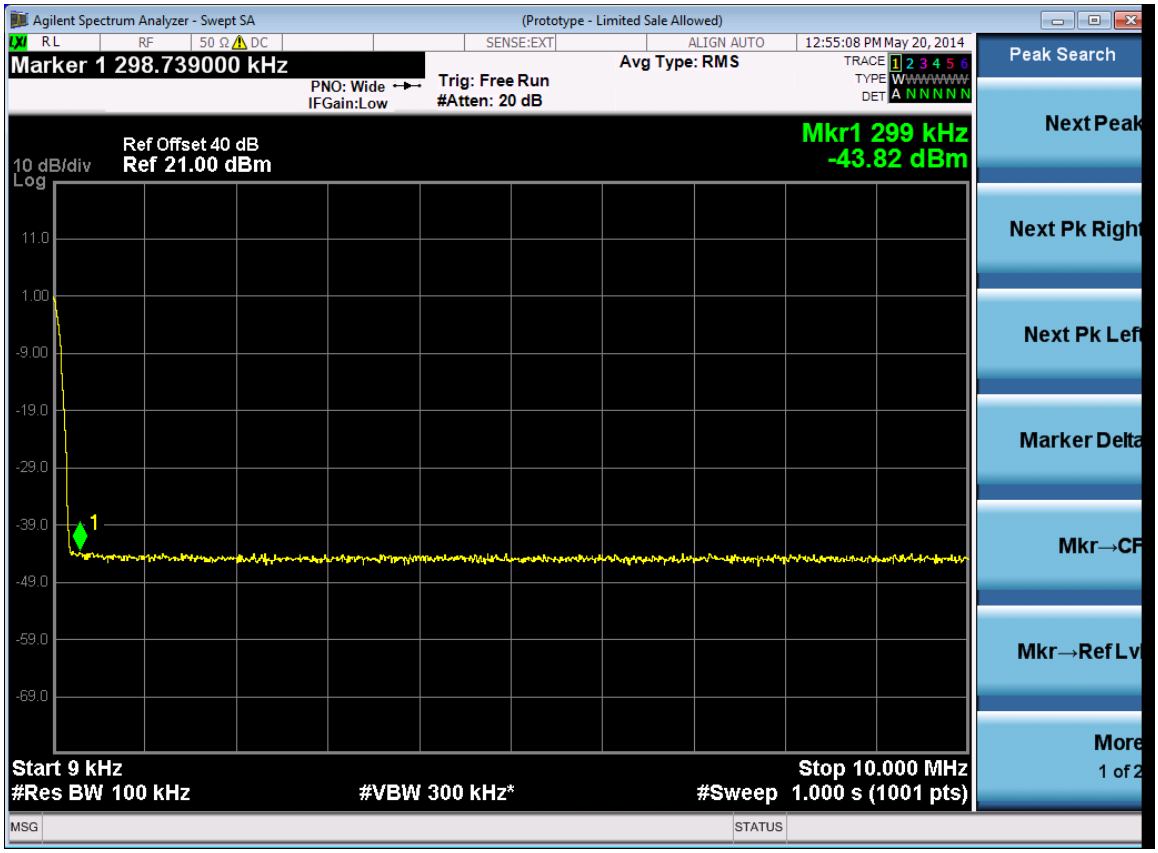
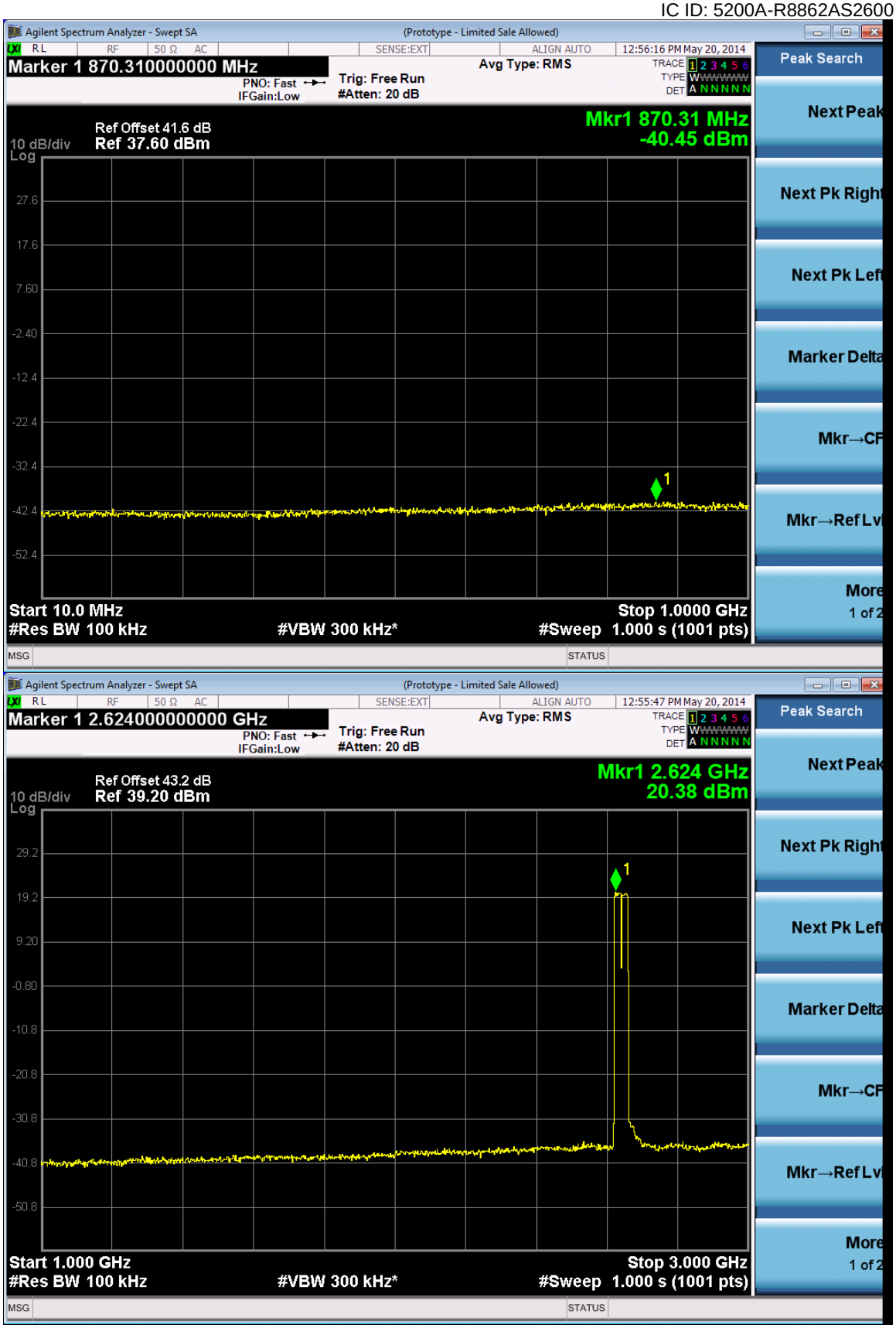
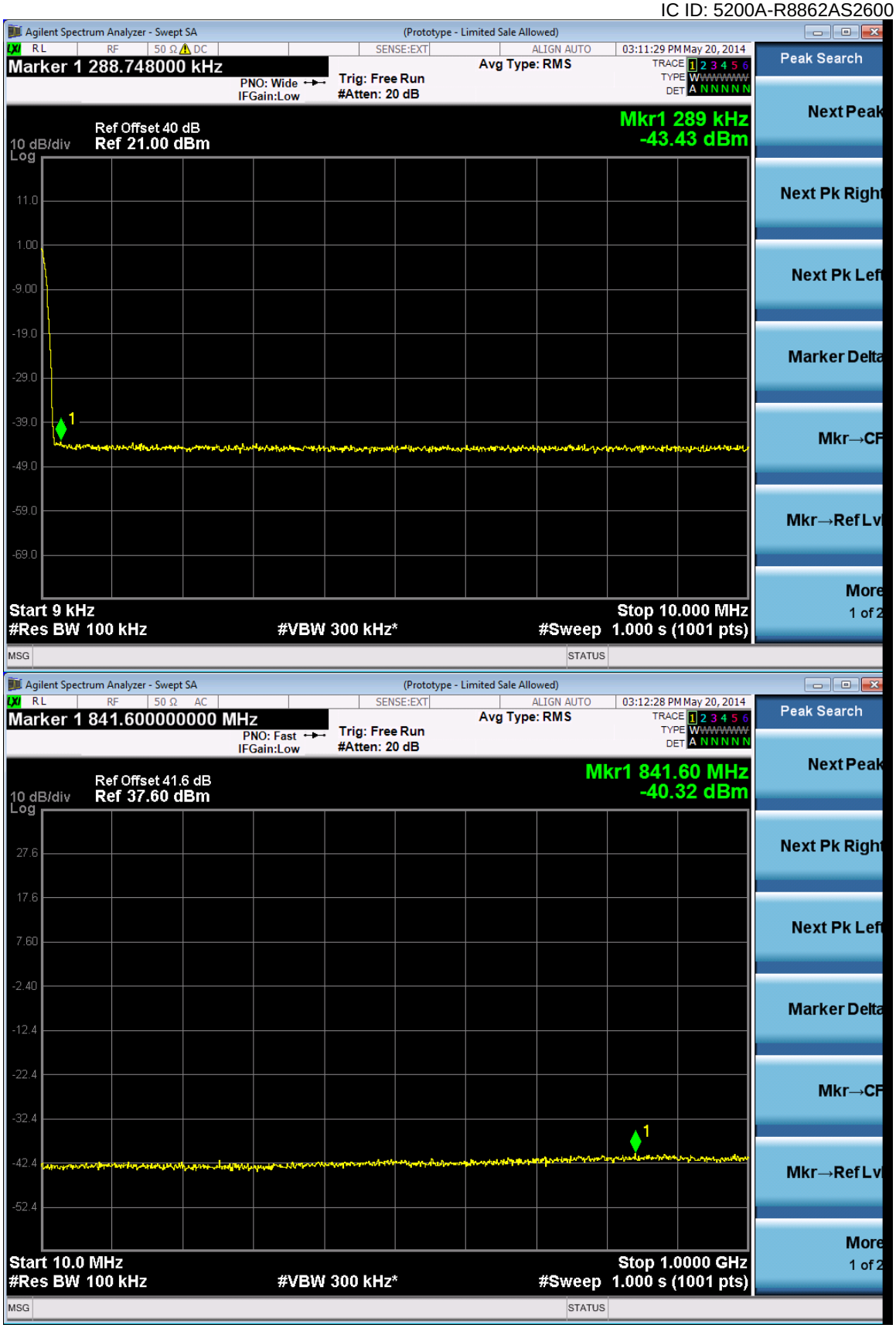
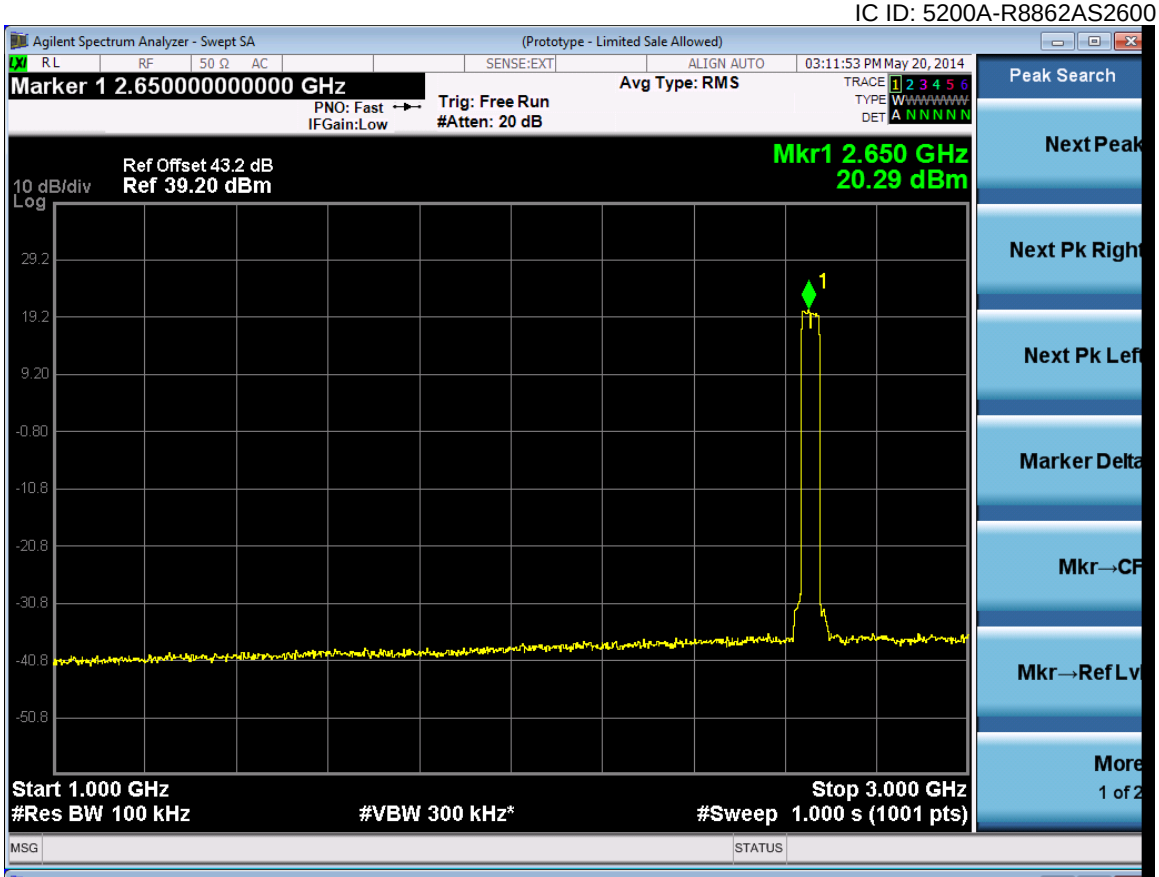
20M+20M-PORT2-2640:




Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
12:56:16 PM May 20, 2014
Marker 1 870.310000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A N N N N N
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Ref Offset 41.6 dB
10 dB/div
Log
Ref 37.60 dBm
Mkr1 870.31 MHz
-40.45 dBm
27.6
17.6
7.60
-2.40
-12.4
-22.4
-32.4
-42.4
-52.4
1
Start 10.0 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 1.0000 GHz
#Sweep 1.000 s (1001 pts)
MSG
STATUS
Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
12:55:47 PM May 20, 2014
Marker 1 2.624000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A N N N N N
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Ref Offset 43.2 dB
10 dB/div
Log
Ref 39.20 dBm
Mkr1 2.624 GHz
20.38 dBm
29.2
19.2
9.20
-0.80
-10.8
-20.8
-30.8
-40.8
-50.8
1
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 3.000 GHz
#Sweep 1.000 s (1001 pts)
MSG
STATUS

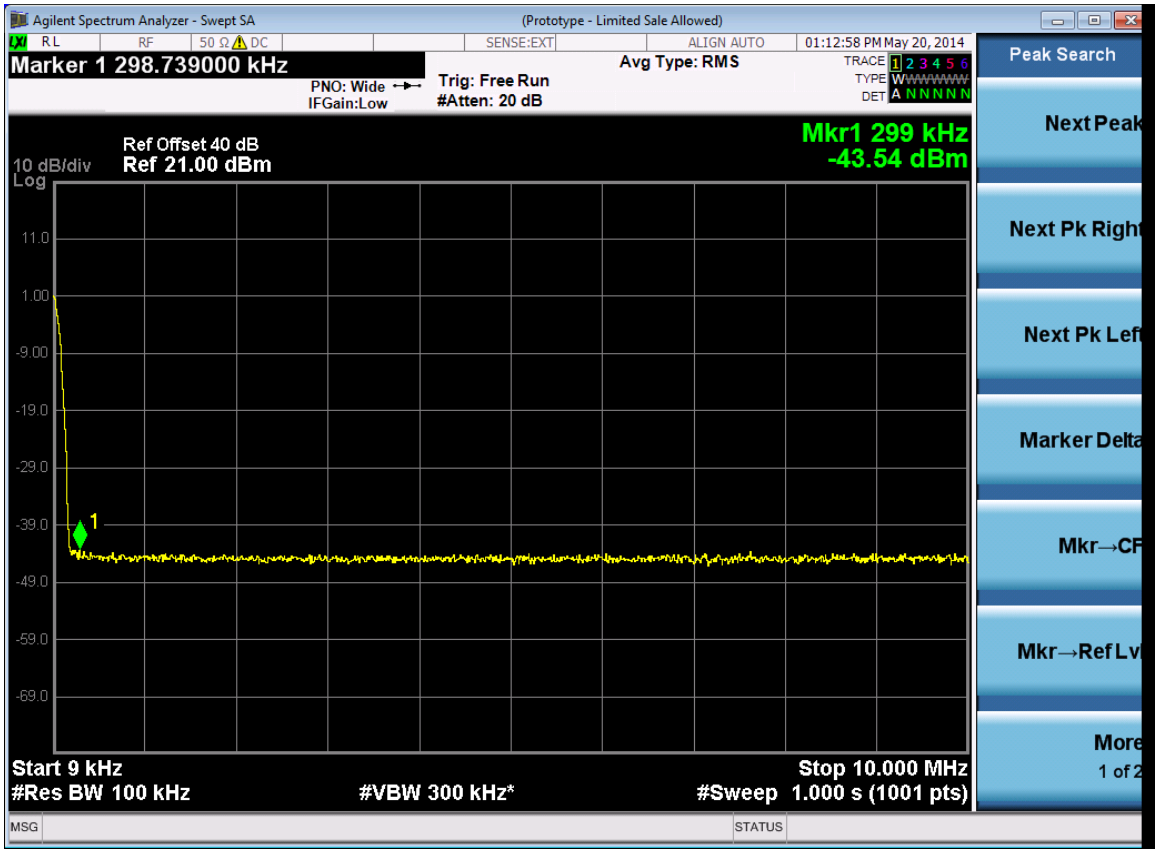
20M+20M-PORT2-2655:

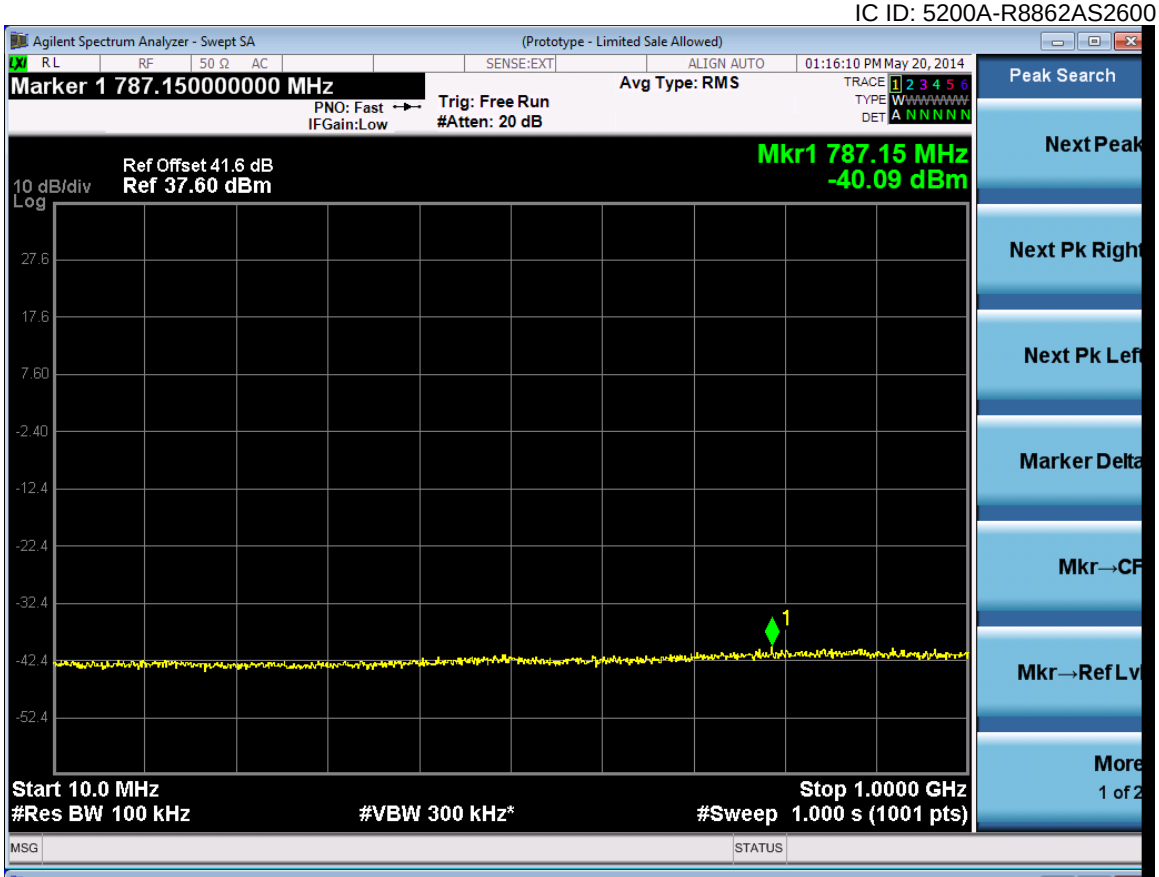

Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω DC
SENSE:EXT
ALIGN AUTO
03:11:29 PM May 20, 2014
Marker 1 288.748000 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W
DET A N N N N N
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Ref Offset 40 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 289 kHz
-43.43 dBm
11.0
1.00
-9.00
-19.0
-29.0
-39.0
-49.0
-59.0
-69.0
Start 9 kHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 10.000 MHz
#Sweep 1.000 s (1001 pts)
MSG
STATUS
Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
03:12:28 PM May 20, 2014
Marker 1 841.600000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Ref Offset 41.6 dB
10 dB/div
Ref 37.60 dBm
Log
Mkr1 841.60 MHz
-40.32 dBm
27.6
17.6
7.60
-2.40
-12.4
-22.4
-32.4
-42.4
-52.4
Start 10.0 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 1.0000 GHz
#Sweep 1.000 s (1001 pts)
MSG
STATUS

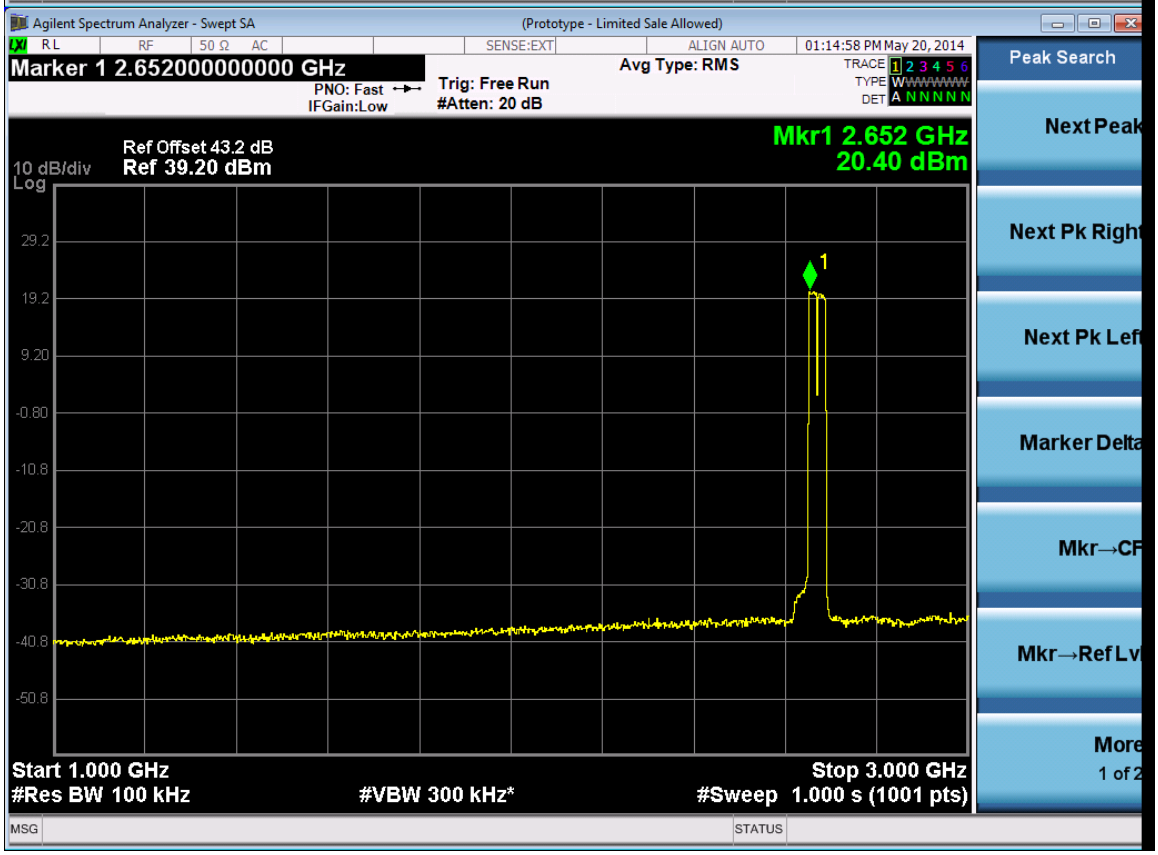

Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
03:11:53 PM May 20, 2014
Marker 1 2.650000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A N N N N N
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Ref Offset 43.2 dB
10 dB/div
Ref 39.20 dBm
Log
Mkr1 2.650 GHz
20.29 dBm
29.2
19.2
9.20
-0.80
-10.8
-20.8
-30.8
-40.8
-50.8
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 3.000 GHz
#Sweep 1.000 s (1001 pts)
MSG
STATUS

Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
03:12:14 PM May 20, 2014
Marker 1 25.748000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 6 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A N N N N N
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Ref Offset 44.5 dB
10 dB/div
Ref 40.50 dBm
Log
Mkr1 25.748 0 GHz
-36.27 dBm
30.5
20.5
10.5
0.500
-9.50
-19.5
-29.5
-39.5
-49.5
Start 3.00 GHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 26.50 GHz
Sweep 1.115 s (1001 pts)
MSG
STATUS

20M+20M-PORT2-2670:




Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
01:16:10 PM May 20, 2014
Marker 1 787.150000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A N N N N N
Ref Offset 41.6 dB
10 dB/div
Log
Ref 37.60 dBm
Mkr1 787.15 MHz
-40.09 dBm
27.6
17.6
7.60
-2.40
-12.4
-22.4
-32.4
-42.4
-52.4
Start 10.0 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 1.0000 GHz
#Sweep 1.000 s (1001 pts)
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
(Prototype - Limited Sale Allowed)
RL
RF
50 Ω AC
SENSE:EXT
ALIGN AUTO
01:14:58 PM May 20, 2014
Marker 1 2.652000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A N N N N N
Ref Offset 43.2 dB
10 dB/div
Log
Ref 39.20 dBm
Mkr1 2.652 GHz
20.40 dBm
29.2
19.2
9.20
-0.80
-10.8
-20.8
-30.8
-40.8
-50.8
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz*
Stop 3.000 GHz
#Sweep 1.000 s (1001 pts)
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

11 OCCUPIED BANDWIDTH

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9030A	MY49431143	2015.06.18	2016.06.18
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2015.07.19	2016.07.19

*__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 LTE

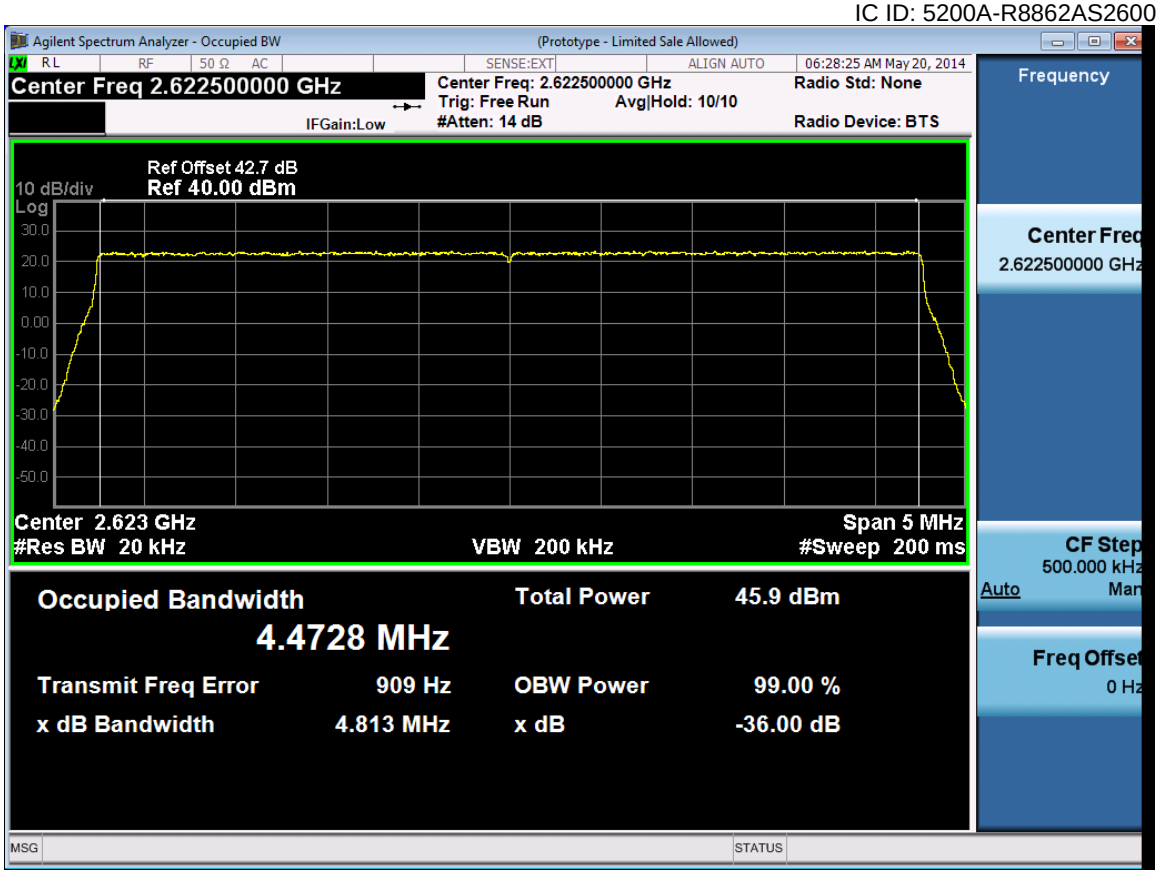
Test Data

Single Carrier:

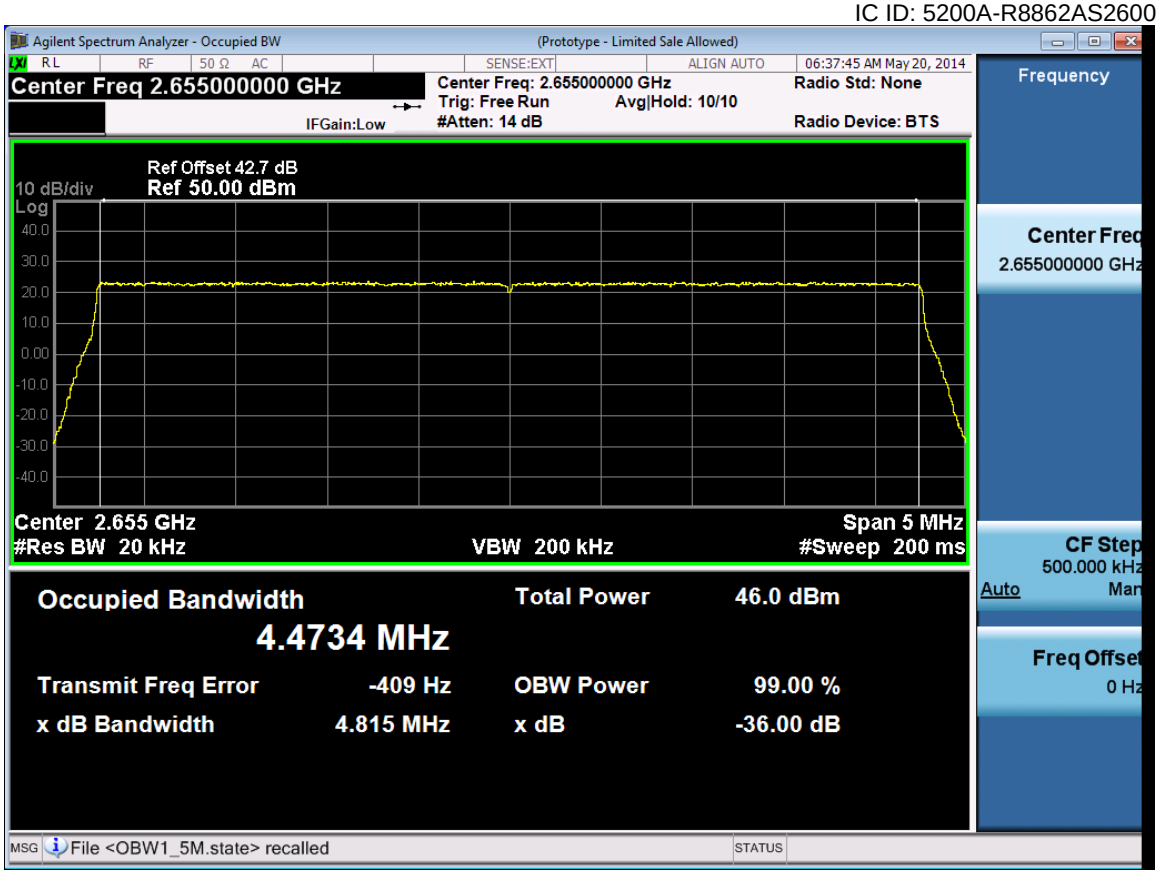
Channel Bandwidth :5M

Port	Center Freq. (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
1	2622.5	4.4728	5M
	2655	4.4734	5M
	2687.5	4.4724	5M
2	2622.5	4.4737	5M
	2655	4.4745	5M
	2687.5	4.4727	5M

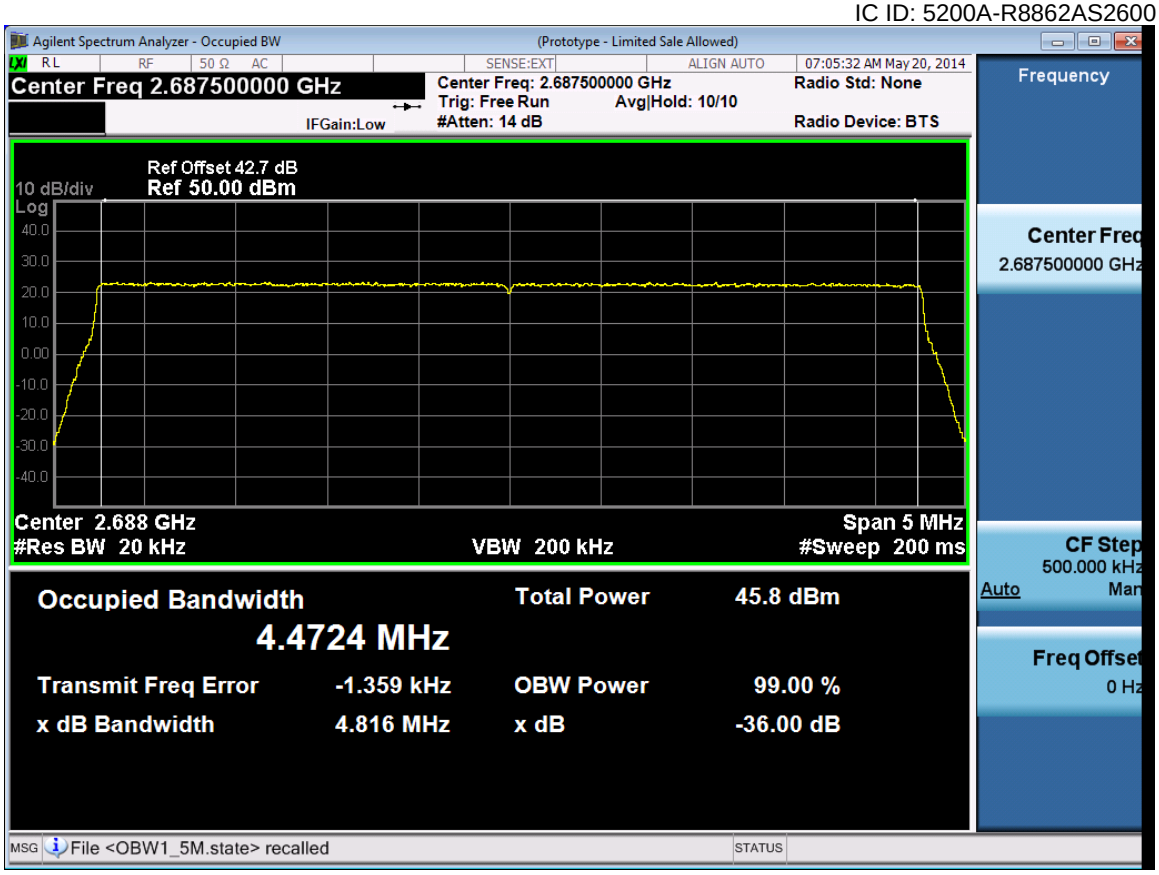
5M -Port 1 -2622.5MHz



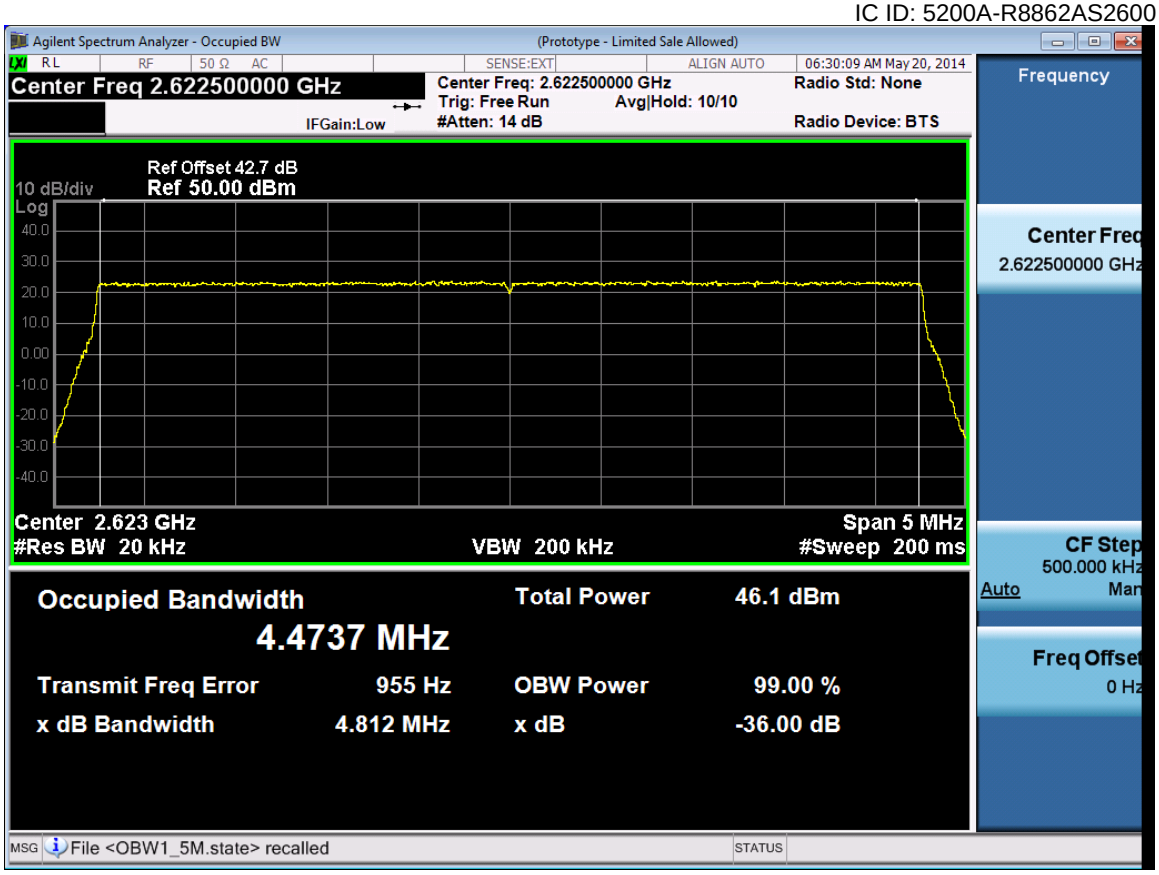
5M -Port 1 -2655MHz



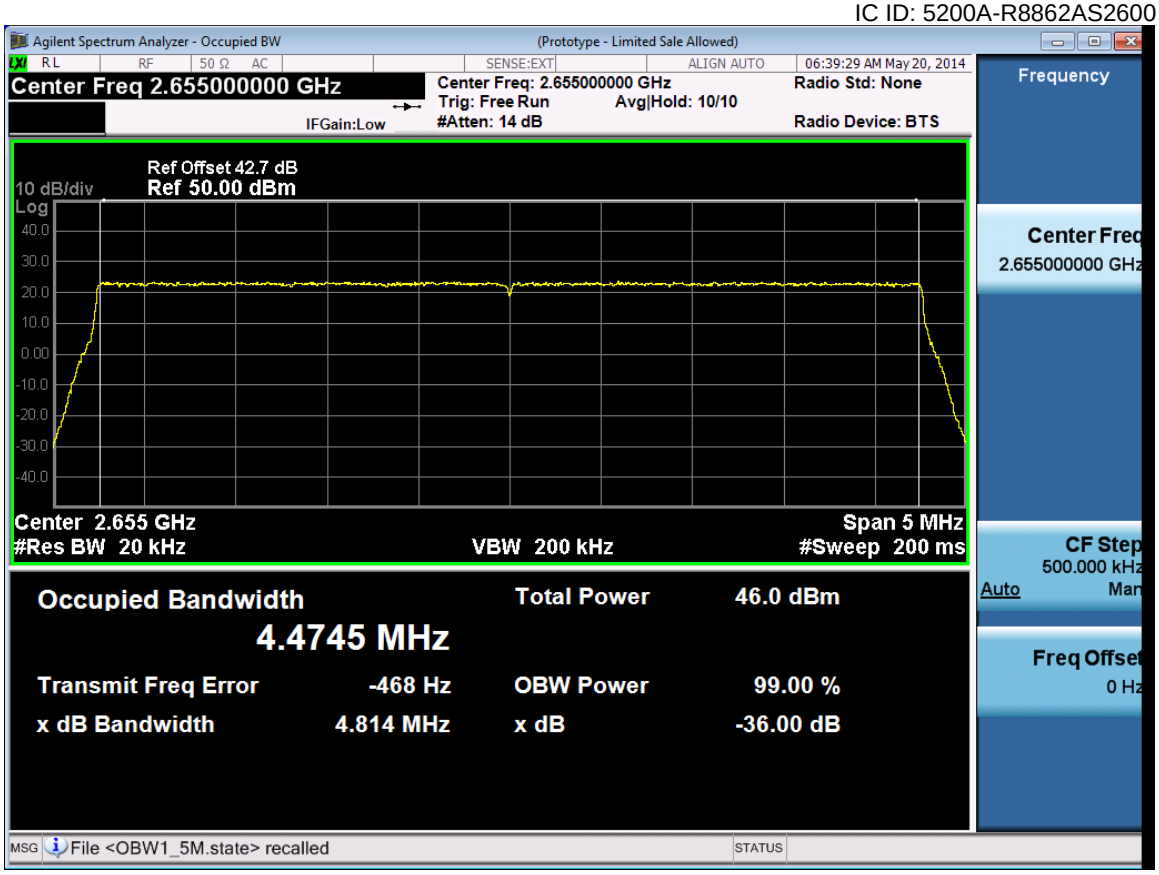
5M -Port 1 -2687.5MHz



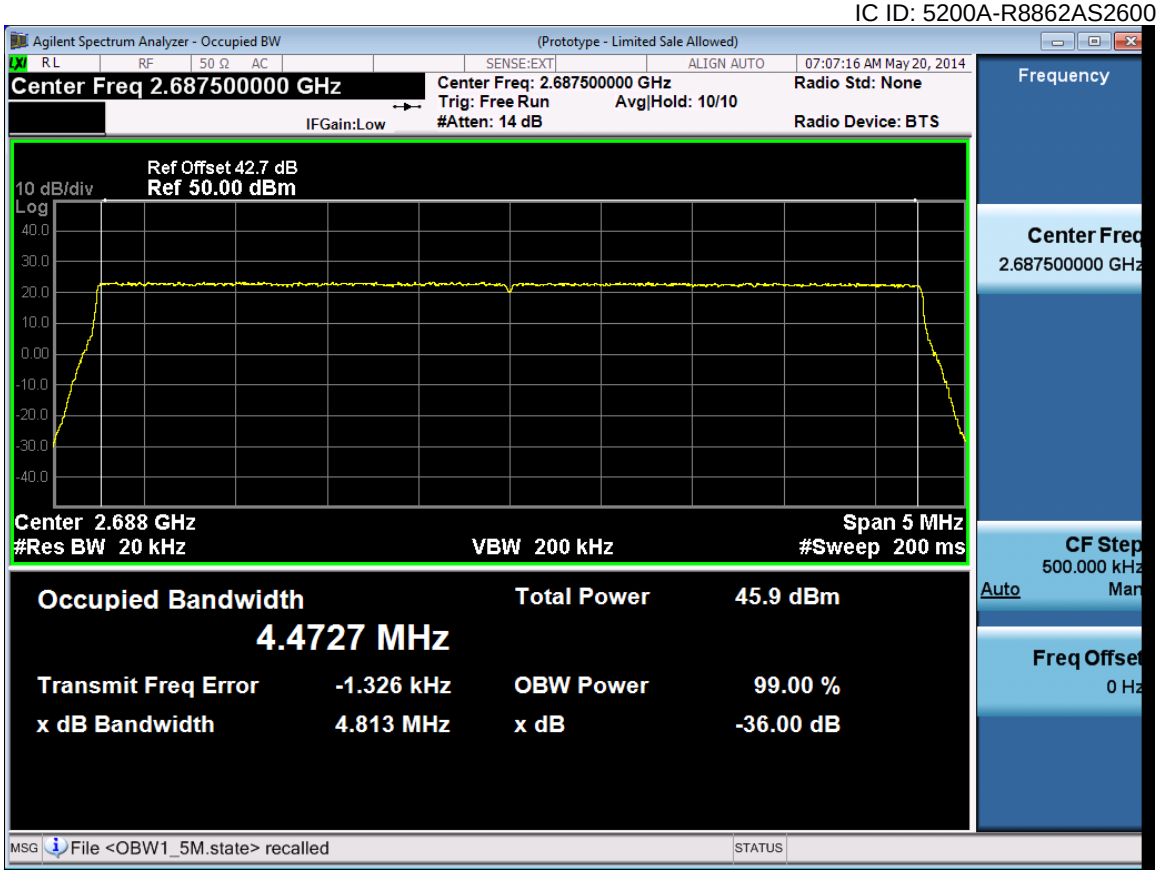
5M -Port 2 -2622.5MHz



5M -Port 2 -2655MHz



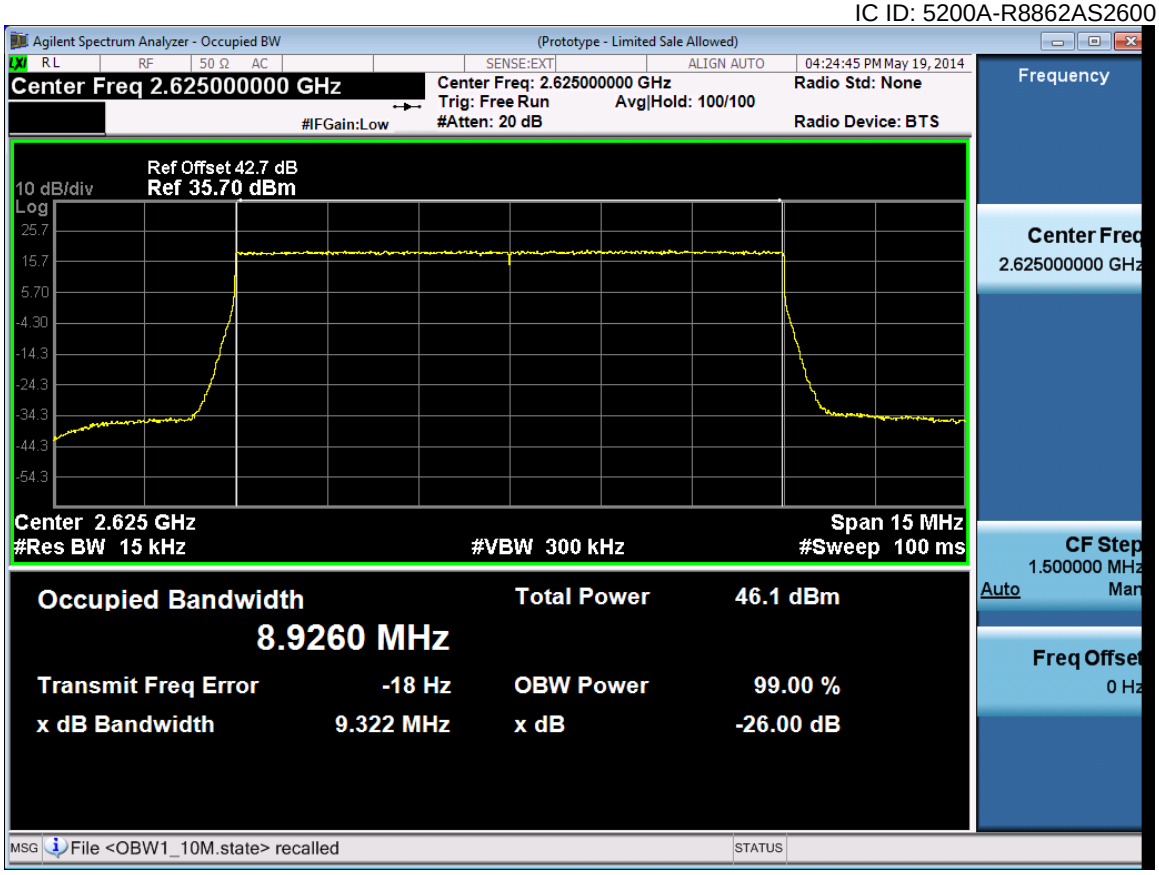
5M -Port 2 -2687.5MHz



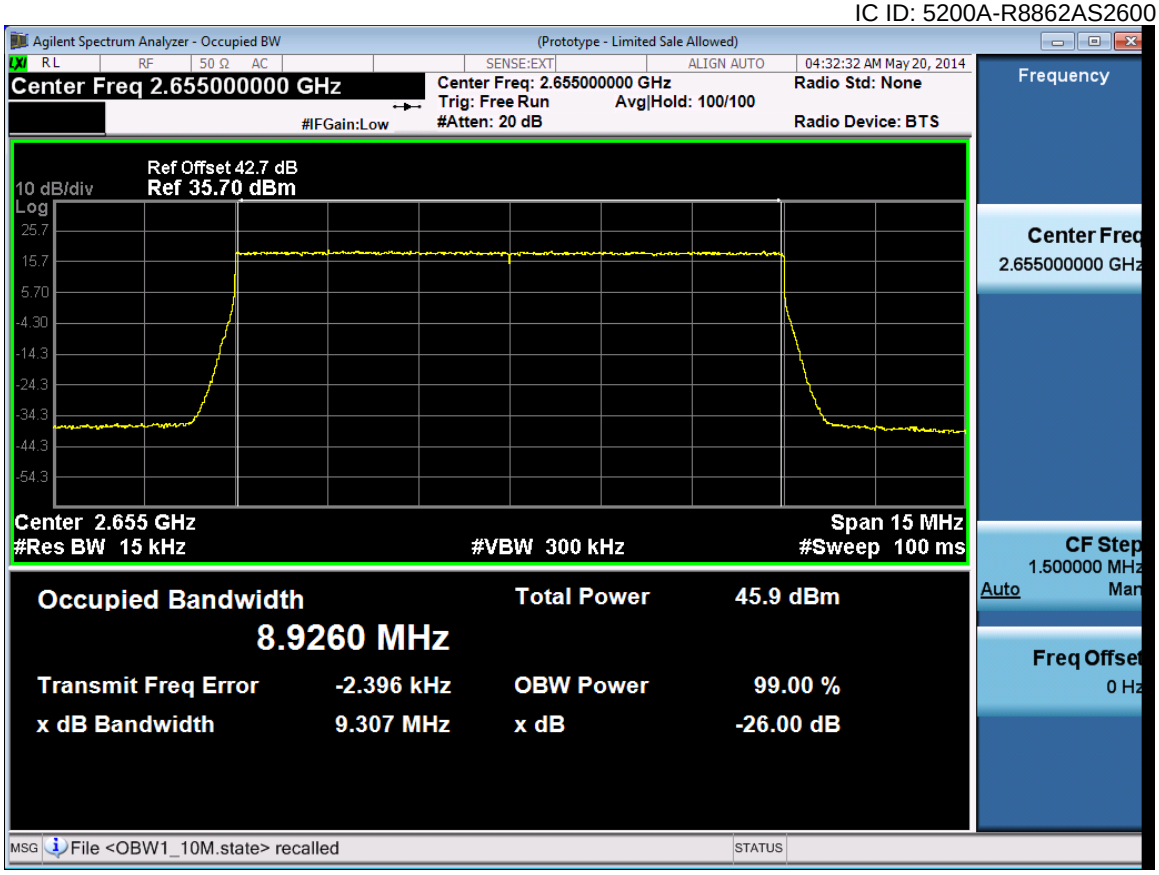
Channel Bandwidth :10M

Port	Center Freq. (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
1	2625	8.9260	10M
	2655	8.9260	10M
	2685	8.9275	10M
2	2625	8.9244	10M
	2655	8.9286	10M
	2685	8.9274	10M

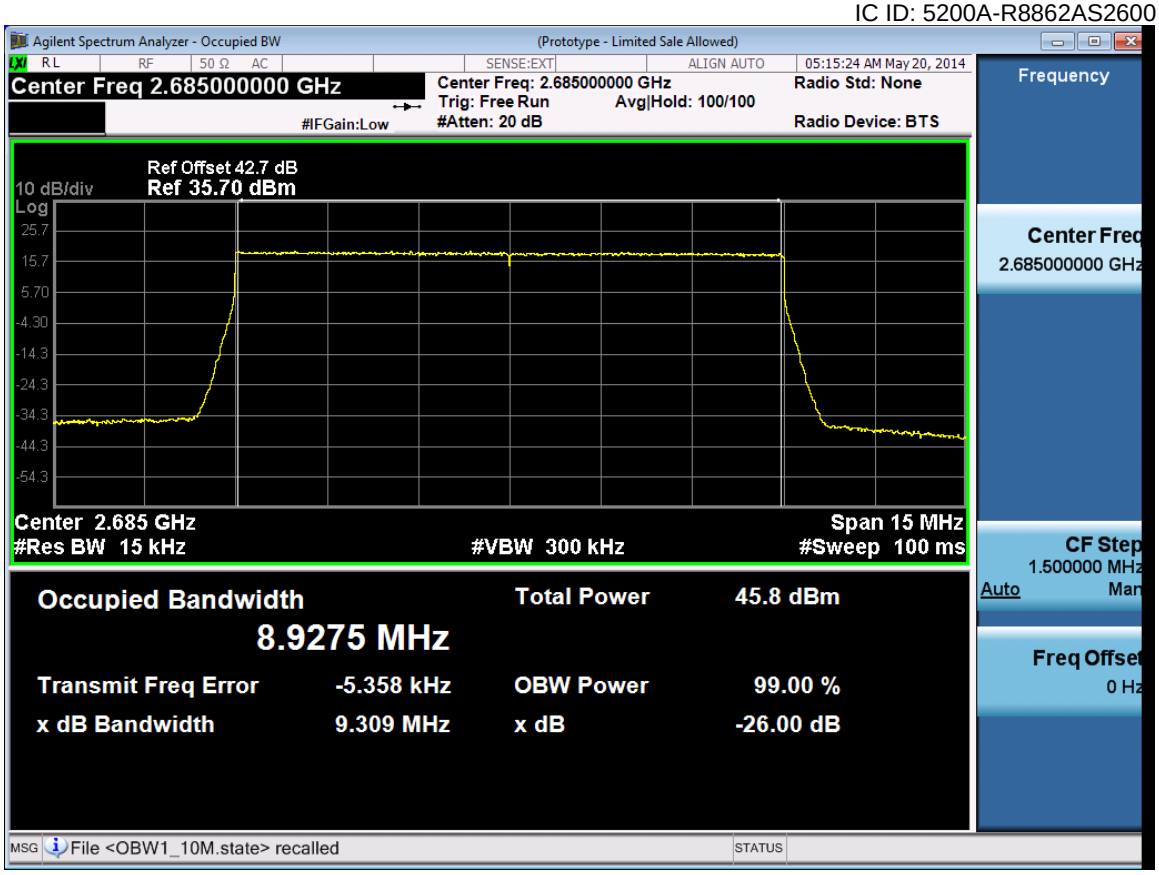
10M -Port 1 -2625MHz



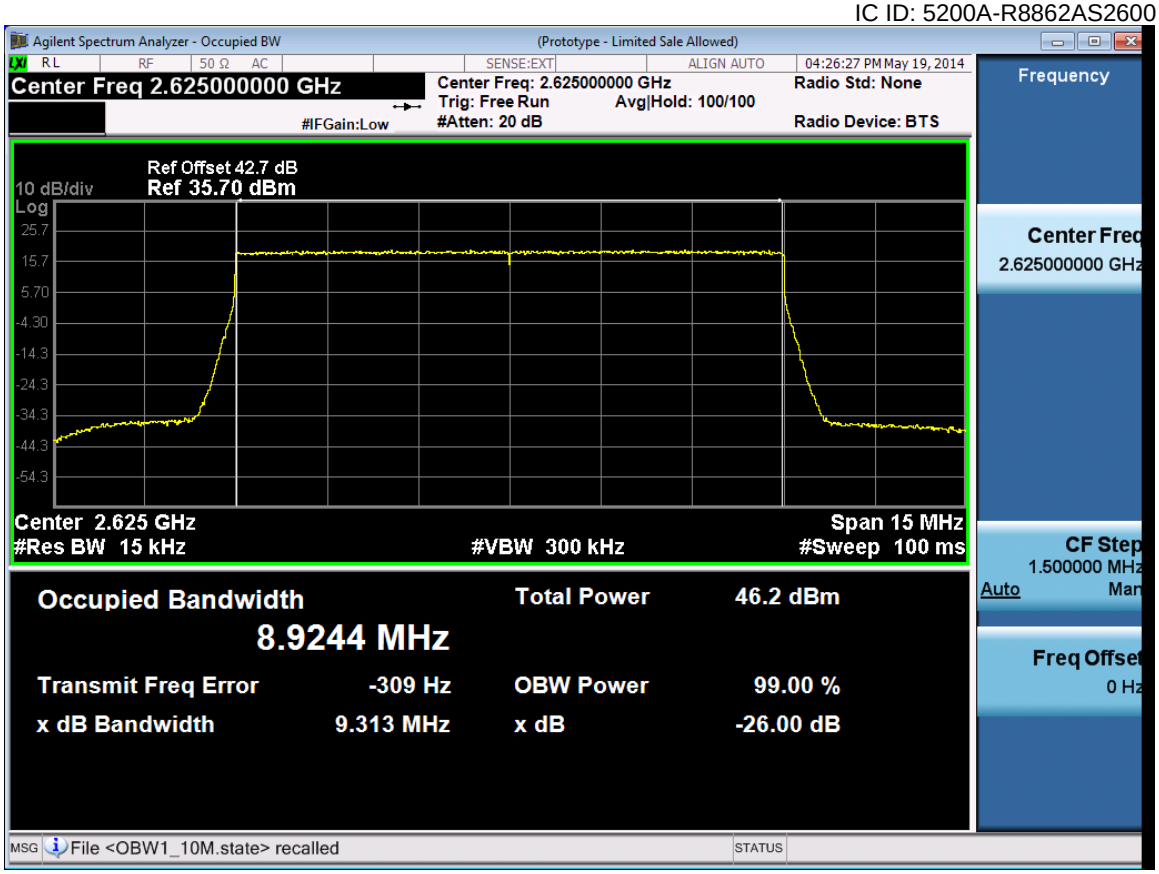
10M -Port 1 -2655MHz



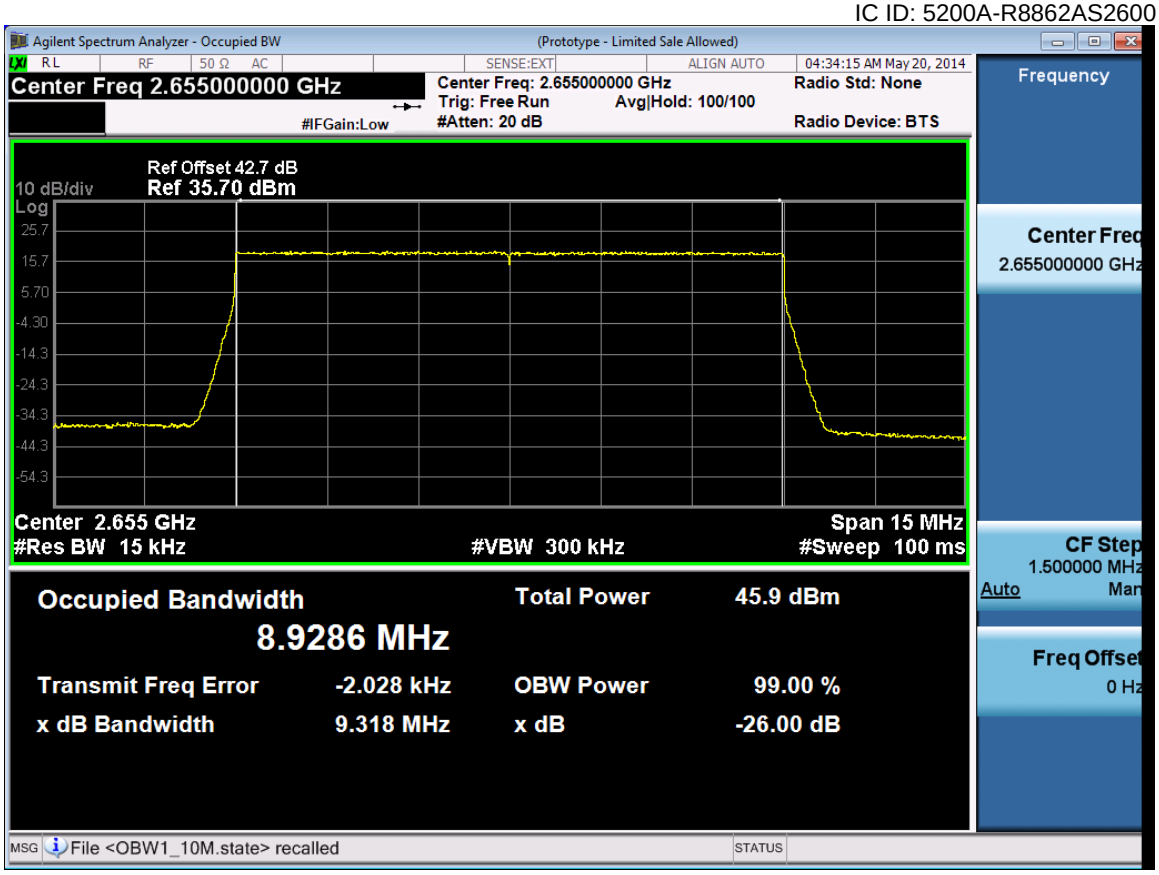
10M -Port 1 -2685MHz



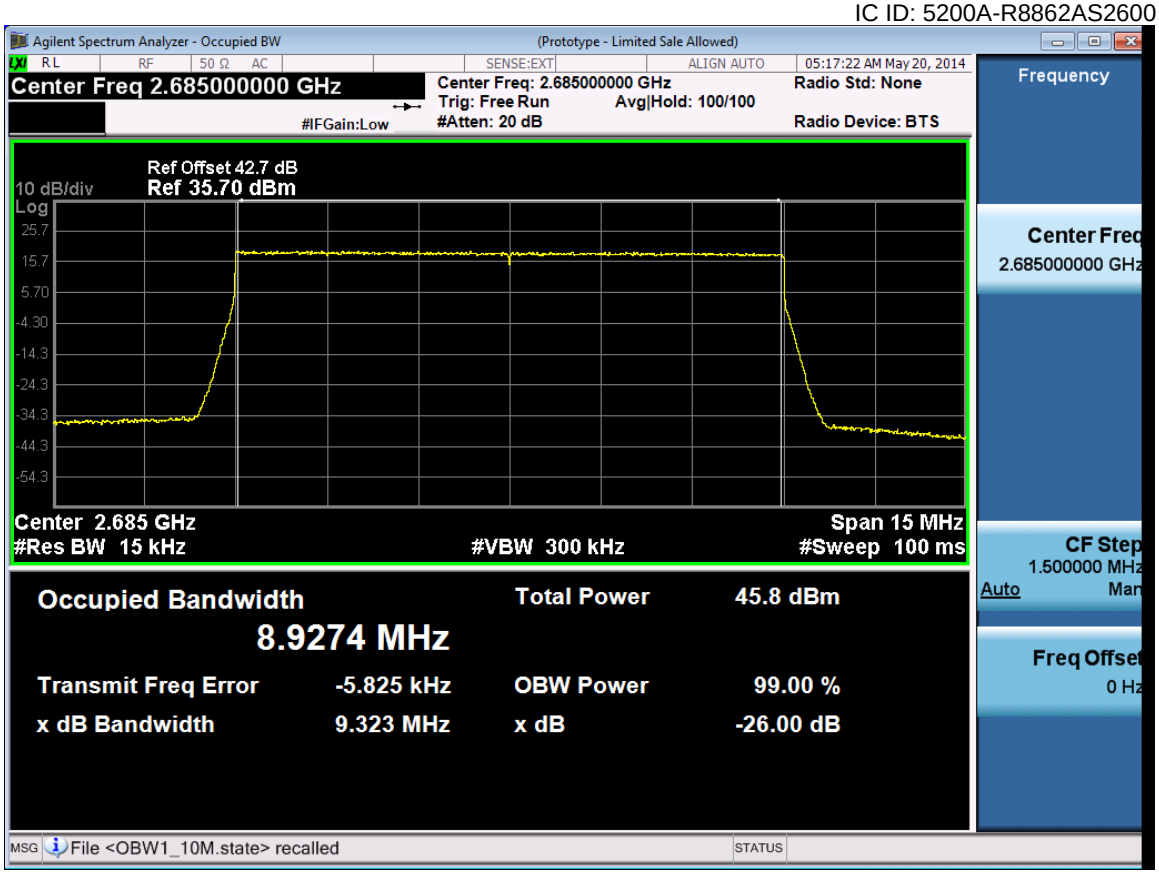
10M -Port 2 -2625MHz



10M -Port 2 -2655MHz



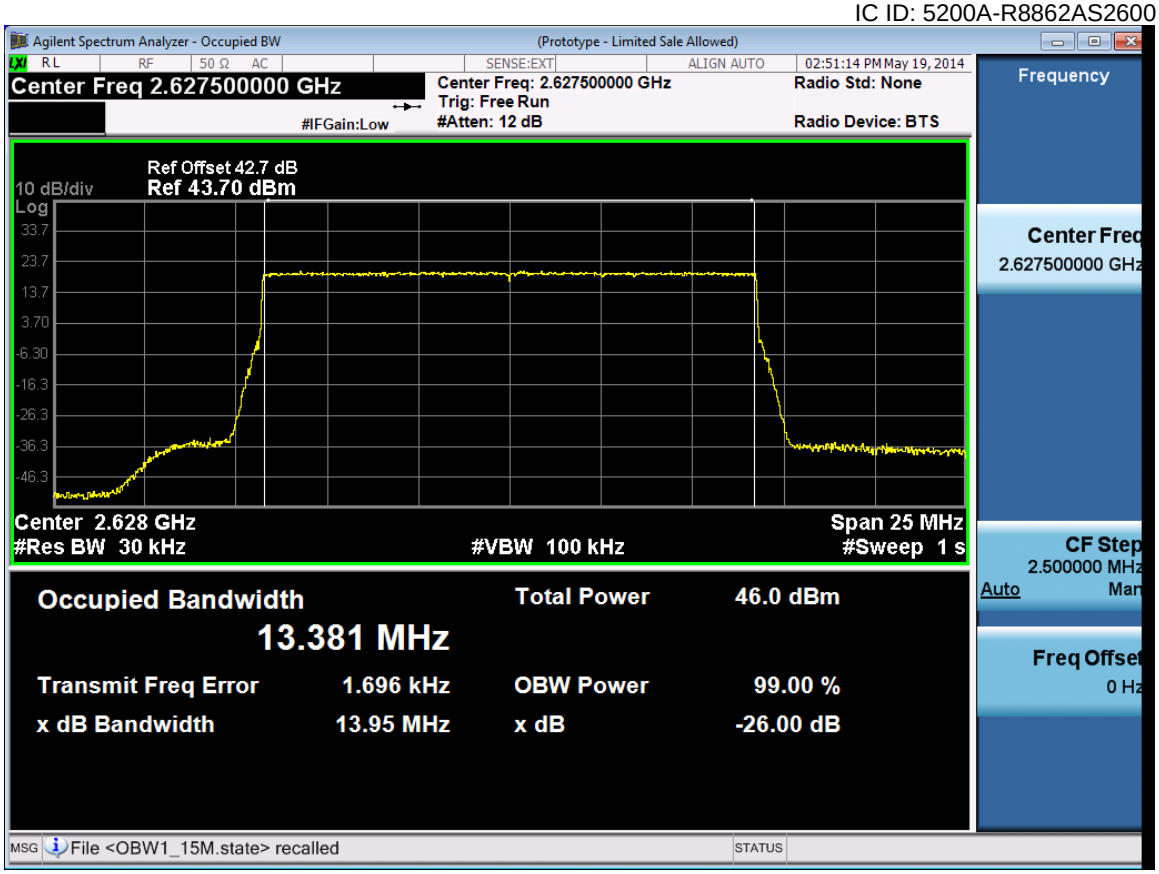
10M -Port 2 -2685MHz



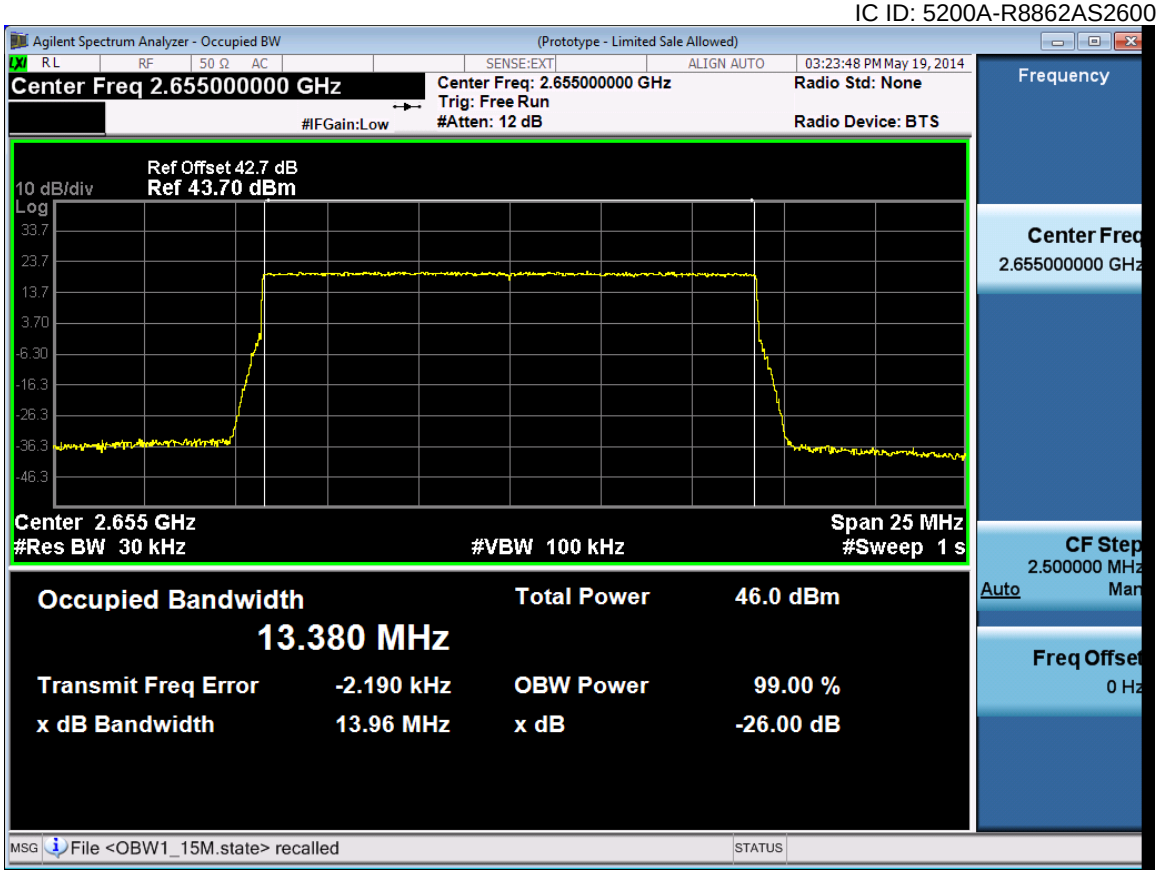
Channel Bandwidth :15M

Port	Center Freq. (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
1	2627.5	13.381	15M
	2655	13.380	15M
	2682.5	13.380	15M
2	2627.5	13.379	15M
	2655	13.378	15M
	2682.5	13.379	15M

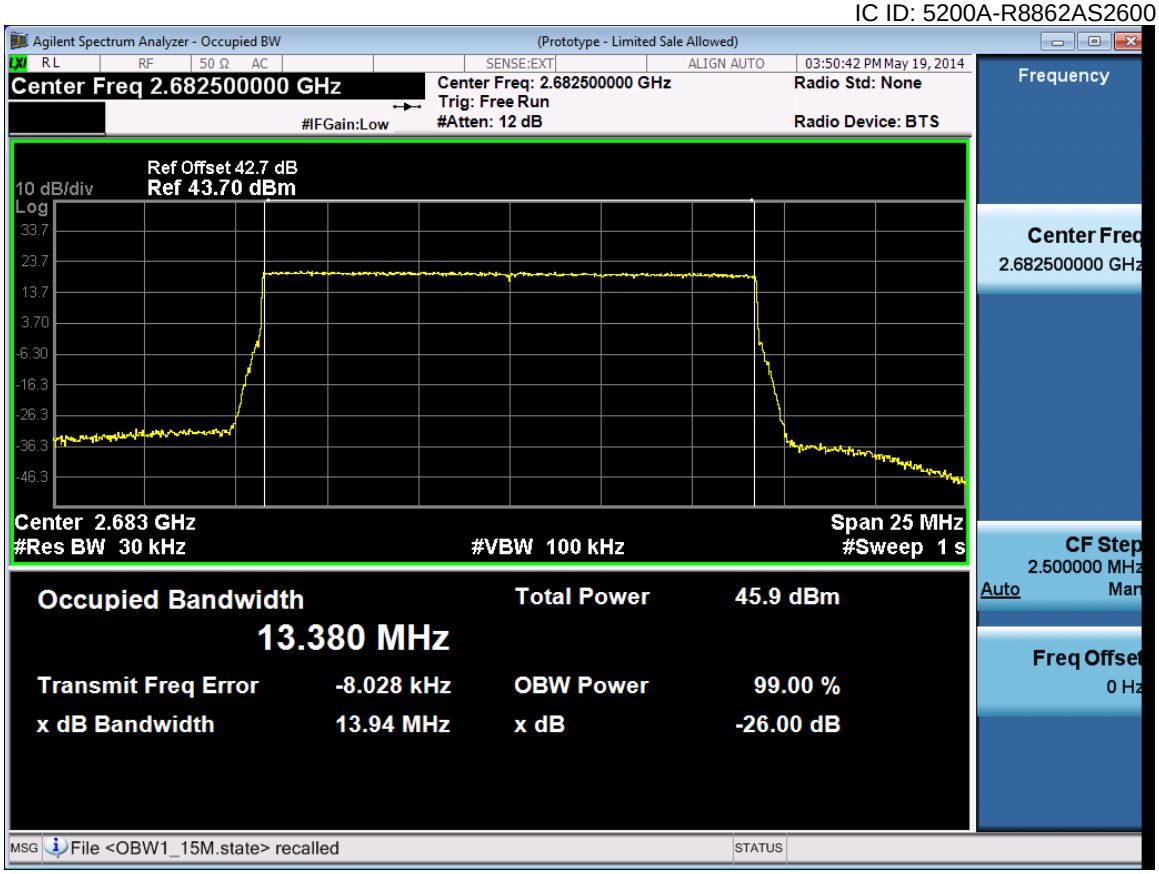
15M -Port 1 -2627.5MHz



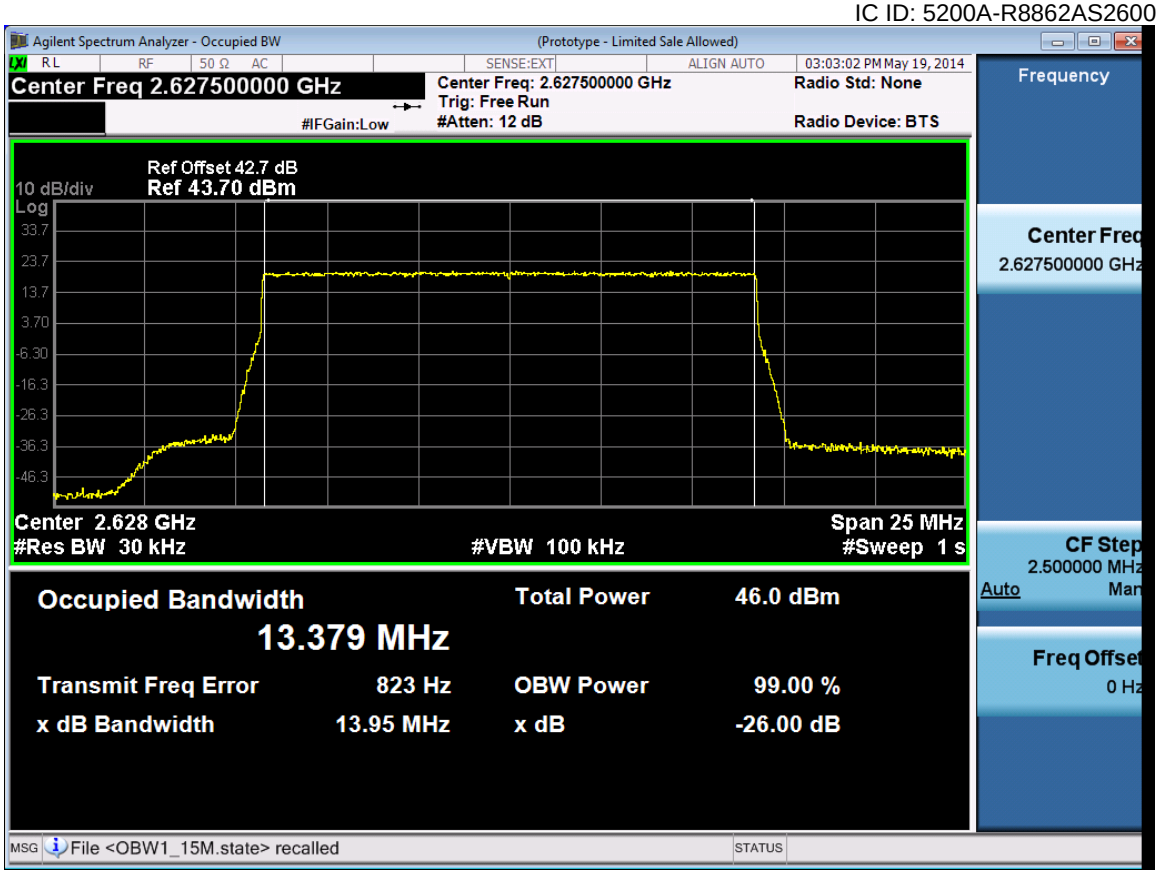
15M -Port 1 -2655MHz



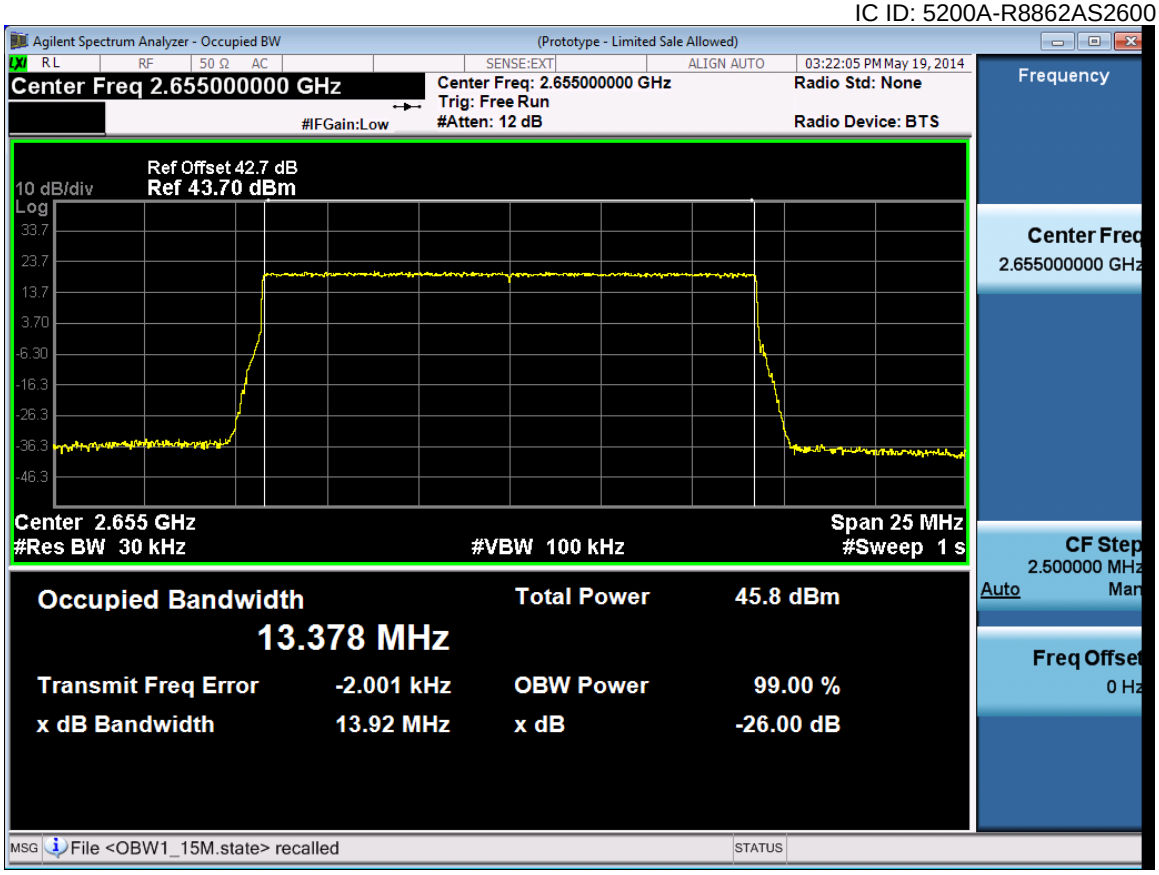
15M -Port 1 -2682.5MHz



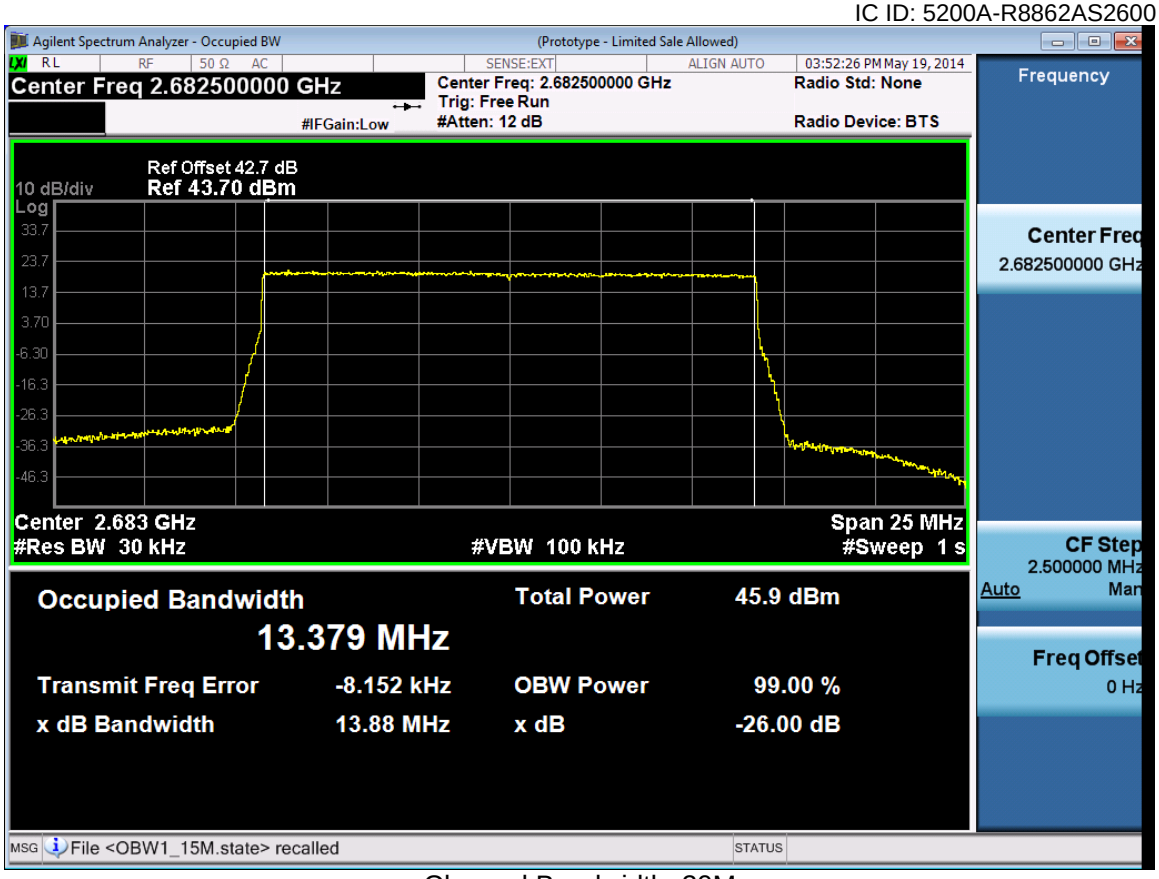
15M -Port 2 -2627.5MHz



15M -Port 2 -2655MHz



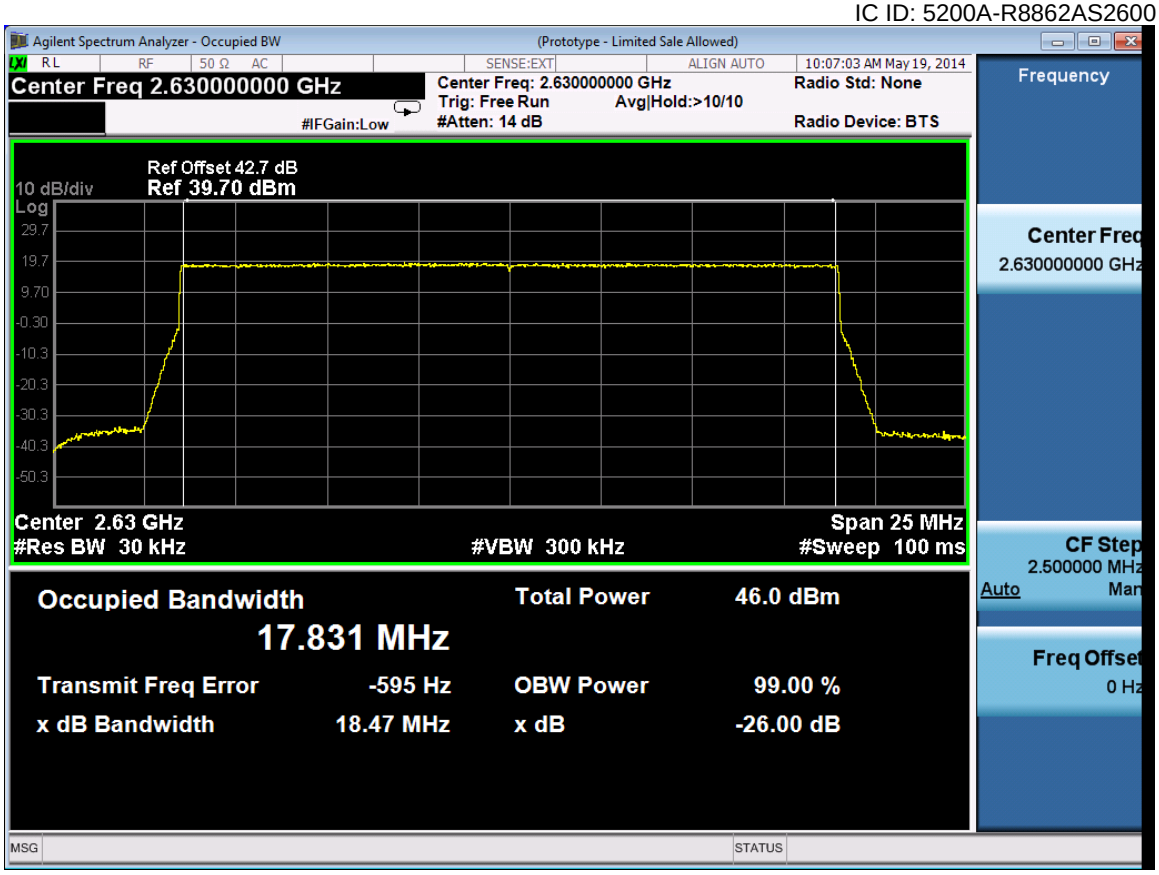
15M -Port 2 -2682.5MHz



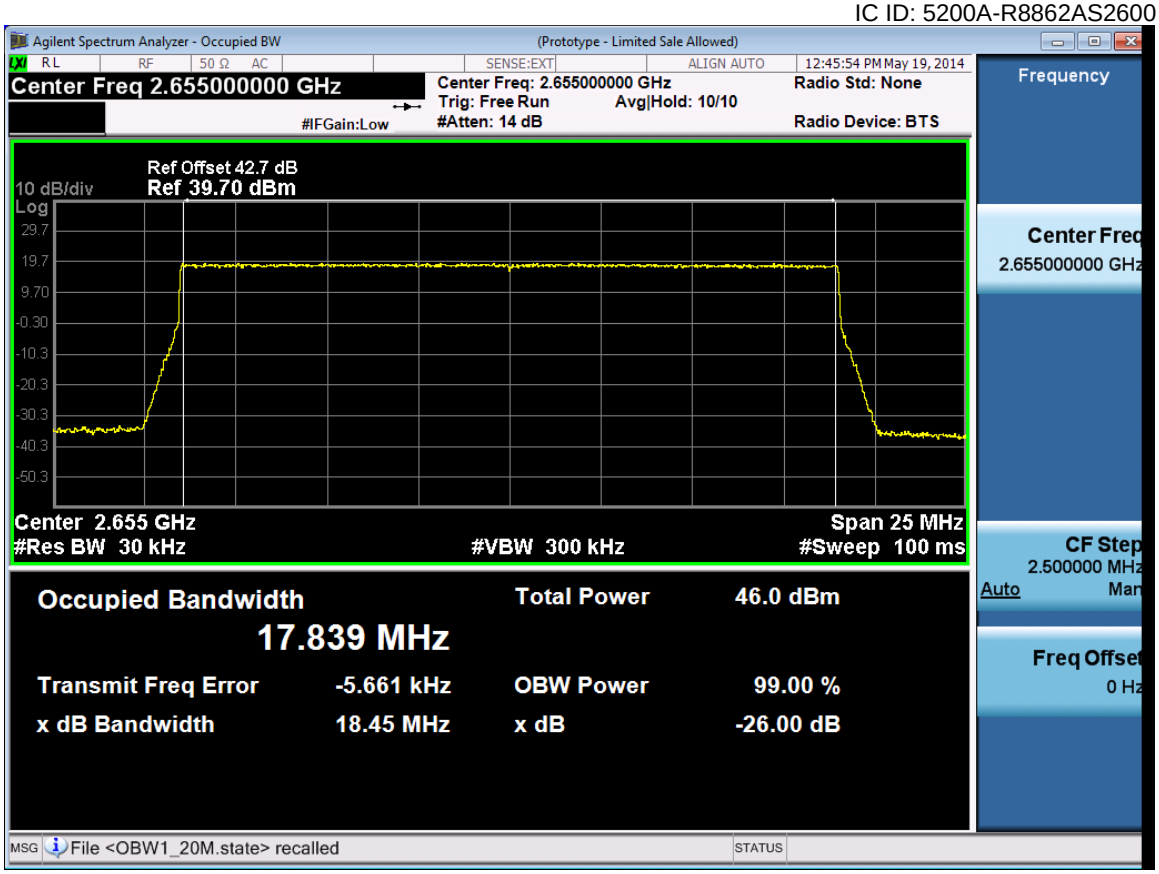
Channel Bandwidth :20M

Port	Center Freq. (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
1	2630	17.831	20M
	2655	17.839	20M
	2680	17.829	20M
2	2630	17.830	20M
	2655	17.830	20M
	2680	17.831	20M

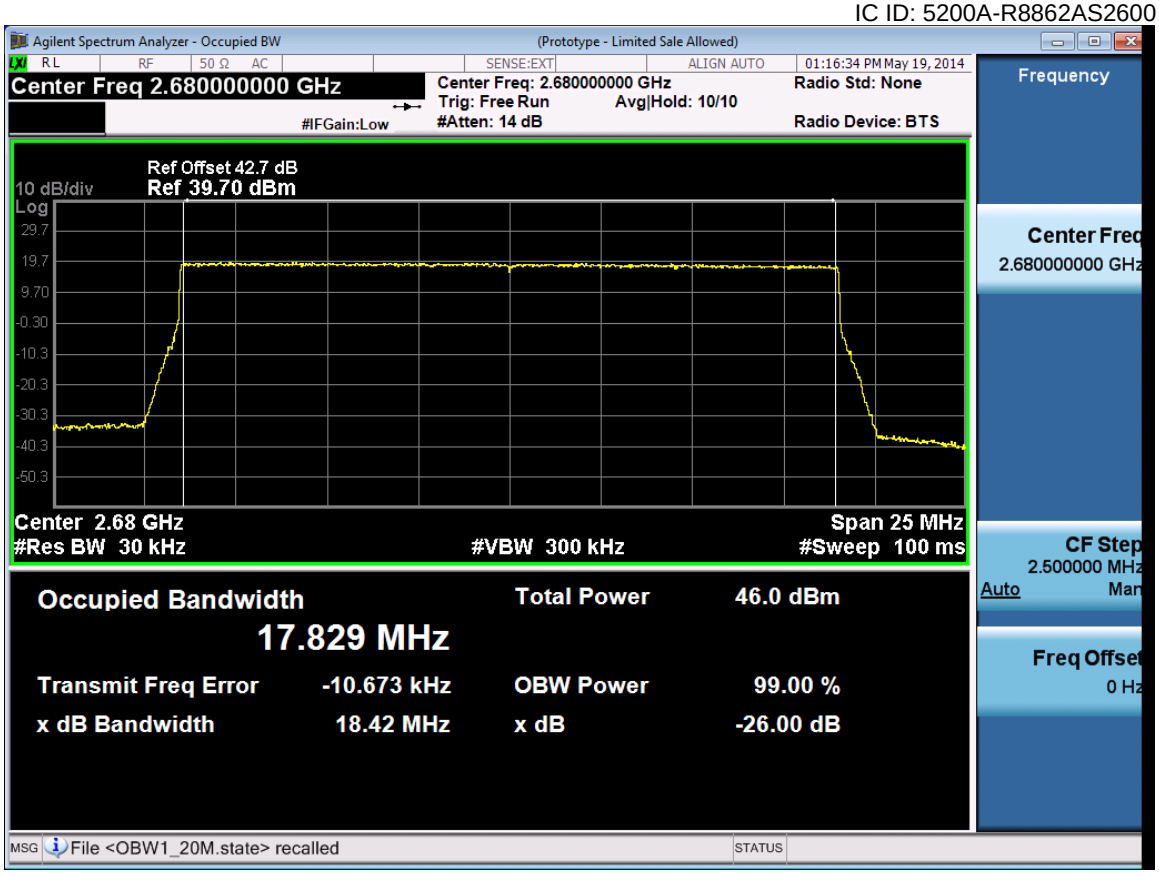
20M -Port 1 -2630MHz



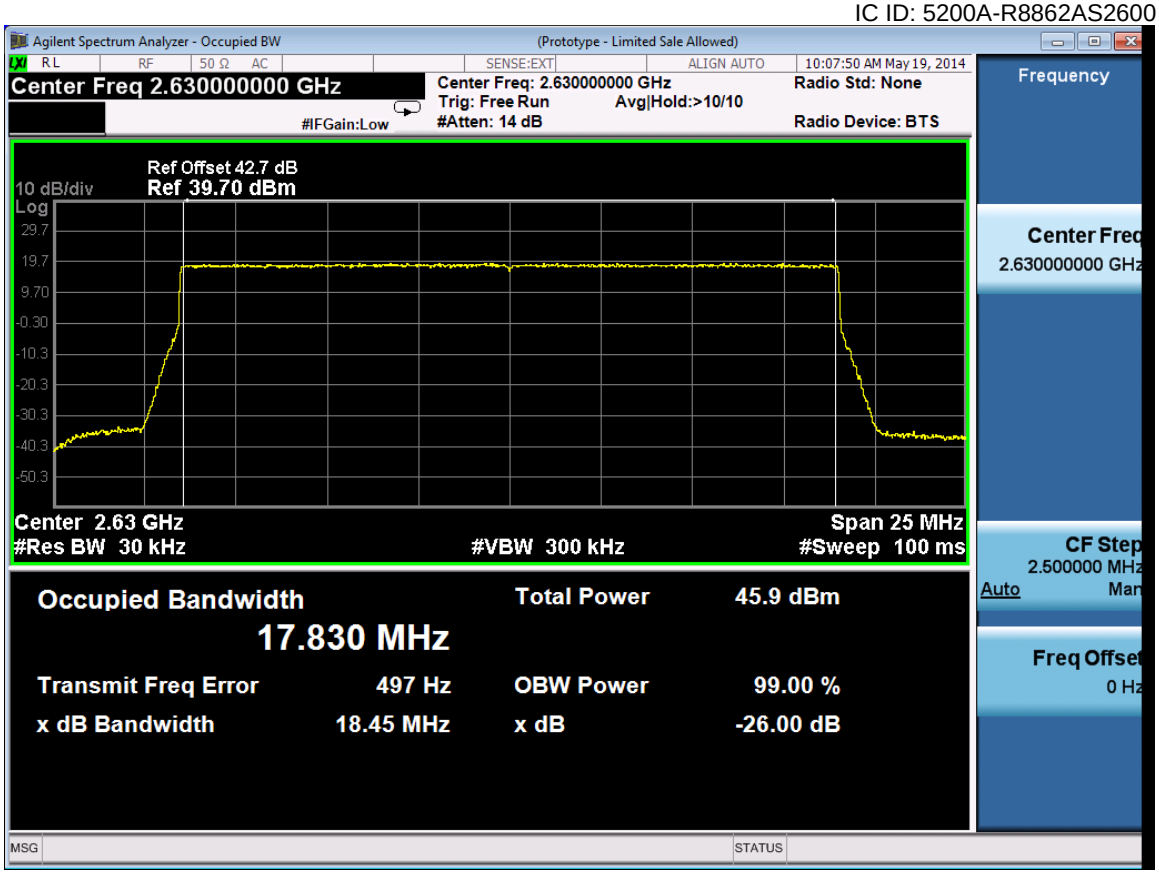
20M -Port 1 -2655MHz



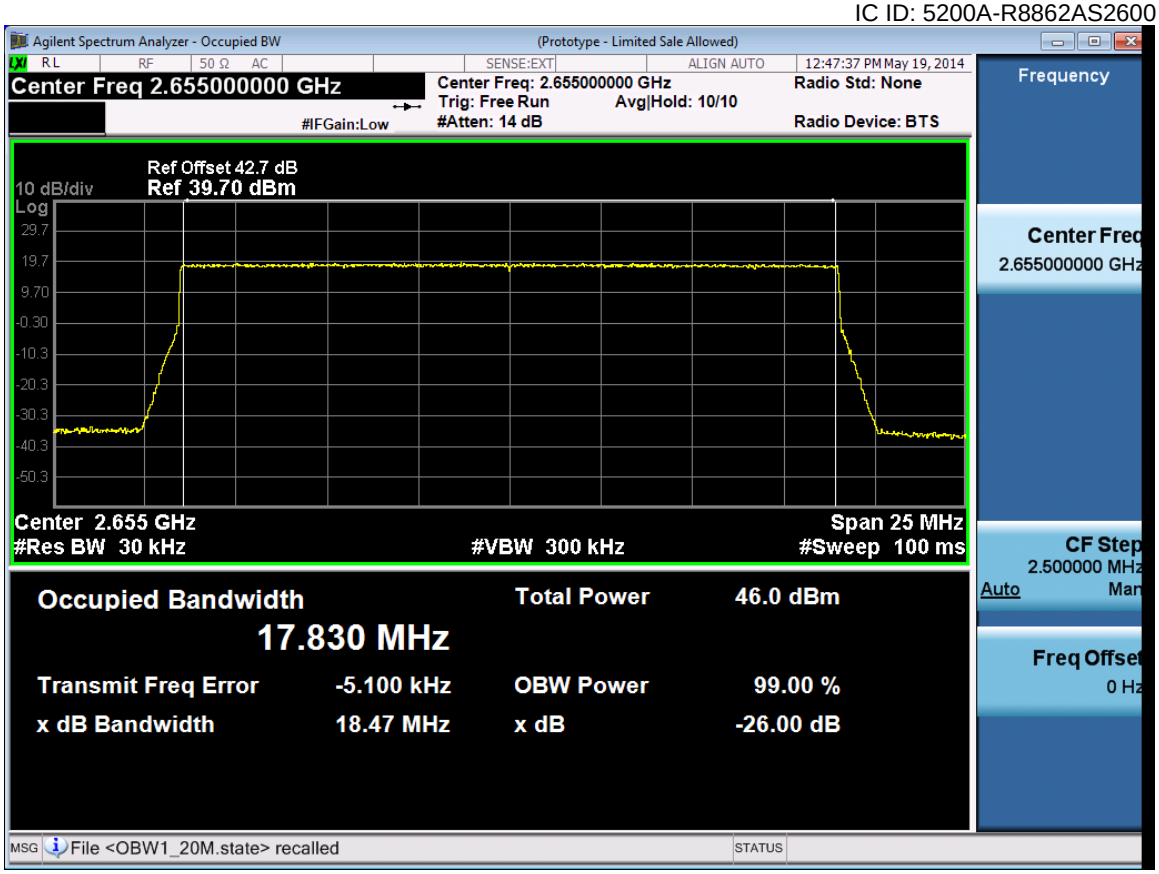
20M -Port 1 -2680MHz



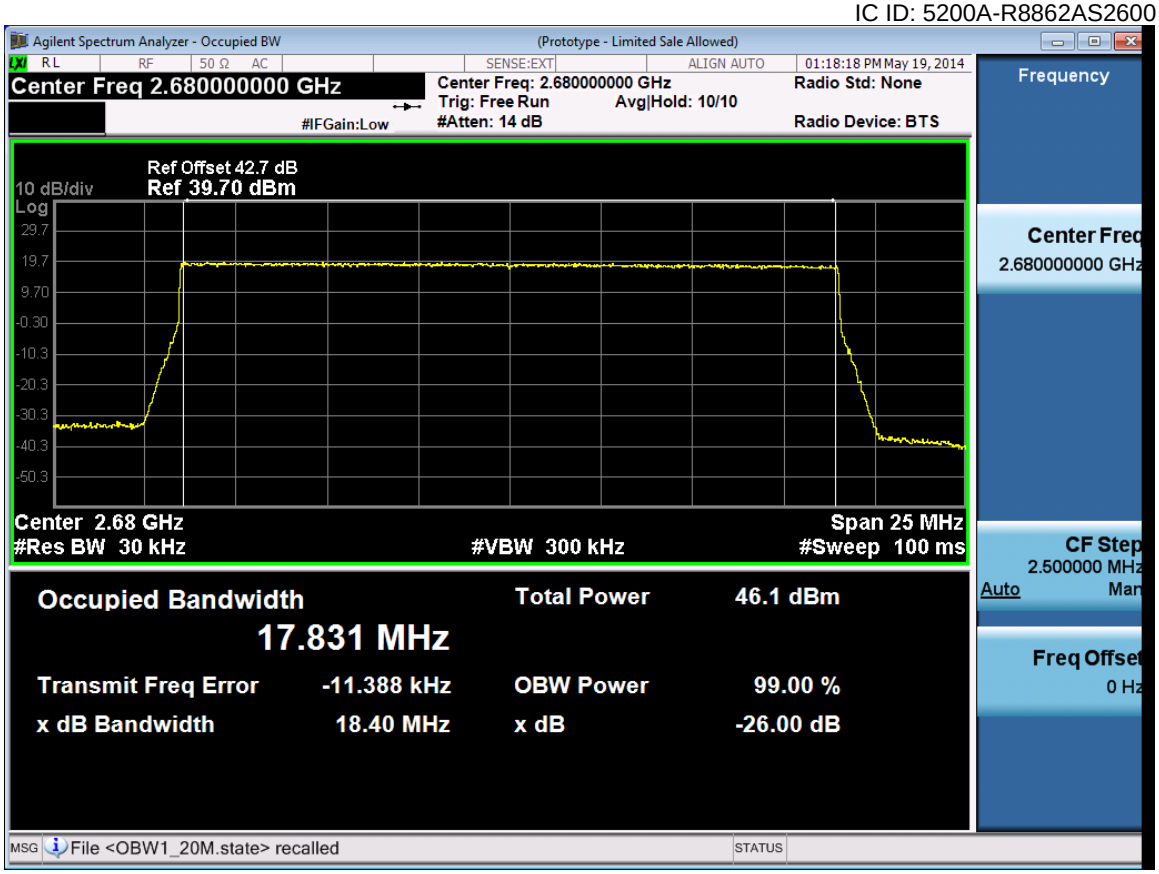
20M -Port 2 -2630MHz



20M -Port 2 -2655MHz



20M -Port 2 -2680MHz

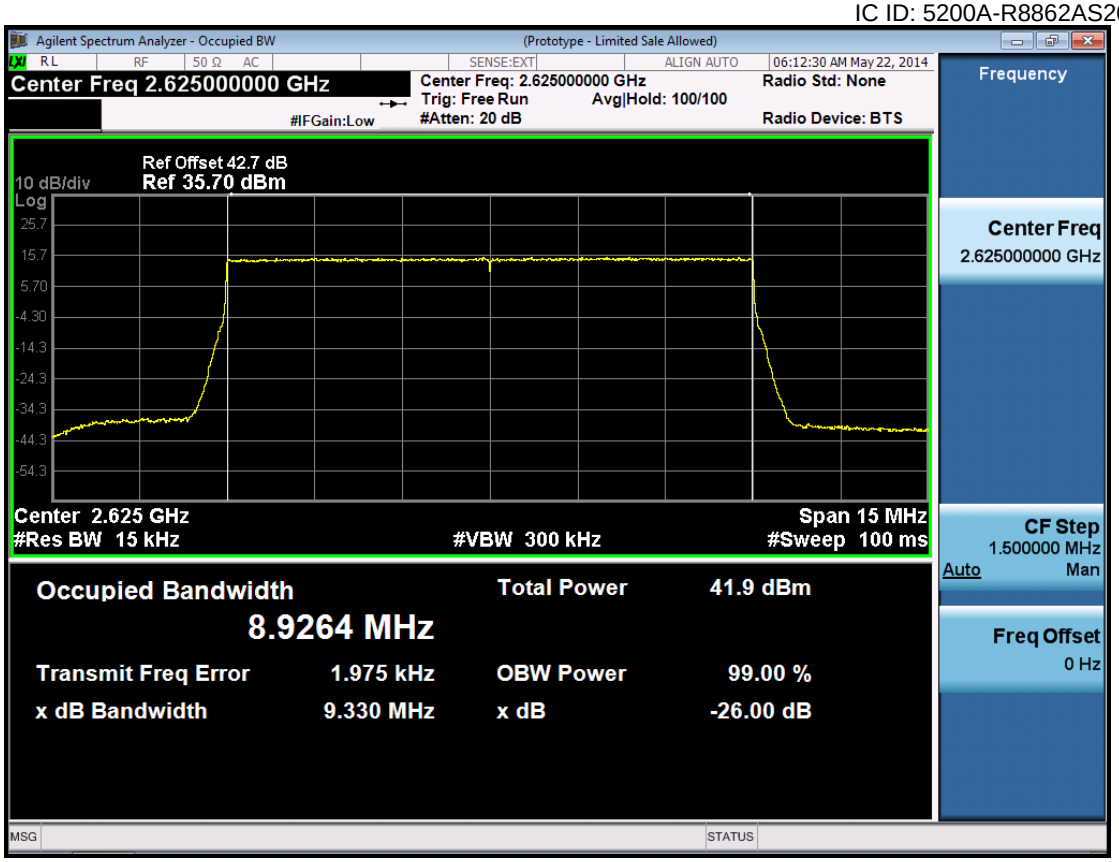


Double Carrier:

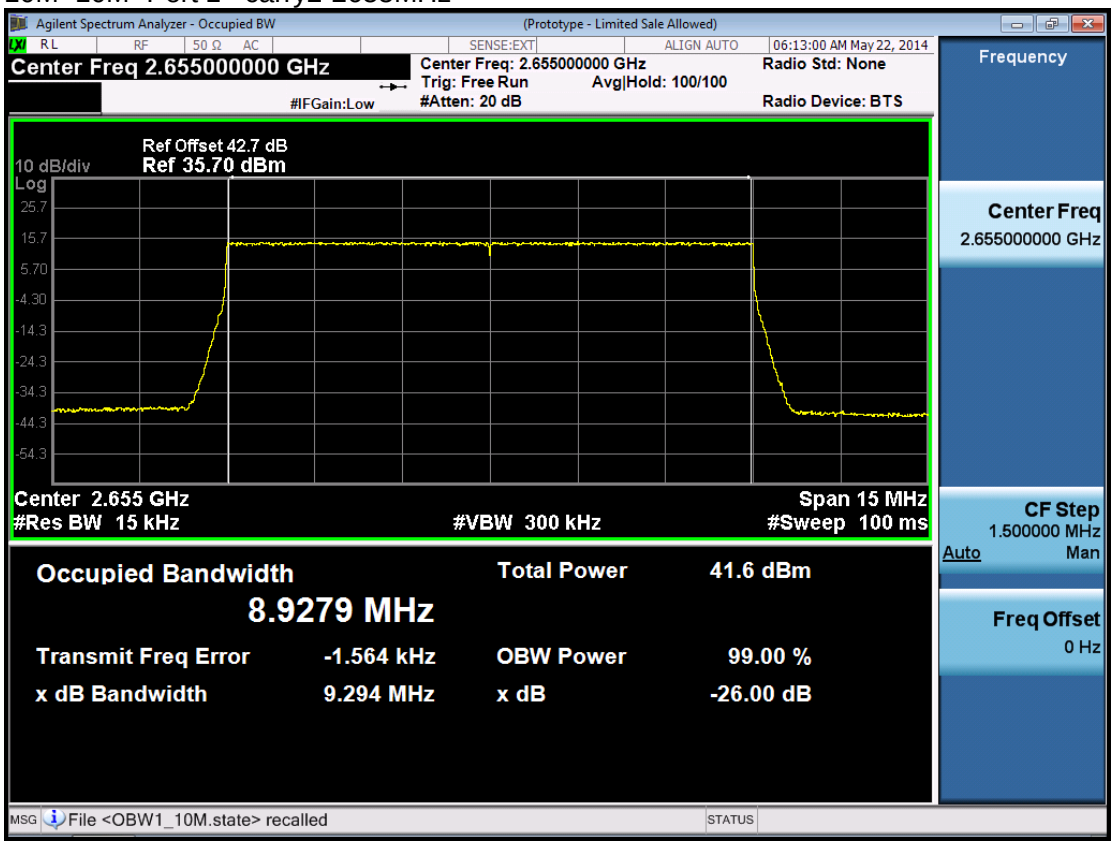
Channel Bandwidth :10M+10M

Port	Carry1 Center Freq. (MHz)	Carry1 99% Power Bandwidth (MHz)	Carry2 Center Freq. (MHz)	Carry2 99% Power Bandwidth (MHz)	Limit (MHz)
1	2625	8.9264	2655	8.9279	10M
	2640	8.9279	2670	8.9290	10M
	2655	8.9270	2685	8.9285	10M
2	2625	8.9250	2655	8.9299	10M
	2640	8.9251	2670	8.9266	10M
	2655	8.9247	2685	8.9265	10M

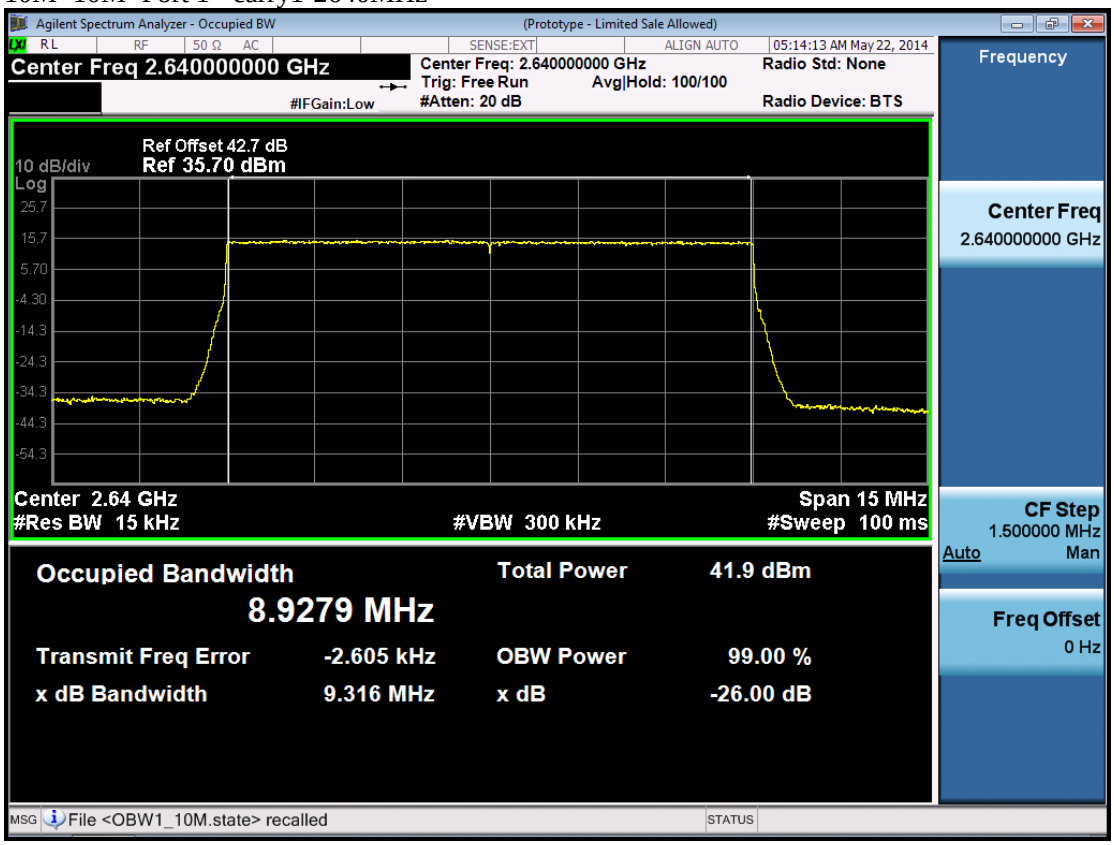
10M+10M -Port 1 –carry1-2625MHz



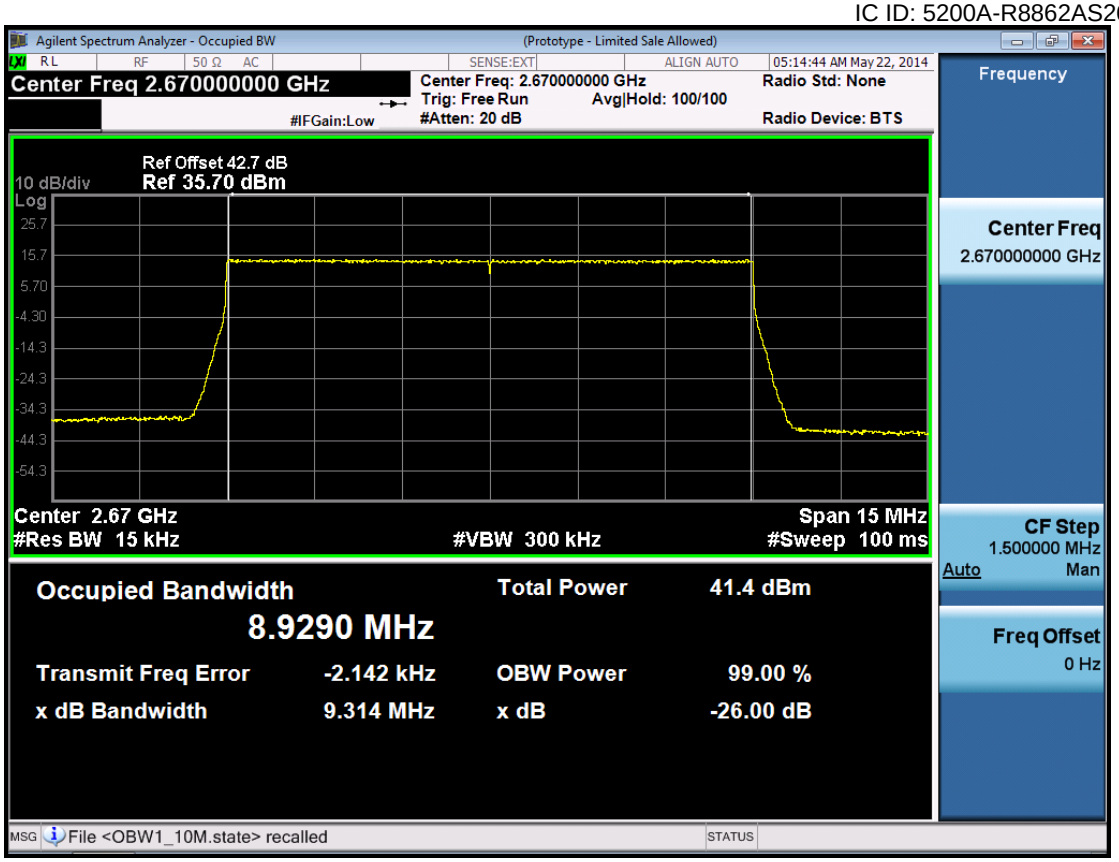
10M+10M -Port 1 –carry2-2655MHz



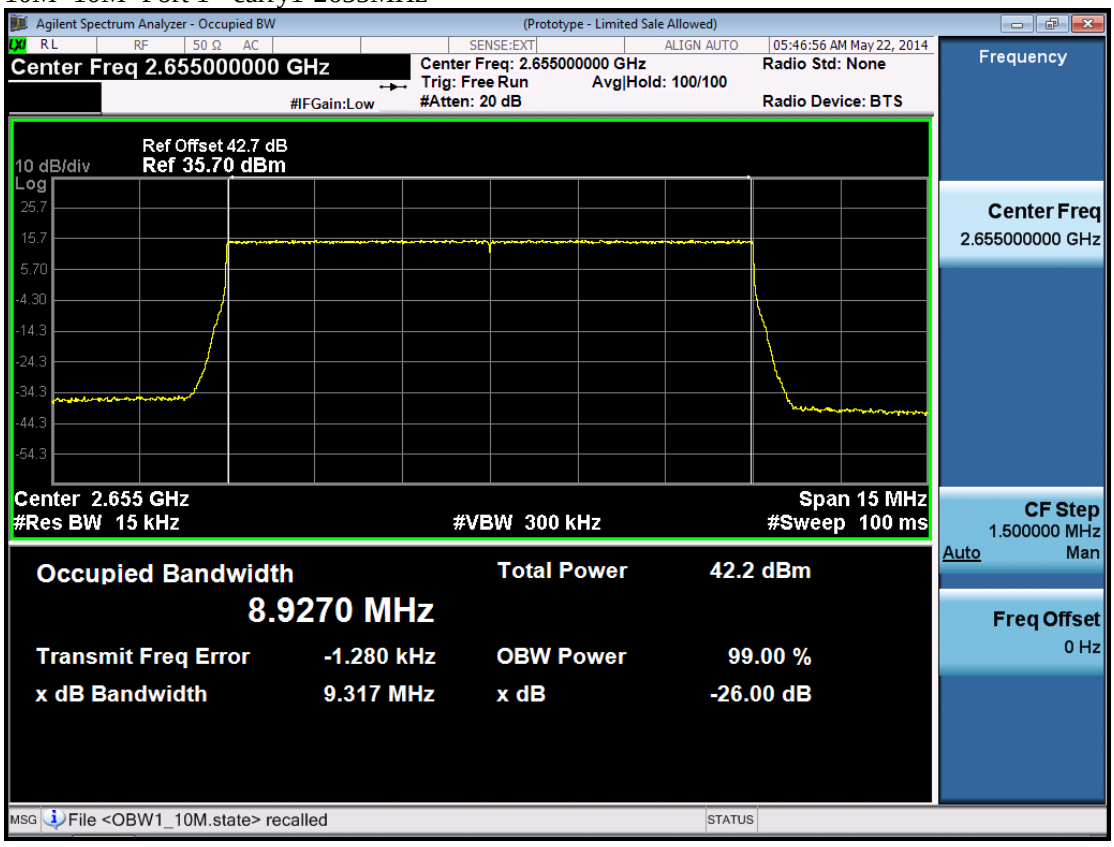
10M+10M -Port 1 - carry1-2640MHz



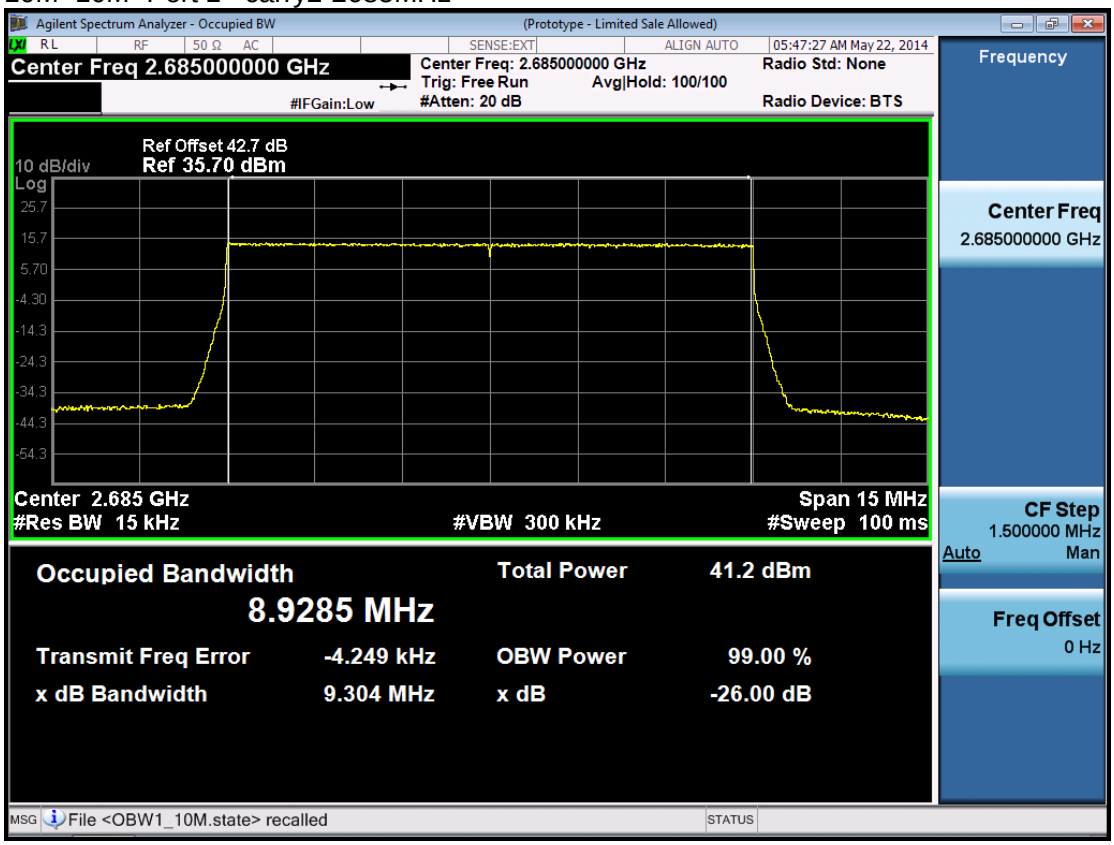
10M+10M -Port 1 –carry2-2670MHz



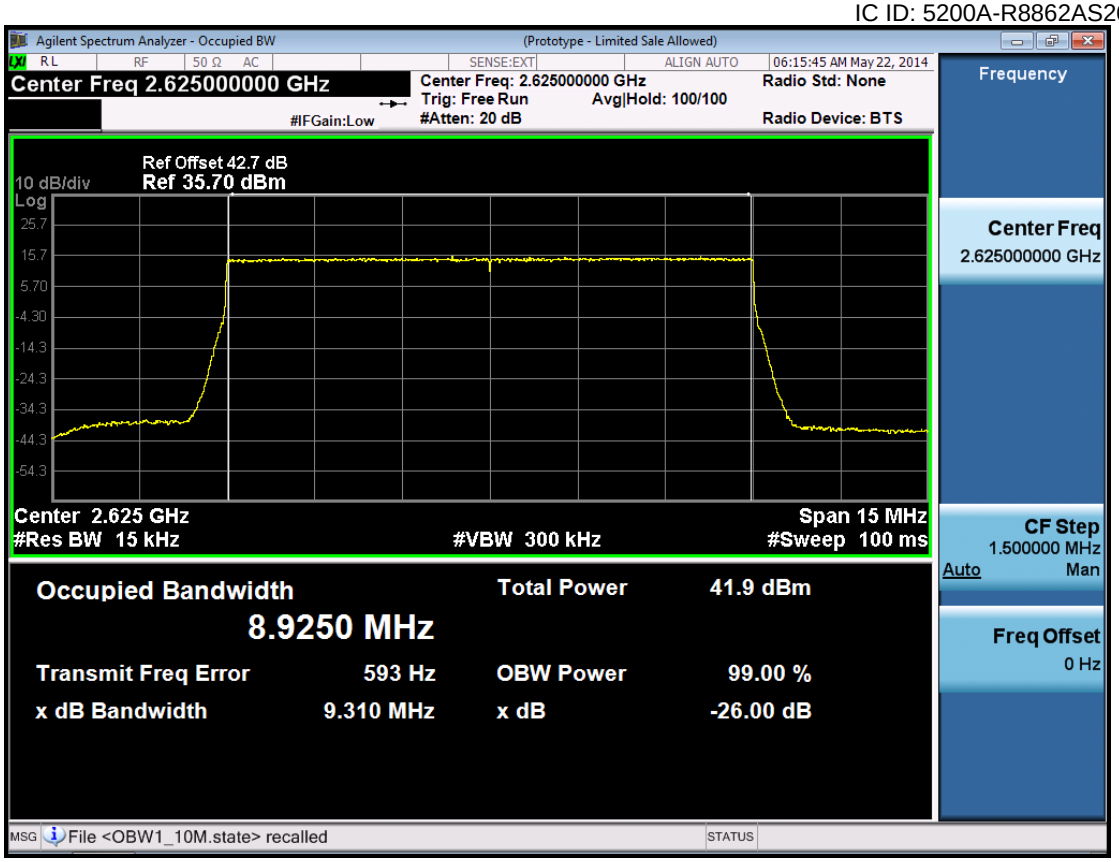
10M+10M -Port 1 - carry1-2655MHz



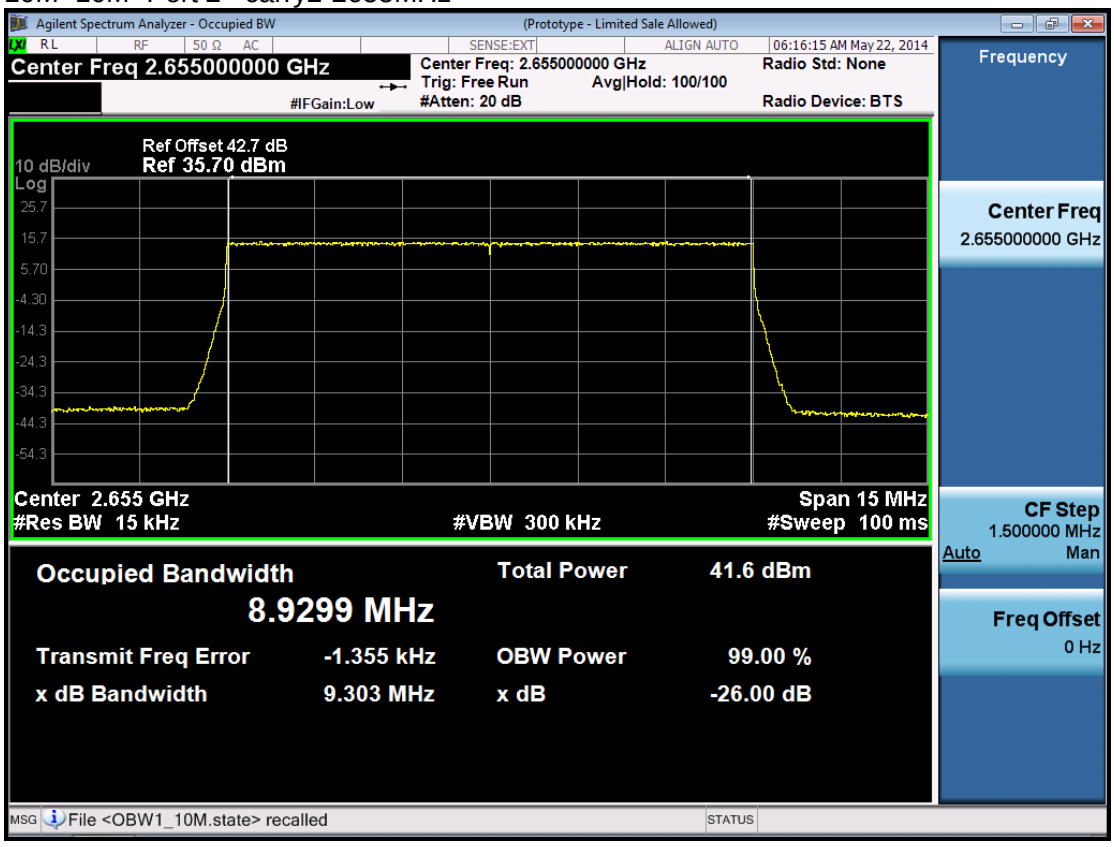
10M+10M -Port 1 –carry2-2685MHz



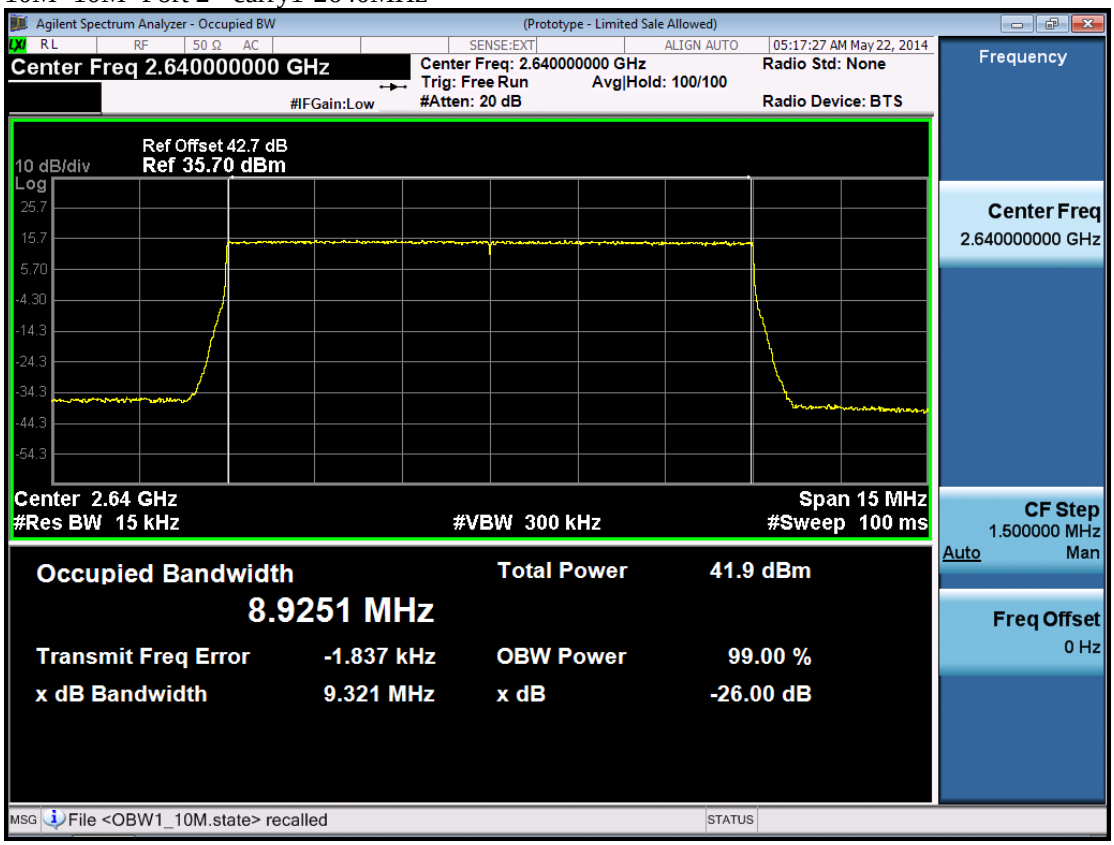
10M+10M -Port 2 –carry1-2625MHz



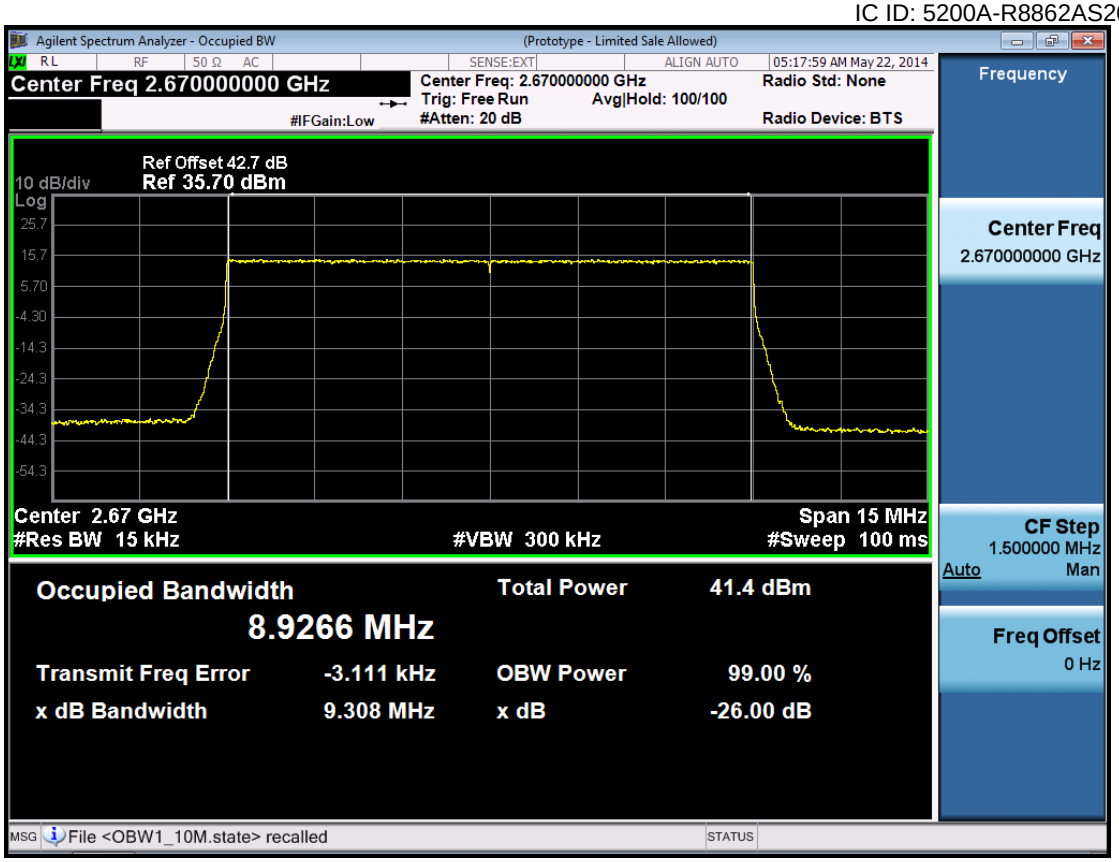
10M+10M -Port 2 –carry2-2655MHz



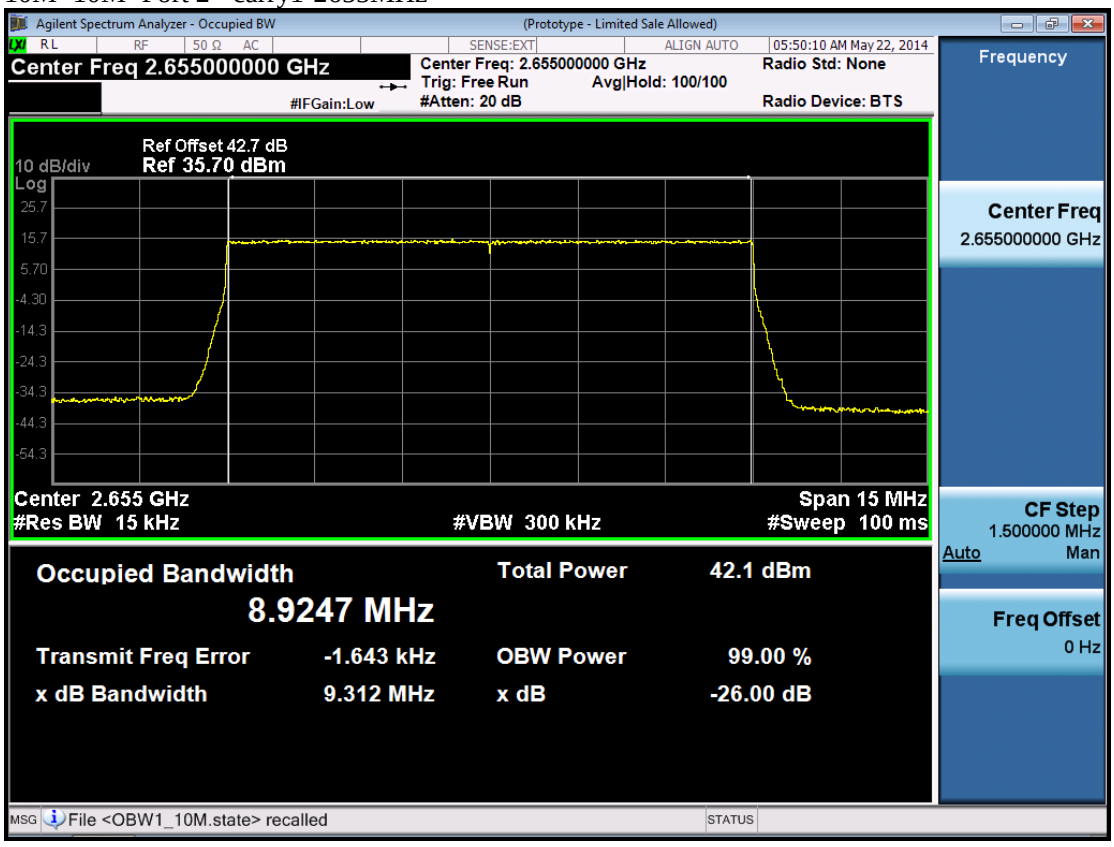
10M+10M -Port 2 - carry1-2640MHz



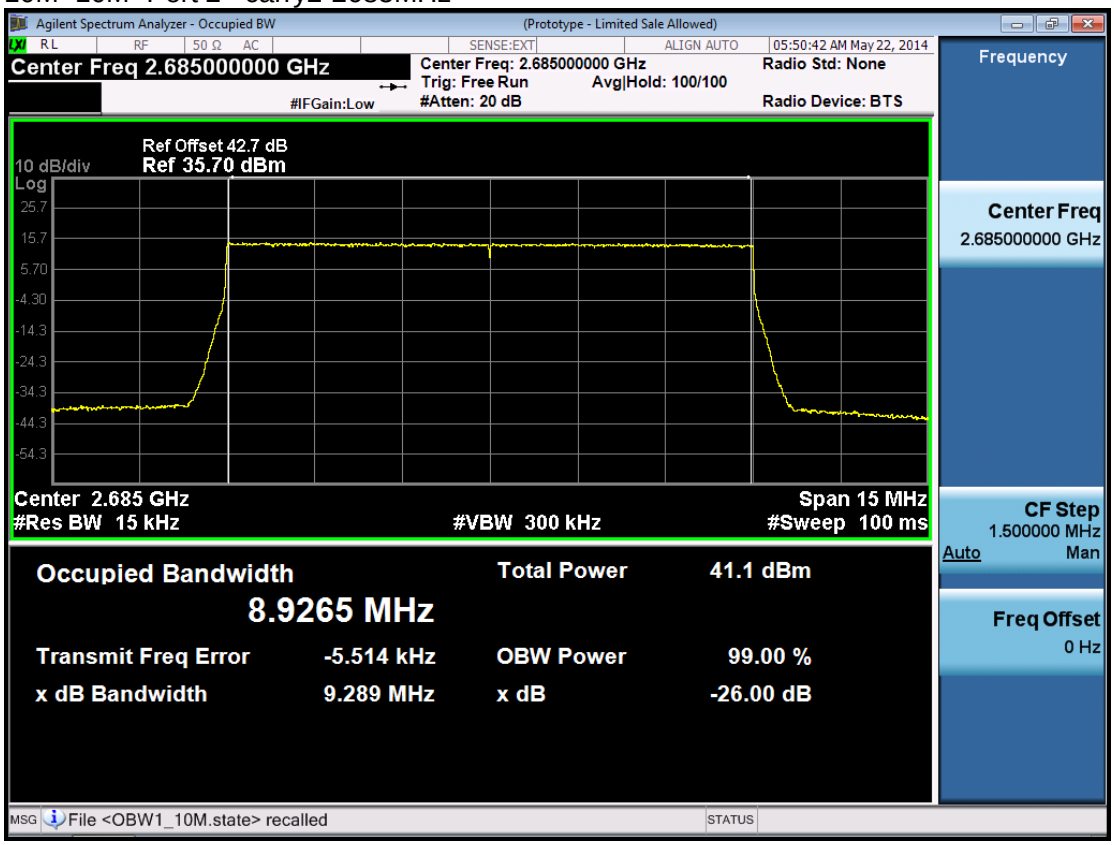
10M+10M -Port 2 –carry2-2670MHz



10M+10M -Port 2 - carry1-2655MHz



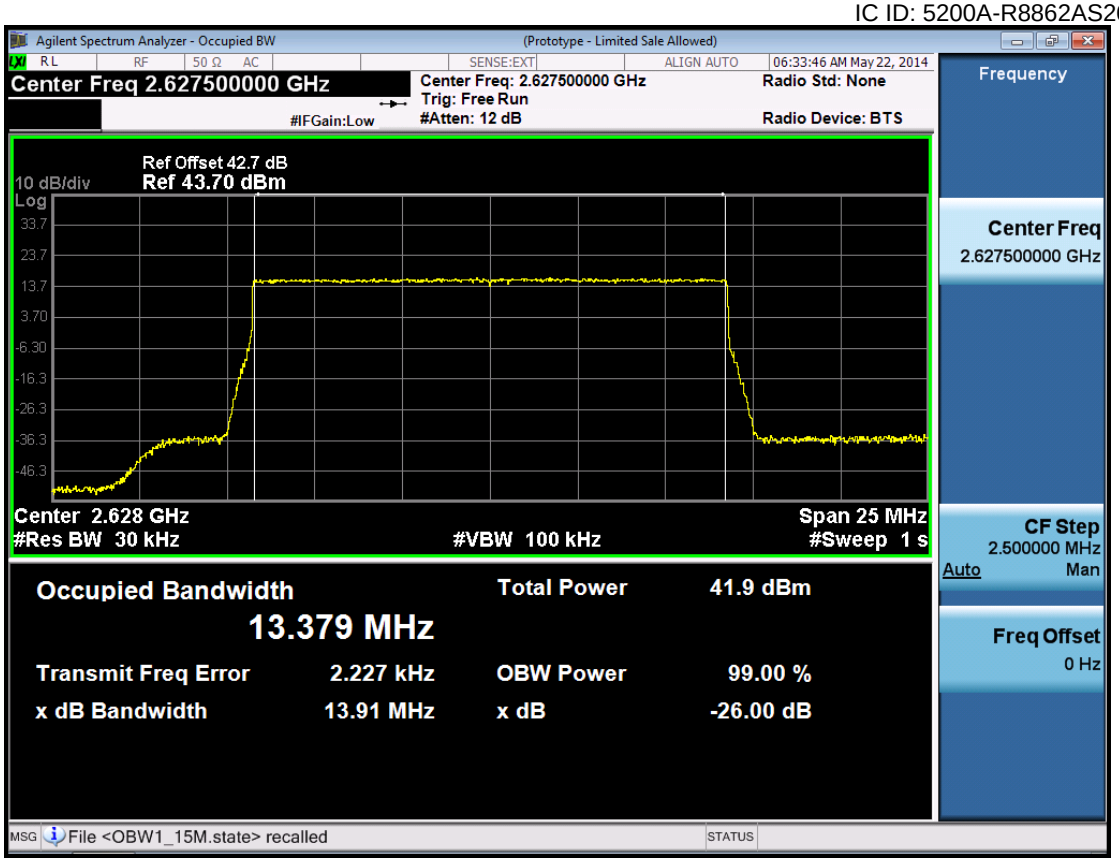
10M+10M -Port 2 –carry2-2685MHz



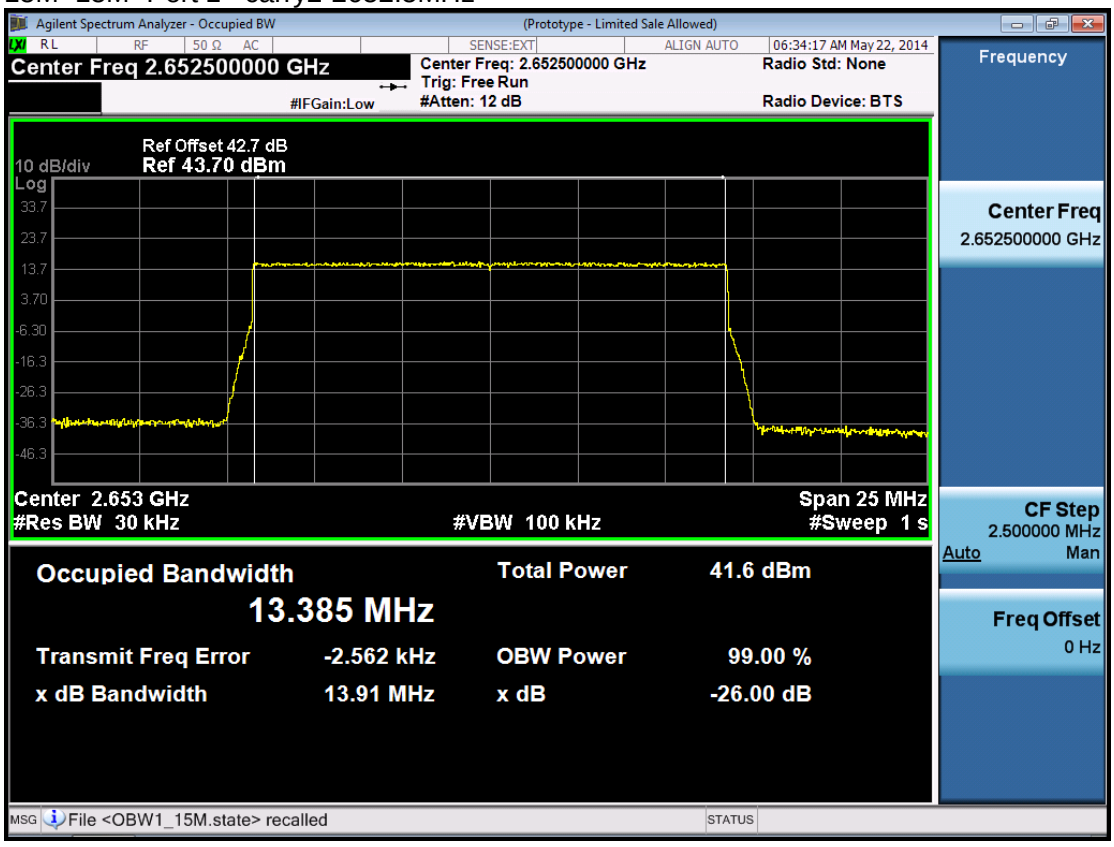
Channel Bandwidth :15M+15M

Port	Carry1 Center Freq. (MHz)	Carry1 99% Power Bandwidth (MHz)	Carry2 Center Freq. (MHz)	Carry2 99% Power Bandwidth (MHz)	Limit (MHz)
1	2627.5	13.379	2652.5	13.385	15M
	2642.5	13.385	2667.5	13.383	15M
	2657.5	13.383	2682.5	13.387	15M
2	2627.5	13.380	2652.5	13.379	15M
	2642.5	13.386	2667.5	13.382	15M
	2657.5	13.381	2682.5	13.378	15M

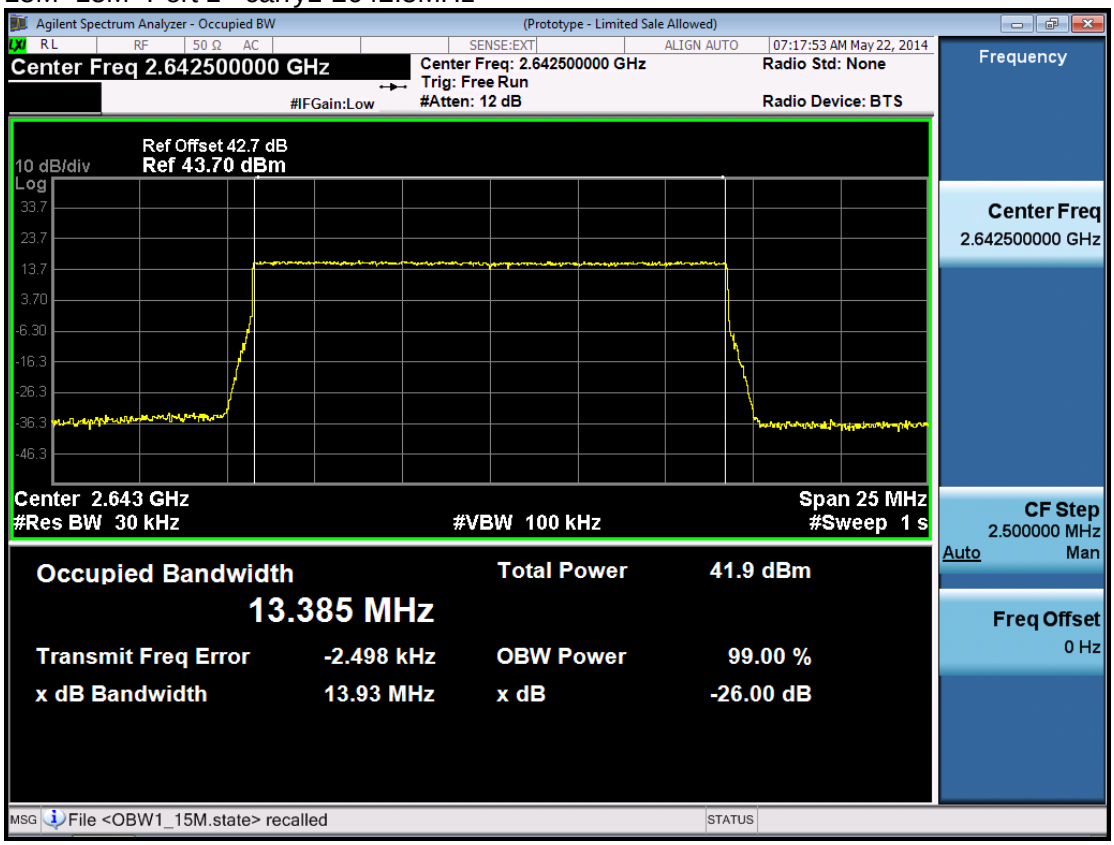
15M+15M -Port 1 –carry1-2627.5MHz



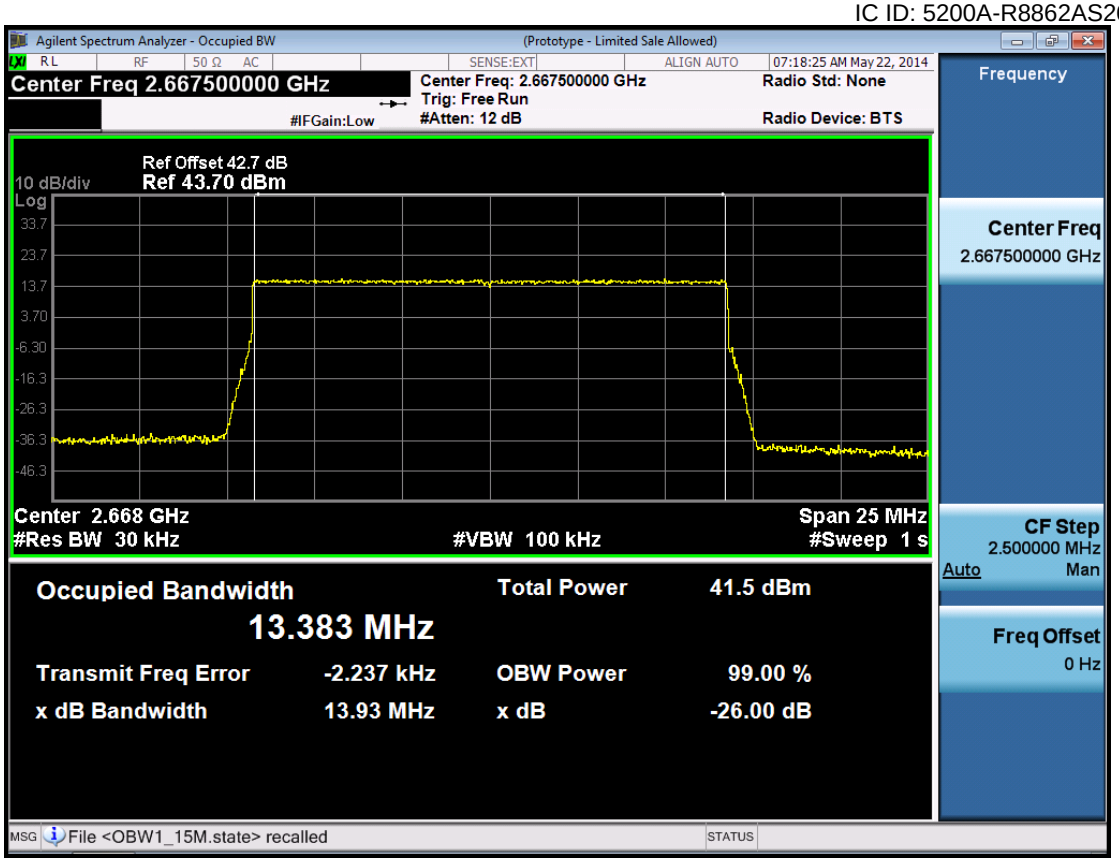
15M+15M -Port 1 –carry2-2652.5MHz



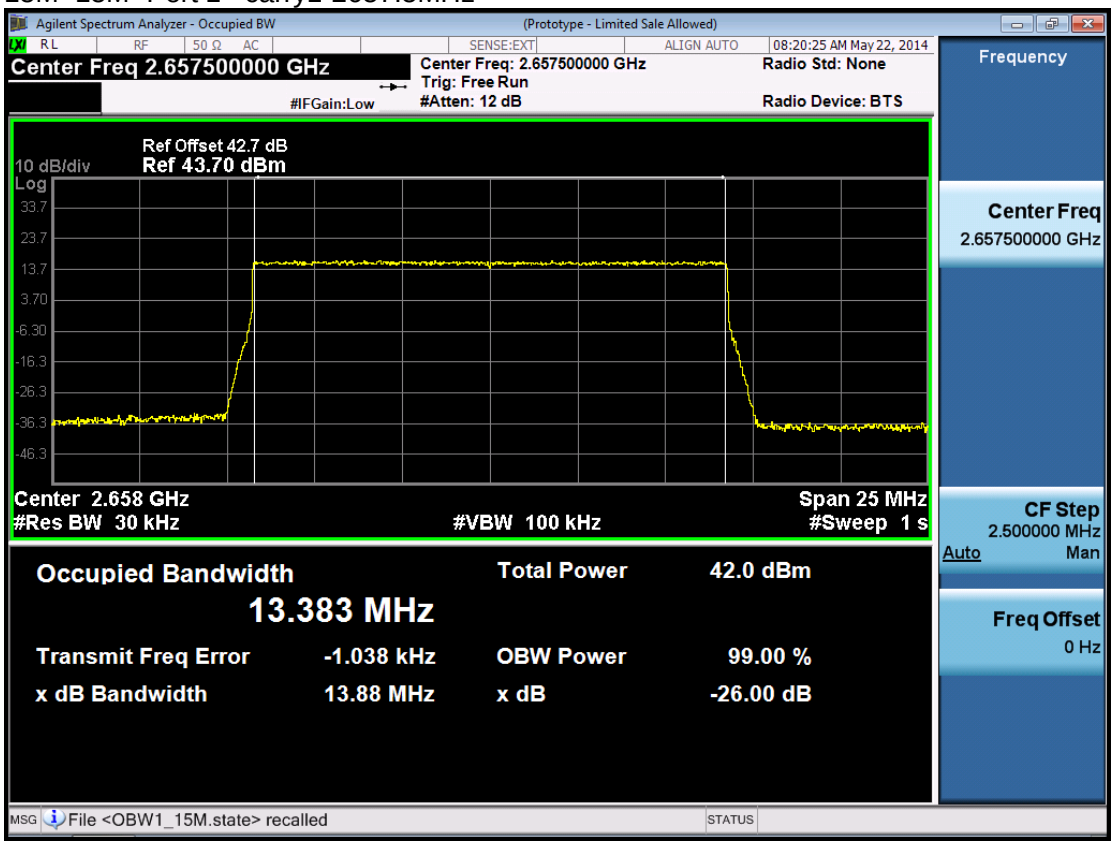
15M+15M -Port 1 –carry1-2642.5MHz



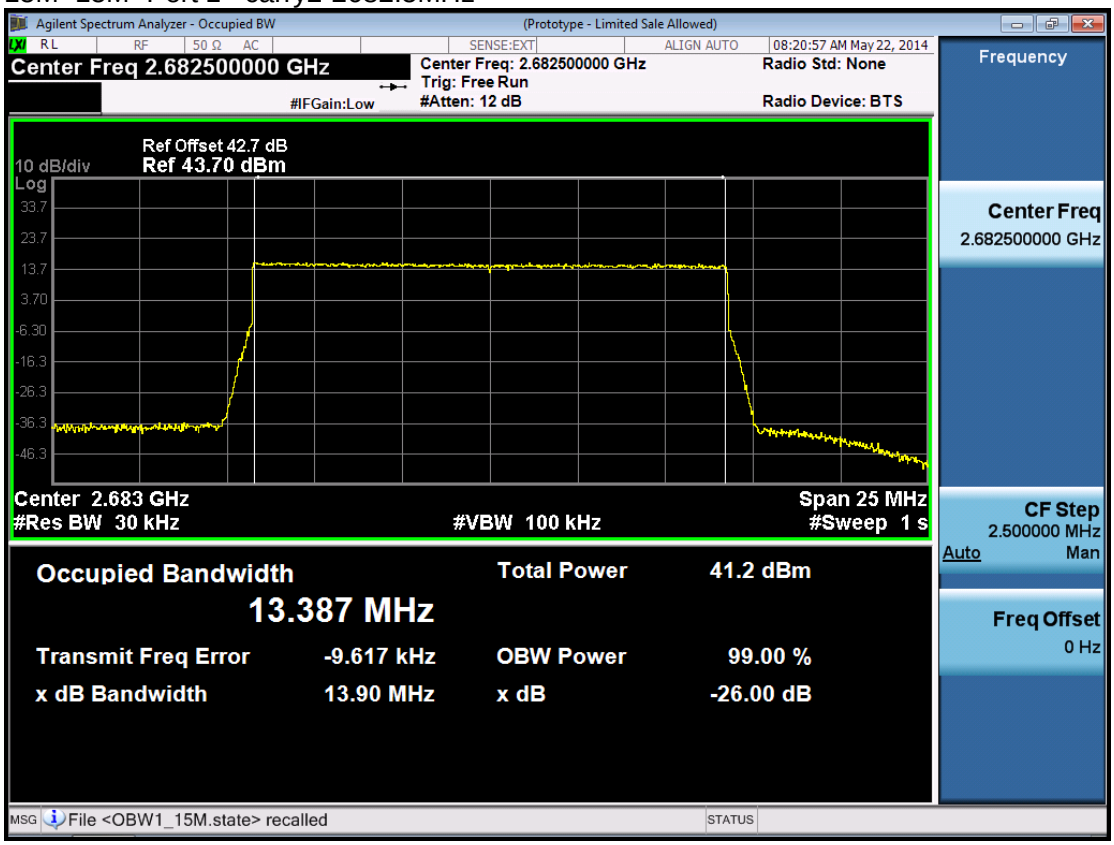
15M+15M -Port 1 –carry2-2667.5MHz



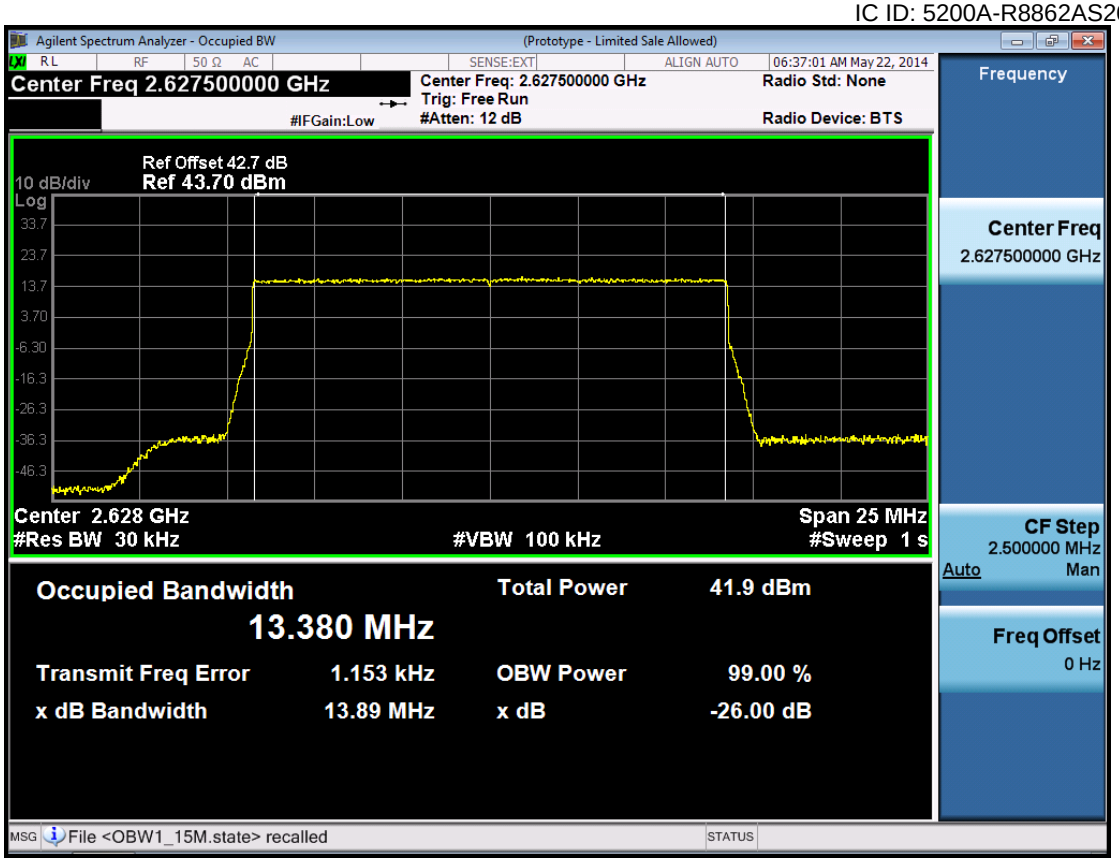
15M+15M -Port 1 –carry1-2657.5MHz



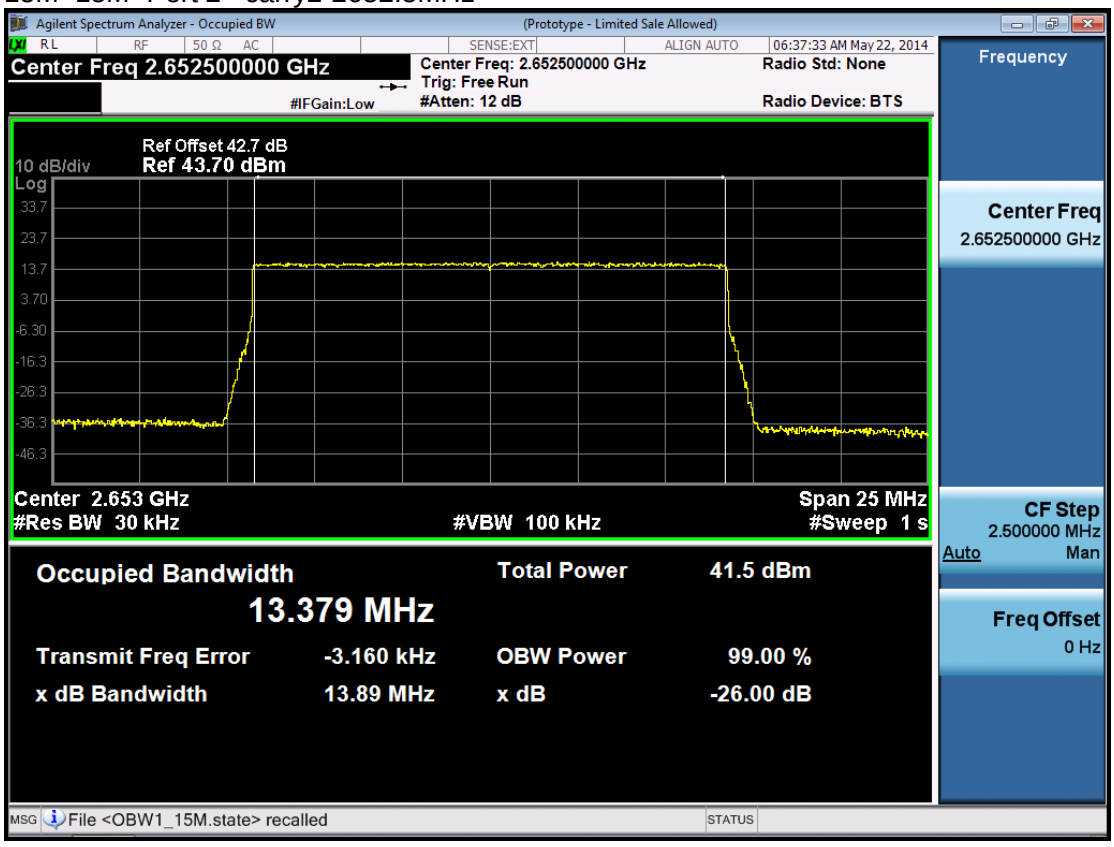
15M+15M -Port 1 –carry2-2682.5MHz



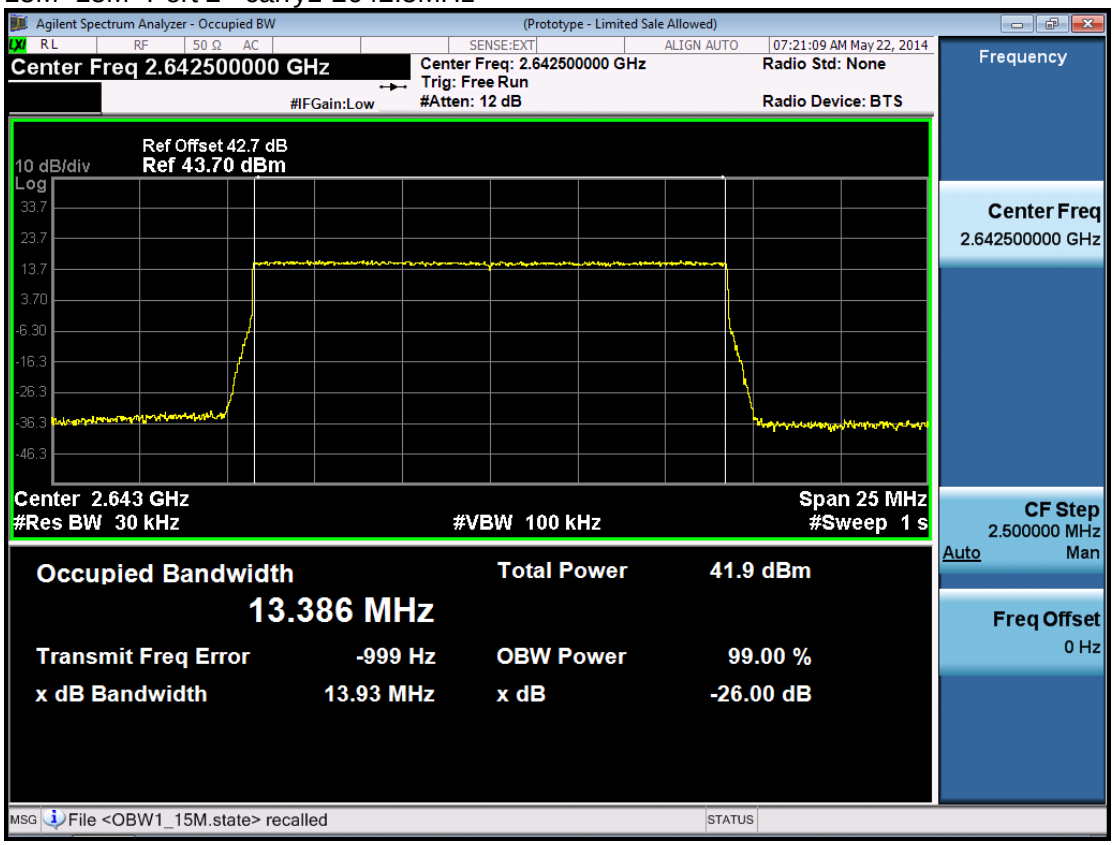
15M+15M -Port 2 –carry1-2627.5MHz



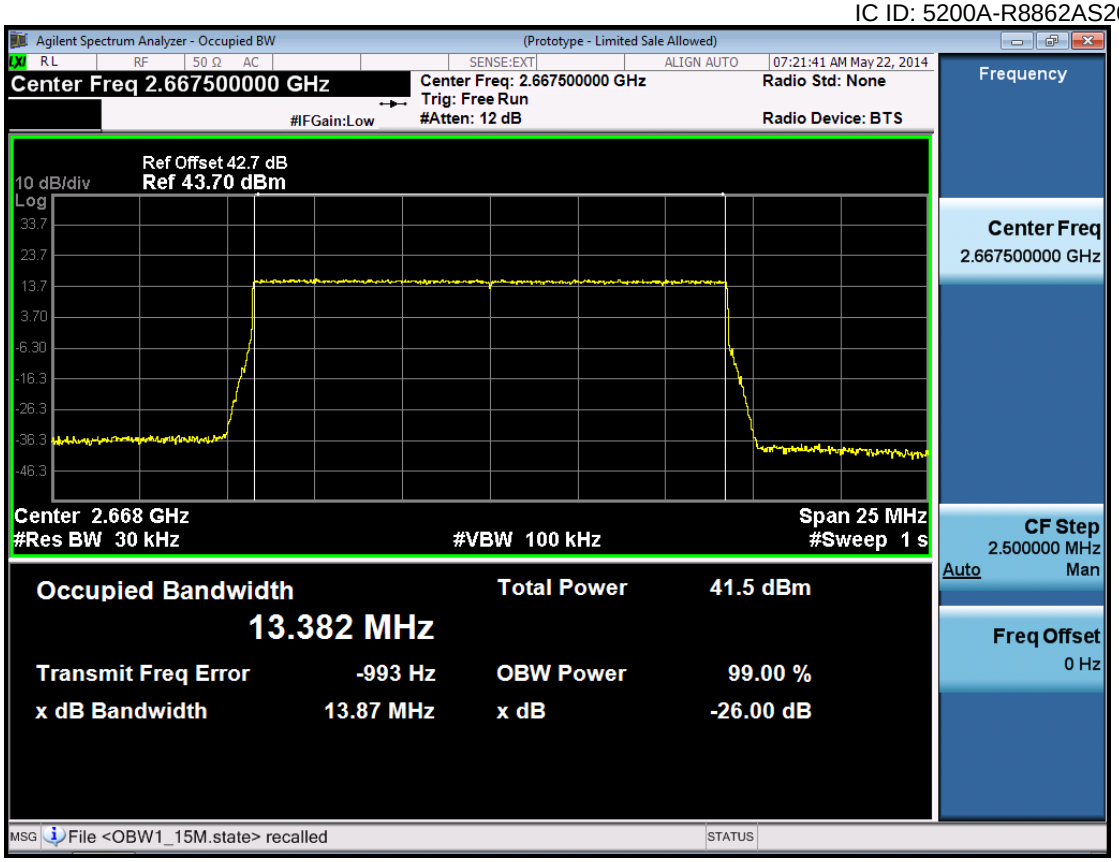
15M+15M -Port 2 –carry2-2652.5MHz



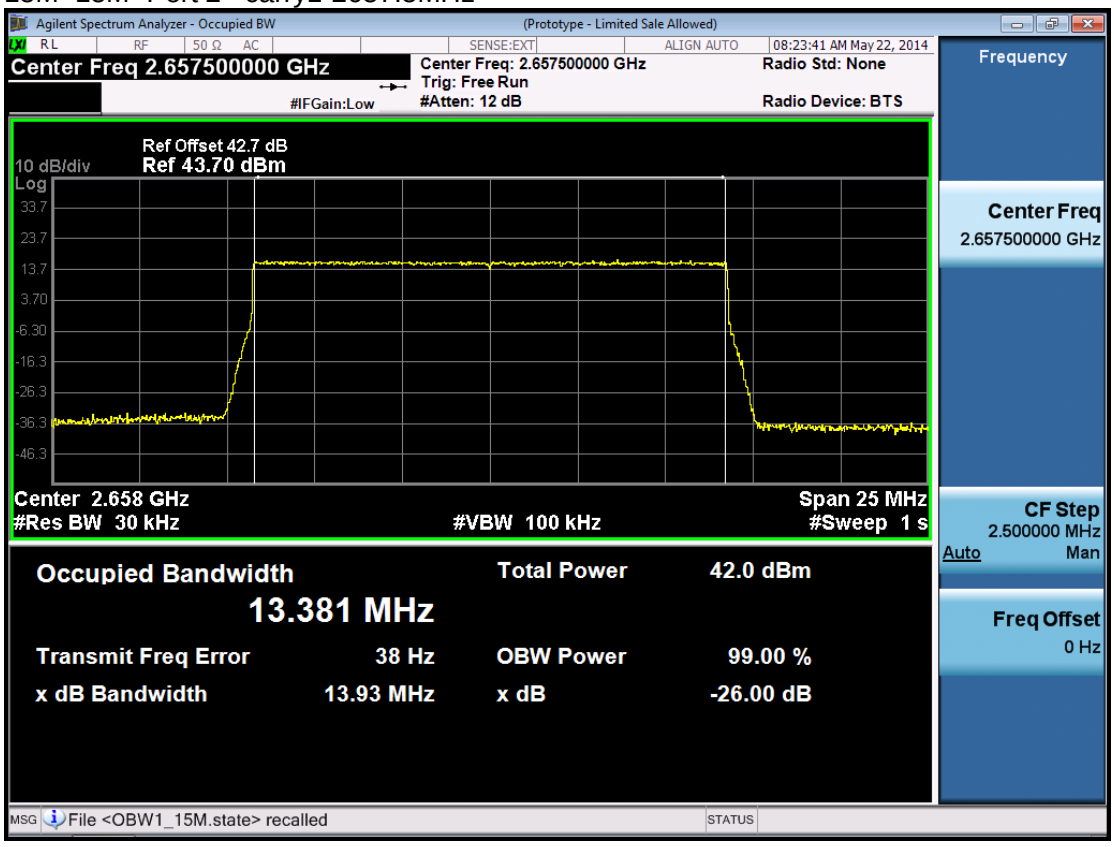
15M+15M -Port 2 –carry1-2642.5MHz



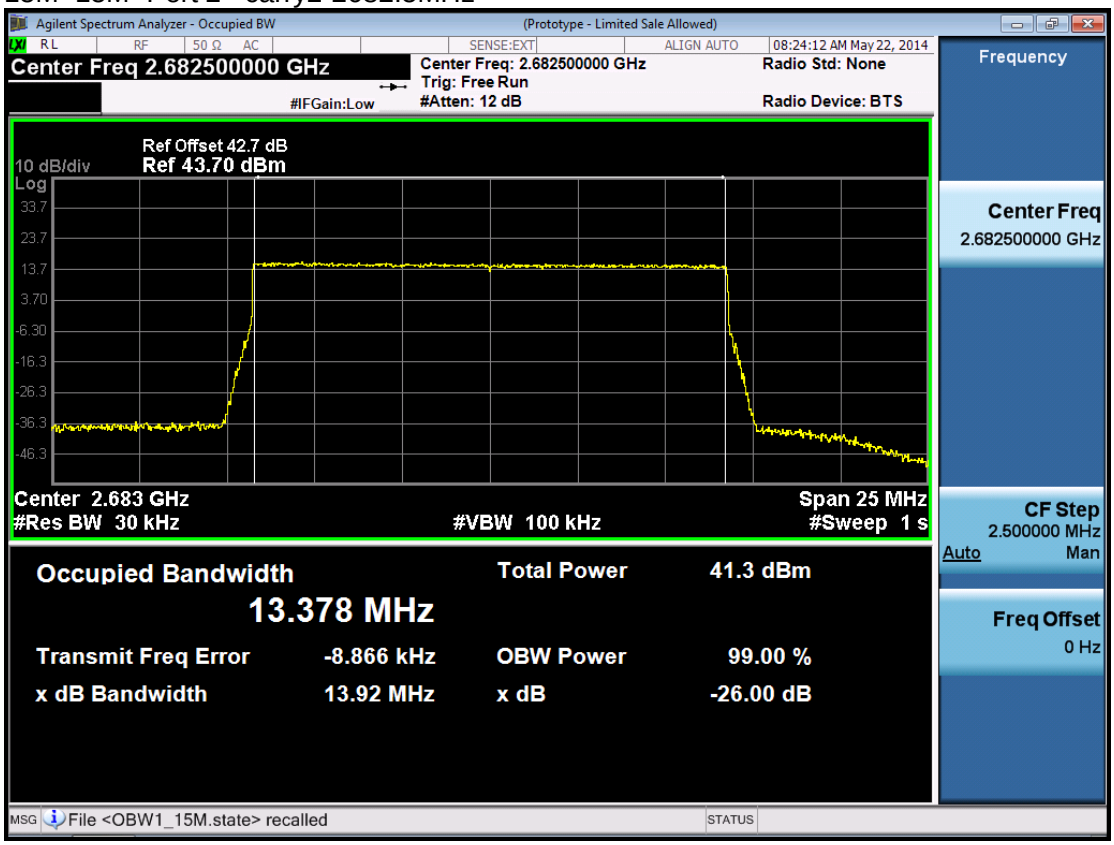
15M+15M -Port 2 –carry2-2667.5MHz



15M+15M -Port 2 –carry1-2657.5MHz



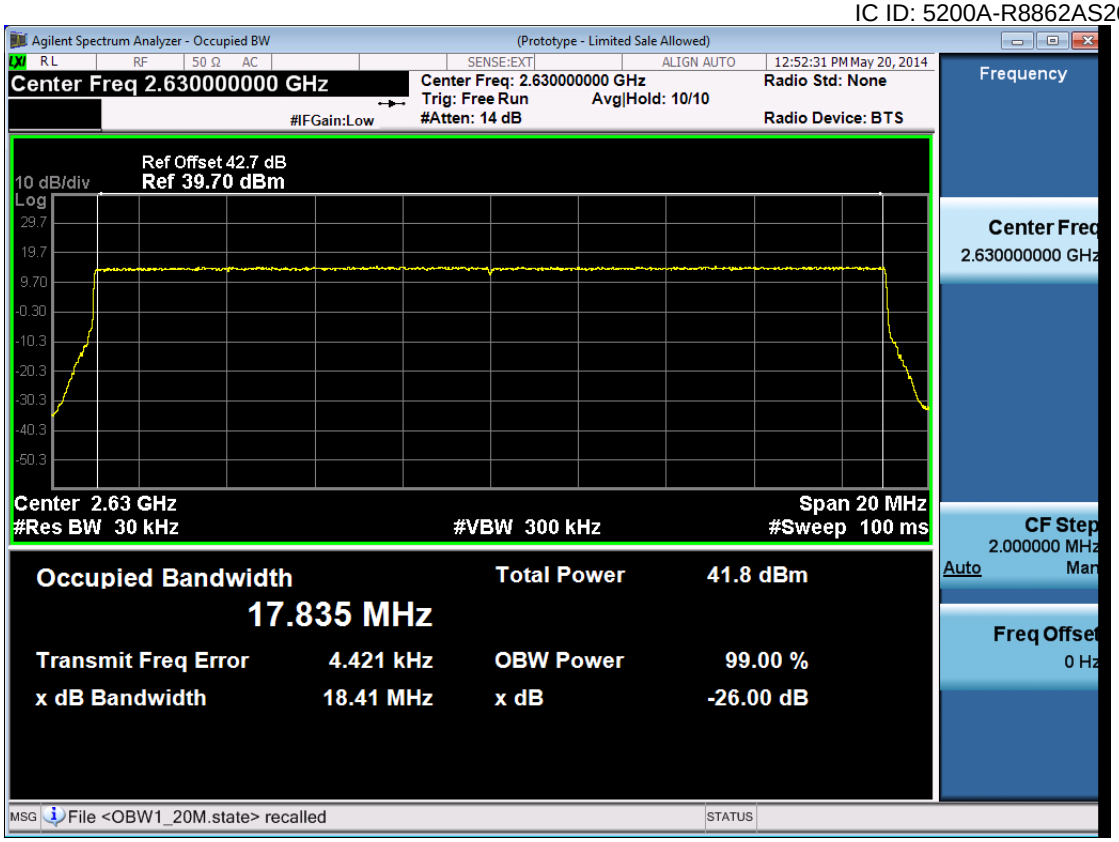
15M+15M -Port 2 –carry2-2682.5MHz



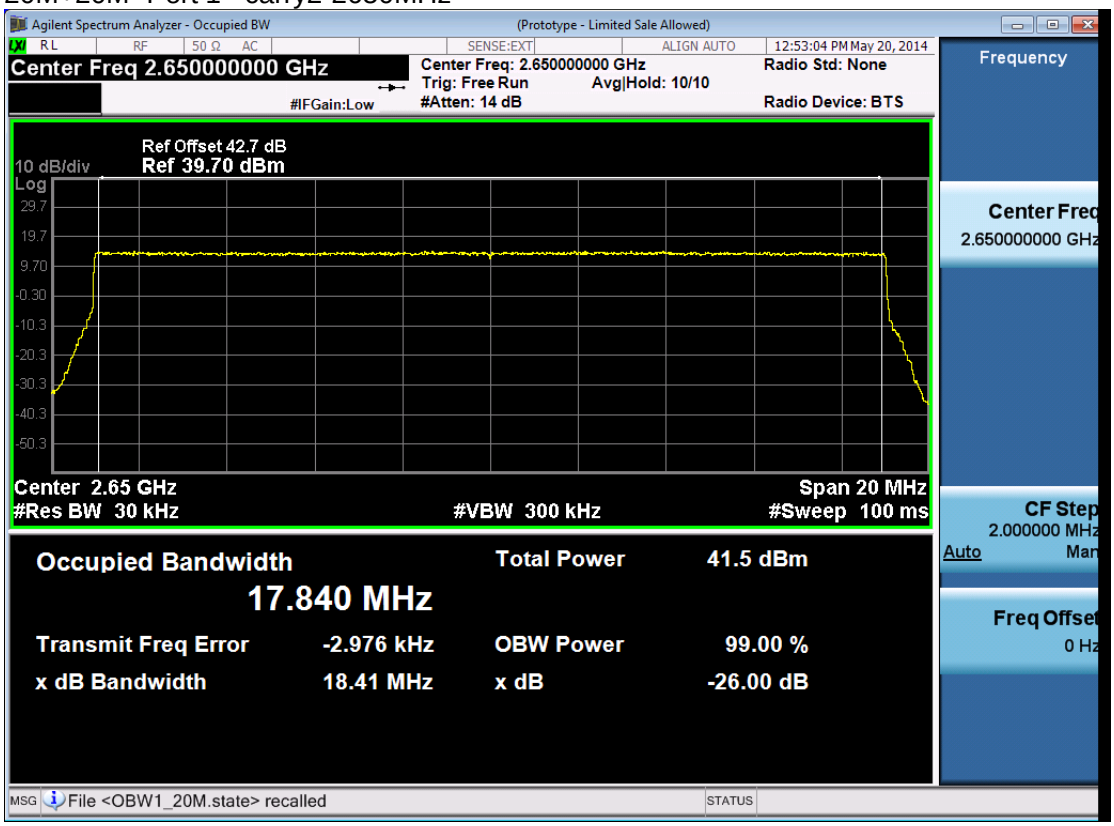
Channel Bandwidth :20M+20M

Port	Carry1 Center Freq. (MHz)	Carry1 99% Power Bandwidth (MHz)	Carry2 Center Freq. (MHz)	Carry2 99% Power Bandwidth (MHz)	Limit (MHz)
1	2630	17.835	2650	17.840	20M
	2645	17.842	2665	17.845	20M
	2660	17.840	2680	17.835	20M
2	2630	17.837	2650	17.843	20M
	2645	17.842	2665	17.842	20M
	2660	17.837	2680	17.837	20M

20M+20M -Port 1 –carry1-2630MHz



20M+20M -Port 1 –carry2-2650MHz



20M+20M -Port 1 –carry1-2645MHz