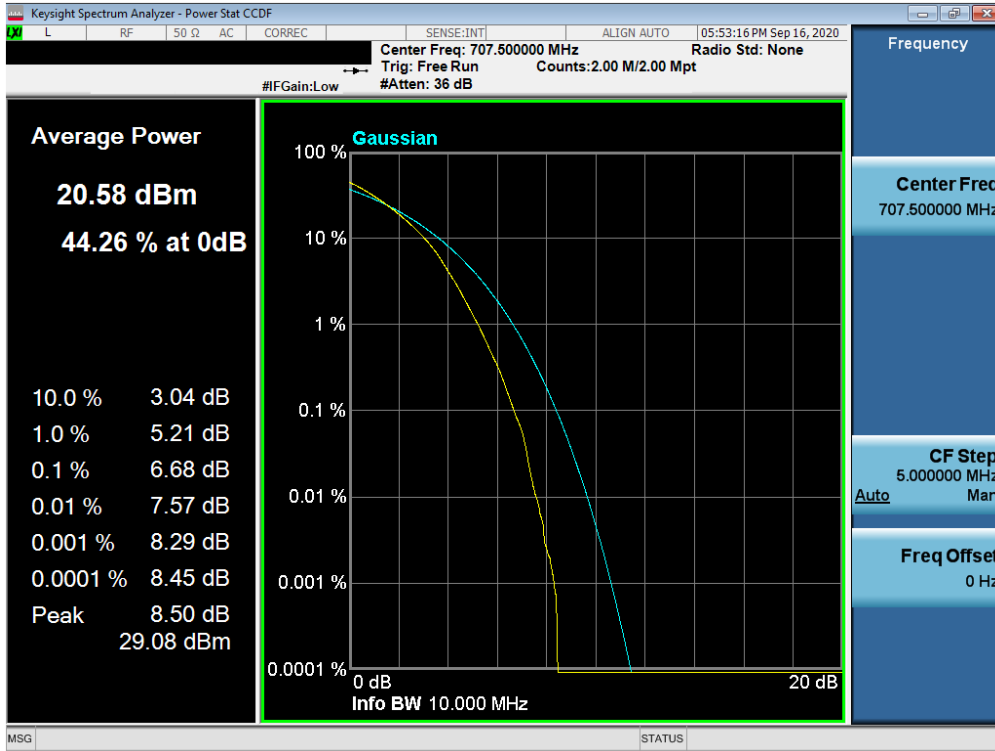


Plot 7-461. PAR Plot (LTE Band 12 - 10MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 258 of 332

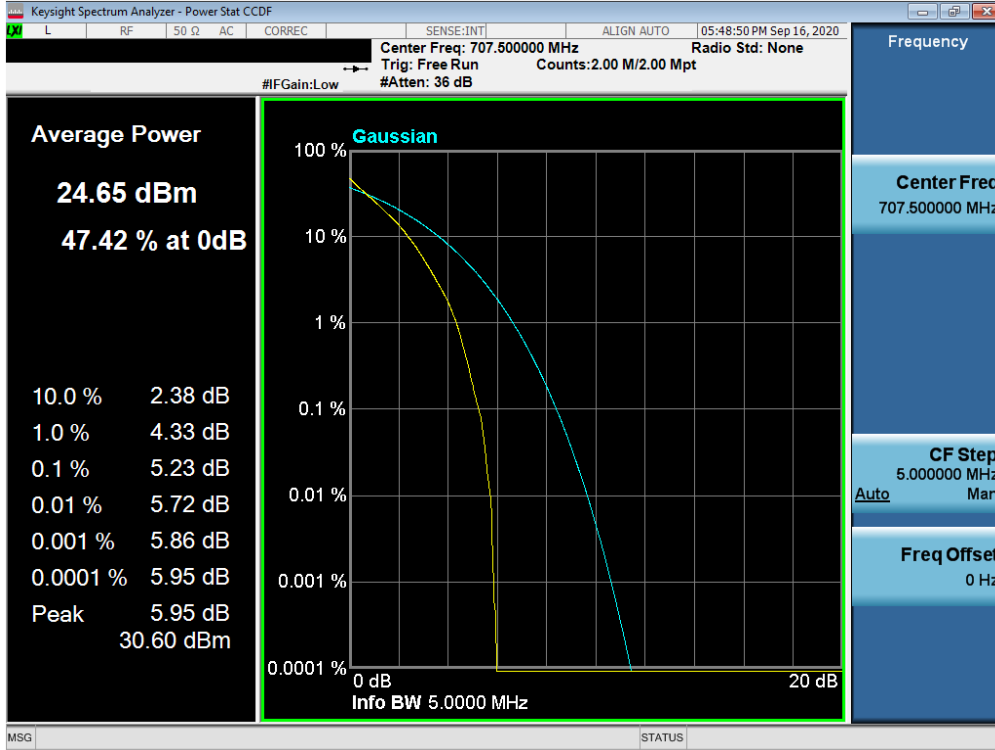


Plot 7-462. PAR Plot (LTE Band 12 - 10MHz 64-QAM - Full RB Configuration)

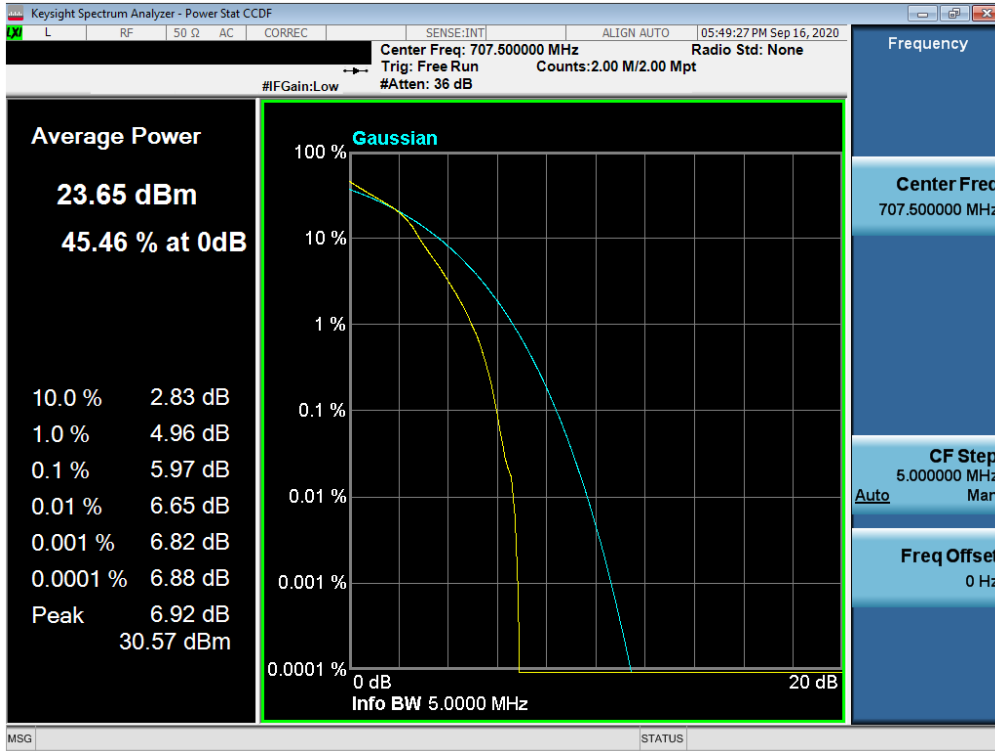


Plot 7-463. PAR Plot (LTE Band 12 - 10MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 259 of 332

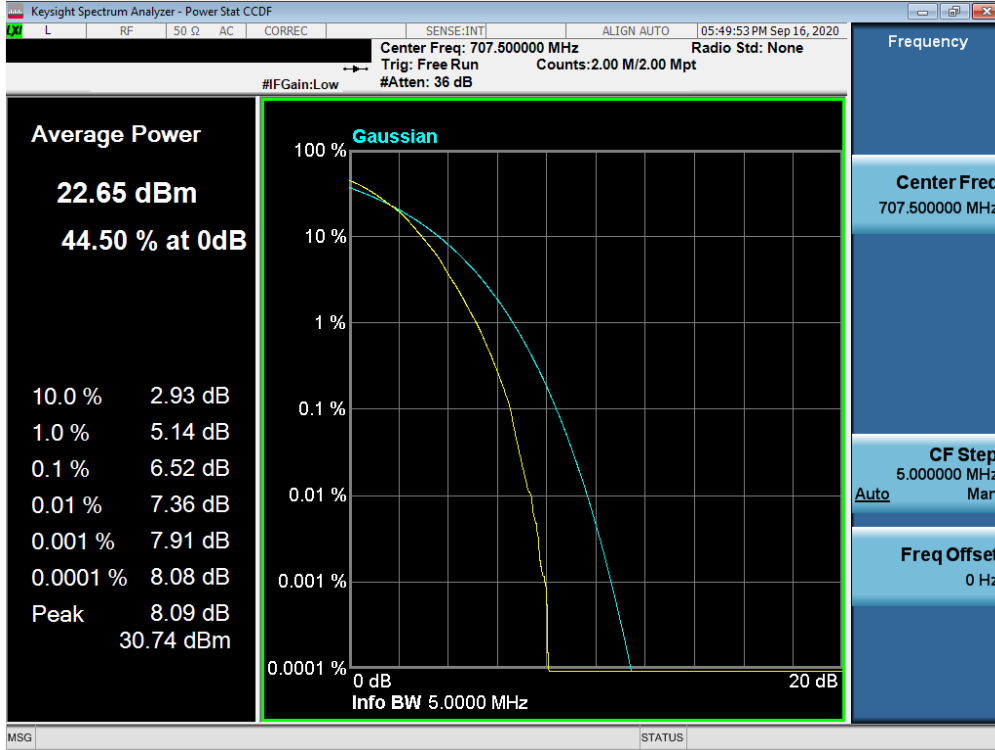


Plot 7-464. PAR Plot (LTE Band 12 – 5 MHz QPSK - Full RB Configuration)

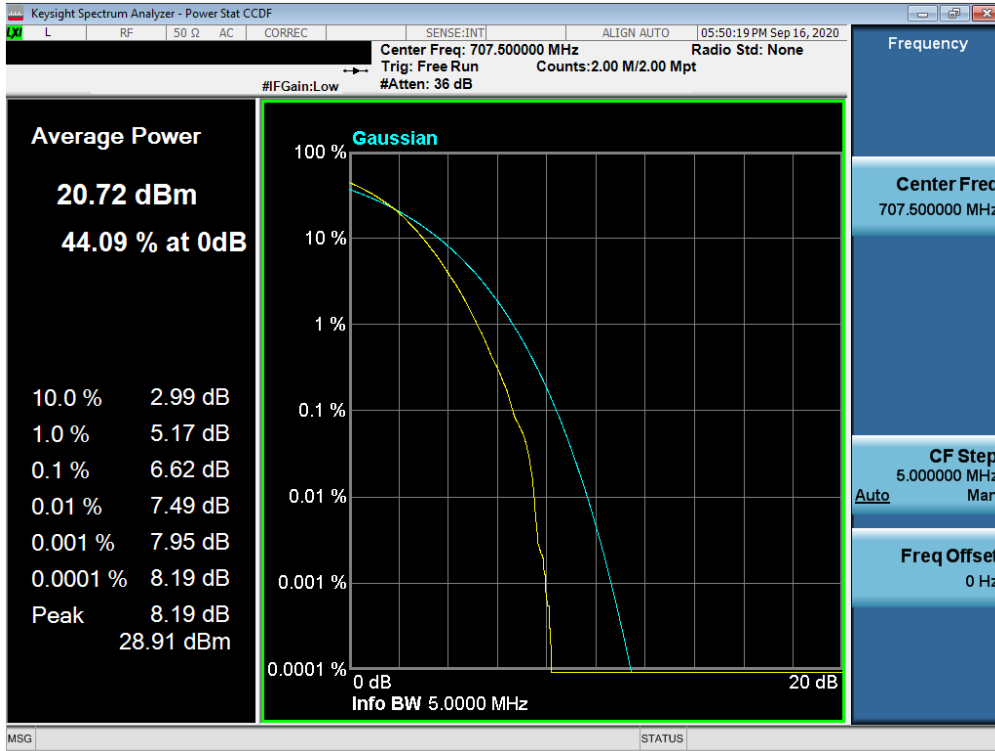


Plot 7-465. PAR Plot (LTE Band 12 - 5MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 260 of 332

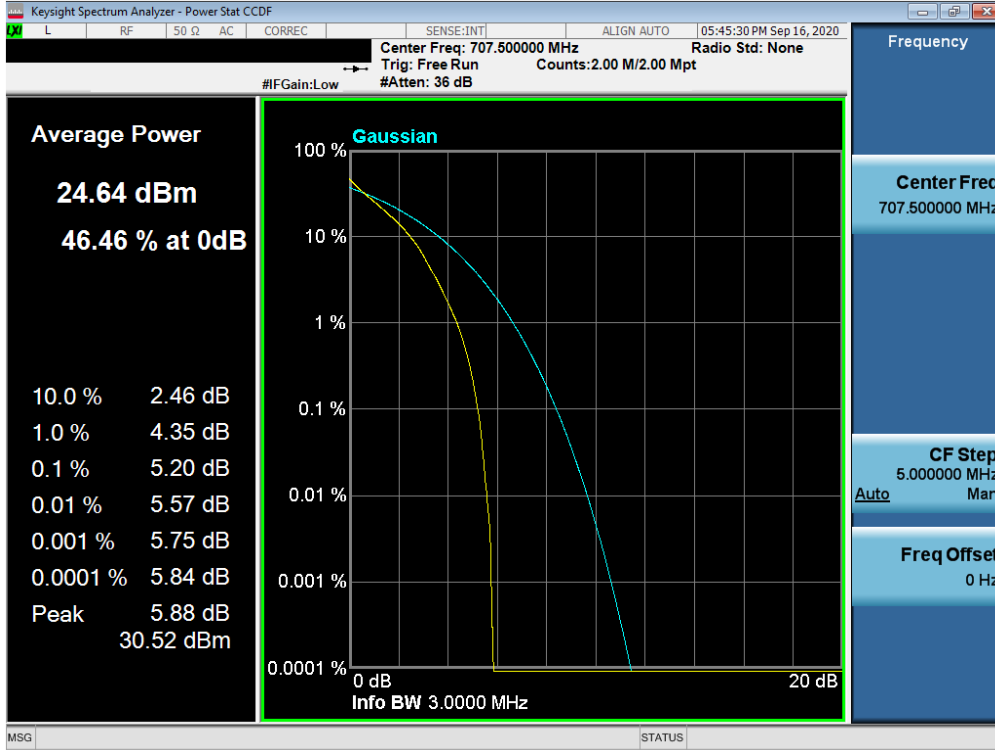


Plot 7-466. PAR Plot (LTE Band 12 - 5MHz 64-QAM - Full RB Configuration)

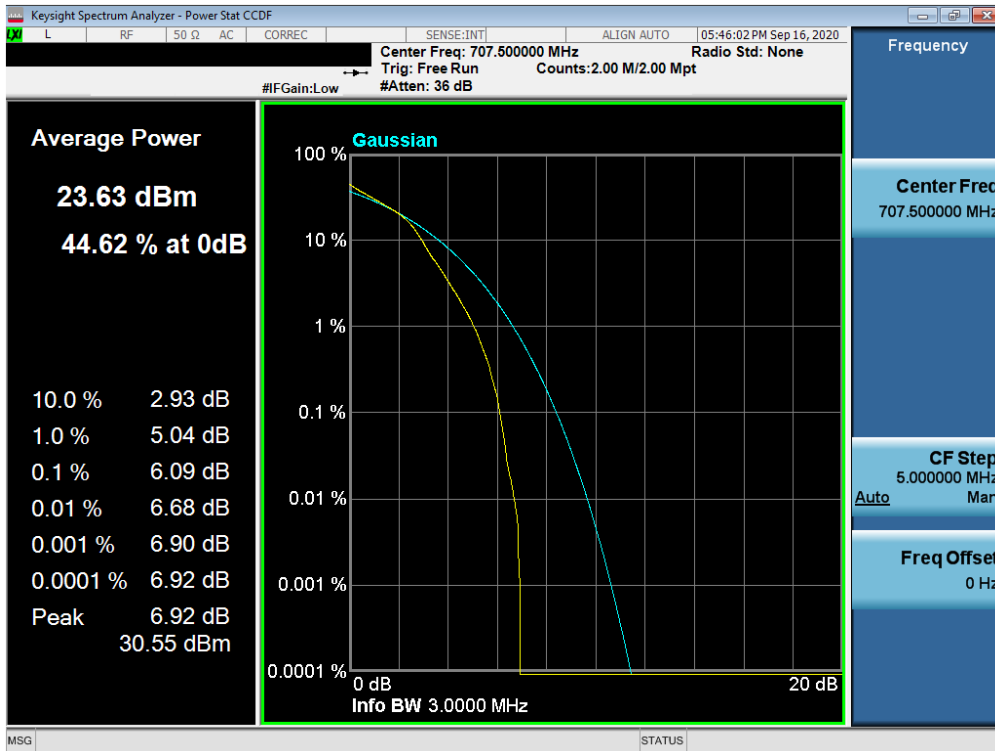


Plot 7-467. PAR Plot (LTE Band 12 - 5MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 261 of 332

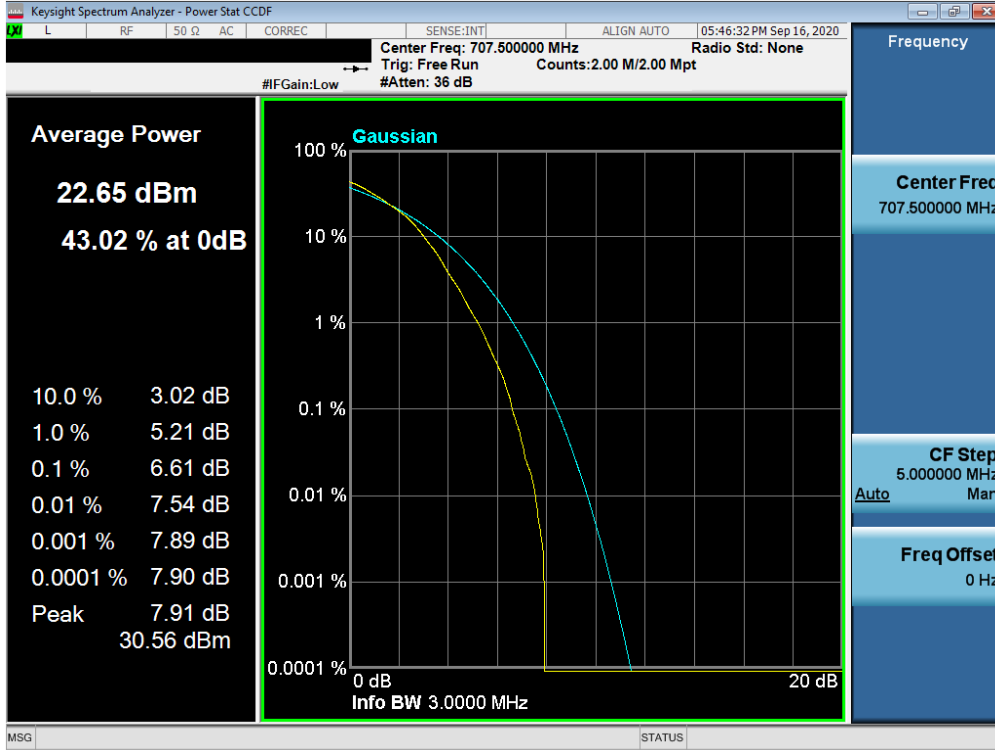


Plot 7-468. PAR Plot (LTE Band 12 - 3MHz QPSK - Full RB Configuration)

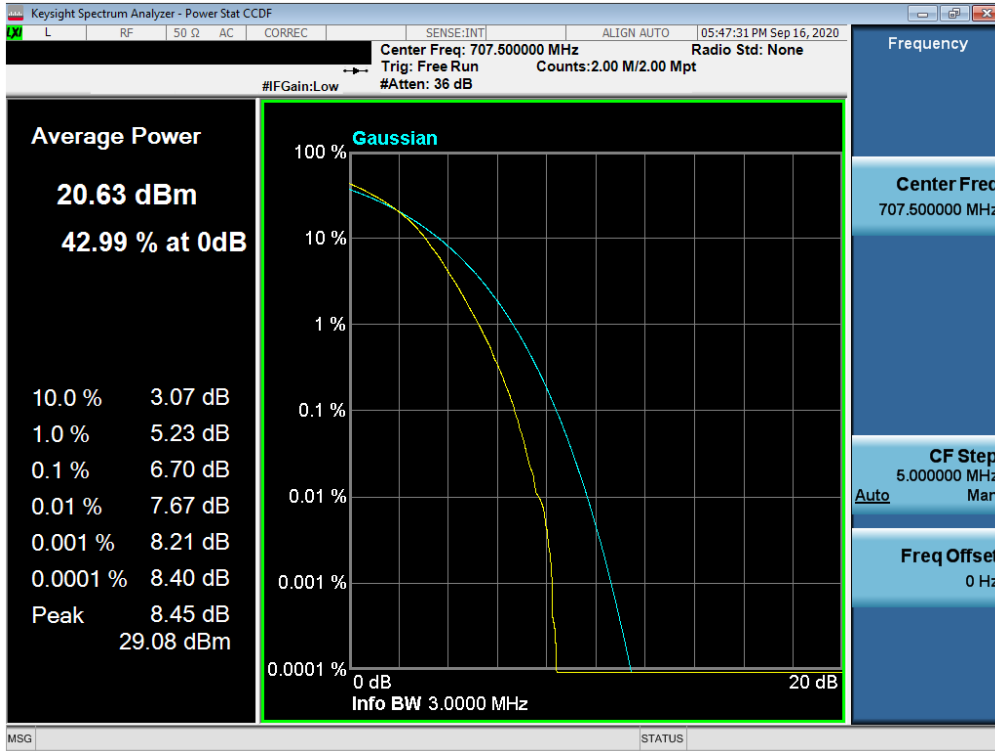


Plot 7-469. PAR Plot (LTE Band 12 - 3MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 262 of 332

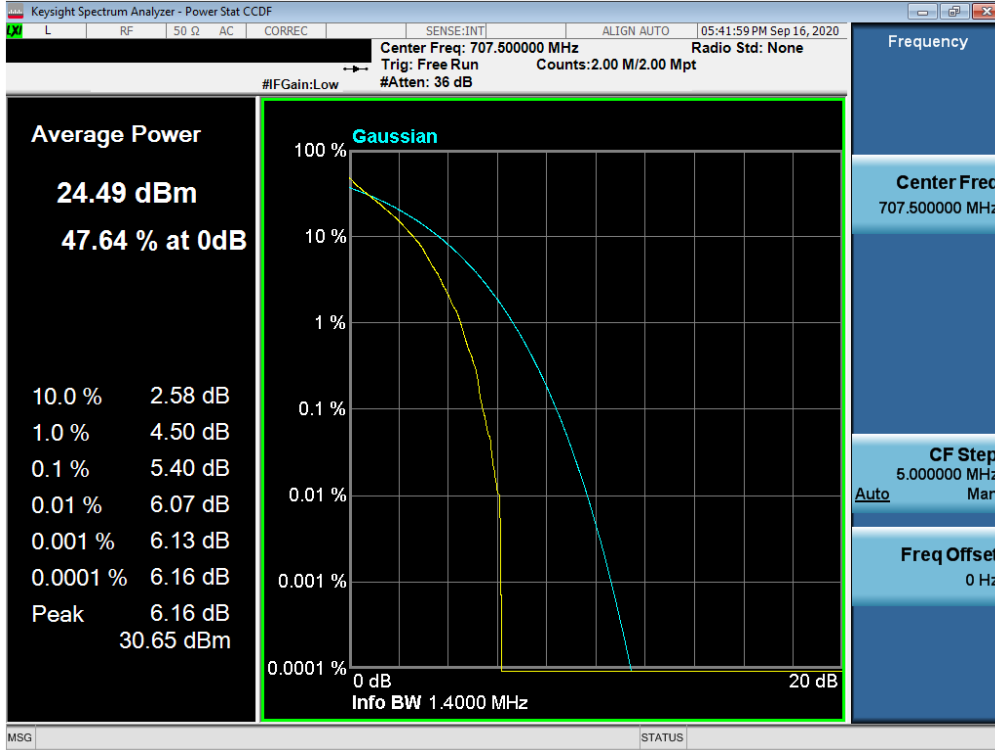


Plot 7-470. PAR Plot (LTE Band 12 - 3MHz 64-QAM - Full RB Configuration)

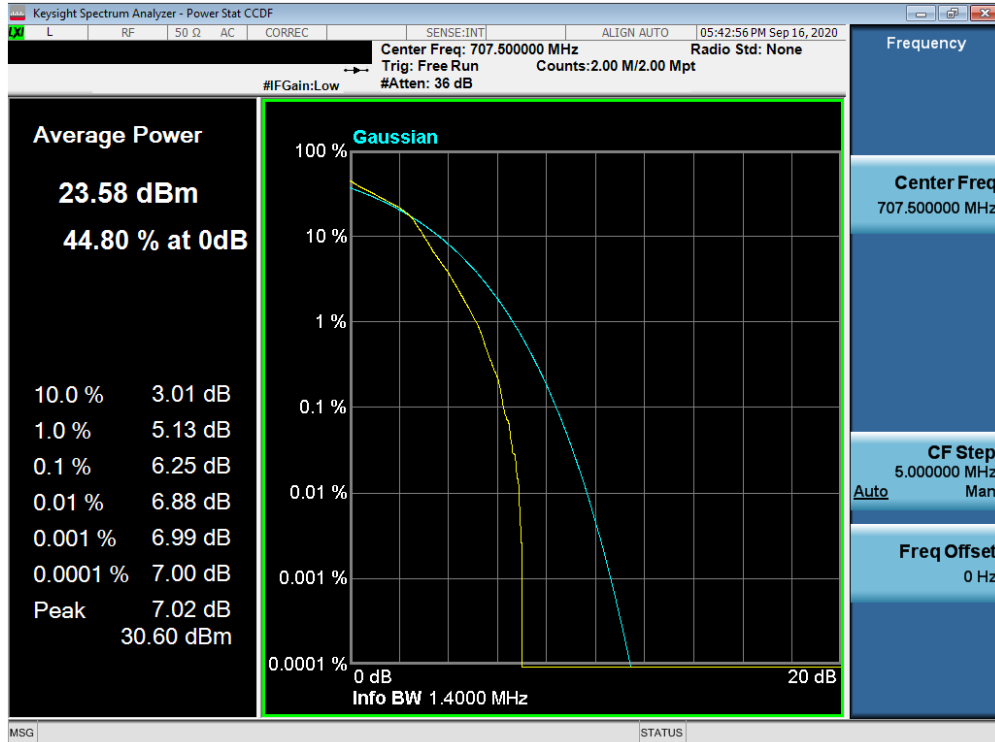


Plot 7-471. PAR Plot (LTE Band 12 - 3MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 263 of 332

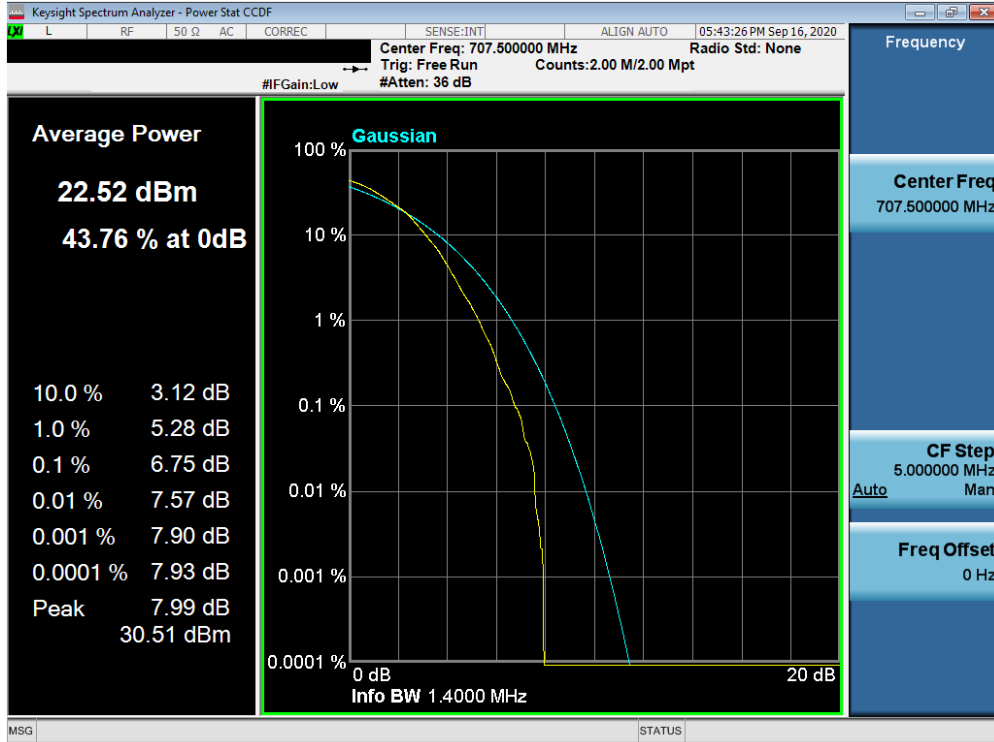


Plot 7-472. PAR Plot (LTE Band 12 - 1.4MHz QPSK - Full RB Configuration)

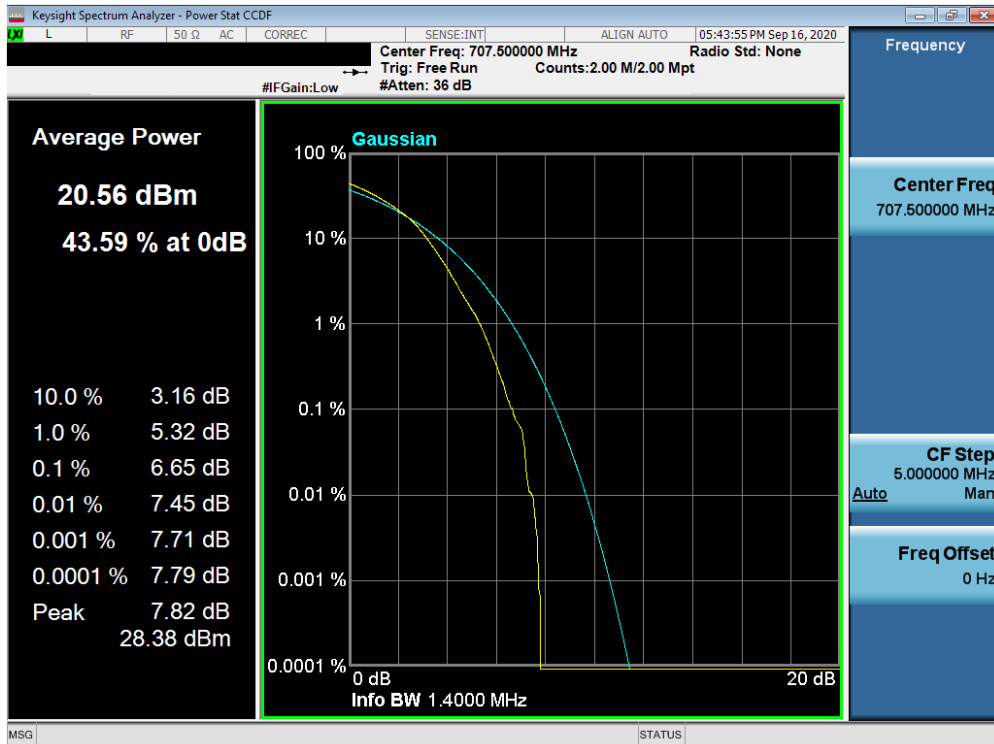


Plot 7-473. PAR Plot (LTE Band 12 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 264 of 332



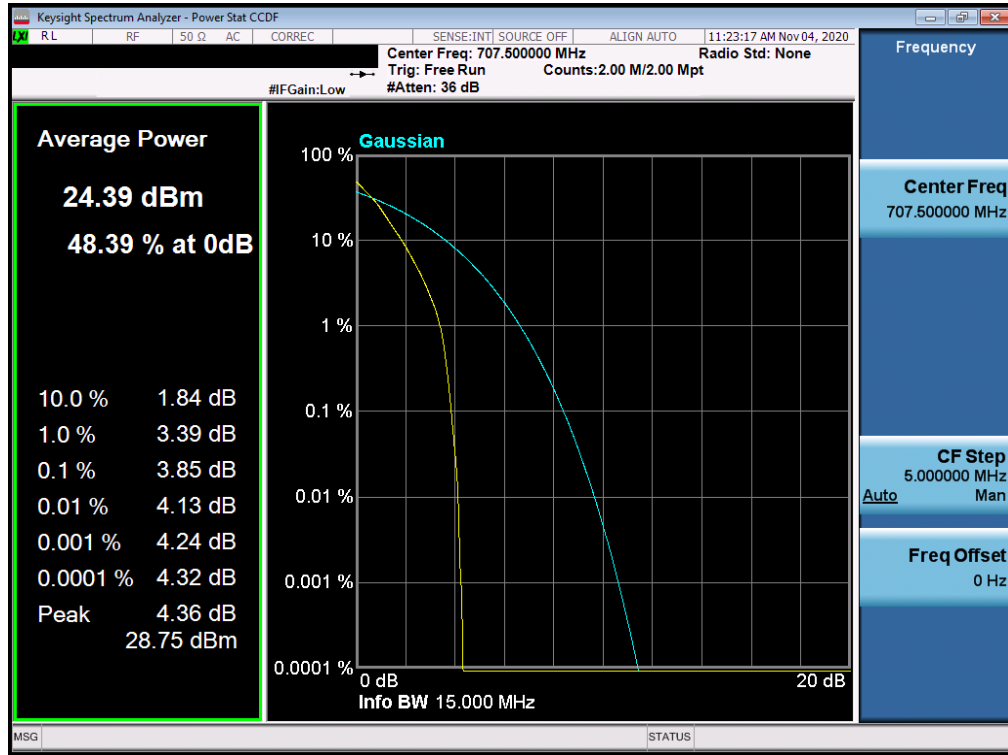
Plot 7-474. PAR Plot (LTE Band 12 - 1.4MHz 64-QAM - Full RB Configuration)



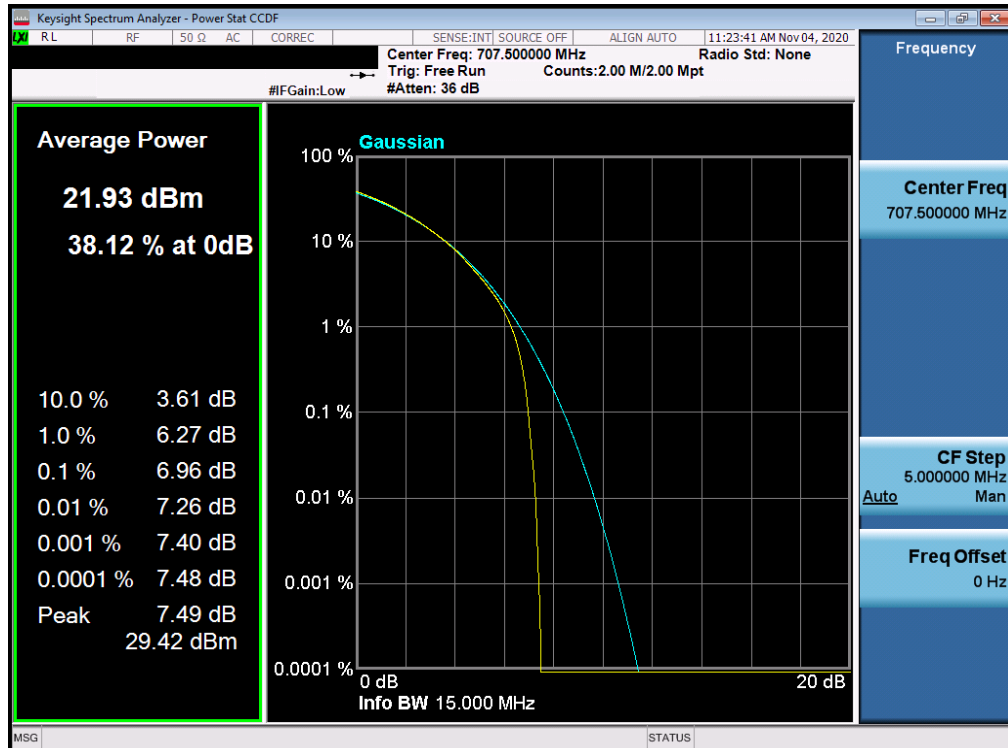
Plot 7-475. PAR Plot (LTE Band 12 - 1.4MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 265 of 332

NR Band n12

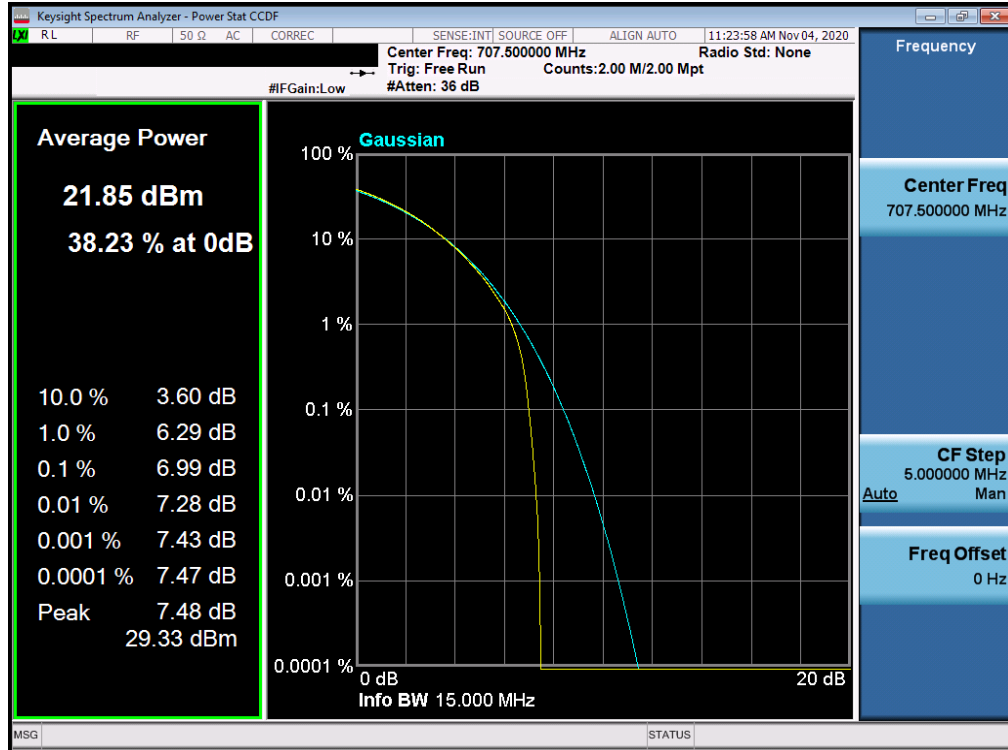


Plot 7-476. PAR Plot (NR Band n12 - 15.0MHz DFT-s-OFDM BPSK - Full RB)

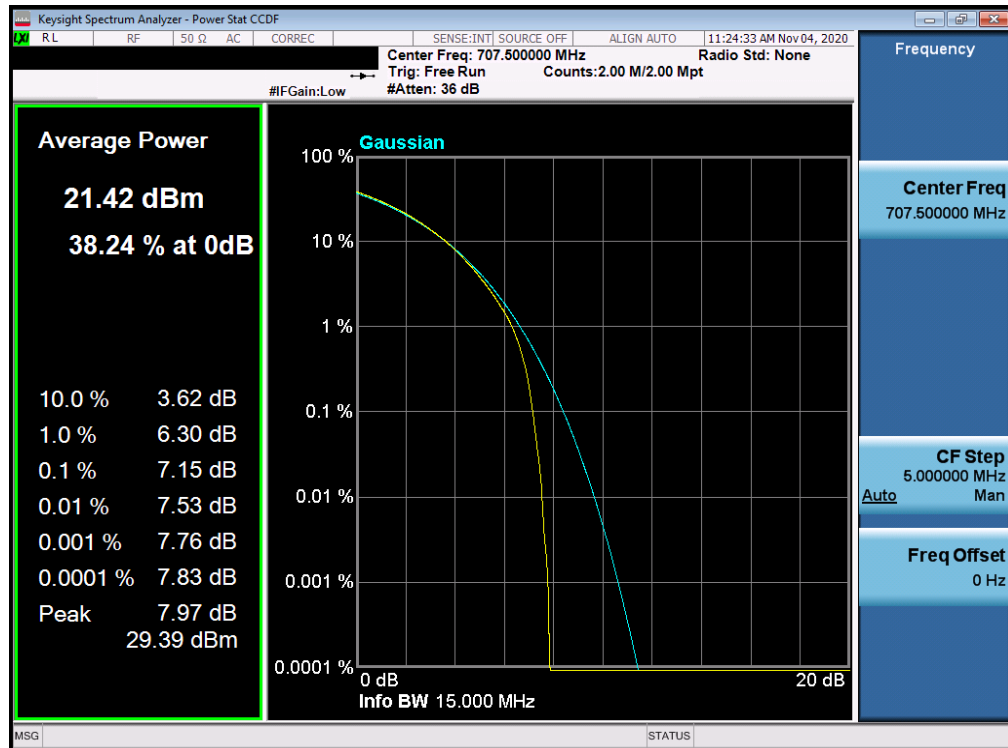


Plot 7-477. PAR Plot (NR Band n12 - 15.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 266 of 332

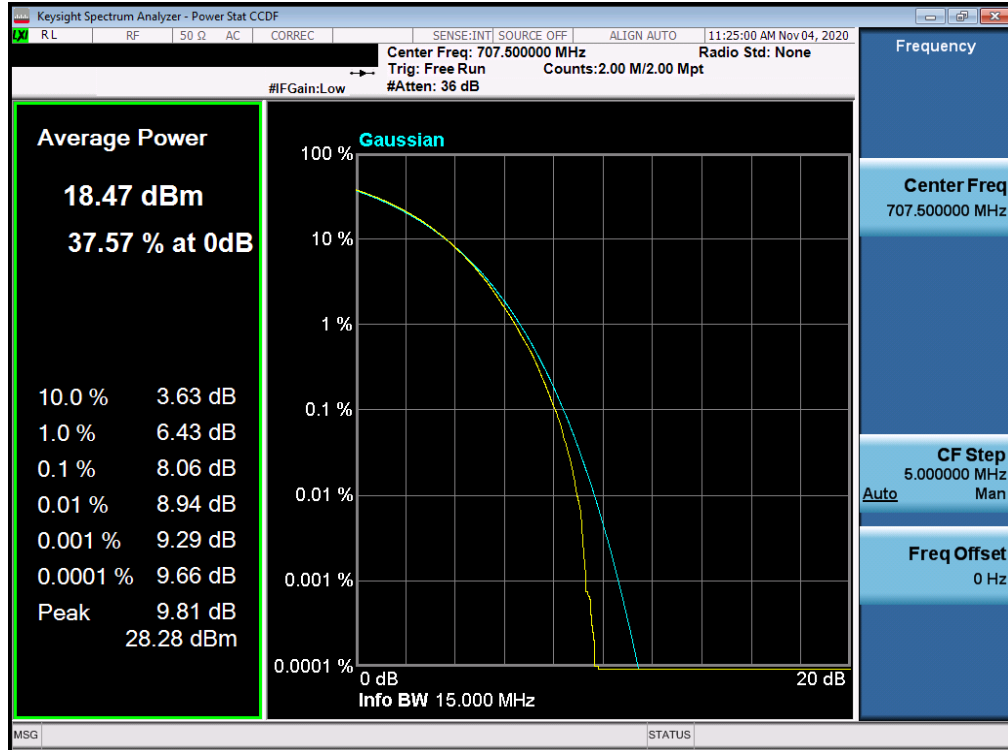


Plot 7-478. PAR Plot (NR Band n12 - 15.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

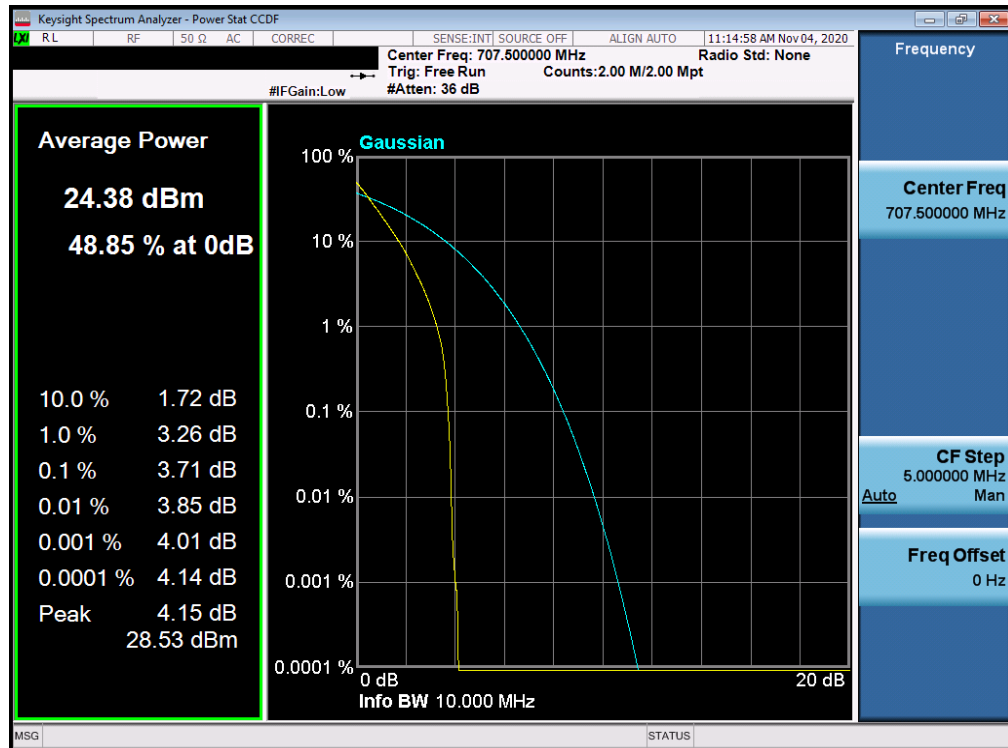


Plot 7-479. PAR Plot (NR Band n12 - 15.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 267 of 332

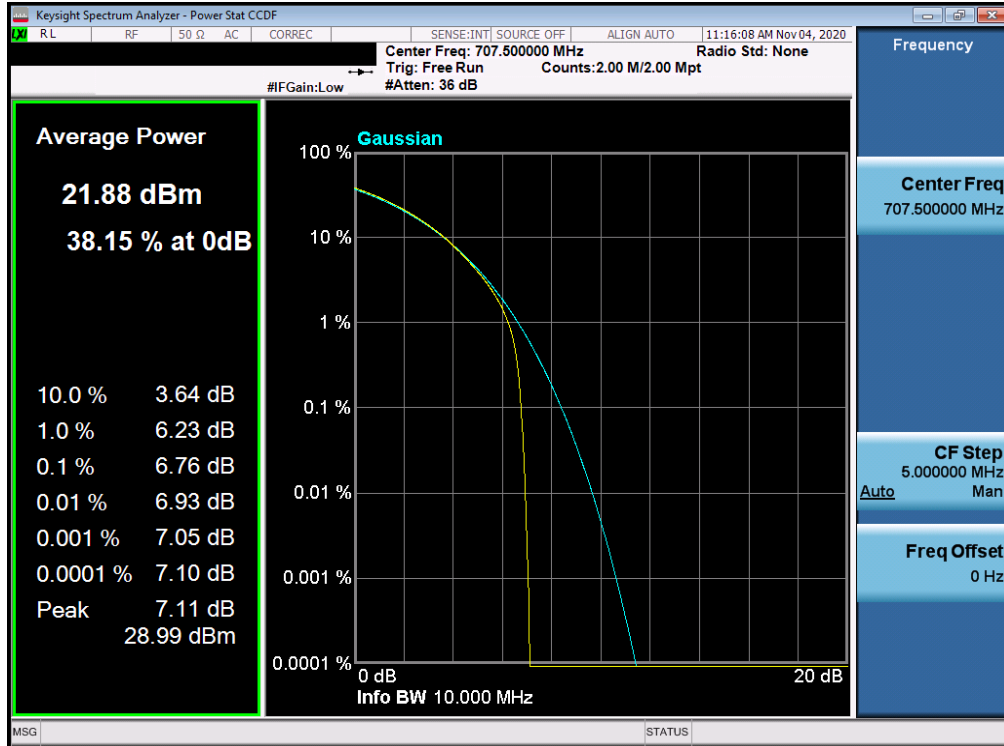


Plot 7-480. PAR Plot (NR Band n12 - 15.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

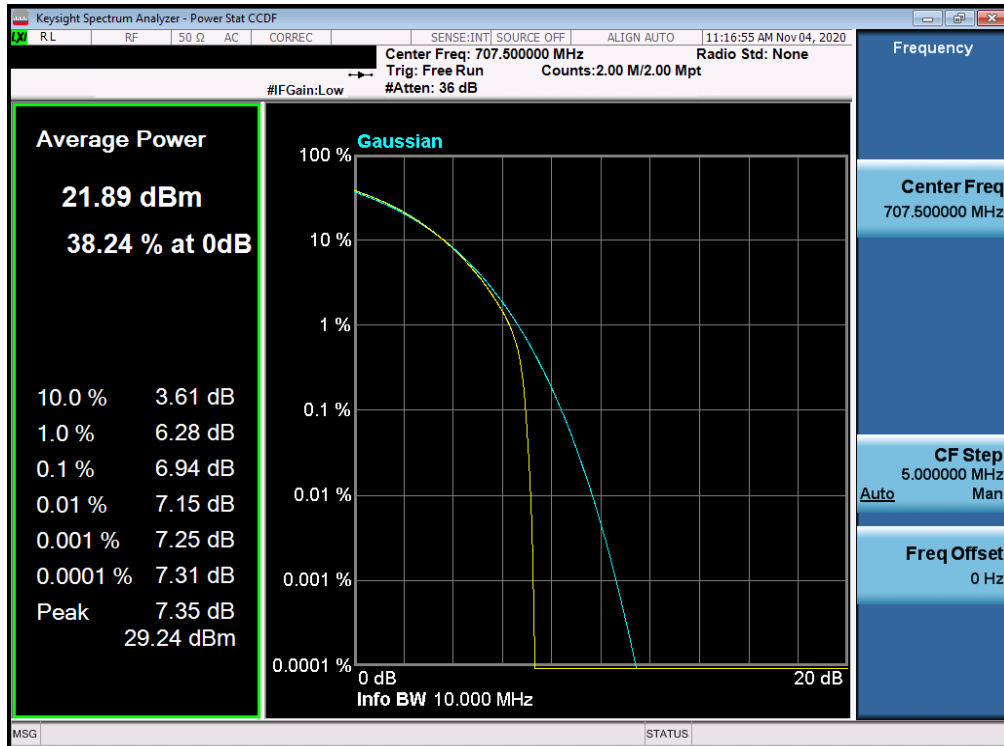


Plot 7-481. PAR Plot (NR Band n12 - 10.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 268 of 332

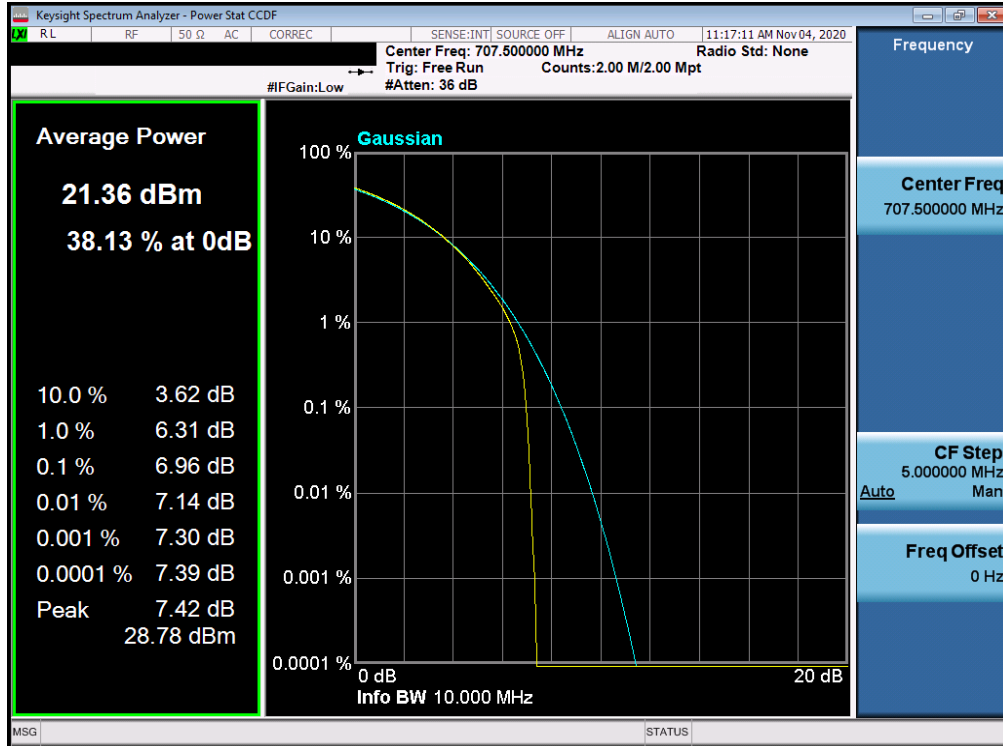


Plot 7-482. PAR Plot (NR Band n12 - 10.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

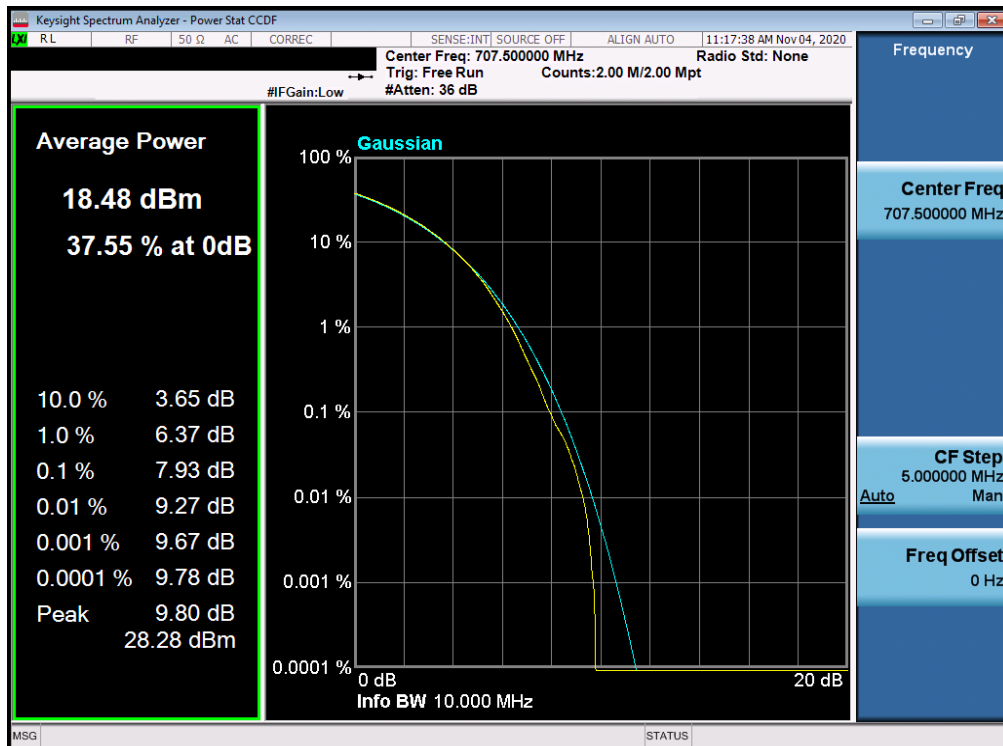


Plot 7-483. PAR Plot (NR Band n12 - 10.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 269 of 332

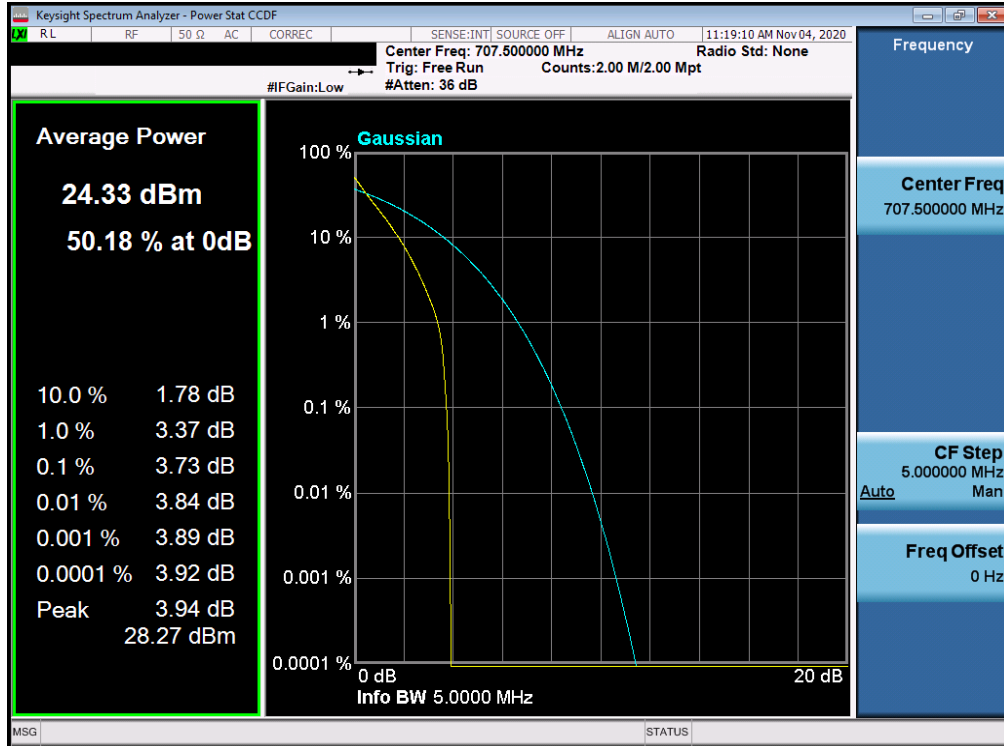


Plot 7-484. PAR Plot (NR Band n12 - 10.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

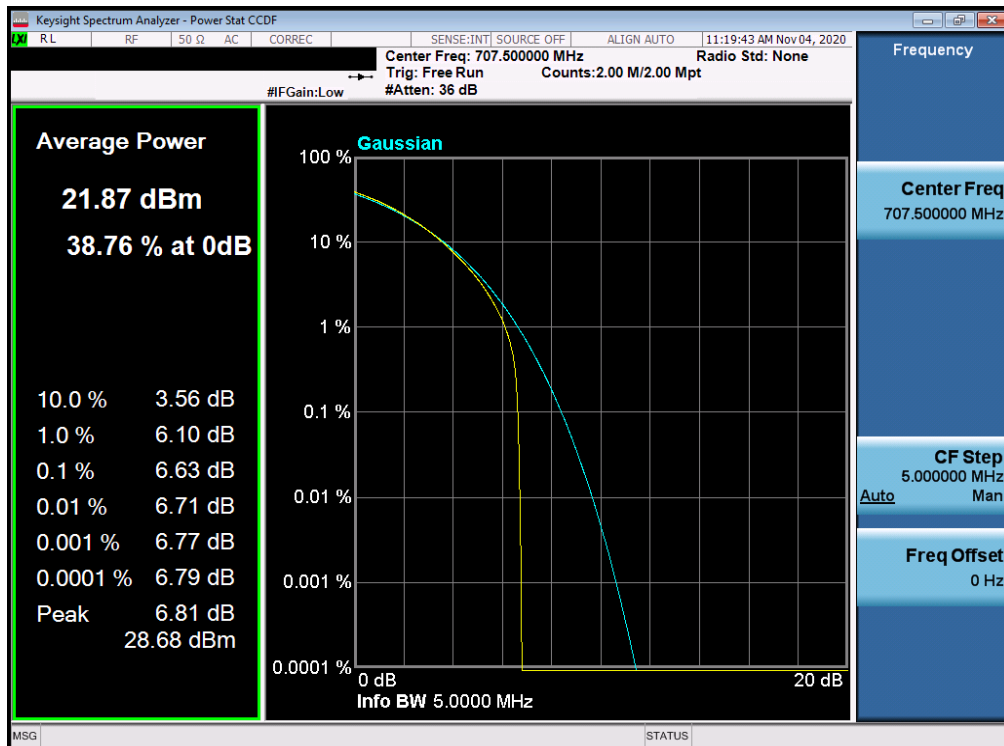


Plot 7-485. PAR Plot (NR Band n12 - 10.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 270 of 332

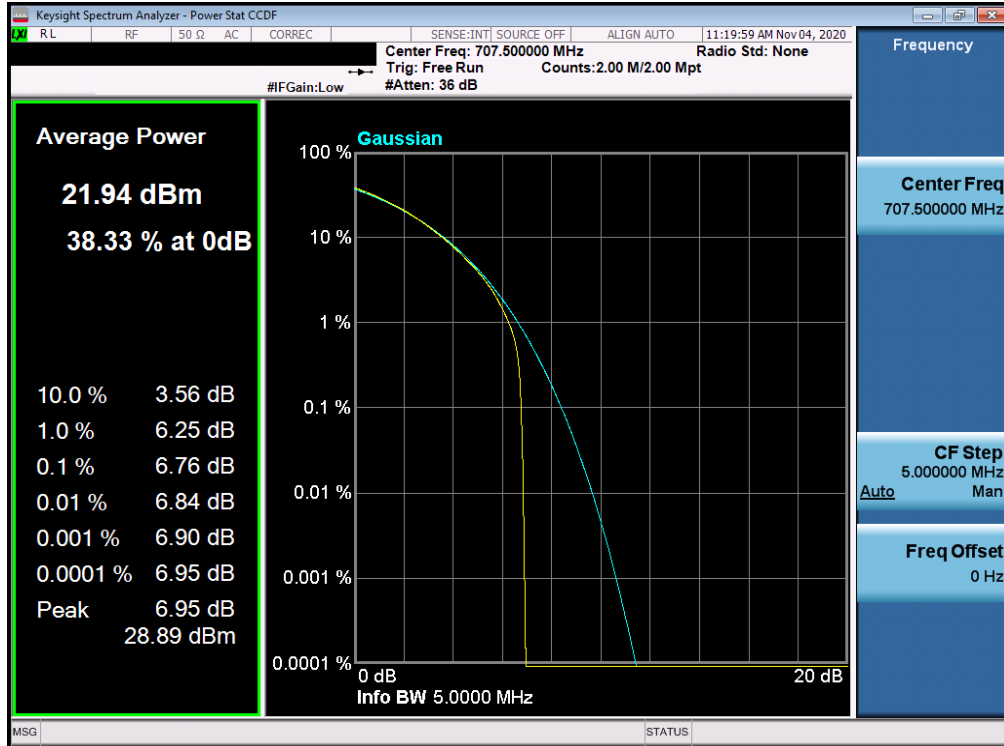


Plot 7-486. PAR Plot (NR Band n12 - 5.0MHz DFT-s-OFDM BPSK - Full RB)

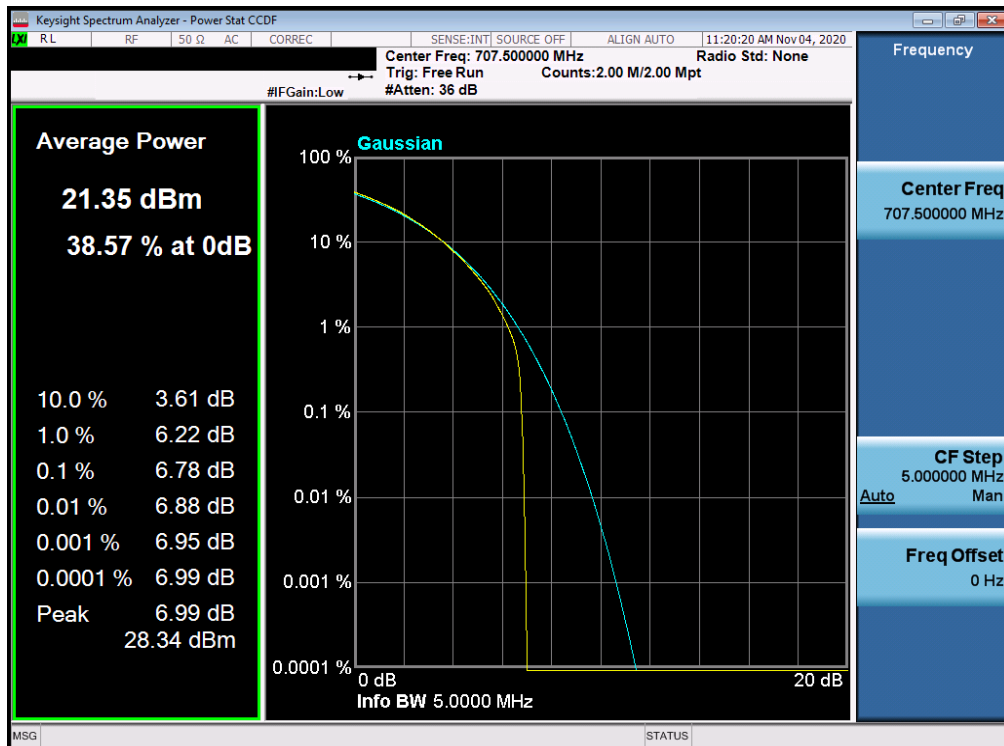


Plot 7-487. PAR Plot (NR Band n12 - 5.0MHz CP-OFDM-CP-OFDM QPSK - Full RB)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 271 of 332

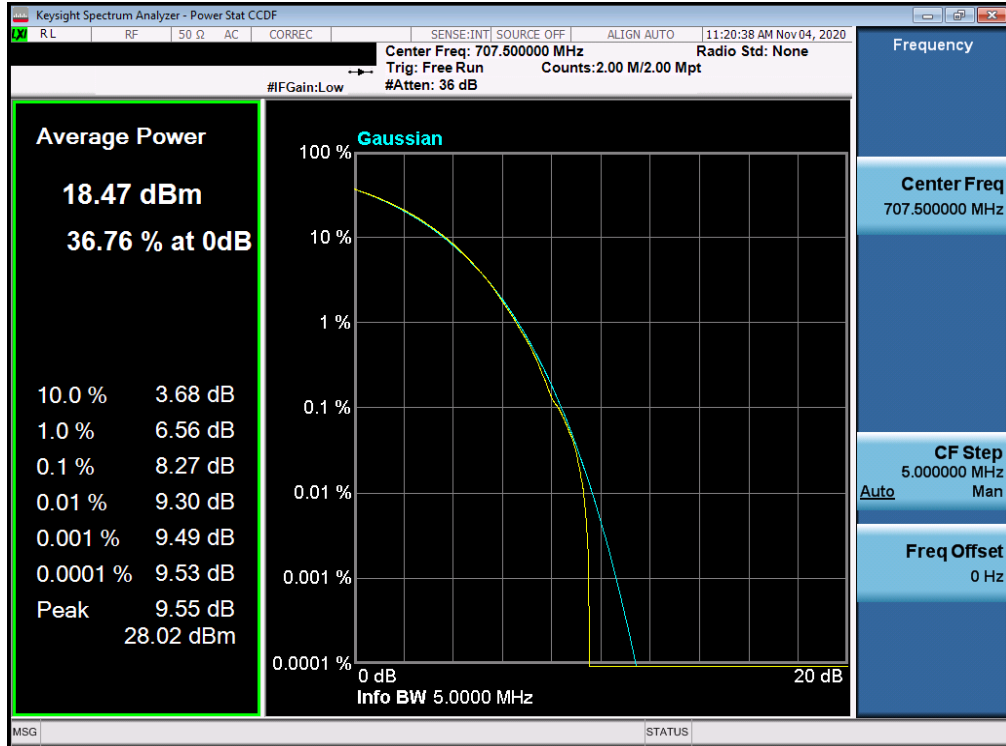


Plot 7-488. PAR Plot (NR Band n12 - 5.0MHz CP-OFDM-CP-OFDM 16-QAM - Full RB)



Plot 7-489. PAR Plot (NR Band n12 - 5.0MHz CP-OFDM-CP-OFDM 64-QAM - Full RB)

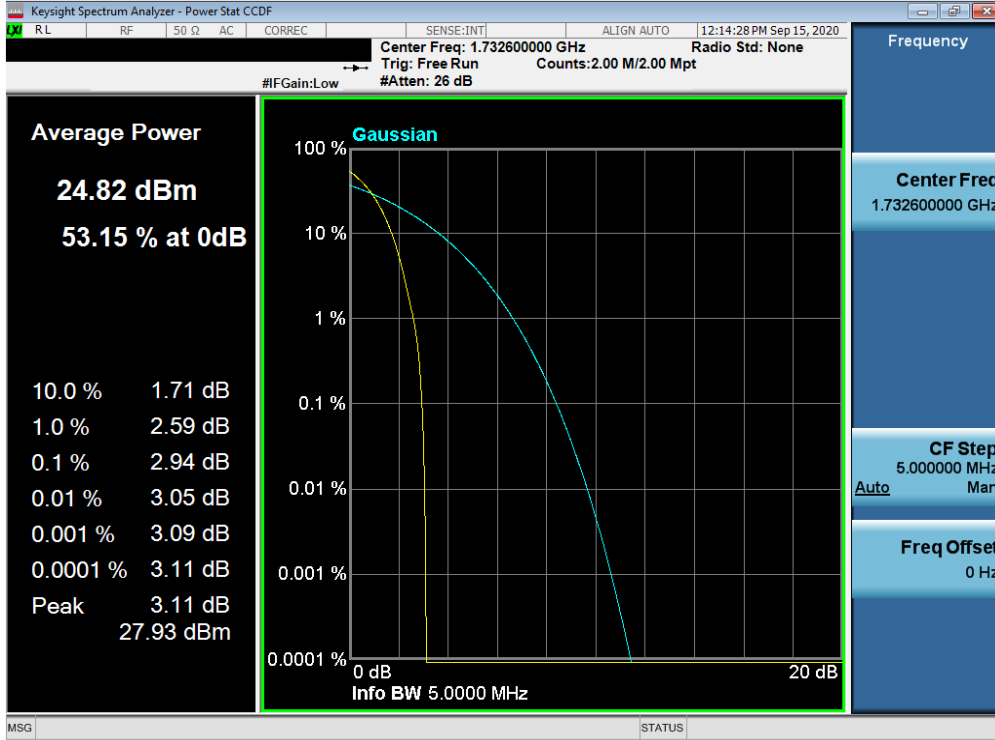
FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 272 of 332



Plot 7-490. PAR Plot (NR Band n12 - 5.0MHz CP-OFDM-CP-OFDM 256-QAM - Full RB)

WCDMA AWS

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 - 12/05/2020	EUT Type: Portable Handset		Page 273 of 332



Plot 7-491. PAR Plot (WCDMA, Ch. 1413)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 274 of 332

7.6 Uplink Carrier Aggregation

§27.53(h)

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

For Band 66 the minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{[Watts]})$.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

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

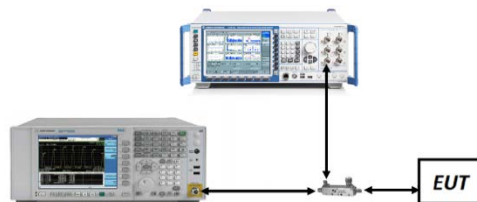




Figure 7-5. Test Instrument & Measurement Setup

FCC ID: A3LSMG996U		PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 275 of 332



Test Notes

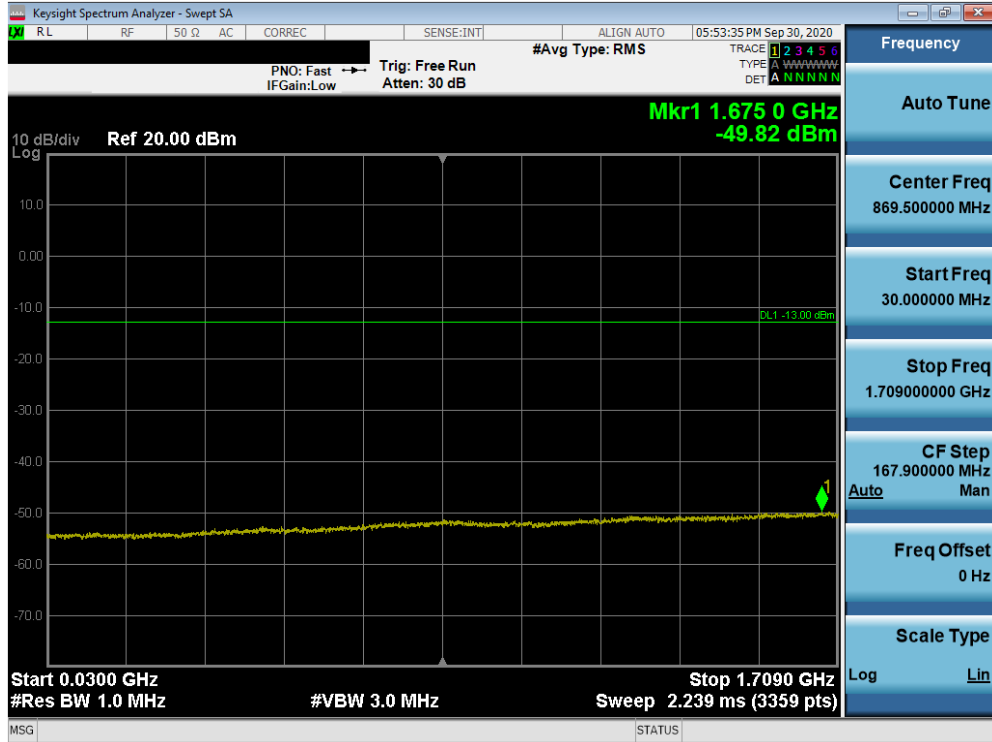
1. Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
2. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Uplink CA Configuration 66B/C

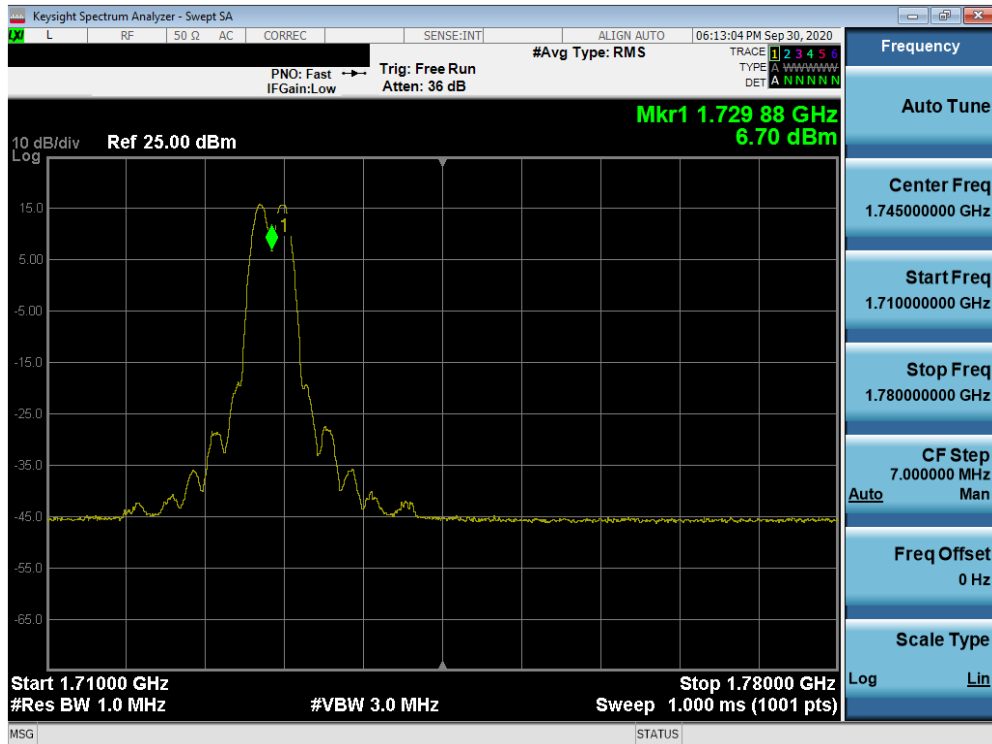
Power State	Band	Bandwidth (PCC + SCC)	PCC					SCC					ULCA Tx. Power [dBm]
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	
Max	LTE B66	20MHz + 20MHz	QPSK	132072	1720.0	1	99	QPSK	132270	1739.8	1	0	24.16
				132322	1745.0	1	99		132520	1764.8	1	0	24.25
				132572	1770.0	1	0		132374	1750.2	1	99	24.27
			QPSK	132572	1770	100	0	QPSK	132374	1750.2	100	0	22.4
			16-QAM	132572	1770	100	0	16-QAM	132374	1750.2	100	0	21.37
			64-QAM	132572	1770	100	0	64-QAM	132374	1750.2	100	0	21.09
			256-QAM	132572	1770	100	0	256-QAM	132374	1750.2	100	0	19.42

Table 7-2. Conducted Powers (B66 with Various Combinations for 20MHz + 20MHz Channel Bandwidth)



FCC ID: A3LSMG996U	 PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset	Page 276 of 332

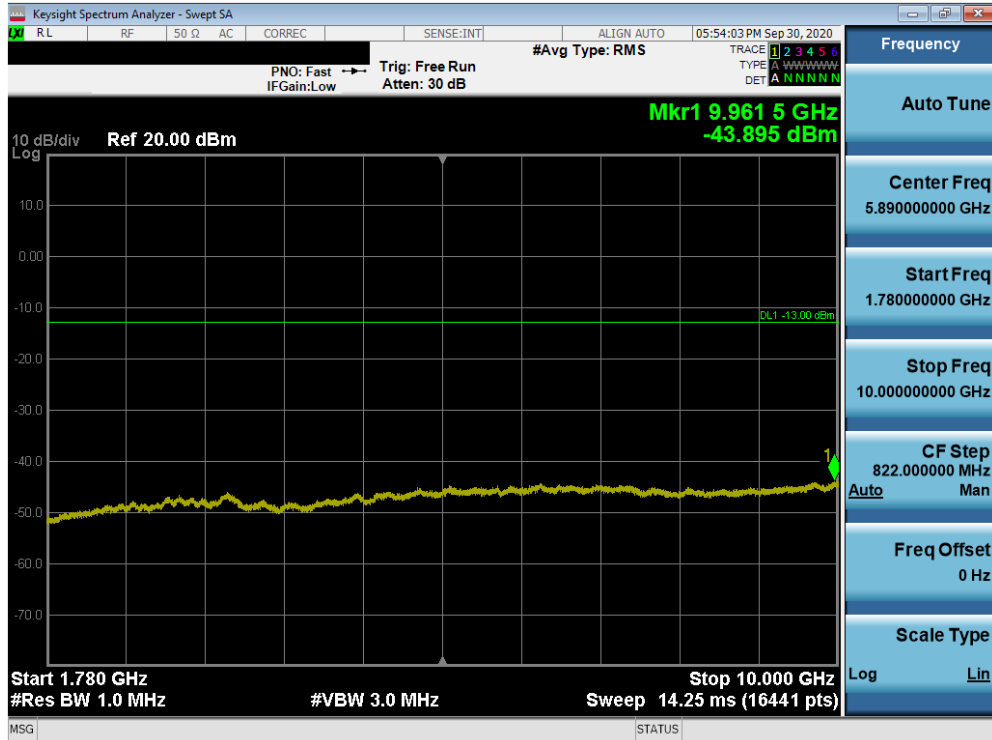


Plot 7-492. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)

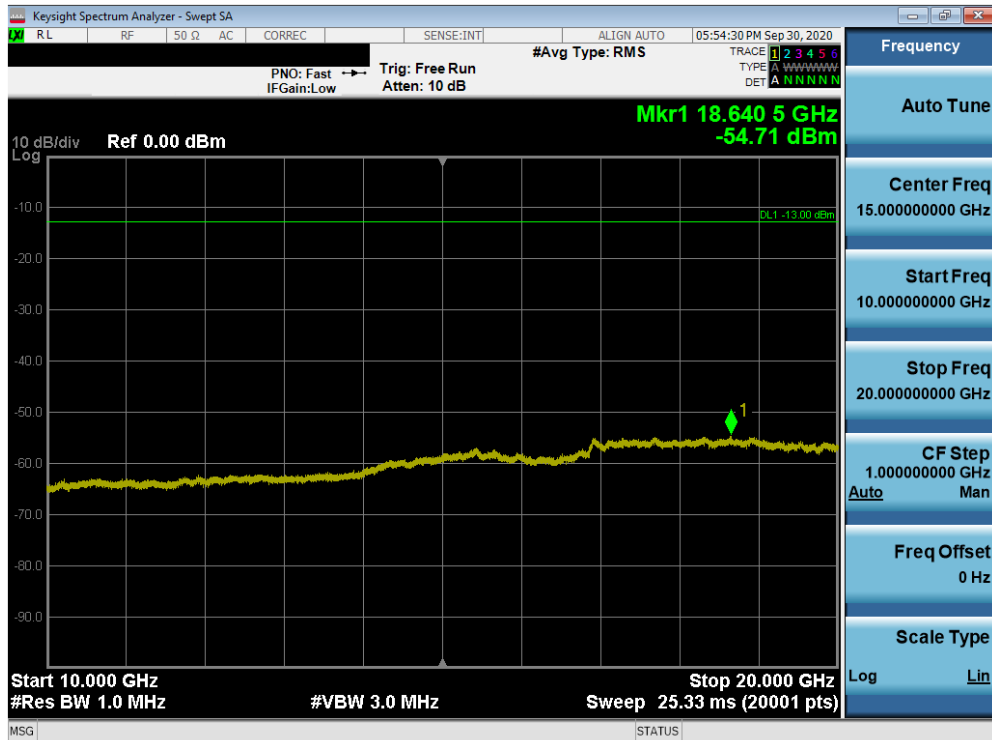


Plot 7-493. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)

FCC ID: A3LSMG996U		PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 277 of 332

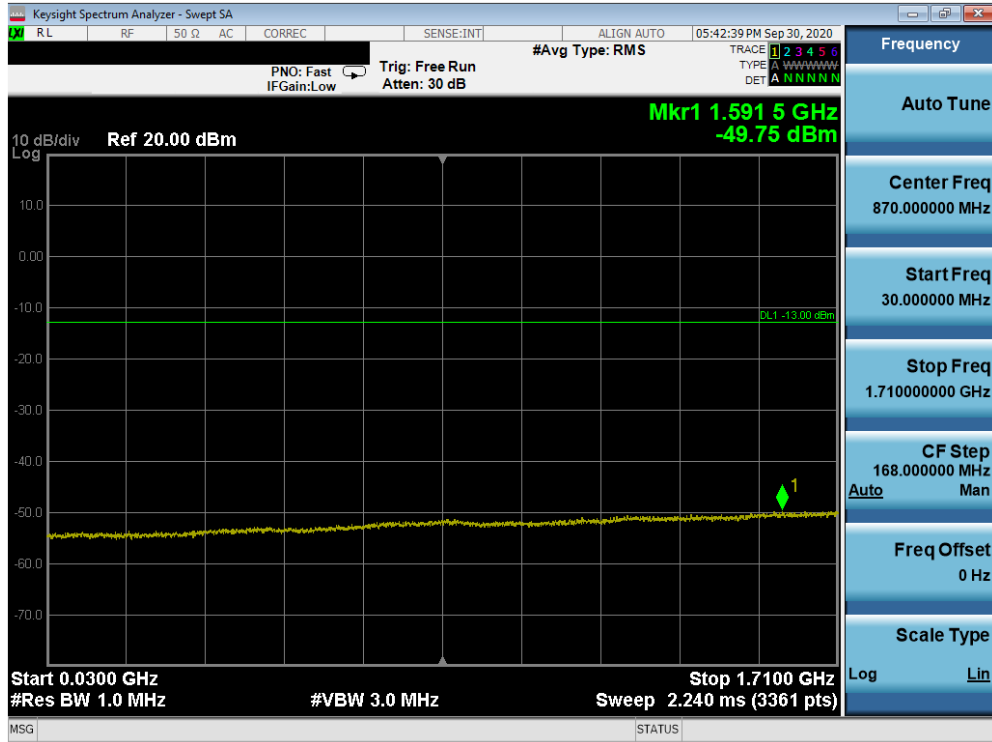


Plot 7-494. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)

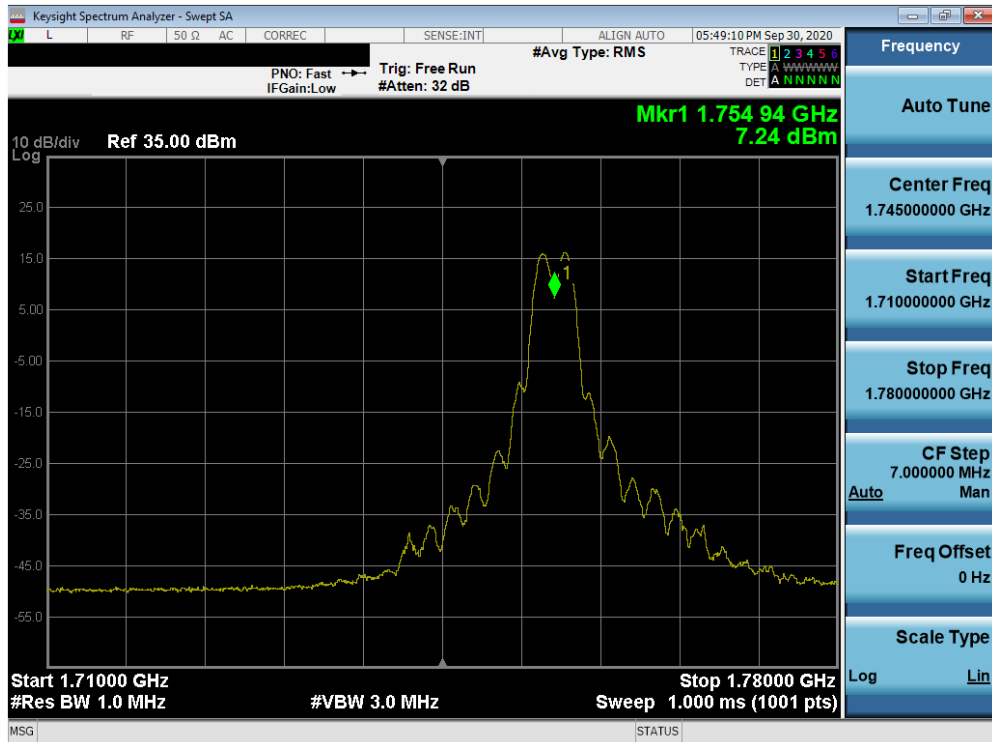


Plot 7-495. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 278 of 332

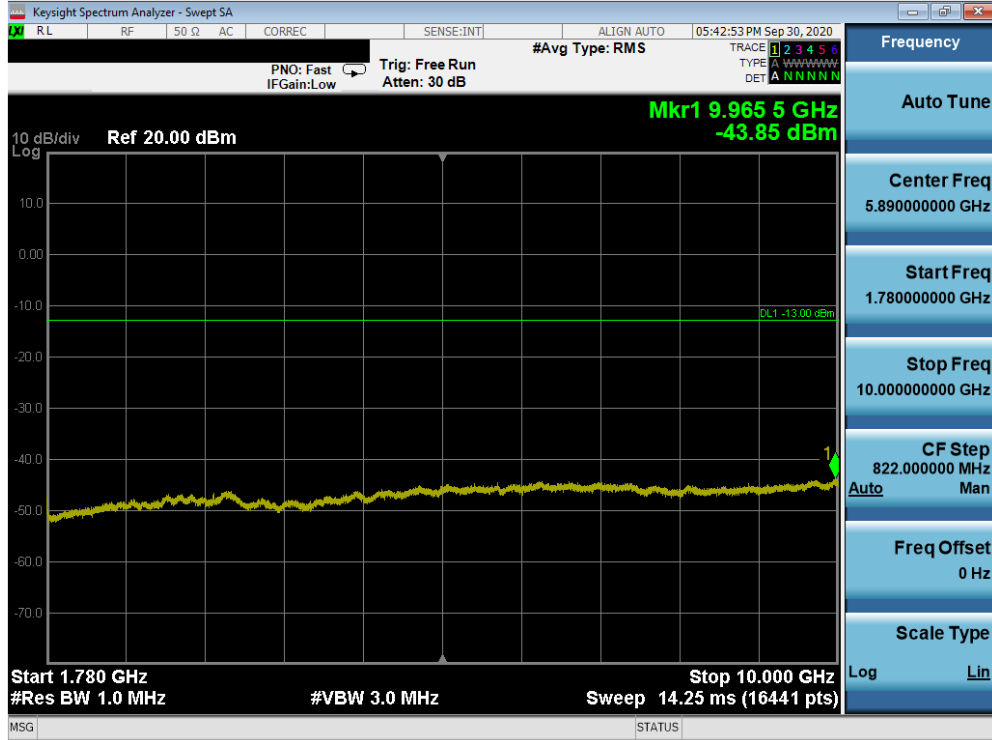


Plot 7-496. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

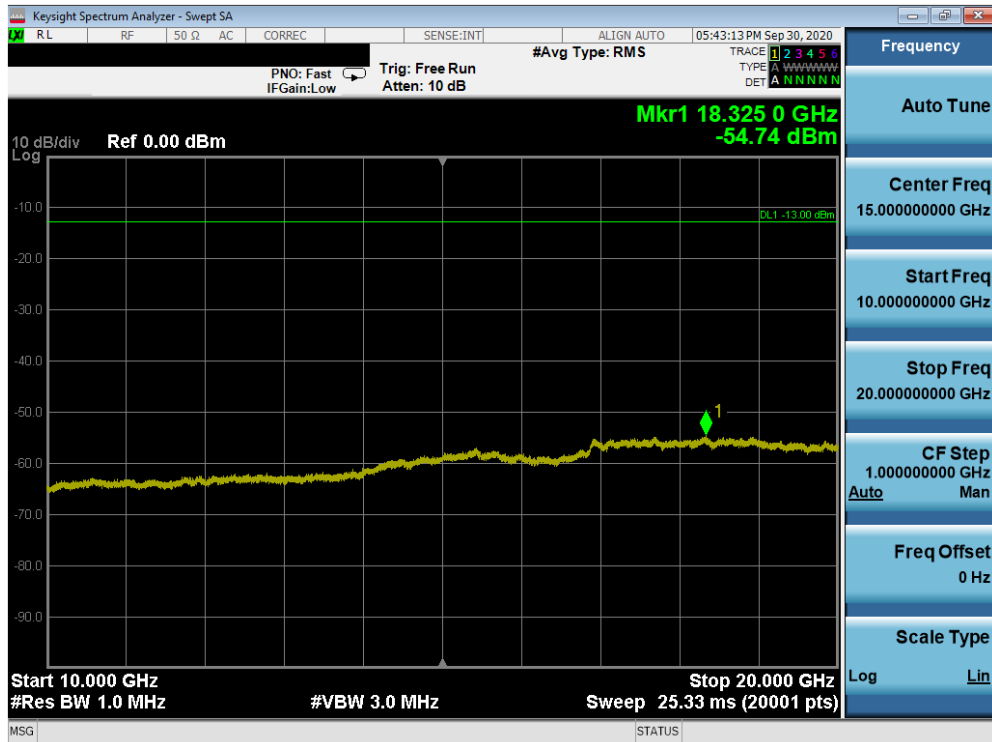


Plot 7-497. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 279 of 332



Plot 7-498. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



Plot 7-499. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

FCC ID: A3LSMG996U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Quality Manager
Test Report S/N: 1M2009140143-20-R1.A3L	Test Dates: 09/15/2020 – 12/05/2020	EUT Type: Portable Handset		Page 280 of 332