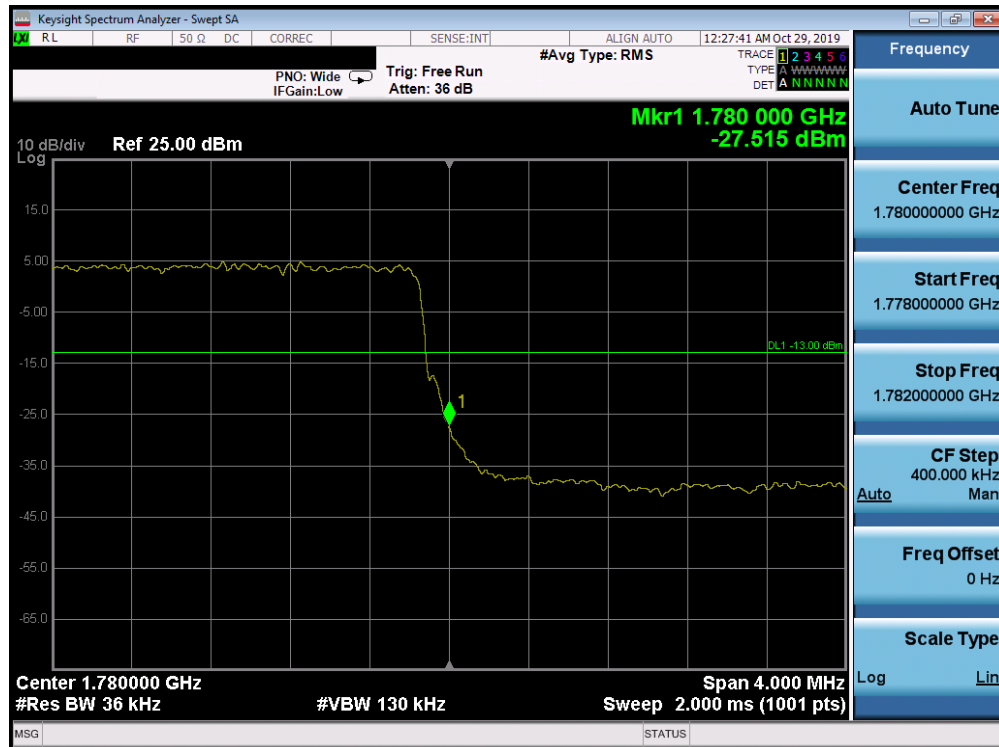
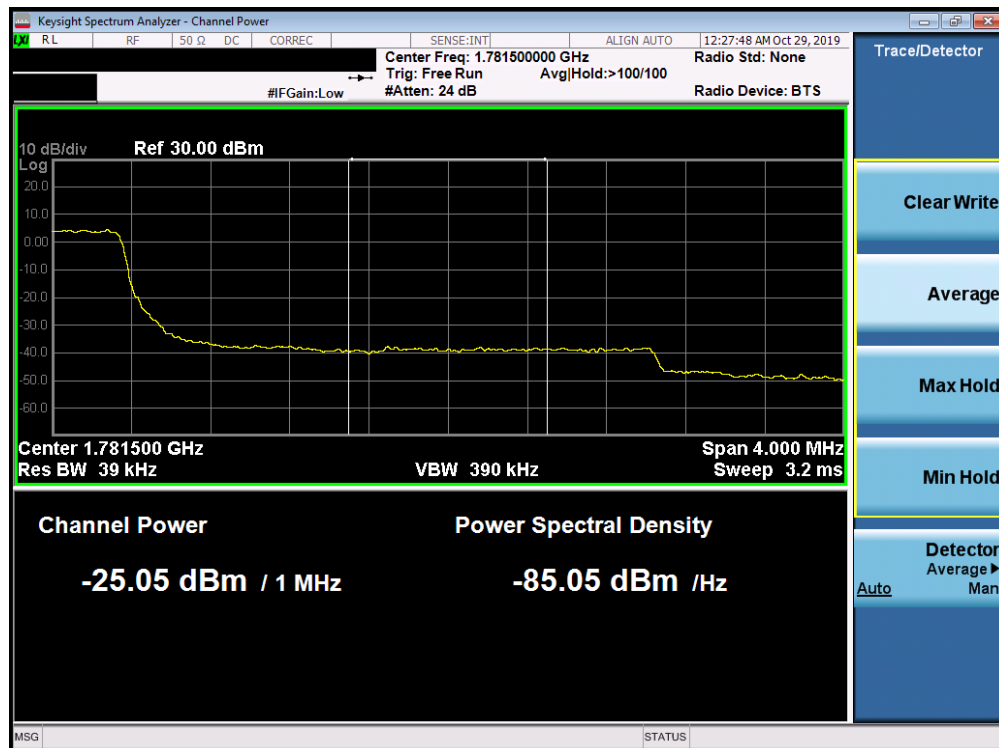


© 2020 PCTEST V 9.0 02/01/2019
All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

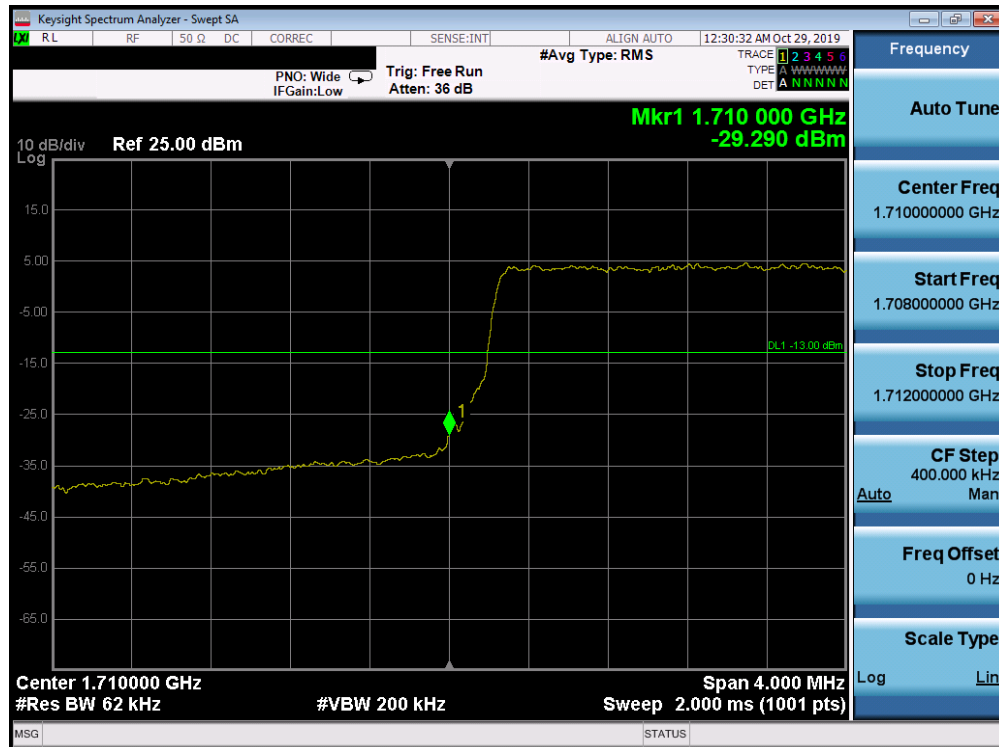


Plot 7-309. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

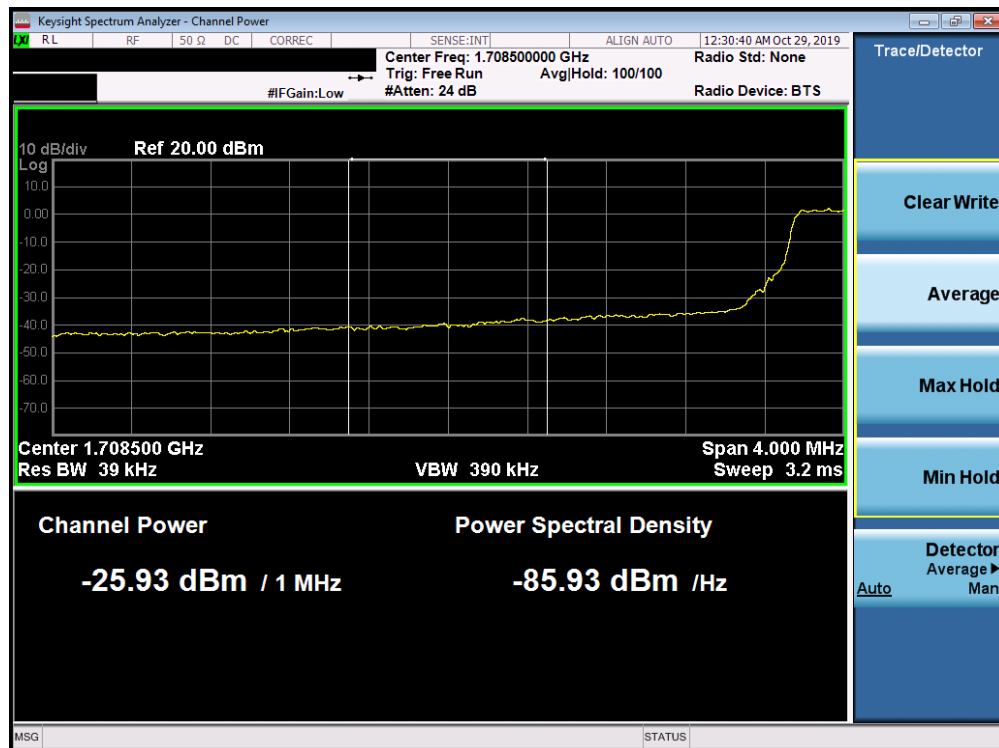


Plot 7-310. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 180 of 357

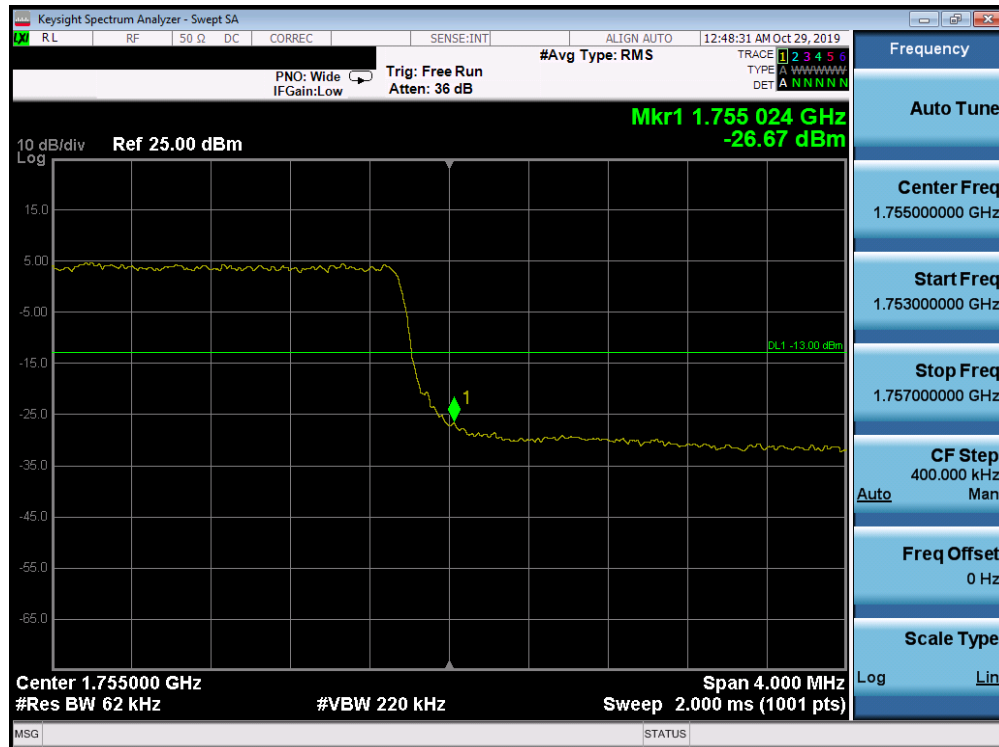


Plot 7-311. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

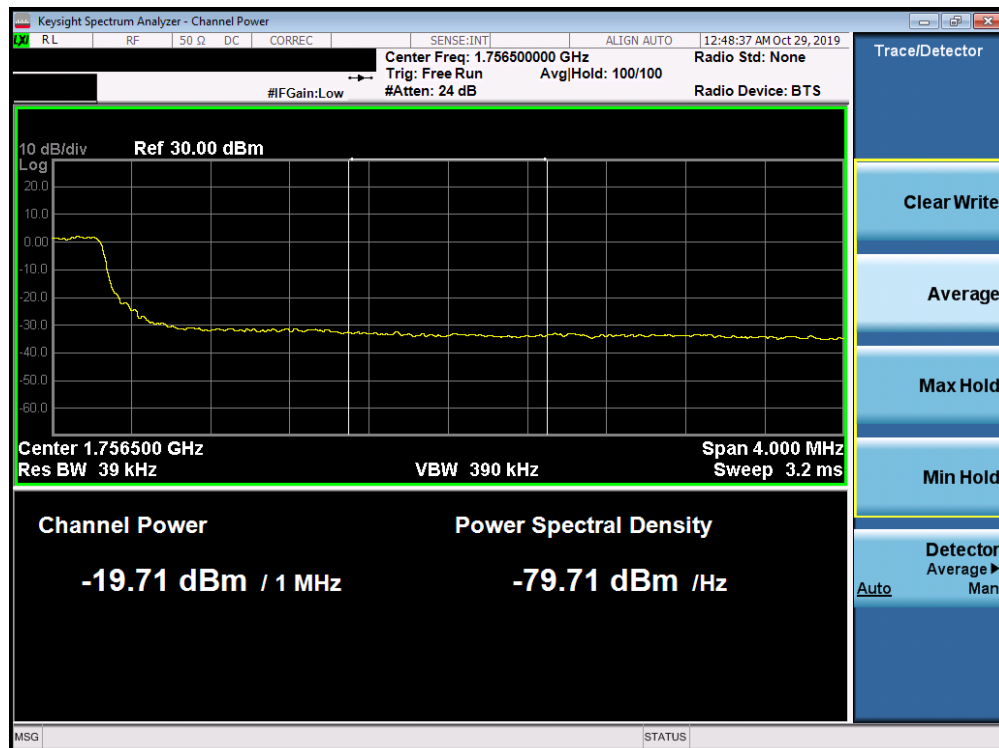


Plot 7-312. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 181 of 357



Plot 7-313. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

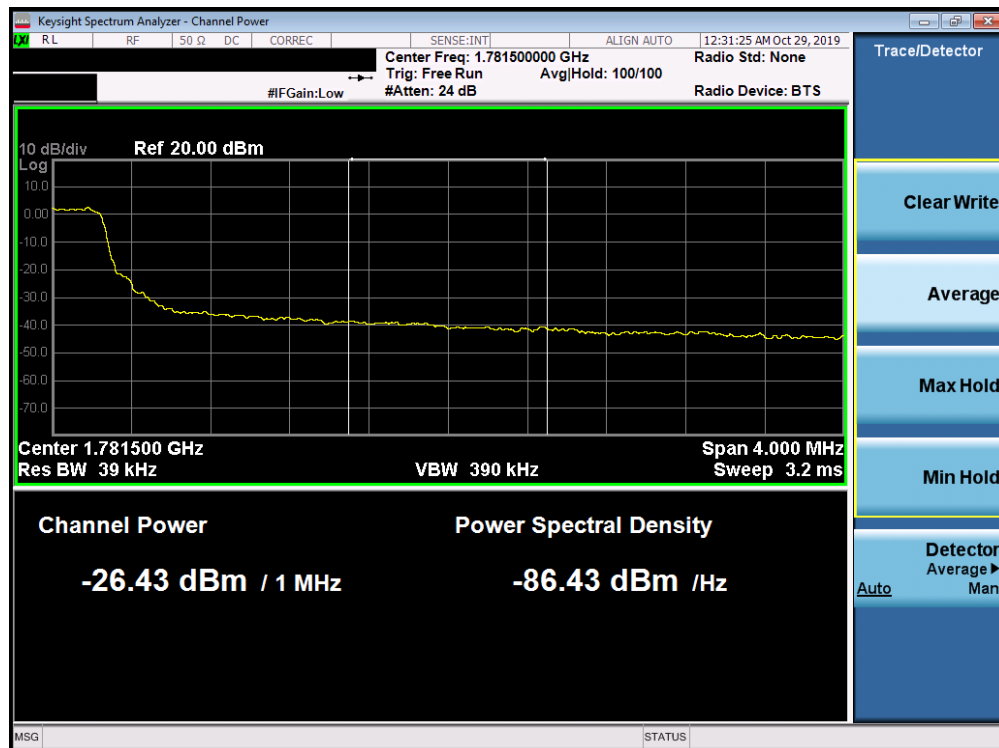


Plot 7-314. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 182 of 357

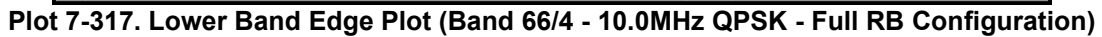


Plot 7-315. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)



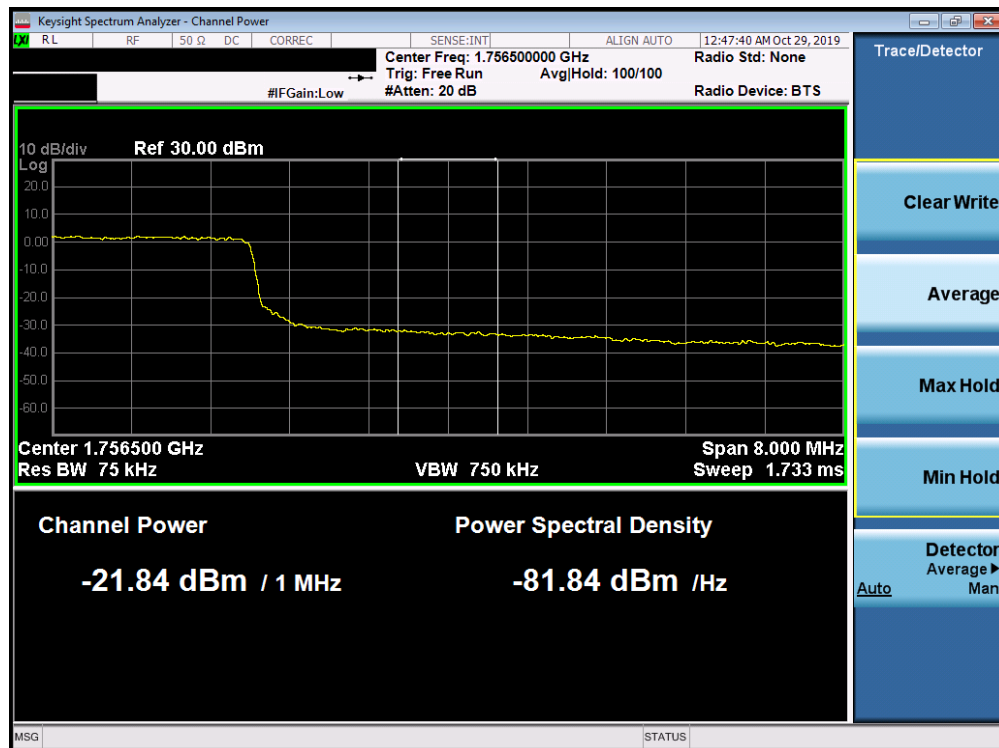
Plot 7-316. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 183 of 357

V 9.0 02/01/2019

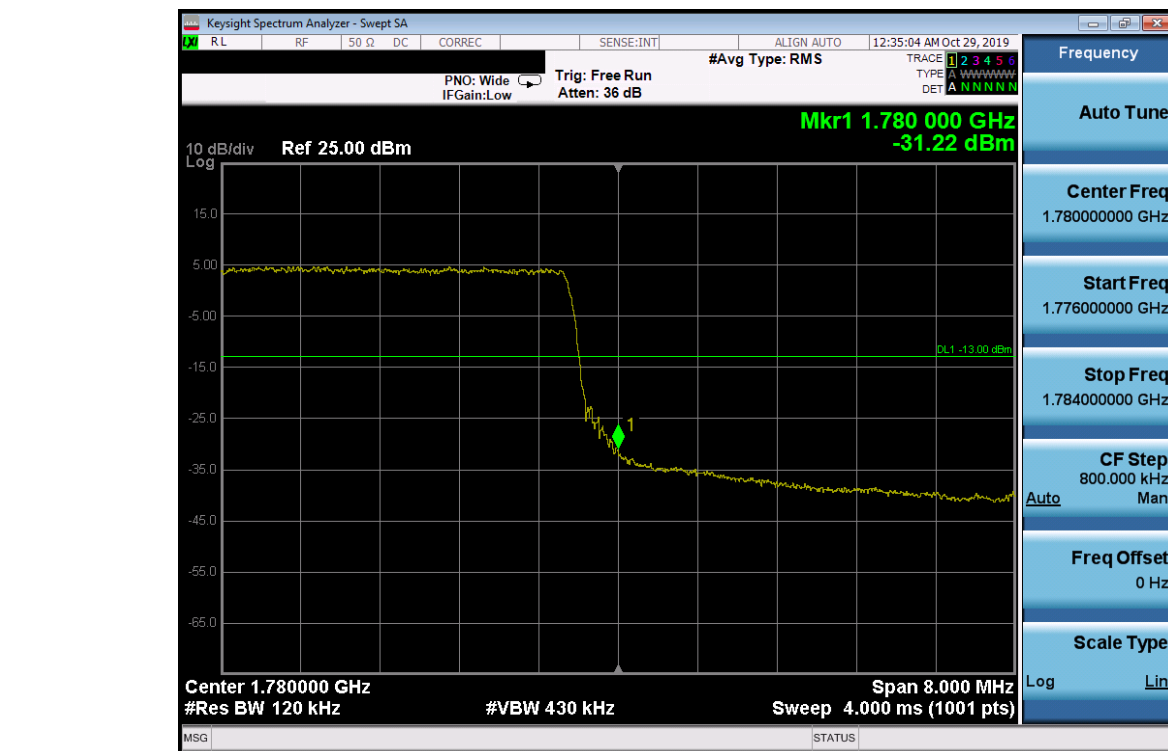


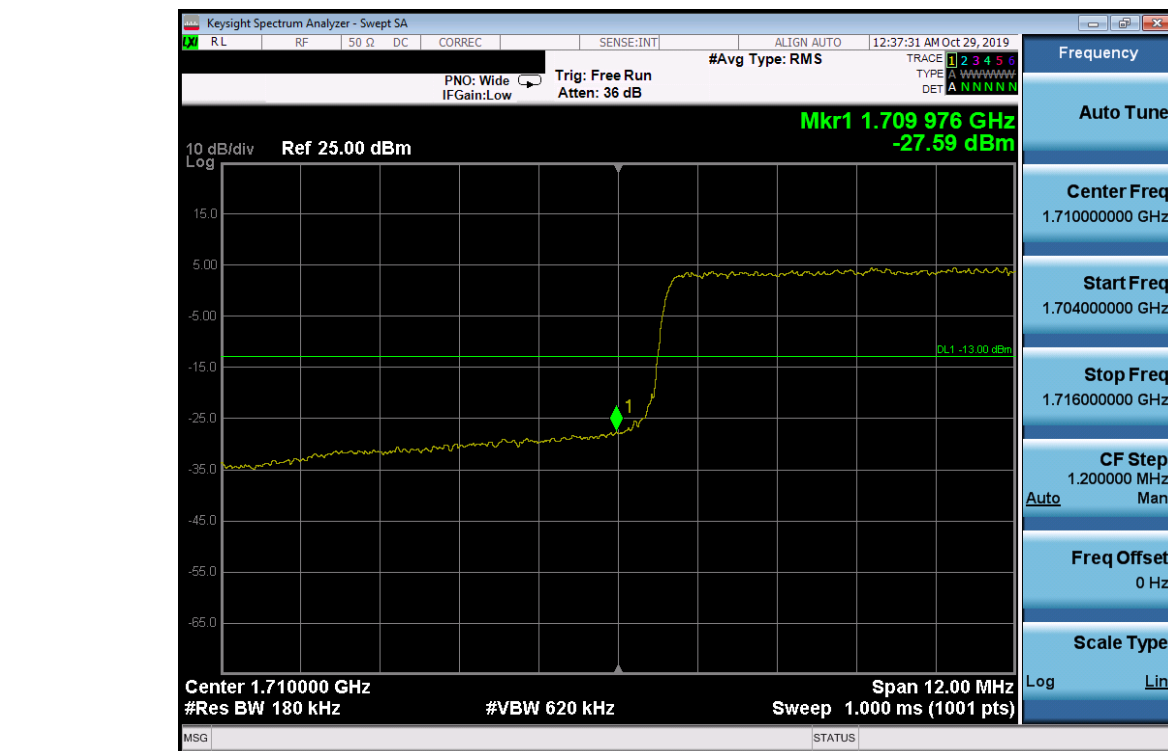
Plot 7-319. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

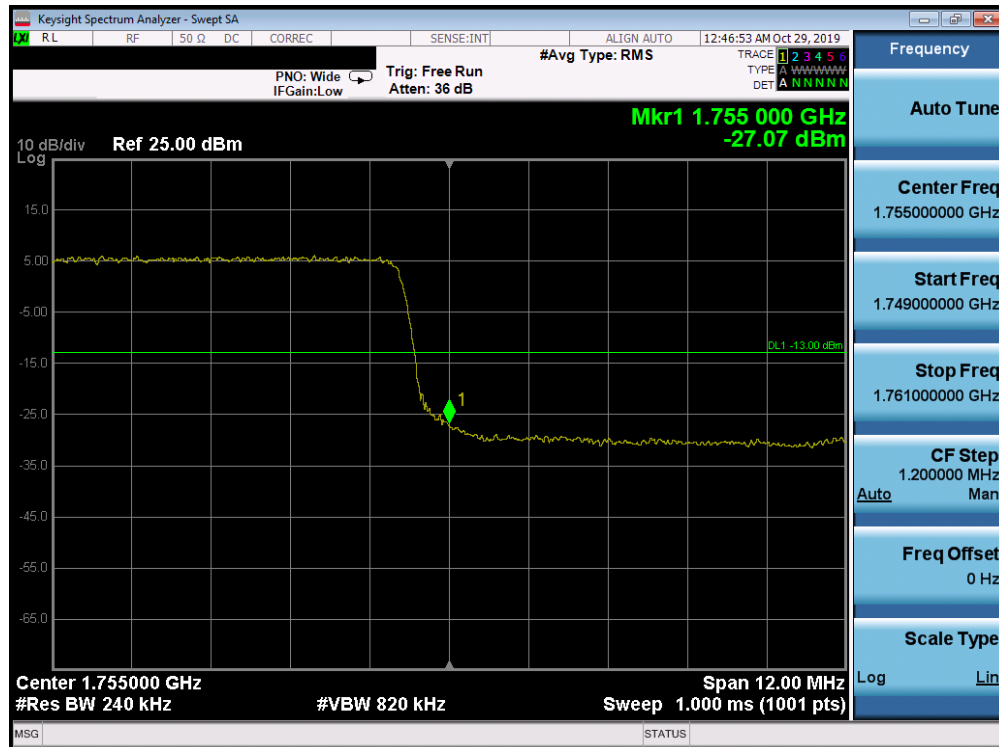


Plot 7-320. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

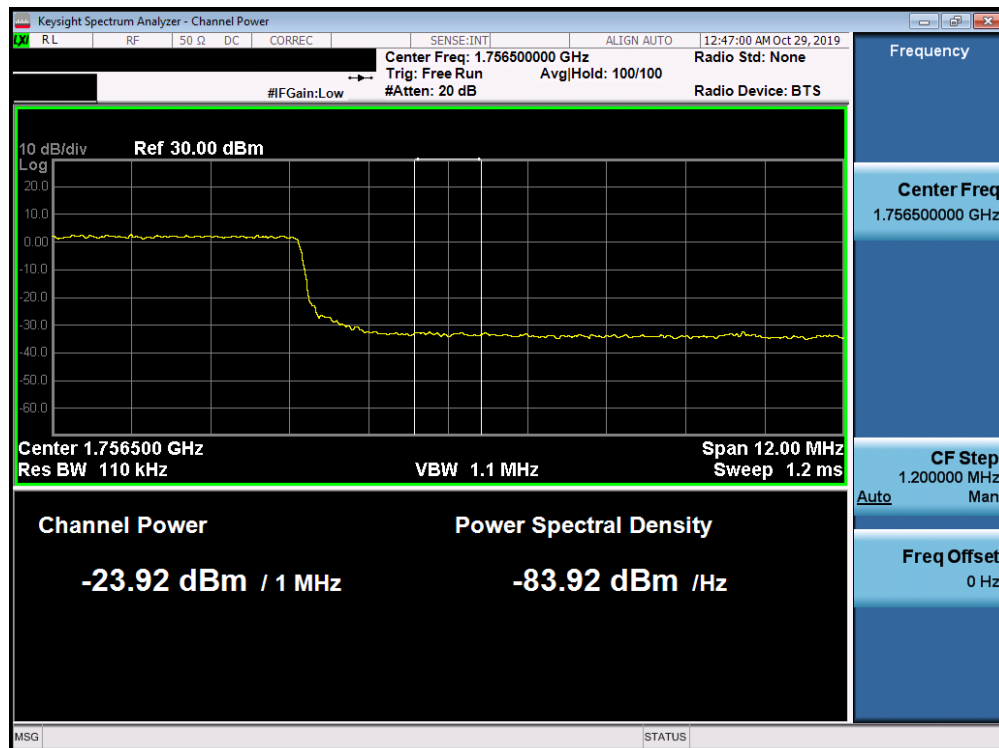
FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 185 of 357





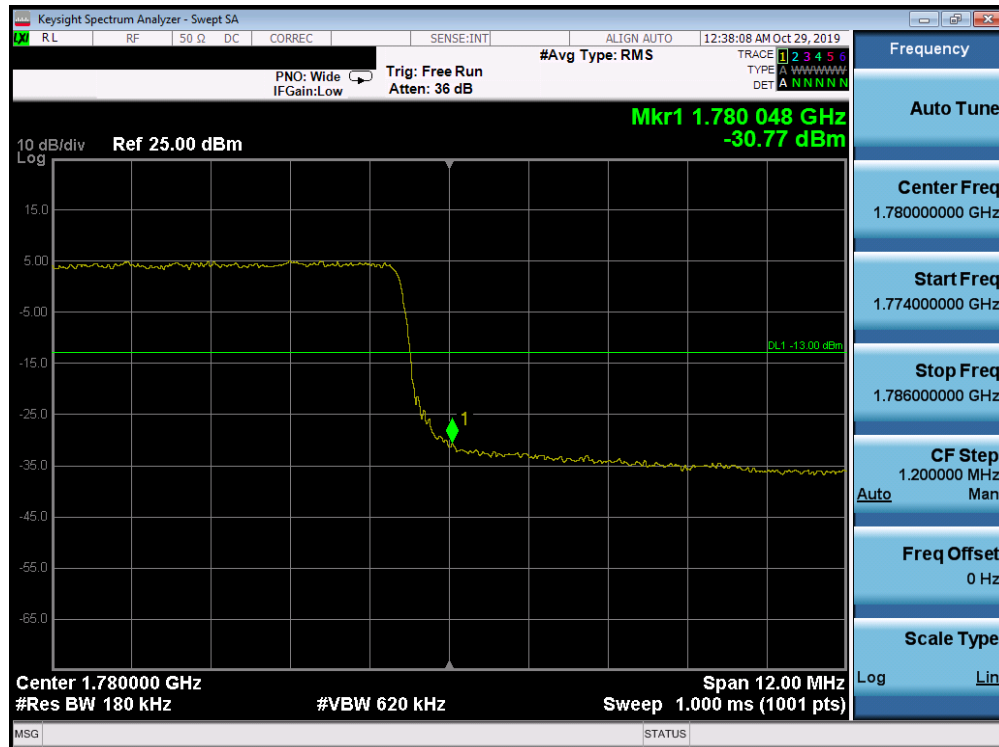


Plot 7-325. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

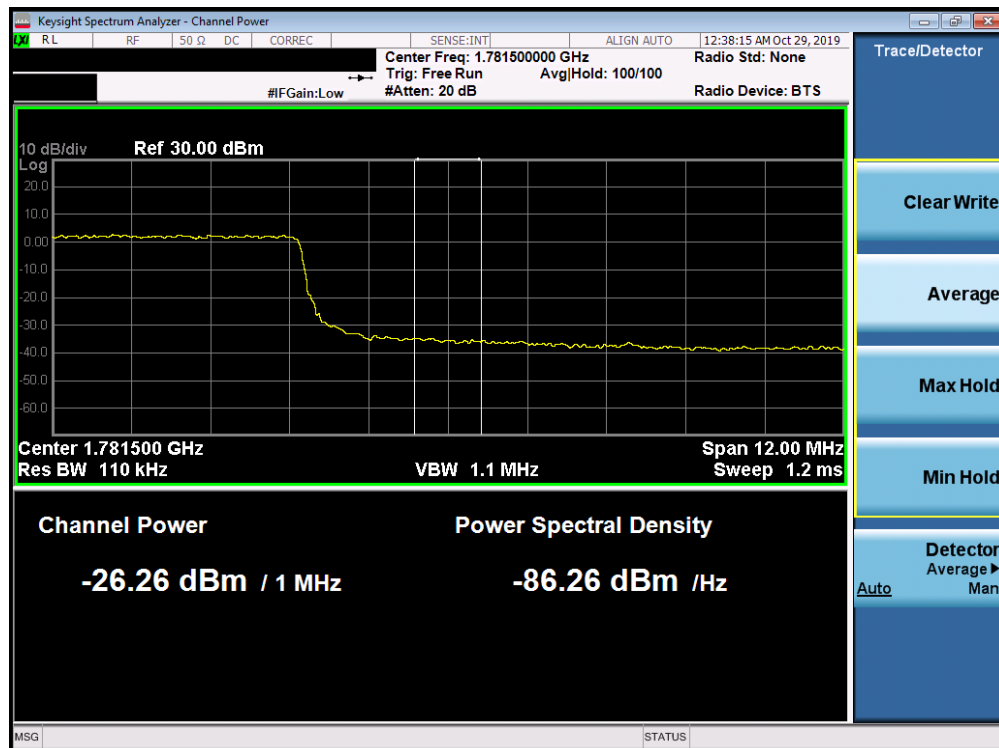


Plot 7-326. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 188 of 357

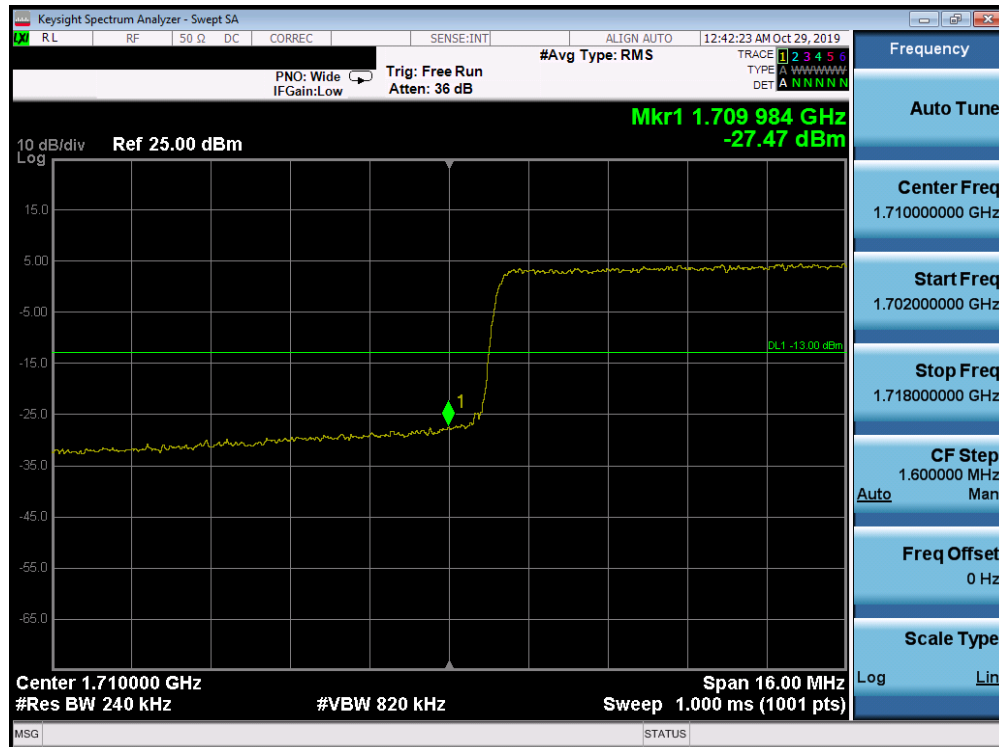


Plot 7-327. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

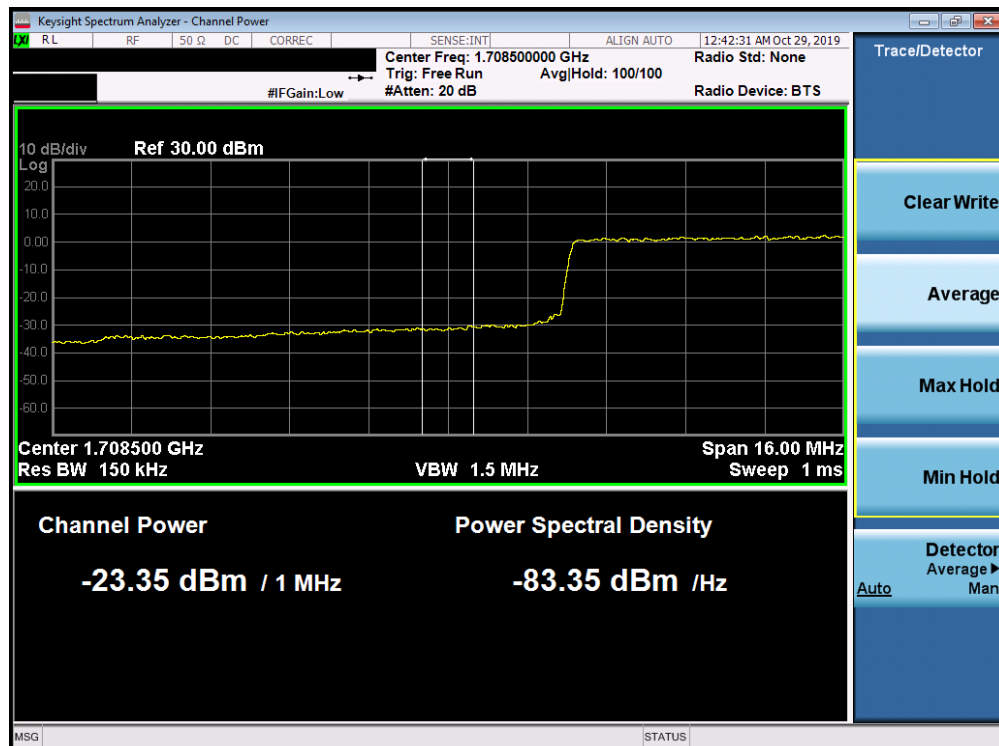


Plot 7-328. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 189 of 357

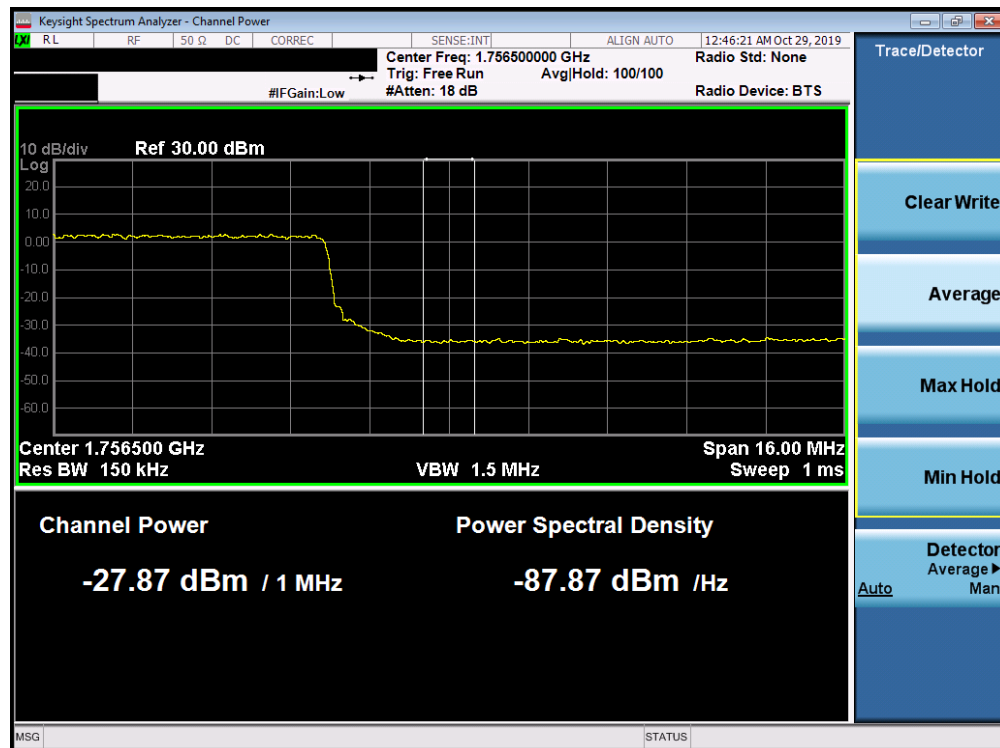
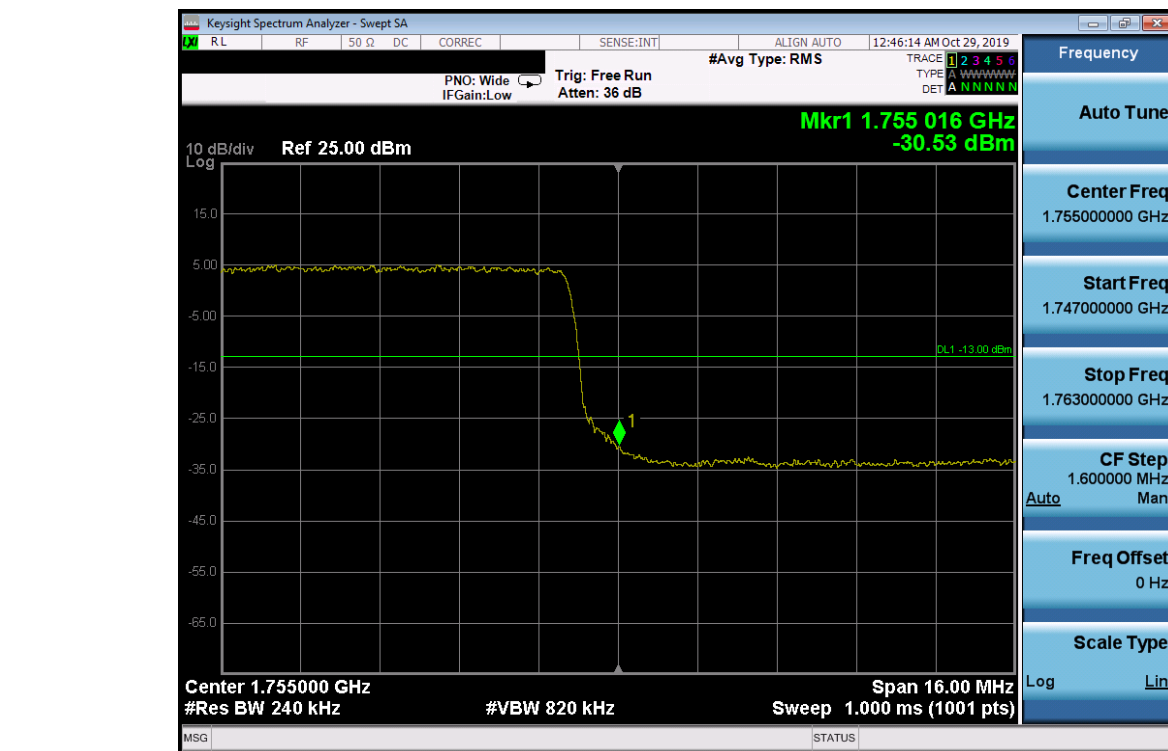


Plot 7-329. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

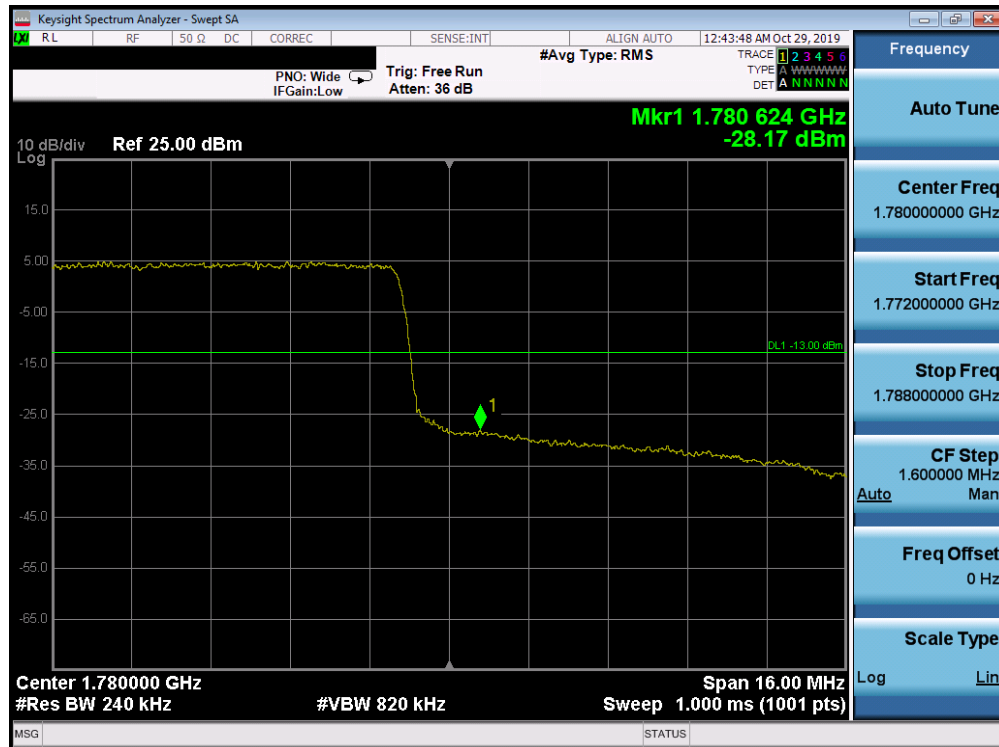


Plot 7-330. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

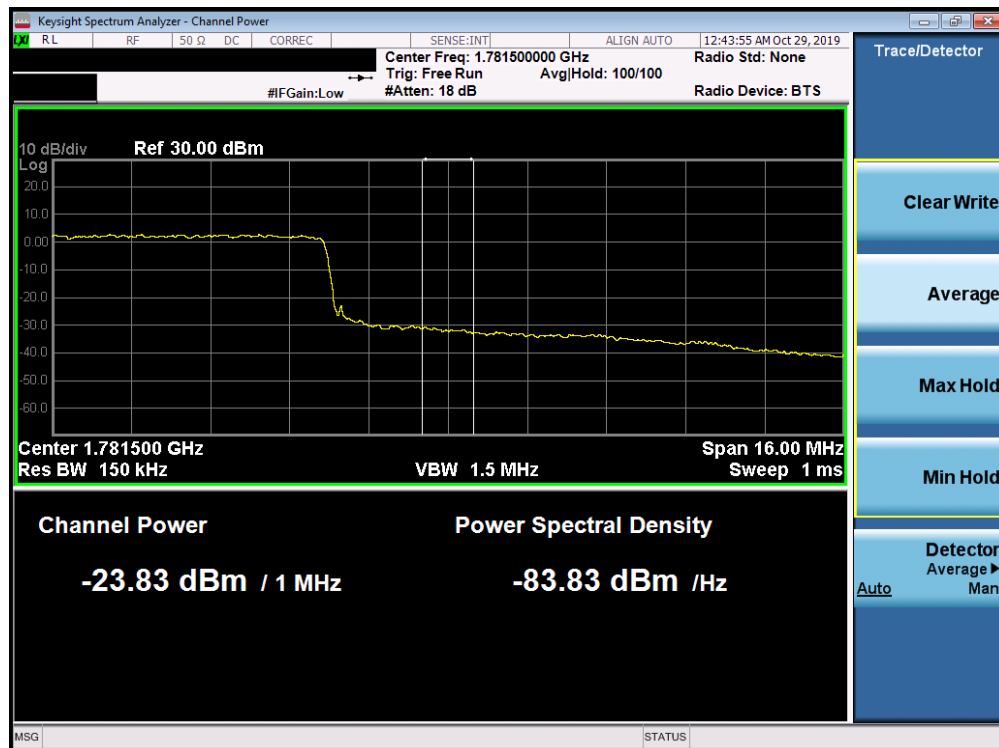
FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 190 of 357



FCC ID: A3LSMG981V	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset	Page 191 of 357



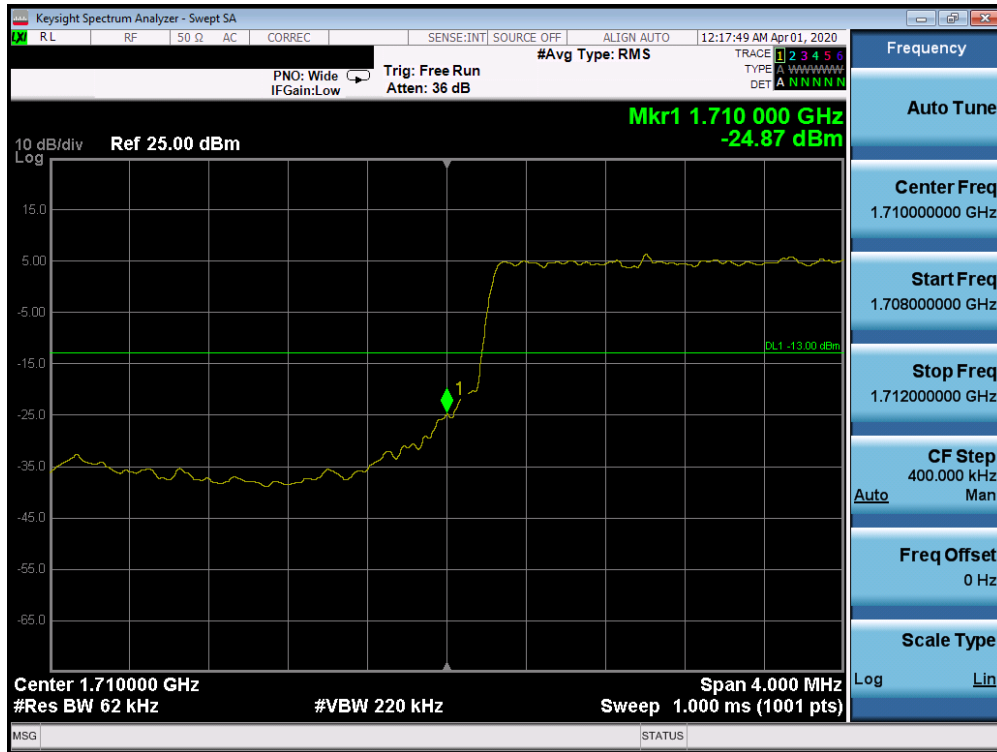
Plot 7-333. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



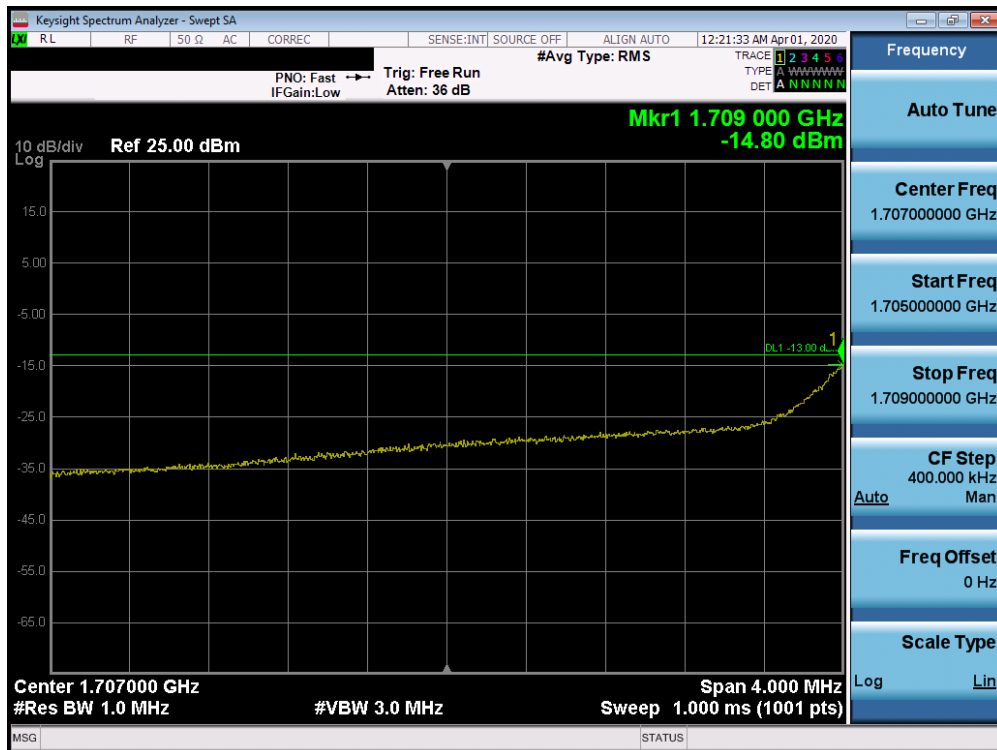
Plot 7-334. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 192 of 357

NR Band n66

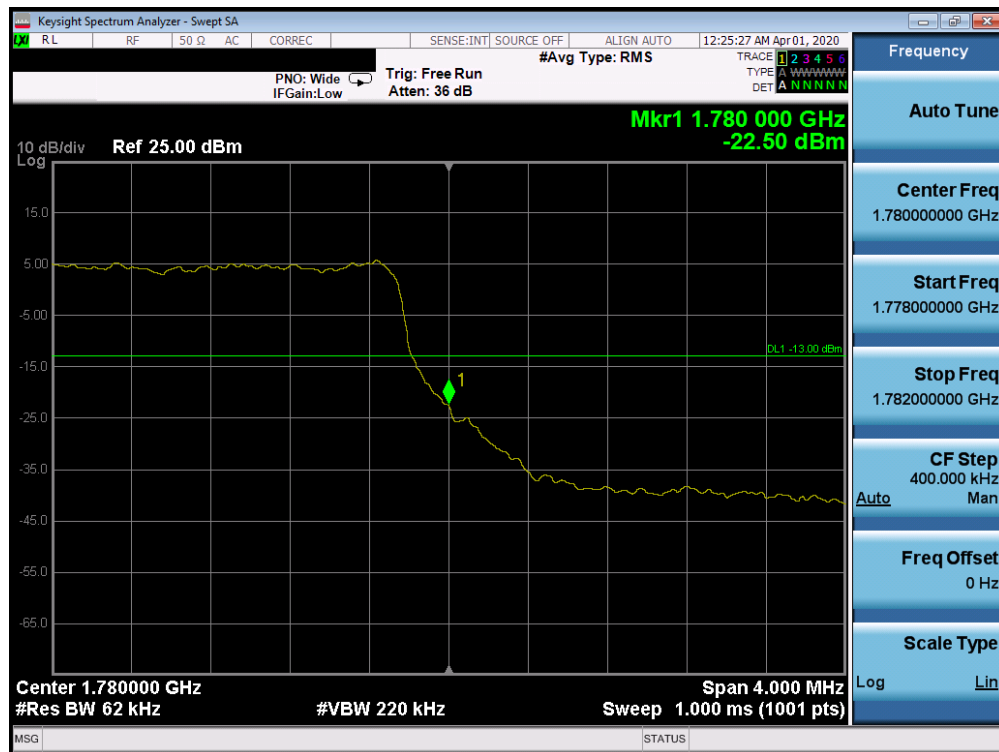


Plot 7-335. Lower Band Edge Plot (n66 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



Plot 7-336. Lower Extended Band Edge Plot (n66 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 193 of 357

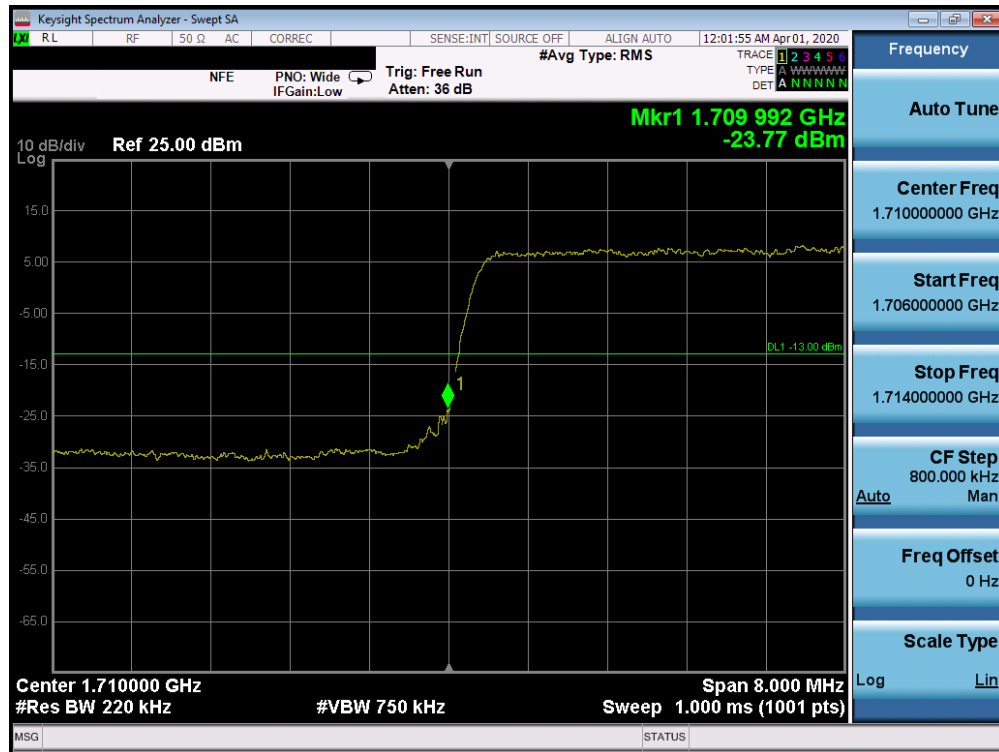


Plot 7-337. Upper Band Edge Plot (n66 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

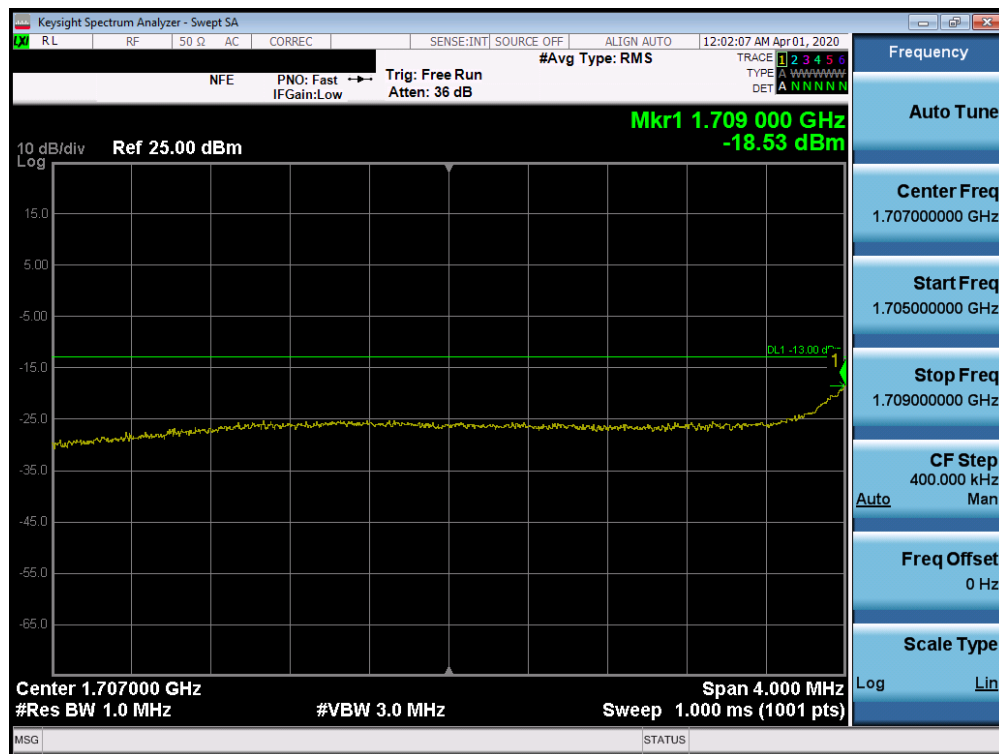


Plot 7-338. Upper Extended Band Edge Plot (n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 194 of 357



Plot 7-339. Lower Band Edge Plot (n66 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

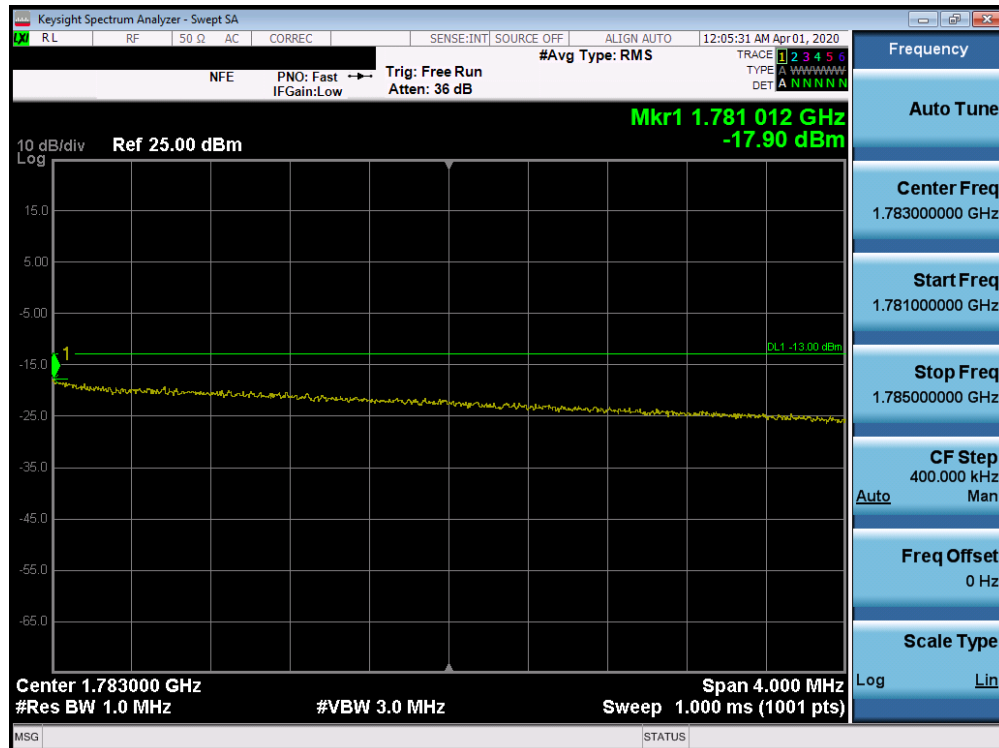


Plot 7-340. Lower Extended Band Edge Plot (n66 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 195 of 357

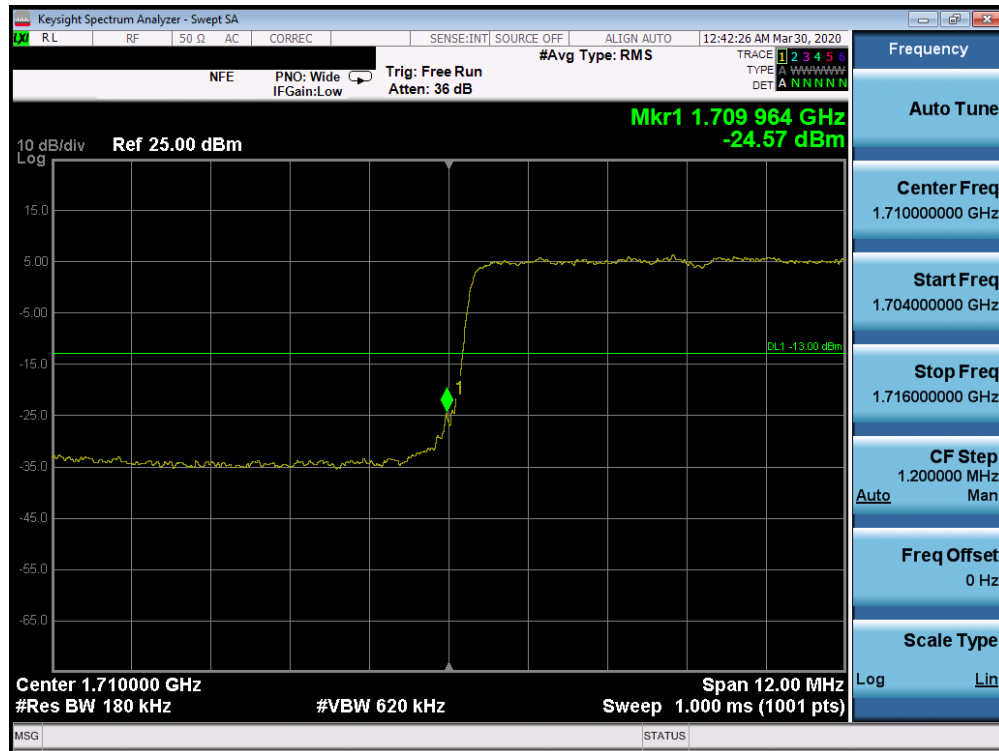


Plot 7-341. Upper Band Edge Plot (n66 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

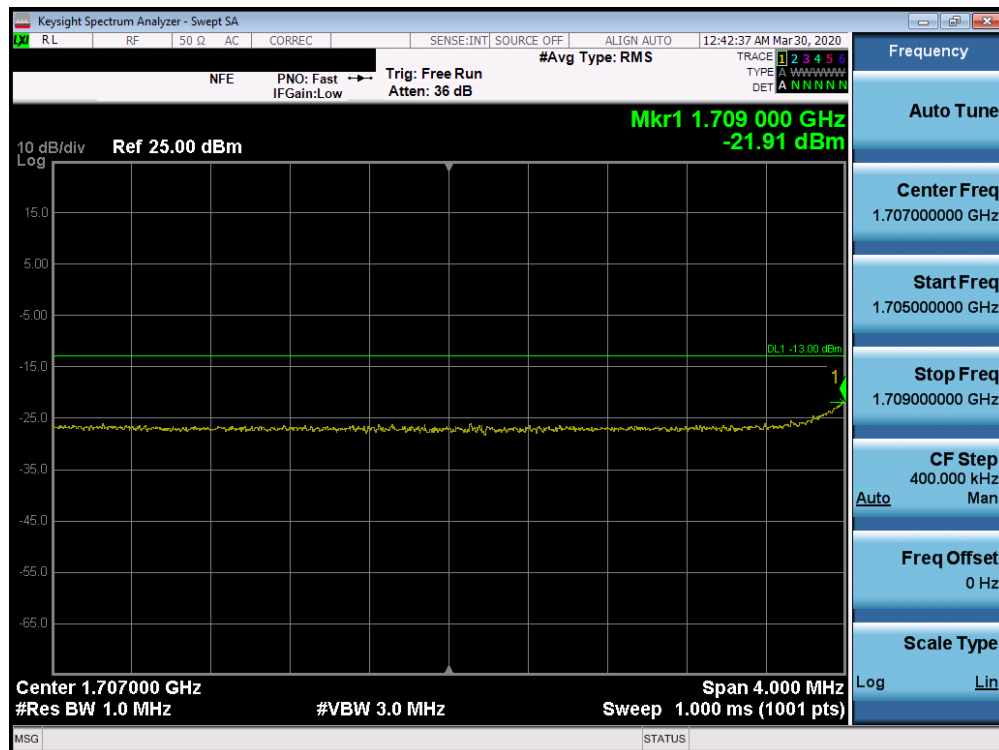


Plot 7-342. Upper Extended Band Edge Plot (n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 196 of 357



Plot 7-343. Lower Band Edge Plot (n66 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

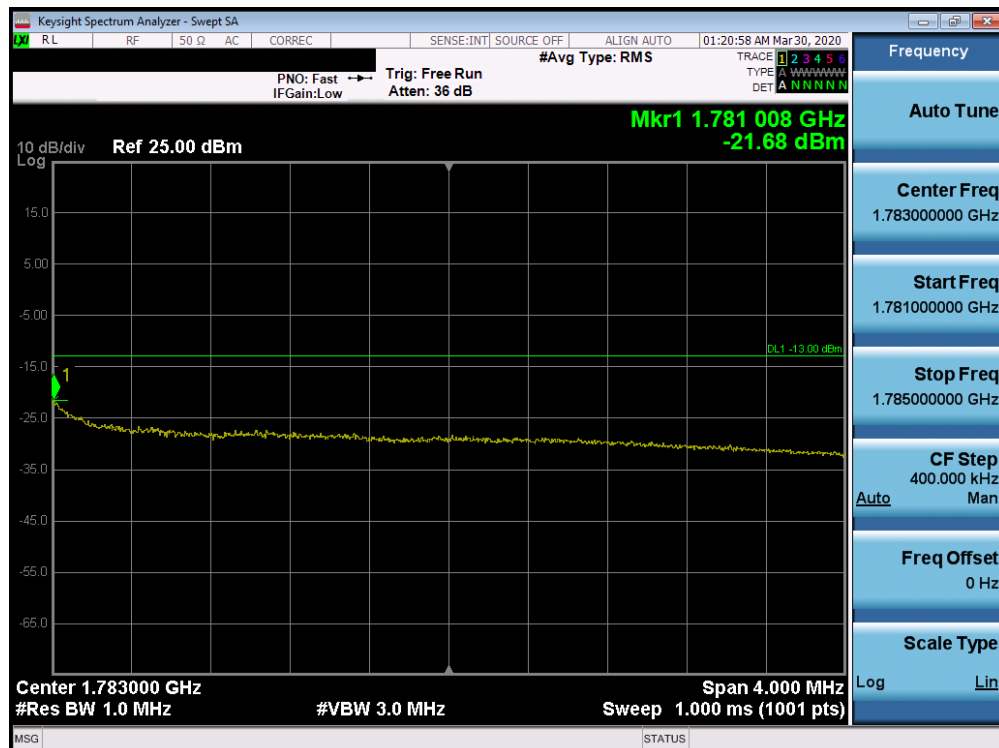


Plot 7-344. Lower Extended Band Edge Plot (n66 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 197 of 357

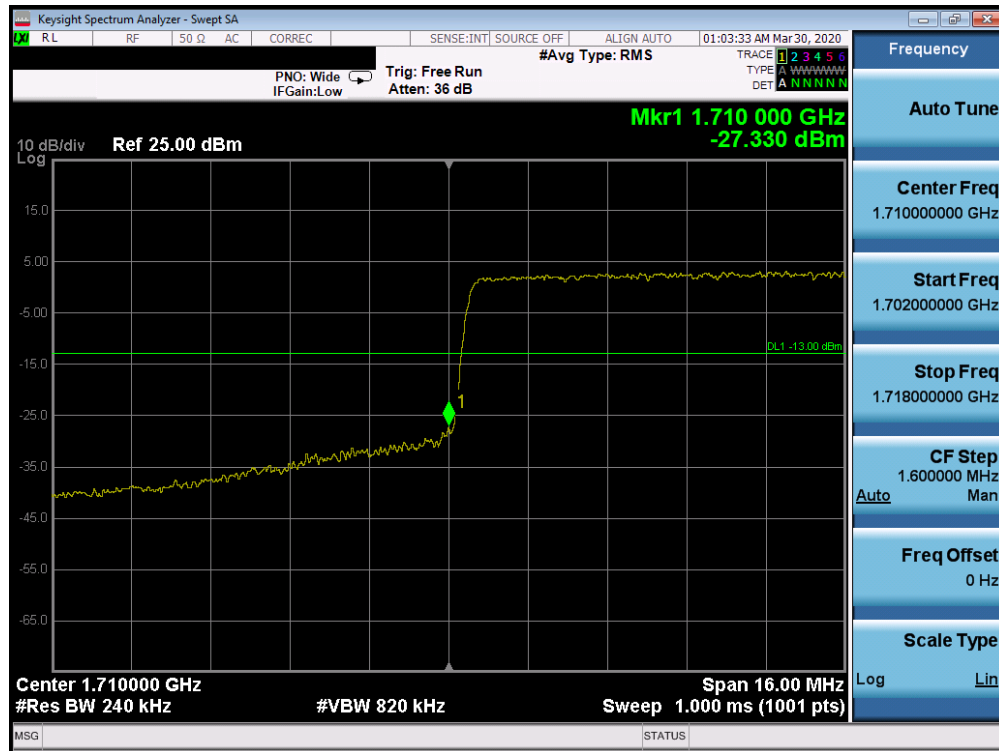


Plot 7-345. Upper Band Edge Plot (n66 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

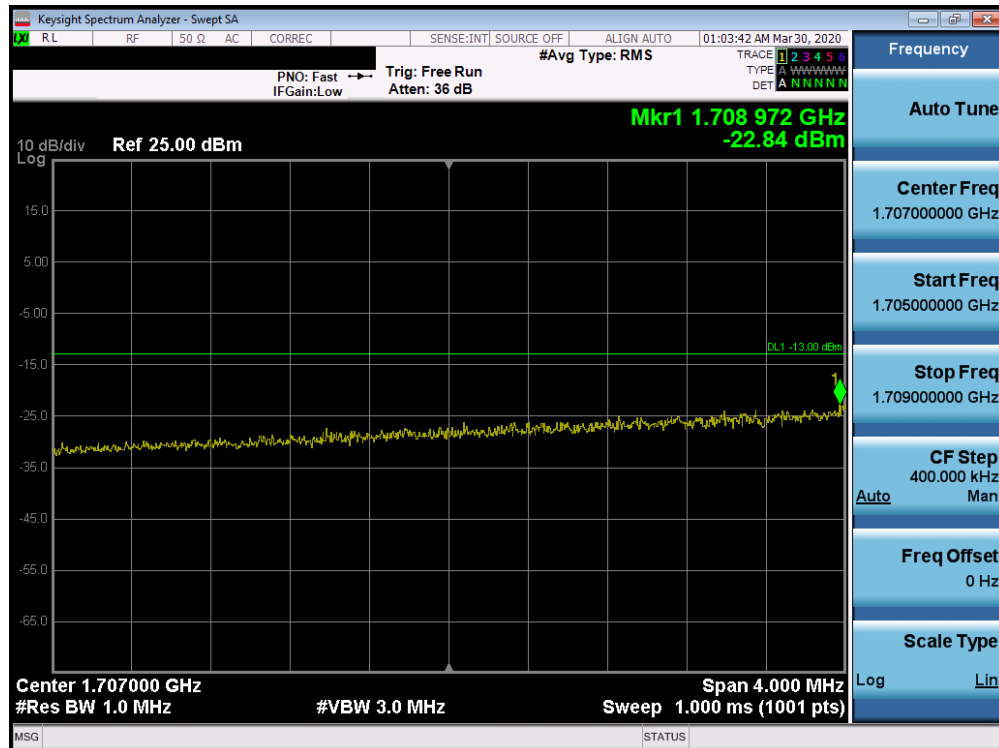


Plot 7-346. Upper Extended Band Edge Plot (n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 198 of 357

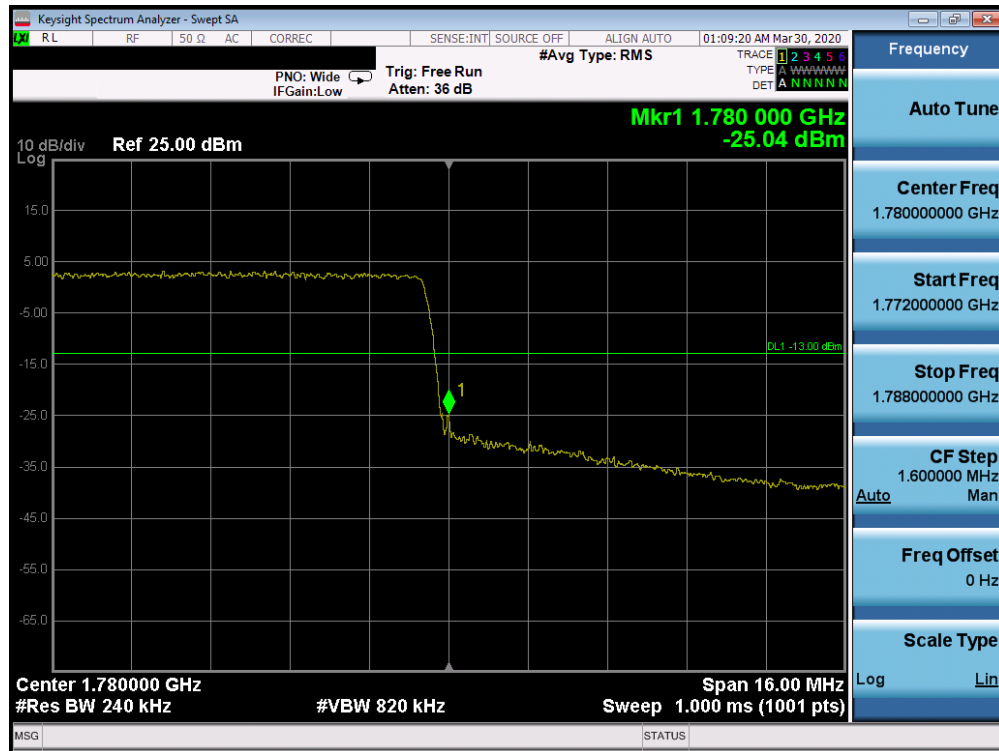


Plot 7-347. Lower Band Edge Plot (n66 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

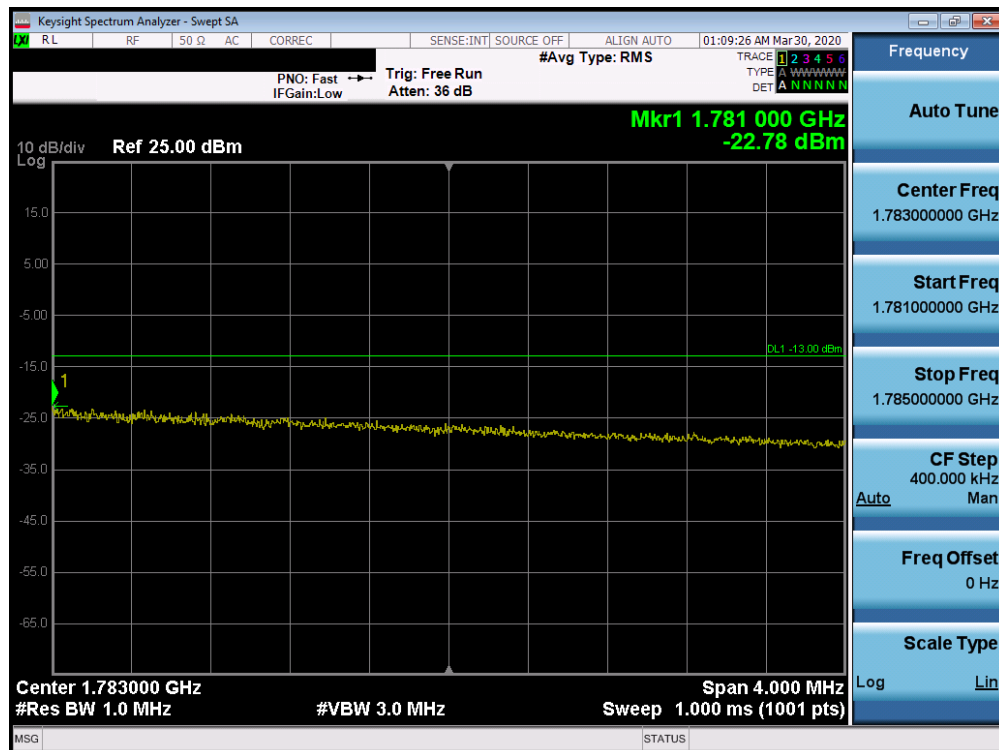


Plot 7-348. Lower Extended Band Edge Plot (n66 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 199 of 357



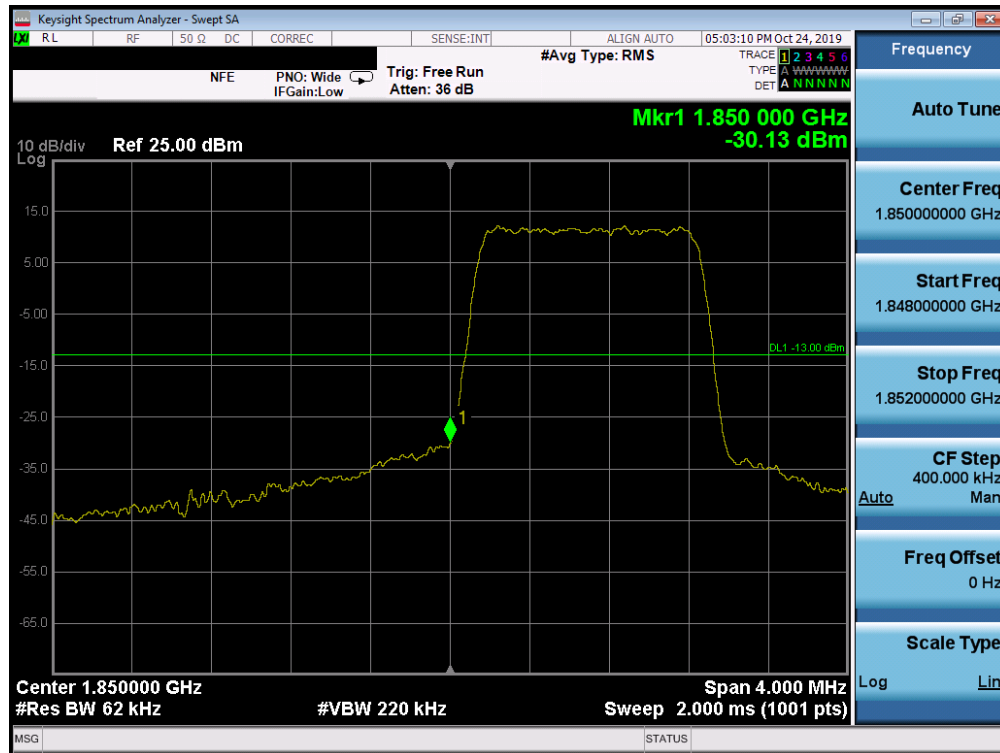
Plot 7-349. Upper Band Edge Plot (n66 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



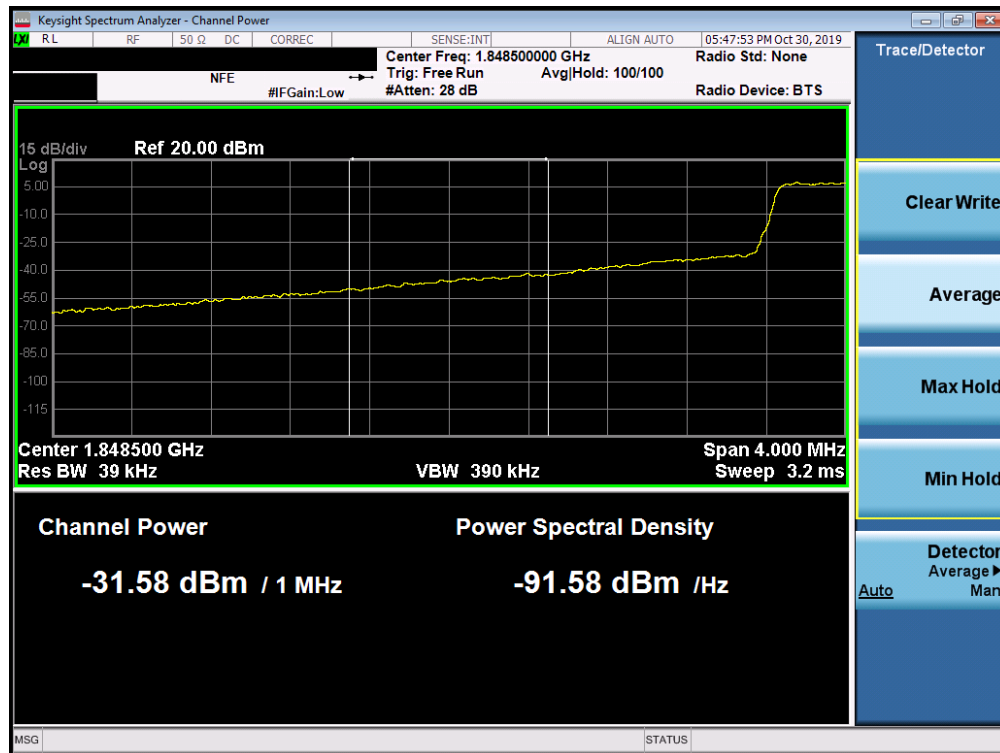
Plot 7-350. Upper Extended Band Edge Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 200 of 357

Band 2

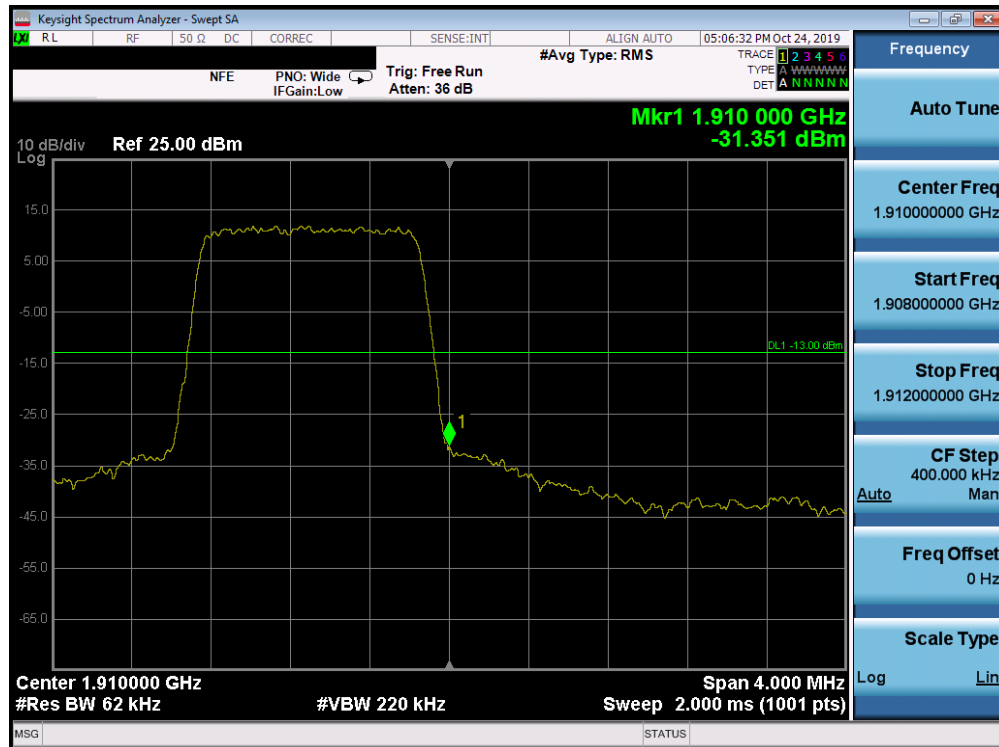


Plot 7-351. Lower Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

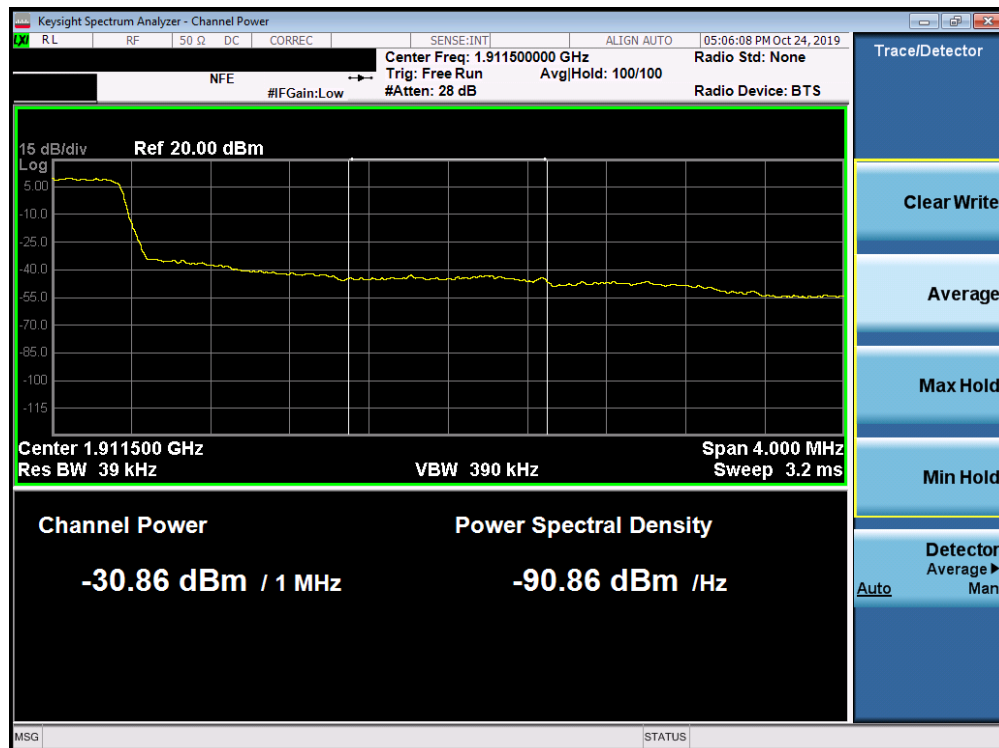


Plot 7-352. Lower Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 201 of 357

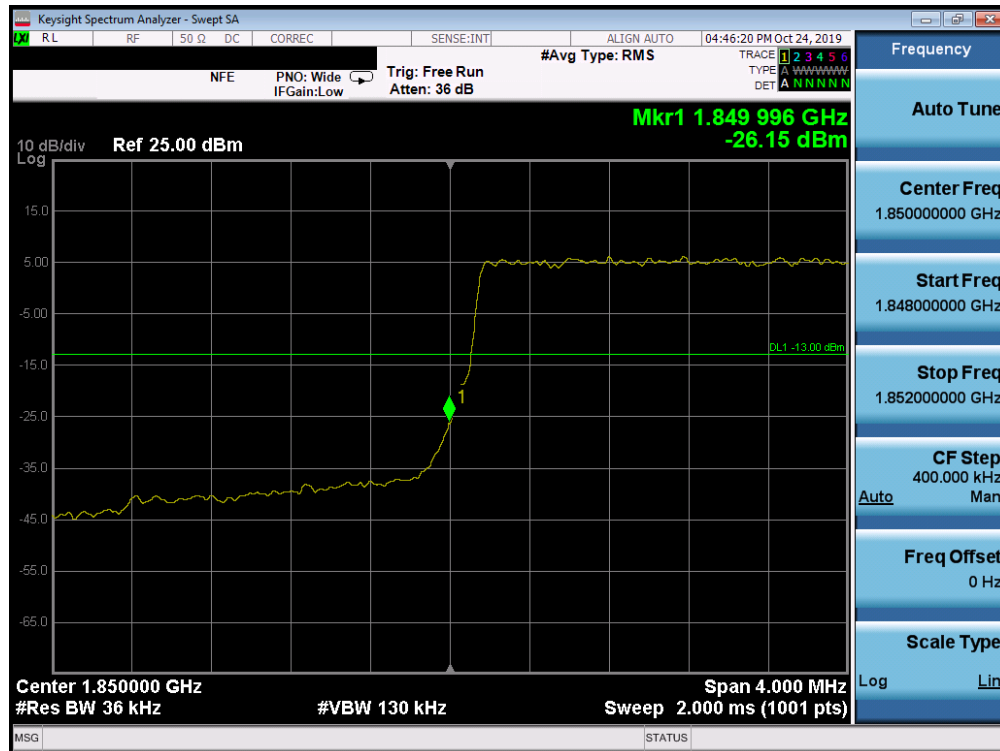


Plot 7-353. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

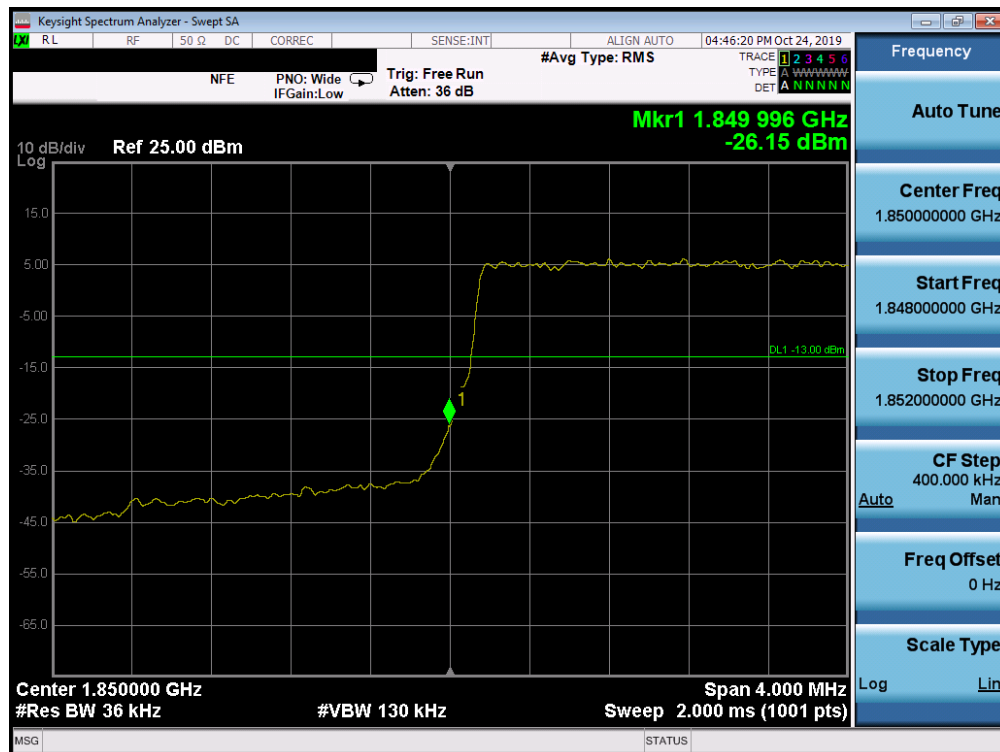


Plot 7-354. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 202 of 357

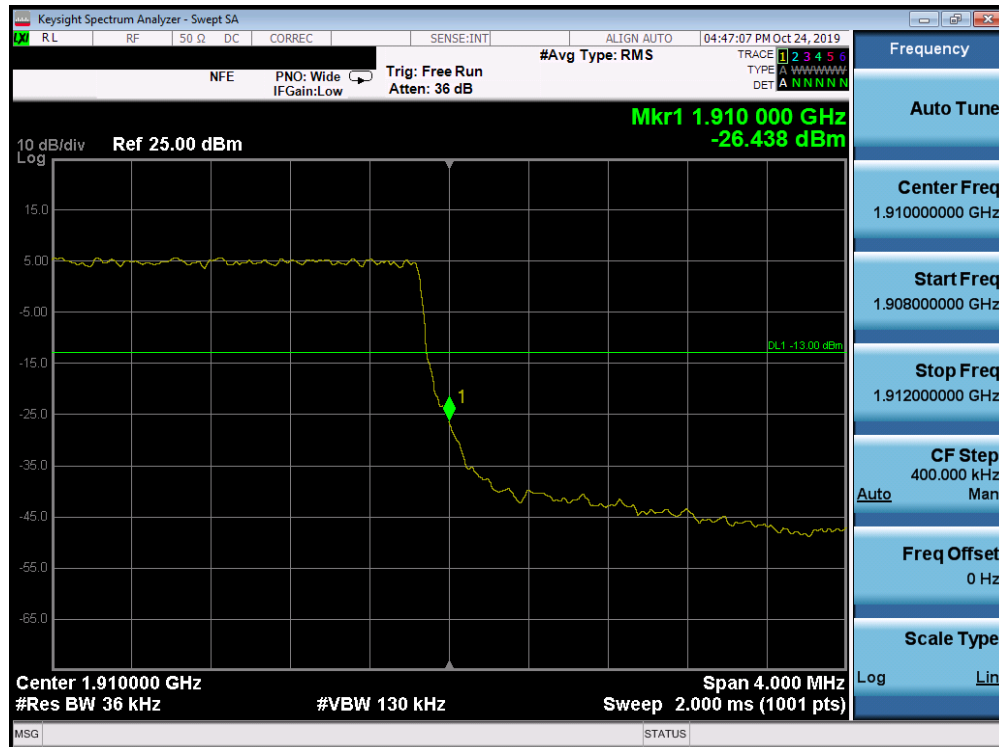


Plot 7-355. Lower Band Edge Plot (Band 2 – 3.0MHz QPSK - Full RB Configuration)

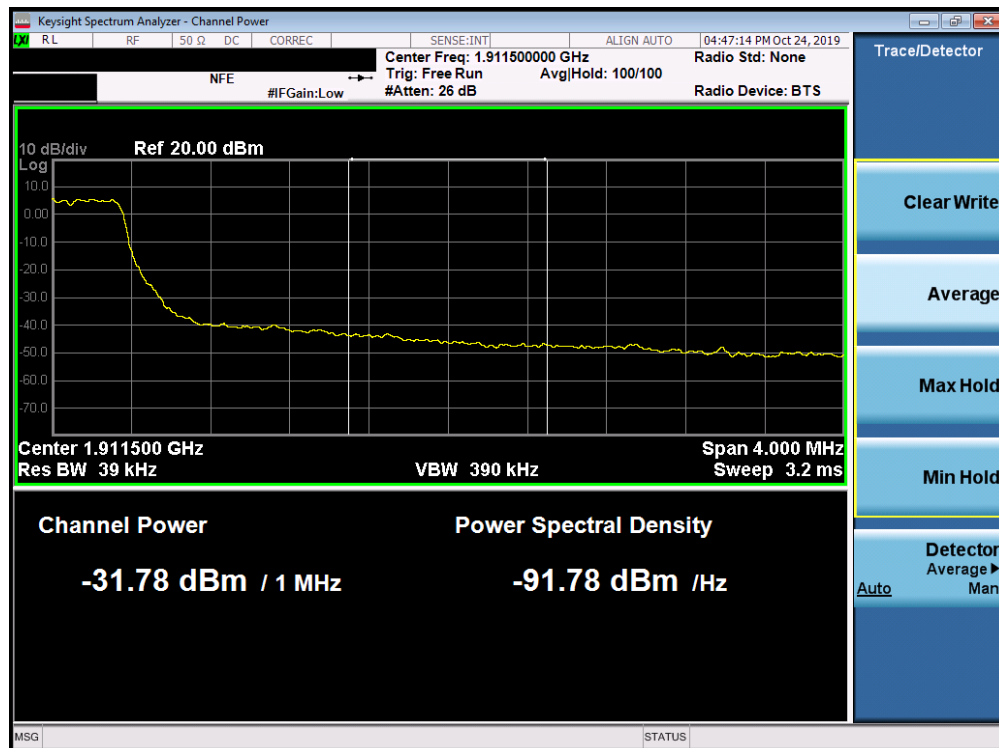


Plot 7-356. Lower Band Edge Plot (Band 2 – 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 203 of 357

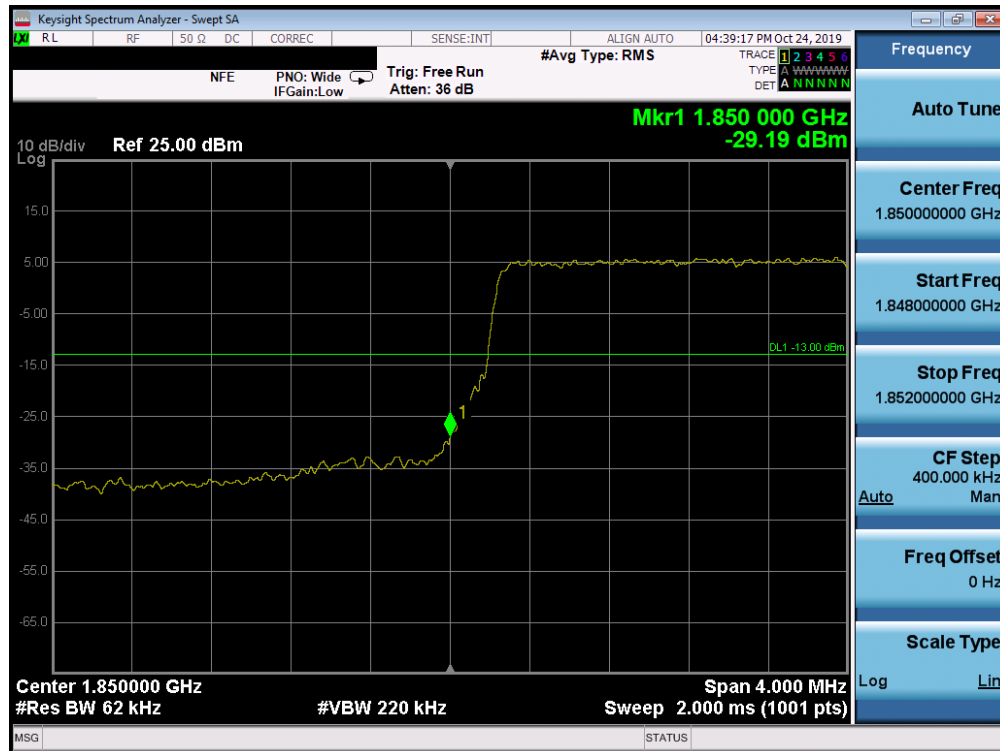


Plot 7-357. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

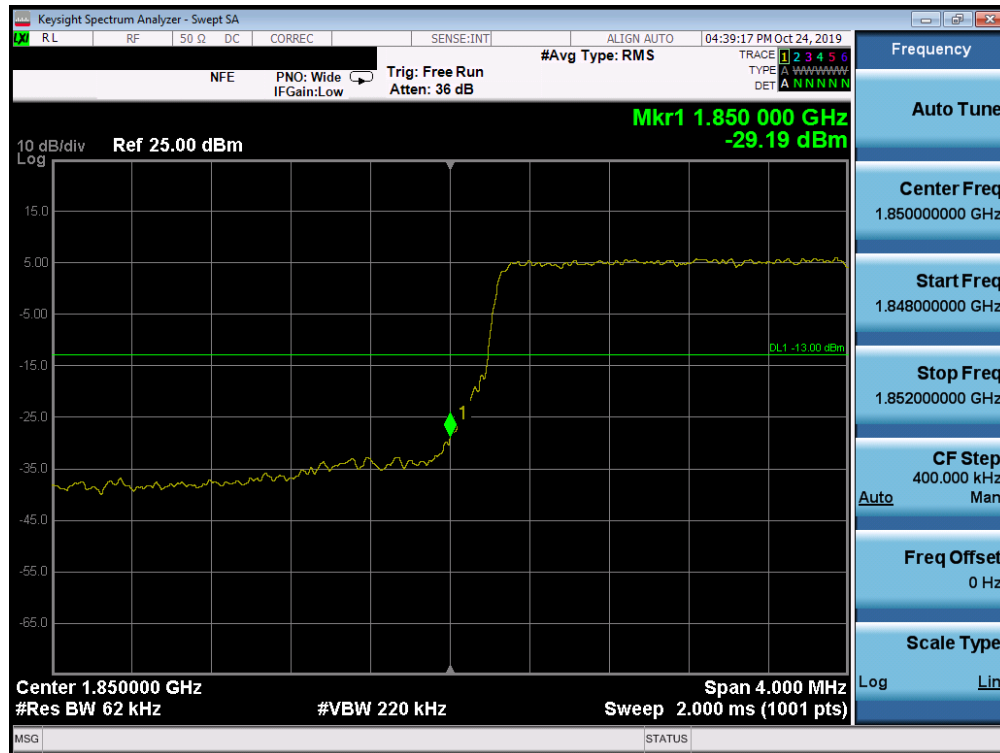


Plot 7-358. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 204 of 357

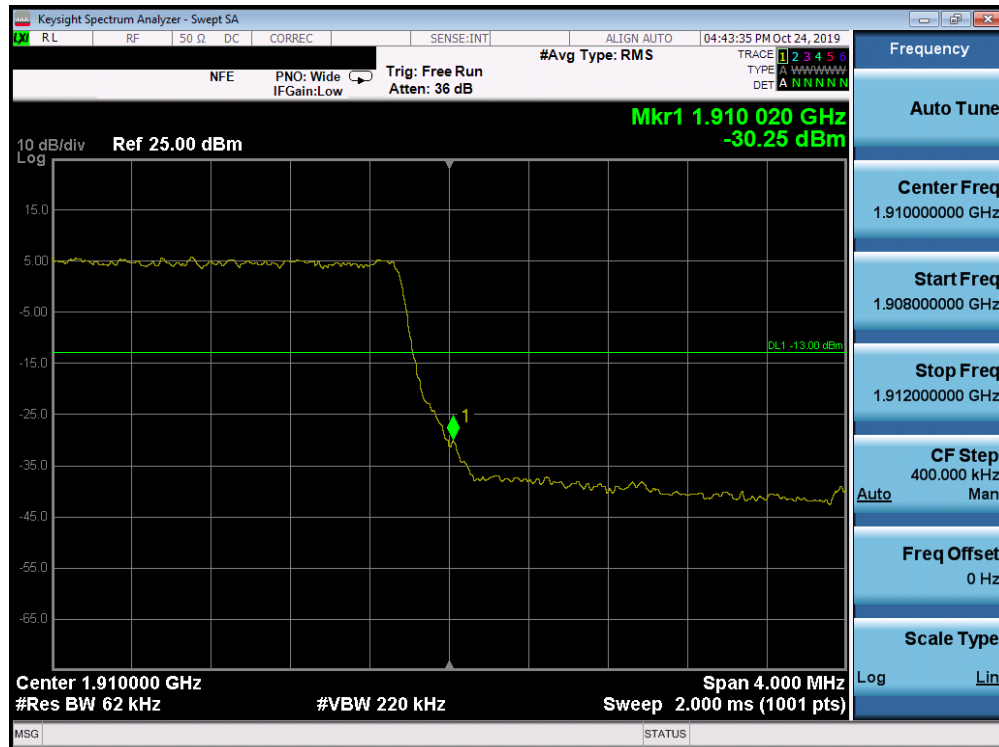


Plot 7-359. Lower Band Edge Plot (Band 2 – 5.0MHz QPSK - Full RB Configuration)

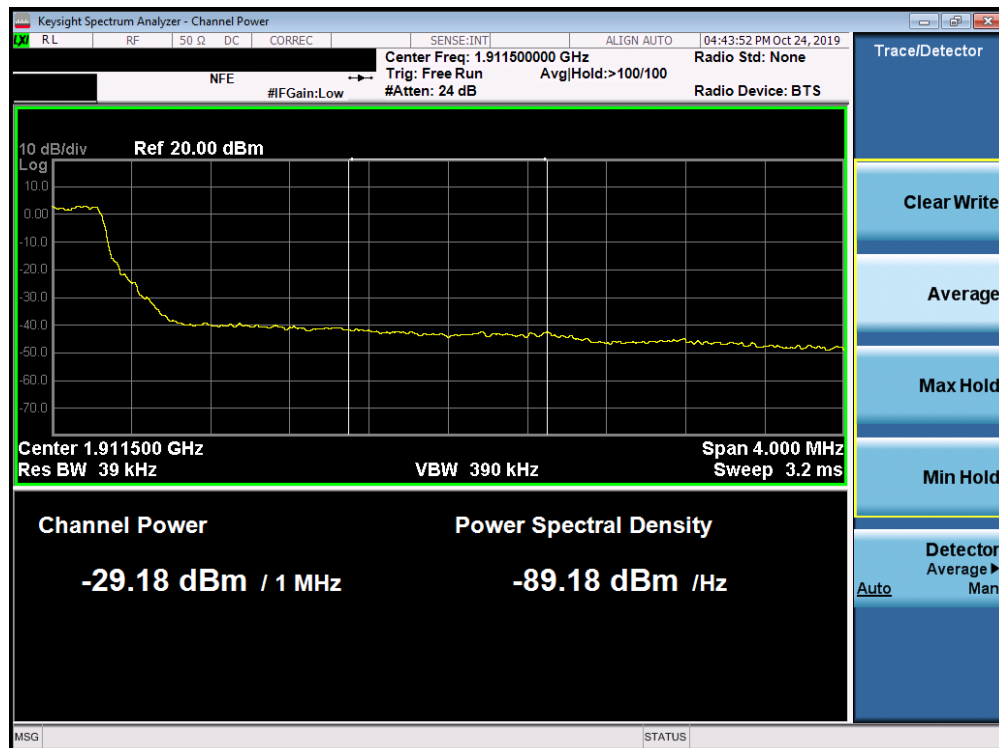


Plot 7-360. Lower Band Edge Plot (Band 2 – 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 205 of 357

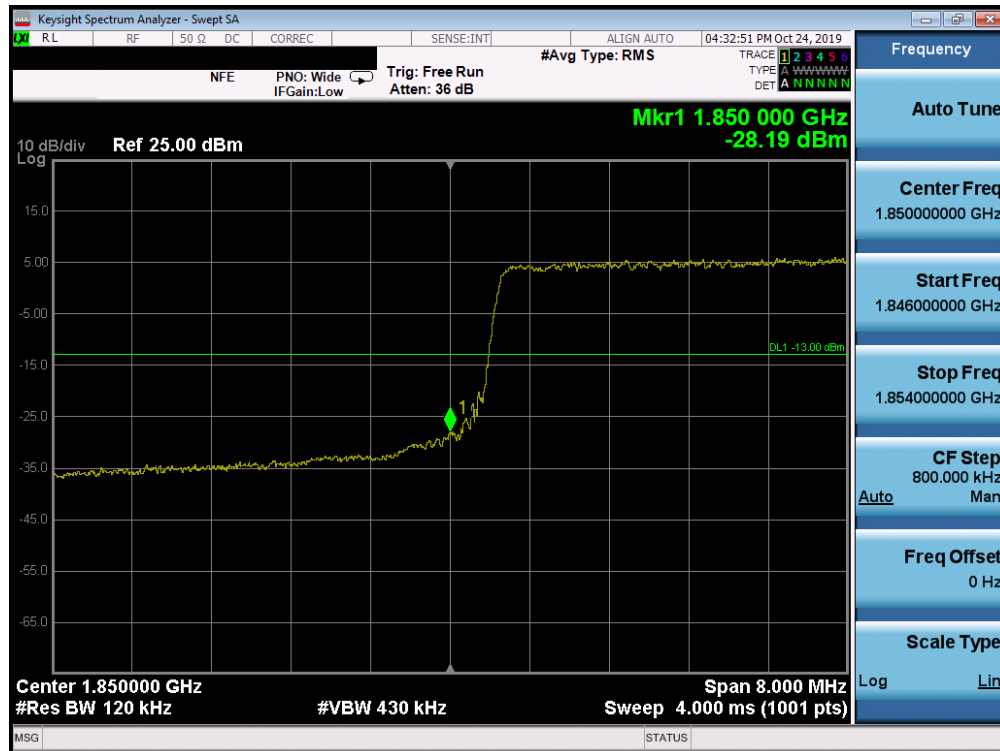


Plot 7-361. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

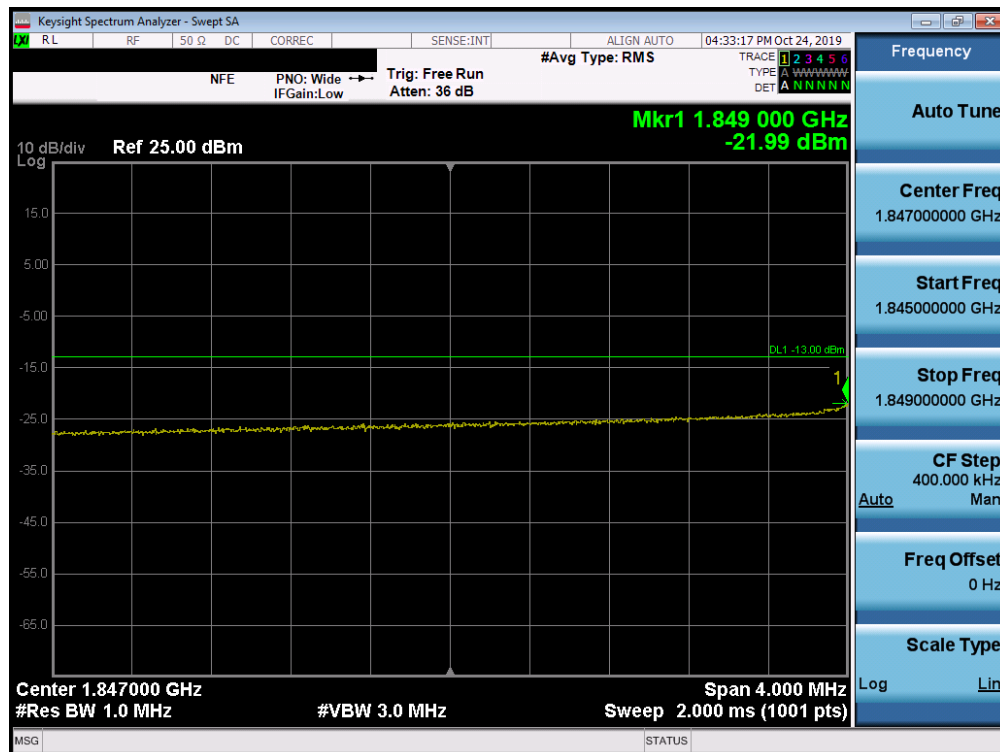


Plot 7-362. Upper Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 206 of 357

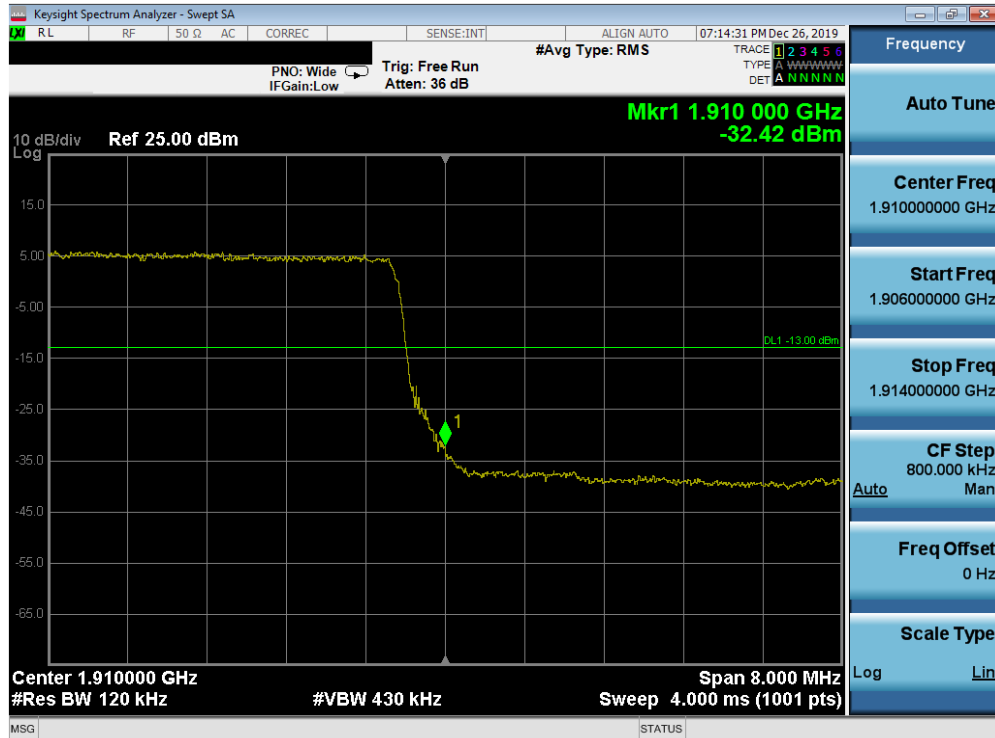


Plot 7-363. Lower Band Edge Plot (Band 2 – 10.0MHz QPSK - Full RB Configuration)

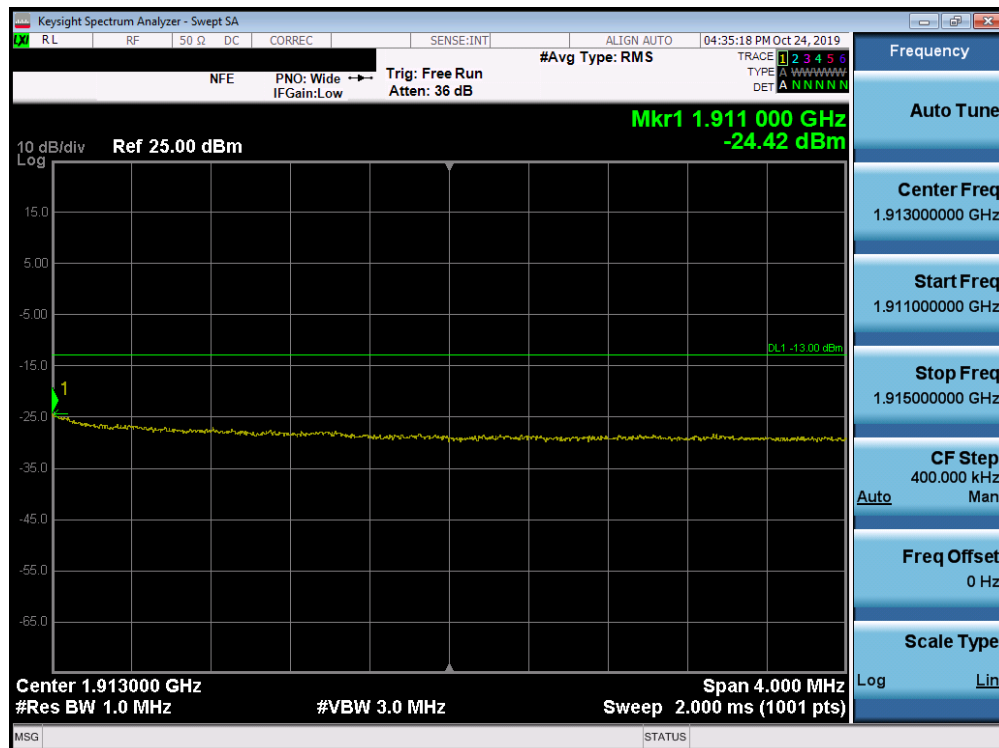


Plot 7-364. Lower Band Edge Plot (Band 2 – 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 207 of 357

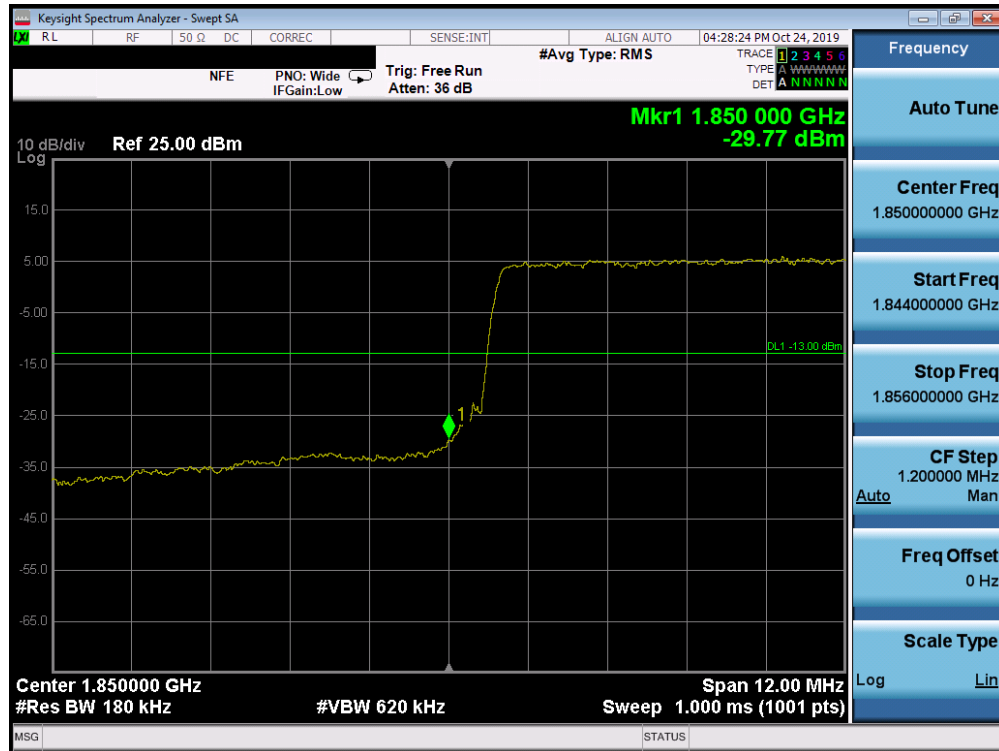


Plot 7-365. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

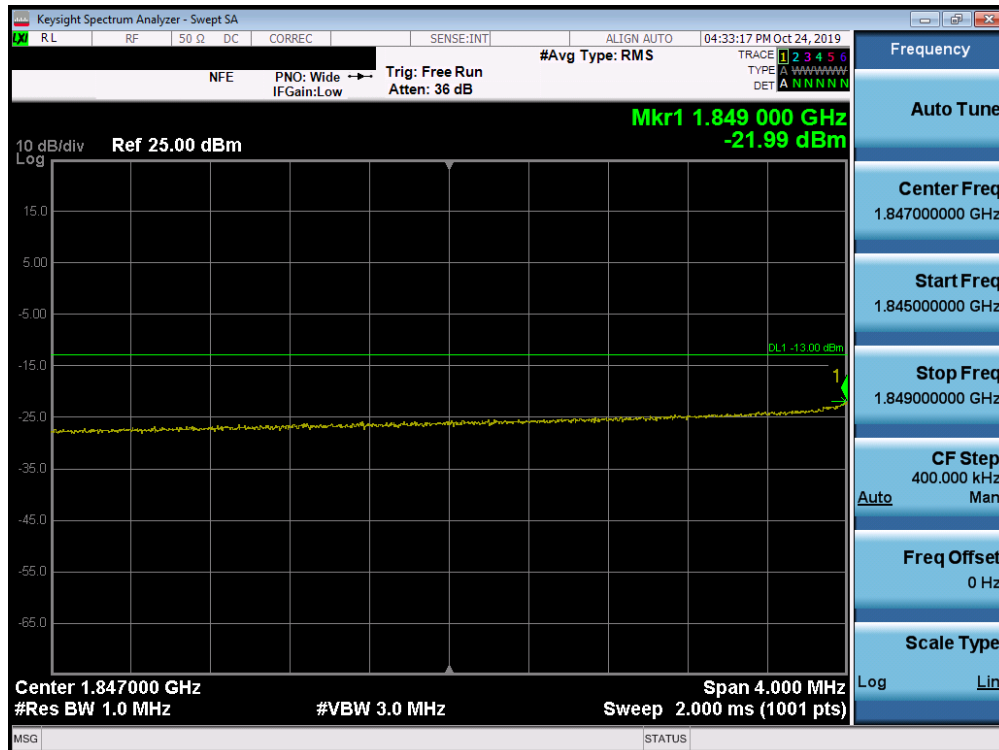


Plot 7-366. Upper Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 208 of 357

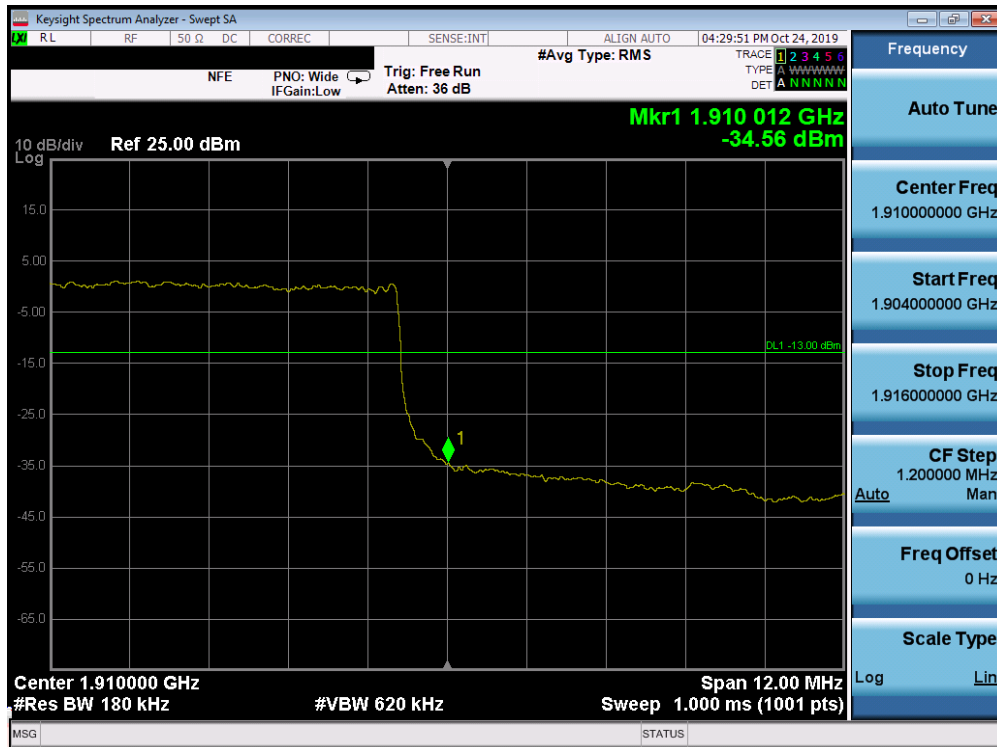


Plot 7-367. Lower Band Edge Plot (Band 2 – 15.0MHz QPSK - Full RB Configuration)



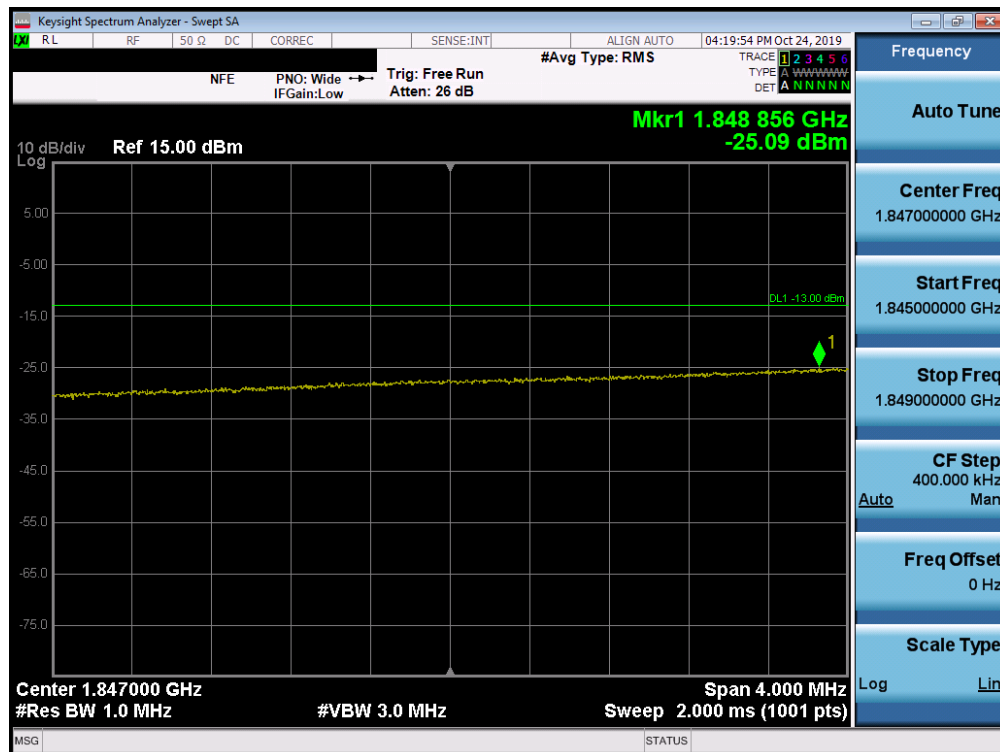
Plot 7-368. Lower Band Edge Plot (Band 2 – 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 209 of 357



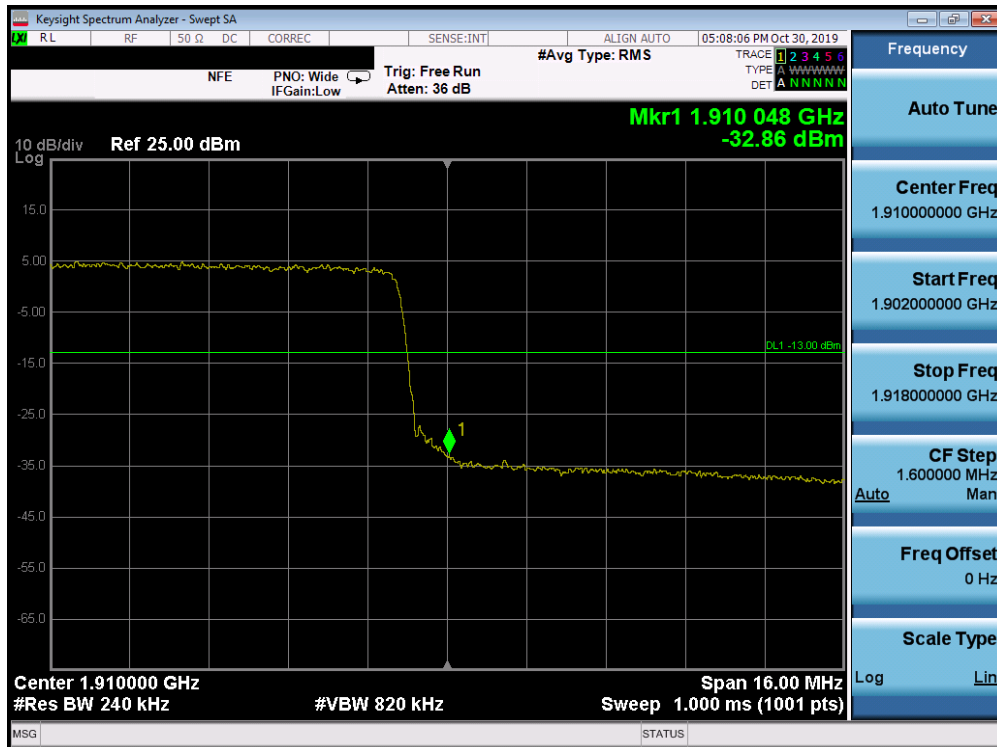


Plot 7-371. Lower Band Edge Plot (Band 2 – 20.0MHz QPSK - Full RB Configuration)

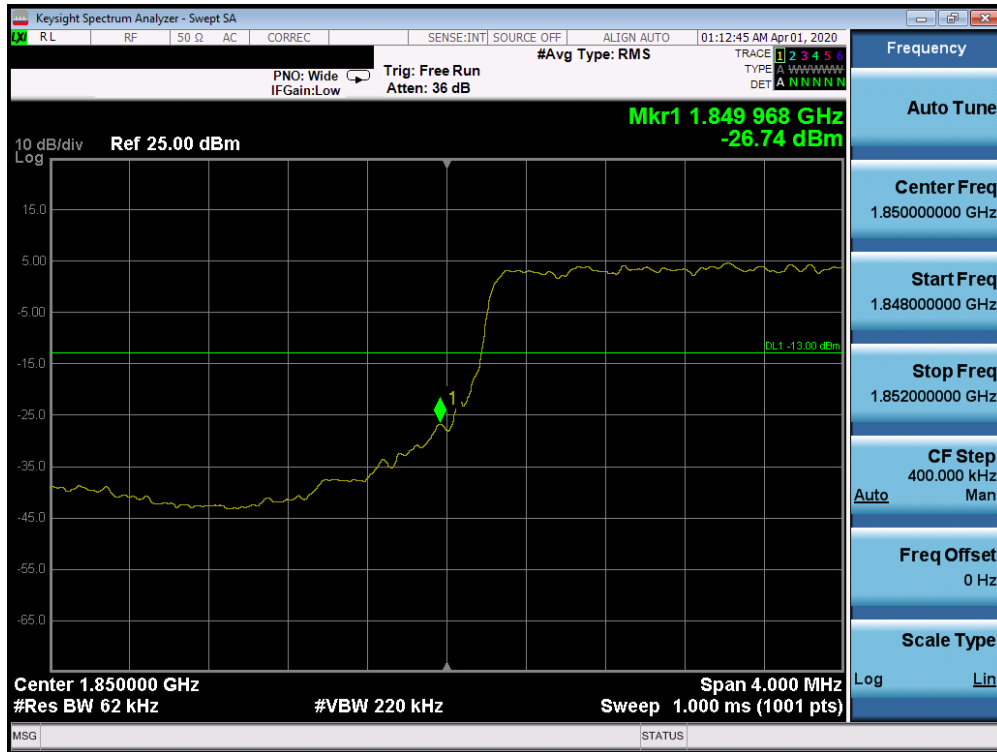


Plot 7-372. Lower Band Edge Plot (Band 2 – 20.0MHz QPSK - Full RB Configuration)

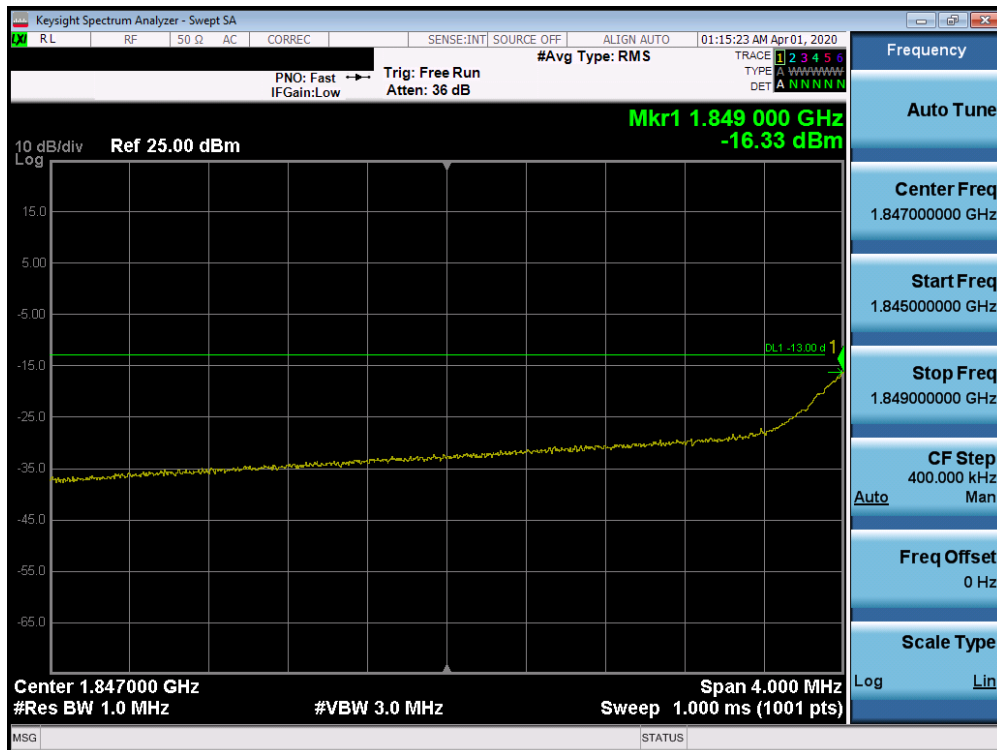
FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 211 of 357



NR Band n2

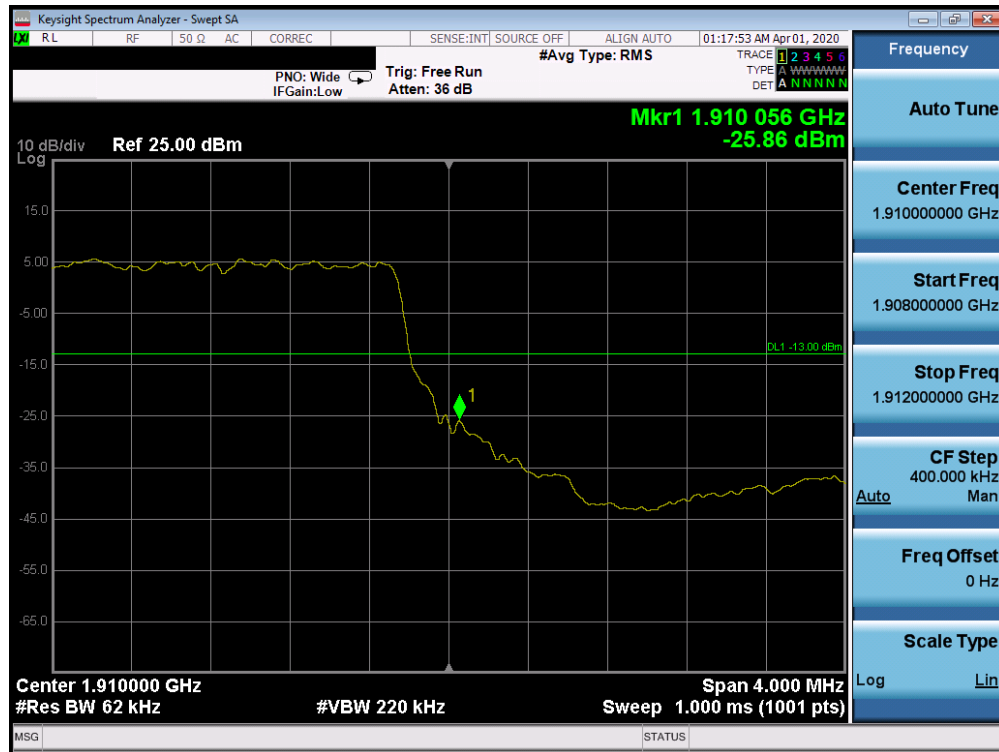


Plot 7-375. Lower Band Edge Plot (n2 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



Plot 7-376. Lower Extended Band Edge Plot (n2 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 213 of 357

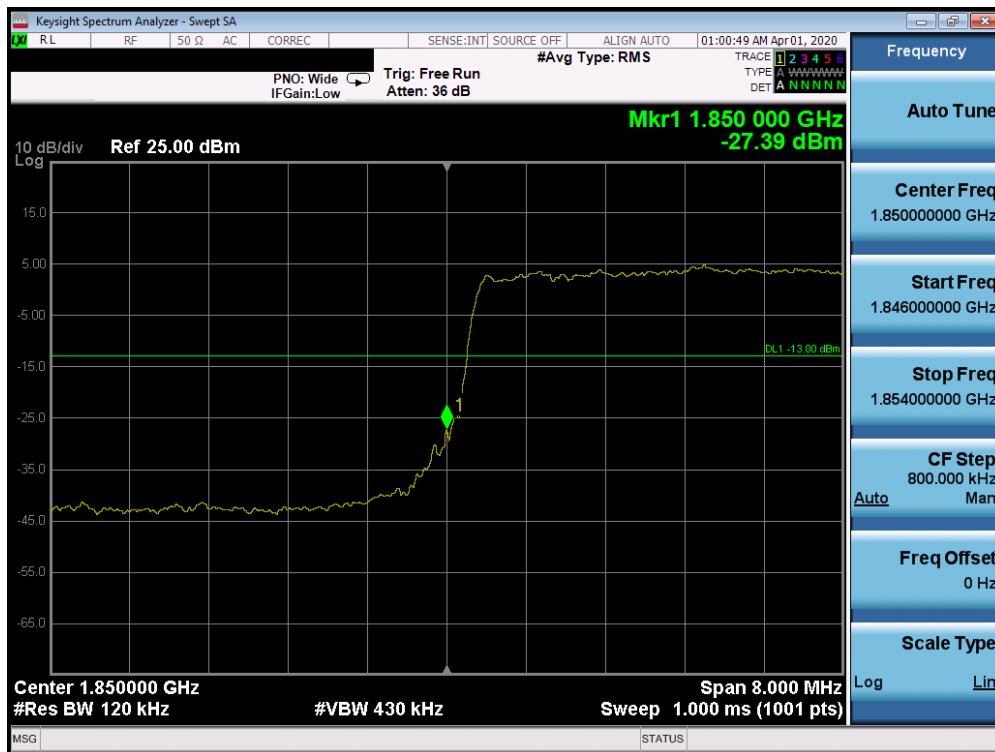


Plot 7-377. Upper Band Edge Plot (n2 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

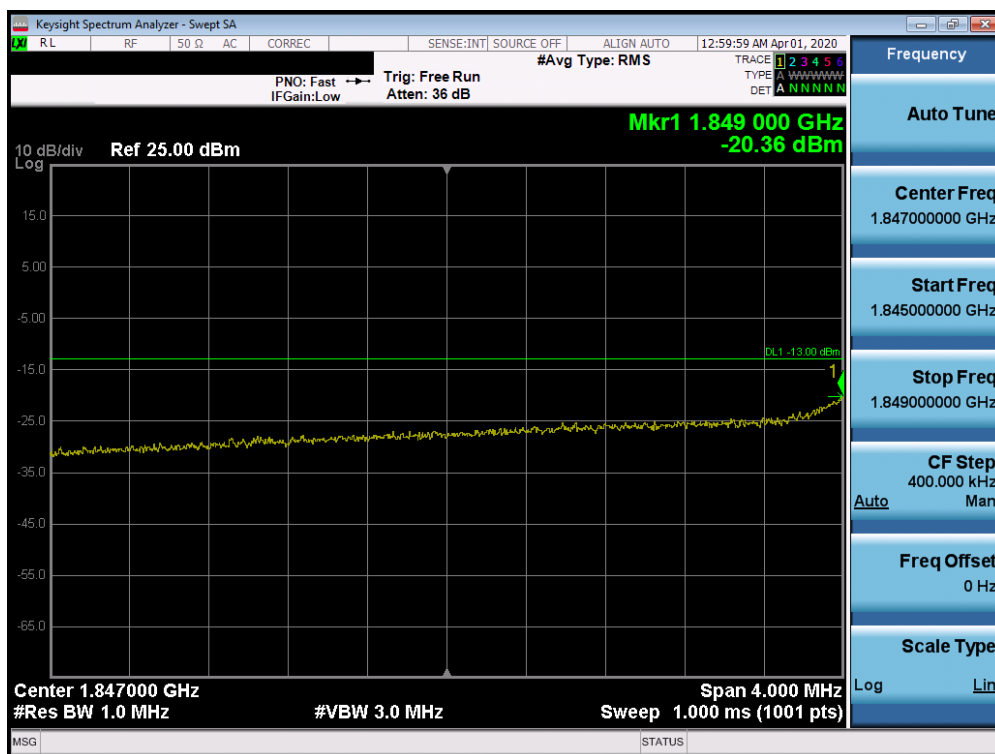


Plot 7-378. Upper Extended Band Edge Plot (n2 - 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 214 of 357

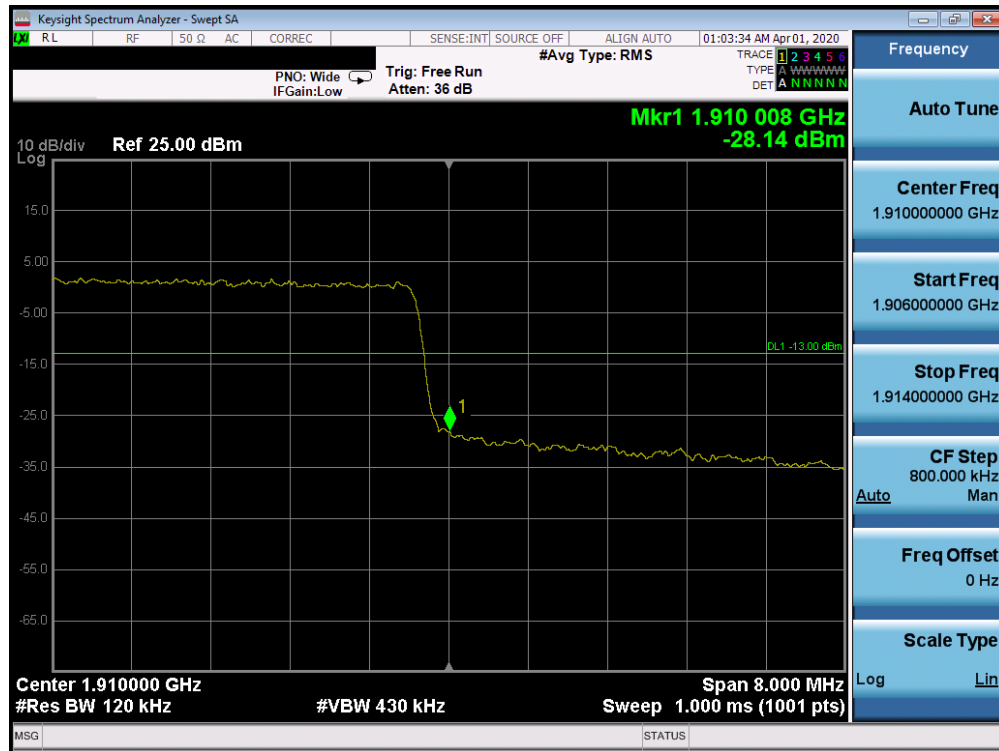


Plot 7-379. Lower Band Edge Plot (n2 - 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

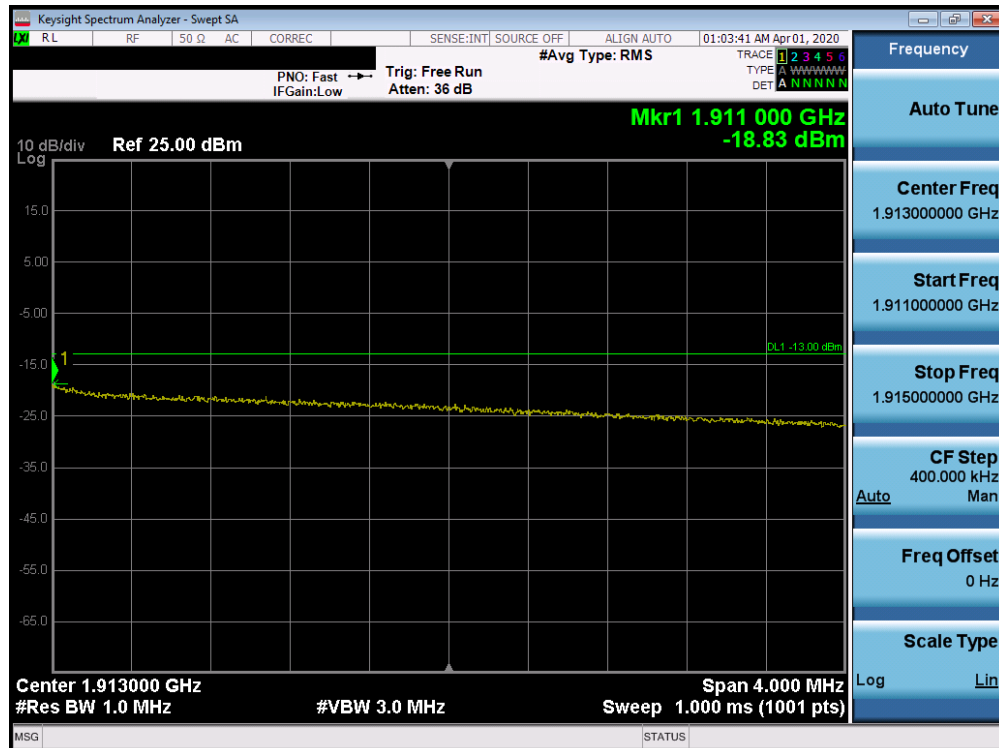


Plot 7-380. Lower Extended Band Edge Plot (n2 - 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 215 of 357

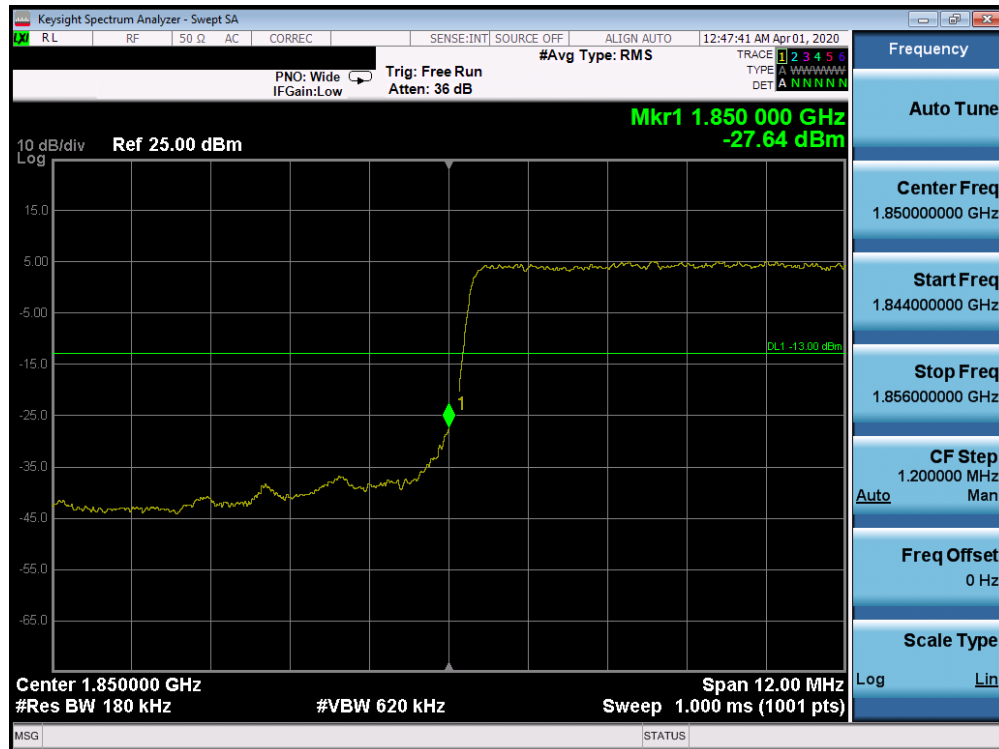


Plot 7-381. Upper Band Edge Plot (2 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

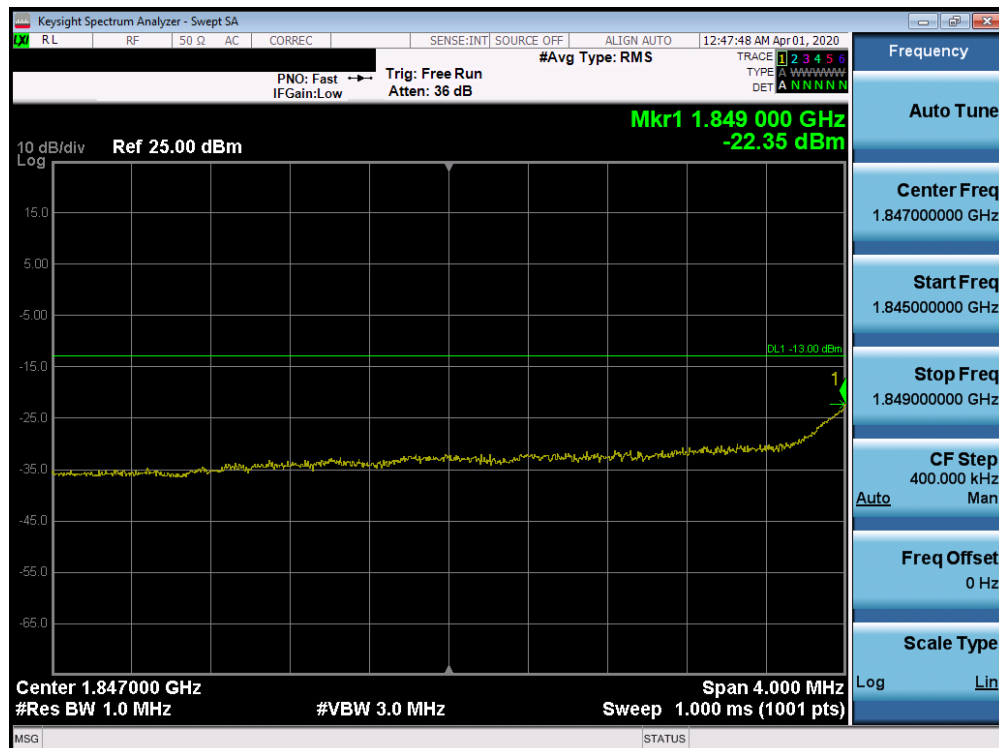


Plot 7-382. Upper Extended Band Edge Plot (n2 - 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 216 of 357

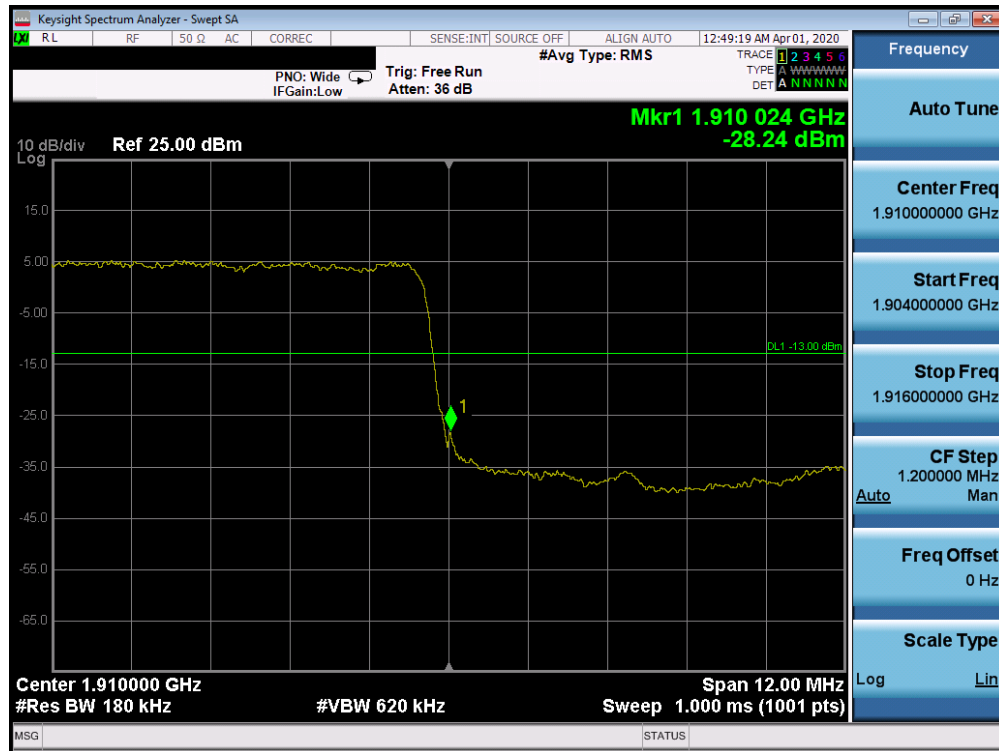


Plot 7-383. Lower Band Edge Plot (n2 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

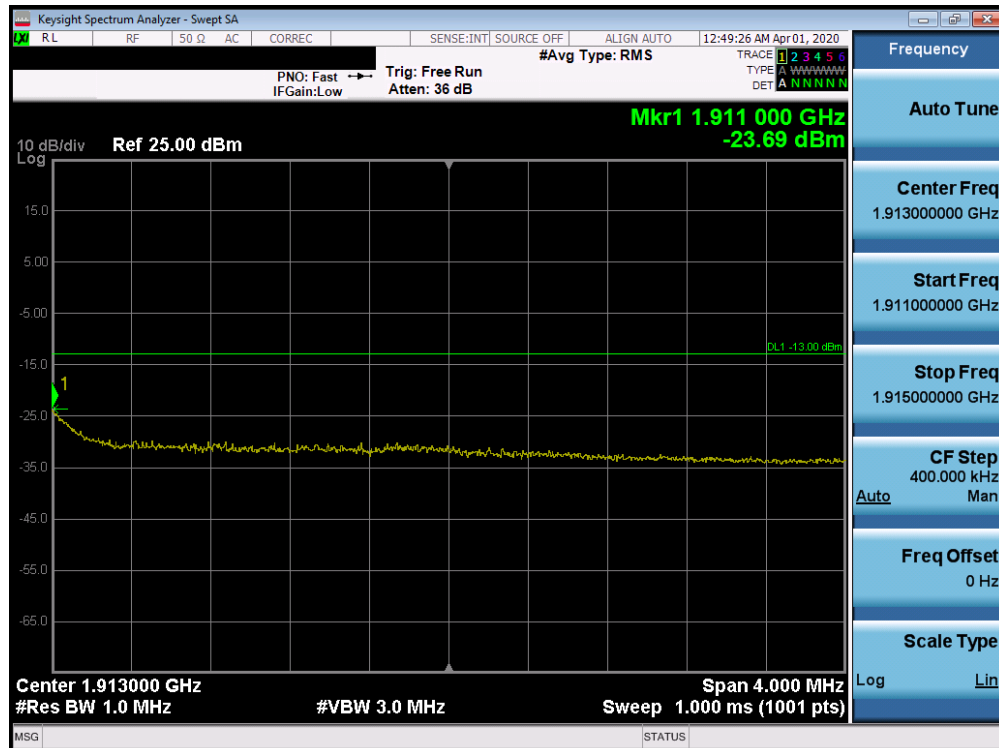


Plot 7-384. Lower Extended Band Edge Plot (n2 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 217 of 357

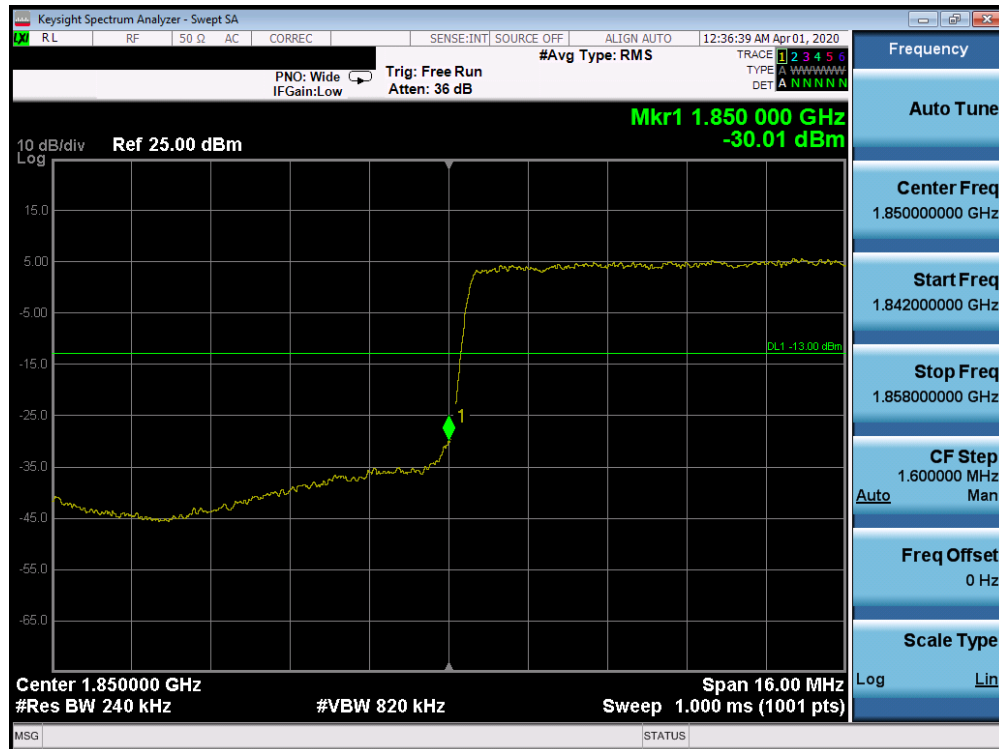


Plot 7-385. Upper Band Edge Plot (n2 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

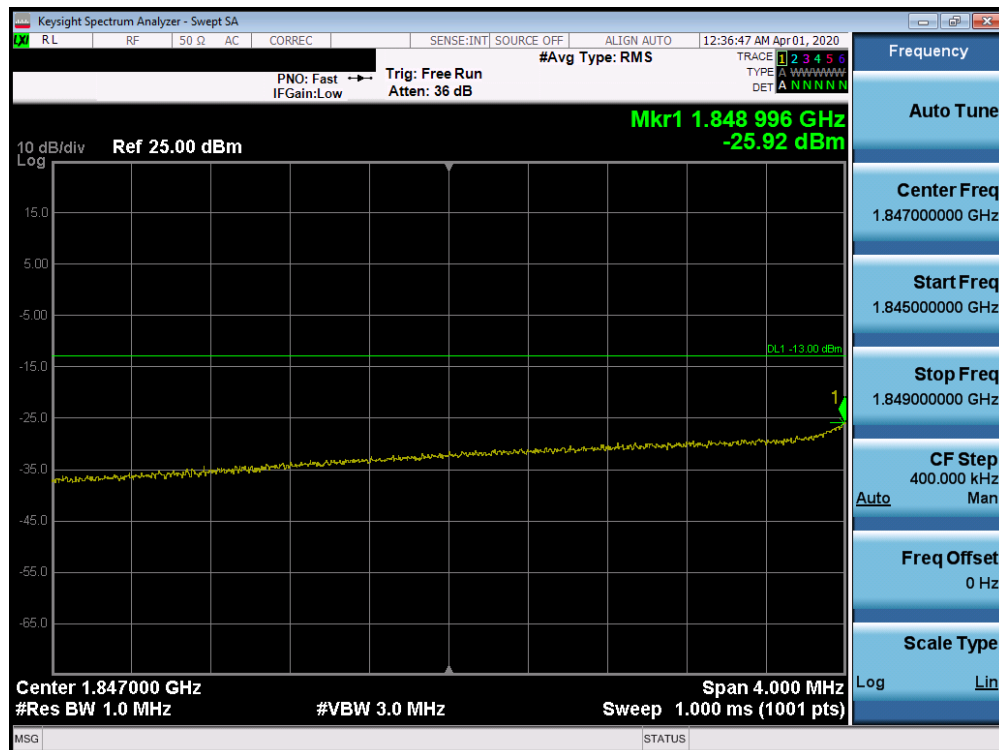


Plot 7-386. Upper Extended Band Edge Plot (n2 - 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 218 of 357

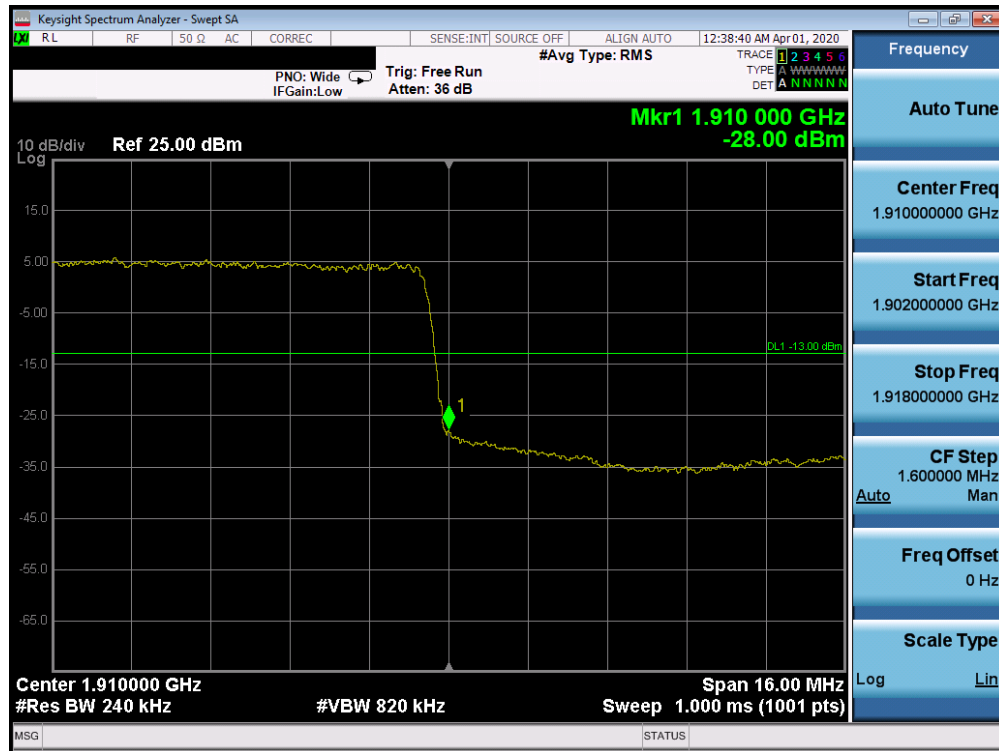


Plot 7-387. Lower Band Edge Plot (n2 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

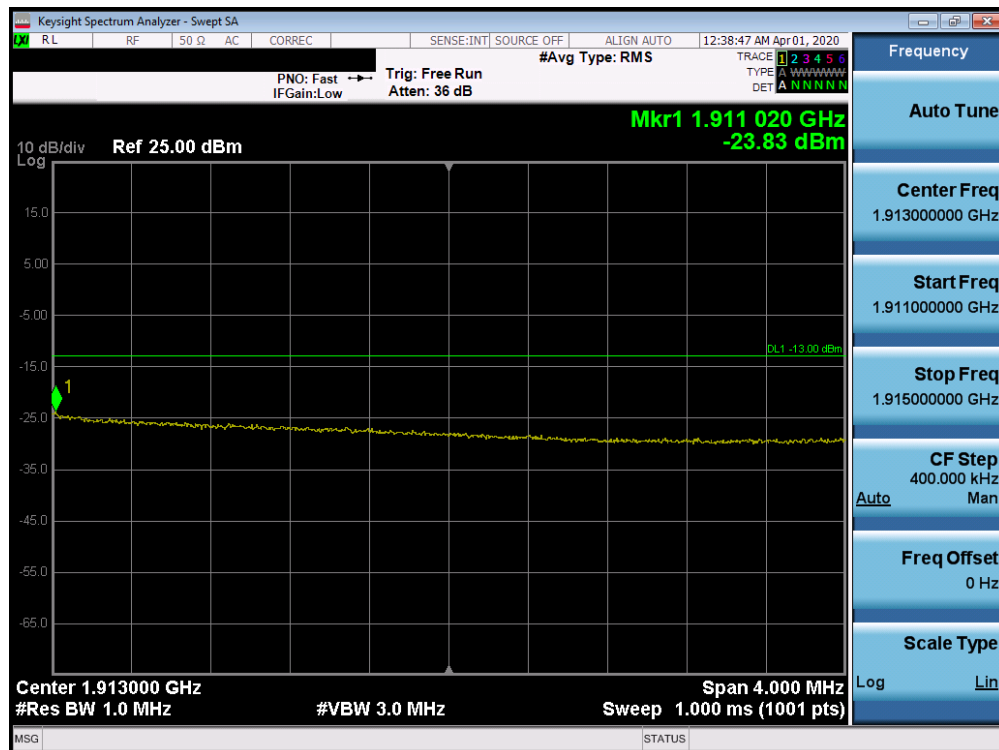


Plot 7-388. Lower Extended Band Edge Plot (n2 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 219 of 357



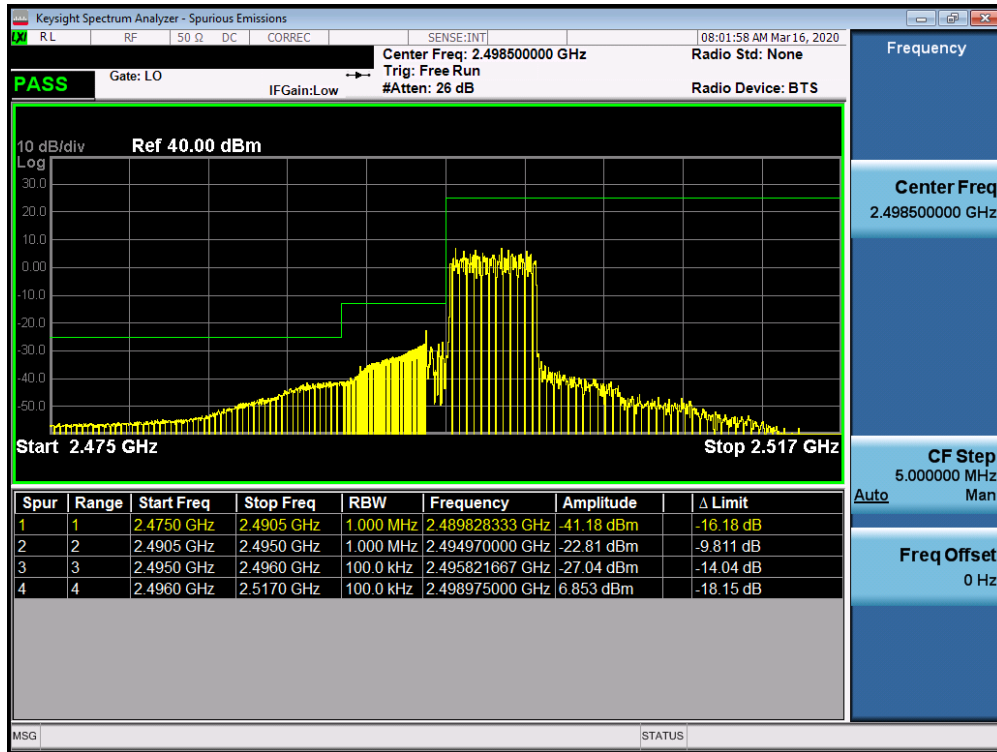
Plot 7-389. Upper Band Edge Plot (n2 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



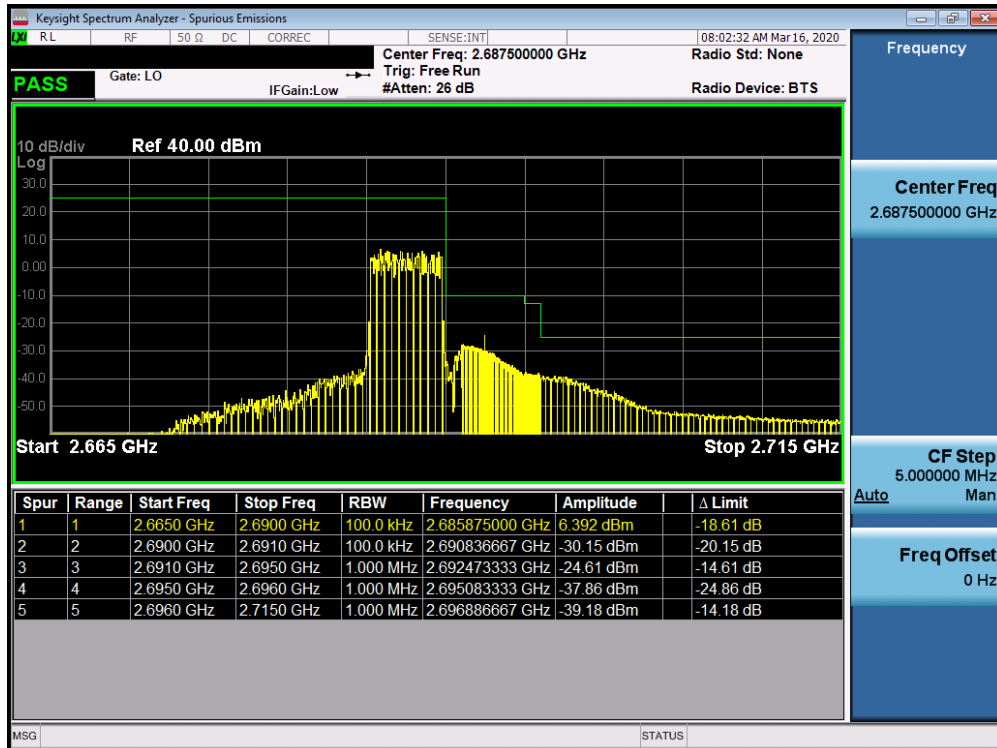
Plot 7-390. Upper Extended Band Edge Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 220 of 357

Band 41

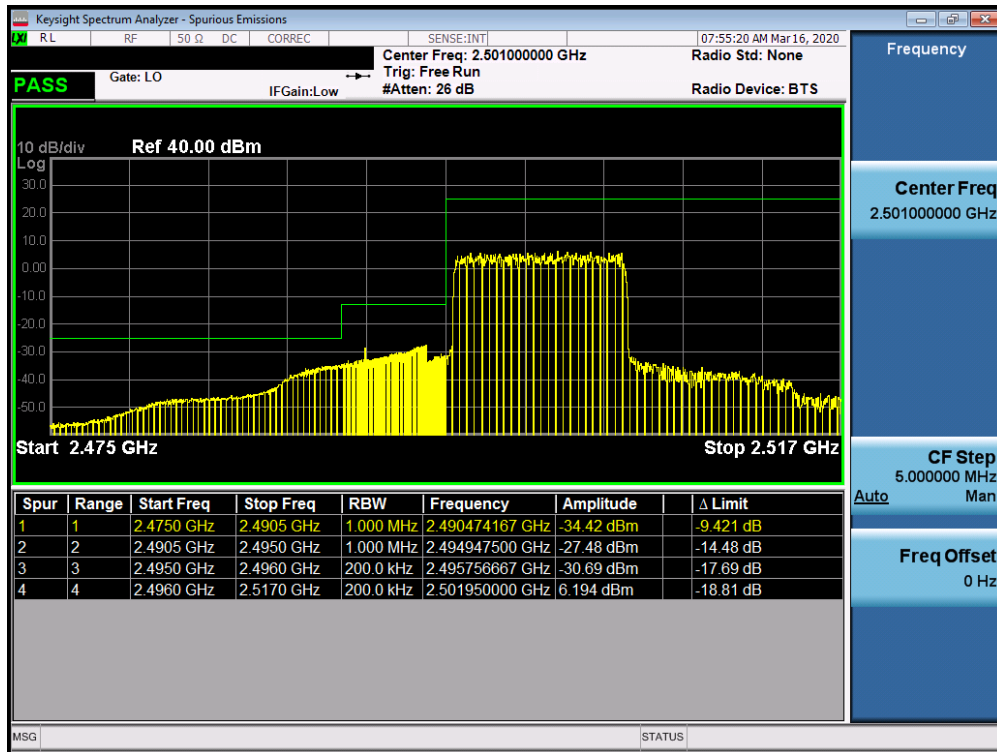


Plot 7-391. Lower ACP Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)

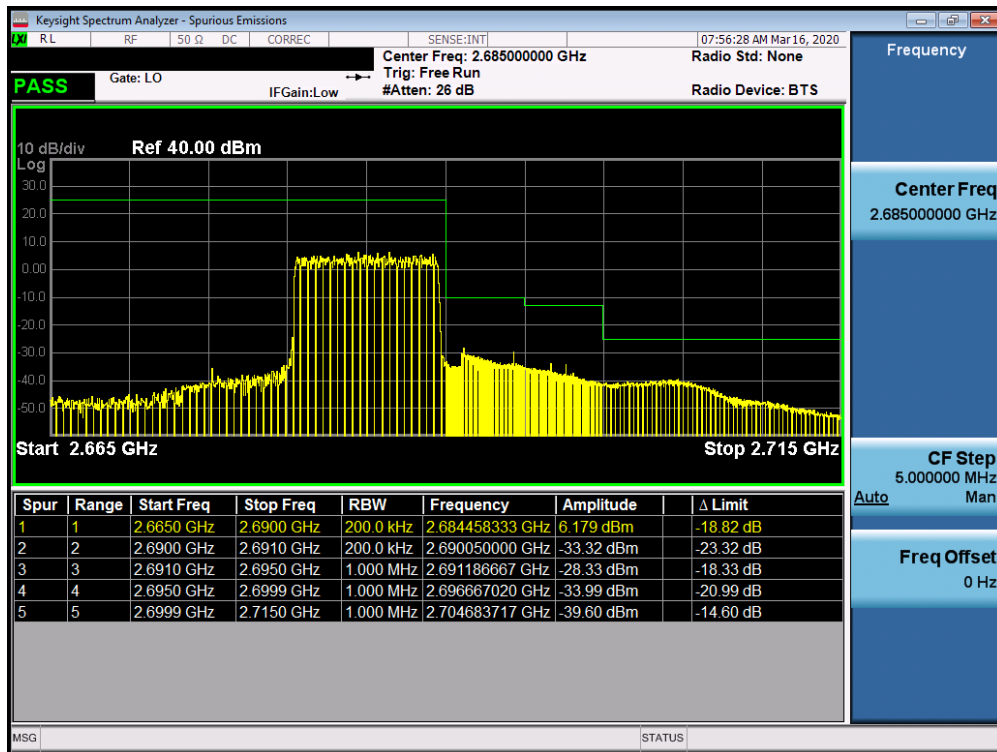


Plot 7-392. Upper ACP Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 221 of 357

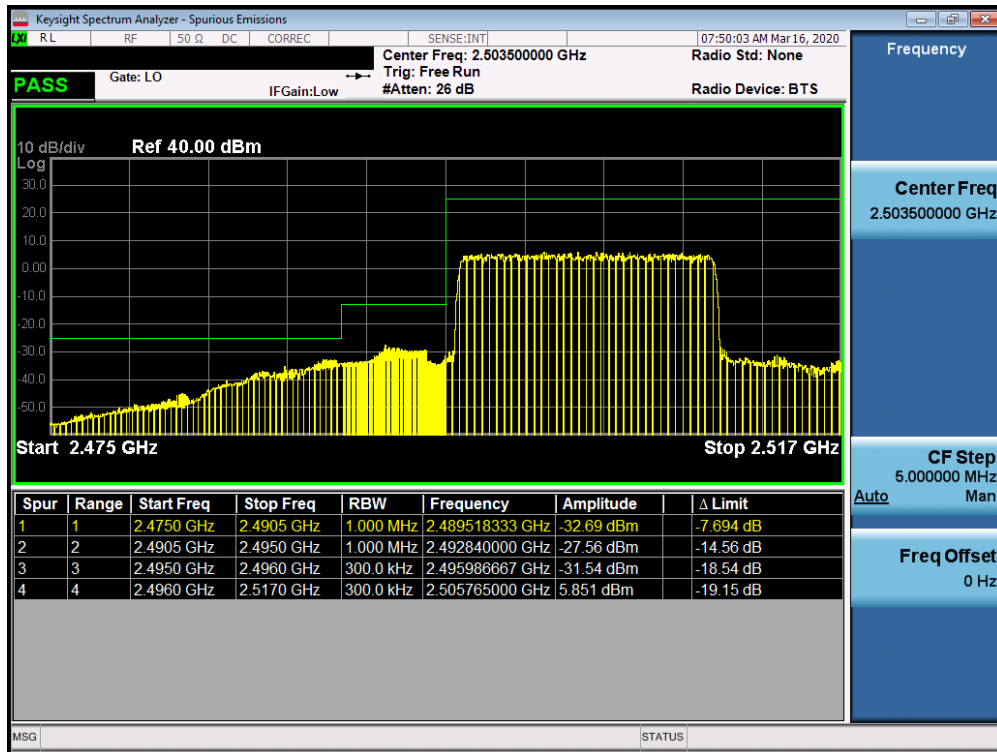


Plot 7-393. Lower ACP Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)

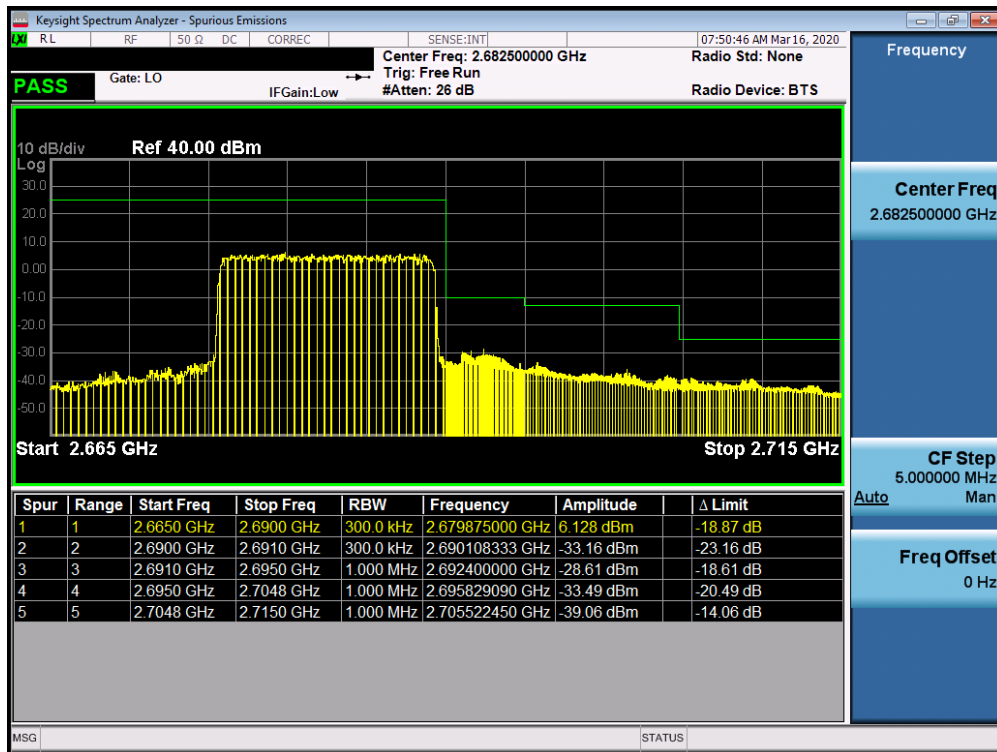


Plot 7-394. Upper ACP Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 222 of 357

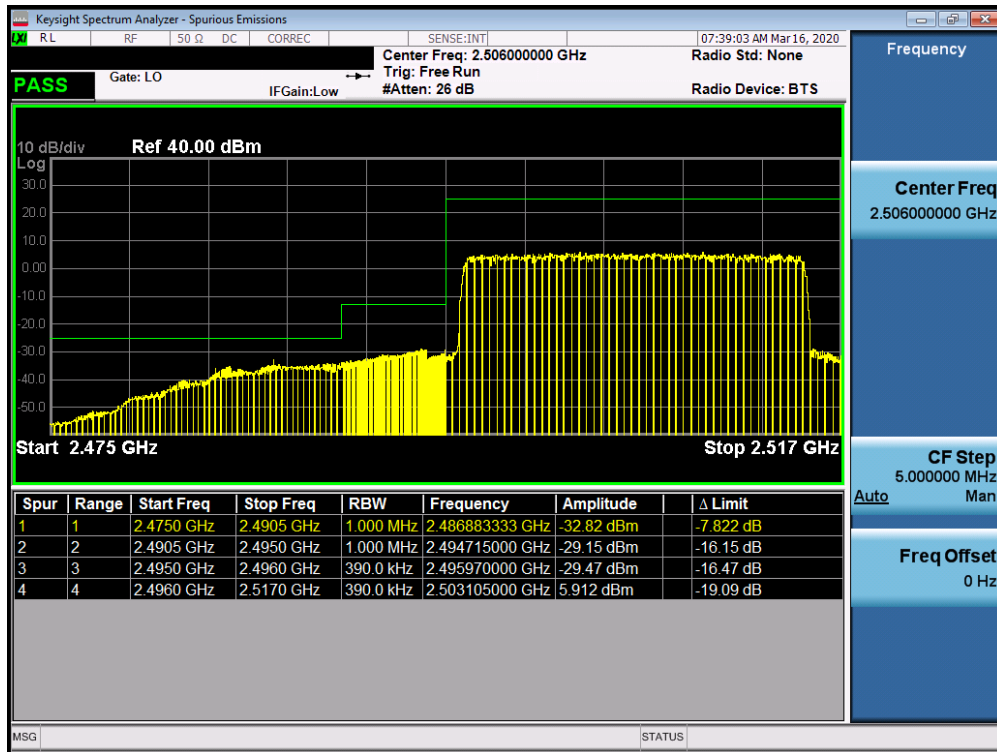


Plot 7-395. Lower ACP Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)

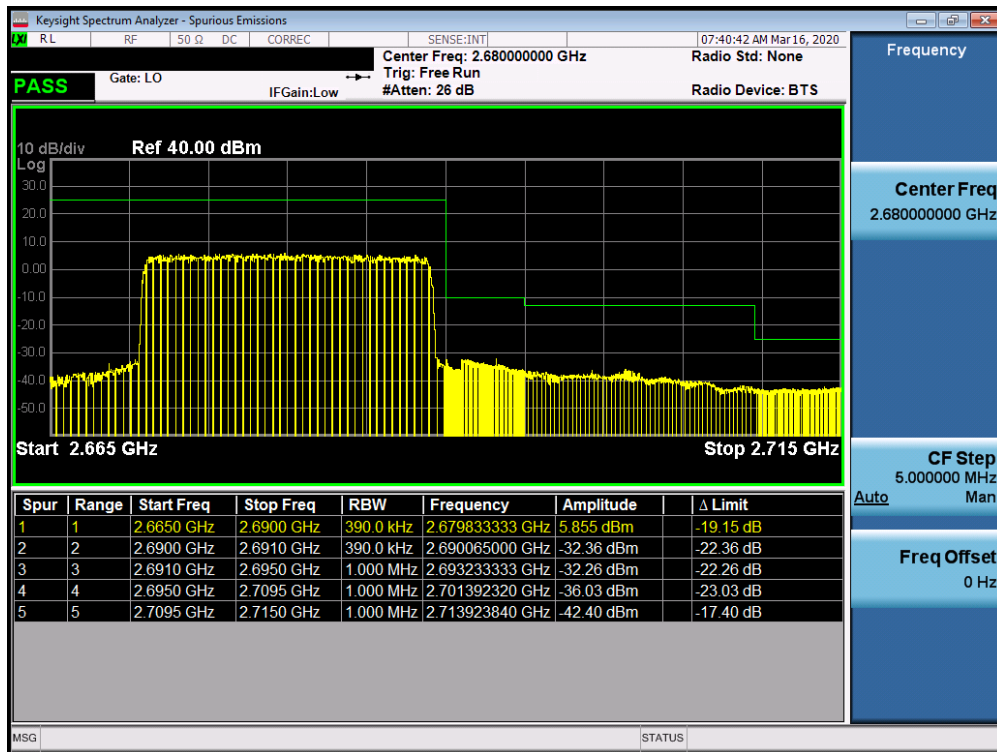


Plot 7-396. Upper ACP Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 223 of 357



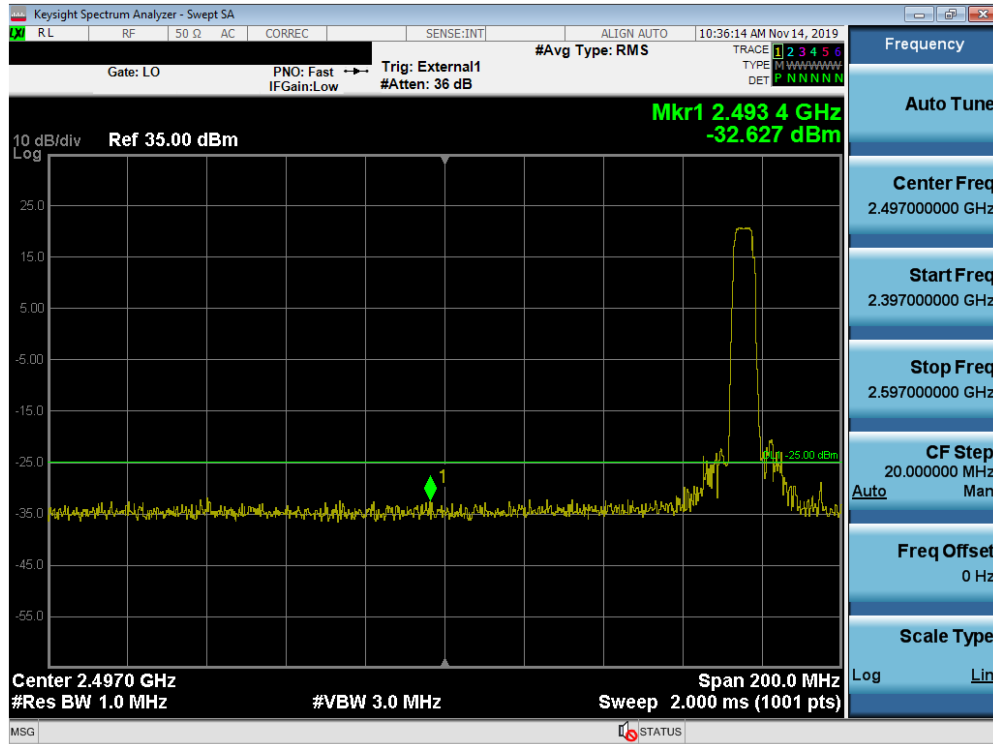
Plot 7-397. Lower ACP Plot (Band 41 - 20.0MHz QPSK - Full RB Configuration)



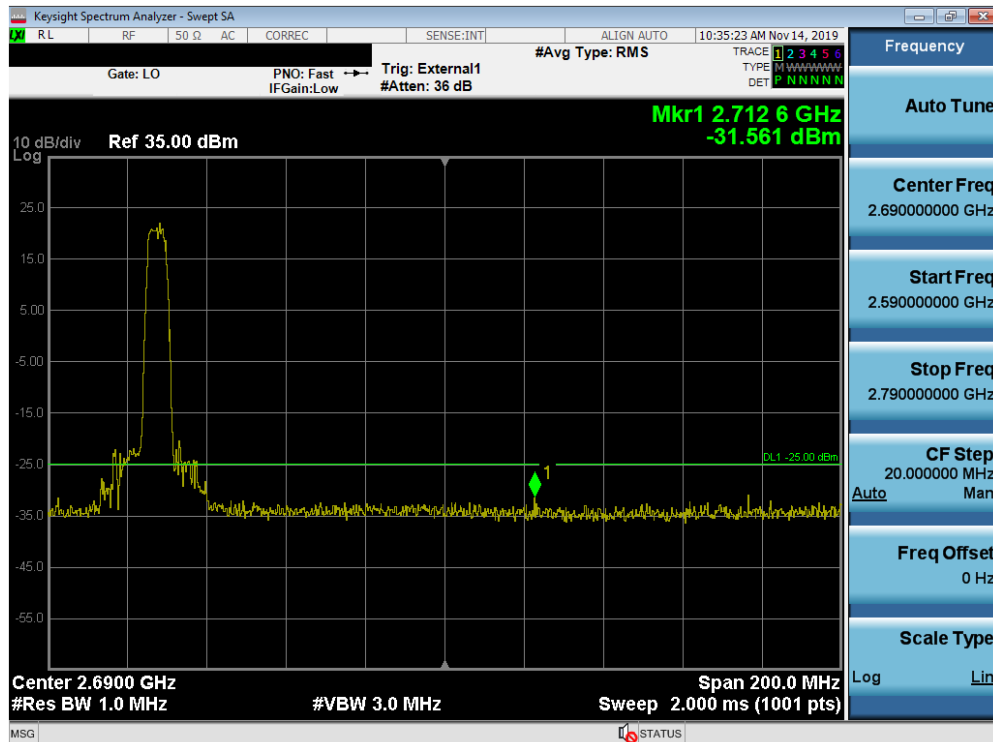
Plot 7-398. Upper ACP Plot (Band 41 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 224 of 357

Band 38

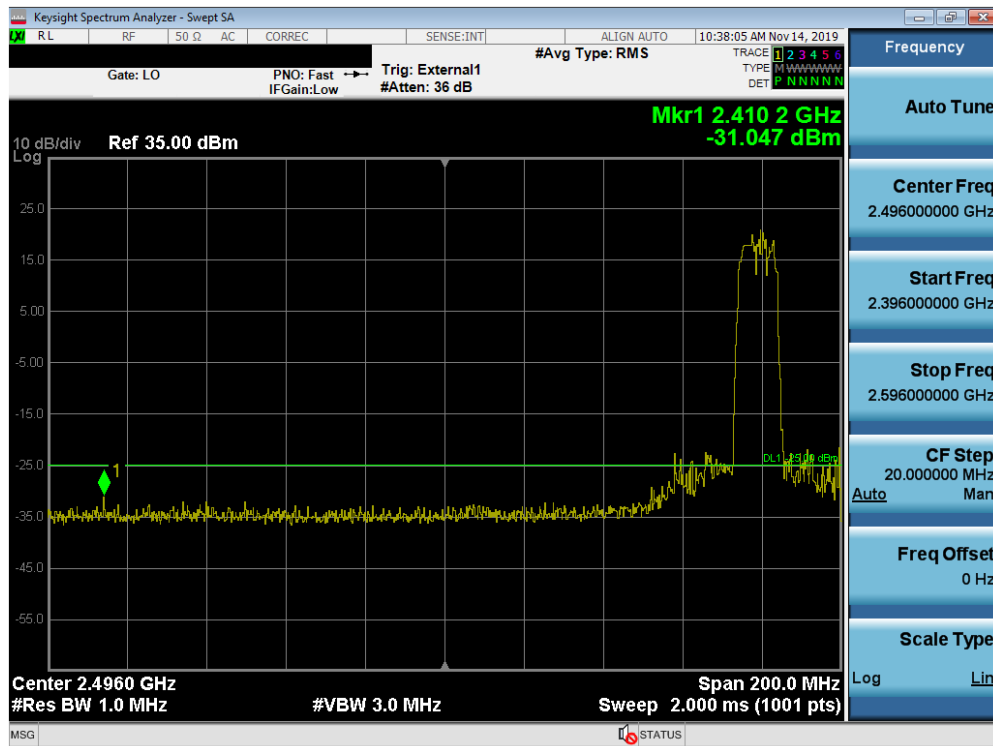


Plot 7-399. Lower Band Edge Plot (Band 38 – 5.0MHz QPSK - Full RB Configuration)

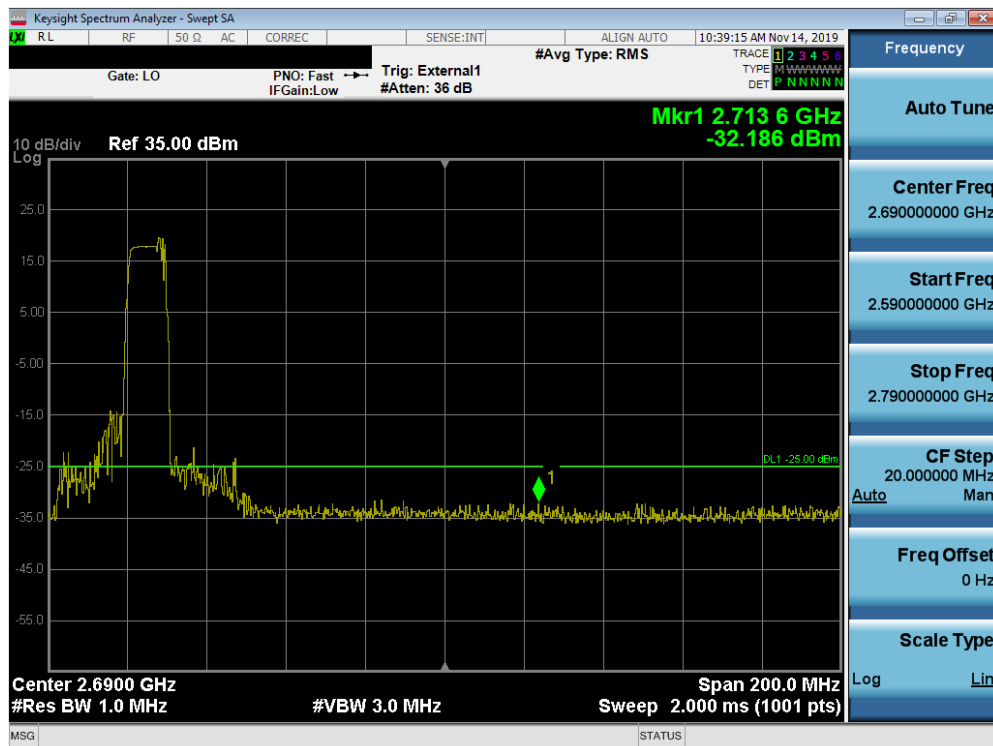


Plot 7-400. Upper Band Edge Plot (Band 38 – 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 225 of 357

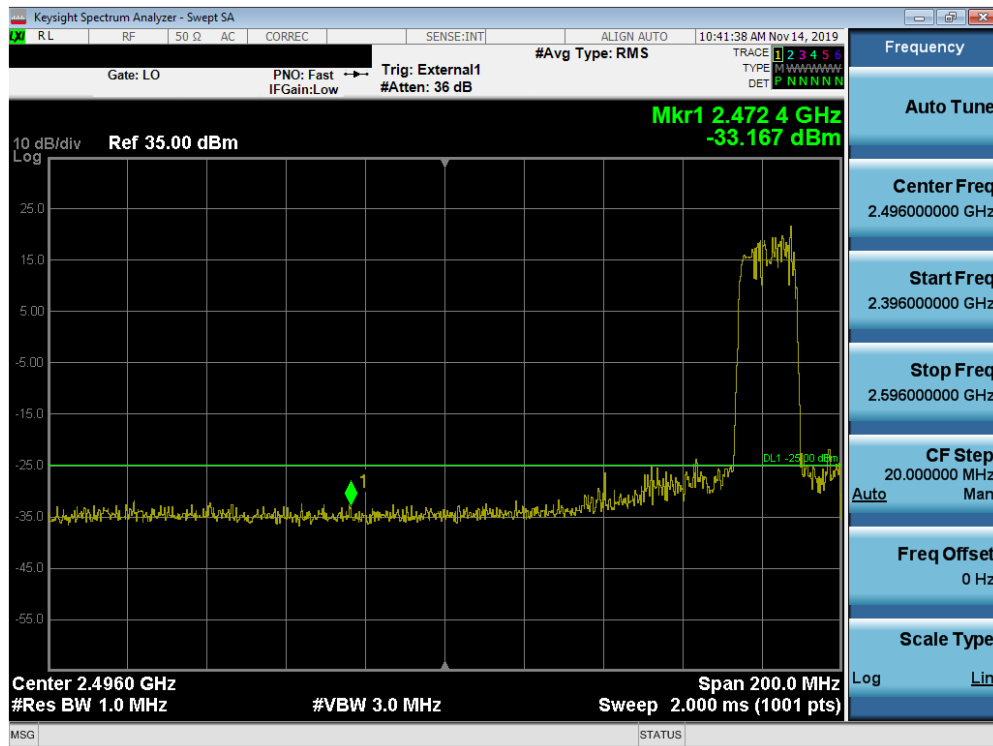


Plot 7-401. Lower Band Edge Plot (Band 38 – 10.0MHz QPSK - Full RB Configuration)

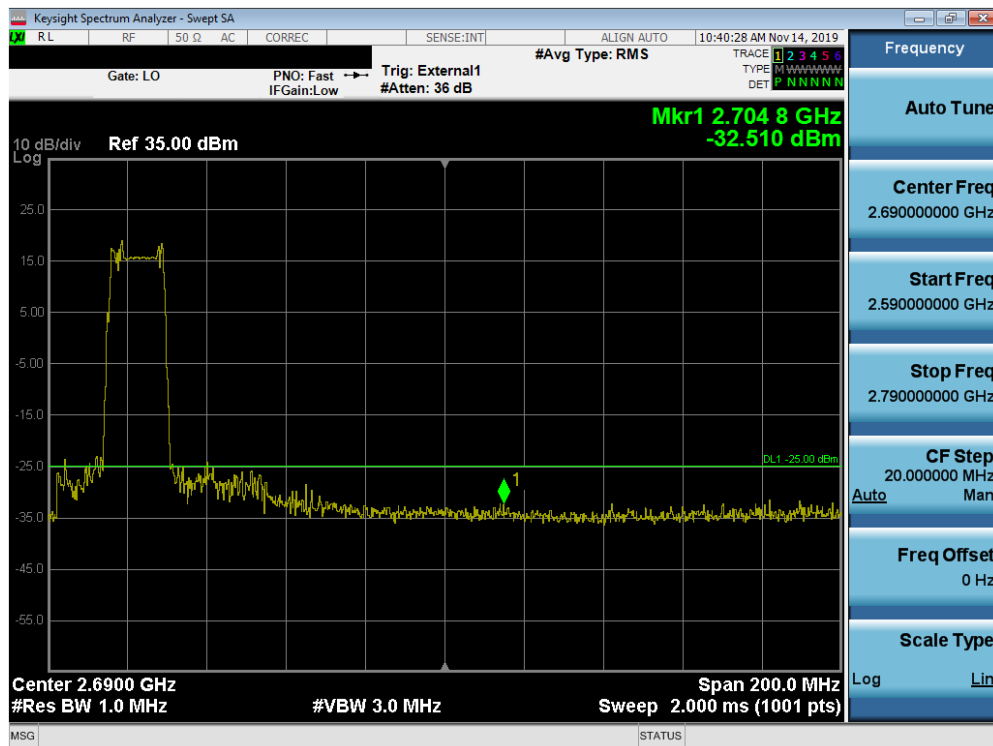


Plot 7-402. Upper Band Edge Plot (Band 38 – 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 226 of 357

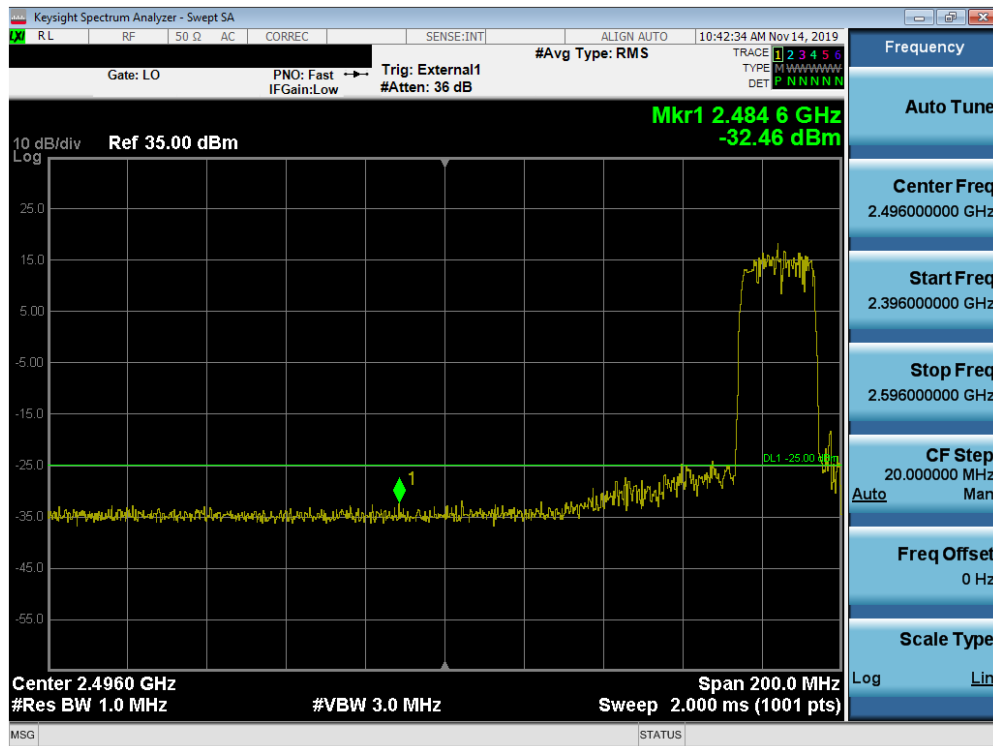


Plot 7-403. Lower Band Edge Plot (Band 38 – 15.0MHz QPSK - Full RB Configuration)

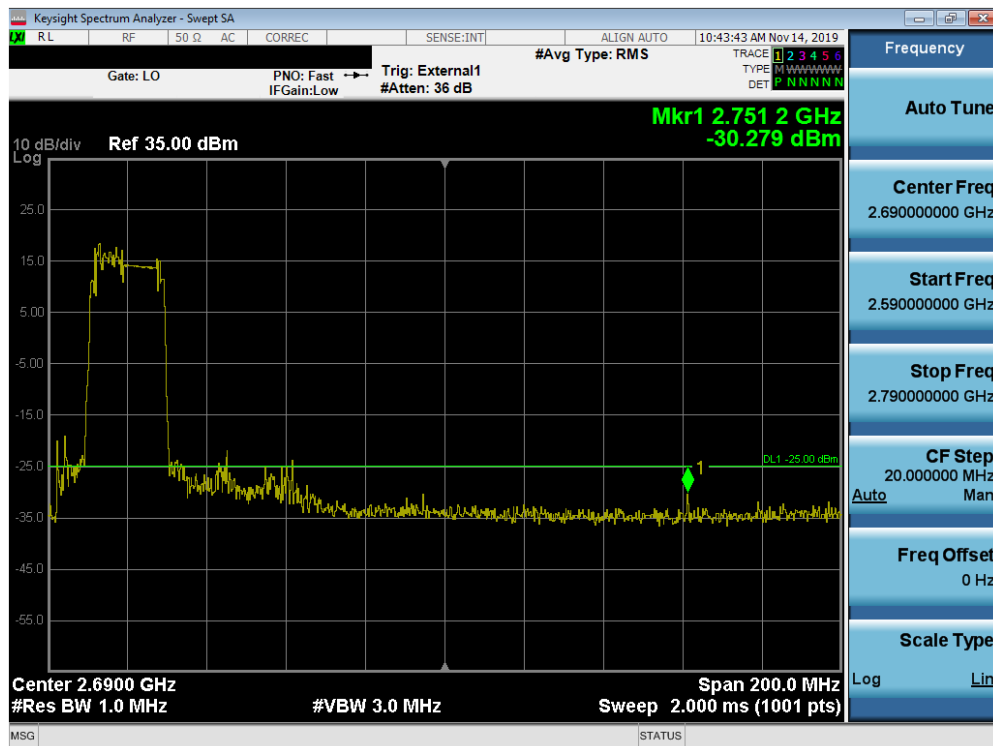


Plot 7-404. Upper Band Edge Plot (Band 38 – 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 227 of 357



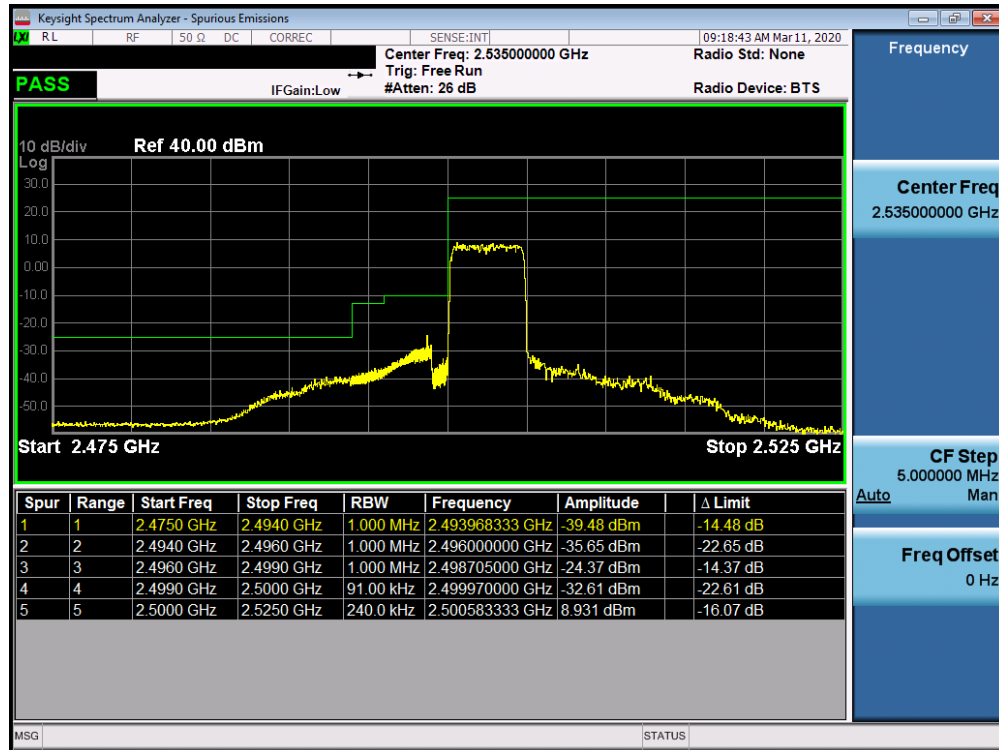
Plot 7-405. Lower Band Edge Plot (Band 38 – 20.0MHz QPSK - Full RB Configuration)



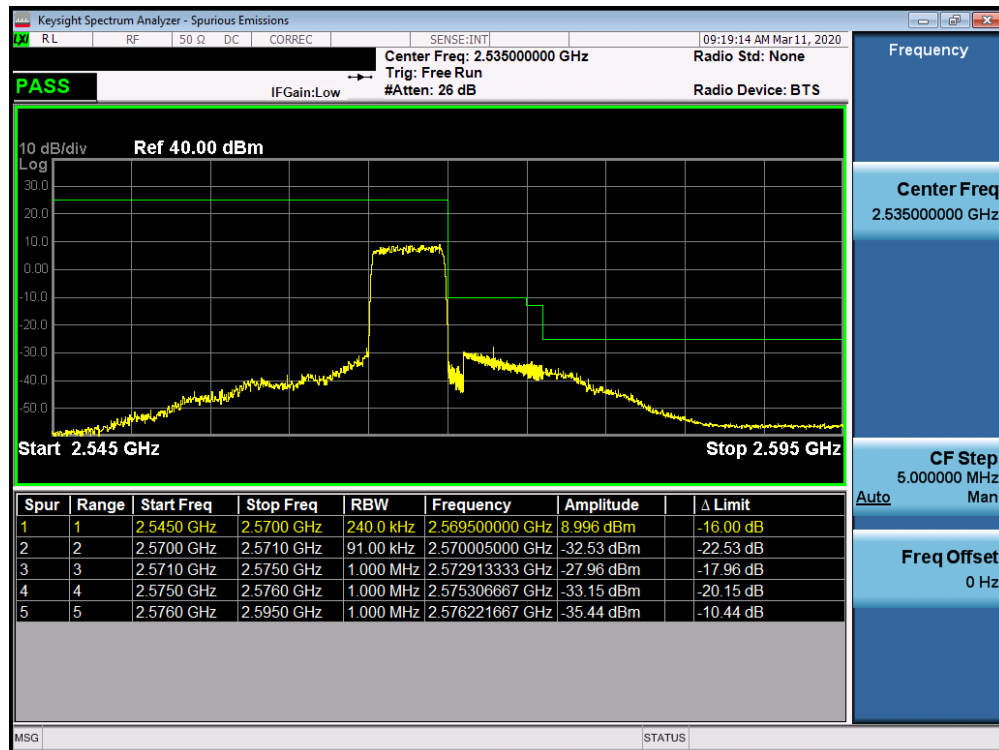
Plot 7-406. Upper Band Edge Plot (Band 38 – 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 228 of 357

Band 7

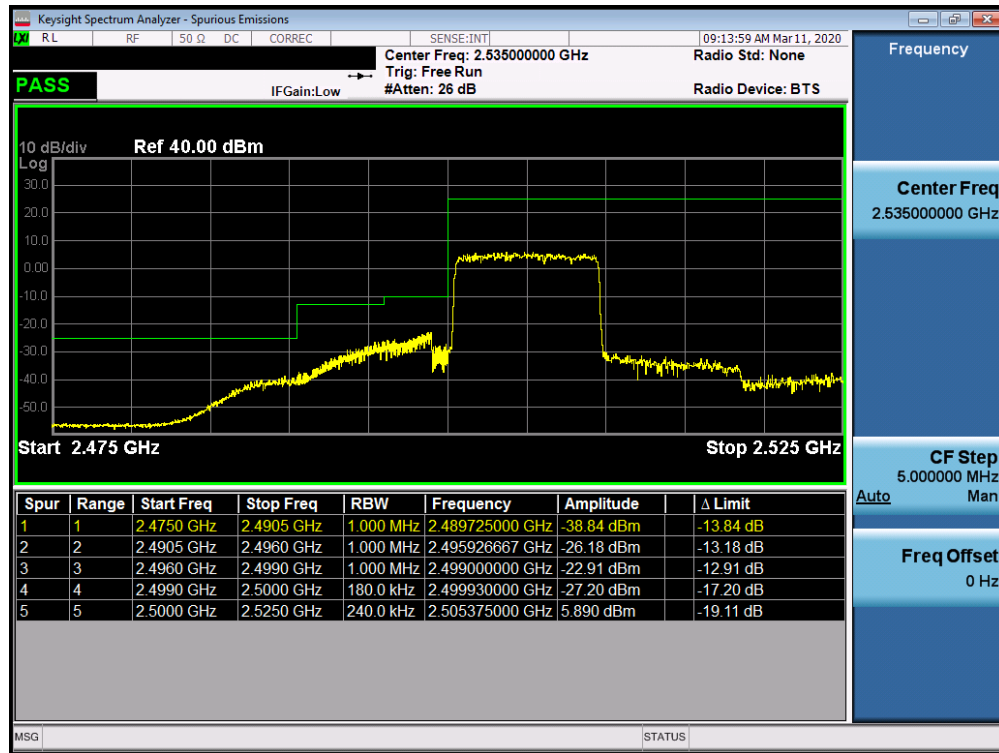


Plot 7-407. Lower Band Edge Plot (Band 7 – 5.0MHz QPSK - Full RB Configuration)

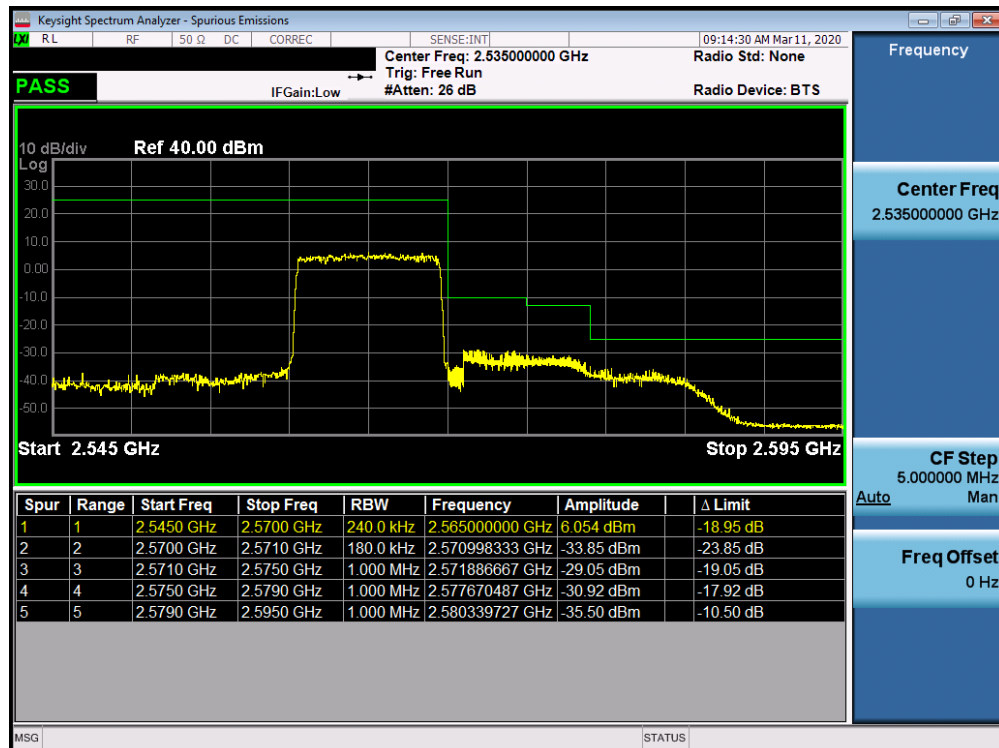


Plot 7-408. Upper Band Edge Plot (Band 7 – 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 229 of 357

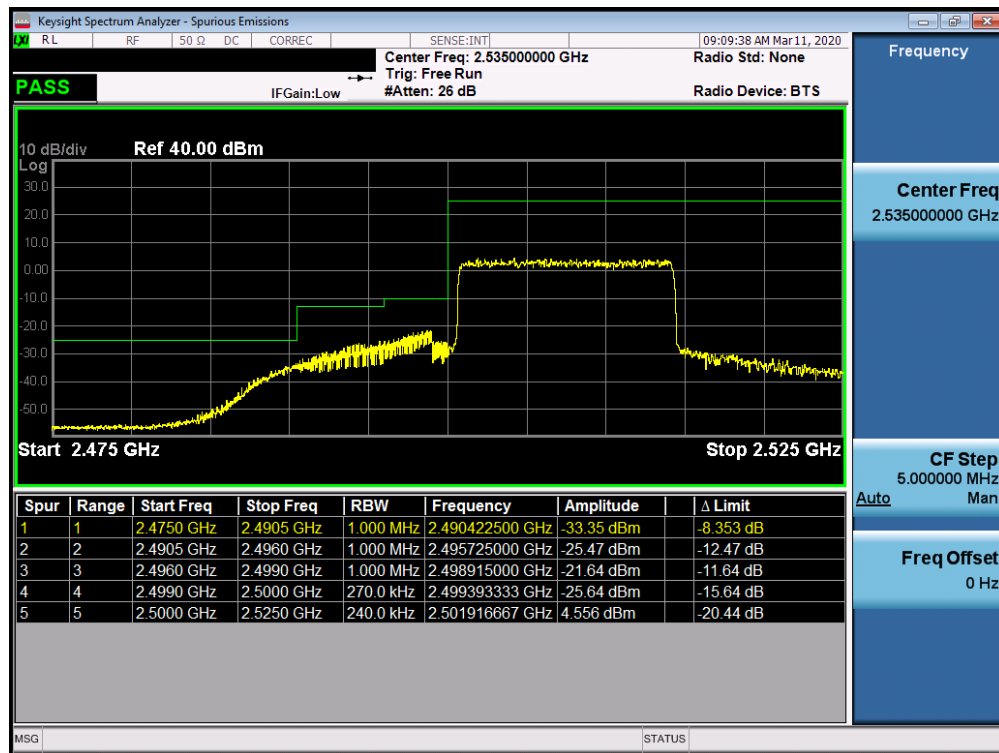


Plot 7-409. Lower Band Edge Plot (Band 7 – 10.0MHz QPSK - Full RB Configuration)

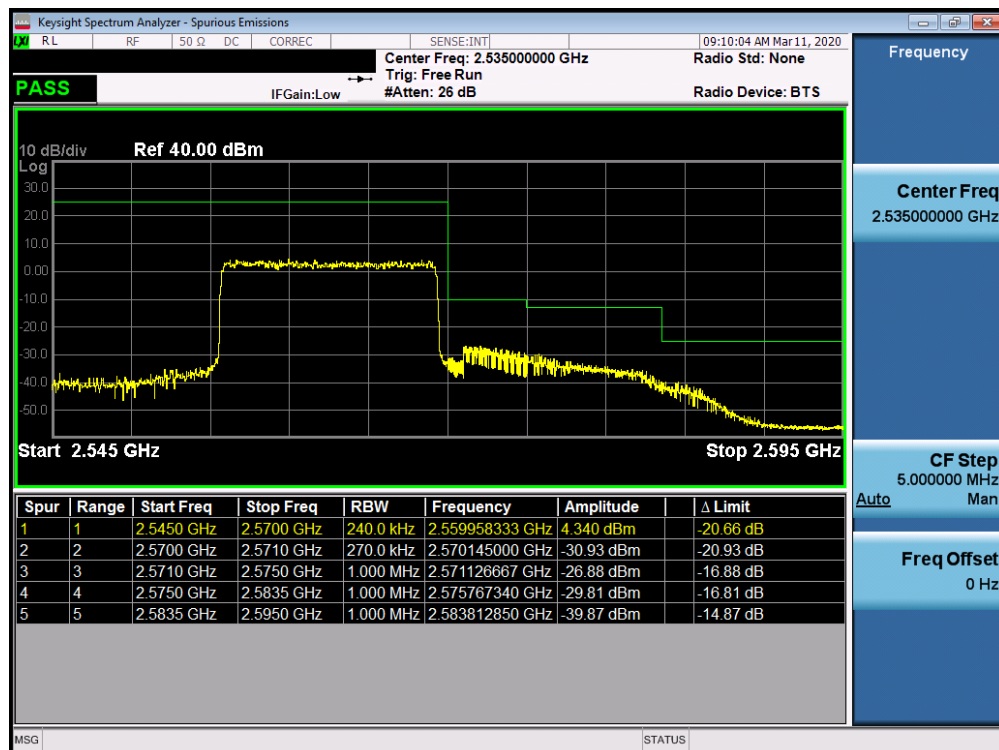


Plot 7-410. Upper Band Edge Plot (Band 7 – 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 230 of 357

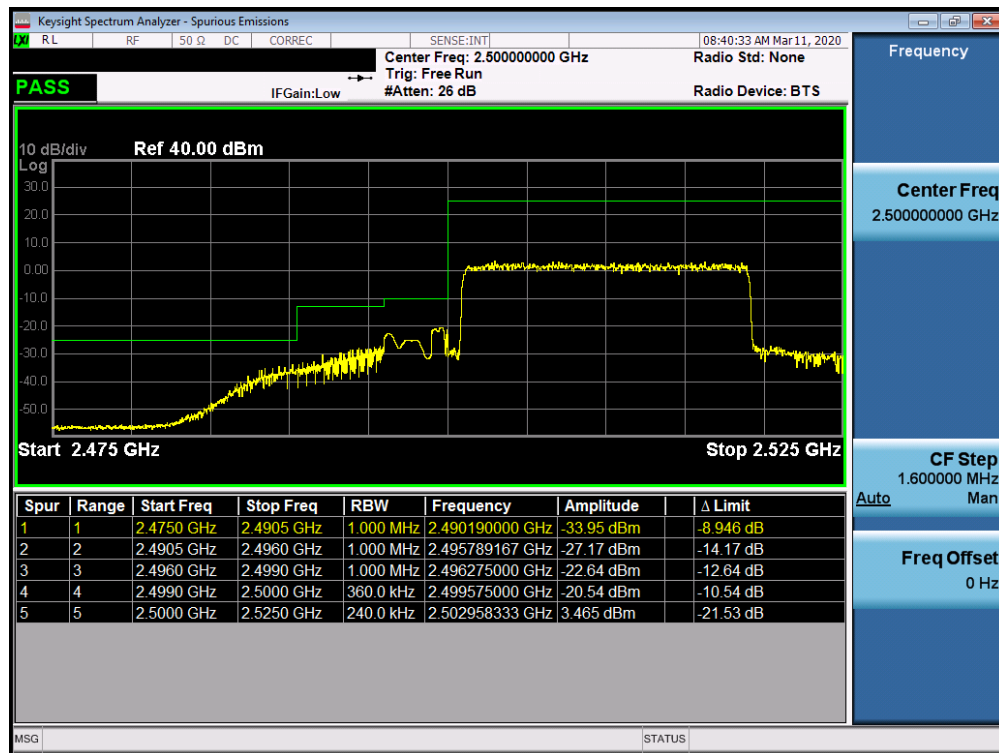


Plot 7-411. Lower Band Edge Plot (Band 7 – 15.0MHz QPSK - Full RB Configuration)

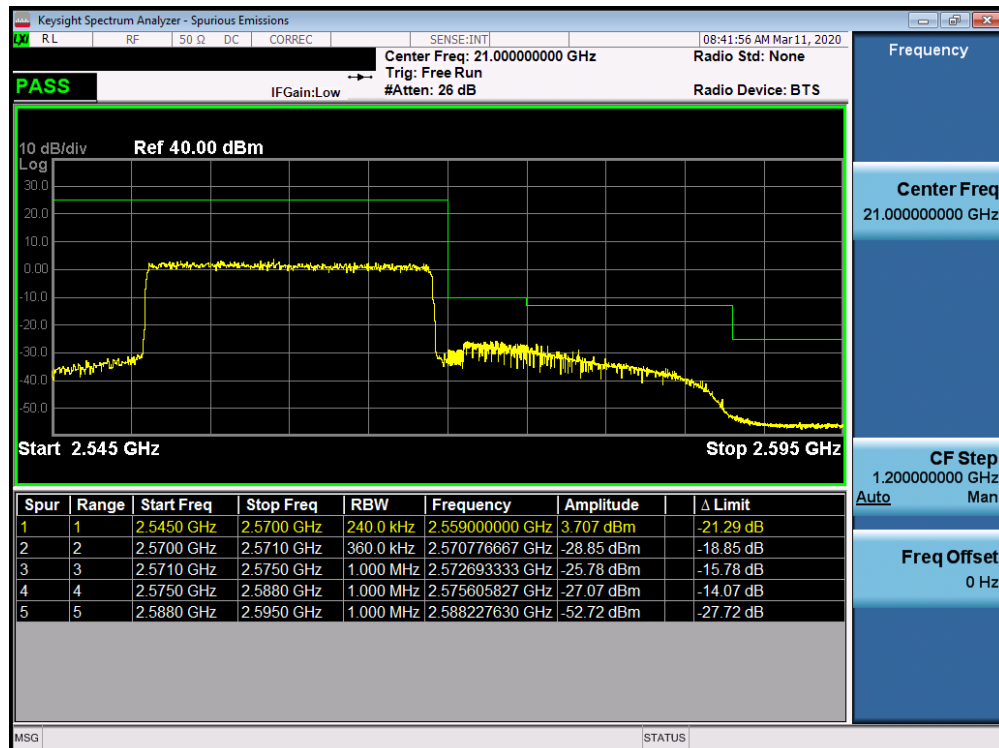


Plot 7-412. Upper Band Edge Plot (Band 7 – 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 231 of 357



Plot 7-413. Lower Band Edge Plot (Band 7 – 20.0MHz QPSK - Full RB Configuration)



Plot 7-414. Upper Band Edge Plot (Band 7 – 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 232 of 357

7.5 Peak-Average Ratio

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.7.1

Test Settings

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW $\geq$ OBW or specified reference bandwidth
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms.

Test Setup

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

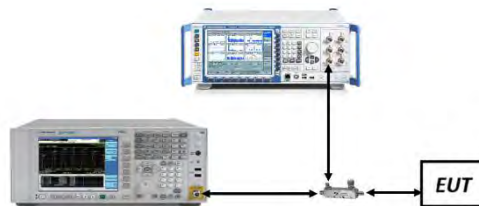


Figure 7-4. Test Instrument & Measurement Setup

Test Notes

All SCS's and Waveforms (CP-OFDM vs DFT-s OFDM) 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.

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-05.A3L	Test Dates: 10/22/2019-5/6/2020	EUT Type: Portable Handset		Page 233 of 357