

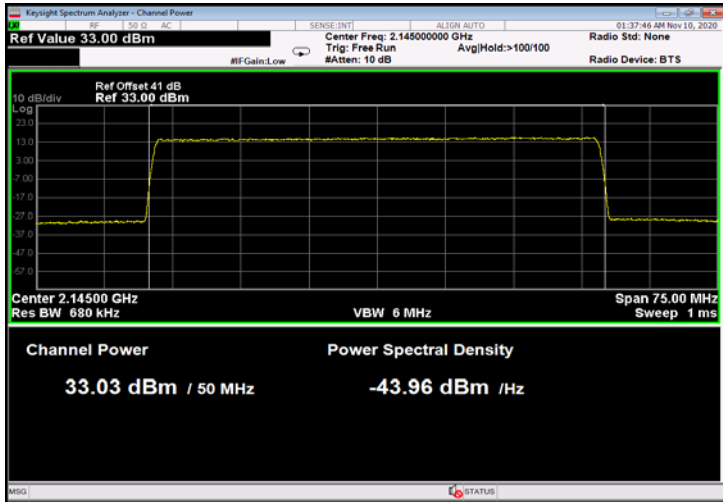


Figure 195: 256QAM 50MHz B.W.; 2145.0MHz, 15kHz

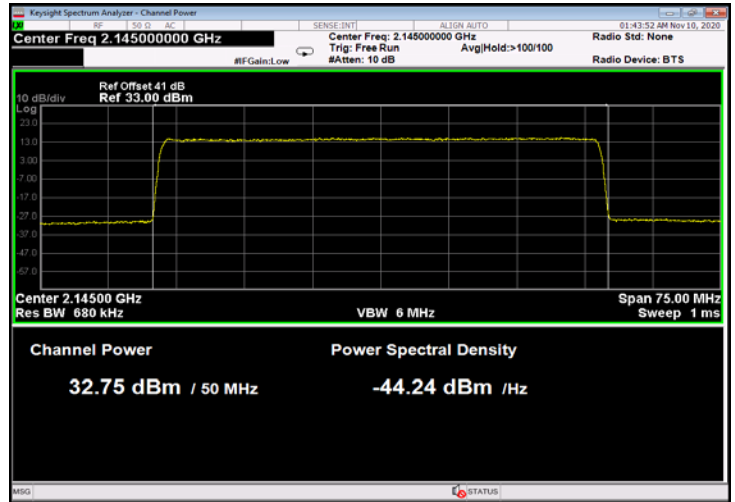


Figure 196: 256QAM 50MHz B.W.; 2145.0MHz, 30kHz

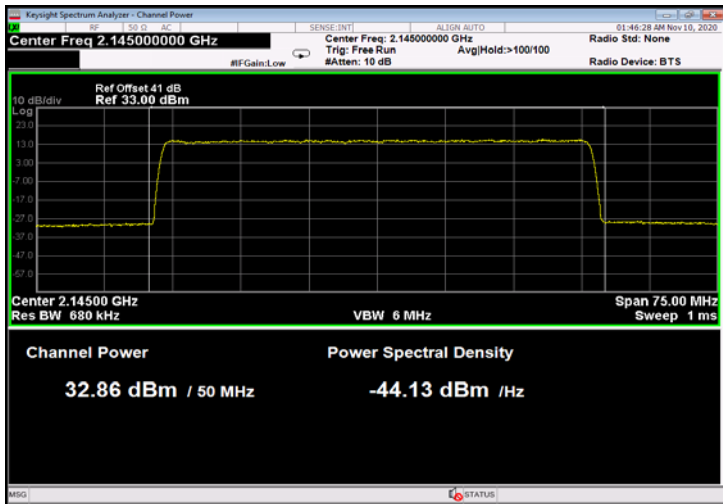


Figure 197: 256QAM 50MHz B.W.; 2145.0MHz, 60kHz

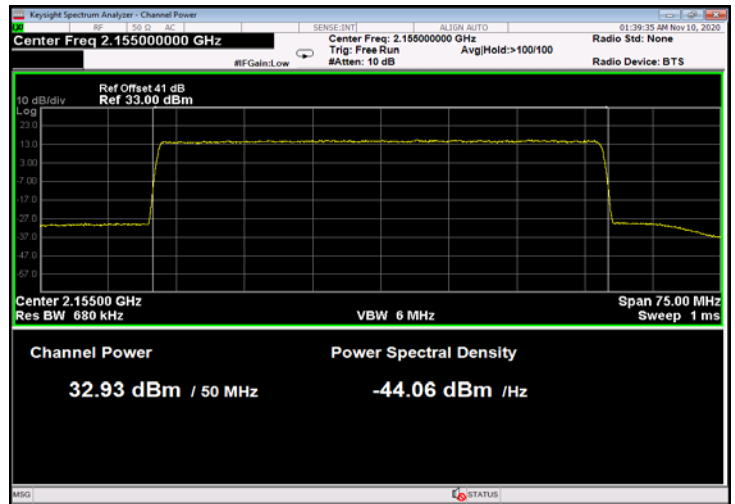


Figure 198: 256QAM 50MHz B.W.; 2155.0MHz, 15kHz

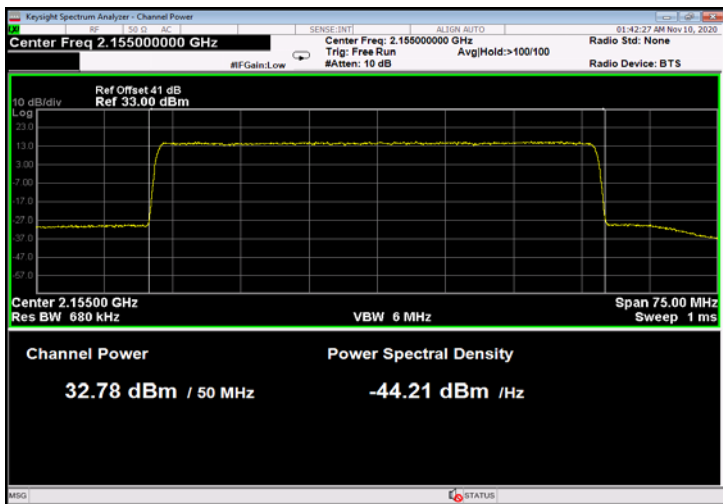


Figure 199: 256QAM 50MHz B.W.; 2155.0MHz, 30kHz

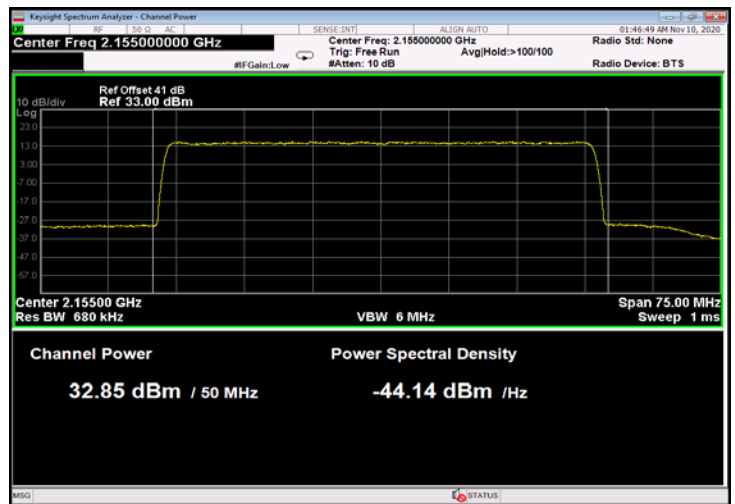


Figure 200: 256QAM 50MHz B.W.; 2155.0MHz, 60kHz

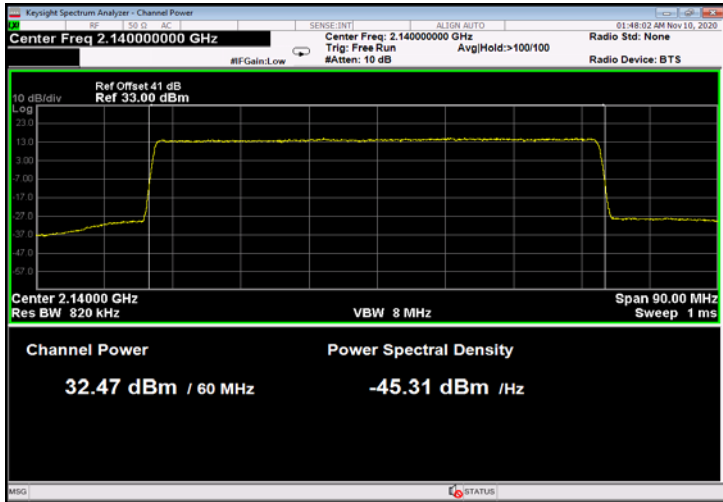


Figure 201: 256QAM 60MHz B.W.; 2140.0MHz, 30kHz

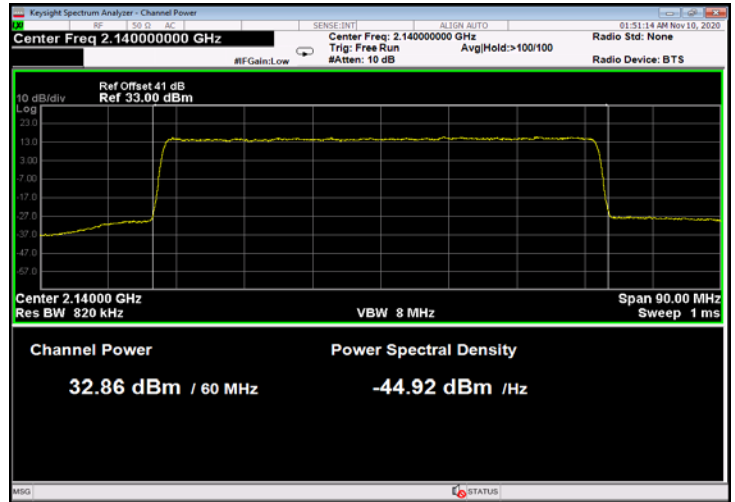


Figure 202: 256QAM 60MHz B.W.; 2140.0MHz, 60kHz

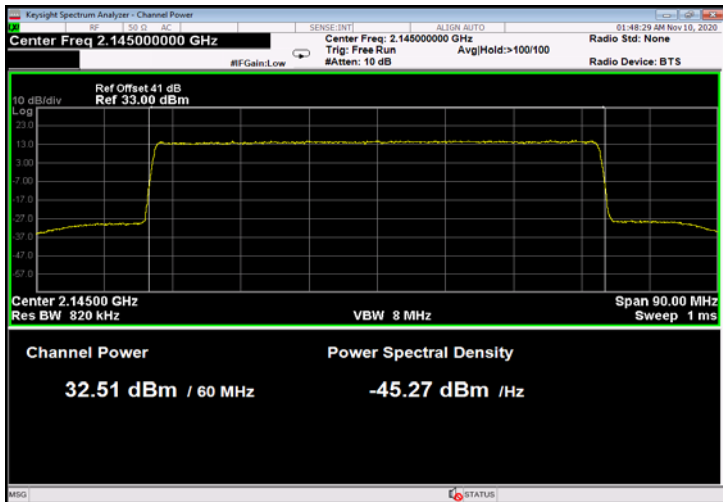


Figure 203: 256QAM 60MHz B.W.; 2145.0MHz, 30kHz

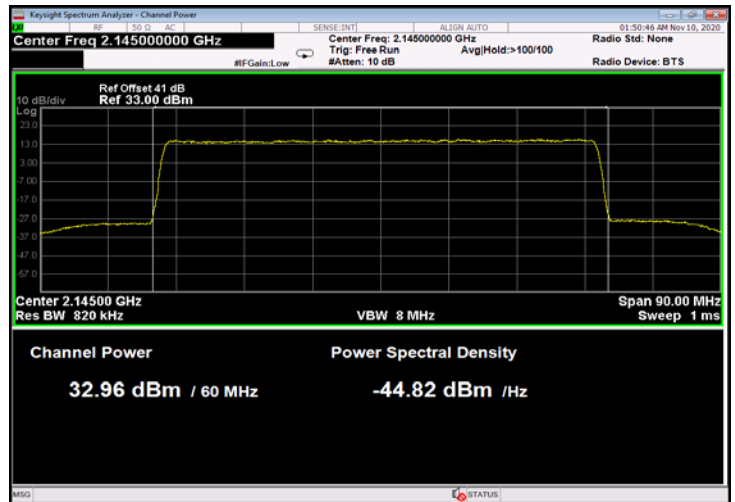


Figure 204: 256QAM 60MHz B.W.; 2145.0MHz, 60kHz

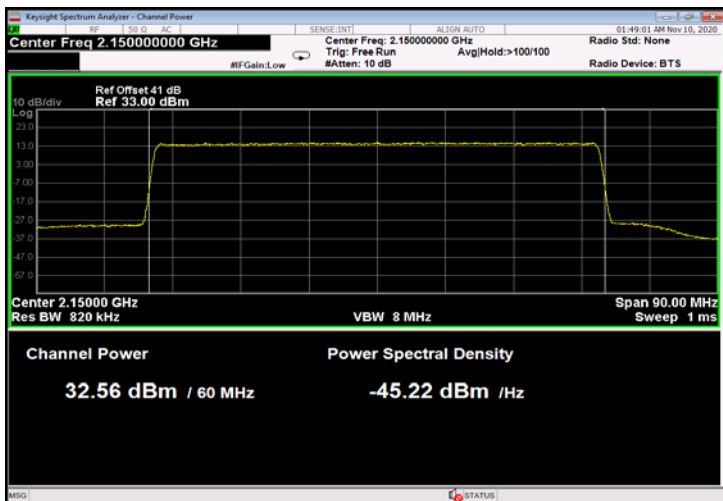


Figure 205: 256QAM 60MHz B.W.; 2150.0MHz, 30kHz

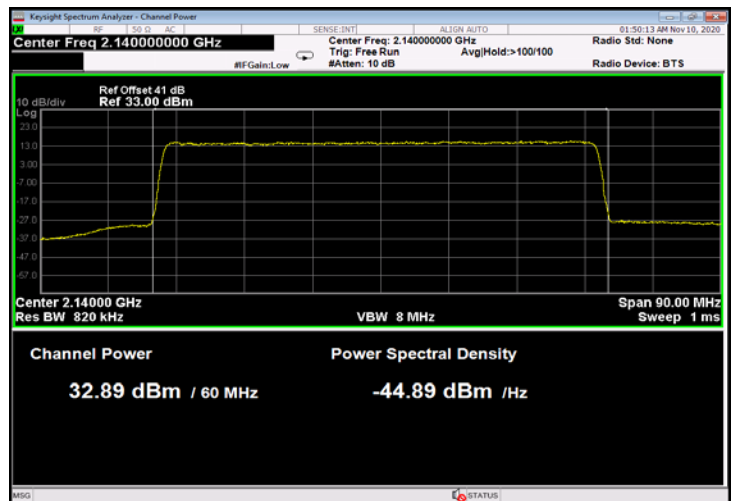


Figure 206: 256QAM 60MHz B.W.; 1965.0MHz, 60kHz

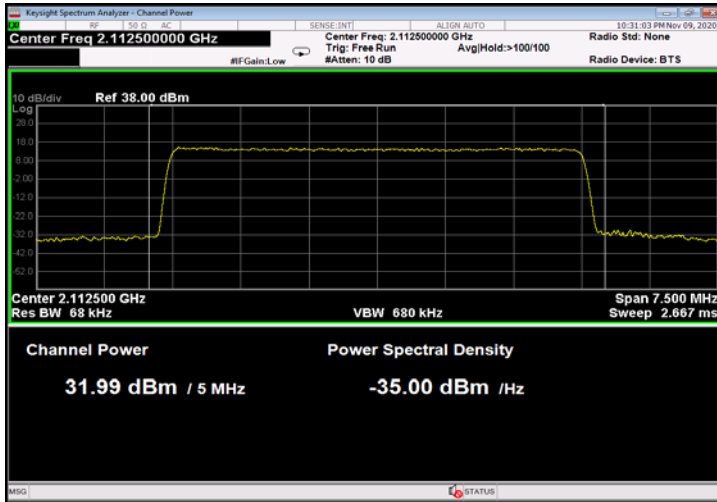


Figure 207: QPSK 5MHz B.W.; 2112.5MHz, 15kHz

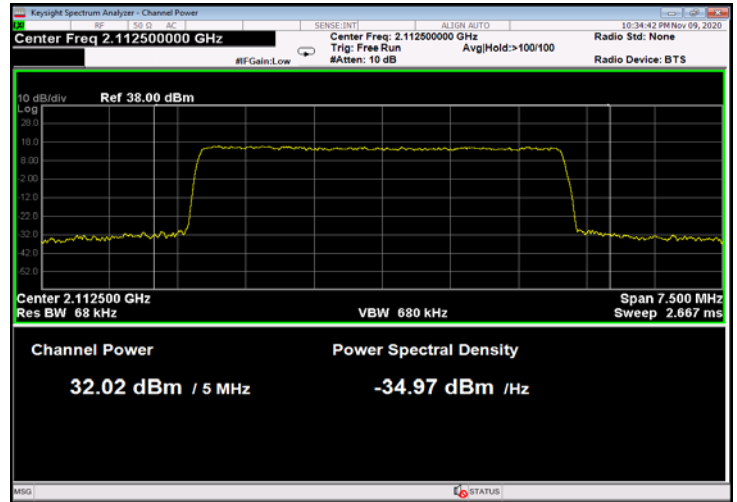


Figure 208: QPSK 5MHz B.W.; 2112.5MHz, 30kHz

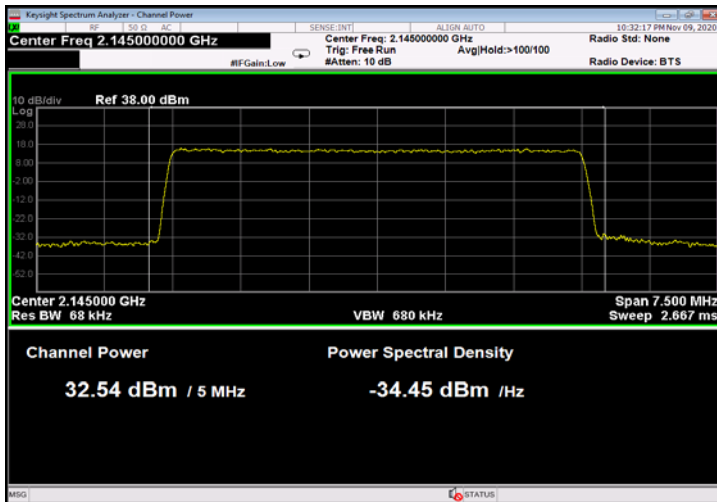


Figure 209: QPSK 5MHz B.W.; 2145.0MHz, 15kHz

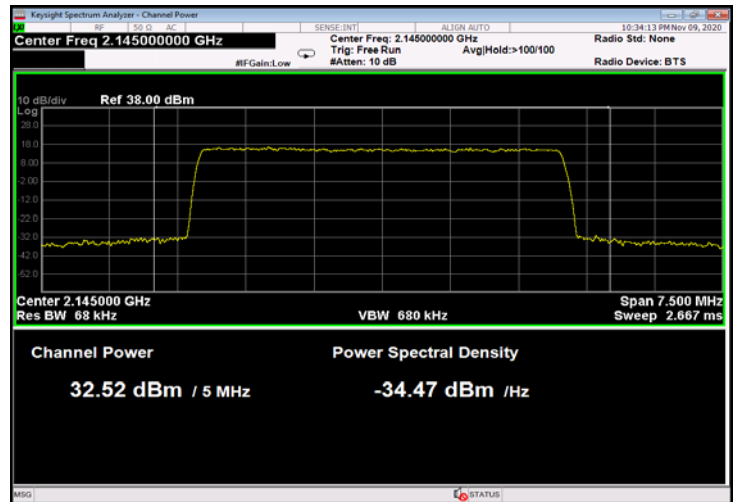


Figure 210: QPSK 5MHz B.W.; 2145.0MHz, 30kHz

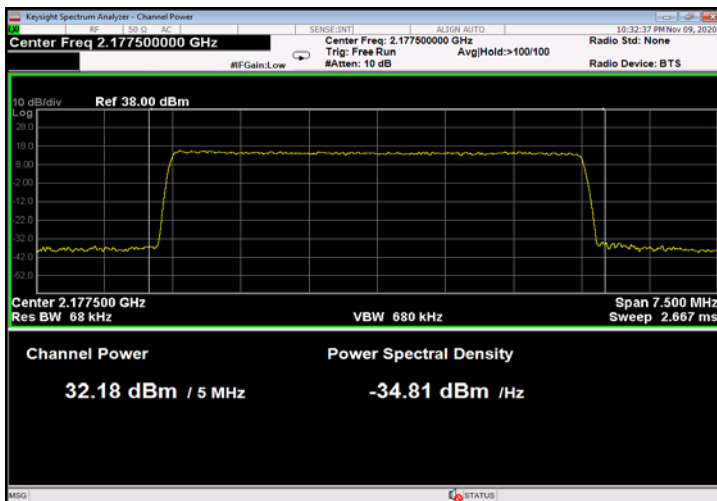


Figure 211: QPSK 5MHz B.W.; 2177.5MHz, 15kHz

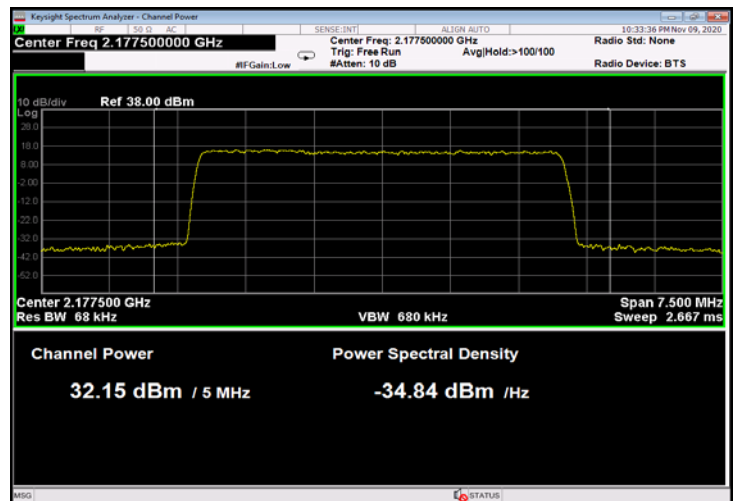


Figure 212: QPSK 5MHzC.S; 2177.5MHz, 30kHz

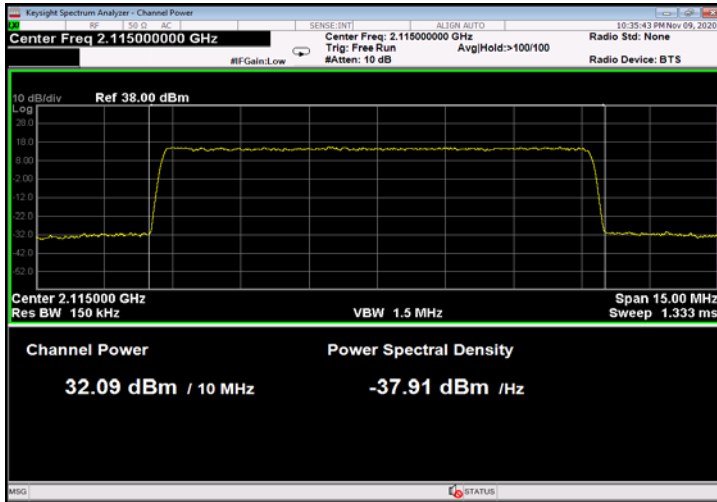


Figure 213: QPSK 10MHz B.W.; 2115.0MHz, 15kHz

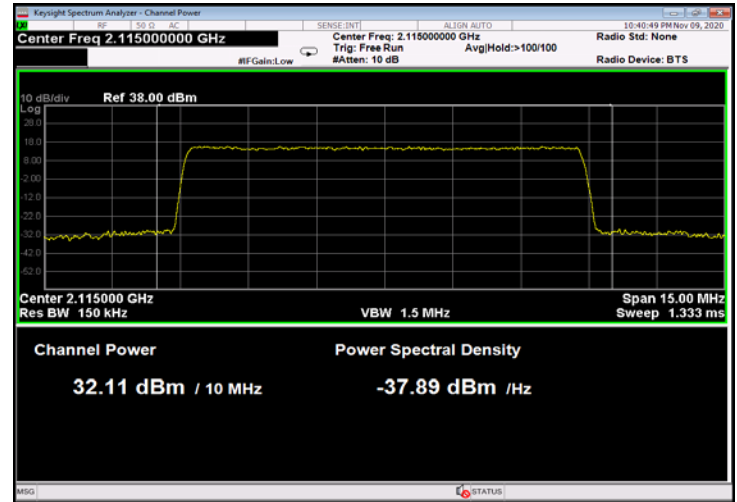


Figure 214: QPSK 10MHz B.W.; 2115.0MHz, 30kHz

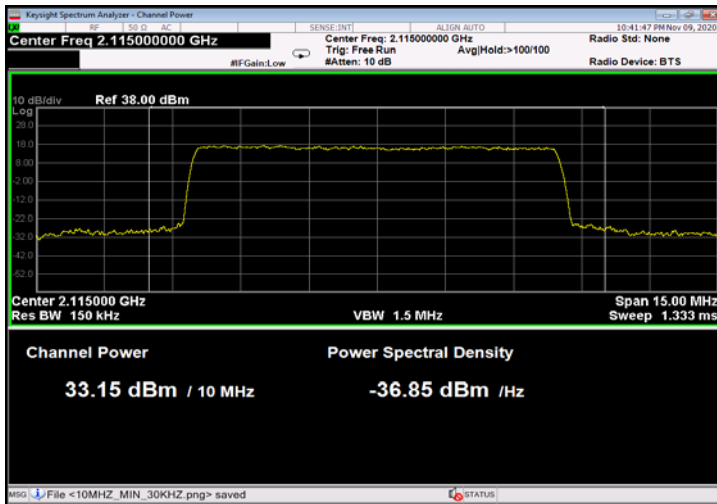


Figure 215: QPSK 10MHz B.W.; 2115.0MHz, 60kHz

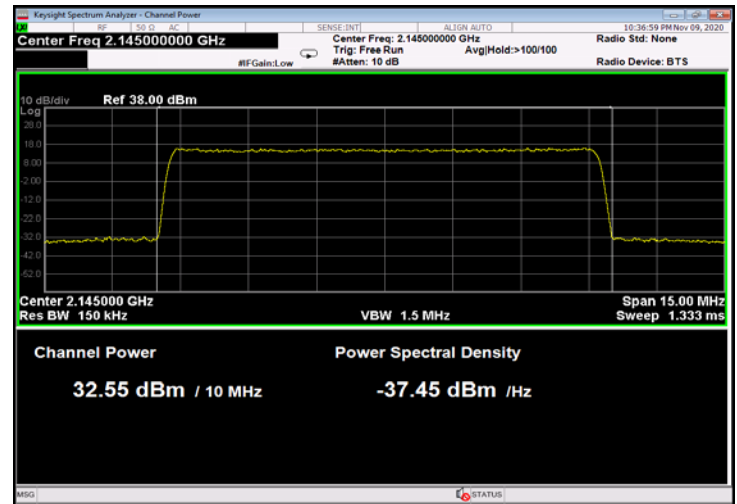


Figure 216: QPSK 10MHz B.W.; 2145.0MHz, 15kHz

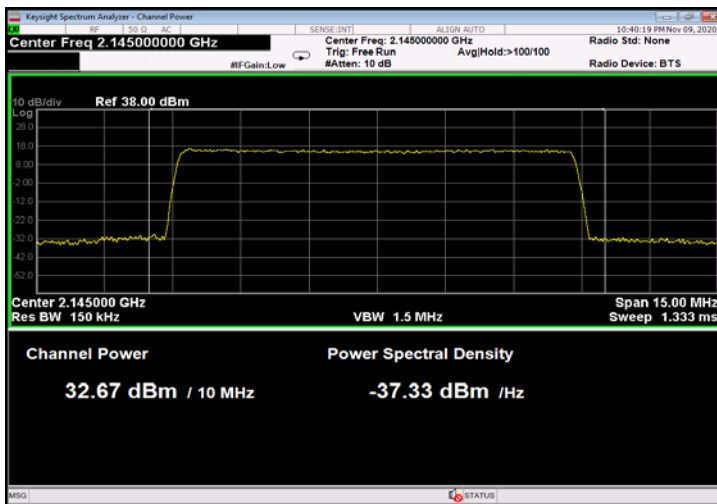


Figure 217: QPSK 10MHz B.W.; 2145.0MHz, 30kHz

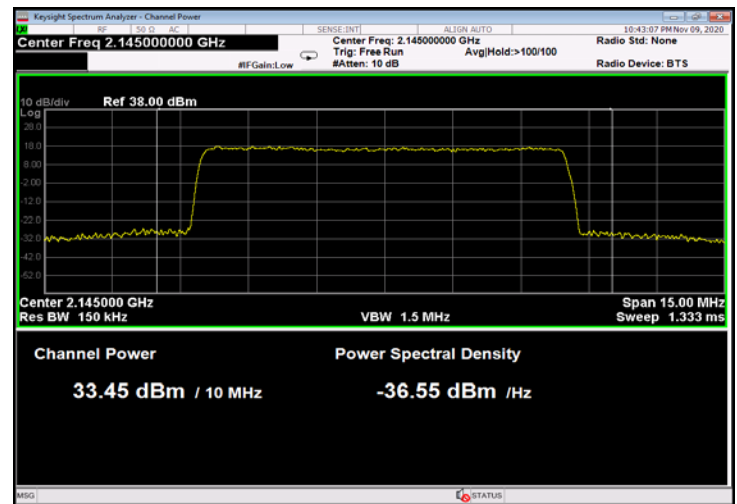


Figure 218: QPSK 10MHz B.W.; 2145.0MHz, 60kHz

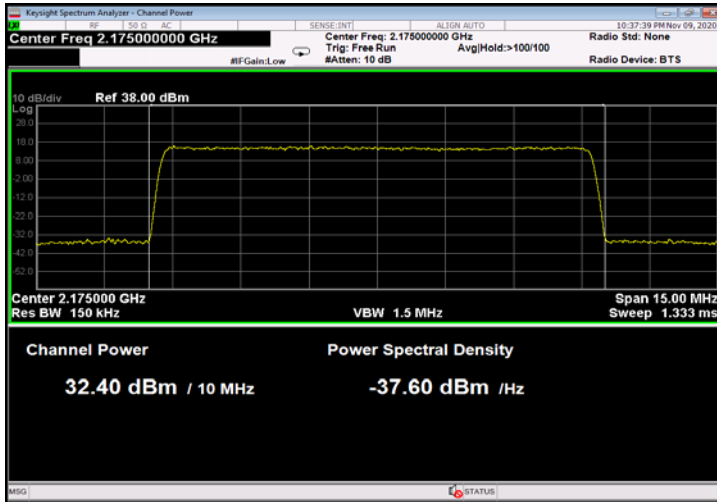


Figure 219: QPSK 10MHz B.W.; 2175.0MHz, 15kHz

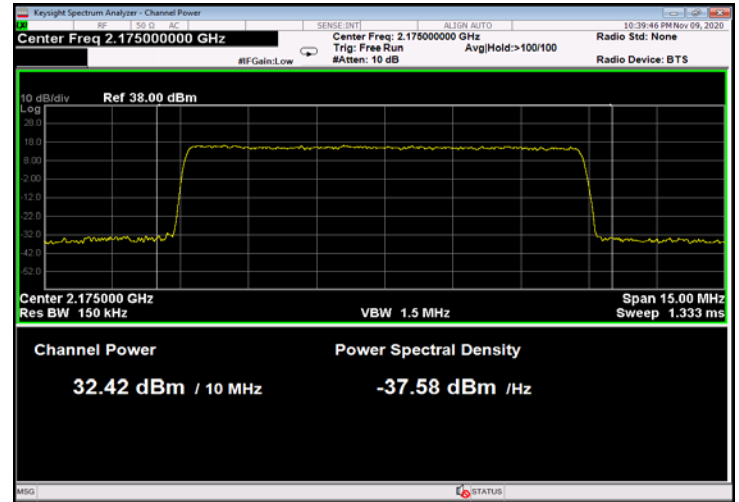


Figure 220: QPSK 10MHz B.W.; 2175.0MHz, 30kHz

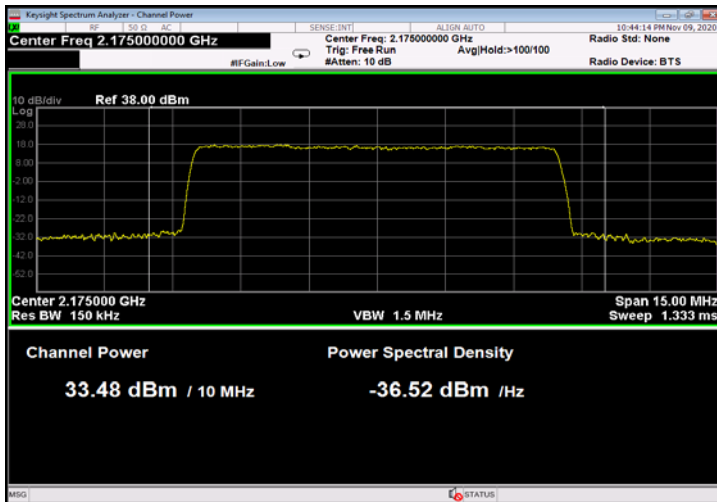


Figure 221: QPSK 10MHz B.W.; 2175.0MHz, 60kHz

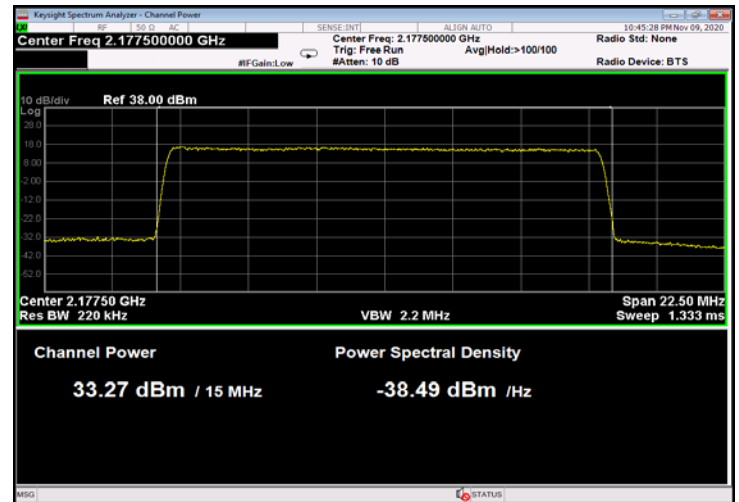


Figure 222: QPSK 15MHz B.W.; 2117.5MHz, 15kHz

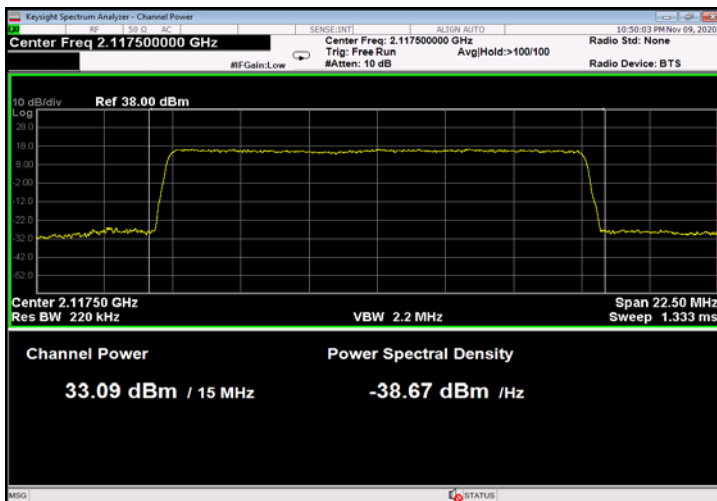


Figure 223: QPSK 15MHz B.W.; 2117.5MHz, 30kHz

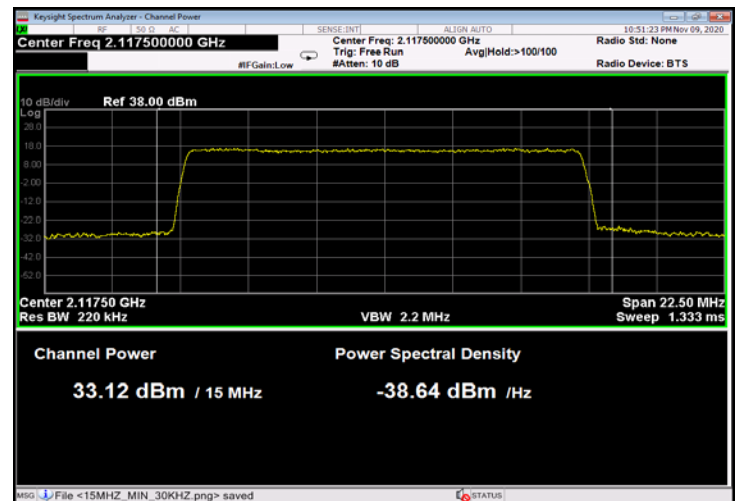


Figure 224: QPSK 10MHz B.W.; 2117.5MHz, 60kHz

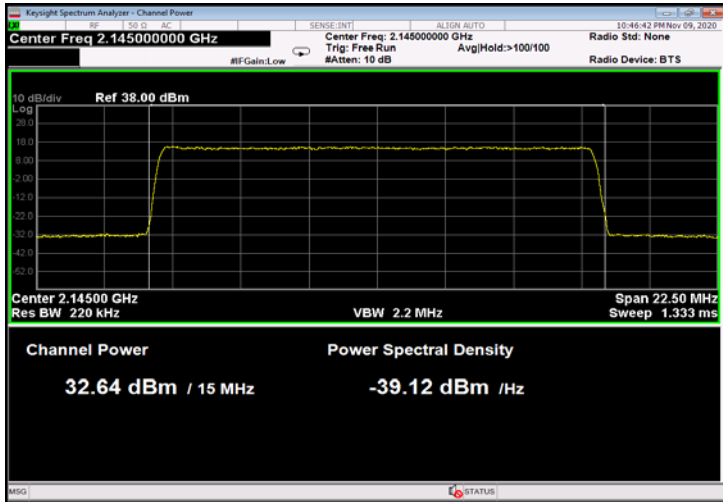


Figure 225: QPSK 15MHz B.W.; 2145.0MHz, 15kHz

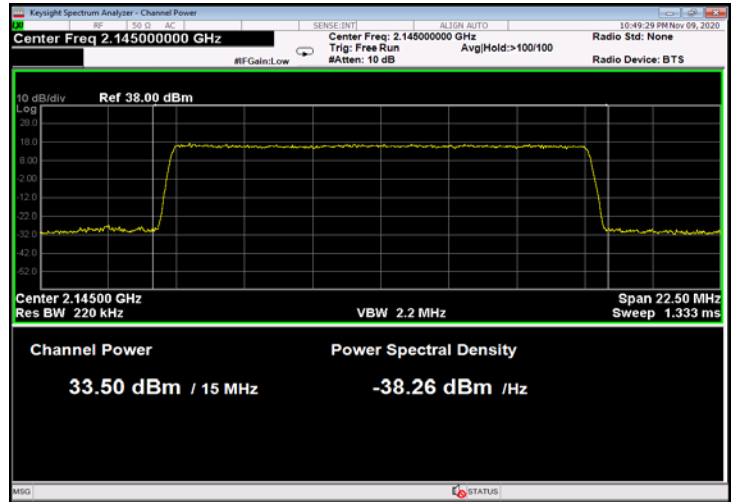


Figure 226: QPSK 15MHz B.W.; 2145.0MHz, 30kHz

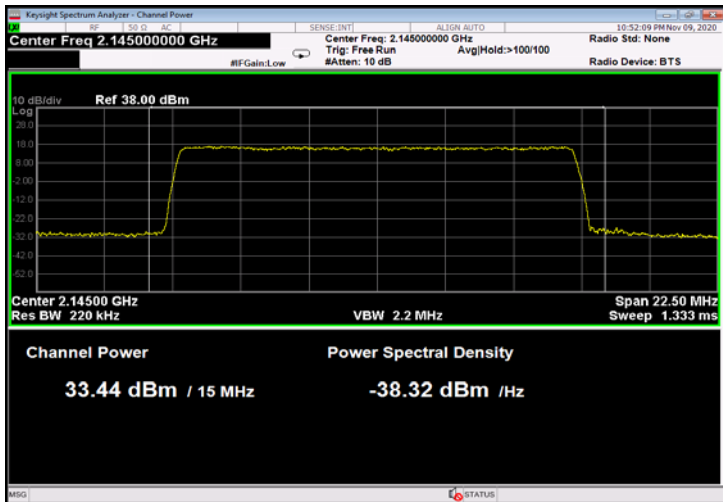


Figure 227: QPSK 15MHz B.W.; 2145.0MHz, 60kHz

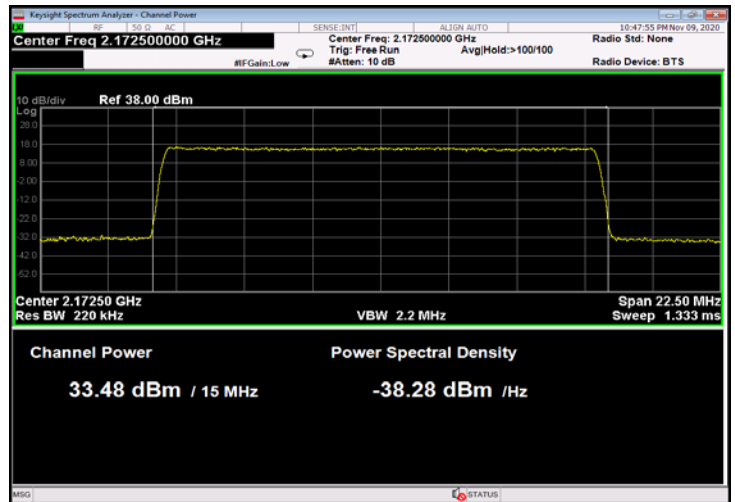


Figure 228: QPSK 15MHz B.W.; 2172.5MHz, 15kHz

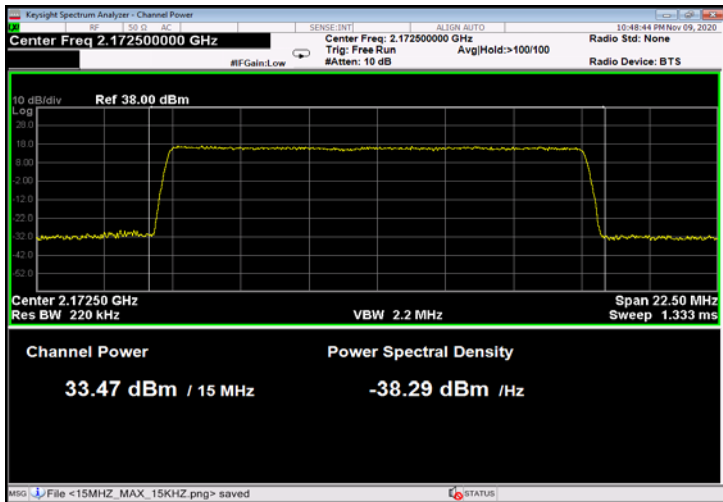


Figure 229: QPSK 15MHz B.W.; 2172.5MHz, 30kHz

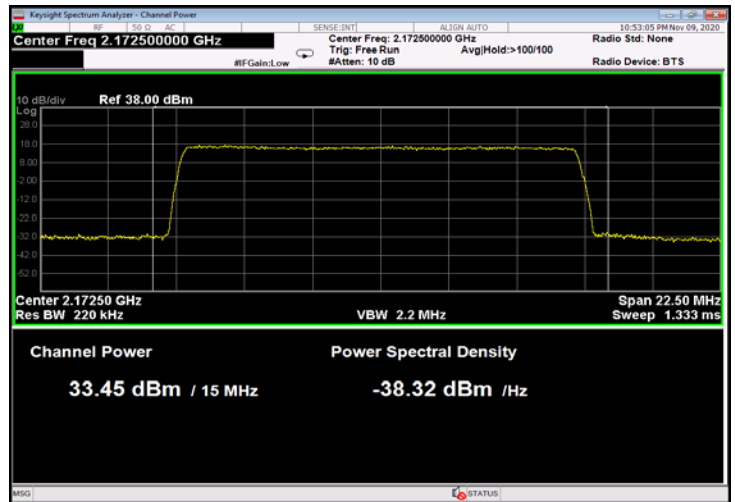


Figure 230: QPSK 15MHz B.W.; 2172.5MHz, 60kHz

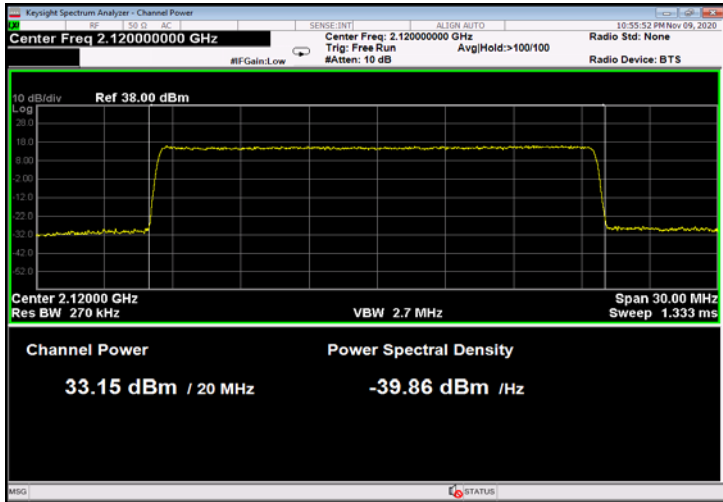


Figure 231: QPSK 20MHz B.W.; 2120.0MHz, 15kHz

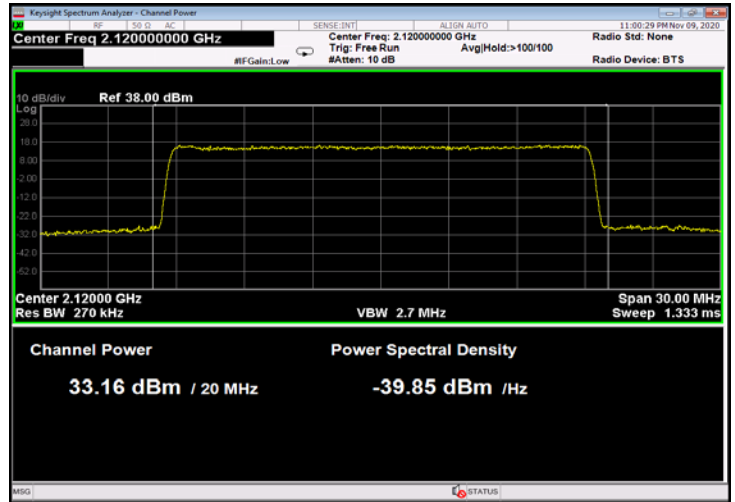


Figure 232: QPSK 20MHz B.W.; 2120.0MHz, 30kHz

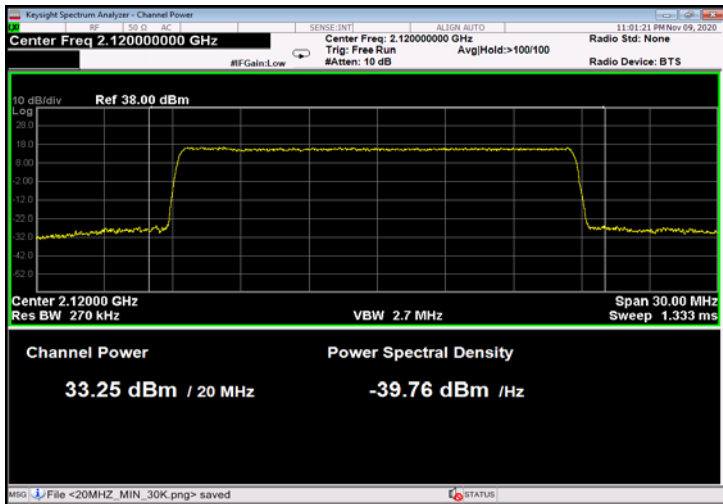


Figure 233: QPSK 20MHz B.W.; 2120.0MHz, 60kHz

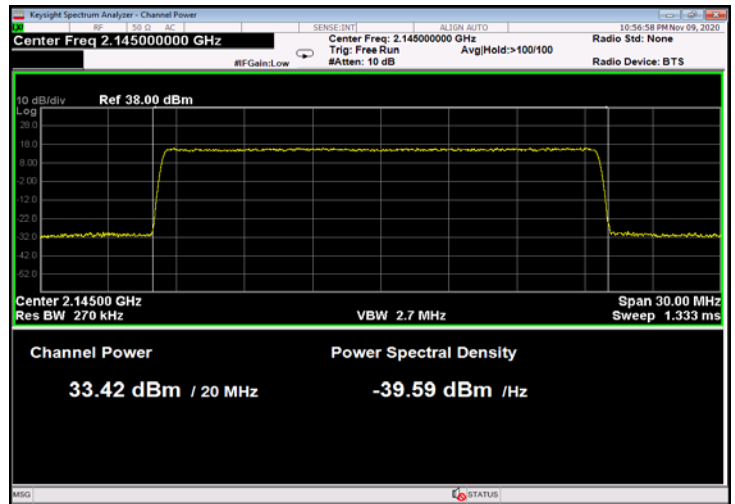


Figure 234: QPSK 20MHz B.W.; 2145.0MHz, 15kHz

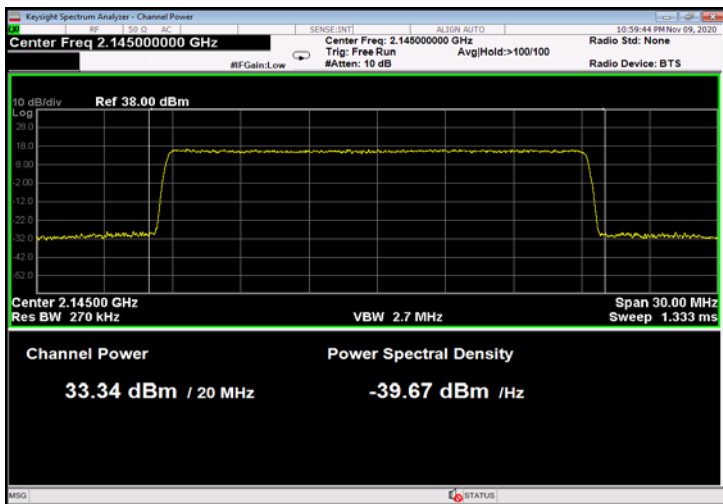


Figure 235: QPSK 20MHz B.W.; 2145.0MHz, 30kHz

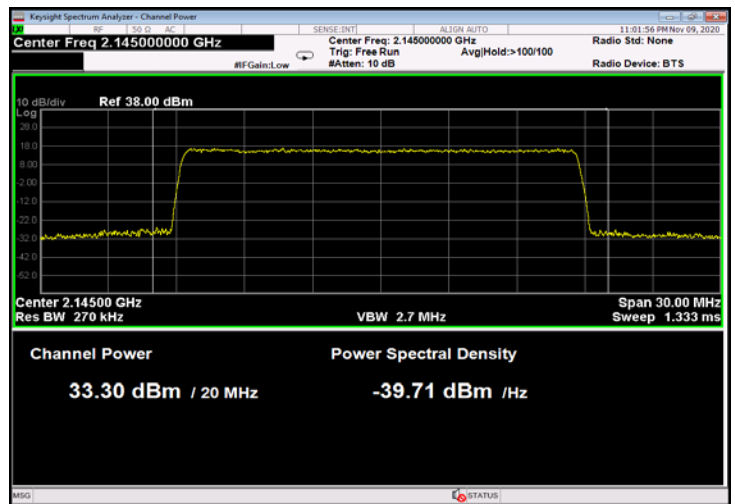


Figure 236: QPSK 20MHz B.W.; 2145.0MHz, 60kHz

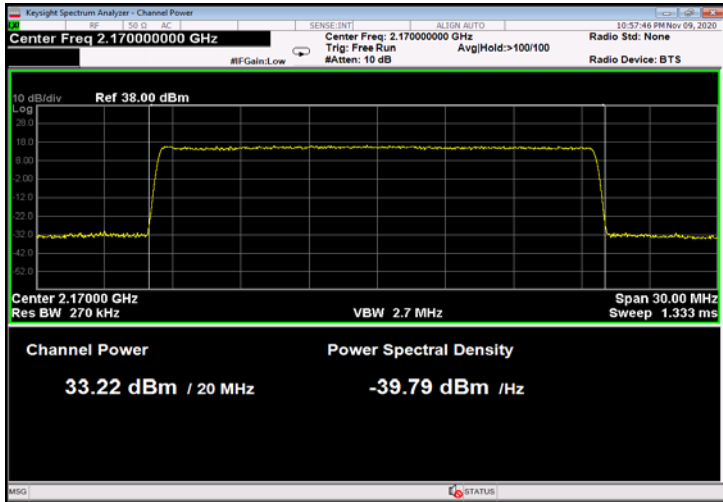


Figure 237: QPSK 20MHz B.W.; 2170.0MHz, 15kHz

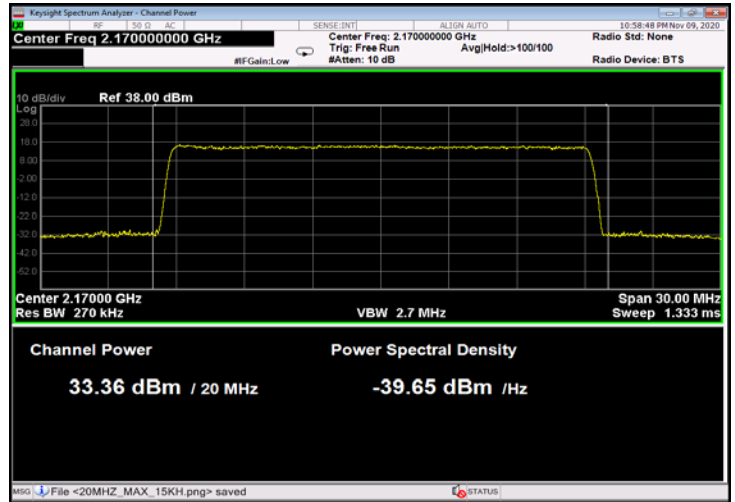


Figure 238: QPSK 20MHz B.W.; 2170.0MHz, 30kHz

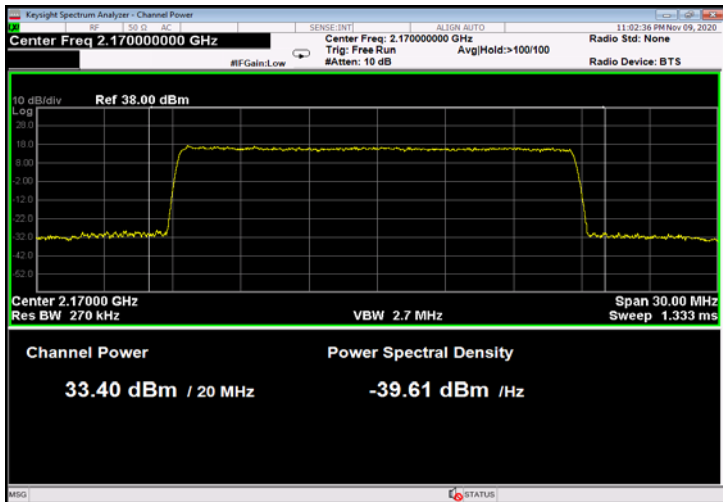


Figure 239: QPSK 20MHz B.W.; 2170.0MHz, 60kHz

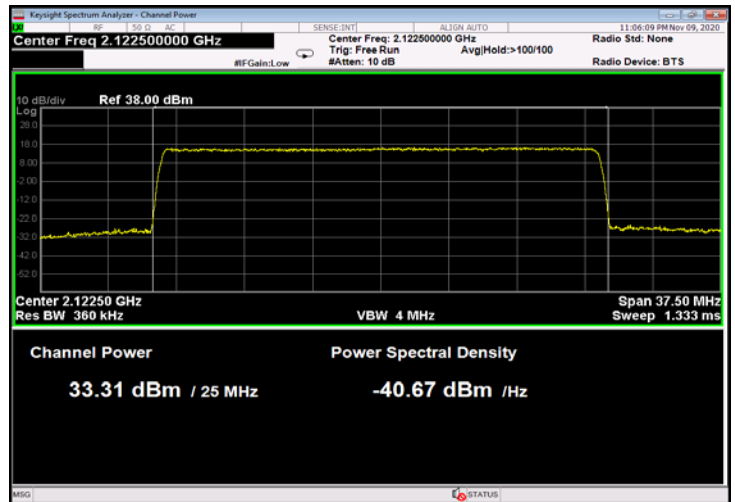


Figure 240: QPSK 25MHz B.W.; 2122.5MHz, 15kHz

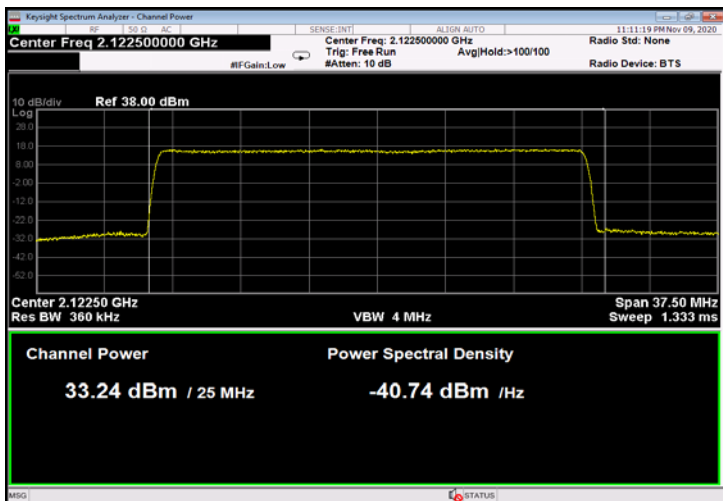


Figure 241: QPSK 25MHz B.W.; 2122.5MHz, 30kHz



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

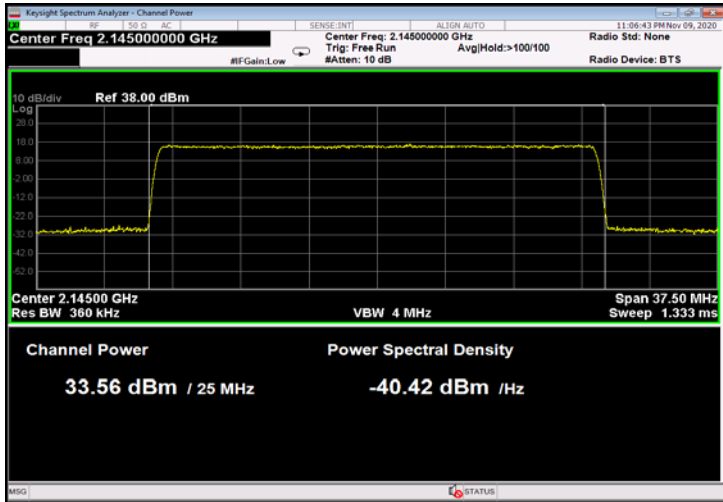


Figure 243: QPSK 25MHz B.W.; 2145.0MHz, 15kHz

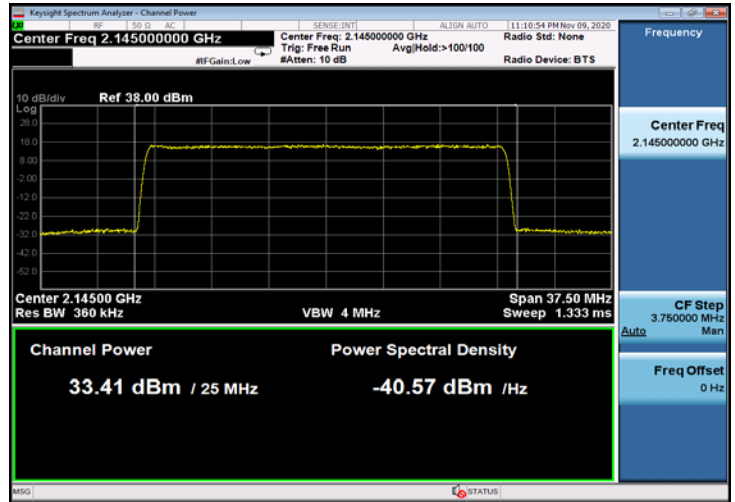


Figure 244: QPSK 25MHz B.W.; 2145.0MHz, 30kHz

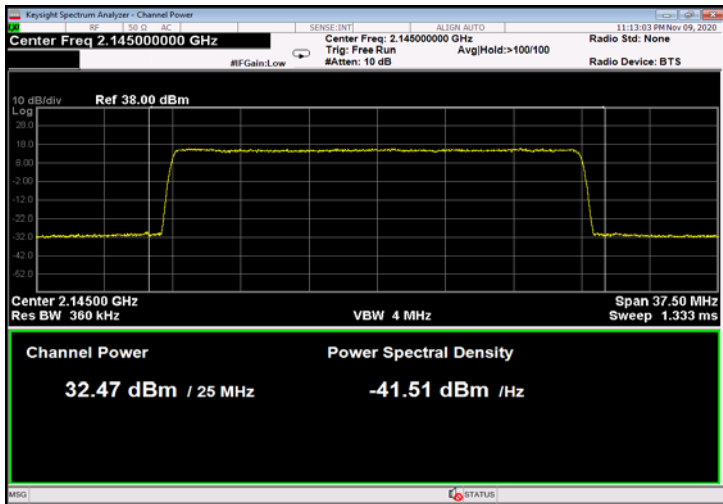


Figure 245: QPSK 25MHz B.W.; 2145.0MHz, 60kHz

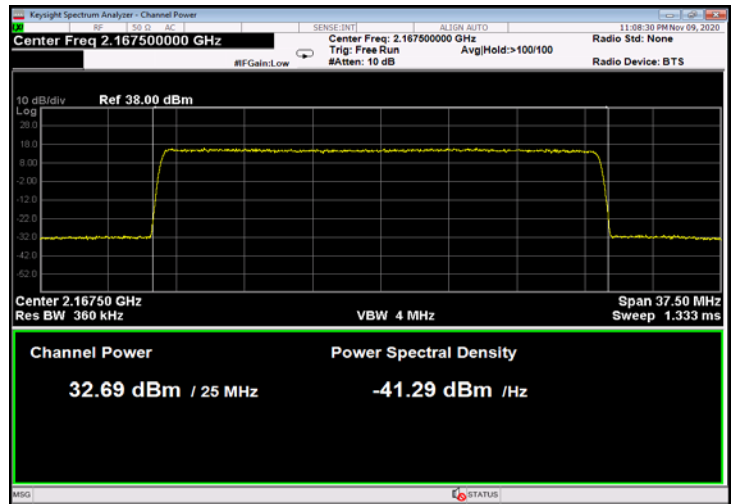


Figure 246: QPSK 25MHz B.W.; 2167.5MHz, 15kHz

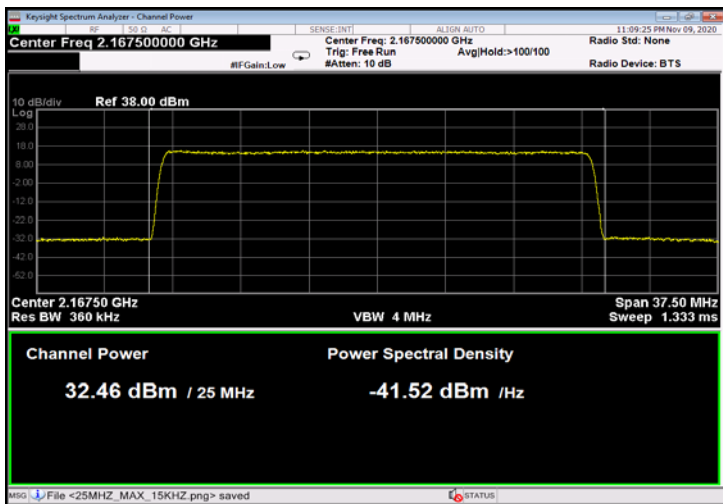


Figure 247: QPSK 25MHz B.W.; 2167.5MHz, 30kHz

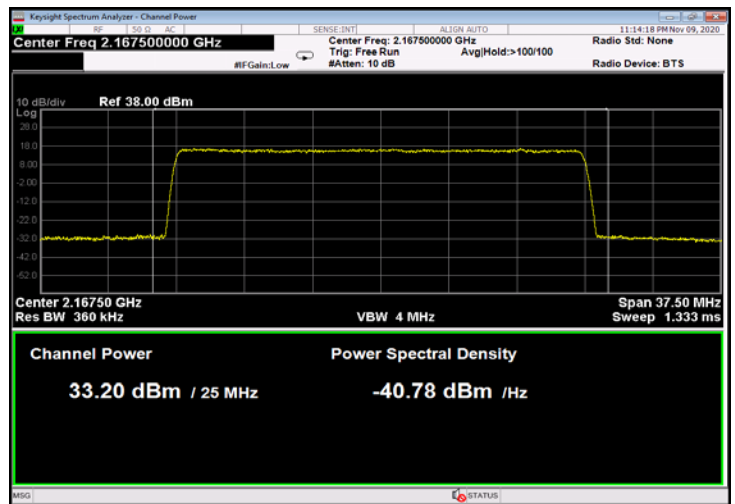


Figure 248: QPSK 25MHz B.W.; 2167.5MHz, 60kHz

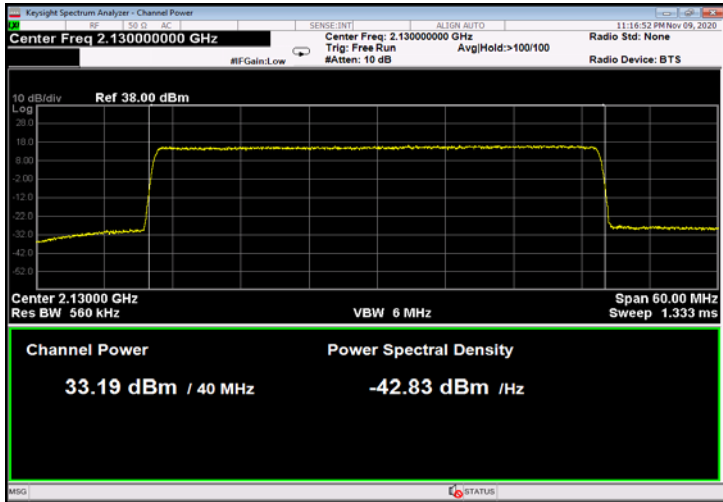


Figure 249: QPSK 40MHz B.W.; 2130.0MHz, 15kHz

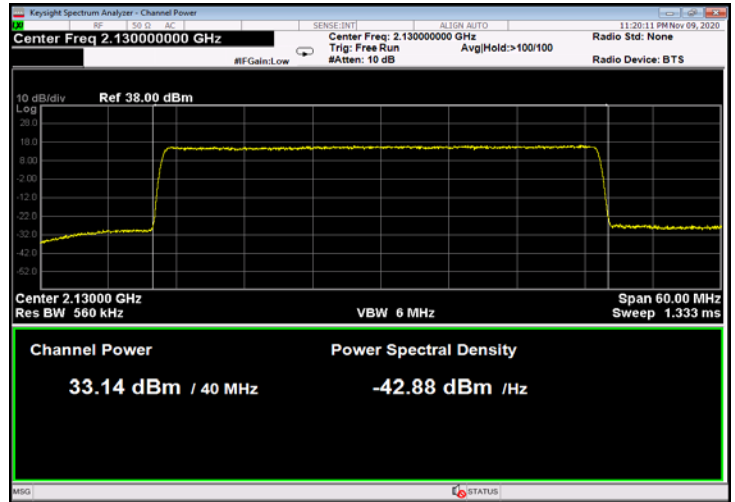


Figure 250: QPSK 40MHz B.W.; 2130.0MHz, 30kHz

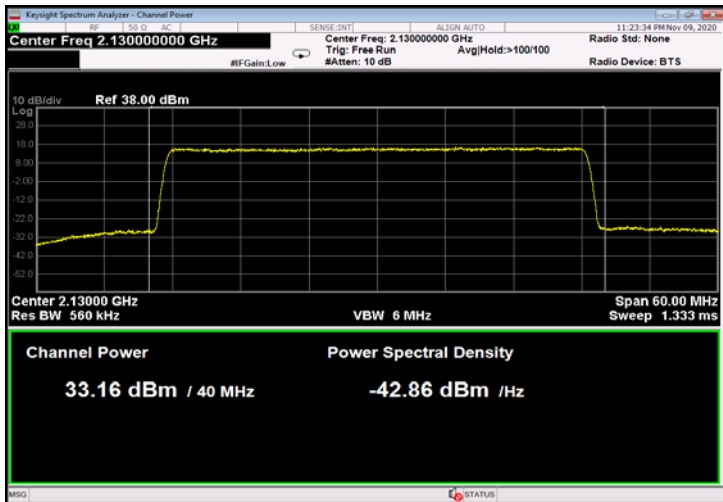


Figure 251: QPSK 40MHz B.W.; 2130.0MHz, 60kHz

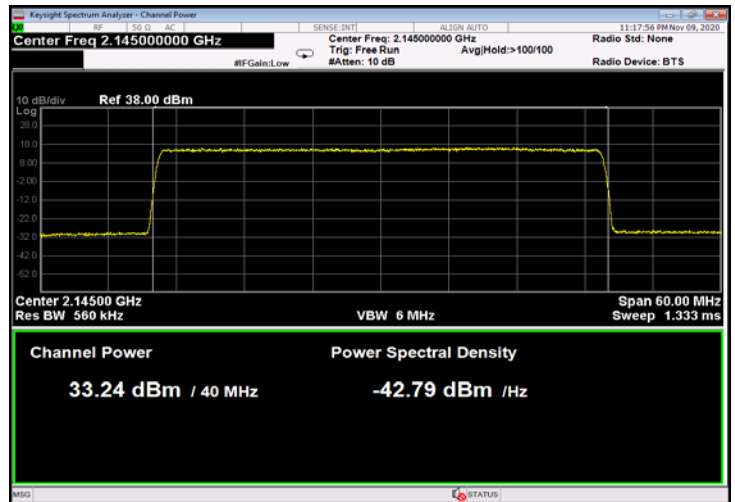


Figure 252: QPSK 40MHz B.W.; 2145.0MHz, 15kHz

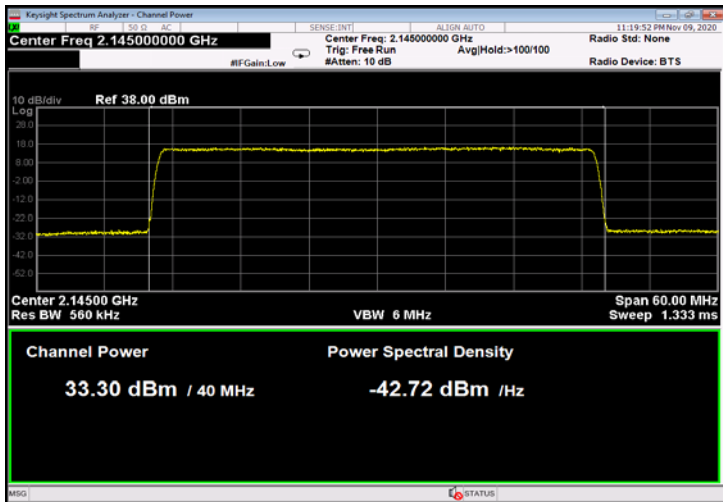


Figure 253: QPSK 40MHz B.W.; 2145.0MHz, 30kHz

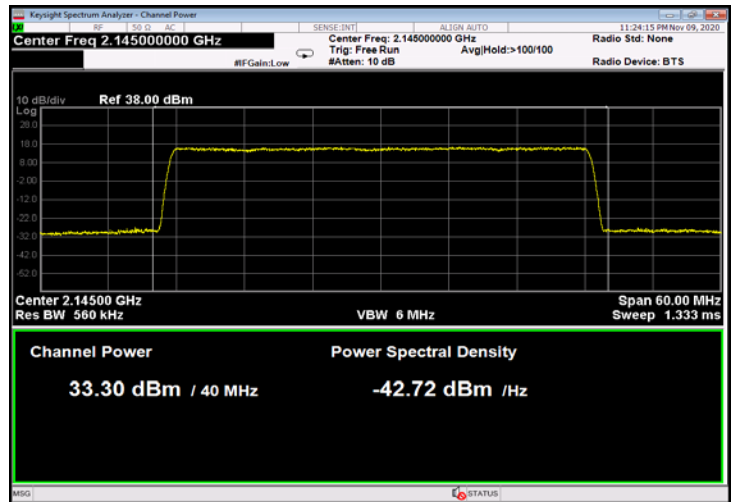


Figure 254: QPSK 40MHz B.W.; 2145.0MHz, 60kHz

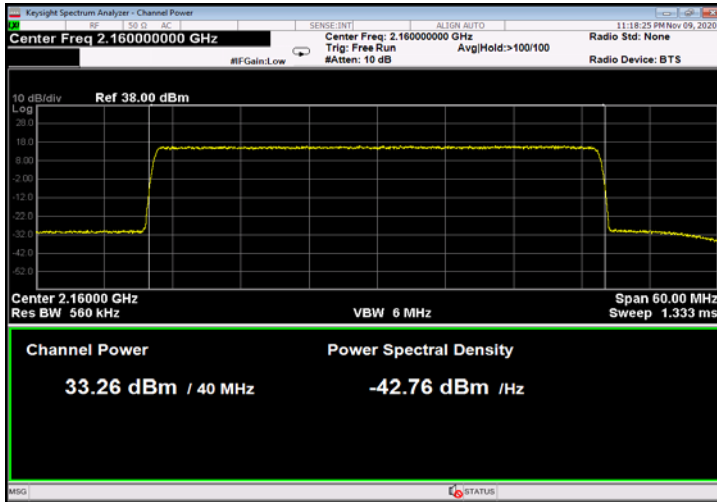


Figure 255: QPSK 40MHz B.W.; 2160.0MHz, 15kHz

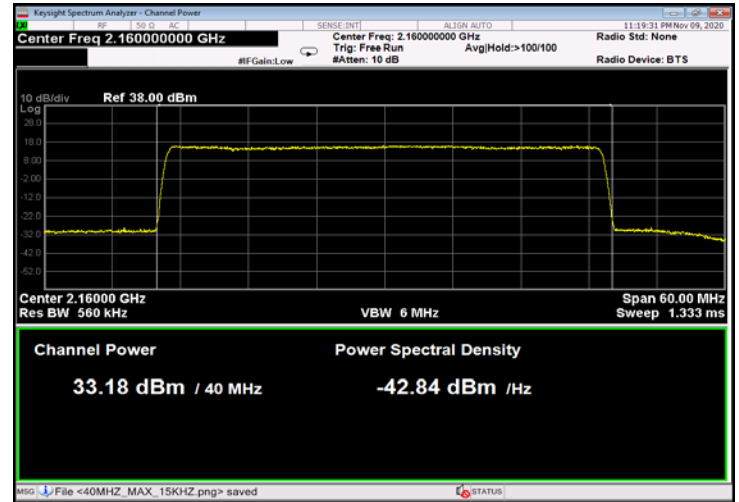


Figure 256: QPSK 40MHz B.W.; 2160.0MHz, 30kHz

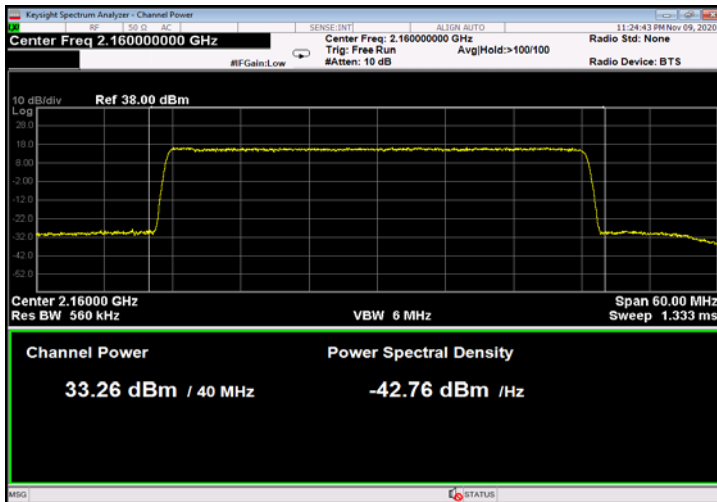


Figure 257: QPSK 40MHz B.W.; 2160.0MHz, 60kHz

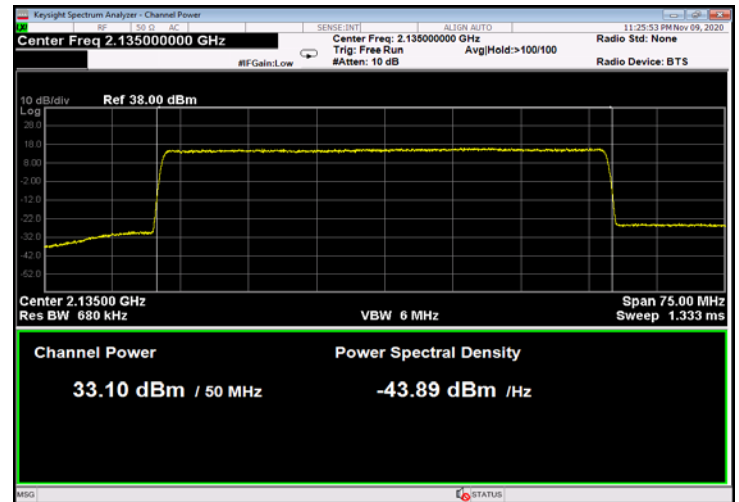


Figure 258: QPSK 50MHz B.W.; 2135.0MHz, 15kHz

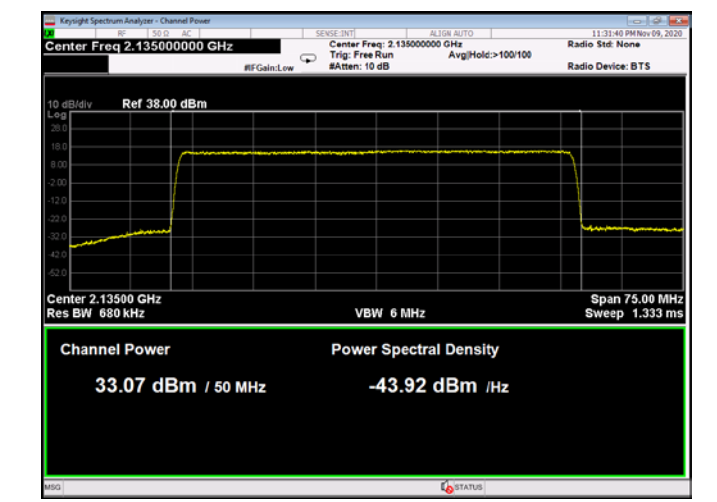


Figure 259: QPSK 50MHz B.W.; 2135.0MHz, 30kHz

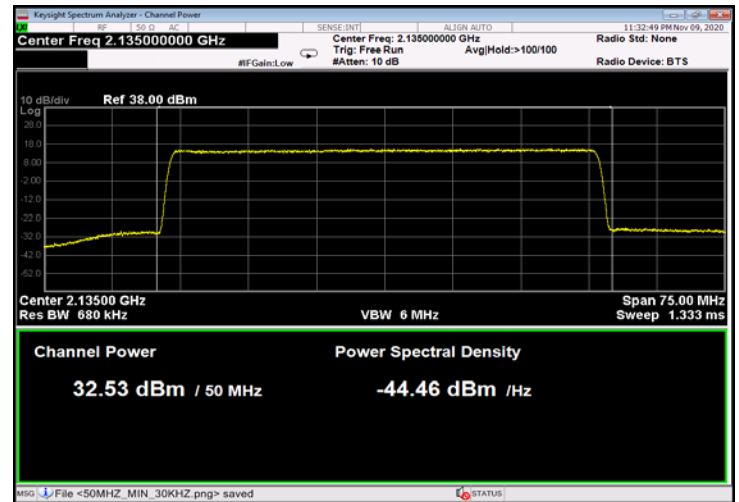


Figure 260: QPSK 50MHz B.W.; 2135.0MHz, 60kHz

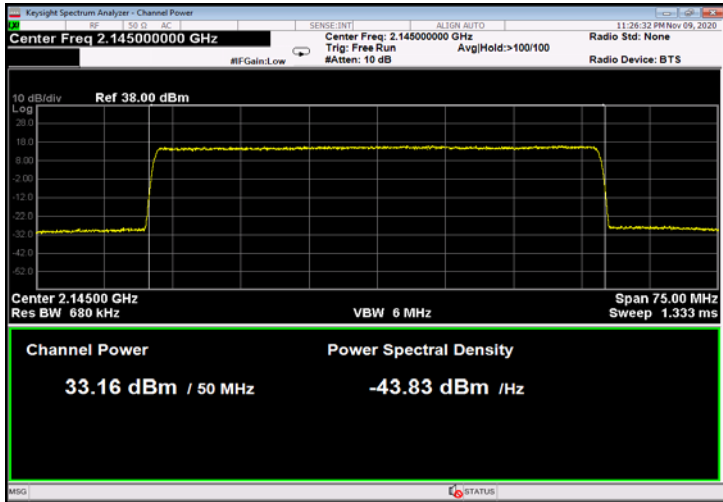


Figure 261: QPSK 50MHz B.W.; 2145.0MHz, 15kHz

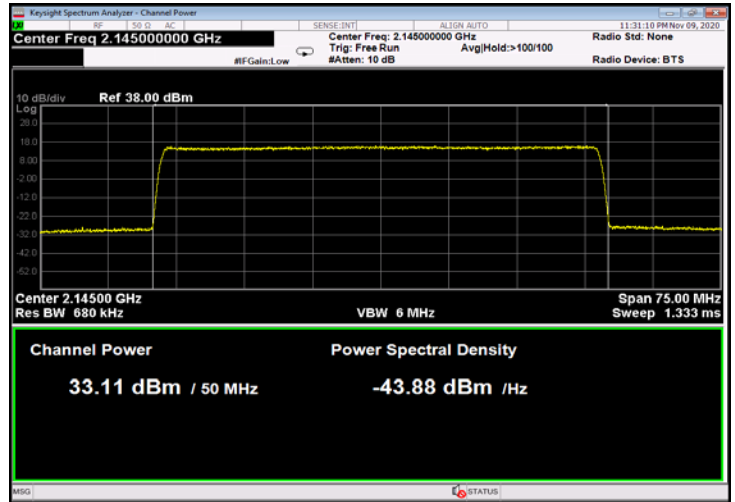


Figure 262: QPSK 50MHz B.W.; 2145.0MHz, 30kHz

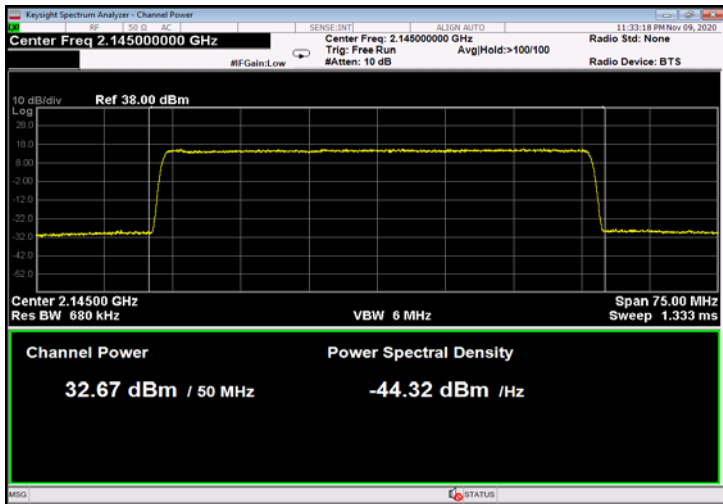


Figure 263: QPSK 50MHz B.W.; 2145.0MHz, 60kHz

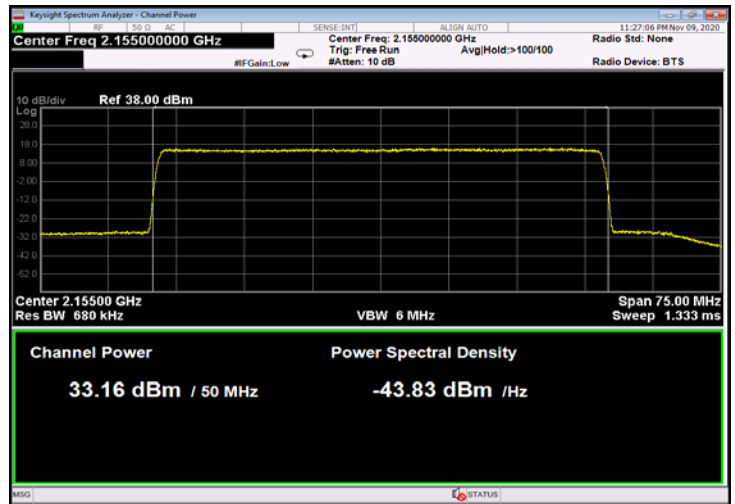


Figure 264: QPSK 50MHz B.W.; 2155.0MHz, 15kHz

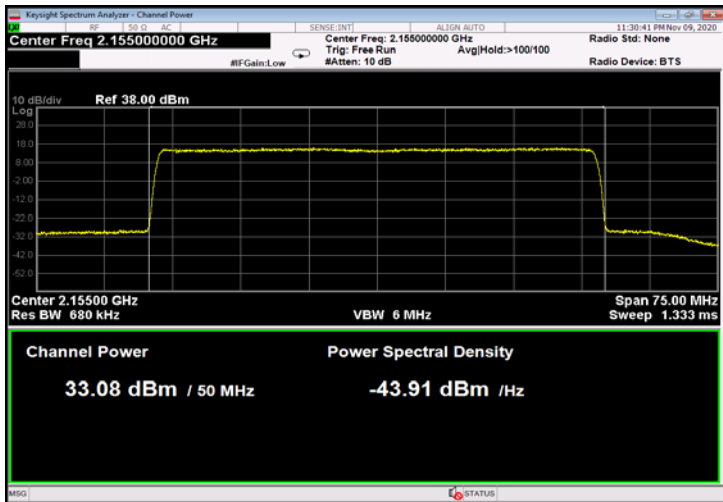


Figure 265: QPSK 50MHz B.W.; 2155.0MHz, 30kHz

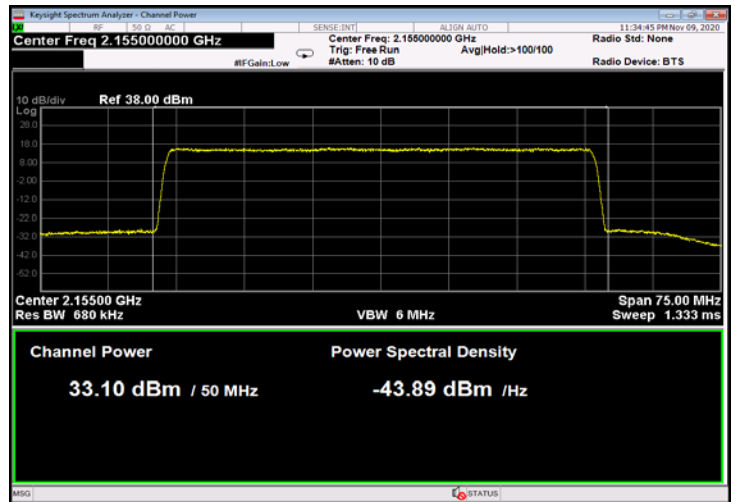


Figure 266: QPSK 50MHz B.W.; 2155.0MHz, 60kHz

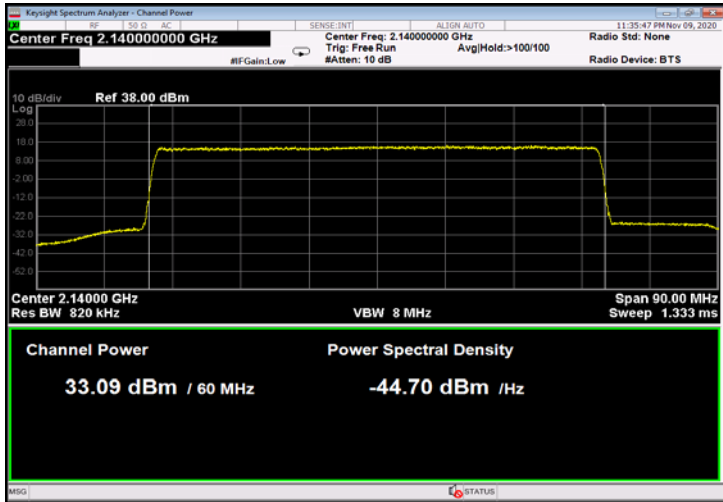


Figure 267: QPSK 60MHz B.W.; 2140.0MHz, 30kHz

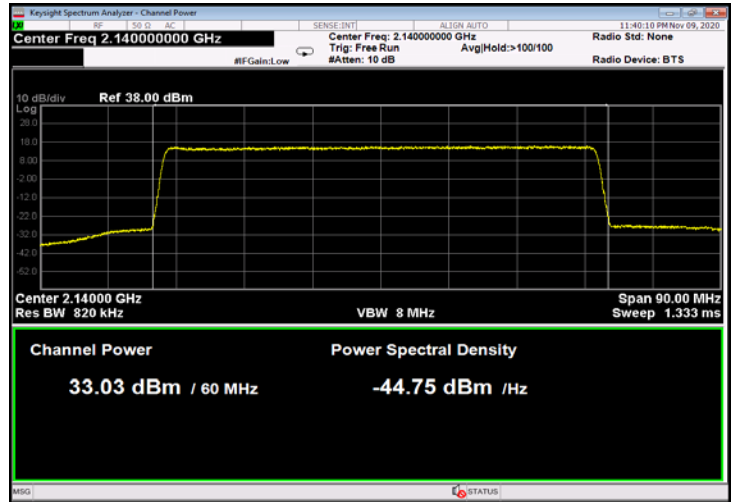


Figure 268: QPSK 60MHz B.W.; 2140.0MHz, 60kHz

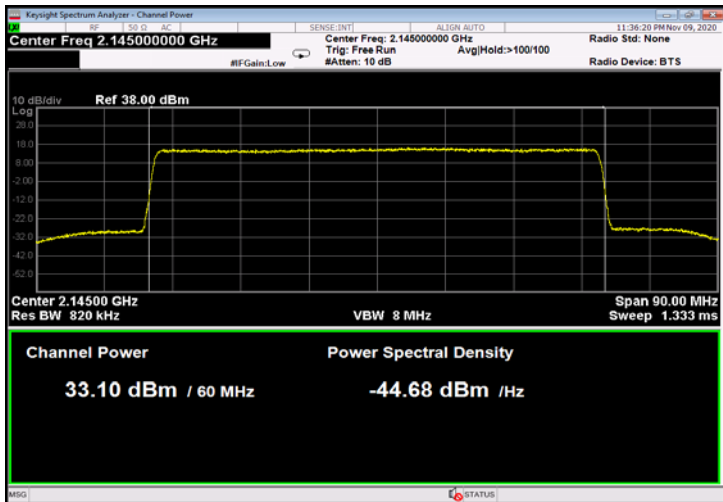


Figure 269: QPSK 60MHz B.W.; 2145MHz, 30kHz

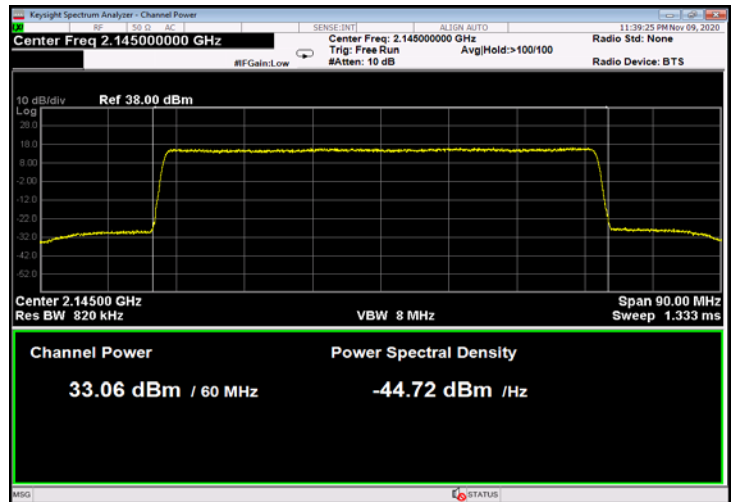


Figure 270: QPSK 60MHz B.W.; 2145MHz, 60kHz

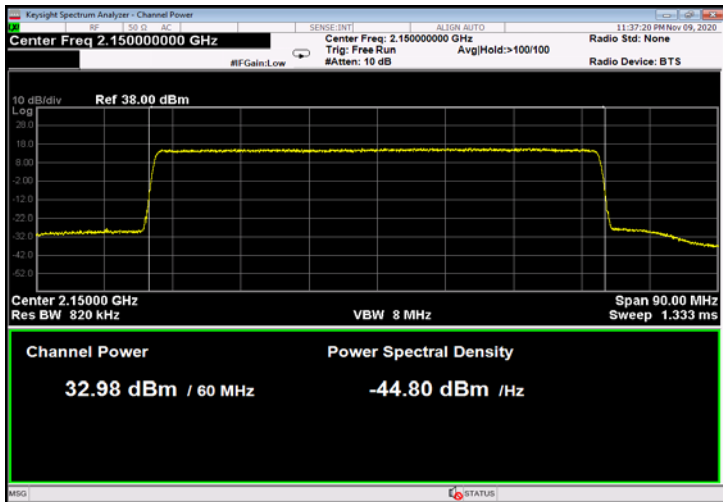


Figure 271: QPSK 60MHz B.W.; 2150.0MHz, 30kHz

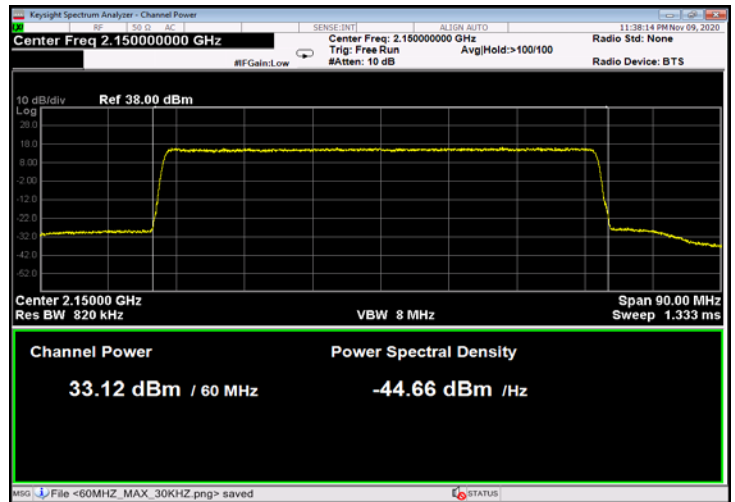


Figure 272: QPSK 60MHz B.W.; 2150.0MHz, 60kHz



4.4 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	November 28, 2020
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
		30	2115.0	8.5386
		60	2115.0	7.8838
		15	2145.0	9.2463
		30	2145.0	8.5389
		60	2145.0	7.8835
		15	2175.0	9.2455
		30	2175.0	8.5333
		60	2175.0	7.8832
	15	15	2117.5	14.159
		30	2117.5	13.664
		60	2117.5	12.917
		15	2145.0	14.170
		30	2145.0	13.666
		60	2145.0	12.918
		15	2172.5	14.152
		30	2172.5	13.662
		60	2172.5	12.915
	20	15	2120.0	18.991
		30	2120.0	18.332
		60	2120.0	17.150
		15	2145.0	19.000
		30	2145.0	18.312
		60	2145.0	17.155
		15	2170.0	19.005
		30	2170.0	18.322
		60	2170.0	17.142
	25	15	2122.5	23.794
		30	2122.5	23.299
		60	2122.5	22.291
		15	2145.0	23.807
		30	2145.0	23.320
		60	2145.0	22.282
		15	2167.5	23.791
		30	2167.5	23.308
		60	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
		30	2115.0	7.8879
		60	2115.0	14.146
		15	2145.0	9.3142
		30	2145.0	8.5909
		60	2145.0	7.8887
		15	2175.0	9.3164
		30	2175.0	8.5893
		60	2175.0	7.8876
	15	15	2117.5	14.145
		30	2117.5	13.592
		60	2117.5	12.893
		15	2145.0	14.140
		30	2145.0	13.605
		60	2145.0	12.896
		15	2172.5	14.146
		30	2172.5	13.603
		60	2172.5	12.893
	20	15	2120.0	18.967
		30	2120.0	18.232
		60	2120.0	17.186
		15	2145.0	18.975
		30	2145.0	18.236
		60	2145.0	17.225
		15	2170.0	18.976
		30	2170.0	18.240
		60	2170.0	17.185
	25	15	2122.5	23.798
		30	2122.5	23.253
		60	2122.5	22.194
		15	2145.0	23.802
		30	2145.0	23.260
		60	2145.0	22.219
		15	2167.5	23.788
		30	2167.5	23.265
		60	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
		30	2115.0	8.5863
		60	2115.0	7.8841
		15	2145.0	9.3018
		30	2145.0	8.5874
		60	2145.0	7.8845
		15	2175.0	9.3024
		30	2175.0	8.5863
		60	2175.0	7.8841
	15	15	2117.5	14.146
		30	2117.5	13.615
		60	2117.5	12.943
		15	2145.0	14.147
		30	2145.0	13.607
		60	2145.0	12.951
		15	2172.5	14.146
		30	2172.5	13.615
		60	2172.5	12.946
	20	15	2120.0	18.956
		30	2120.0	18.261
		60	2120.0	17.168
		15	2145.0	18.956
		30	2145.0	18.260
		60	2145.0	17.171
		15	2170.0	18.970
		30	2170.0	18.260
		60	2170.0	17.167
	25	15	2122.5	23.788
		30	2122.5	23.267
		60	2122.5	22.167
		15	2145.0	23.820
		30	2145.0	23.270
		60	2145.0	22.170
		15	2167.5	23.823
		30	2167.5	23.265
		60	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	4.4913
		30	2112.5	3.9429
		15	2145.0	4.4906
		30	2145.0	3.9424
		15	2177.5	4.4892
		30	2177.5	3.9425
	10	15	2115.0	9.3020
		30	2115.0	8.5519
		60	2115.0	7.8817
		15	2145.0	9.2964
		30	2145.0	8.5444
		60	2145.0	7.8833
		15	2175.0	9.2800
		30	2175.0	8.5440
		60	2175.0	7.8799
	15	15	2117.5	14.300
		30	2117.5	13.679
		60	2117.5	12.930
		15	2145.0	14.261
		30	2145.0	13.684
		60	2145.0	12.930
		15	2172.5	14.242
		30	2172.5	13.707
		60	2172.5	12.906
	20	15	2120.0	19.307
		30	2120.0	18.378
		60	2120.0	17.190
		15	2145.0	19.310
		30	2145.0	18.381
		60	2145.0	17.185
		15	2170.0	19.259
		30	2170.0	18.368
		60	2170.0	17.154
	25	15	2122.5	24.080
		30	2122.5	23.479
		60	2122.5	22.371
		15	2145.0	24.116
		30	2145.0	23.458
		60	2145.0	22.375
		15	2167.5	24.094
		30	2167.5	23.438
		60	2167.5	22.350

Table 18 Occupied Bandwidth 16QAM -Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	40	15	2130.0	39.113
		30	2130.0	38.439
		60	2130.0	36.711
		15	2145.0	39.162
		30	2145.0	38.442
		60	2145.0	36.689
		15	2160.0	39.109
		30	2160.0	38.334
		60	2160.0	36.671
	50	15	2135.0	48.607
		30	2135.0	47.977
		60	2135.0	47.847
		15	2145.0	48.656
		30	2145.0	48.065
		60	2145.0	46.963
		15	2155.0	48.608
		30	2155.0	48.036
		60	2155.0	46.978
	60	30	2140.0	58.148
		60	2140.0	56.786
		30	2145.0	58.079
		60	2145.0	56.786
		30	2150.0	58.036
		60	2150.0	56.717

Table 19 Occupied Bandwidth 16QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	5	15	2112.5	4.4930
		30	2112.5	3.9452
		15	2145.0	4.4922
		30	2145.0	3.9448
		15	2177.5	4.4924
		30	2177.5	3.9443
	10	15	2115.0	9.3173
		30	2115.0	8.5885
		60	2115.0	7.8853
		15	2145.0	9.3170
		30	2145.0	8.5920
		60	2145.0	7.8882
		15	2175.0	9.3122
		30	2175.0	8.5872
		60	2175.0	7.8873
	15	15	2117.5	14.143
		30	2117.5	13.596
		60	2117.5	12.888
		15	2145.0	14.147
		30	2145.0	13.601
		60	2145.0	12.893
		15	2172.5	14.131
		30	2172.5	13.580
		60	2172.5	12.890
	20	15	2120.0	18.964
		30	2120.0	18.236
		60	2120.0	17.191
		15	2145.0	18.973
		30	2145.0	18.235
		60	2145.0	17.190
		15	2170.0	18.961
		30	2170.0	18.227
		60	2170.0	17.184
	25	15	2122.5	23.797
		30	2122.5	23.272
		60	2122.5	22.205
		15	2145.0	23.788
		30	2145.0	23.267
		60	2145.0	22.199
		15	2167.5	23.784
		30	2167.5	23.245
		60	2167.5	22.189

Table 20 Occupied Bandwidth – 64QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	40	15	2130.0	38.650
		30	2130.0	37.905
		60	2130.0	36.453
		15	2145.0	38.635
		30	2145.0	37.860
		60	2145.0	36.439
		15	2160.0	38.633
		30	2160.0	37.876
		60	2160.0	36.440
	50	15	2135.0	48.247
		30	2135.0	47.517
		60	2135.0	46.508
		15	2145.0	48.254
		30	2145.0	47.511
		60	2145.0	46.477
		15	2155.0	48.228
		30	2155.0	47.516
		60	2155.0	46.486
	60	30	2140.0	57.866
		60	2140.0	56.548
		30	2145.0	57.863
		60	2145.0	56.561
		30	2150.0	57.839
		60	2150.0	56.510

Table 21 Occupied Bandwidth 64QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	5	15	2112.5	4.4928
		30	2112.5	3.9416
		15	2145.0	4.4970
		30	2145.0	3.9421
		15	2177.5	4.4963
		30	2177.5	3.9417
	10	15	2115.0	9.2983
		30	2115.0	8.5855
		60	2115.0	7.8850
		15	2145.0	9.2980
		30	2145.0	8.5871
		60	2145.0	7.8858
		15	2175.0	9.2963
		30	2175.0	8.5825
		60	2175.0	7.8817
	15	15	2117.5	14.147
		30	2117.5	13.615
		60	2117.5	12.944
		15	2145.0	14.145
		30	2145.0	13.615
		60	2145.0	12.943
		15	2172.5	14.141
		30	2172.5	13.602
		60	2172.5	12.939
	20	15	2120.0	18.963
		30	2120.0	18.254
		60	2120.0	17.171
		15	2145.0	18.962
		30	2145.0	18.259
		60	2145.0	17.178
		15	2170.0	18.940
		30	2170.0	18.246
		60	2170.0	17.168
	25	15	2122.5	23.810
		30	2122.5	23.280
		60	2122.5	22.173
		15	2145.0	23.826
		30	2145.0	23.270
		60	2145.0	22.177
		15	2167.5	23.786
		30	2167.5	23.262
		60	2167.5	22.161

Table 22 Occupied Bandwidth 256QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	40	15	2130.0	38.595
		30	2130.0	37.854
		60	2130.0	36.484
		15	2145.0	38.592
		30	2145.0	37.848
		60	2145.0	36.477
		15	2160.0	38.580
		30	2160.0	37.805
		60	2160.0	36.460
	50	15	2135.0	48.262
		30	2135.0	47.568
		60	2135.0	46.498
		15	2145.0	48.232
		30	2145.0	47.565
		60	2145.0	46.483
		15	2155.0	48.244
		30	2155.0	47.568
		60	2155.0	46.460
	60	30	2140.0	57.883
		60	2140.0	56.522
		30	2145.0	57.880
		60	2145.0	56.529
		30	2150.0	57.831
		60	2150.0	56.509

Table 23 Occupied Bandwidth 256QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	5	15	2112.5	4.4962
		30	2112.5	3.9694
		15	2145.0	4.4931
		30	2145.0	3.9690
		15	2177.5	4.4963
		30	2177.5	3.9683
	10	15	2115.0	9.3111
		30	2115.0	8.6008
		60	2115.0	7.9282
		15	2145.0	9.3098
		30	2145.0	8.6051
		60	2145.0	7.9314
		15	2175.0	9.3081
		30	2175.0	8.6016
		60	2175.0	7.9257
	15	15	2117.5	14.140
		30	2117.5	13.671
		60	2117.5	12.986
		15	2145.0	14.150
		30	2145.0	13.672
		60	2145.0	12.996
		15	2172.5	14.143
		30	2172.5	13.664
		60	2172.5	12.991
	20	15	2120.0	18.915
		30	2120.0	18.225
		60	2120.0	17.209
		15	2145.0	18.930
		30	2145.0	18.225
		60	2145.0	17.200
		15	2170.0	18.917
		30	2170.0	18.214
		60	2170.0	17.197
	25	15	2122.5	23.828
		30	2122.5	23.250
		60	2122.5	22.200
		15	2145.0	23.828
		30	2145.0	23.246
		60	2145.0	22.196
		15	2167.5	23.817
		30	2167.5	23.232
		60	2167.5	22.187

Table 24 Occupied Bandwidth QPSK - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	40	15	2130.0	38.663
		30	2130.0	37.850
		60	2130.0	36.466
		15	2145.0	38.648
		30	2145.0	37.832
		60	2145.0	36.436
		15	2160.0	38.647
		30	2160.0	37.812
		60	2160.0	36.436
	50	15	2135.0	48.248
		30	2135.0	47.589
		60	2135.0	46.472
		15	2145.0	48.261
		30	2145.0	47.578
		60	2145.0	46.470
		15	2155.0	48.234
		30	2155.0	47.566
		60	2155.0	46.457
	60	30	2140.0	57.839
		60	2140.0	56.566
		30	2145.0	57.827
		60	2145.0	56.535
		30	2150.0	57.797
		60	2150.0	56.497

Table 25 Occupied Bandwidth QPSK - Output



INPUT

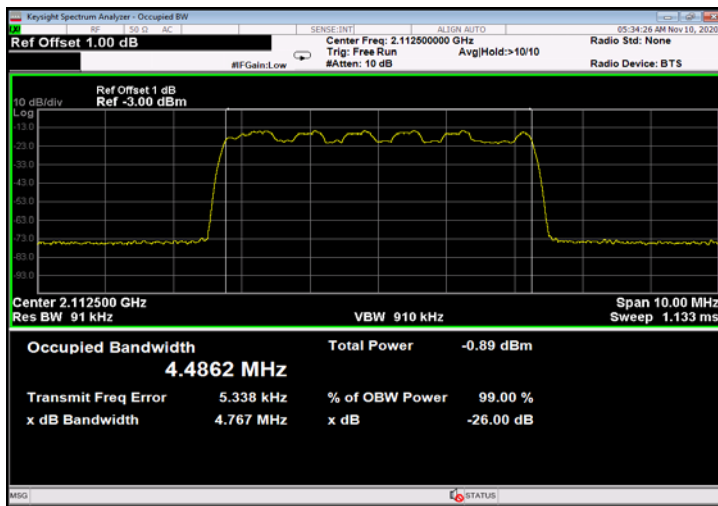


Figure 273: 16QAM 5MHz B.W.; 2112.5MHz, 15kHz - Input

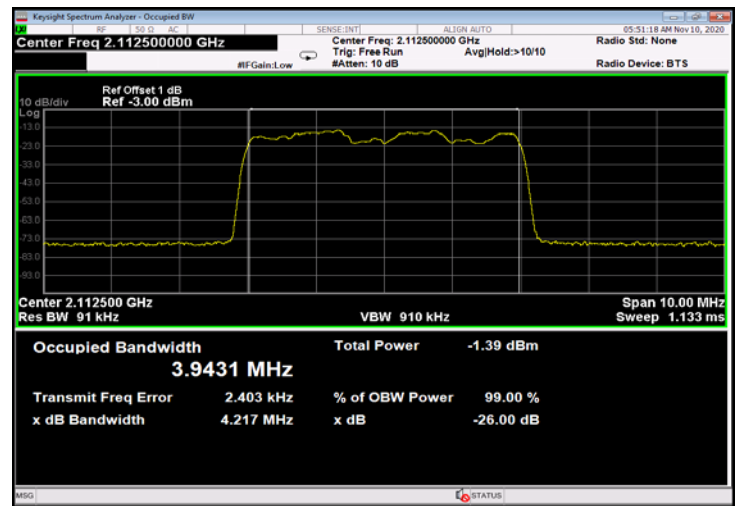


Figure 274: 16QAM 5MHz B.W.; 2112.5MHz, 30kHz - Input

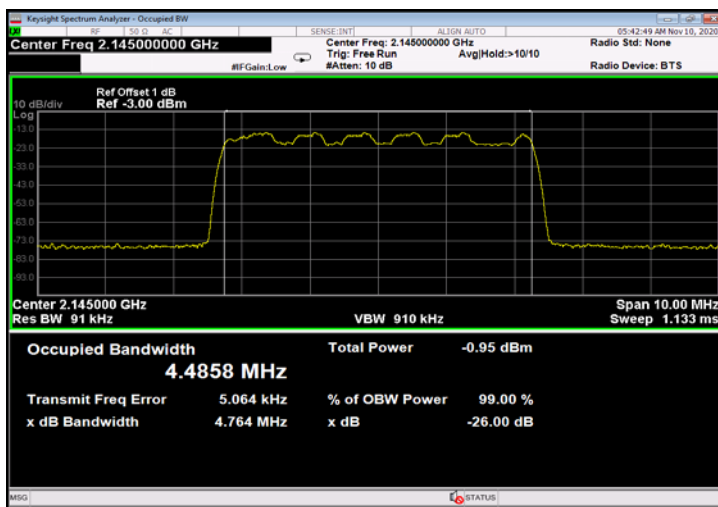


Figure 275: 16QAM 5MHz B.W.; 2145.0MHz, 15kHz - Input

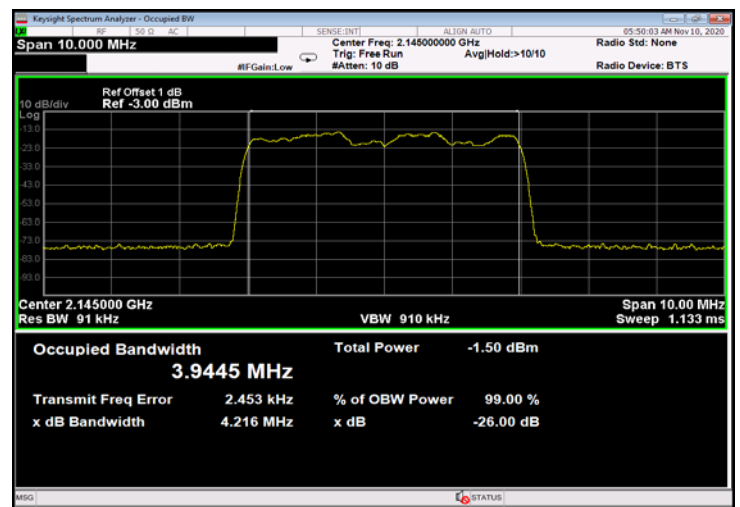


Figure 276: 16QAM 5MHz B.W.; 2145.0MHz, 30kHz - Input

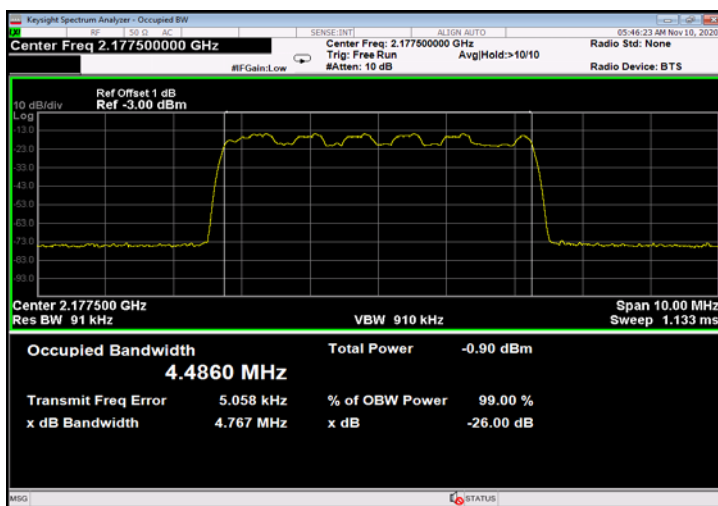


Figure 277: 16QAM 5MHz B.W.; 2177.5MHz, 15kHz - Input

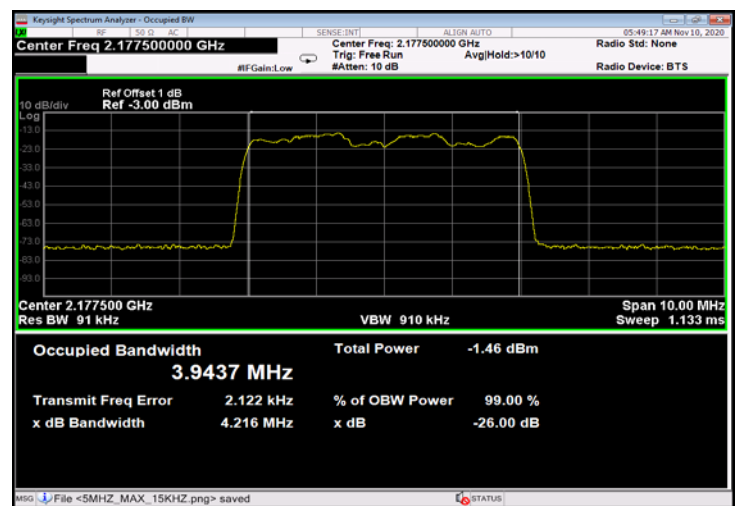


Figure 278: 16QAM 5MHz C.S.; 2177.5MHz, 30kHz - Input

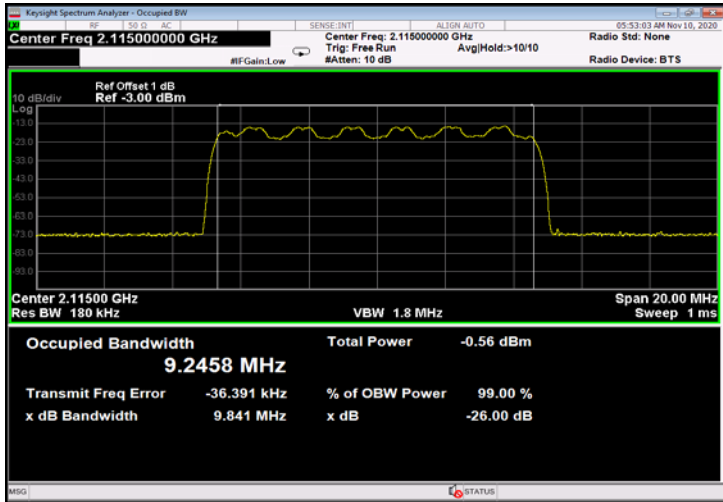


Figure 279: 16QAM 10MHz B.W.; 2115.0MHz, 15kHz - Input

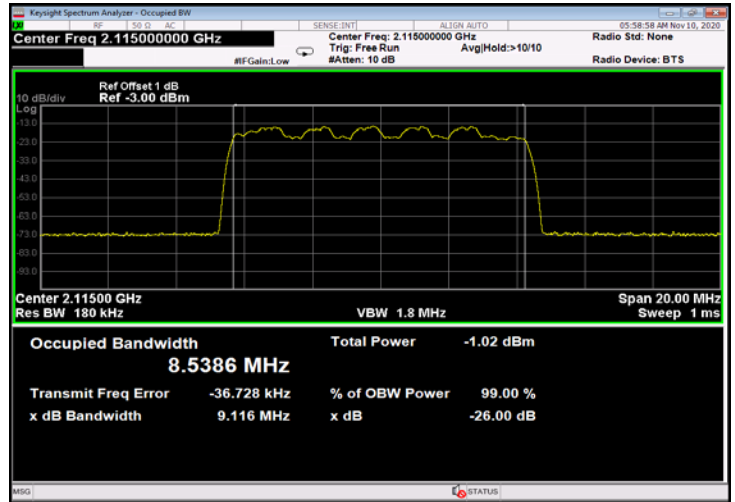


Figure 280: 16QAM 10MHz B.W.; 2115.0MHz, 30kHz - Input

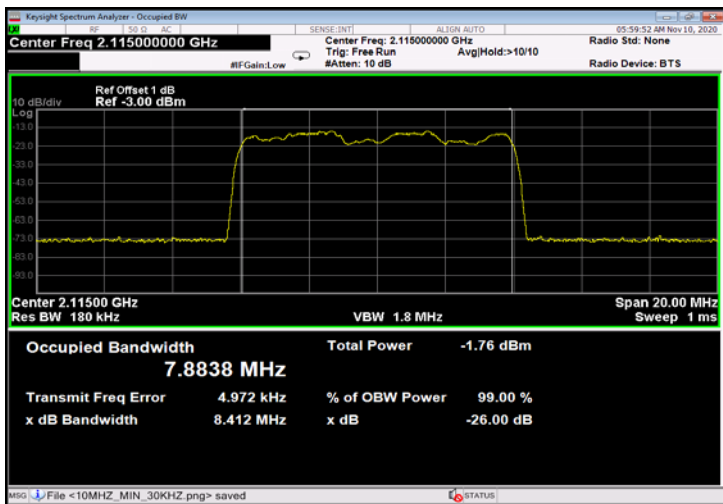


Figure 281: 16QAM 10MHz B.W.; 2115.0MHz, 60kHz - Input

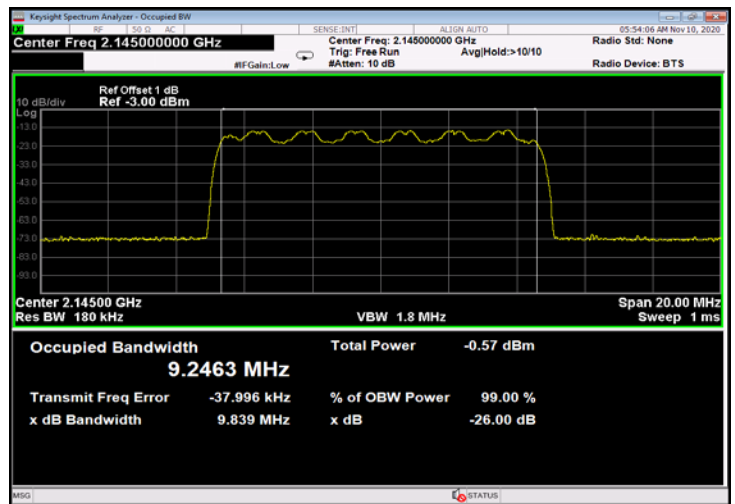


Figure 282: 16QAM 10MHz B.W.; 2145.0MHz, 15kHz - Input

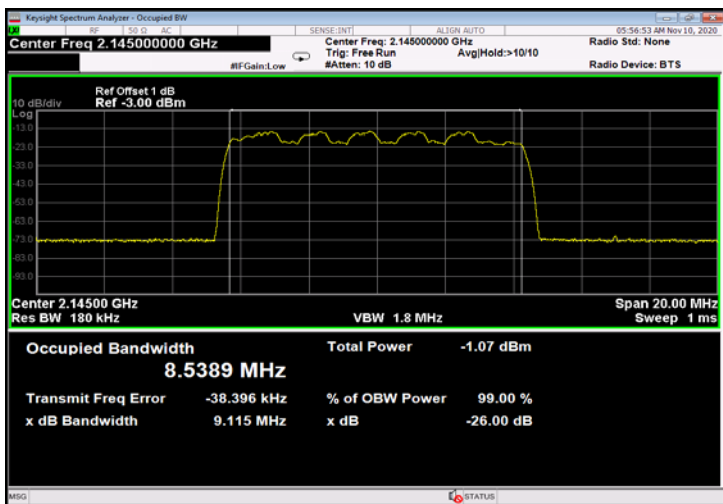


Figure 283: 16QAM 10MHz B.W.; 2145.0MHz, 30kHz - Input

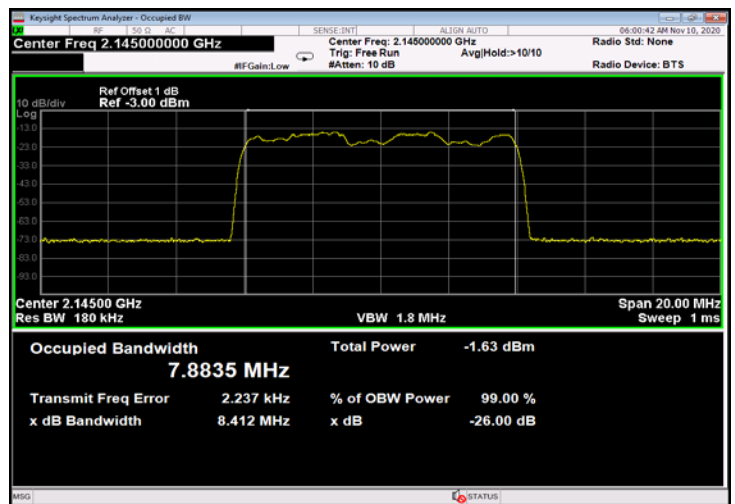


Figure 284: 16QAM 10MHz B.W.; 2145.0MHz, 60kHz - Input

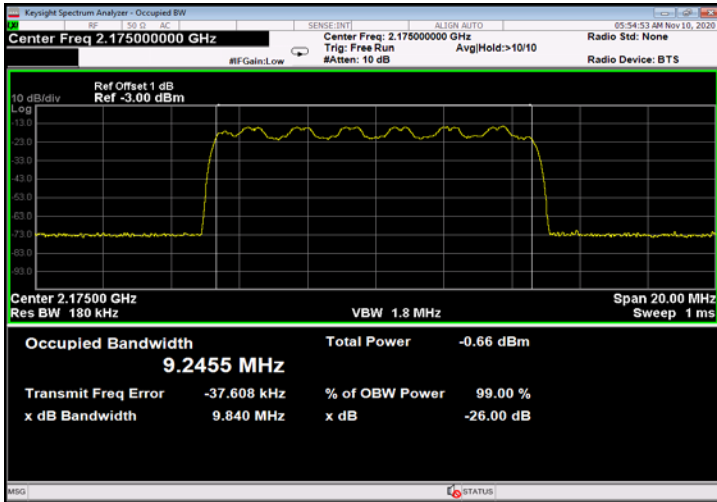


Figure 285: 16QAM 10MHz B.W.; 2175.0MHz, 15kHz - Input

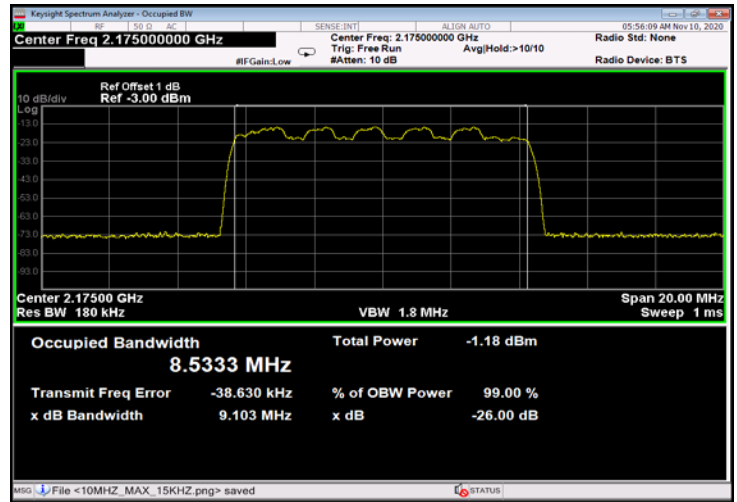


Figure 286: 16QAM 10MHz B.W.; 2175.0MHz, 30kHz - Input

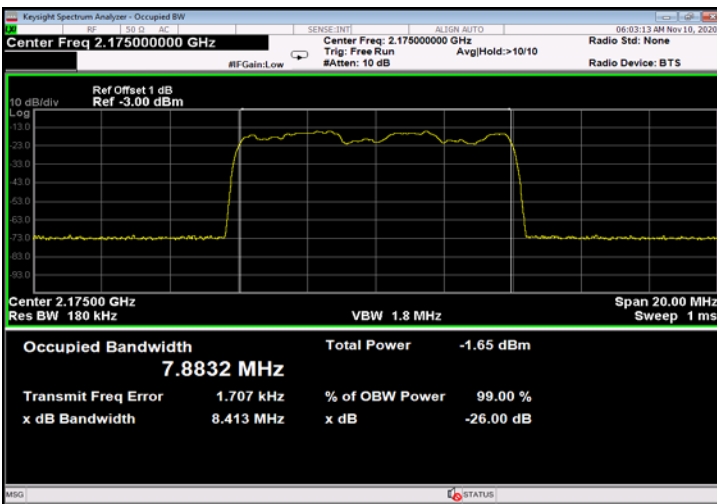


Figure 287: 16QAM 10MHz B.W.; 2175.0MHz, 60kHz - Input

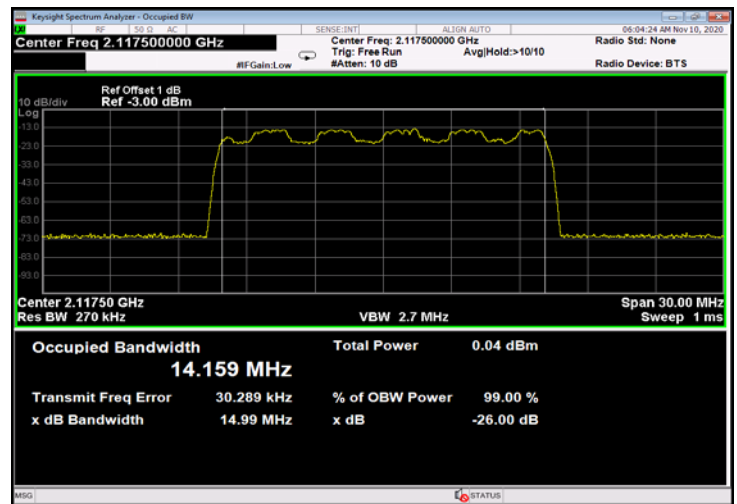


Figure 288: 16QAM 15MHz B.W.; 2117.5MHz, 15kHz - Input

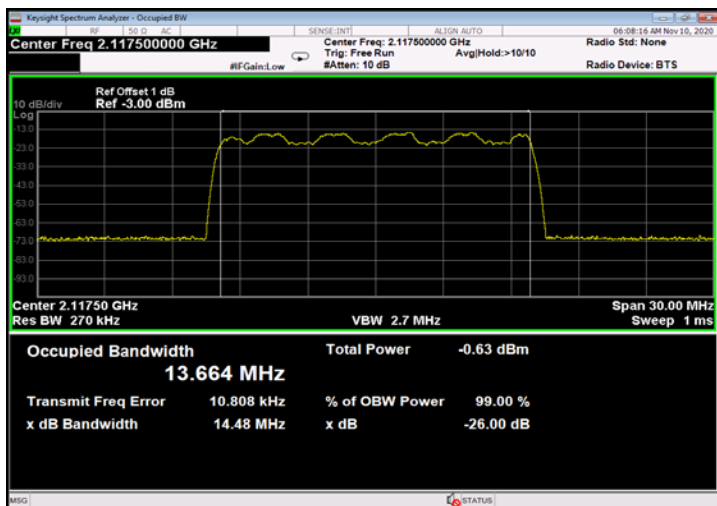


Figure 289: 16QAM 15MHz B.W.; 2117.5MHz, 30kHz - Input

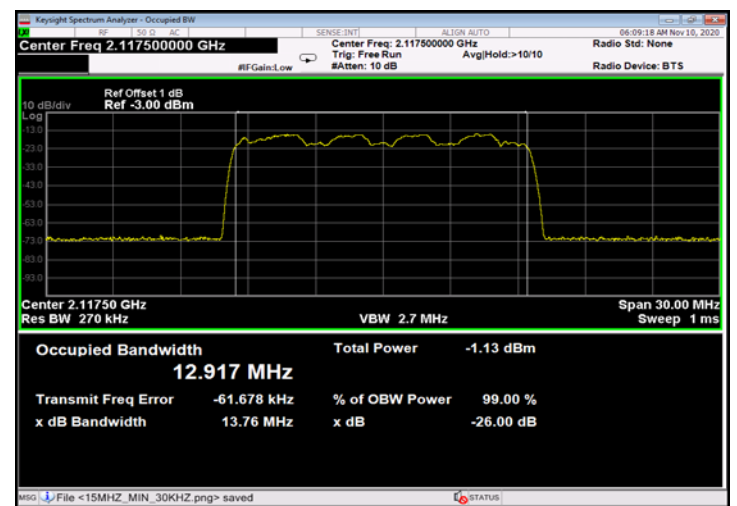


Figure 290: 16QAM 10MHz B.W.; 2117.5MHz, 60kHz - Input