

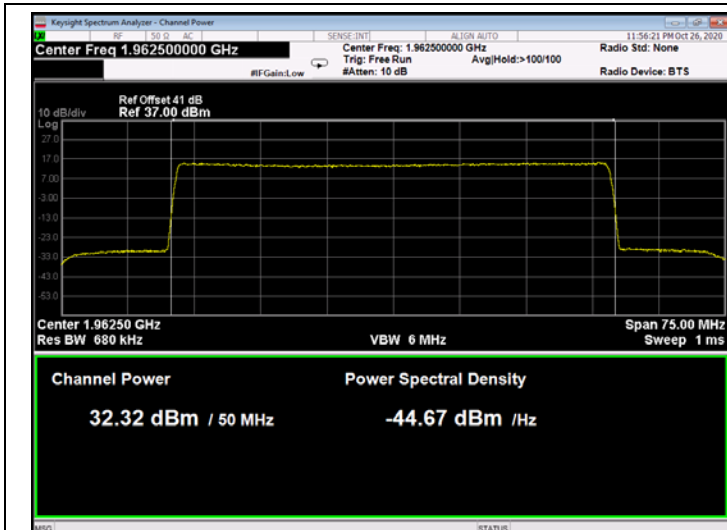


Figure 195: 256QAM 50MHz B.W.; 1962.5MHz, 15kHz

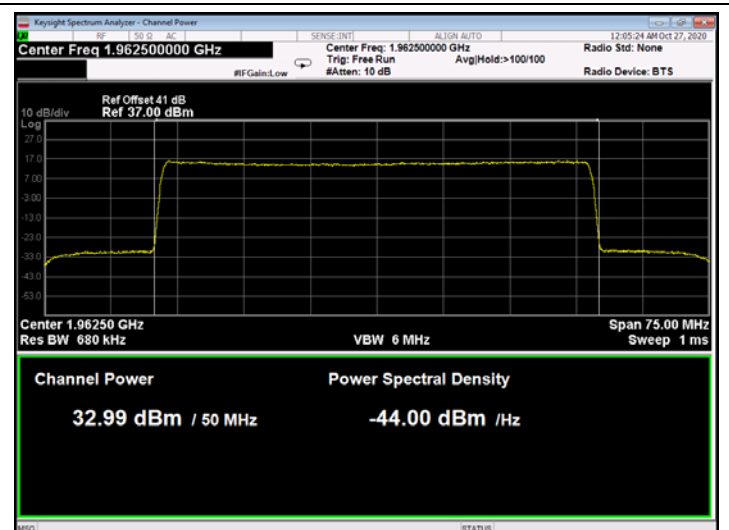


Figure 196: 256QAM 50MHz B.W.; 1962.5MHz, 30kHz

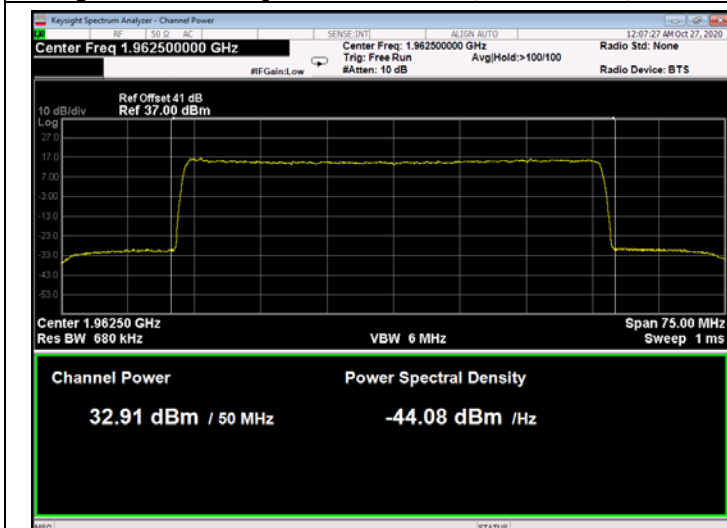


Figure 197: 256QAM 50MHz B.W.; 1962.5MHz, 60kHz

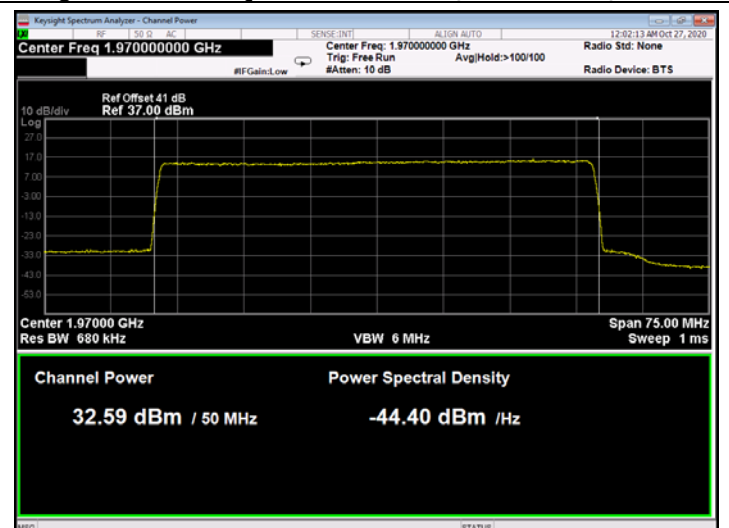


Figure 198: 256QAM 50MHz B.W.; 1970.0MHz, 15kHz

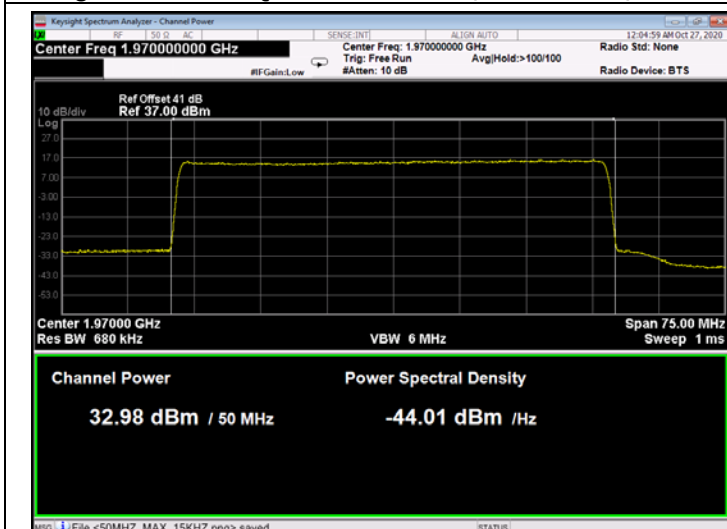


Figure 199: 256QAM 50MHz B.W.; 1970.0MHz, 30kHz

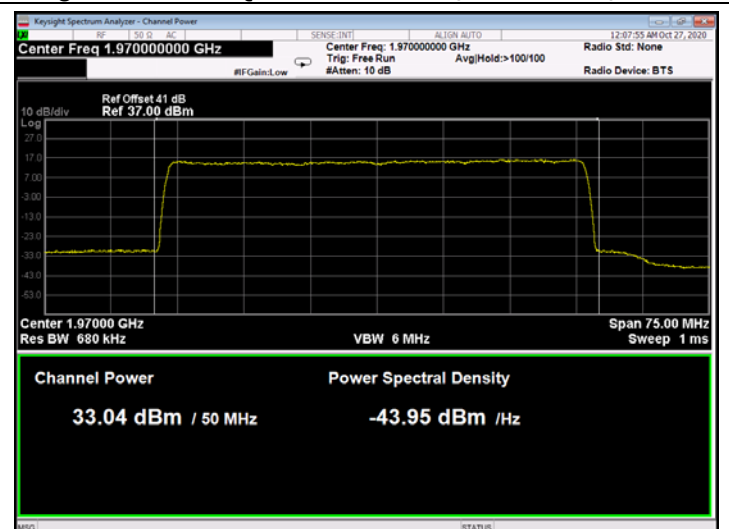


Figure 200: 256QAM 50MHz B.W.; 1970.0MHz, 60kHz

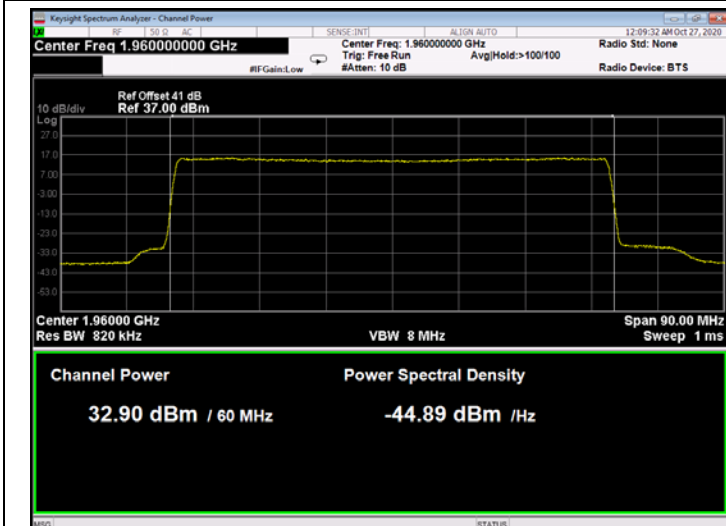


Figure 201: 256QAM 60MHz B.W.; 1960.0MHz, 30kHz

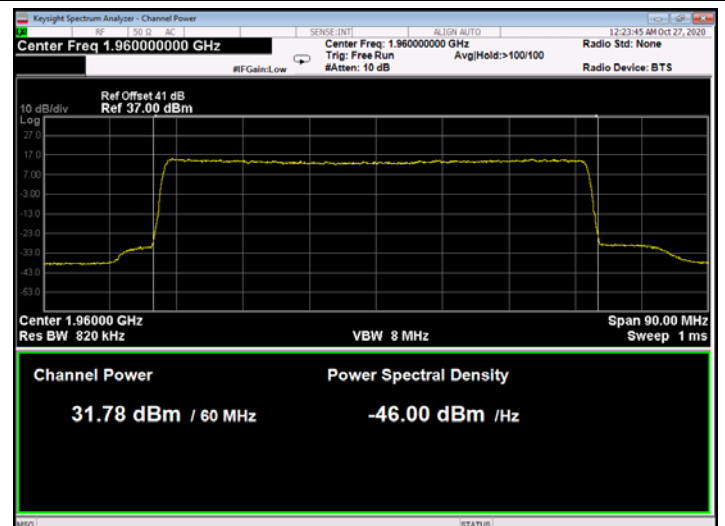


Figure 202: 256QAM 60MHz B.W.; 1960.0MHz, 60kHz

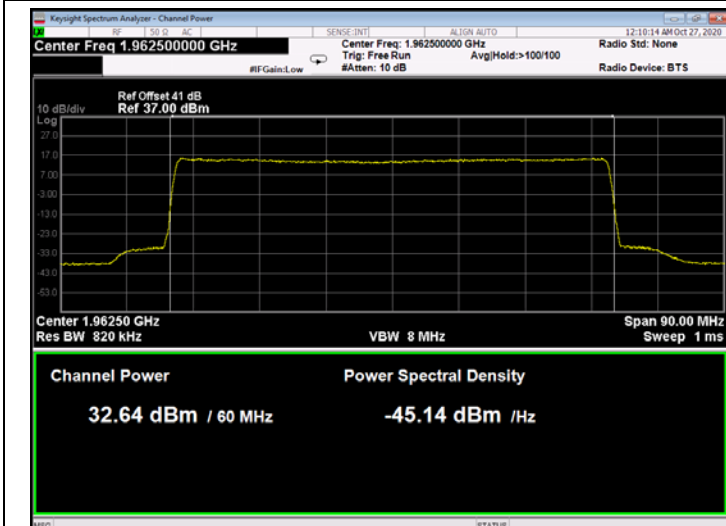


Figure 203: 256QAM 60MHz B.W.; 1962.5MHz, 30kHz

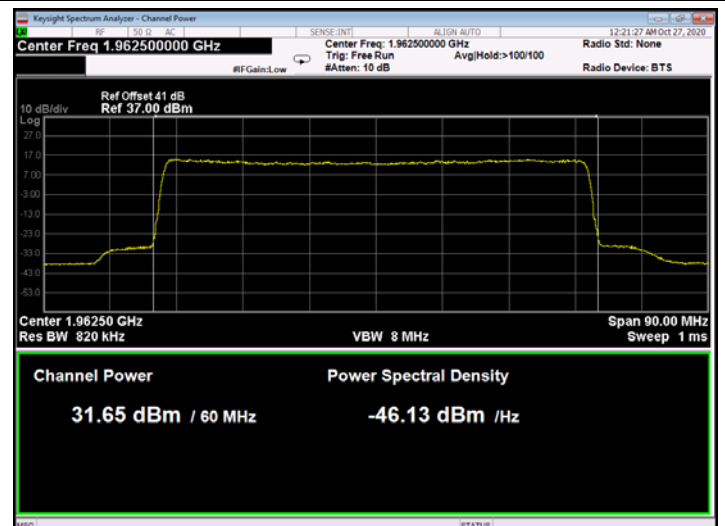


Figure 204: 256QAM 60MHz B.W.; 1962.5MHz, 60kHz

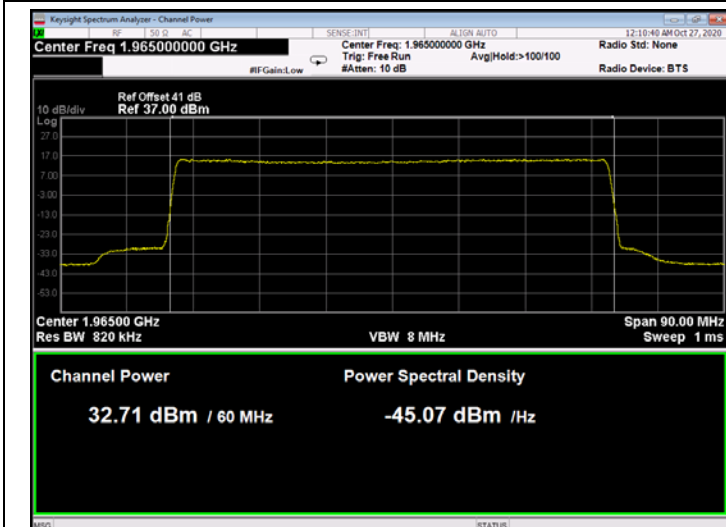


Figure 205: 256QAM 60MHz B.W.; 1965.0MHz, 30kHz

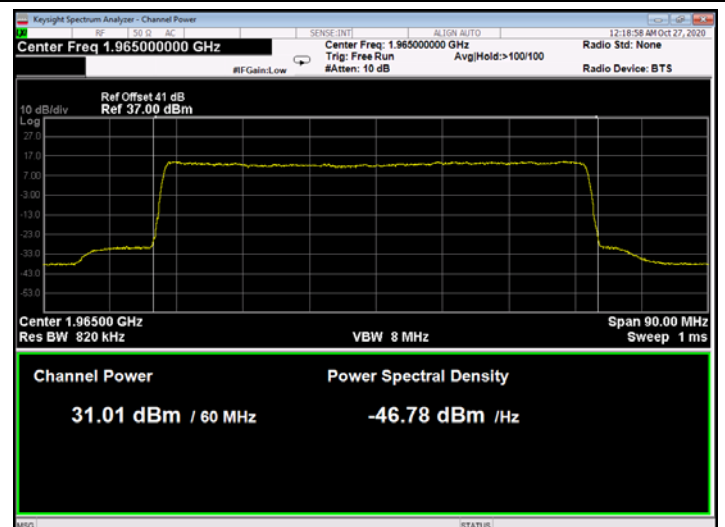


Figure 206: 256QAM 60MHz B.W.; 1965.0MHz, 60kHz

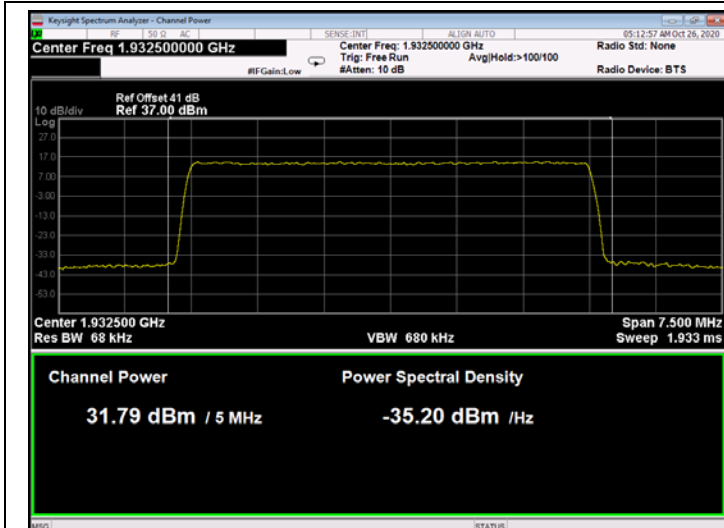


Figure 207: QPSK 5MHz B.W.; 1932.5MHz, 15kHz

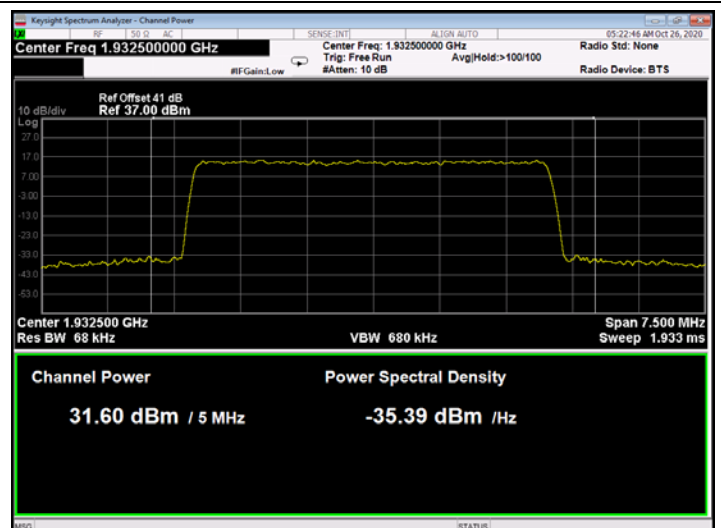


Figure 208: QPSK 5MHz B.W.; 1932.5MHz, 30kHz

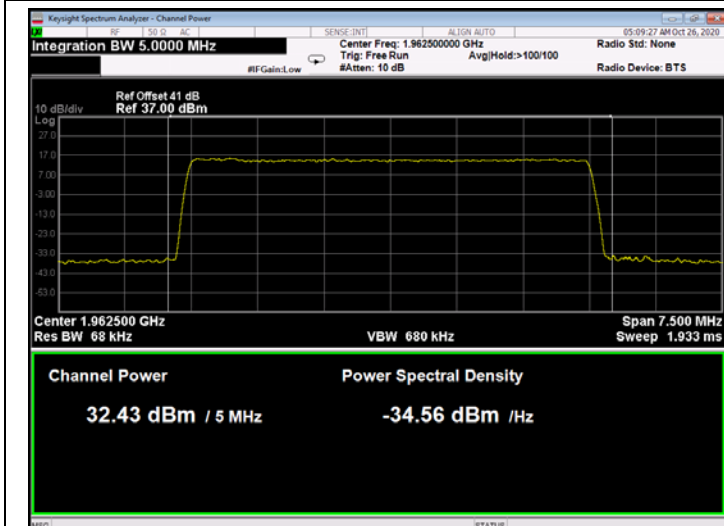


Figure 209: QPSK 5MHz B.W.; 1962.5MHz, 15kHz

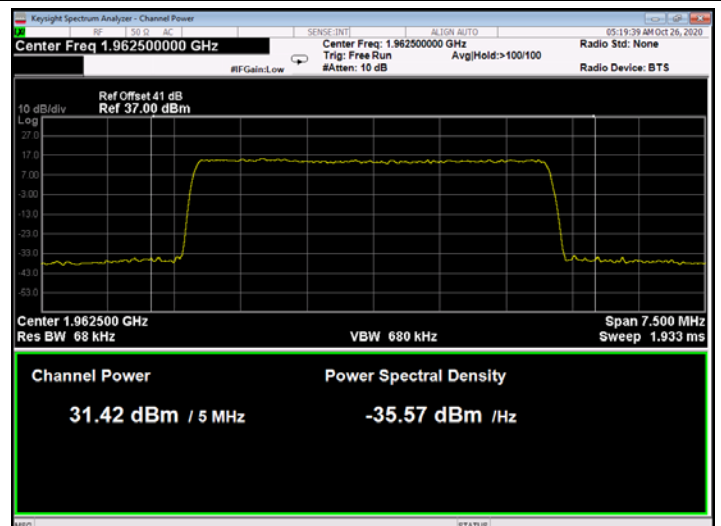


Figure 210: QPSK 5MHz B.W.; 1962.5MHz, 30kHz

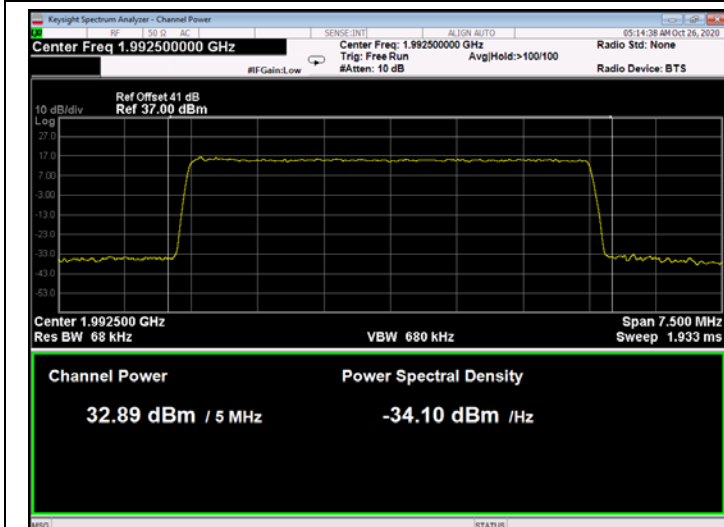


Figure 211: QPSK 5MHz B.W.; 1992.5MHz, 15kHz

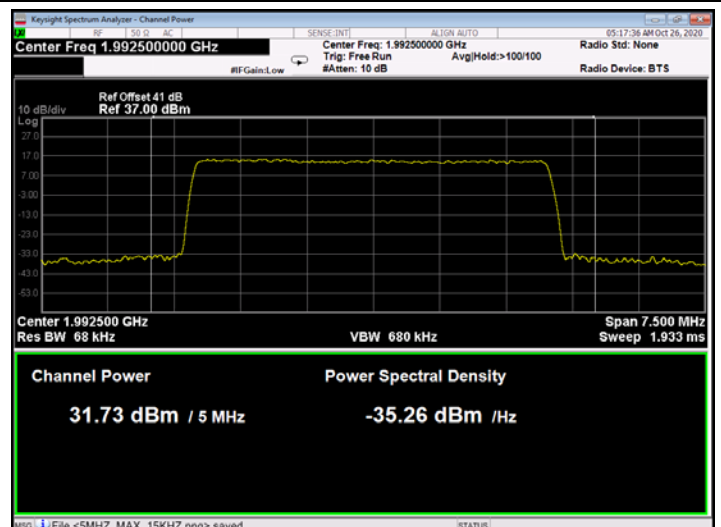


Figure 212: QPSK 5MHz C.S.; 1992.5MHz, 30kHz

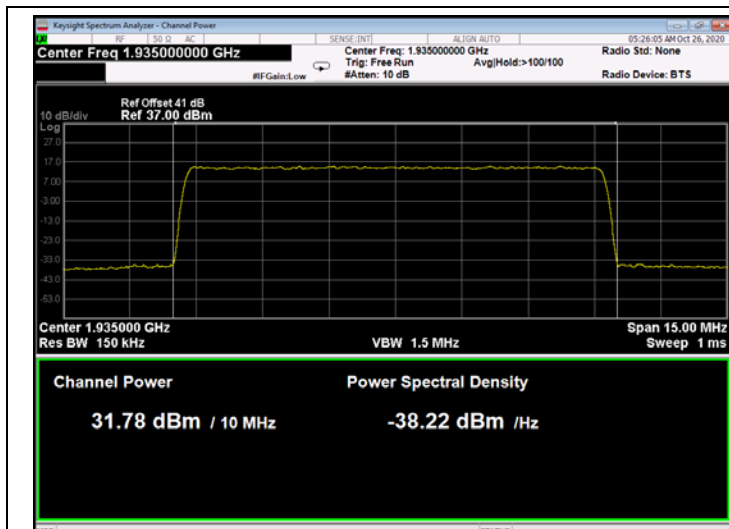


Figure 213: QPSK 10MHz B.W.; 1935.00MHz, 15kHz

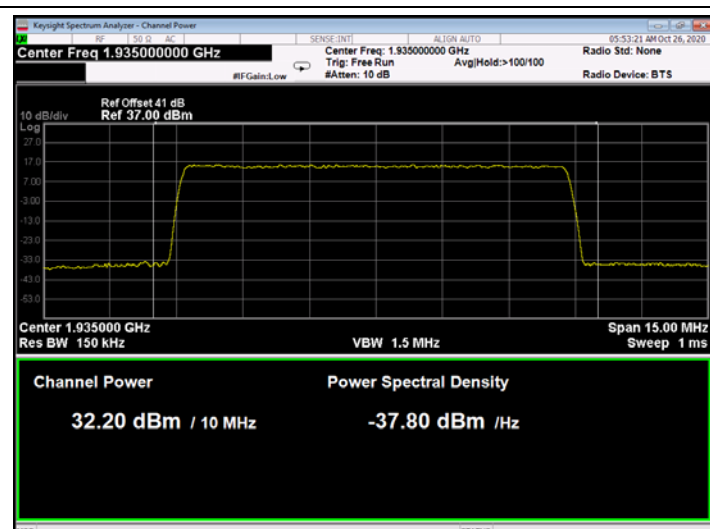


Figure 214: QPSK 10MHz B.W.; 1935.00MHz, 30kHz

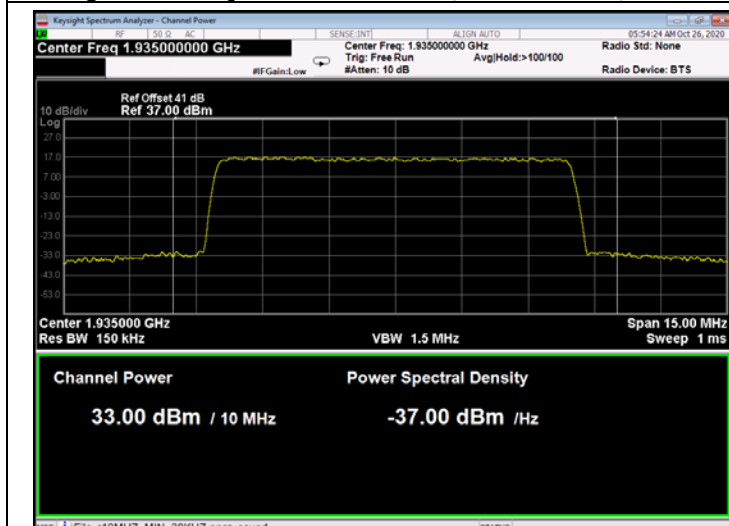


Figure 215: QPSK 10MHz B.W.; 1935.00MHz, 60kHz

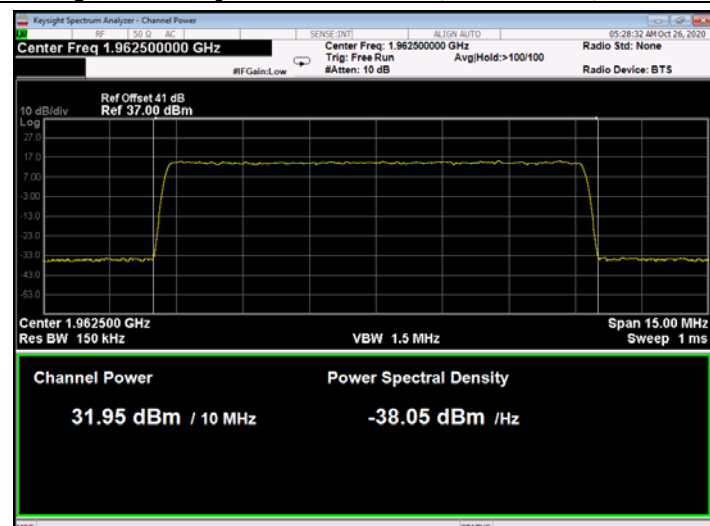


Figure 216: QPSK 10MHz B.W.; 1962.5MHz, 15kHz

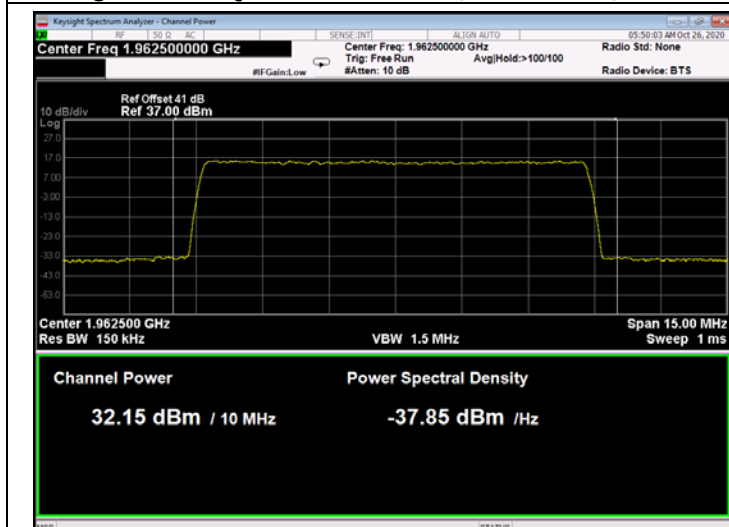


Figure 217: QPSK 10MHz B.W.; 1962.5MHz, 30kHz

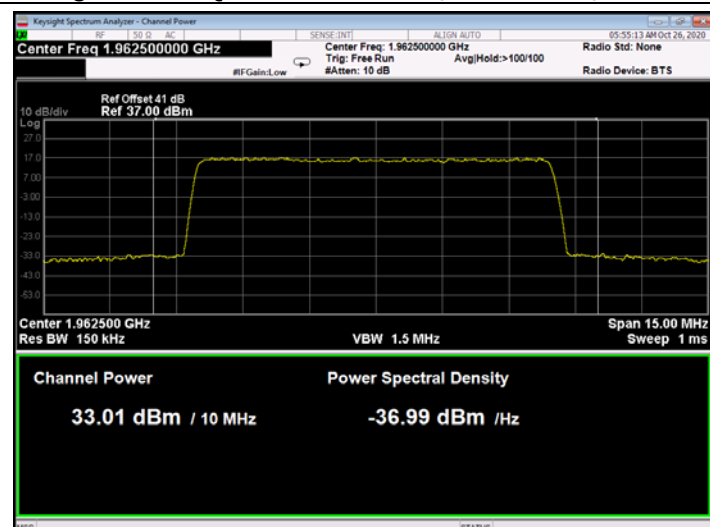


Figure 218: QPSK 10MHz B.W.; 1962.5MHz, 60kHz

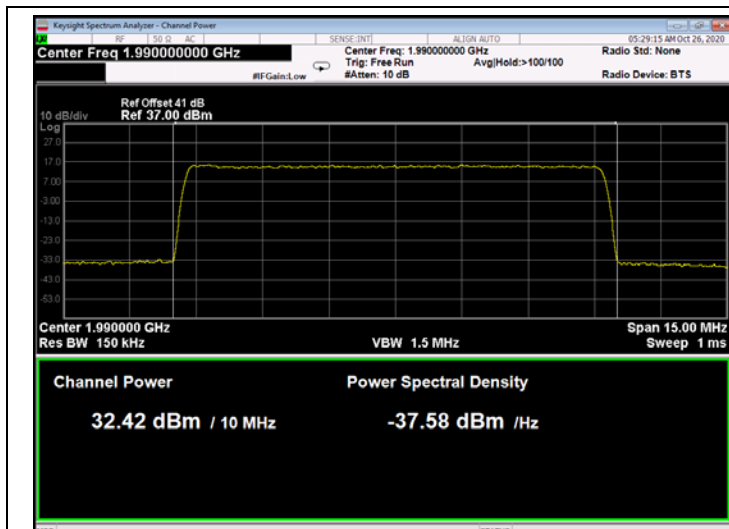


Figure 219: QPSK 10MHz B.W.; 1990.0MHz, 15kHz

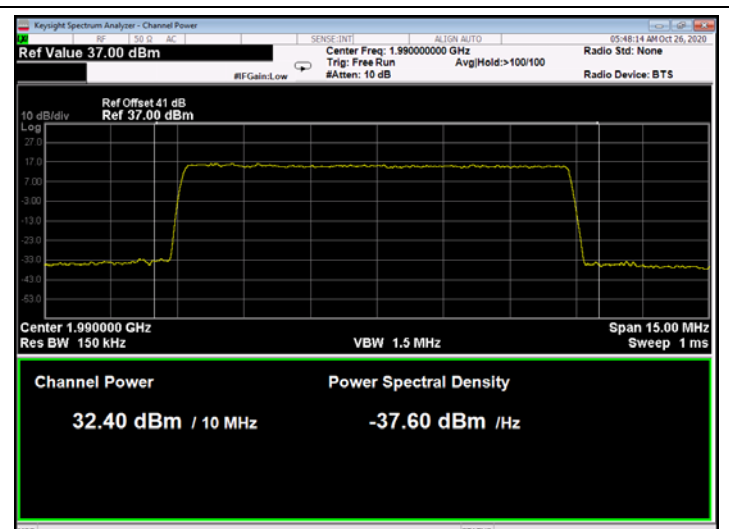


Figure 220: QPSK 10MHz B.W.; 1990.0MHz, 30kHz

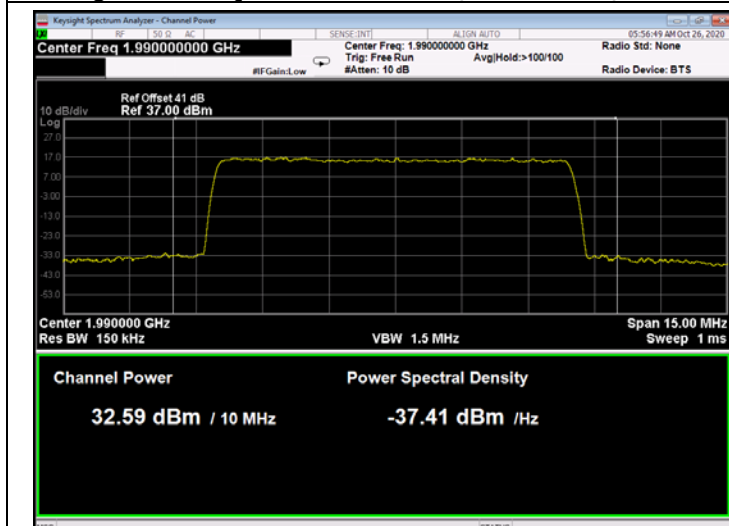


Figure 221: QPSK 10MHz B.W.; 1990.0MHz, 60kHz

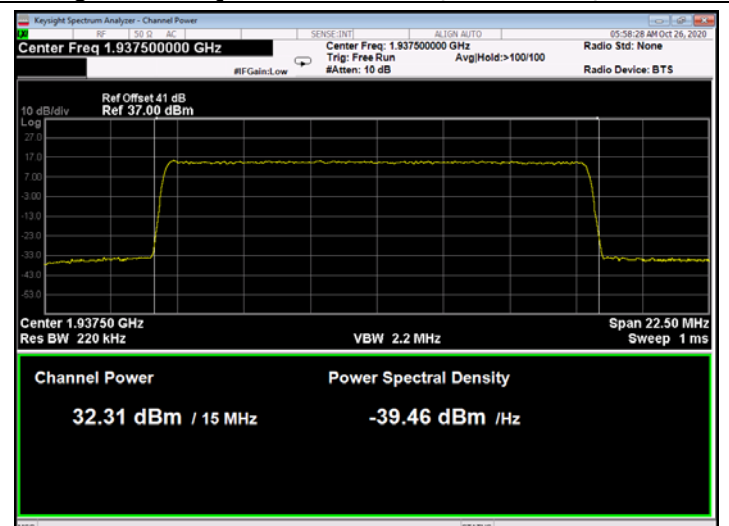


Figure 222: QPSK 15MHz B.W.; 1937.5MHz, 15kHz

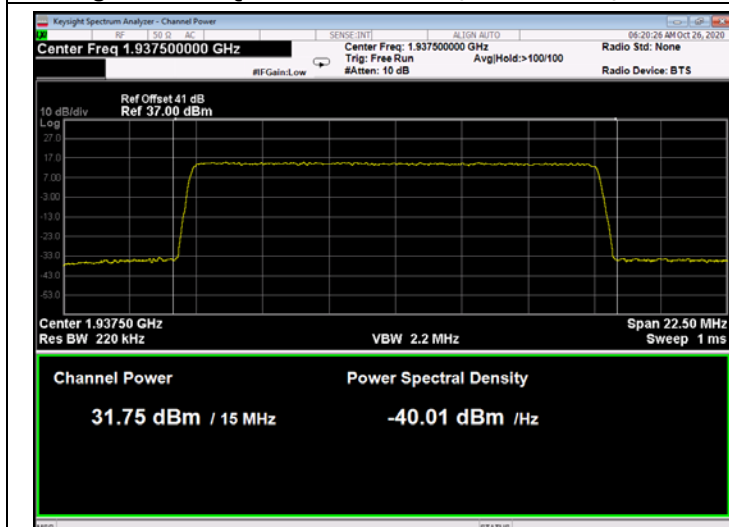


Figure 223: QPSK 15MHz B.W.; 1937.5MHz, 30kHz

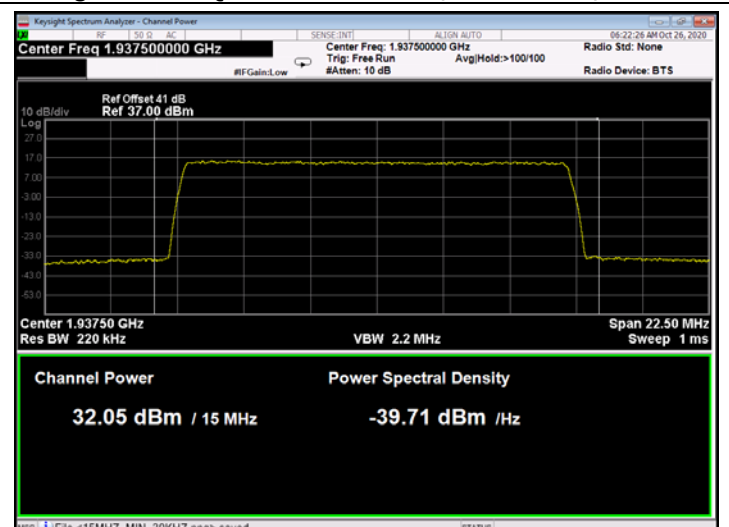


Figure 224: QPSK 10MHz B.W.; 1937.5MHz, 60kHz

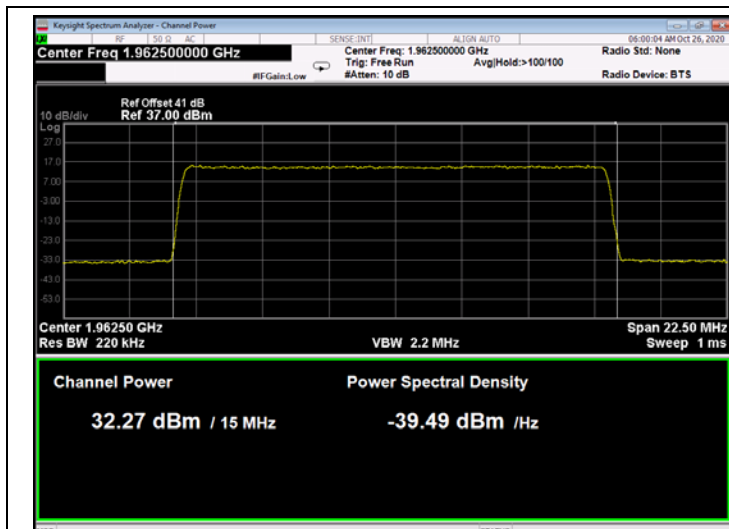


Figure 225: QPSK 15MHz B.W.; 1962.5MHz, 15kHz

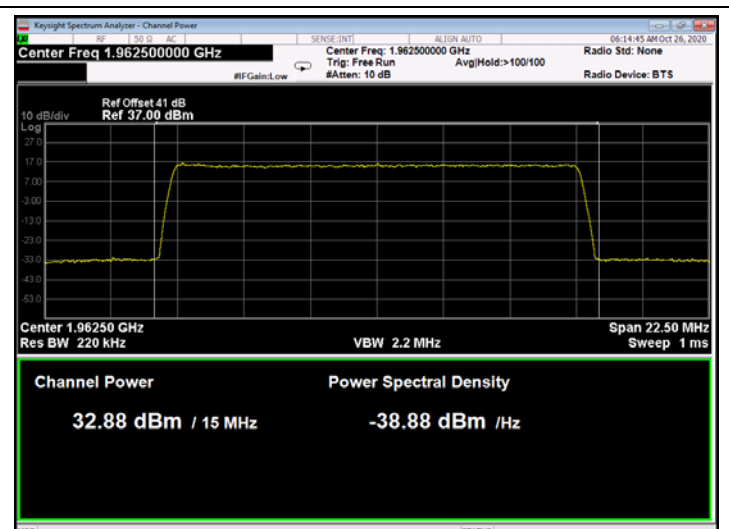


Figure 226: QPSK 15MHz B.W.; 1962.5MHz, 30kHz

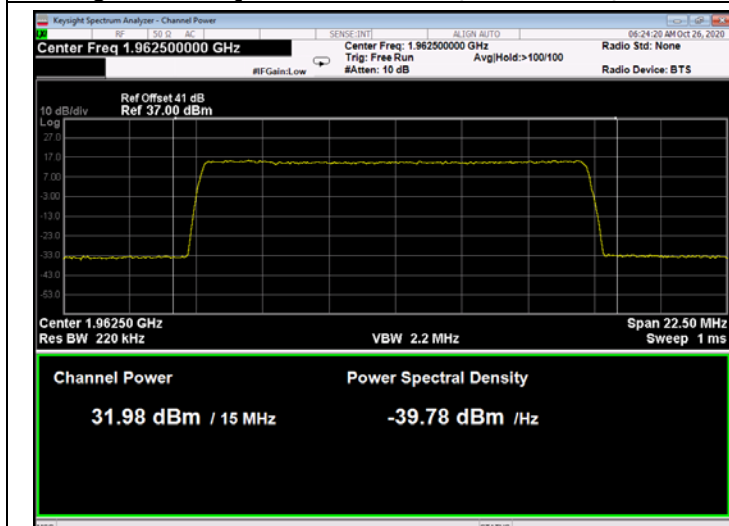


Figure 227: QPSK 15MHz B.W.; 1962.5MHz, 60kHz

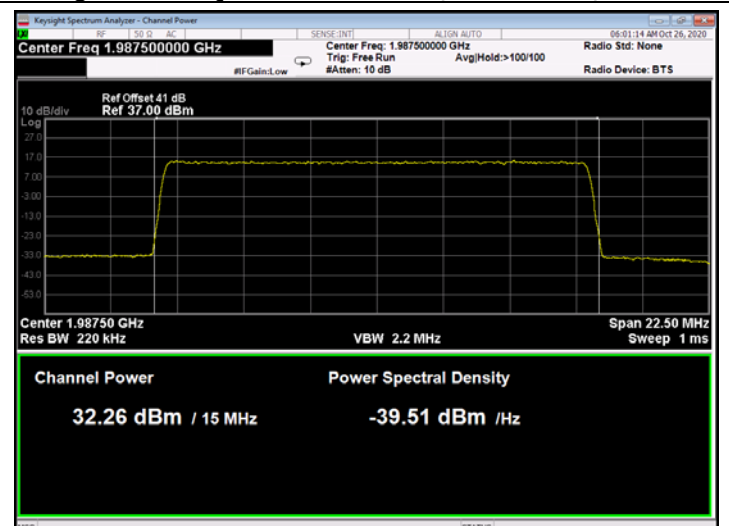


Figure 228: QPSK 15MHz B.W.; 1987.5MHz, 15kHz

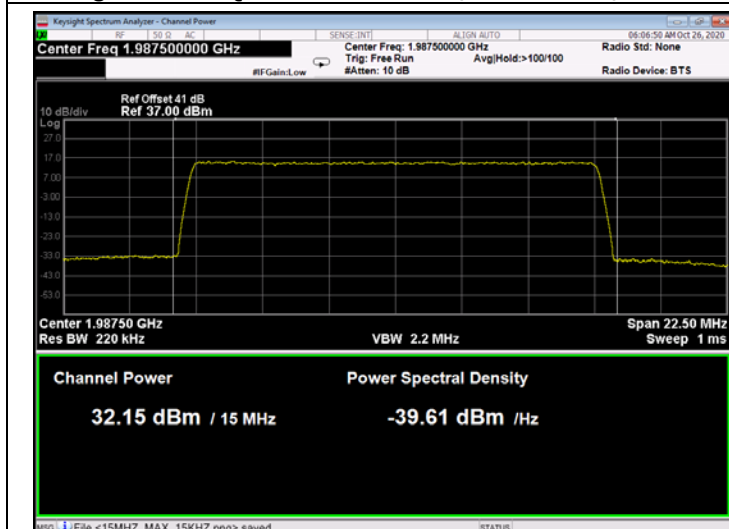


Figure 229: QPSK 15MHz B.W.; 1987.5MHz, 30kHz

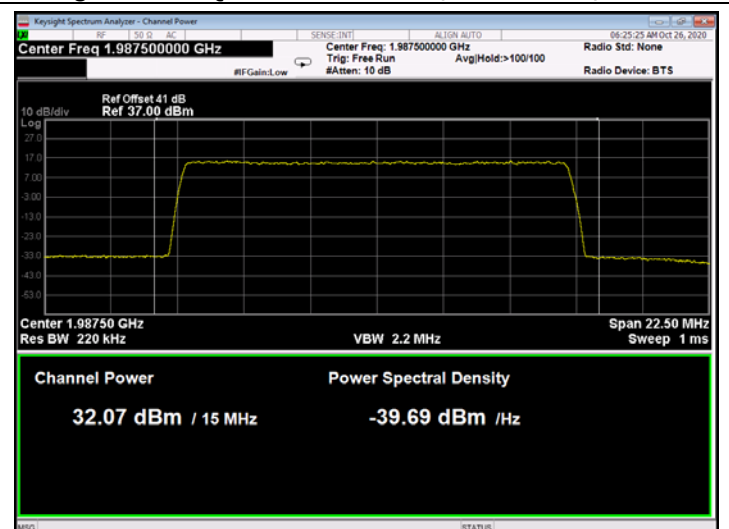


Figure 230: QPSK 15MHz B.W.; 1987.5MHz, 60kHz

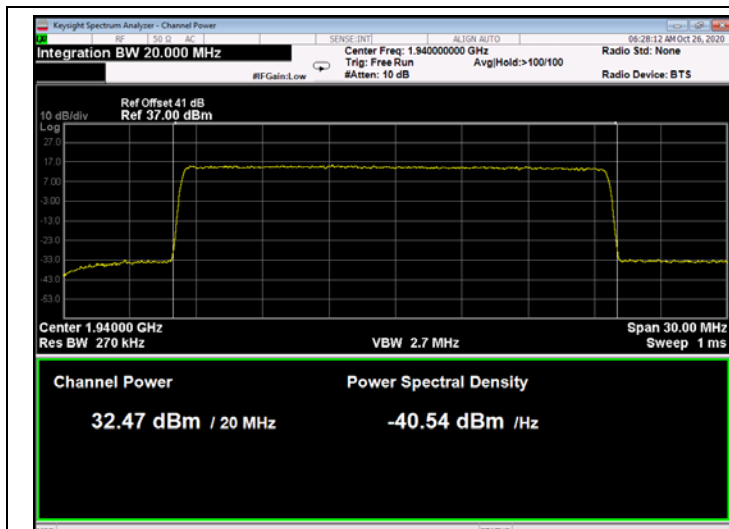


Figure 231: QPSK 20MHz B.W.; 1940.0MHz, 15kHz

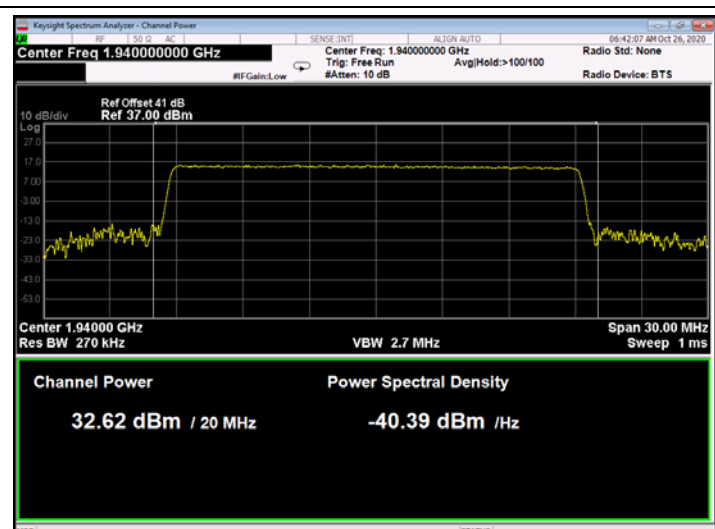


Figure 232: QPSK 20MHz B.W.; 1940.0MHz, 30kHz

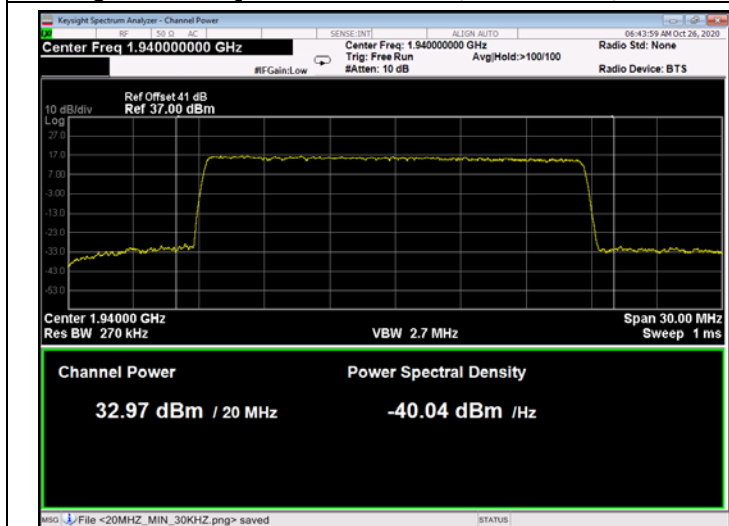


Figure 233: QPSK 20MHz B.W.; 1940.0MHz, 60kHz

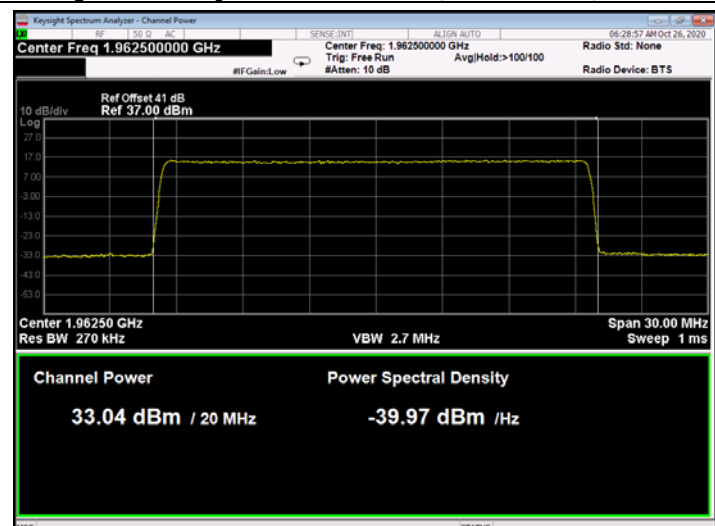


Figure 234: QPSK 20MHz B.W.; 1962.5MHz, 15kHz

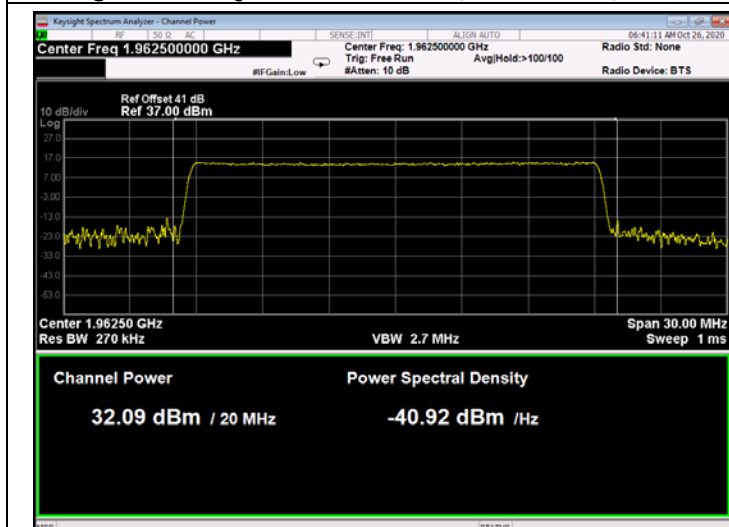


Figure 235: QPSK 20MHz B.W.; 1962.5MHz, 30kHz

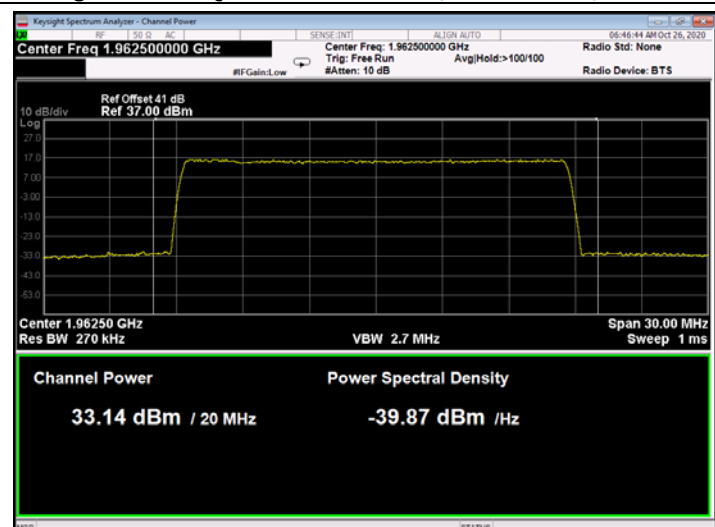


Figure 236: QPSK 20MHz B.W.; 1962.5MHz, 60kHz

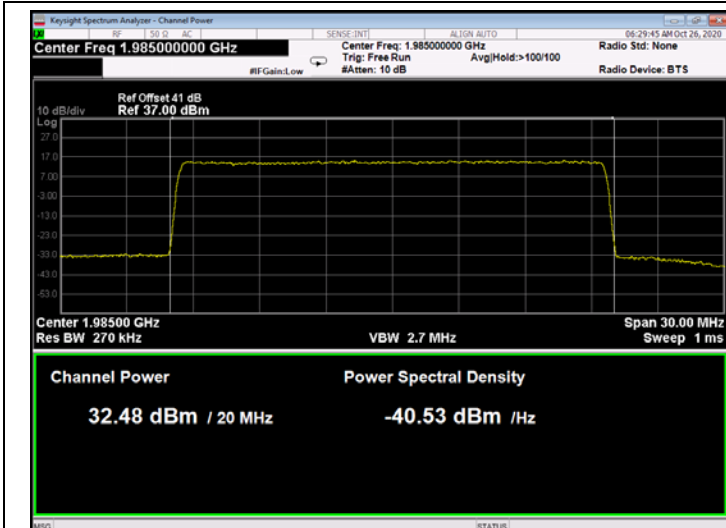


Figure 237: QPSK 20MHz B.W.; 1985.0MHz, 15kHz

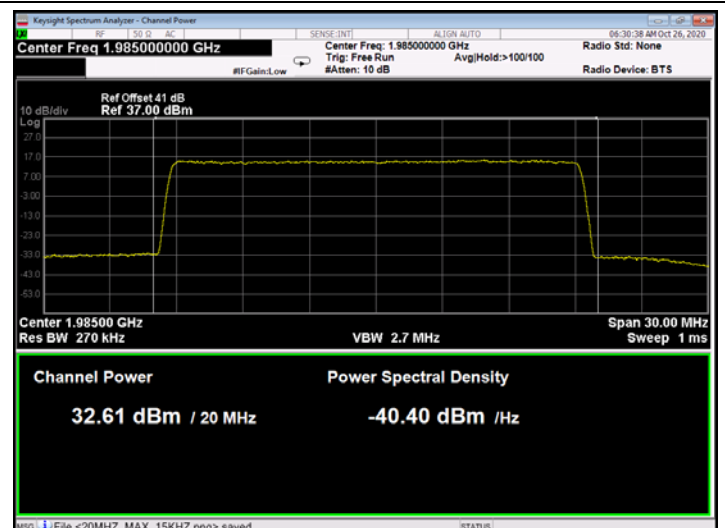


Figure 238: QPSK 20MHz B.W.; 1985.0MHz, 30kHz

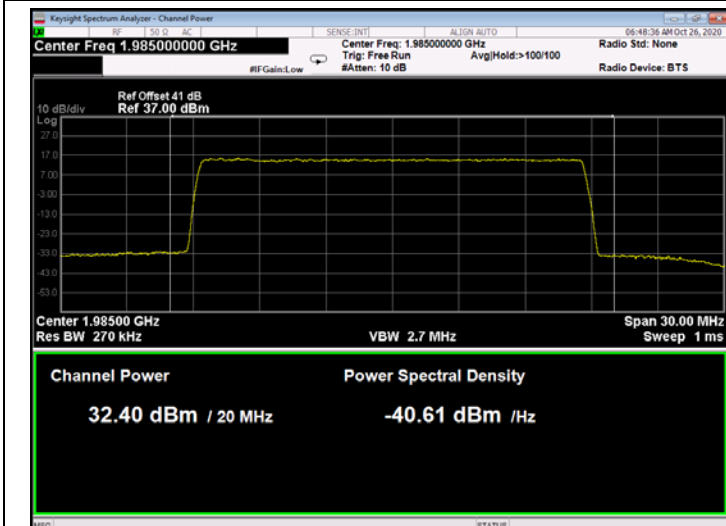


Figure 239: QPSK 20MHz B.W.; 1985.0MHz, 60kHz

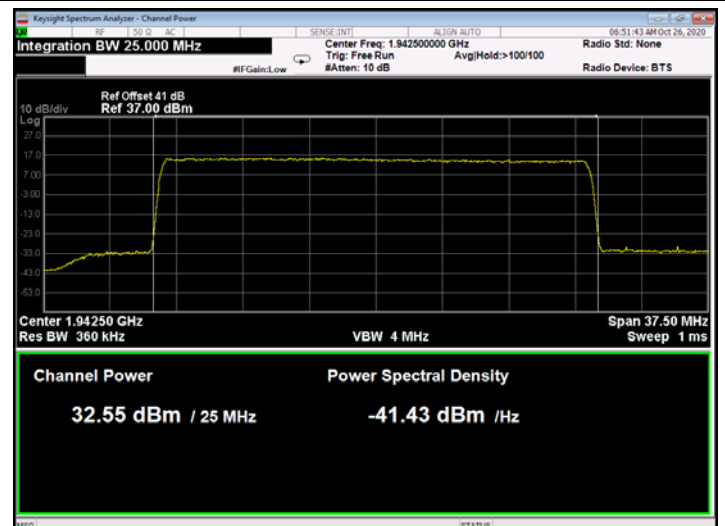


Figure 240: QPSK 25MHz B.W.; 1942.5MHz, 15kHz

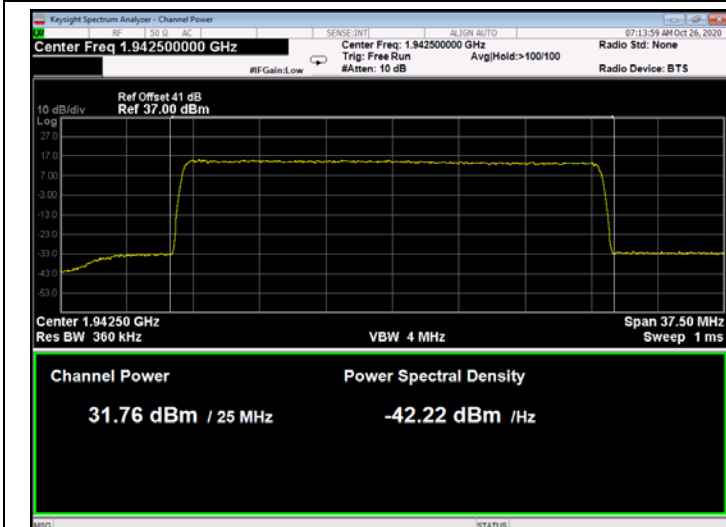


Figure 241: QPSK 25MHz B.W.; 1942.5MHz, 30kHz

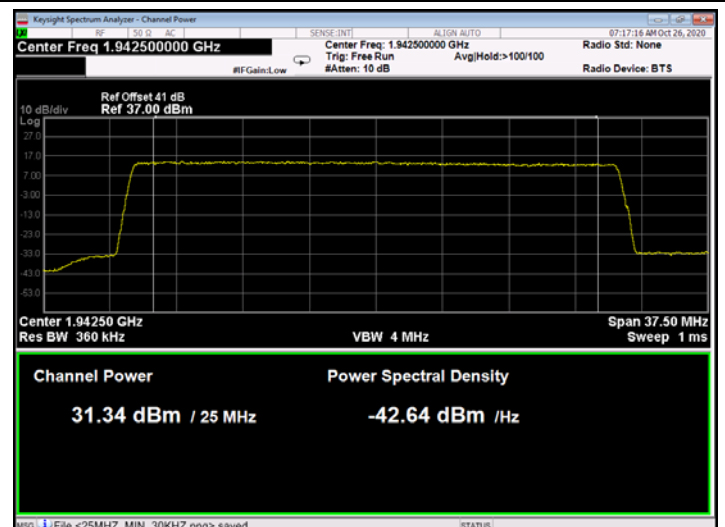


Figure 242: QPSK 25MHz B.W.; 1942.5MHz, 60kHz

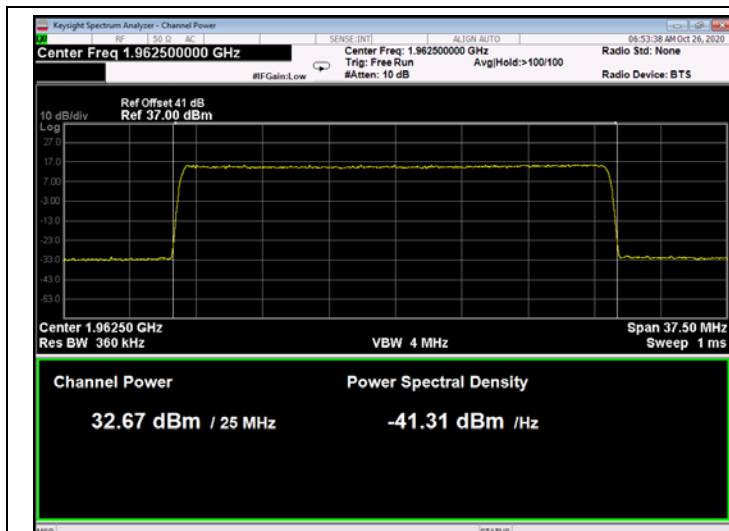


Figure 243: QPSK 25MHz B.W.; 1962.5MHz, 15kHz

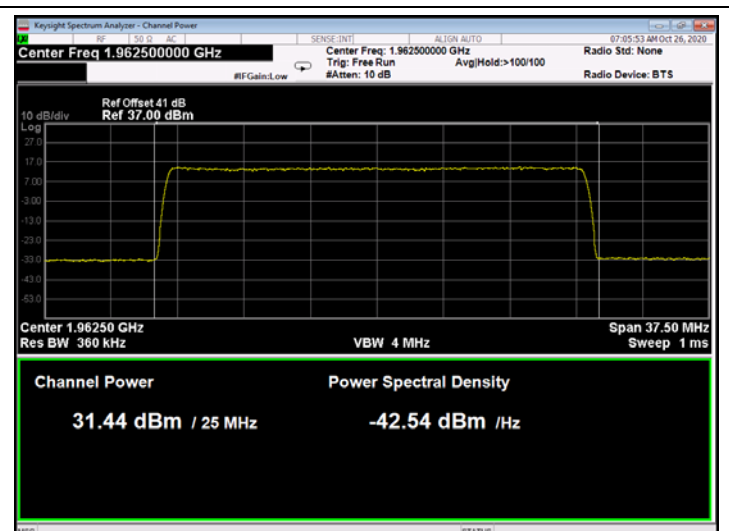


Figure 244: QPSK 25MHz B.W.; 1962.5MHz, 30kHz

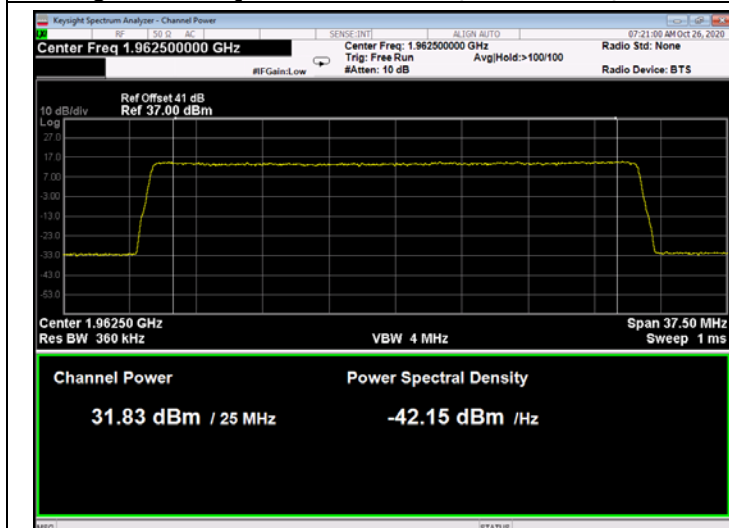


Figure 245: QPSK 25MHz B.W.; 1962.5MHz, 60kHz

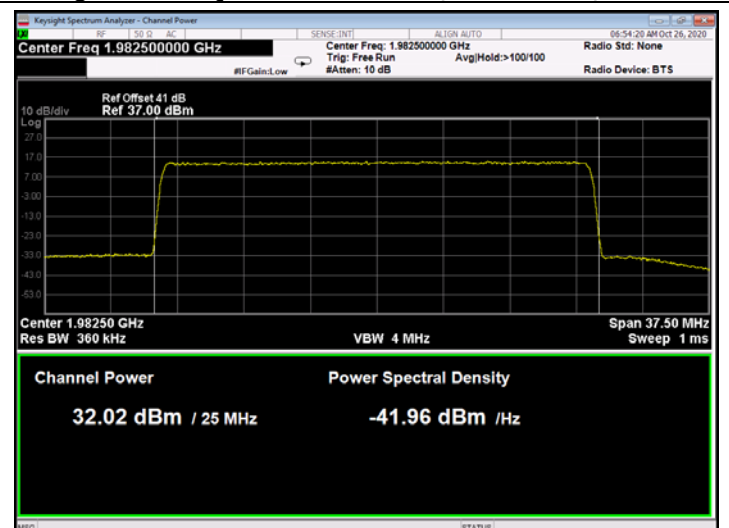


Figure 246: QPSK 25MHz B.W.; 1982.5MHz, 15kHz

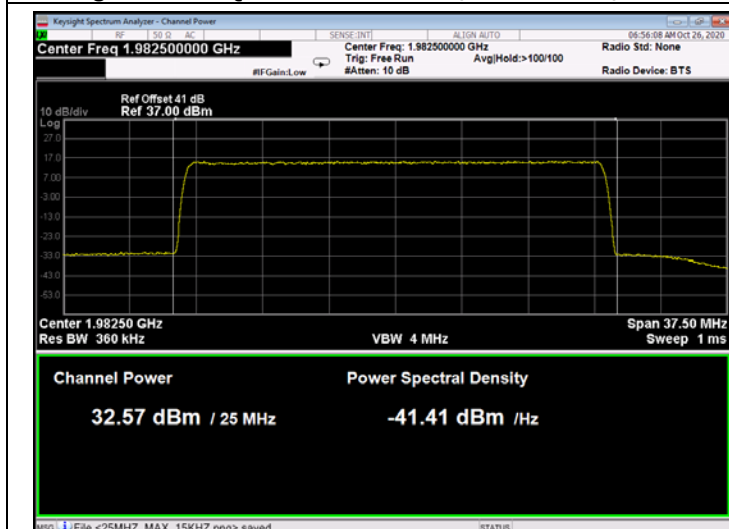


Figure 247: QPSK 25MHz B.W.; 1982.5MHz, 30kHz

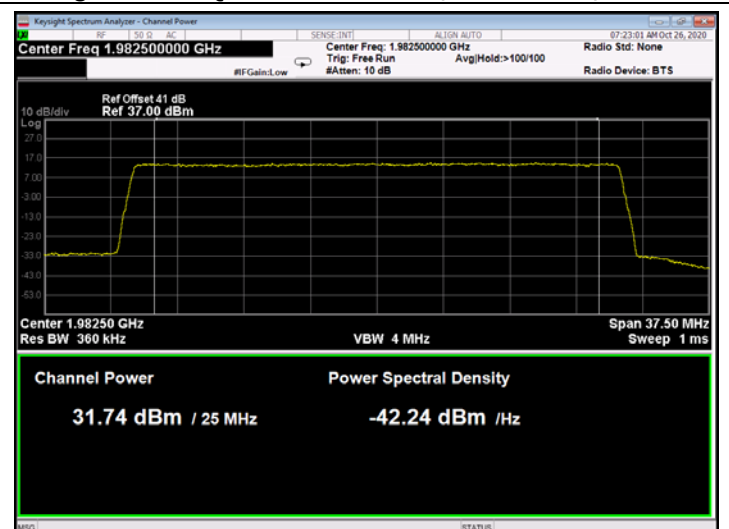


Figure 248: QPSK 25MHz B.W.; 1982.5MHz, 60kHz

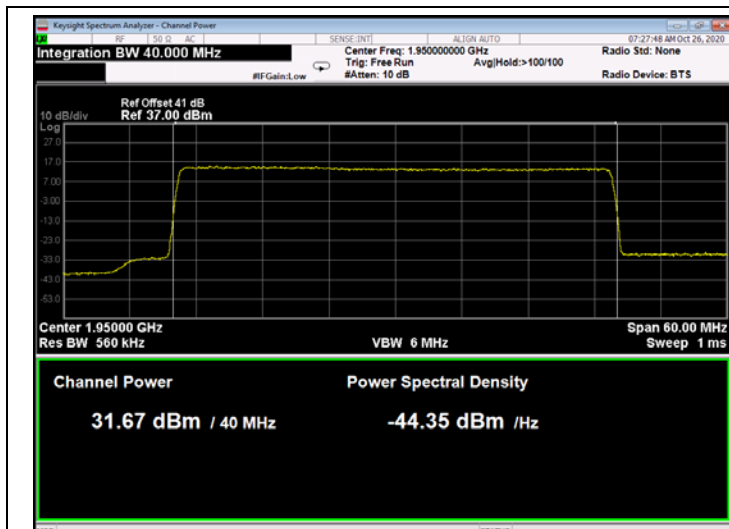


Figure 249: QPSK 40MHz B.W.; 1950.0MHz, 15kHz

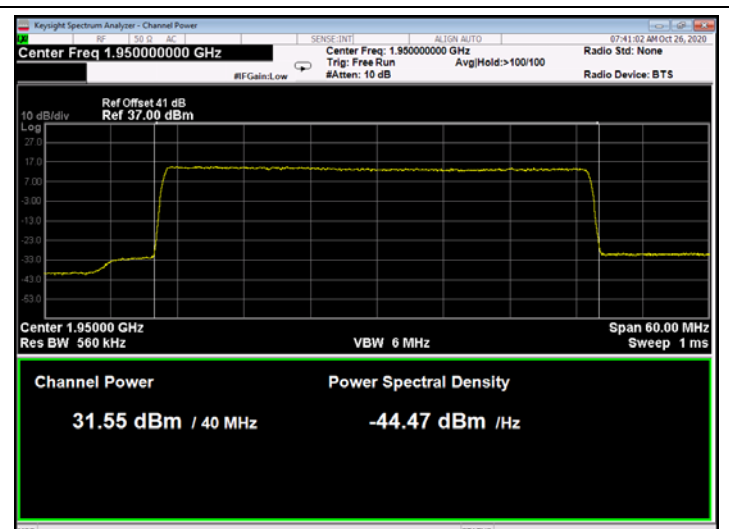


Figure 250: QPSK 40MHz B.W.; 1950.0MHz, 30kHz

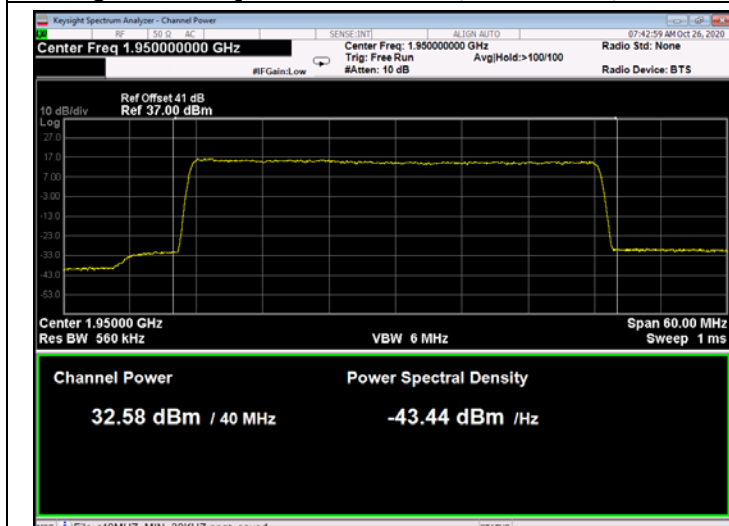


Figure 251: QPSK 40MHz B.W.; 1950.0MHz, 60kHz

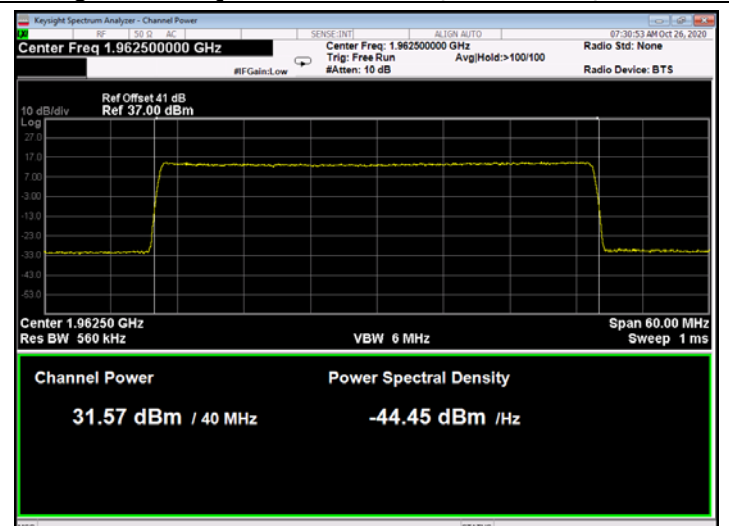


Figure 252: QPSK 40MHz B.W.; 1962.5MHz, 15kHz

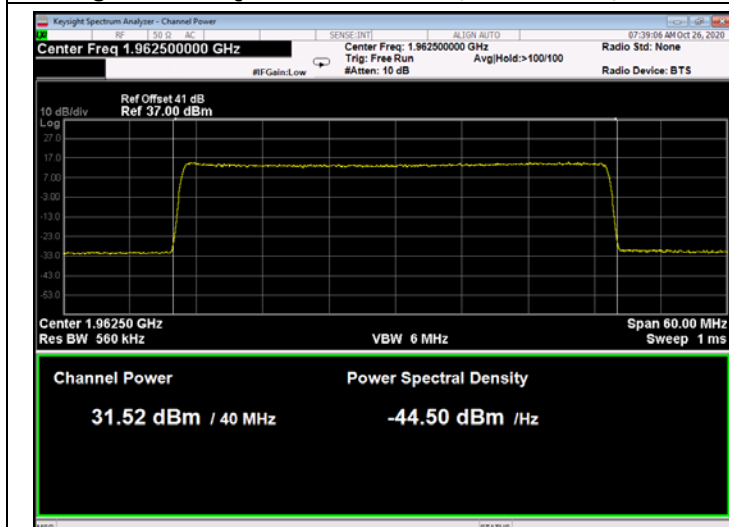


Figure 253: QPSK 40MHz B.W.; 1962.5MHz, 30kHz

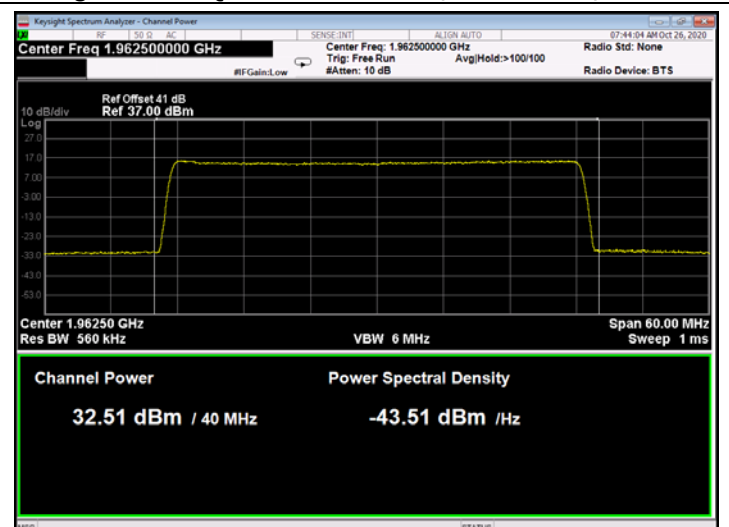


Figure 254: QPSK 40MHz B.W.; 1962.5MHz, 60kHz

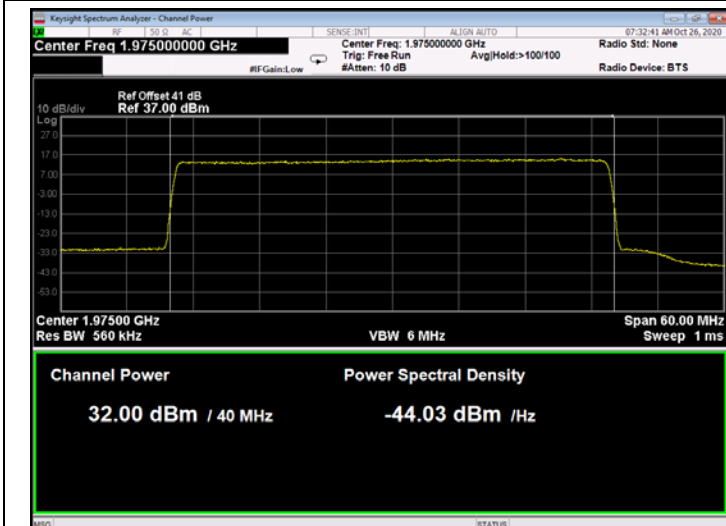


Figure 255: QPSK 40MHz B.W.; 1975.0MHz, 15kHz

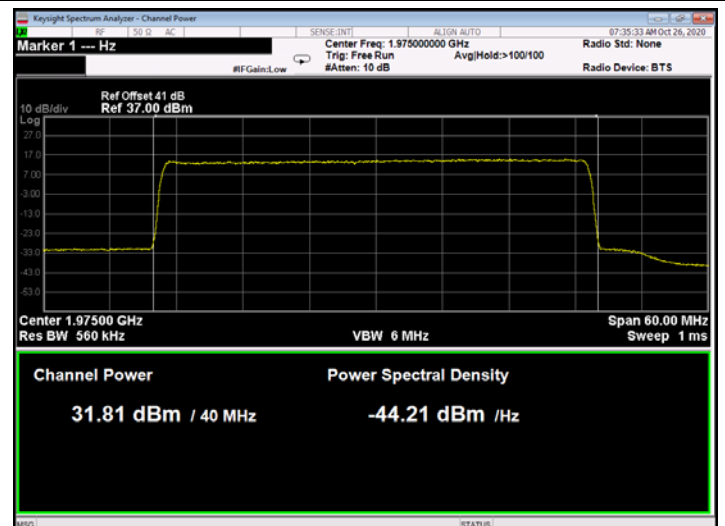


Figure 256: QPSK 40MHz B.W.; 1975.0MHz, 30kHz

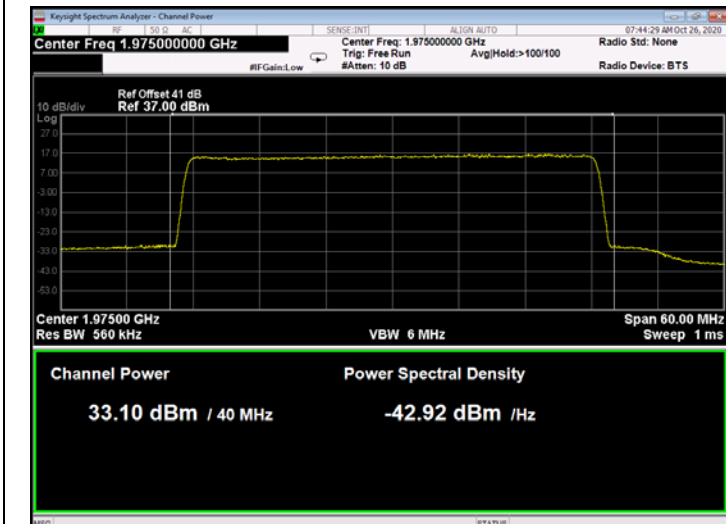


Figure 257: QPSK 40MHz B.W.; 1975.0MHz, 60kHz

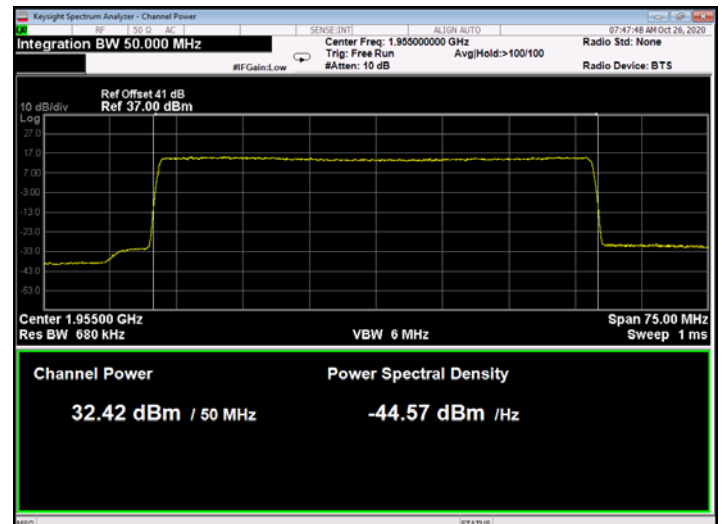


Figure 258: QPSK 50MHz B.W.; 1955.0MHz, 15kHz

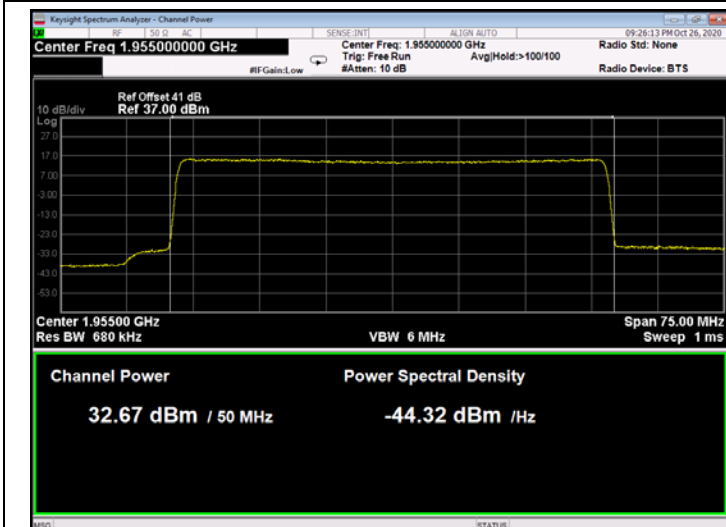


Figure 259: QPSK 50MHz B.W.; 1955.0MHz, 30kHz

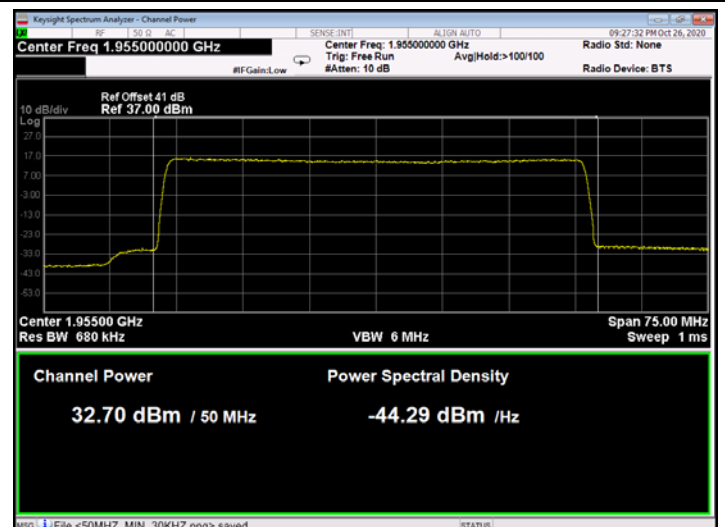


Figure 260: QPSK 50MHz B.W.; 1955.0MHz, 60kHz

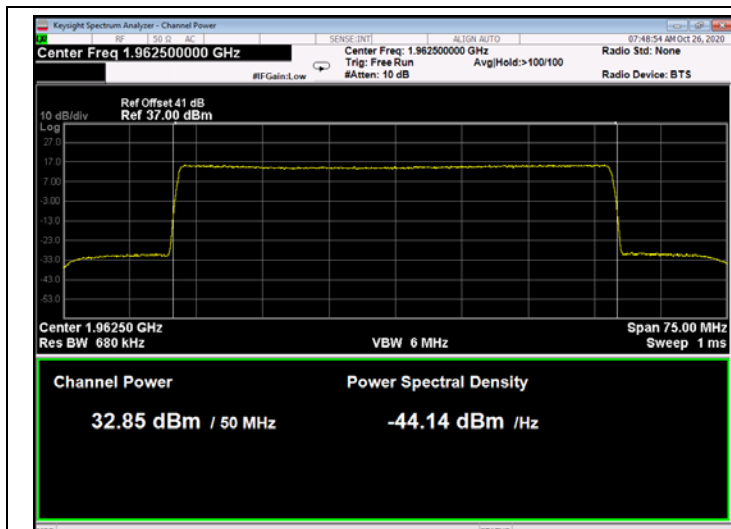


Figure 261: QPSK 50MHz B.W.; 1962.5MHz, 15kHz

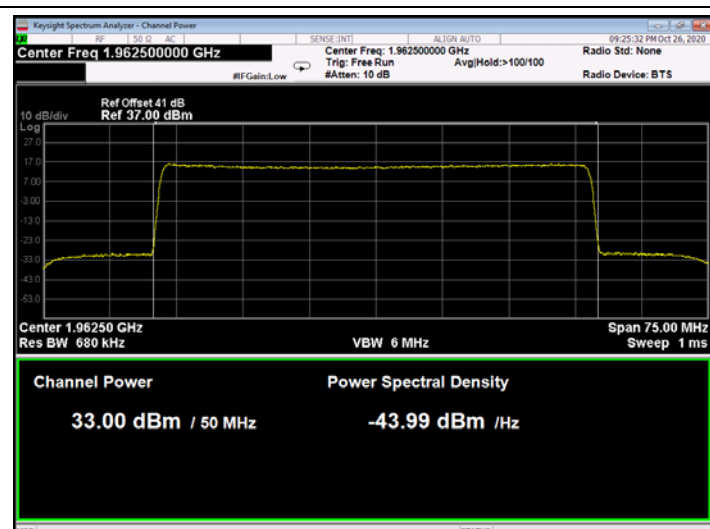


Figure 262: QPSK 50MHz B.W.; 1962.5MHz, 30kHz

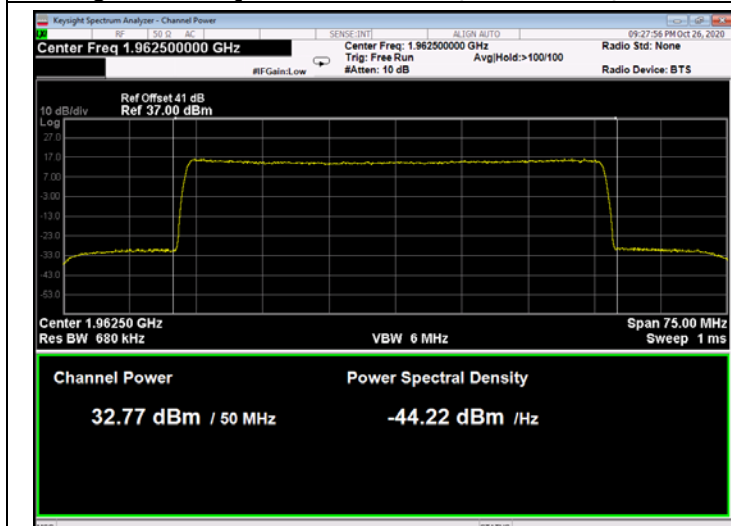


Figure 263: QPSK 50MHz B.W.; 1962.5MHz, 60kHz

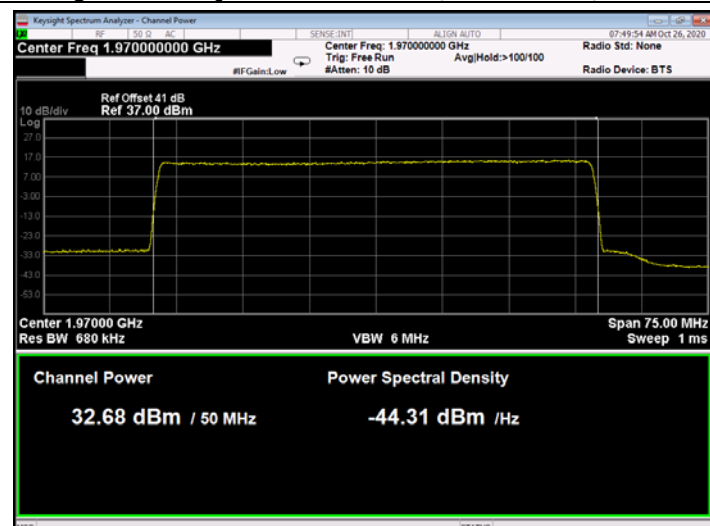


Figure 264: QPSK 50MHz B.W.; 1970.0MHz, 15kHz

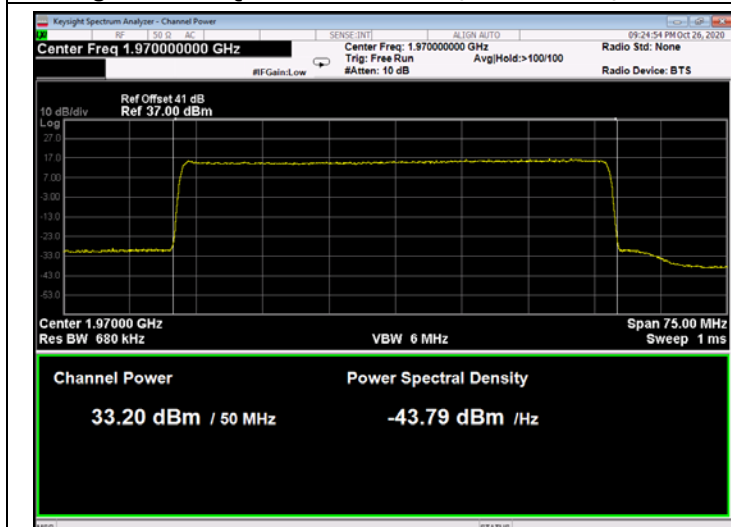


Figure 265: QPSK 50MHz B.W.; 1970.0MHz, 30kHz

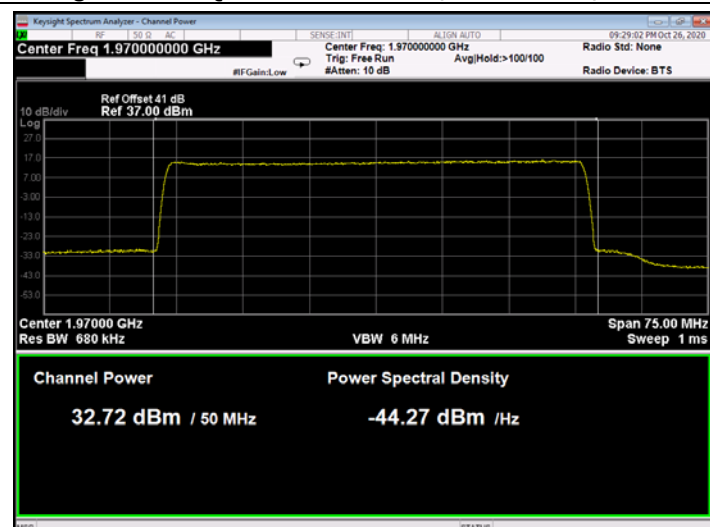


Figure 266: QPSK 50MHz B.W.; 1970.0MHz, 60kHz

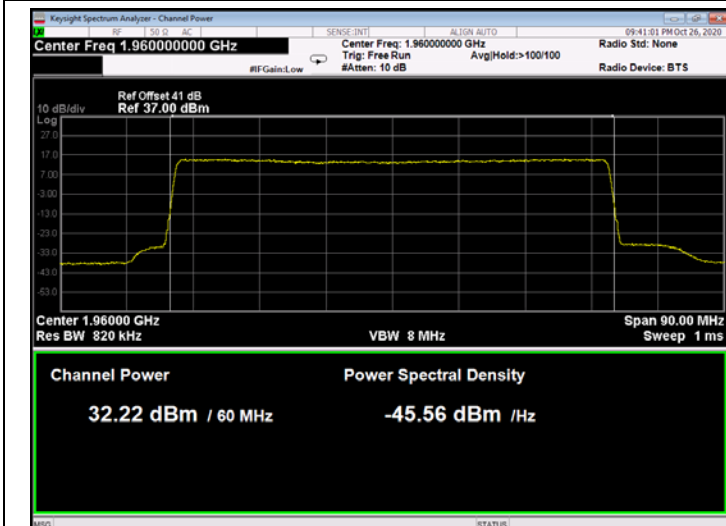


Figure 267: QPSK 60MHz B.W.; 1960.0MHz, 30kHz

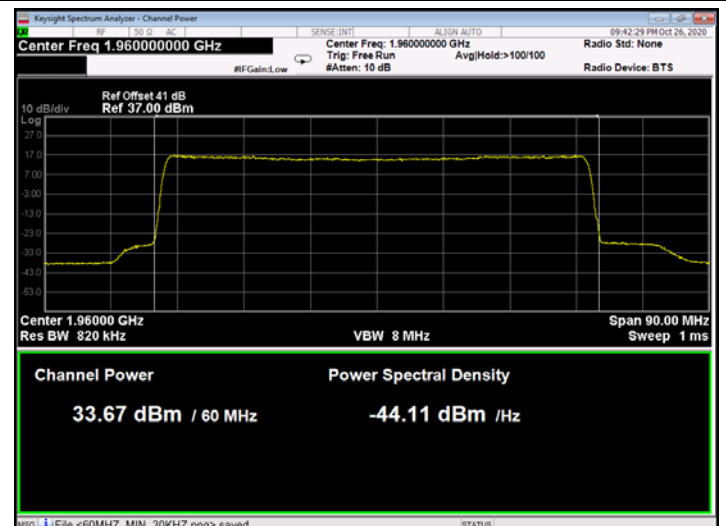


Figure 268: QPSK 60MHz B.W.; 1960.0MHz, 60kHz

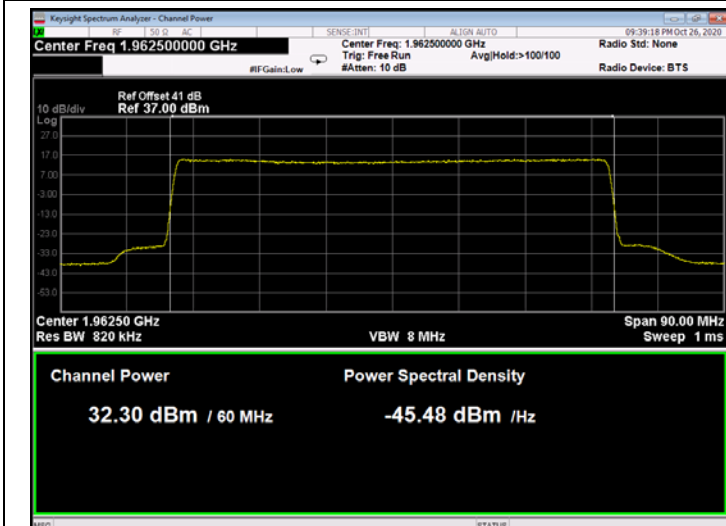


Figure 269: QPSK 60MHz B.W.; 1962.5MHz, 30kHz

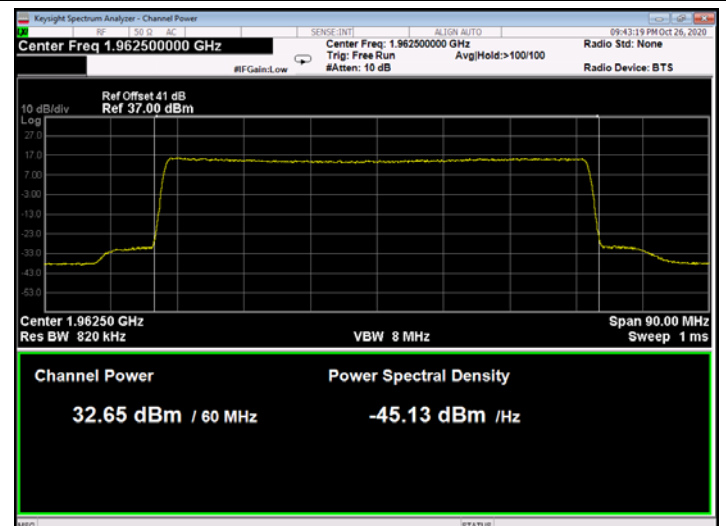


Figure 270: QPSK 60MHz B.W.; 1962.5MHz, 60kHz

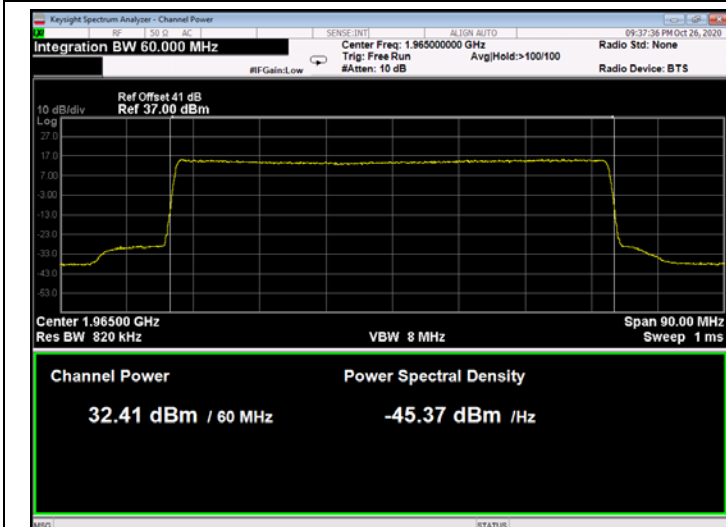


Figure 271: QPSK 60MHz B.W.; 1965.0MHz, 30kHz

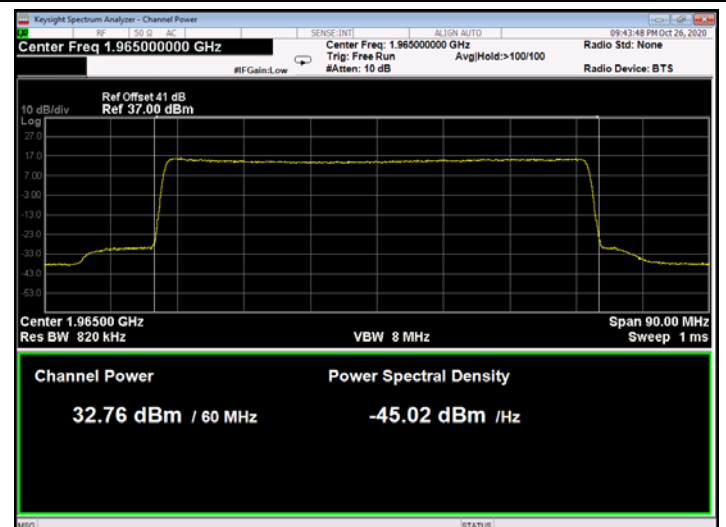


Figure 272: QPSK 60MHz B.W.; 1965.0MHz, 60kHz



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 Suner	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	1932.5	4.4861
		30	1932.5	3.9432
		15	1962.5	4.4847
		30	1962.5	3.9431
		15	1992.5	4.4858
		30	1992.5	3.9432
	10	15	1935.0	9.2424
		30	1935.0	8.5345
		60	1935.0	7.8832
		15	1962.5	9.2455
		30	1962.5	8.5317
		60	1962.5	7.8840
		15	1990.0	9.2452
		30	1990.0	8.5375
		60	1990.0	7.8835
	15	15	1937.5	14.165
		30	1937.5	13.668
		60	1937.5	12.915
		15	1962.5	14.166
		30	1962.5	13.665
		60	1962.5	12.916
		15	1987.5	14.169
		30	1987.5	13.669
		60	1987.5	12.917
	20	15	1940.0	19.003
		30	1940.0	18.328
		60	1940.0	17.145
		15	1962.5	18.997
		30	1962.5	18.328
		60	1962.5	17.150
		15	1985.0	19.004
		30	1985.0	18.338
		60	1985.0	17.149
	25	15	1942.5	23.843
		30	1942.5	23.338
		60	1942.5	22.297
		15	1962.5	23.827
		30	1962.5	23.321
		60	1962.5	22.295
		15	1982.5	23.826
		30	1982.5	23.325
		60	1982.5	22.300

Table 10 Occupied Bandwidth 16QAM -Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	40	15	1950.0	38.853
		30	1950.0	37.950
		60	1950.0	36.651
		15	1962.5	38.817
		30	1962.5	37.939
		60	1962.5	36.635
		15	1975.0	38.834
		30	1975.0	37.961
		60	1975.0	36.648
	50	15	1955.0	48.200
		30	1955.0	47.644
		60	1955.0	46.624
		15	1962.5	48.203
		30	1962.5	47.655
		60	1962.5	46.618
		15	1970.0	48.193
		30	1970.0	47.628
		60	1970.0	46.608
	60	30	1960.0	58.062
		60	1960.0	56.705
		30	1962.5	58.055
		60	1962.5	56.694
		30	1965.0	58.039
		60	1965.0	56.681

Table 11 Occupied Bandwidth 16QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	5	15	1932.5	4.4924
		30	1932.5	3.9413
		15	1962.5	4.4935
		30	1962.5	3.9421
		15	1992.5	4.4919
		30	1992.5	3.9413
	10	15	1935.0	9.3160
		30	1935.0	8.5896
		60	1935.0	7.887
		15	1962.5	9.3134
		30	1962.5	8.5923
		60	1962.5	7.8883
		15	1990.0	9.3162
		30	1990.0	8.5898
		60	1990.0	7.8884
	15	15	1937.5	14.144
		30	1937.5	13.603
		60	1937.5	12.893
		15	1962.5	14.140
		30	1962.5	13.605
		60	1962.5	12.894
		15	1987.5	14.143
		30	1987.5	13.607
		60	1987.5	12.889
	20	15	1940.0	18.971
		30	1940.0	18.236
		60	1940.0	18.239
		15	1962.5	18.970
		30	1962.5	18.235
		60	1962.5	17.188
		15	1985.0	18.970
		30	1985.0	18.240
		60	1985.0	17.183
	25	15	1942.5	23.807
		30	1942.5	23.275
		60	1942.5	22.209
		15	1962.5	23.792
		30	1962.5	23.254
		60	1962.5	22.214
		15	1982.5	23.805
		30	1982.5	23.263
		60	1982.5	22.212

Table 12 Occupied Bandwidth – 64QAM -Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	40	15	1950.0	38.668
		30	1950.0	37.902
		60	1950.0	36.503
		15	1962.5	38.658
		30	1962.5	37.882
		60	1962.5	36.457
		15	1975.0	38.661
		30	1975.0	37.902
		60	1975.0	36.478
	50	15	1955.0	48.355
		30	1955.0	47.555
		60	1955.0	46.536
		15	1962.5	48.345
		30	1962.5	47.542
		60	1962.5	46.523
		15	1970.0	48.340
		30	1970.0	47.548
		60	1970.0	46.512
	60	30	1960.0	58.031
		60	1960.0	56.602
		30	1962.5	58.029
		60	1962.5	56.595
		30	1965.0	58.037
		60	1965.0	56.579

Table 13 Occupied Bandwidth 64QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	5	15	1932.5	4.4958
		30	1932.5	3.9445
		15	1962.5	4.4954
		30	1962.5	3.9439
		15	1992.5	4.4957
		30	1992.5	3.9445
	10	15	1935.0	9.3022
		30	1935.0	8.5839
		60	1935.0	7.8833
		15	1962.5	9.3015
		30	1962.5	8.5854
		60	1962.5	7.8839
		15	1990.0	9.3021
		30	1990.0	8.5861
		60	1990.0	7.8842
	15	15	1937.5	14.146
		30	1937.5	13.623
		60	1937.5	12.946
		15	1962.5	14.145
		30	1962.5	13.617
		60	1962.5	12.947
		15	1987.5	14.143
		30	1987.5	13.613
		60	1987.5	12.949
	20	15	1940.0	18.971
		30	1940.0	18.259
		60	1940.0	17.180
		15	1962.5	18.971
		30	1962.5	18.262
		60	1962.5	17.167
		15	1985.0	18.968
		30	1985.0	18.261
		60	1985.0	17.166
	25	15	1942.5	23.841
		30	1942.5	23.275
		60	1942.5	22.168
		15	1962.5	23.821
		30	1962.5	23.266
		60	1962.5	22.168
		15	1982.5	23.829
		30	1982.5	23.268
		60	1982.5	22.171

Table 14 Occupied Bandwidth 256QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	40	15	1950.0	38.610
		30	1950.0	37.886
		60	1950.0	36.496
		15	1962.5	38.604
		30	1962.5	37.859
		60	1962.5	36.474
		15	1975.0	38.596
		30	1975.0	37.873
		60	1975.0	36.474
	50	15	1955.0	48.266
		30	1955.0	47.579
		60	1955.0	46.506
		15	1962.5	48.269
		30	1962.5	47.609
		60	1962.5	46.487
		15	1970.0	48.256
		30	1970.0	47.604
		60	1970.0	46.480
	60	30	1960.0	57.910
		60	1960.0	56.570
		30	1962.5	57.945
		60	1962.5	56.569
		30	1965.0	57.917
		60	1965.0	56.549

Table 15 Occupied Bandwidth 256QAM - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	5	15	1932.5	4.4953
		30	1932.5	3.9683
		15	1962.5	4.4953
		30	1962.5	3.9676
		15	1992.5	4.4951
		30	1992.5	3.9677
	10	15	1935.0	9.3105
		30	1935.0	8.5966
		60	1935.0	7.9272
		15	1962.5	9.3119
		30	1962.5	8.5962
		60	1962.5	7.9282
		15	1990.0	9.3103
		30	1990.0	8.5964
		60	1990.0	7.9259
	15	15	1937.5	14.154
		30	1937.5	13.672
		60	1937.5	12.993
		15	1962.5	14.153
		30	1962.5	13.667
		60	1962.5	12.995
		15	1987.5	14.154
		30	1987.5	13.671
		60	1987.5	12.994
	20	15	1940.0	18.881
		30	1940.0	18.227
		60	1940.0	17.197
		15	1962.5	18.880
		30	1962.5	18.213
		60	1962.5	17.193
		15	1985.0	18.884
		30	1985.0	18.219
		60	1985.0	17.193
	25	15	1942.5	23.827
		30	1942.5	23.247
		60	1942.5	22.198
		15	1962.5	23.813
		30	1962.5	23.248
		60	1962.5	22.185
		15	1982.5	23.820
		30	1982.5	23.250
		60	1982.5	22.192

Table 16 Occupied Bandwidth QPSK - Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	40	15	1950.0	38.677
		30	1950.0	37.856
		60	1950.0	36.504
		15	1962.5	38.667
		30	1962.5	37.869
		60	1962.5	36.486
		15	1975.0	38.682
		30	1975.0	37.858
		60	1975.0	36.478
	50	15	1955.0	48.258
		30	1955.0	47.598
		60	1955.0	46.455
		15	1962.5	48.247
		30	1962.5	47.599
		60	1962.5	46.446
		15	1970.0	48.242
		30	1970.0	47.590
		60	1970.0	46.443
	60	30	1960.0	57.879
		60	1960.0	56.599
		30	1962.5	57.886
		60	1962.5	56.596
		30	1965.0	57.859
		60	1965.0	56.596

Table 17 Occupied Bandwidth QPSK – Input

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	5	15	1932.5	4.4918
		30	1932.5	3.9426
		15	1962.5	4.4929
		30	1962.5	3.9442
		15	1992.5	4.5224
		30	1992.5	3.9444
	10	15	1935.0	9.4418
		30	1935.0	8.5541
		60	1935.0	7.8774
		15	1962.5	9.3683
		30	1962.5	8.5614
		60	1962.5	7.8862
		15	1990.0	9.3955
		30	1990.0	8.5663
		60	1990.0	7.8981
	15	15	1937.5	13.942
		30	1937.5	13.717
		60	1937.5	12.635
		15	1962.5	14.351
		30	1962.5	13.699
		60	1962.5	12.683
		15	1987.5	14.443
		30	1987.5	13.698
		60	1987.5	12.674
	20	15	1940.0	20.103
		30	1940.0	18.457
		60	1940.0	17.172
		15	1962.5	19.943
		30	1962.5	18.435
		60	1962.5	17.178
		15	1985.0	21.380
		30	1985.0	18.438
		60	1985.0	17.206
	25	15	1942.5	24.233
		30	1942.5	23.645
		60	1942.5	22.493
		15	1962.5	25.494
		30	1962.5	23.691
		60	1962.5	22.536
		15	1982.5	26.493
		30	1982.5	23.963
		60	1982.5	22.928

Table 18 Occupied Bandwidth 16QAM -Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
16QAM	40	15	1950.0	39.382
		30	1950.0	39.018
		60	1950.0	36.813
		15	1962.5	39.707
		30	1962.5	38.926
		60	1962.5	36.901
		15	1975.0	39.970
		30	1975.0	38.681
		60	1975.0	36.850
	50	15	1955.0	48.763
		30	1955.0	48.164
		60	1955.0	46.938
		15	1962.5	48.947
		30	1962.5	48.549
		60	1962.5	47.122
		15	1970.0	48.998
		30	1970.0	48.478
		60	1970.0	47.148
	60	30	1960.0	58.278
		60	1960.0	56.932
		30	1962.5	58.444
		60	1962.5	57.006
		30	1965.0	58.307
		60	1965.0	56.984

Table 19 Occupied Bandwidth 16QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	5	15	1932.5	4.4906
		30	1932.5	3.9425
		15	1962.5	4.4925
		30	1962.5	3.9436
		15	1992.5	4.4921
		30	1992.5	3.9443
	10	15	1935.0	9.3076
		30	1935.0	8.5844
		60	1935.0	7.8812
		15	1962.5	9.3157
		30	1962.5	8.5926
		60	1962.5	7.8892
		15	1990.0	9.3130
		30	1990.0	8.5879
		60	1990.0	7.8851
	15	15	1937.5	14.124
		30	1937.5	13.580
		60	1937.5	12.876
		15	1962.5	14.157
		30	1962.5	13.592
		60	1962.5	12.899
		15	1987.5	14.142
		30	1987.5	13.602
		60	1987.5	12.901
	20	15	1940.0	18.934
		30	1940.0	18.202
		60	1940.0	17.158
		15	1962.5	18.981
		30	1962.5	18.253
		60	1962.5	17.200
		15	1985.0	18.962
		30	1985.0	18.232
		60	1985.0	17.183
	25	15	1942.5	23.765
		30	1942.5	23.226
		60	1942.5	22.185
		15	1962.5	23.819
		30	1962.5	23.286
		60	1962.5	22.233
		15	1982.5	23.782
		30	1982.5	23.241
		60	1982.5	22.196

Table 20 Occupied Bandwidth – 64QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
64QAM	40	15	1950.0	38.671
		30	1950.0	37.909
		60	1950.0	36.494
		15	1962.5	38.741
		30	1962.5	37.980
		60	1962.5	36.562
		15	1975.0	38.636
		30	1975.0	37.891
		60	1975.0	36.463
	50	15	1955.0	48.406
		30	1955.0	47.619
		60	1955.0	46.616
		15	1962.5	48.427
		30	1962.5	47.671
		60	1962.5	46.641
		15	1970.0	48.379
		30	1970.0	47.581
		60	1970.0	46.555
	60	30	1960.0	58.100
		60	1960.0	56.690
		30	1962.5	58.134
		60	1962.5	56.662
		30	1965.0	58.139
		60	1965.0	56.645

Table 21 Occupied Bandwidth 64QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	5	15	1932.5	4.4867
		30	1932.5	3.9316
		15	1962.5	4.4911
		30	1962.5	3.9316
		15	1992.5	4.4915
		30	1992.5	3.9330
	10	15	1935.0	9.2807
		30	1935.0	8.5683
		60	1935.0	8.5544
		15	1962.5	9.2948
		30	1962.5	8.5786
		60	1962.5	7.8742
		15	1990.0	9.2915
		30	1990.0	8.5748
		60	1990.0	7.8717
	15	15	1937.5	14.112
		30	1937.5	13.594
		60	1937.5	12.904
		15	1962.5	14.145
		30	1962.5	13.620
		60	1962.5	12.929
		15	1987.5	14.143
		30	1987.5	13.601
		60	1987.5	12.928
	20	15	1940.0	18.904
		30	1940.0	18.222
		60	1940.0	17.149
		15	1962.5	18.980
		30	1962.5	18.272
		60	1962.5	17.201
		15	1985.0	18.939
		30	1985.0	18.247
		60	1985.0	17.198
	25	15	1942.5	23.772
		30	1942.5	23.247
		60	1942.5	22.143
		15	1962.5	23.848
		30	1962.5	23.310
		60	1962.5	22.197
		15	1982.5	23.780
		30	1982.5	23.266
		60	1982.5	22.155

Table 22 Occupied Bandwidth 256QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
256QAM	40	15	1950.0	38.654
		30	1950.0	37.966
		60	1950.0	36.569
		15	1962.5	38.738
		30	1962.5	38.026
		60	1962.5	36.587
		15	1975.0	38.586
		30	1975.0	37.901
		60	1975.0	36.477
	50	15	1955.0	48.442
		30	1955.0	47.772
		60	1955.0	46.701
		15	1962.5	48.473
		30	1962.5	47.787
		60	1962.5	46.714
		15	1970.0	48.378
		30	1970.0	47.715
		60	1970.0	46.611
	60	30	1960.0	58.179
		60	1960.0	56.715
		30	1962.5	58.195
		60	1962.5	56.775
		30	1965.0	58.154
		60	1965.0	56.765

Table 23 Occupied Bandwidth 256QAM - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	5	15	1932.5	4.4944
		30	1932.5	3.9670
		15	1962.5	4.4959
		30	1962.5	3.9689
		15	1992.5	4.4926
		30	1992.5	3.9677
	10	15	1935.0	9.2991
		30	1935.0	8.5971
		60	1935.0	7.9220
		15	1962.5	9.3143
		30	1962.5	8.6014
		60	1962.5	7.9304
		15	1990.0	9.3113
		30	1990.0	8.5951
		60	1990.0	7.9250
	15	15	1937.5	14.122
		30	1937.5	14.779
		60	1937.5	12.963
		15	1962.5	14.152
		30	1962.5	13.891
		60	1962.5	12.992
		15	1987.5	14.138
		30	1987.5	13.661
		60	1987.5	12.980
	20	15	1940.0	18.896
		30	1940.0	18.176
		60	1940.0	17.165
		15	1962.5	18.955
		30	1962.5	18.237
		60	1962.5	17.199
		15	1985.0	18.917
		30	1985.0	18.222
		60	1985.0	17.190
	25	15	1942.5	23.786
		30	1942.5	23.225
		60	1942.5	22.168
		15	1962.5	23.842
		30	1962.5	23.301
		60	1962.5	22.223
		15	1982.5	23.805
		30	1982.5	23.246
		60	1982.5	22.176

Table 24 Occupied Bandwidth QPSK - Output

Modulation	Bandwidth (MHz)	Sub Carrier (kHz)	Operation Frequency (MHz)	Reading (MHz)
QPSK	40	15	1950.0	38.753
		30	1950.0	37.974
		60	1950.0	36.585
		15	1962.5	38.824
		30	1962.5	38.042
		60	1962.5	36.635
		15	1975.0	38.707
		30	1975.0	37.902
		60	1975.0	36.535
	50	15	1955.0	48.485
		30	1955.0	47.752
		60	1955.0	46.665
		15	1962.5	48.502
		30	1962.5	47.808
		60	1962.5	46.684
		15	1970.0	48.407
		30	1970.0	47.695
		60	1970.0	46.611
	60	30	1960.0	58.154
		60	1960.0	56.823
		30	1962.5	58.192
		60	1962.5	56.852
		30	1965.0	58.169
		60	1965.0	56.840

Table 25 Occupied Bandwidth QPSK - Output



INPUT

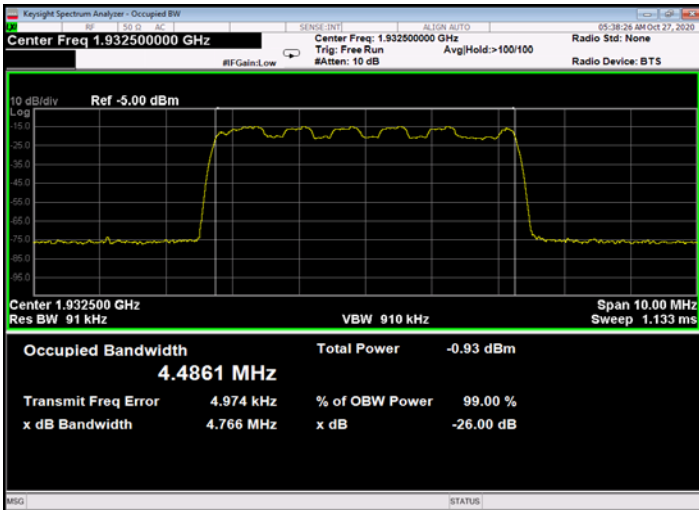


Figure 273: 16QAM 5MHz B.W.; 1932.5MHz, 15kHz - Input

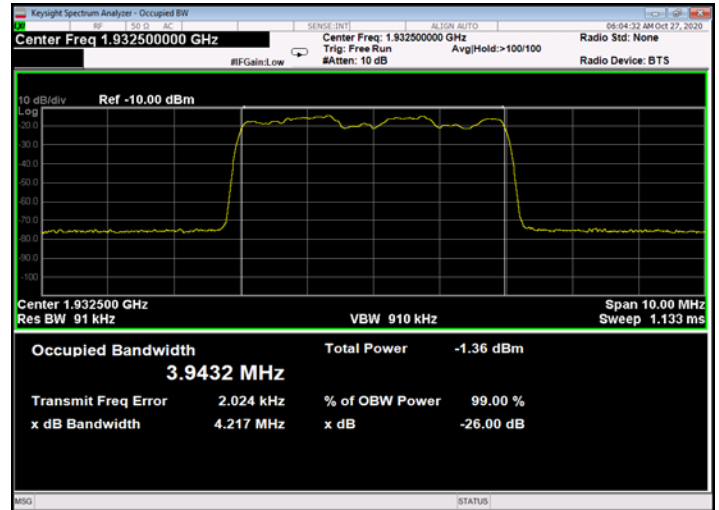


Figure 274: 16QAM 5MHz B.W.; 1932.5MHz, 30kHz - Input

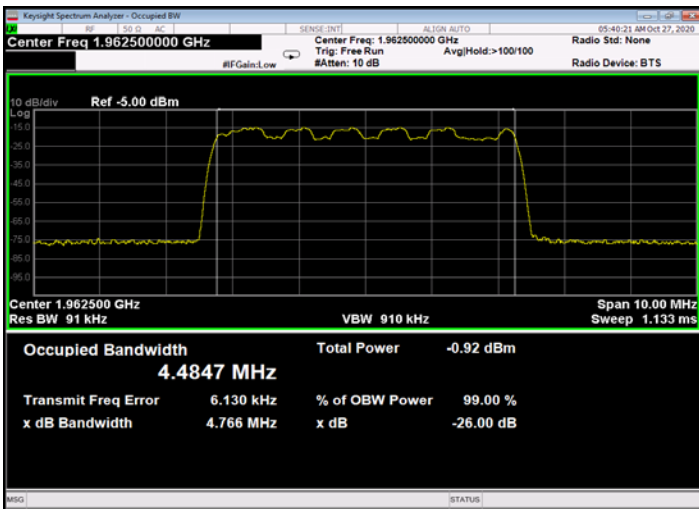


Figure 275: 16QAM 5MHz B.W.; 1962.5MHz, 15kHz - Input

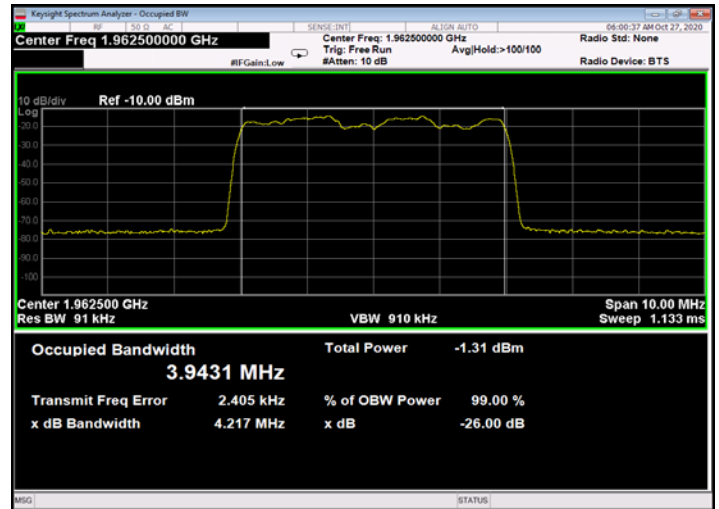


Figure 276: 16QAM 5MHz B.W.; 1962.5MHz, 30kHz - Input

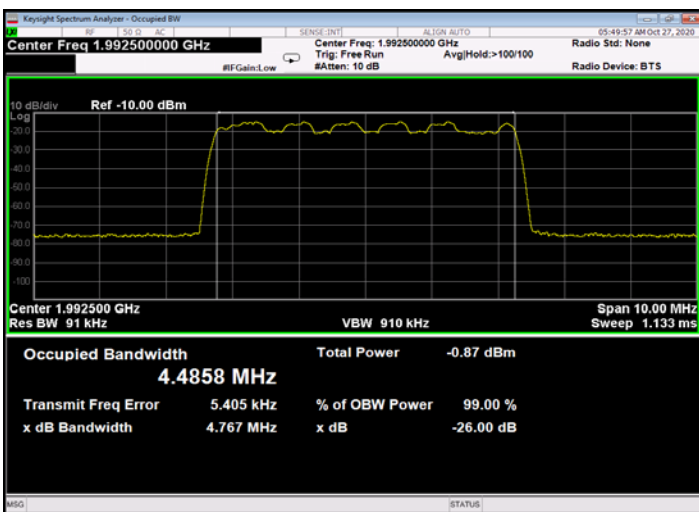


Figure 277: 16QAM 5MHz B.W.; 1992.5MHz, 15kHz - Input

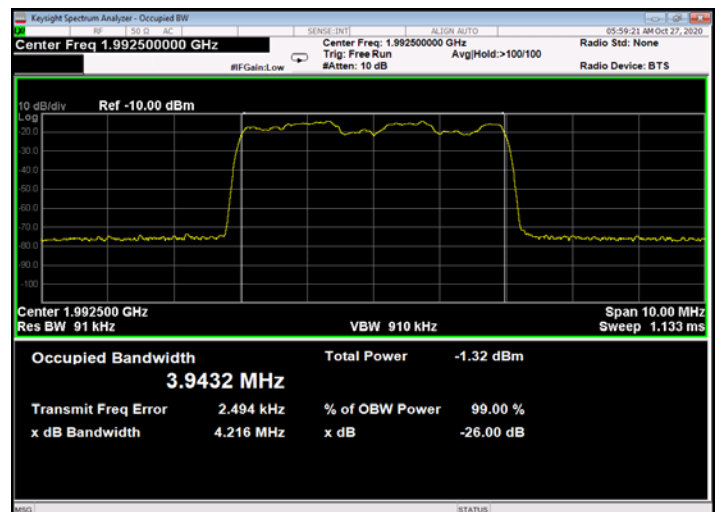


Figure 278: 16QAM 5MHz C.S.; 1992.5MHz, 30kHz - Input

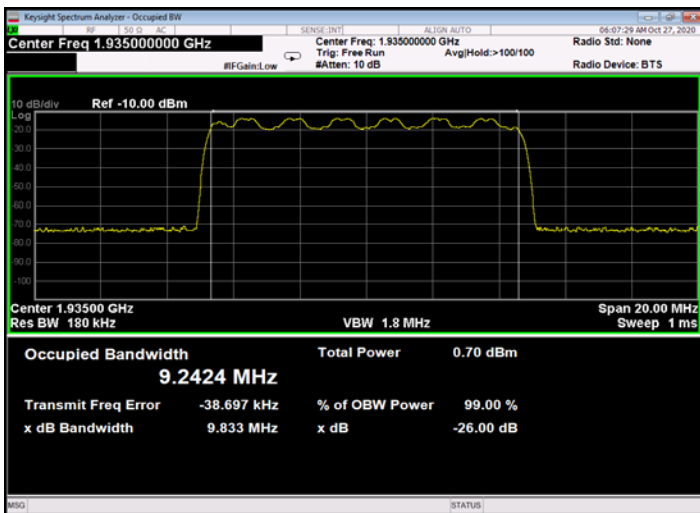


Figure 279: 16QAM 10MHz B.W.; 1935.00MHz, 15kHz - Input

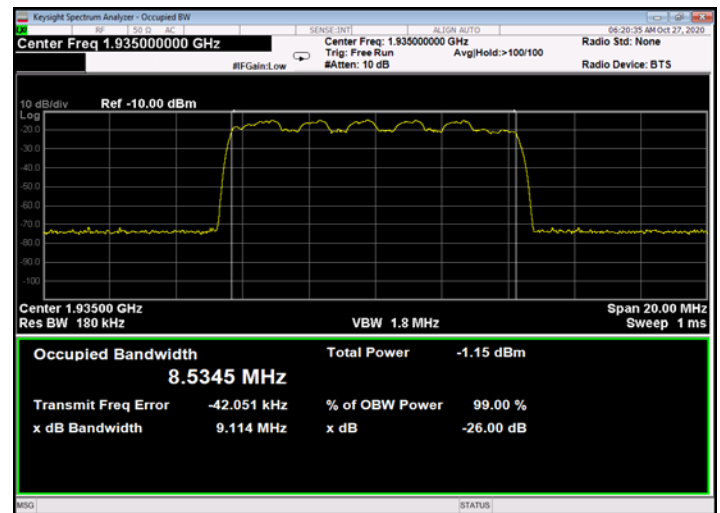


Figure 280: 16QAM 10MHz B.W.; 1935.0MHz, 30kHz - Input

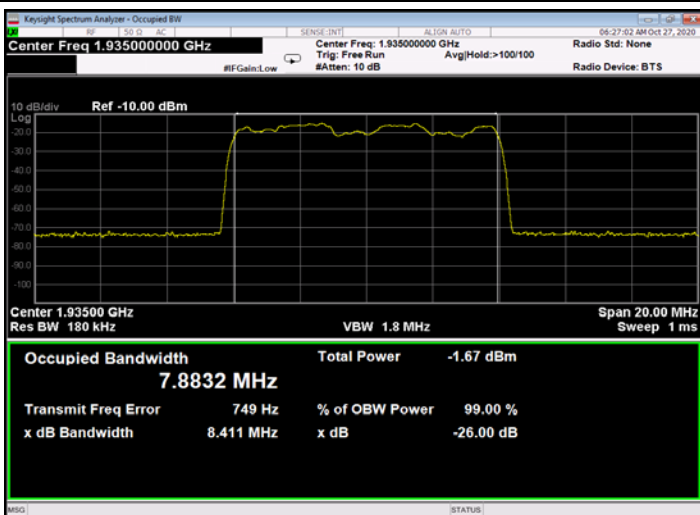


Figure 281: 16QAM 10MHz B.W.; 1935.0MHz, 60kHz - Input

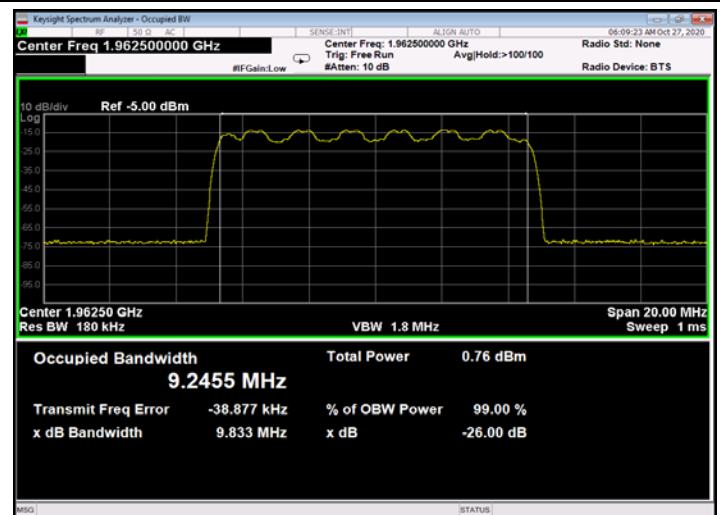


Figure 282: 16QAM 10MHz B.W.; 1962.5MHz, 15kHz - Input

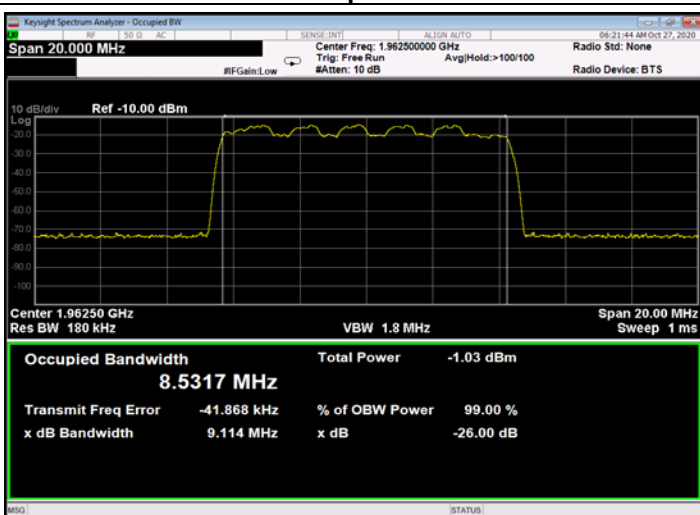


Figure 283: 16QAM 10MHz B.W.; 1962.5MHz, 30kHz - Input

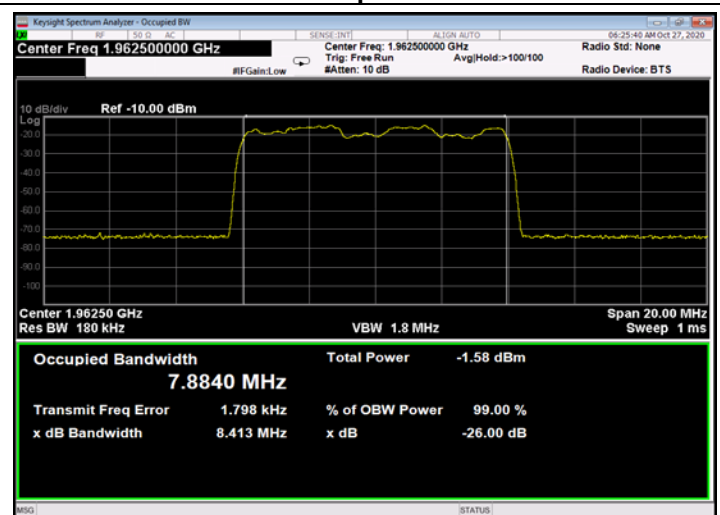


Figure 284: 16QAM 10MHz B.W.; 1962.5MHz, 60kHz - Input

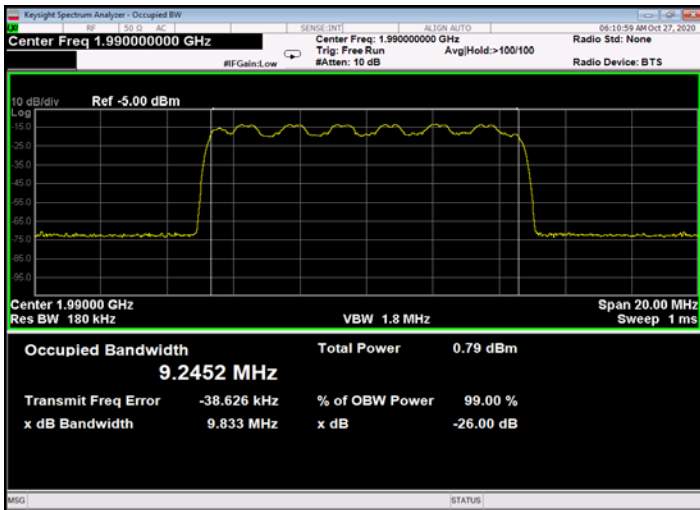


Figure 285: 16QAM 10MHz B.W.; 1990.0MHz, 15kHz - Input

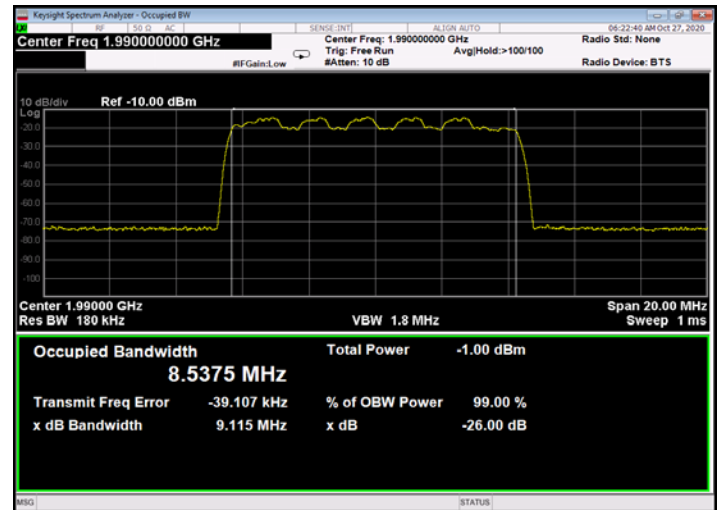


Figure 286: 16QAM 10MHz B.W.; 1990.0MHz, 30kHz - Input

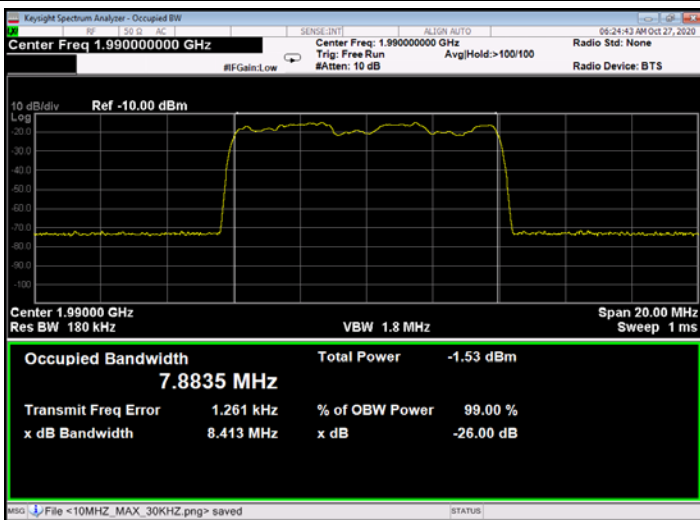


Figure 287: 16QAM 10MHz B.W.; 1990.0MHz, 60kHz - Input

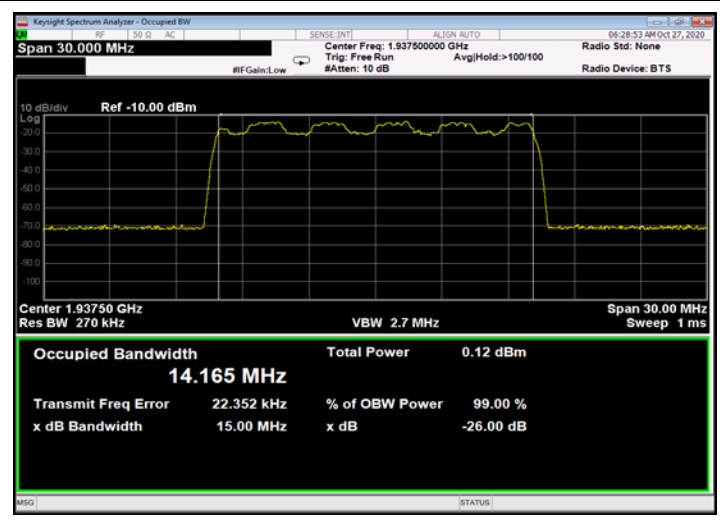


Figure 288: 16QAM 15MHz B.W.; 1937.5MHz, 15kHz - Input

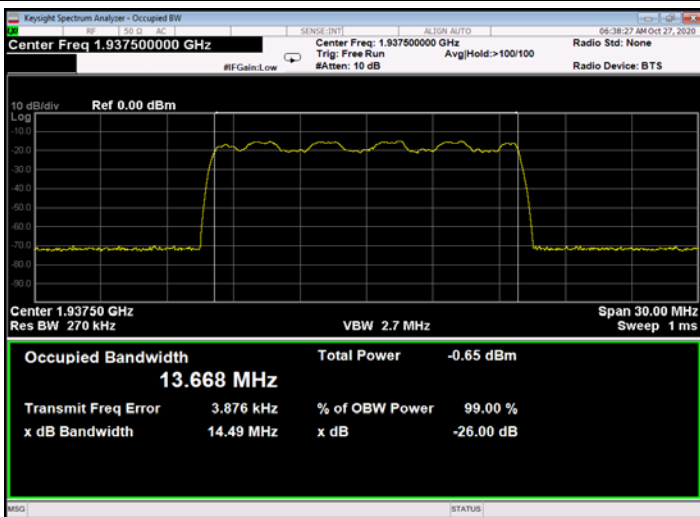


Figure 289: 16QAM 15MHz B.W.; 1937.5MHz, 30kHz - Input

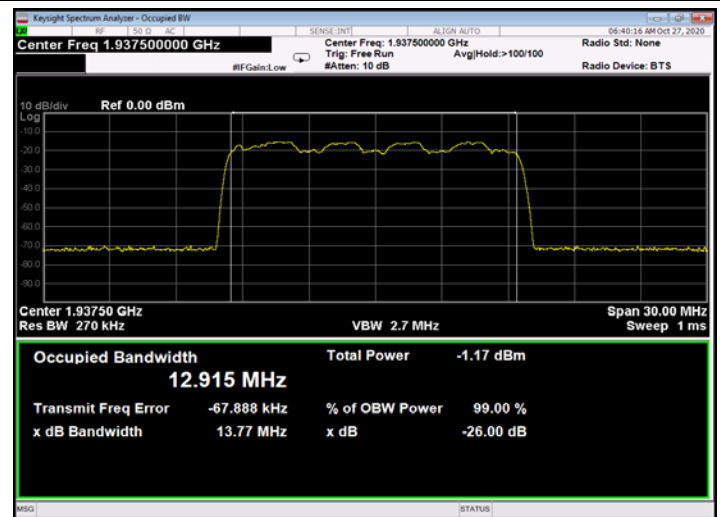


Figure 290: 16QAM 10MHz B.W.; 1937.5MHz, 60kHz - Input