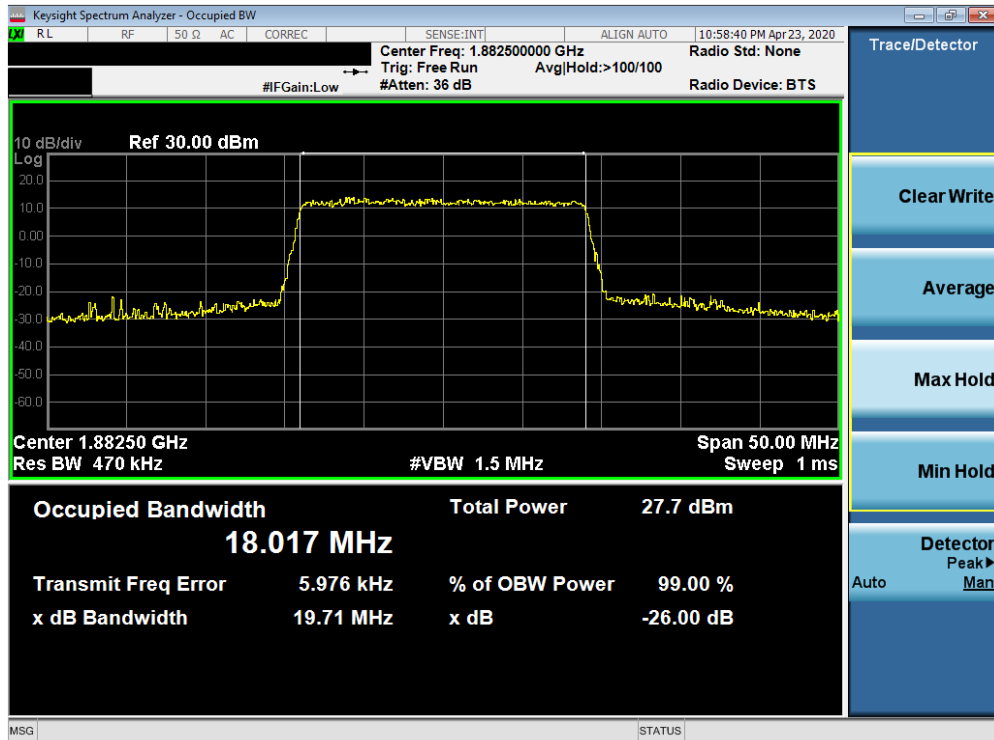


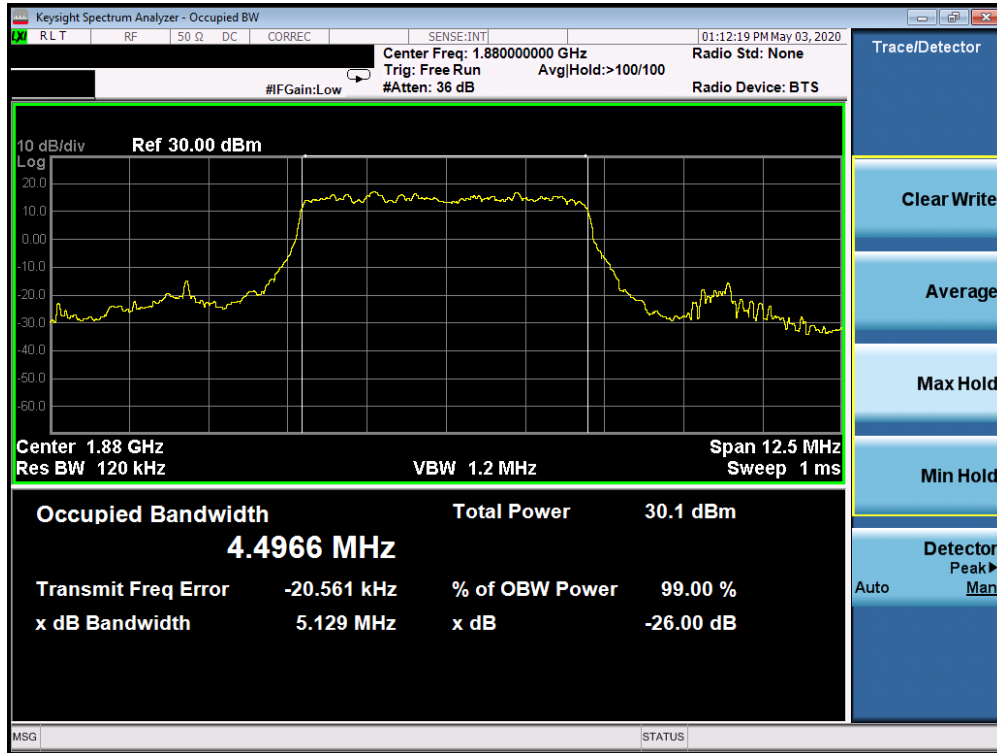
Plot 7-182. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz 64-QAM - Full RB Configuration)



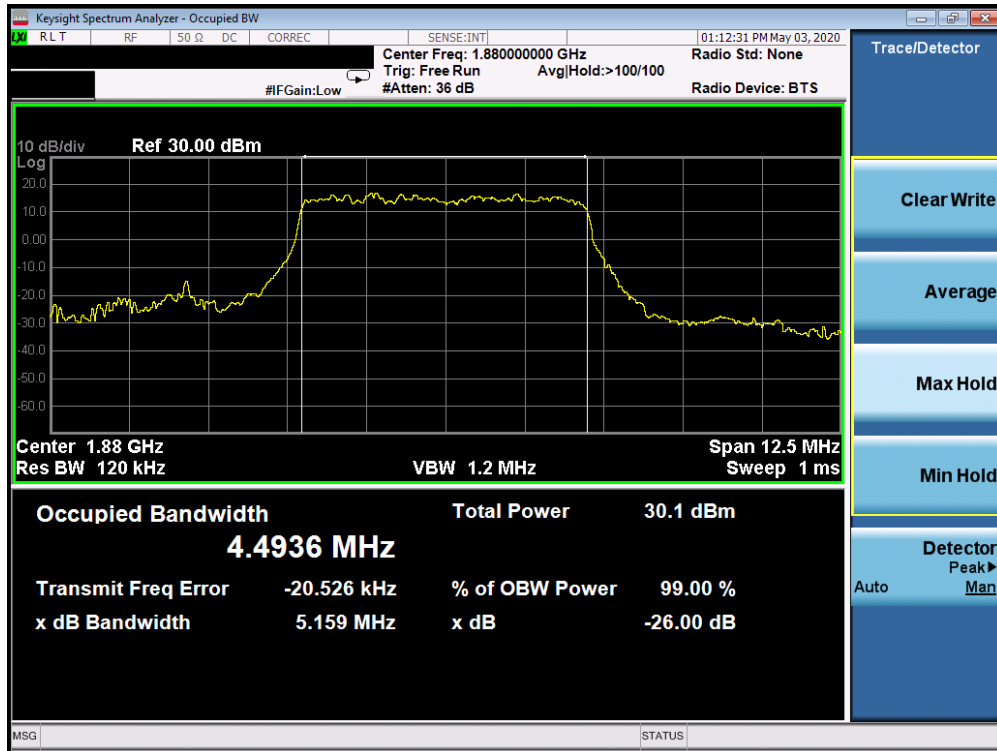
Plot 7-183. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 110 of 494



### NR Band n25/2

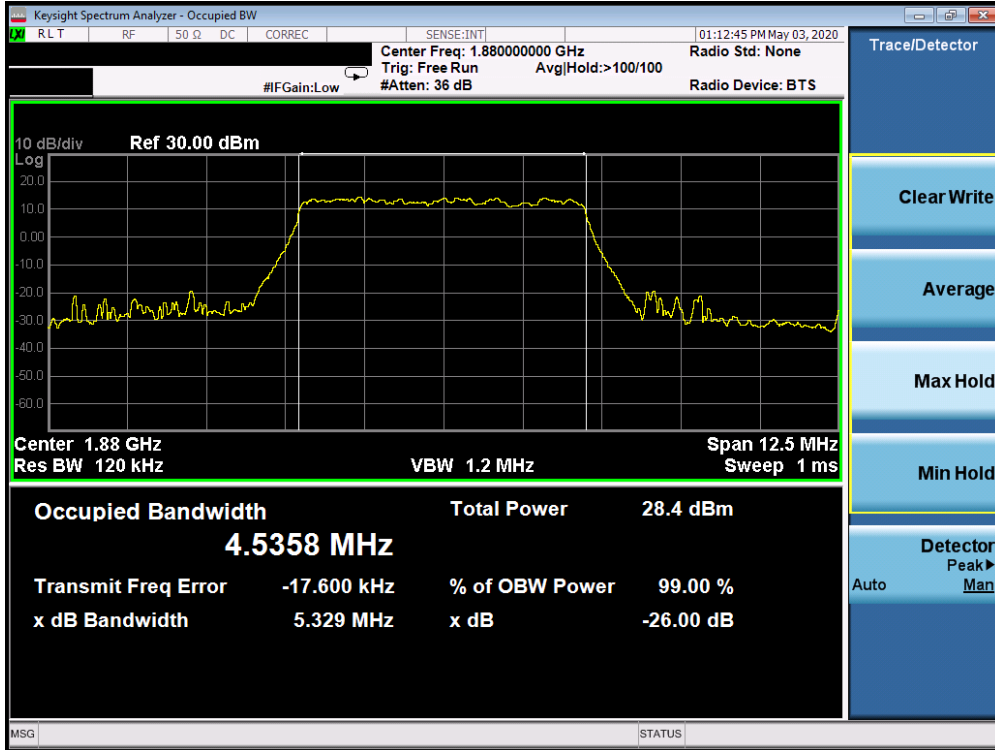


Plot 7-184. Occupied Bandwidth Plot (n25/2 5MHz BPSK-DFT-s-OFDM - Full RB Configuration)

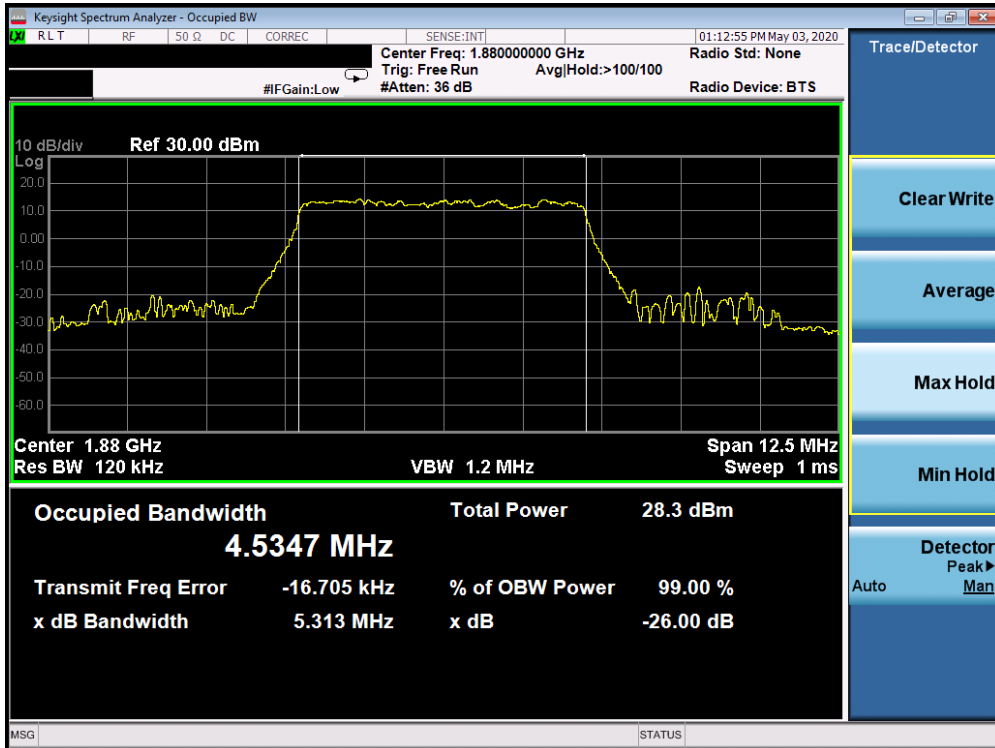


Plot 7-185. Occupied Bandwidth Plot (n25/2 5MHz QPSK-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 111 of 494

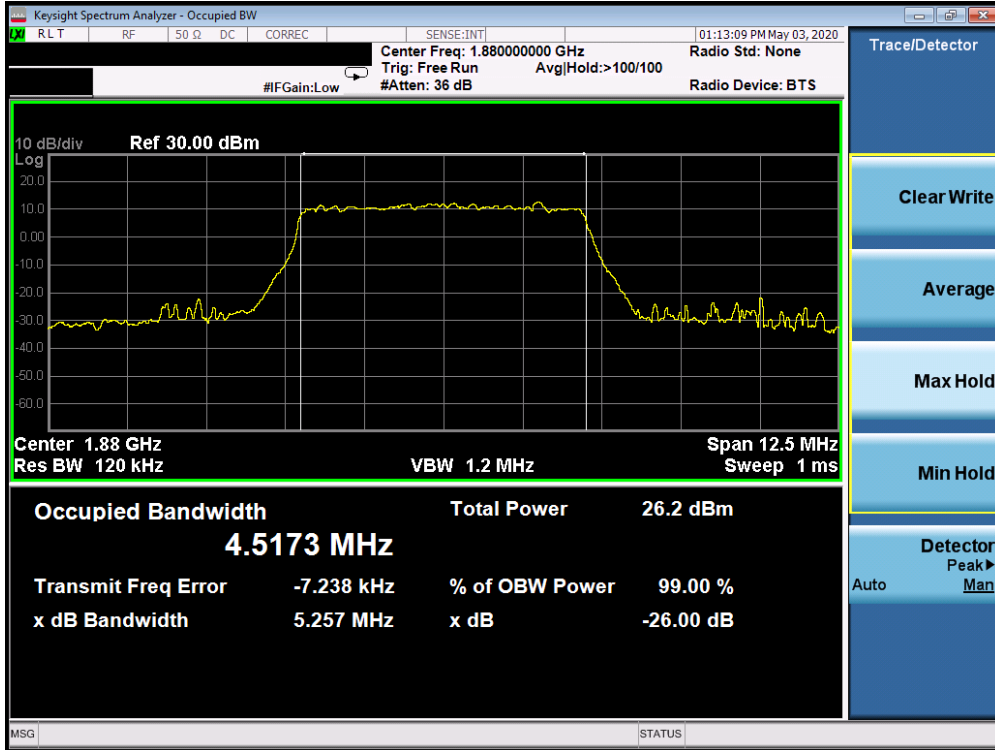


Plot 7-186. Occupied Bandwidth Plot (n25/2 5MHz 16QAM-CP-OFDM - Full RB Configuration)

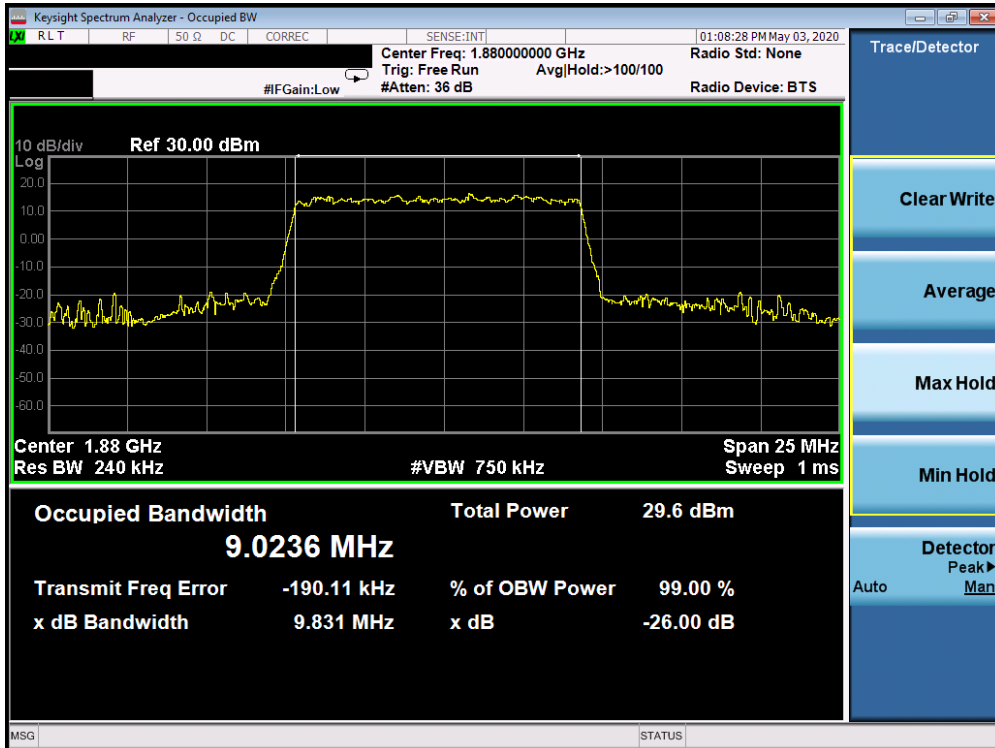


Plot 7-187. Occupied Bandwidth Plot (n25/2 5MHz 64QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 112 of 494

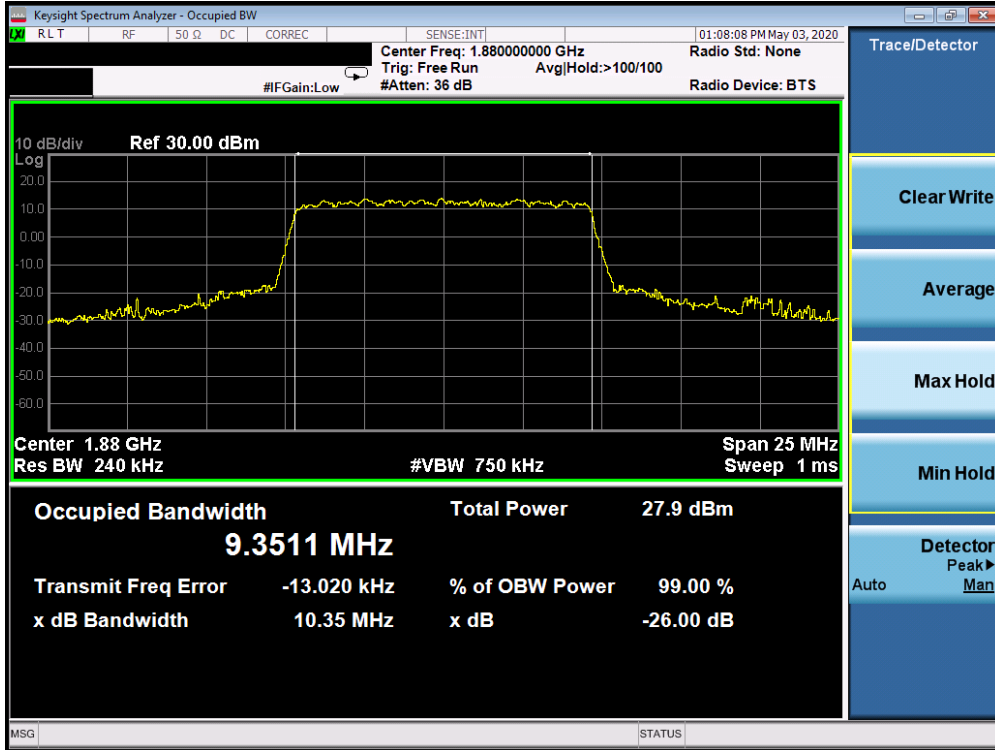


Plot 7-188. Occupied Bandwidth Plot (n25/2 5MHz 256QAM-CP-OFDM- Full RB Configuration)

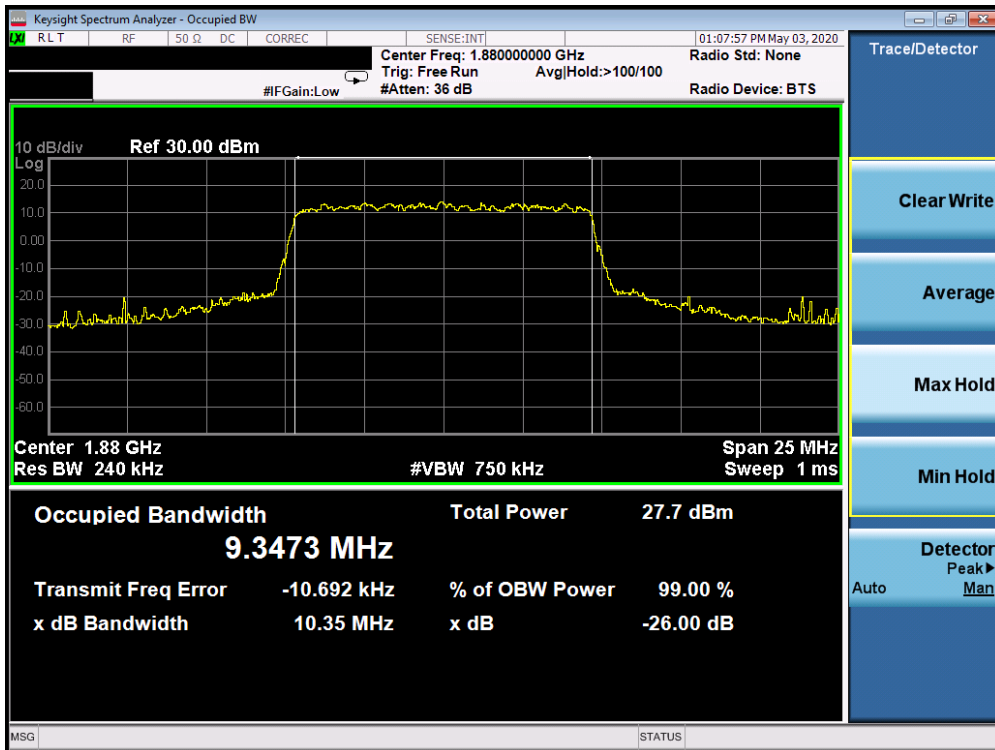


Plot 7-189. Occupied Bandwidth Plot (n25/2 10MHz BPSK-DFT-s-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 113 of 494

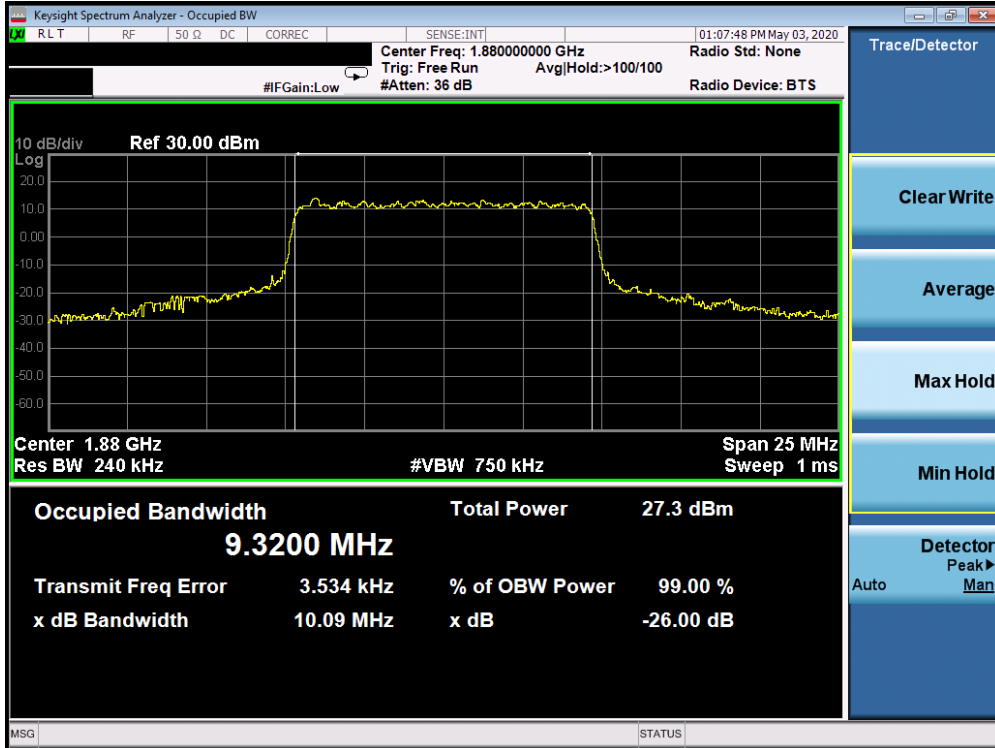


Plot 7-190. Occupied Bandwidth Plot (n25/2 10MHz QPSK-CP-OFDM - Full RB Configuration)

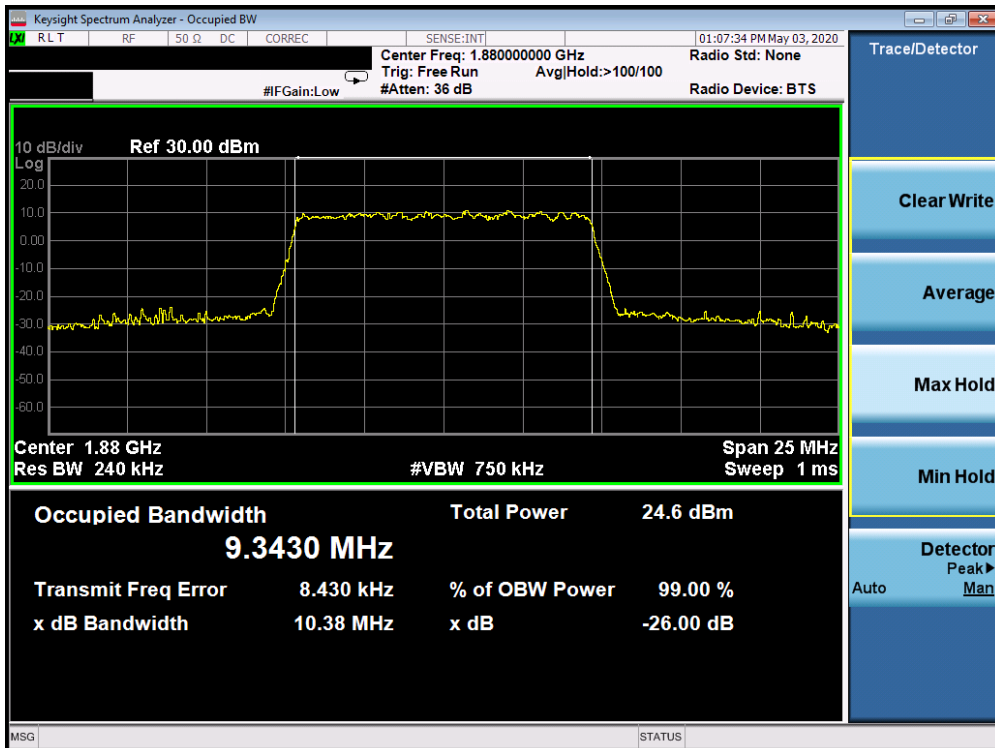


Plot 7-191. Occupied Bandwidth Plot (n25/2 10MHz 16QAM-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 114 of 494

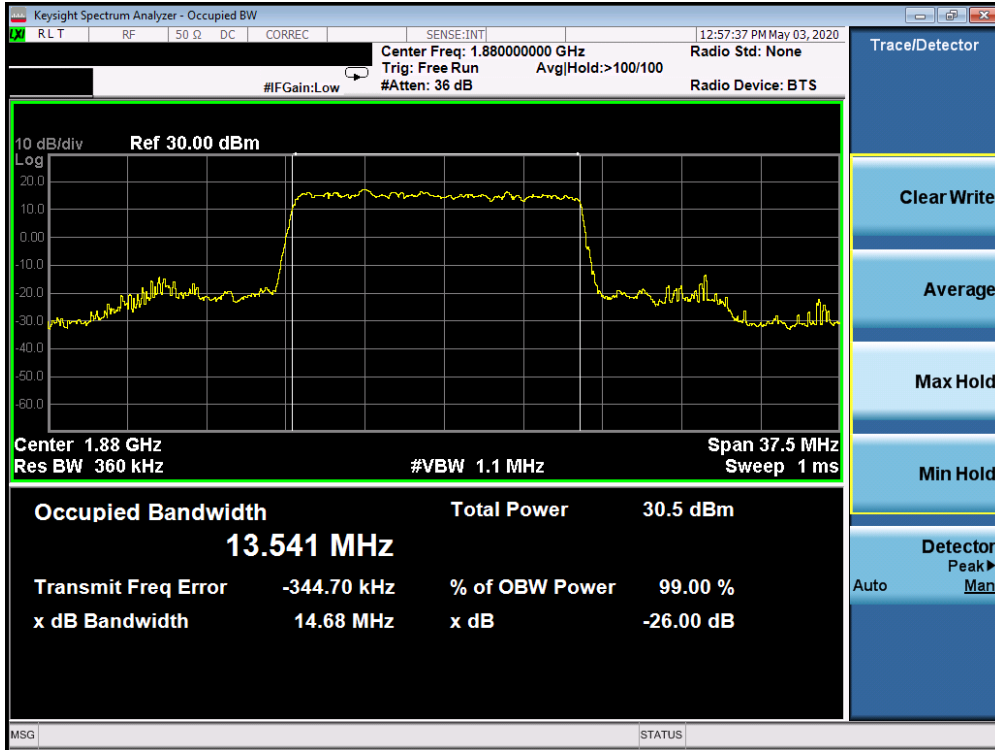


Plot 7-192. Occupied Bandwidth Plot (n25/2 10MHz 64QAM-CP-OFDM- Full RB Configuration)

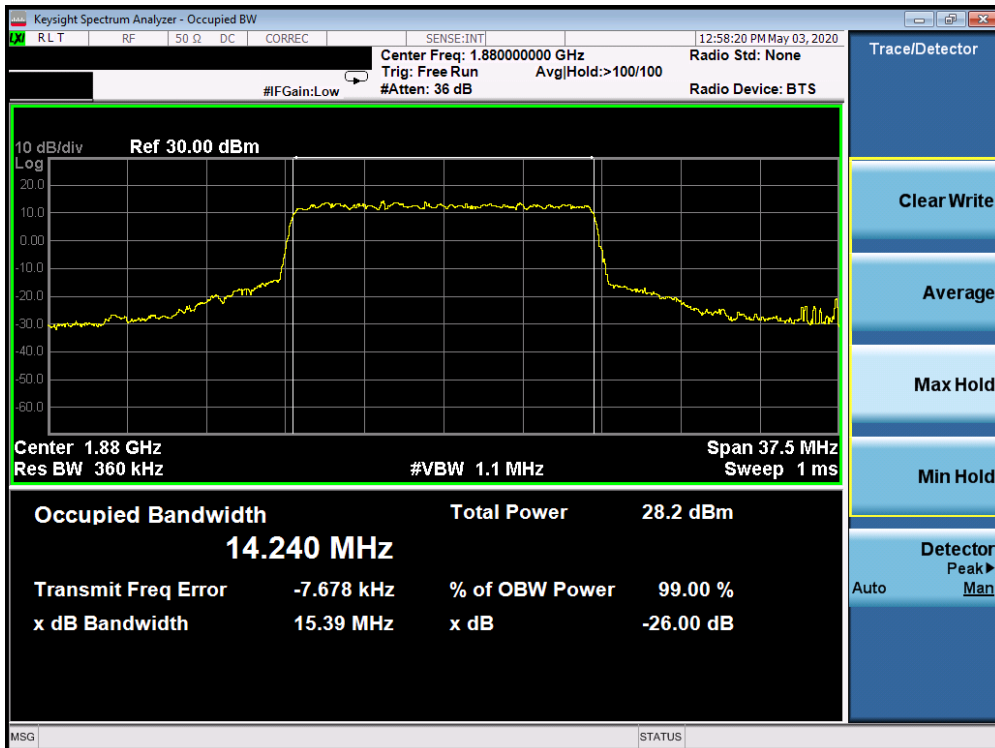


Plot 7-193. Occupied Bandwidth Plot (n25/2 10MHz 256QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 115 of 494

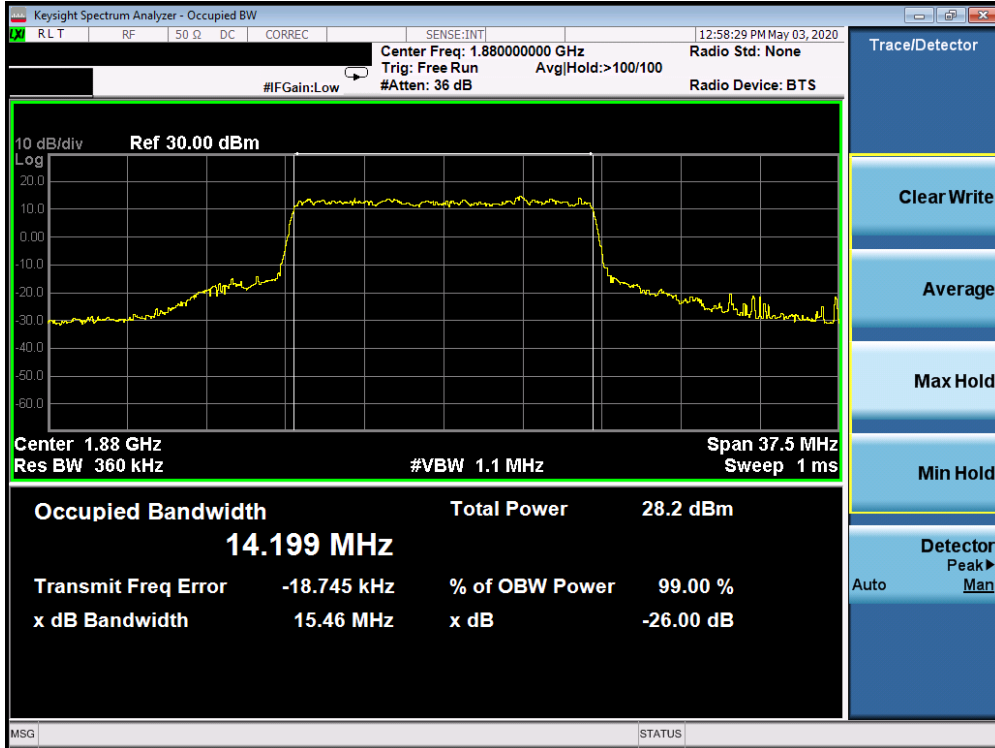


Plot 7-194. Occupied Bandwidth Plot (n25/2 15MHz BPSK-DFT-s-OFDM - Full RB Configuration)

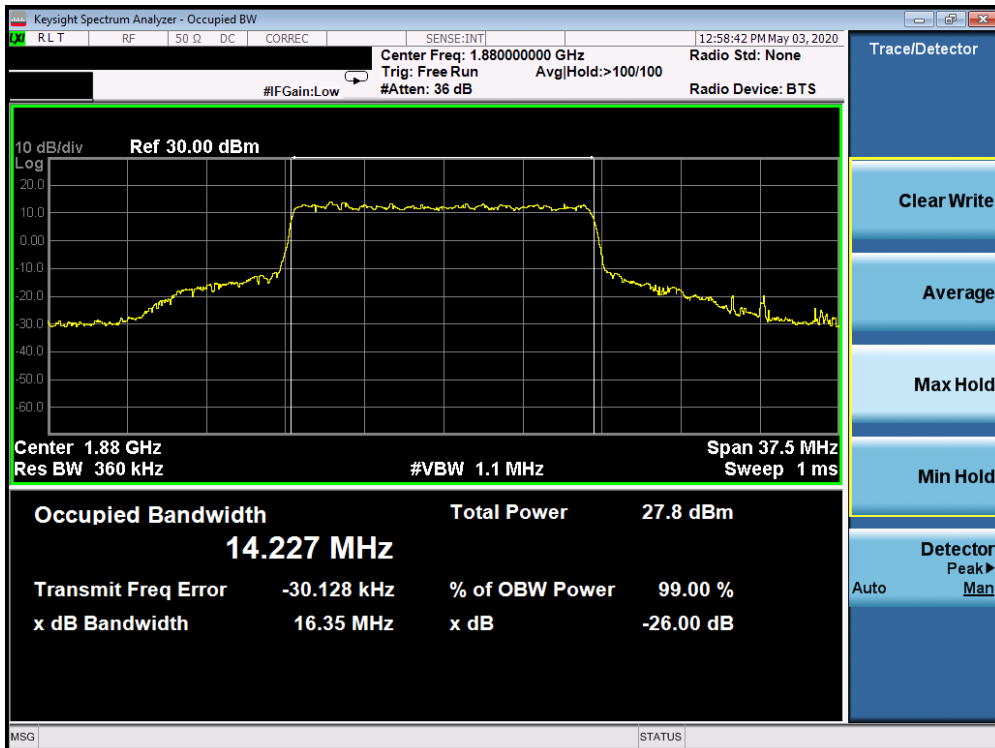


Plot 7-195. Occupied Bandwidth Plot (n25/2 15MHz QPSK-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 116 of 494



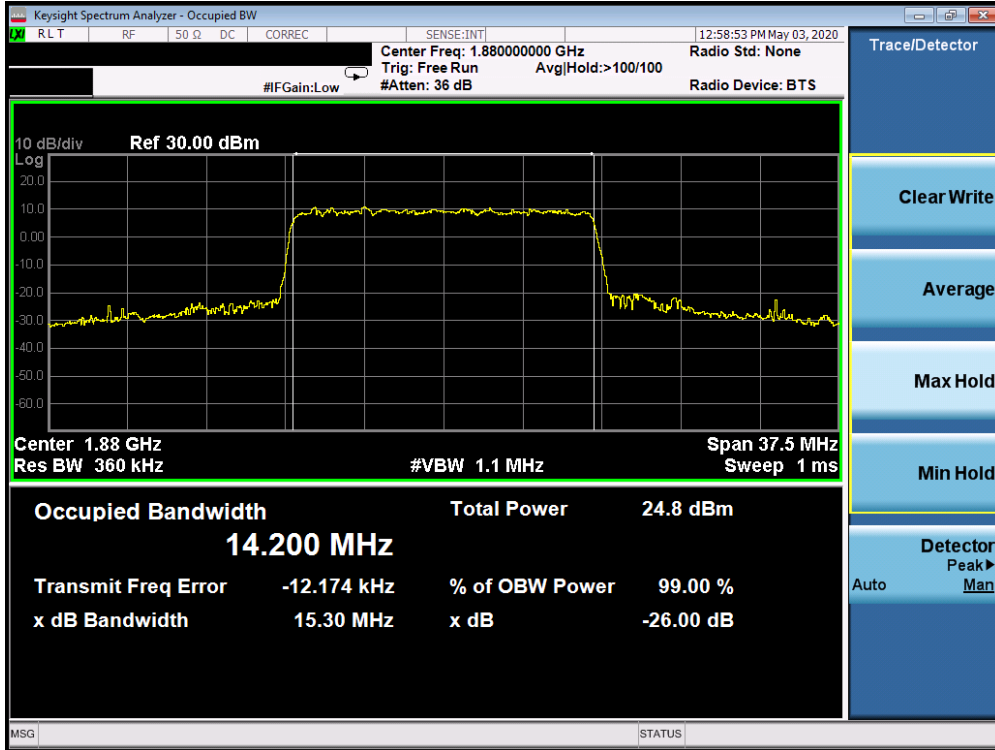
Plot 7-196. Occupied Bandwidth Plot (n25/2 15MHz 16QAM-CP-OFDM - Full RB Configuration)



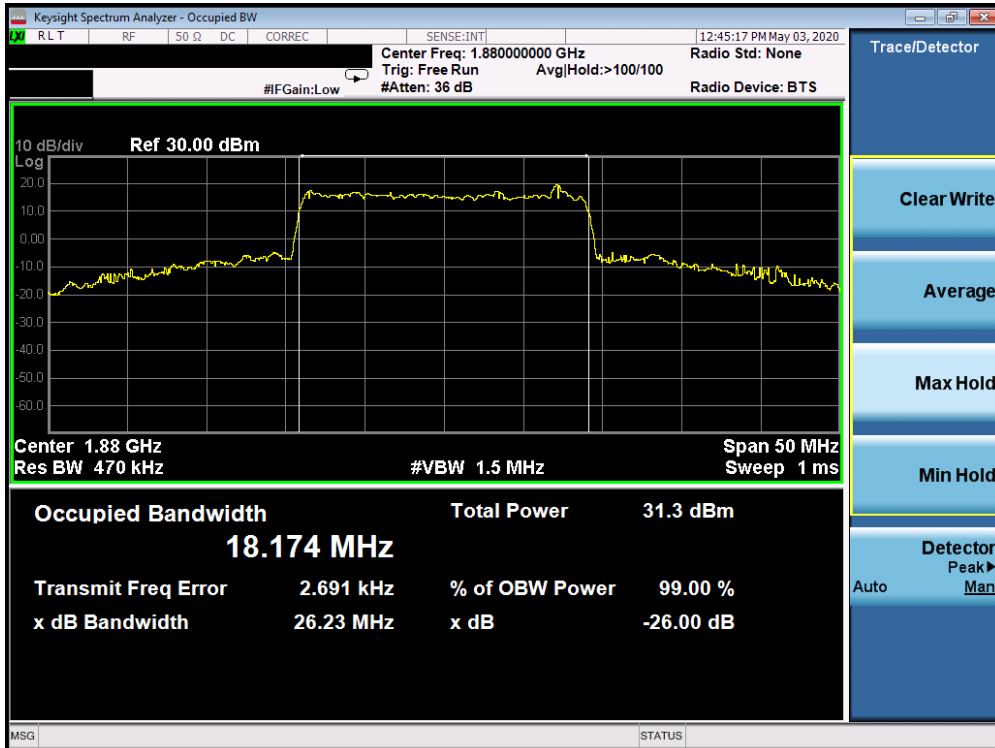
Plot 7-197. Occupied Bandwidth Plot (n25/2 15MHz 64QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 117 of 494



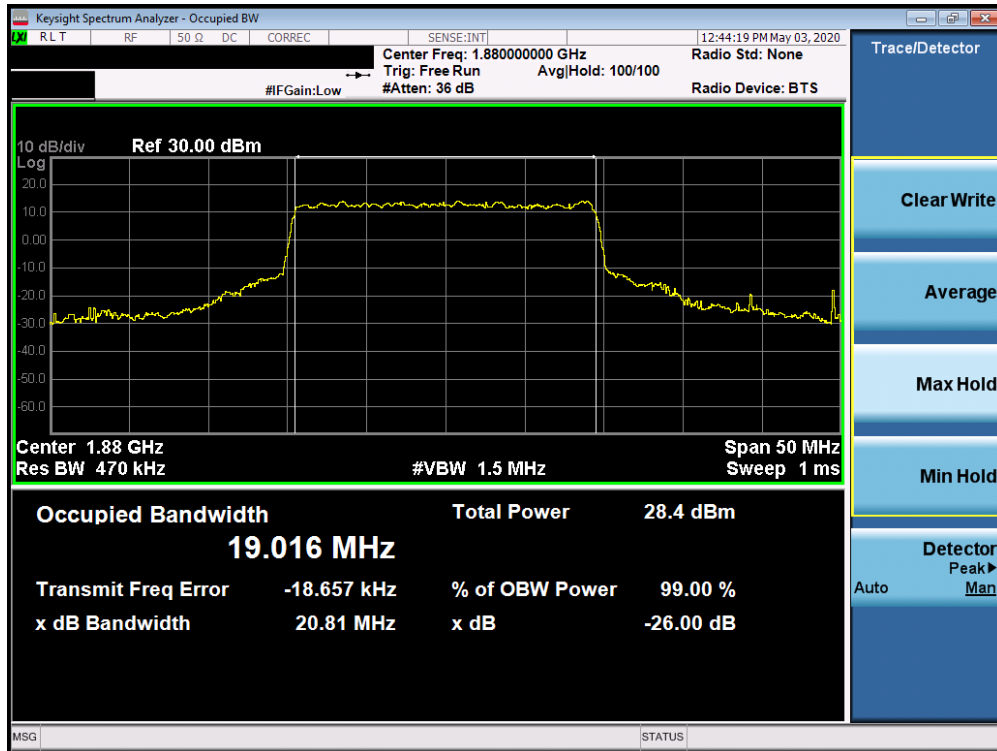


Plot 7-198. Occupied Bandwidth Plot (n25/2 15MHz 256QAM-CP-OFDM- Full RB Configuration)



Plot 7-199. Occupied Bandwidth Plot (n25/2 20MHz BPSK-DFT-s-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 118 of 494

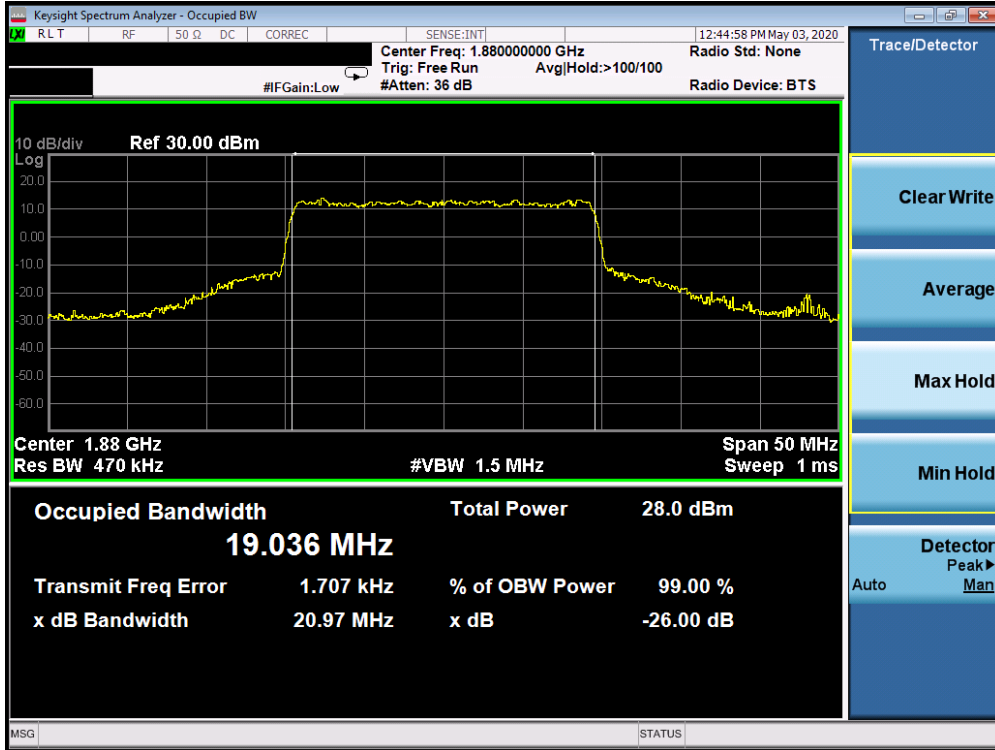


Plot 7-200. Occupied Bandwidth Plot (n25/2 20MHz QPSK-CP-OFDM - Full RB Configuration)

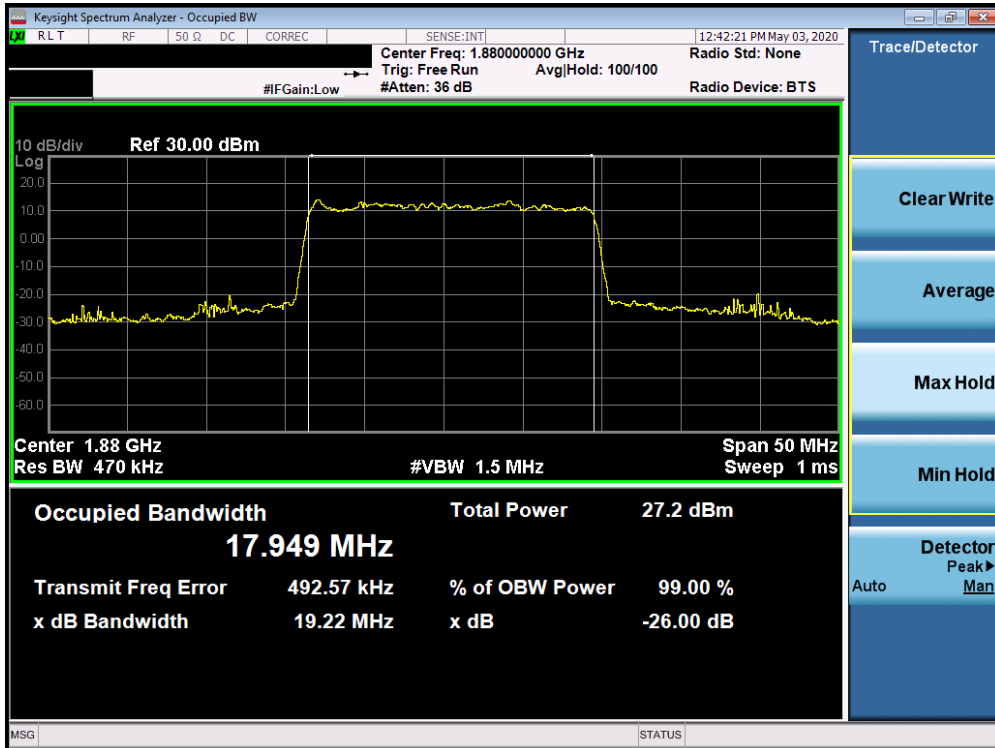


Plot 7-201. Occupied Bandwidth Plot (n25/2 20MHz 16QAM-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 119 of 494



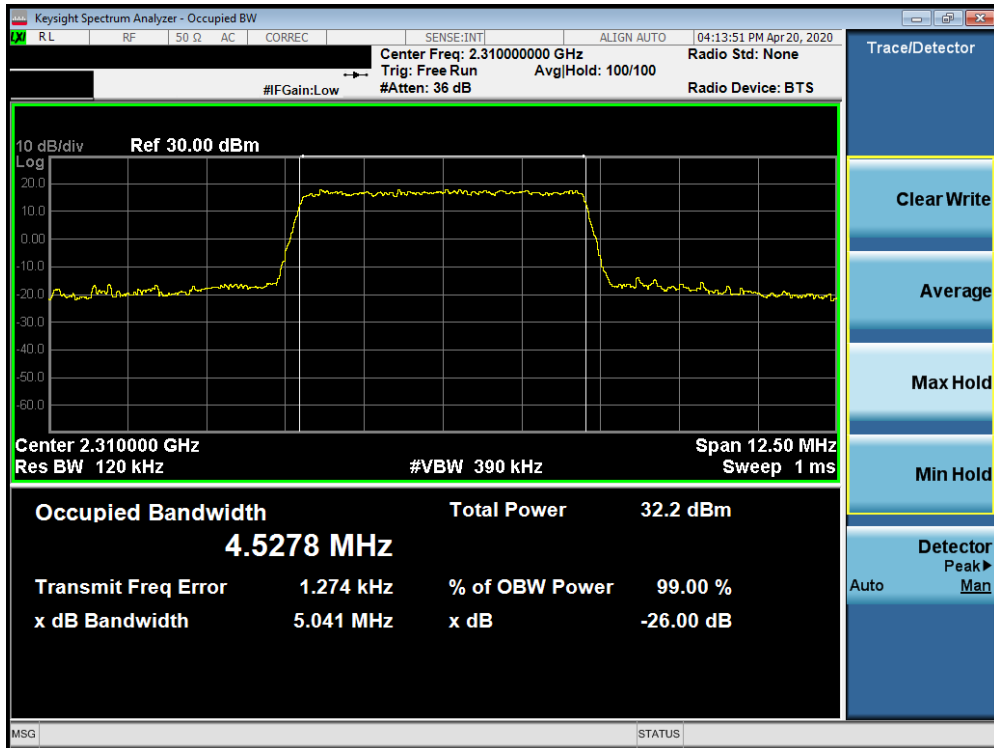
Plot 7-202. Occupied Bandwidth Plot (n25/2 20MHz 64QAM-CP-OFDM- Full RB Configuration)



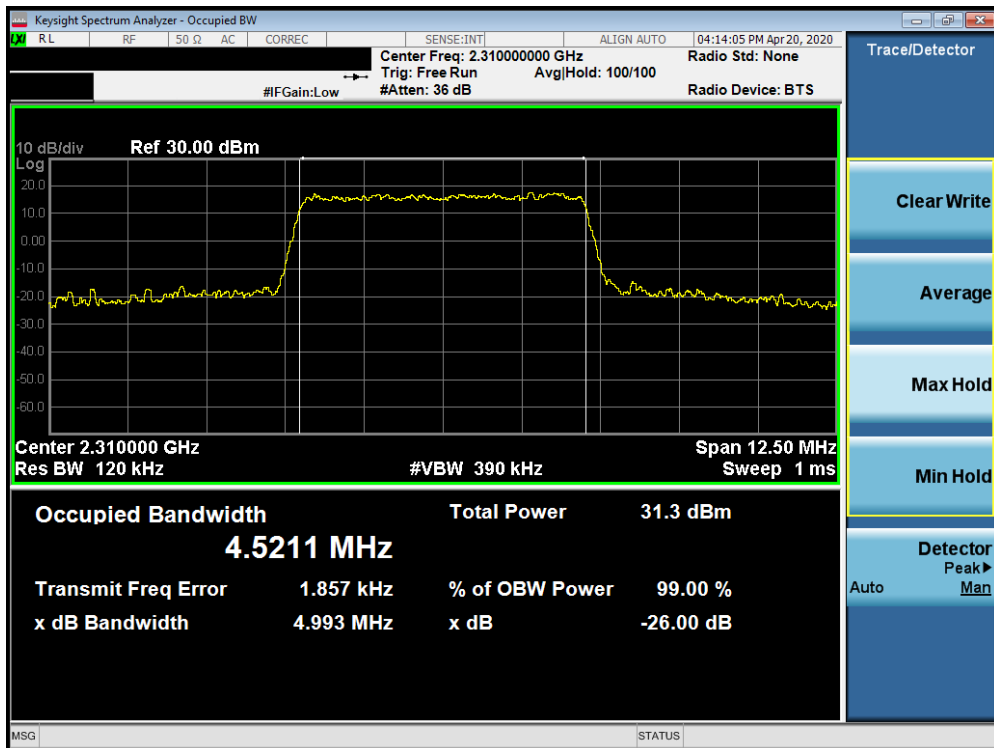
Plot 7-203. Occupied Bandwidth Plot (n25/2 20MHz 256QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 120 of 494

### Band 30

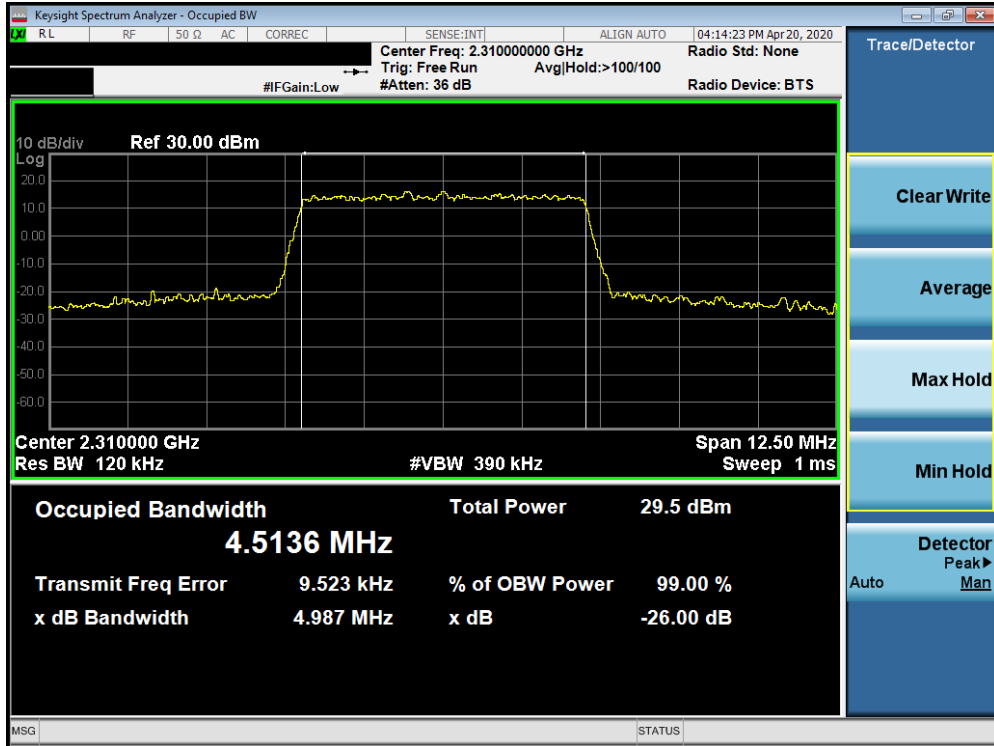


Plot 7-204. Occupied Bandwidth Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)

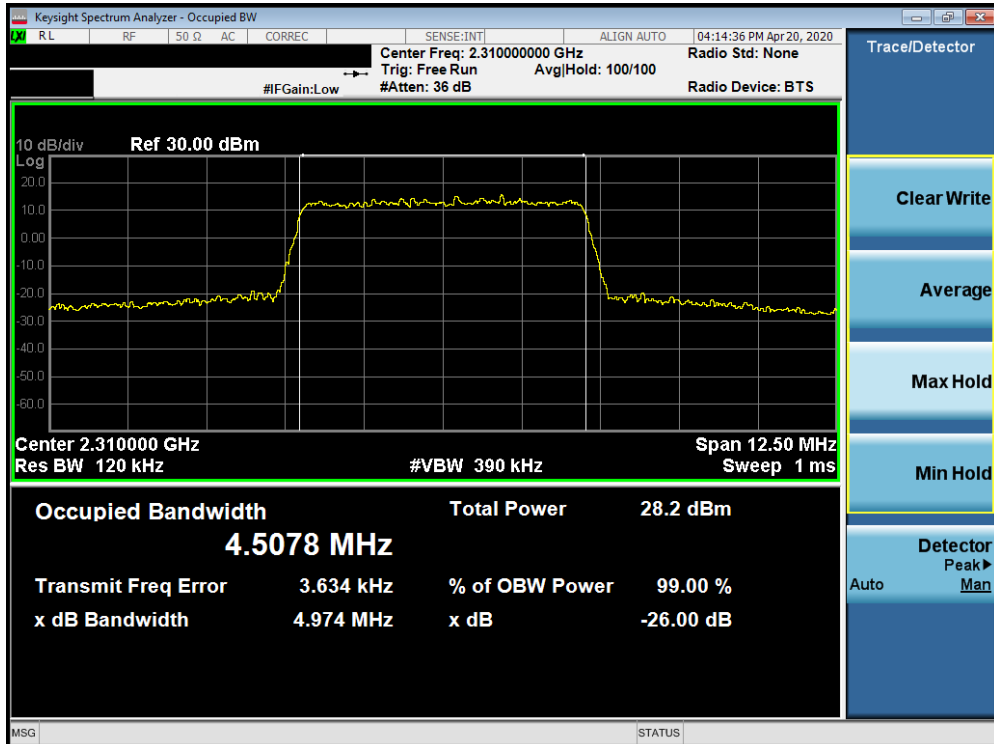


Plot 7-205. Occupied Bandwidth Plot (Band 30 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 121 of 494

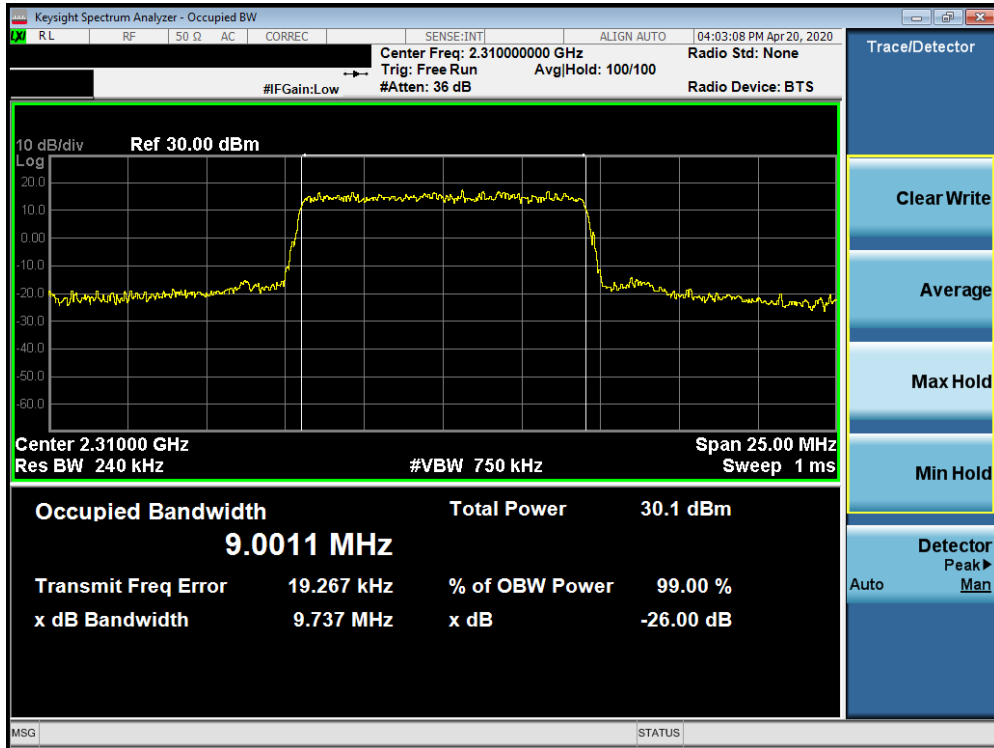


Plot 7-206. Occupied Bandwidth Plot (Band 30 - 5.0MHz 64-QAM - Full RB Configuration)

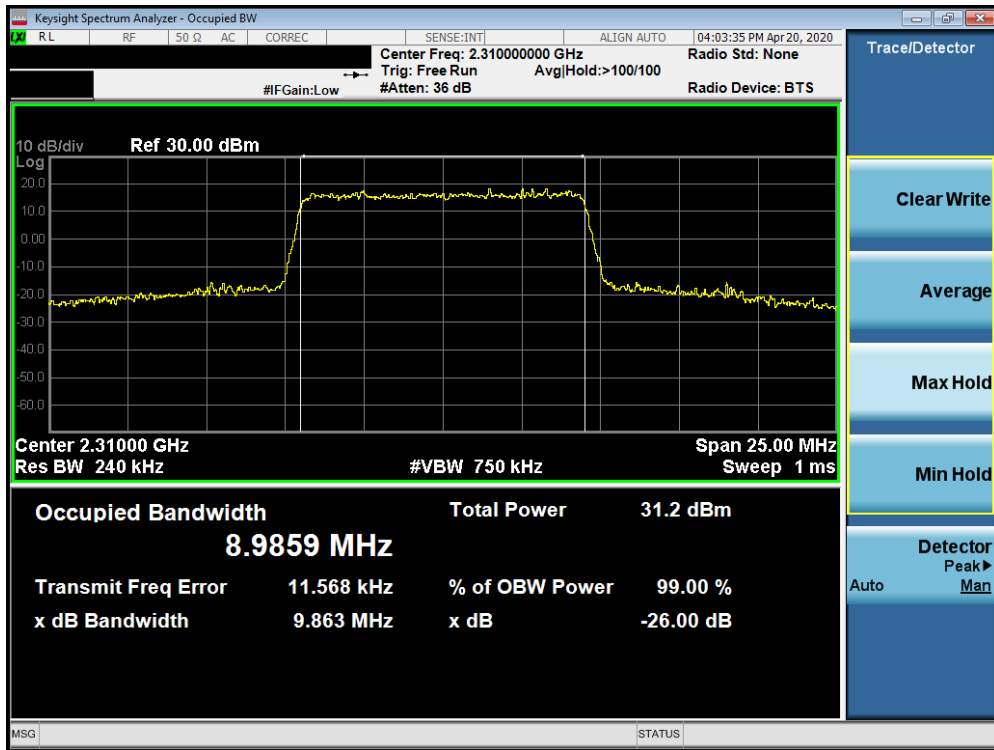


Plot 7-207. Occupied Bandwidth Plot (Band 30 - 5.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 122 of 494

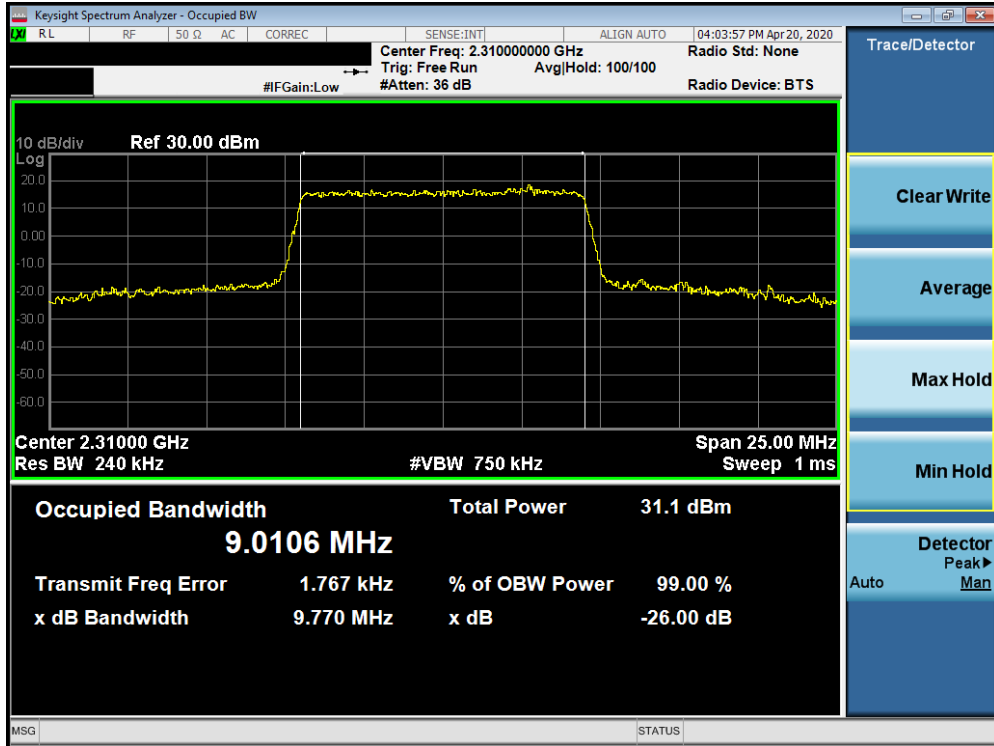


Plot 7-208. Occupied Bandwidth Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)

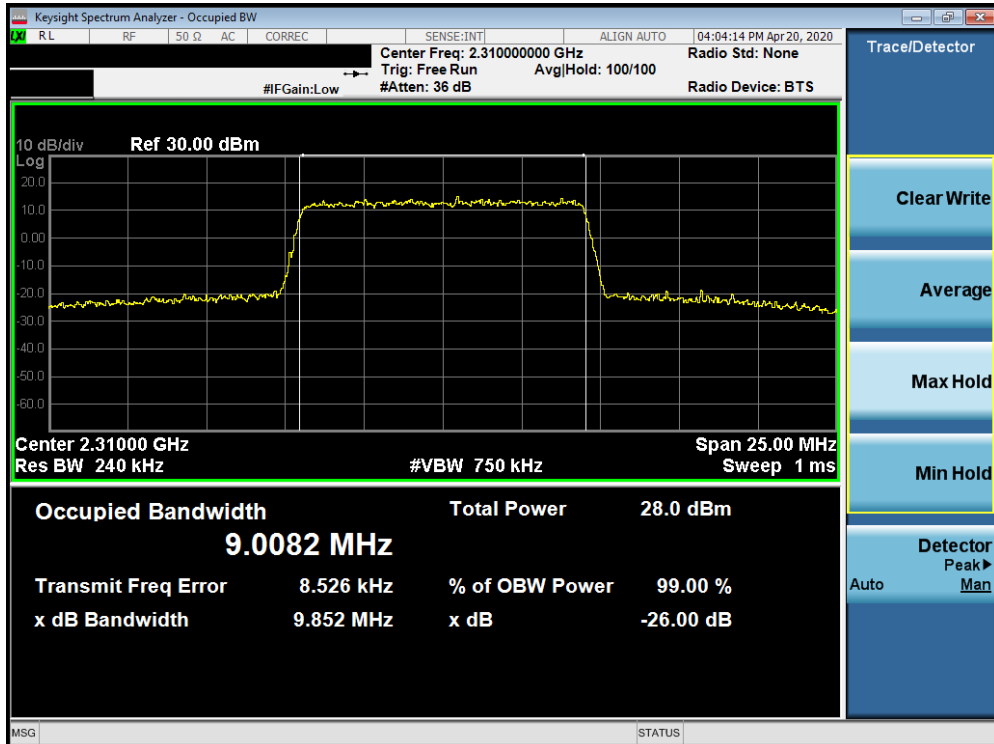


Plot 7-209. Occupied Bandwidth Plot (Band 30 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 123 of 494



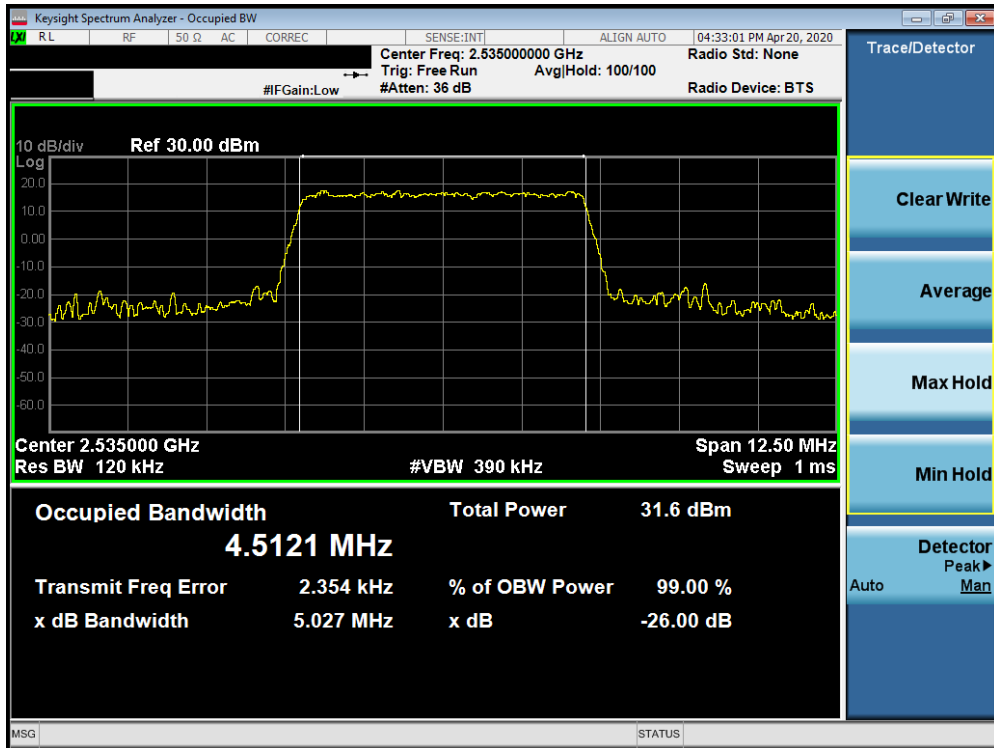
Plot 7-210. Occupied Bandwidth Plot (Band 30 - 10.0MHz 64-QAM - Full RB Configuration)



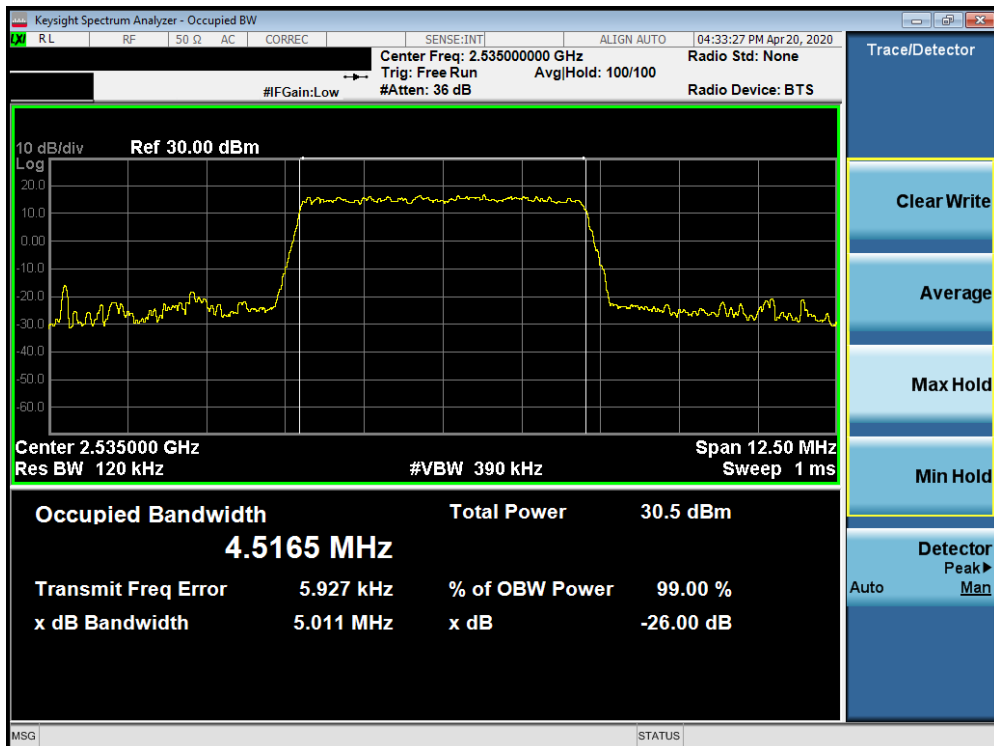
Plot 7-211. Occupied Bandwidth Plot (Band 30 - 10.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 124 of 494

## Band 7



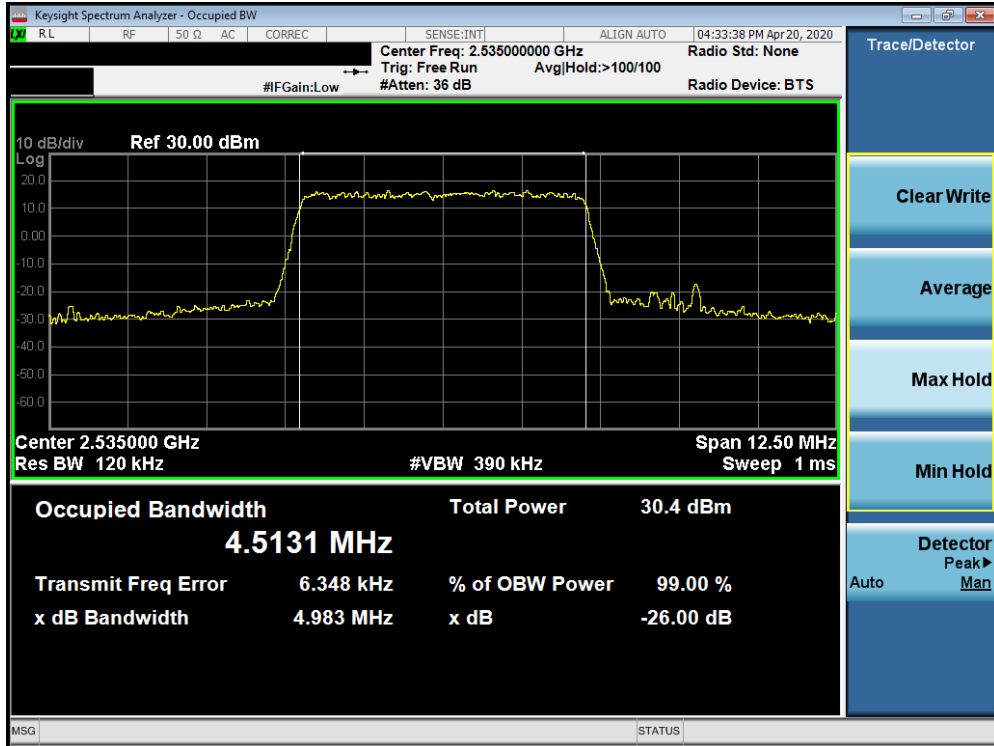
Plot 7-212. Occupied Bandwidth Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)



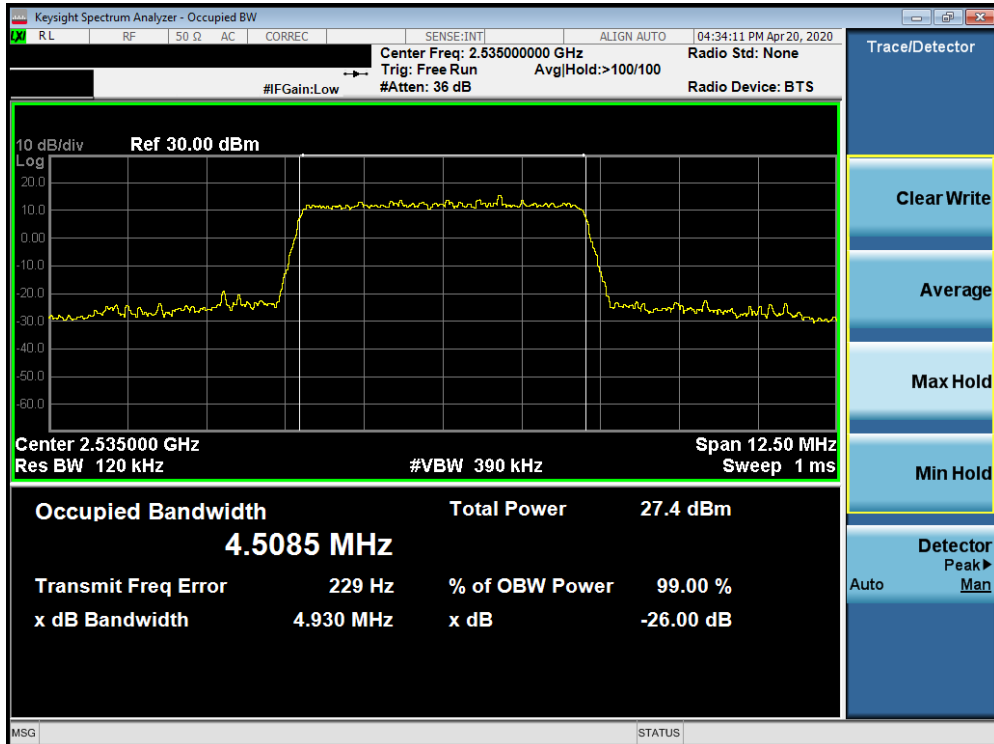
Plot 7-213. Occupied Bandwidth Plot (Band 7 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 125 of 494



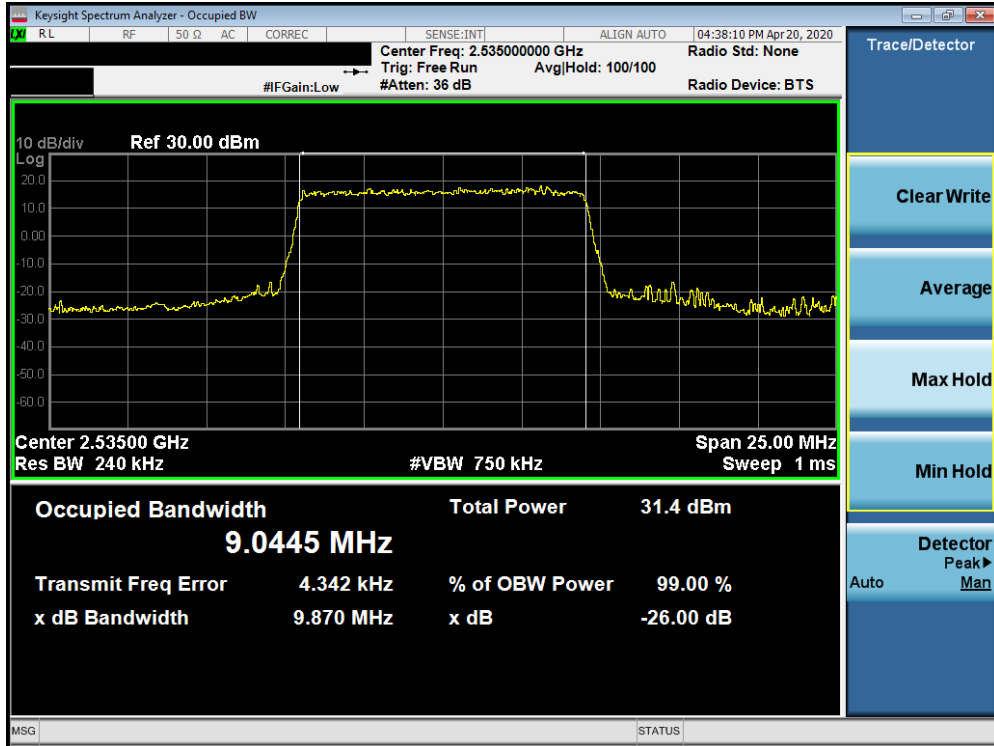


Plot 7-214. Occupied Bandwidth Plot (Band 7 - 5.0MHz 64-QAM - Full RB Configuration)

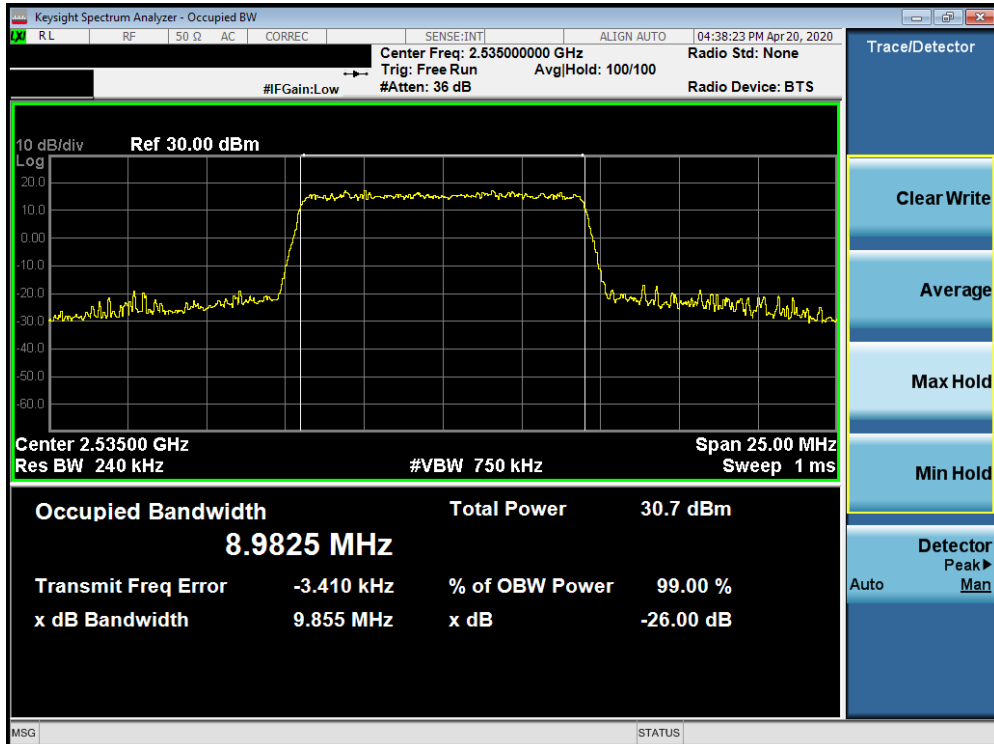


Plot 7-215. Occupied Bandwidth Plot (Band 7 - 5.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 126 of 494

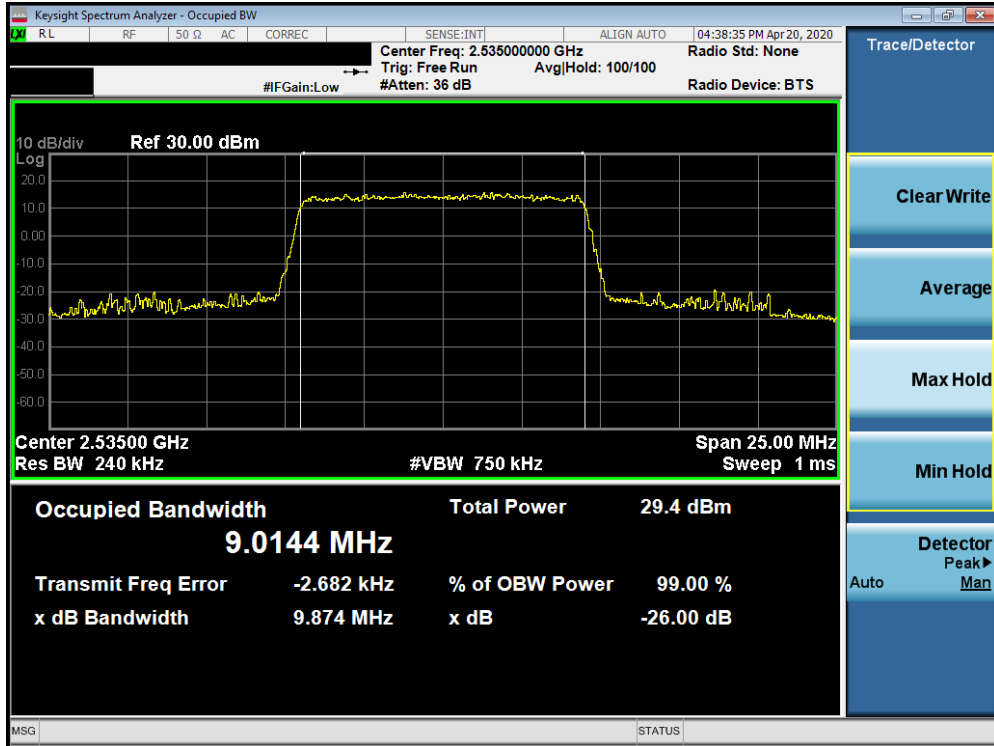


Plot 7-216. Occupied Bandwidth Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

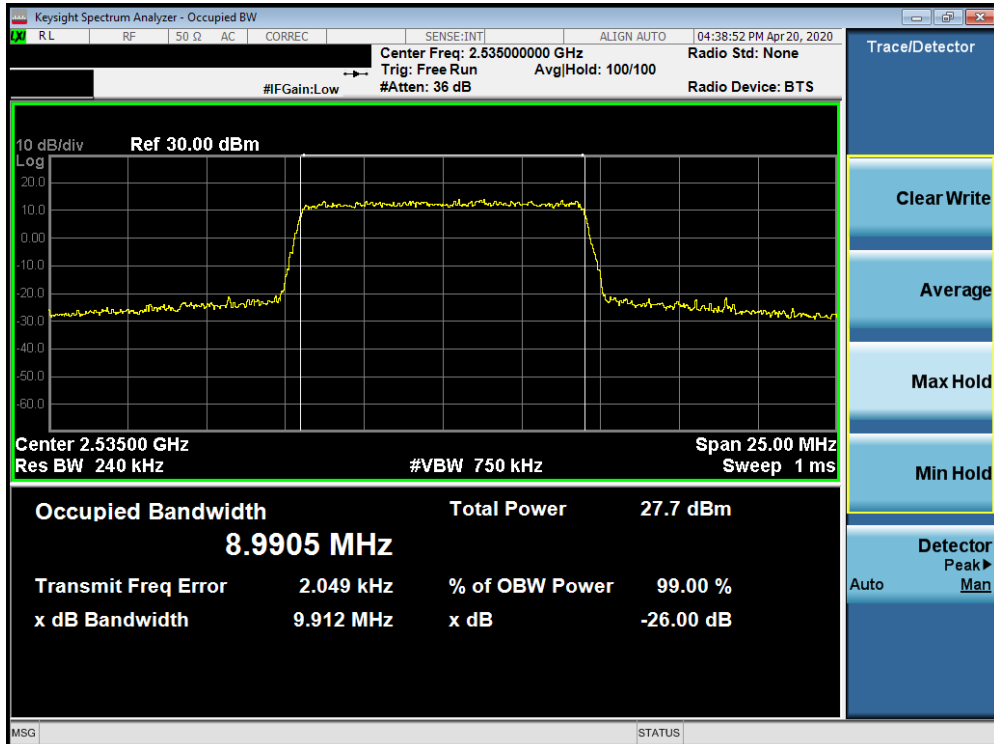


Plot 7-217. Occupied Bandwidth Plot (Band 7 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 127 of 494

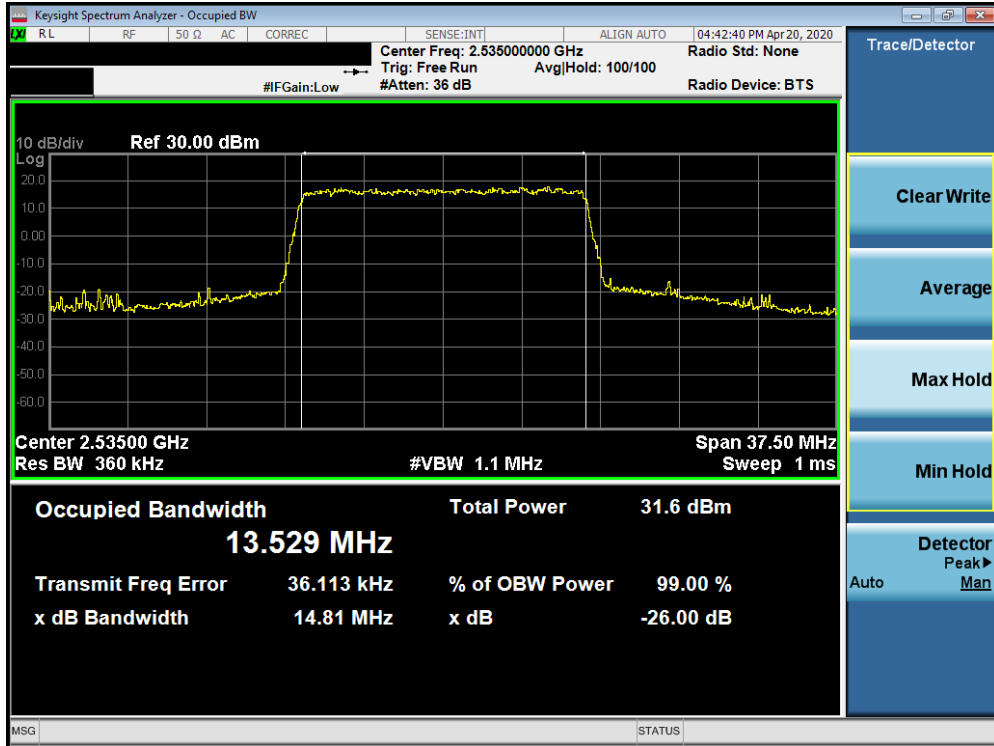


Plot 7-218. Occupied Bandwidth Plot (Band 7 - 10.0MHz 64-QAM - Full RB Configuration)

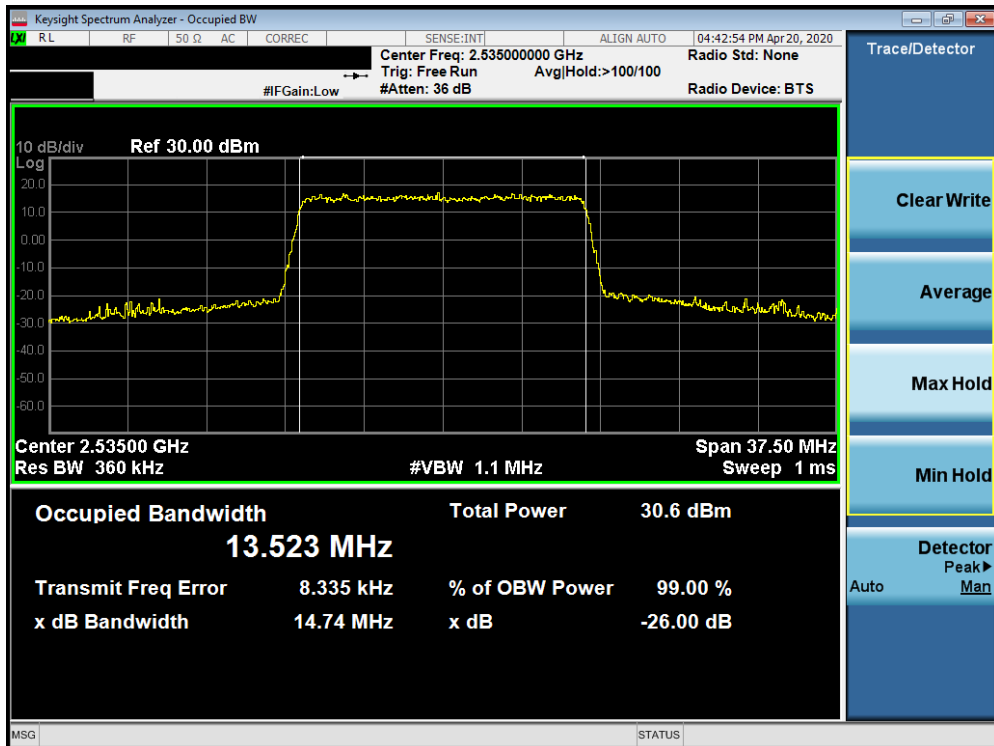


Plot 7-219. Occupied Bandwidth Plot (Band 7 - 10.0MHz 256-QAM - Full RB Configuration)


FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 128 of 494

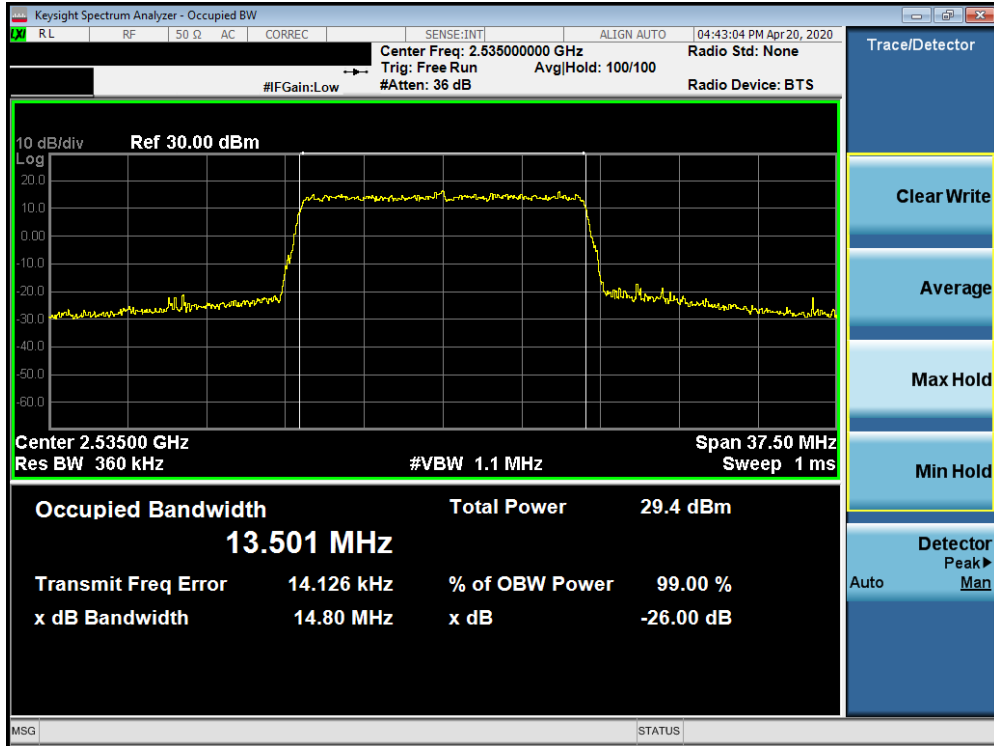


Plot 7-220. Occupied Bandwidth Plot (Band 7 - 15.0MHz QPSK - Full RB Configuration)

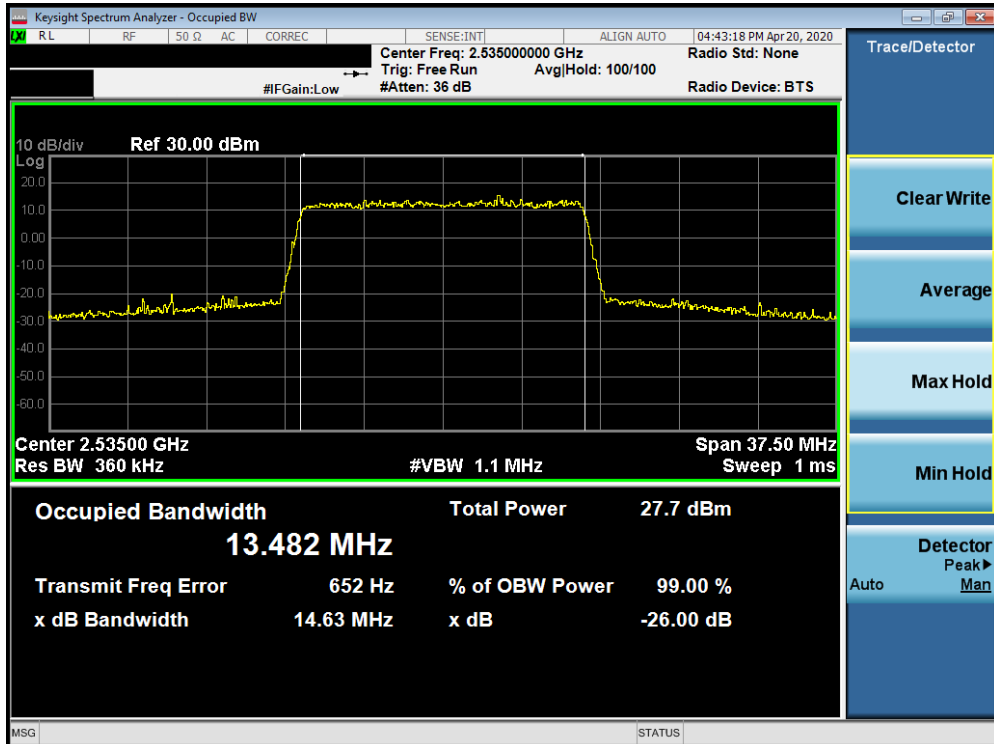


Plot 7-221. Occupied Bandwidth Plot (Band 7 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 129 of 494

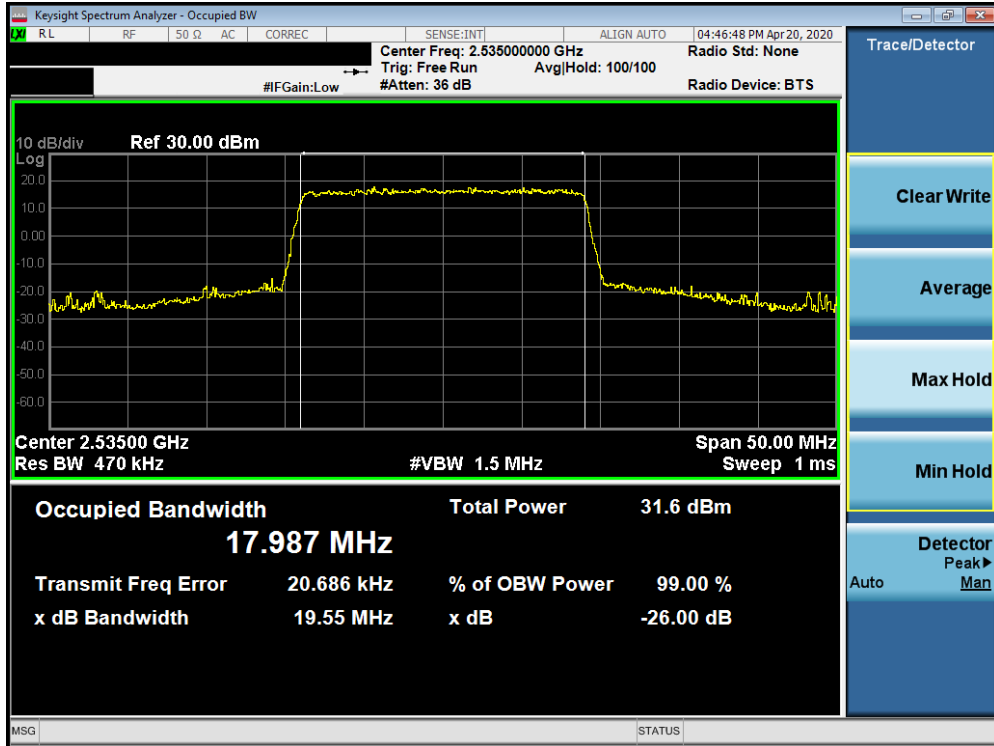


Plot 7-222. Occupied Bandwidth Plot (Band 7 - 15.0MHz 64-QAM - Full RB Configuration)

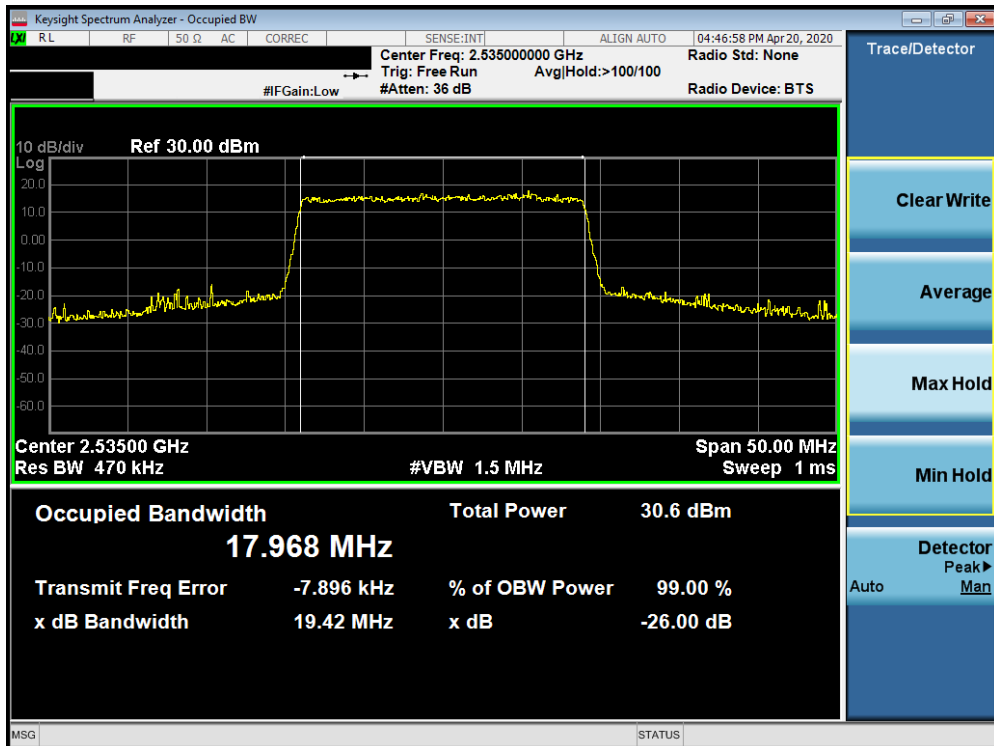


Plot 7-223. Occupied Bandwidth Plot (Band 7 - 15.0MHz 256-QAM - Full RB Configuration)


FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 130 of 494

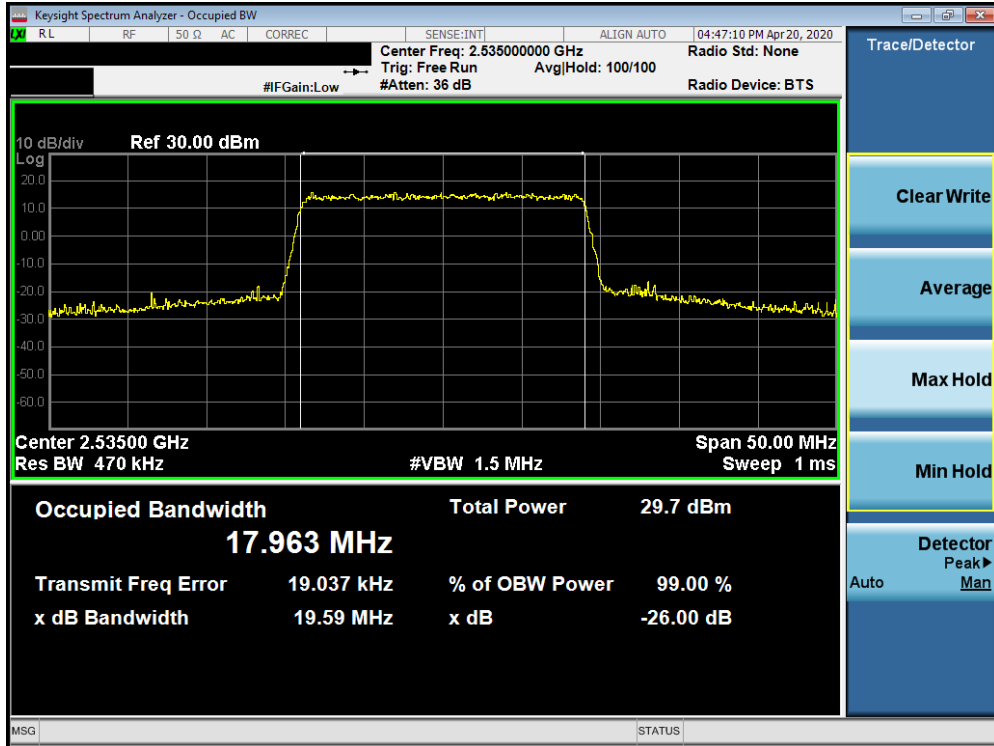


Plot 7-224. Occupied Bandwidth Plot (Band 7 - 20.0MHz QPSK - Full RB Configuration)

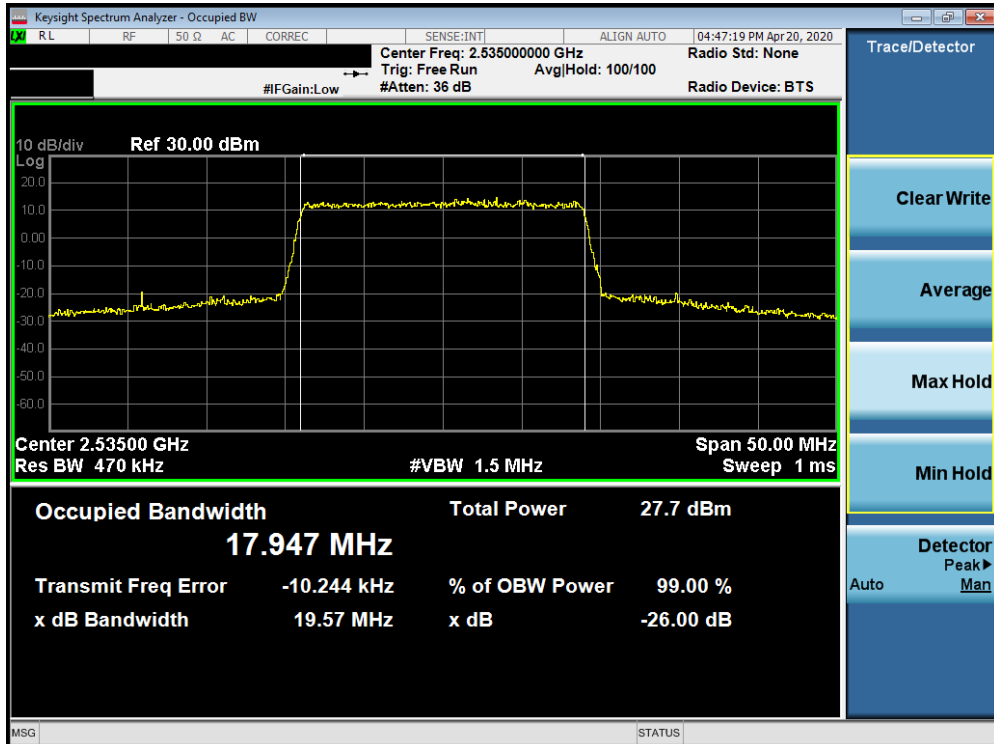


Plot 7-225. Occupied Bandwidth Plot (Band 7 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 131 of 494



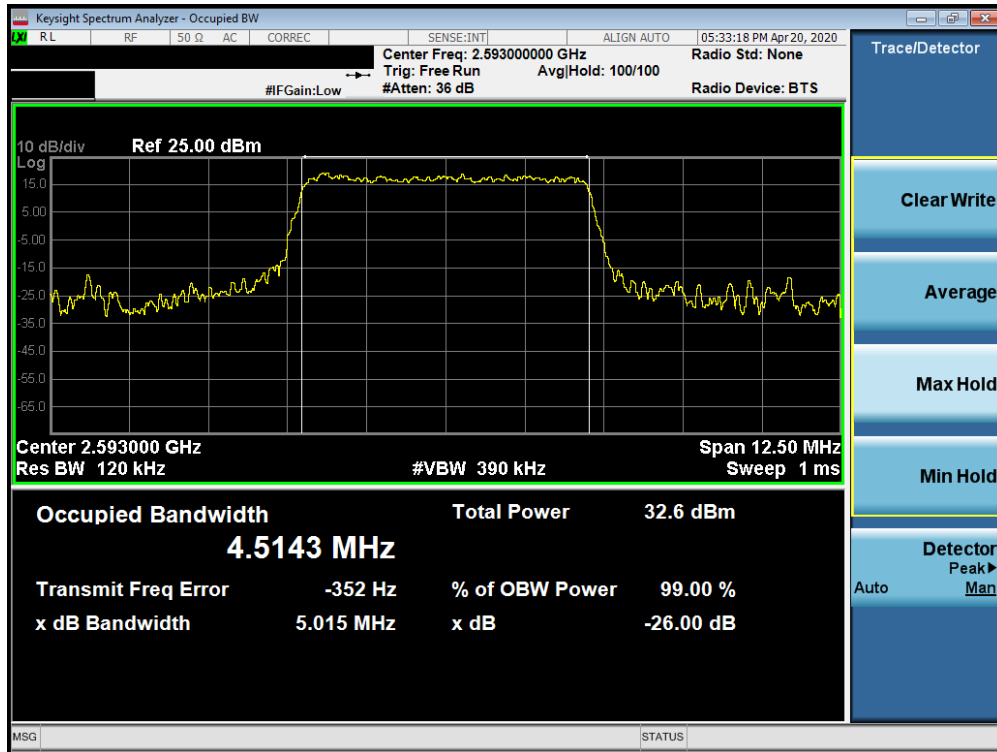
Plot 7-226. Occupied Bandwidth Plot (Band 7 - 20.0MHz 64-QAM - Full RB Configuration)



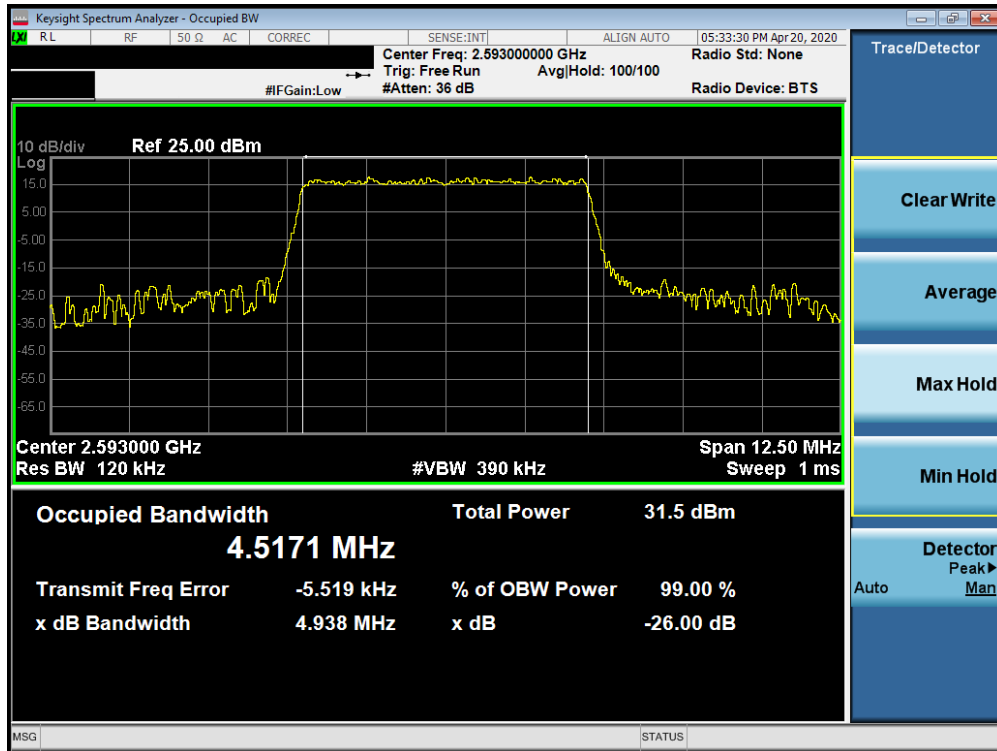
Plot 7-227. Occupied Bandwidth Plot (Band 7 - 20.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 132 of 494


## Band 41 (PC2)



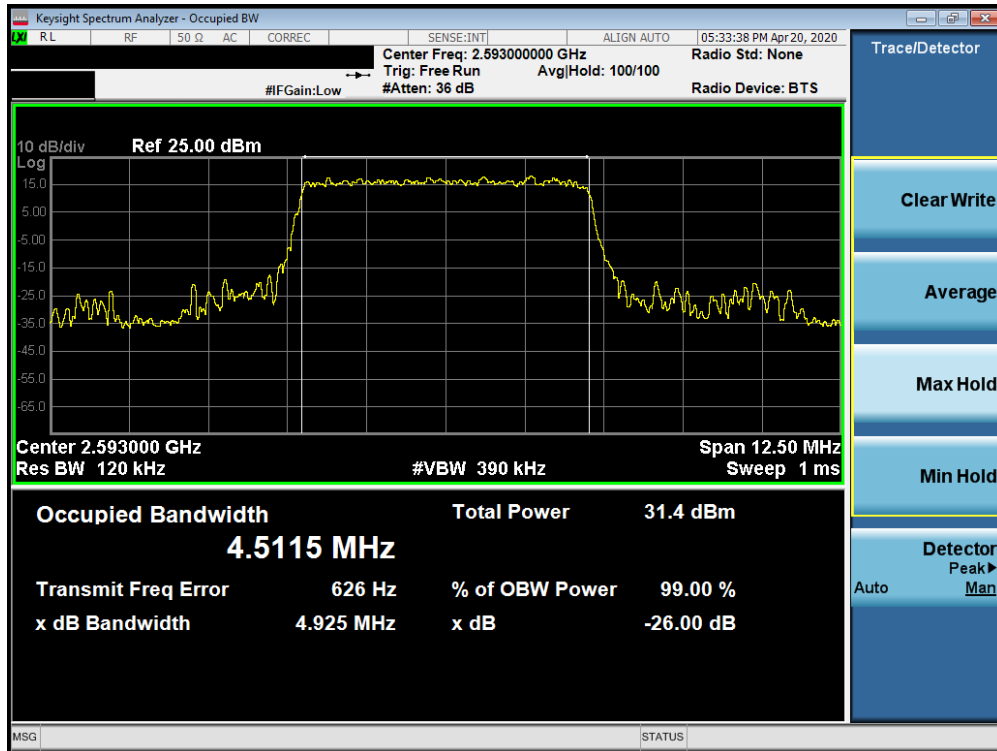
Plot 7-228. Occupied Bandwidth Plot (Band 41 (PC2) - 5.0MHz QPSK - Full RB Configuration)



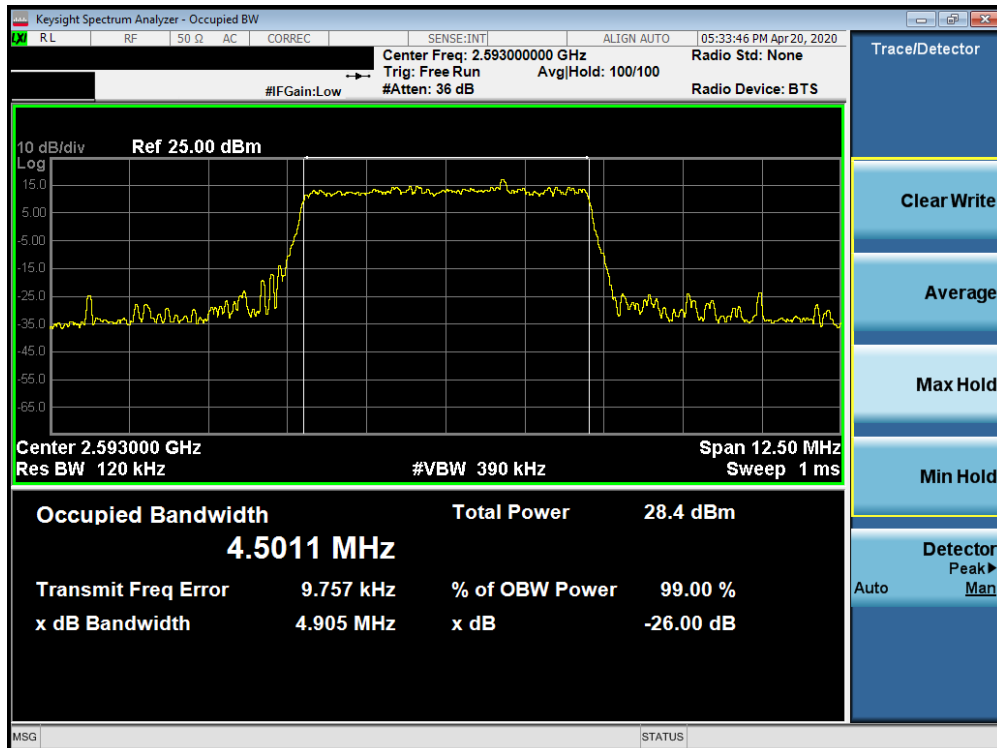
Plot 7-229. Occupied Bandwidth Plot (Band 41 (PC2) - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 133 of 494



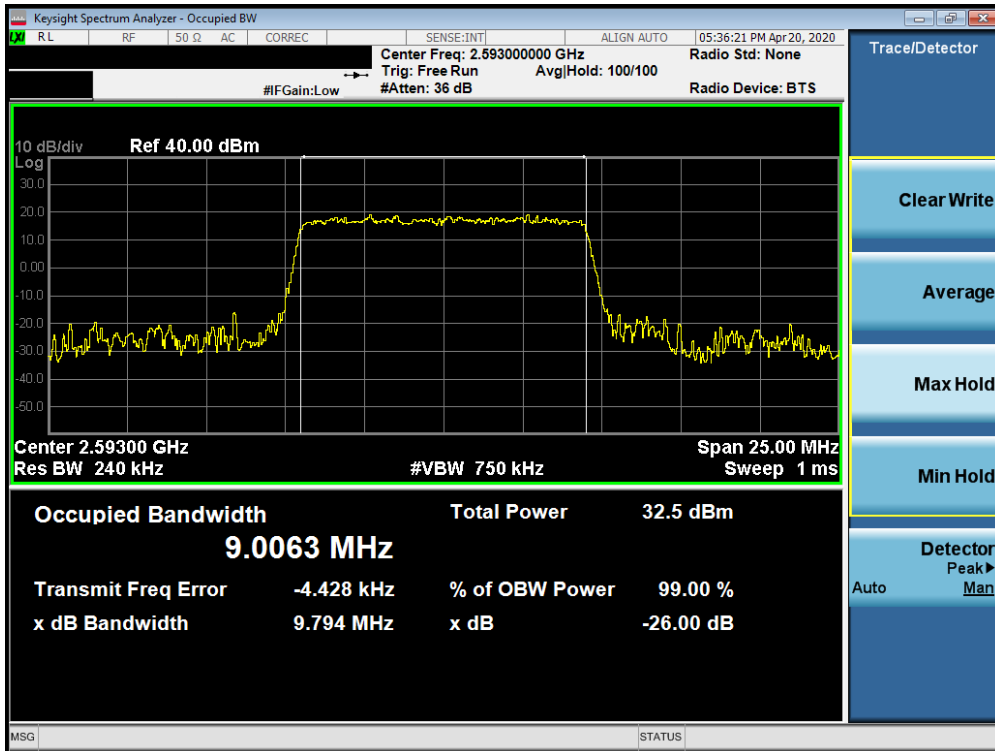


Plot 7-230. Occupied Bandwidth Plot (Band 41 (PC2) - 5.0MHz 64-QAM - Full RB Configuration)

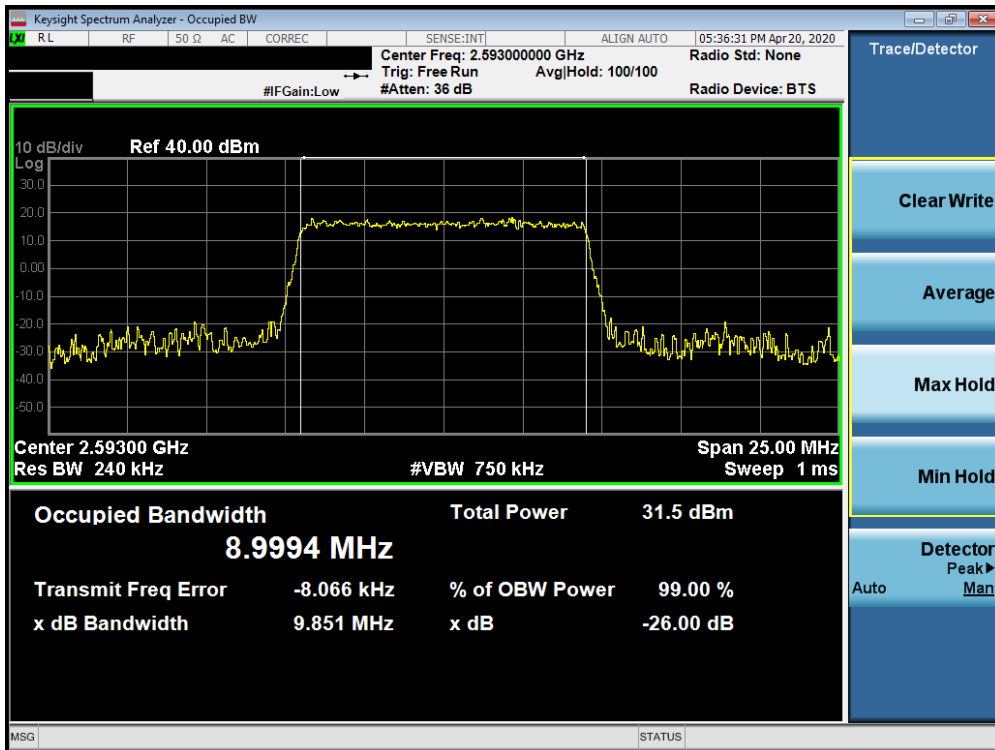


Plot 7-231. Occupied Bandwidth Plot (Band 41 (PC2) - 5.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 134 of 494

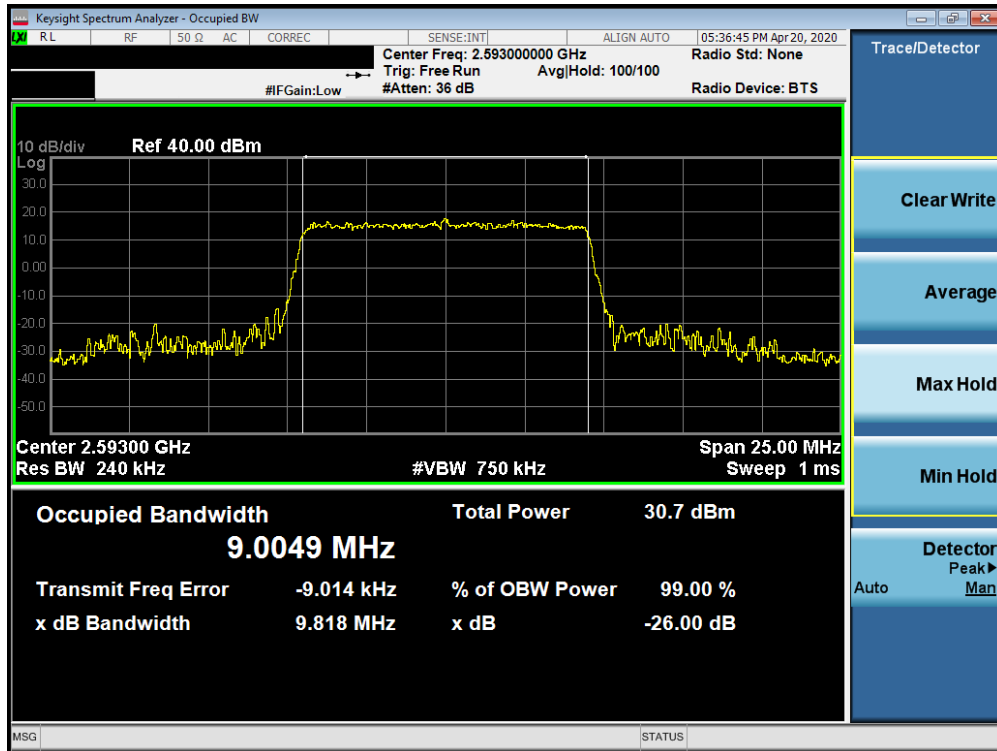


Plot 7-232. Occupied Bandwidth Plot (Band 41 (PC2) - 10.0MHz QPSK - Full RB Configuration)

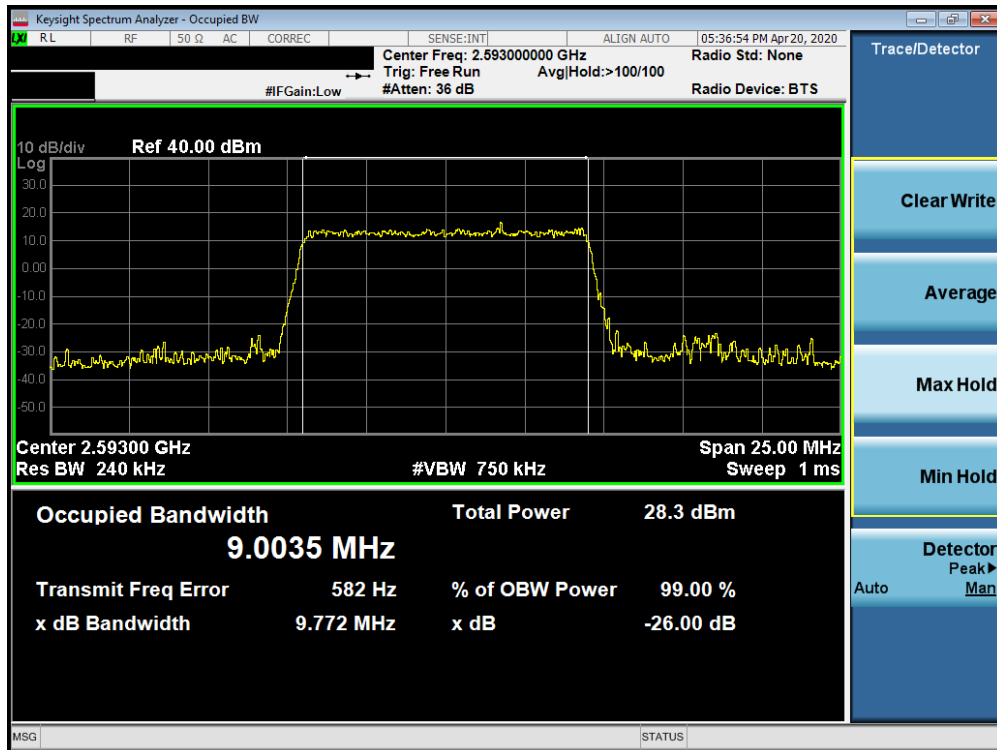


Plot 7-233. Occupied Bandwidth Plot (Band 41 (PC2) - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 135 of 494

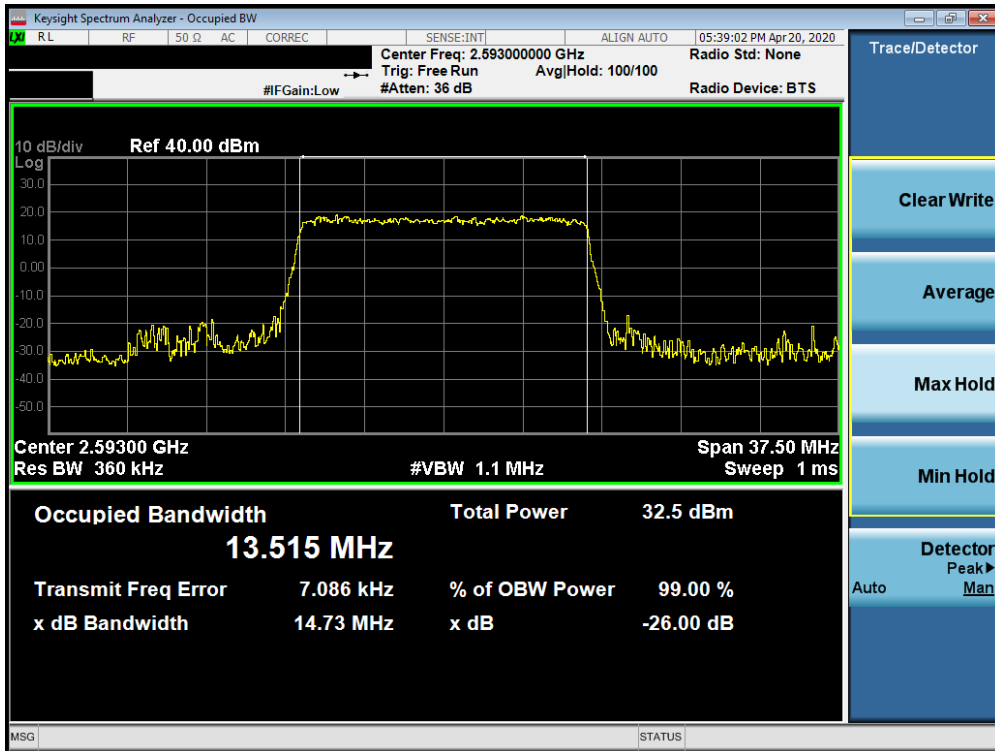


Plot 7-234. Occupied Bandwidth Plot (Band 41 (PC2) - 10.0MHz 64-QAM - Full RB Configuration)

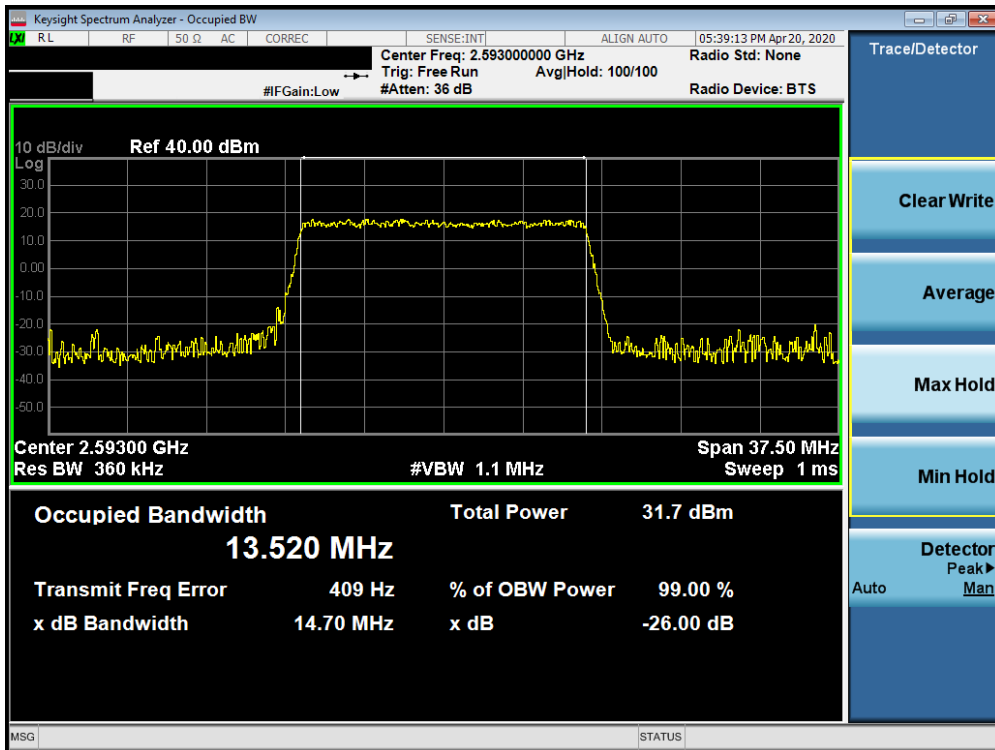


Plot 7-235. Occupied Bandwidth Plot (Band 41 (PC2) - 10.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 136 of 494

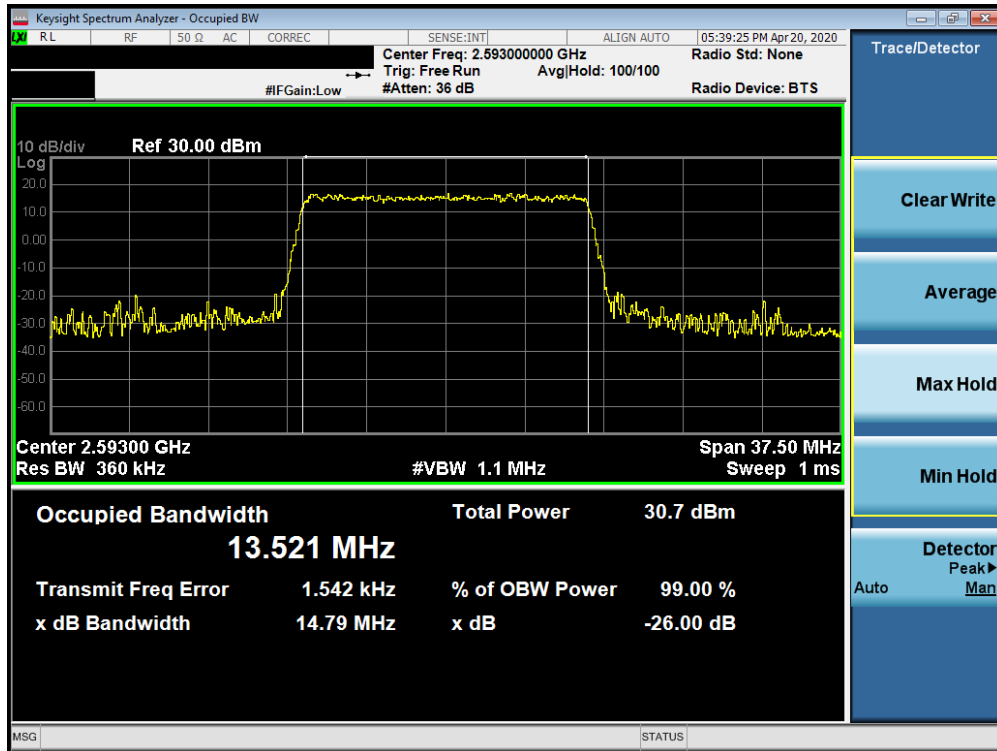


Plot 7-236. Occupied Bandwidth Plot (Band 41 (PC2) - 15.0MHz QPSK - Full RB Configuration)

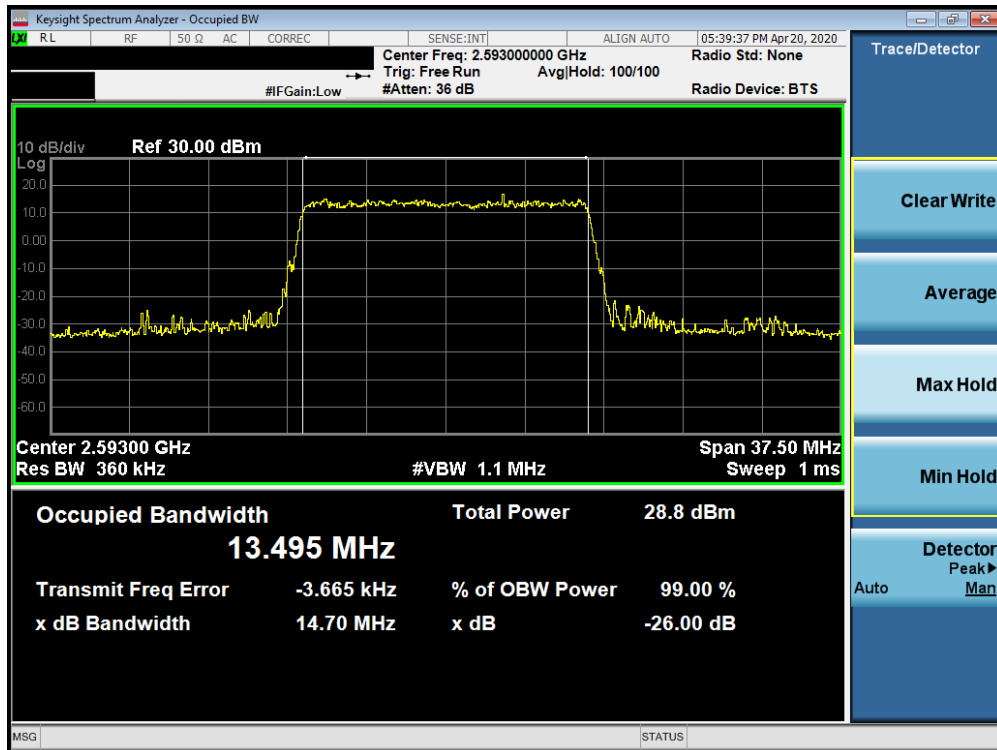


Plot 7-237. Occupied Bandwidth Plot (Band 41 (PC2) - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 137 of 494

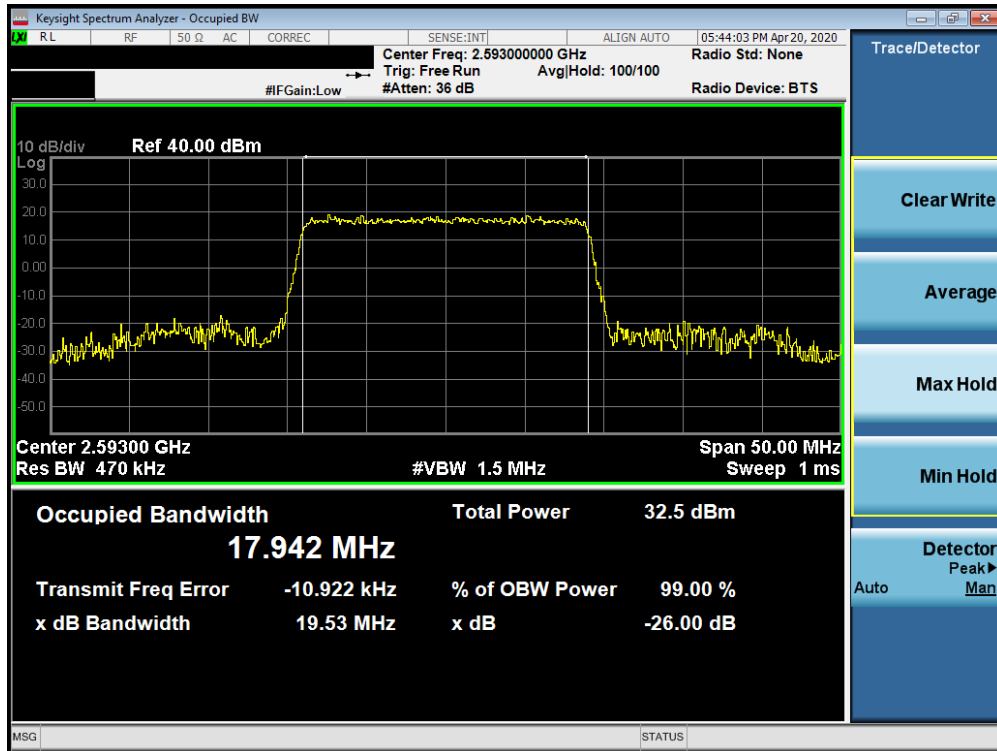


Plot 7-238. Occupied Bandwidth Plot (Band 41 (PC2) - 15.0MHz 64-QAM - Full RB Configuration)

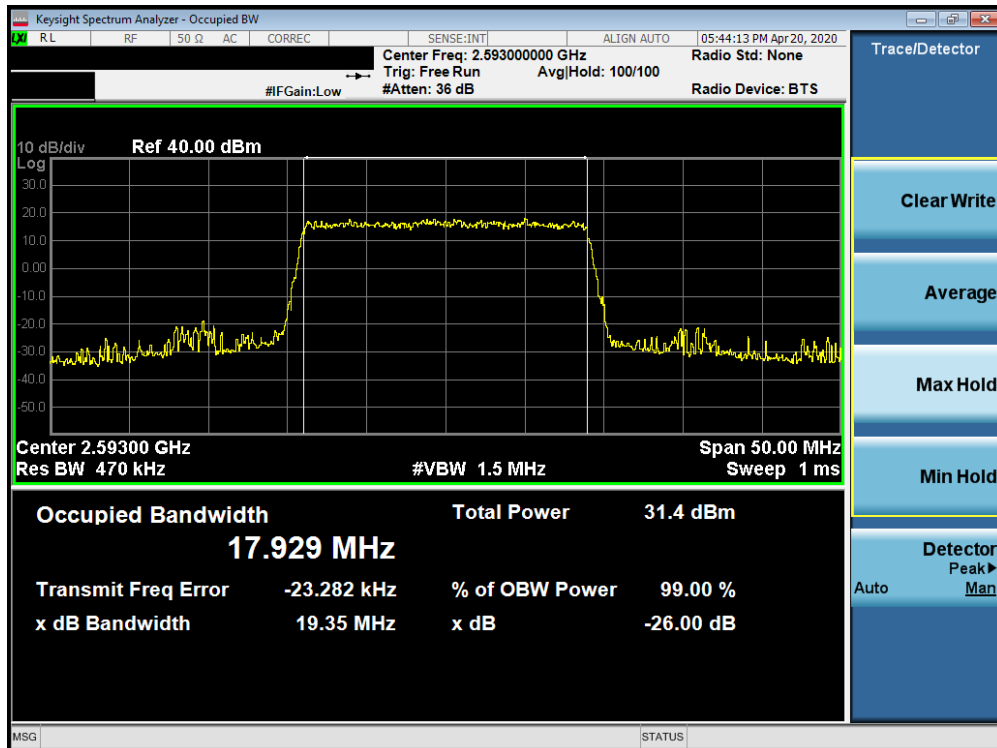


Plot 7-239. Occupied Bandwidth Plot (Band 41 (PC2) - 15.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 138 of 494

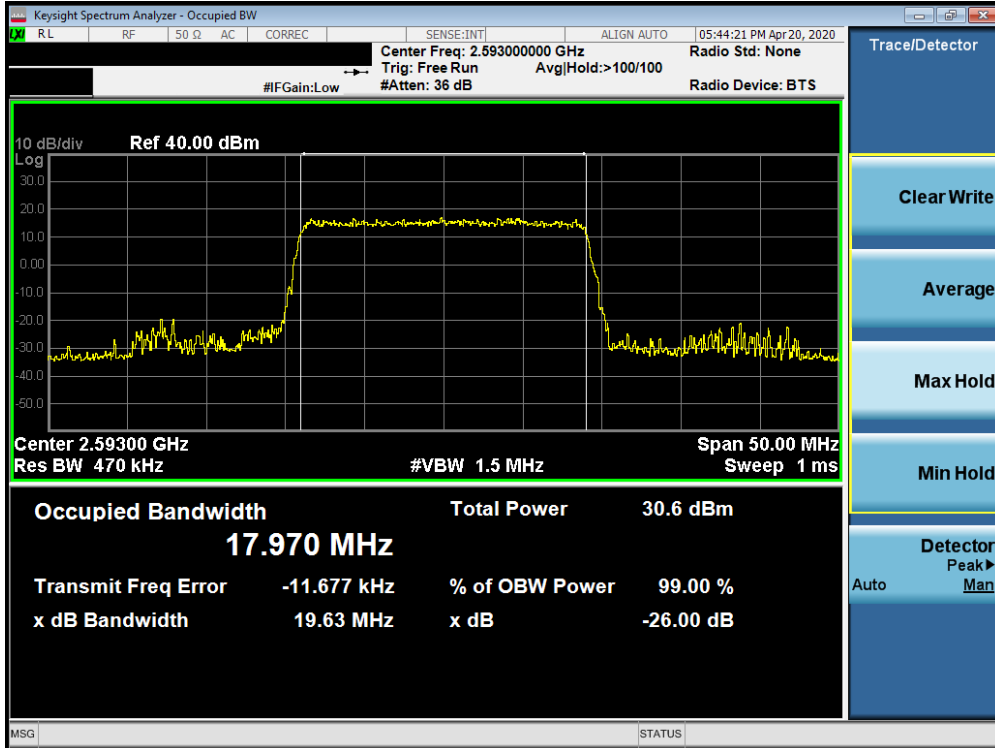


Plot 7-240. Occupied Bandwidth Plot (Band 41 (PC2) - 20.0MHz QPSK - Full RB Configuration)

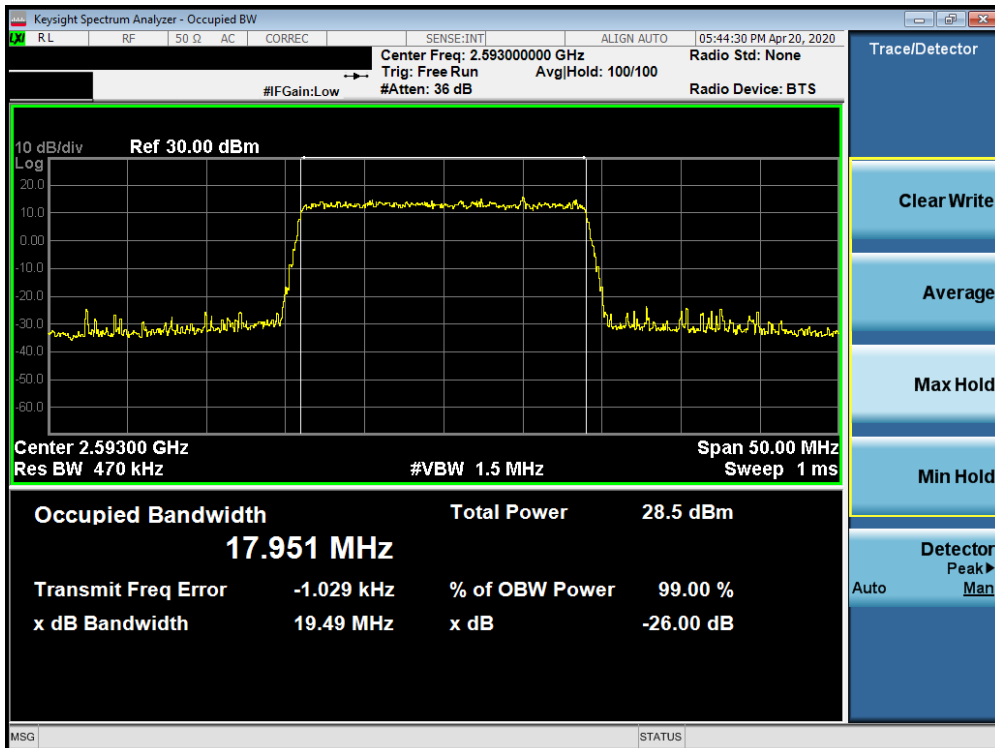


Plot 7-241. Occupied Bandwidth Plot (Band 41 (PC2) - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 139 of 494



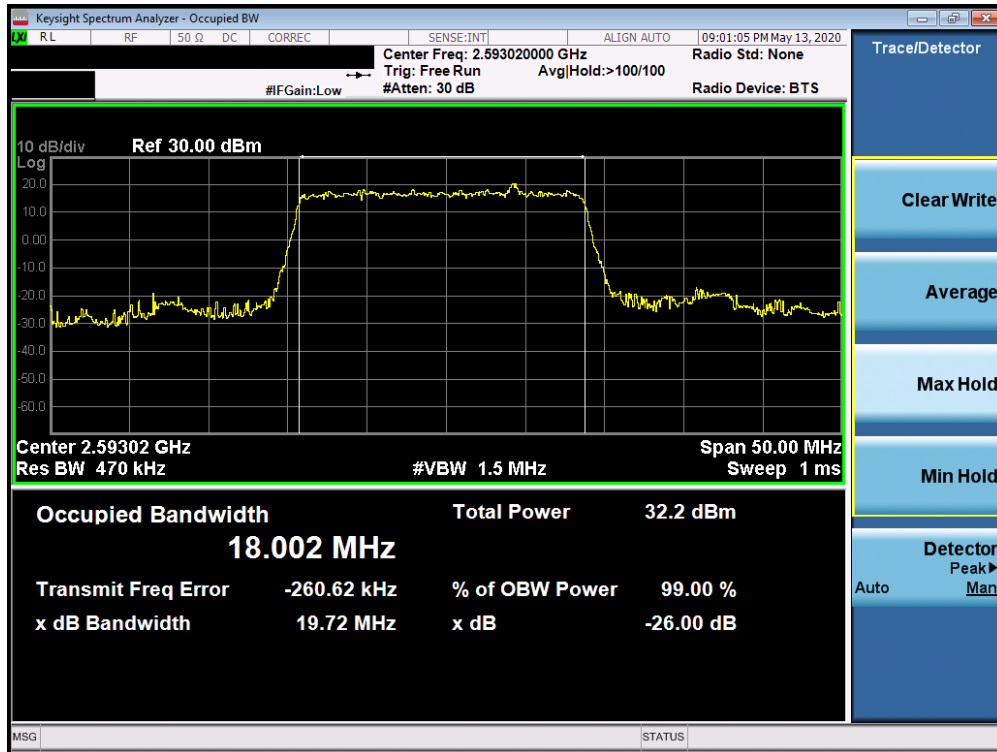
Plot 7-242. Occupied Bandwidth Plot (Band 41 (PC2) - 20.0MHz 64-QAM - Full RB Configuration)



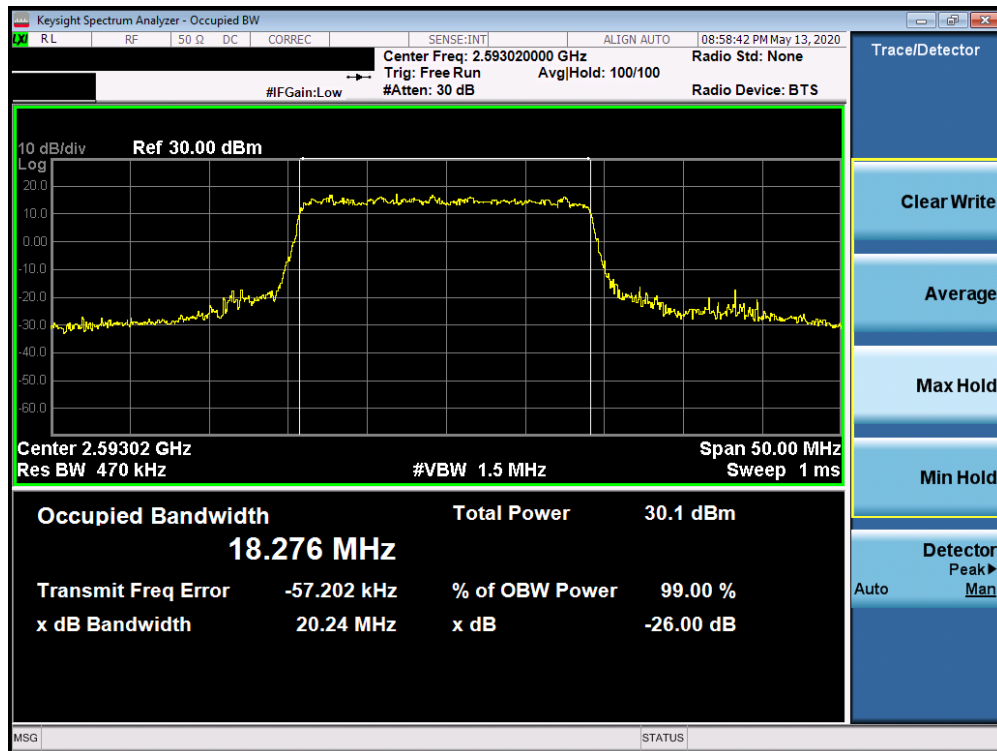
Plot 7-243. Occupied Bandwidth Plot (Band 41 (PC2) - 20.0MHz 256-QAM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 140 of 494

## NR Band n41



Plot 7-244. Occupied Bandwidth Plot (n41 20MHz BPSK-DFT-s-OFDM - Full RB Configuration)



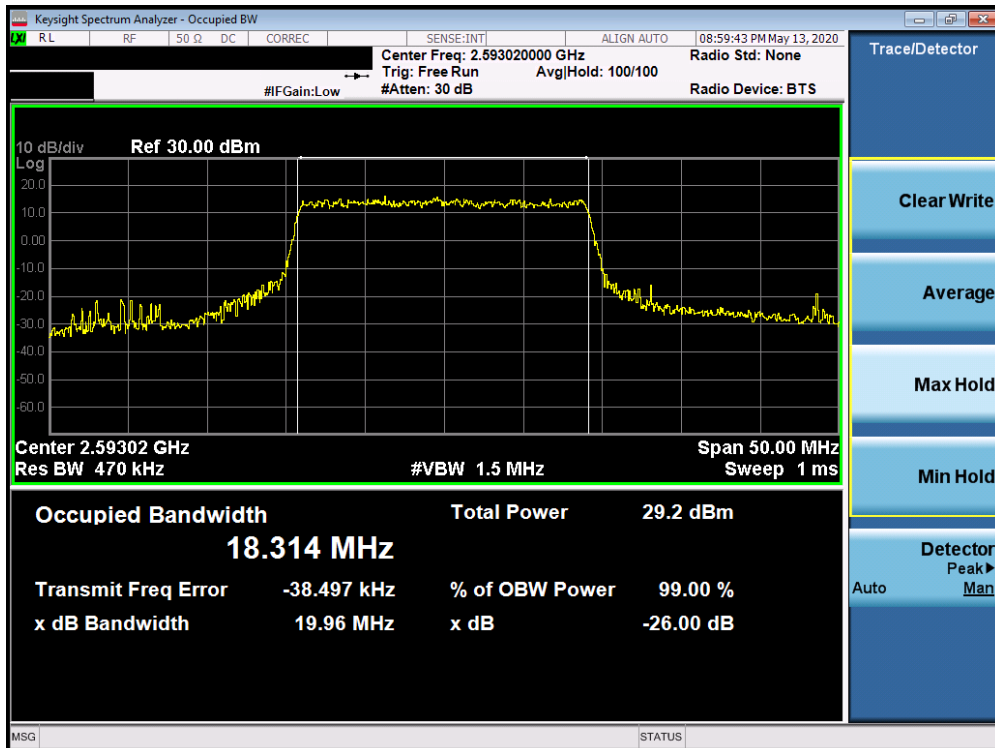
Plot 7-245. Occupied Bandwidth Plot (n41 20MHz QPSK-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 141 of 494



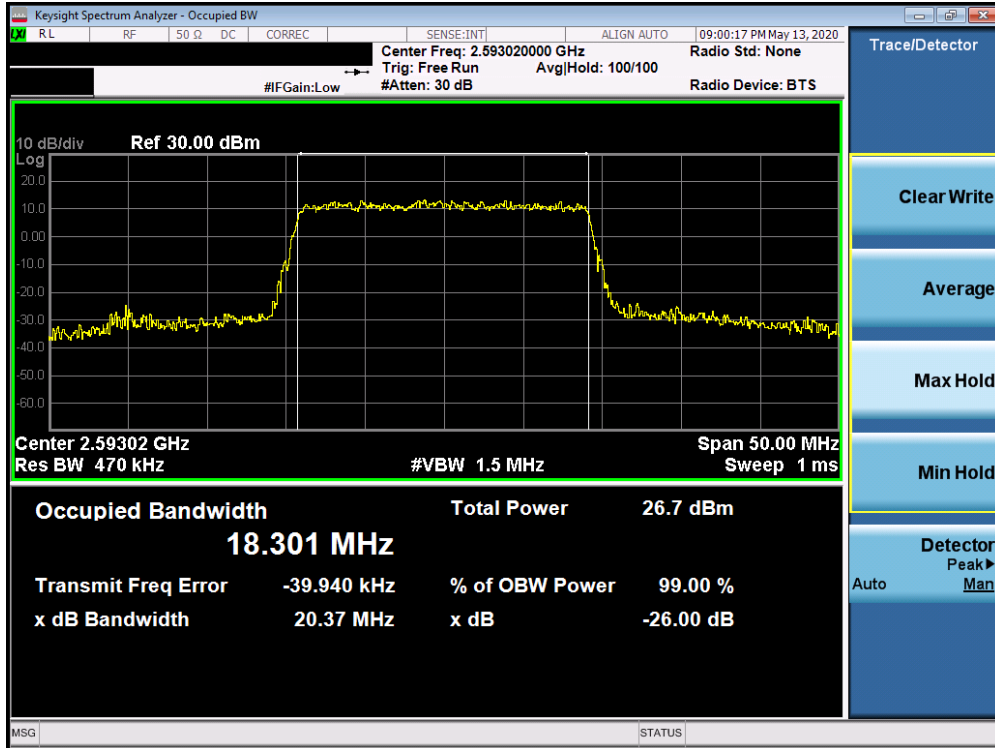


Plot 7-246. Occupied Bandwidth Plot (n41 20MHz 16QAM-CP-OFDM - Full RB Configuration)

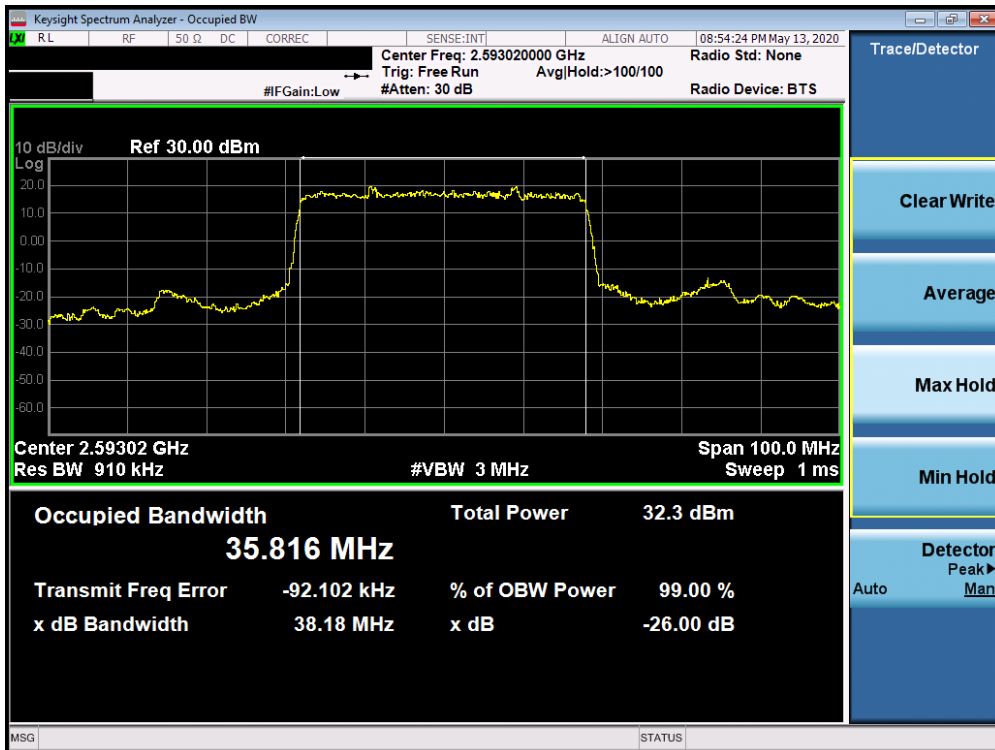


Plot 7-247. Occupied Bandwidth Plot (n41 20MHz 64QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 142 of 494

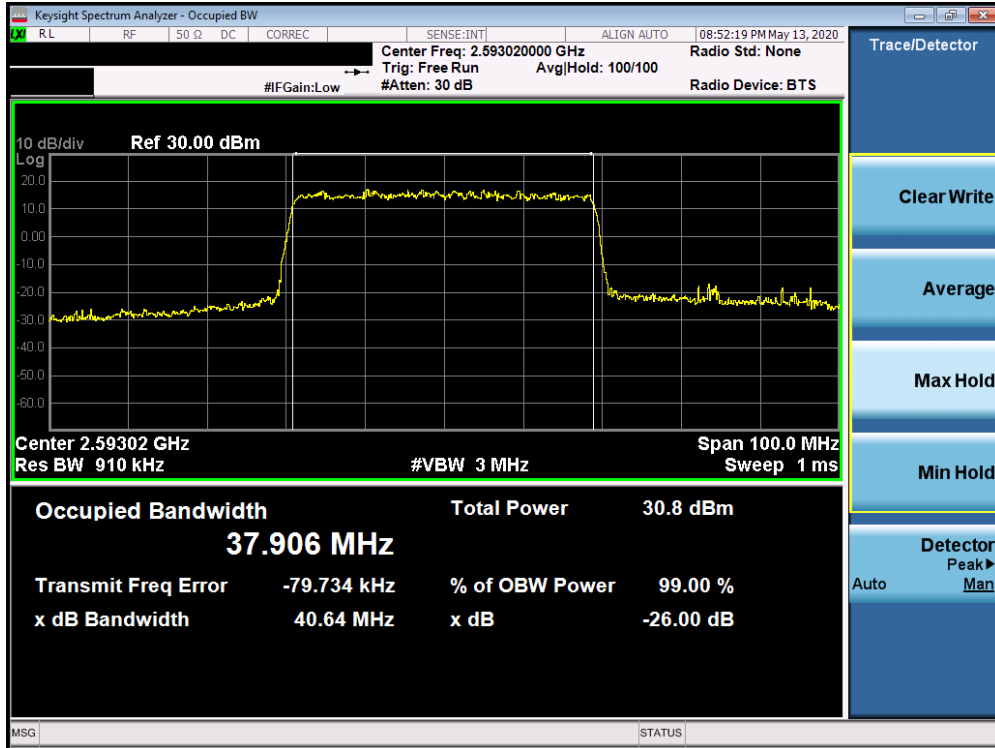


Plot 7-248. Occupied Bandwidth Plot (n41 20MHz 256QAM-CP-OFDM- Full RB Configuration)

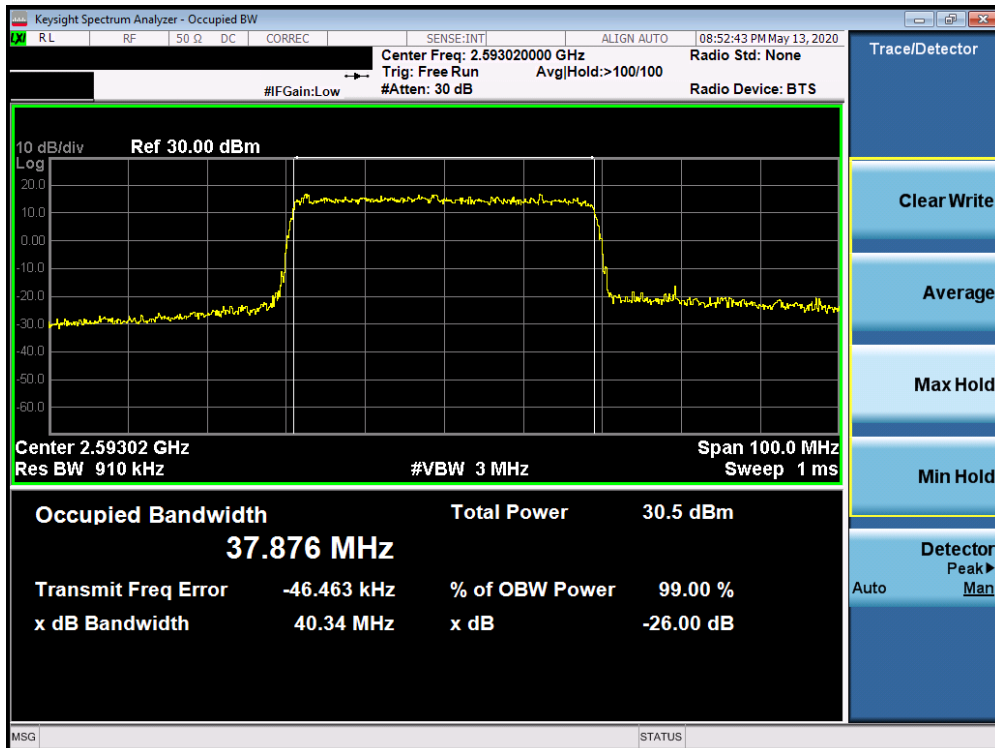


Plot 7-249. Occupied Bandwidth Plot (n41 40MHz BPSK-DFT-s-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 143 of 494



Plot 7-250. Occupied Bandwidth Plot (n41 40MHz QPSK-CP-OFDM - Full RB Configuration)

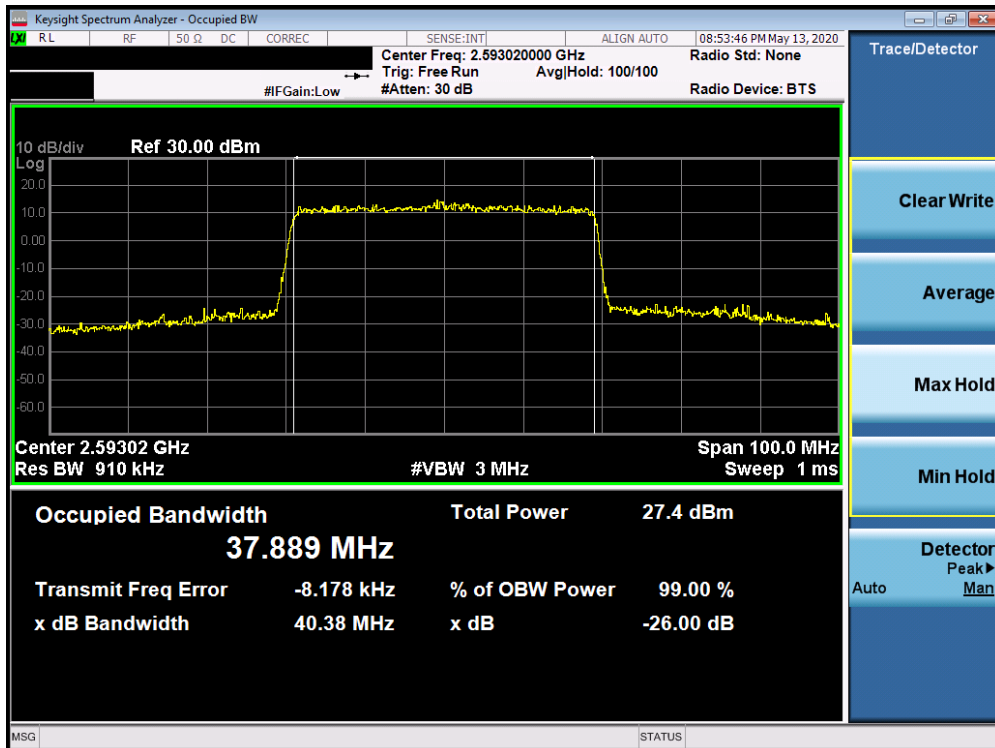


Plot 7-251. Occupied Bandwidth Plot (n41 40MHz 16QAM-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 144 of 494

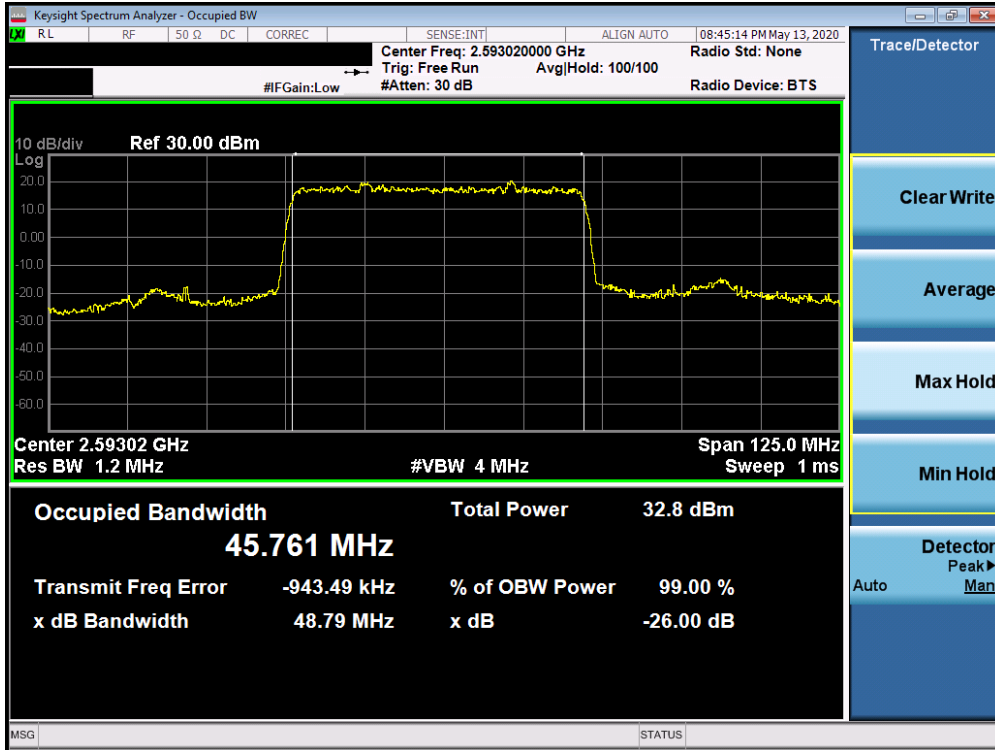


Plot 7-252. Occupied Bandwidth Plot (n41 40MHz 64QAM-CP-OFDM- Full RB Configuration)

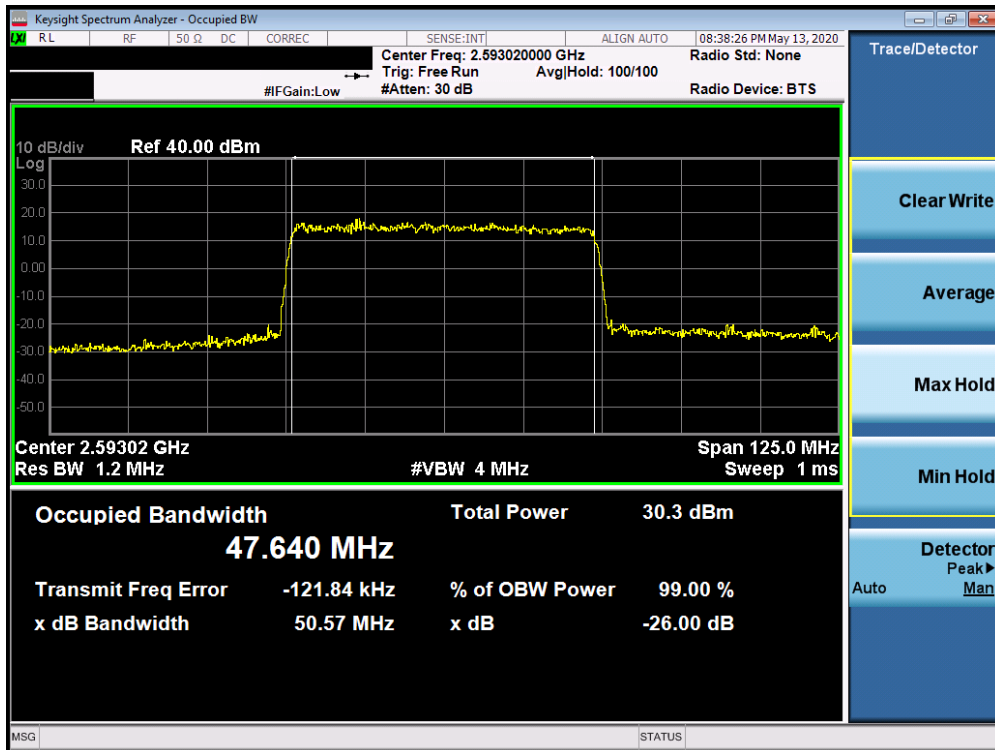


Plot 7-253. Occupied Bandwidth Plot (n41 40MHz 256QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 145 of 494

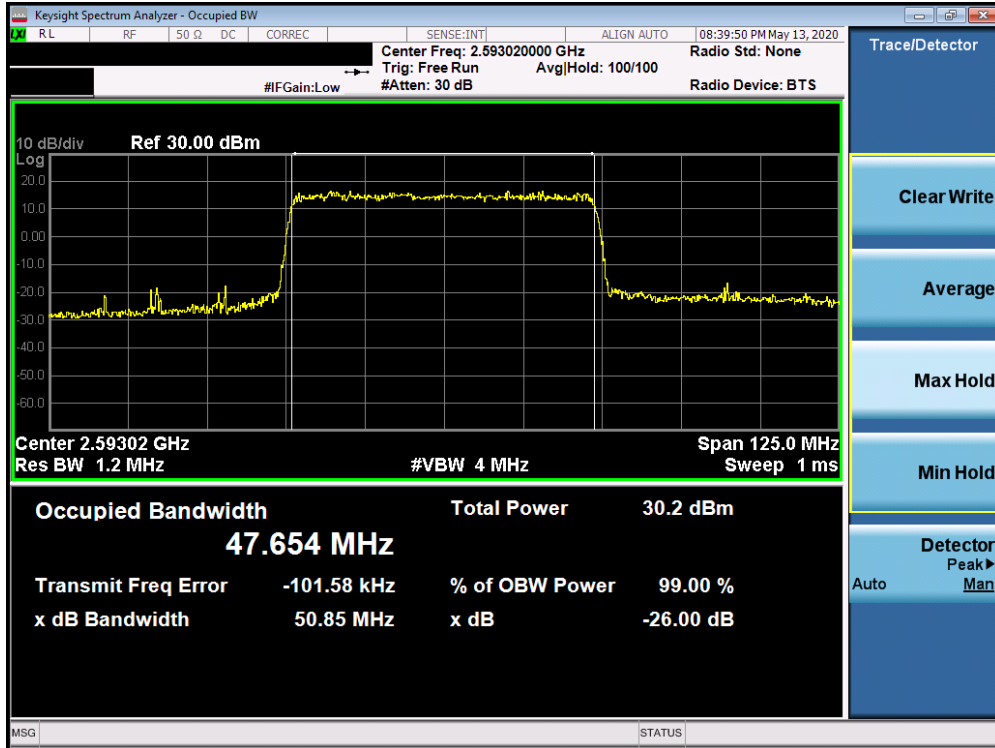


Plot 7-254. Occupied Bandwidth Plot (n41 50MHz BPSK-DFT-s-OFDM - Full RB Configuration)

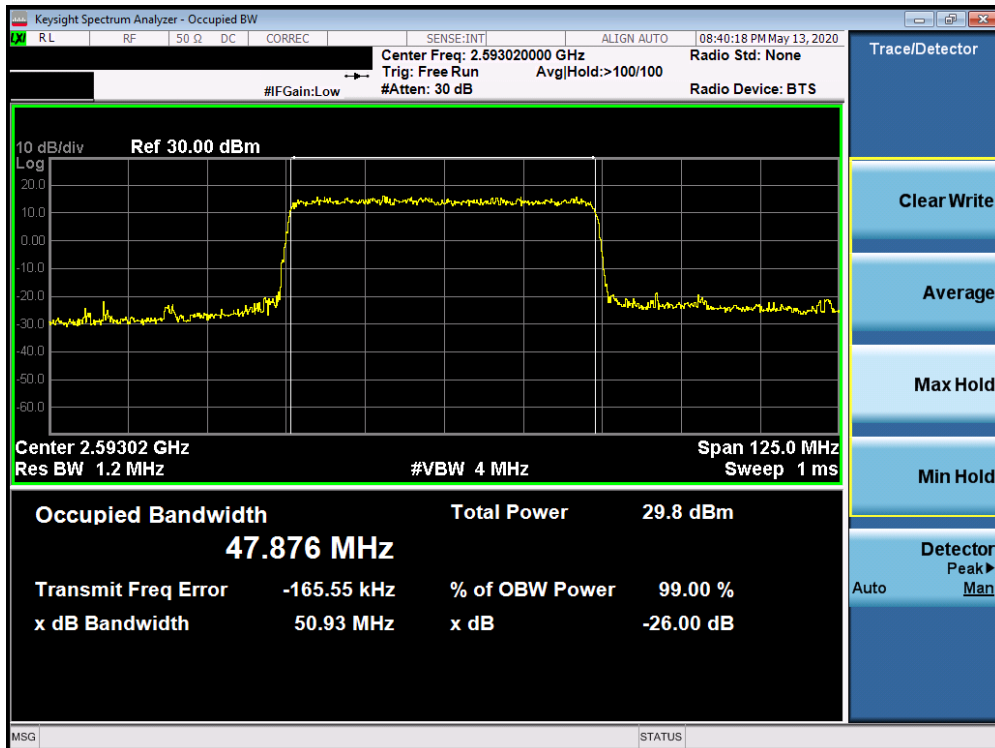


Plot 7-255. Occupied Bandwidth Plot (n41 50MHz QPSK-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 146 of 494

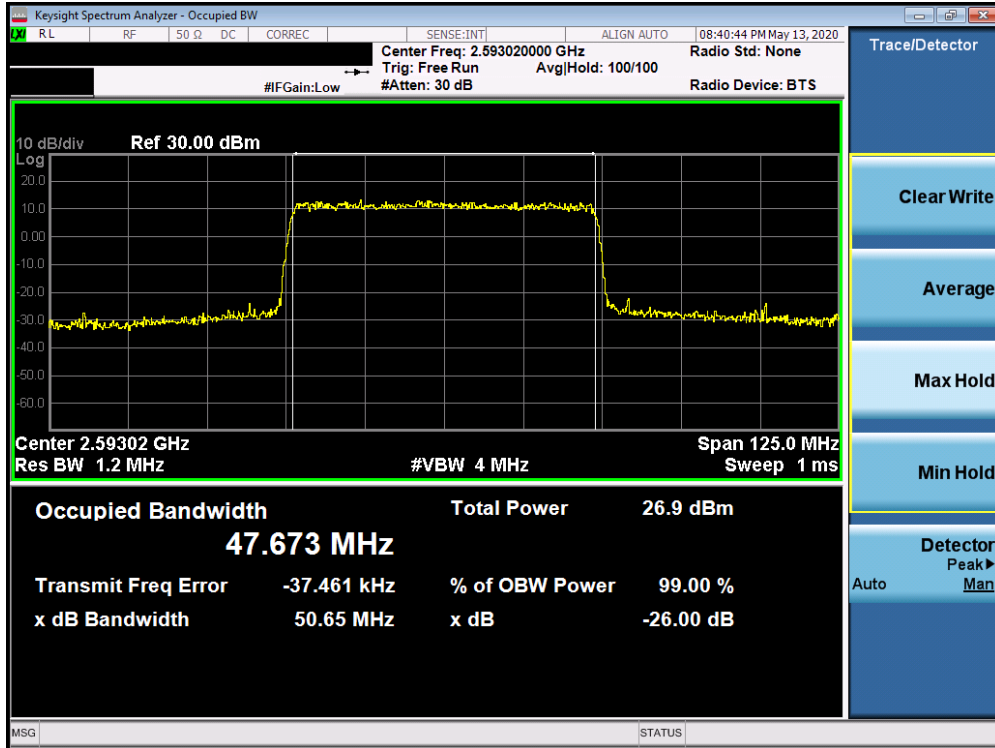


Plot 7-256. Occupied Bandwidth Plot (n41 50MHz 16QAM-CP-OFDM - Full RB Configuration)

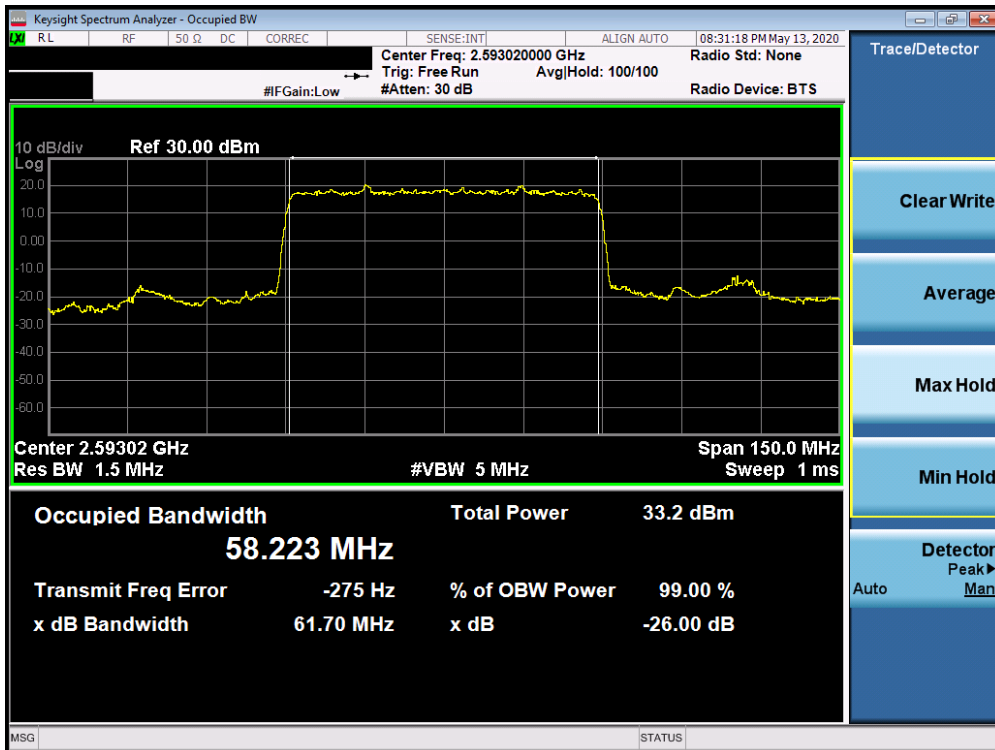


Plot 7-257. Occupied Bandwidth Plot (n41 50MHz 64QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 147 of 494

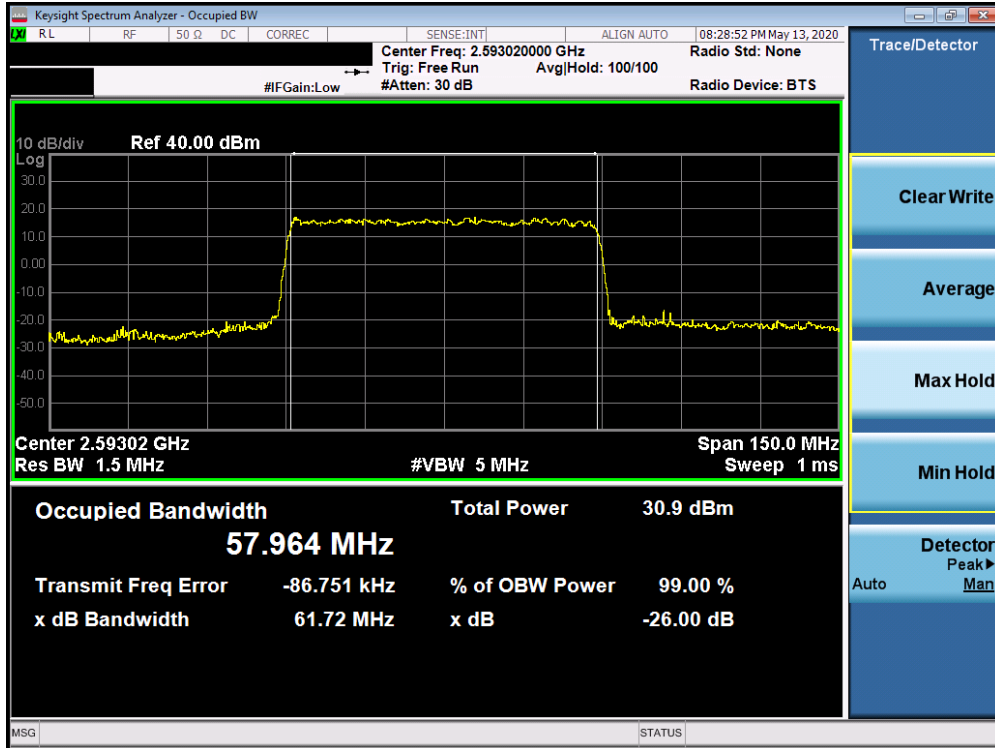


Plot 7-258. Occupied Bandwidth Plot (n41 50MHz 256QAM-CP-OFDM- Full RB Configuration)

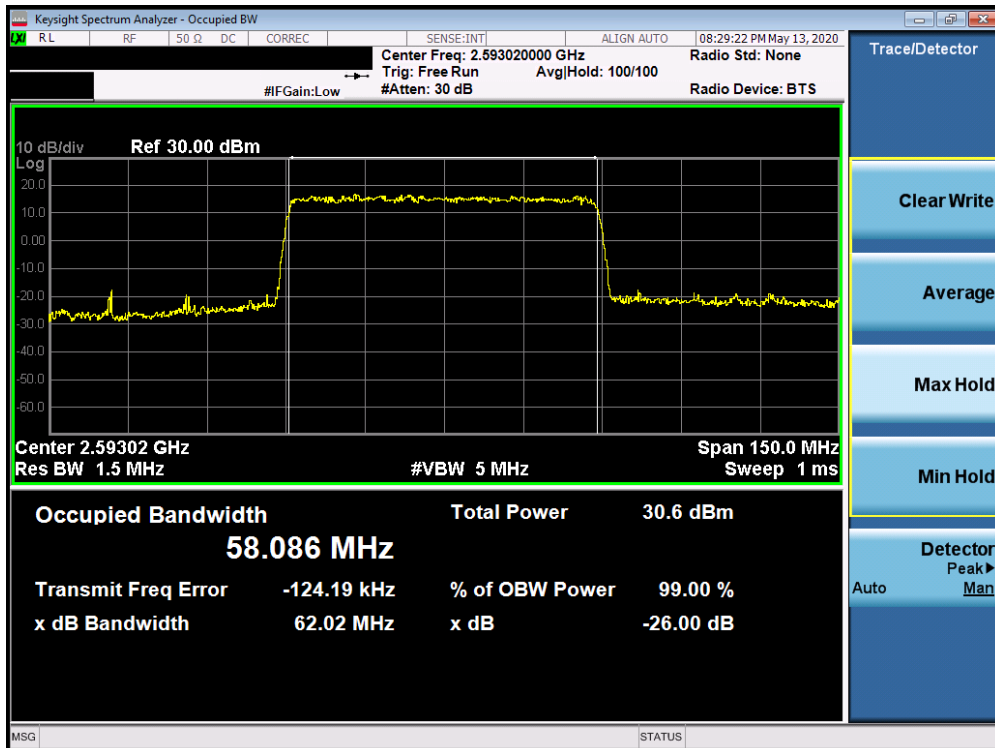


Plot 7-259. Occupied Bandwidth Plot (n41 60MHz BPSK-DFT-s-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 148 of 494



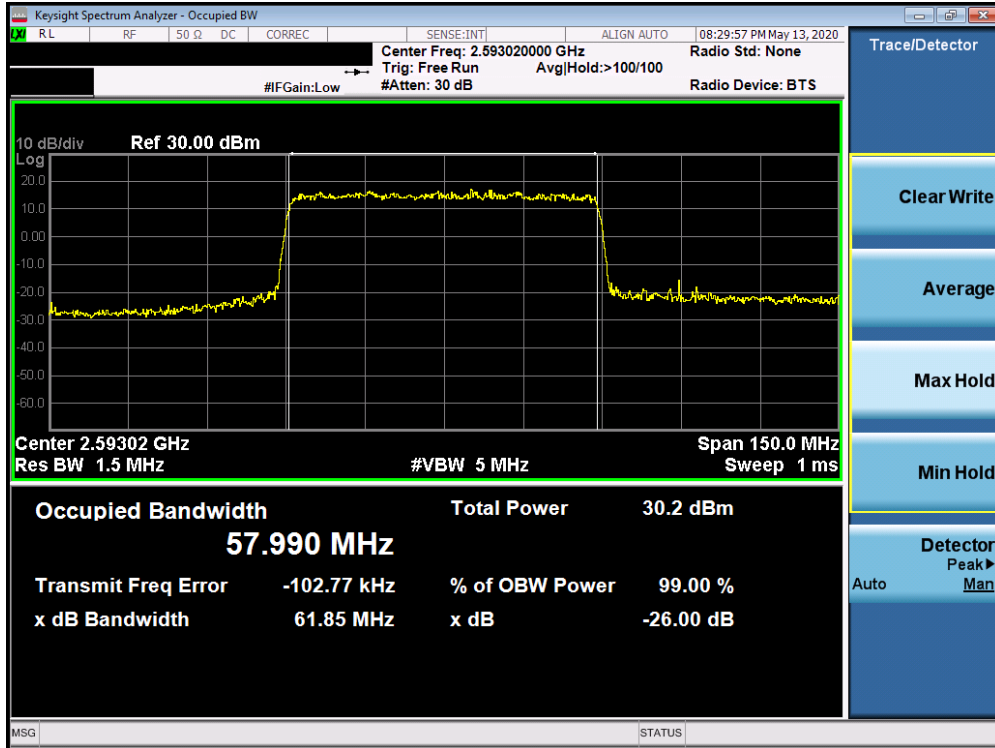
Plot 7-260. Occupied Bandwidth Plot (n41 60MHz QPSK-CP-OFDM - Full RB Configuration)



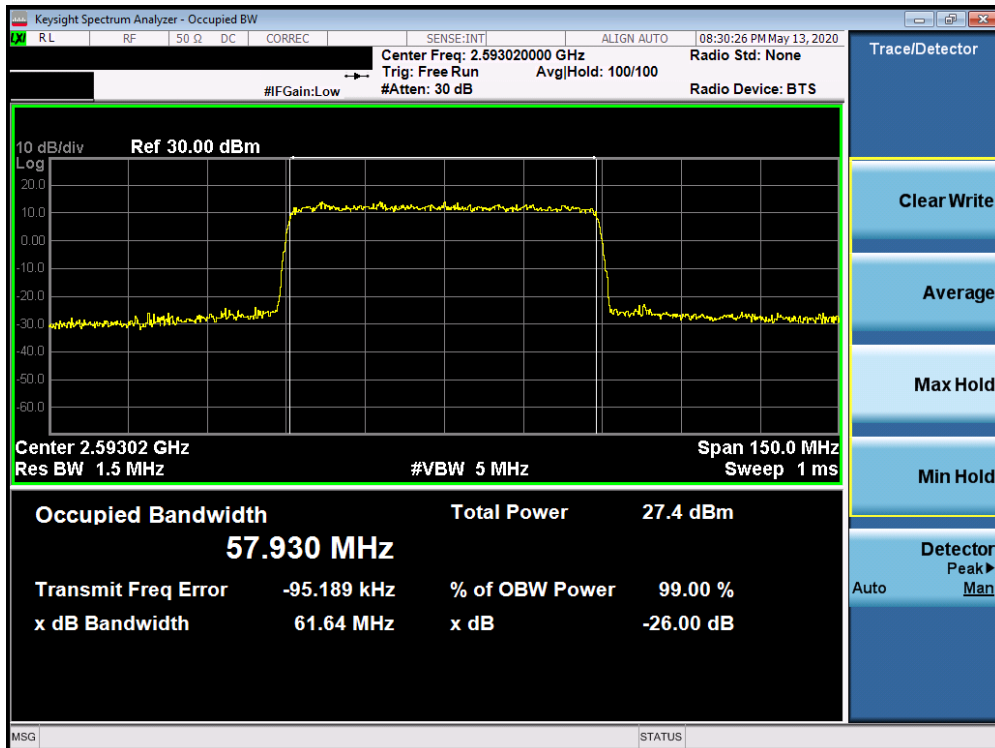
Plot 7-261. Occupied Bandwidth Plot (n41 60MHz 16QAM-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 149 of 494



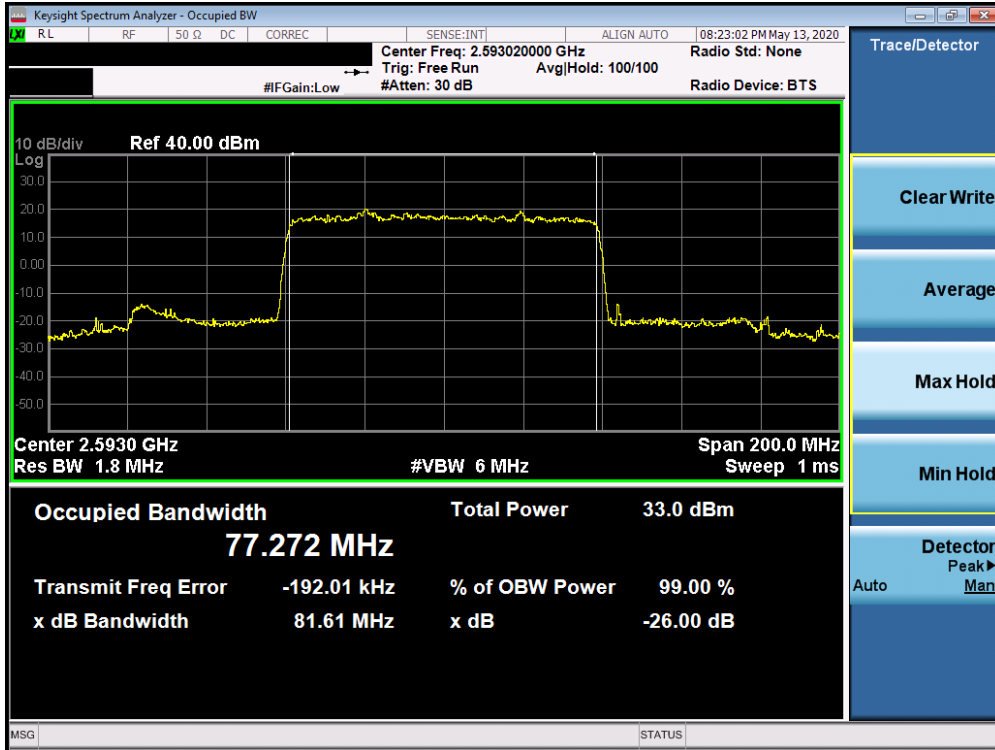


Plot 7-262. Occupied Bandwidth Plot (n41 60MHz 64QAM-CP-OFDM- Full RB Configuration)

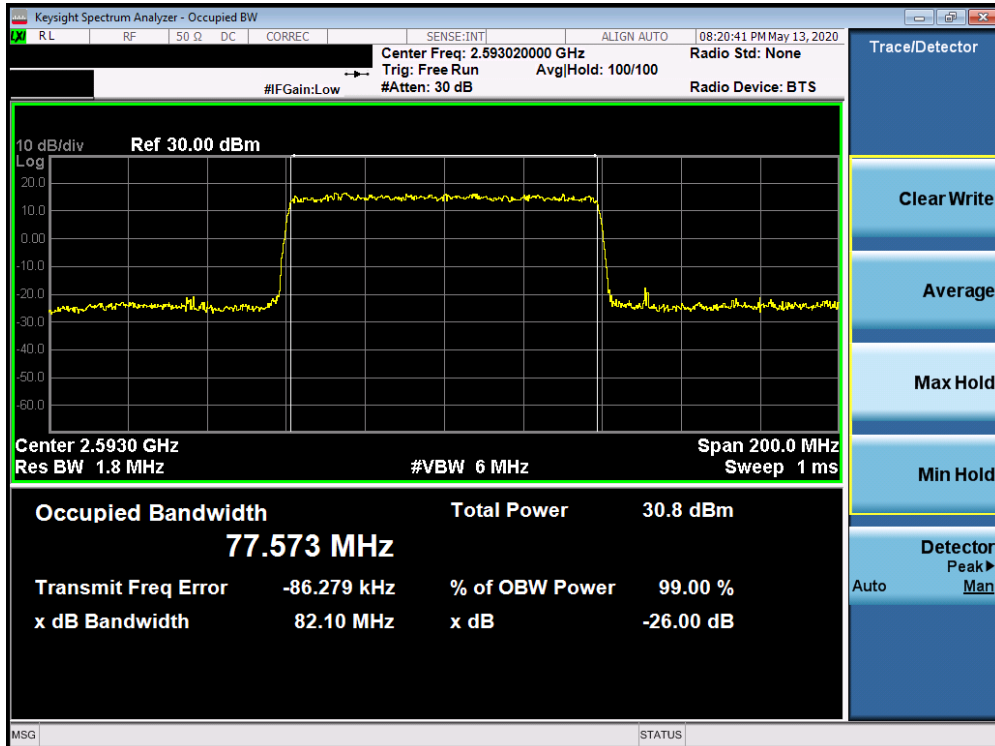


Plot 7-263. Occupied Bandwidth Plot (n41 60MHz 256QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 150 of 494

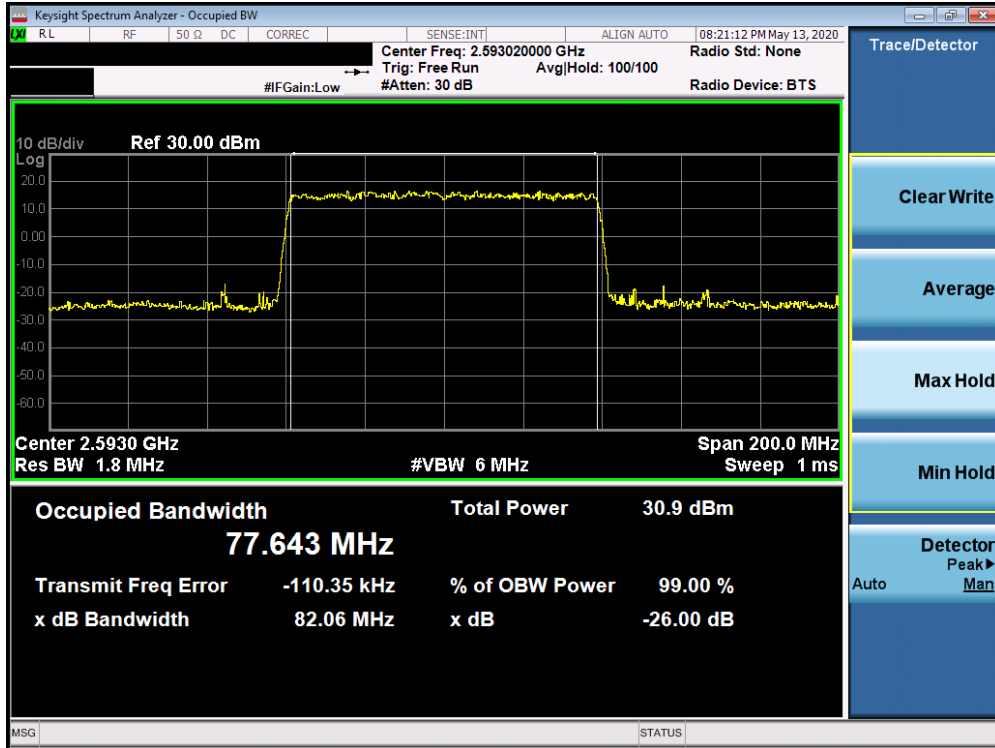


Plot 7-264. Occupied Bandwidth Plot (n41 80MHz BPSK-DFT-s-OFDM - Full RB Configuration)

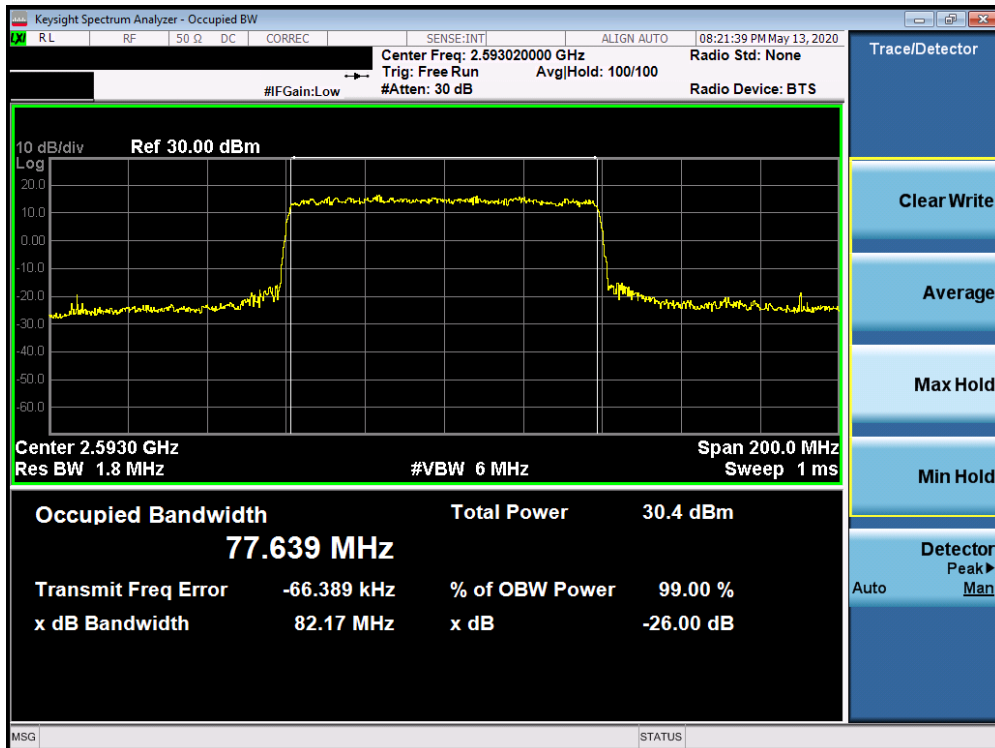


Plot 7-265. Occupied Bandwidth Plot (n41 80MHz QPSK-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 151 of 494

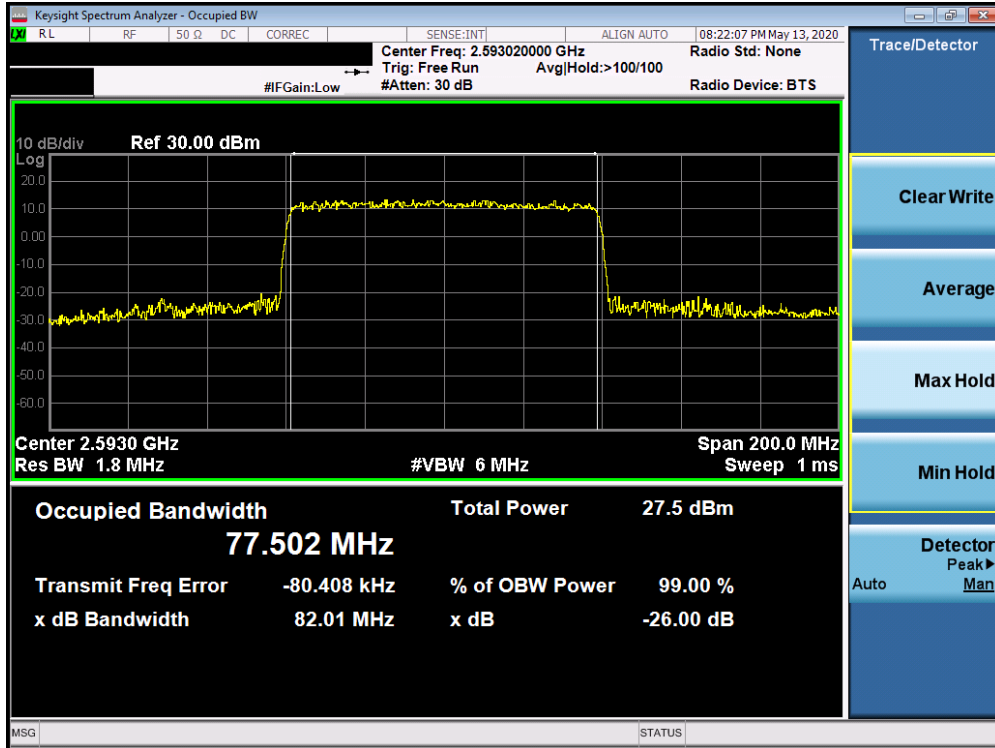


Plot 7-266. Occupied Bandwidth Plot (n41 80MHz 16QAM-CP-OFDM - Full RB Configuration)

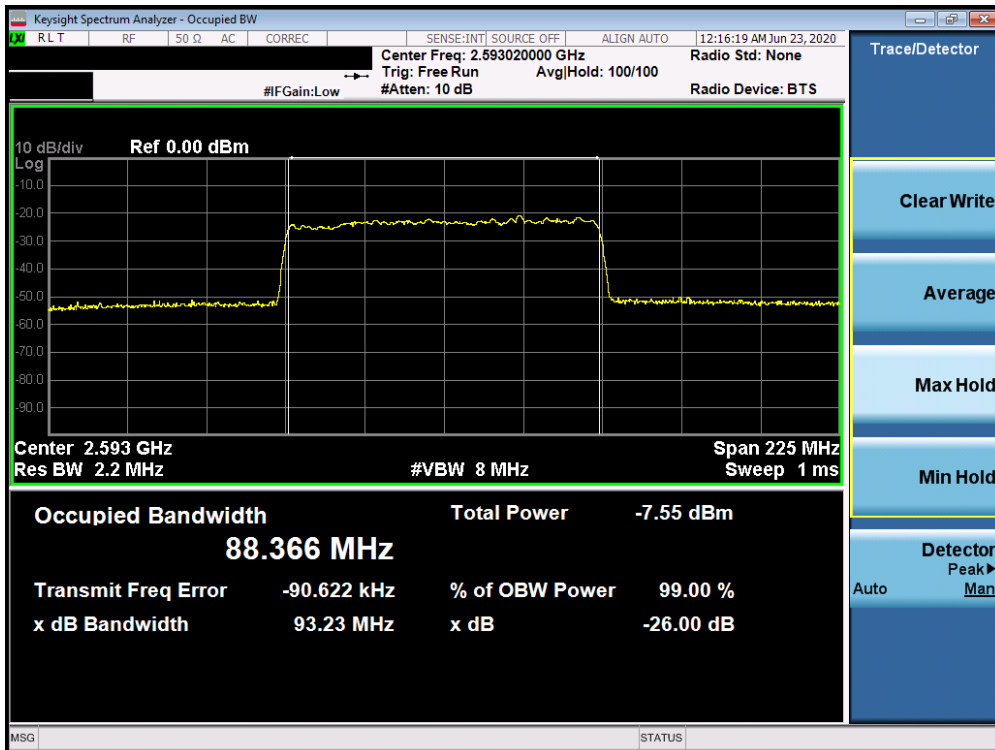


Plot 7-267. Occupied Bandwidth Plot (n41 80MHz 64QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 152 of 494

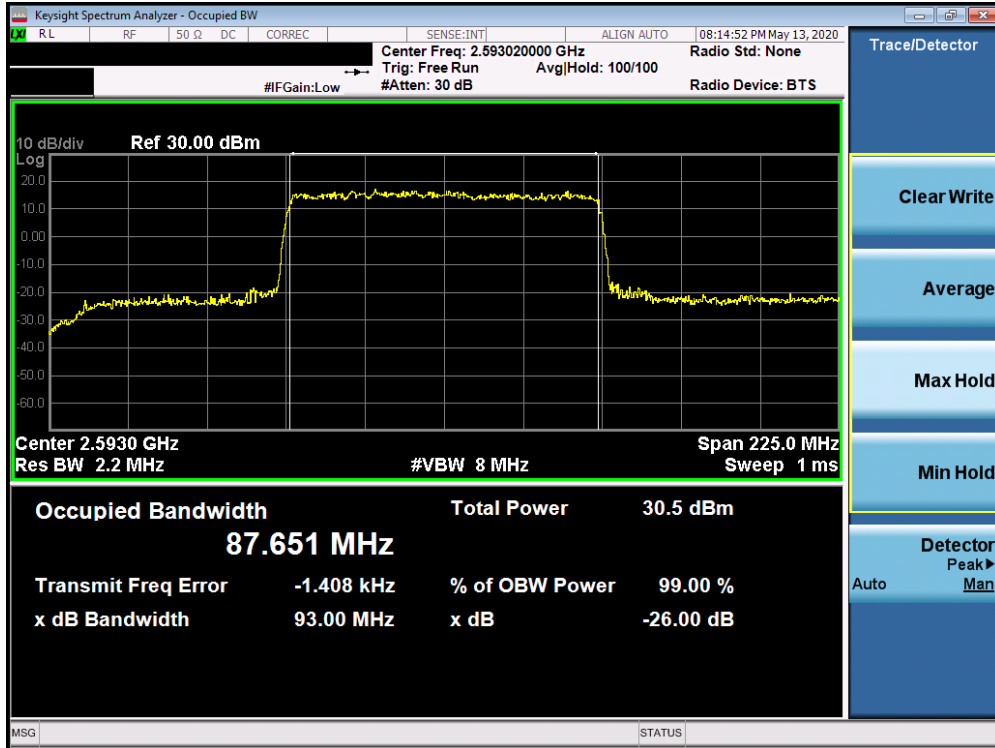


Plot 7-268. Occupied Bandwidth Plot (n41 80MHz 256QAM-CP-OFDM- Full RB Configuration)

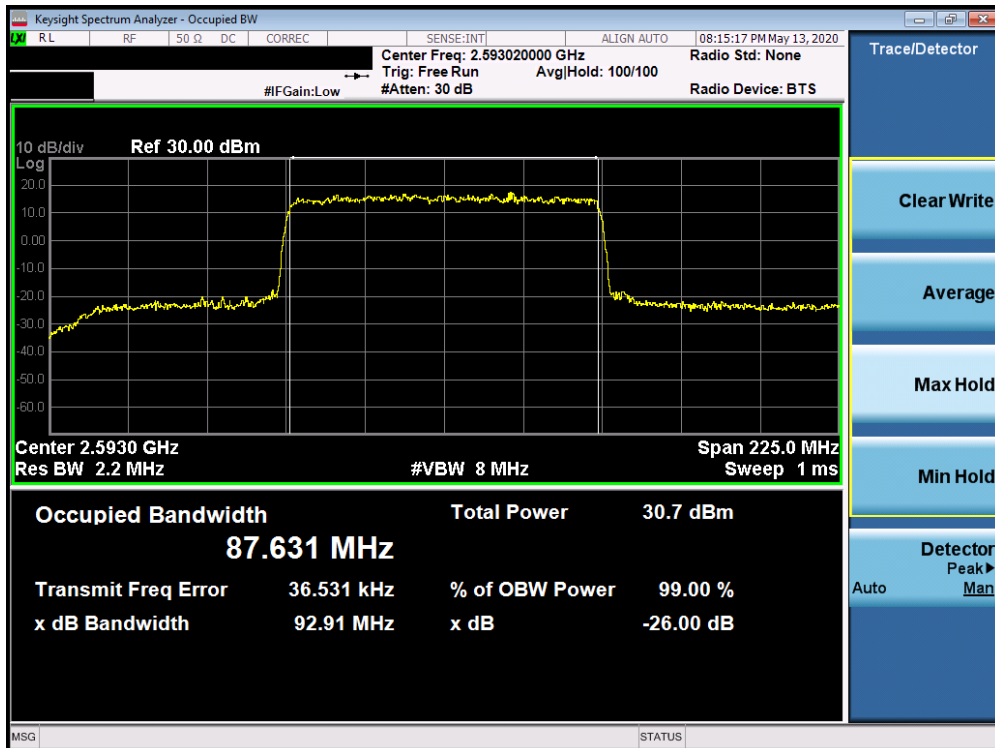


Plot 7-269. Occupied Bandwidth Plot (n41 90MHz BPSK-DFT-s-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 153 of 494

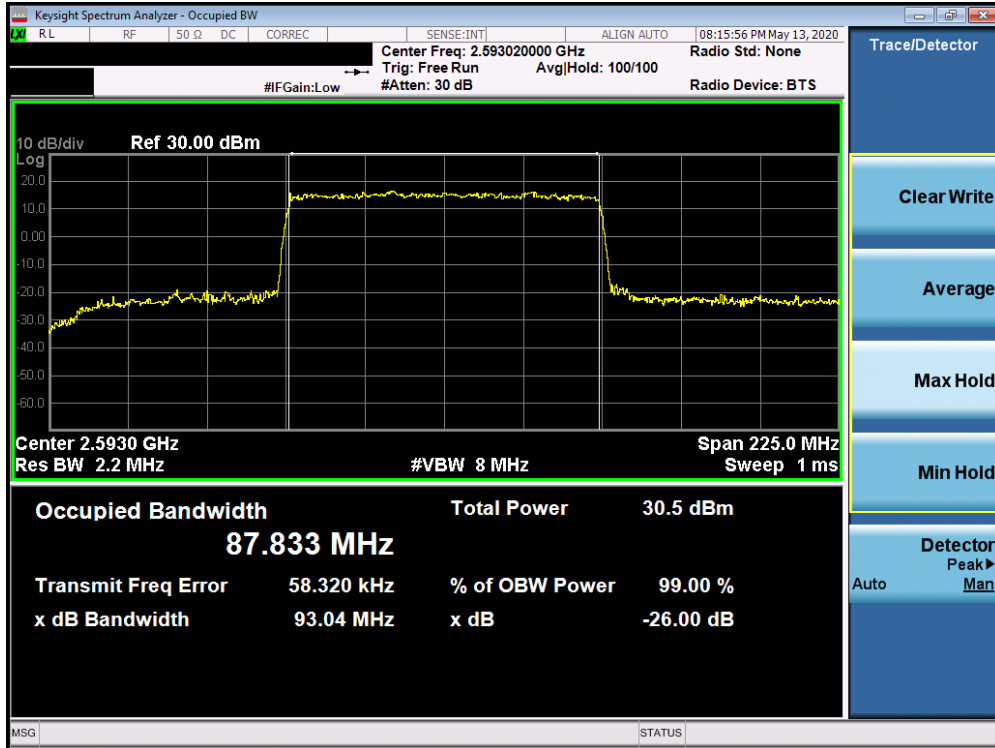


Plot 7-270. Occupied Bandwidth Plot (n41 90MHz QPSK-CP-OFDM - Full RB Configuration)

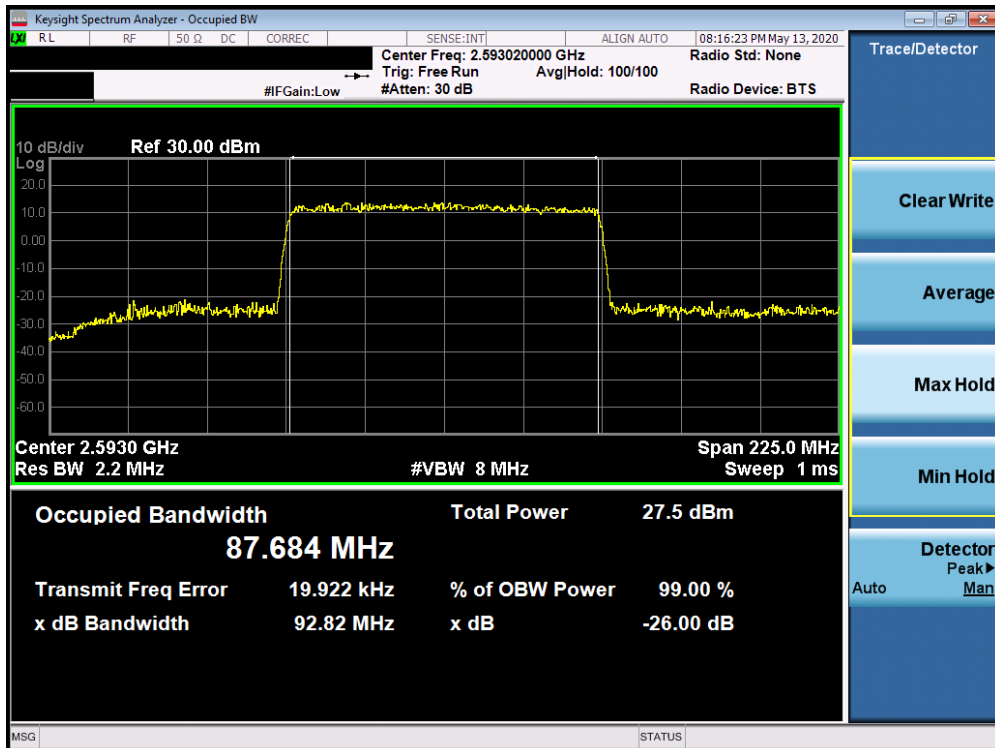


Plot 7-271. Occupied Bandwidth Plot (n41 90MHz 16QAM-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 154 of 494

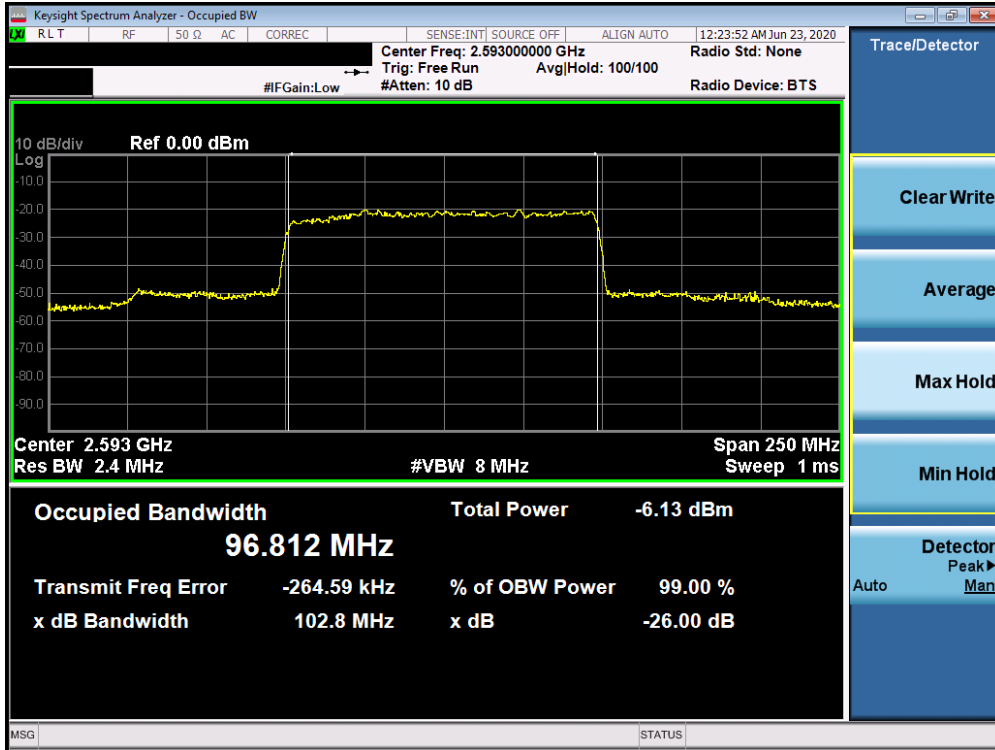


Plot 7-272. Occupied Bandwidth Plot (n41 90MHz 64QAM-CP-OFDM- Full RB Configuration)

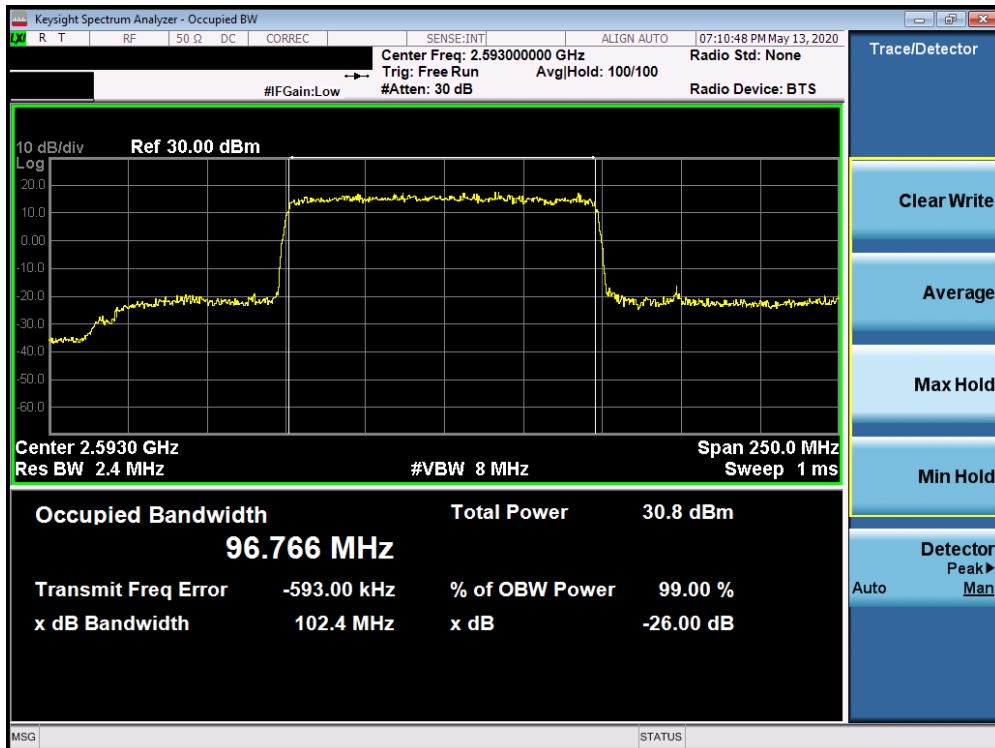


Plot 7-273. Occupied Bandwidth Plot (n41 90MHz 256QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 155 of 494

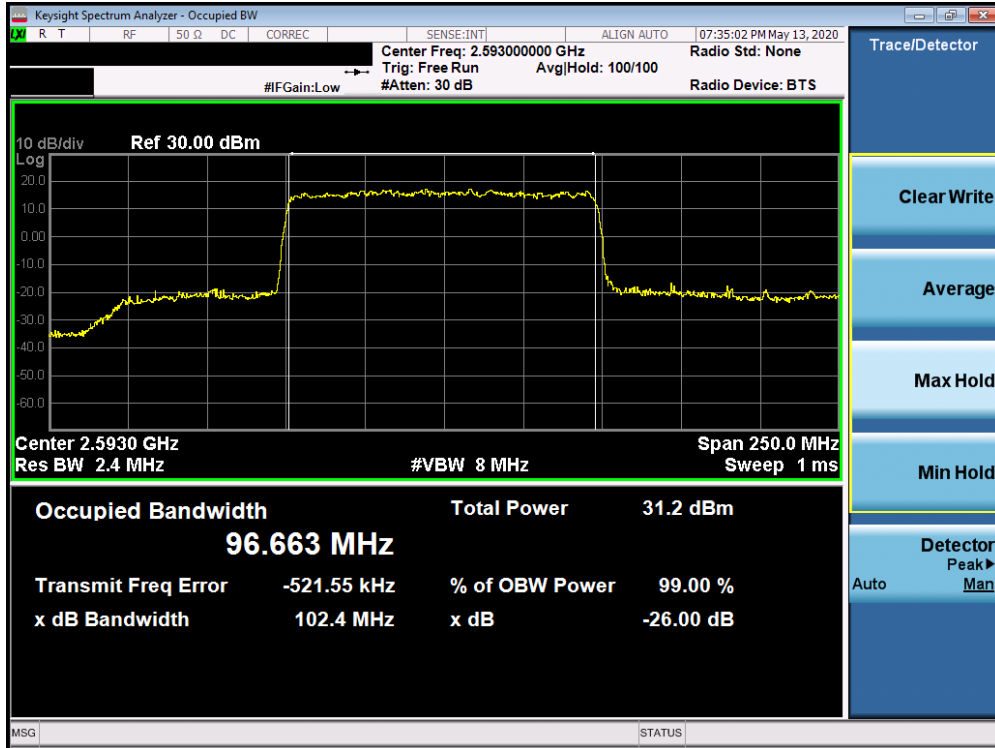


Plot 7-274. Occupied Bandwidth Plot (n41 100MHz BPSK-DFT-s-OFDM - Full RB Configuration)

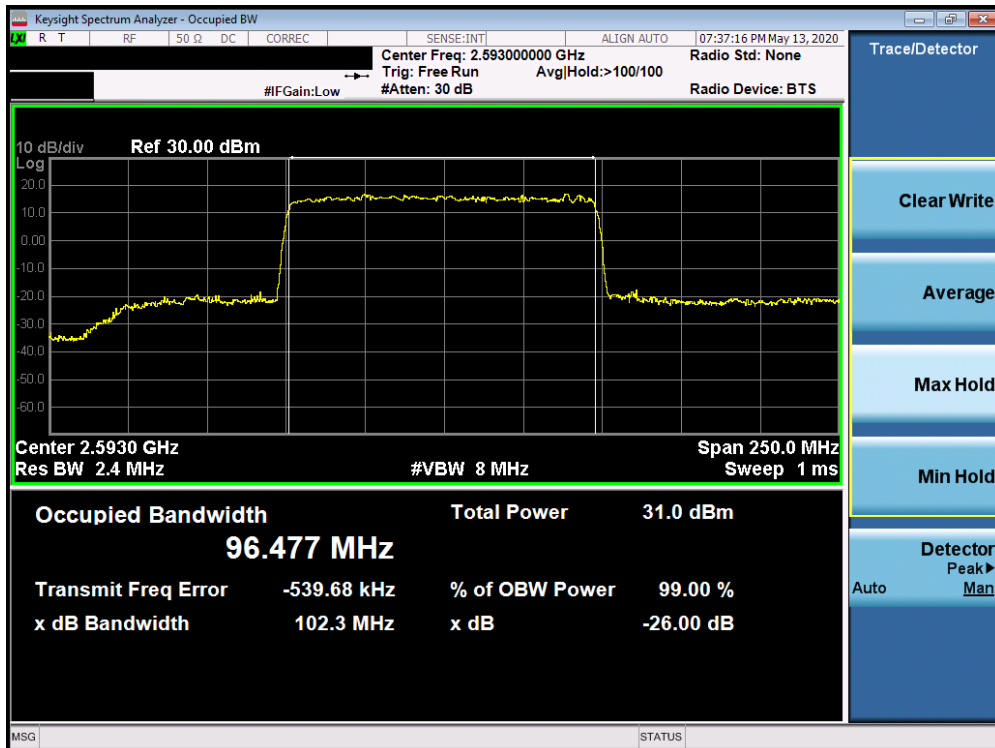


Plot 7-275. Occupied Bandwidth Plot (n41 100MHz QPSK-CP-OFDM - Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 156 of 494



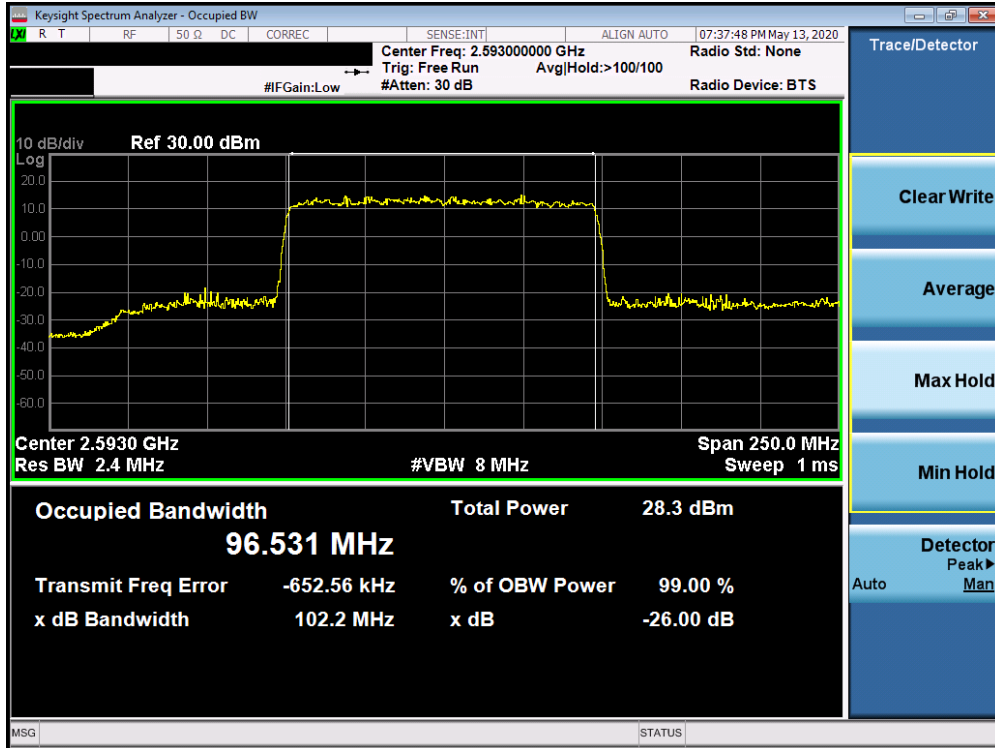
Plot 7-276. Occupied Bandwidth Plot (n41 100MHz 16QAM-CP-OFDM - Full RB Configuration)



Plot 7-277. Occupied Bandwidth Plot (n41 100MHz 64QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 157 of 494





Plot 7-278. Occupied Bandwidth Plot (n41 100MHz 256QAM-CP-OFDM- Full RB Configuration)

FCC ID: A3LSMN986U	<b>PCTEST</b> Proud to be part of element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	<b>SAMSUNG</b>	Approved by: Quality Manager
Test Report S/N: 1M2004170065-03-R3.A3L	Test Dates: 4/17 - 6/22/2020	EUT Type: Portable Handset		Page 158 of 494

### 7.3 Spurious and Harmonic Emissions at Antenna Terminal

#### Test Overview

The level of the carrier 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 10<sup>th</sup> 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.

**The minimum permissible attenuation level of any spurious emission is  $43 + 10 \log_{10}(P_{[Watts]})$ , where P is the transmitter power in 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
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.

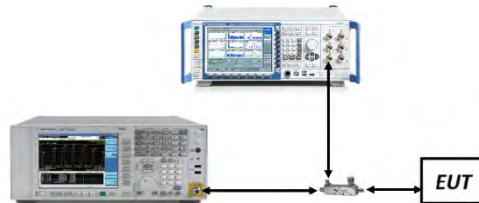


Figure 7-2. Test Instrument & Measurement Setup

#### Test Notes

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. 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. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

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