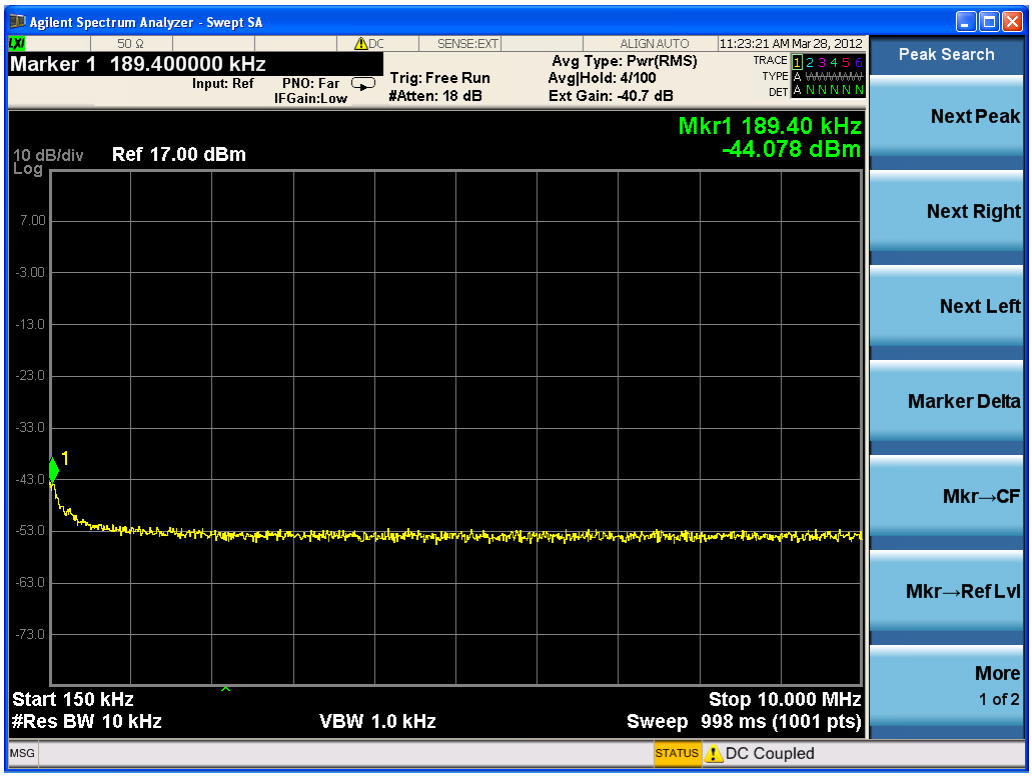
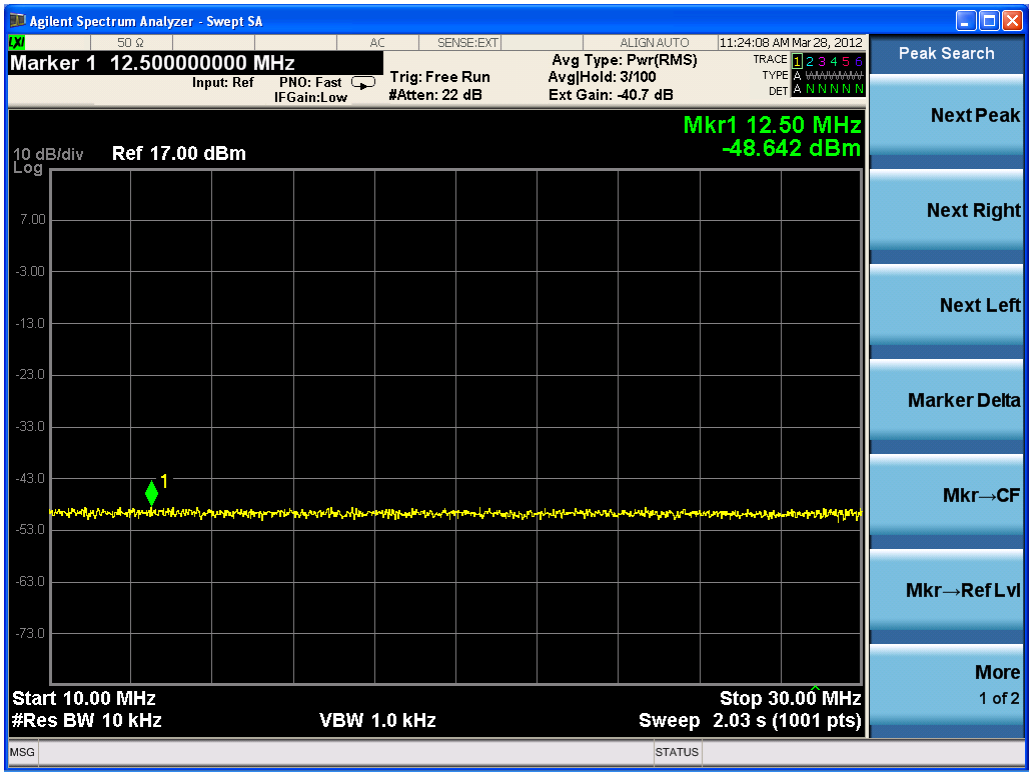
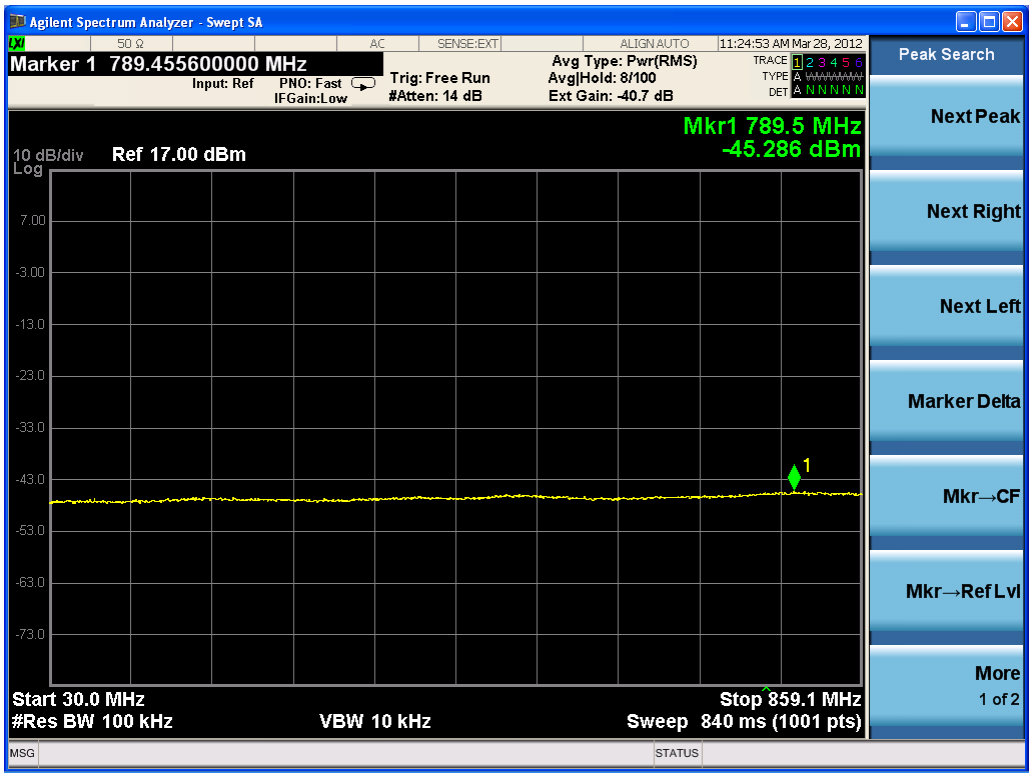
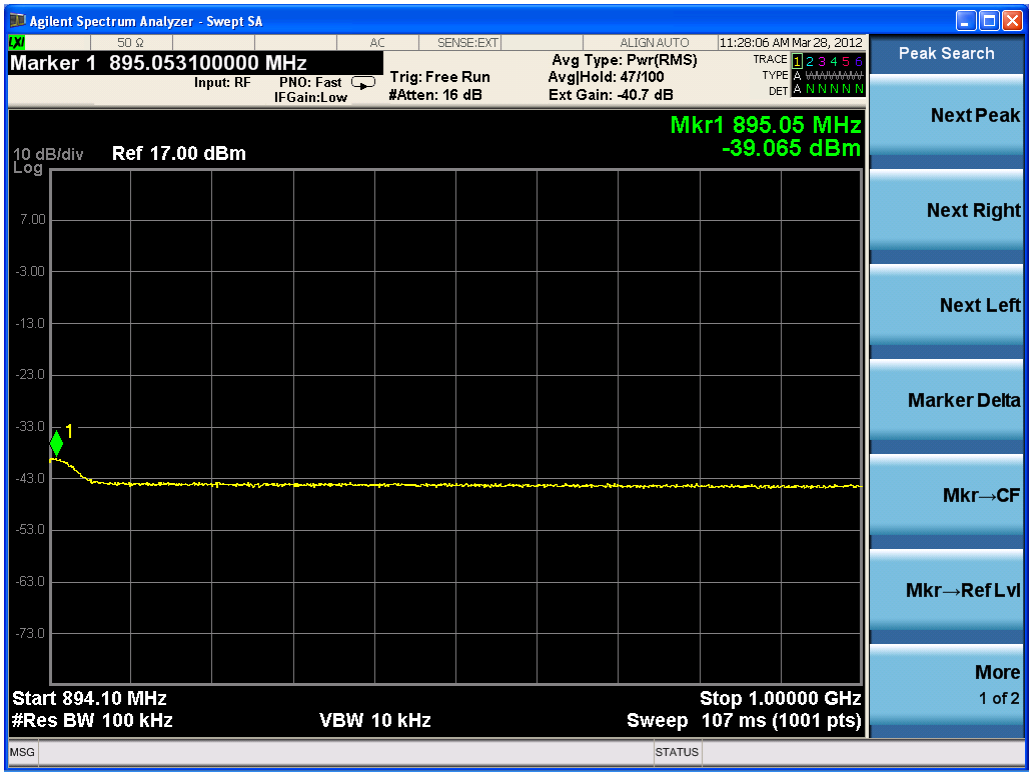
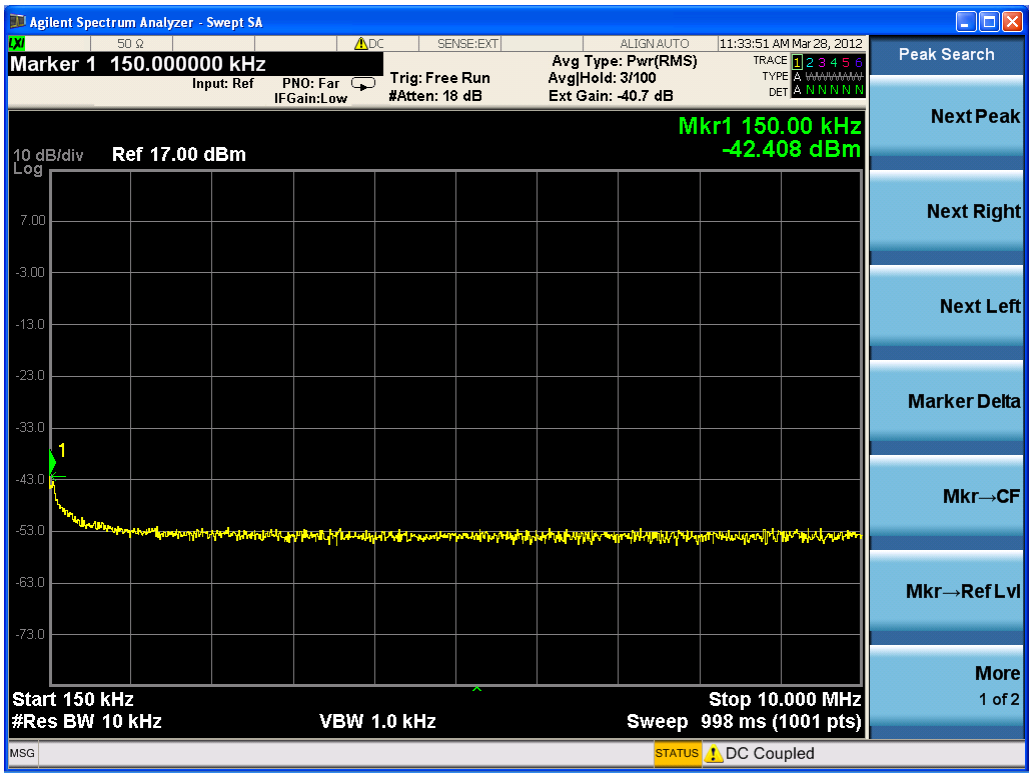

Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
11:23:21 AM Mar 28, 2012
Marker 1 189.400000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 18 dB
Avg Type: Pwr(RMS)
Avg|Hold: 4/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 189.40 kHz
-44.078 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

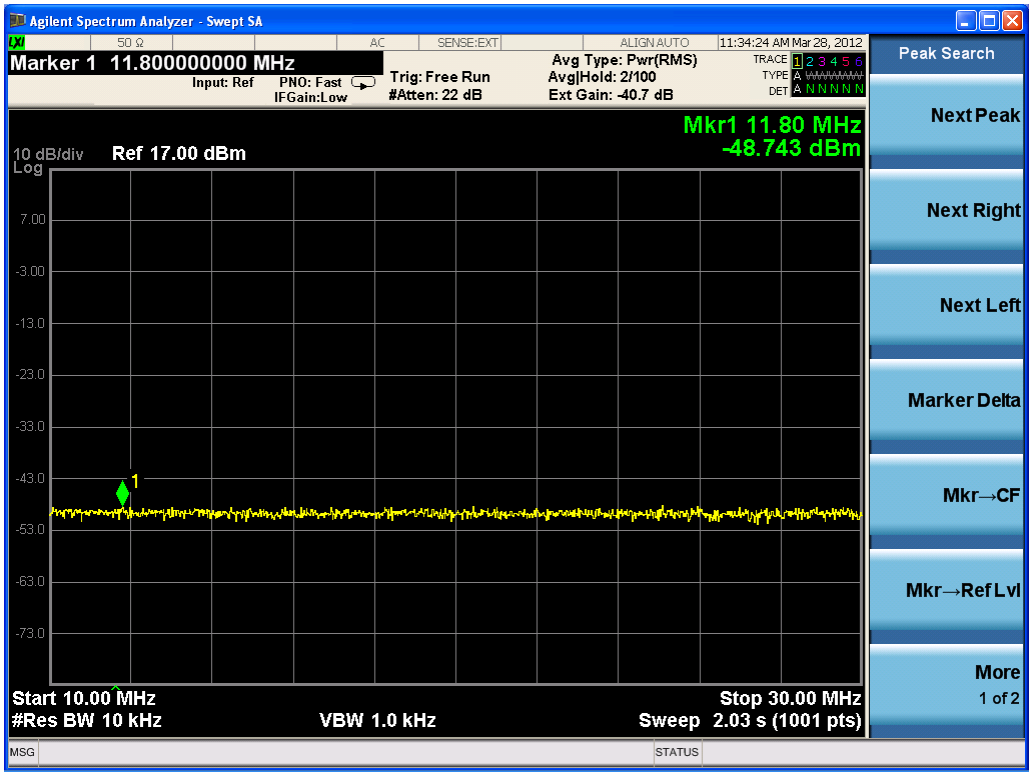

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
11:24:08 AM Mar 28, 2012
Marker 1 12.500000000 MHz
Input: Ref
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 22 dB
Avg Type: Pwr(RMS)
Avg|Hold: 3/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 12.50 MHz
-48.642 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

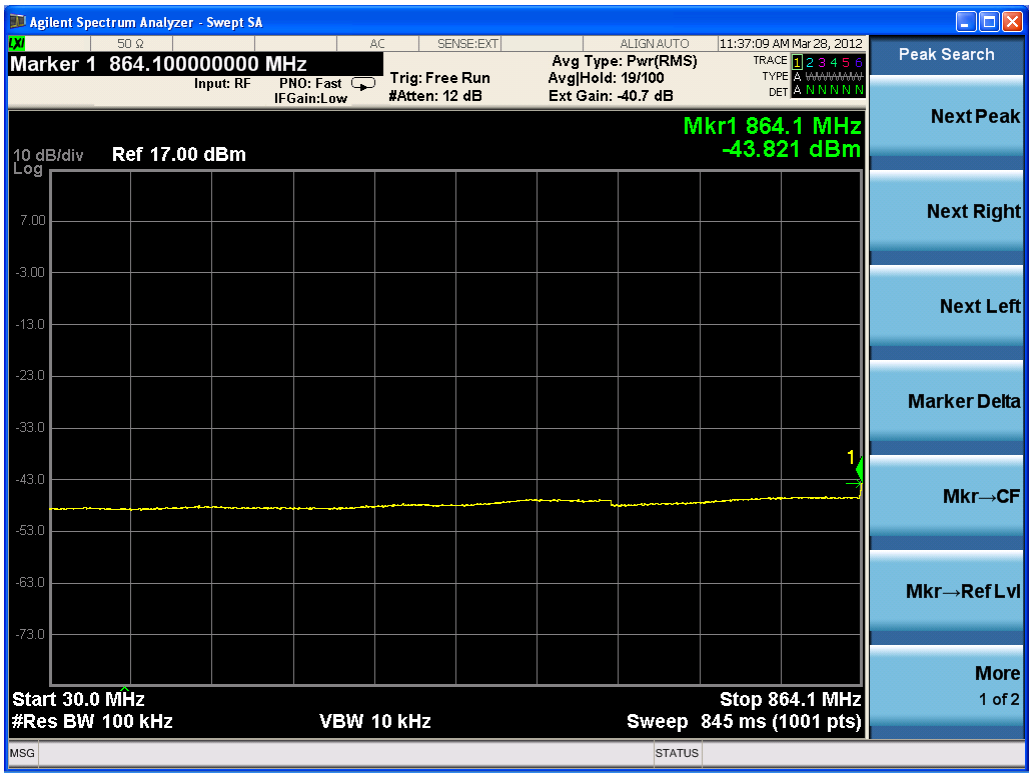

Agilent Spectrum Analyzer - Swept SA
Marker 1 789.455600000 MHz
Input: Ref PNO: Fast IFGain:Low
Trig: Free Run #Atten: 14 dB
Avg Type: Pwr(RMS) Avg|Hold: 8/100 Ext Gain: -40.7 dB
11:24:53 AM Mar 28, 2012
Mkr1 789.5 MHz -45.286 dBm
10 dB/div Log
Ref 17.00 dBm
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 859.1 MHz
Sweep 840 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

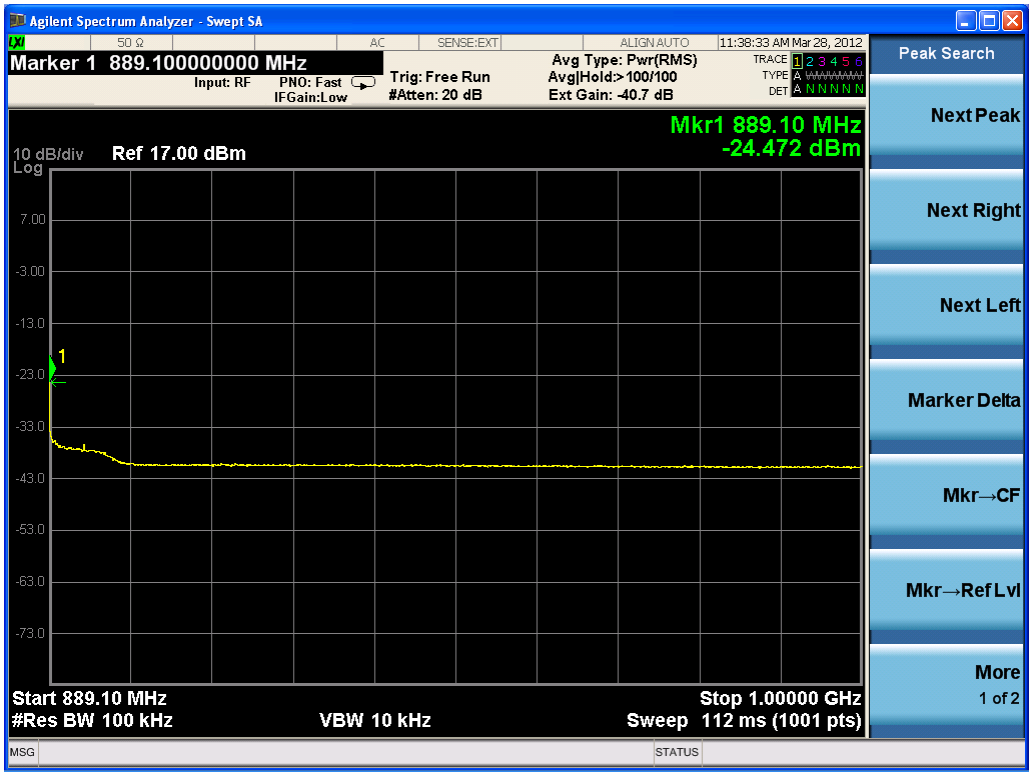

Agilent Spectrum Analyzer - Swept SA
Marker 1 895.053100000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 16 dB
Avg Type: Pwr(RMS) Avg|Hold: 47/100 Ext Gain: -40.7 dB
11:28:06 AM Mar 28, 2012
Mkr1 895.05 MHz -39.065 dBm
10 dB/div Log
Ref 17.00 dBm
Start 894.10 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 107 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

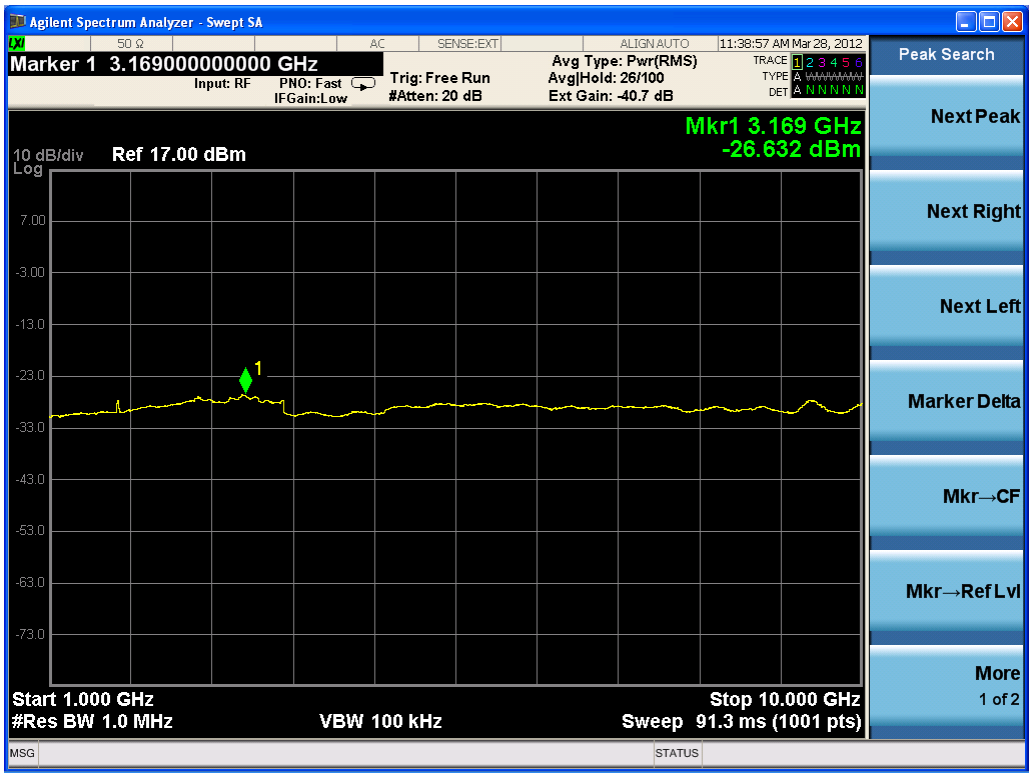
Three carriers (working in middle frequency)


Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
11:33:51 AM Mar 28, 2012
Marker 1 150.000000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 18 dB
Avg Type: Pwr(RMS)
Avg|Hold: 3/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 150.00 kHz
-42.408 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

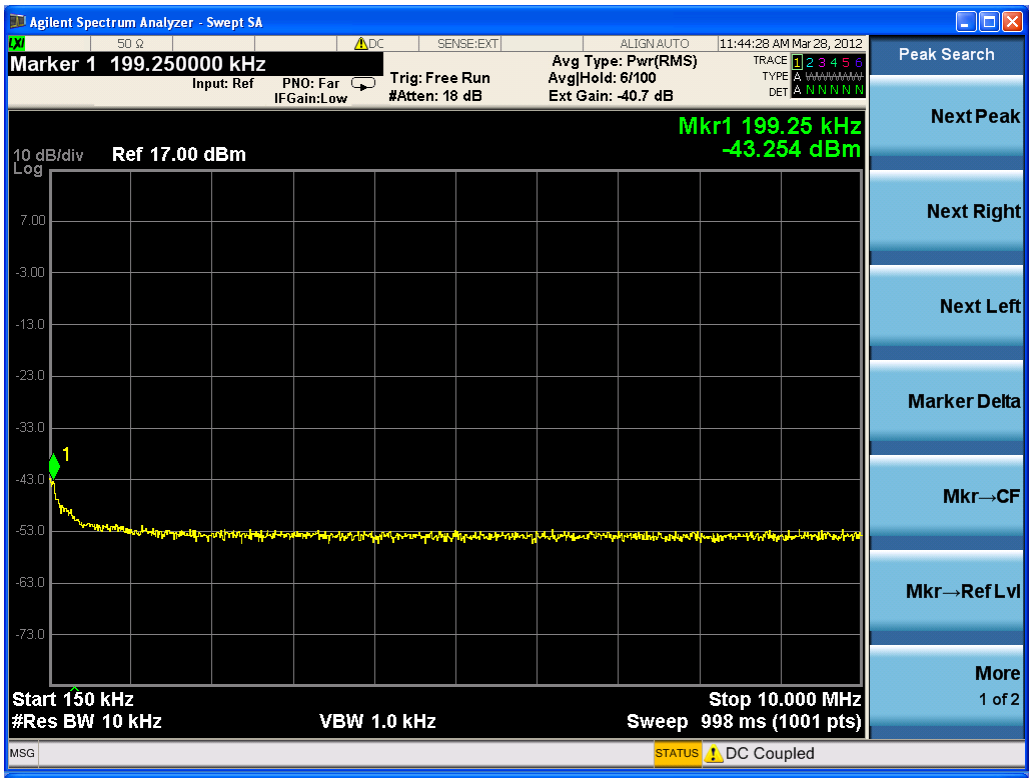

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
11:34:24 AM Mar 28, 2012
Marker 1 11.800000000 MHz
Input: Ref
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 22 dB
Avg Type: Pwr(RMS)
Avg|Hold: 2/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 11.80 MHz
-48.743 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

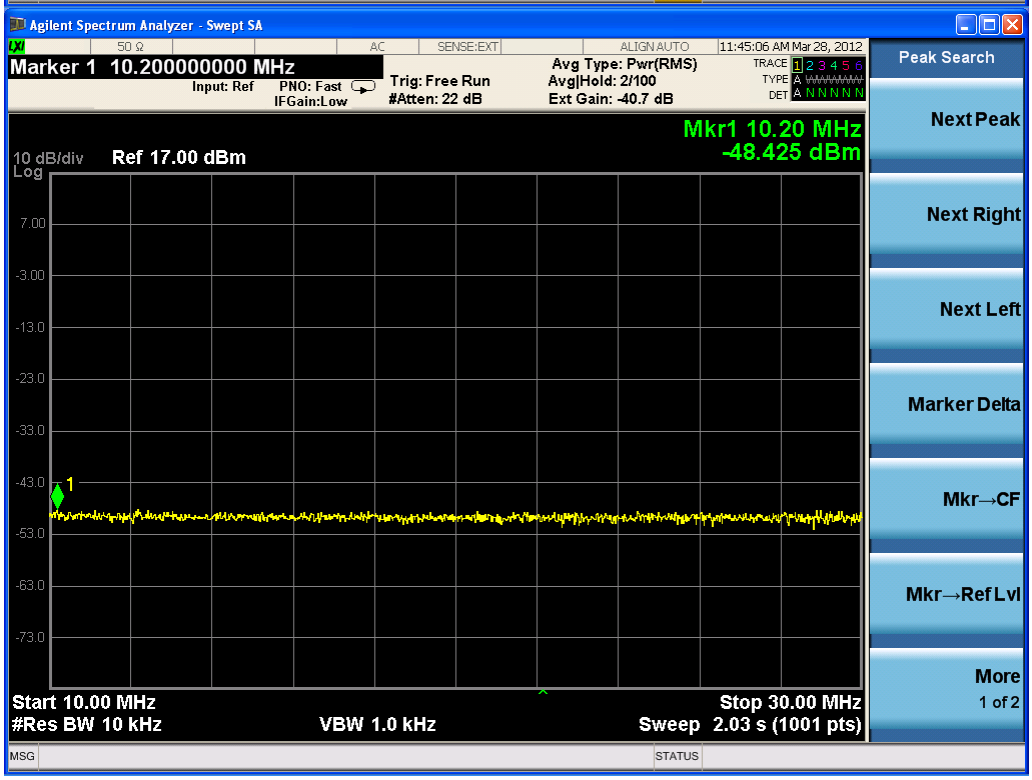

Agilent Spectrum Analyzer - Swept SA
Marker 1 864.100000000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 12 dB
Avg Type: Pwr(RMS) Avg|Hold: 19/100 Ext Gain: -40.7 dB
11:37:09 AM Mar 28, 2012
Mkr1 864.1 MHz -43.821 dBm
10 dB/div Log
Ref 17.00 dBm
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 864.1 MHz
Sweep 845 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

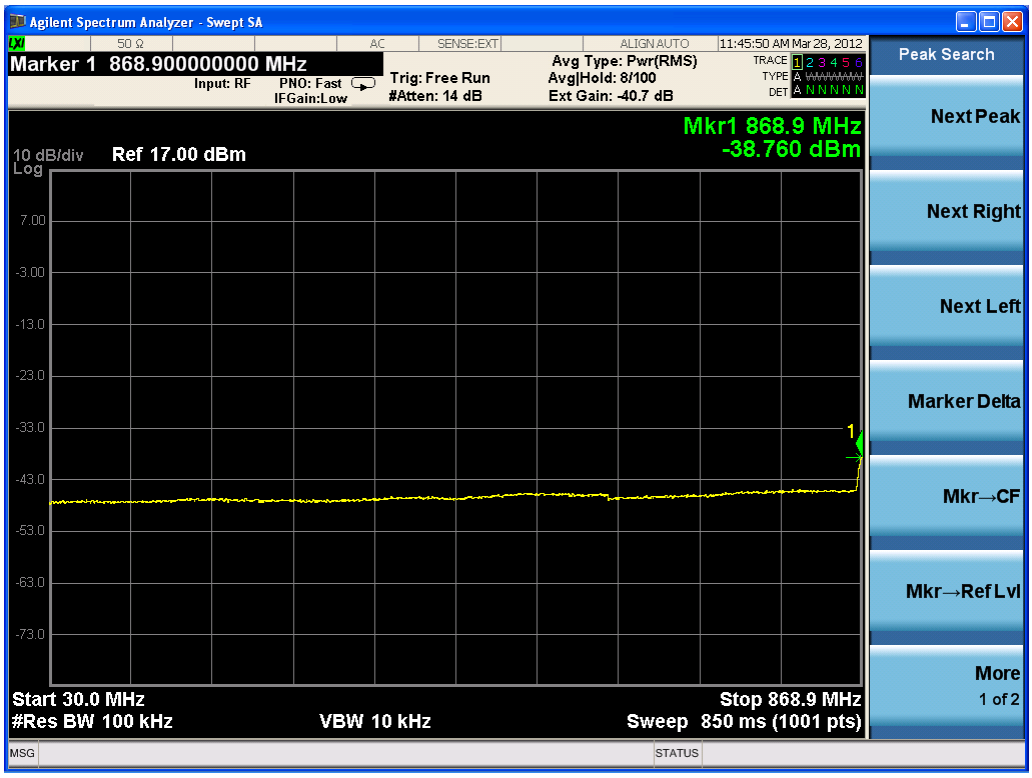

Agilent Spectrum Analyzer - Swept SA
Marker 1 889.100000000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 20 dB
Avg Type: Pwr(RMS) Avg|Hold:>100/100 Ext Gain: -40.7 dB
11:38:33 AM Mar 28, 2012
Mkr1 889.10 MHz -24.472 dBm
10 dB/div Log
Ref 17.00 dBm
Start 889.10 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 112 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

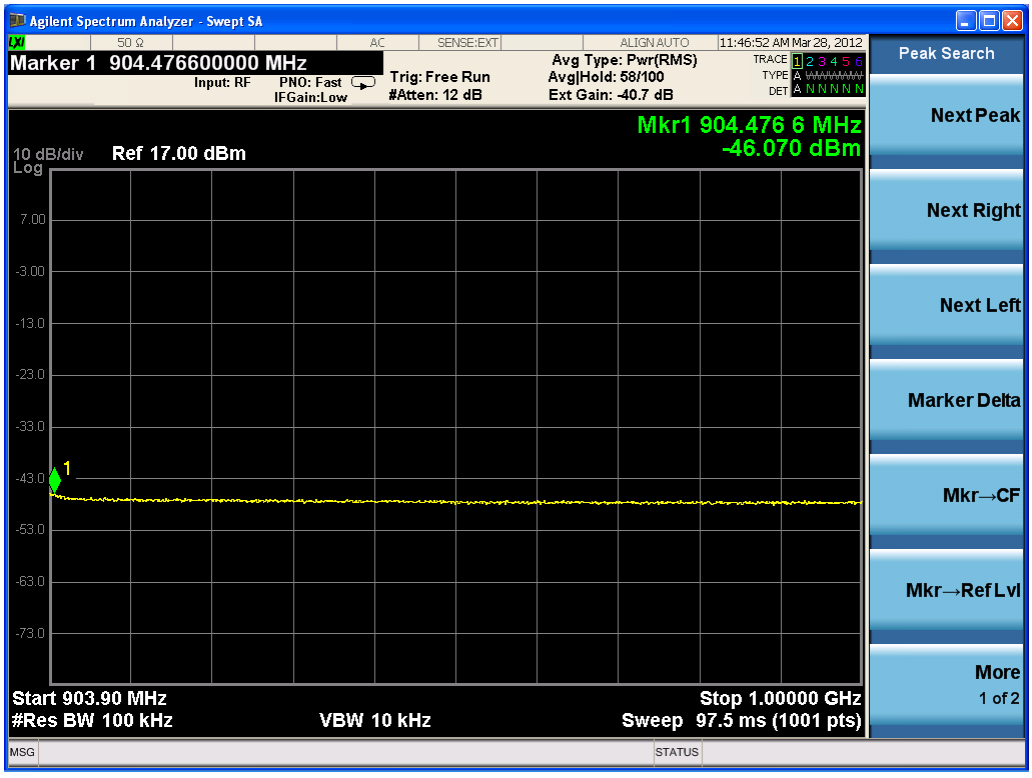


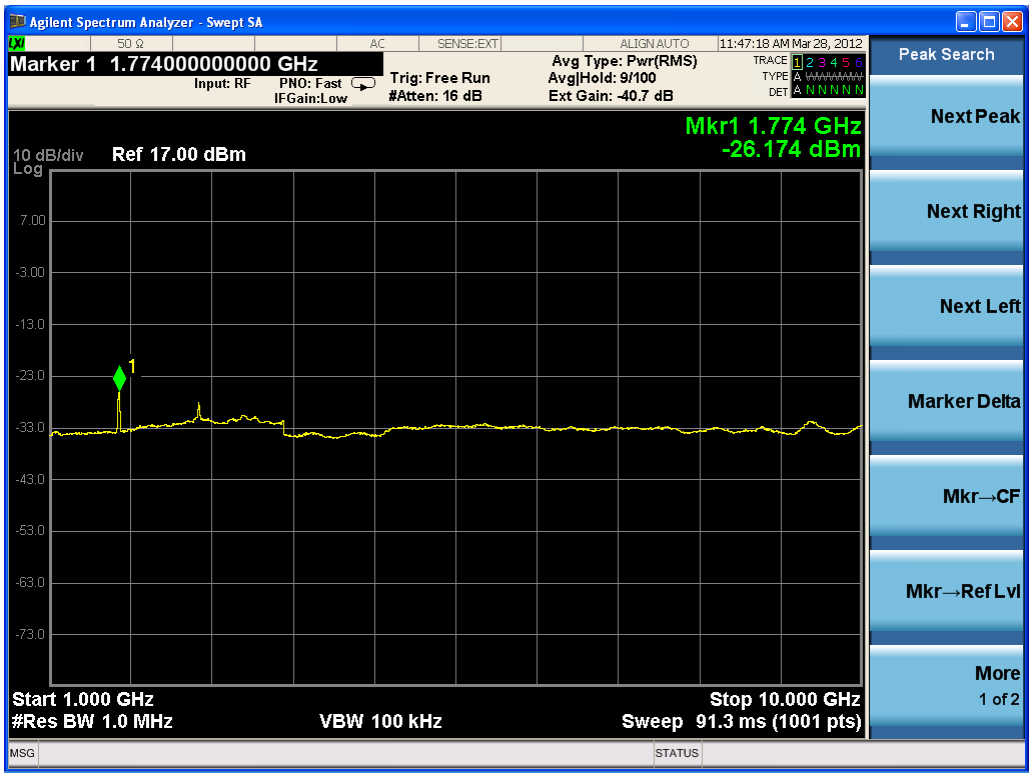
Three carriers (working in top frequency)


Agilent Spectrum Analyzer - Swept SA
Marker 1 199.250000 kHz
Input: Ref PNO: Far IFGain:Low
Trig: Free Run #Atten: 18 dB
Avg Type: Pwr(RMS) Avg|Hold: 6/100 Ext Gain: -40.7 dB
11:44:28 AM Mar 28, 2012
Mkr1 199.25 kHz -43.254 dBm
10 dB/div Log
Ref 17.00 dBm
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

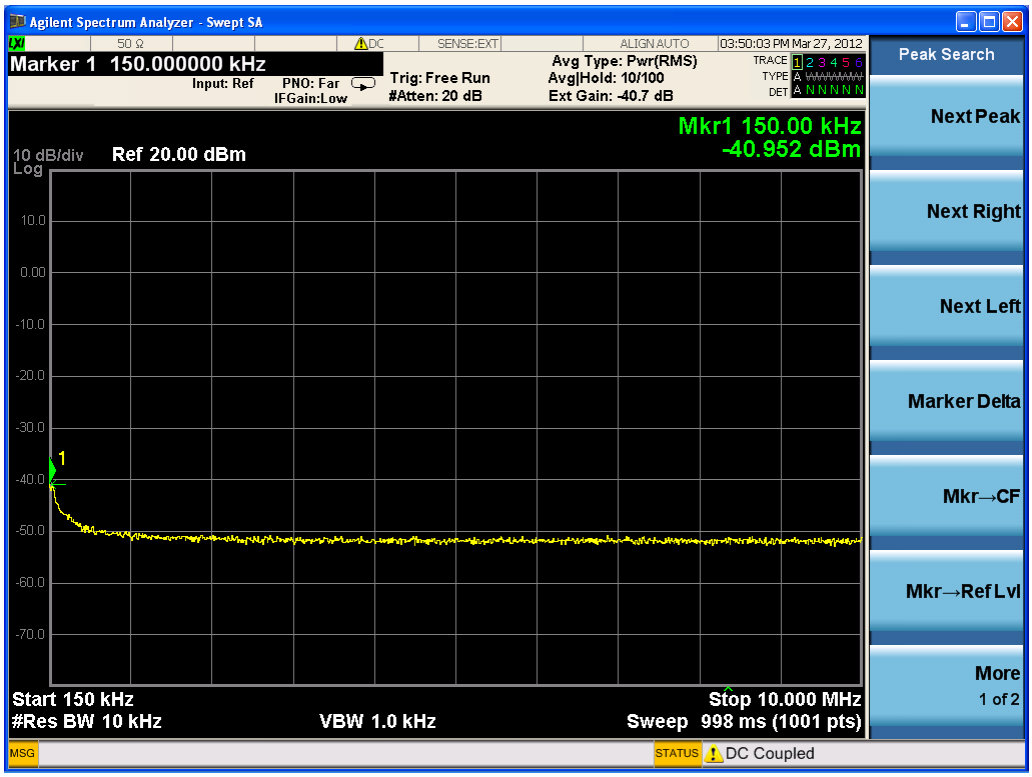

Agilent Spectrum Analyzer - Swept SA
Marker 1 10.200000000 MHz
Input: Ref PNO: Fast IFGain:Low
Trig: Free Run #Atten: 22 dB
Avg Type: Pwr(RMS) Avg|Hold: 2/100 Ext Gain: -40.7 dB
11:45:06 AM Mar 28, 2012
Mkr1 10.20 MHz -48.425 dBm
10 dB/div Log
Ref 17.00 dBm
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

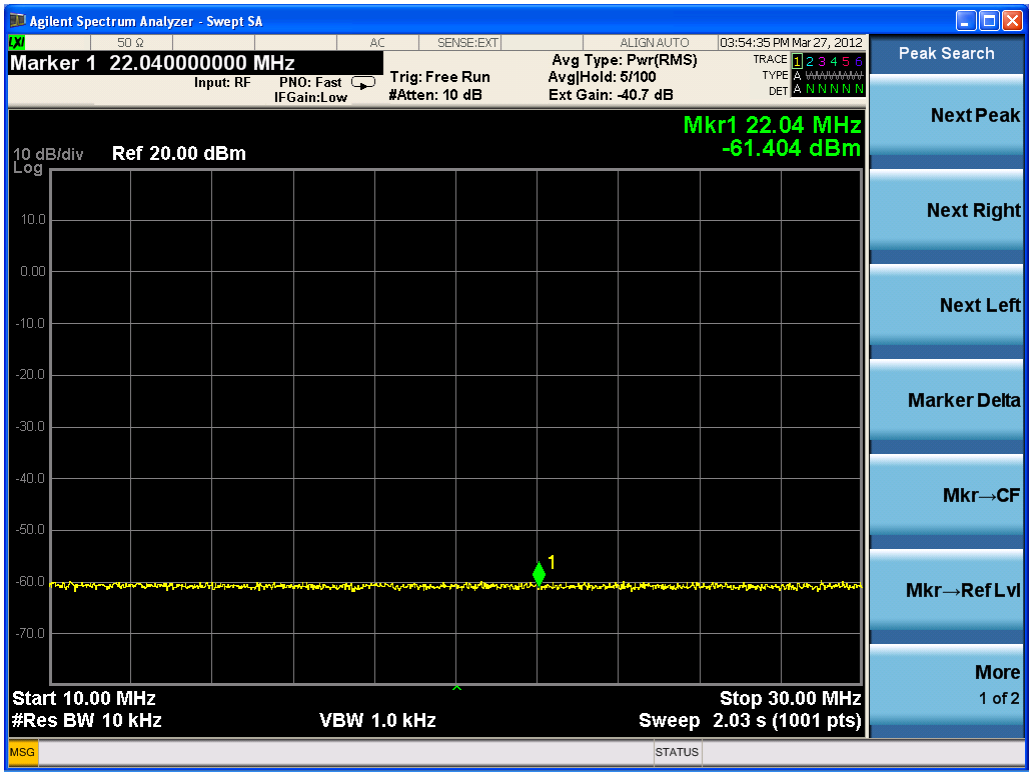

Agilent Spectrum Analyzer - Swept SA
Marker 1 868.900000000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 14 dB
Avg Type: Pwr(RMS) Avg|Hold: 8/100 Ext Gain: -40.7 dB
11:45:50 AM Mar 28, 2012
Mkr1 868.9 MHz -38.760 dBm
10 dB/div Log
Ref 17.00 dBm
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 868.9 MHz
Sweep 850 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

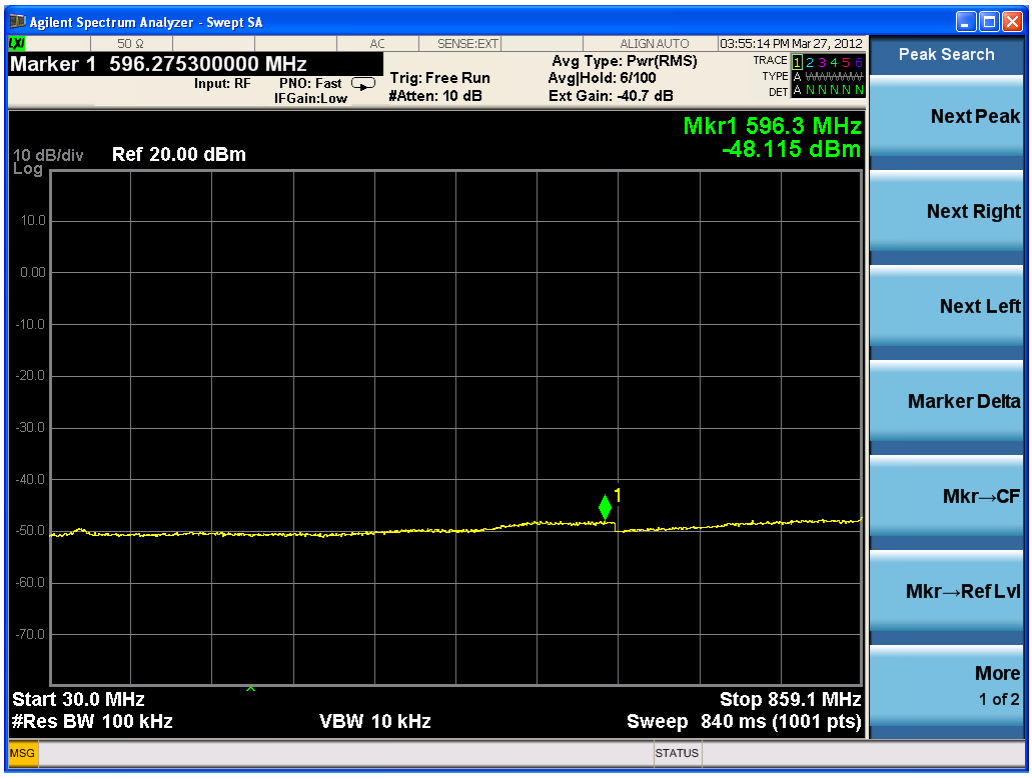

Agilent Spectrum Analyzer - Swept SA
Marker 1 904.476600000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 12 dB
Avg Type: Pwr(RMS) Avg|Hold: 58/100 Ext Gain: -40.7 dB
11:46:52 AM Mar 28, 2012
Mkr1 904.476 6 MHz -46.070 dBm
10 dB/div Log
Ref 17.00 dBm
Start 903.90 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 97.5 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

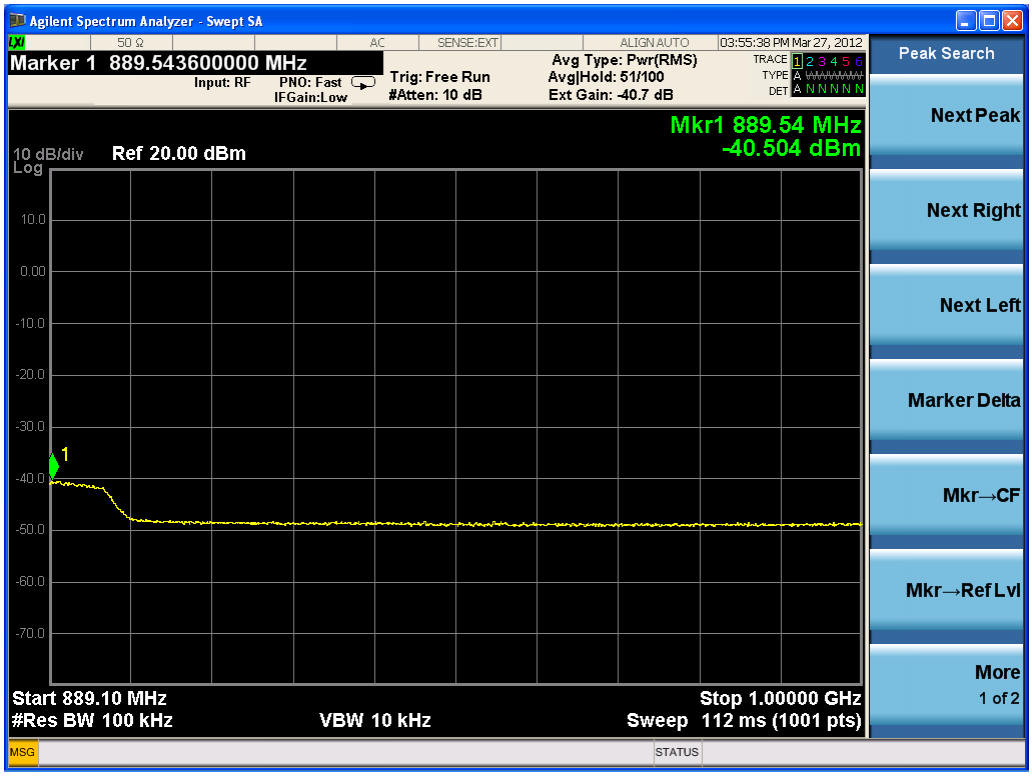


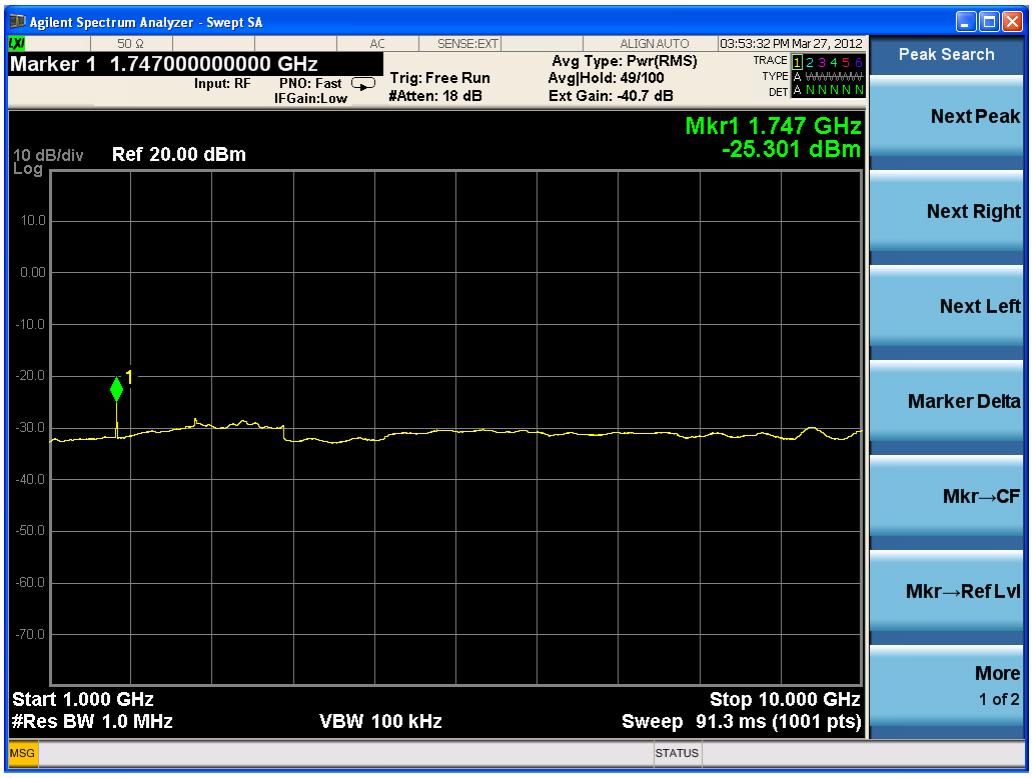
Two carriers (working in bottom frequency)


Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
03:50:03 PM Mar 27, 2012
Marker 1 150.000000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Pwr(RMS)
Avg|Hold: 10/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 150.00 kHz
-40.952 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

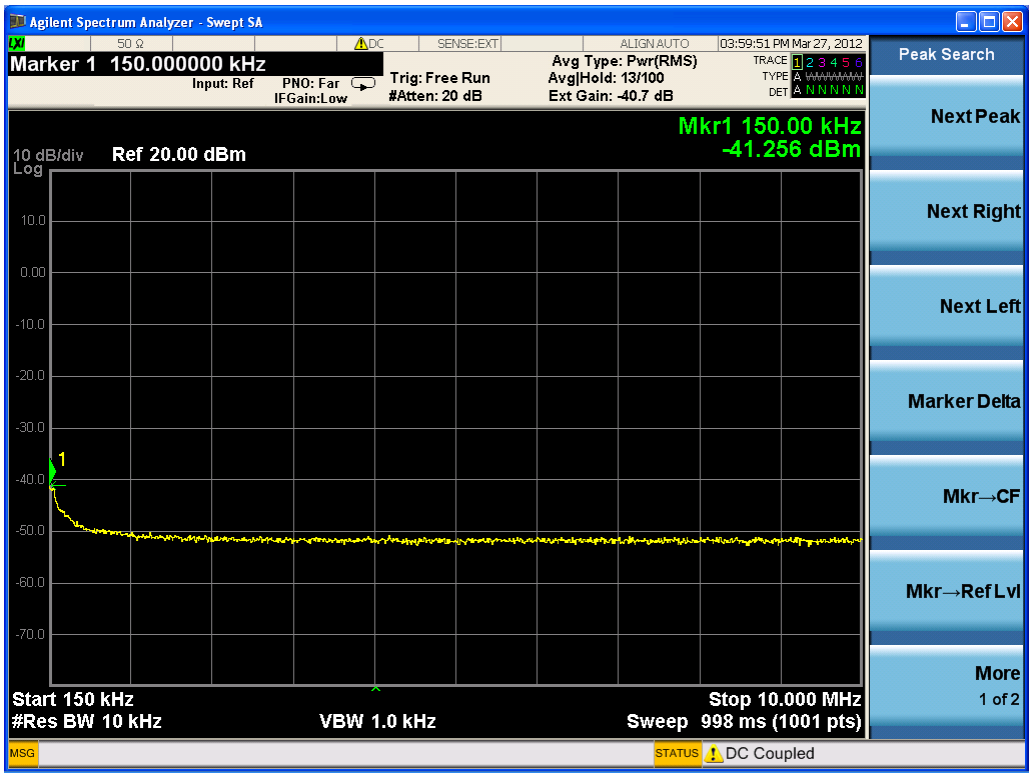

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:54:35 PM Mar 27, 2012
Marker 1 22.040000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 5/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 22.04 MHz
-61.404 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

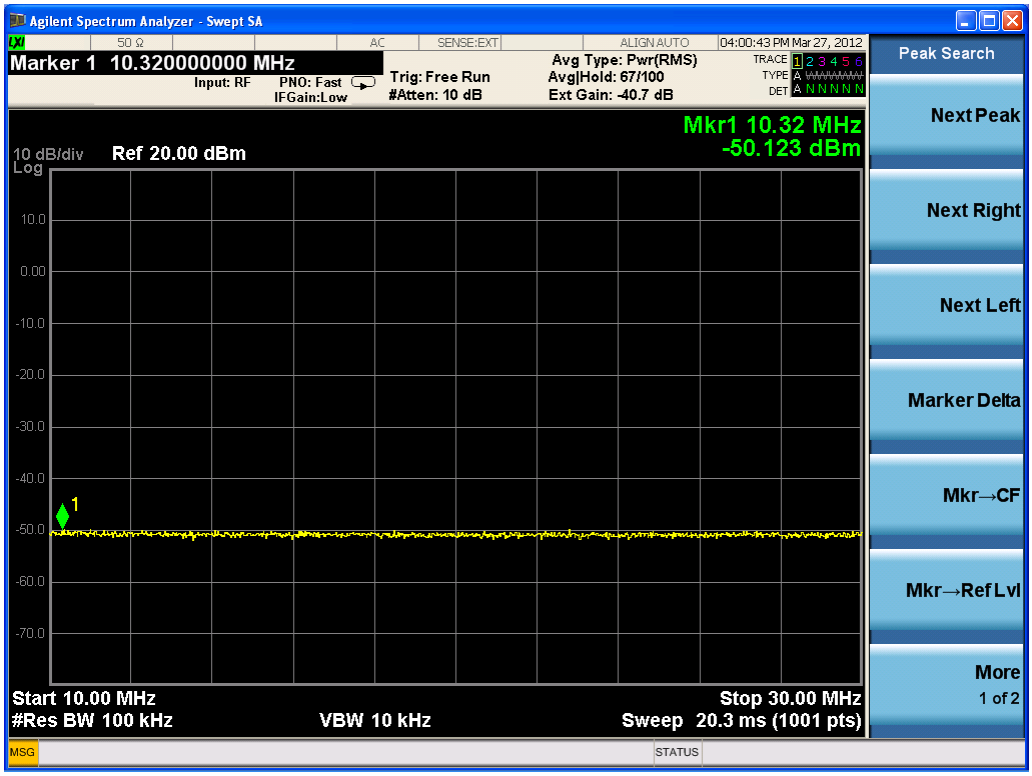

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:55:14 PM Mar 27, 2012
Marker 1 596.275300000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 6/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 596.3 MHz
-48.115 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 859.1 MHz
Sweep 840 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

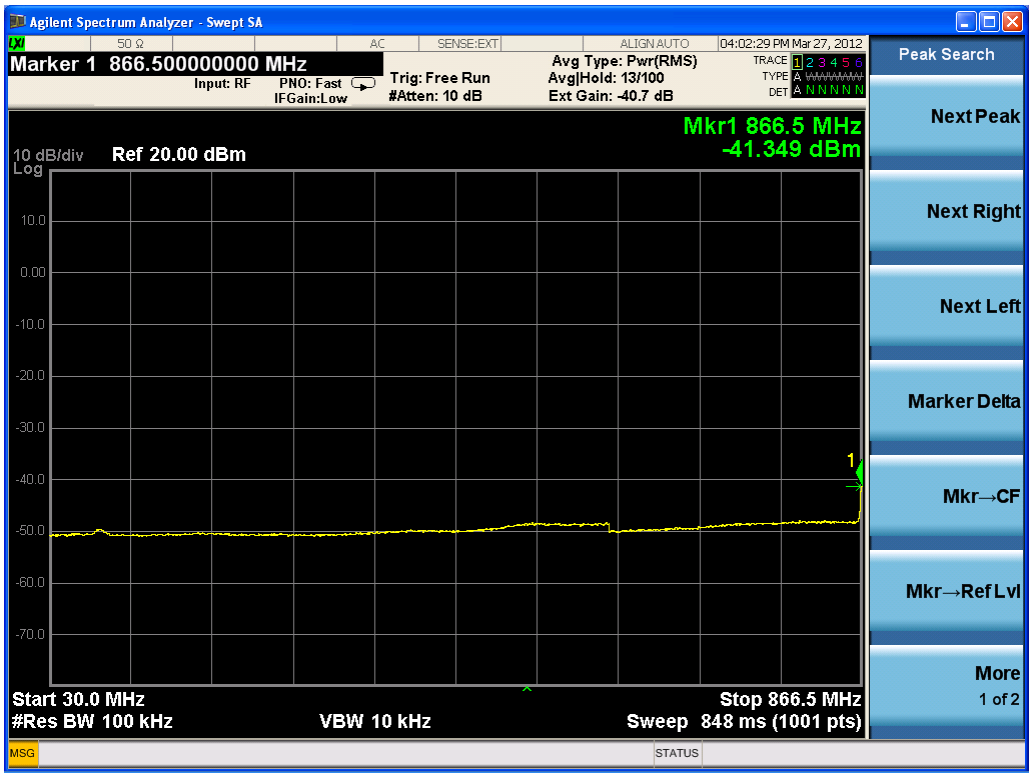

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:55:38 PM Mar 27, 2012
Marker 1 889.543600000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 51/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 889.54 MHz
-40.504 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 889.10 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 112 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

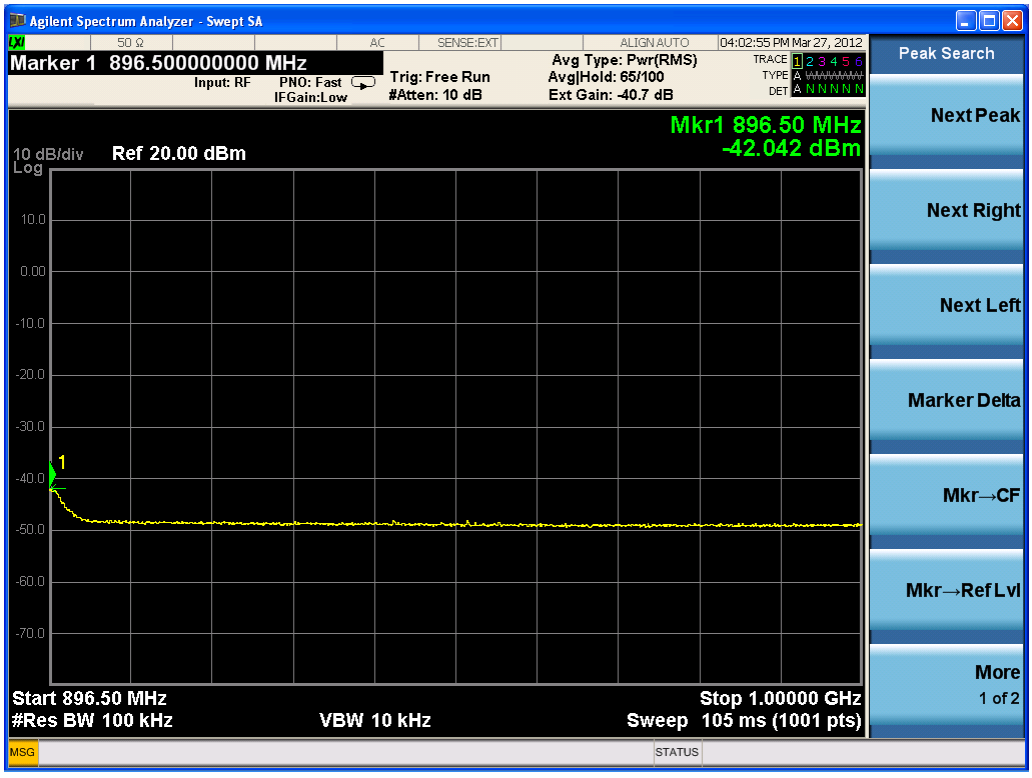


Two carriers (working in middle frequency)

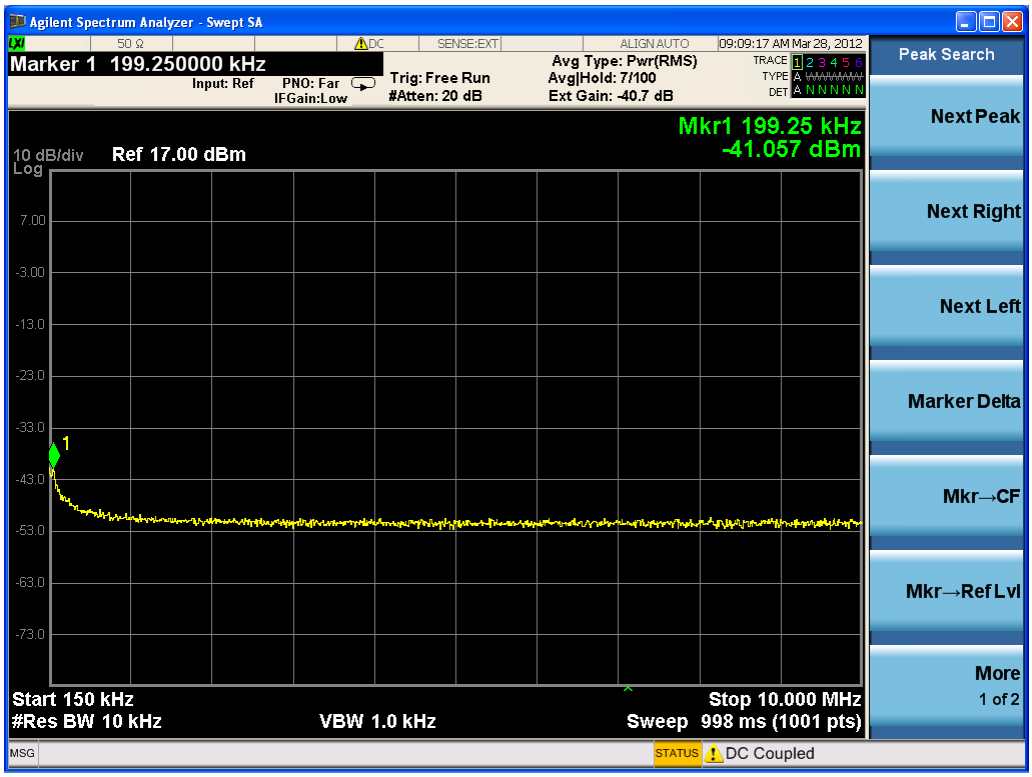

Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
03:59:51 PM Mar 27, 2012
Marker 1 150.000000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Pwr(RMS)
Avg|Hold: 13/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 150.00 kHz
-41.256 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

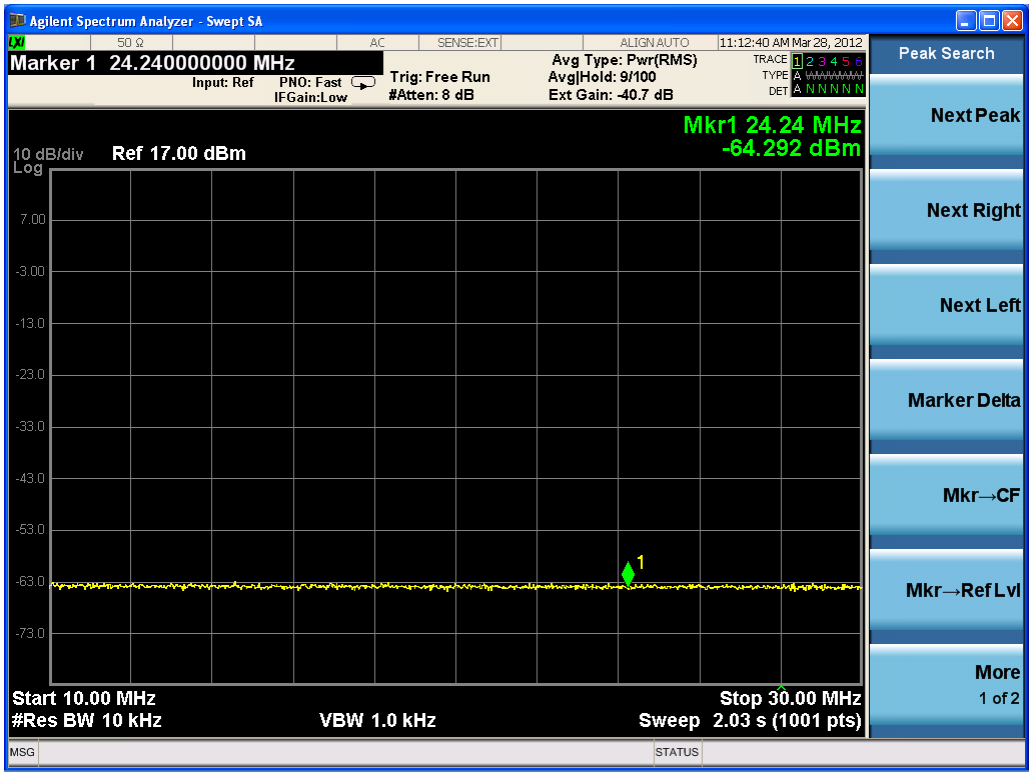

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
04:00:43 PM Mar 27, 2012
Marker 1 10.320000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 67/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 10.32 MHz
-50.123 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 10.00 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 30.00 MHz
Sweep 20.3 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

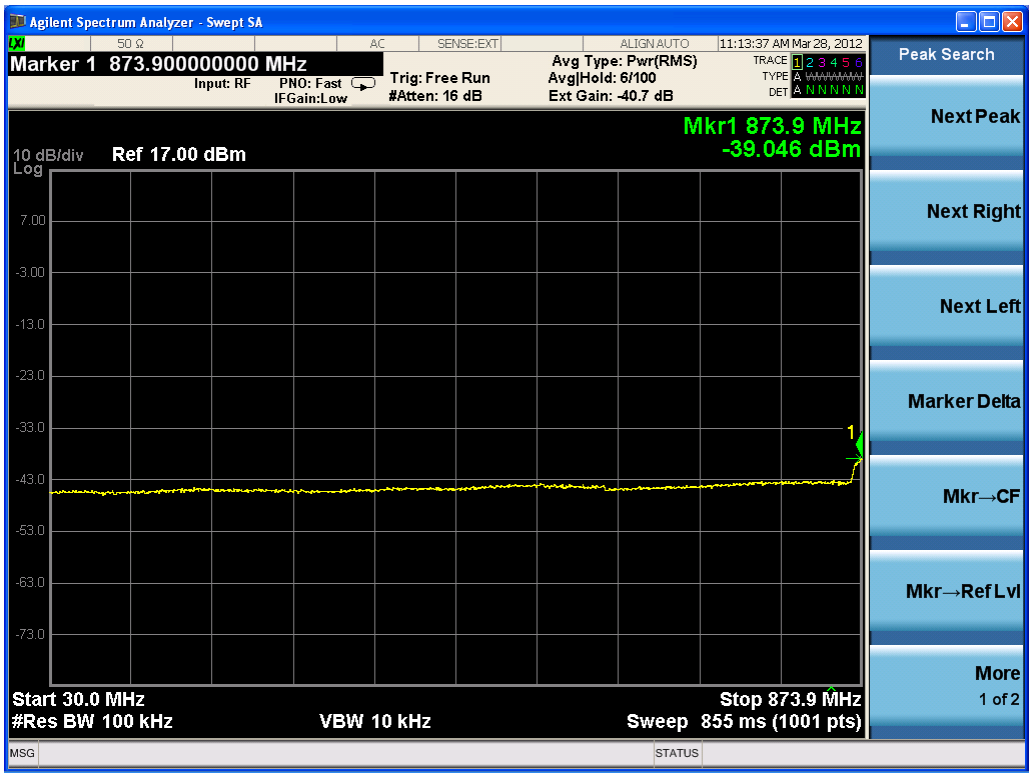

Agilent Spectrum Analyzer - Swept SA
Marker 1 866.500000000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 10 dB
Avg Type: Pwr(RMS) Avg|Hold: 13/100 Ext Gain: -40.7 dB
04:02:29 PM Mar 27, 2012
Mkr1 866.5 MHz -41.349 dBm
10 dB/div Log
Ref 20.00 dBm
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 866.5 MHz
Sweep 848 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

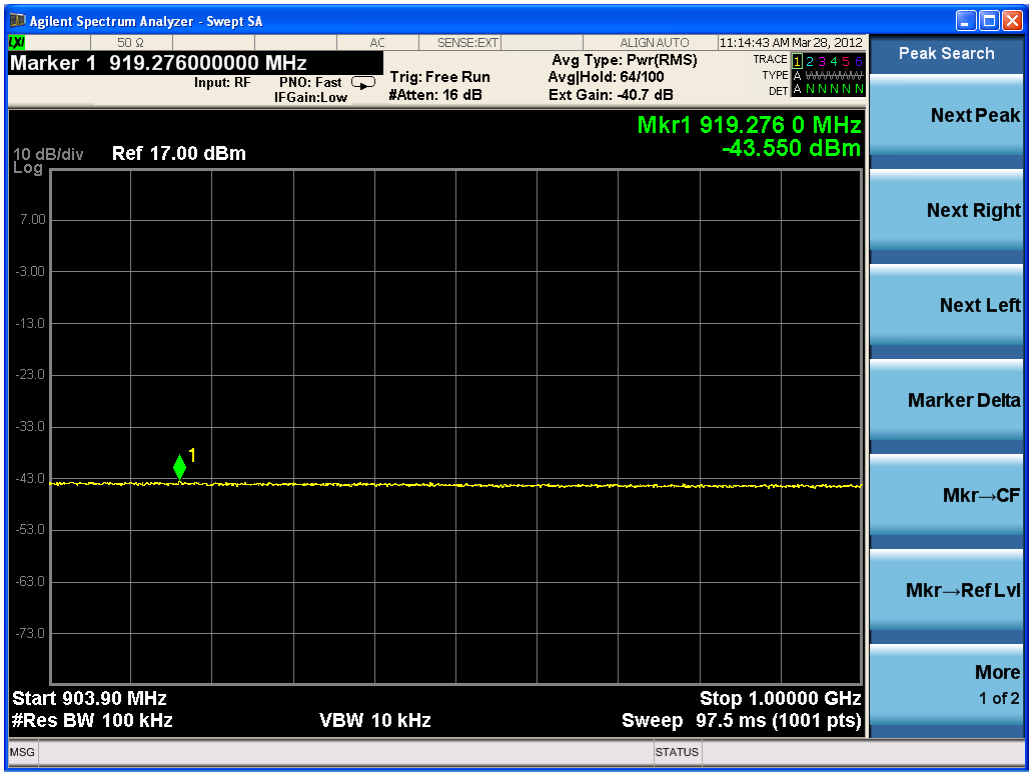

Agilent Spectrum Analyzer - Swept SA
Marker 1 896.500000000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 10 dB
Avg Type: Pwr(RMS) Avg|Hold: 65/100 Ext Gain: -40.7 dB
04:02:55 PM Mar 27, 2012
Mkr1 896.50 MHz -42.042 dBm
10 dB/div Log
Ref 20.00 dBm
Start 896.50 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 105 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

Two carriers (working in top frequency)

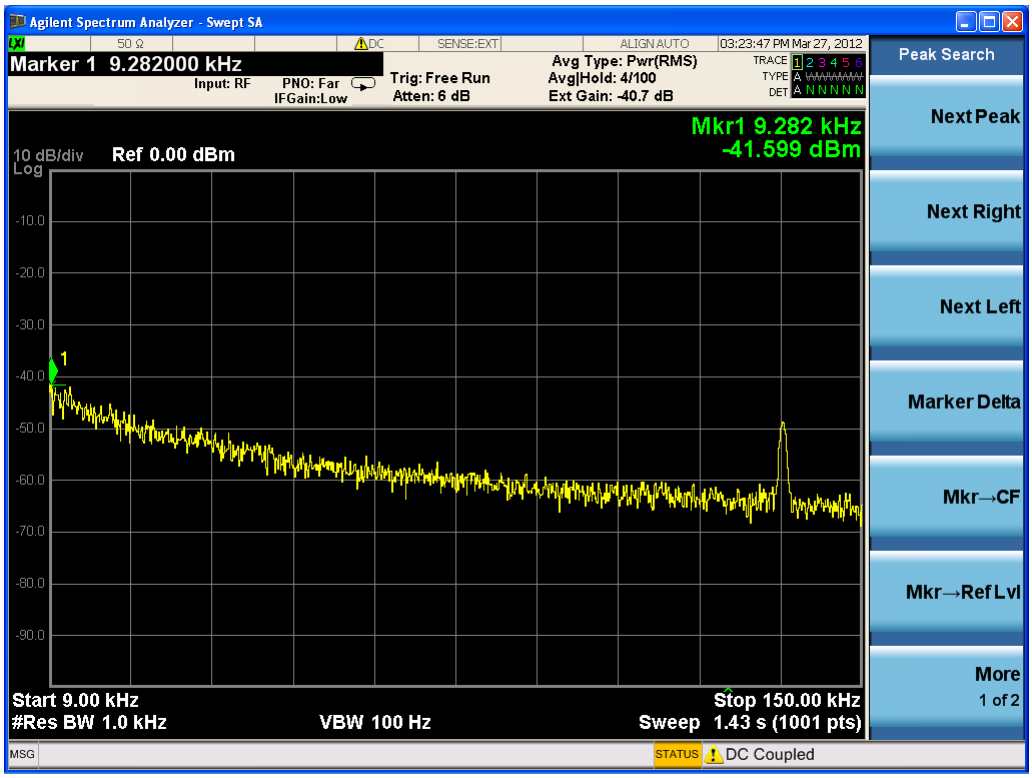

Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
09:09:17 AM Mar 28, 2012
Marker 1 199.250000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Pwr(RMS)
Avg|Hold: 7/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 199.25 kHz
-41.057 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

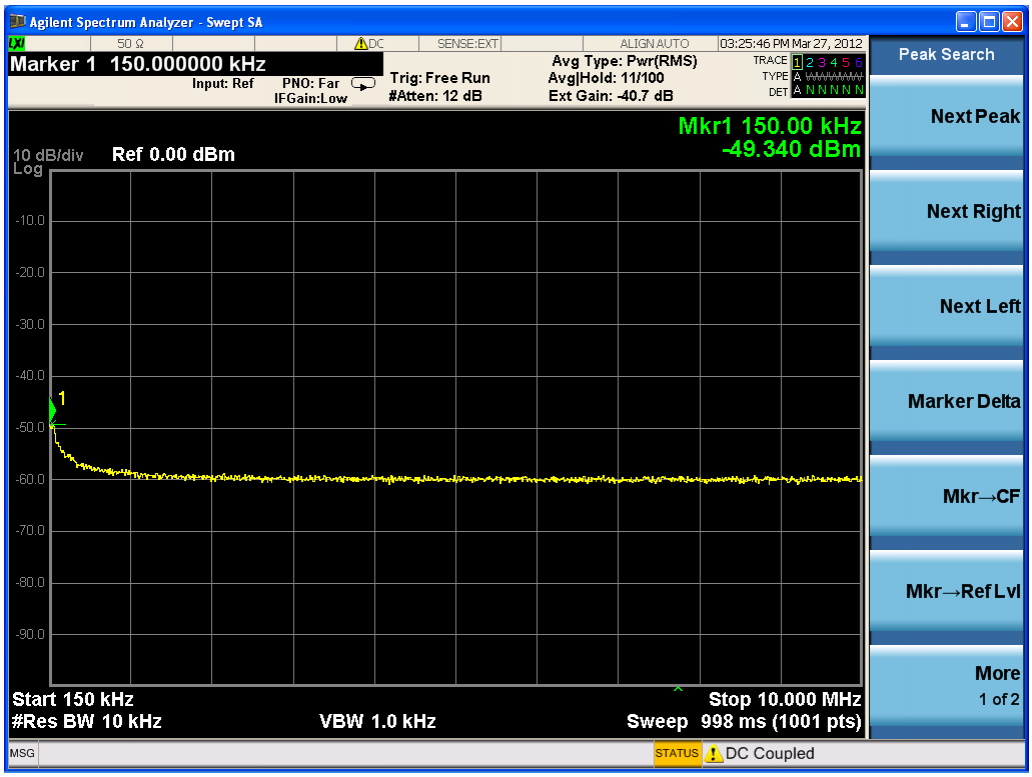

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
11:12:40 AM Mar 28, 2012
Marker 1 24.240000000 MHz
Input: Ref
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 8 dB
Avg Type: Pwr(RMS)
Avg|Hold: 9/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 24.24 MHz
-64.292 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

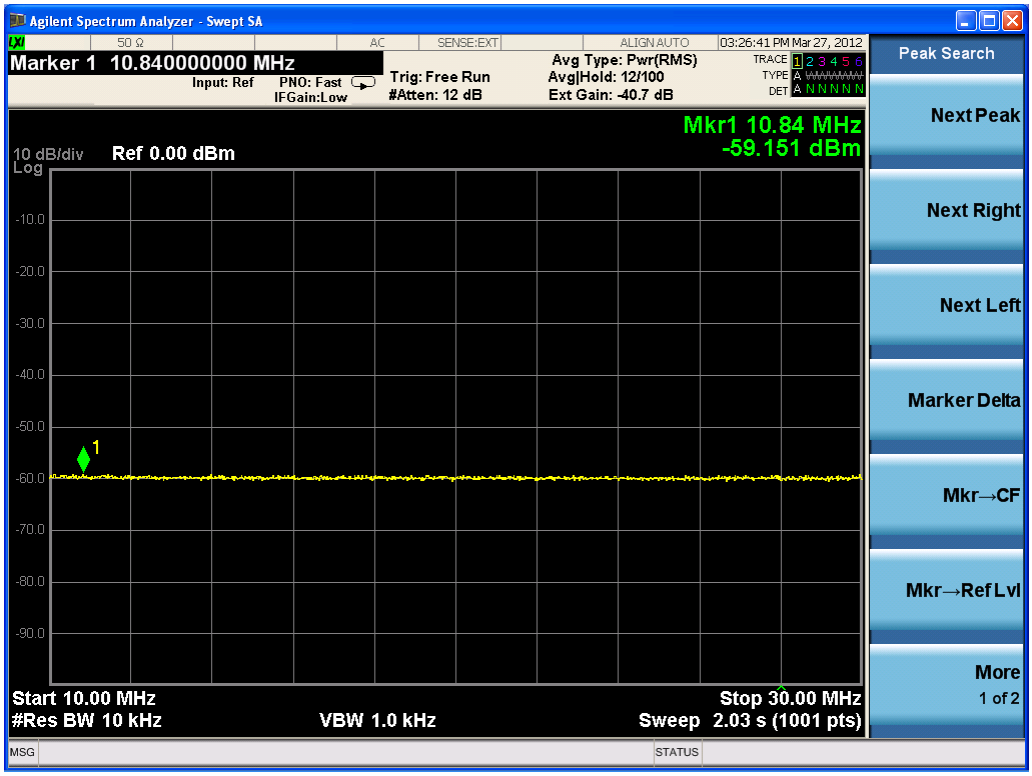

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
11:13:37 AM Mar 28, 2012
Marker 1 873.900000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: Pwr(RMS)
Avg|Hold: 6/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 873.9 MHz
-39.046 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 873.9 MHz
Sweep 855 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

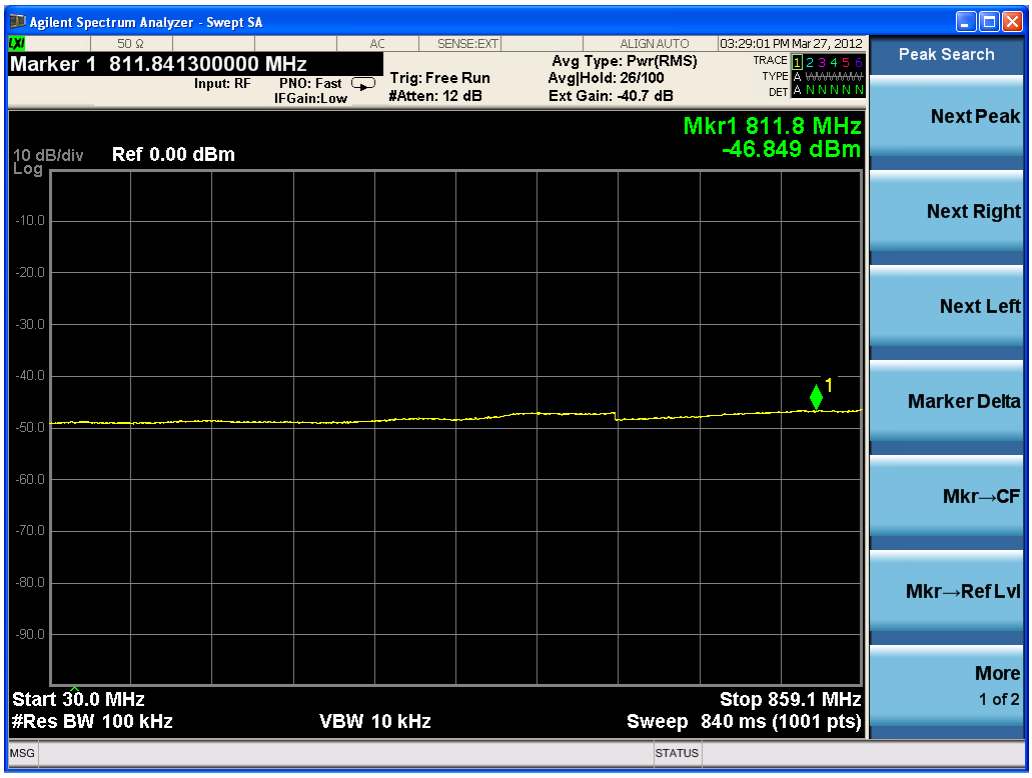

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
11:14:43 AM Mar 28, 2012
Marker 1 919.276000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: Pwr(RMS)
Avg|Hold: 64/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 919.276 0 MHz
-43.550 dBm
10 dB/div
Log
Ref 17.00 dBm
7.00
-3.00
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
-73.0
Start 903.90 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 97.5 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

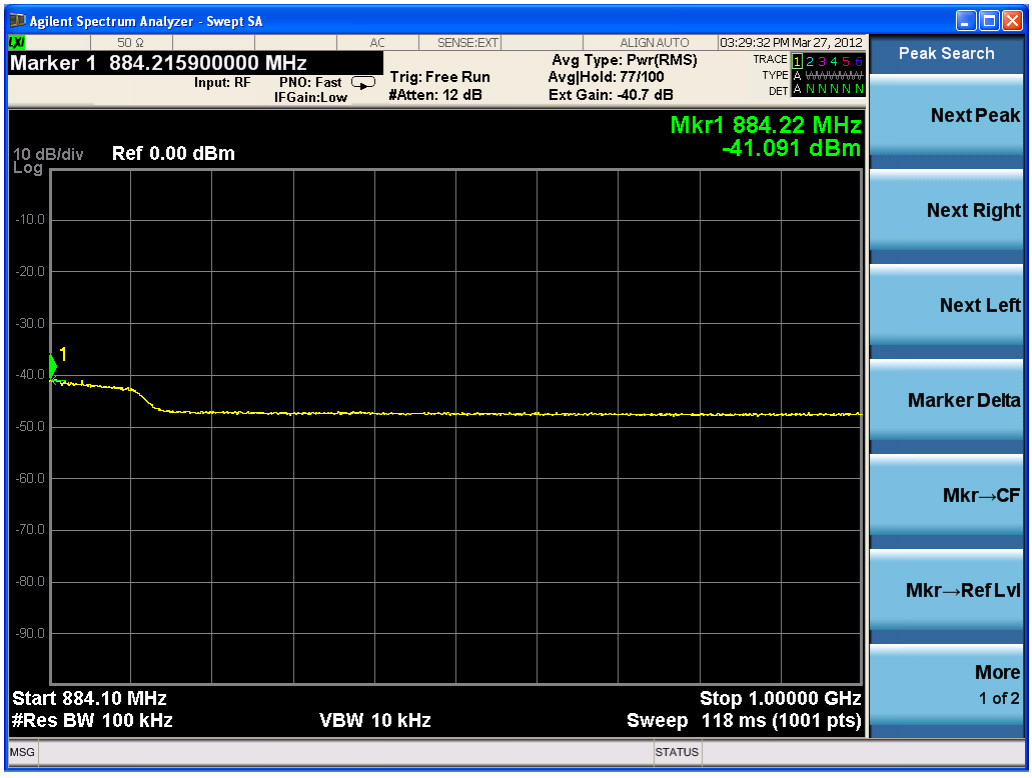
One carrier (working in bottom frequency)



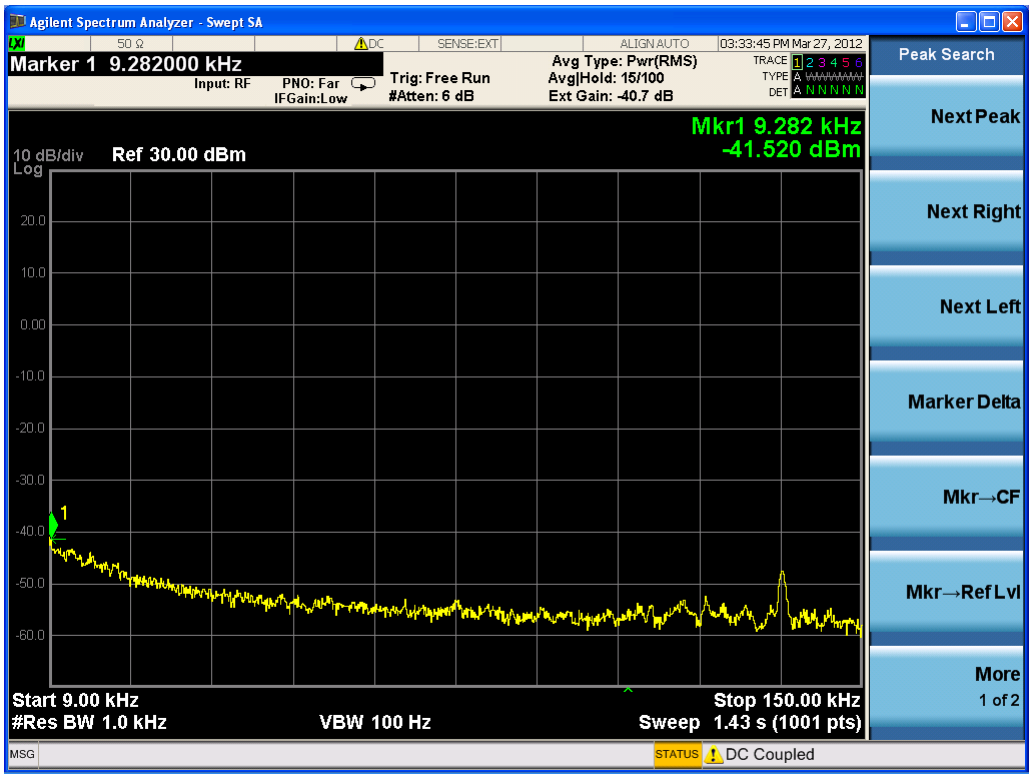

Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
03:25:46 PM Mar 27, 2012
Marker 1 150.000000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 12 dB
Avg Type: Pwr(RMS)
Avg|Hold: 11/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 150.00 kHz
-49.340 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

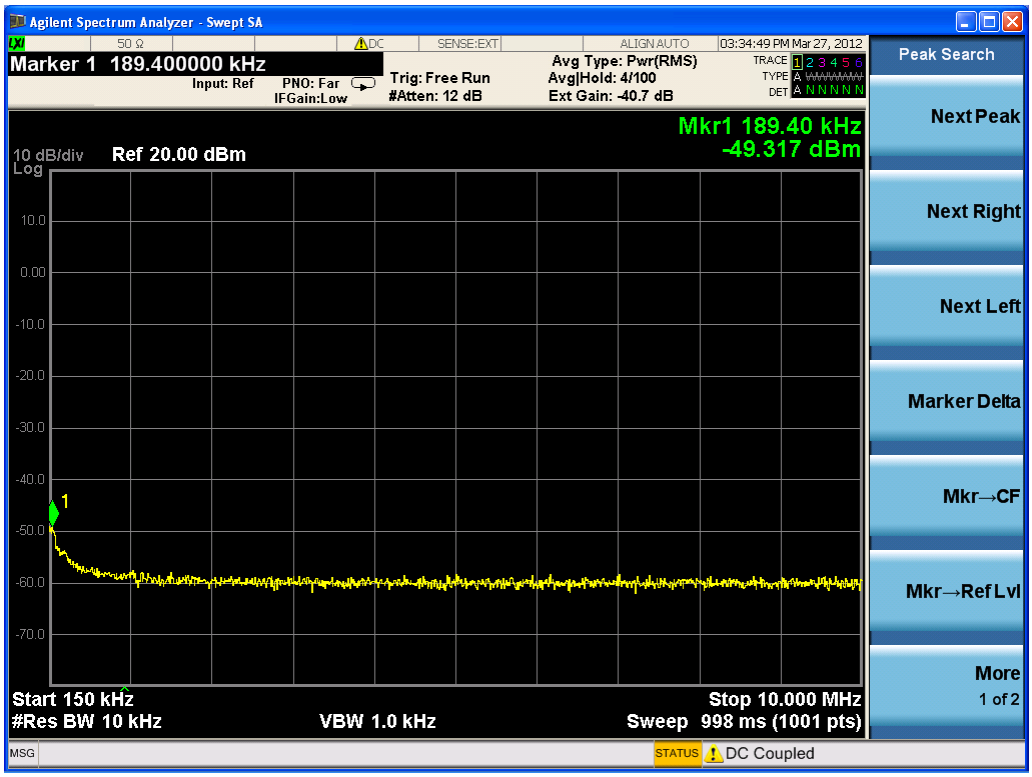

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:26:41 PM Mar 27, 2012
Marker 1 10.840000000 MHz
Input: Ref
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 12 dB
Avg Type: Pwr(RMS)
Avg|Hold: 12/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 10.84 MHz
-59.151 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

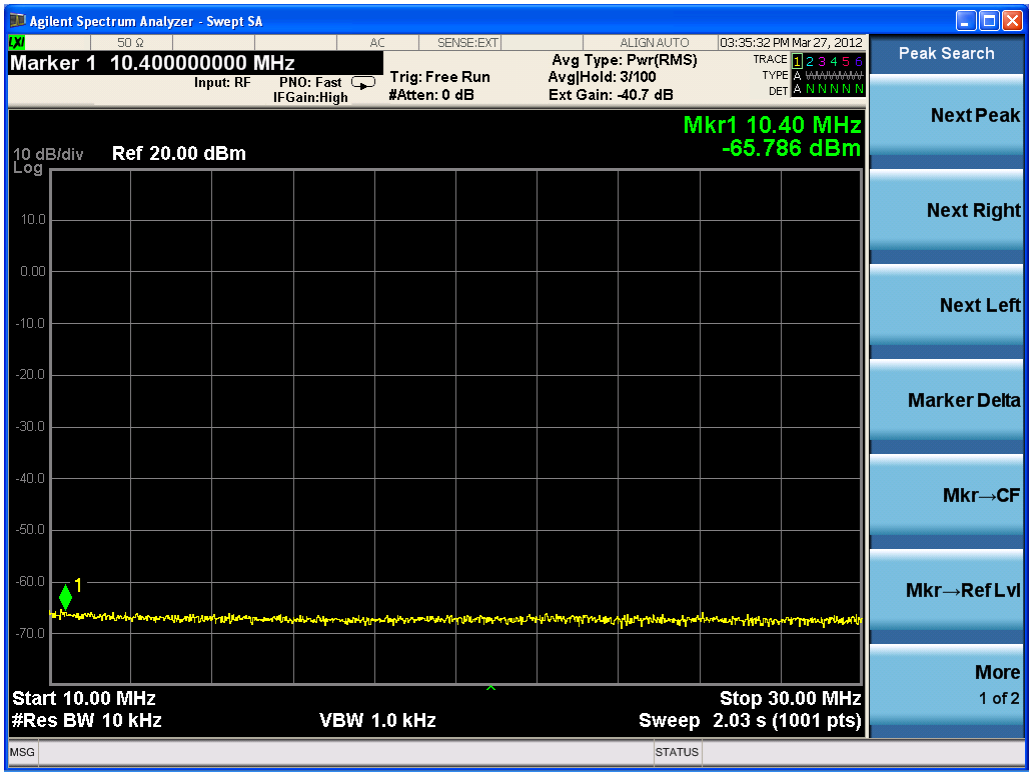

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:29:01 PM Mar 27, 2012
Marker 1 811.841300000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 12 dB
Avg Type: Pwr(RMS)
Avg|Hold: 26/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 811.8 MHz
-46.849 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
1
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 859.1 MHz
Sweep 840 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:29:32 PM Mar 27, 2012
Marker 1 884.215900000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 12 dB
Avg Type: Pwr(RMS)
Avg|Hold: 77/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 884.22 MHz
-41.091 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
1
Start 884.10 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 118 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

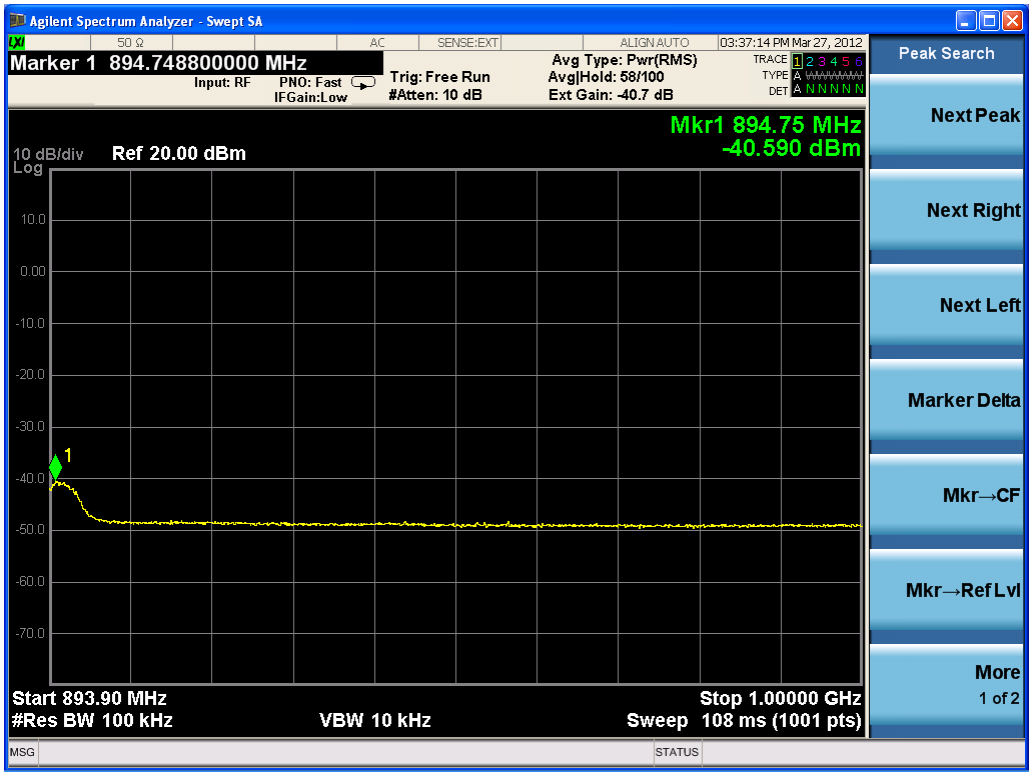
One carrier (working in middle frequency)



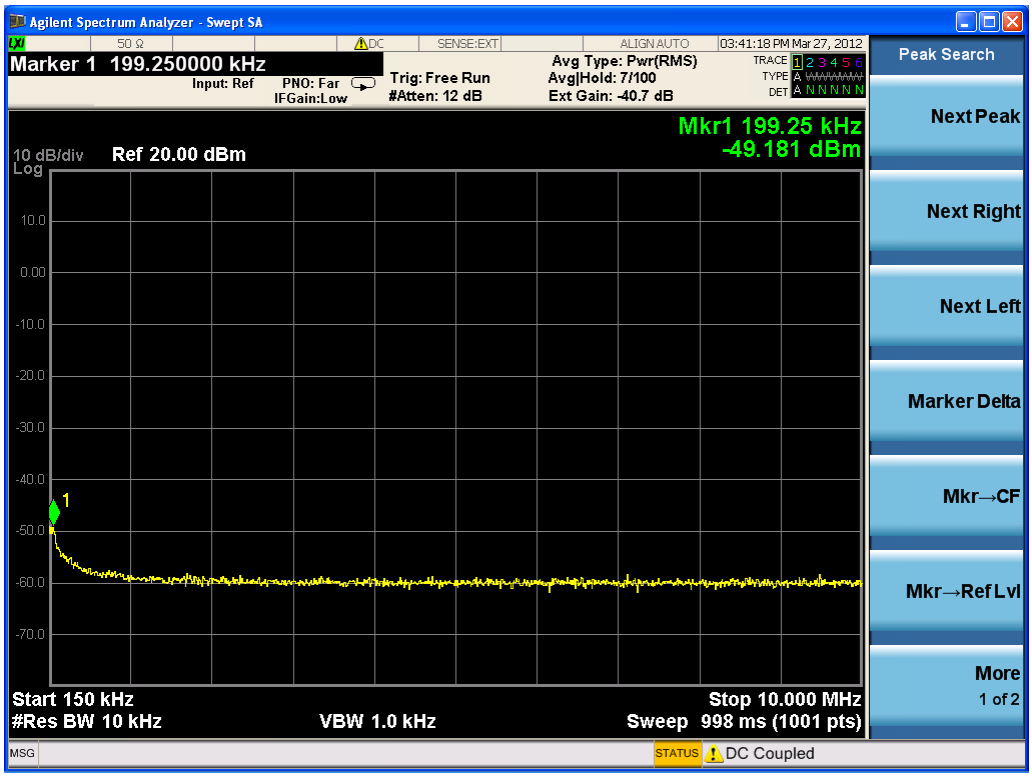

Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
03:34:49 PM Mar 27, 2012
Marker 1 189.400000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 12 dB
Avg Type: Pwr(RMS)
Avg|Hold: 4/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 189.40 kHz
-49.317 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

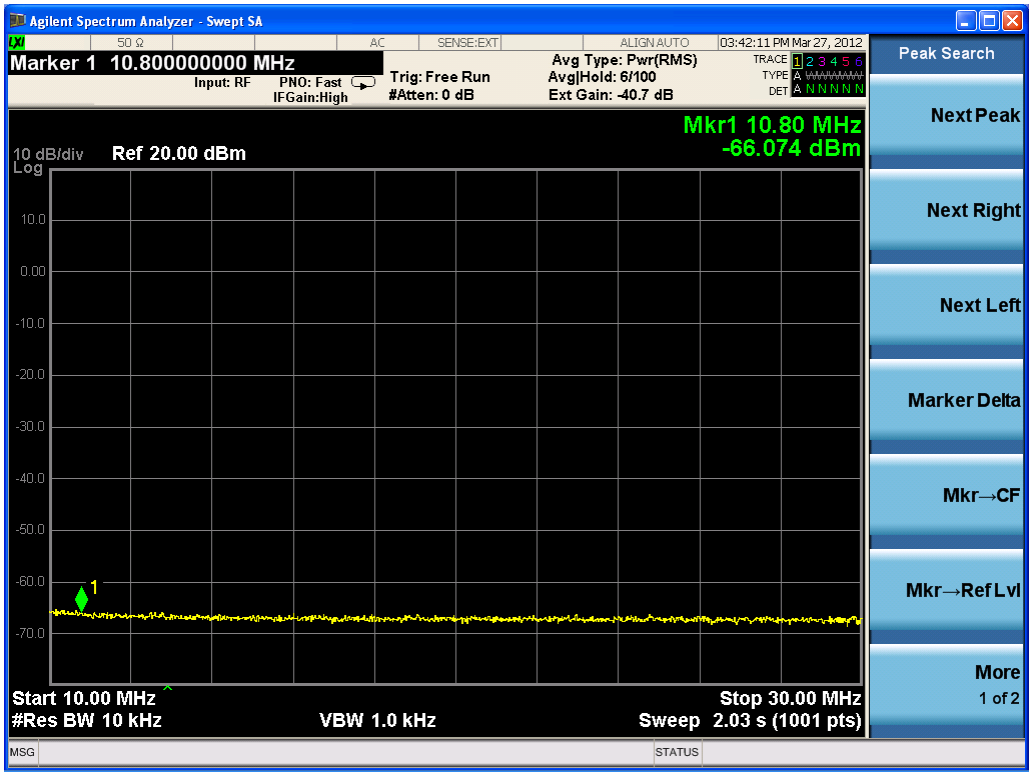

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:35:32 PM Mar 27, 2012
Marker 1 10.400000000 MHz
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Pwr(RMS)
Avg|Hold: 3/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 10.40 MHz
-65.786 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

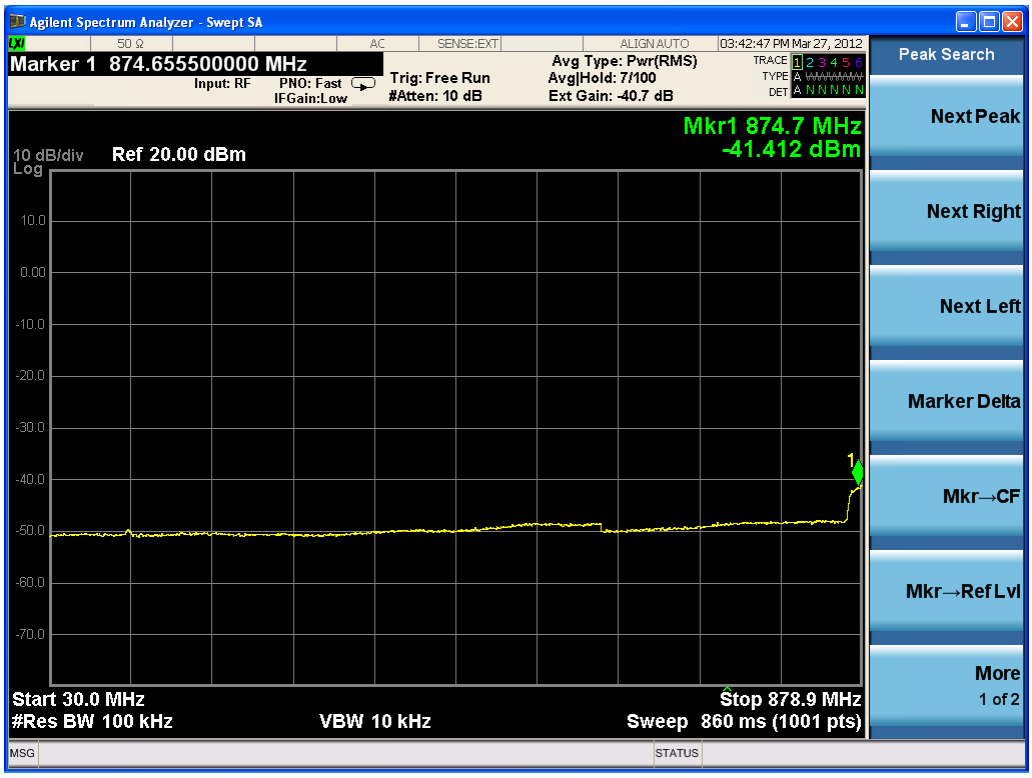

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:36:45 PM Mar 27, 2012
Marker 1 868.900000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 19/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 868.9 MHz
-41.207 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 868.9 MHz
Sweep 850 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

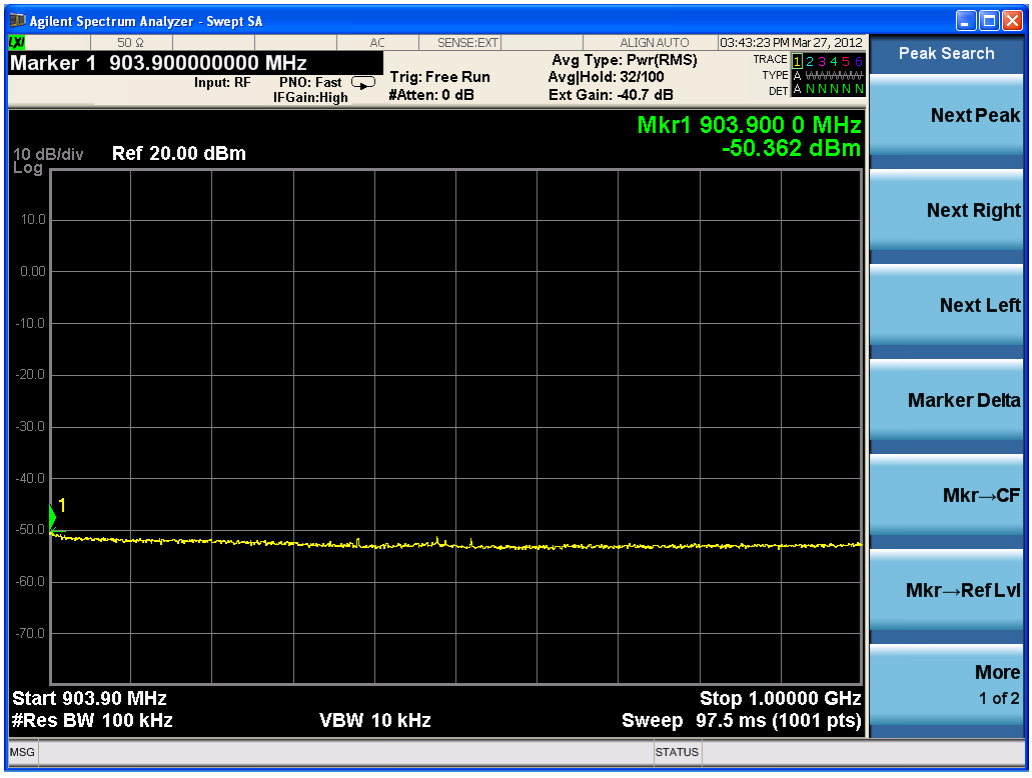

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:37:14 PM Mar 27, 2012
Marker 1 894.748800000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 58/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 894.75 MHz
-40.590 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 893.90 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 108 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

One carrier (working in top frequency)


Agilent Spectrum Analyzer - Swept SA
50 Ω
DC
SENSE:EXT
ALIGN AUTO
03:41:18 PM Mar 27, 2012
Marker 1 199.250000 kHz
Input: Ref
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 12 dB
Avg Type: Pwr(RMS)
Avg|Hold: 7/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 199.25 kHz
-49.181 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 150 kHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 10.000 MHz
Sweep 998 ms (1001 pts)
MSG
STATUS
DC Coupled
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:42:11 PM Mar 27, 2012
Marker 1 10.800000000 MHz
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Pwr(RMS)
Avg|Hold: 6/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 10.80 MHz
-66.074 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 10.00 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Stop 30.00 MHz
Sweep 2.03 s (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:42:47 PM Mar 27, 2012
Marker 1 874.655500000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: Pwr(RMS)
Avg|Hold: 7/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 874.7 MHz
-41.412 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Start 30.0 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 878.9 MHz
Sweep 860 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:43:23 PM Mar 27, 2012
Marker 1 903.900000000 MHz
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Pwr(RMS)
Avg|Hold: 32/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 903.900 0 MHz
-50.362 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Start 903.90 MHz
#Res BW 100 kHz
VBW 10 kHz
Stop 1.00000 GHz
Sweep 97.5 ms (1001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:EXT
ALIGN AUTO
03:43:54 PM Mar 27, 2012
Marker 1 1.783000000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 18 dB
Avg Type: Pwr(RMS)
Avg|Hold: 19/100
Ext Gain: -40.7 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 1.783 GHz
-25.440 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Start 1.000 GHz
#Res BW 1.0 MHz
VBW 100 kHz
Stop 10.000 GHz
Sweep 91.3 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

4.6 OCCUPIED BANDWIDTH

Applicable Standard: FCC §2.1049 §22.917

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY48011941	2011-4-8	2012-4-7
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2011-7-11	2012-7-11
Forstar	Forstar RF Cable	002	1034	2011-4-8	2012-4-7

*__statement of traceability:__ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

The RF out of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. 99%Power bandwidth was recorded.

Environmental Conditions

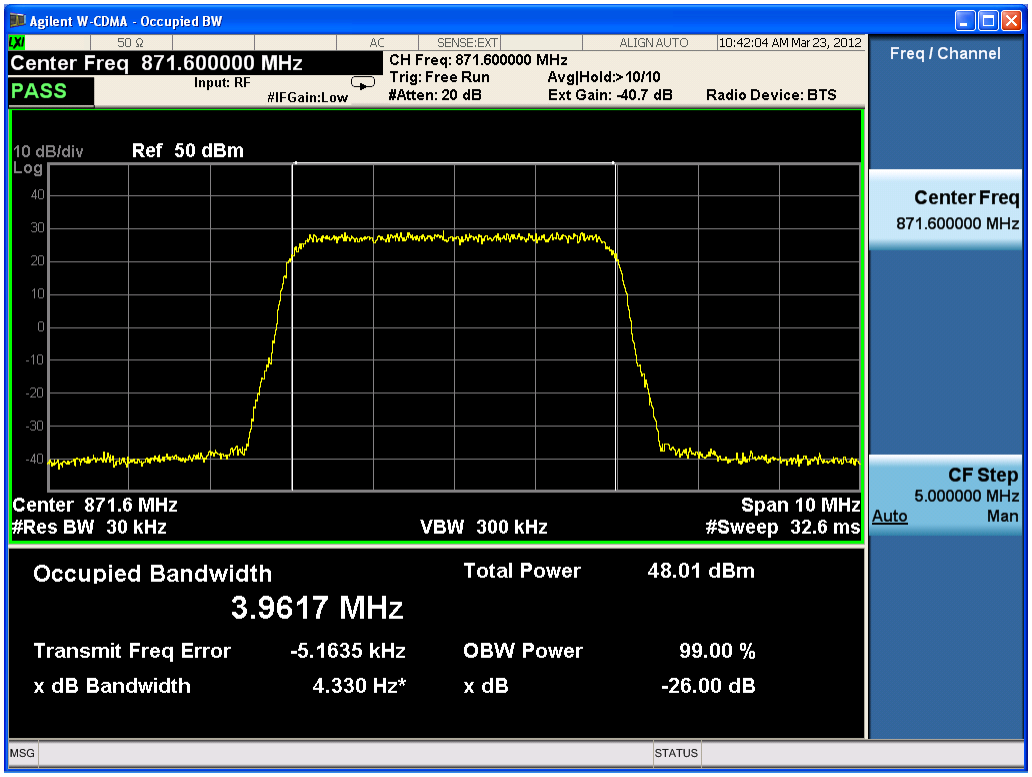
Temperature:	20 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

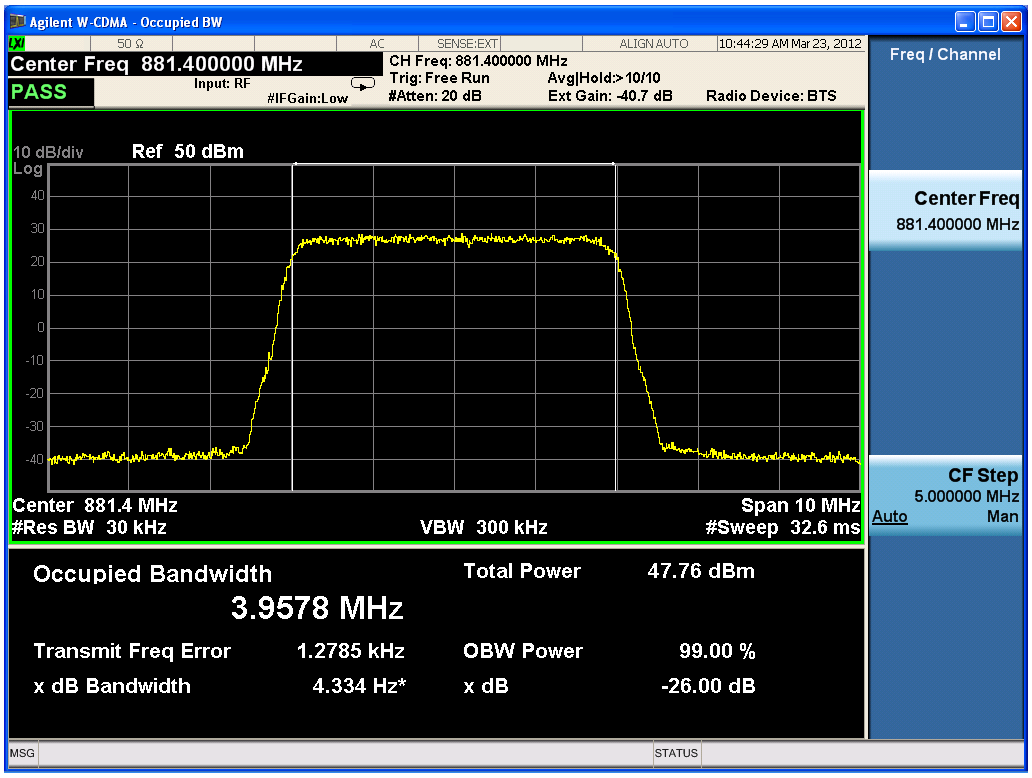
Test Result: Pass

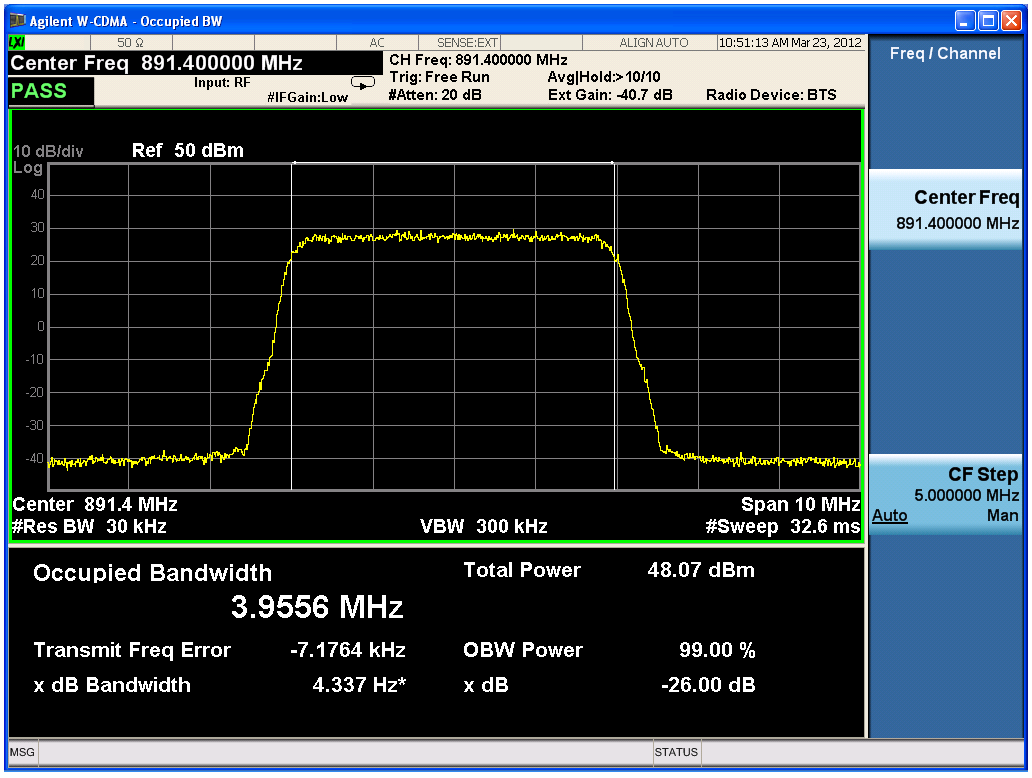
Test Mode: Transmitting UMTS

Test Data

Frequency (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
871.6/881.4/891.4	3.9617/3.9578/3.9556	<4.2




Agilent W-CDMA - Occupied BW
50 Ω
AC
SENSE:EXT
ALIGN AUTO
10:44:29 AM Mar 23, 2012
Center Freq 881.400000 MHz
PASS
Input: RF
#IFGain:Low
CH Freq: 881.400000 MHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 20 dB
Ext Gain: -40.7 dB
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 50 dBm
40
30
20
10
0
-10
-20
-30
-40
Center Freq
881.400000 MHz
CF Step
5.000000 MHz
Auto
Man
Center 881.4 MHz
#Res BW 30 kHz
VBW 300 kHz
Span 10 MHz
#Sweep 32.6 ms
Occupied Bandwidth
3.9578 MHz
Total Power 47.76 dBm
Transmit Freq Error 1.2785 kHz
OBW Power 99.00 %
x dB Bandwidth 4.334 Hz*
x dB -26.00 dB
MSG
STATUS


Agilent W-CDMA - Occupied BW
50 Ω
AC
SENSE:EXT
ALIGN AUTO
10:51:13 AM Mar 23, 2012
Center Freq 891.400000 MHz
PASS
Input: RF
#IFGain:Low
CH Freq: 891.400000 MHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 20 dB
Ext Gain: -40.7 dB
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 50 dBm
40
30
20
10
0
-10
-20
-30
-40
Center Freq
891.400000 MHz
CF Step
5.000000 MHz
Auto
Man
Center 891.4 MHz
#Res BW 30 kHz
VBW 300 kHz
Span 10 MHz
#Sweep 32.6 ms
Occupied Bandwidth
3.9556 MHz
Total Power 48.07 dBm
Transmit Freq Error -7.1764 kHz
OBW Power 99.00 %
x dB Bandwidth 4.337 Hz*
x dB -26.00 dB
MSG
STATUS

4.7 BAND EDGES

Applicable Standard: FCC §2.1051

According to §2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (p) by a factor of at least 43 + 10 log (p) dB. The limit (dBm) should < P –(43+10log(P)) = -13dBm.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY48011941	2011-4-8	2012-4-7
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2011-7-11	2012-7-11
Forstar	Forstar RF Cable	002	1034	2011-4-8	2012-4-7

*__statement of traceability:__ ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements , traceable to NIST.

Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.
The center of the spectrum analyzer was set to block edge frequency.

Test Data Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53%
ATM Pressure:	1009mbar

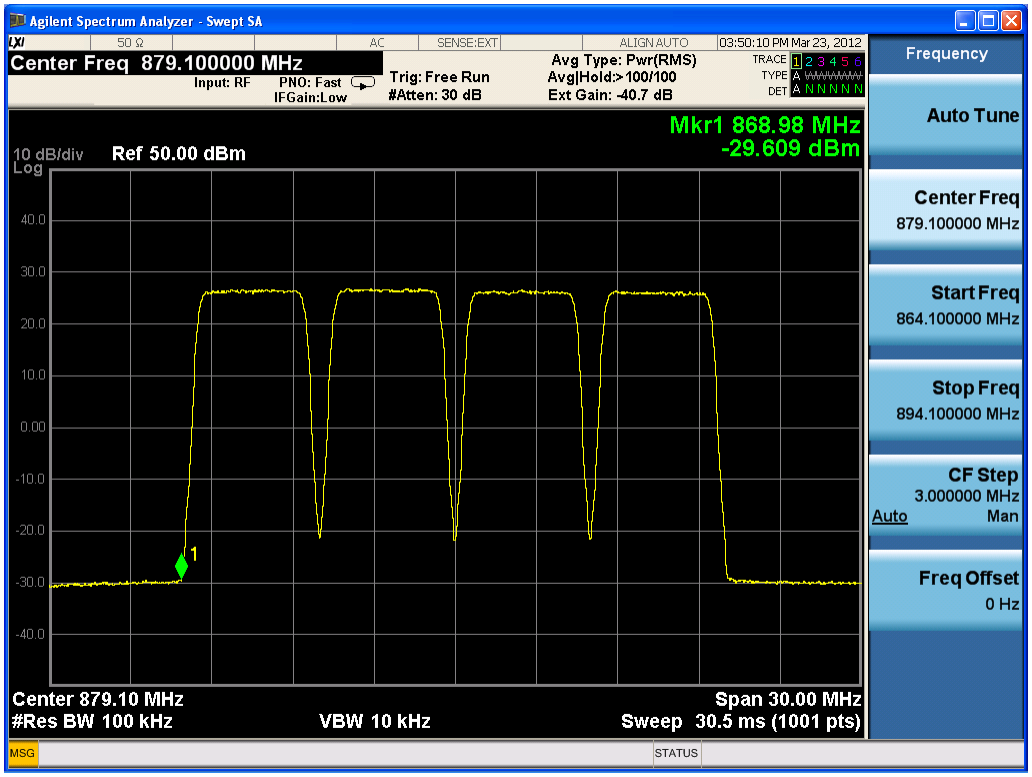
Test Result: Pass

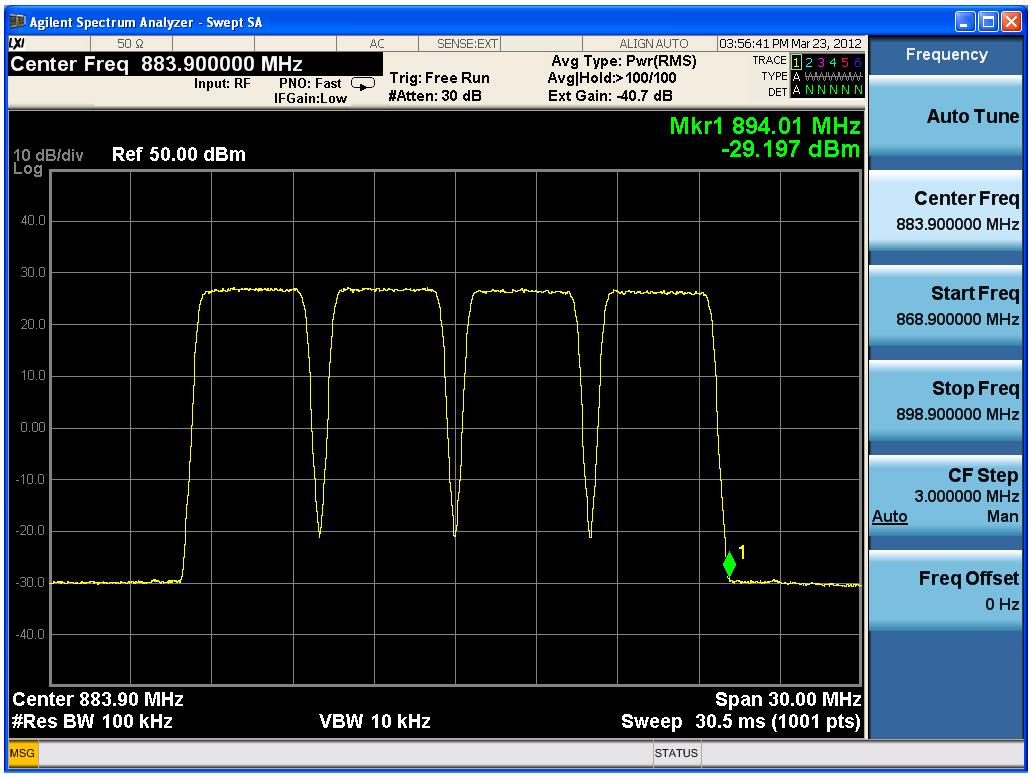
Test Mode: Transmitting UMTS

Test Data

For four carriers

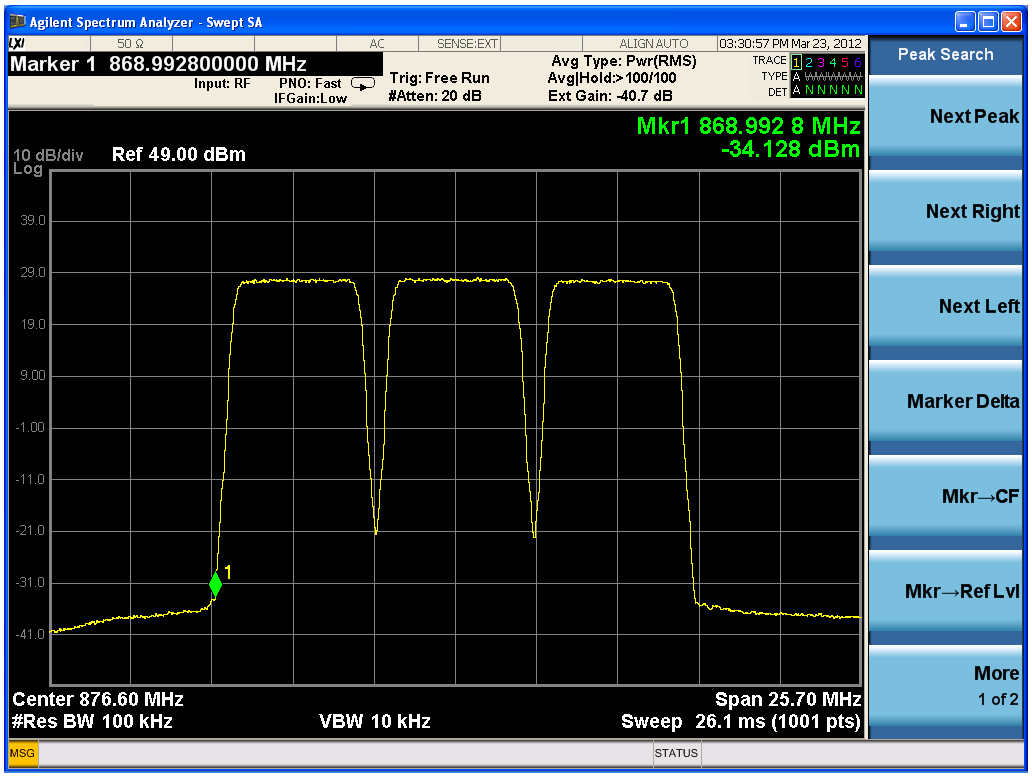
Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
871.6/876.6/881.6/886.6	-29.609	-13.00
876.4/881.4/886.4/891.4	-29.197	-13.00

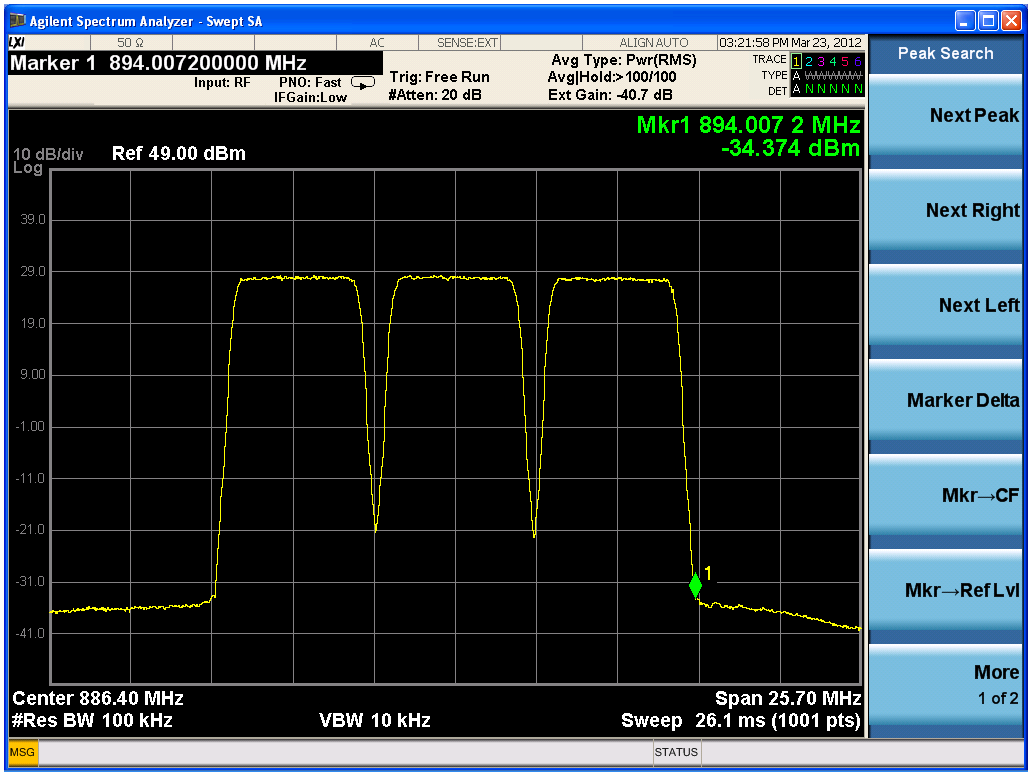




For three carriers

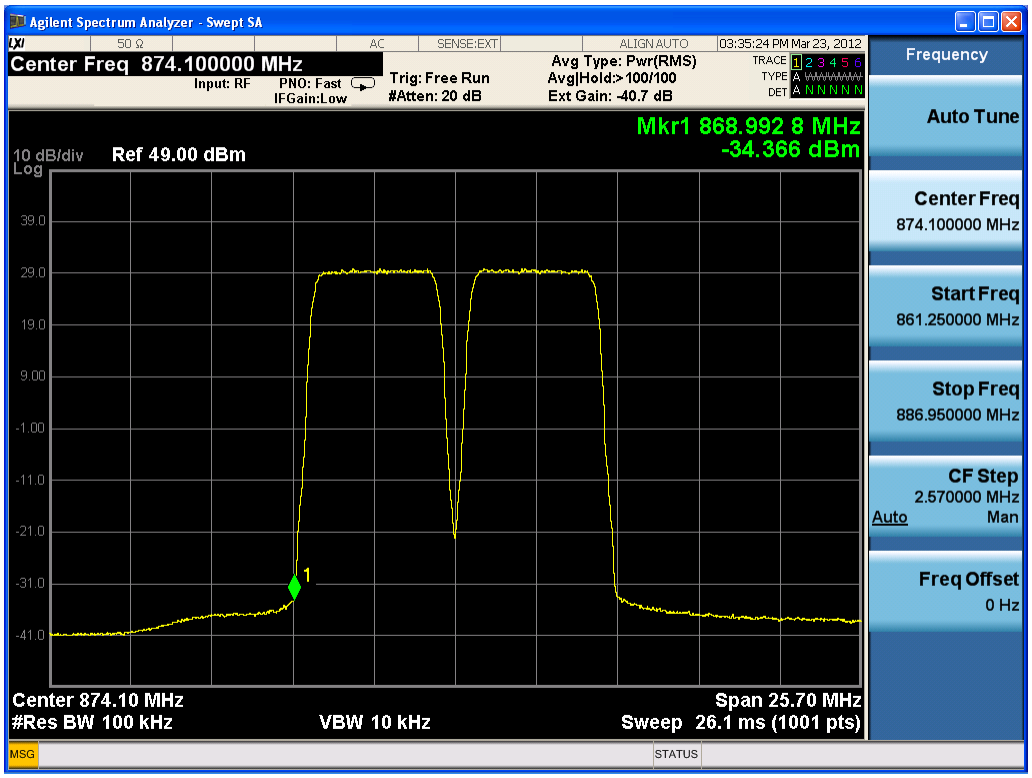
Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
871.6/876.6/881.6	-34.128	-13.00
876.4/881.4/886.4	-34.374	-13.00

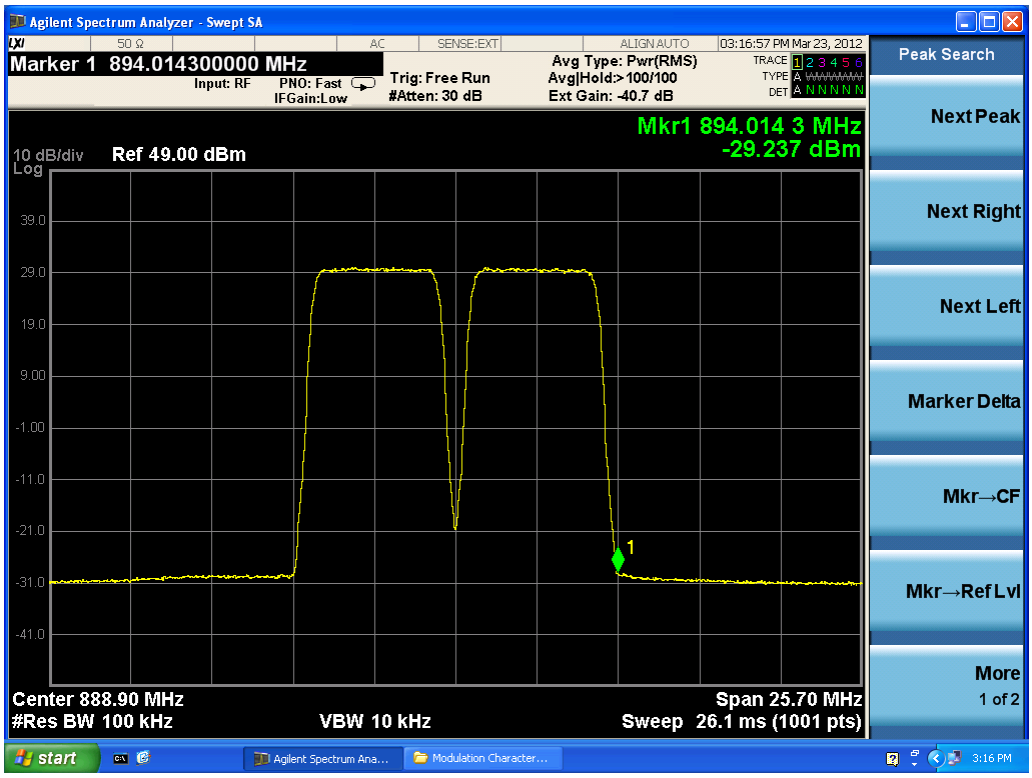

Agilent Spectrum Analyzer - Swept SA
Marker 1 868.992800000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 20 dB
Avg Type: Pwr(RMS) Avg|Hold:>100/100 Ext Gain: -40.7 dB
03:30:57 PM Mar 23, 2012
Mkr1 868.992 8 MHz -34.128 dBm
10 dB/div Log
Ref 49.00 dBm
Center 876.60 MHz
#Res BW 100 kHz
VBW 10 kHz
Span 25.70 MHz
Sweep 26.1 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2


Agilent Spectrum Analyzer - Swept SA
Marker 1 894.007200000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 20 dB
Avg Type: Pwr(RMS) Avg|Hold:>100/100 Ext Gain: -40.7 dB
03:21:58 PM Mar 23, 2012
Mkr1 894.007 2 MHz -34.374 dBm
10 dB/div Log
Ref 49.00 dBm
Center 886.40 MHz
#Res BW 100 kHz
VBW 10 kHz
Span 25.70 MHz
Sweep 26.1 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

For two carriers

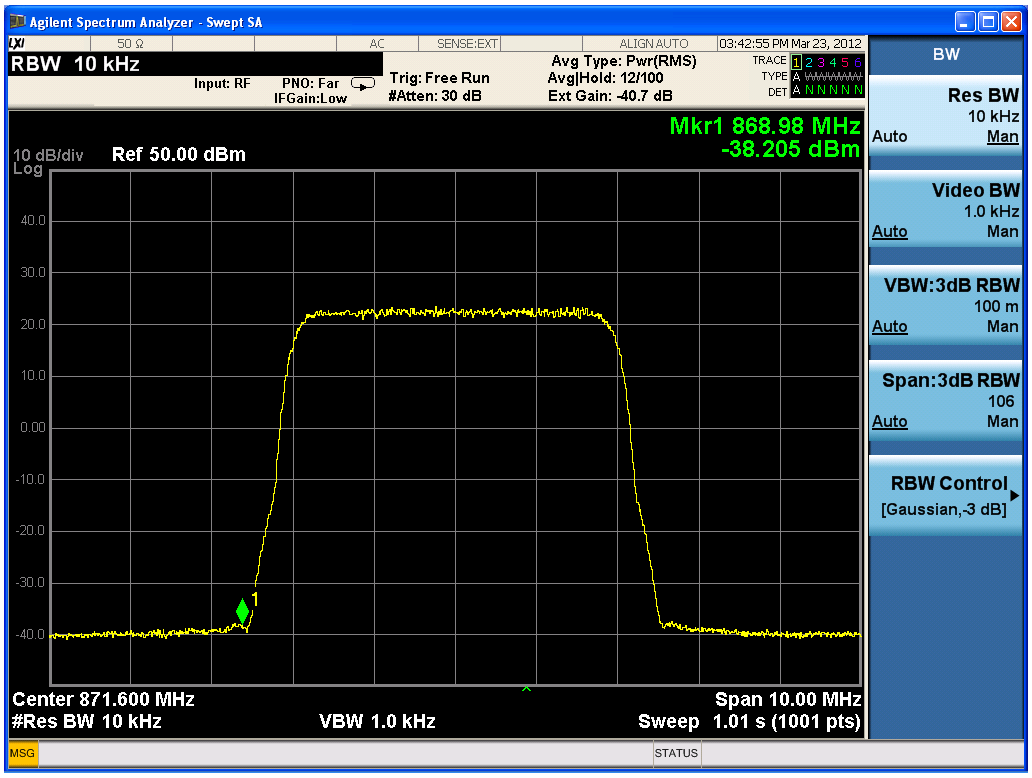
Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
871.6/876.6	-34.366	-13.00
886.4/891.4	-29.237	-13.00

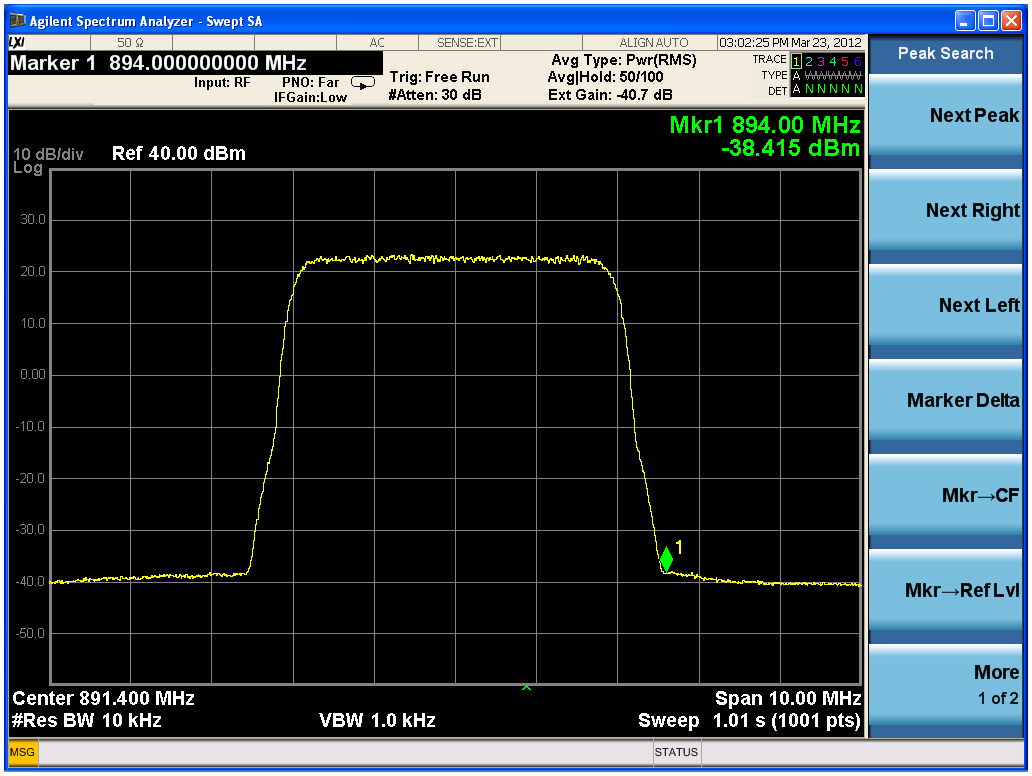




For One carrier

Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
871.6	-38.205	-13.00
891.4	-38.415	-13.00


Agilent Spectrum Analyzer - Swept SA
RBW 10 kHz
Input: RF
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Pwr(RMS)
Avg|Hold: 12/100
Ext Gain: -40.7 dB
03:42:55 PM Mar 23, 2012
Mkr1 868.98 MHz
-38.205 dBm
10 dB/div
Log
Ref 50.00 dBm
Center 871.600 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Span 10.00 MHz
Sweep 1.01 s (1001 pts)
BW
Res BW
10 kHz
Auto
Man
Video BW
1.0 kHz
Auto
Man
VBW:3dB RBW
100 m
Auto
Man
Span:3dB RBW
106
Auto
Man
RBW Control
[Gaussian,-3 dB]
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
Marker 1 894.000000000 MHz
Input: RF
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Pwr(RMS)
Avg|Hold: 50/100
Ext Gain: -40.7 dB
03:02:25 PM Mar 23, 2012
Mkr1 894.00 MHz
-38.415 dBm
10 dB/div
Log
Ref 40.00 dBm
Center 891.400 MHz
#Res BW 10 kHz
VBW 1.0 kHz
Span 10.00 MHz
Sweep 1.01 s (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

4.8 FREQUENCY STABILITY

Applicable Standard: FCC § 2.1055, § 22.355

Requirements: FCC § 2.1055 (a)(d), The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
GZ-ESPEC	Temperature Chamber	EW0470	06113028	2011-1-26	2012-1-26
Agilent	MXA Series Spectrum Analyzer	N9020A	MY48011941	2011-4-8	2012-4-7
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2011-7-11	2012-7-11
Forstar	Forstar RF Cable	002	1034	2011-4-8	2012-4-7

*__statement of traceability:__ ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a Spectrum Analyzer via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.
After the temperature stabilized for approximately 150 minutes, the frequency output was recorded from the counter.
Frequency Stability vs. Voltage: An external variable DC power supply Source. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the end point. The output frequency was recorded for each voltage.

Environmental Conditions

Normal condition:	25° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

Test Result: Pass

Test Mode: Transmitting UMTS

Test Data

Frequency Stability Versus Temperature

Frequency Stability vs Temperature					
Temperature (℃)	**Power Supplied (V_{dc})**	**Frequency Measure Error (Hz)**	**Error (ppm)**	**Limit (ppm)**	**Result**
B(871.6MHz)					
-40	-48	3.4	0.0039	0.02	PASS
-30	-48	-2.1	-0.0024	0.02	PASS
-20	-48	-4.3	-0.0049	0.02	PASS
-10	-48	2.7	0.0031	0.02	PASS
0	-48	-3.2	-0.0037	0.02	PASS
10	-48	2.9	0.0034	0.02	PASS
20	-48	3.1	0.0036	0.02	PASS
30	-48	2.9	0.0033	0.02	PASS
40	-48	-1.9	-0.0022	0.02	PASS
50	-48	-4.2	-0.0048	0.02	PASS
55	-48	4.1	0.0047	0.02	PASS
M(881.4MHz)					
-40	-48	3.7	0.0042	0.02	PASS
-30	-48	2.9	0.0033	0.02	PASS
-20	-48	-2.8	-0.0032	0.02	PASS

-10	-48	4.3	0.0049	0.02	PASS
0	-48	-2.8	-0.0032	0.02	PASS
10	-48	4.4	0.0049	0.02	PASS
20	-48	-2.8	-0.0032	0.02	PASS
30	-48	-3.7	-0.0042	0.02	PASS
40	-48	-3.6	-0.0041	0.02	PASS
50	-48	4.7	0.0053	0.02	PASS
55	-48	4.2	0.00477	0.02	PASS
T(891.4MHz)					
-40	-48	-4.6	-0.0052	0.02	PASS
-30	-48	-4.9	-0.0055	0.02	PASS
-20	-48	3.2	0.0036	0.02	PASS
-10	-48	3.2	0.0036	0.02	PASS
0	-48	2.5	0.0028	0.02	PASS
10	-48	2.9	0.0033	0.02	PASS
20	-48	-2.3	-0.0026	0.02	PASS
30	-48	-2.7	-0.0030	0.02	PASS
40	-48	3.5	0.0039	0.02	PASS
50	-48	4.3	0.0048	0.02	PASS
55	-48	3.2	0.0036	0.02	PASS

Frequency Stability Versus Voltage

Frequency Stability vs. Voltage					
VoltageV_{dc}	**Temperature ℃**	**Frequency Measure Error Hz**	**Error ppm**	**Limit ppm**	**Result**
B(871.6MHz)					
40	20	2.7	0.0031	0.02	PASS
44	20	-2.4	-0.0028	0.02	PASS
47	20	-3.9	-0.0045	0.02	PASS
50	20	-4.1	-0.0047	0.02	PASS
53	20	-3.7	-0.0043	0.02	PASS
56	20	-1.7	-0.0019	0.02	PASS
57	20	2.4	0.0028	0.02	PASS
M(881.4MHz)					
40	20	2.4	0.0027	0.02	PASS

44	20	-2.7	-0.0031	0.02	PASS
47	20	-2.3	-0.0026	0.02	PASS
50	20	3.8	0.0043	0.02	PASS
53	20	-2.8	-0.0032	0.02	PASS
56	20	-3.9	-0.0044	0.02	PASS
57	20	4.5	0.0051	0.02	PASS
T(891.4MHz)					
40	20	2. 3	0.0026	0.02	PASS
44	20	-2.5	-0.0028	0.02	PASS
47	20	3.8	0.0043	0.02	PASS
50	20	-2.8	-0.0031	0.02	PASS
53	20	-2.7	-0.0030	0.02	PASS
56	20	4.2	0.0047	0.02	PASS
57	20	3.1	0.0035	0.02	PASS

5 GSM OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§2.1046 ,§22.913	Transmitter output Power	Compliant
§2.1091 ,§1.1037	RF Exposure	Compliant
§2.1047 §2.1053, §22.917	Modulation Characteristic Spurious Radiated Emissions	Compliant Compliant
§2.1051, §22.917	Spurious Emissions AT Antenna Terminals	Compliant
§2.1049 §22.917	Occupied Bandwidth	Compliant
§2.1051, §22.917	Band Edge	Compliant
§ 2.1055, §22.355	Frequency stability	Compliant

5.1 TRANSMITTER OUTPUT POWER

Applicable Standard： FCC §2.1046 §22.913

According to FCC §2.1046 &22.913, the ERP(equivalent radiated power) must not exceed 500 Watts.

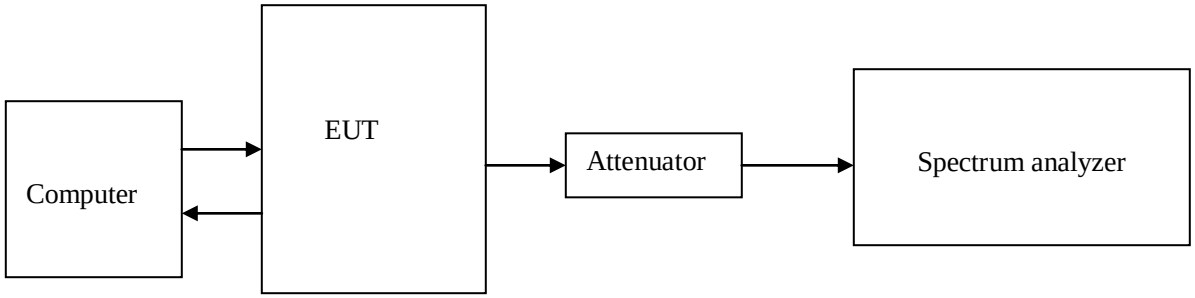
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY48011941	2011-4-8	2012-4-7
Atten	30dB Attenuator	ATSI150-4-30	11300110201221	2011-7-11	2012-7-11
Forstar	Forstar RF Cable	002	1034	2011-4-8	2012-4-7

*__statement of traceability:__ ZTE Corporation Reliability Testing Center attests that all

calibration has been performed per the NVLAP requirements, traceable to NIST.

Test Procedure



The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. External attenuation Loss is 30dB, Cable Loss is about 2dB

Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

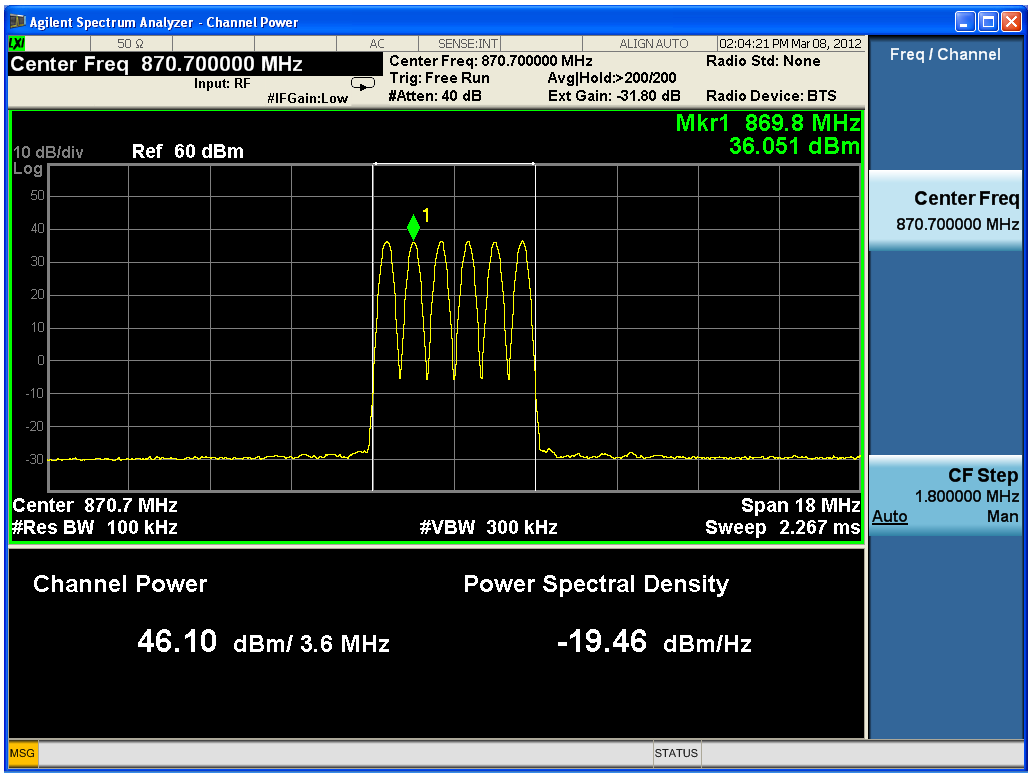
Test Result: Pass

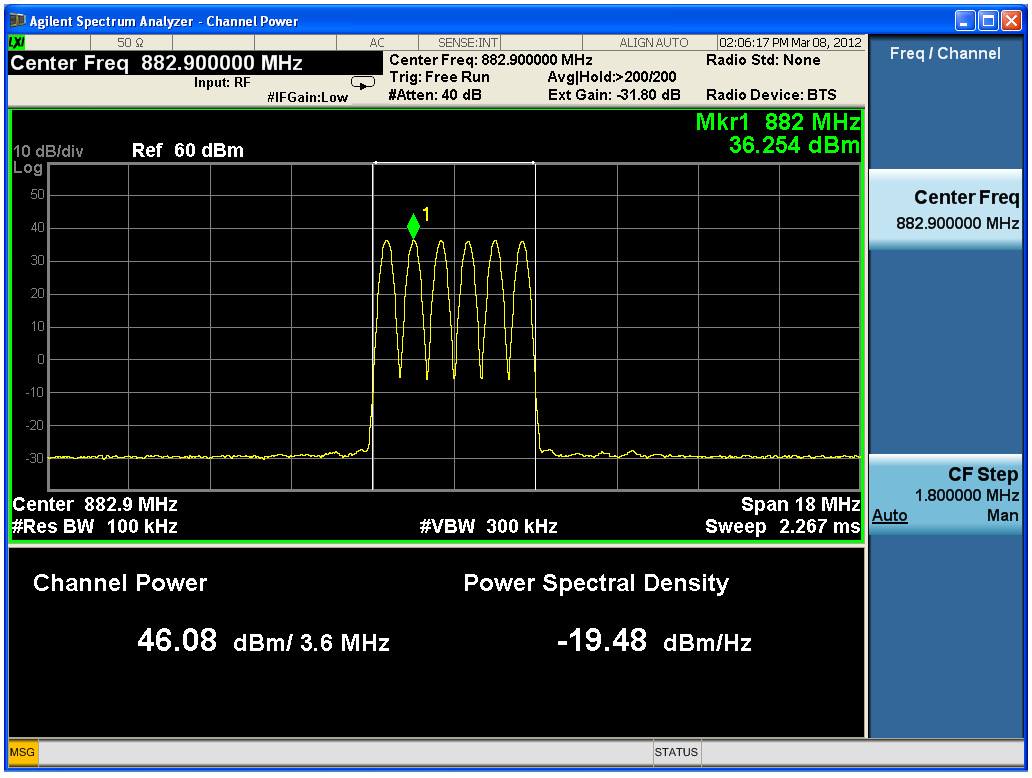
Test Mode: Transmitting GSM

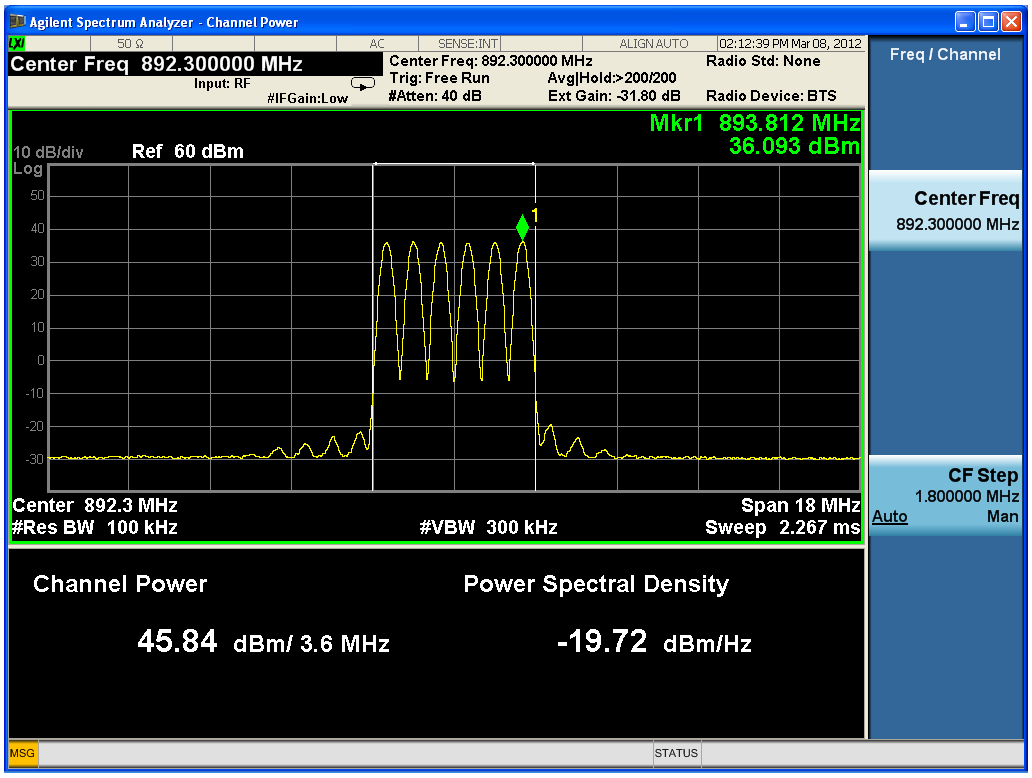
Test Data:

Six carriers

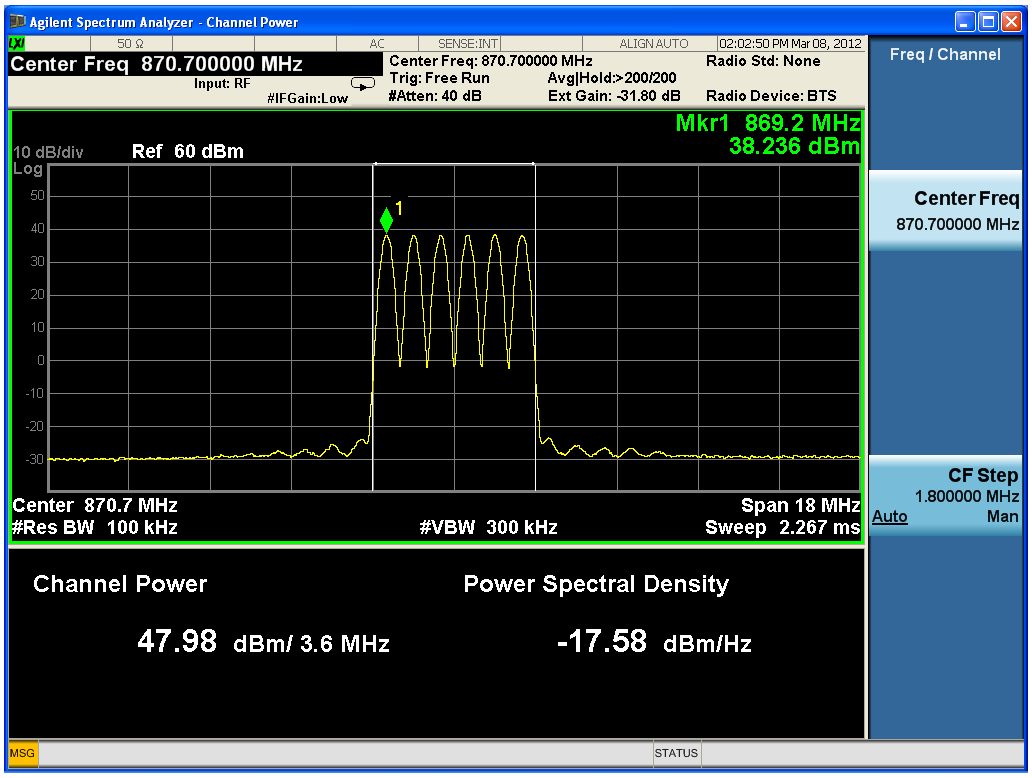
Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	870.7	869.2/869.8/ 870.4 /871 /871.6/ 872.2	46.10
	882.9	881.4/882/882.6/883.2/883.8/884.4	46.08
	892.3	890.8/891.4/892/892.6/893.2/893.8	45.84

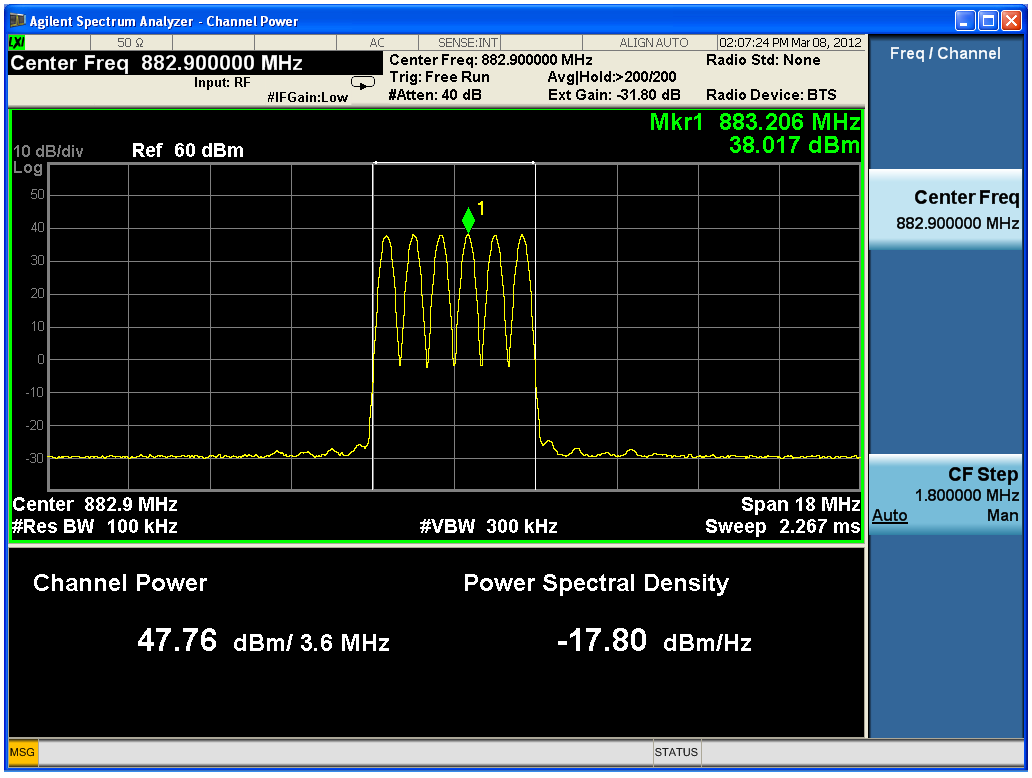

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:04:21 PM Mar 08, 2012
Center Freq 870.700000 MHz
Input: RF
#IFGain:Low
Center Freq: 870.700000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 869.8 MHz
36.051 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
870.700000 MHz
CF Step
1.800000 MHz
Auto
Man
Center 870.7 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 18 MHz
Sweep 2.267 ms
Channel Power
46.10 dBm/ 3.6 MHz
Power Spectral Density
-19.46 dBm/Hz
MSG
STATUS

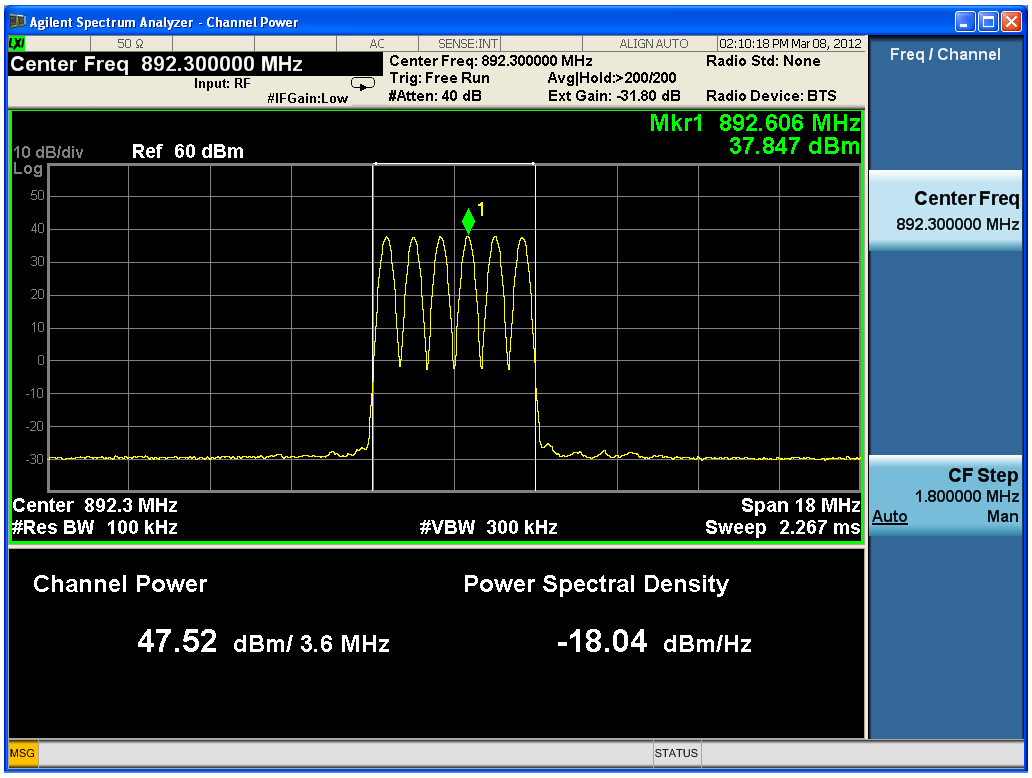

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:06:17 PM Mar 08, 2012
Center Freq 882.900000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.900000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 882 MHz
36.254 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
882.900000 MHz
CF Step
1.800000 MHz
Auto
Man
Center 882.9 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 18 MHz
Sweep 2.267 ms
Channel Power
46.08 dBm/ 3.6 MHz
Power Spectral Density
-19.48 dBm/Hz
MSG
STATUS



Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	870.7	869.2/869.8/ 870.4 /871 /871.6/ 872.2	47.98
	882.9	881.4/882/882.6/883.2/883.8/884.4	47.76
	892.3	890.8/891.4/892/892.6/893.2/893.8	47.52

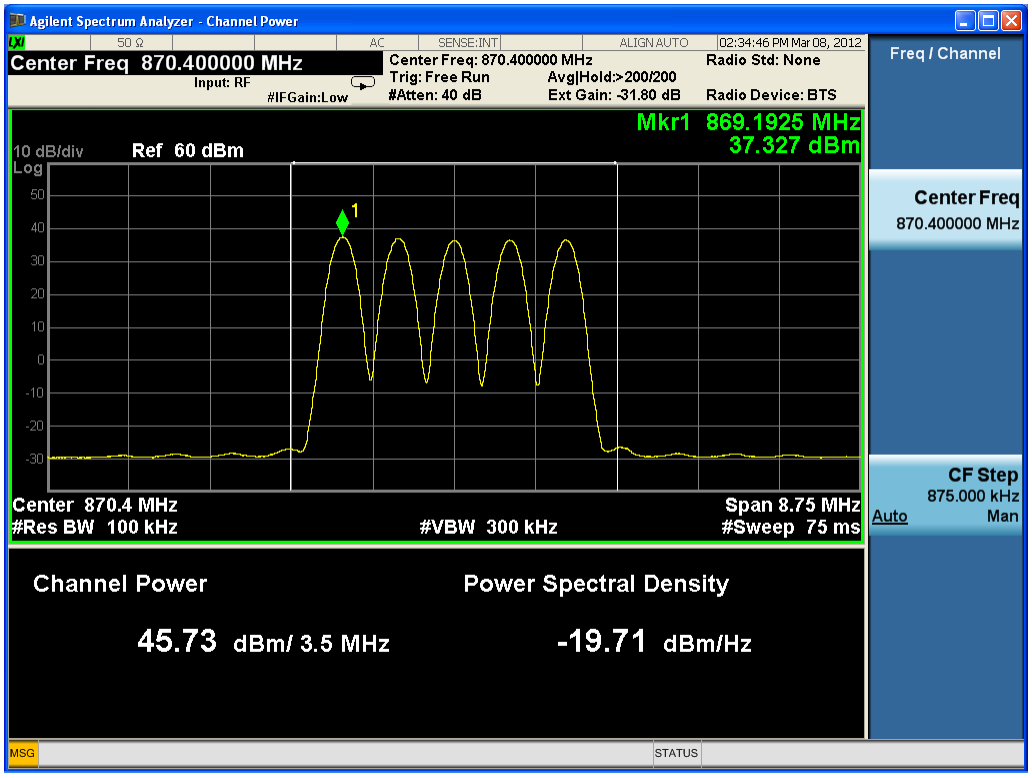

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:02:50 PM Mar 08, 2012
Center Freq 870.700000 MHz
Input: RF
#IFGain:Low
Center Freq: 870.700000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 869.2 MHz
38.236 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
Center Freq
870.700000 MHz
Center 870.7 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 18 MHz
Sweep 2.267 ms
CF Step
1.800000 MHz
Auto
Man
Channel Power
47.98 dBm/ 3.6 MHz
Power Spectral Density
-17.58 dBm/Hz
MSG
STATUS

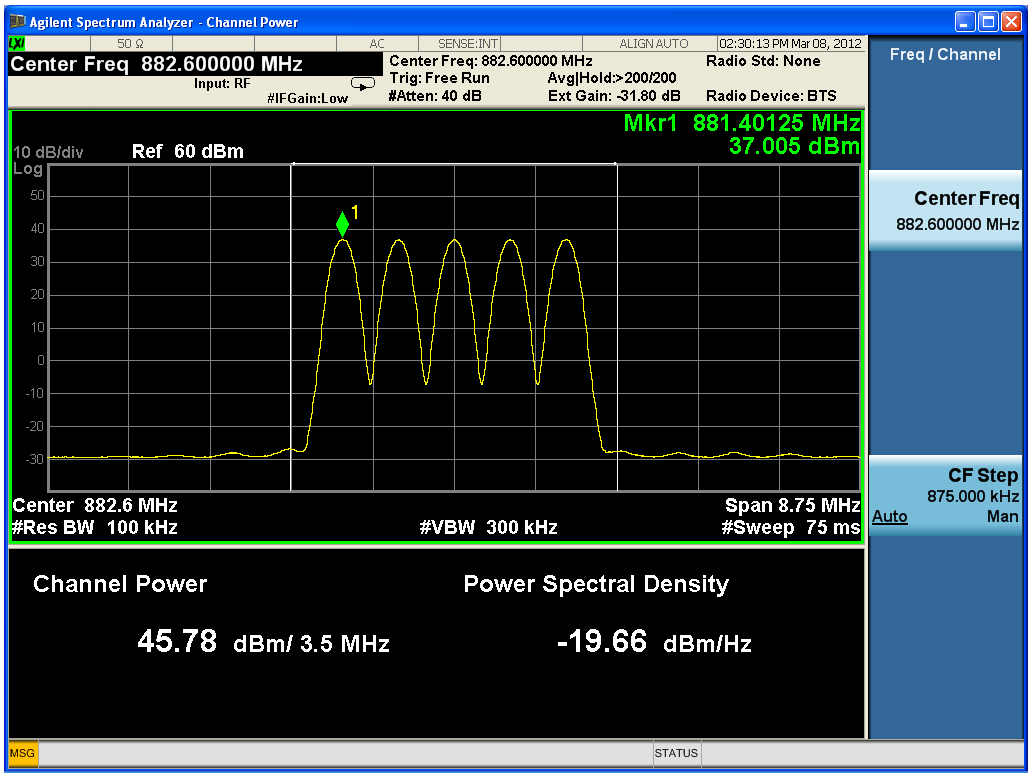

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:07:24 PM Mar 08, 2012
Center Freq 882.900000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.900000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 883.206 MHz
38.017 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
Center Freq
882.900000 MHz
Center 882.9 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 18 MHz
Sweep 2.267 ms
CF Step
1.800000 MHz
Auto
Man
Channel Power
47.76 dBm/ 3.6 MHz
Power Spectral Density
-17.80 dBm/Hz
MSG
STATUS

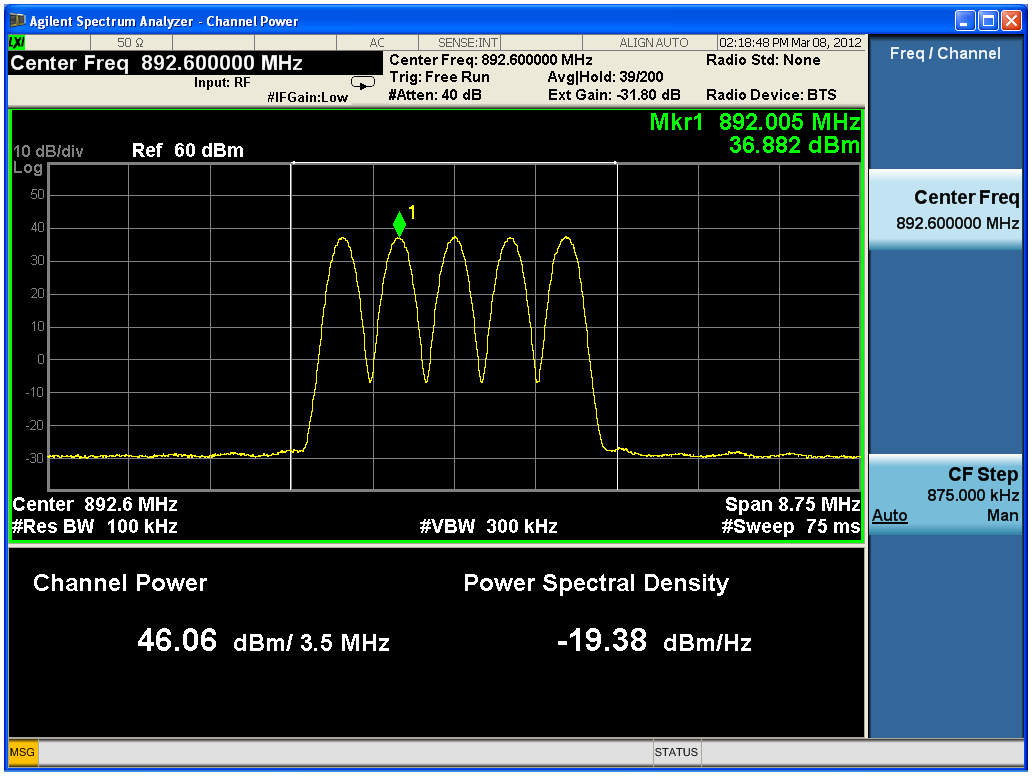

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:10:18 PM Mar 08, 2012
Center Freq 892.300000 MHz
Input: RF
#IFGain:Low
Center Freq: 892.300000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 892.606 MHz
37.847 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
892.300000 MHz
CF Step
1.800000 MHz
Auto
Man
Center 892.3 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 18 MHz
Sweep 2.267 ms
Channel Power
47.52 dBm/ 3.6 MHz
Power Spectral Density
-18.04 dBm/Hz
MSG
STATUS

Five Carriers

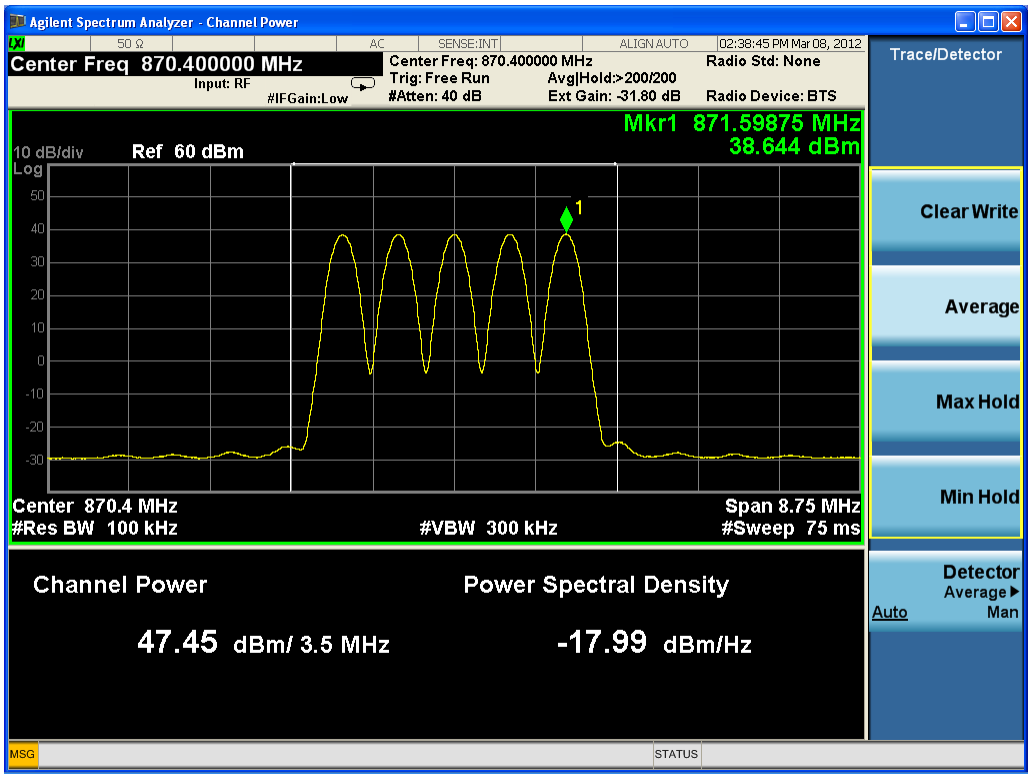
Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	870.4	869.2/869.8/ 870.4 /871 /871.6	45.73
	882.6	881.4/882/882.6/883.2/883.8	45.78
	892.6	891.4/892/892.6/893.2/893.8	46.06

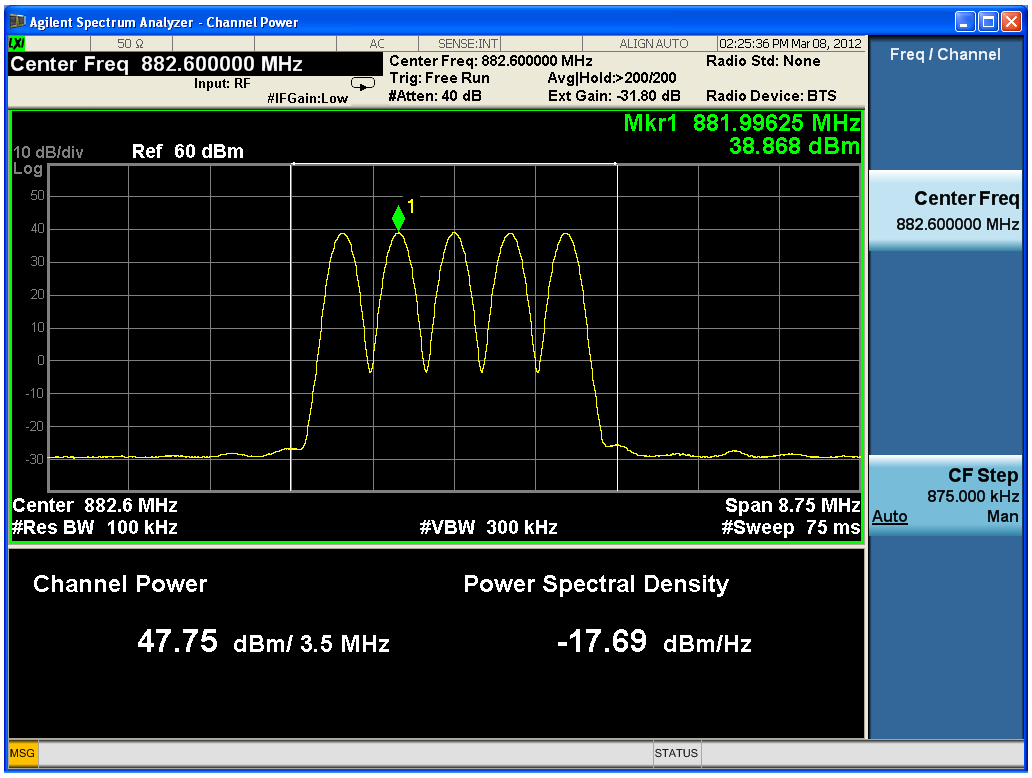


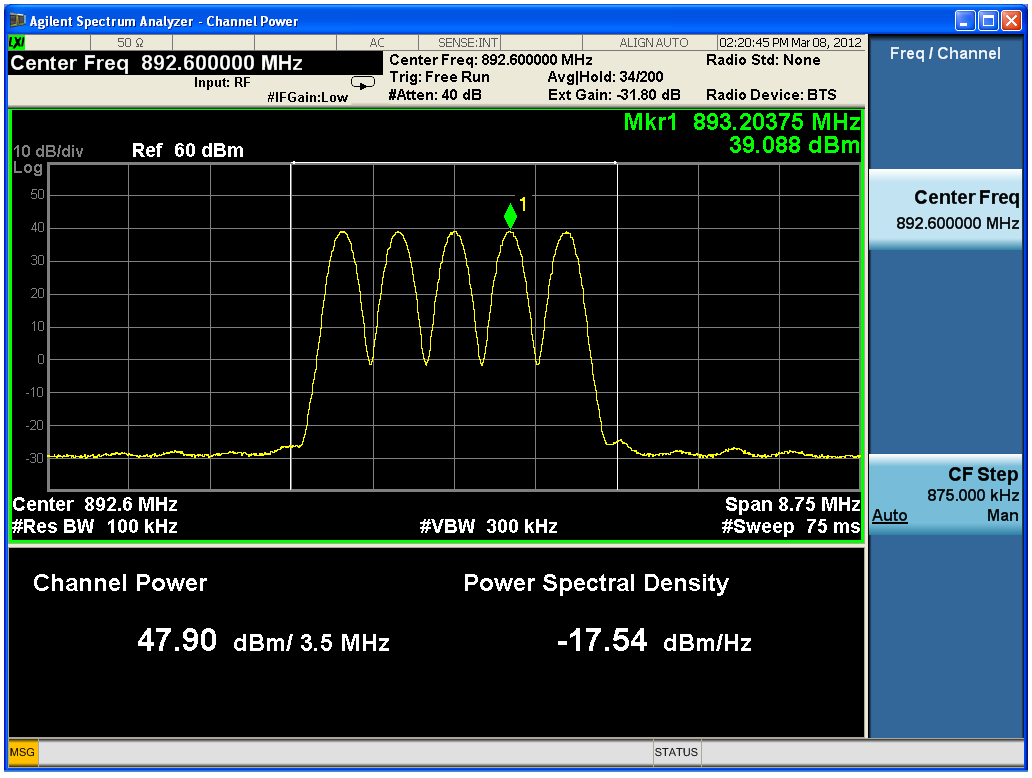

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:30:13 PM Mar 08, 2012
Center Freq 882.600000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.600000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 881.40125 MHz
37.005 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
882.600000 MHz
Center 882.6 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8.75 MHz
#Sweep 75 ms
CF Step
875.000 kHz
Auto
Man
Channel Power
45.78 dBm/ 3.5 MHz
Power Spectral Density
-19.66 dBm/Hz
MSG
STATUS


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:18:48 PM Mar 08, 2012
Center Freq 892.600000 MHz
Input: RF
#IFGain:Low
Center Freq: 892.600000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold: 39/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 892.005 MHz
36.882 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
892.600000 MHz
Center 892.6 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8.75 MHz
#Sweep 75 ms
CF Step
875.000 kHz
Auto
Man
Channel Power
46.06 dBm/ 3.5 MHz
Power Spectral Density
-19.38 dBm/Hz
MSG
STATUS

Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	870.4	869.2/869.8/ 870.4 /871 /871.6	47.453
	882.6	881.4/882/882.6/883.2/883.8	47.75
	892.6	891.4/892/892.6/893.2/893.8	47.90

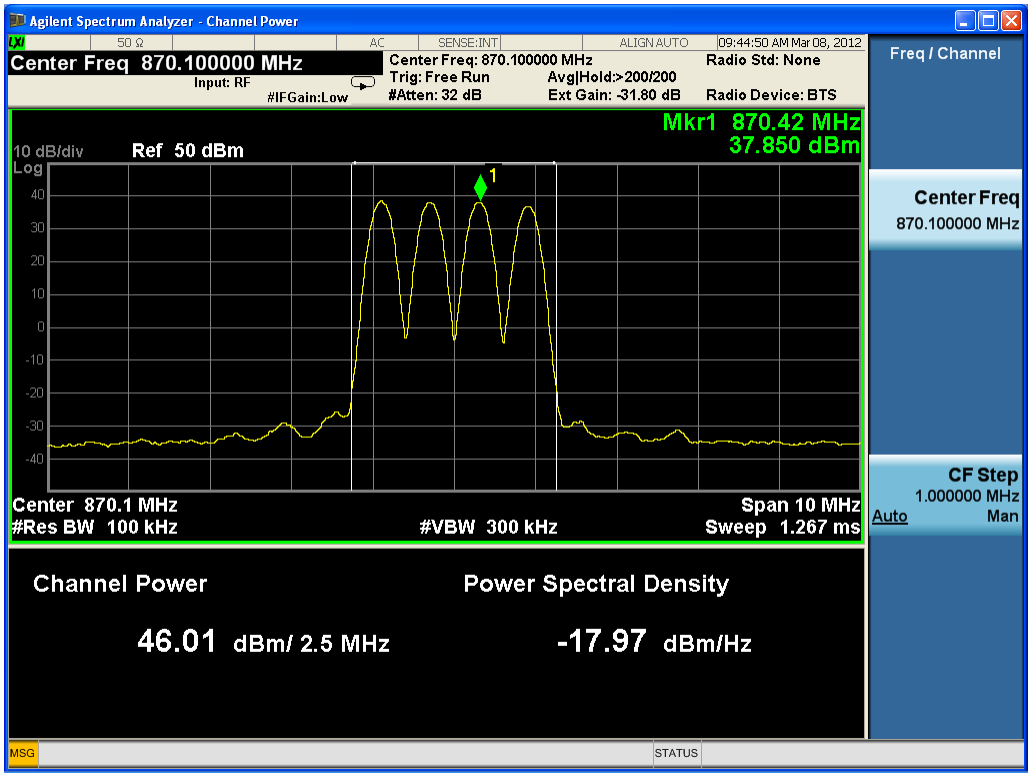


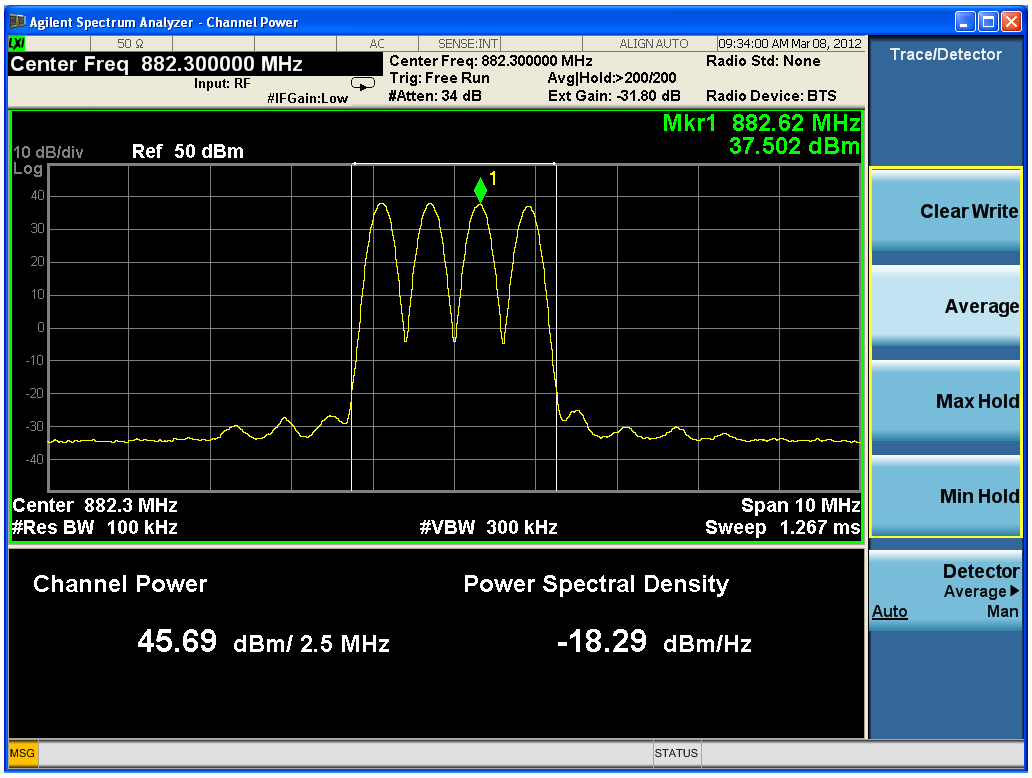

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:25:36 PM Mar 08, 2012
Center Freq 882.600000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.600000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 881.99625 MHz
38.868 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
882.600000 MHz
Center 882.6 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8.75 MHz
#Sweep 75 ms
CF Step
875.000 kHz
Auto
Man
Channel Power
47.75 dBm/ 3.5 MHz
Power Spectral Density
-17.69 dBm/Hz
MSG
STATUS

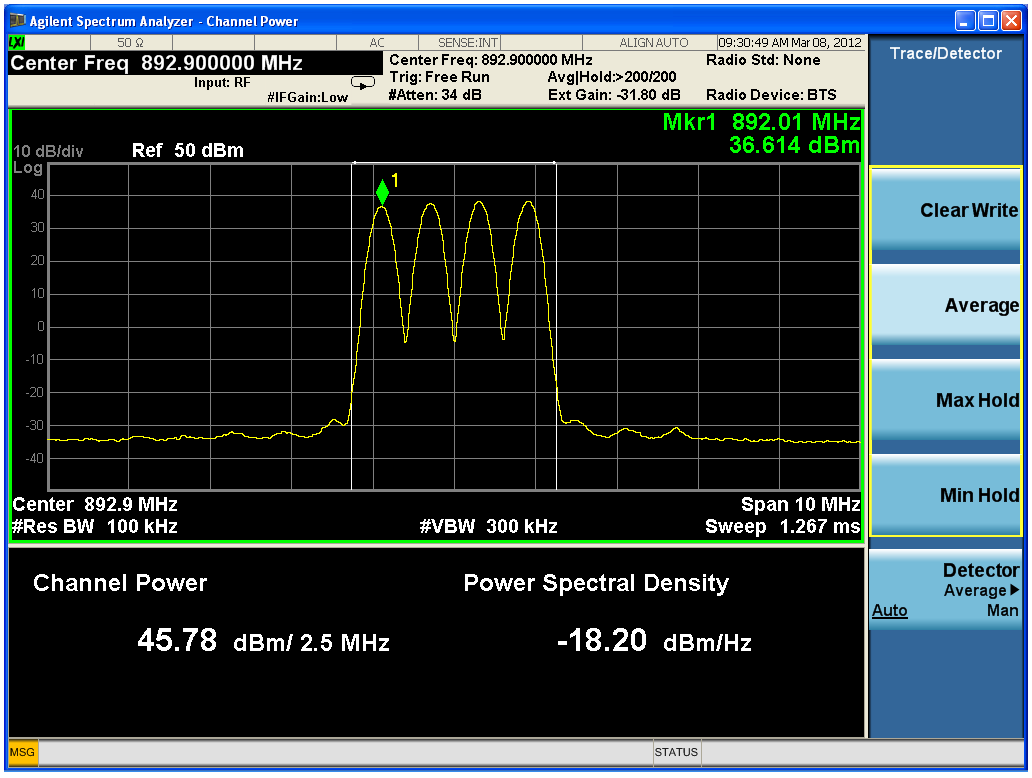

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:20:45 PM Mar 08, 2012
Center Freq 892.600000 MHz
Input: RF
#IFGain:Low
Center Freq: 892.600000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold: 34/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 893.20375 MHz
39.088 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
892.600000 MHz
Center 892.6 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8.75 MHz
#Sweep 75 ms
CF Step
875.000 kHz
Auto
Man
Channel Power
47.90 dBm/ 3.5 MHz
Power Spectral Density
-17.54 dBm/Hz
MSG
STATUS

Four carriers

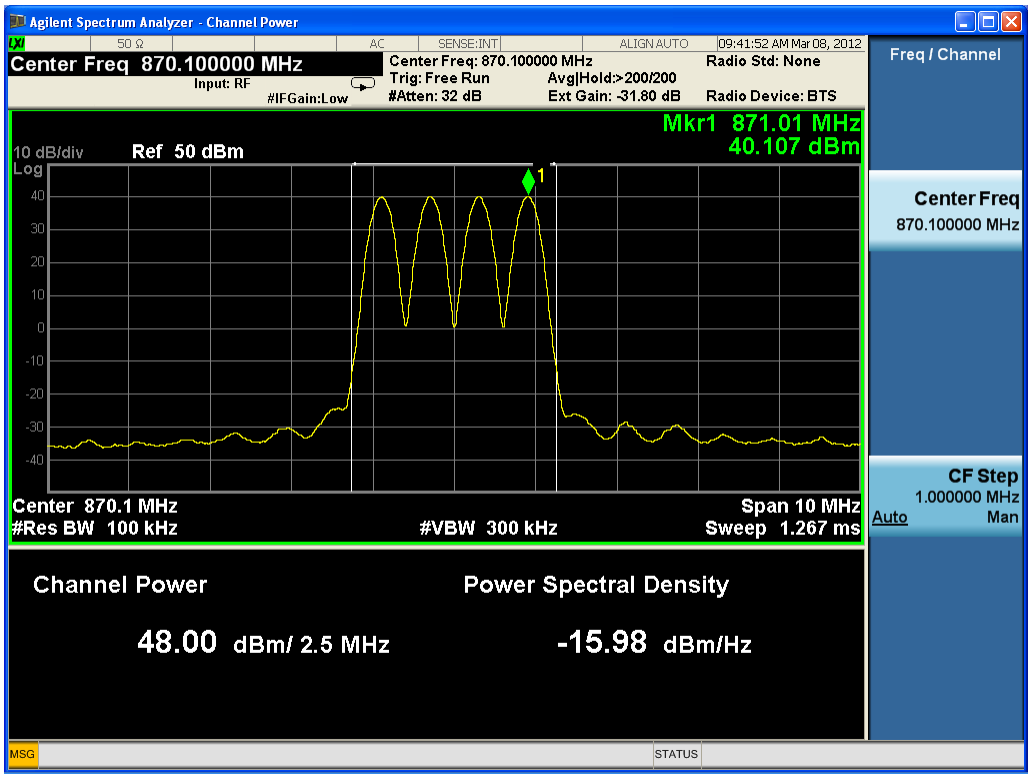
Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	870.1	869.2/869.8/ 870.4 /871	46.01
	882.3	881.4/882/882.6/883.2	45.69
	892.9	892/892.6/893.2/893.8	45.78

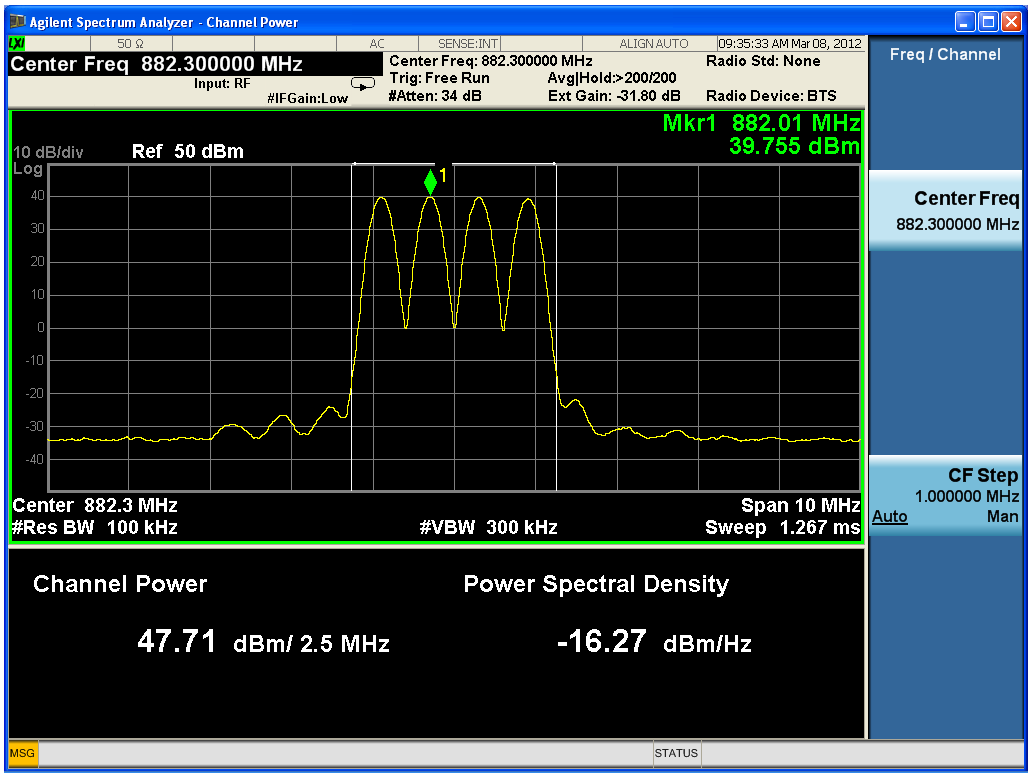


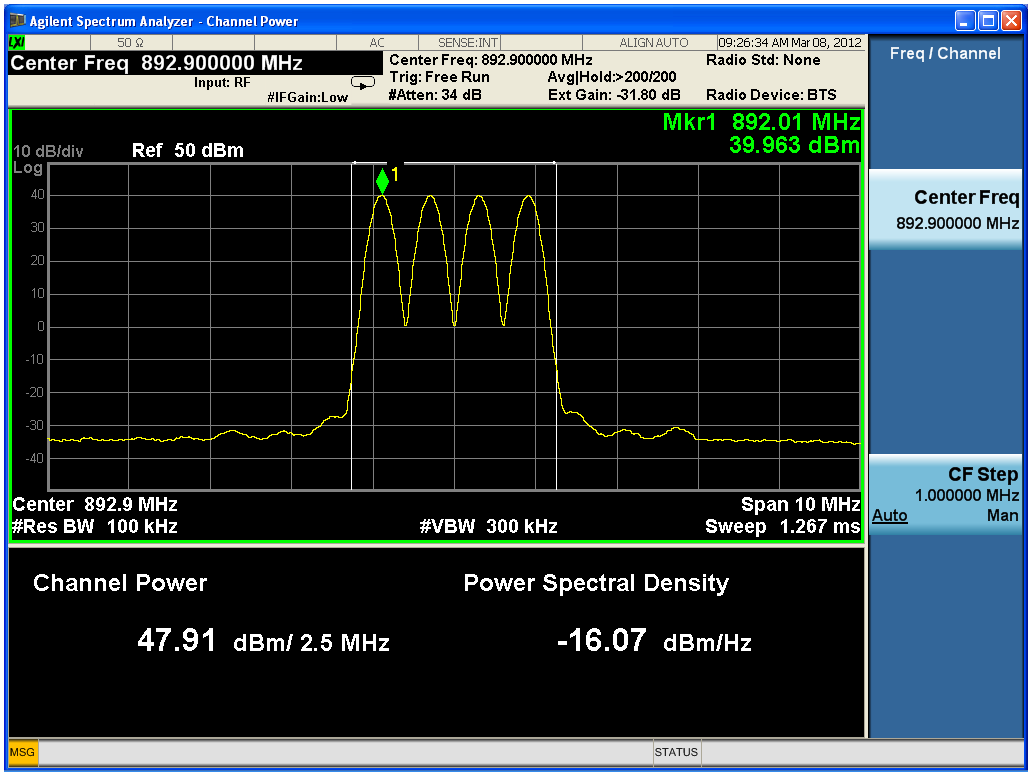

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:34:00 AM Mar 08, 2012
Center Freq 882.300000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.300000 MHz
Trig: Free Run
#Atten: 34 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
Mkr1 882.62 MHz
37.502 dBm
10 dB/div
Log
Ref 50 dBm
40
30
20
10
0
-10
-20
-30
-40
Center 882.3 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10 MHz
Sweep 1.267 ms
Channel Power
45.69 dBm/ 2.5 MHz
Power Spectral Density
-18.29 dBm/Hz
Clear Write
Average
Max Hold
Min Hold
Detector
Average
Auto
Man
MSG
STATUS


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:30:49 AM Mar 08, 2012
Center Freq 892.900000 MHz
Input: RF
#IFGain:Low
Center Freq: 892.900000 MHz
Trig: Free Run
#Atten: 34 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
Mkr1 892.01 MHz
36.614 dBm
10 dB/div
Log
Ref 50 dBm
40
30
20
10
0
-10
-20
-30
-40
Center 892.9 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10 MHz
Sweep 1.267 ms
Channel Power
45.78 dBm/ 2.5 MHz
Power Spectral Density
-18.20 dBm/Hz
Clear Write
Average
Max Hold
Min Hold
Detector
Average
Auto
Man
MSG
STATUS

Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	870.1	869.2/869.8/ 870.4 /871	48.00
	882.3	881.4/882/882.6/883.2	47.71
	892.9	892/892.6/893.2/893.8	47.91

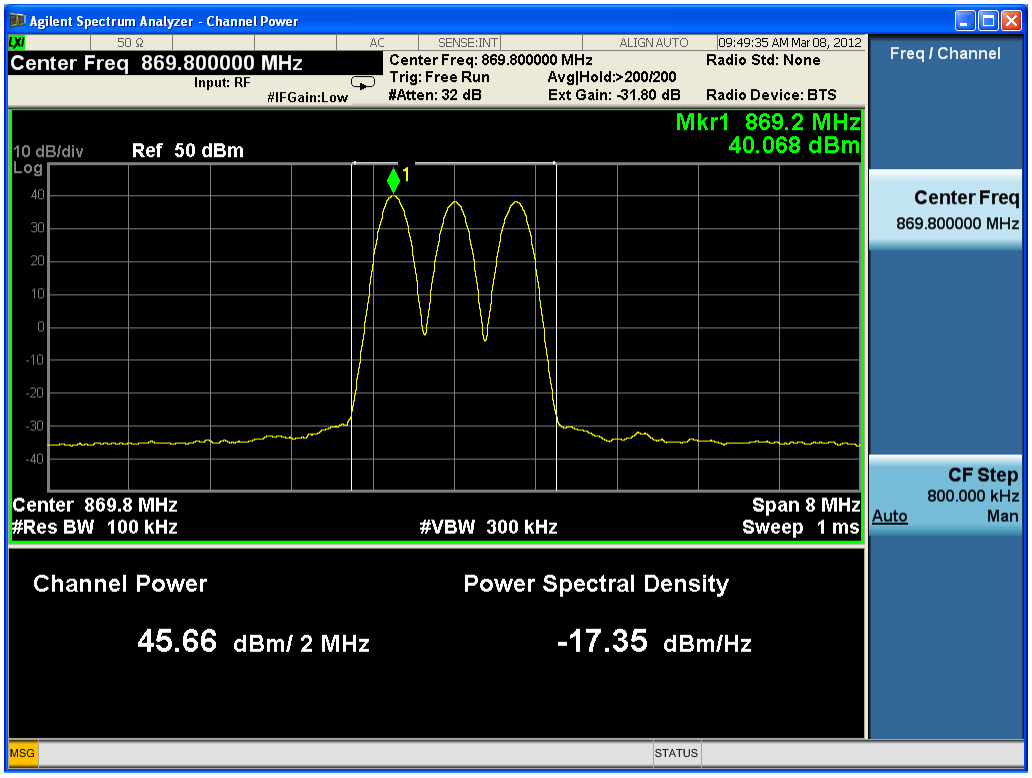


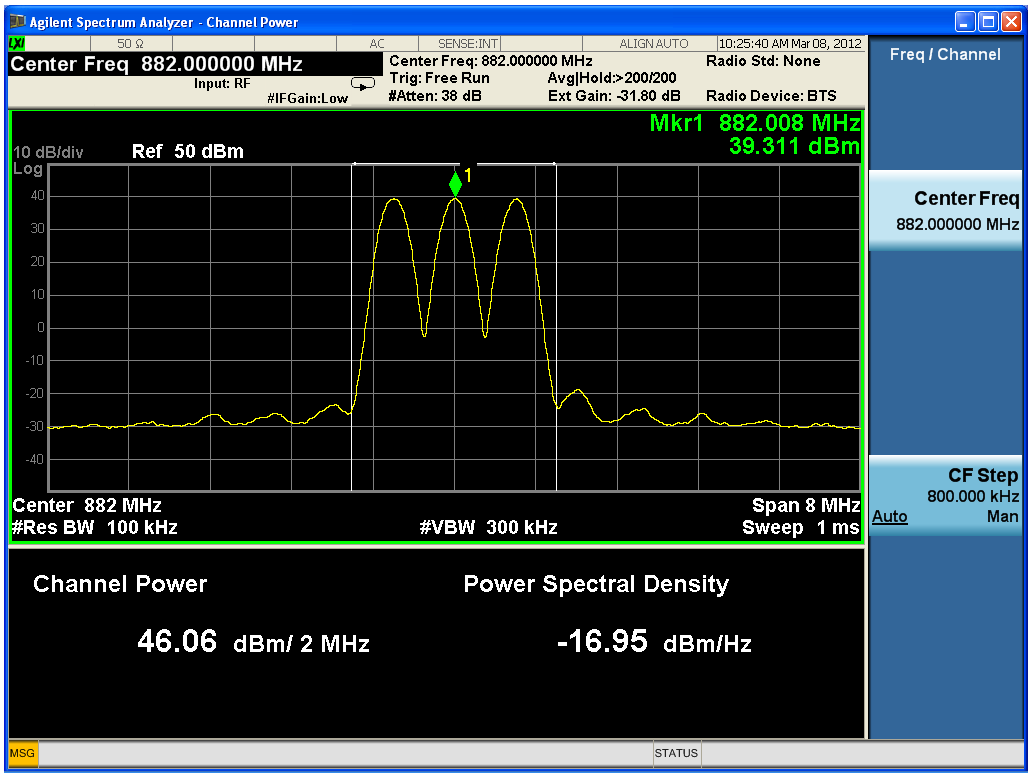

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:35:33 AM Mar 08, 2012
Center Freq 882.300000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.300000 MHz
Trig: Free Run
#Atten: 34 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 882.01 MHz
39.755 dBm
10 dB/div
Log
Ref 50 dBm
Center Freq
882.300000 MHz
Center 882.3 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10 MHz
Sweep 1.267 ms
CF Step
1.000000 MHz
Auto
Man
Channel Power
47.71 dBm/ 2.5 MHz
Power Spectral Density
-16.27 dBm/Hz
MSG
STATUS

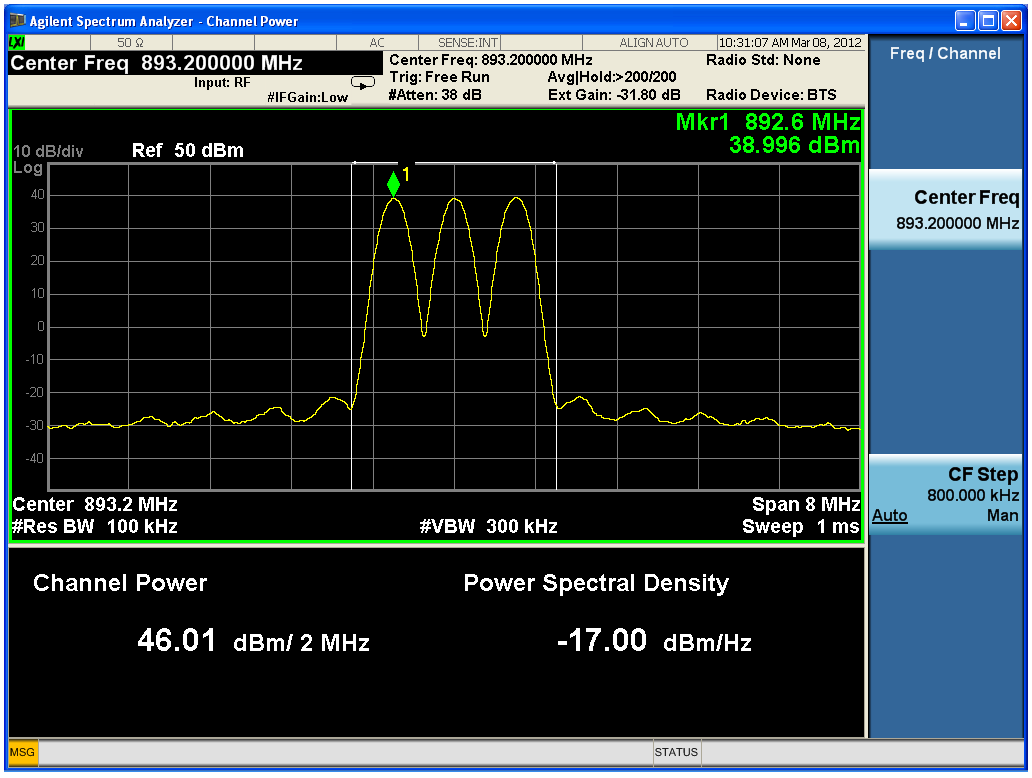

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:26:34 AM Mar 08, 2012
Center Freq 892.900000 MHz
Input: RF
#IFGain:Low
Center Freq: 892.900000 MHz
Trig: Free Run
#Atten: 34 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 892.01 MHz
39.963 dBm
10 dB/div
Log
Ref 50 dBm
Center Freq
892.900000 MHz
Center 892.9 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10 MHz
Sweep 1.267 ms
CF Step
1.000000 MHz
Auto
Man
Channel Power
47.91 dBm/ 2.5 MHz
Power Spectral Density
-16.07 dBm/Hz
MSG
STATUS

Three carriers

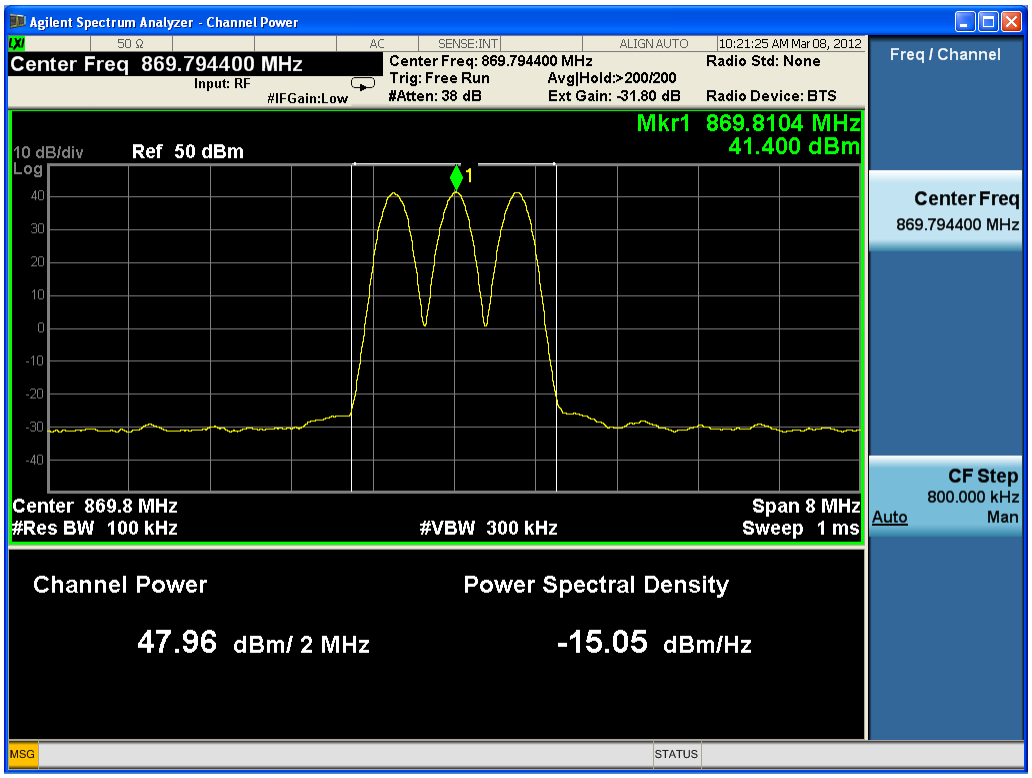
Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	869.8	869.2/869.8/ 870.4	45.66
	882	881.4/882/882.6	46.06
	893.2	892.6/893.2/893.8	46.01

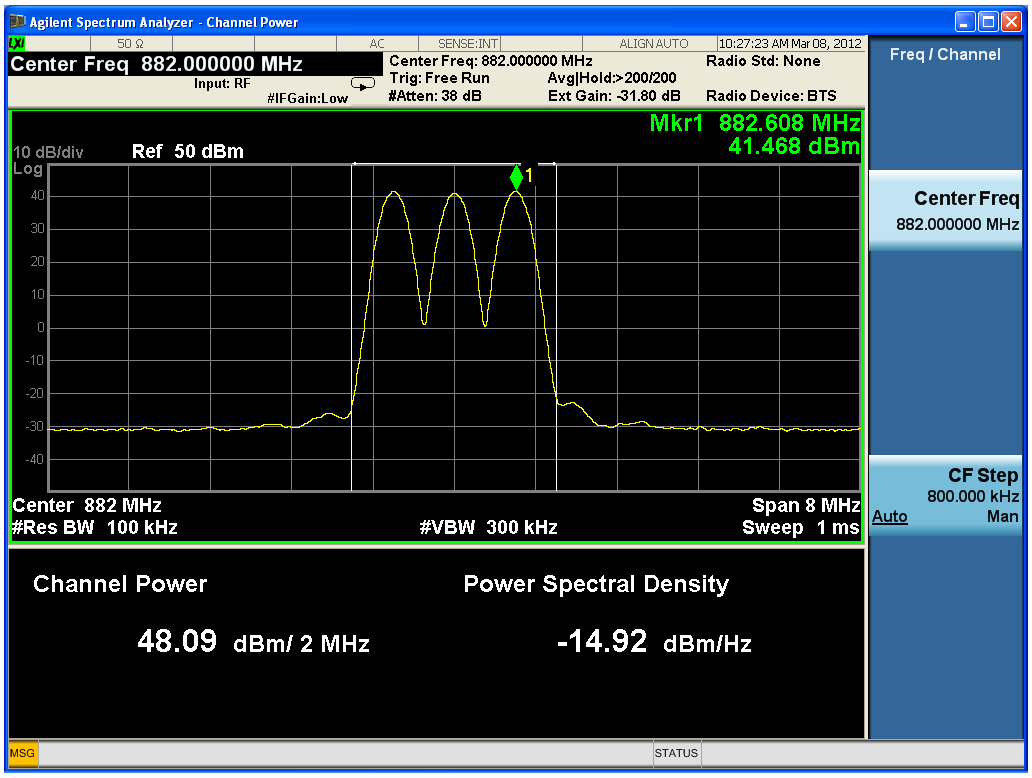


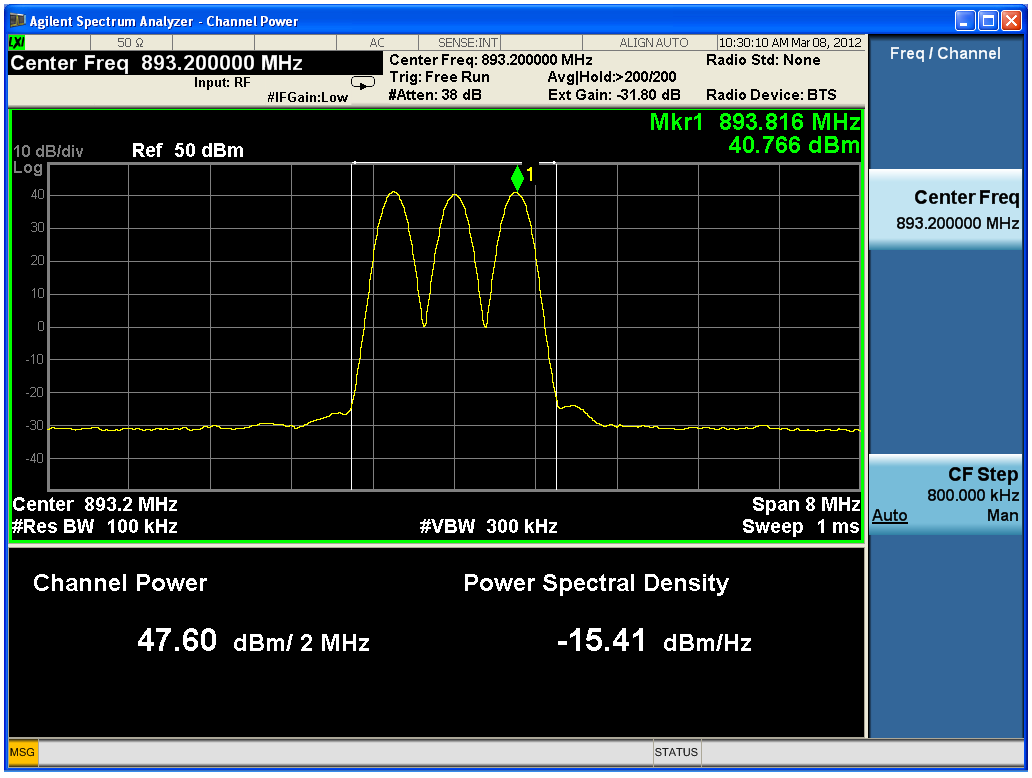

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:25:40 AM Mar 08, 2012
Center Freq 882.000000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.000000 MHz
Trig: Free Run
#Atten: 38 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 882.008 MHz
39.311 dBm
10 dB/div
Log
Ref 50 dBm
Center Freq
882.000000 MHz
Center 882 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
CF Step
800.000 kHz
Auto
Man
Channel Power
46.06 dBm/ 2 MHz
Power Spectral Density
-16.95 dBm/Hz
MSG
STATUS


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:31:07 AM Mar 08, 2012
Center Freq 893.200000 MHz
Input: RF
#IFGain:Low
Center Freq: 893.200000 MHz
Trig: Free Run
#Atten: 38 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 892.6 MHz
38.996 dBm
10 dB/div
Log
Ref 50 dBm
Center Freq
893.200000 MHz
Center 893.2 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
CF Step
800.000 kHz
Auto
Man
Channel Power
46.01 dBm/ 2 MHz
Power Spectral Density
-17.00 dBm/Hz
MSG
STATUS

Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	869.8	869.2/869.8/ 870.4	47.96
	882	881.4/882/882.6	48.09
	893.2	892.6/893.2/893.8	47.60

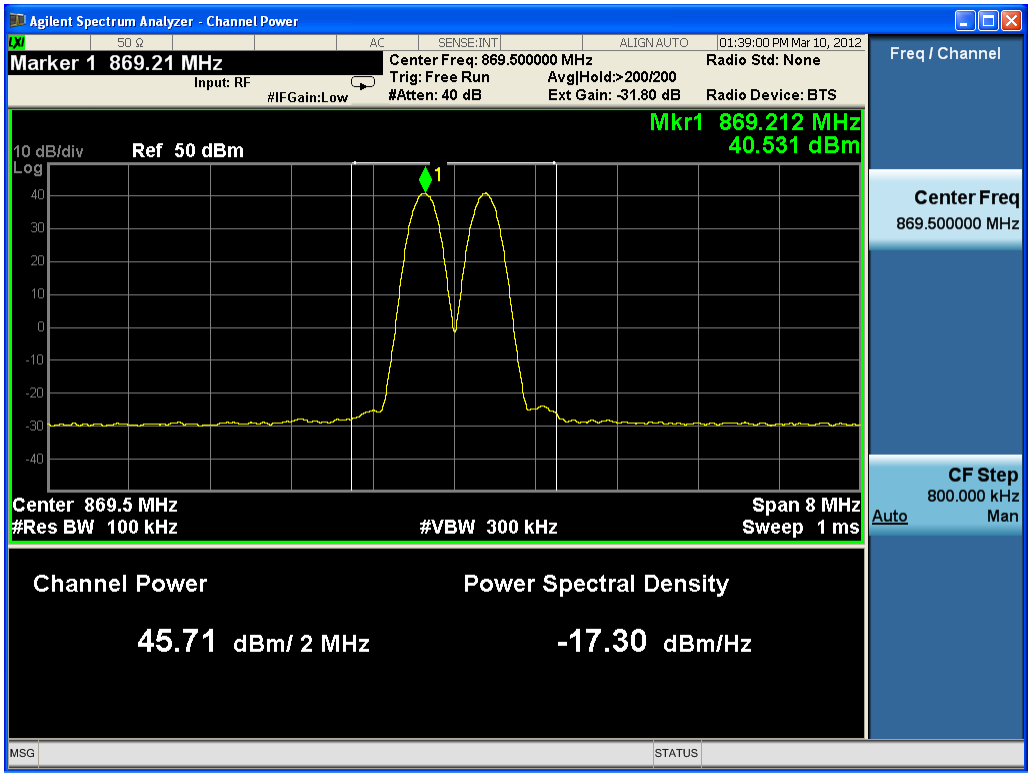


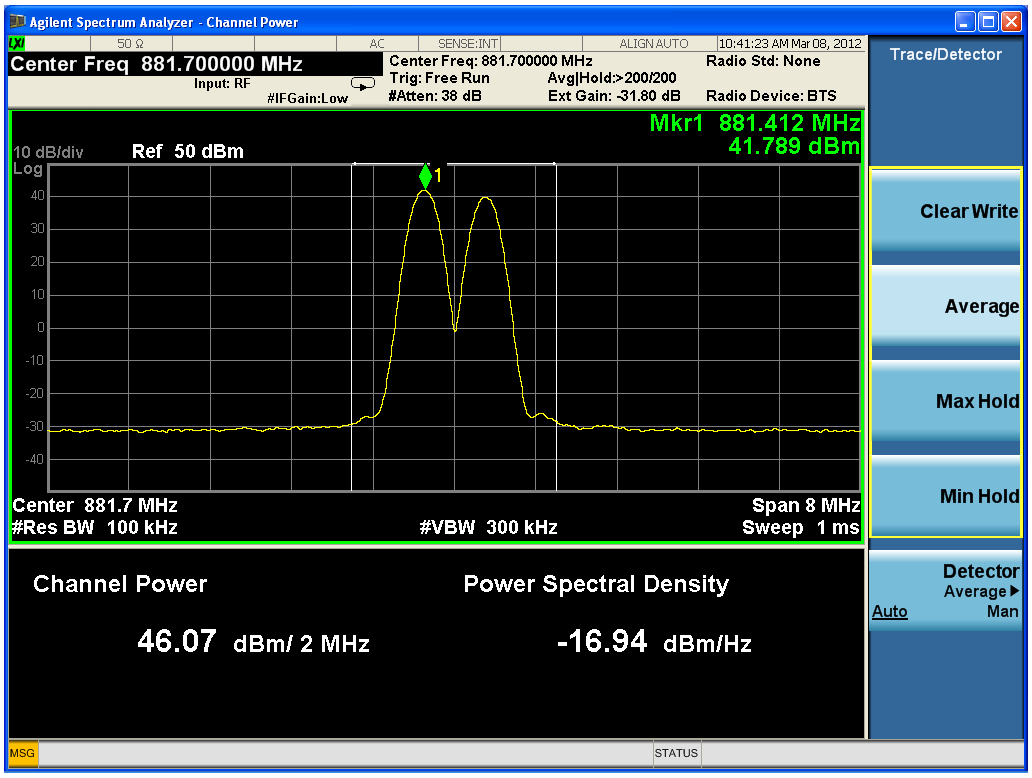

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:27:23 AM Mar 08, 2012
Center Freq 882.000000 MHz
Input: RF
#IFGain:Low
Center Freq: 882.000000 MHz
Trig: Free Run
#Atten: 38 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 882.608 MHz
41.468 dBm
10 dB/div
Log
Ref 50 dBm
Center Freq
882.000000 MHz
Center 882 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
CF Step
800.000 kHz
Auto
Man
Channel Power
48.09 dBm/ 2 MHz
Power Spectral Density
-14.92 dBm/Hz
MSG
STATUS

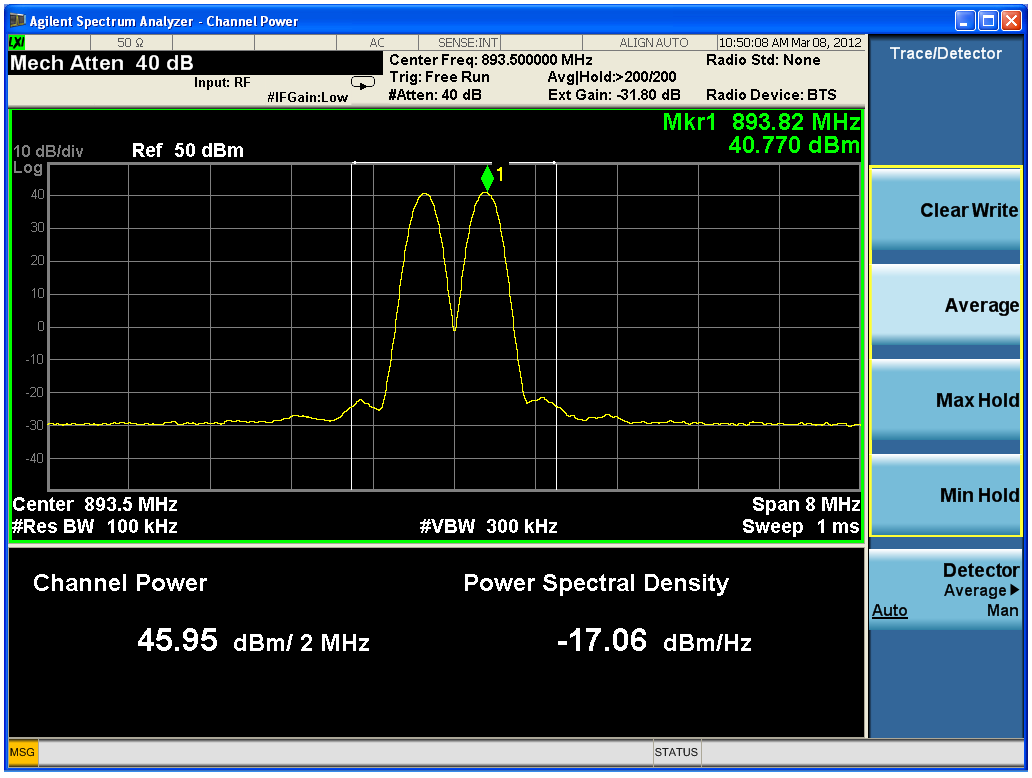

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:30:10 AM Mar 08, 2012
Center Freq 893.200000 MHz
Input: RF
#IFGain:Low
Center Freq: 893.200000 MHz
Trig: Free Run
#Atten: 38 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 893.816 MHz
40.766 dBm
10 dB/div
Log
Ref 50 dBm
Center Freq
893.200000 MHz
Center 893.2 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
CF Step
800.000 kHz
Auto
Man
Channel Power
47.60 dBm/ 2 MHz
Power Spectral Density
-15.41 dBm/Hz
MSG
STATUS

Two carriers

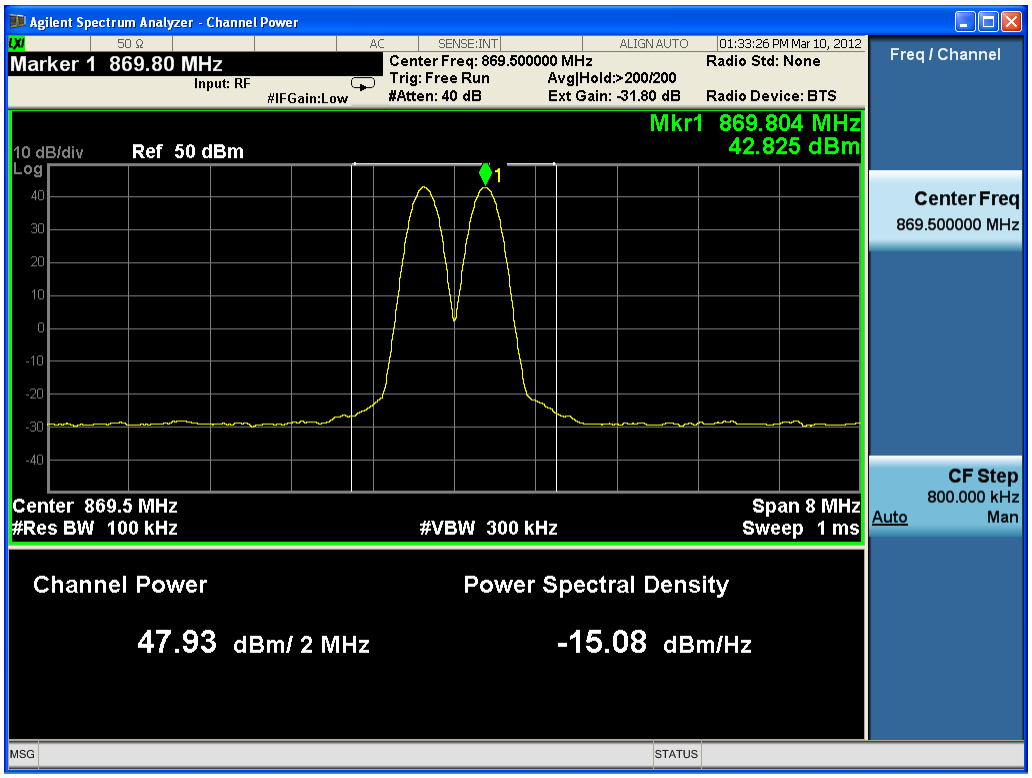
Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	869.5	869.2/869.8	45.71
	881.7	881.4/882	46.07
	893.5	893.2/893.8	45.95

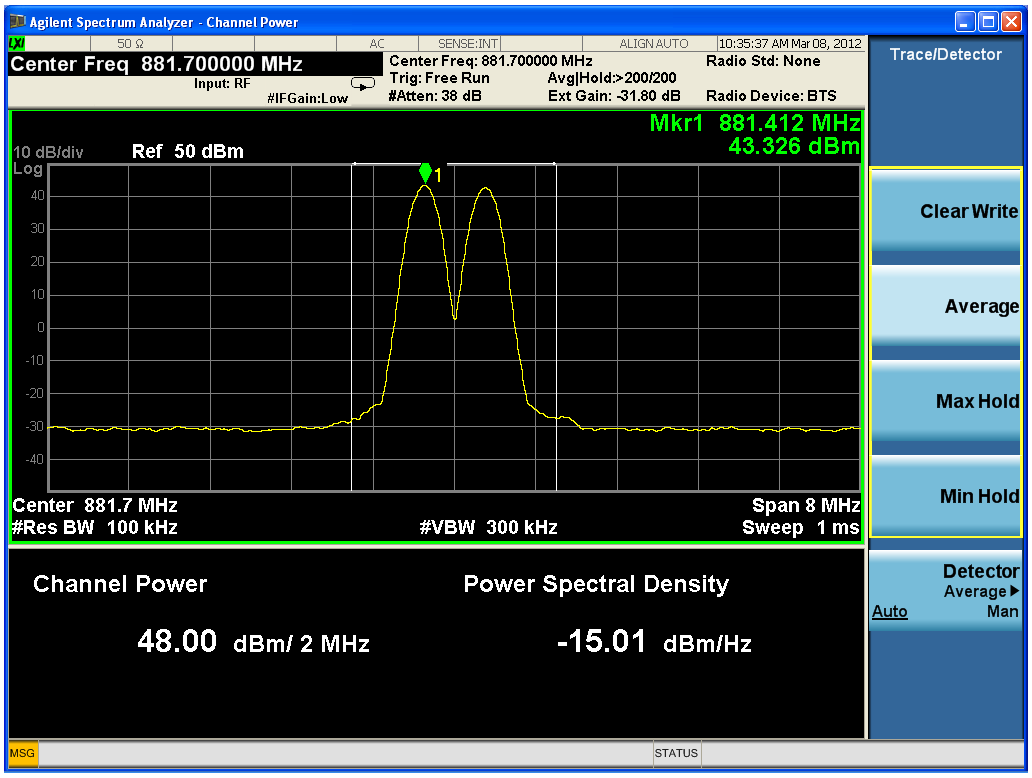


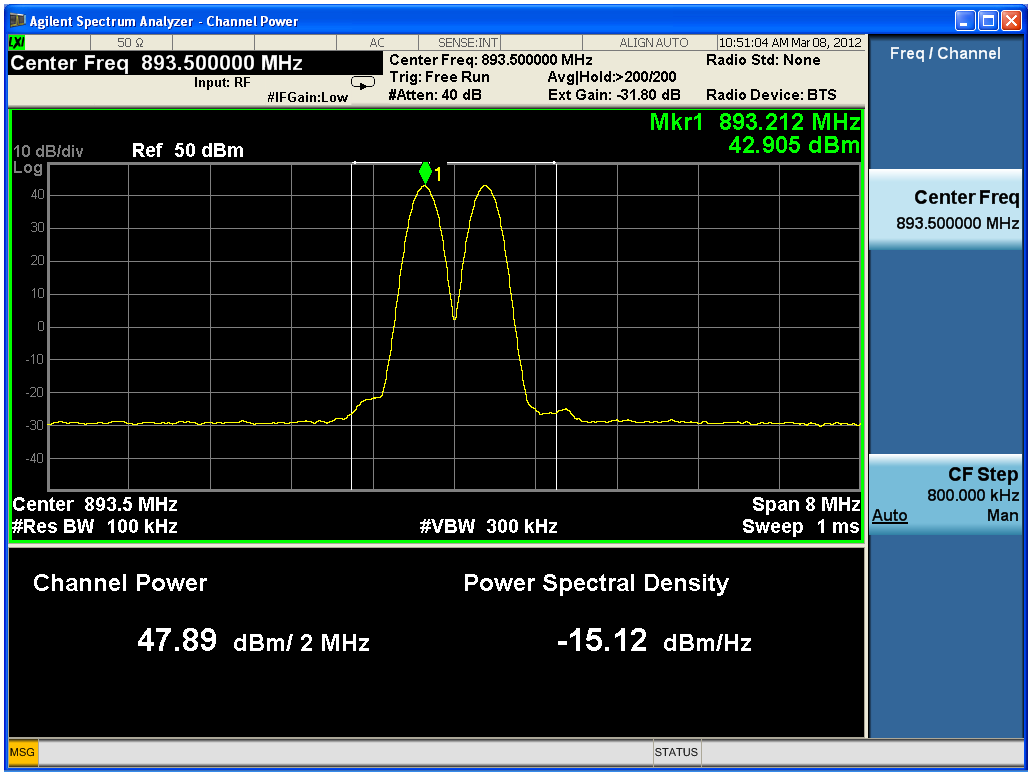

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:41:23 AM Mar 08, 2012
Center Freq 881.700000 MHz
Input: RF
#IFGain:Low
Center Freq: 881.700000 MHz
Trig: Free Run
#Atten: 38 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
Mkr1 881.412 MHz
41.789 dBm
10 dB/div
Log
Ref 50 dBm
Clear Write
Average
Max Hold
Min Hold
Center 881.7 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
Channel Power
46.07 dBm/ 2 MHz
Power Spectral Density
-16.94 dBm/Hz
Detector
Average
Auto
Man
MSG
STATUS


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:50:08 AM Mar 08, 2012
Mech Atten 40 dB
Input: RF
#IFGain:Low
Center Freq: 893.500000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
Mkr1 893.82 MHz
40.770 dBm
10 dB/div
Log
Ref 50 dBm
Clear Write
Average
Max Hold
Min Hold
Center 893.5 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
Channel Power
45.95 dBm/ 2 MHz
Power Spectral Density
-17.06 dBm/Hz
Detector
Average
Auto
Man
MSG
STATUS

Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	869.5	869.2/869.8	47.93
	881.7	881.4/882	48.00
	893.5	893.2/893.8	47.89

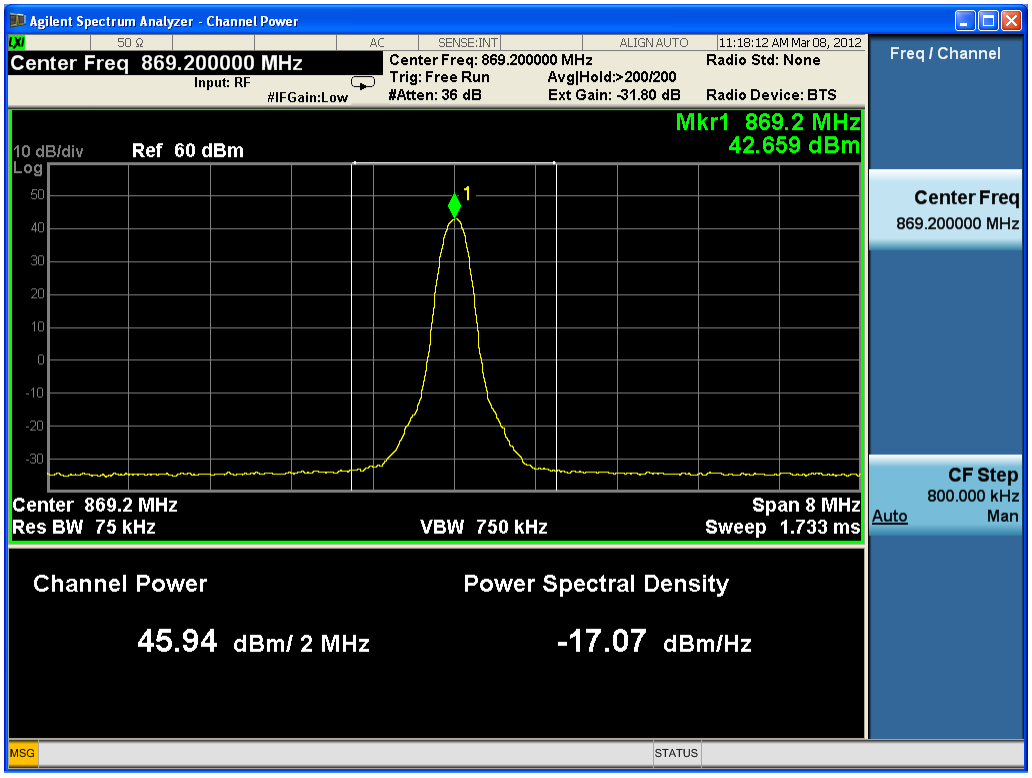


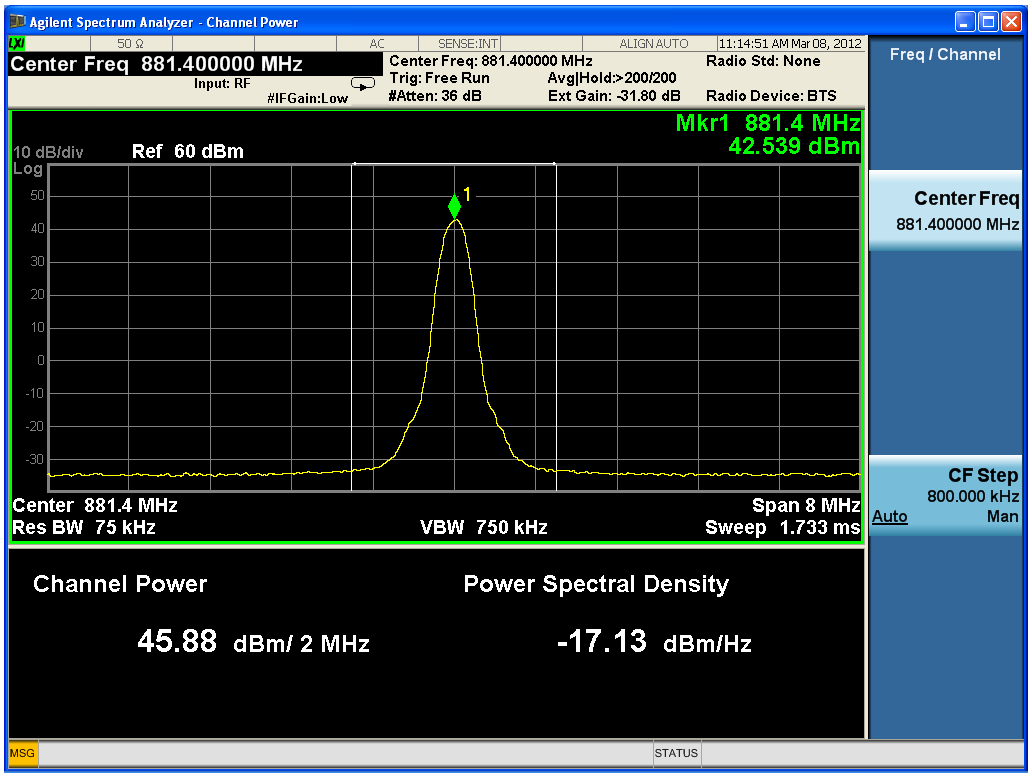

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:35:37 AM Mar 08, 2012
Center Freq 881.700000 MHz
Input: RF
#IFGain:Low
Center Freq: 881.700000 MHz
Trig: Free Run
#Atten: 38 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
Mkr1 881.412 MHz
43.326 dBm
10 dB/div
Log
Ref 50 dBm
40
30
20
10
0
-10
-20
-30
-40
Center 881.7 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Channel Power
48.00 dBm/ 2 MHz
Power Spectral Density
-15.01 dBm/Hz
Detector
Average
Auto
Man
MSG
STATUS

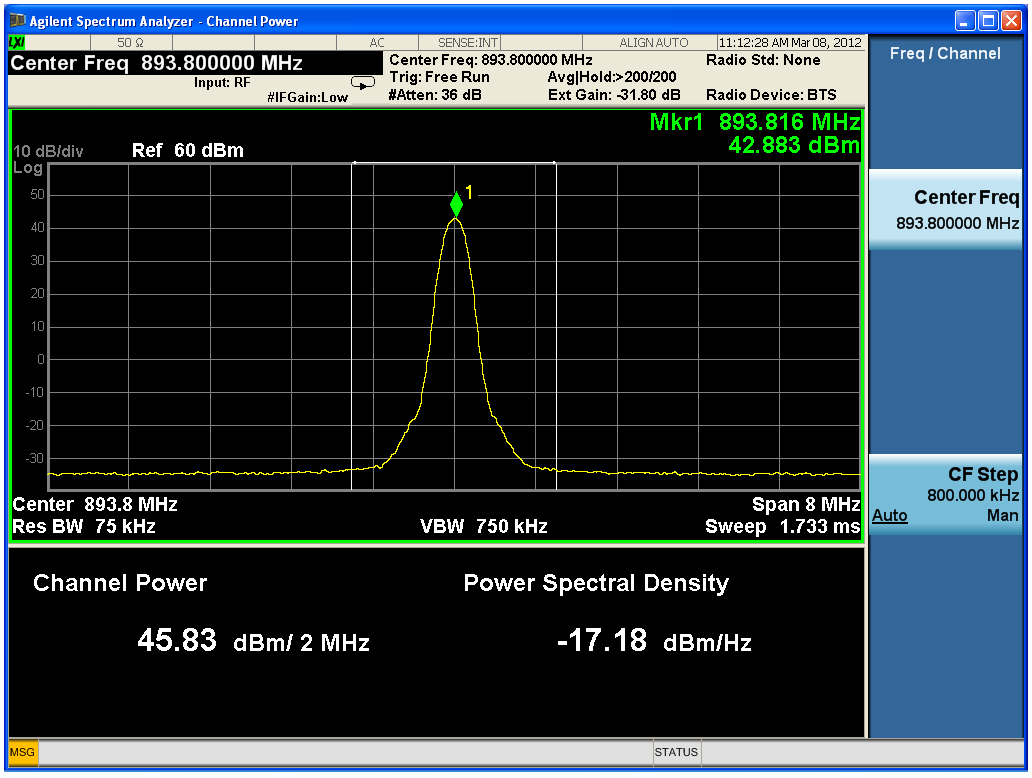

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:51:04 AM Mar 08, 2012
Center Freq 893.500000 MHz
Input: RF
#IFGain:Low
Center Freq: 893.500000 MHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 893.212 MHz
42.905 dBm
10 dB/div
Log
Ref 50 dBm
40
30
20
10
0
-10
-20
-30
-40
Center 893.5 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 8 MHz
Sweep 1 ms
Center Freq
893.500000 MHz
CF Step
800.000 kHz
Auto
Man
Channel Power
47.89 dBm/ 2 MHz
Power Spectral Density
-15.12 dBm/Hz
MSG
STATUS

One carrier

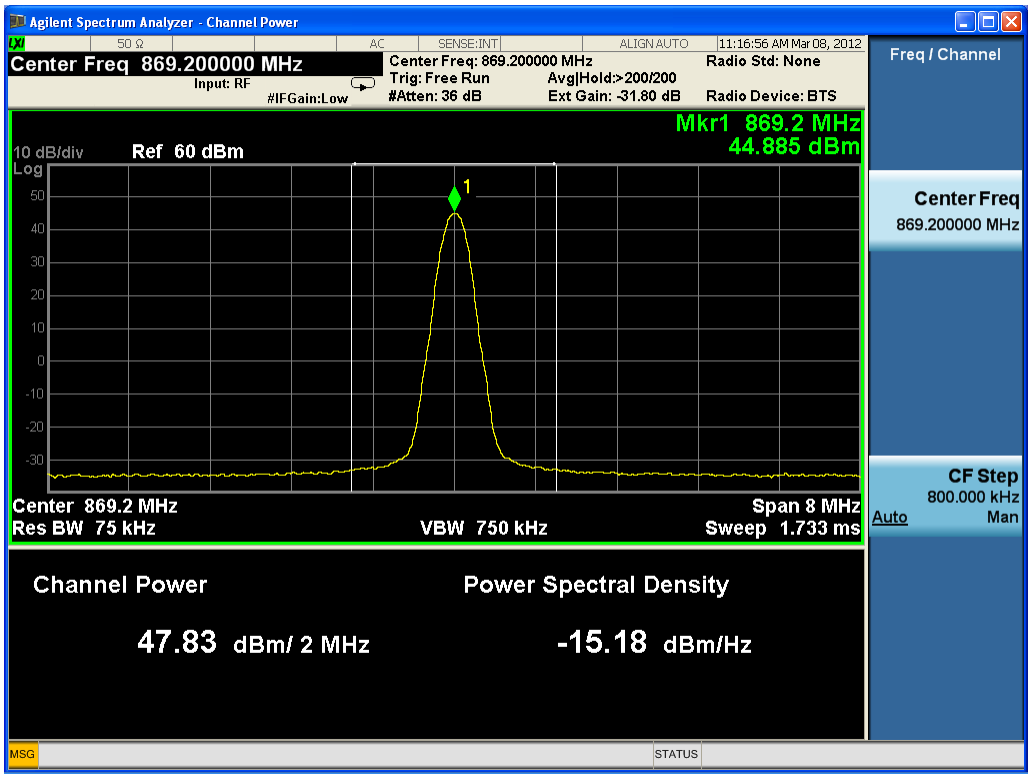
Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	869.2	869.2	45.94
	881.4	881.4	45.88
	893.8	893.8	45.83

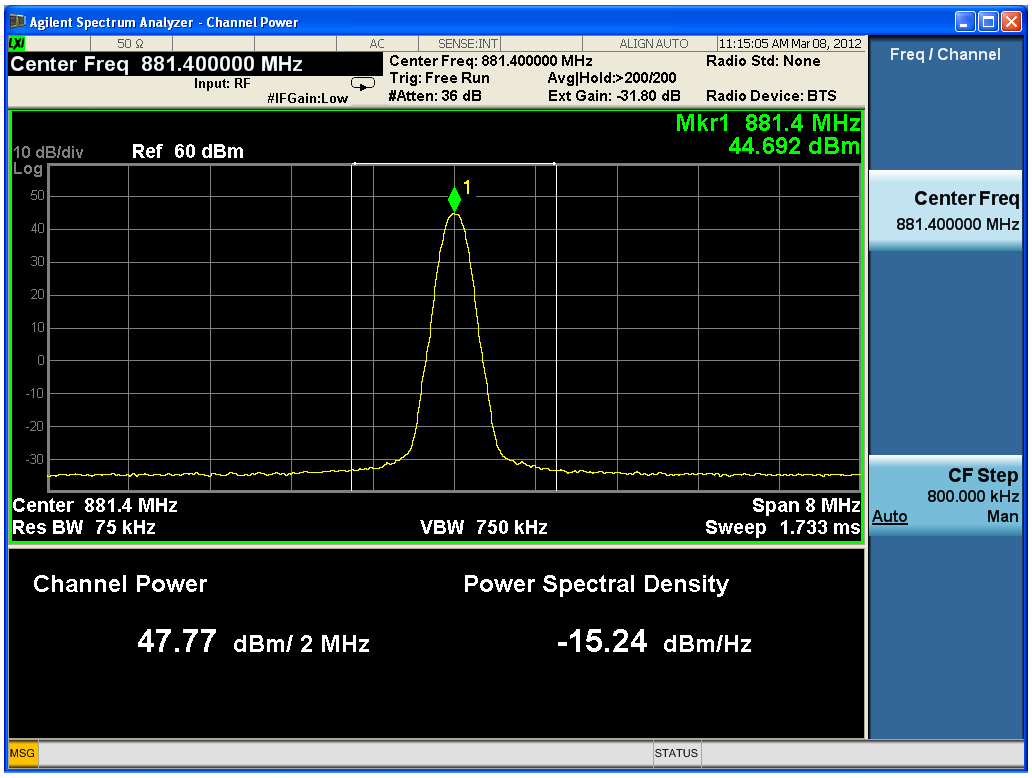


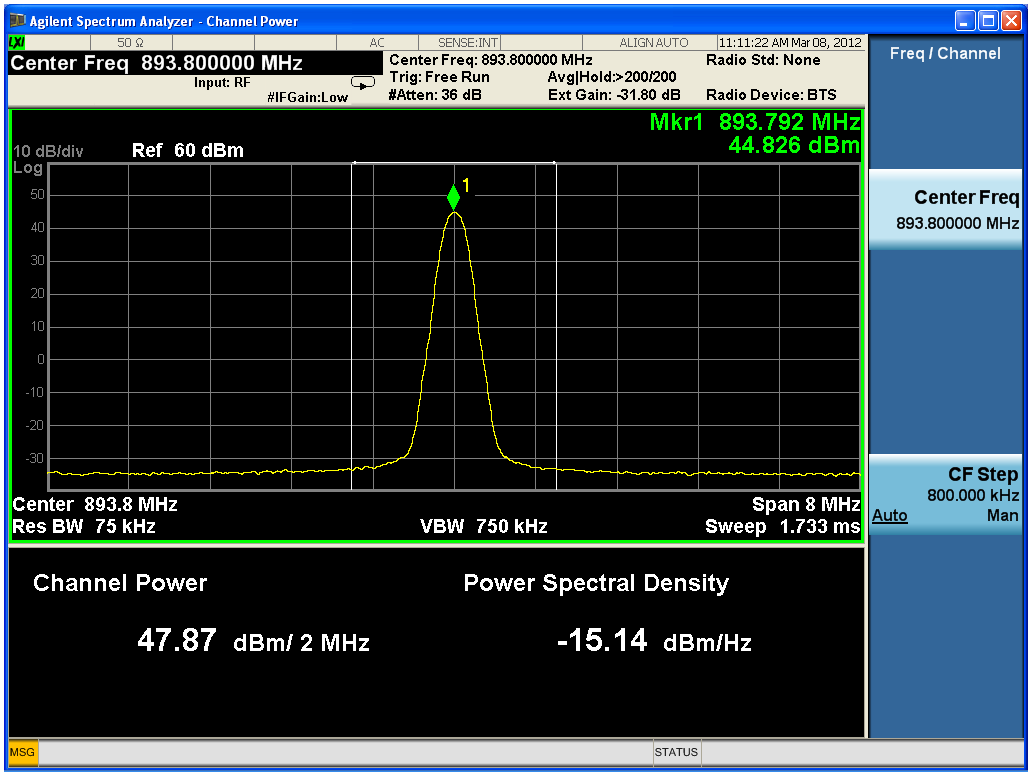

Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:14:51 AM Mar 08, 2012
Center Freq 881.400000 MHz
Input: RF
#IFGain:Low
Center Freq: 881.400000 MHz
Trig: Free Run
#Atten: 36 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 881.4 MHz
42.539 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
881.400000 MHz
CF Step
800.000 kHz
Auto
Man
Center 881.4 MHz
Res BW 75 kHz
VBW 750 kHz
Span 8 MHz
Sweep 1.733 ms
Channel Power
45.88 dBm/ 2 MHz
Power Spectral Density
-17.13 dBm/Hz
MSG
STATUS


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:12:28 AM Mar 08, 2012
Center Freq 893.800000 MHz
Input: RF
#IFGain:Low
Center Freq: 893.800000 MHz
Trig: Free Run
#Atten: 36 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 893.816 MHz
42.883 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
893.800000 MHz
CF Step
800.000 kHz
Auto
Man
Center 893.8 MHz
Res BW 75 kHz
VBW 750 kHz
Span 8 MHz
Sweep 1.733 ms
Channel Power
45.83 dBm/ 2 MHz
Power Spectral Density
-17.18 dBm/Hz
MSG
STATUS

Modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	869.2	869.2	47.83
	881.4	881.4	47.77
	893.8	893.8	47.87




Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:15:05 AM Mar 08, 2012
Center Freq 881.400000 MHz
Input: RF
#IFGain:Low
Center Freq: 881.400000 MHz
Trig: Free Run
#Atten: 36 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 881.4 MHz
44.692 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
881.400000 MHz
CF Step
800.000 kHz
Auto
Man
Center 881.4 MHz
Res BW 75 kHz
VBW 750 kHz
Span 8 MHz
Sweep 1.733 ms
Channel Power
47.77 dBm/ 2 MHz
Power Spectral Density
-15.24 dBm/Hz
MSG
STATUS


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:11:22 AM Mar 08, 2012
Center Freq 893.800000 MHz
Input: RF
#IFGain:Low
Center Freq: 893.800000 MHz
Trig: Free Run
#Atten: 36 dB
Avg|Hold:>200/200
Ext Gain: -31.80 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
Mkr1 893.792 MHz
44.826 dBm
10 dB/div
Log
Ref 60 dBm
50
40
30
20
10
0
-10
-20
-30
1
Center Freq
893.800000 MHz
CF Step
800.000 kHz
Auto
Man
Center 893.8 MHz
Res BW 75 kHz
VBW 750 kHz
Span 8 MHz
Sweep 1.733 ms
Channel Power
47.87 dBm/ 2 MHz
Power Spectral Density
-15.14 dBm/Hz
MSG
STATUS

5.2 RF EXPOSURE

Applicable standard: FCC §2.1091 §1.1037

Limit

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated. Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

Test Data

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01
$S = EIRP/ 4\pi R^2$
Where: S = power density
EIRP= equivalent isotropically radiated power=ERP+2.15dB
R = distance to the center of radiation of the antenna= $[(ERP+2.15dB)/4\pi S]^{1/2}$

Maximum EIRP, In general, the equivalent isotropically radiated power (EIRP) of base transmitters and cellular repeaters must not exceed 500 Watts.

Frequency is between 300MHz and 1500MHz, and the Maximum
$S=894/1500=0.596mW/cm^2$, R=3.31m.
This equipment should be installed and operated with minimum distance 3.31m between the radiator& your body.

Test Result: pass

5.3 MODULATION CHARACTERISTIC

Applicable Standard: FCC §2.1047

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY48011941	2011-4-8	2012-4-7
Atten	30dB Attenuator	ATSI150-4-30	11300110201221	2011-7-11	2012-7-11
Forstar	Forstar RF Cable	002	1034	2011-4-8	2012-4-7

*__statement of traceability:__ ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements , traceable to NIST.

Test Procedure

CDMA digital mode is used by EUT.

Test Data Environmental Conditions

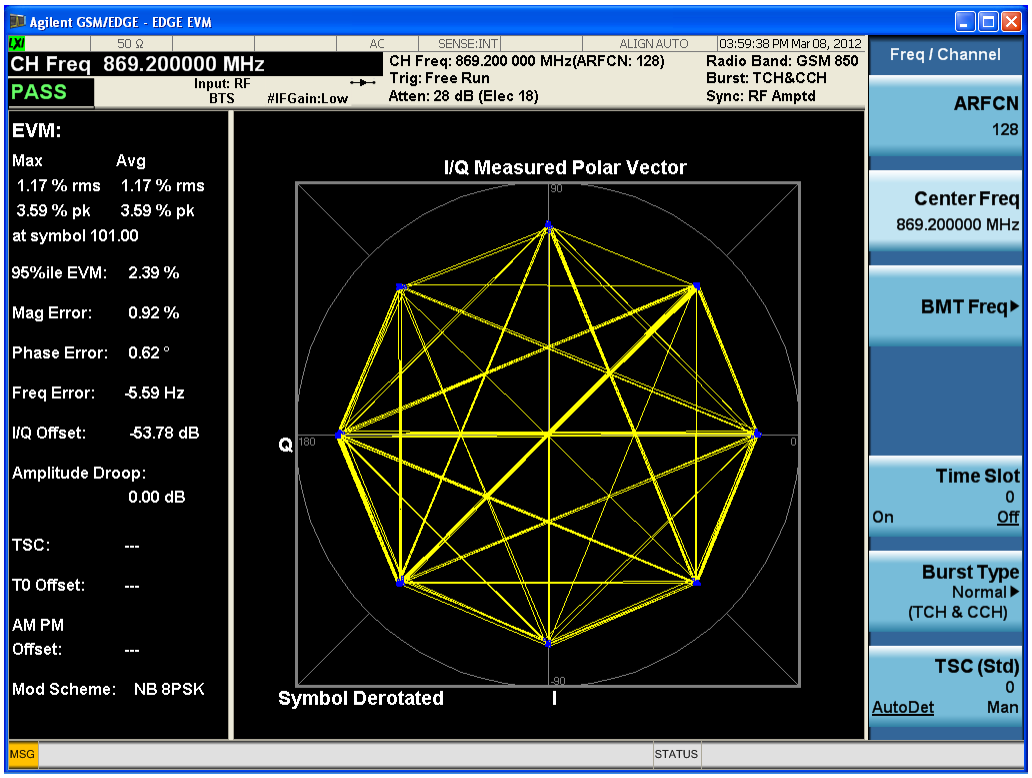
Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

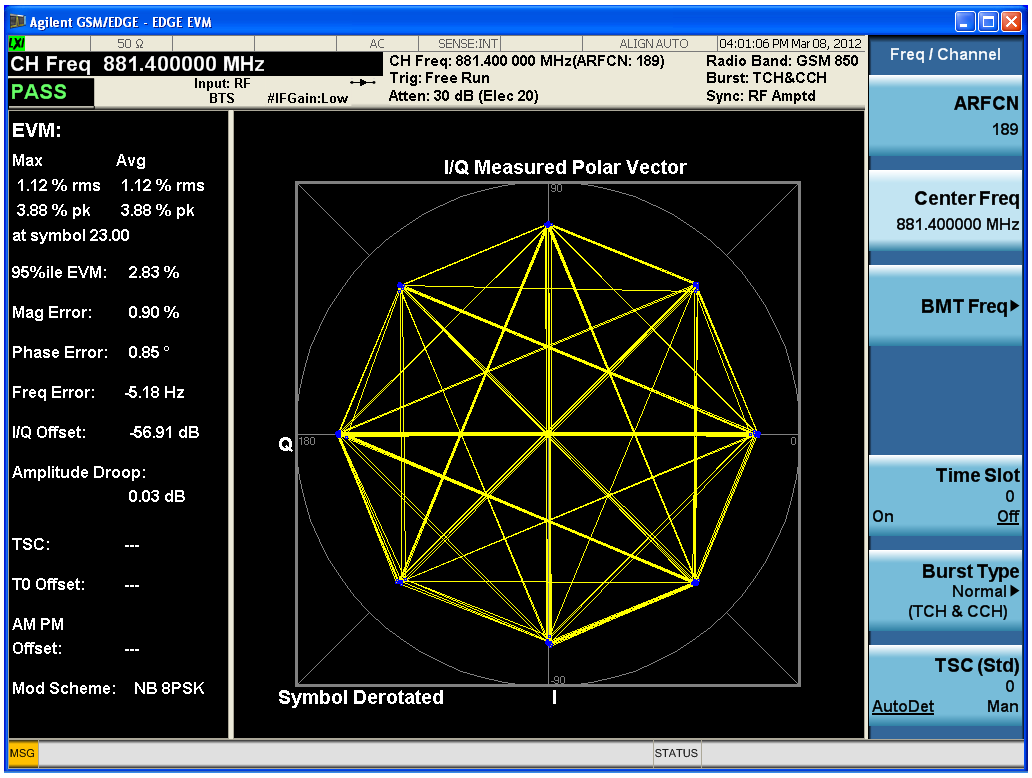
Test Result: Pass

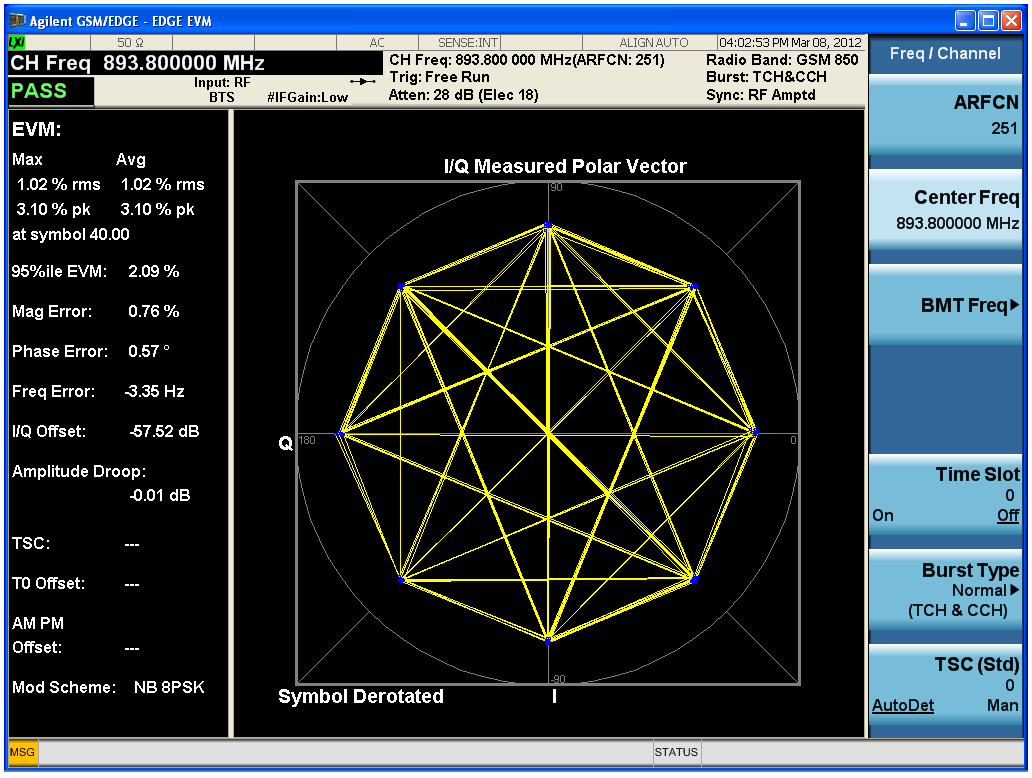
Test Mode: Transmitting GSM

Test Data:

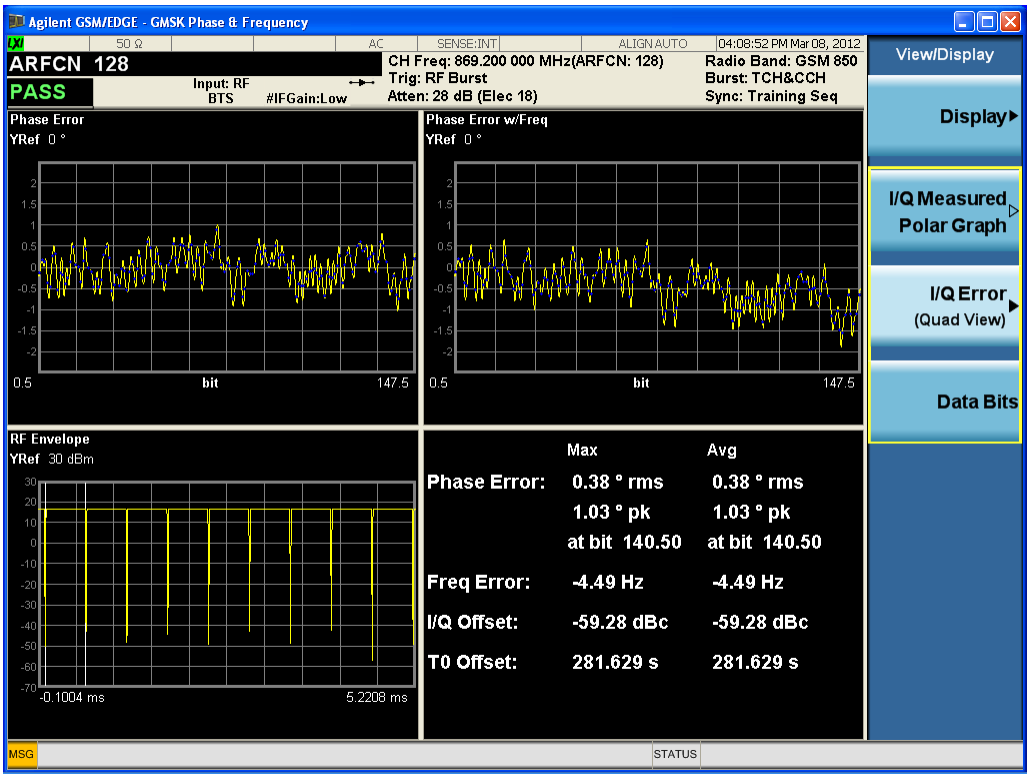
Modulation	Frequency (MHz)	EVM
8PSK	869.2	2.39%
	881.4	2.83%
	893.8	2.09%

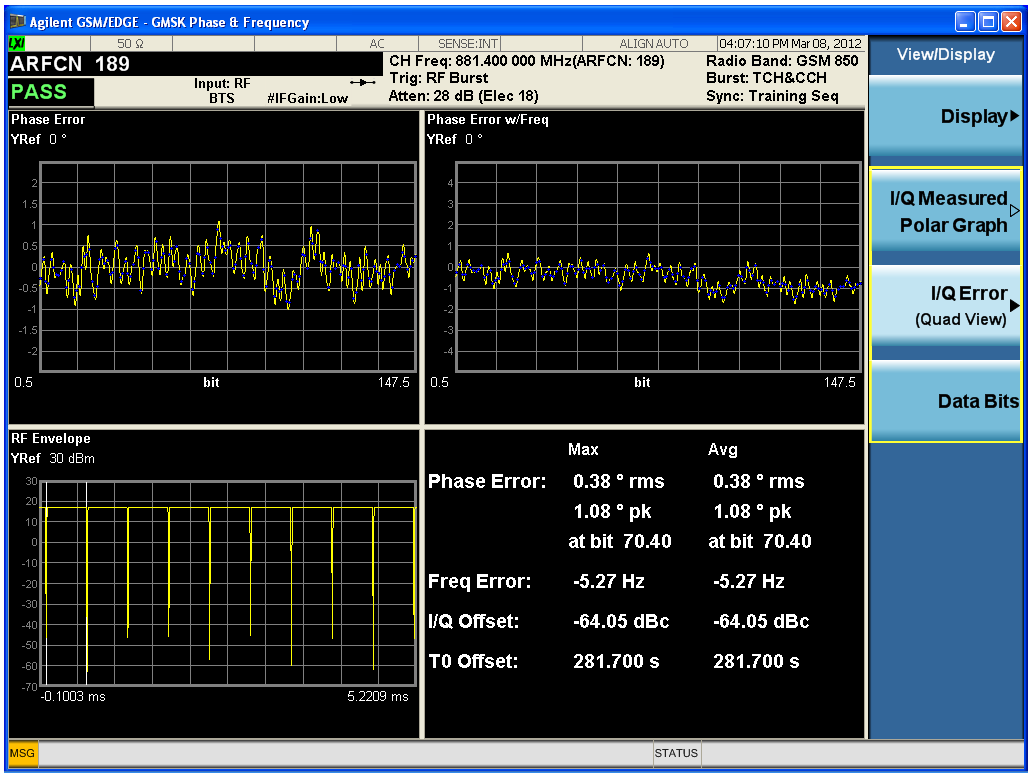


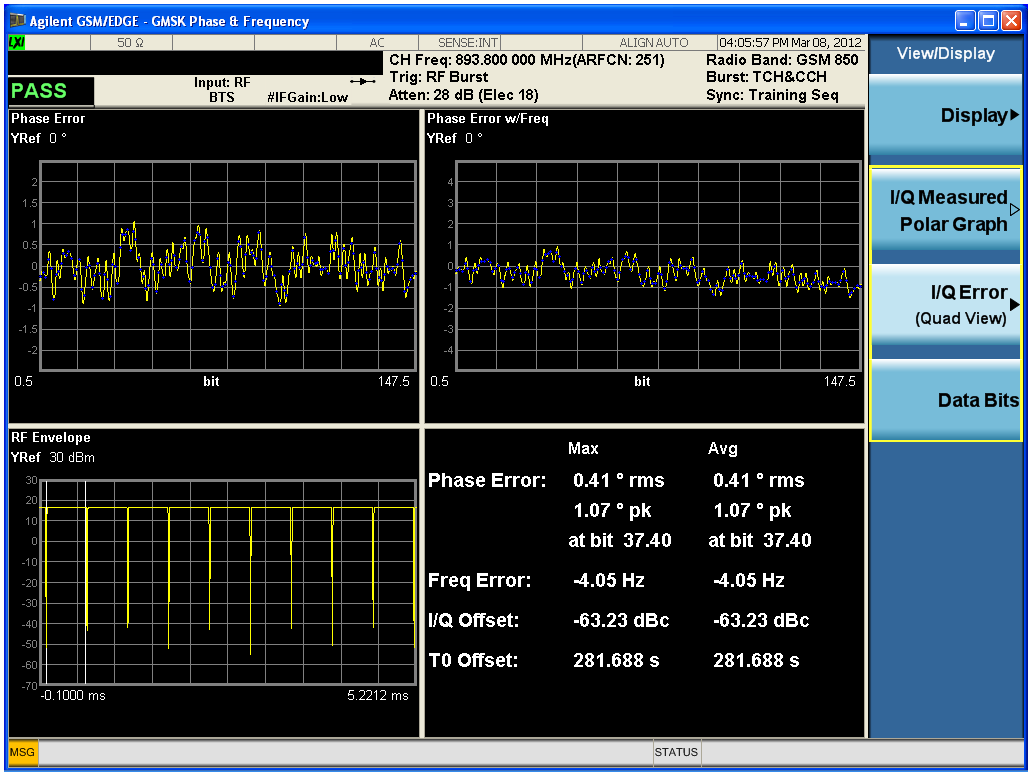

Agilent GSM/EDGE - EDGE EVM
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:01:06 PM Mar 08, 2012
CH Freq 881.400000 MHz
PASS
Input: RF
BTS
#IFGain:Low
CH Freq: 881.400 000 MHz(ARFCN: 189)
Trig: Free Run
Atten: 30 dB (Elec 20)
Radio Band: GSM 850
Burst: TCH&CCH
Sync: RF Amptd
EVM:
Max
Avg
1.12 % rms
1.12 % rms
3.88 % pk
3.88 % pk
at symbol 23.00
95%ile EVM: 2.83 %
Mag Error: 0.90 %
Phase Error: 0.85 °
Freq Error: -5.18 Hz
I/Q Offset: -56.91 dB
Amplitude Droop:
0.03 dB
TSC: ---
T0 Offset: ---
AM PM
Offset: ---
Mod Scheme: NB 8PSK
I/Q Measured Polar Vector
90
180
0
-90
Q
Symbol Derotated
I
Freq / Channel
ARFCN
189
Center Freq
881.400000 MHz
BMT Freq
Time Slot
0
On
Off
Burst Type
Normal
(TCH & CCH)
TSC (Std)
0
AutoDet
Man
MSG
STATUS


Agilent GSM/EDGE - EDGE EVM
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:02:53 PM Mar 08, 2012
CH Freq 893.800000 MHz
PASS
Input: RF
BTS
#IFGain:Low
CH Freq: 893.800 000 MHz(ARFCN: 251)
Trig: Free Run
Atten: 28 dB (Elec 18)
Radio Band: GSM 850
Burst: TCH&CCH
Sync: RF Amptd
EVM:
Max
Avg
1.02 % rms
1.02 % rms
3.10 % pk
3.10 % pk
at symbol 40.00
95%ile EVM: 2.09 %
Mag Error: 0.76 %
Phase Error: 0.57 °
Freq Error: -3.35 Hz
I/Q Offset: -57.52 dB
Amplitude Droop:
-0.01 dB
TSC: ---
T0 Offset: ---
AM PM
Offset: ---
Mod Scheme: NB 8PSK
I/Q Measured Polar Vector
90
180
0
-90
Q
Symbol Derotated
I
Freq / Channel
ARFCN
251
Center Freq
893.800000 MHz
BMT Freq
Time Slot
0
On
Off
Burst Type
Normal
(TCH & CCH)
TSC (Std)
0
AutoDet
Man
MSG
STATUS

Modulation	Frequency (MHz)	Phase Error(°)	Frequency Error(Hz)
GMSK	869.2	0.38	-4.49
	881.4	0.38	-5.27
	893.8	0.41	-4.05




Agilent GSM/EDGE - GMSK Phase & Frequency
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:07:10 PM Mar 08, 2012
ARFCN 189
PASS
Input: RF
BTS
#IFGain:Low
CH Freq: 881.400 000 MHz(ARFCN: 189)
Trig: RF Burst
Atten: 28 dB (Elec 18)
Radio Band: GSM 850
Burst: TCH&CCH
Sync: Training Seq
View/Display
Display
I/Q Measured Polar Graph
I/Q Error (Quad View)
Data Bits
Phase Error
YRef 0 °
Phase Error w/Freq
YRef 0 °
0.5
bit
147.5
RF Envelope
YRef 30 dBm
-0.1003 ms
5.2209 ms
Max
Avg
Phase Error:
0.38 ° rms
0.38 ° rms
1.08 ° pk
1.08 ° pk
at bit 70.40
at bit 70.40
Freq Error:
-5.27 Hz
-5.27 Hz
I/Q Offset:
-64.05 dBc
-64.05 dBc
T0 Offset:
281.700 s
281.700 s
MSG
STATUS


Agilent GSM/EDGE - GMSK Phase & Frequency
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:05:57 PM Mar 08, 2012
PASS
Input: RF
BTS
#IFGain:Low
CH Freq: 893.800 000 MHz(ARFCN: 251)
Trig: RF Burst
Atten: 28 dB (Elec 18)
Radio Band: GSM 850
Burst: TCH&CCH
Sync: Training Seq
View/Display
Display
I/Q Measured Polar Graph
I/Q Error (Quad View)
Data Bits
Phase Error
YRef 0 °
Phase Error w/Freq
YRef 0 °
0.5
bit
147.5
RF Envelope
YRef 30 dBm
-0.1000 ms
5.2212 ms
Max
Avg
Phase Error:
0.41 ° rms
0.41 ° rms
1.07 ° pk
1.07 ° pk
at bit 37.40
at bit 37.40
Freq Error:
-4.05 Hz
-4.05 Hz
I/Q Offset:
-63.23 dBc
-63.23 dBc
T0 Offset:
281.688 s
281.688 s
MSG
STATUS

5.4 SPURIOUS RADIATED EMISSIONS

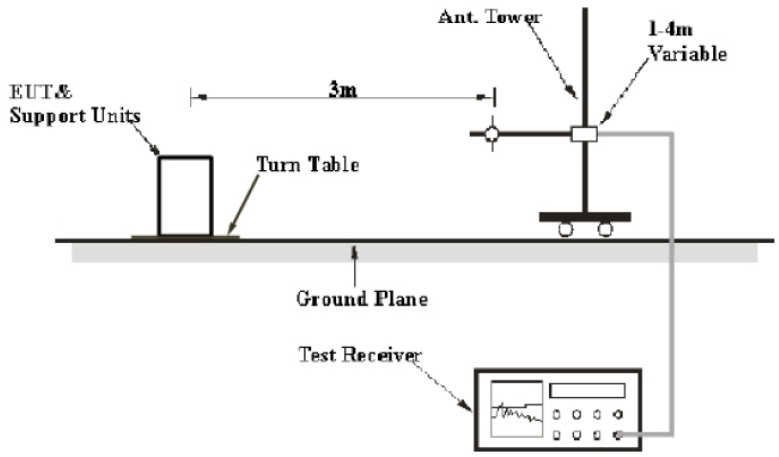
Applicable Standard: FCC CFR 47, §2.1053

Test Equipment List and Details

Manufacturer	Equipment	Model	Serial Number	Last Cal.	Cal. Interval
R&S	SIGNAL GENERATOR	SMR20	A00017351	2011-9-26	1 year
Albatross	Anechoic Chamber	3m Site	A00017354	2011-11-2	1 year
R&S	EMI Test Receiver	ESIB26	100058	2011-10-29	1 year
R&S	Ultra Breitband Antennas	HL562	100022	2011-7-29	1 year
R&S	Double-Ridged Waveguide Horn Antenna	HF906	100032	2011-7-29	1 year
R&S	Double-Ridged Waveguide Horn Antenna	HF906	100446	2011-7-29	1 year
SCHWARZ-BECK	Biconical Antenna	VUBA9117	9117-122	2011-7-29	1 year

Measurement Uncertainty
All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.
Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiated emissions measurement at the EMC lab. is 3.6dB.

EUT Setup



The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with the FCC part 2.1053.The specification used was the FCC 2.1053 limits.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.
The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
The frequency range up to teeth harmonic of the fundamental frequency was investigated.
Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.
Spurious emissions in dB =10 1g (TX pwr in Watts/0.001)-the absolute level
Spurious attenuation limit in dB =43+10 Lg P (power out in Watts)
The resolution bandwidth of the spectrum analyzer was set at 1 percent as specified for 30MHz to 1GHz scaning, set at 1MHz for 1GHz to 20GHz scaning.

Test Results Summary: PASS

Environmental Conditions

Temperature:	26°C
Relative Humidity:	60 %
ATM Pressure:	1009 mbar

Test data

Indicated		Test Antenna	Substituted		Cable Loss(dB)	Effective radiated power（dBm）	Dipole Antenna	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (GHz)	Amp. (dB μ V)	Polar H/V	Level (dBm)	Antenna Gain Correction						
33.887776	23.08	V	-36	-42.03	0.3	-78.33	2.15	-80.48	-13	67.48
125.250501	22.74	V	-64.26	-10.46	0.8	-75.52	2.15	-77.67	-13	64.67
148.577154	23.36	V	-62.59	-6.46	1	-70.05	2.15	-72.2	-13	59.2
593.727455	27.02	V	-68.97	-1.21	2	-72.18	2.15	-74.33	-13	61.33
895.03006	78.46	V	-18.73	-1.54	2.5	-22.77	2.15	-24.92	-13	11.92
2755.51102	53.66	V	-48.59	7.95	4.4	-45.04	2.15	-47.19	-13	34.19
30	22.38	H	-30.36	-43.49	0.3	-74.15	2.15	-76.3	-13	63.3
138.857715	22.27	H	-69.77	-8.42	1	-79.19	2.15	-81.34	-13	68.34
150.521042	23.61	H	-68.43	-5.7	1	-75.13	2.15	-77.28	-13	64.28
644.268537	26.85	H	-74.04	-1.09	2.1	-77.23	2.15	-79.38	-13	66.38
893.086172	78.5	H	-18.59	-1.54	2.5	-22.63	2.15	-24.78	-13	11.78
2791.58317	53.68	H	-54.72	7.95	4.5	-51.27	2.15	-53.42	-13	40.42

Radiation emission spurious below 3GHz

Indicated		Test Antenna	Substituted		Cable Loss(dB)	Effective radiated power（dBm）	Dipole Antenna	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (GHz)	Amp. (dB μ V)	Polar H/V	Level (dBm)	Antenna Gain Correction						
4811.62325	41.88	V	-65.72	9.15	5.9	-62.47	2.15	-64.62	-13	51.62
6142.28457	47.82	V	-59.65	9.05	6.8	-57.4	2.15	-59.55	-13	46.55
6991.98397	48.96	V	-59.21	9.25	7.3	-57.26	2.15	-59.41	-13	46.41
7541.58317	50.02	V	-62.33	9.25	7.7	-60.78	2.15	-62.93	-13	49.93
9846.19239	55.41	V	-53.41	9.95	8.9	-52.36	2.15	-54.51	-13	41.51
12646.2926	56.48	V	-53.22	12.15	9.9	-50.97	2.15	-53.12	-13	40.12
3801.60321	40.63	H	-63.06	7.75	5.2	-60.51	2.15	-62.66	-13	49.66
4731.46293	42.01	H	-61.42	9.15	5.8	-58.07	2.15	-60.22	-13	47.22
6182.36473	47.9	H	-55.49	9.05	6.9	-53.34	2.15	-55.49	-13	42.49
7622.24449	49.3	H	-59.33	9.25	7.8	-57.88	2.15	-60.03	-13	47.03
9869.23848	55.92	H	-53.02	9.95	8.8	-51.87	2.15	-54.02	-13	41.02
12404.3086	56.89	H	-55.26	12.05	9.9	-53.11	2.15	-55.26	-13	42.26

Radiation emission spurious above 3GHz

5.5 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard: FCC§2.1051, §22.917

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified.

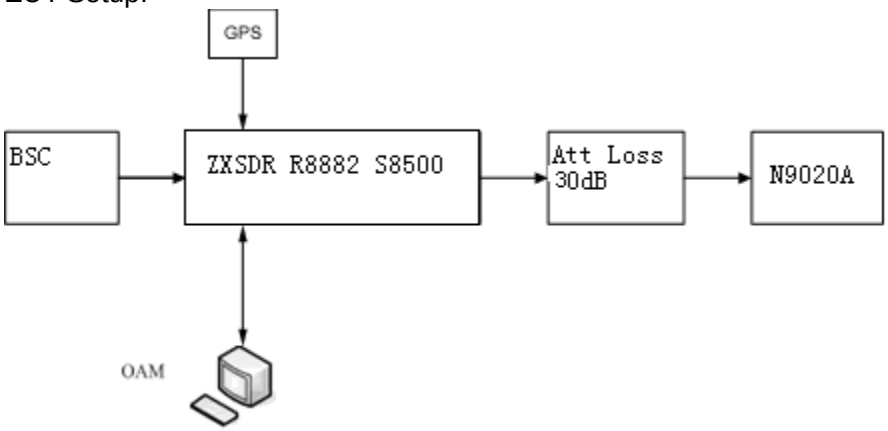
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY48011941	2011-4-8	2012-4-7
Atten	30dB Attenuator	ATSI150-4-30	11300110201221	2011-7-11	2012-7-11
Forstar	Forstar RF Cable	002	1034	2011-4-8	2012-4-7

*__statement of traceability:__ ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

EUT Setup:



REMARKS: Attenuator loss (dB)=30dB, Cable Loss (dB)=2dB.

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100KHz for 30MHz to 1GHz band, set at 1MHz for 1GHz to 10GHz band. Sufficient scans were taken to

show any out of band emissions up to 10th harmonic.

Test Data Environmental Conditions

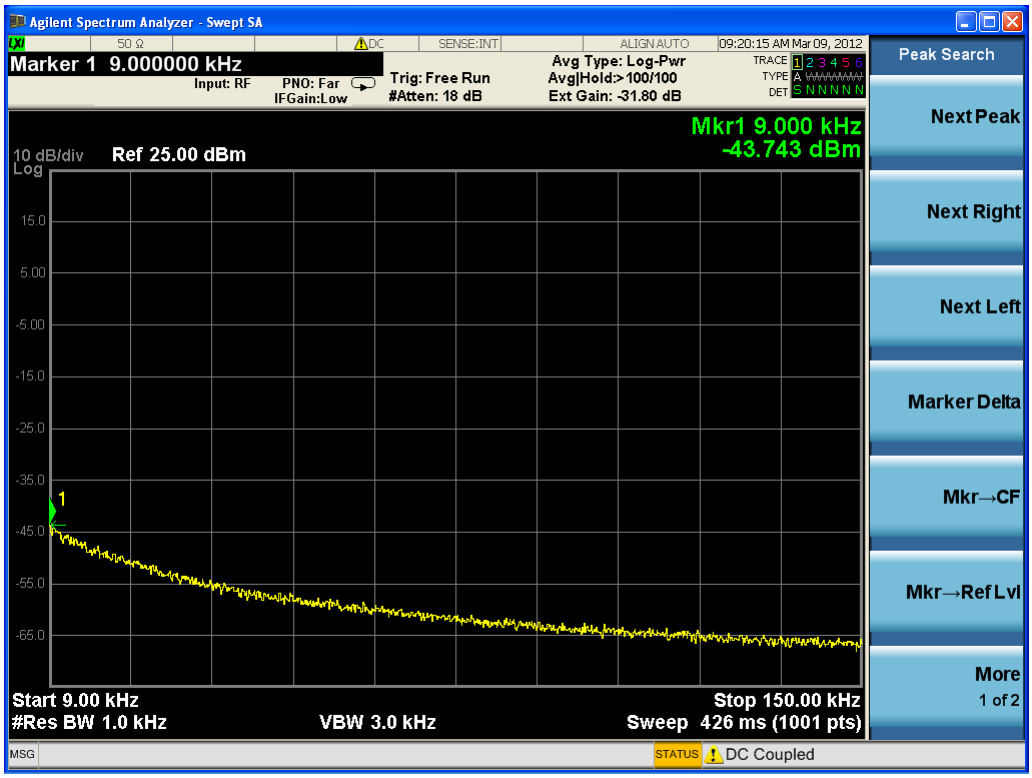
Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

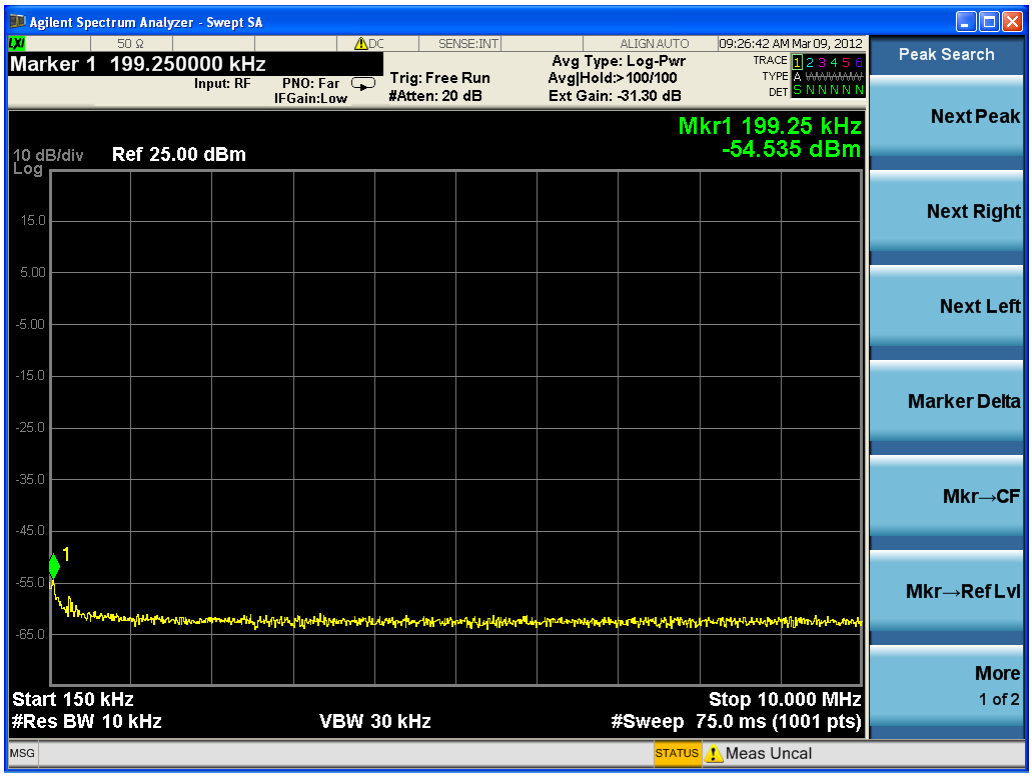
Test Result: Pass

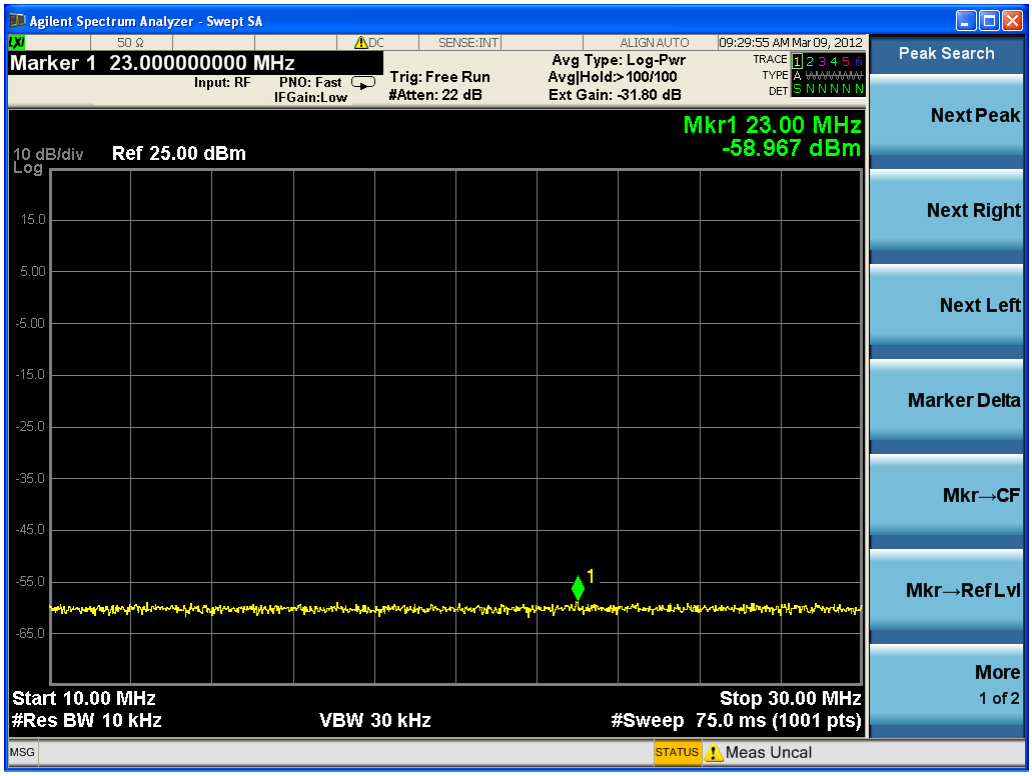
Test Mode: Transmitting GSM

Test Data:

Six carriers




Agilent Spectrum Analyzer - Swept SA
Marker 1 199.250000 kHz
Input: RF PNO: Far IFGain:Low
Trig: Free Run #Atten: 20 dB
Avg Type: Log-Pwr Avg|Hold:>100/100 Ext Gain: -31.30 dB
09:26:42 AM Mar 09, 2012
Mkr1 199.25 kHz -54.535 dBm
10 dB/div Log
Ref 25.00 dBm
Start 150 kHz
#Res BW 10 kHz
VBW 30 kHz
Stop 10.000 MHz
#Sweep 75.0 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2
Meas Uncal


Agilent Spectrum Analyzer - Swept SA
Marker 1 23.000000000 MHz
Input: RF PNO: Fast IFGain:Low
Trig: Free Run #Atten: 22 dB
Avg Type: Log-Pwr Avg|Hold:>100/100 Ext Gain: -31.80 dB
09:29:55 AM Mar 09, 2012
Mkr1 23.00 MHz -58.967 dBm
10 dB/div Log
Ref 25.00 dBm
Start 10.00 MHz
#Res BW 10 kHz
VBW 30 kHz
Stop 30.00 MHz
#Sweep 75.0 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2
Meas Uncal