

Figure 195: 256QAM 50MHz B.W.; 2145.0MHz, 15kHz

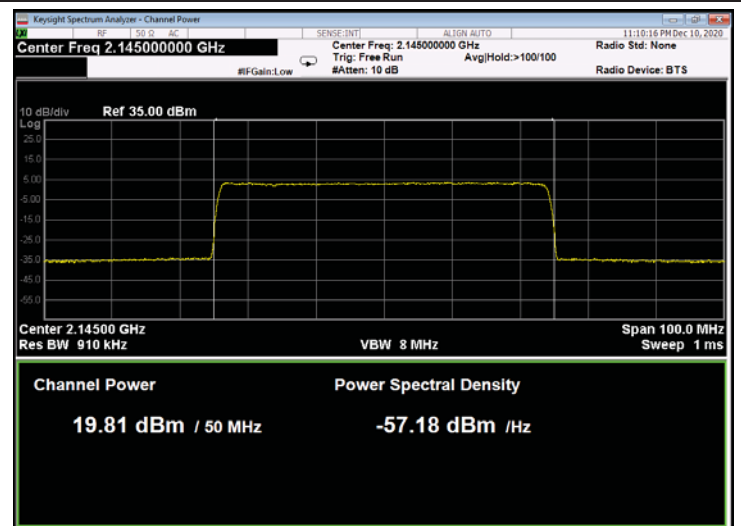


Figure 196: 256QAM 50MHz B.W.; 2145.0MHz, 30kHz

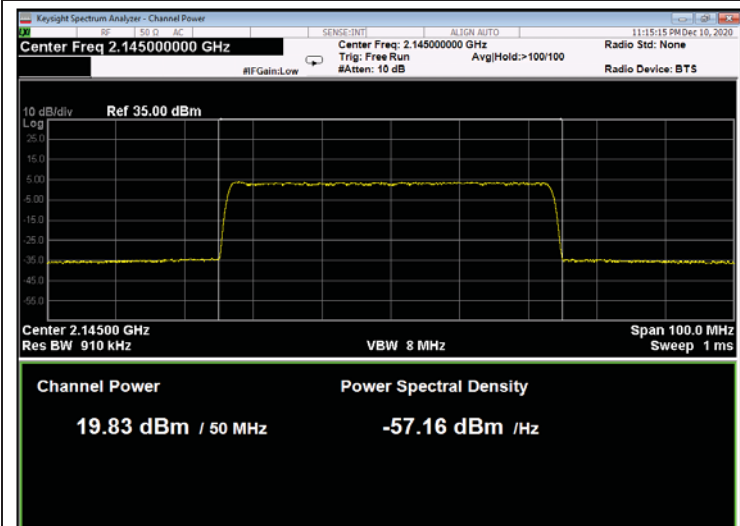


Figure 197: 256QAM 50MHz B.W.; 2145.0MHz, 60kHz

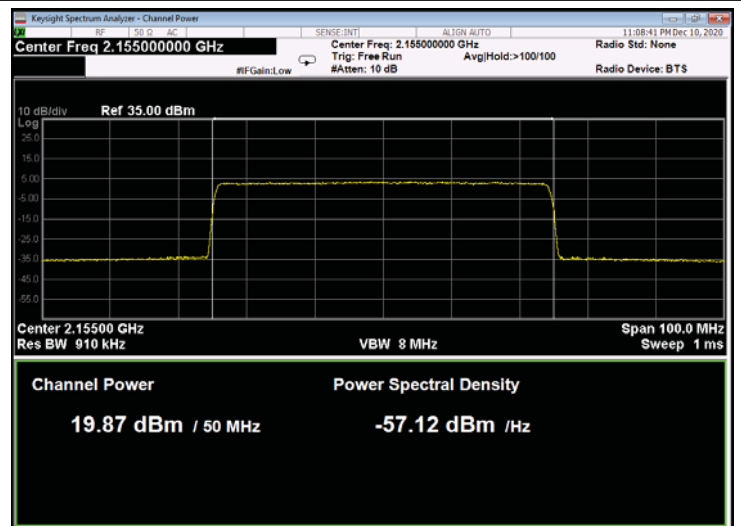


Figure 198: 256QAM 50MHz B.W.; 2155.0MHz, 15kHz

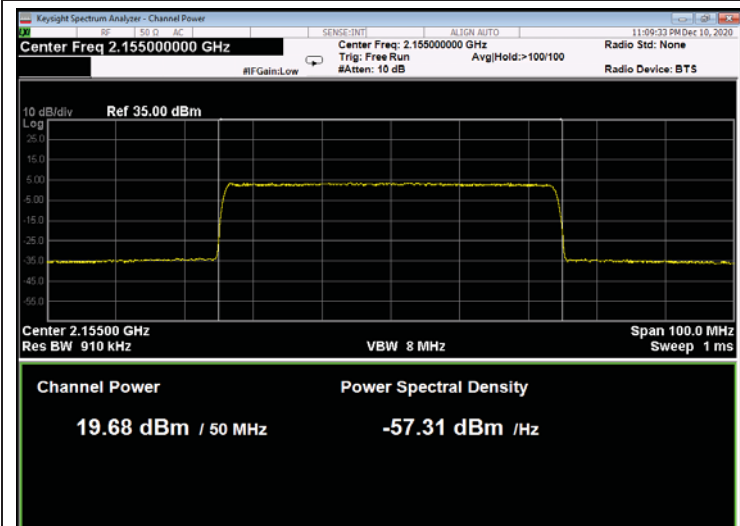


Figure 199: 256QAM 50MHz B.W.; 2155.0MHz, 30kHz

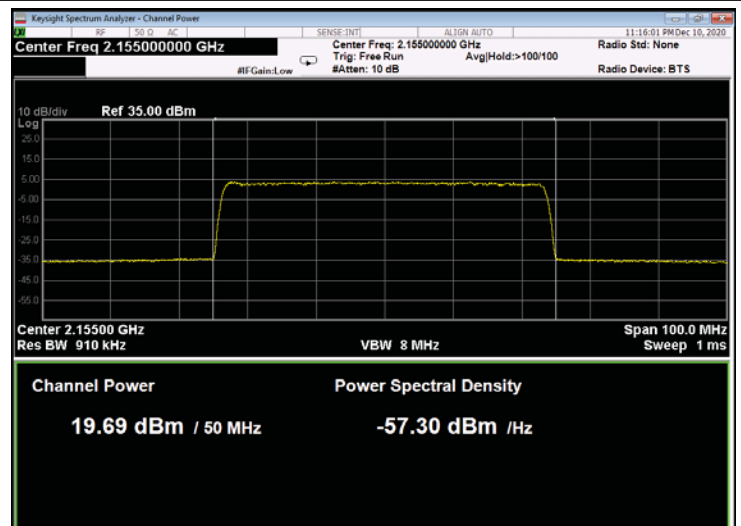


Figure 200: 256QAM 50MHz B.W.; 2155.0MHz, 60kHz

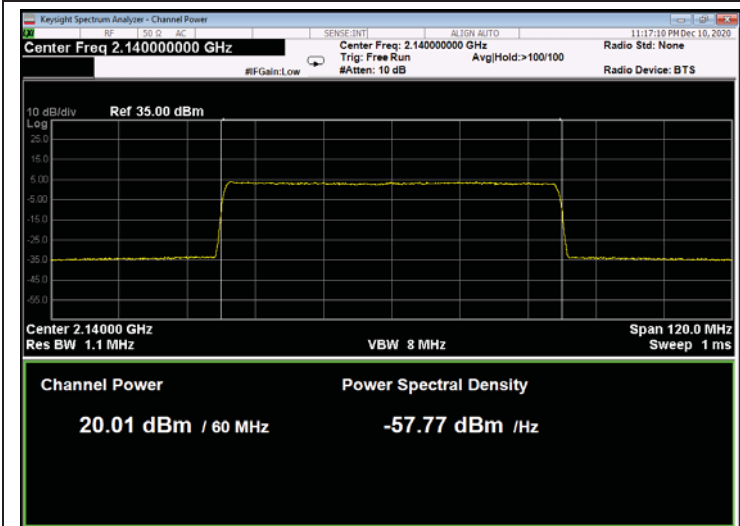


Figure 201: 256QAM 60MHz B.W.; 2140.0MHz, 30kHz

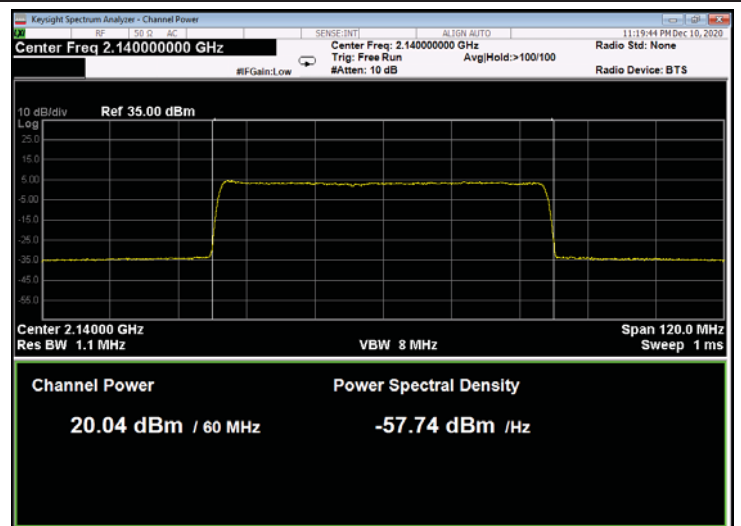


Figure 202: 256QAM 60MHz B.W.; 2140.0MHz, 60kHz

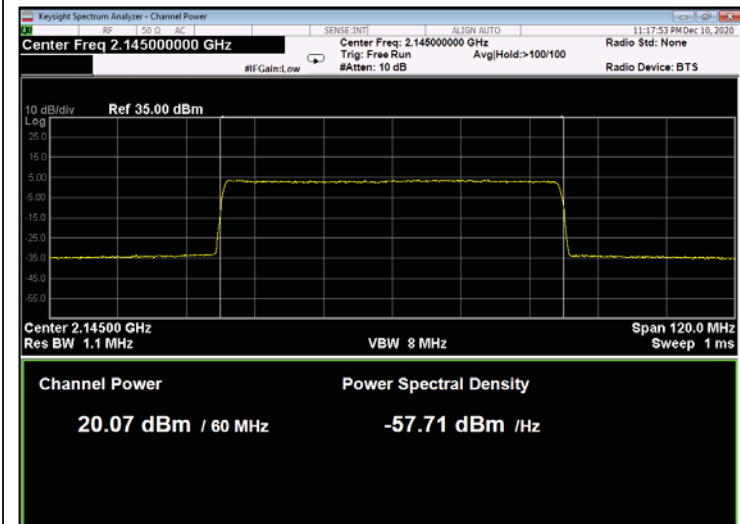


Figure 203: 256QAM 60MHz B.W.; 2145.0MHz, 30kHz

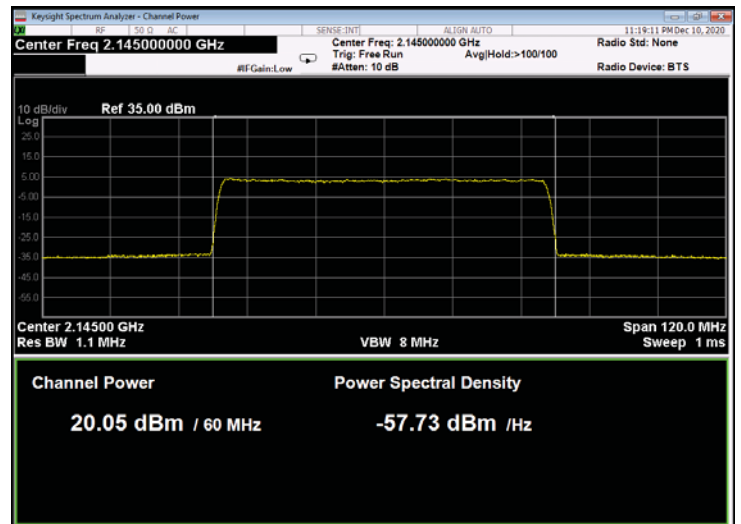


Figure 204: 256QAM 60MHz B.W.; 2145.0MHz, 60kHz

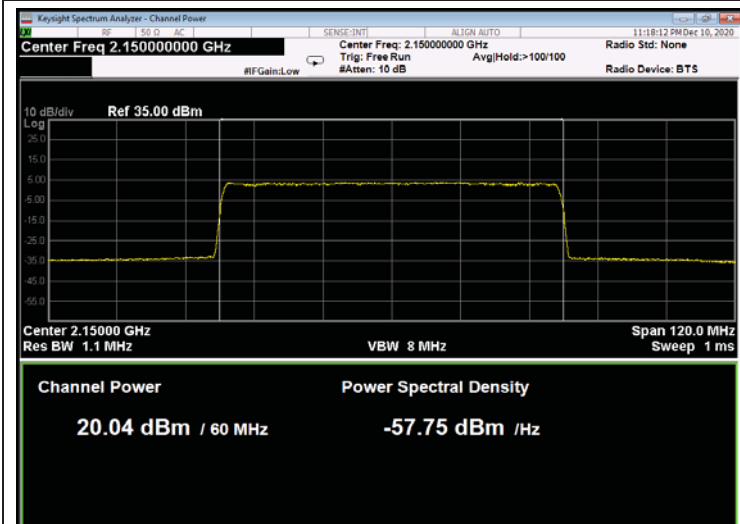


Figure 205: 256QAM 60MHz B.W.; 2150.0MHz, 30kHz

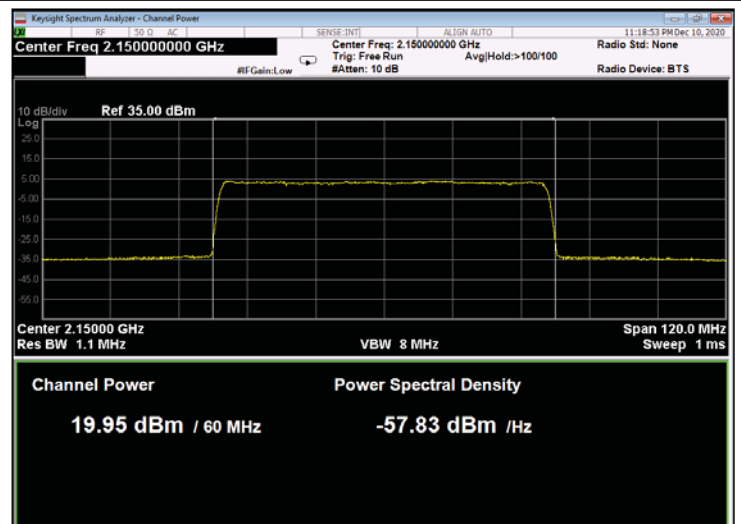


Figure 206: 256QAM 60MHz B.W.; 1965.0MHz, 60kHz

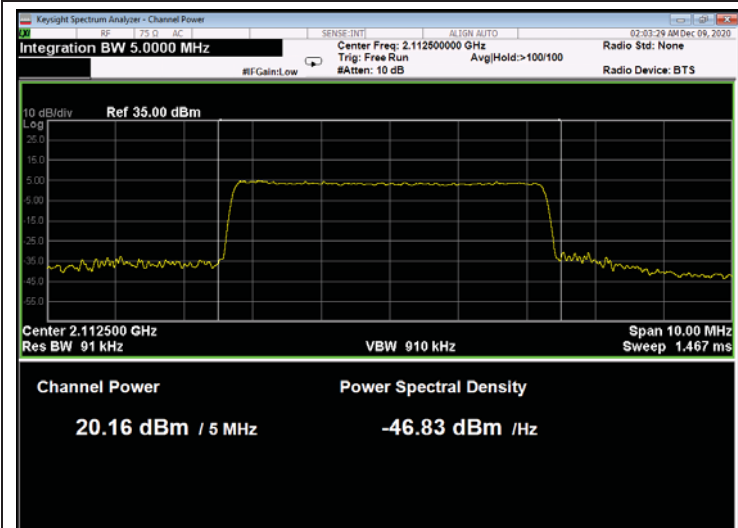


Figure 207: QPSK 5MHz B.W.; 2112.5MHz, 15kHz

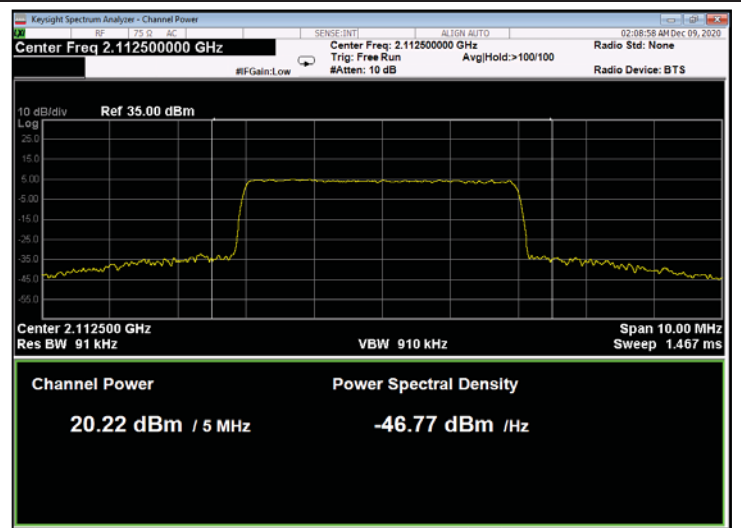


Figure 208: QPSK 5MHz B.W.; 2112.5MHz, 30kHz

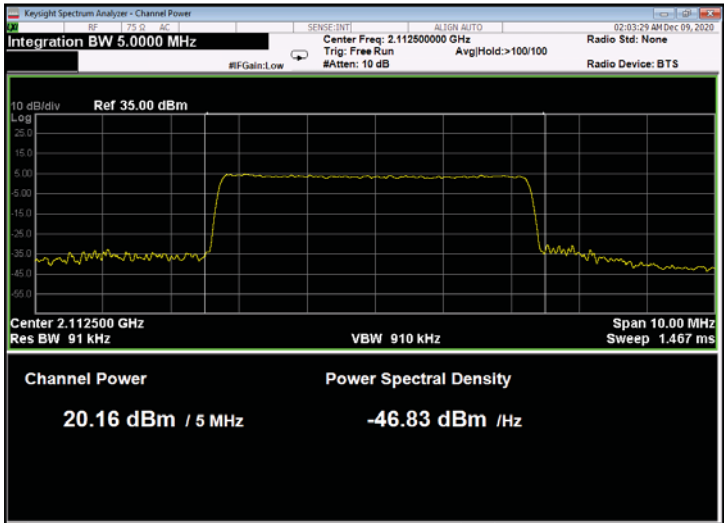


Figure 209: QPSK 5MHz B.W.; 2145.0MHz, 15kHz

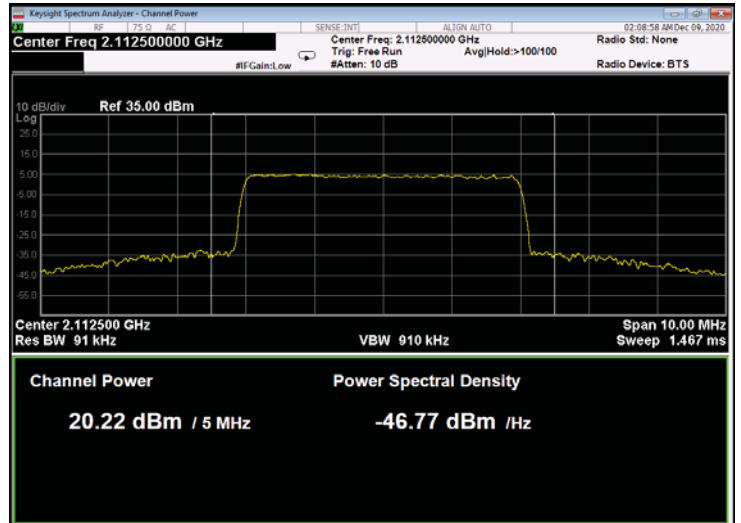


Figure 210: QPSK 5MHz B.W.; 2145.0MHz, 30kHz

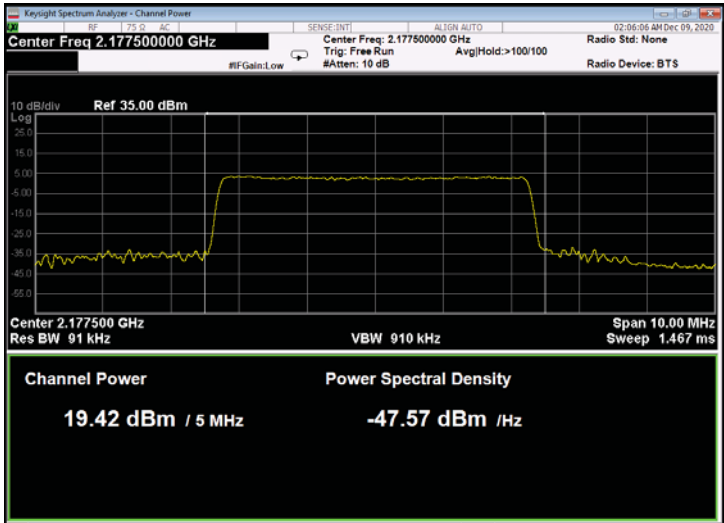


Figure 211: QPSK 5MHz B.W.; 2177.5MHz, 15kHz

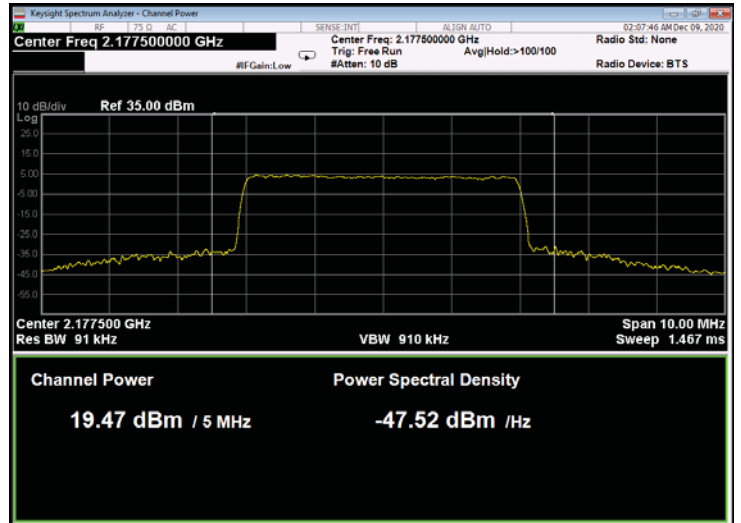


Figure 212: QPSK 5MHz C.S.; 2177.5MHz, 30kHz

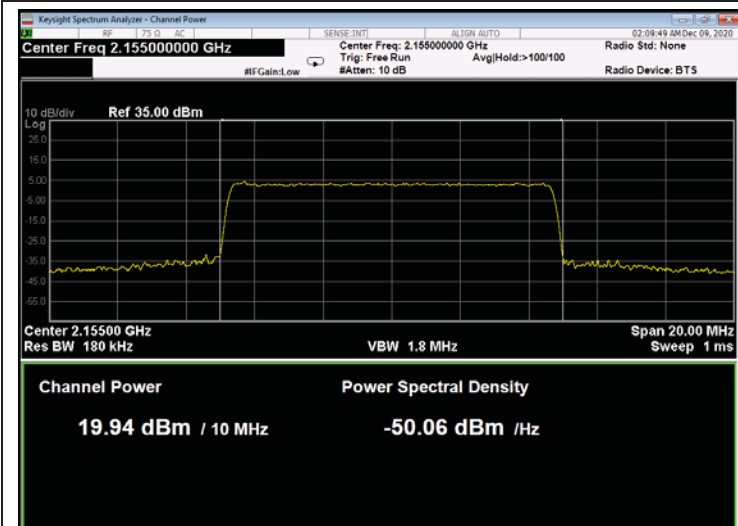


Figure 213: QPSK 10MHz B.W.; 2115.0MHz, 15kHz

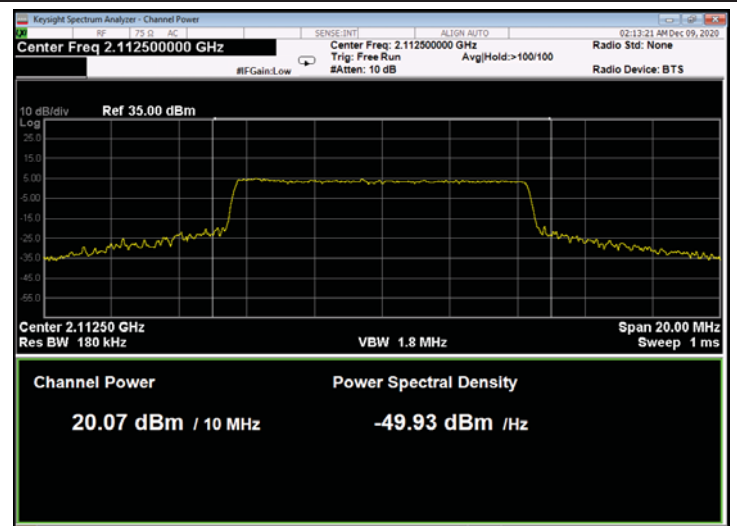


Figure 214: QPSK 10MHz B.W.; 2115.0MHz, 30kHz

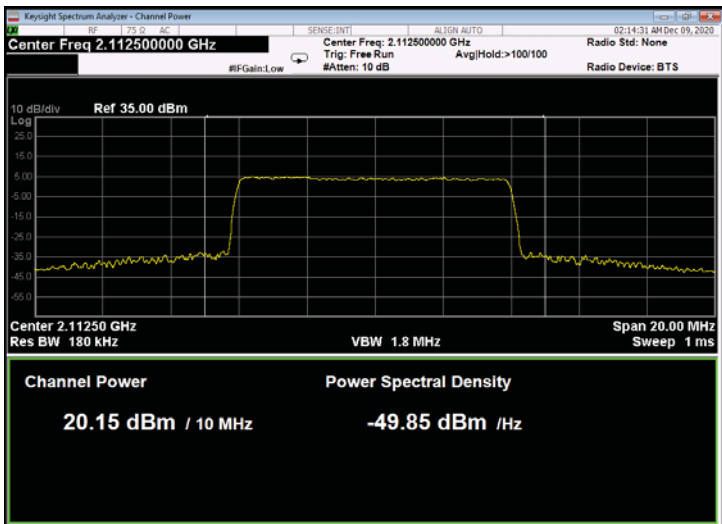


Figure 215: QPSK 10MHz B.W.; 2115.0MHz, 60kHz

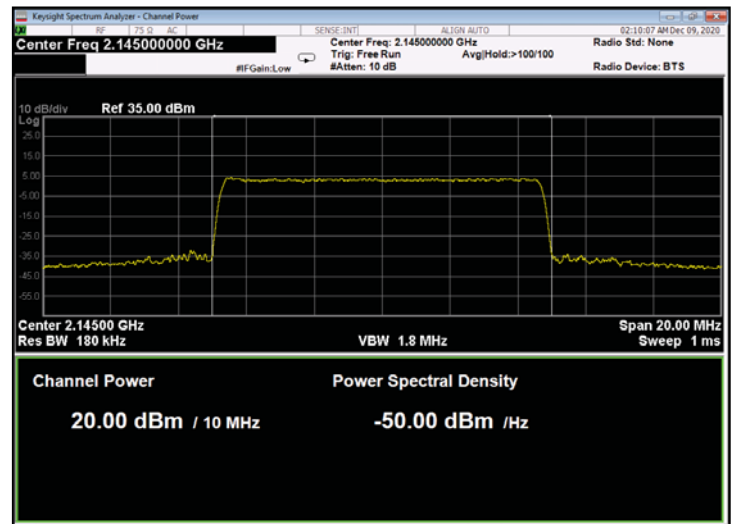


Figure 216: QPSK 10MHz B.W.; 2145.0MHz, 15kHz

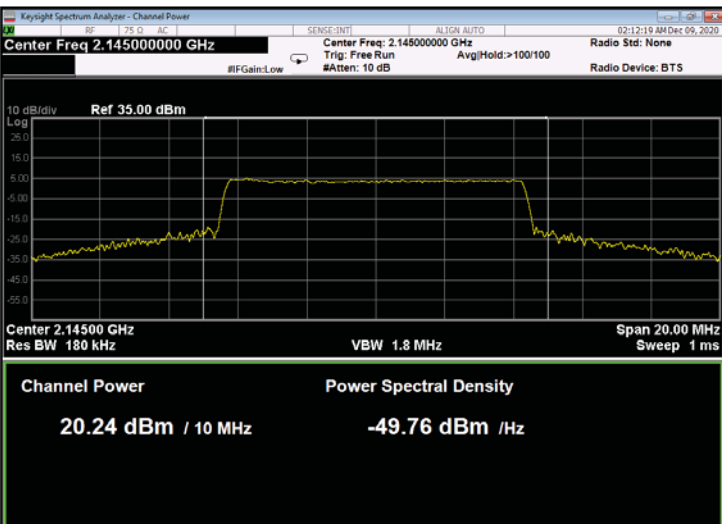


Figure 217: QPSK 10MHz B.W.; 2145.0MHz, 30kHz

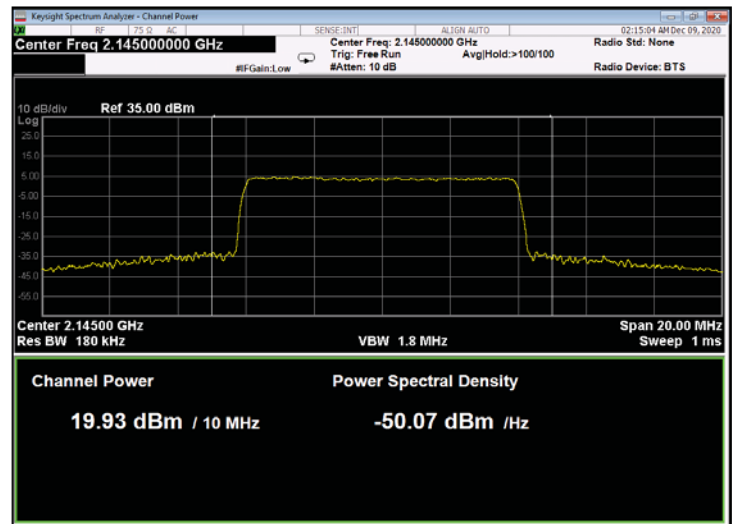


Figure 218: QPSK 10MHz B.W.; 2145.0MHz, 60kHz

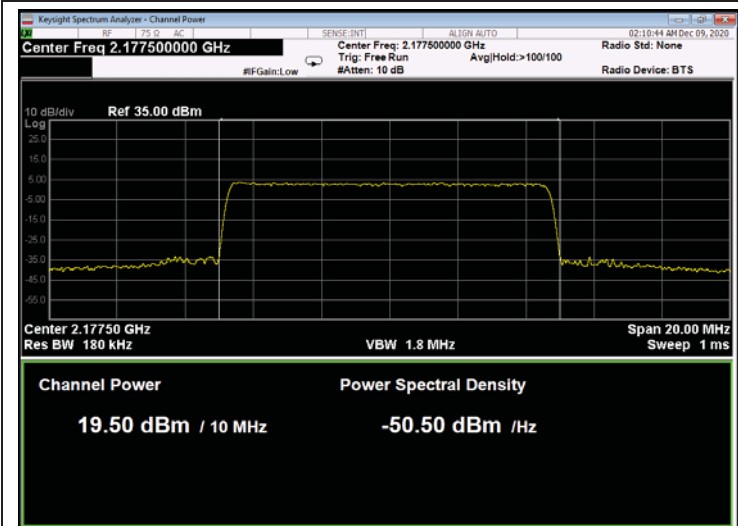


Figure 219: QPSK 10MHz B.W.; 2175.0MHz, 15kHz

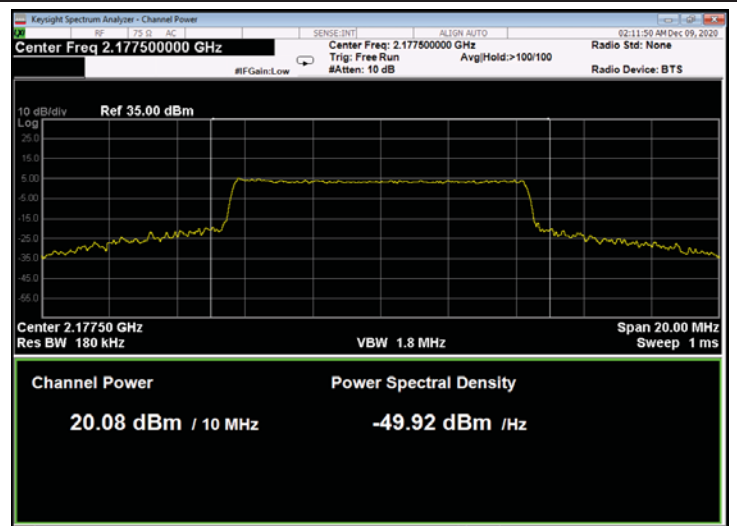


Figure 220: QPSK 10MHz B.W.; 2175.0MHz, 30kHz

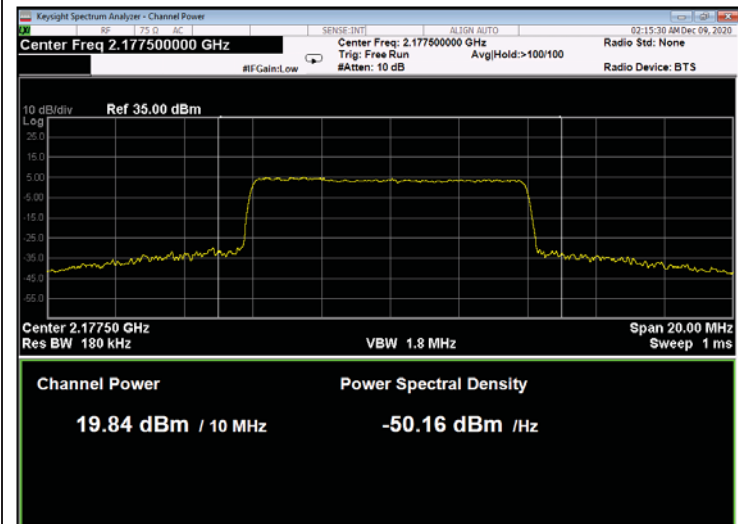


Figure 221: QPSK 10MHz B.W.; 2175.0MHz, 60kHz

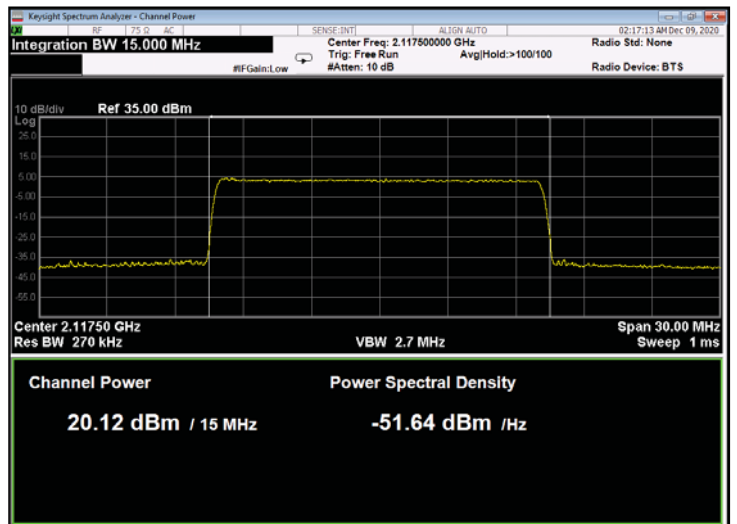


Figure 222: QPSK 15MHz B.W.; 2117.5MHz, 15kHz

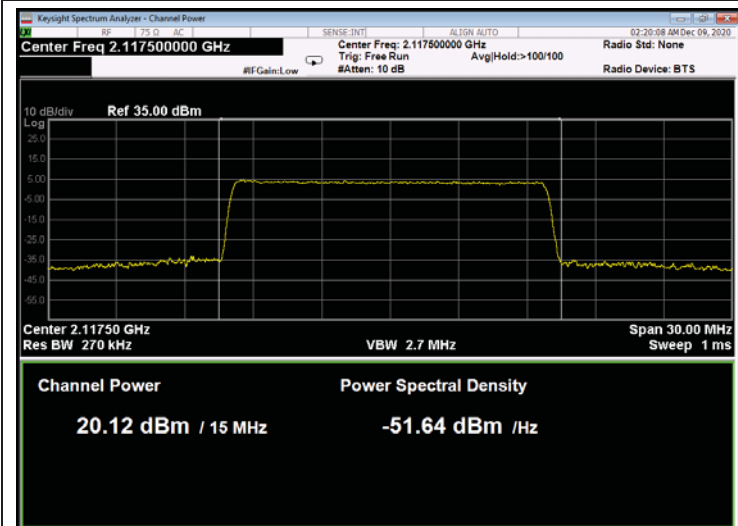


Figure 223: QPSK 15MHz B.W.; 2117.5MHz, 30kHz

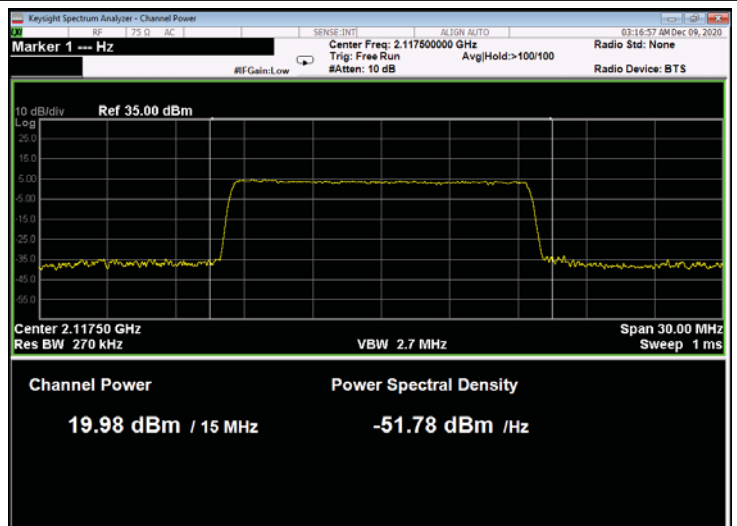


Figure 224: QPSK 10MHz B.W.; 2117.5MHz, 60kHz

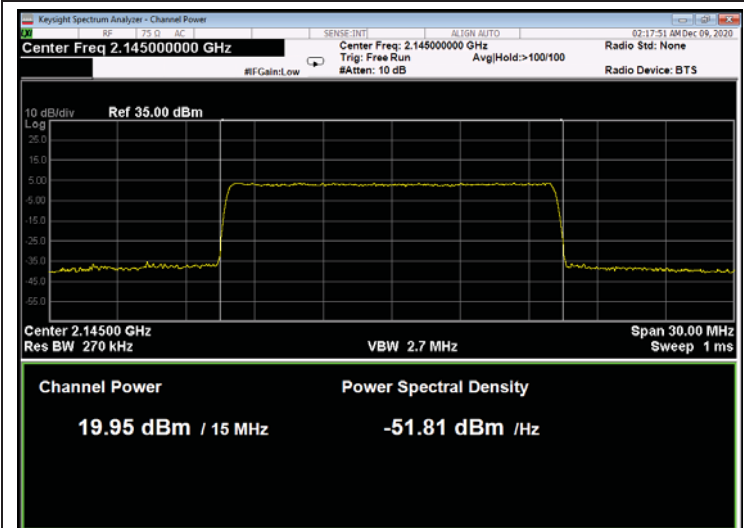


Figure 225: QPSK 15MHz B.W.; 2145.0MHz, 15kHz

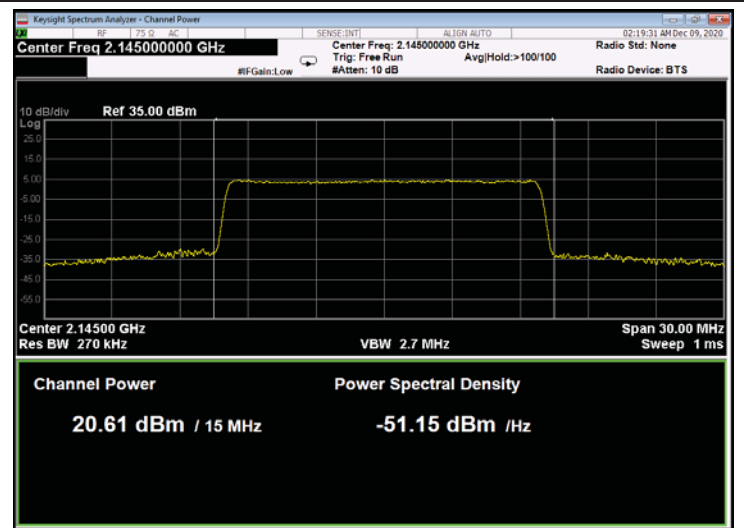


Figure 226: QPSK 15MHz B.W.; 2145.0MHz, 30kHz

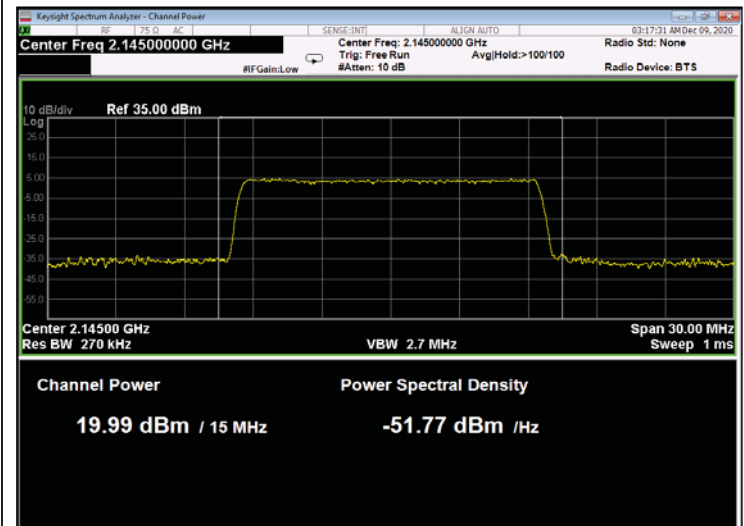


Figure 227: QPSK 15MHz B.W.; 2145.0MHz, 60kHz

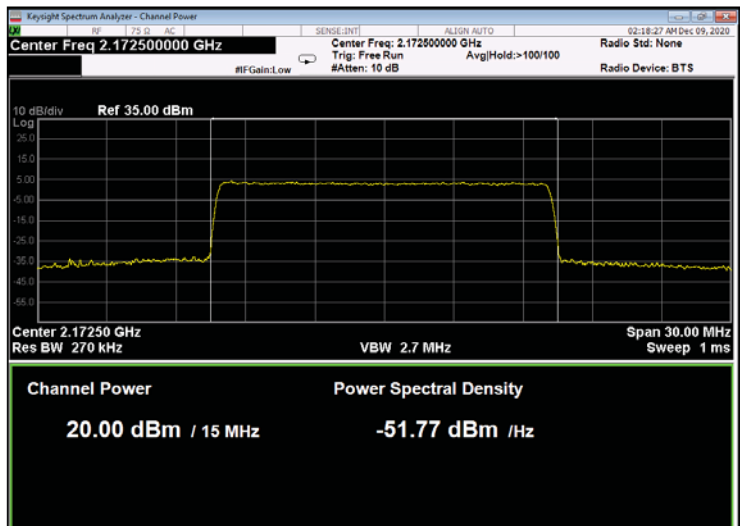


Figure 228: QPSK 15MHz B.W.; 2172.5MHz, 15kHz

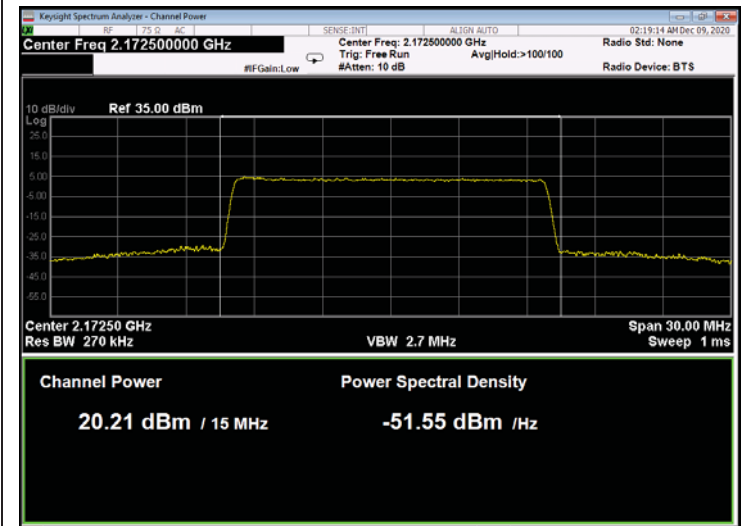


Figure 229: QPSK 15MHz B.W.; 2172.5MHz, 30kHz

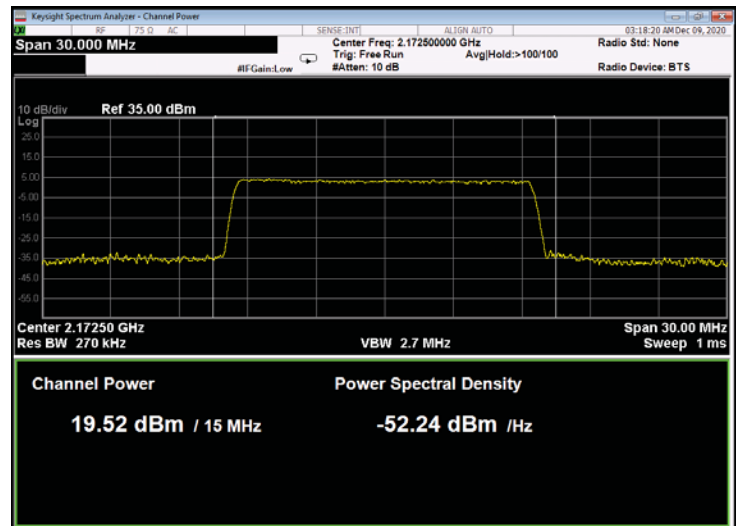


Figure 230: QPSK 15MHz B.W.; 2172.5MHz, 60kHz

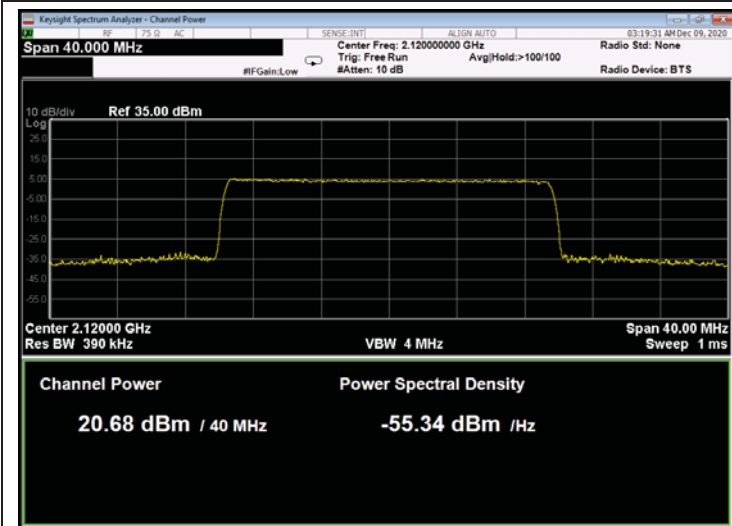


Figure 231: QPSK 20MHz B.W.; 2120.0MHz, 15kHz

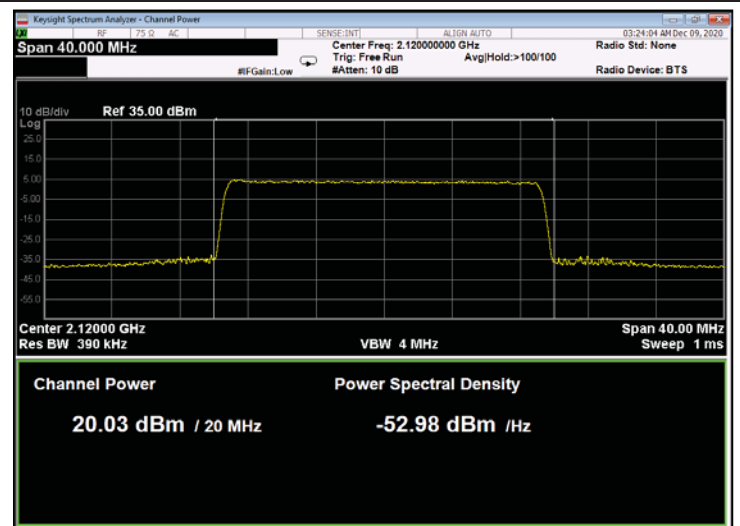


Figure 232: QPSK 20MHz B.W.; 2120.0MHz, 30kHz

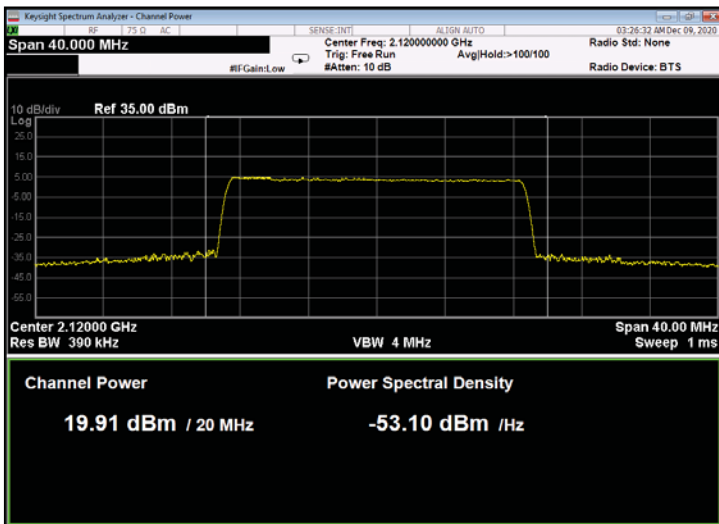


Figure 233: QPSK 20MHz B.W.; 2120.0MHz, 60kHz

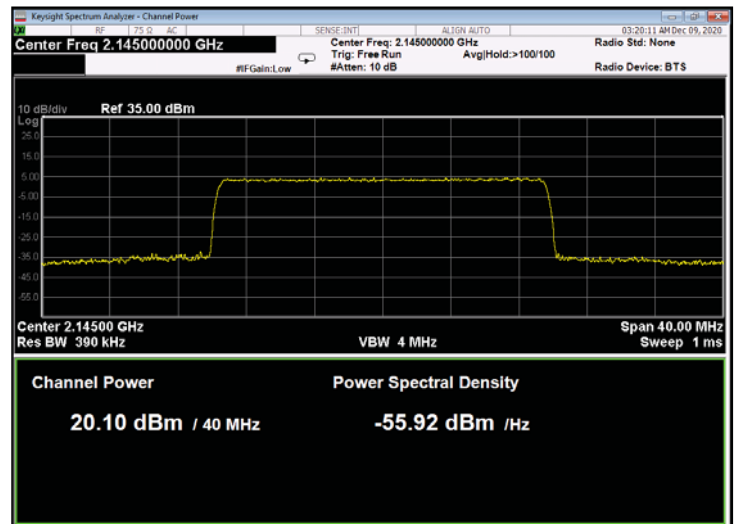


Figure 234: QPSK 20MHz B.W.; 2145.0MHz, 15kHz

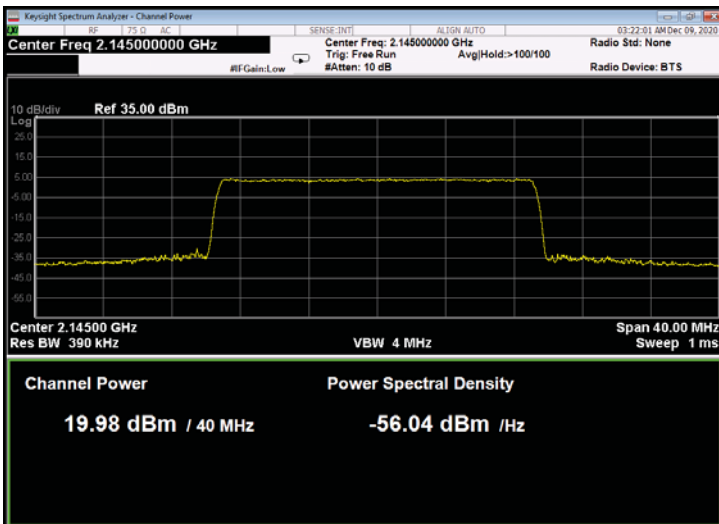


Figure 235: QPSK 20MHz B.W.; 2145.0MHz, 30kHz

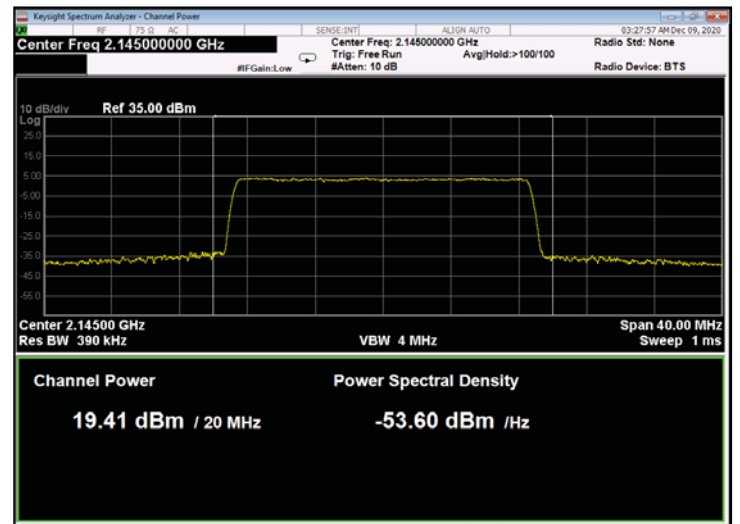


Figure 236: QPSK 20MHz B.W.; 2145.0MHz, 60kHz

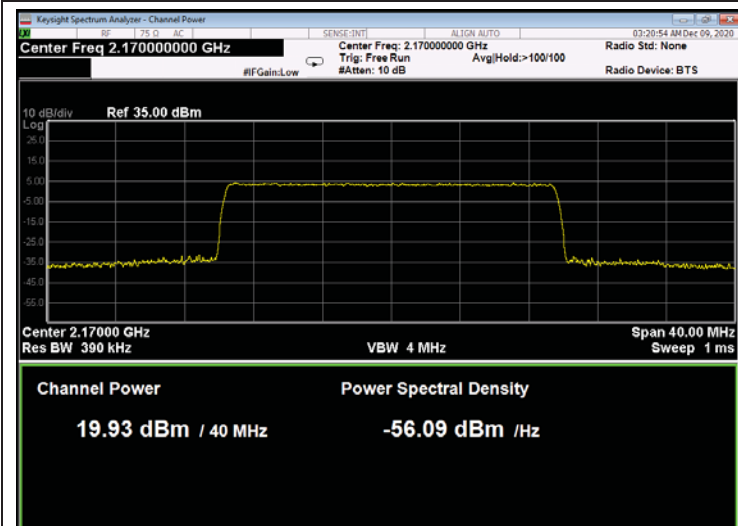


Figure 237: QPSK 20MHz B.W.; 2170.0MHz, 15kHz

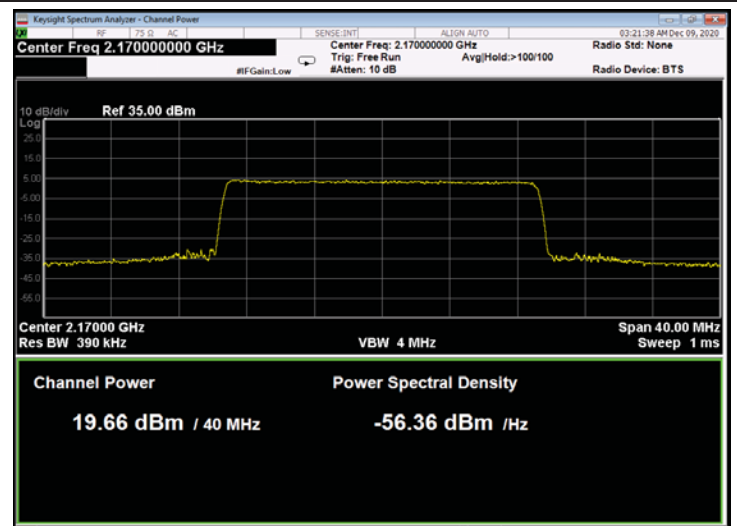


Figure 238: QPSK 20MHz B.W.; 2170.0MHz, 30kHz

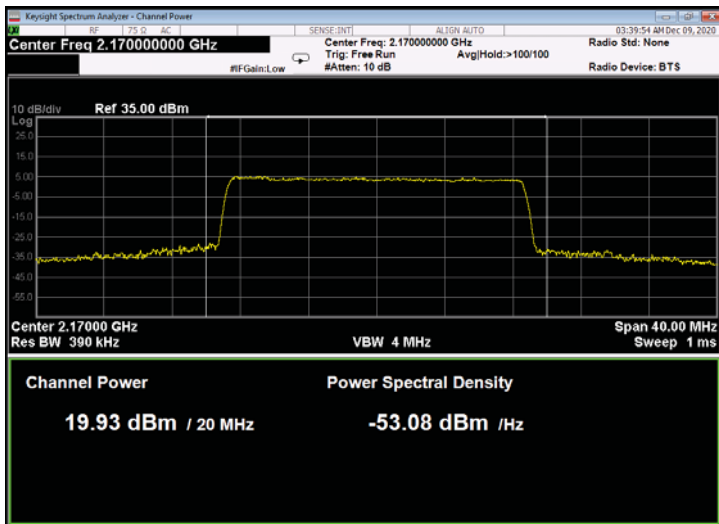


Figure 239: QPSK 20MHz B.W.; 2170.0MHz, 60kHz

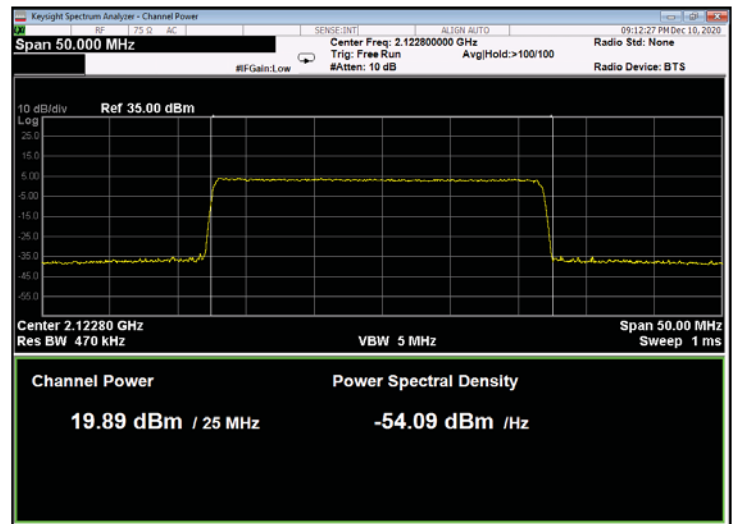


Figure 240: QPSK 25MHz B.W.; 2122.5MHz, 15kHz

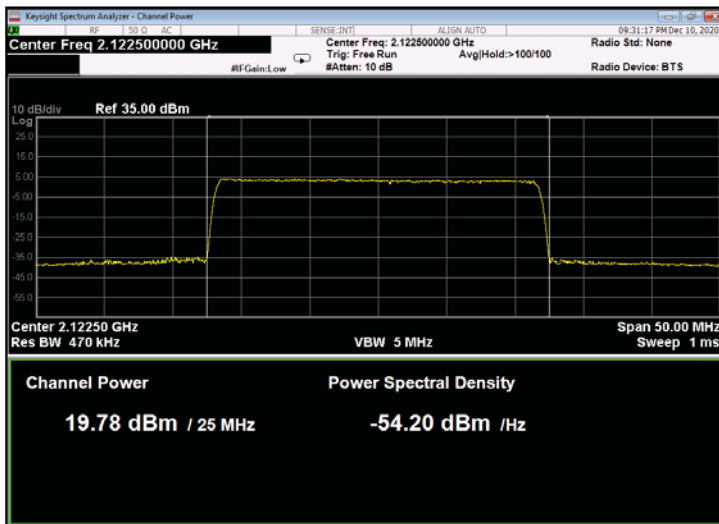


Figure 241: QPSK 25MHz B.W.; 2122.5MHz, 30kHz

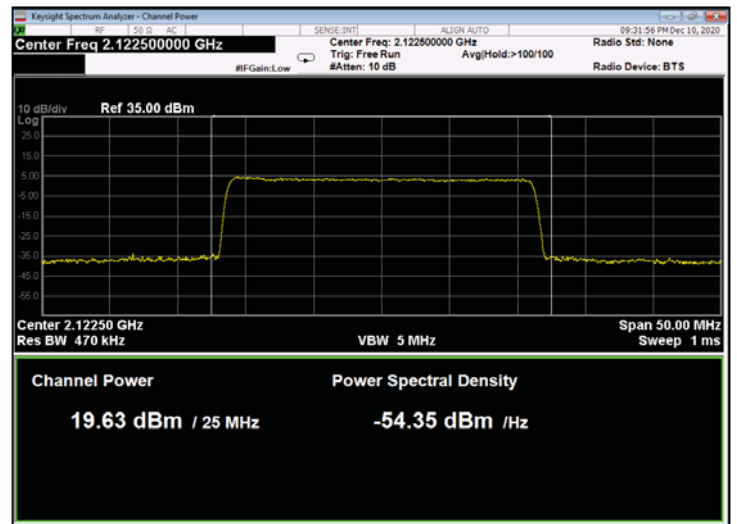


Figure 242: QPSK 25MHz B.W.; 2122.5MHz, 60kHz

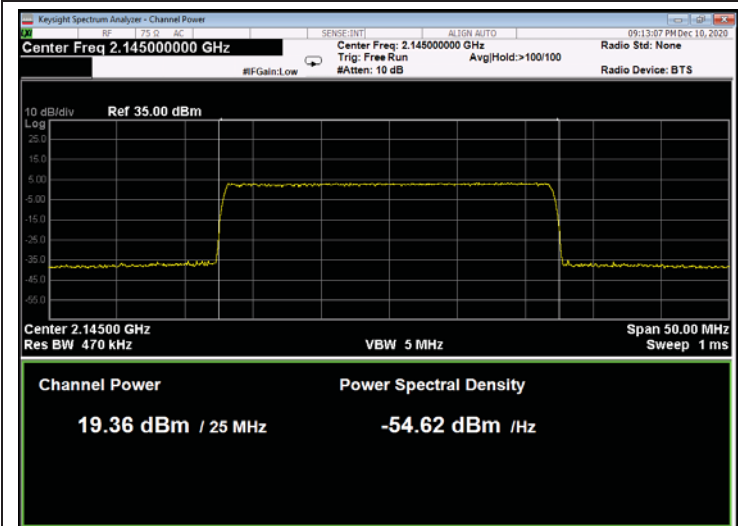


Figure 243: QPSK 25MHz B.W.; 2145.0MHz, 15kHz

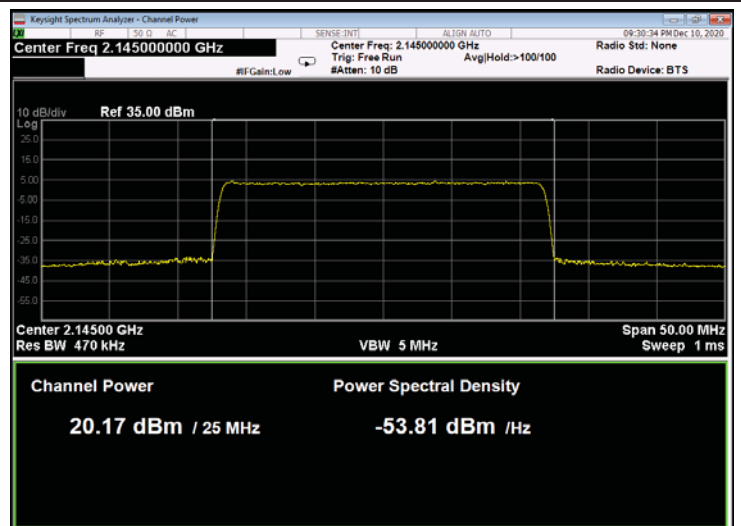


Figure 244: QPSK 25MHz B.W.; 2145.0MHz, 30kHz

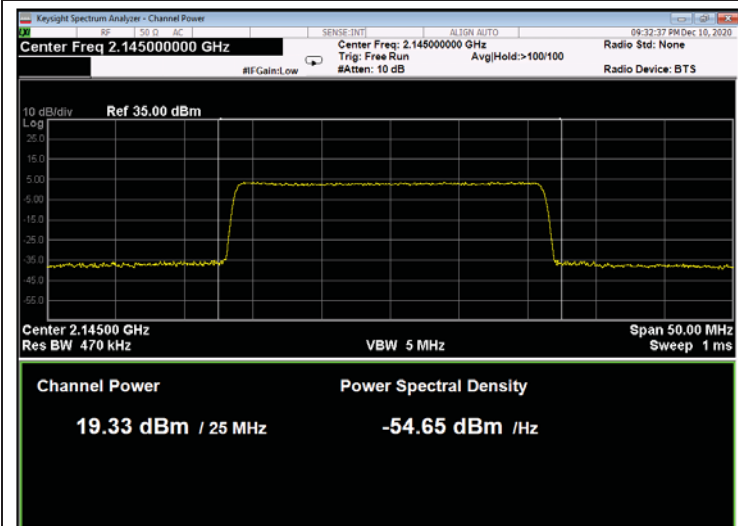


Figure 245: QPSK 25MHz B.W.; 2145.0MHz, 60kHz

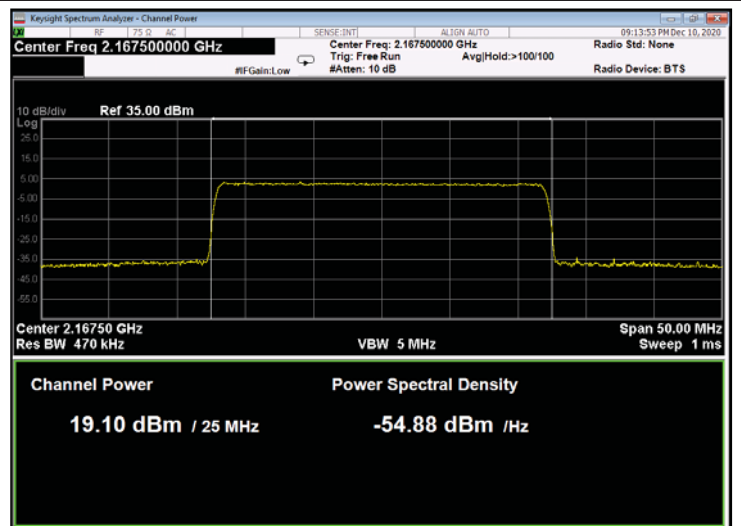


Figure 246: QPSK 25MHz B.W.; 2167.5MHz, 15kHz

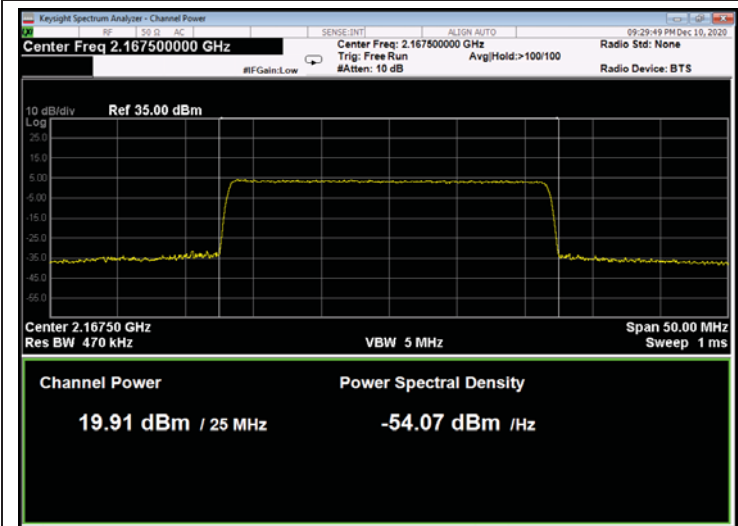


Figure 247: QPSK 25MHz B.W.; 2167.5MHz, 30kHz

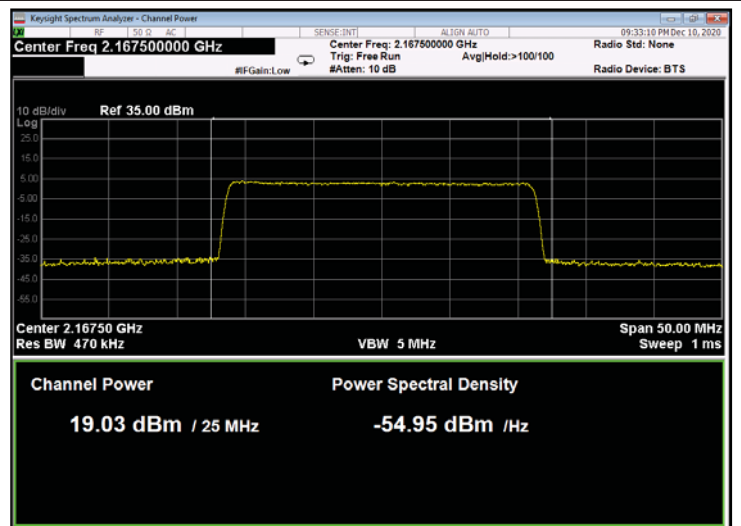


Figure 248: QPSK 25MHz B.W.; 2167.5MHz, 60kHz

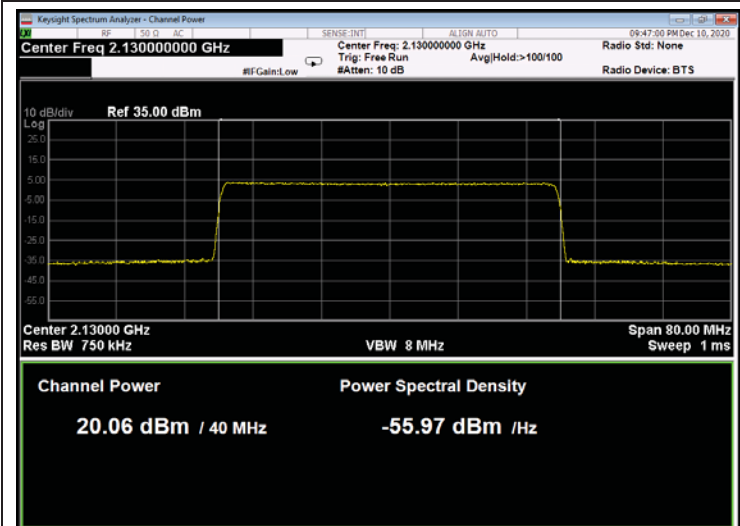


Figure 249: QPSK 40MHz B.W.; 2130.0MHz, 15kHz

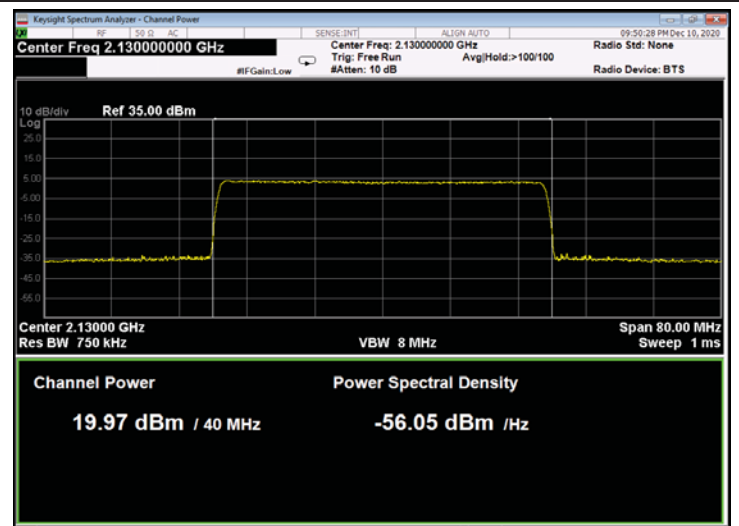


Figure 250: QPSK 40MHz B.W.; 2130.0MHz, 30kHz

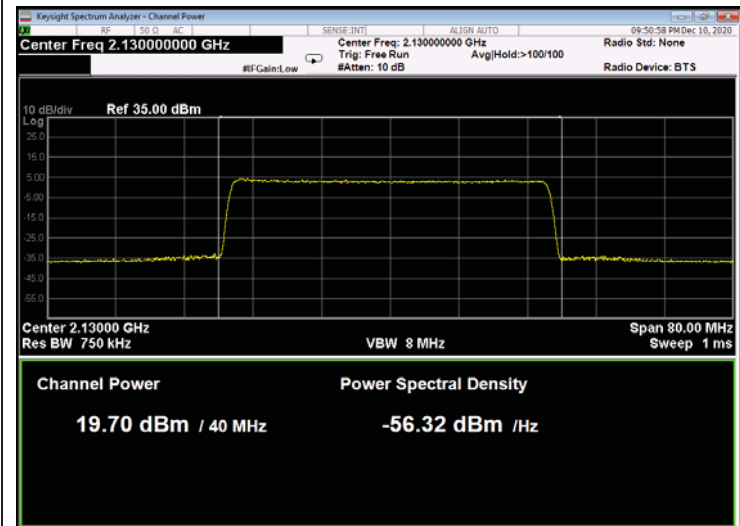


Figure 251: QPSK 40MHz B.W.; 2130.0MHz, 60kHz

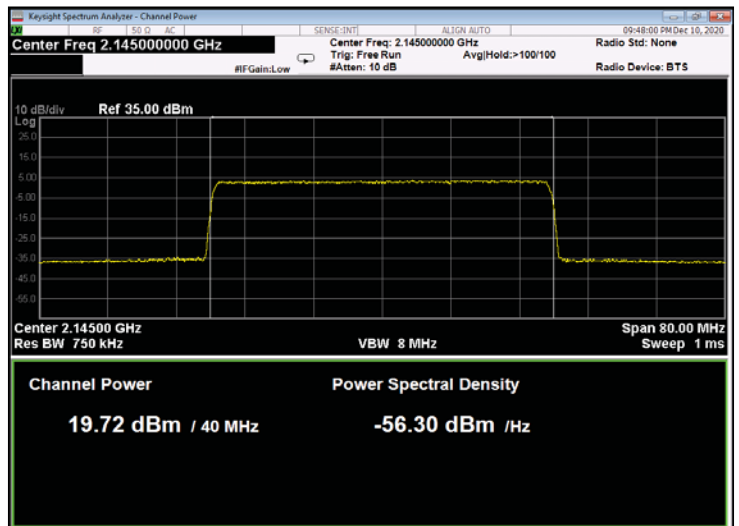


Figure 252: QPSK 40MHz B.W.; 2145.0MHz, 15kHz

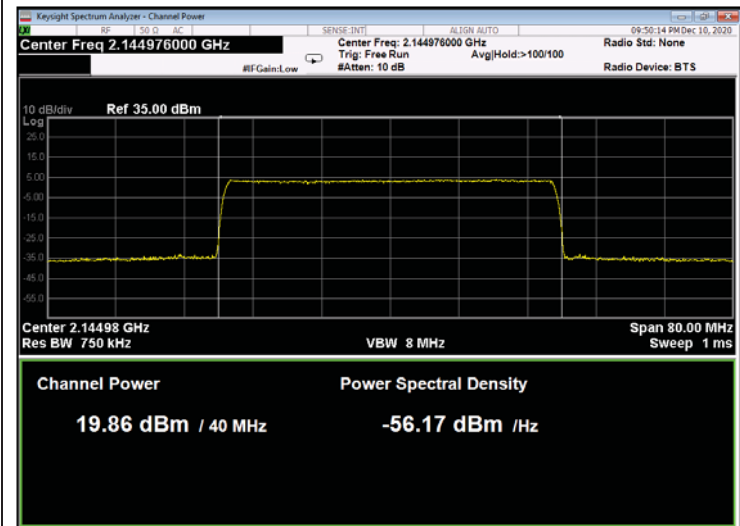


Figure 253: QPSK 40MHz B.W.; 2145.0MHz, 30kHz

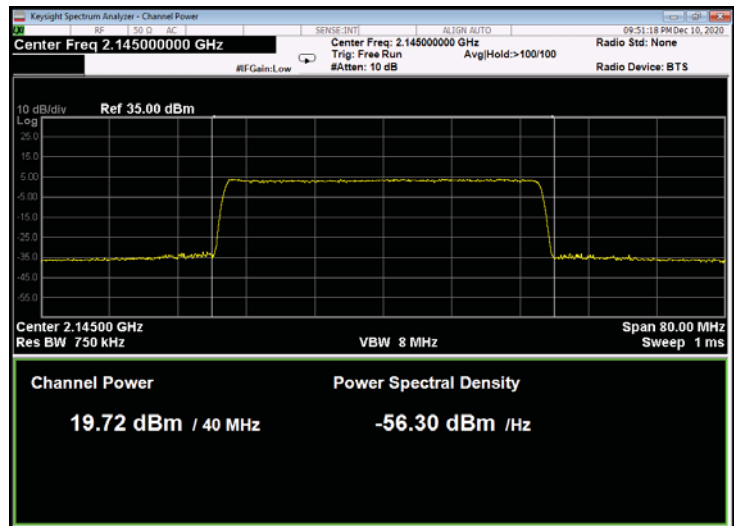


Figure 254: QPSK 40MHz B.W.; 2145.0MHz, 60kHz

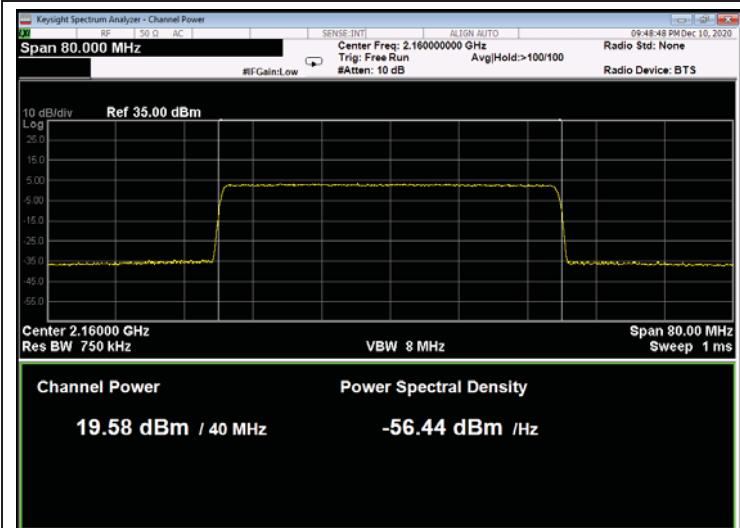


Figure 255: QPSK 40MHz B.W.; 2160.0MHz, 15kHz

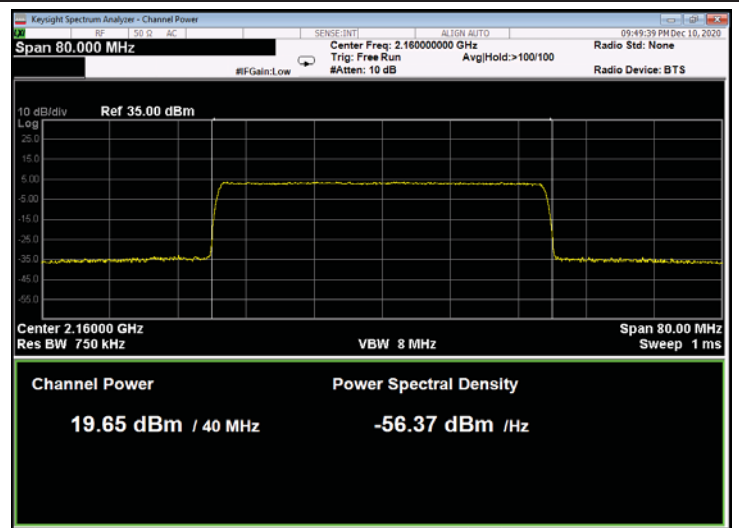


Figure 256: QPSK 40MHz B.W.; 2160.0MHz, 30kHz

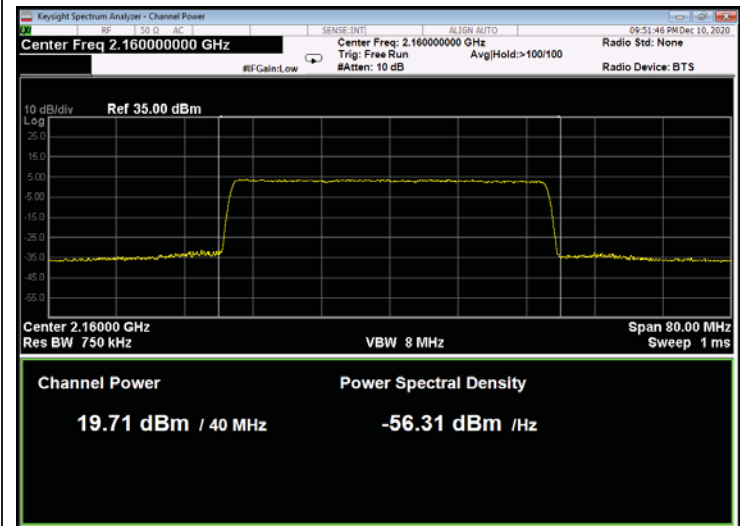


Figure 257: QPSK 40MHz B.W.; 2160.0MHz, 60kHz

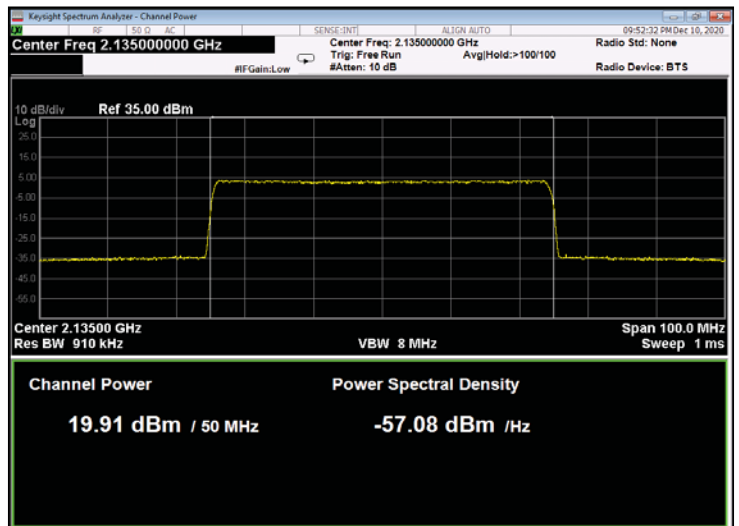


Figure 258: QPSK 50MHz B.W.; 2135.0MHz, 15kHz

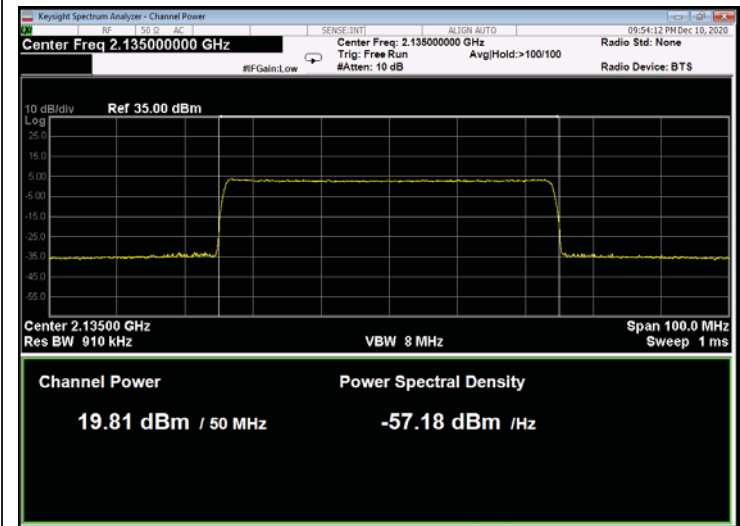


Figure 259: QPSK 50MHz B.W.; 2135.0MHz, 30kHz

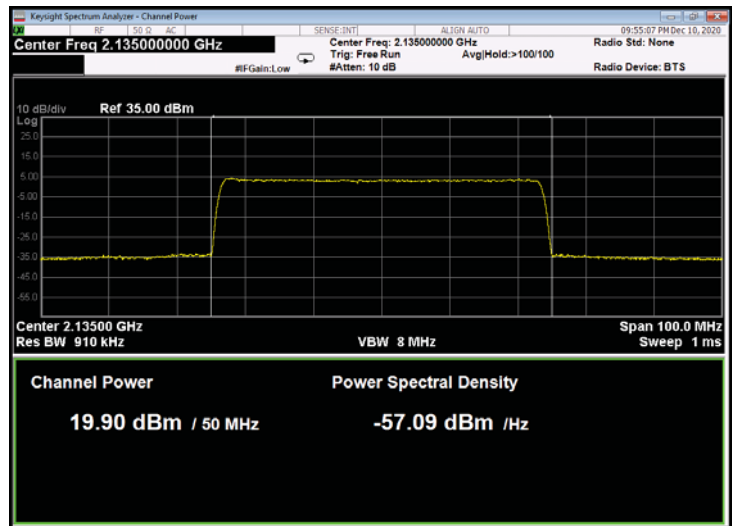


Figure 260: QPSK 50MHz B.W.; 2135.0MHz, 60kHz

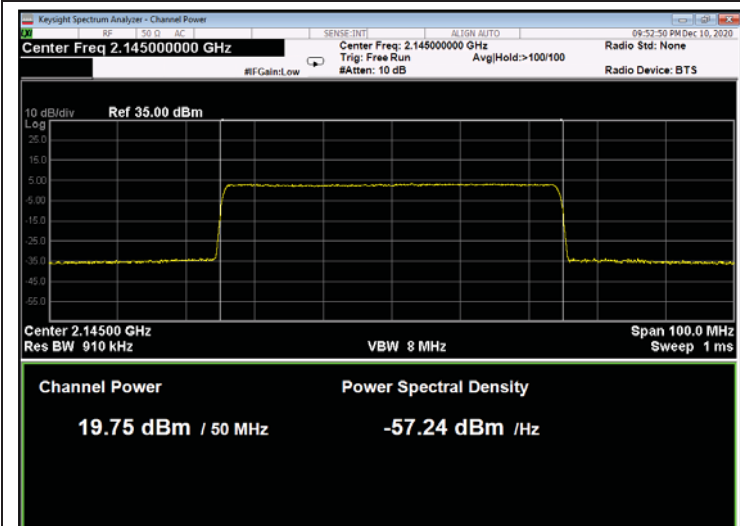


Figure 261: QPSK 50MHz B.W.; 2145.0MHz, 15kHz

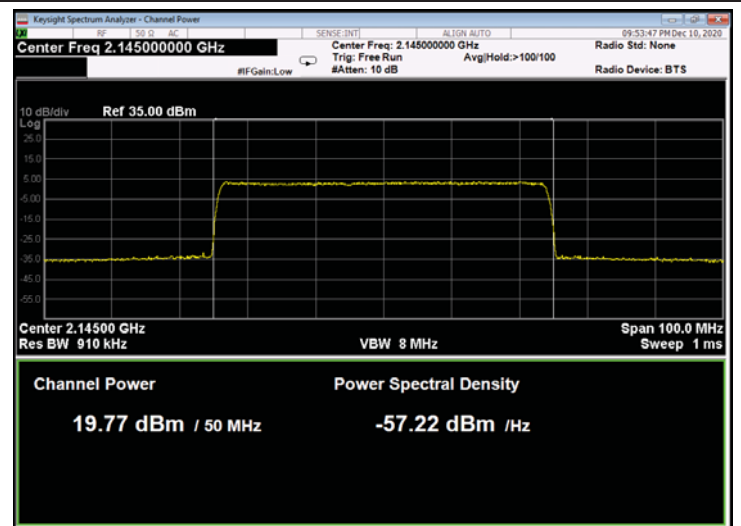


Figure 262: QPSK 50MHz B.W.; 2145.0MHz, 30kHz

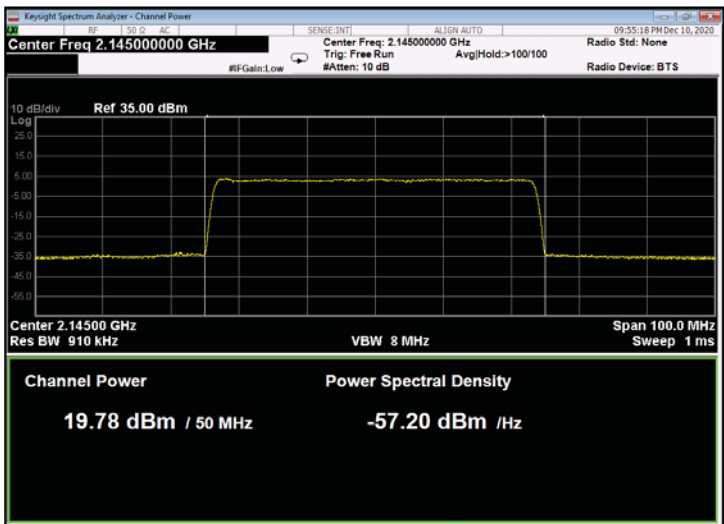


Figure 263: QPSK 50MHz B.W.; 2145.0MHz, 60kHz

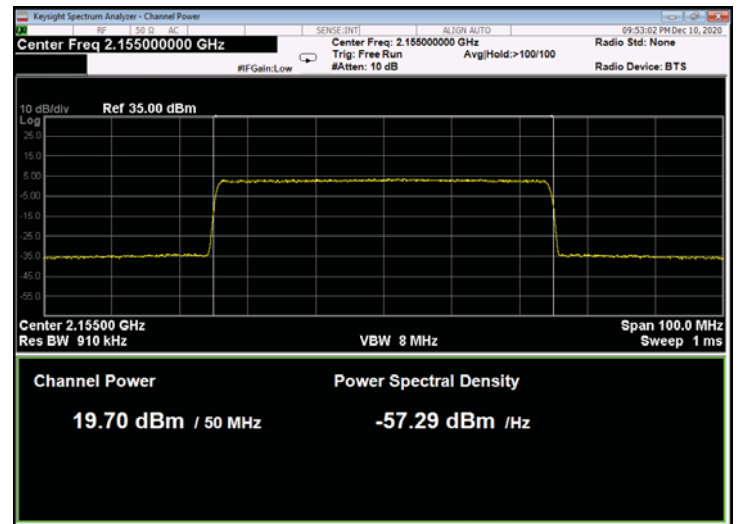


Figure 264: QPSK 50MHz B.W.; 2155.0MHz, 15kHz

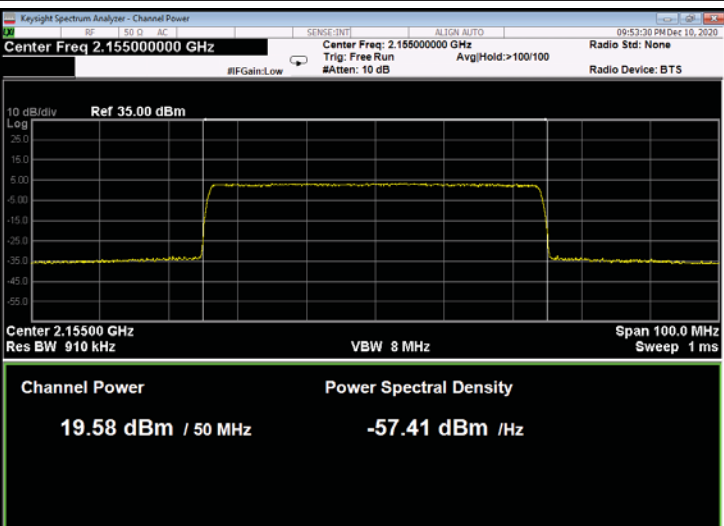


Figure 265: QPSK 50MHz B.W.; 2155.0MHz, 30kHz

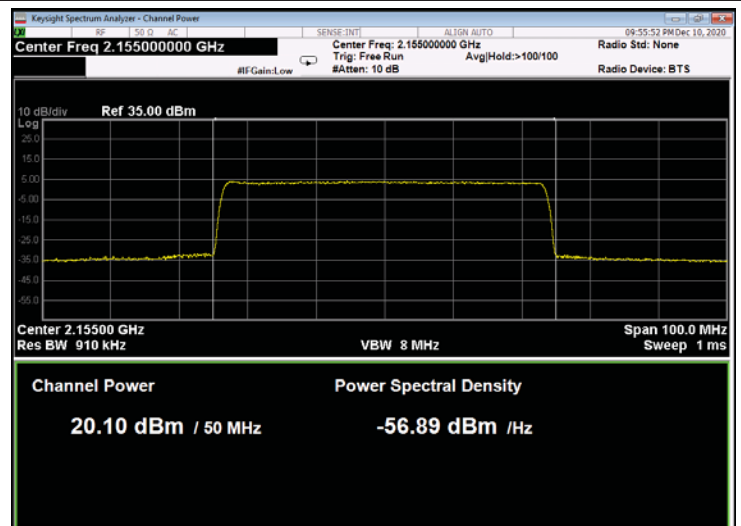


Figure 266: QPSK 50MHz B.W.; 2155.0MHz, 60kHz

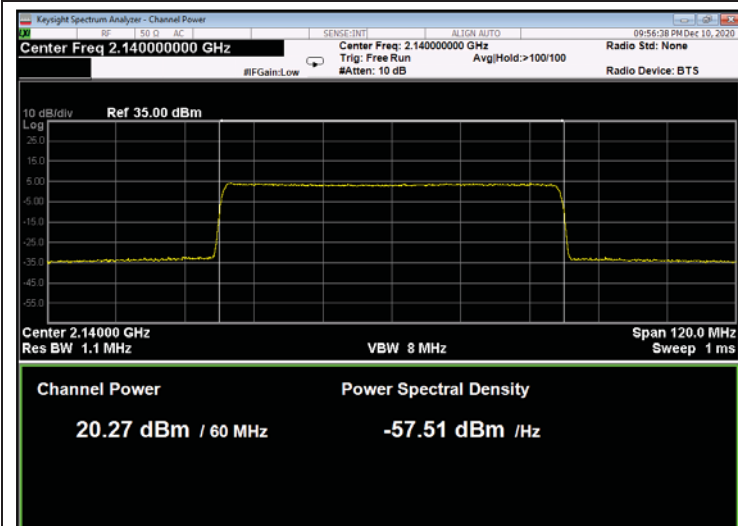


Figure 267: QPSK 60MHz B.W.; 2140.0MHz, 30kHz

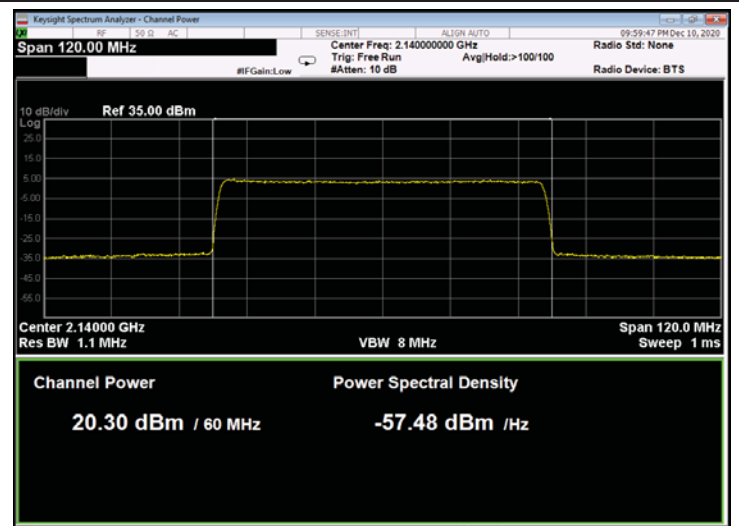


Figure 268: QPSK 60MHz B.W.; 2140.0MHz, 60kHz

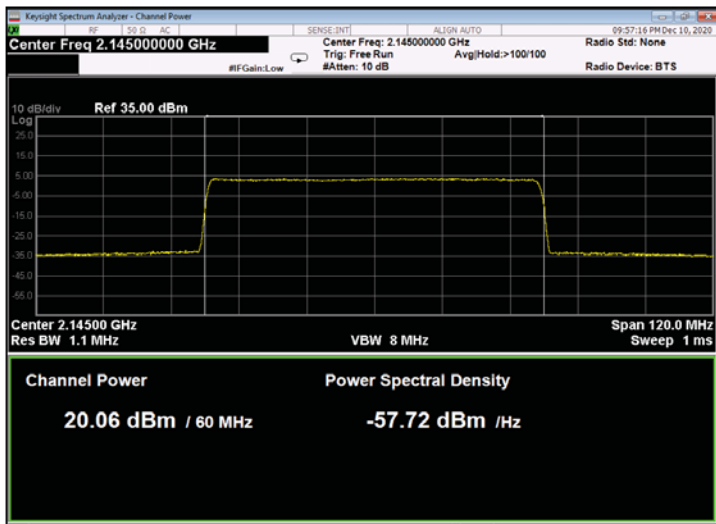


Figure 269: QPSK 60MHz B.W.; 2145MHz, 30kHz

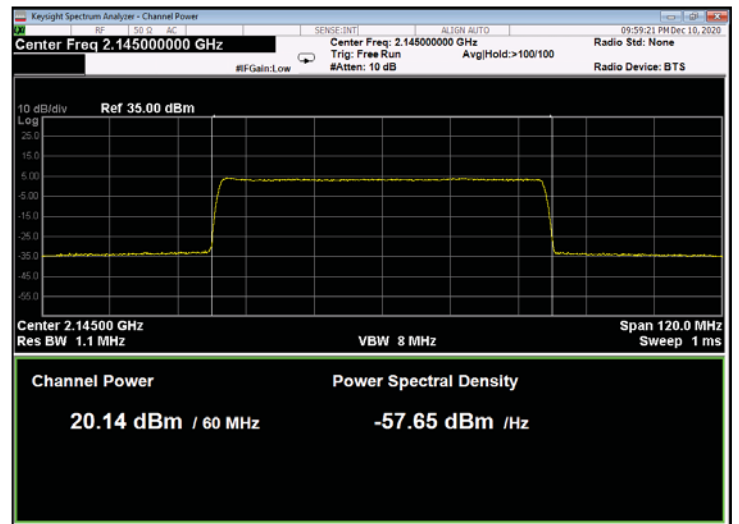


Figure 270: QPSK 60MHz B.W.; 2145MHz, 60kHz

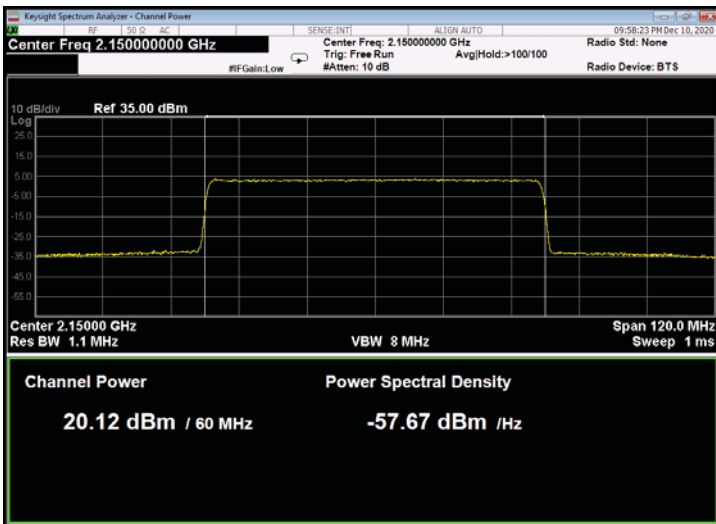


Figure 271: QPSK 60MHz B.W.; 2150.0MHz, 30kHz

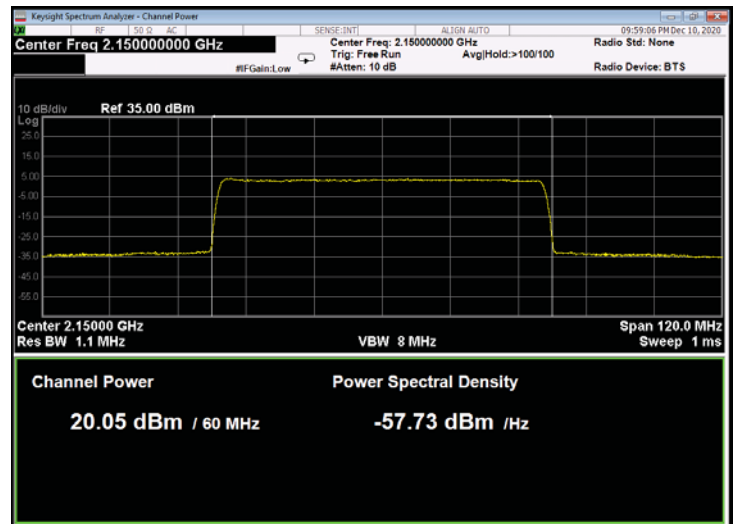


Figure 272: QPSK 60MHz B.W.; 2150.0MHz, 60kHz



4.5 Test Equipment Used; RF Power Output

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibration Date	Next Calibration Due
EXA Signal Analyzer	Agilent Technologies	N9010A	MY52220686	November 28, 2018	May 30, 2021
Vector Signal Generator	R&S	SMBV100B	1423.1003K02-101470-XE	October 2, 2019	October 2, 2022
40 dB Attenuator	Weinschel	WA 39-40-33	A1323	July 7, 2020	July 31, 2021
RF Cable	Huber Suhner	Sucofelex	27504/4PEA	August 23, 2020	August 31, 2021

Table 9 Test Equipment Used



5 Occupied Bandwidth

5.1 Test Specification

FCC Part 2, Section 1049

5.2 Test Procedure

(Temperature (20°C)/ Humidity (57%RH))

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable. The spectrum analyzer was set to proper resolution B.W.

OBW function (99%) was employed for this evaluation.

Occupied bandwidth measured was repeated for each modulation.

5.3 Test Limit

N/A

5.4 Test Results

JUDGEMENT: Passed

See additional information in *Table 10 to Table 25* and *Figure 273 to Figure 800*.

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	5	15	2112.5	4.4862
		30	2112.5	3.9431
		15	2145.0	4.4858
		30	2145.0	3.9445
		15	2177.5	4.4860
		30	2177.5	3.9437
	10	15	2115.0	9.2458
			2115.0	8.5386
			2115.0	7.8838
		30	2145.0	9.2463
			2145.0	8.5389
			2145.0	7.8835
		60	2175.0	9.2455
			2175.0	8.5333
			2175.0	7.8832
	15	15	2117.5	14.159
			2117.5	13.664
			2117.5	12.917
		30	2145.0	14.170
			2145.0	13.666
			2145.0	12.918
		60	2172.5	14.152
			2172.5	13.662
			2172.5	12.915
	20	15	2120.0	18.991
			2120.0	18.332
			2120.0	17.150
		30	2145.0	19.000
			2145.0	18.312
			2145.0	17.155
		60	2170.0	19.005
			2170.0	18.322
			2170.0	17.142
	25	15	2122.5	23.794
			2122.5	23.299
			2122.5	22.291
		30	2145.0	23.807
			2145.0	23.320
			2145.0	22.282
		60	2167.5	23.791
			2167.5	23.308
			2167.5	22.289

Table 10 Occupied Bandwidth 16QAM -Input



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	40	15	2130.0	38.820
		30	2130.0	37.945
		60	2130.0	36.613
		15	2145.0	38.845
		30	2145.0	37.962
		60	2145.0	36.653
		15	2160.0	38.806
		30	2160.0	37.961
		60	2160.0	36.635
	50	15	2135.0	48.161
		30	2135.0	47.594
		60	2135.0	46.603
		15	2145.0	48.186
		30	2145.0	47.566
		60	2145.0	46.600
		15	2155.0	48.208
		30	2155.0	47.600
		60	2155.0	46.629
	60	30	2140.0	58.010
		60	2140.0	56.628
		30	2145.0	58.037
		60	2145.0	56.690
		30	2150.0	58.048
		60	2150.0	56.683

Table 11 Occupied Bandwidth 16QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	5	15	2112.5	4.4920
		30	2112.5	3.9450
		15	2145.0	4.4921
		30	2145.0	3.9440
		15	2177.5	4.4924
		30	2177.5	3.9423
	10	15	2115.0	9.3164
			2115.0	7.8879
			2115.0	14.146
		30	2145.0	9.3142
			2145.0	8.5909
			2145.0	7.8887
		60	2175.0	9.3164
			2175.0	8.5893
			2175.0	7.8876
	15	15	2117.5	14.145
			2117.5	13.592
			2117.5	12.893
		30	2145.0	14.140
			2145.0	13.605
			2145.0	12.896
		60	2172.5	14.146
			2172.5	13.603
			2172.5	12.893
	20	15	2120.0	18.967
			2120.0	18.232
			2120.0	17.186
		30	2145.0	18.975
			2145.0	18.236
			2145.0	17.225
		60	2170.0	18.976
			2170.0	18.240
			2170.0	17.185
	25	15	2122.5	23.798
			2122.5	23.253
			2122.5	22.194
		30	2145.0	23.802
			2145.0	23.260
			2145.0	22.219
		60	2167.5	23.788
			2167.5	23.265
			2167.5	22.211

Table 12 Occupied Bandwidth – 64QAM -Input



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	40	15	2130.0	38.638
		30	2130.0	37.887
		60	2130.0	36.468
		15	2145.0	38.660
		30	2145.0	37.906
		60	2145.0	36.479
		15	2160.0	38.666
		30	2160.0	37.892
		60	2160.0	36.488
	50	15	2135.0	48.319
		30	2135.0	47.544
		60	2135.0	46.510
		15	2145.0	48.343
		30	2145.0	47.550
		60	2145.0	46.528
		15	2155.0	48.351
		30	2155.0	47.554
		60	2155.0	46.533
	60	30	2140.0	57.994
		60	2140.0	56.582
		30	2145.0	58.009
		60	2145.0	56.561
		30	2150.0	58.029
		60	2150.0	56.600

Table 13 Occupied Bandwidth 64QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	5	15	2112.5	4.4961
		30	2112.5	3.9423
		15	2145.0	4.4963
		30	2145.0	3.9418
		15	2177.5	4.4965
		30	2177.5	3.9410
	10	15	2115.0	9.2927
			2115.0	8.5863
			2115.0	7.8841
		30	2145.0	9.3018
			2145.0	8.5874
			2145.0	7.8845
		60	2175.0	9.3024
			2175.0	8.5863
			2175.0	7.8841
	15	15	2117.5	14.146
			2117.5	13.615
			2117.5	12.943
		30	2145.0	14.147
			2145.0	13.607
			2145.0	12.951
		60	2172.5	14.146
			2172.5	13.615
			2172.5	12.946
	20	15	2120.0	18.956
			2120.0	18.261
			2120.0	17.168
		30	2145.0	18.956
			2145.0	18.260
			2145.0	17.171
		60	2170.0	18.970
			2170.0	18.260
			2170.0	17.167
	25	15	2122.5	23.788
			2122.5	23.267
			2122.5	22.167
		30	2145.0	23.820
			2145.0	23.270
			2145.0	22.170
		60	2167.5	23.823
			2167.5	23.265
			2167.5	22.170

Table 14 Occupied Bandwidth 256QAM - Input



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	40	15	2130.0	38.586
		30	2130.0	37.842
		60	2130.0	36.481
		15	2145.0	38.602
		30	2145.0	37.884
		60	2145.0	36.487
		15	2160.0	38.601
		30	2160.0	37.875
		60	2160.0	36.489
	50	15	2135.0	48.253
		30	2135.0	47.598
		60	2135.0	46.485
		15	2145.0	48.267
		30	2145.0	47.574
		60	2145.0	46.491
		15	2155.0	48.254
		30	2155.0	47.624
		60	2155.0	46.533
	60	30	2140.0	57.889
		60	2140.0	56.547
		30	2145.0	57.876
		60	2145.0	56.508
		30	2150.0	57.931
		60	2150.0	56.550

Table 15 Occupied Bandwidth 256QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	5	15	2112.5	4.4954
		30	2112.5	3.9670
		15	2145.0	4.4958
		30	2145.0	3.9676
		15	2177.5	4.4952
		30	2177.5	3.9679
	10	15	2115.0	9.3110
		30	2115.0	8.5963
		60	2115.0	7.9275
		15	2145.0	9.3117
		30	2145.0	8.5959
		60	2145.0	7.9250
		15	2175.0	9.3110
		30	2175.0	8.5981
		60	2175.0	7.9271
	15	15	2117.5	14.139
		30	2117.5	13.677
		60	2117.5	12.994
		15	2145.0	14.149
		30	2145.0	13.674
		60	2145.0	12.994
		15	2172.5	14.149
		30	2172.5	13.671
		60	2172.5	12.991
	20	15	2120.0	18.922
		30	2120.0	18.214
		60	2120.0	17.191
		15	2145.0	18.922
		30	2145.0	18.221
		60	2145.0	17.192
		15	2170.0	18.926
		30	2170.0	18.225
		60	2170.0	17.192
	25	15	2122.5	23.805
		30	2122.5	23.242
		60	2122.5	22.177
		15	2145.0	23.810
		30	2145.0	23.245
		60	2145.0	22.181
		15	2167.5	23.820
		30	2167.5	23.247
		60	2167.5	22.198

Table 16 Occupied Bandwidth QPSK - Input



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	40	15	2130.0	38.646
		30	2130.0	37.827
		60	2130.0	36.465
		15	2145.0	38.663
		30	2145.0	37.848
		60	2145.0	36.451
		15	2160.0	38.662
		30	2160.0	37.838
		60	2160.0	36.462
	50	15	2135.0	48.235
		30	2135.0	47.571
		60	2135.0	46.455
		15	2145.0	48.270
		30	2145.0	47.585
		60	2145.0	46.488
		15	2155.0	48.284
		30	2155.0	47.584
		60	2155.0	46.492
	60	30	2140.0	57.856
		60	2140.0	56.594
		30	2145.0	57.859
		60	2145.0	56.519
		30	2150.0	57.882
		60	2150.0	56.519

Table 17 Occupied Bandwidth QPSK - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	5	15	2112.5	4.8987
		30	2112.5	3.9936
		15	2145.0	4.8153
		30	2145.0	3.9789
		15	2177.5	4.9069
		30	2177.5	3.9836
	10	15	2115.0	10.556
		30	2115.0	9.4413
		60	2115.0	7.9993
		15	2145.0	10.253
		30	2145.0	9.2466
		60	2145.0	7.9240
		15	2175.0	11.556
		30	2175.0	9.3241
		60	2175.0	7.9344
	15	15	2117.5	14.612
		30	2117.5	13.934
		60	2117.5	14.050
		15	2145.0	14.550
		30	2145.0	14.990
		60	2145.0	13.418
		15	2172.5	14.636
		30	2172.5	14.509
		60	2172.5	13.215
	20	15	2120.0	21.548
		30	2120.0	19.285
		60	2120.0	19.515
		15	2145.0	21.345
		30	2145.0	19.015
		60	2145.0	19.473
		15	2170.0	21.745
		30	2170.0	18.537
		60	2170.0	19.139
	25	15	2122.5	26.558
		30	2122.5	25.029
		60	2122.5	23.173
		15	2145.0	25.531
		30	2145.0	25.062
		60	2145.0	23.167
		15	2167.5	27.063
		30	2167.5	25.521
		60	2167.5	26.418

Table 18 Occupied Bandwidth 16QAM -Output



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	40	15	2130.0	41.917
		30	2130.0	43.164
		60	2130.0	38.572
		15	2145.0	39.972
		30	2145.0	43.339
		60	2145.0	38.288
		15	2160.0	40.344
		30	2160.0	41.781
		60	2160.0	39.067
	50	15	2135.0	50.931
		30	2135.0	51.957
		60	2135.0	49.023
		15	2145.0	50.820
		30	2145.0	51.933
		60	2145.0	49.220
		15	2155.0	51.355
		30	2155.0	52.515
		60	2155.0	49.561
	60	30	2140.0	58.466
		60	2140.0	57.297
		30	2145.0	58.330
		60	2145.0	57.305
		30	2150.0	58.335
		60	2150.0	57.280

Table 19 Occupied Bandwidth 16QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	5	15	2112.5	4.5049
		30	2112.5	3.9541
		15	2145.0	4.4992
		30	2145.0	3.9493
		15	2177.5	4.5015
		30	2177.5	3.9479
	10	15	2115.0	9.3369
		30	2115.0	8.6216
		60	2115.0	7.8934
		15	2145.0	9.3276
		30	2145.0	8.6184
		60	2145.0	7.8879
		15	2175.0	9.3388
		30	2175.0	8.6206
		60	2175.0	7.9061
	15	15	2117.5	14.150
		30	2117.5	13.650
		60	2117.5	12.922
		15	2145.0	14.157
		30	2145.0	13.607
		60	2145.0	12.916
		15	2172.5	14.173
		30	2172.5	13.624
		60	2172.5	12.916
	20	15	2120.0	19.018
		30	2120.0	18.282
		60	2120.0	17.229
		15	2145.0	18.979
		30	2145.0	18.271
		60	2145.0	17.213
		15	2170.0	19.004
		30	2170.0	18.260
		60	2170.0	17.253
	25	15	2122.5	23.821
		30	2122.5	23.305
		60	2122.5	22.230
		15	2145.0	23.798
		30	2145.0	23.325
		60	2145.0	22.205
		15	2167.5	23.820
		30	2167.5	23.326
		60	2167.5	22.244

Table 20 Occupied Bandwidth – 64QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	40	15	2130.0	38.689
		30	2130.0	38.001
		60	2130.0	36.521
		15	2145.0	38.666
		30	2145.0	38.022
		60	2145.0	36.517
		15	2160.0	38.707
		30	2160.0	37.974
		60	2160.0	36.514
	50	15	2135.0	48.459
		30	2135.0	47.693
		60	2135.0	46.649
		15	2145.0	48.403
		30	2145.0	47.653
		60	2145.0	46.604
		15	2155.0	48.373
		30	2155.0	47.628
		60	2155.0	46.577
	60	30	2140.0	58.158
		60	2140.0	56.664
		30	2145.0	58.060
		60	2145.0	56.592
		30	2150.0	58.089
		60	2150.0	56.645

Table 21 Occupied Bandwidth 64QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	5	15	2112.5	4.5094
		30	2112.5	3.9495
		15	2145.0	4.5056
		30	2145.0	3.9439
		15	2177.5	4.5066
		30	2177.5	3.9495
	10	15	2115.0	9.3151
		30	2115.0	8.6144
		60	2115.0	7.8968
		15	2145.0	9.2954
		30	2145.0	8.6043
		60	2145.0	7.8882
		15	2175.0	9.3105
		30	2175.0	8.6166
		60	2175.0	7.8785
	15	15	2117.5	14.162
		30	2117.5	13.629
		60	2117.5	12.932
		15	2145.0	14.145
		30	2145.0	13.629
		60	2145.0	12.916
		15	2172.5	14.157
		30	2172.5	13.629
		60	2172.5	12.928
	20	15	2120.0	18.996
		30	2120.0	18.304
		60	2120.0	17.212
		15	2145.0	18.955
		30	2145.0	18.296
		60	2145.0	17.205
		15	2170.0	18.962
		30	2170.0	18.294
		60	2170.0	17.216
	25	15	2122.5	23.826
		30	2122.5	23.304
		60	2122.5	22.204
		15	2145.0	23.799
		30	2145.0	23.323
		60	2145.0	22.200
		15	2167.5	23.856
		30	2167.5	23.328
		60	2167.5	22.218

Table 22 Occupied Bandwidth 256QAM - Output



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	40	15	2130.0	38.671
		30	2130.0	37.952
		60	2130.0	36.591
		15	2145.0	38.656
		30	2145.0	37.906
		60	2145.0	36.564
		15	2160.0	38.605
		30	2160.0	37.972
		60	2160.0	36.528
	50	15	2135.0	48.367
		30	2135.0	47.667
		60	2135.0	46.648
		15	2145.0	48.345
		30	2145.0	47.585
		60	2145.0	46.598
		15	2155.0	48.337
		30	2155.0	47.595
		60	2155.0	46.569
	60	30	2140.0	57.961
		60	2140.0	56.662
		30	2145.0	58.018
		60	2145.0	56.640
		30	2150.0	57.996
		60	2150.0	56.618

Table 23 Occupied Bandwidth 256QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	5	15	2112.5	4.5244
		30	2112.5	3.9896
		15	2145.0	4.5070
		30	2145.0	3.9823
		15	2177.5	4.5100
		30	2177.5	3.9854
	10	15	2115.0	9.3230
			2115.0	8.6515
			2115.0	7.9647
		30	2145.0	9.3363
			2145.0	8.6520
			2145.0	7.9604
		60	2175.0	9.3374
			2175.0	14.129
			2175.0	13.723
	15	15	2117.5	13.014
			2117.5	14.138
			2117.5	13.700
		30	2145.0	14.138
			2145.0	13.700
			2145.0	13.026
		60	2172.5	14.133
			2172.5	13.722
			2172.5	13.017
	20	15	2120.0	18.975
			2120.0	18.282
			2120.0	17.287
		30	2145.0	18.978
			2145.0	18.273
			2145.0	17.275
		60	2170.0	19.008
			2170.0	18.271
			2170.0	17.281
	25	15	2122.5	23.942
			2122.5	23.349
			2122.5	22.272
		30	2145.0	23.873
			2145.0	23.331
			2145.0	22.252
		60	2167.5	23.870
			2167.5	23.338
			2167.5	22.319

Table 24 Occupied Bandwidth QPSK - Output



Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	40	15	2130.0	38.769
		30	2130.0	41.296
		60	2130.0	36.559
		15	2145.0	38.748
		30	2145.0	38.024
		60	2145.0	36.525
		15	2160.0	38.714
		30	2160.0	41.399
		60	2160.0	36.637
	50	15	2135.0	48.444
		30	2135.0	47.817
		60	2135.0	56.664
		15	2145.0	48.392
		30	2145.0	47.769
		60	2145.0	46.628
		15	2155.0	48.367
		30	2155.0	47.761
		60	2155.0	46.622
	60	30	2140.0	58.092
		60	2140.0	56.688
		30	2145.0	58.054
		60	2145.0	56.681
		30	2150.0	58.096
		60	2150.0	56.642

Table 25 Occupied Bandwidth QPSK - Output



INPUT

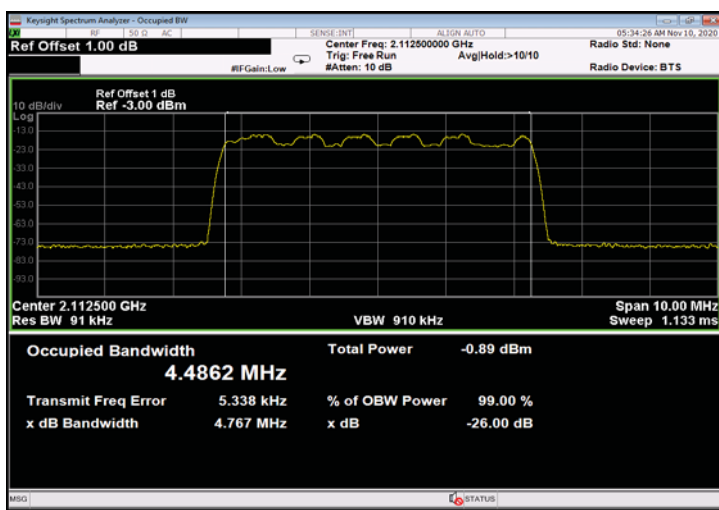


Figure 273: 16QAM 5MHz B.W.; 2112.5MHz, 15kHz - Input

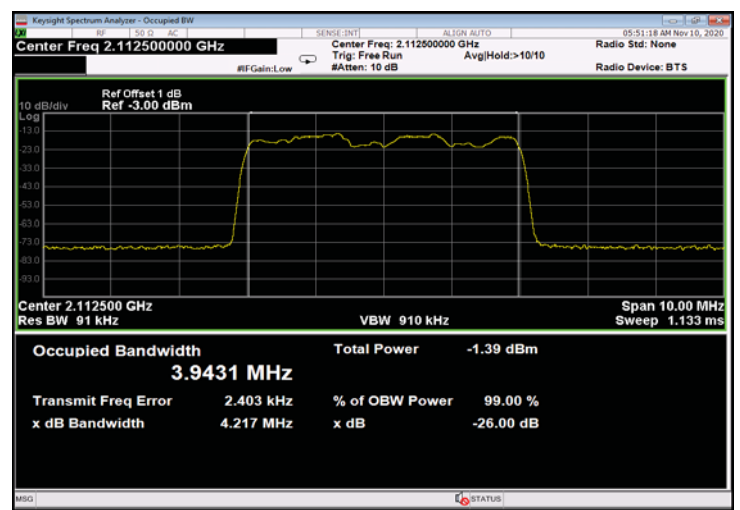


Figure 274: 16QAM 5MHz B.W.; 2112.5MHz, 30kHz - Input

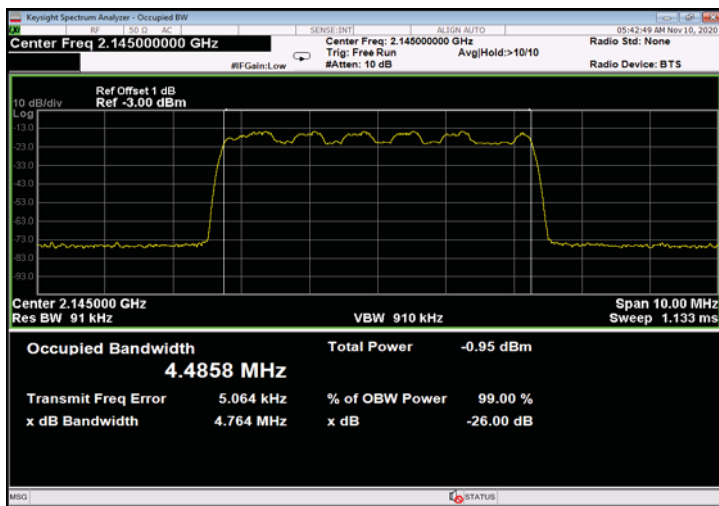


Figure 275: 16QAM 5MHz B.W.; 2145.0MHz, 15kHz - Input

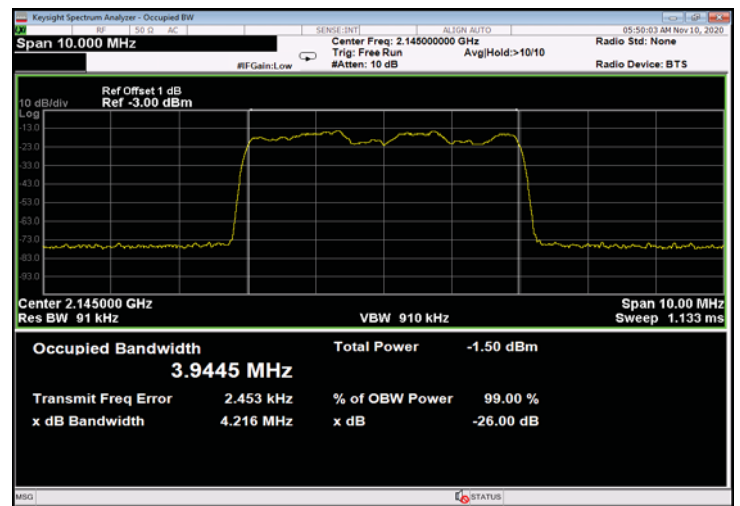


Figure 276: 16QAM 5MHz B.W.; 2145.0MHz, 30kHz - Input

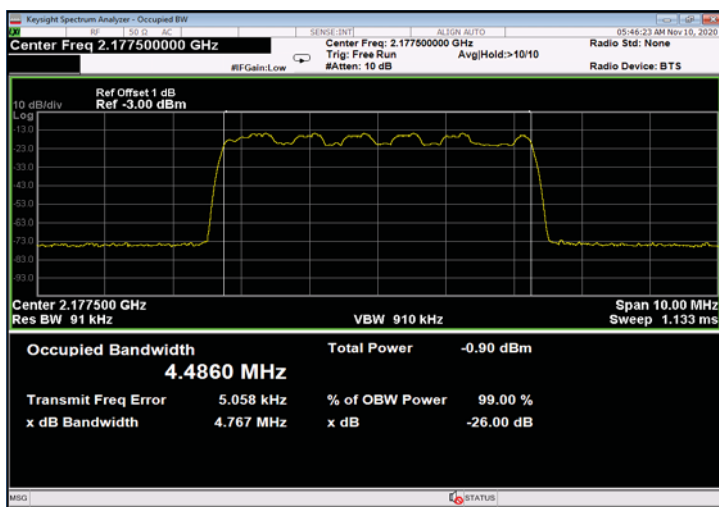


Figure 277: 16QAM 5MHz B.W.; 2177.5MHz, 15kHz - Input

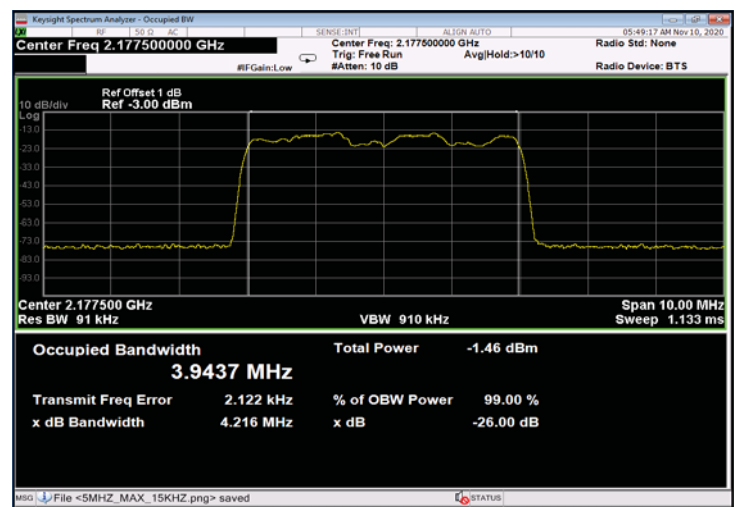


Figure 278: 16QAM 5MHz C.S; 2177.5MHz, 30kHz - Input

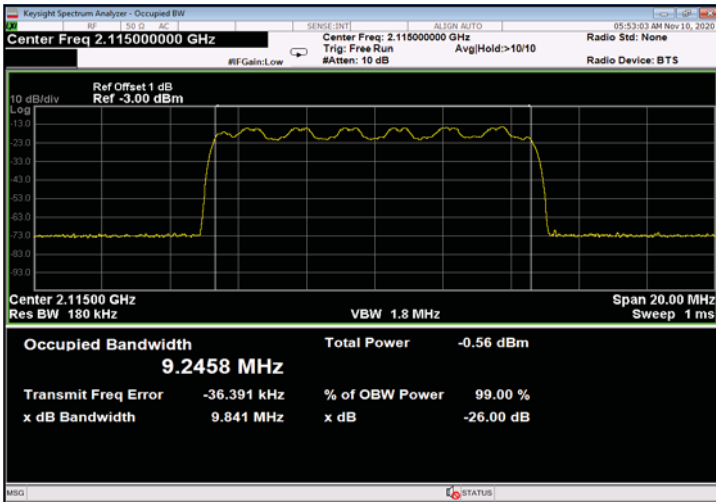


Figure 279: 16QAM 10MHz B.W.; 2115.0MHz, 15kHz - Input

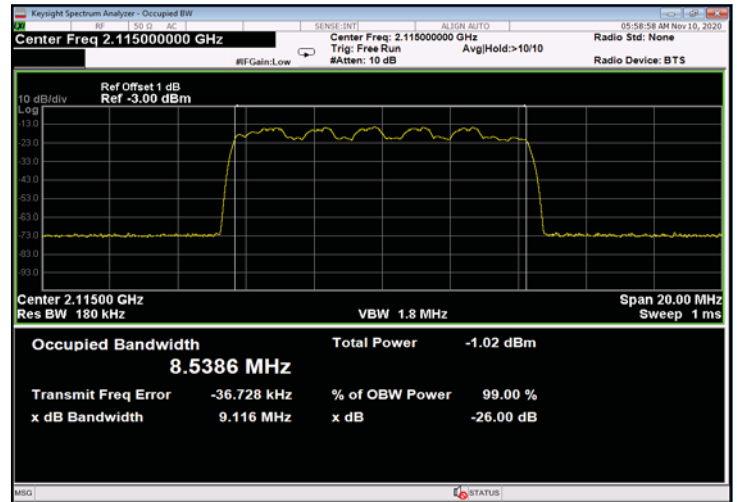


Figure 280: 16QAM 10MHz B.W.; 2115.0MHz, 30kHz - Input

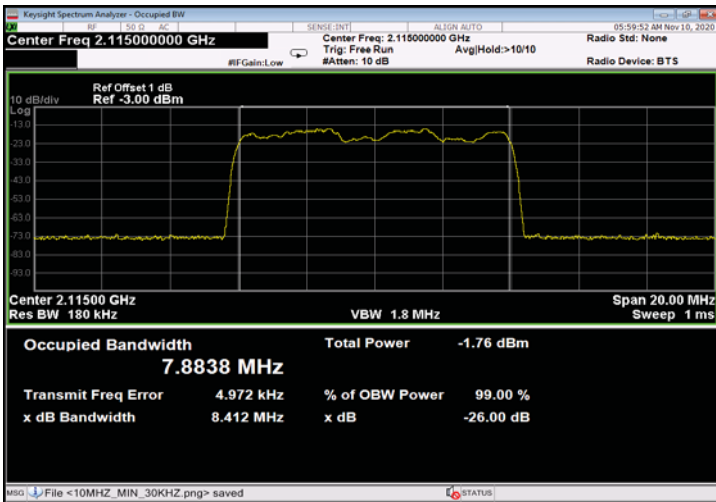


Figure 281: 16QAM 10MHz B.W.; 2115.0MHz, 60kHz - Input

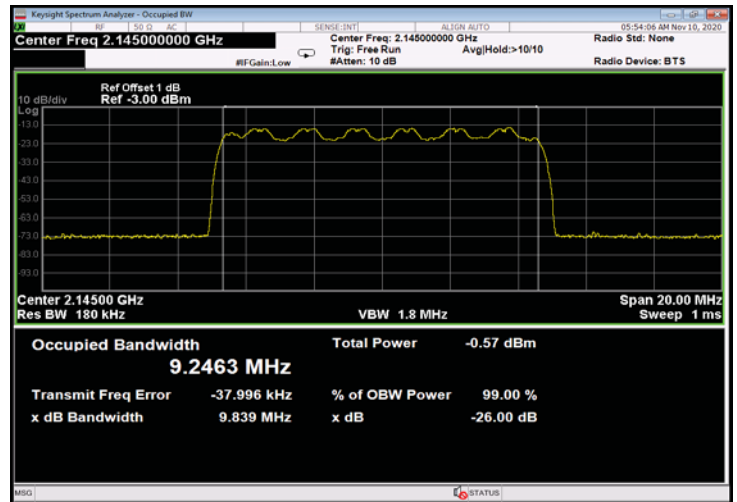


Figure 282: 16QAM 10MHz B.W.; 2145.0MHz, 15kHz - Input

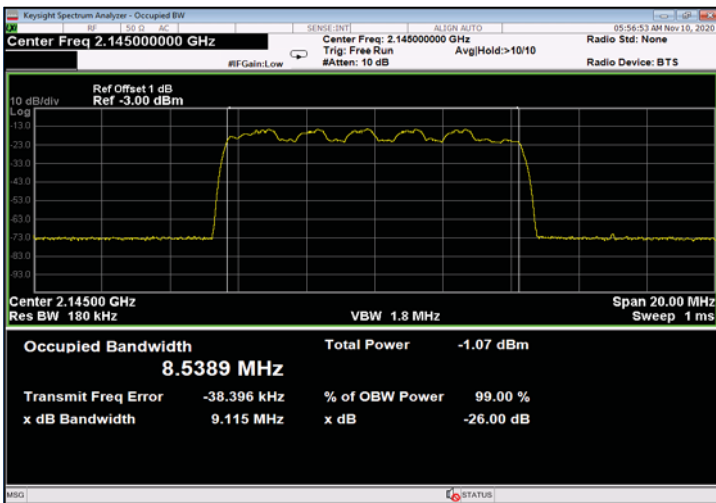


Figure 283: 16QAM 10MHz B.W.; 2145.0MHz, 30kHz - Input

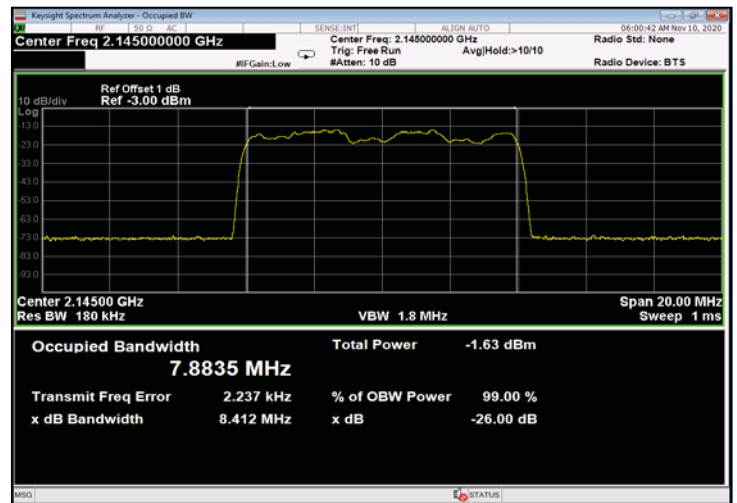


Figure 284: 16QAM 10MHz B.W.; 2145.0MHz, 60kHz - Input

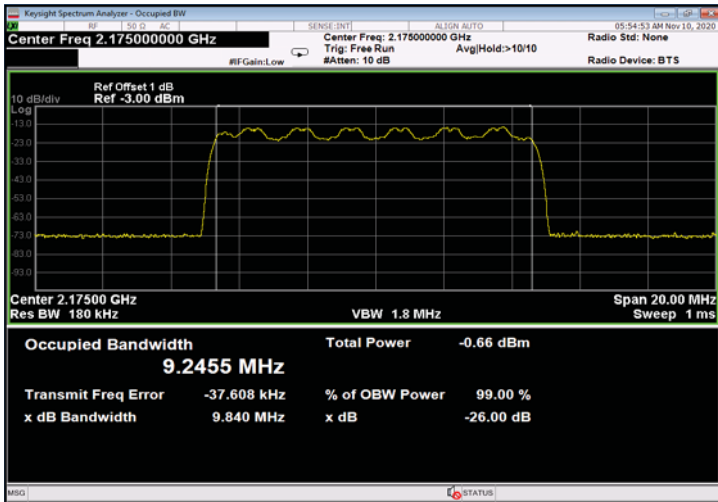


Figure 285: 16QAM 10MHz B.W.; 2175.0MHz, 15kHz - Input

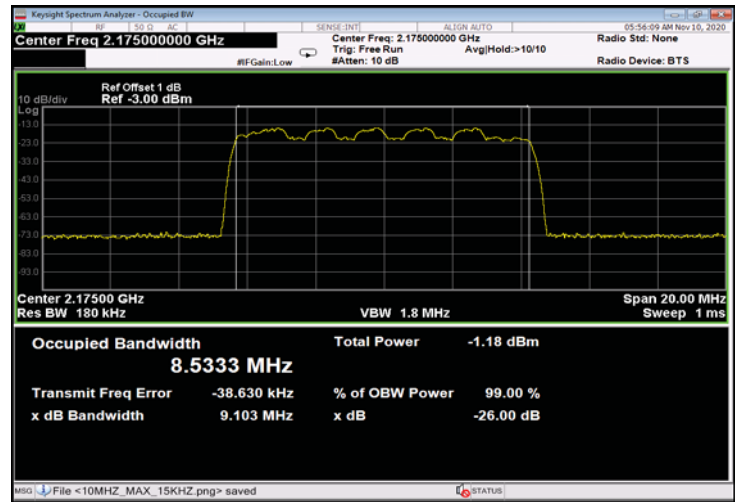


Figure 286: 16QAM 10MHz B.W.; 2175.0MHz, 30kHz - Input

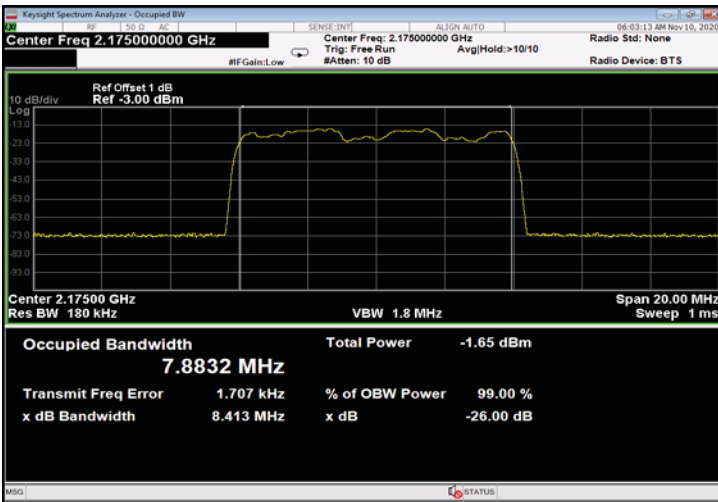


Figure 287: 16QAM 10MHz B.W.; 2175.0MHz, 60kHz - Input

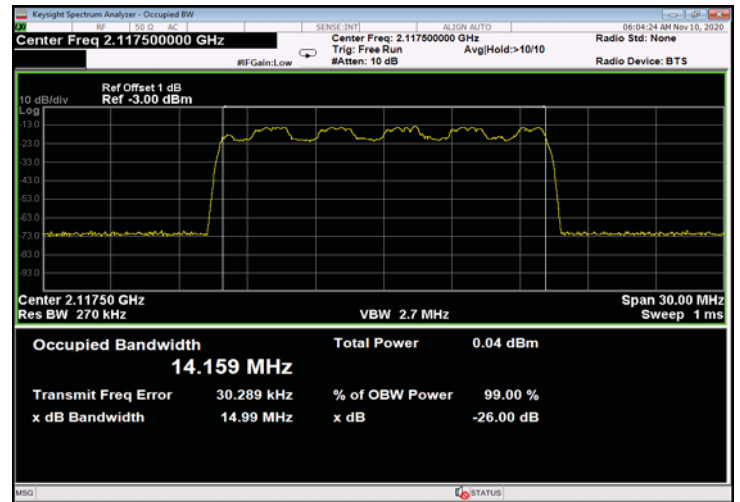


Figure 288: 16QAM 15MHz B.W.; 2117.5MHz, 15kHz - Input

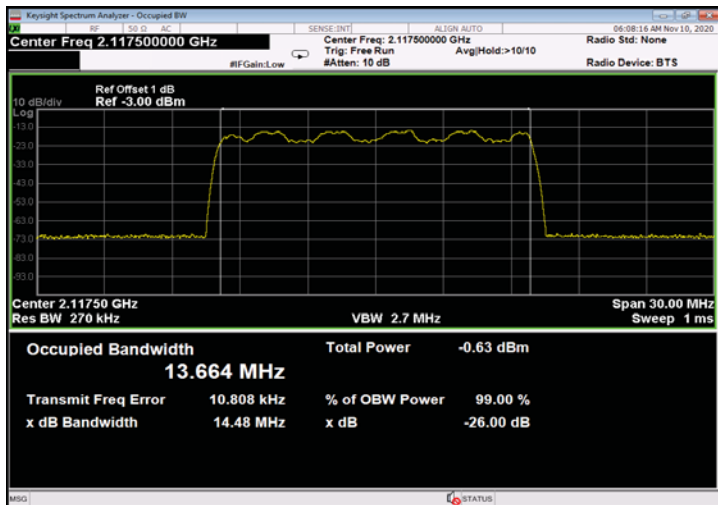


Figure 289: 16QAM 15MHz B.W.; 2117.5MHz, 30kHz - Input

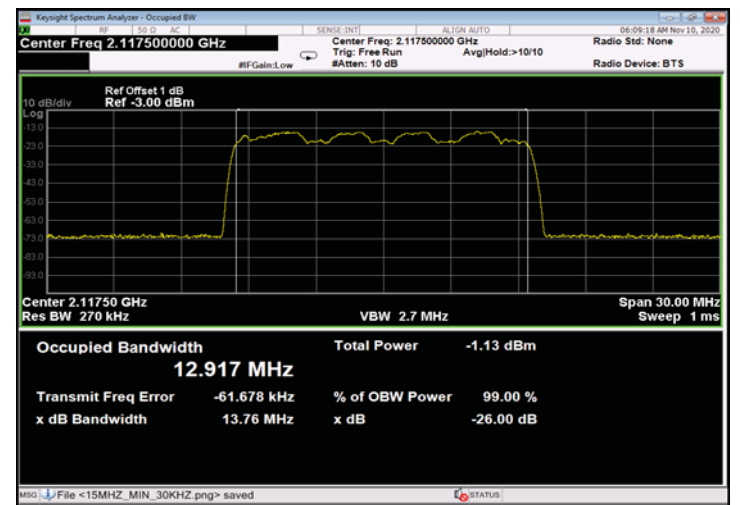


Figure 290: 16QAM 10MHz B.W.; 2117.5MHz, 60kHz - Input