

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

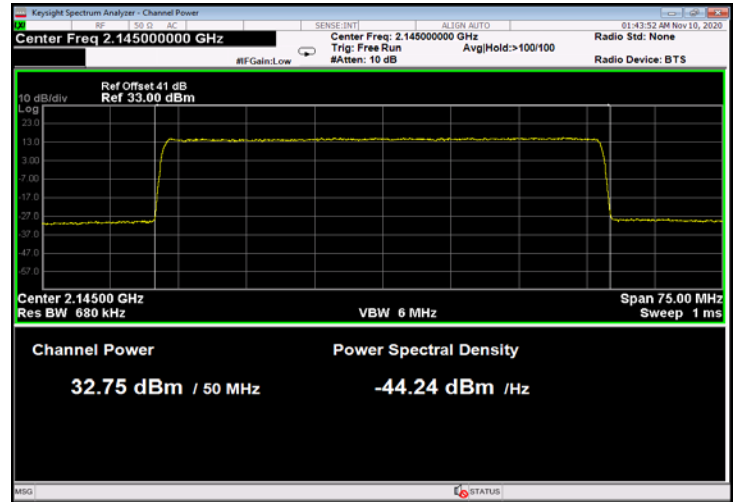


Figure 196: 256QAM 50MHz B.W.; 2145.0MHz, 30kHz

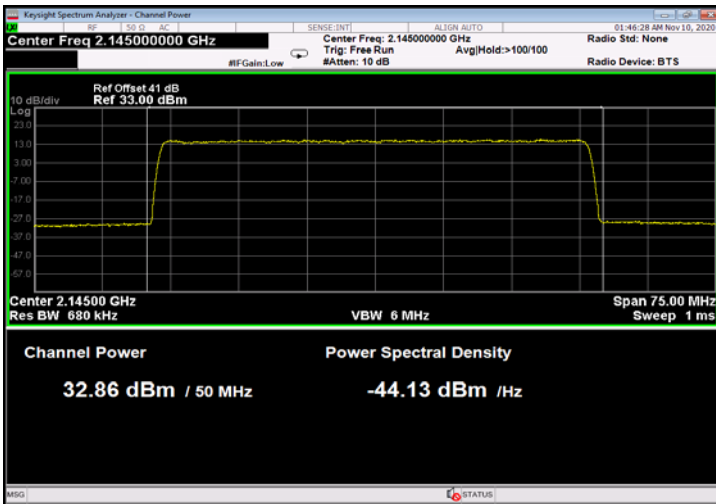


Figure 197: 256QAM 50MHz B.W.; 2145.0MHz, 60kHz

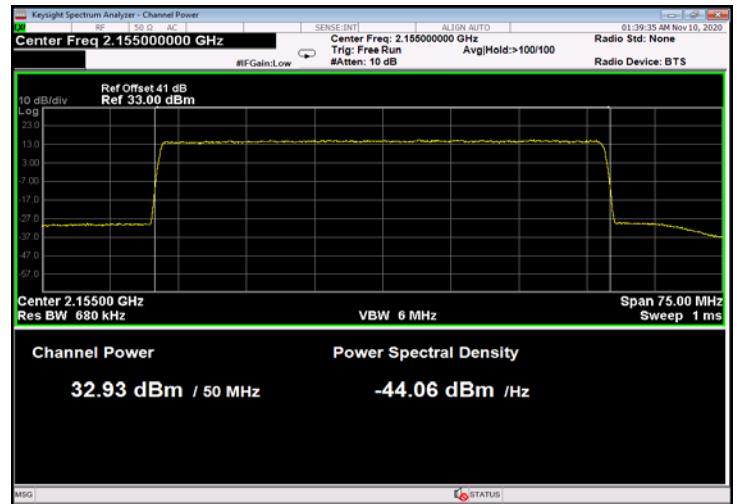


Figure 198: 256QAM 50MHz B.W.; 2155.0MHz, 15kHz

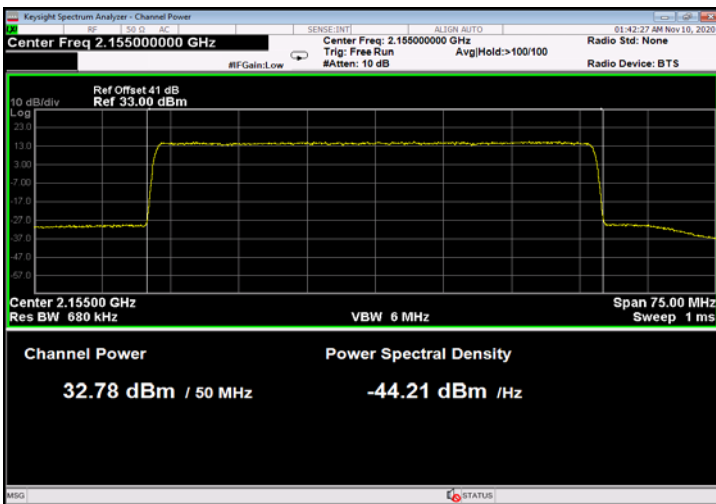


Figure 199: 256QAM 50MHz B.W.; 2155.0MHz, 30kHz

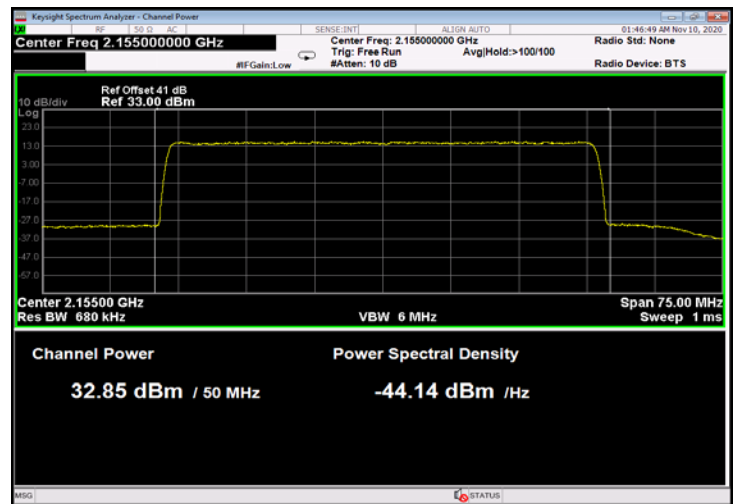


Figure 200: 256QAM 50MHz B.W.; 2155.0MHz, 60kHz

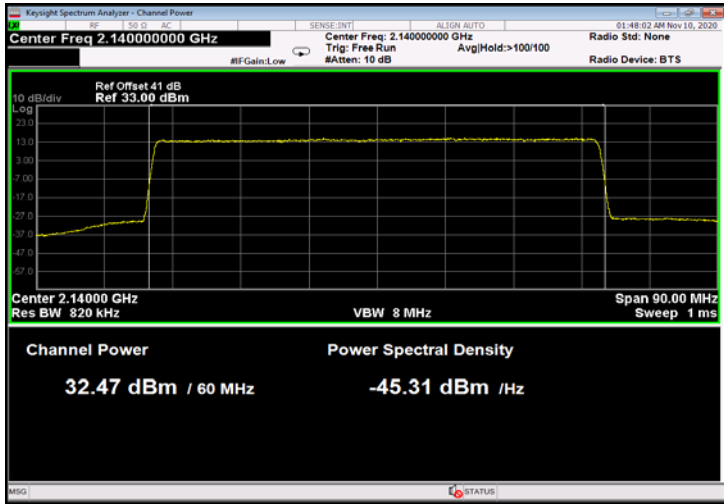


Figure 201: 256QAM 60MHz B.W.; 2140.0MHz, 30kHz

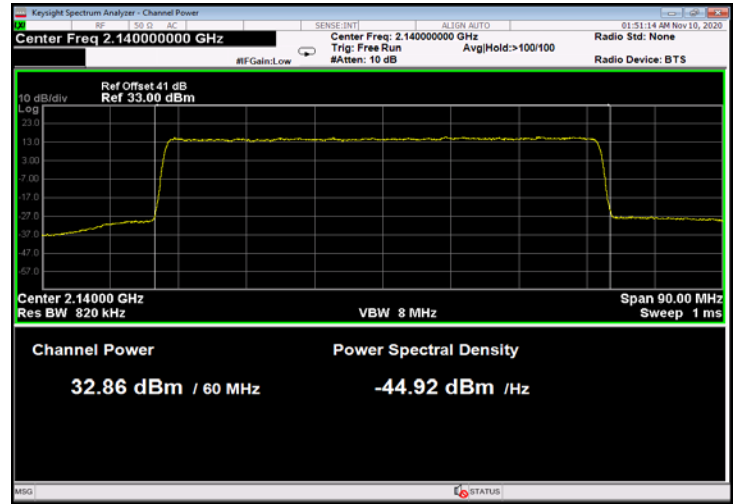


Figure 202: 256QAM 60MHz B.W.; 2140.0MHz, 60kHz

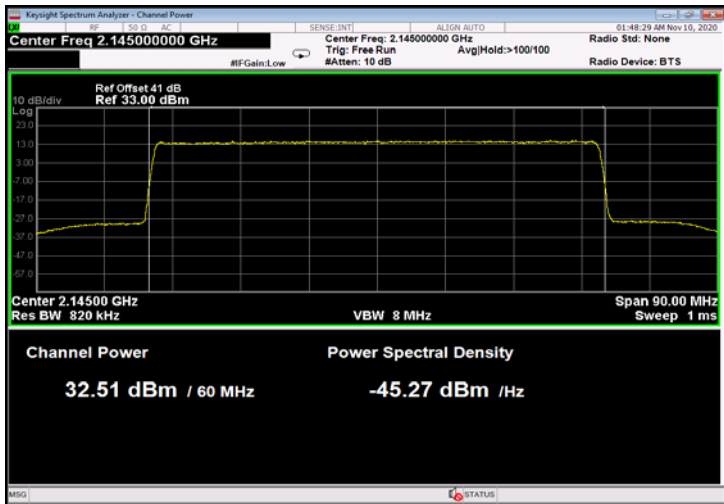


Figure 203: 256QAM 60MHz B.W.; 2145.0MHz, 30kHz

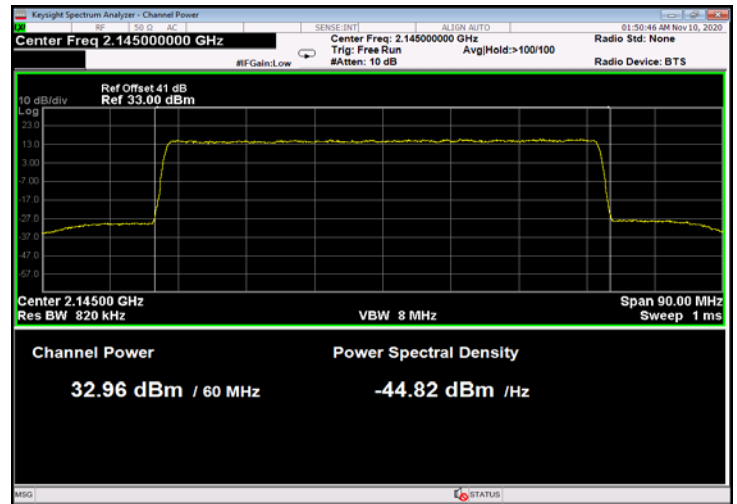


Figure 204: 256QAM 60MHz B.W.; 2145.0MHz, 60kHz

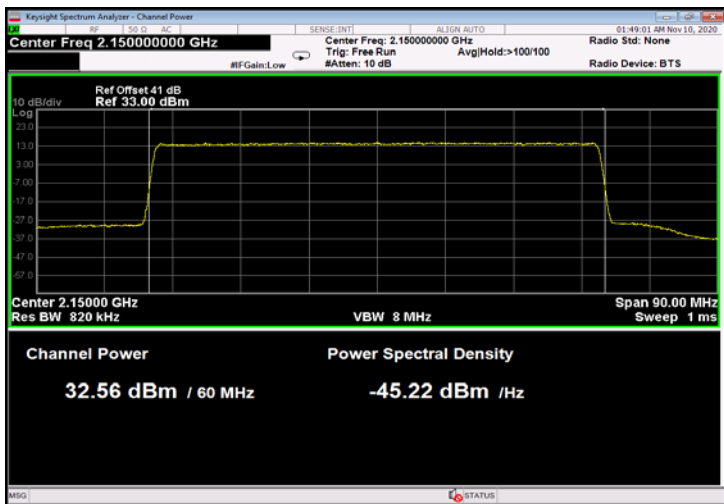


Figure 205: 256QAM 60MHz B.W.; 2150.0MHz, 30kHz

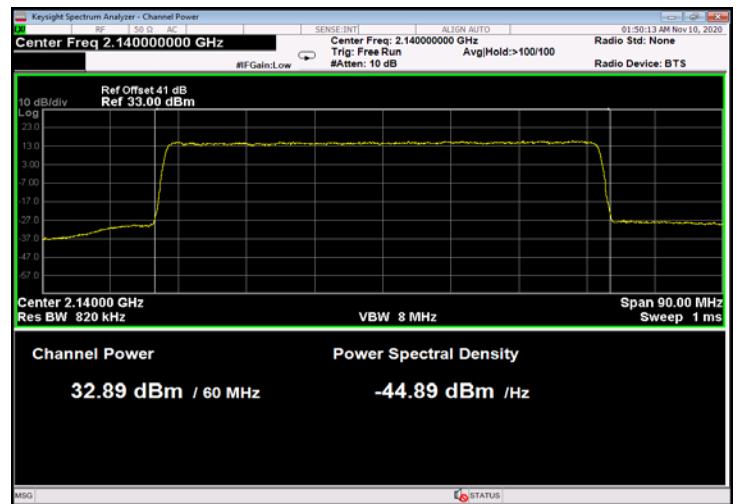


Figure 206: 256QAM 60MHz B.W.; 1965.0MHz, 60kHz

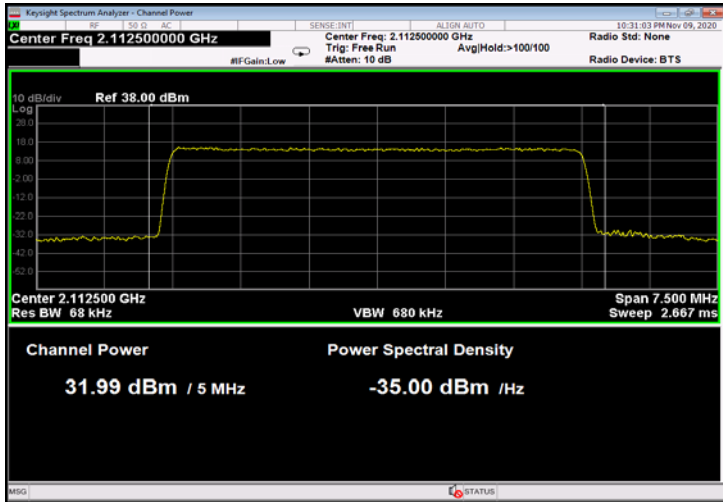


Figure 207: QPSK 5MHz B.W.; 2112.5MHz, 15kHz

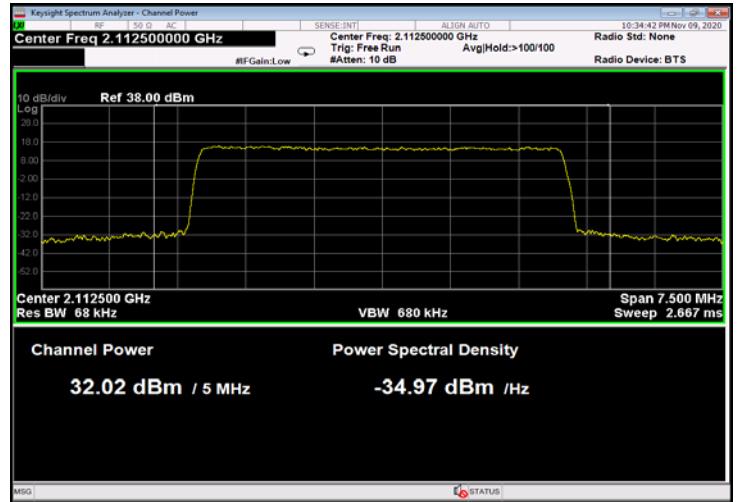


Figure 208: QPSK 5MHz B.W.; 2112.5MHz, 30kHz

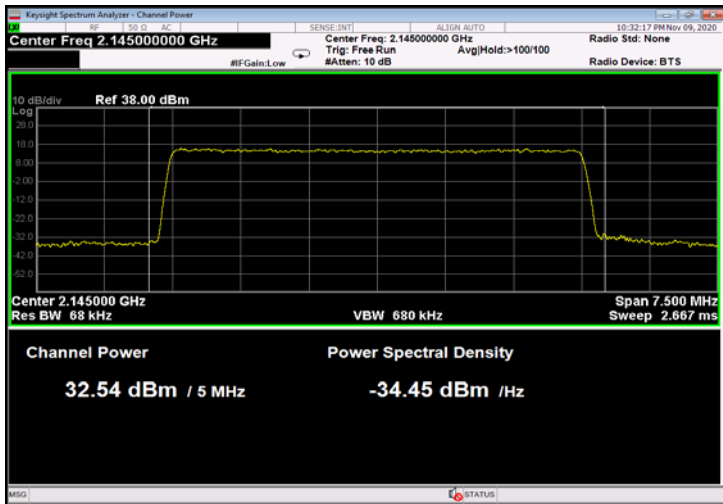


Figure 209: QPSK 5MHz B.W.; 2145.0MHz, 15kHz

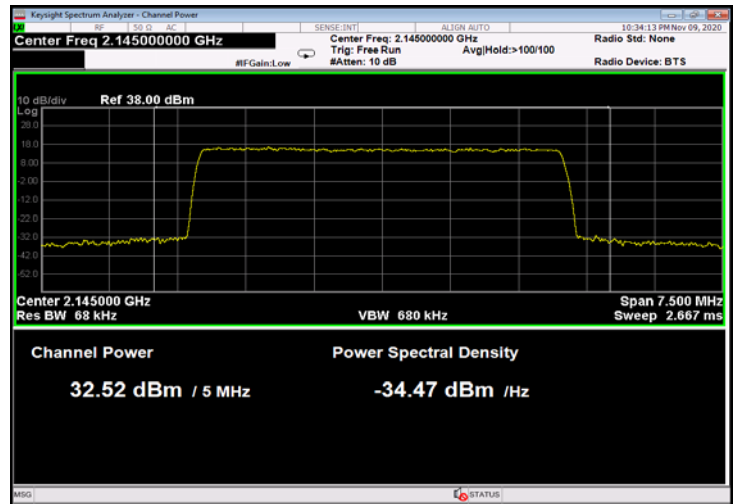


Figure 210: QPSK 5MHz B.W.; 2145.0MHz, 30kHz

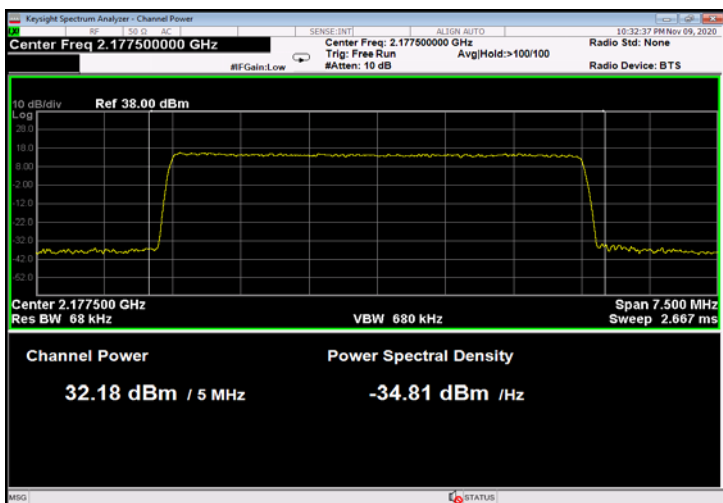


Figure 211: QPSK 5MHz B.W.; 2177.5MHz, 15kHz

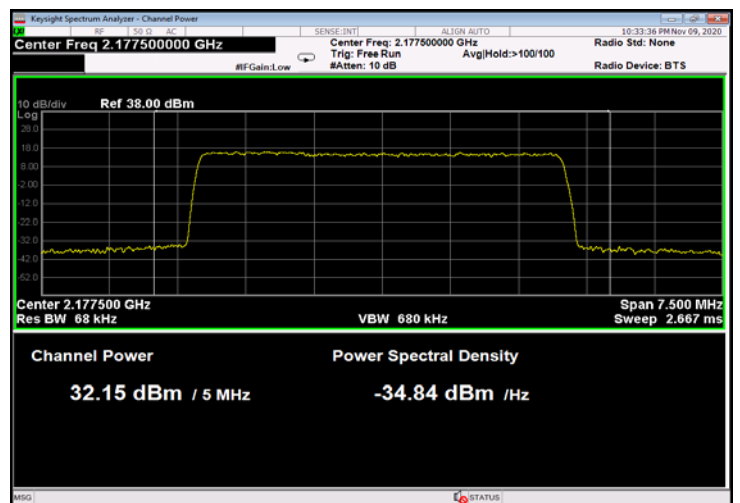


Figure 212: QPSK 5MHz C.S.; 2177.5MHz, 30kHz

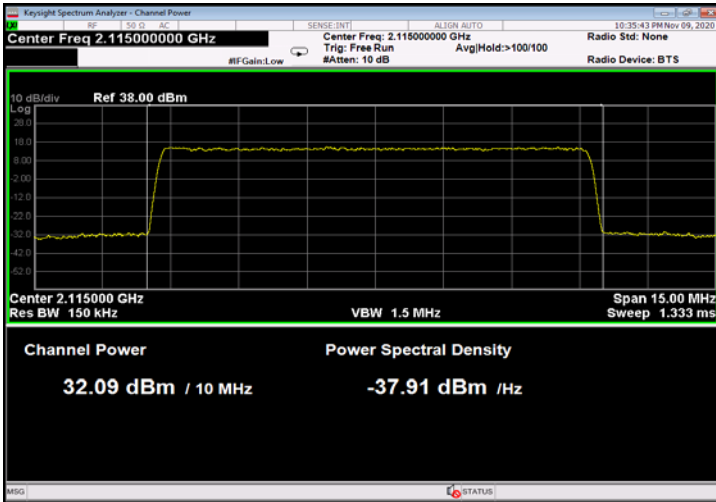


Figure 213: QPSK 10MHz B.W.; 2115.0MHz, 15kHz

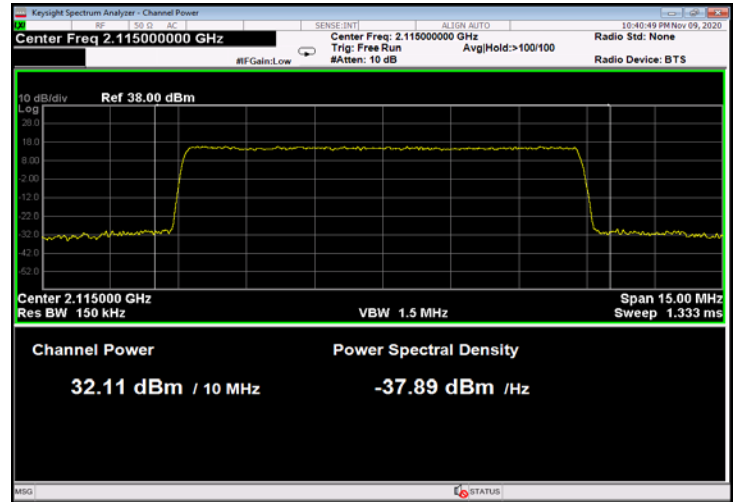


Figure 214: QPSK 10MHz B.W.; 2115.0MHz, 30kHz

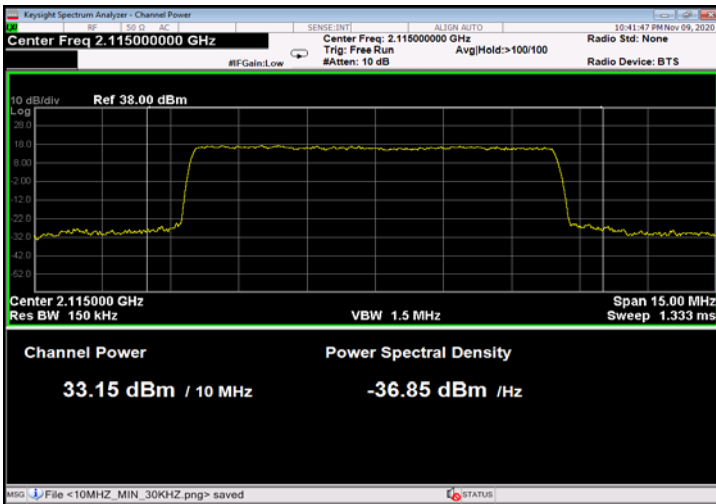


Figure 215: QPSK 10MHz B.W.; 2115.0MHz, 60kHz

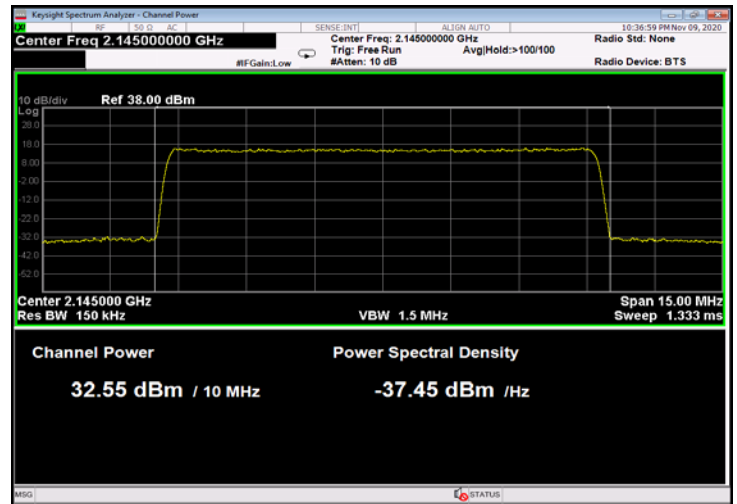


Figure 216: QPSK 10MHz B.W.; 2145.0MHz, 15kHz

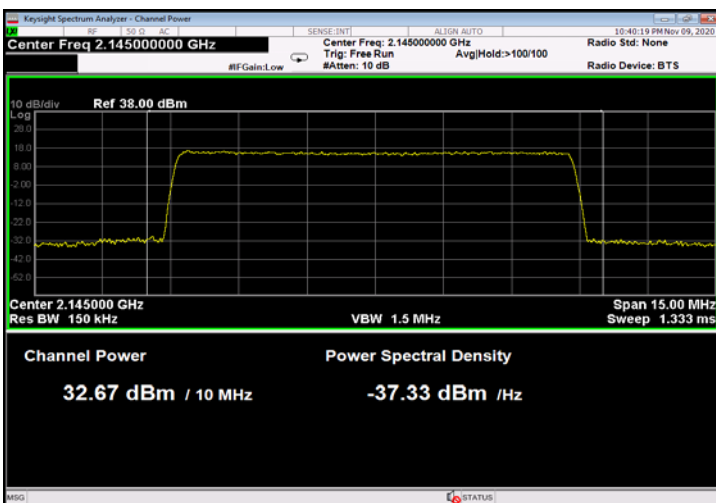


Figure 217: QPSK 10MHz B.W.; 2145.0MHz, 30kHz

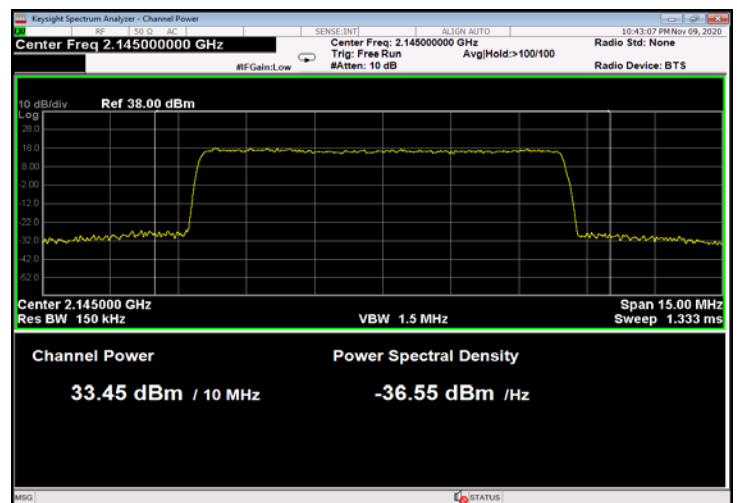


Figure 218: QPSK 10MHz B.W.; 2145.0MHz, 60kHz

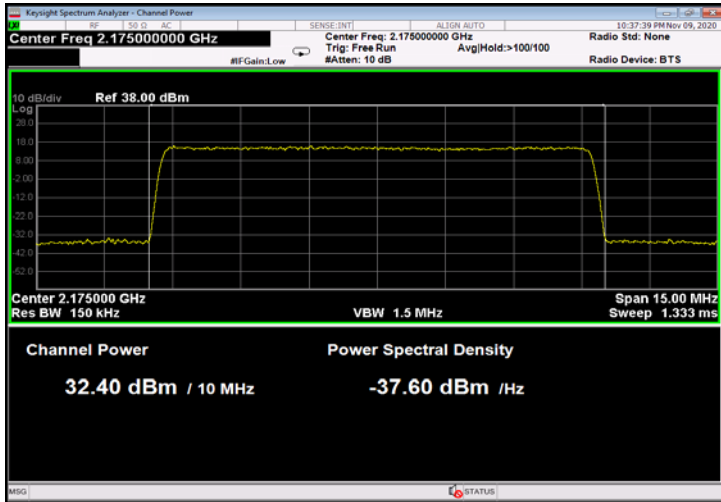


Figure 219: QPSK 10MHz B.W.; 2175.0MHz, 15kHz

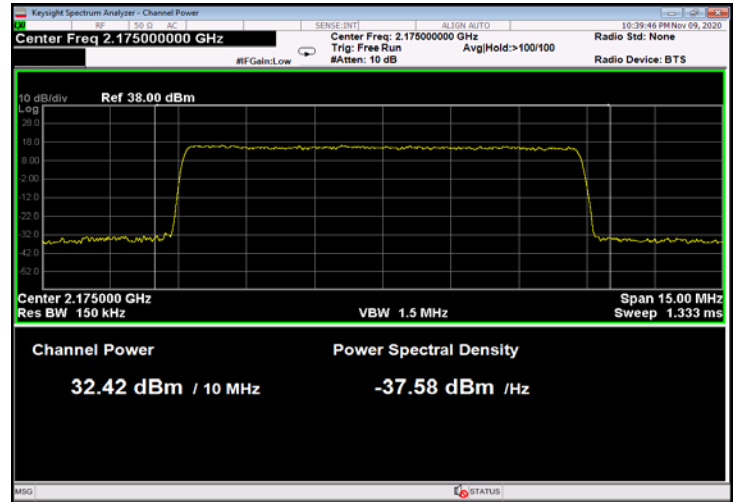


Figure 220: QPSK 10MHz B.W.; 2175.0MHz, 30kHz

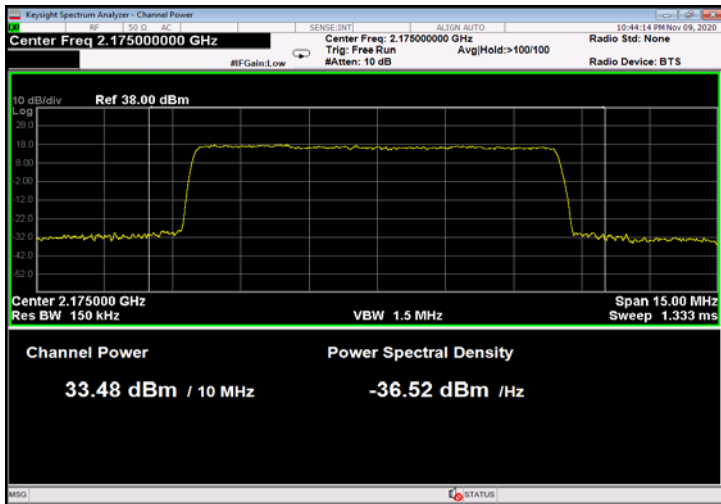


Figure 221: QPSK 10MHz B.W.; 2175.0MHz, 60kHz

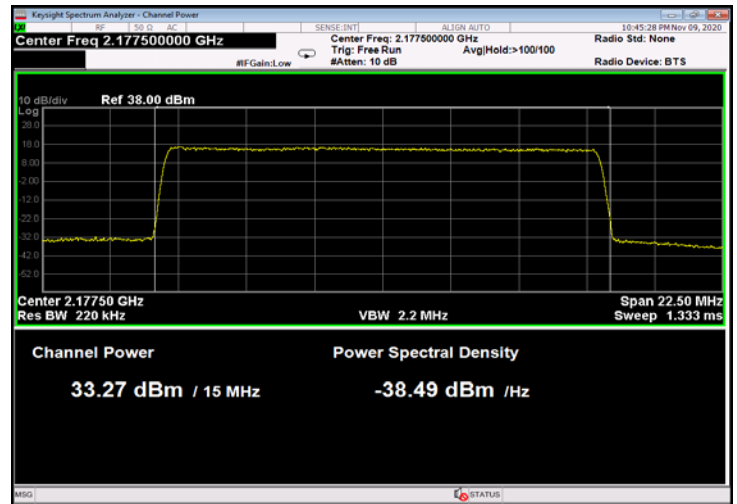


Figure 222: QPSK 15MHz B.W.; 2117.5MHz, 15kHz

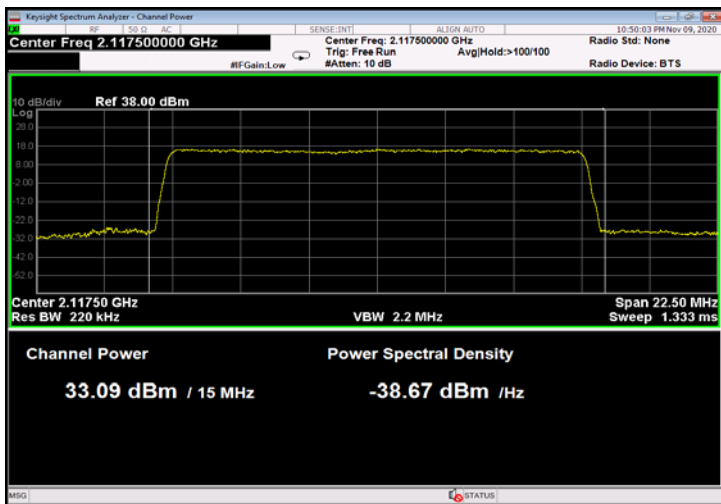


Figure 223: QPSK 15MHz B.W.; 2117.5MHz, 30kHz

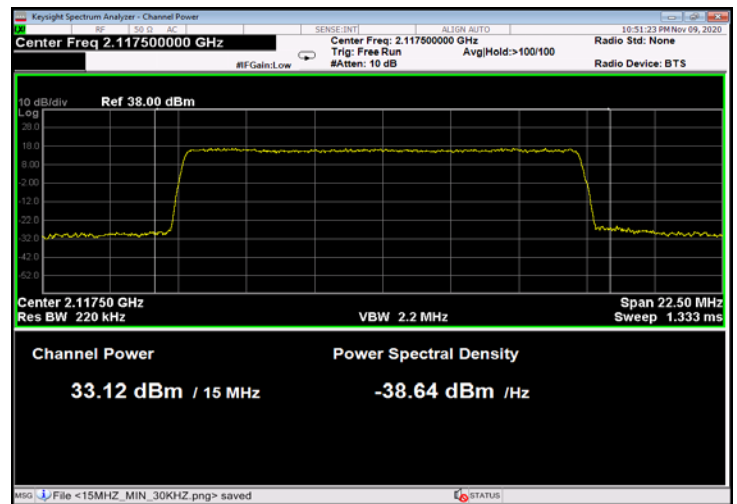


Figure 224: QPSK 10MHz B.W.; 2117.5MHz, 60kHz

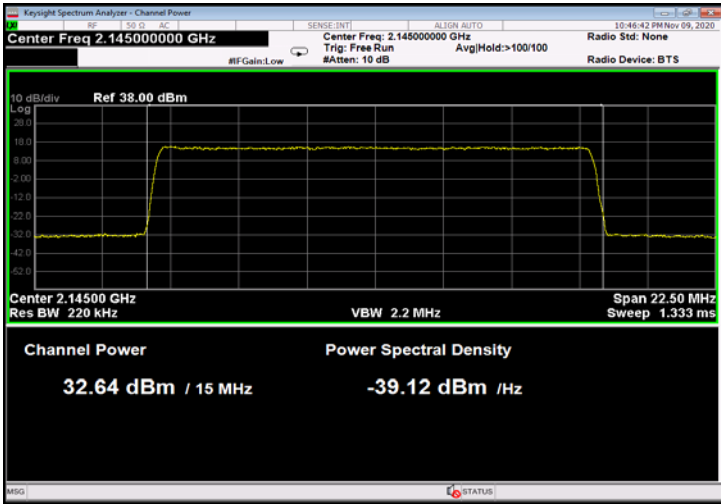


Figure 225: QPSK 15MHz B.W.; 2145.0MHz, 15kHz

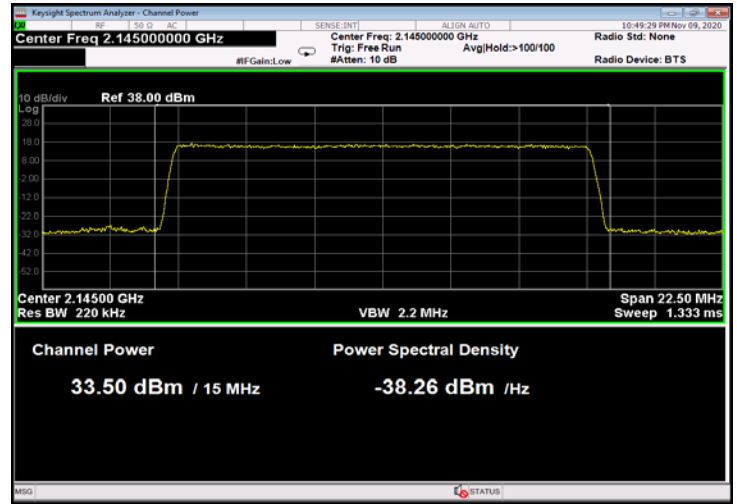


Figure 226: QPSK 15MHz B.W.; 2145.0MHz, 30kHz

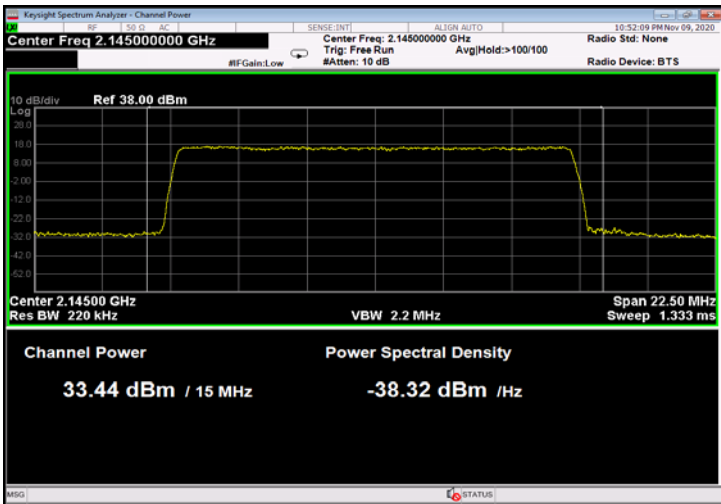


Figure 227: QPSK 15MHz B.W.; 2145.0MHz, 60kHz

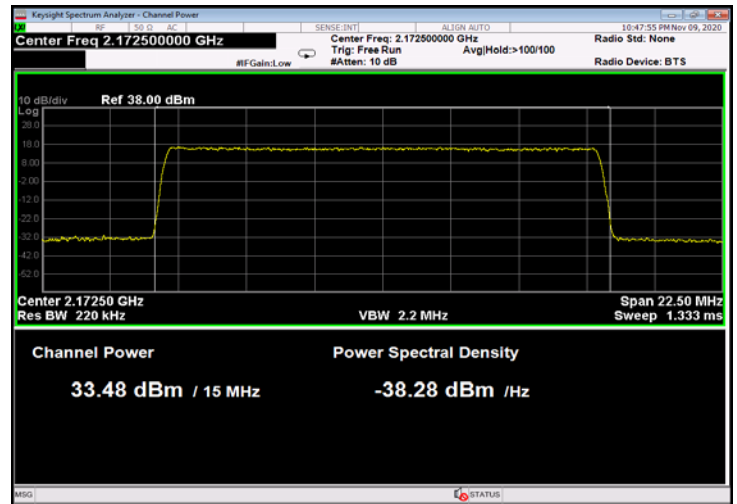


Figure 228: QPSK 15MHz B.W.; 2172.5MHz, 15kHz

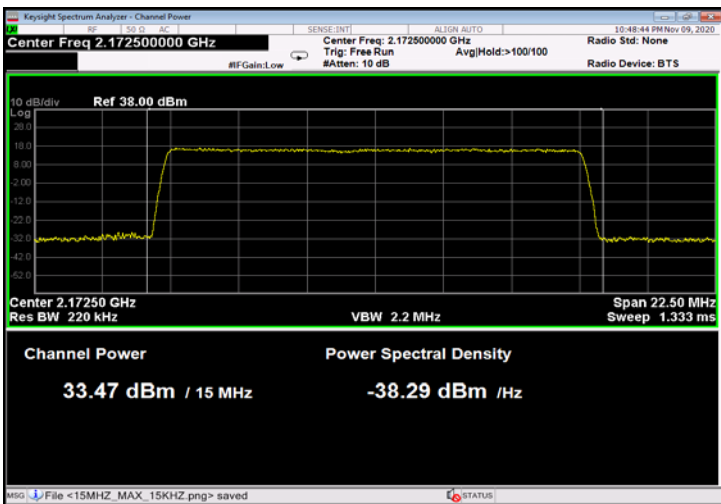


Figure 229: QPSK 15MHz B.W.; 2172.5MHz, 30kHz

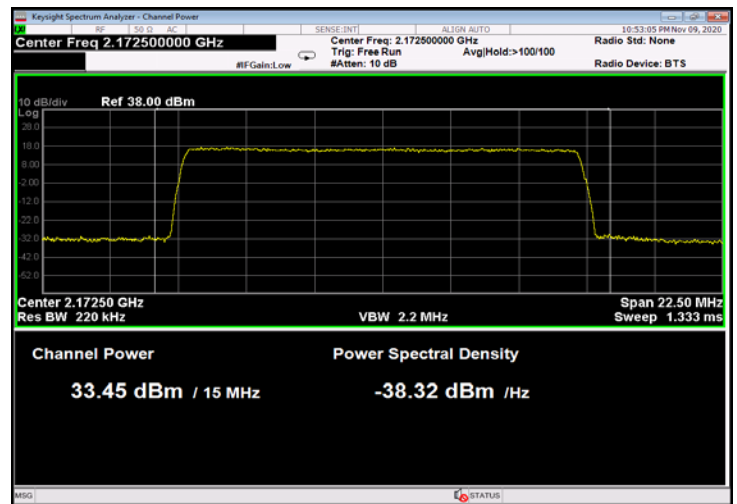


Figure 230: QPSK 15MHz B.W.; 2172.5MHz, 60kHz

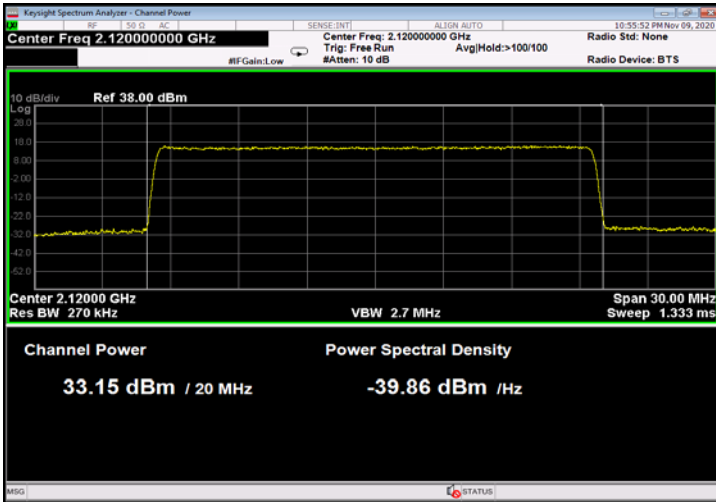


Figure 231: QPSK 20MHz B.W.; 2120.0MHz, 15kHz

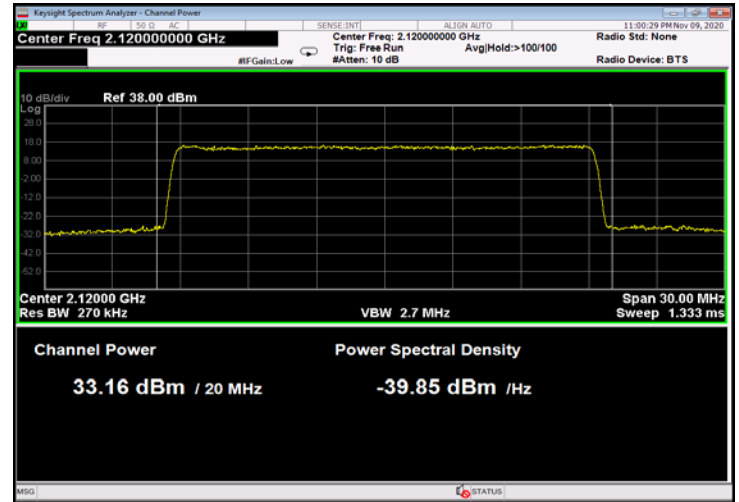


Figure 232: QPSK 20MHz B.W.; 2120.0MHz, 30kHz

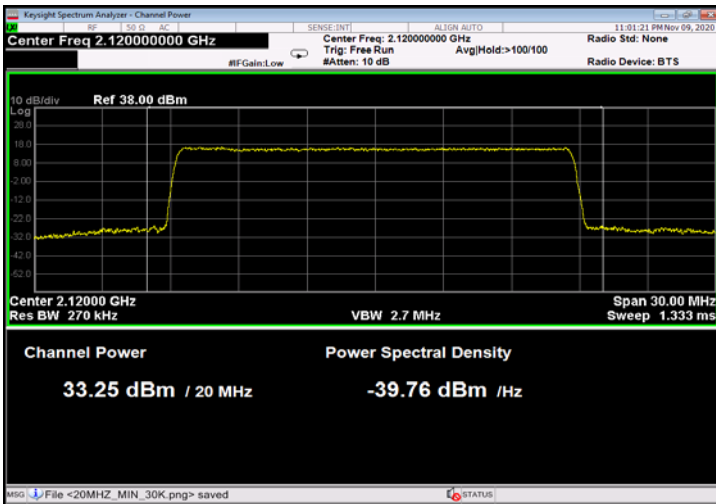


Figure 233: QPSK 20MHz B.W.; 2120.0MHz, 60kHz

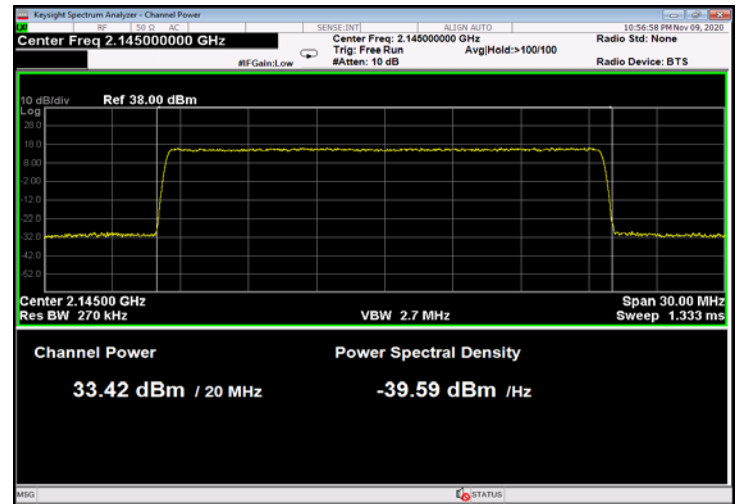


Figure 234: QPSK 20MHz B.W.; 2145.0MHz, 15kHz

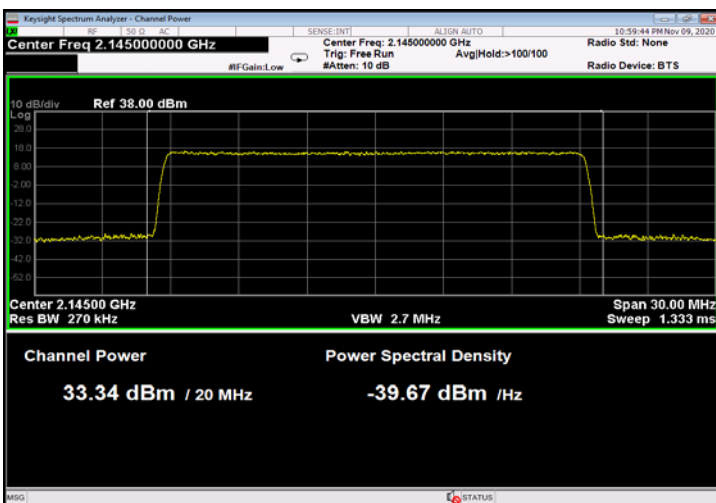


Figure 235: QPSK 20MHz B.W.; 2145.0MHz, 30kHz

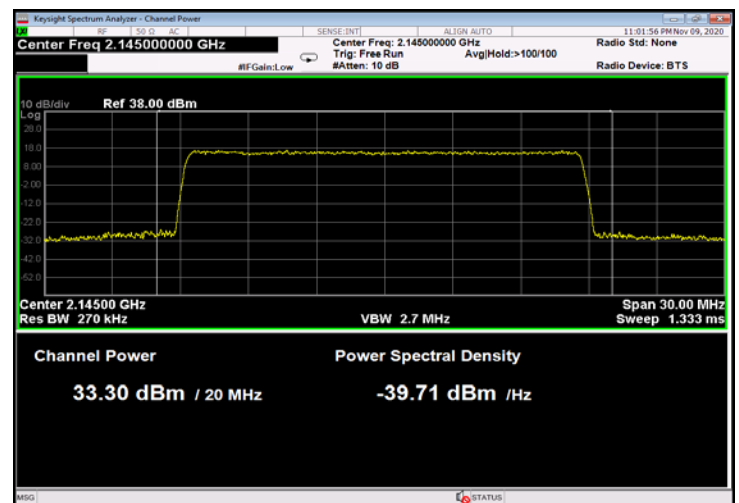


Figure 236: QPSK 20MHz B.W.; 2145.0MHz, 60kHz

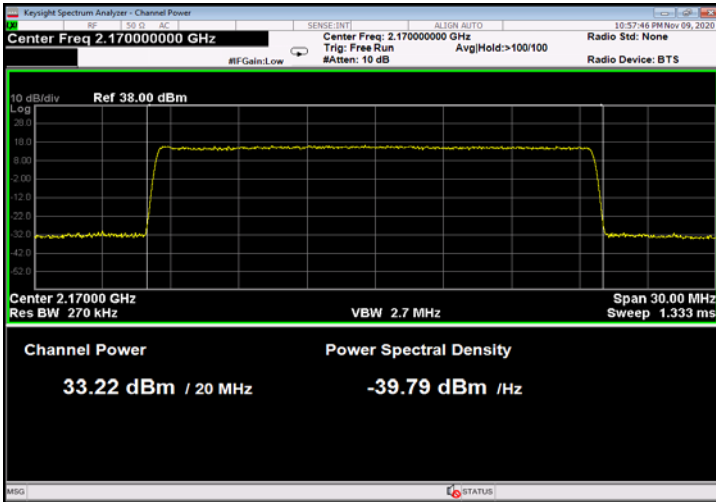


Figure 237: QPSK 20MHz B.W.; 2170.0MHz, 15kHz

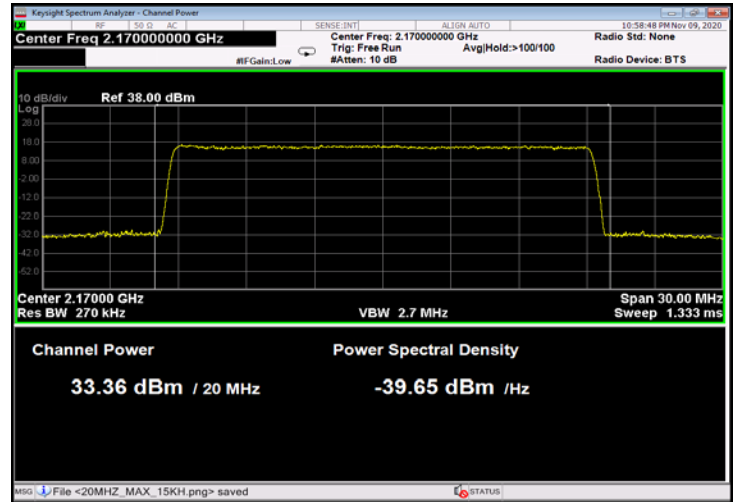


Figure 238: QPSK 20MHz B.W.; 2170.0MHz, 30kHz

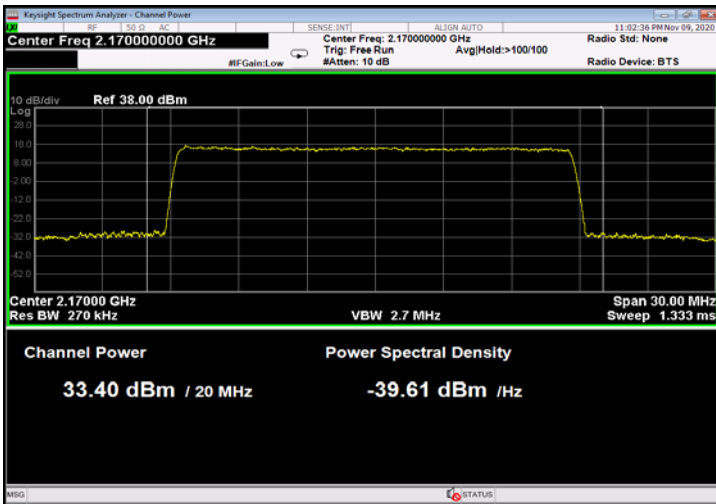


Figure 239: QPSK 20MHz B.W.; 2170.0MHz, 60kHz

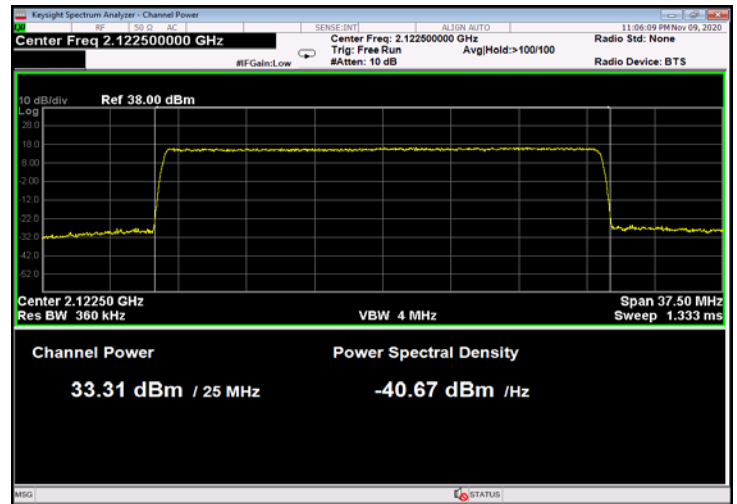


Figure 240: QPSK 25MHz B.W.; 2122.5MHz, 15kHz

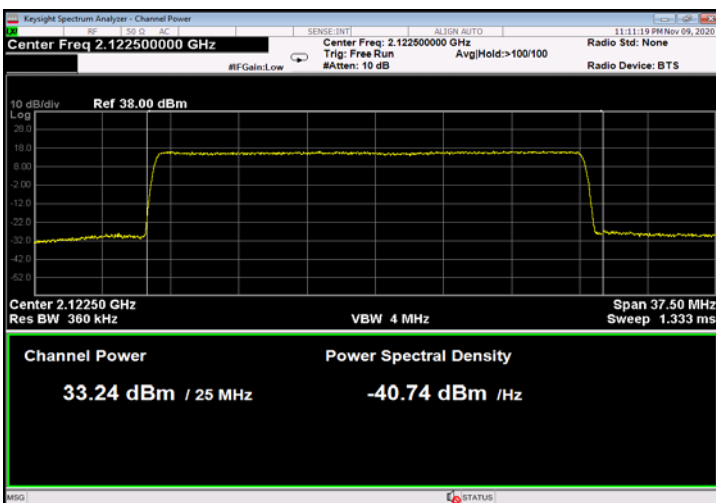


Figure 241: QPSK 25MHz B.W.; 2122.5MHz, 30kHz

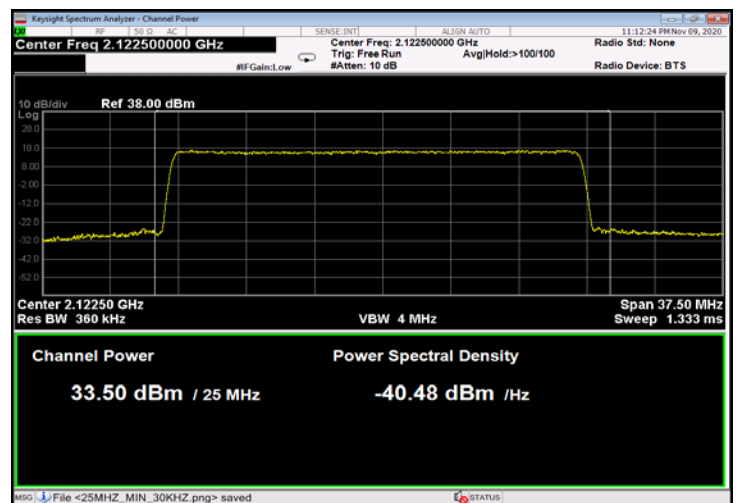


Figure 242: QPSK 25MHz B.W.; 2122.5MHz, 60kHz

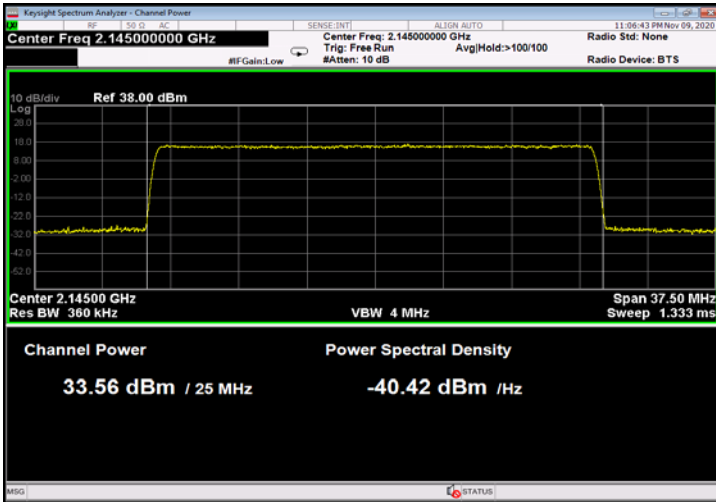


Figure 243: QPSK 25MHz B.W.; 2145.0MHz, 15kHz

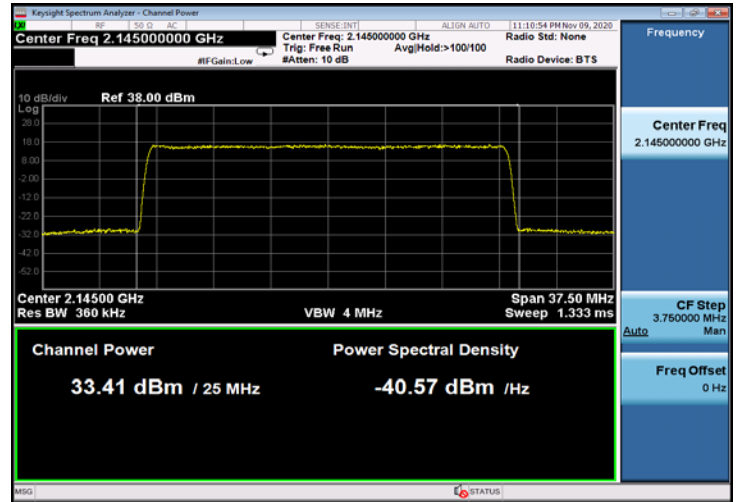


Figure 244: QPSK 25MHz B.W.; 2145.0MHz, 30kHz

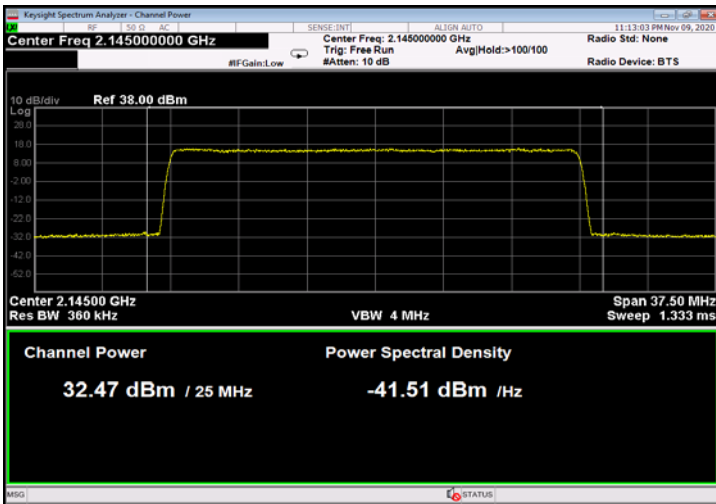


Figure 245: QPSK 25MHz B.W.; 2145.0MHz, 60kHz

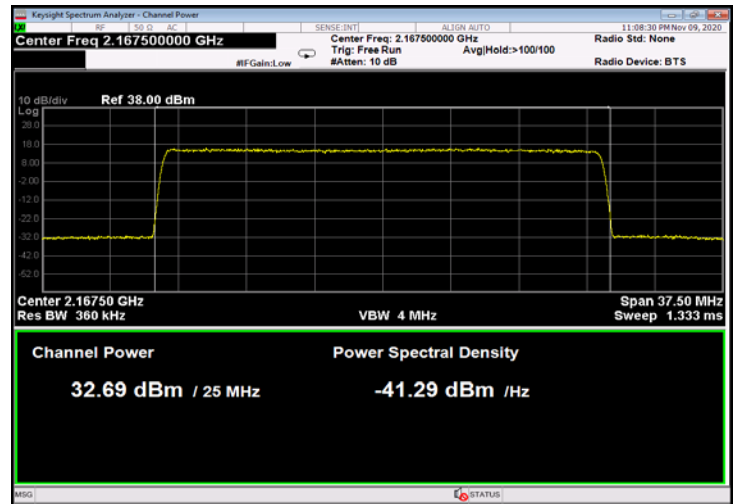


Figure 246: QPSK 25MHz B.W.; 2167.5MHz, 15kHz

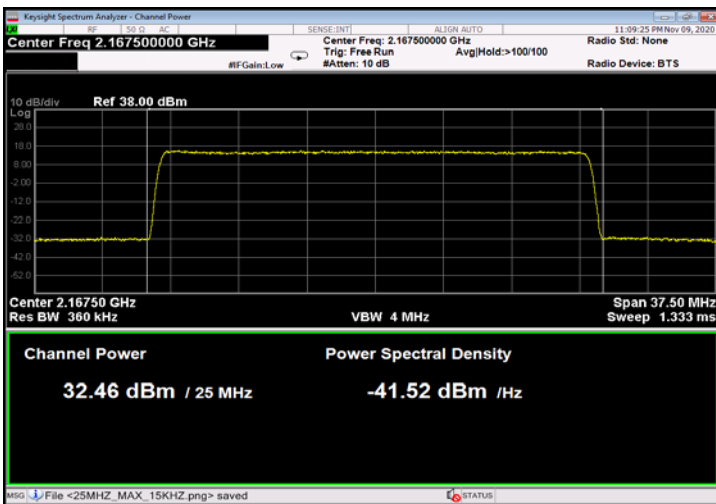


Figure 247: QPSK 25MHz B.W.; 2167.5MHz, 30kHz

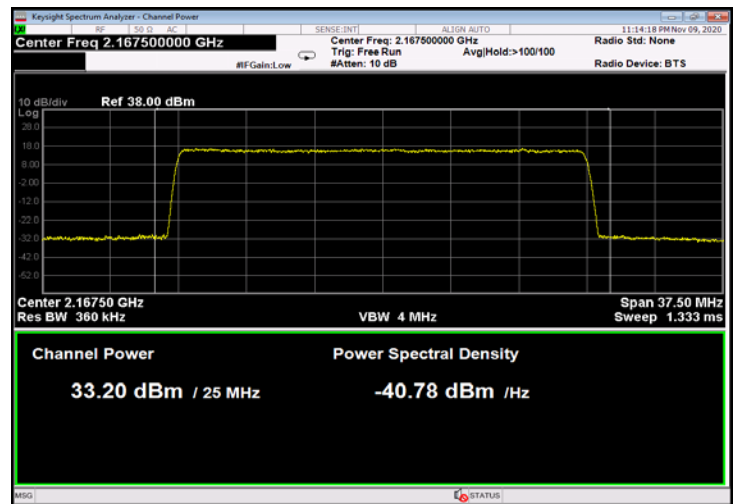


Figure 248: QPSK 25MHz B.W.; 2167.5MHz, 60kHz

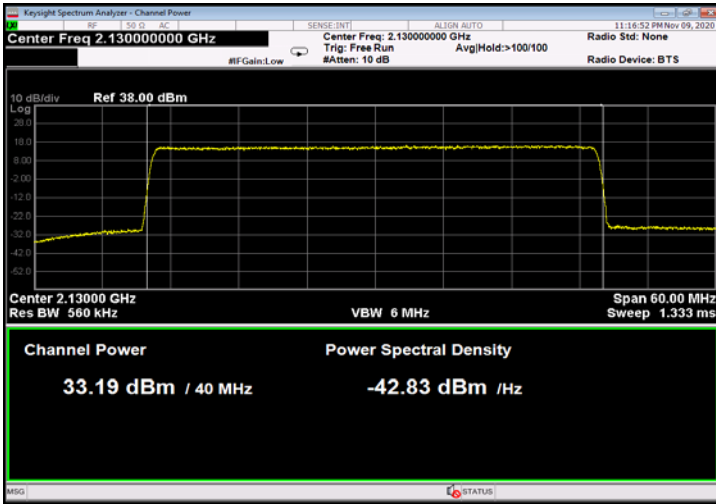


Figure 249: QPSK 40MHz B.W.; 2130.0MHz, 15kHz

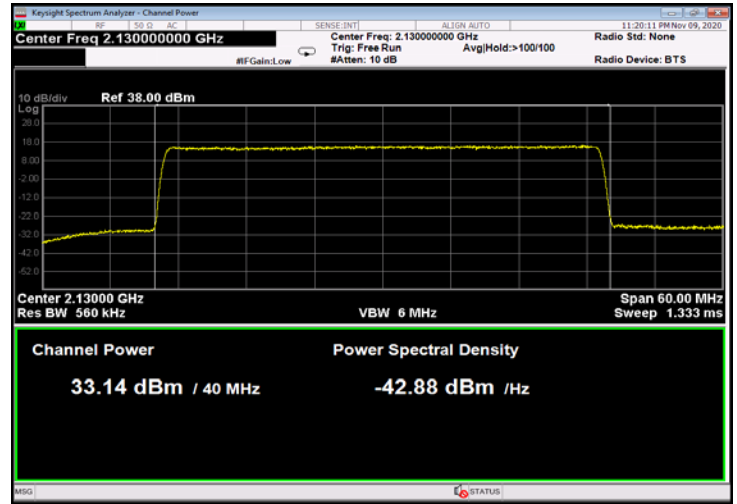


Figure 250: QPSK 40MHz B.W.; 2130.0MHz, 30kHz

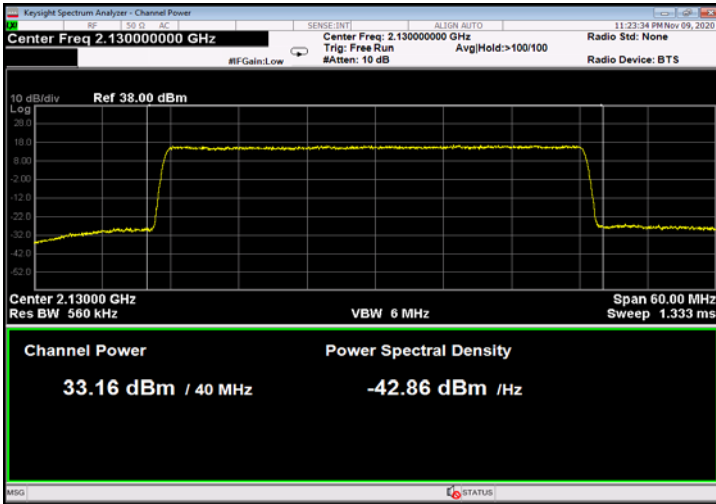


Figure 251: QPSK 40MHz B.W.; 2130.0MHz, 60kHz

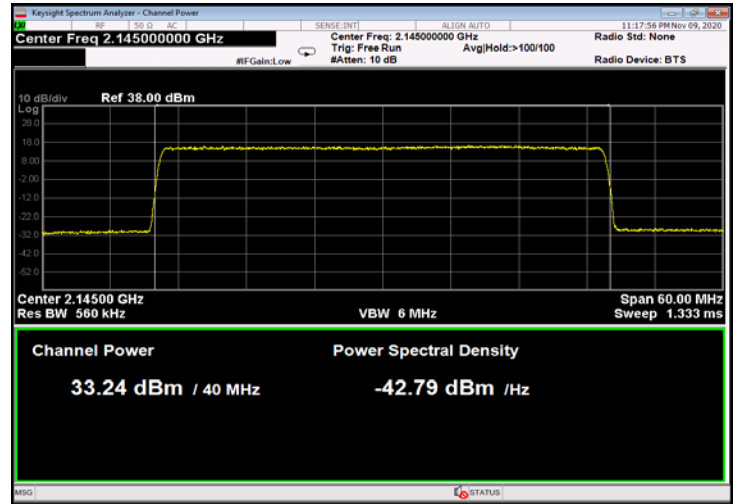


Figure 252: QPSK 40MHz B.W.; 2145.0MHz, 15kHz

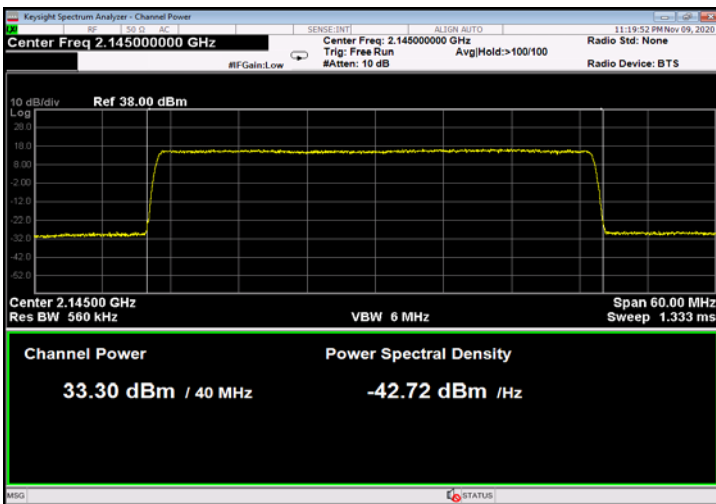


Figure 253: QPSK 40MHz B.W.; 2145.0MHz, 30kHz

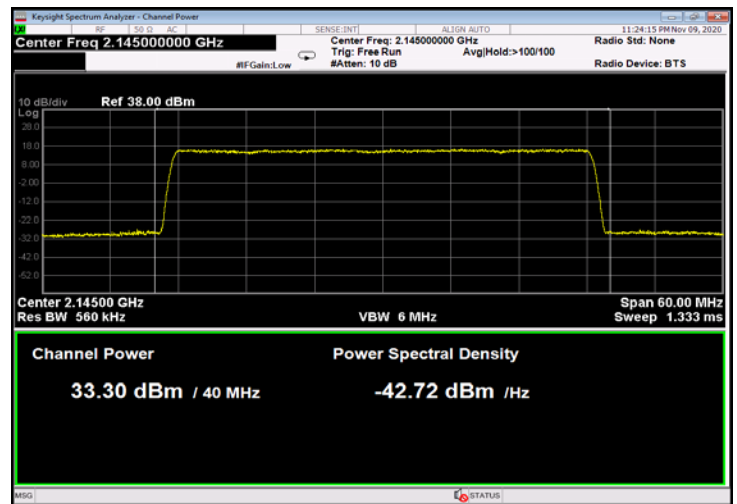


Figure 254: QPSK 40MHz B.W.; 2145.0MHz, 60kHz

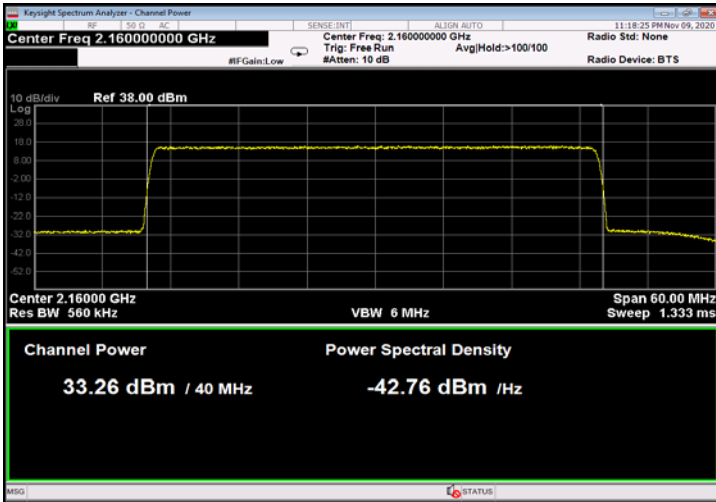


Figure 255: QPSK 40MHz B.W.; 2160.0MHz, 15kHz

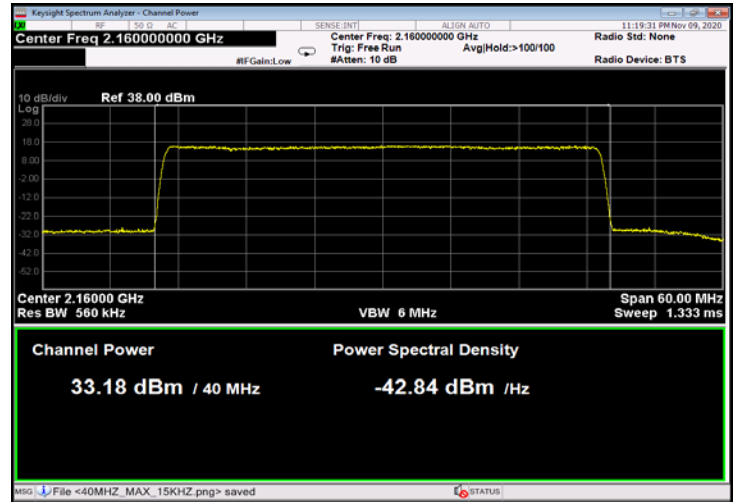


Figure 256: QPSK 40MHz B.W.; 2160.0MHz, 30kHz

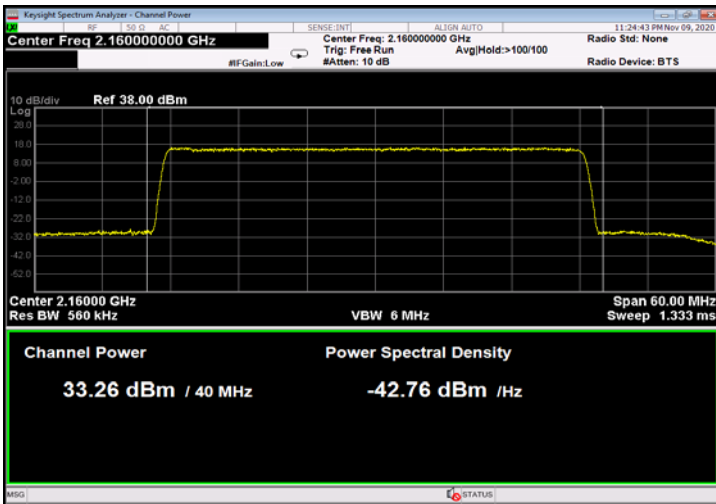


Figure 257: QPSK 40MHz B.W.; 2160.0MHz, 60kHz

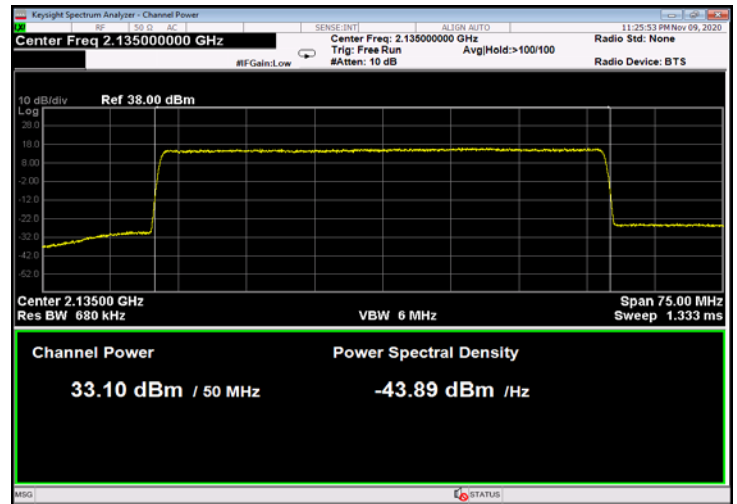


Figure 258: QPSK 50MHz B.W.; 2135.0MHz, 15kHz

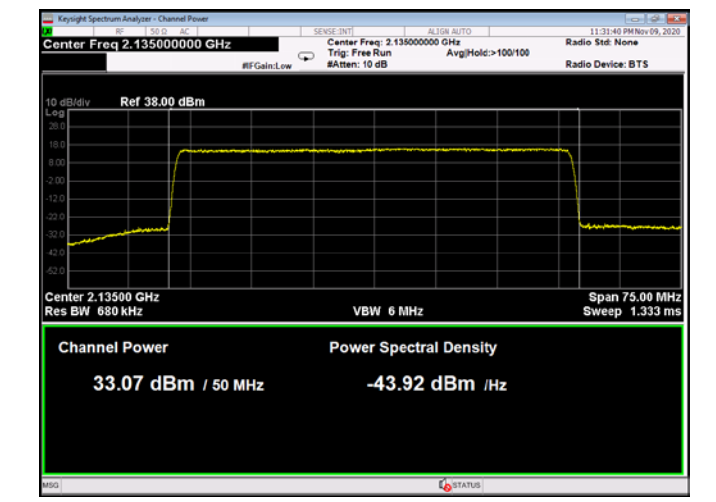


Figure 259: QPSK 50MHz B.W.; 2135.0MHz, 30kHz

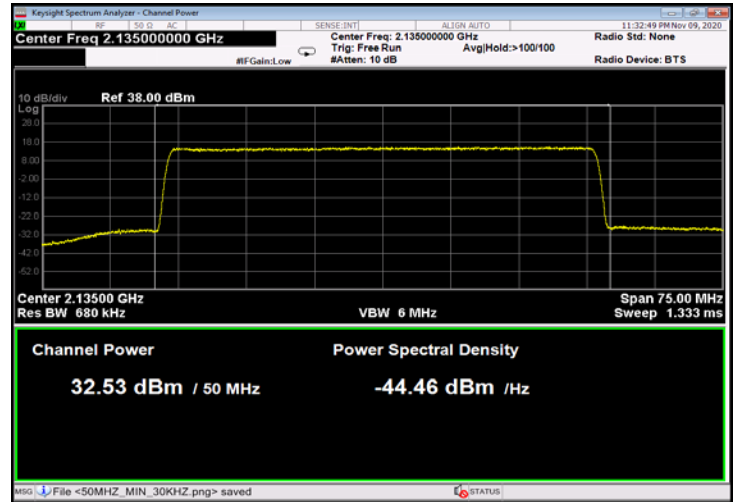


Figure 260: QPSK 50MHz B.W.; 2135.0MHz, 60kHz

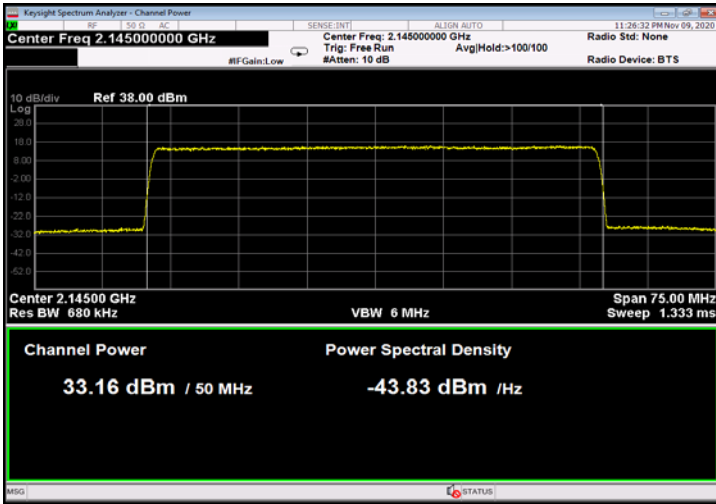


Figure 261: QPSK 50MHz B.W.; 2145.0MHz, 15kHz

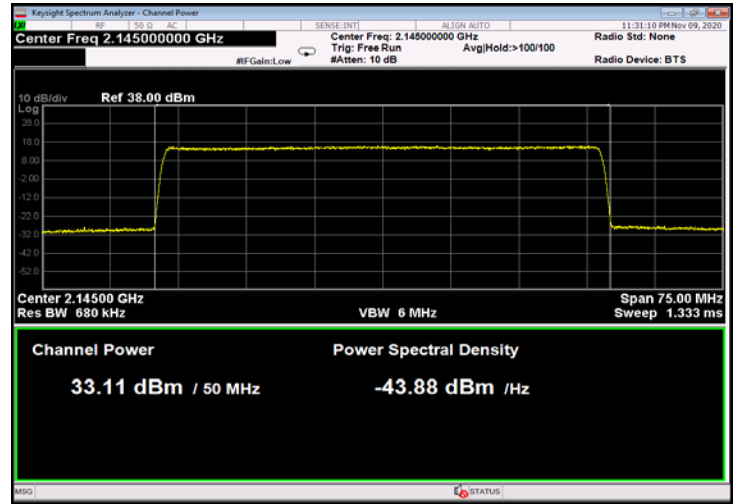


Figure 262: QPSK 50MHz B.W.; 2145.0MHz, 30kHz

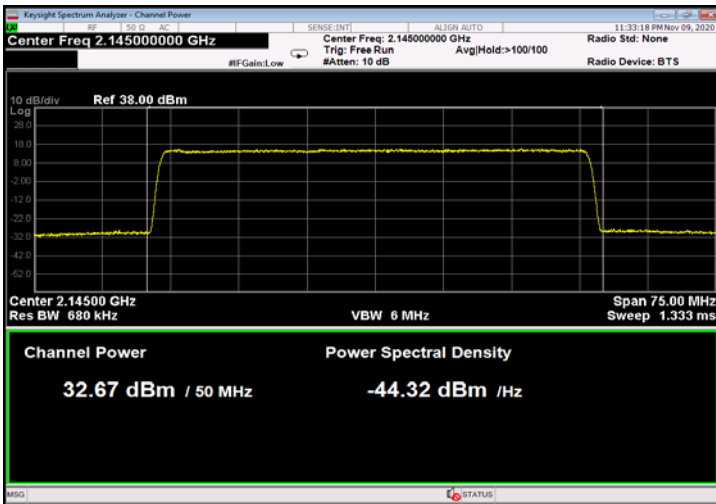


Figure 263: QPSK 50MHz B.W.; 2145.0MHz, 60kHz

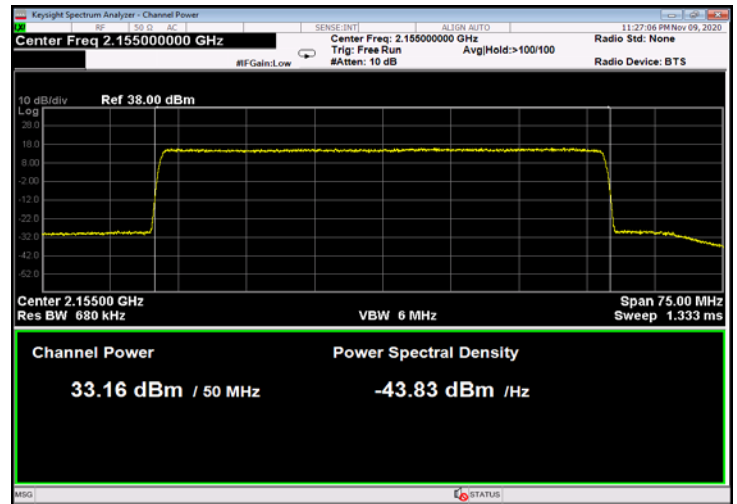


Figure 264: QPSK 50MHz B.W.; 2155.0MHz, 15kHz

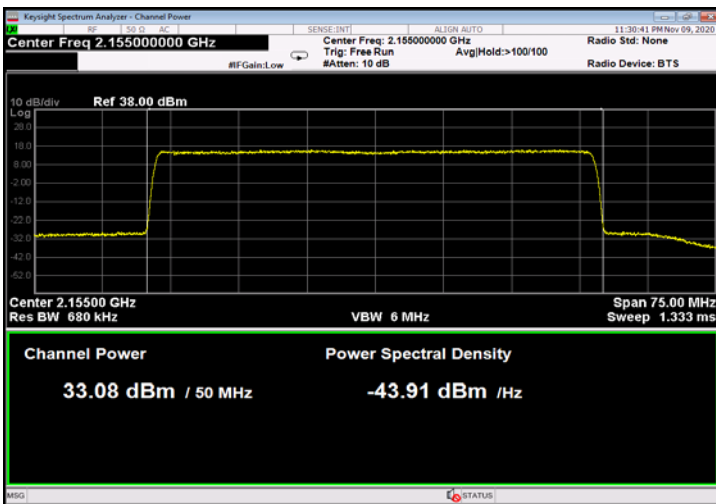


Figure 265: QPSK 50MHz B.W.; 2155.0MHz, 30kHz

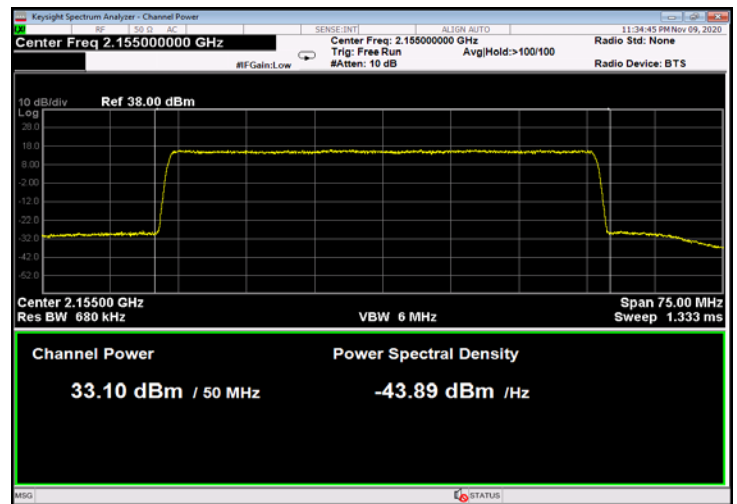


Figure 266: QPSK 50MHz B.W.; 2155.0MHz, 60kHz

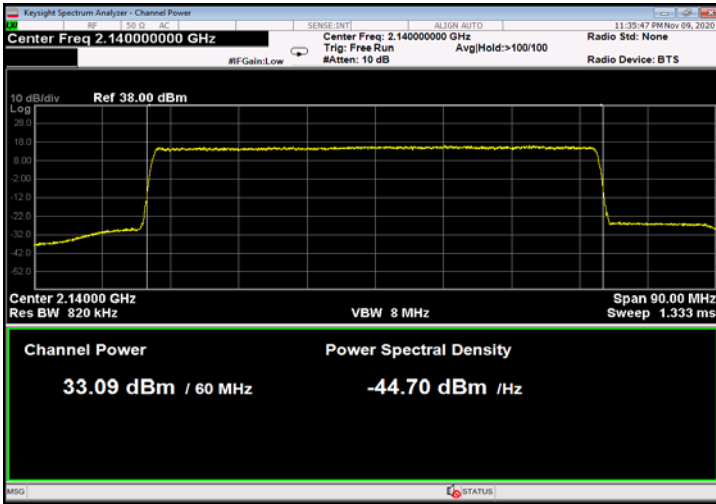


Figure 267: QPSK 60MHz B.W.; 2140.0MHz, 30kHz

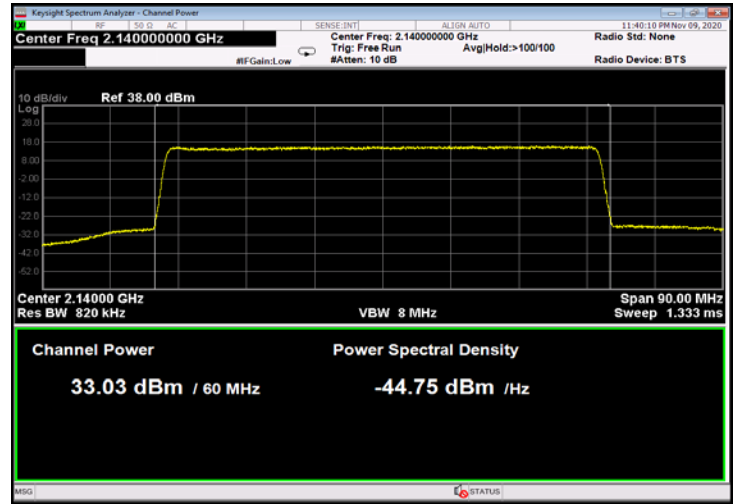


Figure 268: QPSK 60MHz B.W.; 2140.0MHz, 60kHz

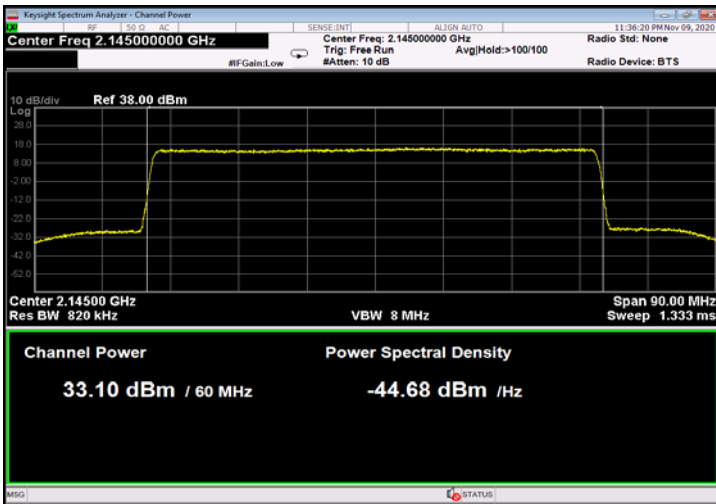


Figure 269: QPSK 60MHz B.W.; 2145MHz, 30kHz

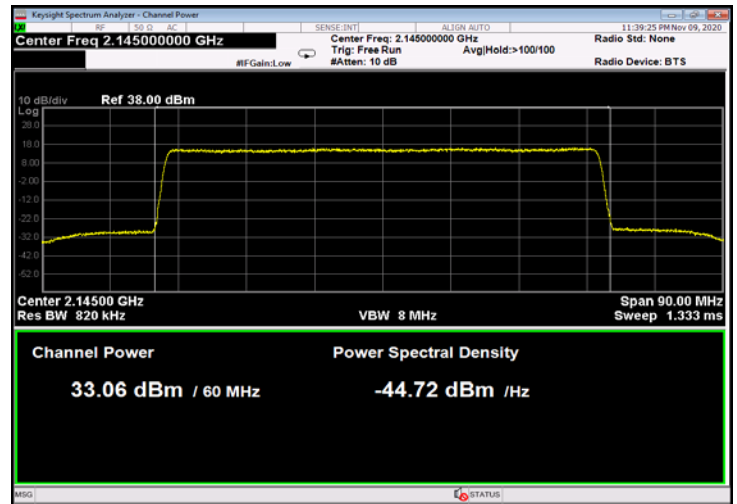


Figure 270: QPSK 60MHz B.W.; 2145MHz, 60kHz

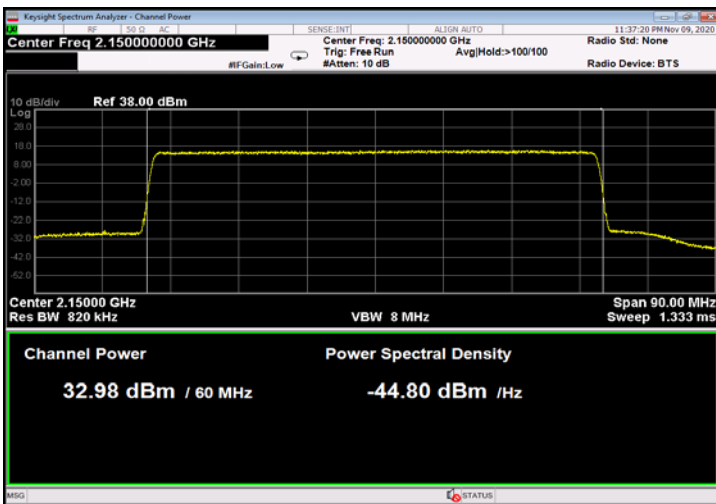


Figure 271: QPSK 60MHz B.W.; 2150.0MHz, 30kHz

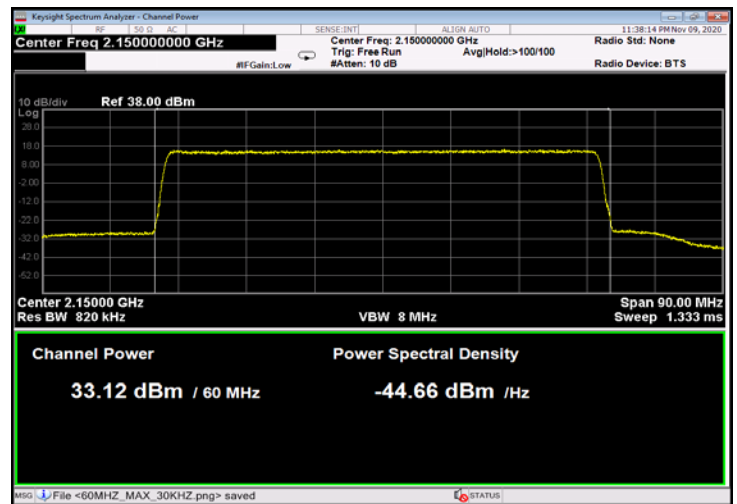


Figure 272: QPSK 60MHz B.W.; 2150.0MHz, 60kHz



4.4 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
			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	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	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	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	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
			2115.0	8.5963
			2115.0	7.9275
		30	2145.0	9.3117
			2145.0	8.5959
			2145.0	7.9250
		60	2175.0	9.3110
			2175.0	8.5981
			2175.0	7.9271
	15	15	2117.5	14.139
			2117.5	13.677
			2117.5	12.994
		30	2145.0	14.149
			2145.0	13.674
			2145.0	12.994
		60	2172.5	14.149
			2172.5	13.671
			2172.5	12.991
	20	15	2120.0	18.922
			2120.0	18.214
			2120.0	17.191
		30	2145.0	18.922
			2145.0	18.221
			2145.0	17.192
		60	2170.0	18.926
			2170.0	18.225
			2170.0	17.192
	25	15	2122.5	23.805
			2122.5	23.242
			2122.5	22.177
		30	2145.0	23.810
			2145.0	23.245
			2145.0	22.181
		60	2167.5	23.820
			2167.5	23.247
			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
			2115.0	8.5519
			2115.0	7.8817
		30	2145.0	9.2964
			2145.0	8.5444
			2145.0	7.8833
		60	2175.0	9.2800
			2175.0	8.5440
			2175.0	7.8799
	15	15	2117.5	14.300
			2117.5	13.679
			2117.5	12.930
		30	2145.0	14.261
			2145.0	13.684
			2145.0	12.930
		60	2172.5	14.242
			2172.5	13.707
			2172.5	12.906
	20	15	2120.0	19.307
			2120.0	18.378
			2120.0	17.190
		30	2145.0	19.310
			2145.0	18.381
			2145.0	17.185
		60	2170.0	19.259
			2170.0	18.368
			2170.0	17.154
	25	15	2122.5	24.080
			2122.5	23.479
			2122.5	22.371
		30	2145.0	24.116
			2145.0	23.458
			2145.0	22.375
		60	2167.5	24.094
			2167.5	23.438
			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	13596
		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
			2115.0	8.5855
			2115.0	7.8850
		30	2145.0	9.2980
			2145.0	8.5871
			2145.0	7.8858
		60	2175.0	9.2963
			2175.0	8.5825
			2175.0	7.8817
	15	15	2117.5	14.147
			2117.5	13.615
			2117.5	12.944
		30	2145.0	14.145
			2145.0	13.615
			2145.0	12.943
		60	2172.5	14.141
			2172.5	13.602
			2172.5	12.939
	20	15	2120.0	18.963
			2120.0	18.254
			2120.0	17.171
		30	2145.0	18.962
			2145.0	18.259
			2145.0	17.178
		60	2170.0	18.940
			2170.0	18.246
			2170.0	17.168
	25	15	2122.5	23.810
			2122.5	23.280
			2122.5	22.173
		30	2145.0	23.826
			2145.0	23.270
			2145.0	22.177
		60	2167.5	23.786
			2167.5	23.262
			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
			2115.0	8.6008
			2115.0	7.9282
		30	2145.0	9.3098
			2145.0	8.6051
			2145.0	7.9314
		60	2175.0	9.3081
			2175.0	8.6016
			2175.0	7.9257
	15	15	2117.5	14.140
			2117.5	13.671
			2117.5	12.986
		30	2145.0	14.150
			2145.0	13.672
			2145.0	12.996
		60	2172.5	14.143
			2172.5	13.664
			2172.5	12.991
	20	15	2120.0	18.915
			2120.0	18.225
			2120.0	17.209
		30	2145.0	18.930
			2145.0	18.225
			2145.0	17.200
		60	2170.0	18.917
			2170.0	18.214
			2170.0	17.197
	25	15	2122.5	23.828
			2122.5	23.250
			2122.5	22.200
		30	2145.0	23.828
			2145.0	23.246
			2145.0	22.196
		60	2167.5	23.817
			2167.5	23.232
			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

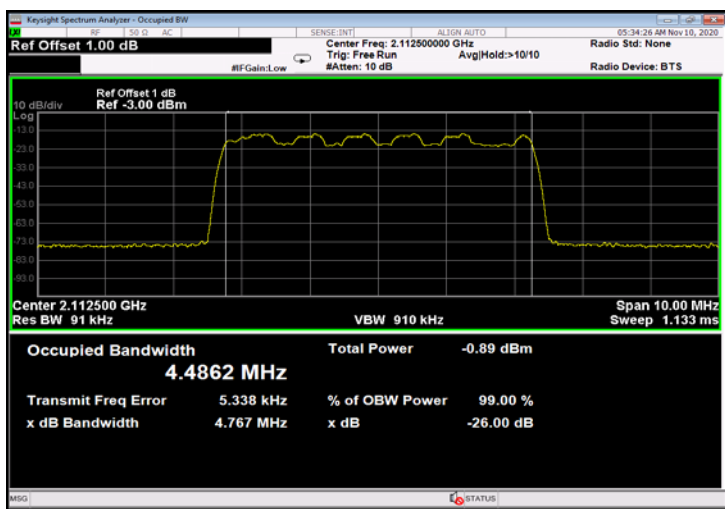


Figure 273: 16QAM 5MHz B.W.; 2112.5MHz, 15kHz - Input

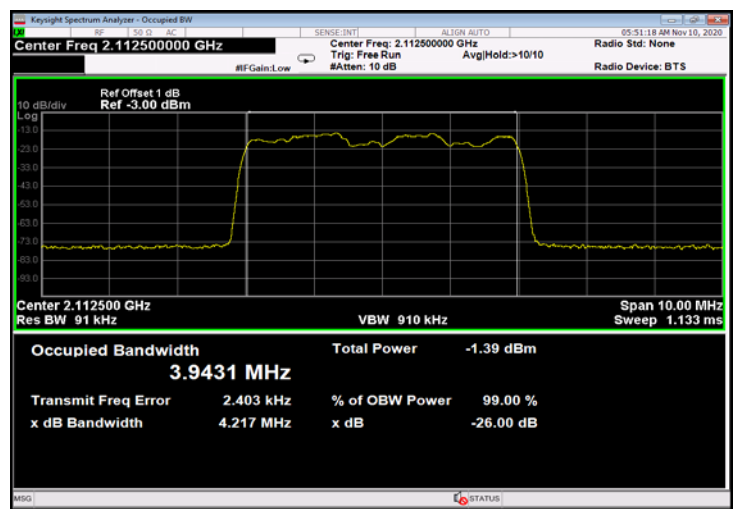


Figure 274: 16QAM 5MHz B.W.; 2112.5MHz, 30kHz - Input

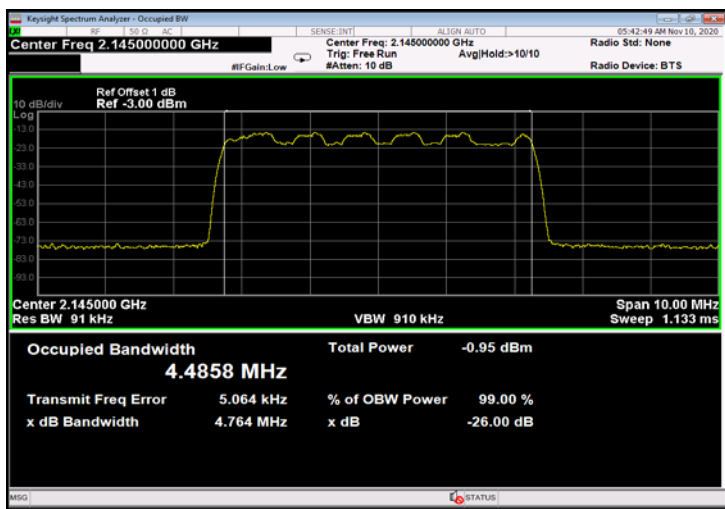


Figure 275: 16QAM 5MHz B.W.; 2145.0MHz, 15kHz - Input

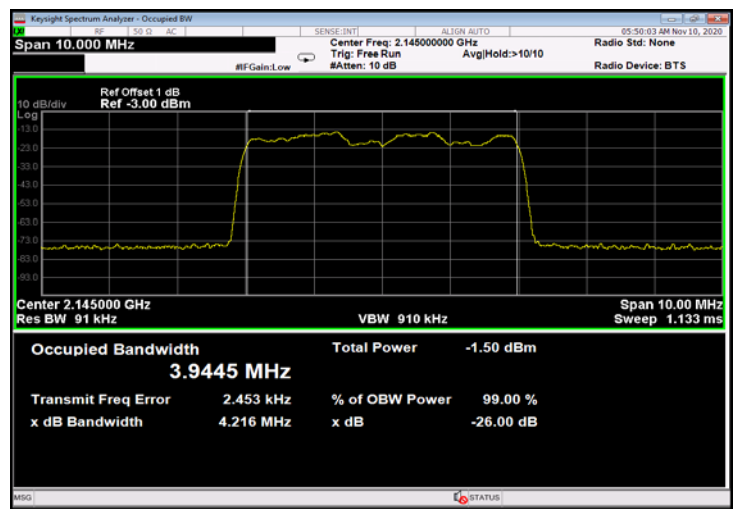


Figure 276: 16QAM 5MHz B.W.; 2145.0MHz, 30kHz - Input

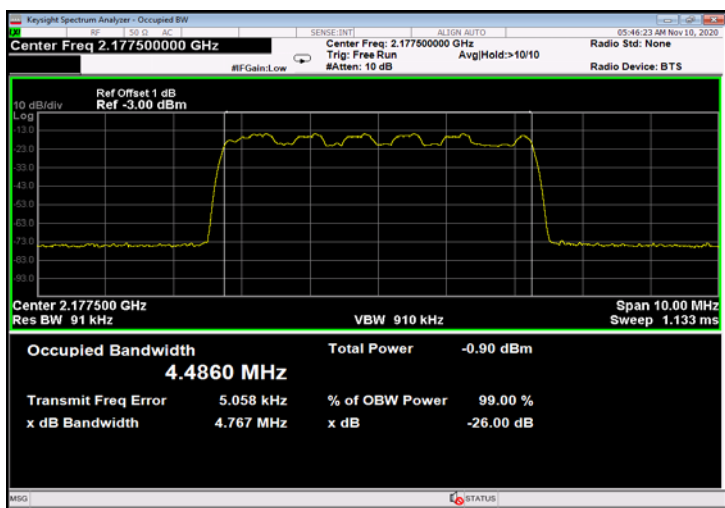


Figure 277: 16QAM 5MHz B.W.; 2177.5MHz, 15kHz - Input

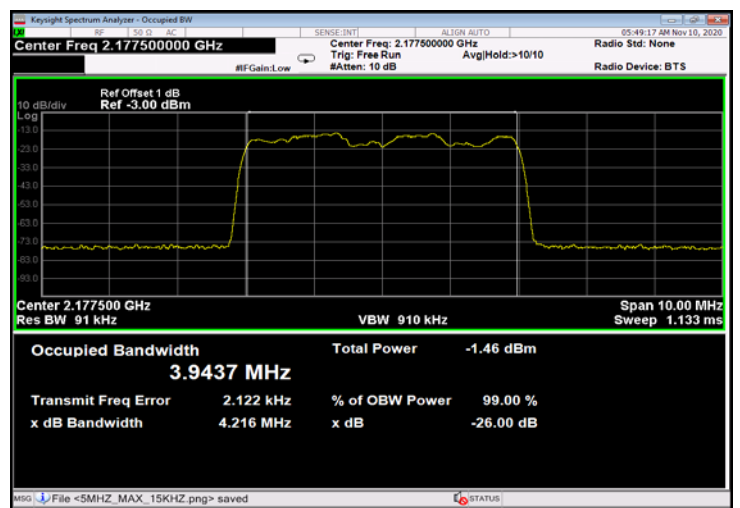


Figure 278: 16QAM 5MHz C.S.; 2177.5MHz, 30kHz - Input

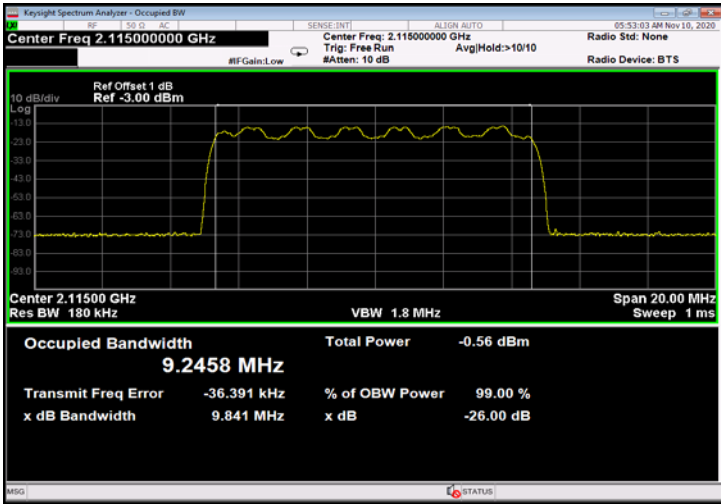


Figure 279: 16QAM 10MHz B.W.; 2115.0MHz, 15kHz - Input

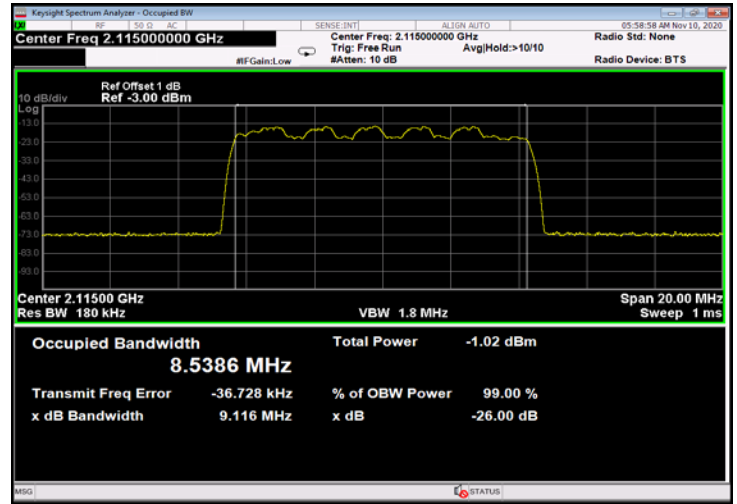


Figure 280: 16QAM 10MHz B.W.; 2115.0MHz, 30kHz - Input

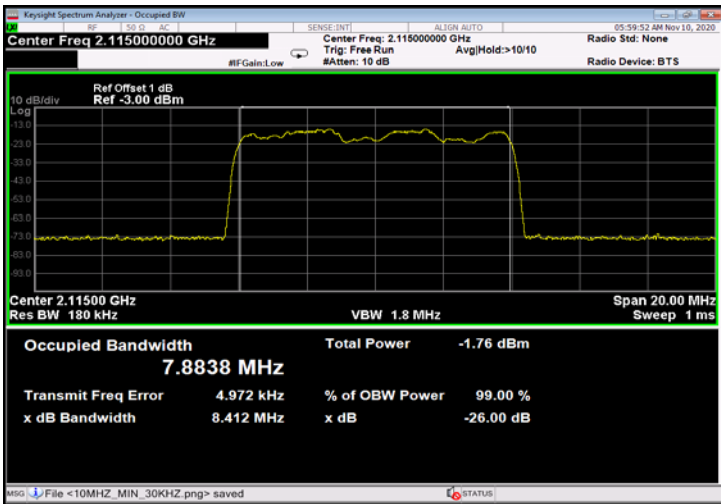


Figure 281: 16QAM 10MHz B.W.; 2115.0MHz, 60kHz - Input

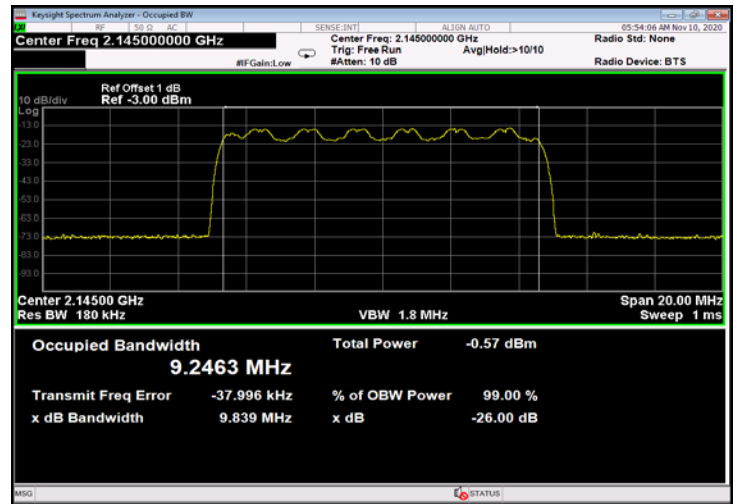


Figure 282: 16QAM 10MHz B.W.; 2145.0MHz, 15kHz - Input

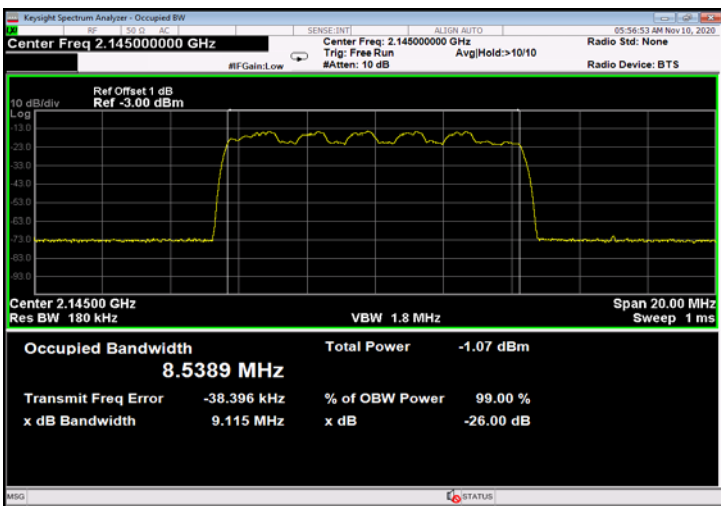


Figure 283: 16QAM 10MHz B.W.; 2145.0MHz, 30kHz - Input

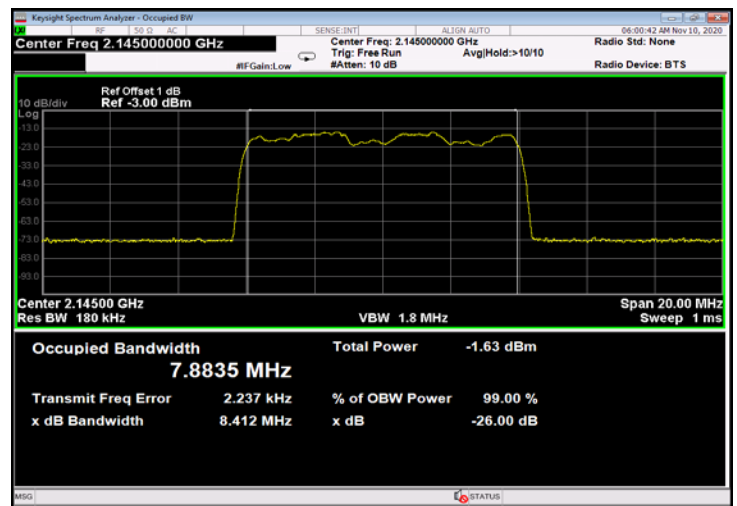


Figure 284: 16QAM 10MHz B.W.; 2145.0MHz, 60kHz - Input

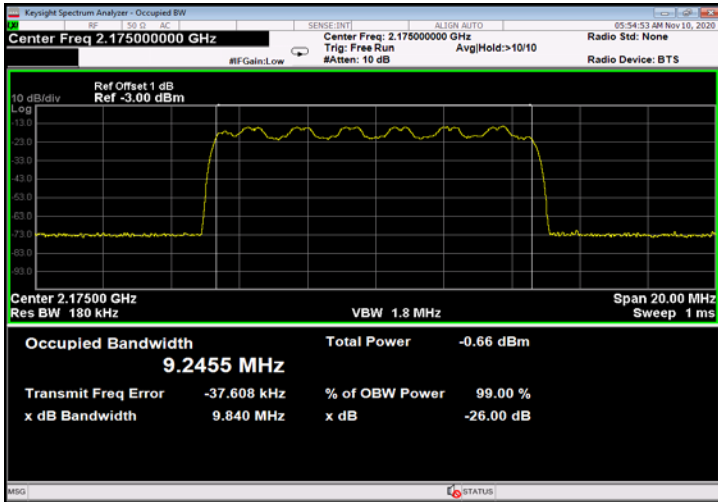


Figure 285: 16QAM 10MHz B.W.; 2175.0MHz, 15kHz - Input

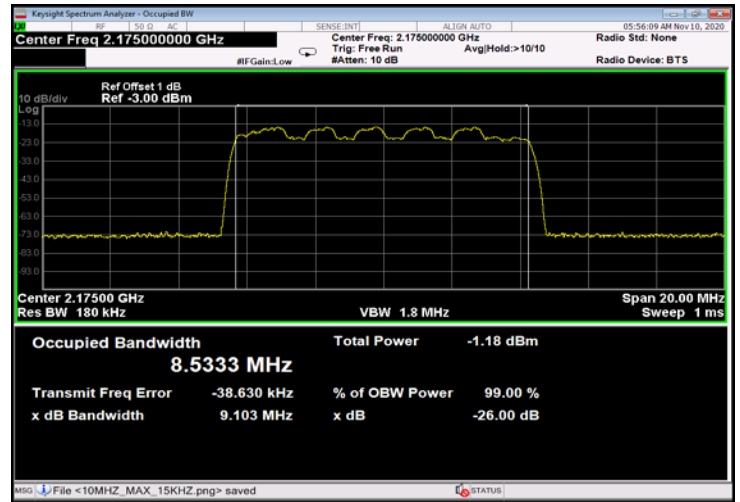


Figure 286: 16QAM 10MHz B.W.; 2175.0MHz, 30kHz - Input

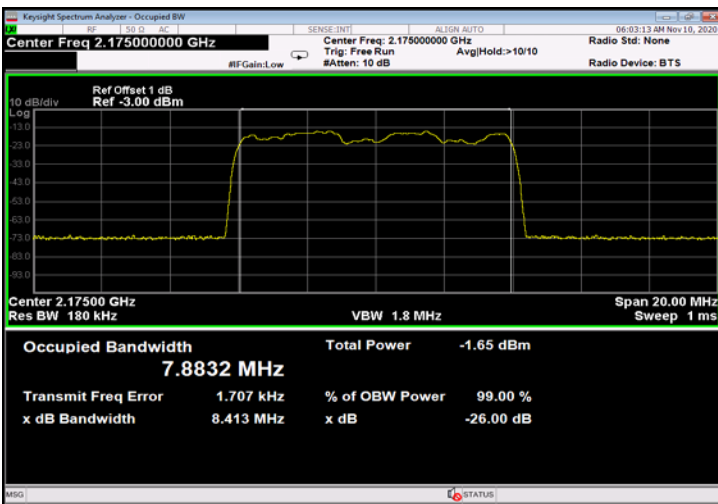


Figure 287: 16QAM 10MHz B.W.; 2175.0MHz, 60kHz - Input

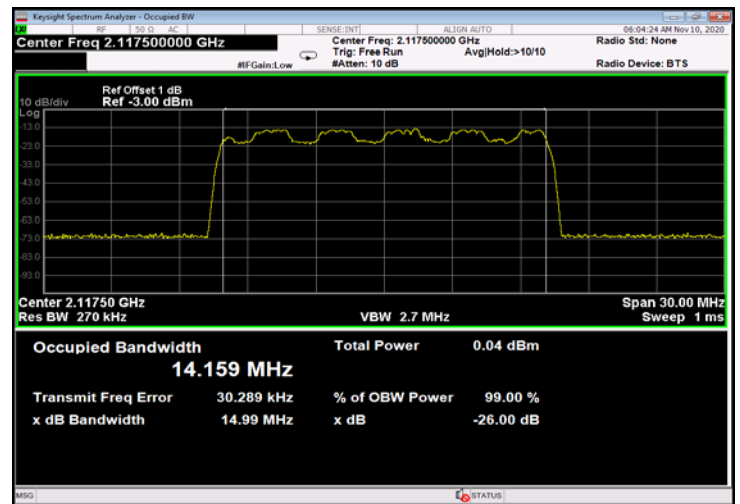


Figure 288: 16QAM 15MHz B.W.; 2117.5MHz, 15kHz - Input

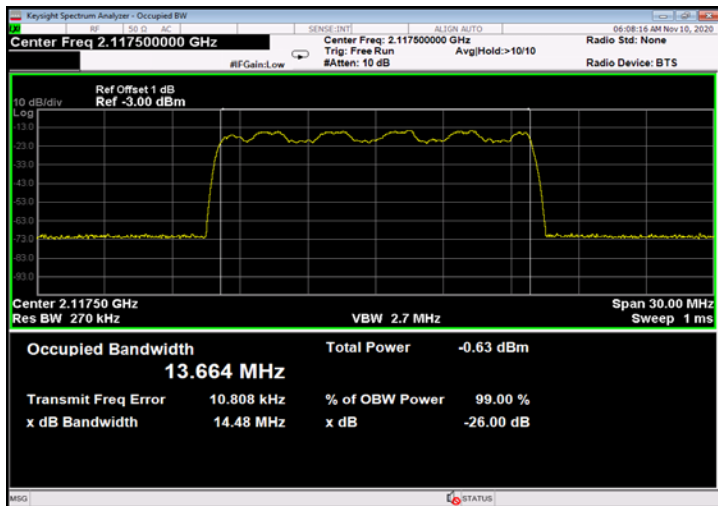


Figure 289: 16QAM 15MHz B.W.; 2117.5MHz, 30kHz - Input

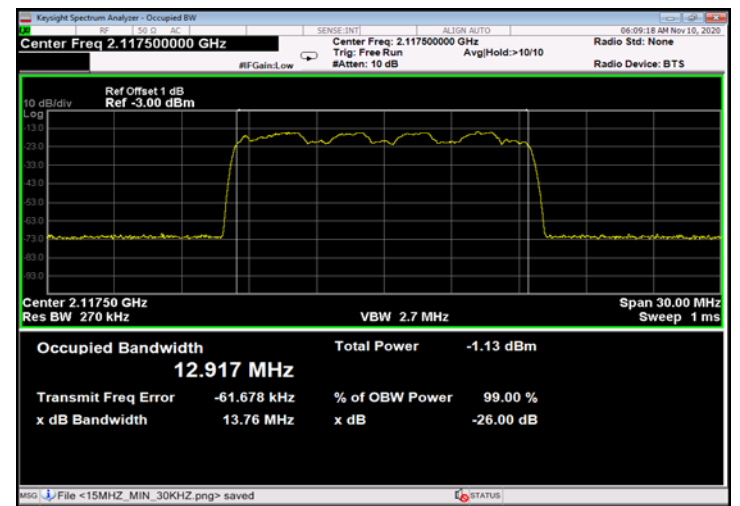


Figure 290: 16QAM 10MHz B.W.; 2117.5MHz, 60kHz - Input