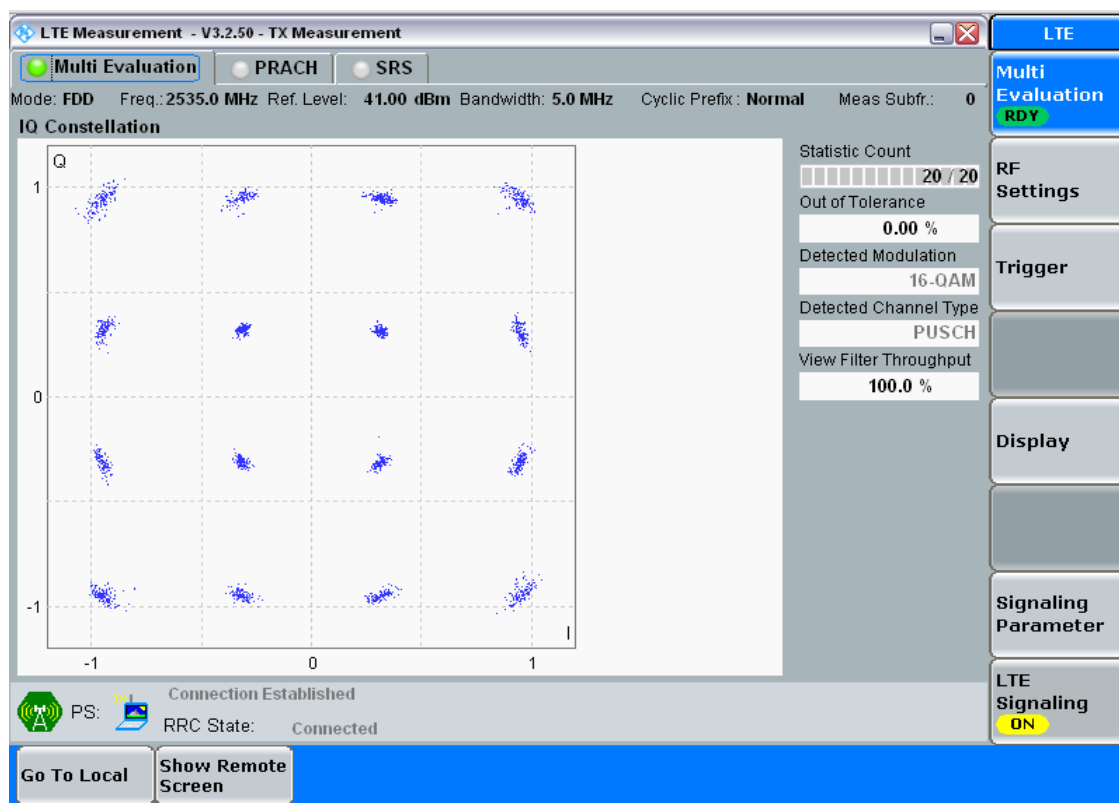


3.3.4.2 Test Mode = LTE/TM2

3.3.4.2.1 Test Bandwidth = 5

3.3.4.2.1.1 Test Channel = MCH

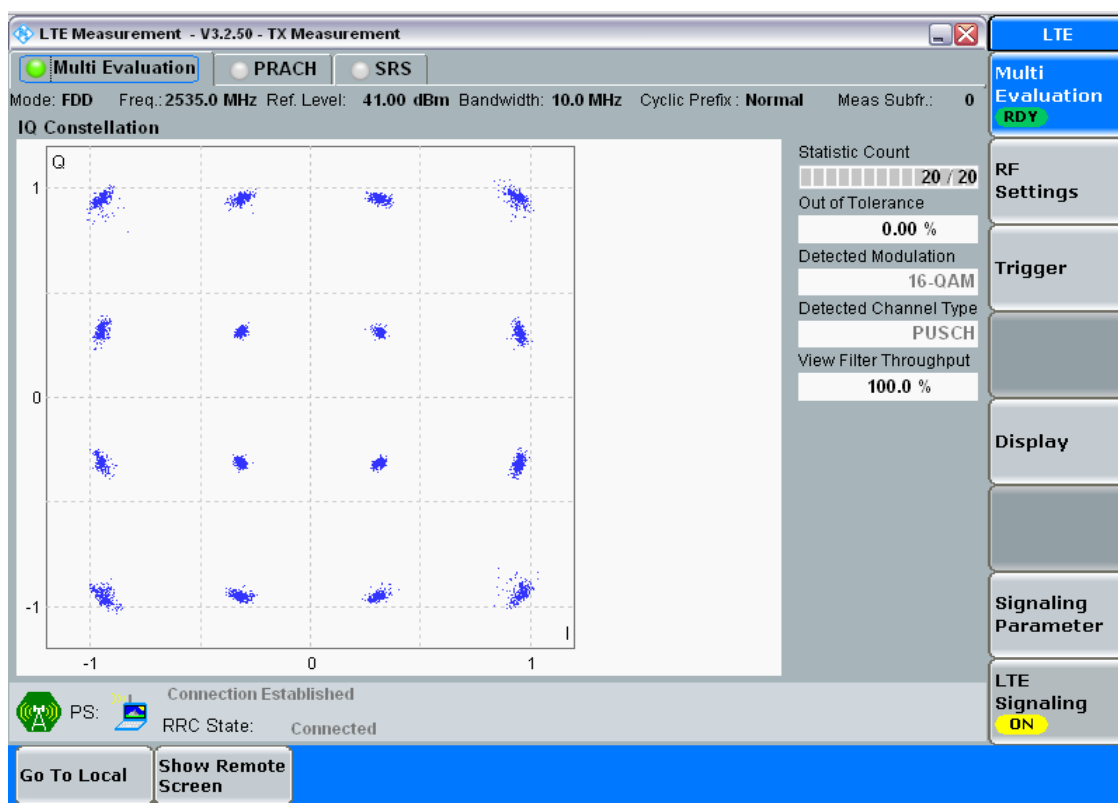
3.3.4.2.1.1.1 Test RB = RB25#0



3.3.4.2.2 Test Bandwidth = 10

3.3.4.2.2.1 Test Channel = MCH

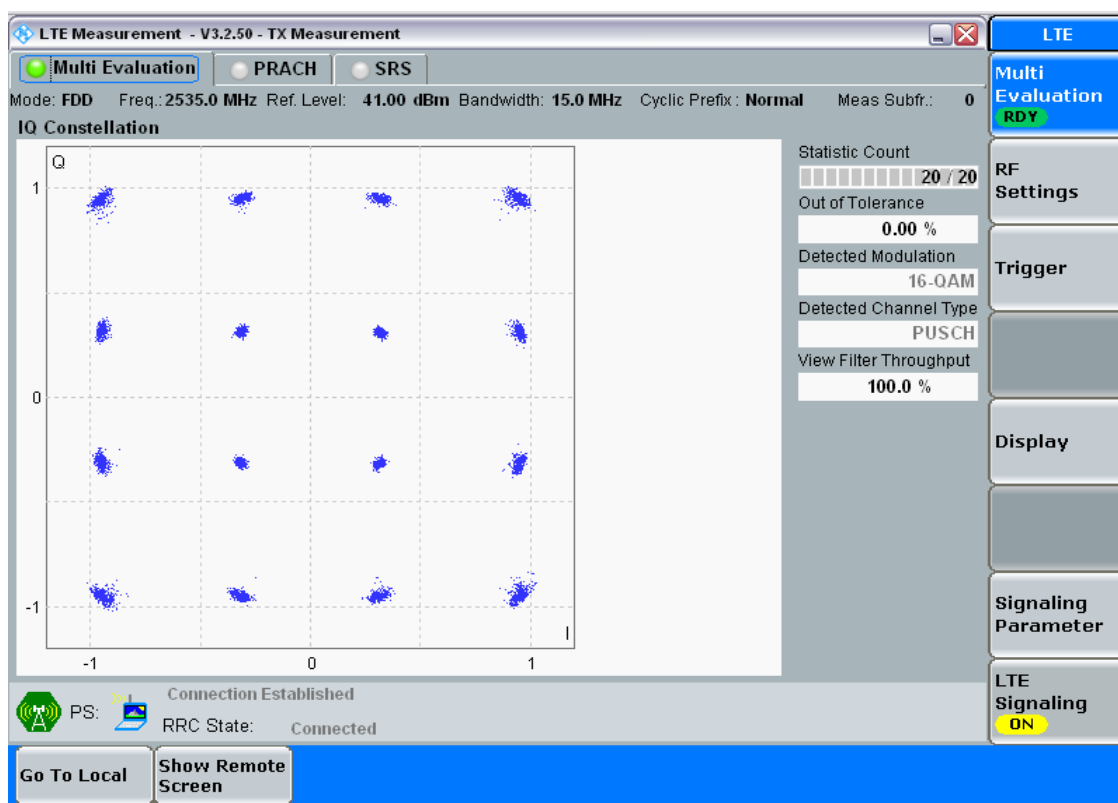
3.3.4.2.2.1.1 Test RB = RB50#0



3.3.4.2.3 Test Bandwidth = 15

3.3.4.2.3.1 Test Channel = MCH

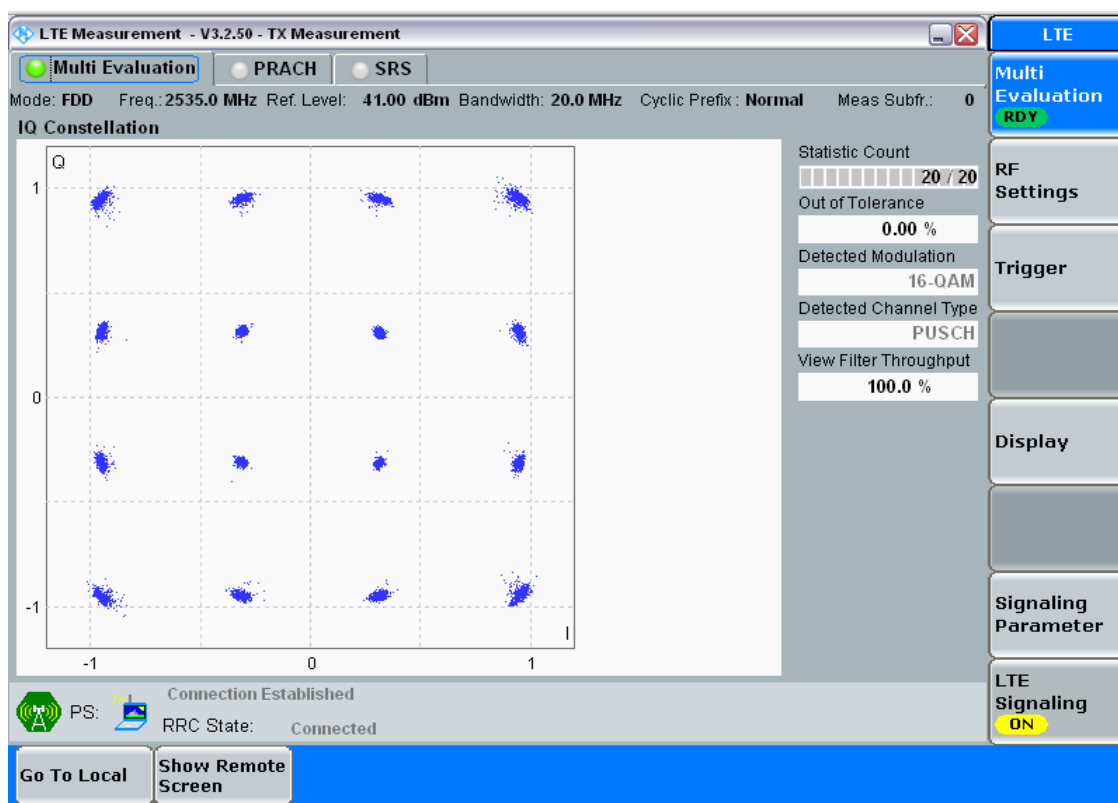
3.3.4.2.3.1.1 Test RB = RB75#0



3.3.4.2.4 Test Bandwidth = 20

3.3.4.2.4.1 Test Channel = MCH

3.3.4.2.4.1.1 Test RB = RB100#0



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM850	GSM/TM1	LCH	245.39	315.80	Pass
		MCH	246.21	312.29	Pass
		HCH	243.71	312.00	Pass
	GSM/TM2	LCH	242.18	311.64	Pass
		MCH	244.13	309.88	Pass
		HCH	247.19	315.05	Pass
GSM1900	GSM/TM1	LCH	243.54	312.94	Pass
		MCH	243.30	315.44	Pass
		HCH	245.57	313.19	Pass
	GSM/TM2	LCH	248.05	318.55	Pass
		MCH	244.67	317.67	Pass
		HCH	243.07	315.73	Pass
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.15	4.70	Pass
		MCH	4.16	4.71	Pass
		HCH	4.15	4.69	Pass
WCDMA1900	UMTS/TM1	LCH	4.15	4.71	Pass
		MCH	4.17	4.71	Pass
		HCH	4.15	4.71	Pass
WCDMA1700	UMTS/TM1	LCH	4.18	4.74	Pass
		MCH	4.17	4.72	Pass
		HCH	4.15	4.72	Pass

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
BAND2	LTE/TM1	1.4	LCH	RB6#0	1.09	1.23	Pass
			MCH	RB6#0	1.09	1.22	Pass
			HCH	RB6#0	1.09	1.23	Pass
		3	LCH	RB15#0	2.71	2.93	Pass
			MCH	RB15#0	2.71	2.94	Pass
			HCH	RB15#0	2.70	2.92	Pass
		5	LCH	RB25#0	4.49	4.86	Pass
			MCH	RB25#0	4.50	4.87	Pass
			HCH	RB25#0	4.49	4.85	Pass
		10	LCH	RB50#0	8.99	9.62	Pass
			MCH	RB50#0	9.00	9.66	Pass
			HCH	RB50#0	8.99	9.58	Pass
		15	LCH	RB75#0	13.48	14.39	Pass
			MCH	RB75#0	13.49	14.44	Pass
			HCH	RB75#0	13.48	14.39	Pass
		20	LCH	RB100#0	17.97	19.07	Pass
			MCH	RB100#0	17.97	19.02	Pass
			HCH	RB100#0	18.01	19.11	Pass
	LTE/TM2	1.4	LCH	RB6#0	1.09	1.23	Pass
			MCH	RB6#0	1.09	1.22	Pass
			HCH	RB6#0	1.09	1.23	Pass
		3	LCH	RB15#0	2.70	2.92	Pass
			MCH	RB15#0	2.71	2.93	Pass
			HCH	RB15#0	2.70	2.93	Pass
		5	LCH	RB25#0	4.49	4.87	Pass
			MCH	RB25#0	4.50	4.89	Pass
			HCH	RB25#0	4.50	4.88	Pass
		10	LCH	RB50#0	8.99	9.63	Pass
			MCH	RB50#0	9.01	9.63	Pass
			HCH	RB50#0	9.00	9.65	Pass
		15	LCH	RB75#0	13.48	14.37	Pass
			MCH	RB75#0	13.49	14.43	Pass
			HCH	RB75#0	13.49	14.35	Pass
		20	LCH	RB100#0	17.98	19.09	Pass
			MCH	RB100#0	17.97	19.07	Pass
			HCH	RB100#0	18.00	19.09	Pass
BAND4	LTE/TM1	1.4	LCH	RB6#0	1.09	1.23	Pass

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
			MCH	RB6#0	1.09	1.22	Pass
			HCH	RB6#0	1.09	1.23	Pass
			LCH	RB15#0	2.70	2.93	Pass
		3	MCH	RB15#0	2.71	2.93	Pass
			HCH	RB15#0	2.70	2.94	Pass
			LCH	RB25#0	4.50	4.89	Pass
		5	MCH	RB25#0	4.50	4.86	Pass
			HCH	RB25#0	4.49	4.86	Pass
			LCH	RB50#0	9.00	9.64	Pass
		10	MCH	RB50#0	9.00	9.66	Pass
			HCH	RB50#0	9.00	9.65	Pass
			LCH	RB75#0	13.50	14.42	Pass
		15	MCH	RB75#0	13.50	14.42	Pass
			HCH	RB75#0	13.45	14.34	Pass
			LCH	RB100#0	18.00	19.12	Pass
		20	MCH	RB100#0	18.00	19.03	Pass
			HCH	RB100#0	17.93	19.00	Pass
			LCH	RB6#0	1.09	1.23	Pass
	LTE/TM2	1.4	MCH	RB6#0	1.09	1.23	Pass
			HCH	RB6#0	1.09	1.23	Pass
			LCH	RB15#0	2.71	2.93	Pass
		3	MCH	RB15#0	2.70	2.94	Pass
			HCH	RB15#0	2.71	2.94	Pass
			LCH	RB25#0	4.50	4.88	Pass
		5	MCH	RB25#0	4.50	4.87	Pass
			HCH	RB25#0	4.50	4.85	Pass
			LCH	RB50#0	9.00	9.67	Pass
		10	MCH	RB50#0	9.01	9.67	Pass
			HCH	RB50#0	8.99	9.67	Pass
			LCH	RB75#0	13.49	14.40	Pass
		15	MCH	RB75#0	13.50	14.41	Pass
			HCH	RB75#0	13.47	14.35	Pass
			LCH	RB100#0	18.01	19.13	Pass
		20	MCH	RB100#0	18.00	19.09	Pass
			HCH	RB100#0	17.93	19.07	Pass
			LCH	RB6#0	1.09	1.23	Pass
BAND5	LTE/TM1	1.4	MCH	RB6#0	1.09	1.23	Pass
			HCH	RB6#0	1.09	1.22	Pass
			LCH	RB15#0	2.70	2.93	Pass
		3	LCH	RB15#0	2.70	2.93	Pass

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
			MCH	RB15#0	2.70	2.93	Pass
			HCH	RB15#0	2.70	2.94	Pass
			LCH	RB25#0	4.49	4.87	Pass
		5	MCH	RB25#0	4.49	4.87	Pass
			HCH	RB25#0	4.50	4.88	Pass
			LCH	RB50#0	8.99	9.62	Pass
		10	MCH	RB50#0	8.99	9.63	Pass
			HCH	RB50#0	8.99	9.64	Pass
			LCH	RB50#0	8.99	9.64	Pass
	LTE/TM2	1.4	LCH	RB6#0	1.09	1.23	Pass
			MCH	RB6#0	1.09	1.22	Pass
			HCH	RB6#0	1.09	1.22	Pass
		3	LCH	RB15#0	2.71	2.93	Pass
			MCH	RB15#0	2.70	2.95	Pass
			HCH	RB15#0	2.70	2.94	Pass
		5	LCH	RB25#0	4.50	4.85	Pass
			MCH	RB25#0	4.51	4.89	Pass
			HCH	RB25#0	4.49	4.85	Pass
		10	LCH	RB50#0	9.01	9.59	Pass
			MCH	RB50#0	9.00	9.65	Pass
			HCH	RB50#0	9.00	9.63	Pass
BAND7	LTE/TM1	5	LCH	RB25#0	4.50	4.86	Pass
			MCH	RB25#0	4.50	4.86	Pass
			HCH	RB25#0	4.51	4.88	Pass
		10	LCH	RB50#0	9.00	9.70	Pass
			MCH	RB50#0	9.00	9.63	Pass
			HCH	RB50#0	8.99	9.63	Pass
		15	LCH	RB75#0	13.48	14.44	Pass
			MCH	RB75#0	13.48	14.39	Pass
			HCH	RB75#0	13.45	14.31	Pass
		20	LCH	RB100#0	17.96	19.01	Pass
			MCH	RB100#0	17.98	19.06	Pass
			HCH	RB100#0	17.93	19.05	Pass
	LTE/TM2	5	LCH	RB25#0	4.50	4.90	Pass
			MCH	RB25#0	4.50	4.86	Pass
			HCH	RB25#0	4.50	4.86	Pass
		10	LCH	RB50#0	9.01	9.66	Pass
			MCH	RB50#0	9.01	9.64	Pass
			HCH	RB50#0	8.99	9.64	Pass
		15	LCH	RB75#0	13.48	14.40	Pass

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
			MCH	RB75#0	13.49	14.46	Pass
			HCH	RB75#0	13.45	14.33	Pass
		20	LCH	RB100#0	17.96	19.07	Pass
			MCH	RB100#0	17.98	19.07	Pass
			HCH	RB100#0	17.92	18.99	Pass

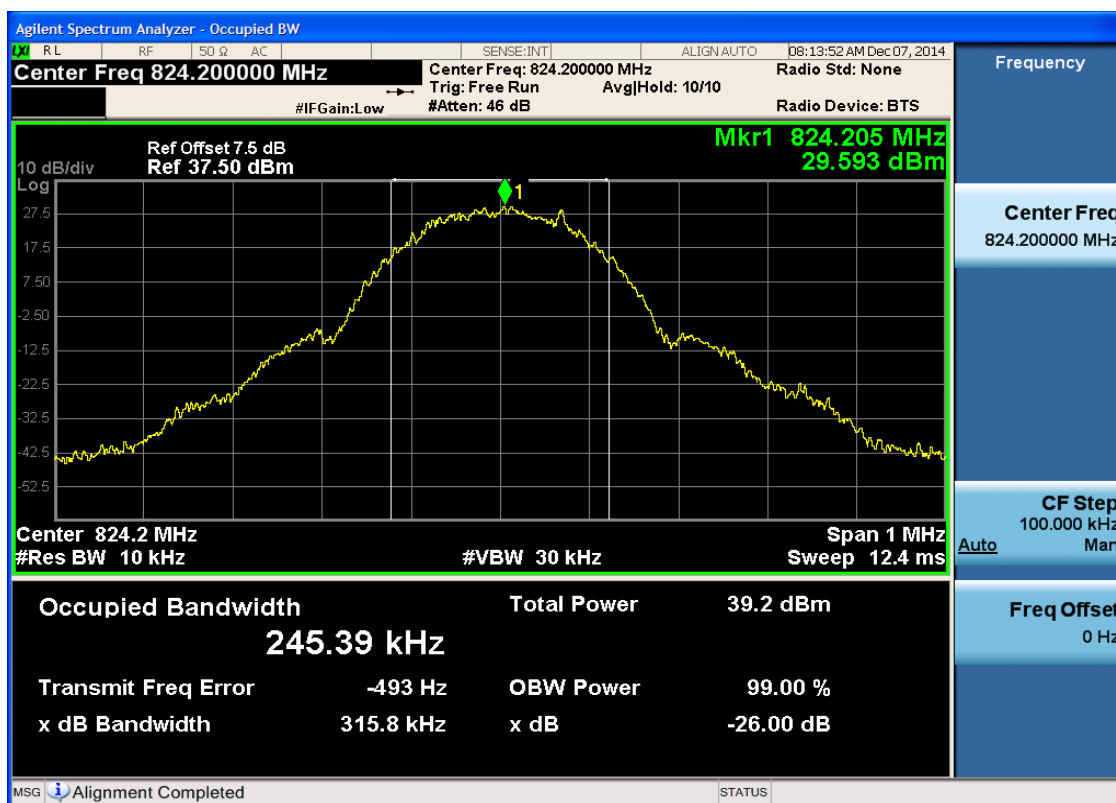
Part II - Test Plots

4.1 For GSM

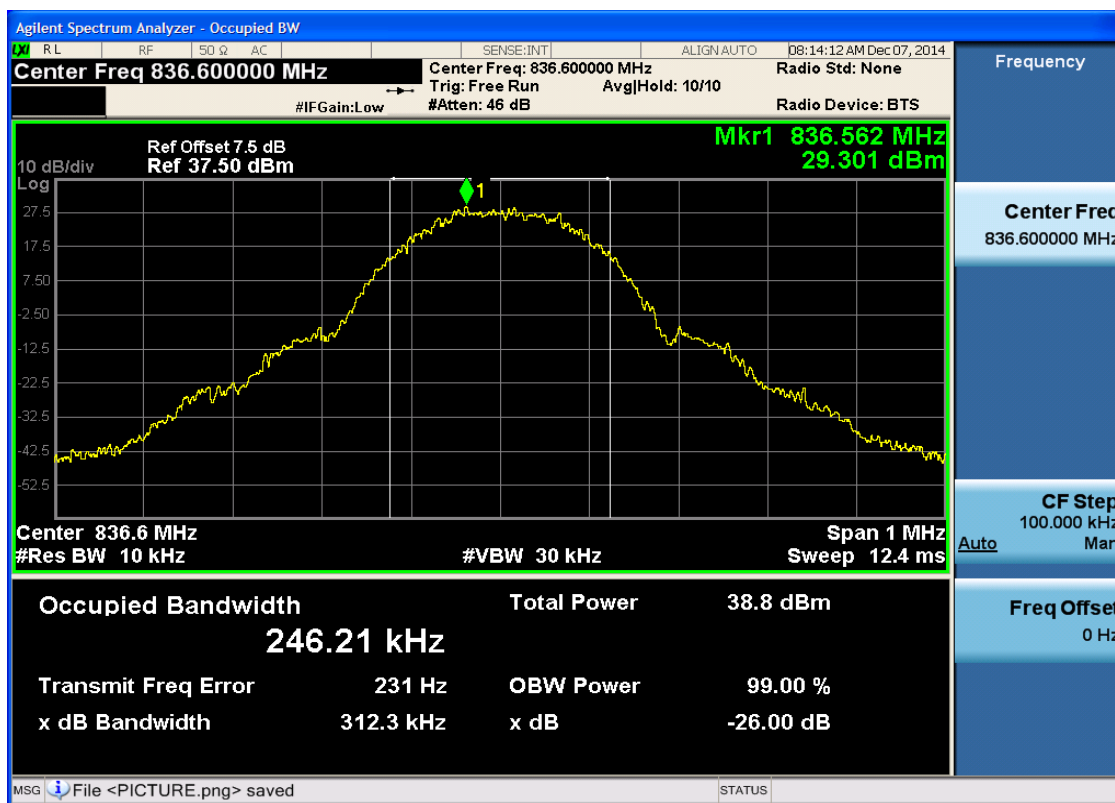
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

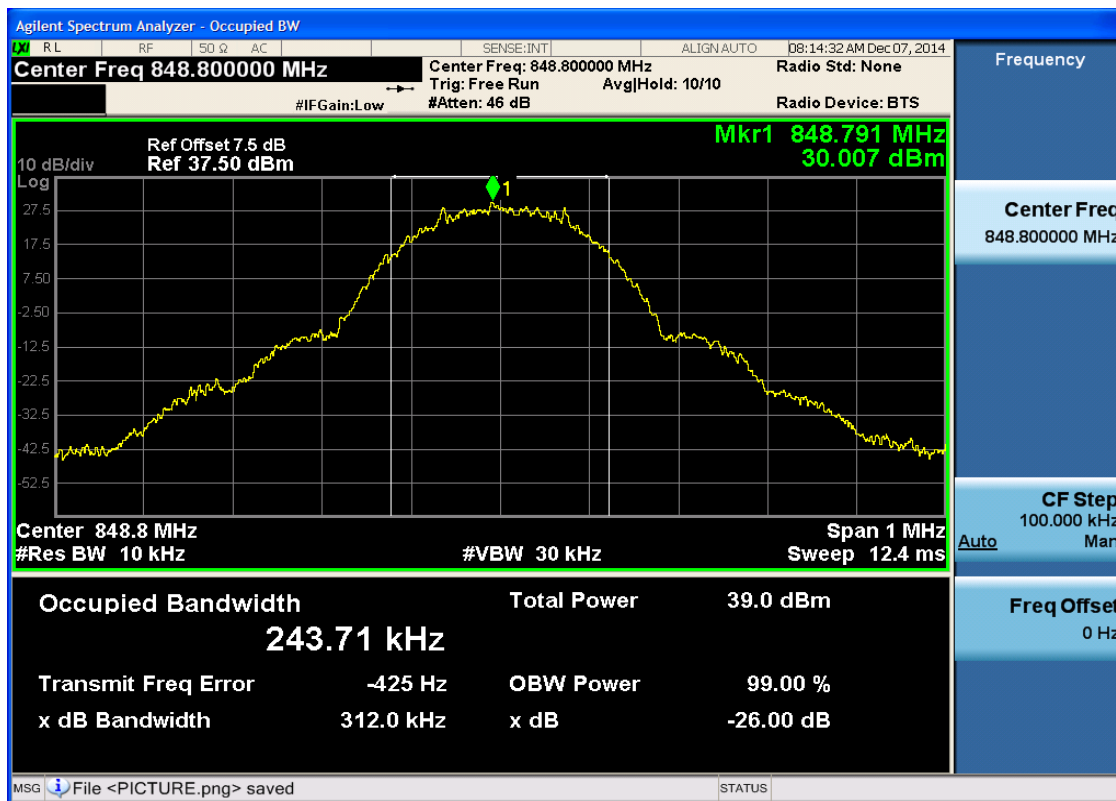
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH



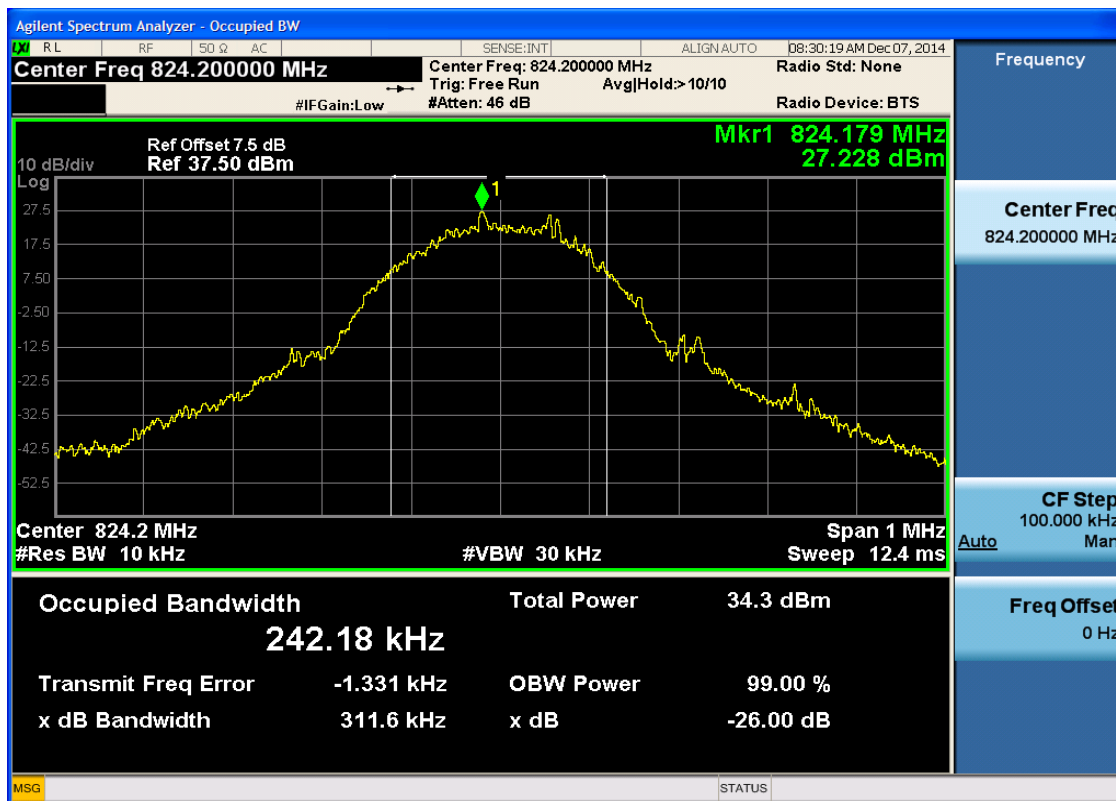
4.1.1.1.3 Test Channel = HCH



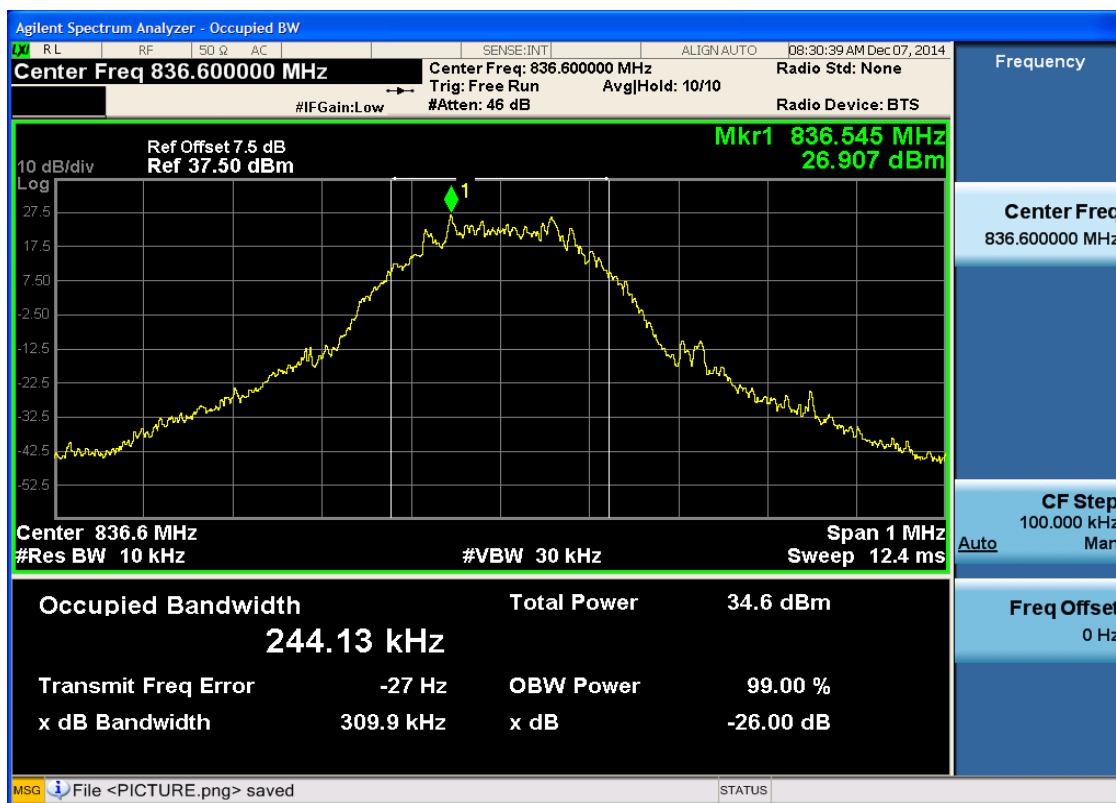


4.1.1.2 Test Mode = GSM/TM2

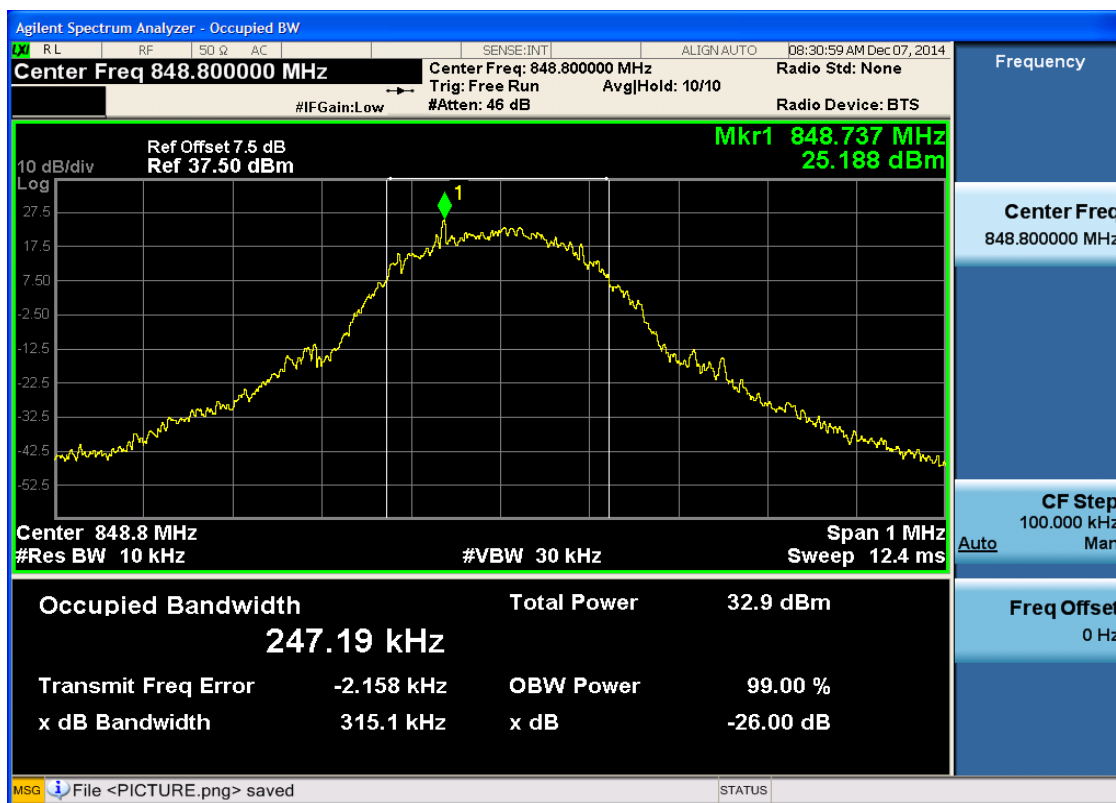
4.1.1.2.1 Test Channel = LCH



4.1.1.2.2 Test Channel = MCH



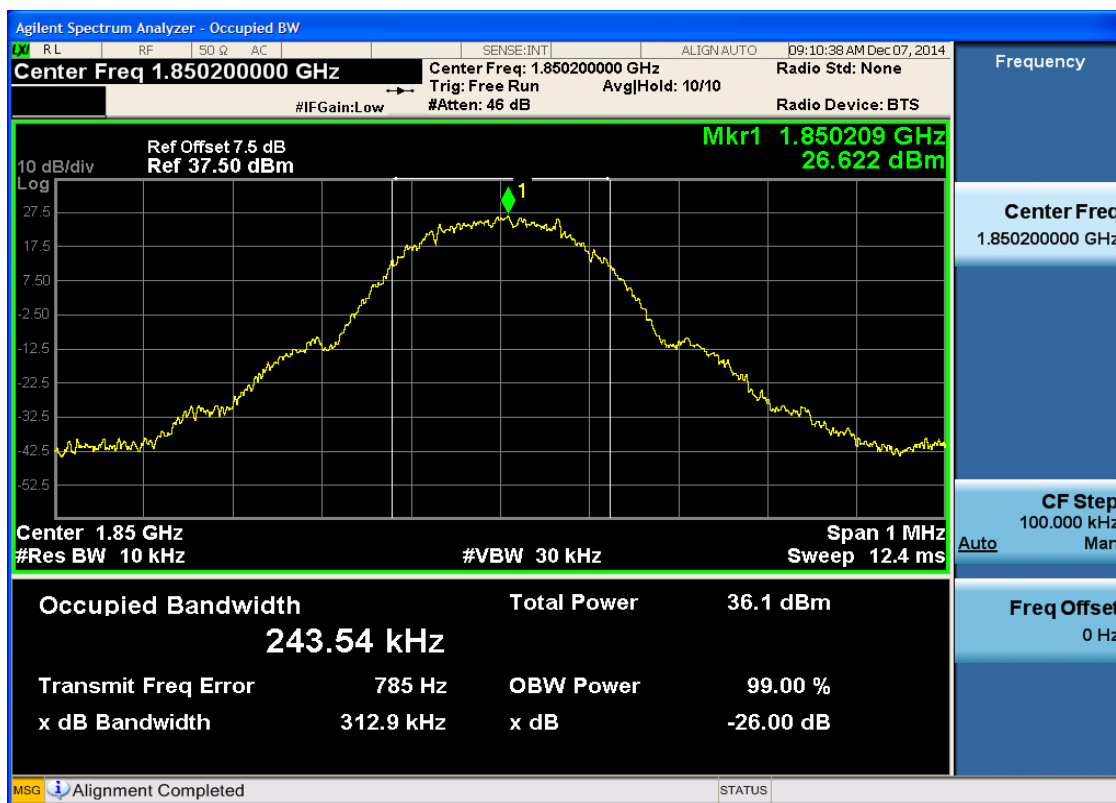
4.1.1.2.3 Test Channel = HCH



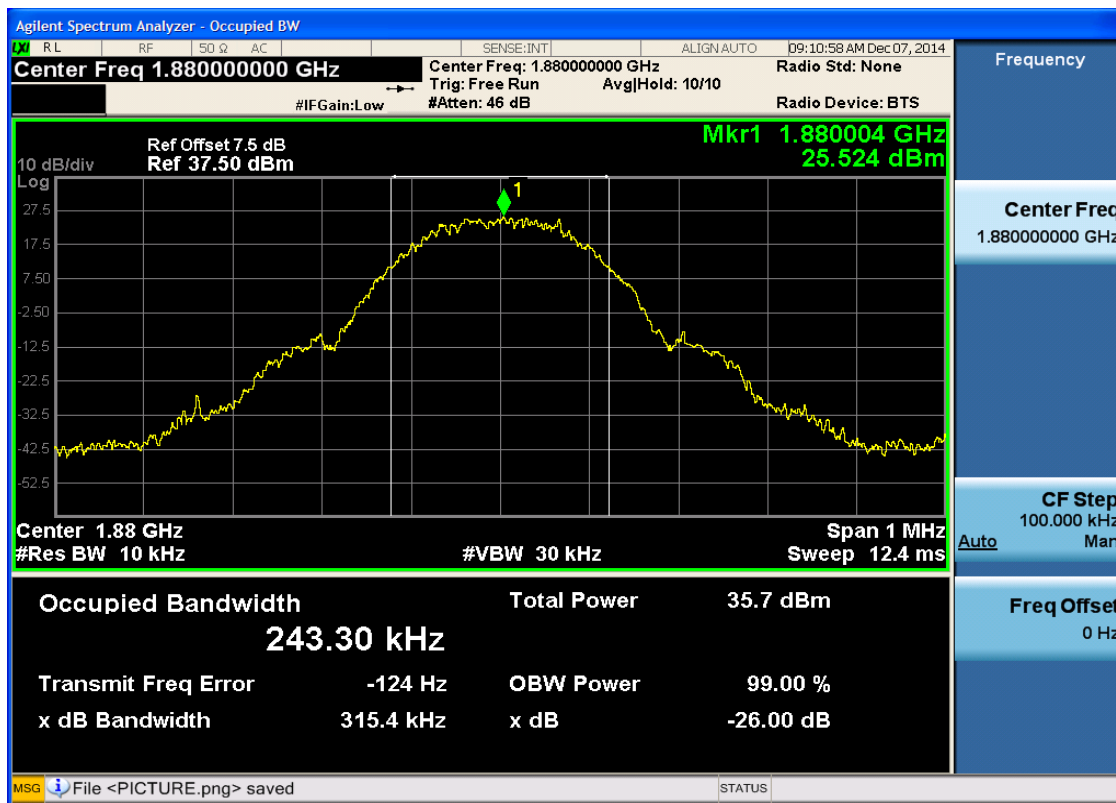
4.1.2 Test Band = GSM1900

4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = LCH

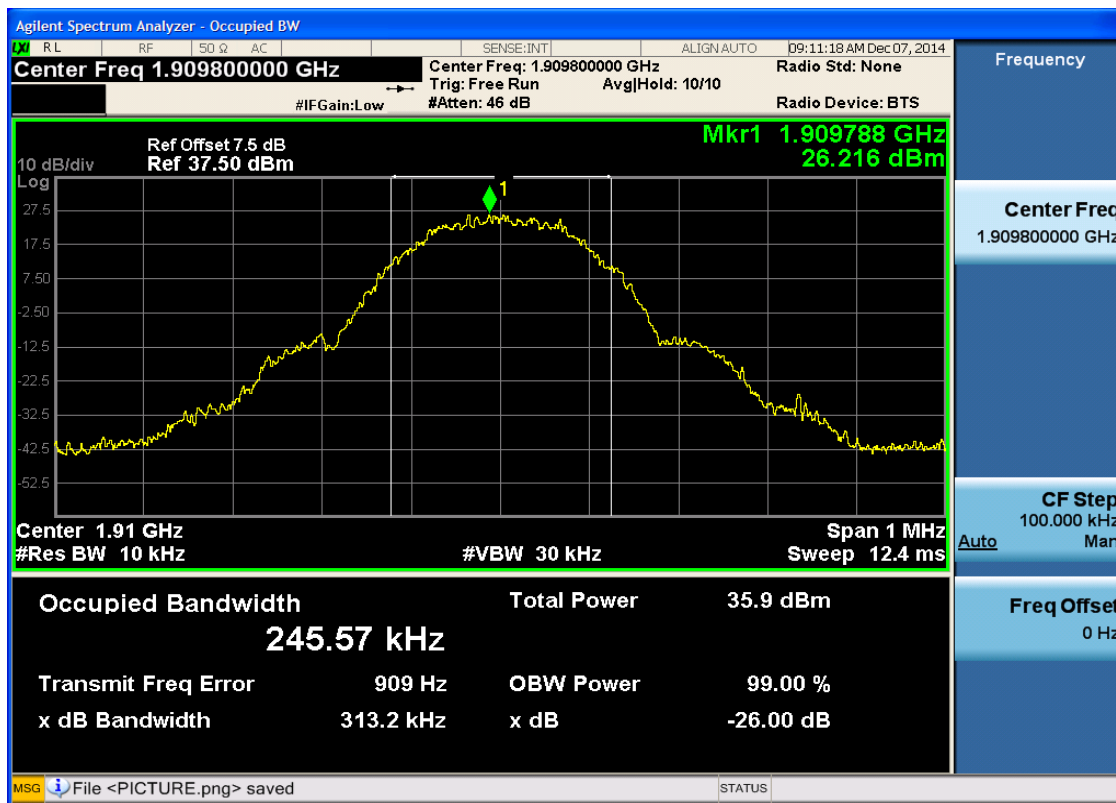


4.1.2.1.2 Test Channel = MCH





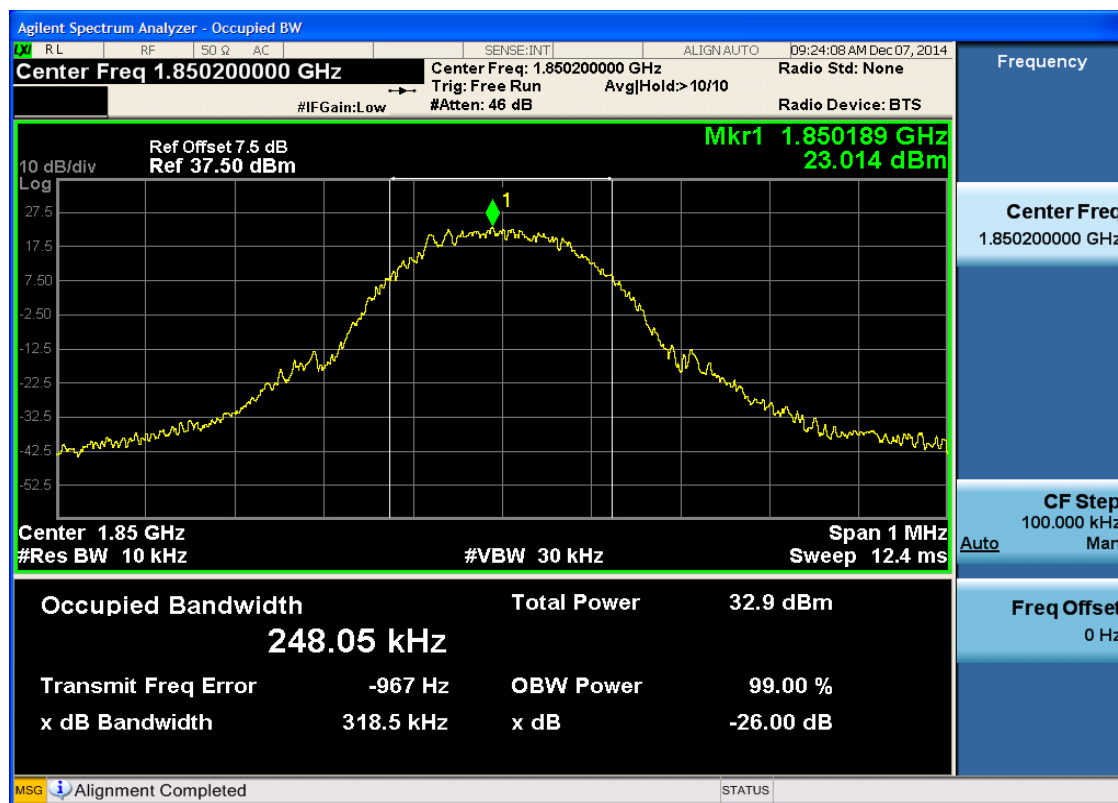
4.1.2.1.3 Test Channel = HCH





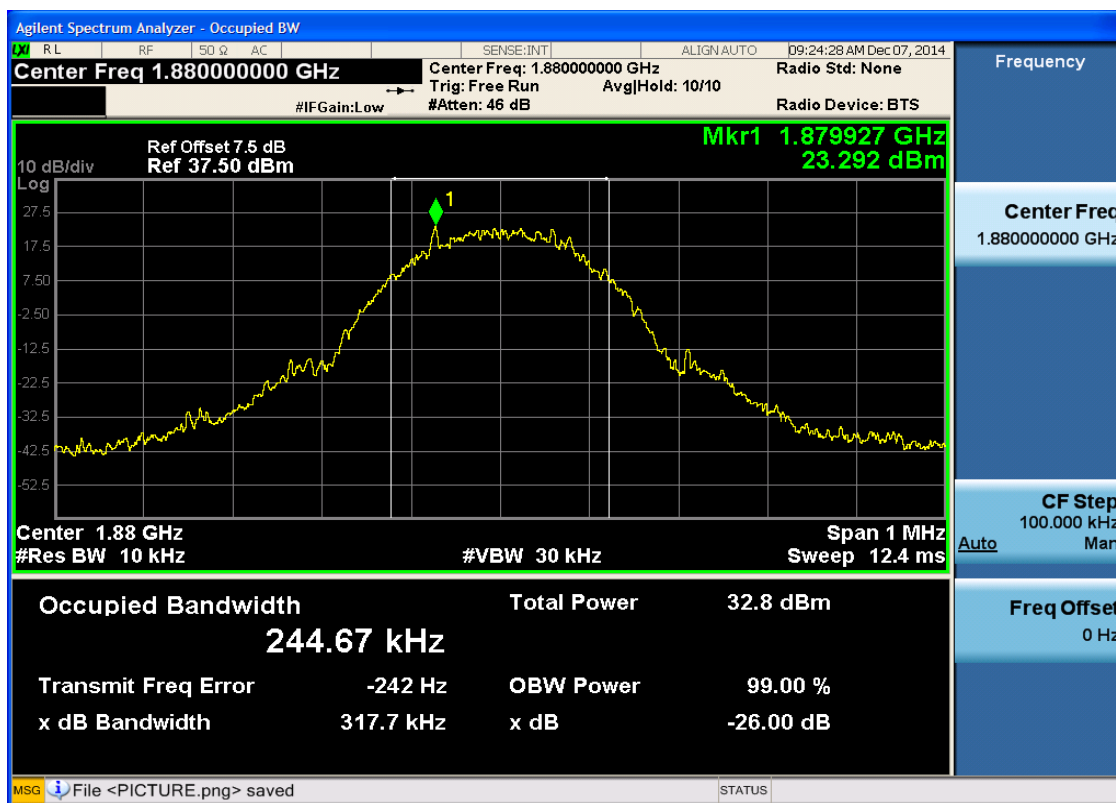
4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH



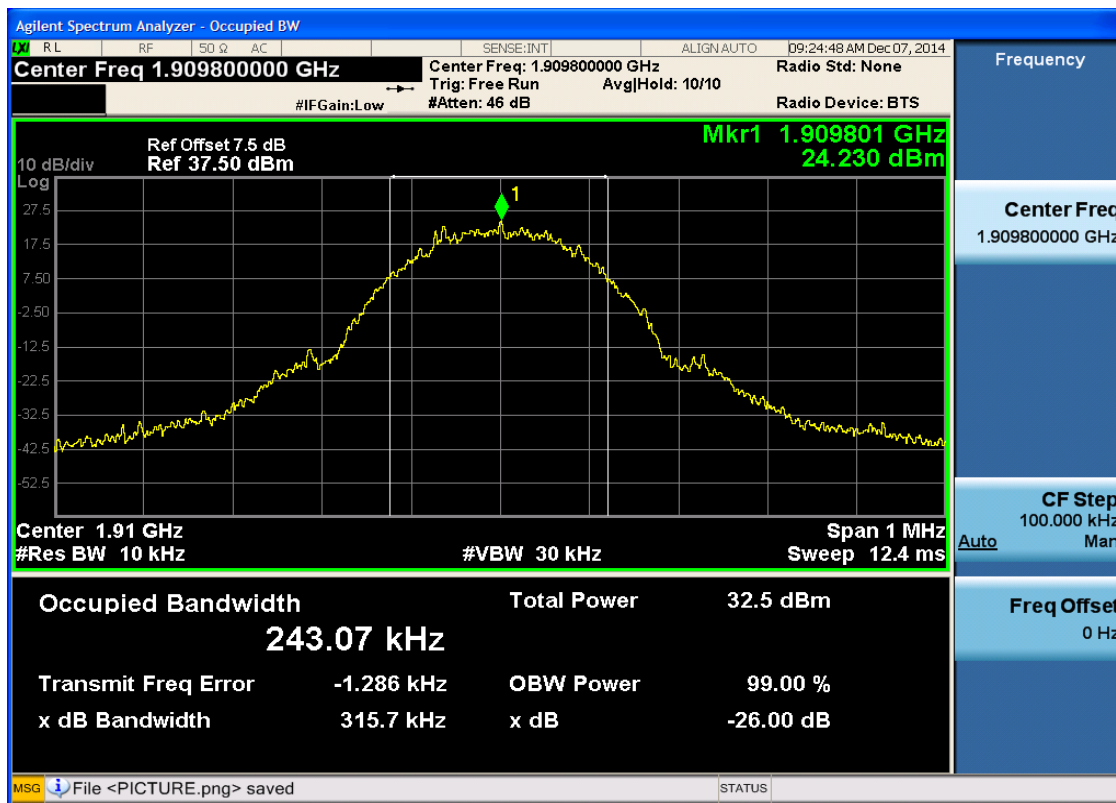


4.1.2.2.2 Test Channel = MCH





4.1.2.2.3 Test Channel = HCH

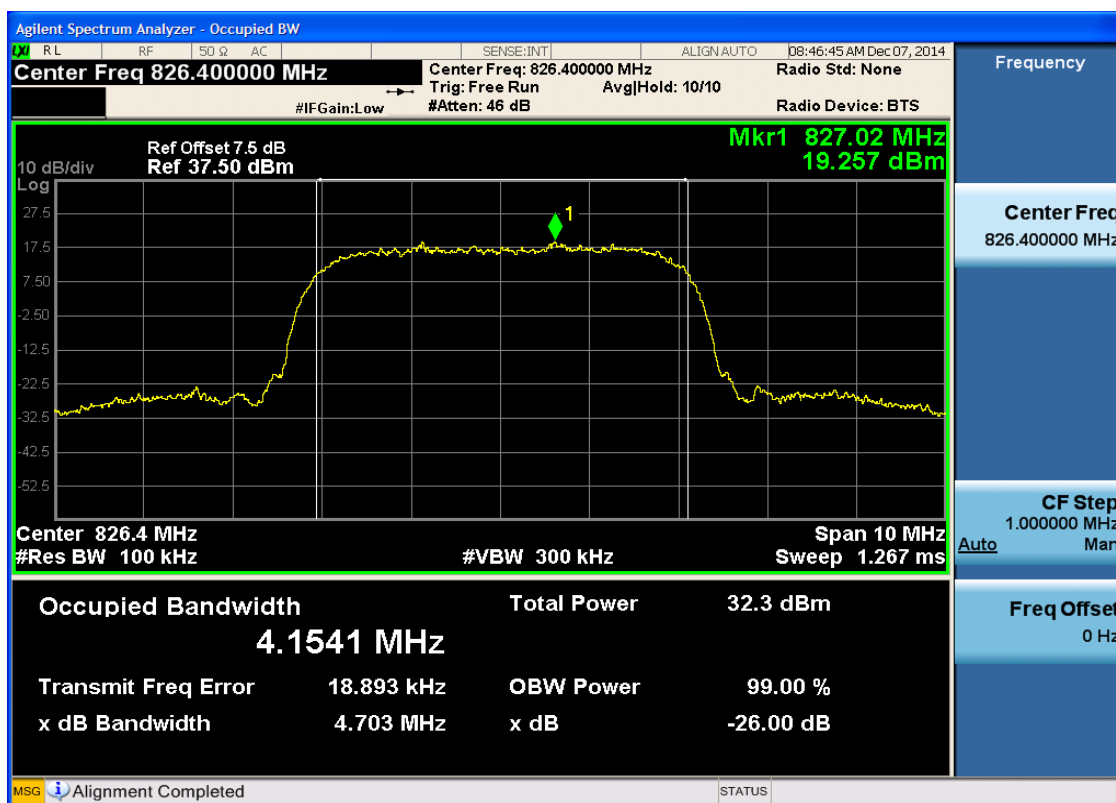


4.2 For UMTS

4.2.1 Test Band = WCDMA850

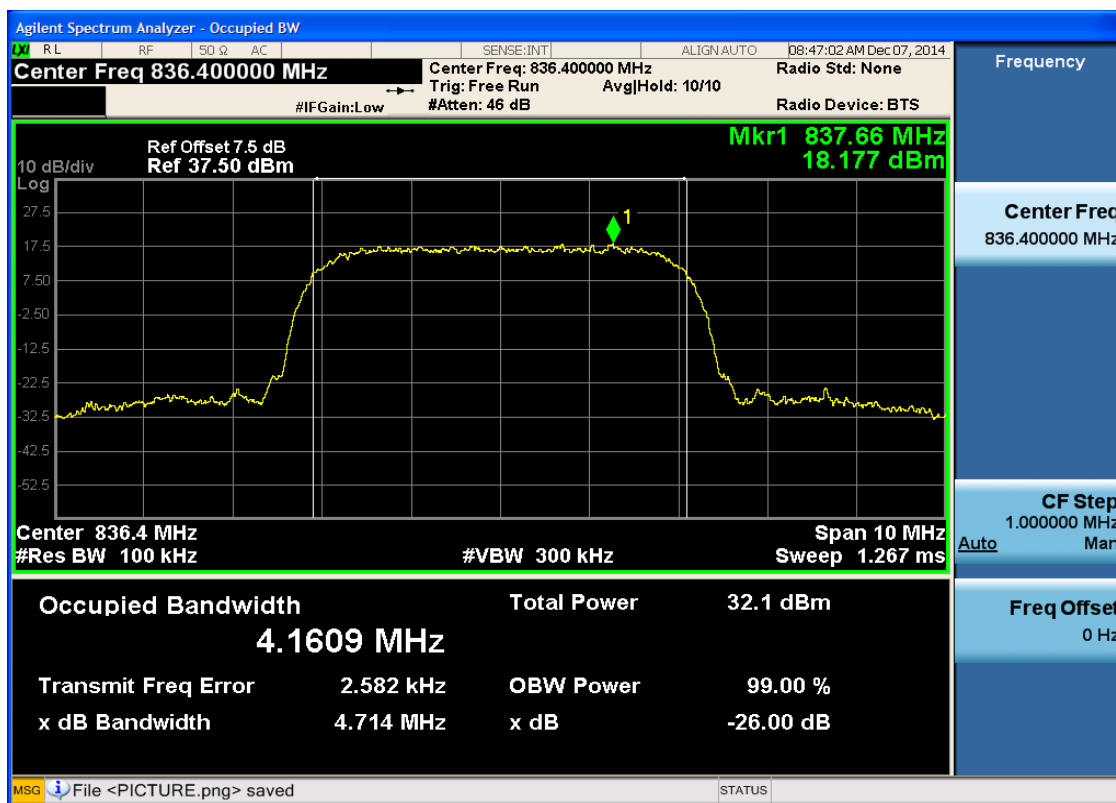
4.2.1.1 Test Mode = UMTS/TM1

4.2.1.1.1 Test Channel = LCH

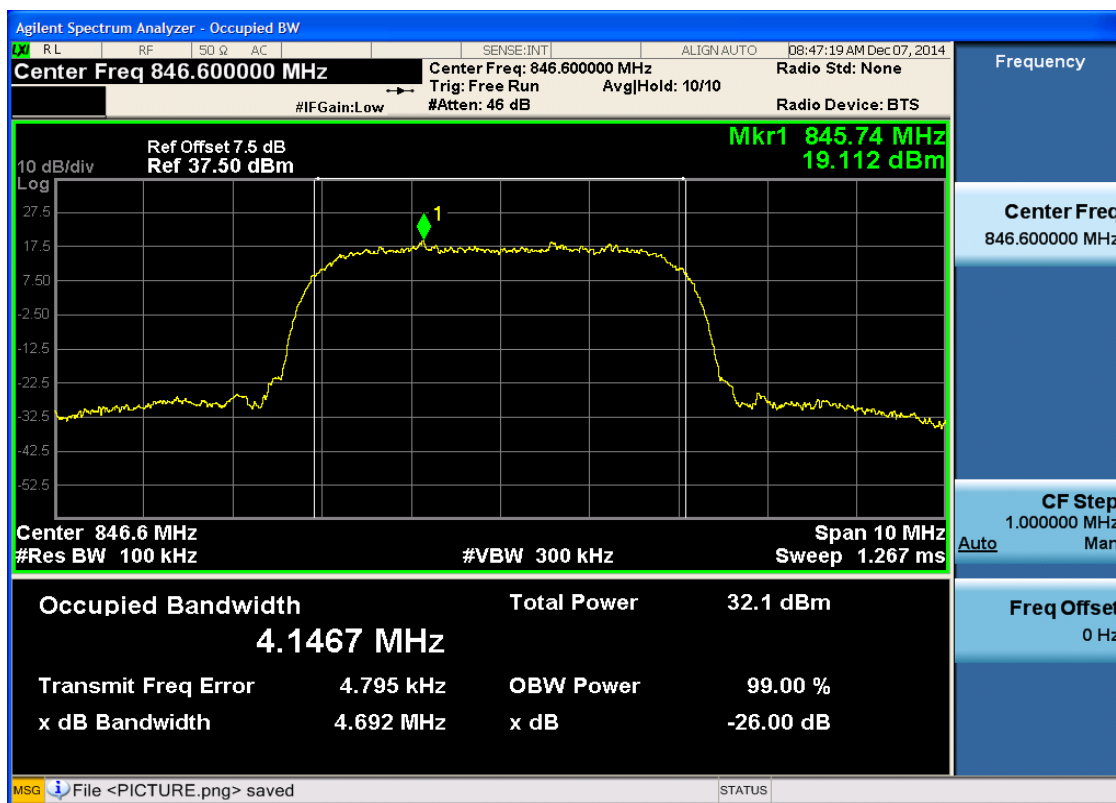




4.2.1.1.2 Test Channel = MCH



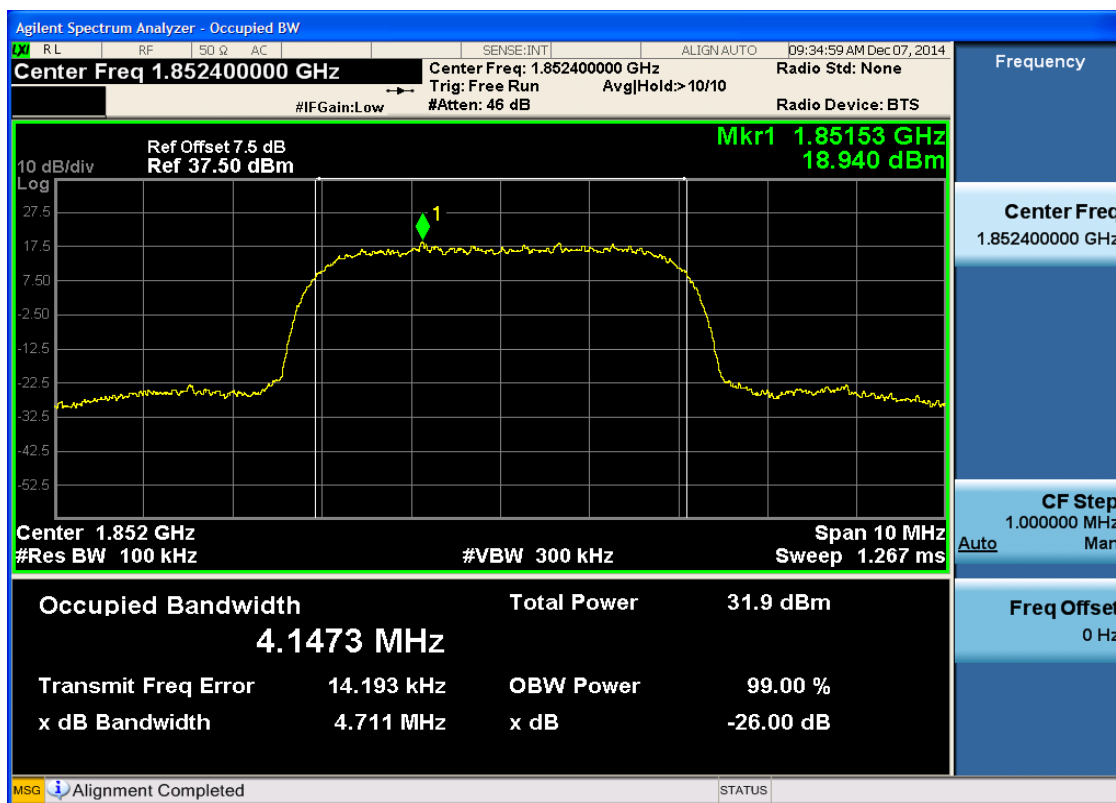
4.2.1.1.3 Test Channel = HCH

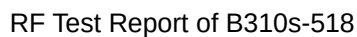


4.2.2 Test Band = WCDMA1900

4.2.2.1 Test Mode = UMTS/TM1

4.2.2.1.1 Test Channel = LCH





Agilent Spectrum Analyzer - Occupied BW

RL RF 50 Ω AC SENSE:INT ALIGN AUTO D9:35:16 AM Dec 07, 2014

Center Freq 1.88000000 GHz Center Freq: 1.88000000 GHz Radio Std: None
Trig: Free Run Avg/Hold: 10/10
#IFGain: Low #Atten: 46 dB Radio Device: BTS

Ref Offset 7.5 dB Mkr1 1.87912 GHz
Ref 37.50 dBm 18.710 dBm

10 dB/div
Log

Center 1.88 GHz Span 10 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 1.267 ms

Occupied Bandwidth	Total Power
4.1666 MHz	32.0 dBm

Transmit Freq Error	OBW Power
16.738 kHz	99.00 %
x dB Bandwidth	x dB
4.714 MHz	-26.00 dB

MSG File <PICTURE.png> saved STATUS

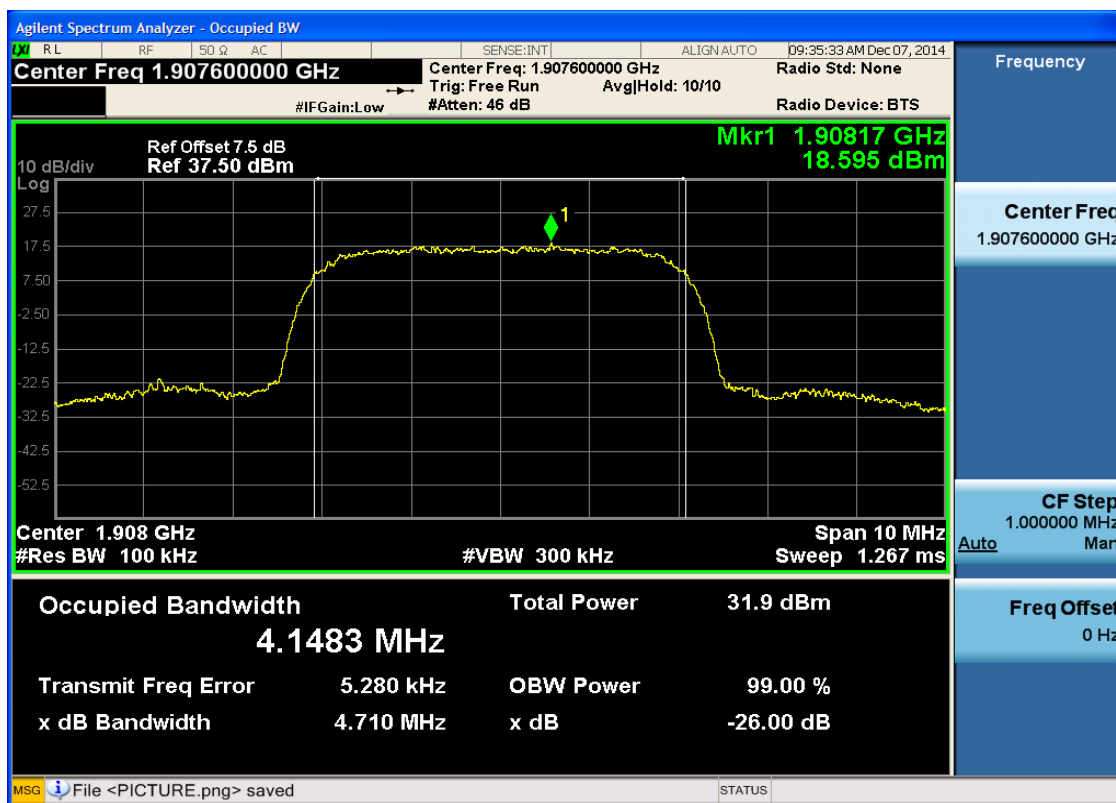
Frequency

Center Freq
1.88000000 GHz

CF Step
1.000000 MHz
Mar

Freq Offset
0 Hz

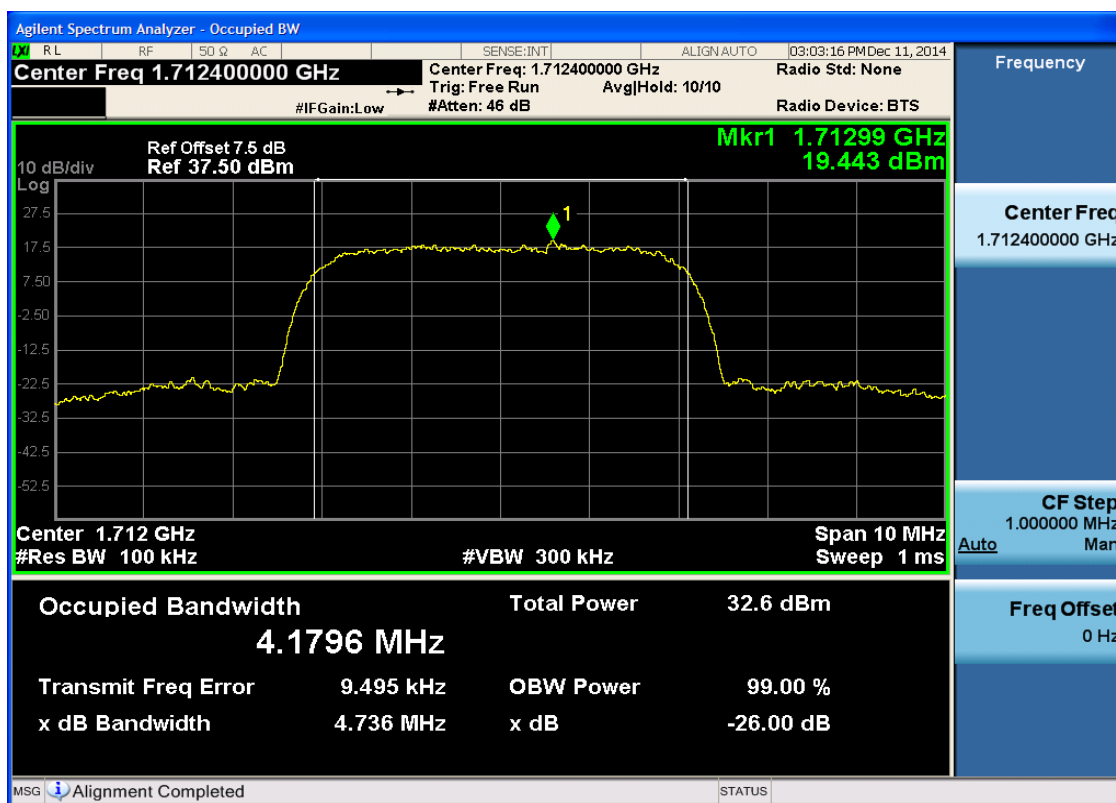
4.2.2.1.3 Test Channel = HCH



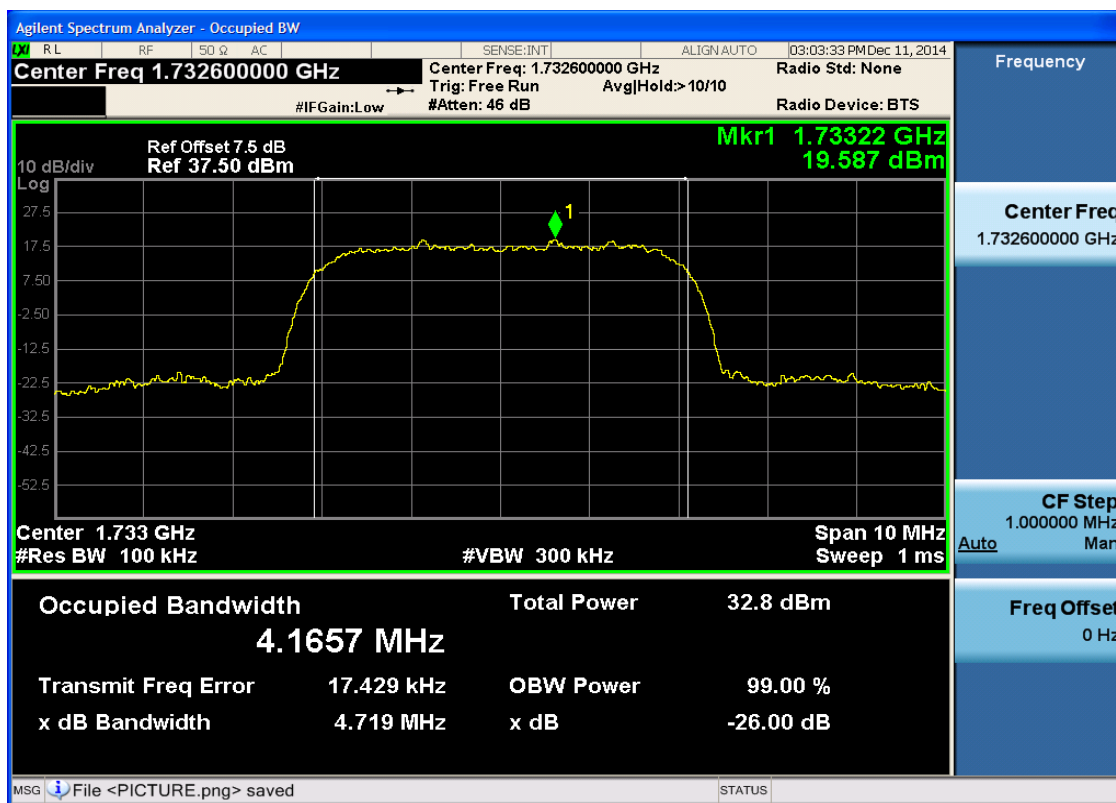
4.2.3 Test Band = WCDMA1700

4.2.3.1 Test Mode = UMTS/TM1

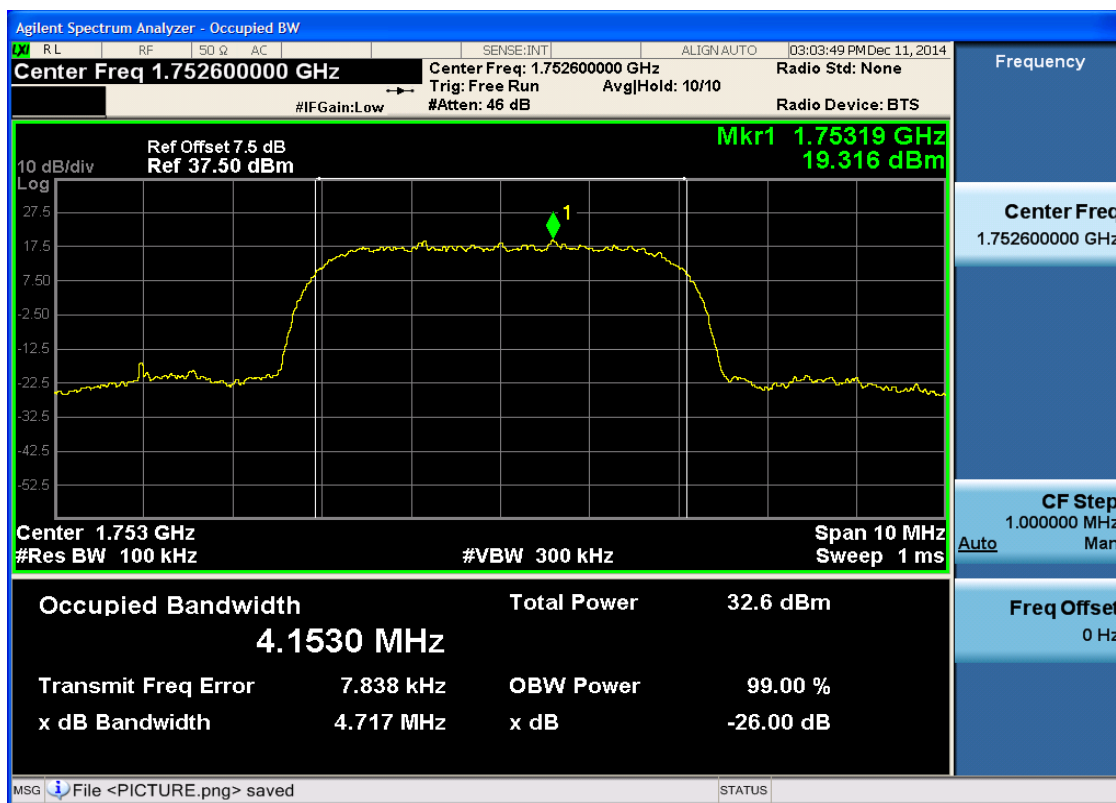
4.2.3.1.1 Test Channel = LCH



4.2.3.1.2 Test Channel = MCH



4.2.3.1.3 Test Channel = HCH



4.3 For LTE

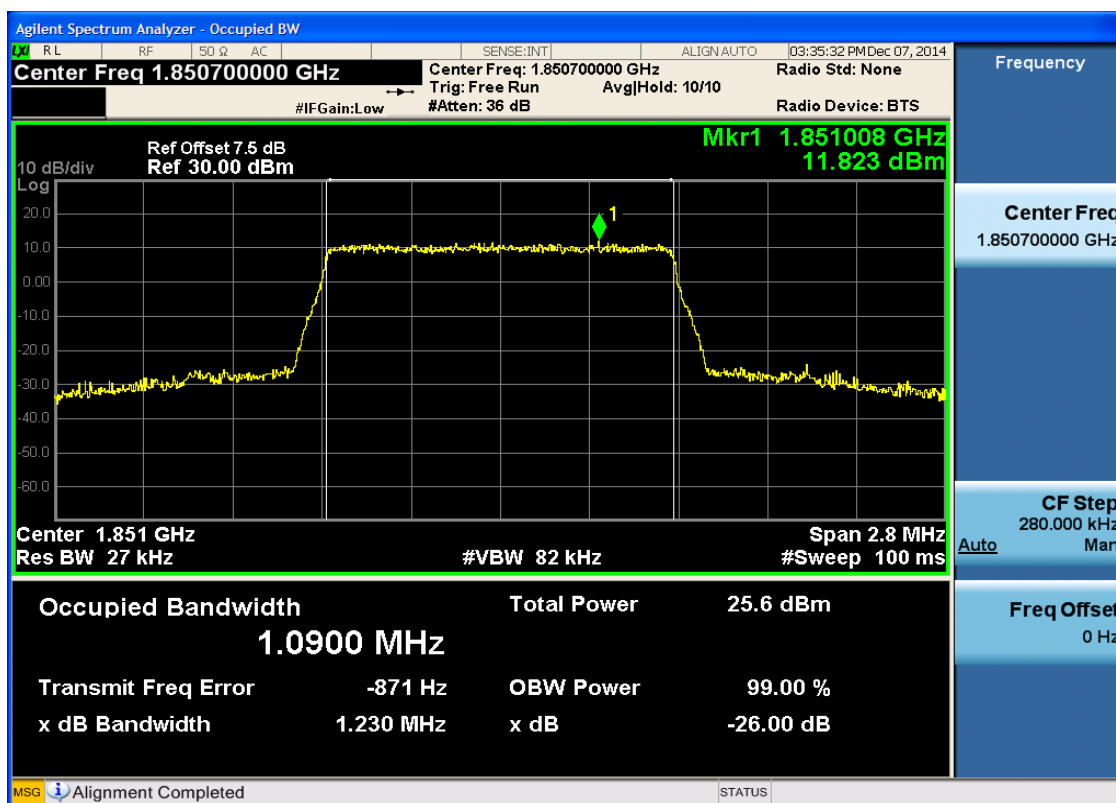
4.3.1 Test Band = BAND2

4.3.1.1 Test Mode = LTE/TM1

4.3.1.1.1 Test Bandwidth = 1.4

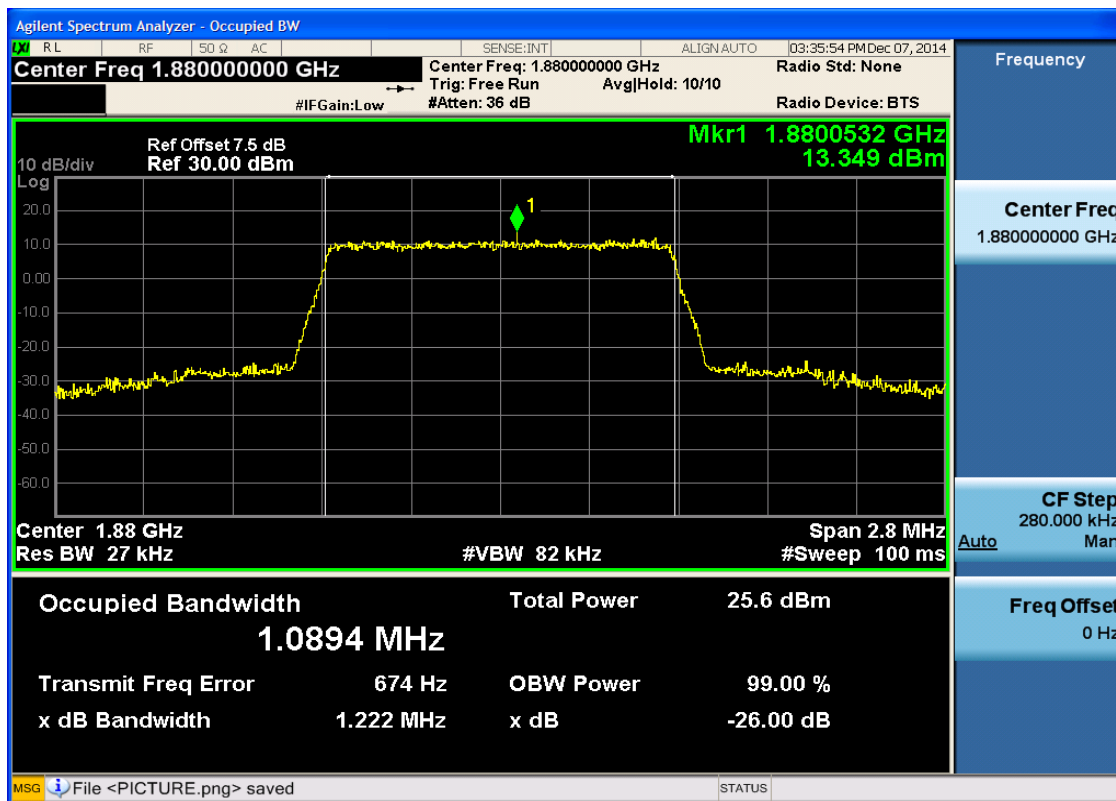
4.3.1.1.1.1 Test Channel = LCH

4.3.1.1.1.1.1 Test RB = RB6#0



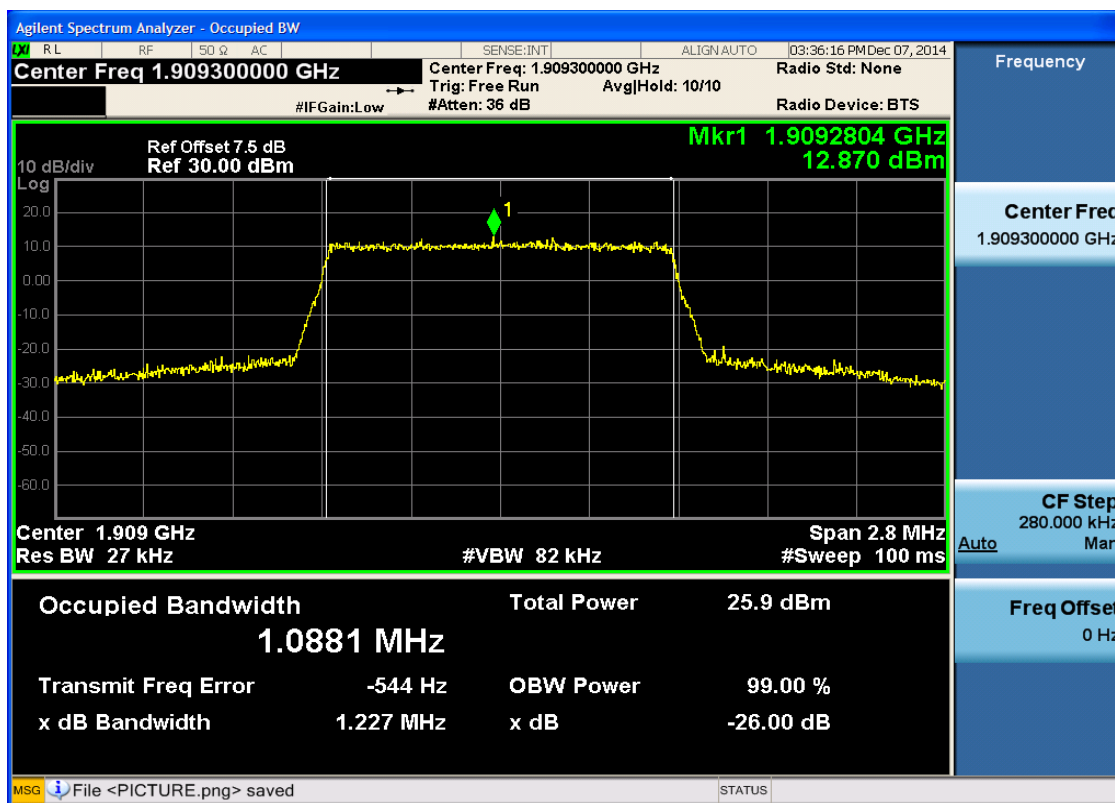
4.3.1.1.1.2 Test Channel = MCH

4.3.1.1.1.2.1 Test RB = RB6#0



4.3.1.1.1.3 Test Channel = HCH

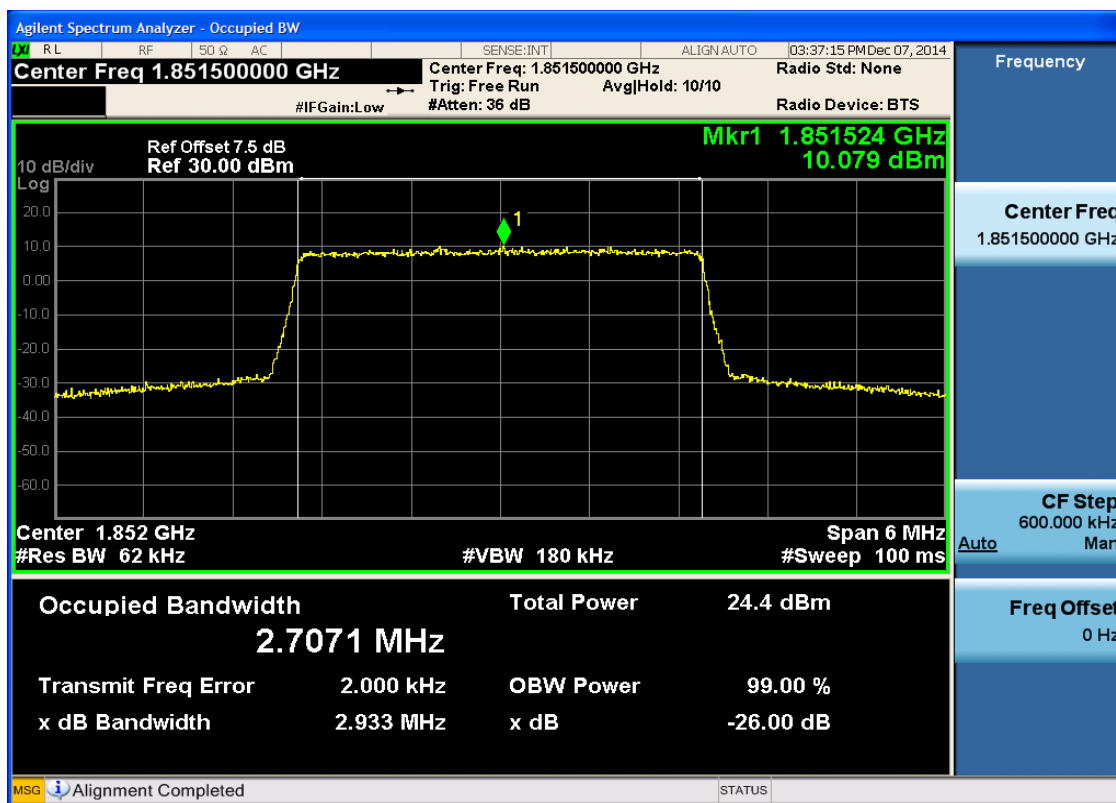
4.3.1.1.1.3.1 Test RB = RB6#0



4.3.1.1.2 Test Bandwidth = 3

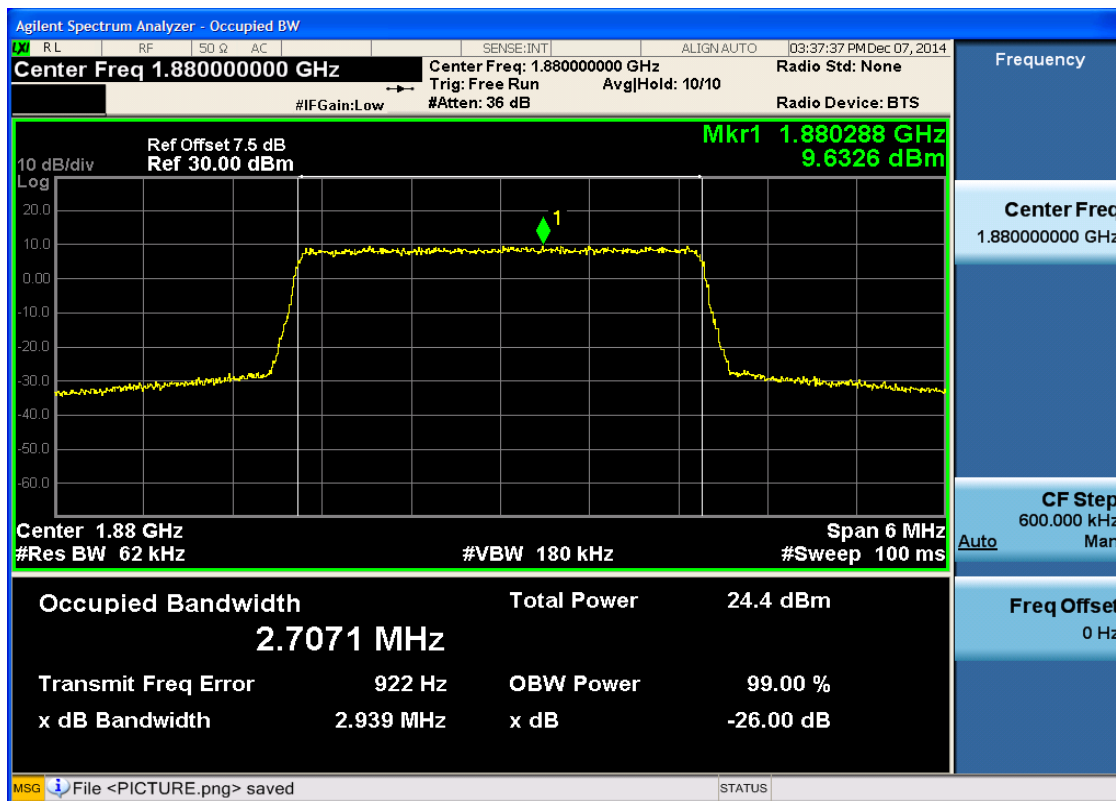
4.3.1.1.2.1 Test Channel = LCH

4.3.1.1.2.1.1 Test RB = RB15#0



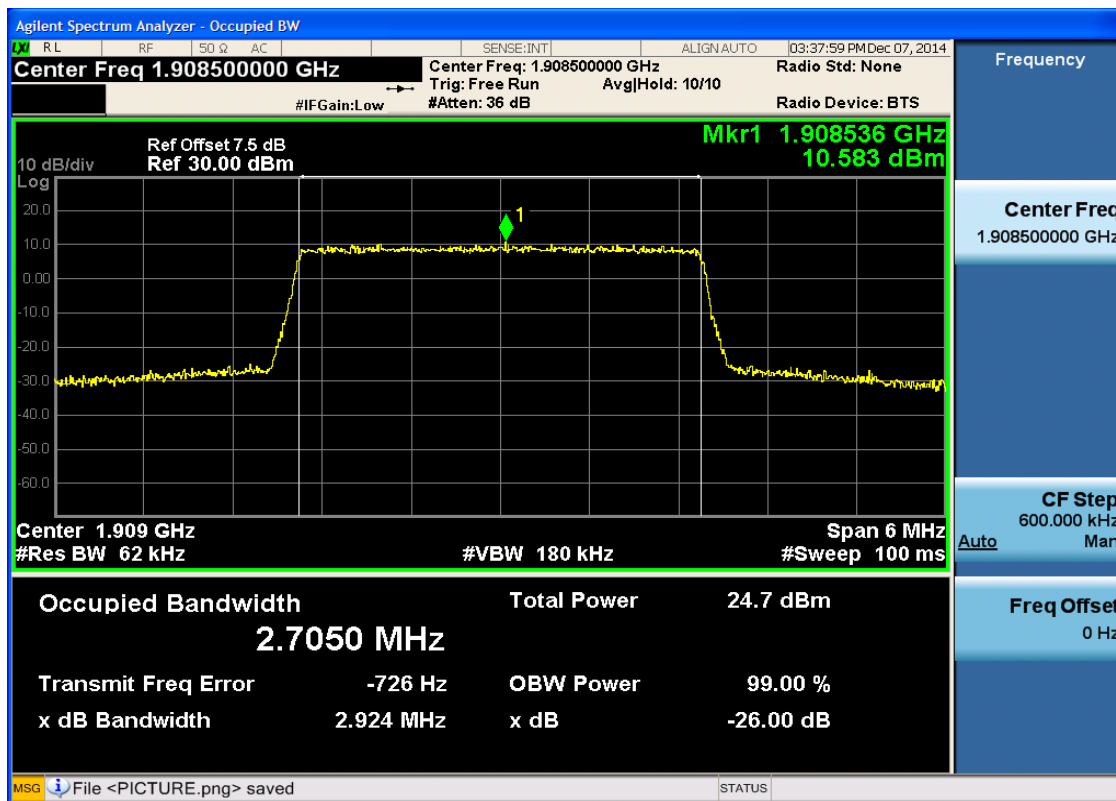
4.3.1.1.2.2 Test Channel = MCH

4.3.1.1.2.2.1 Test RB = RB15#0



4.3.1.1.2.3 Test Channel = HCH

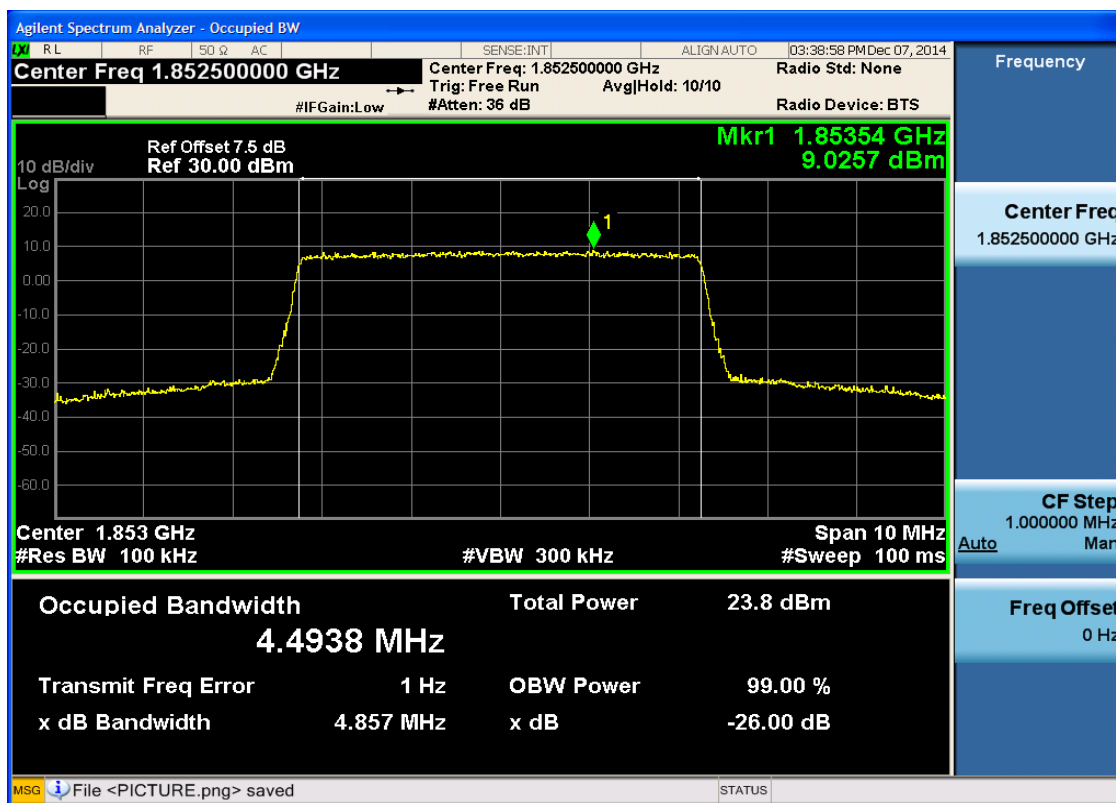
4.3.1.1.2.3.1 Test RB = RB15#0



4.3.1.1.3 Test Bandwidth = 5

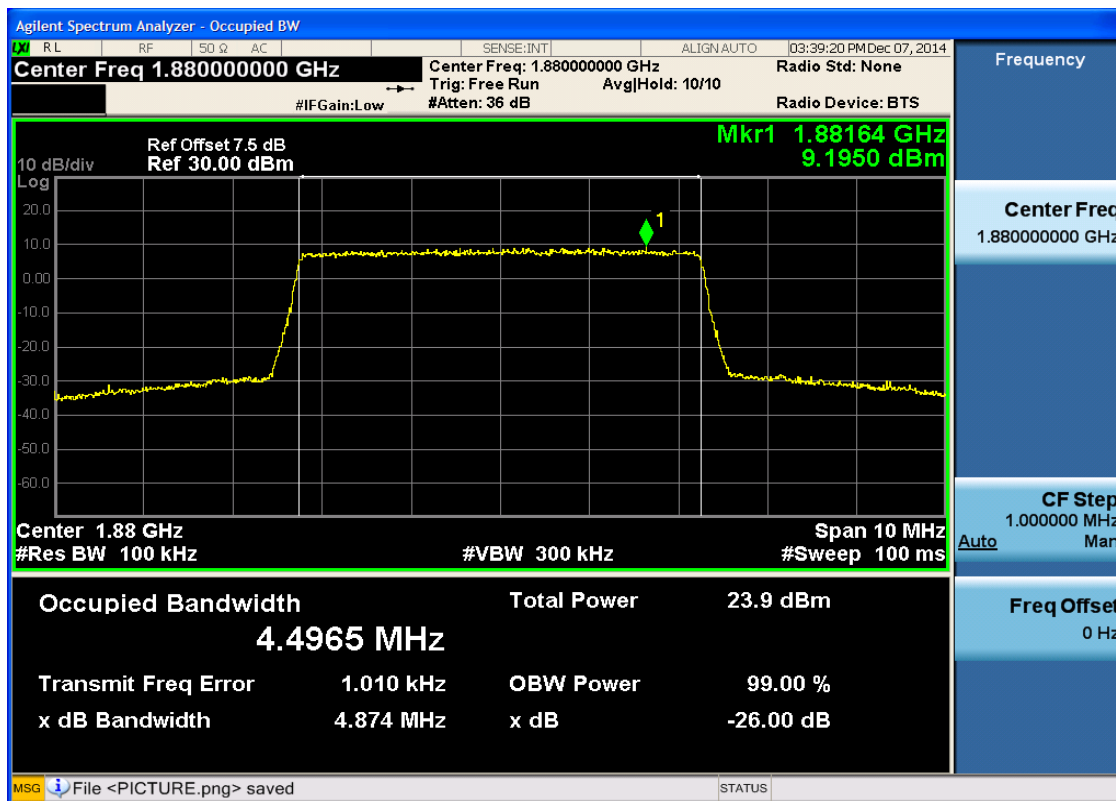
4.3.1.1.3.1 Test Channel = LCH

4.3.1.1.3.1.1 Test RB = RB25#0



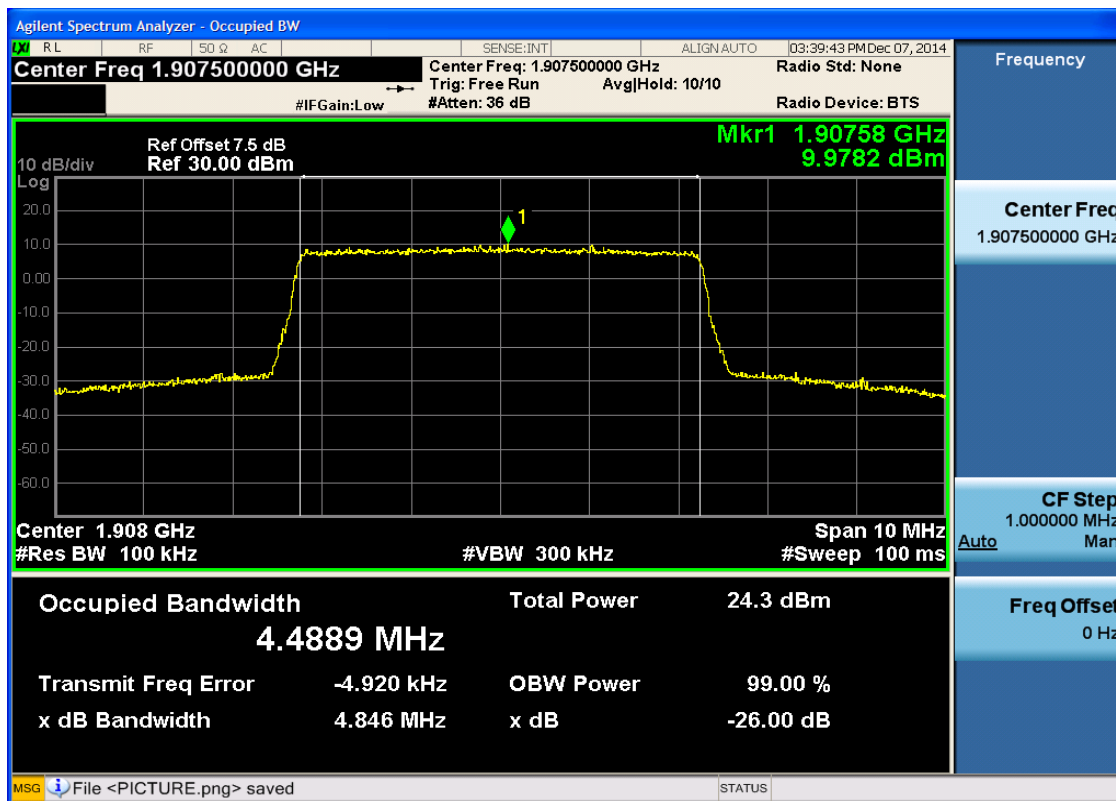
4.3.1.1.3.2 Test Channel = MCH

4.3.1.1.3.2.1 Test RB = RB25#0



4.3.1.1.3.3 Test Channel = HCH

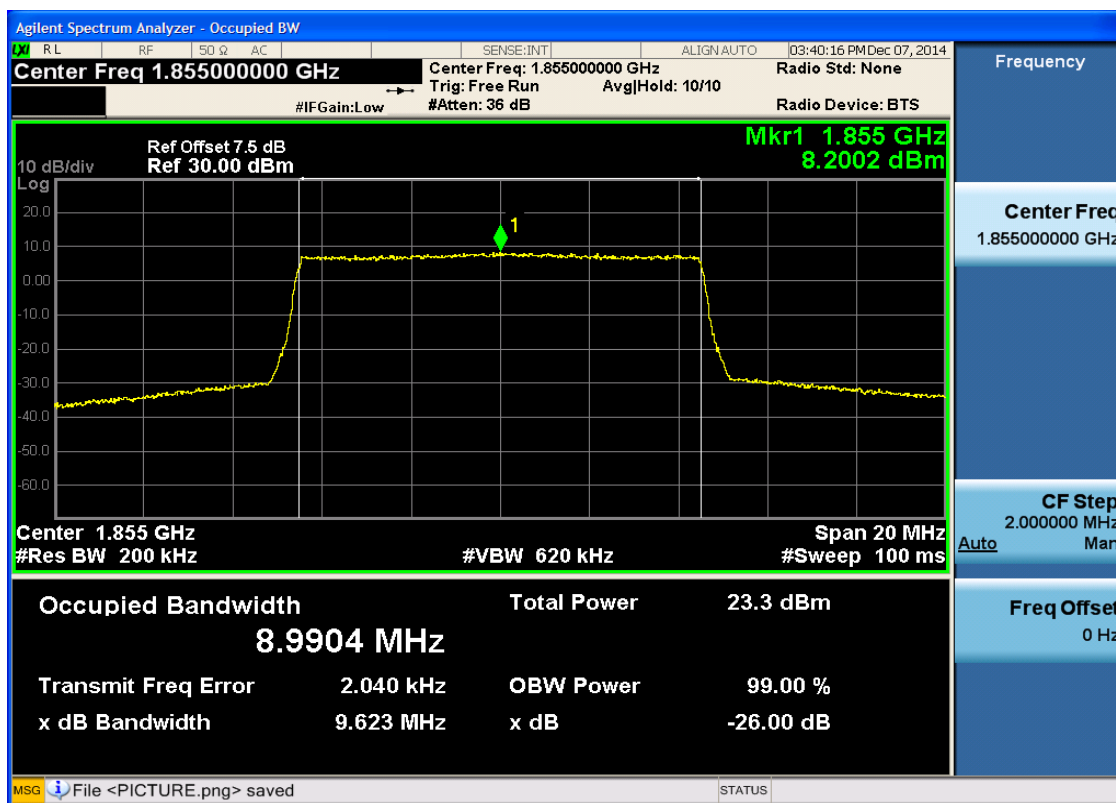
4.3.1.1.3.3.1 Test RB = RB25#0



4.3.1.1.4 Test Bandwidth = 10

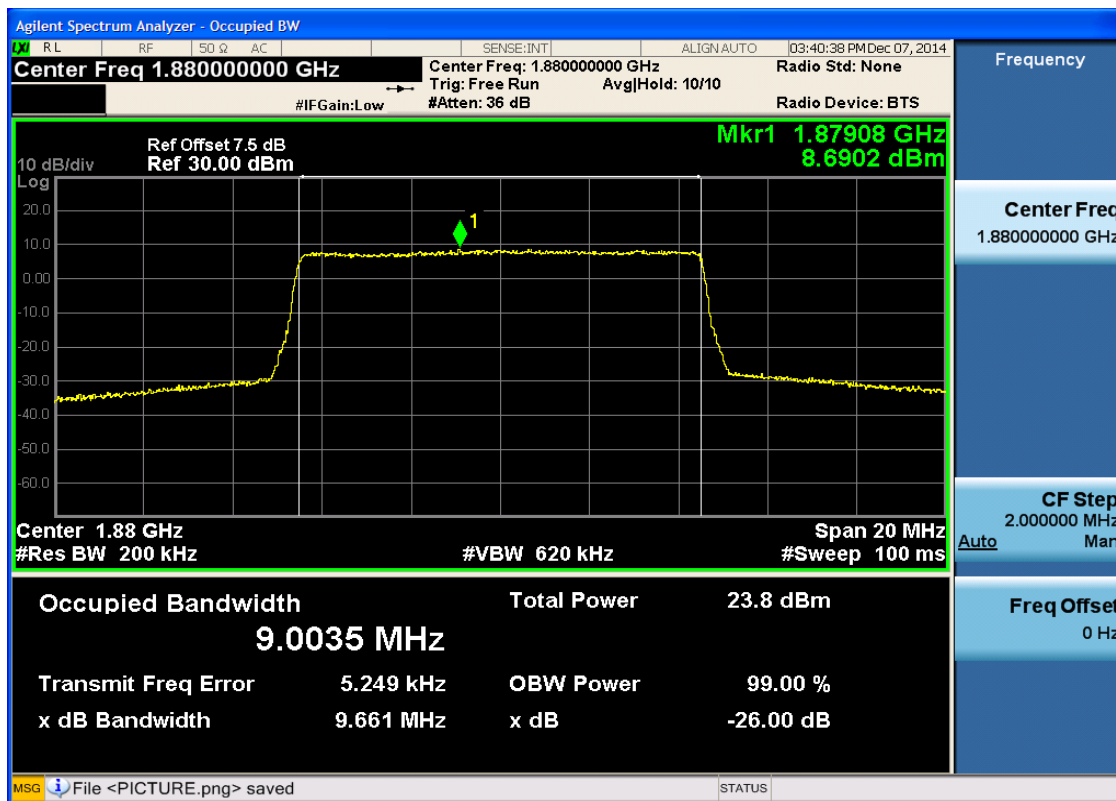
4.3.1.1.4.1 Test Channel = LCH

4.3.1.1.4.1.1 Test RB = RB50#0



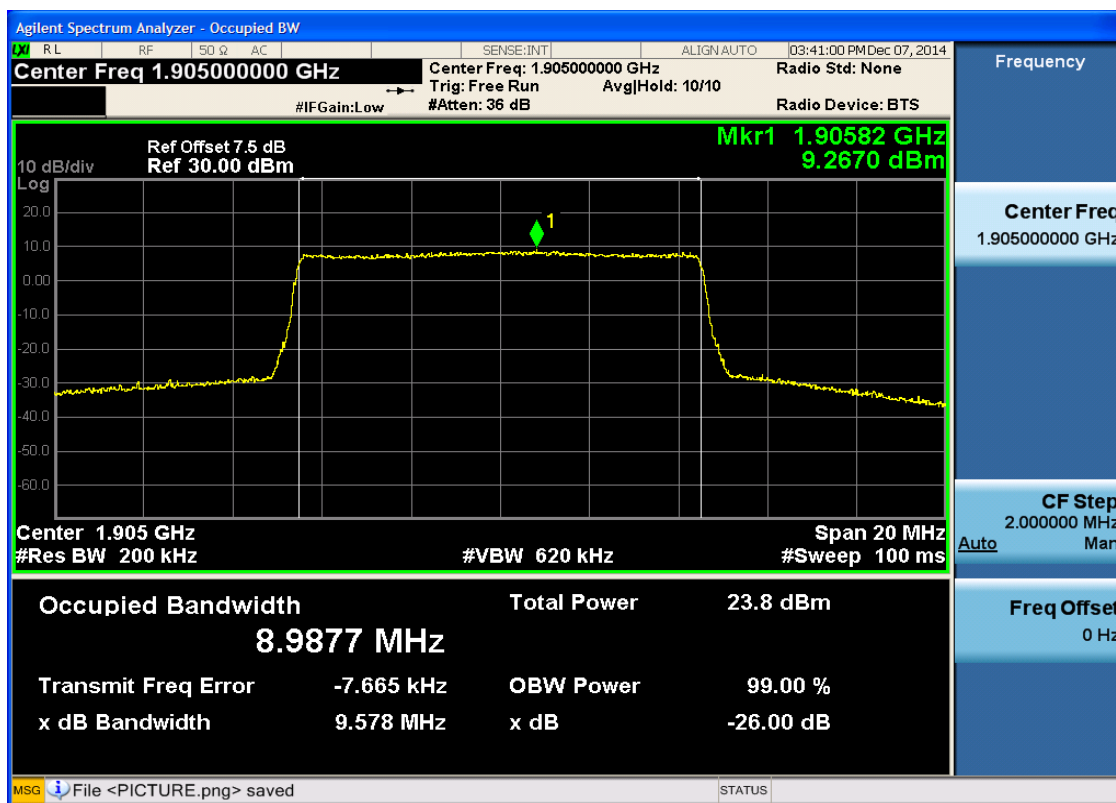
4.3.1.1.4.2 Test Channel = MCH

4.3.1.1.4.2.1 Test RB = RB50#0



4.3.1.1.4.3 Test Channel = HCH

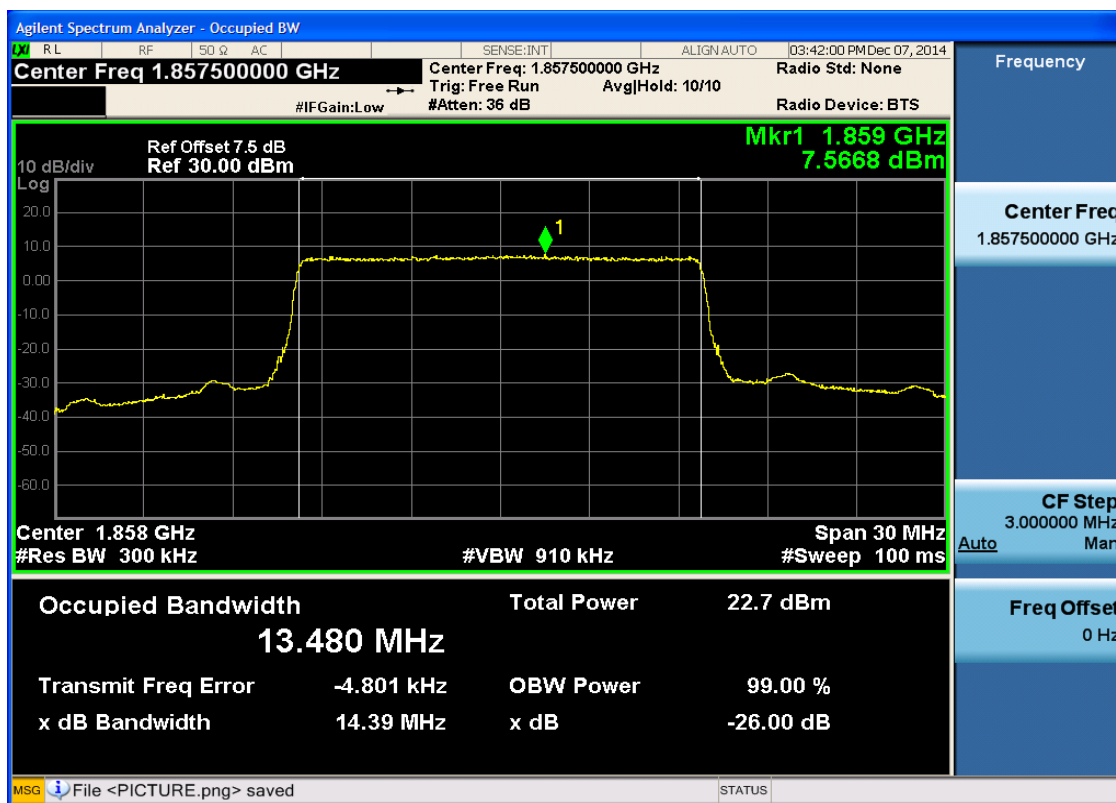
4.3.1.1.4.3.1 Test RB = RB50#0



4.3.1.1.5 Test Bandwidth = 15

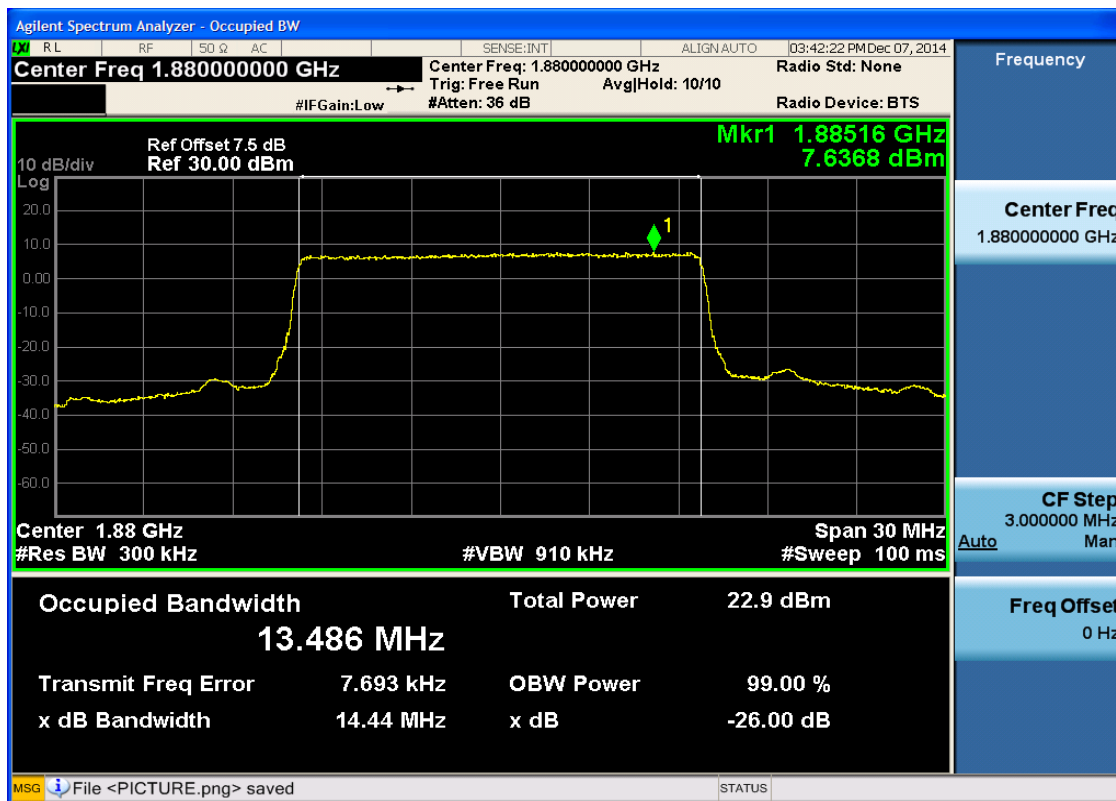
4.3.1.1.5.1 Test Channel = LCH

4.3.1.1.5.1.1 Test RB = RB75#0



4.3.1.1.5.2 Test Channel = MCH

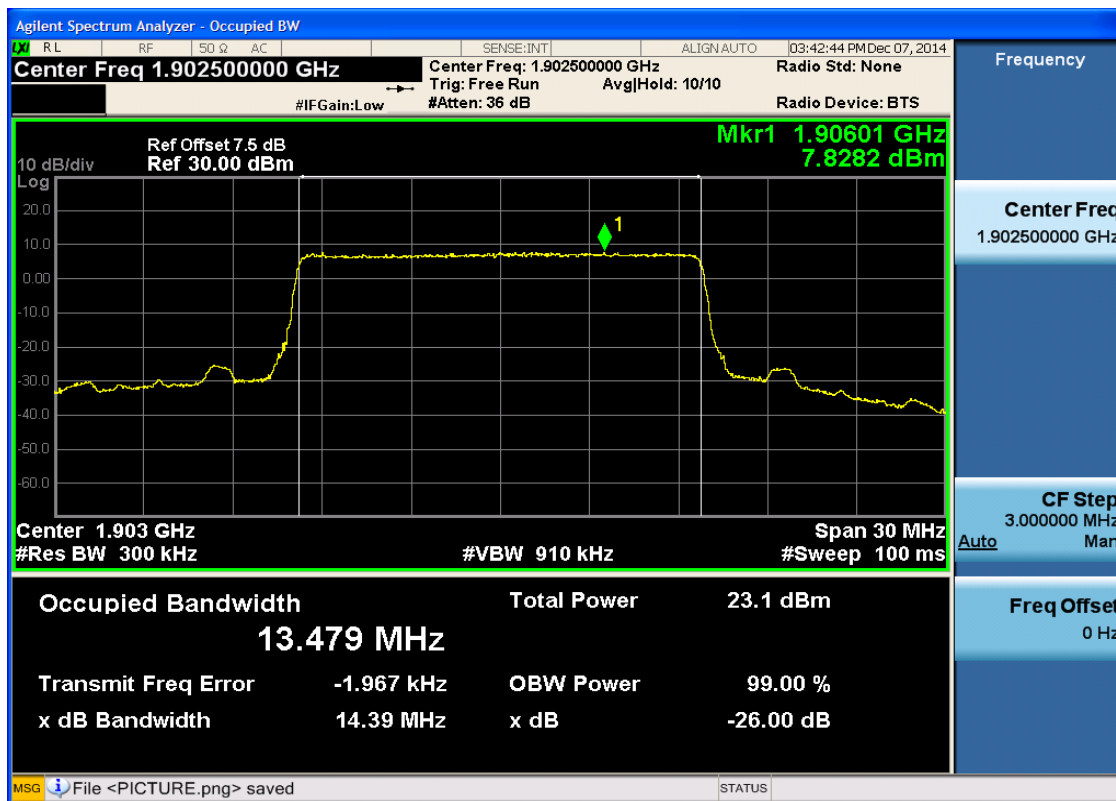
4.3.1.1.5.2.1 Test RB = RB75#0





4.3.1.1.5.3 Test Channel = HCH

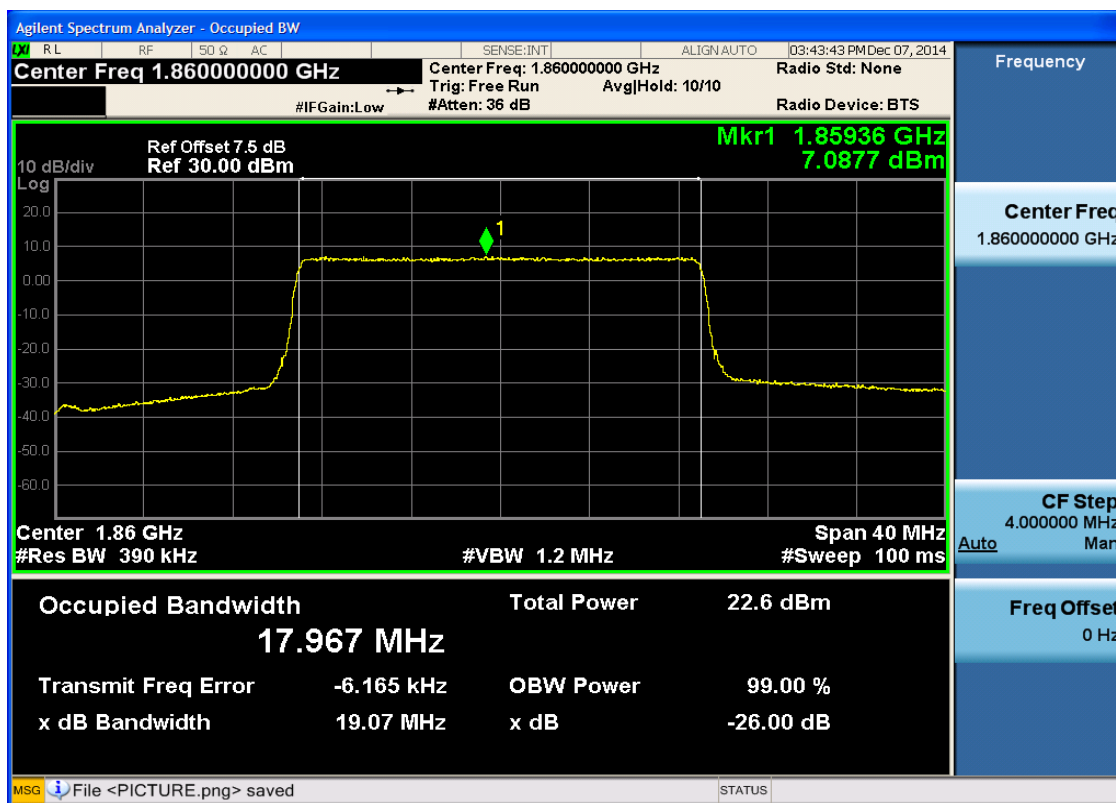
4.3.1.1.5.3.1 Test RB = RB75#0



4.3.1.1.6 Test Bandwidth = 20

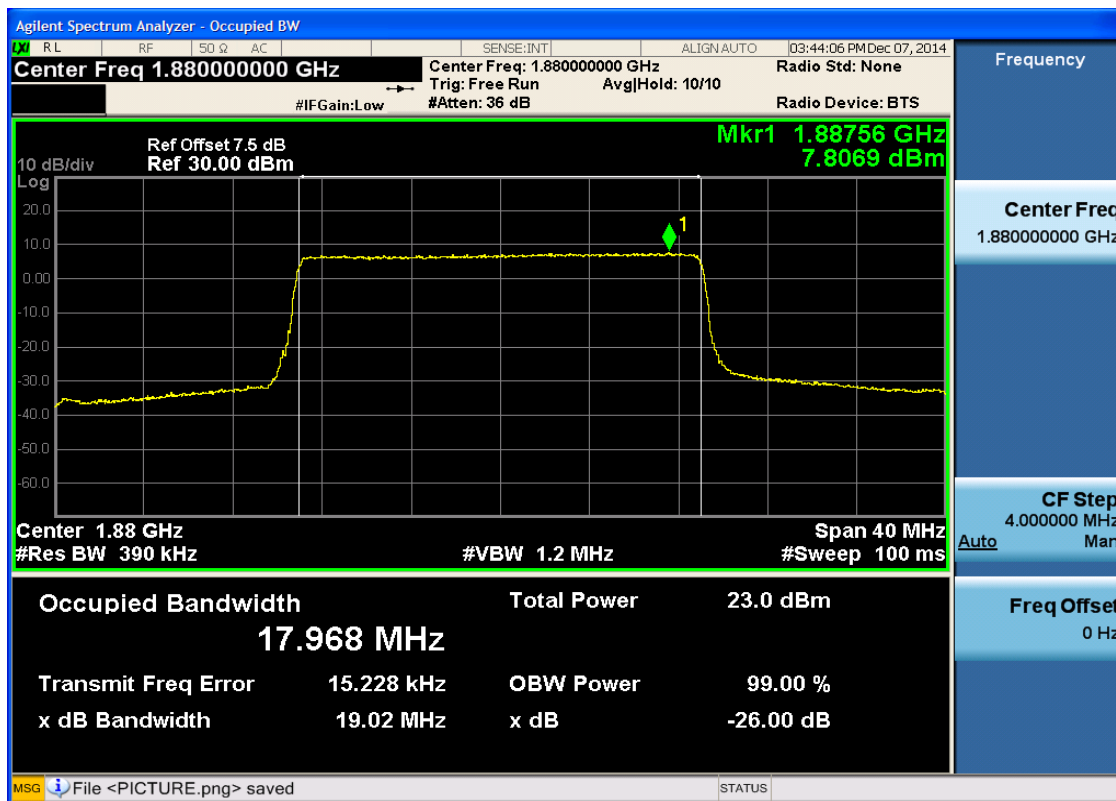
4.3.1.1.6.1 Test Channel = LCH

4.3.1.1.6.1.1 Test RB = RB100#0



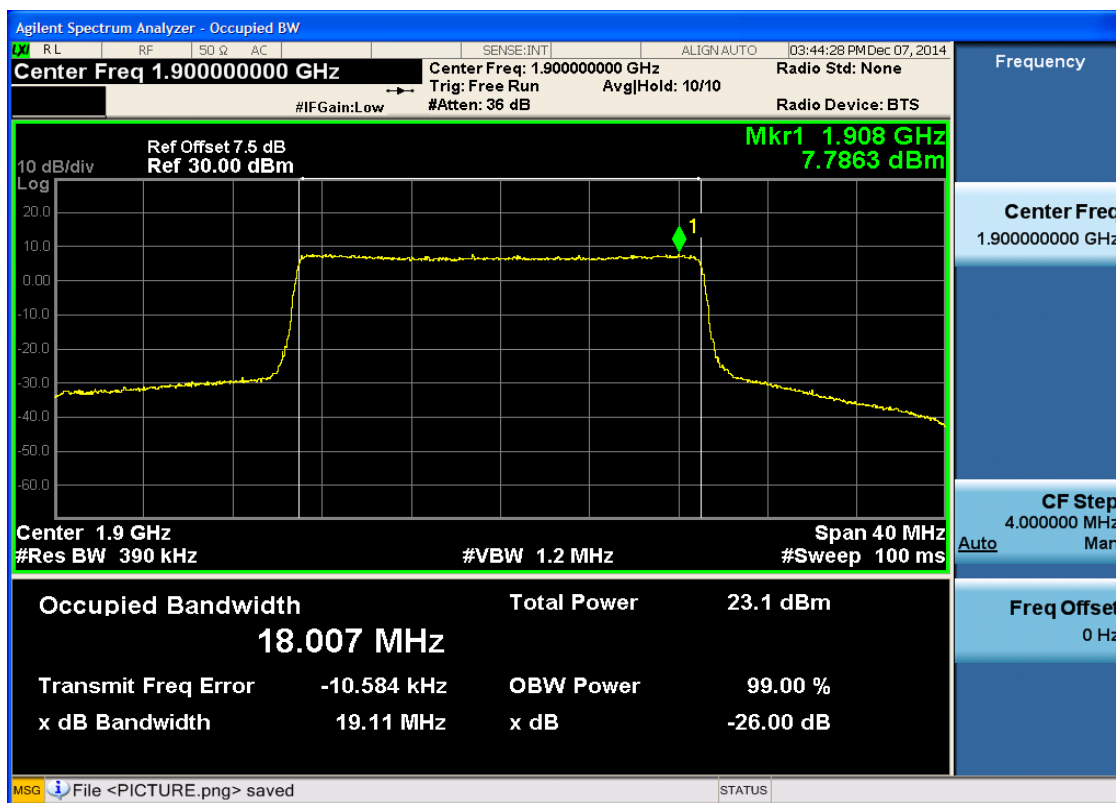
4.3.1.1.6.2 Test Channel = MCH

4.3.1.1.6.2.1 Test RB = RB100#0



4.3.1.1.6.3 Test Channel = HCH

4.3.1.1.6.3.1 Test RB = RB100#0

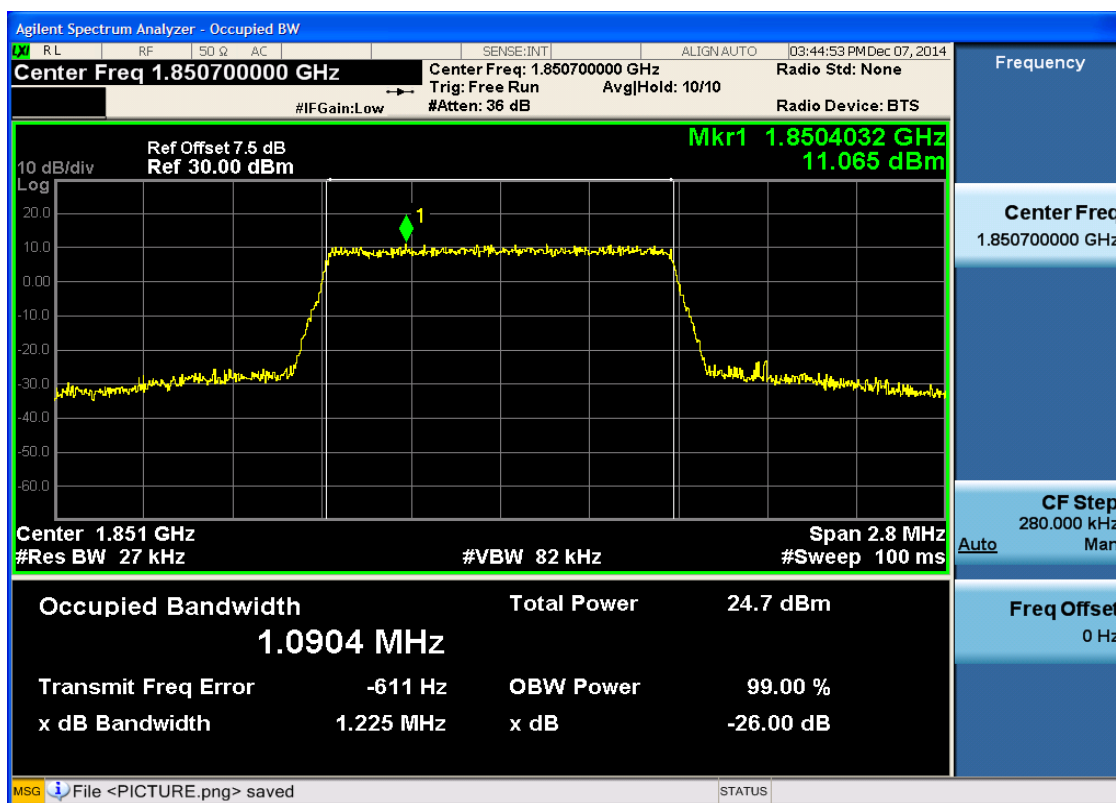


4.3.1.2 Test Mode = LTE/TM2

4.3.1.2.1 Test Bandwidth = 1.4

4.3.1.2.1.1 Test Channel = LCH

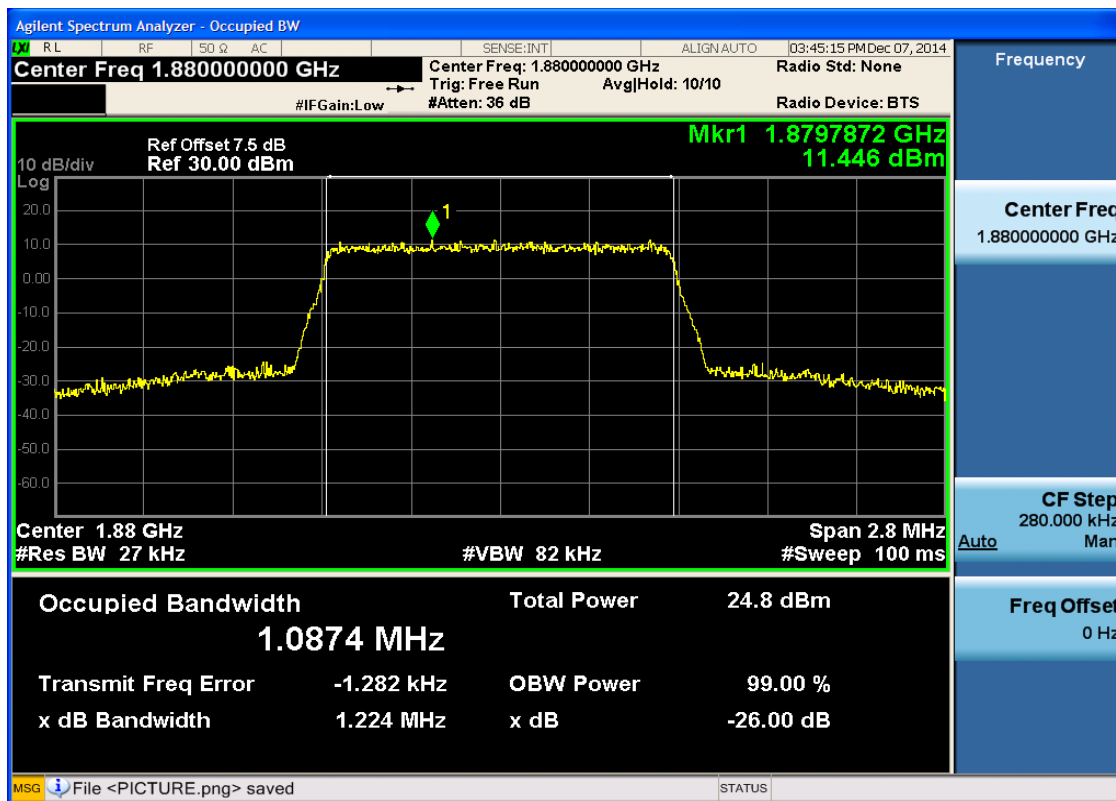
4.3.1.2.1.1.1 Test RB = RB6#0





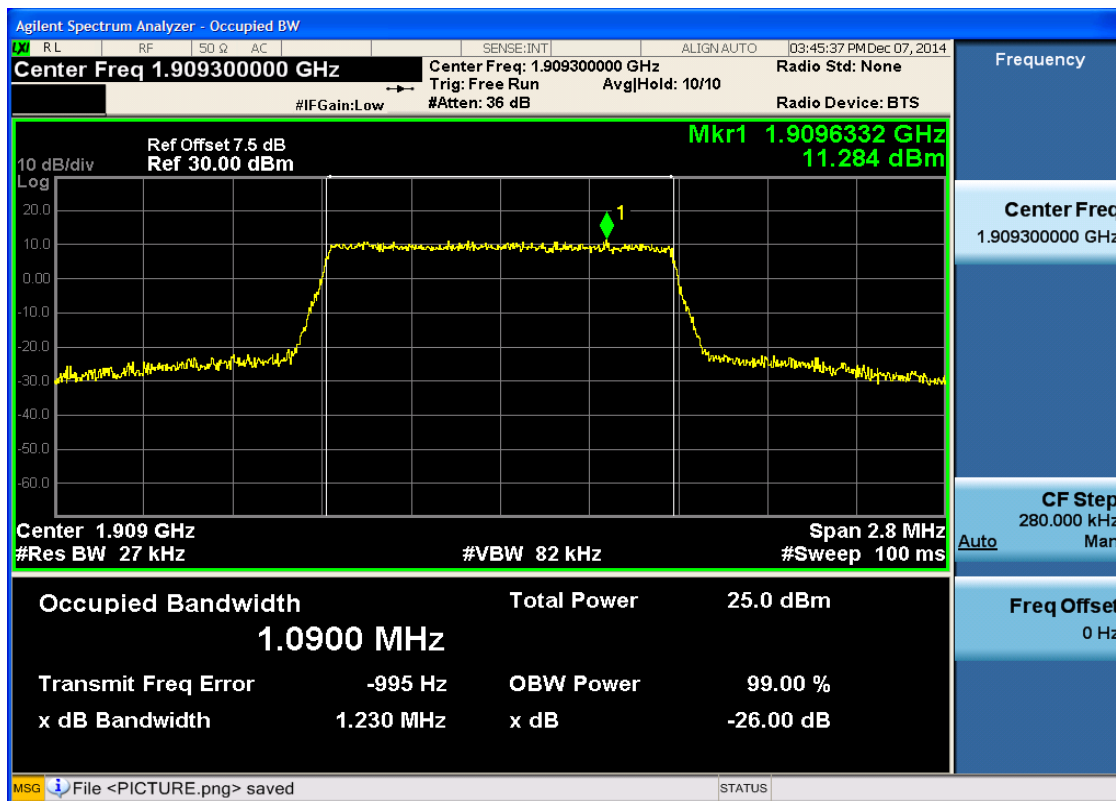
4.3.1.2.1.2 Test Channel = MCH

4.3.1.2.1.2.1 Test RB = RB6#0



4.3.1.2.1.3 Test Channel = HCH

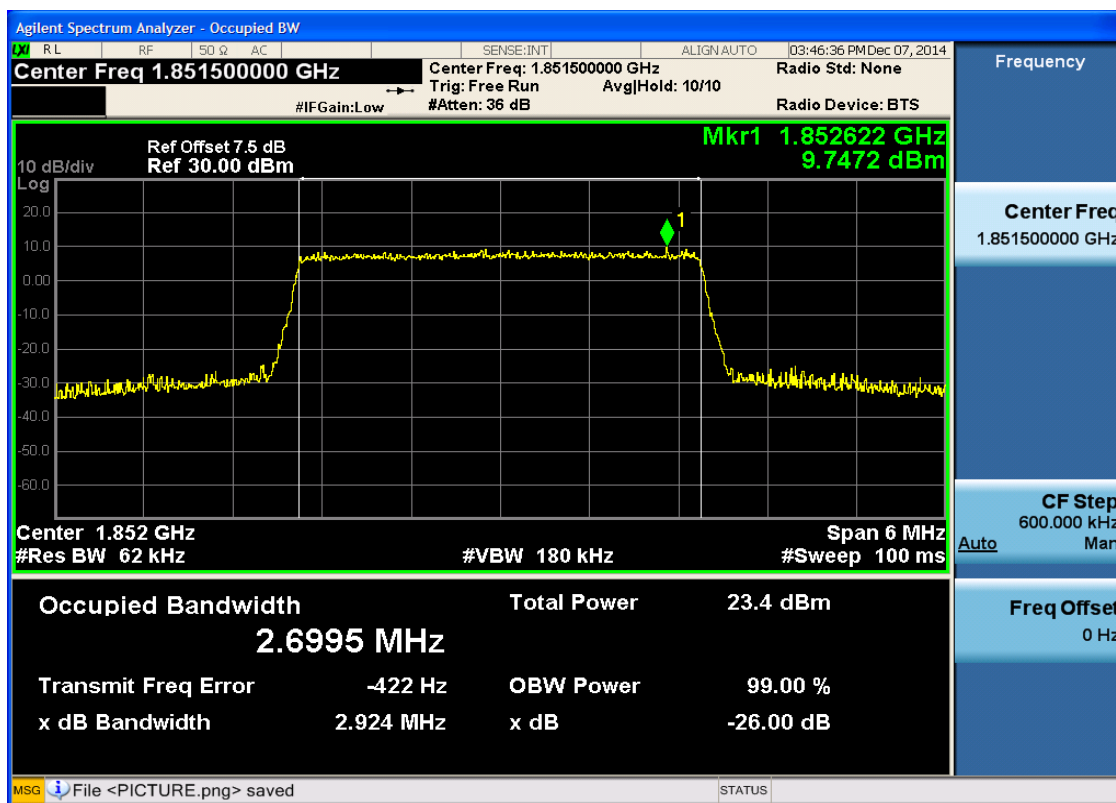
4.3.1.2.1.3.1 Test RB = RB6#0



4.3.1.2.2 Test Bandwidth = 3

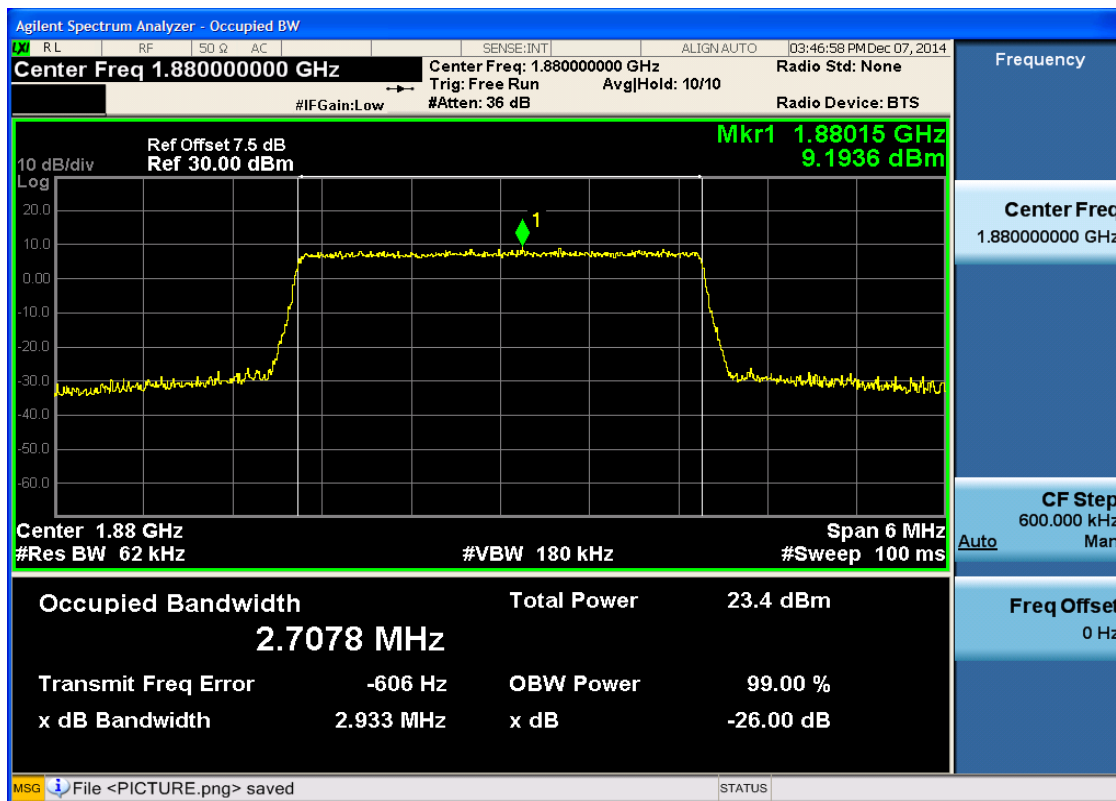
4.3.1.2.2.1 Test Channel = LCH

4.3.1.2.2.1.1 Test RB = RB15#0



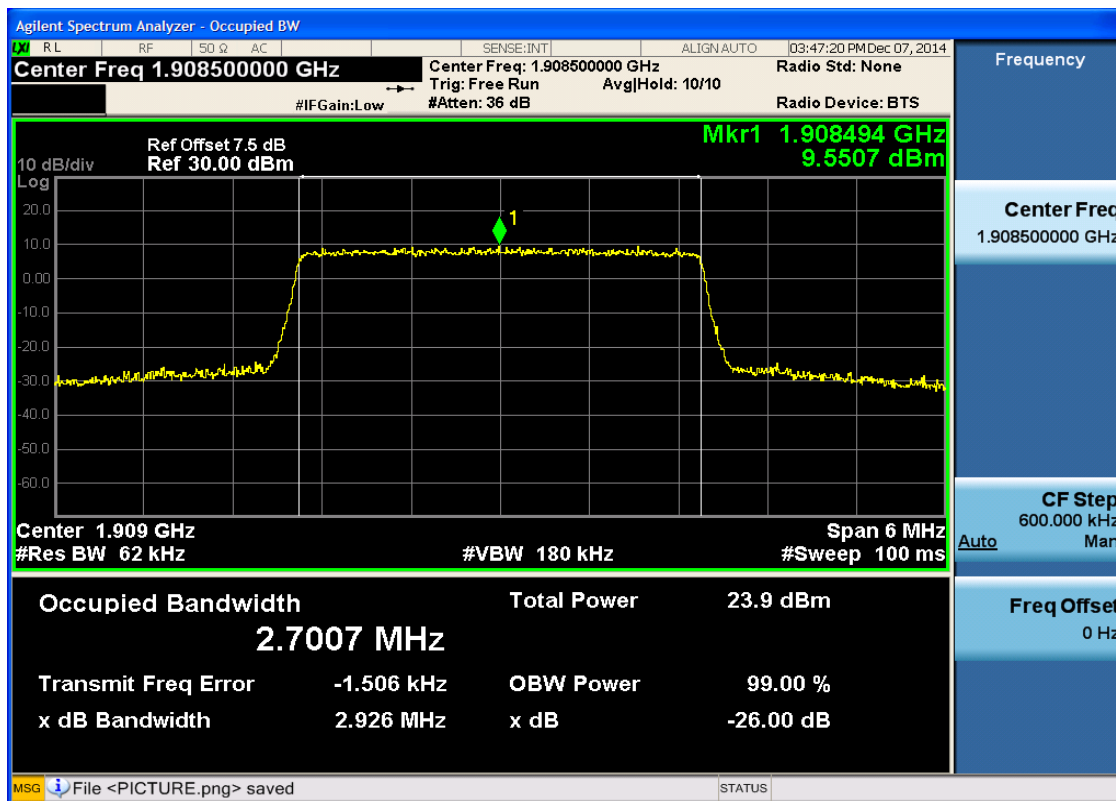
4.3.1.2.2.2 Test Channel = MCH

4.3.1.2.2.1 Test RB = RB15#0



4.3.1.2.2.3 Test Channel = HCH

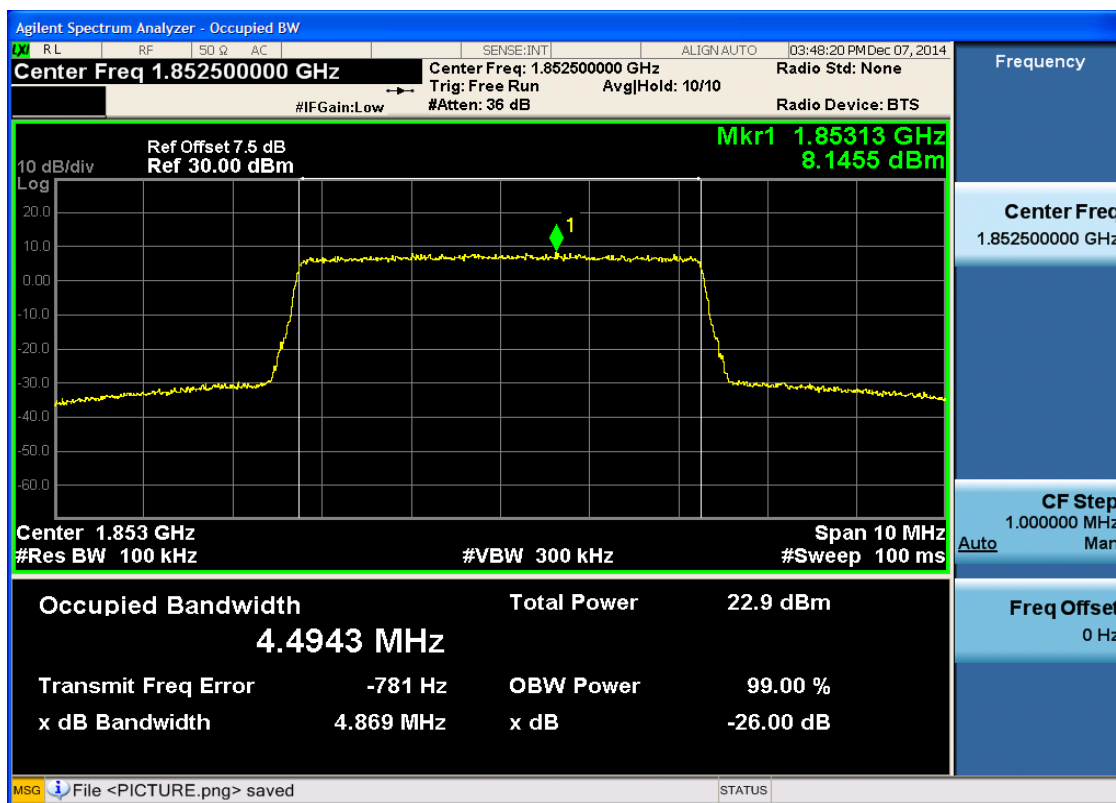
4.3.1.2.2.3.1 Test RB = RB15#0



4.3.1.2.3 Test Bandwidth = 5

4.3.1.2.3.1 Test Channel = LCH

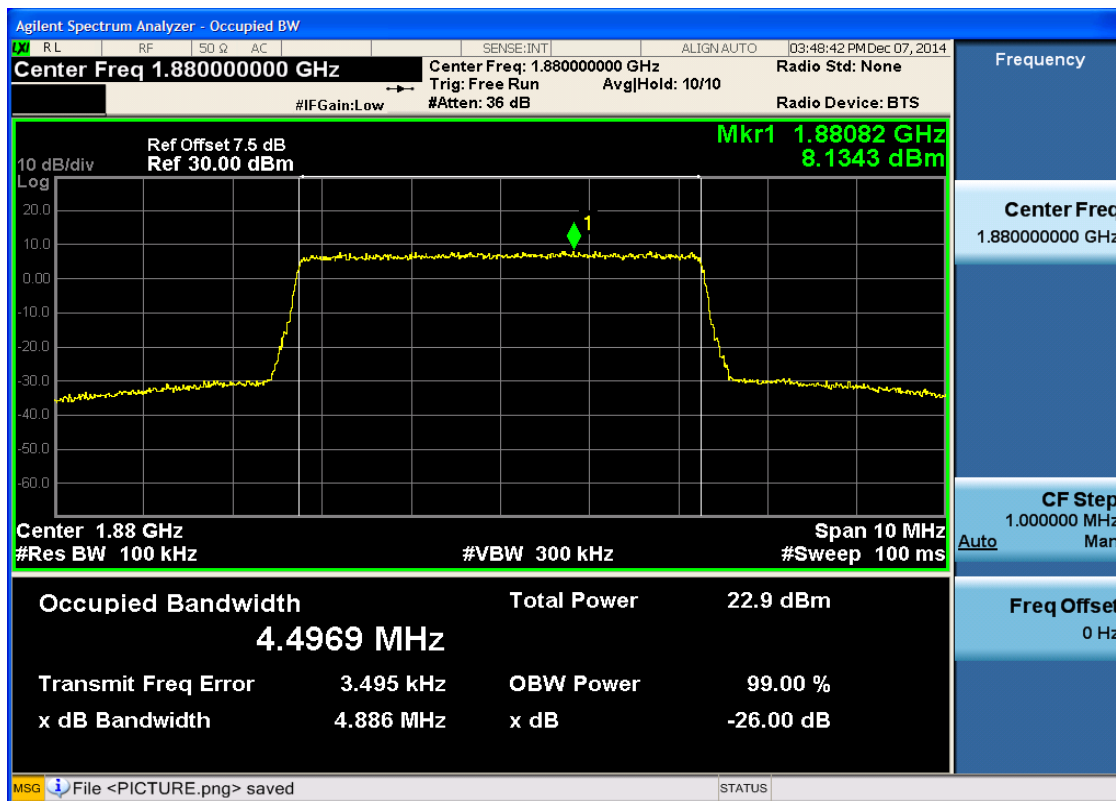
4.3.1.2.3.1.1 Test RB = RB25#0





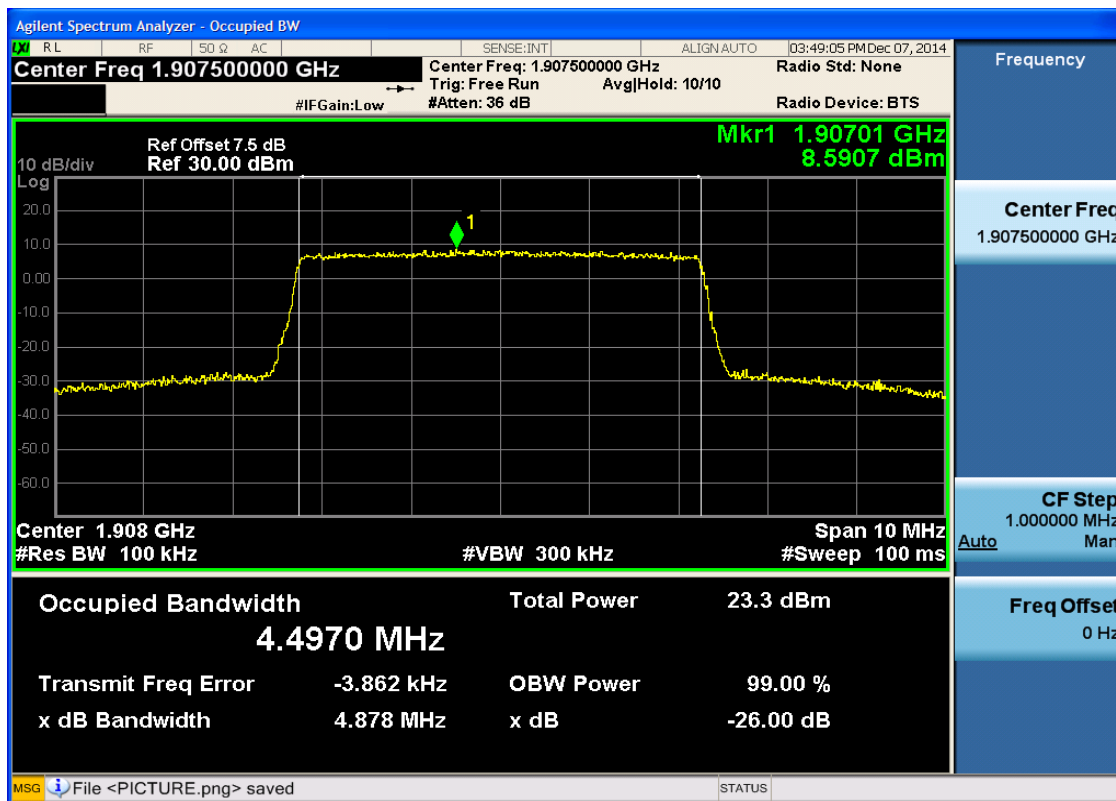
4.3.1.2.3.2 Test Channel = MCH

4.3.1.2.3.2.1 Test RB = RB25#0



4.3.1.2.3.3 Test Channel = HCH

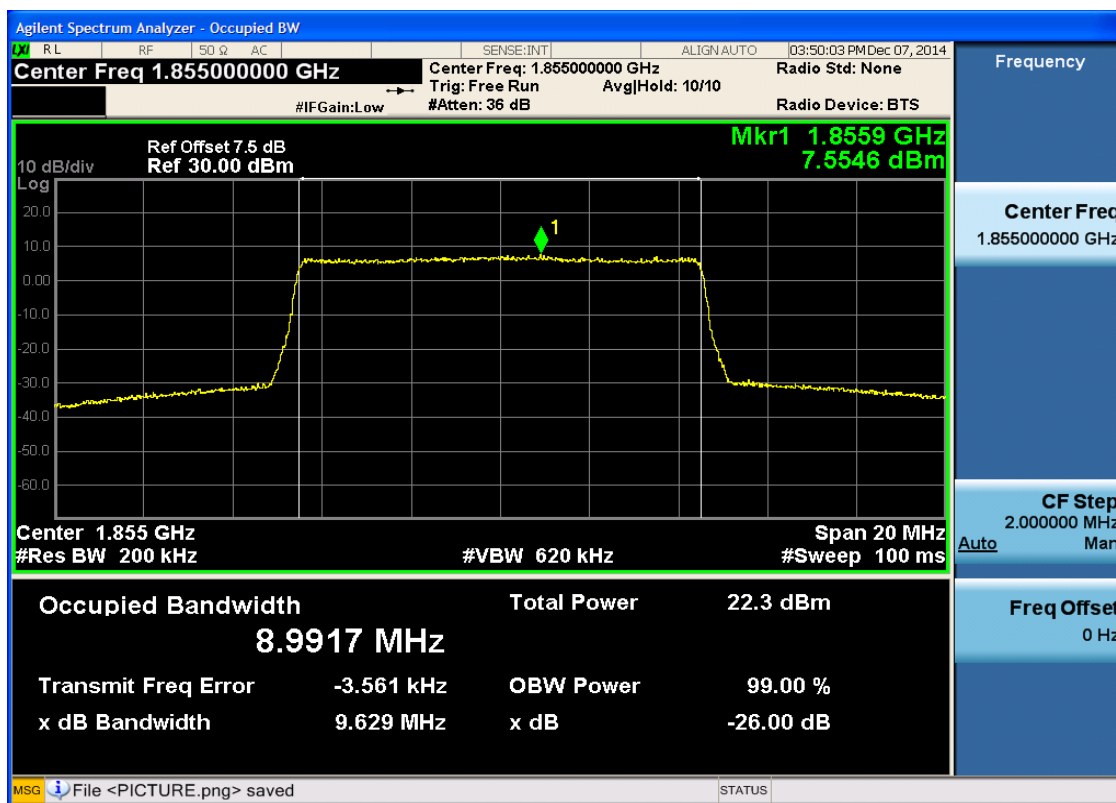
4.3.1.2.3.3.1 Test RB = RB25#0



4.3.1.2.4 Test Bandwidth = 10

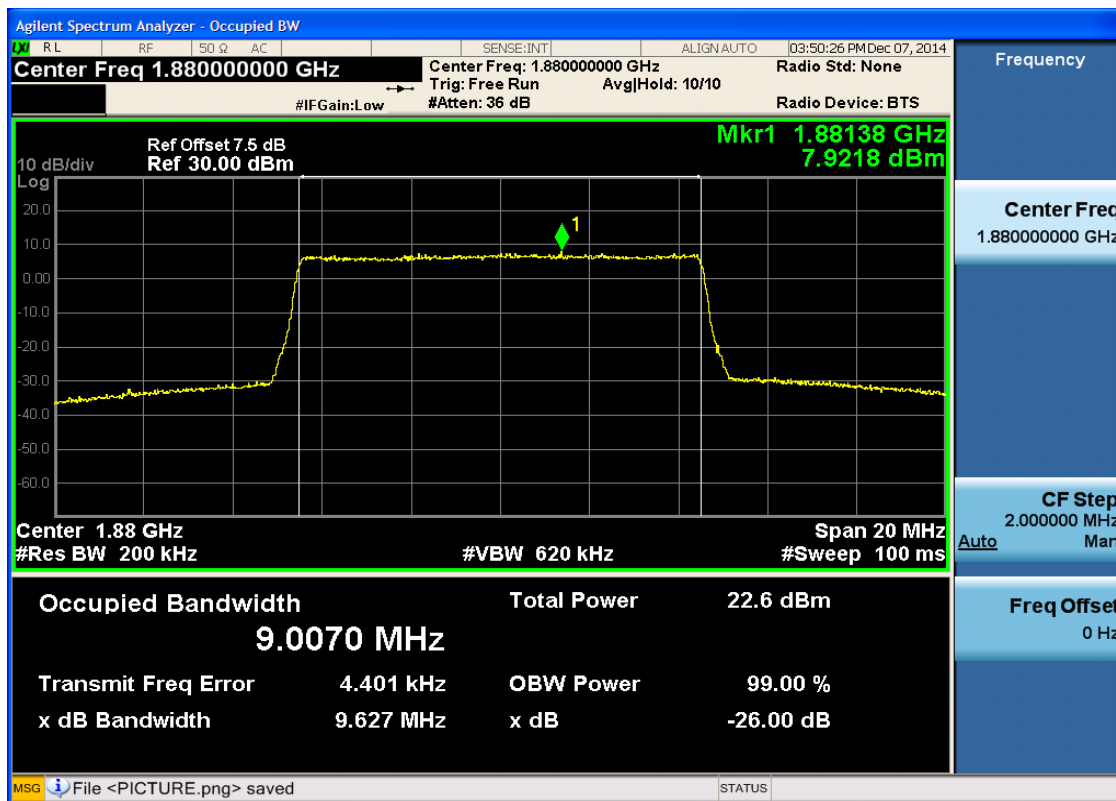
4.3.1.2.4.1 Test Channel = LCH

4.3.1.2.4.1.1 Test RB = RB50#0



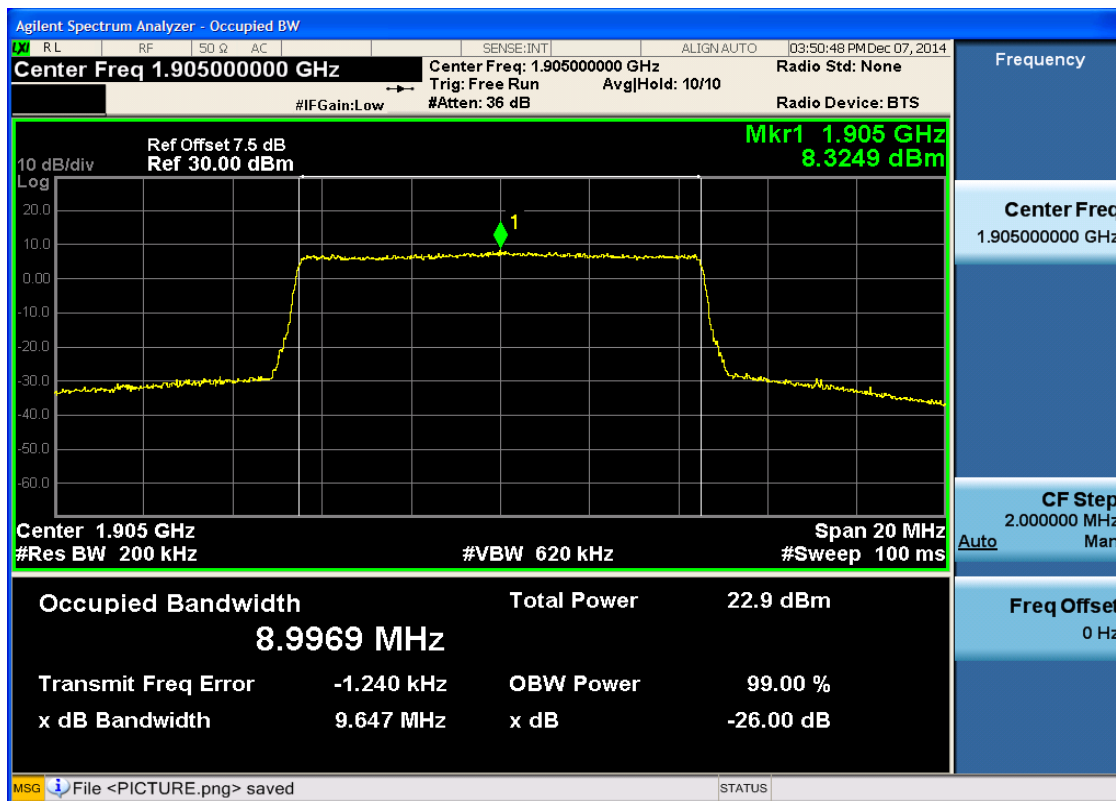
4.3.1.2.4.2 Test Channel = MCH

4.3.1.2.4.2.1 Test RB = RB50#0



4.3.1.2.4.3 Test Channel = HCH

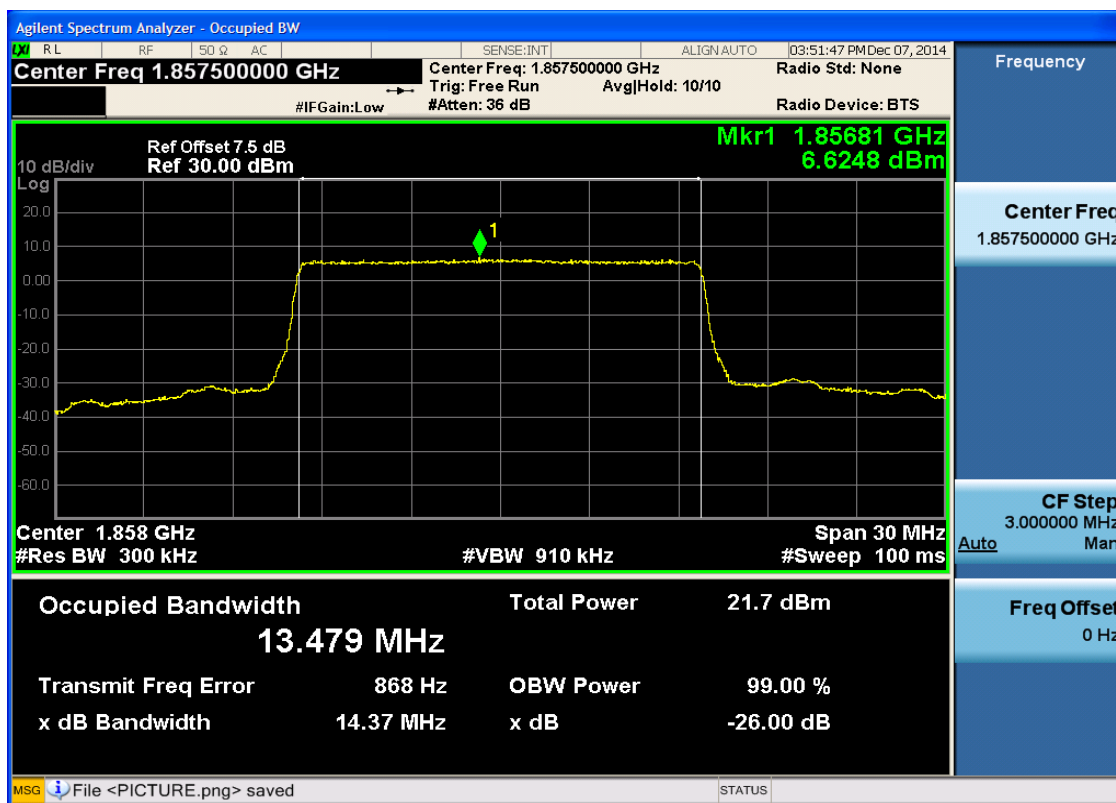
4.3.1.2.4.3.1 Test RB = RB50#0



4.3.1.2.5 Test Bandwidth = 15

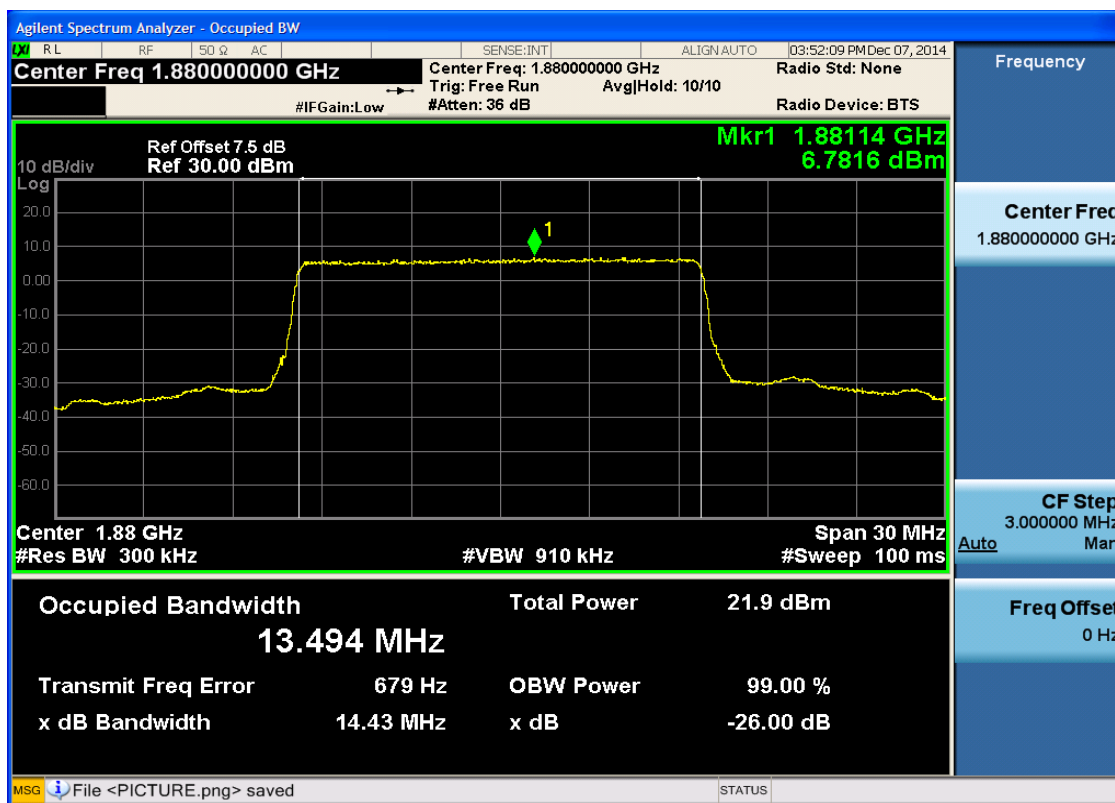
4.3.1.2.5.1 Test Channel = LCH

4.3.1.2.5.1.1 Test RB = RB75#0



4.3.1.2.5.2 Test Channel = MCH

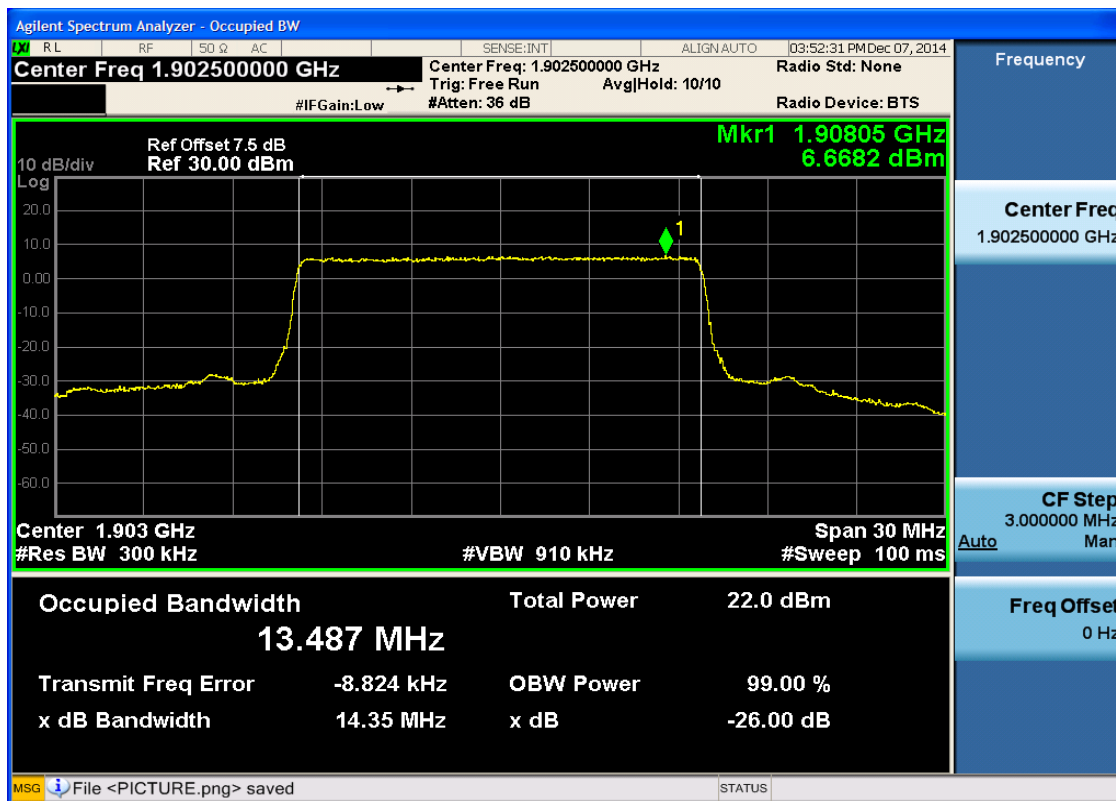
4.3.1.2.5.2.1 Test RB = RB75#0





4.3.1.2.5.3 Test Channel = HCH

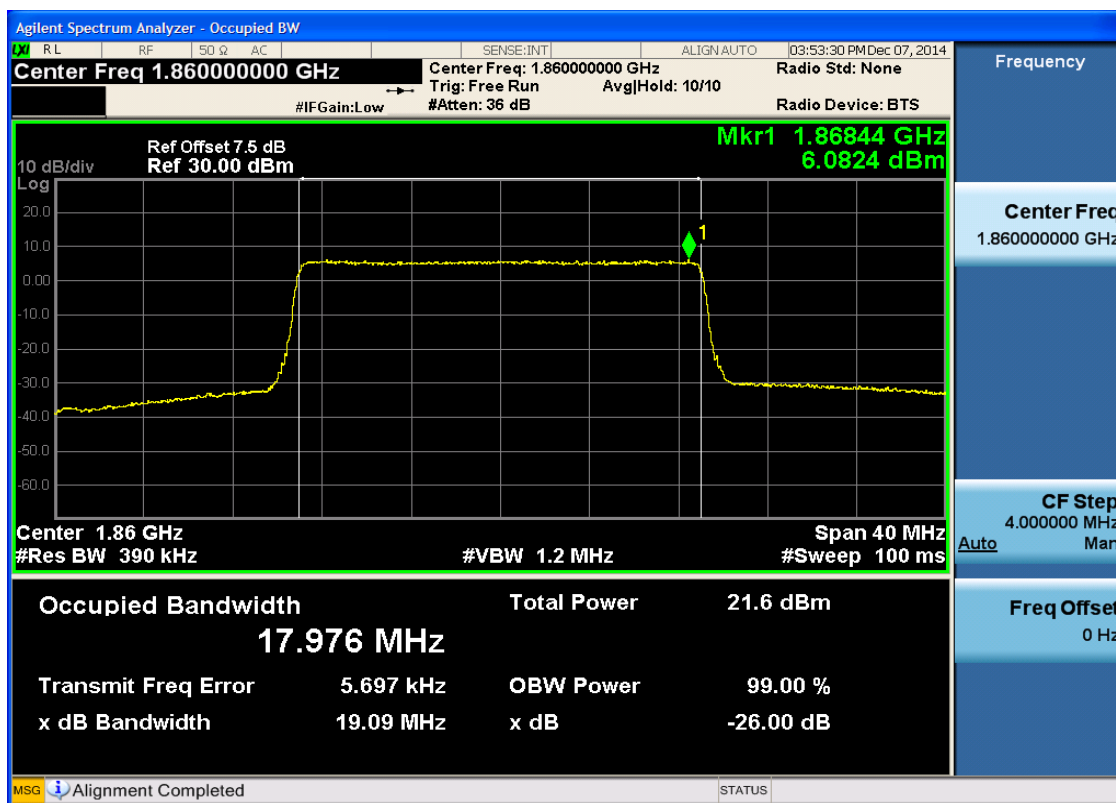
4.3.1.2.5.3.1 Test RB = RB75#0



4.3.1.2.6 Test Bandwidth = 20

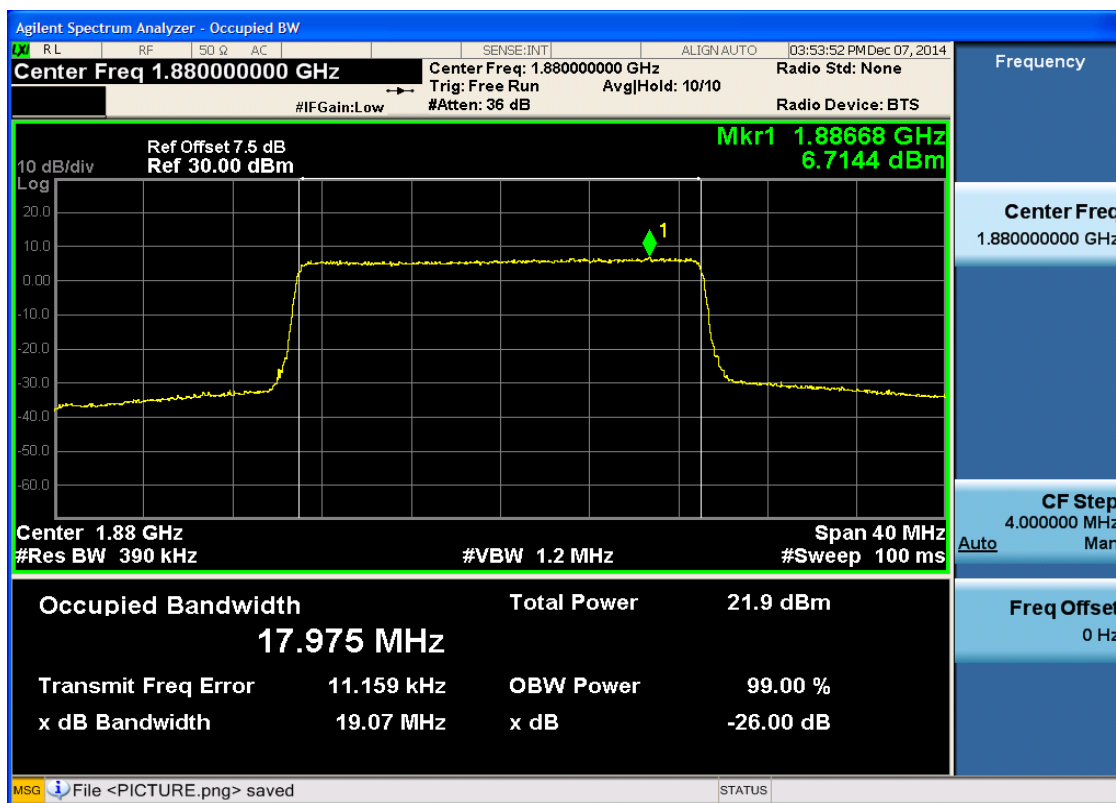
4.3.1.2.6.1 Test Channel = LCH

4.3.1.2.6.1.1 Test RB = RB100#0



4.3.1.2.6.2 Test Channel = MCH

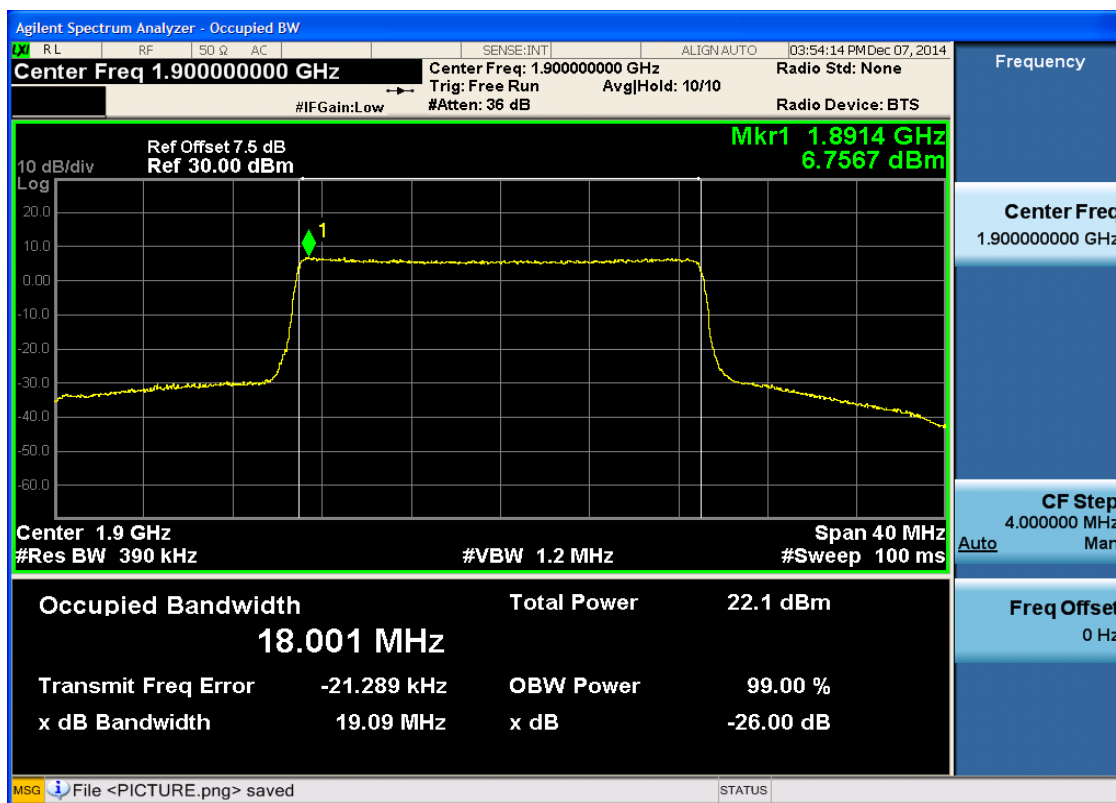
4.3.1.2.6.2.1 Test RB = RB100#0





4.3.1.2.6.3 Test Channel = HCH

4.3.1.2.6.3.1 Test RB = RB100#0



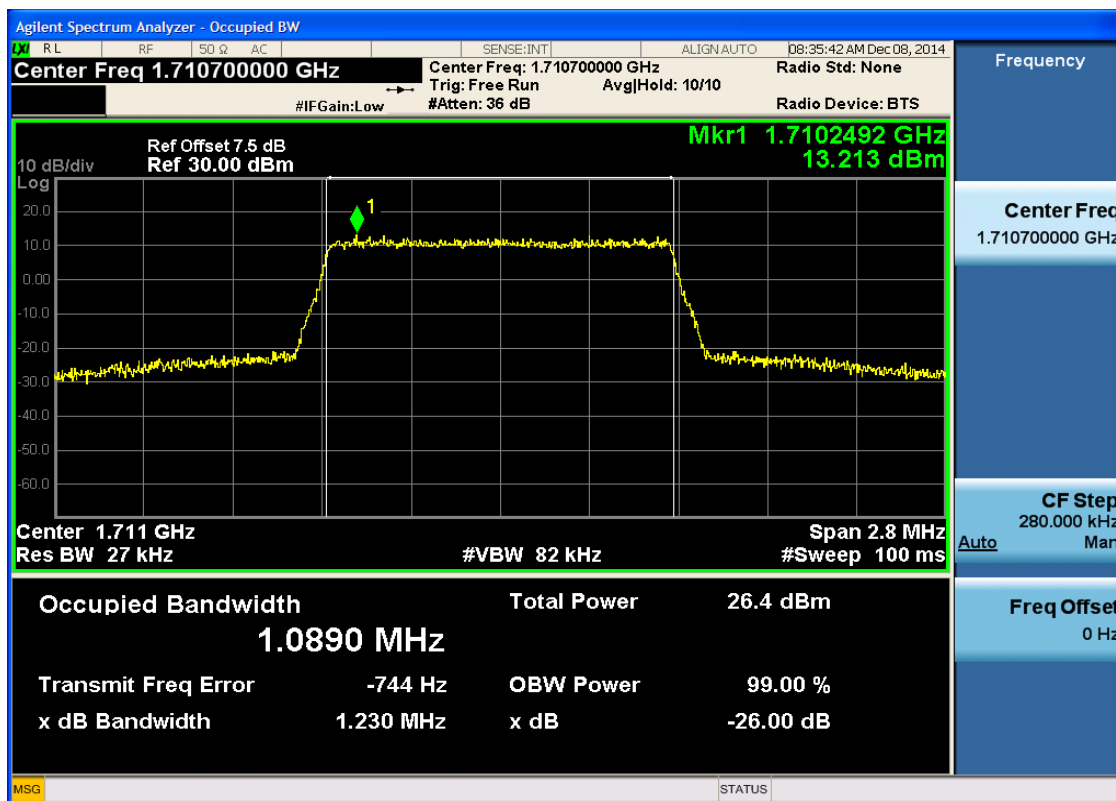
4.3.2 Test Band = BAND4

4.3.2.1 Test Mode = LTE/TM1

4.3.2.1.1 Test Bandwidth = 1.4

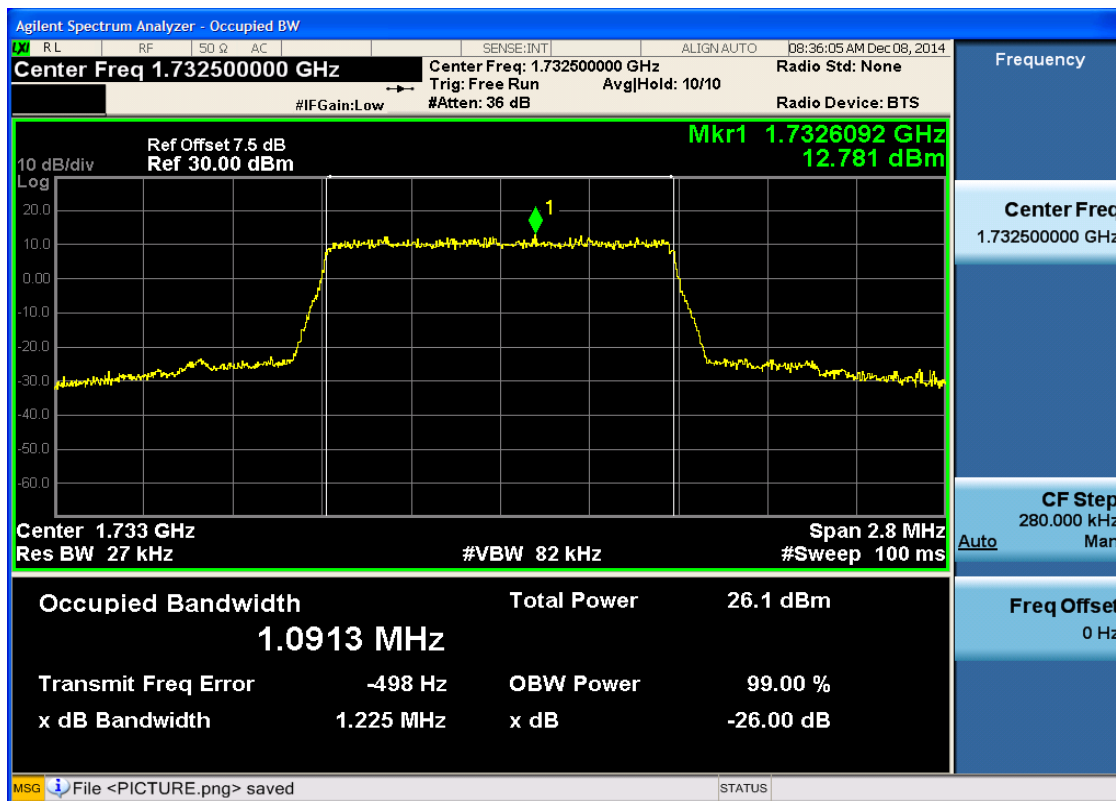
4.3.2.1.1.1 Test Channel = LCH

4.3.2.1.1.1.1 Test RB = RB6#0



4.3.2.1.1.2 Test Channel = MCH

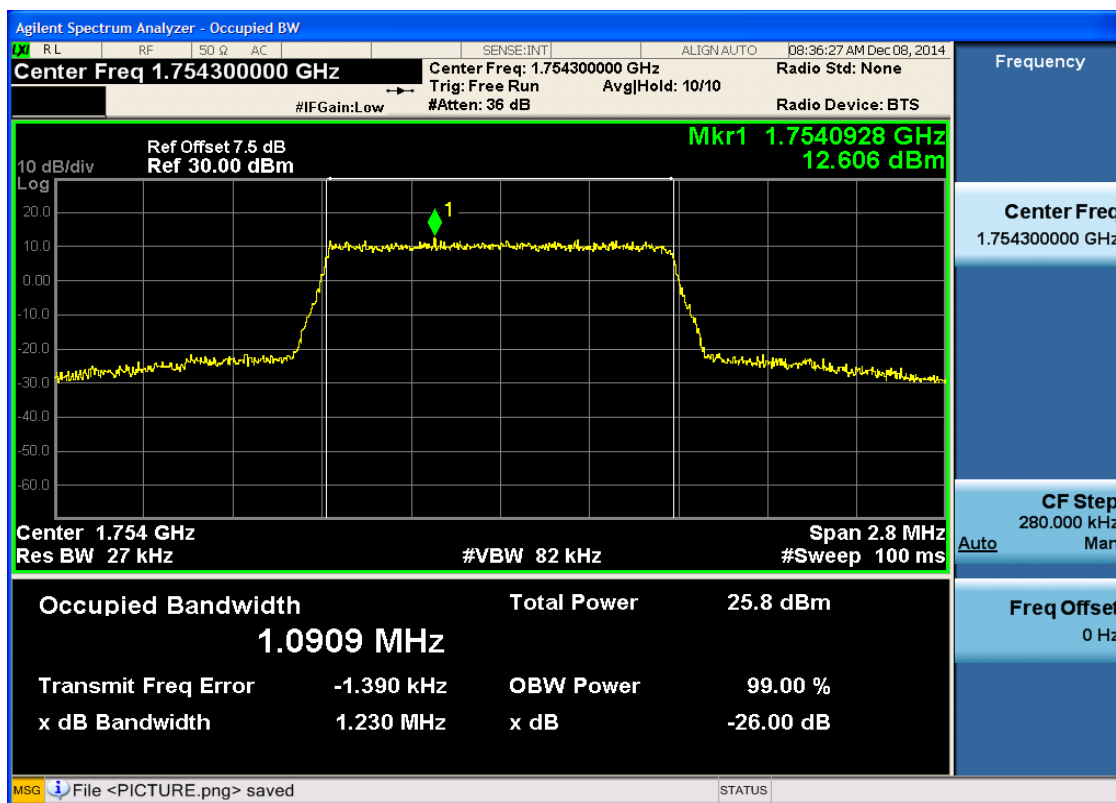
4.3.2.1.1.2.1 Test RB = RB6#0





4.3.2.1.1.3 Test Channel = HCH

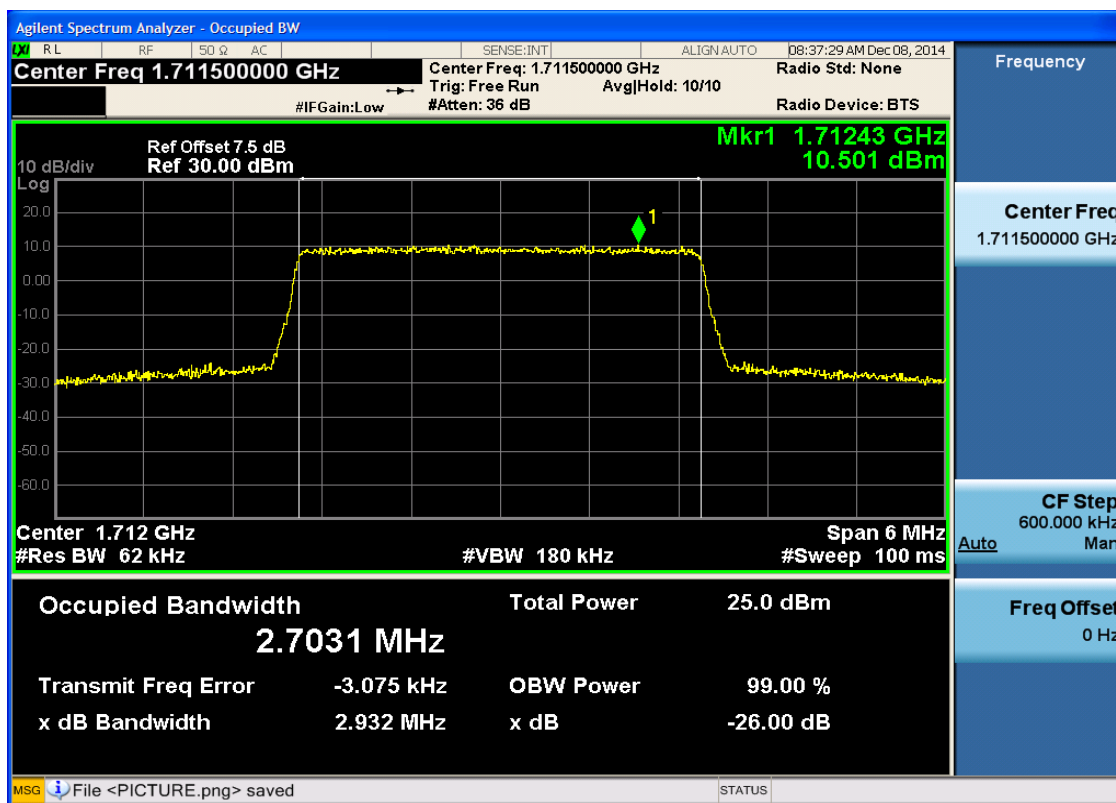
4.3.2.1.1.3.1 Test RB = RB6#0



4.3.2.1.2 Test Bandwidth = 3

4.3.2.1.2.1 Test Channel = LCH

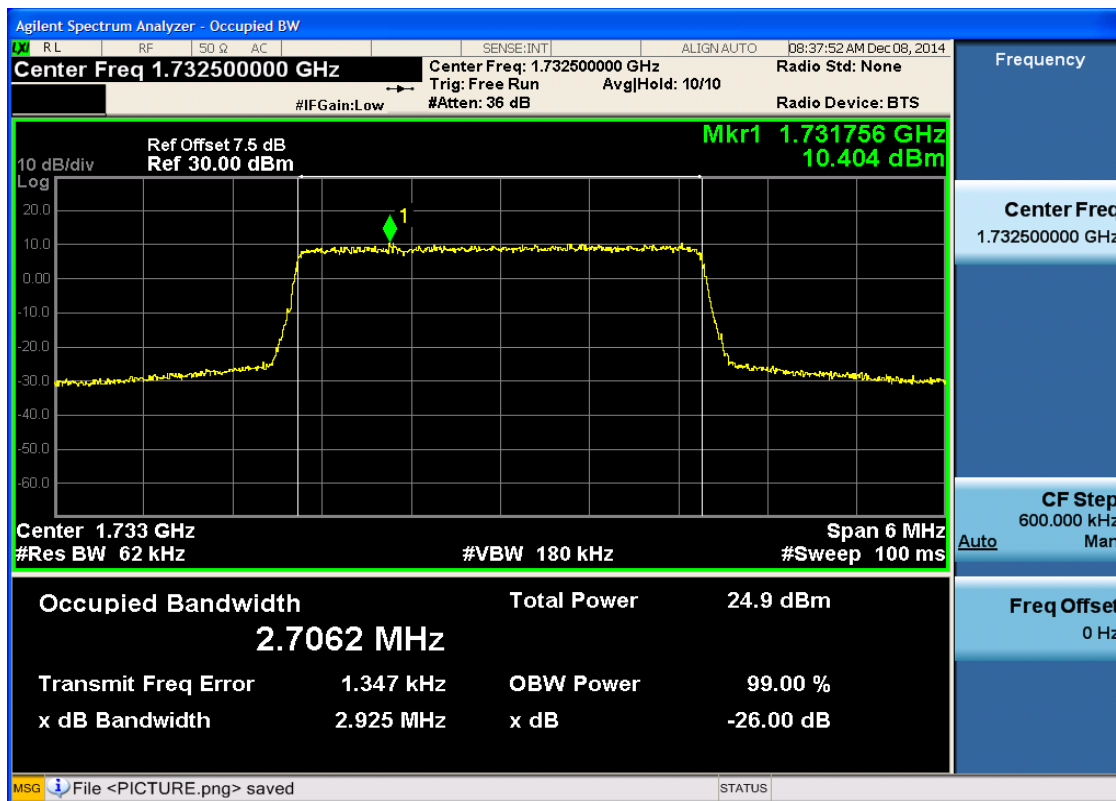
4.3.2.1.2.1.1 Test RB = RB15#0





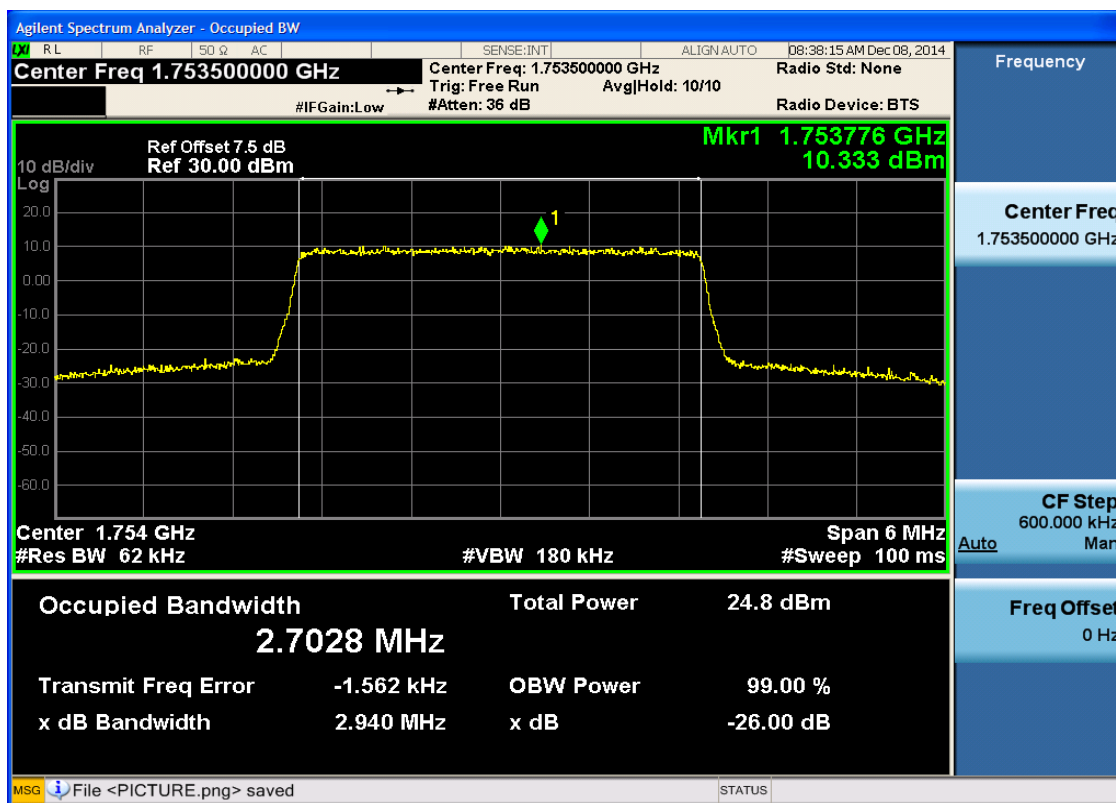
4.3.2.1.2.2 Test Channel = MCH

4.3.2.1.2.2.1 Test RB = RB15#0



4.3.2.1.2.3 Test Channel = HCH

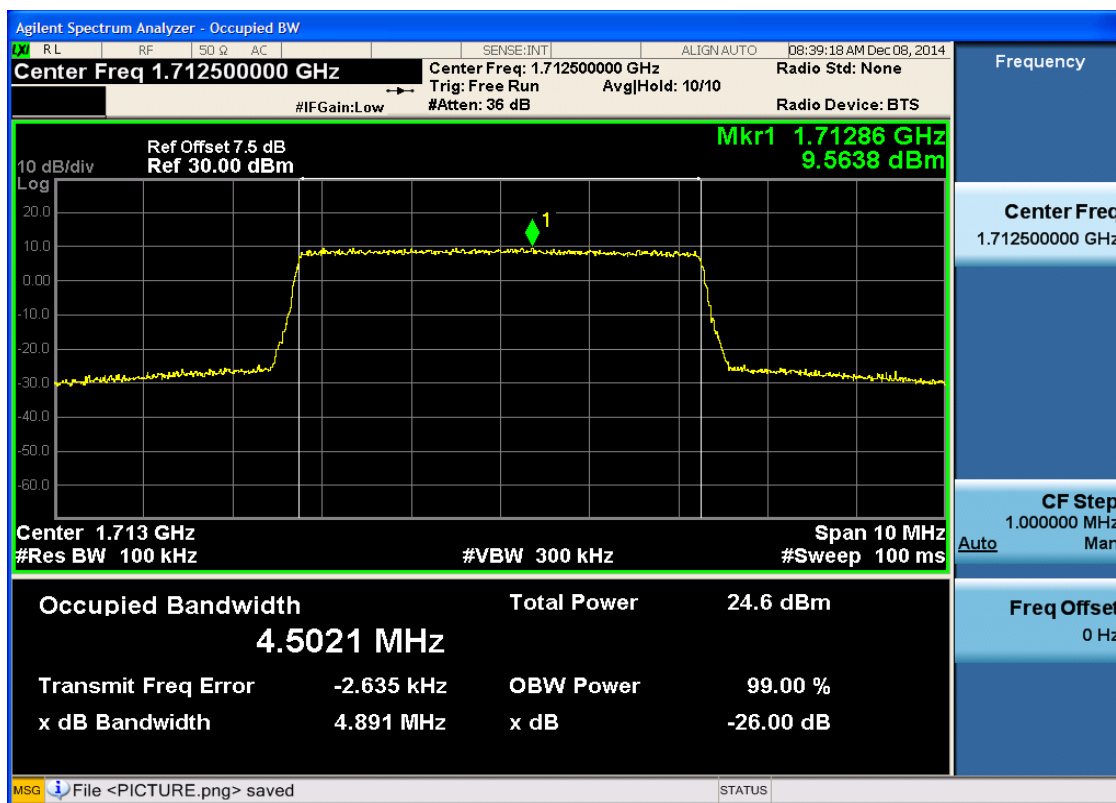
4.3.2.1.2.3.1 Test RB = RB15#0



4.3.2.1.3 Test Bandwidth = 5

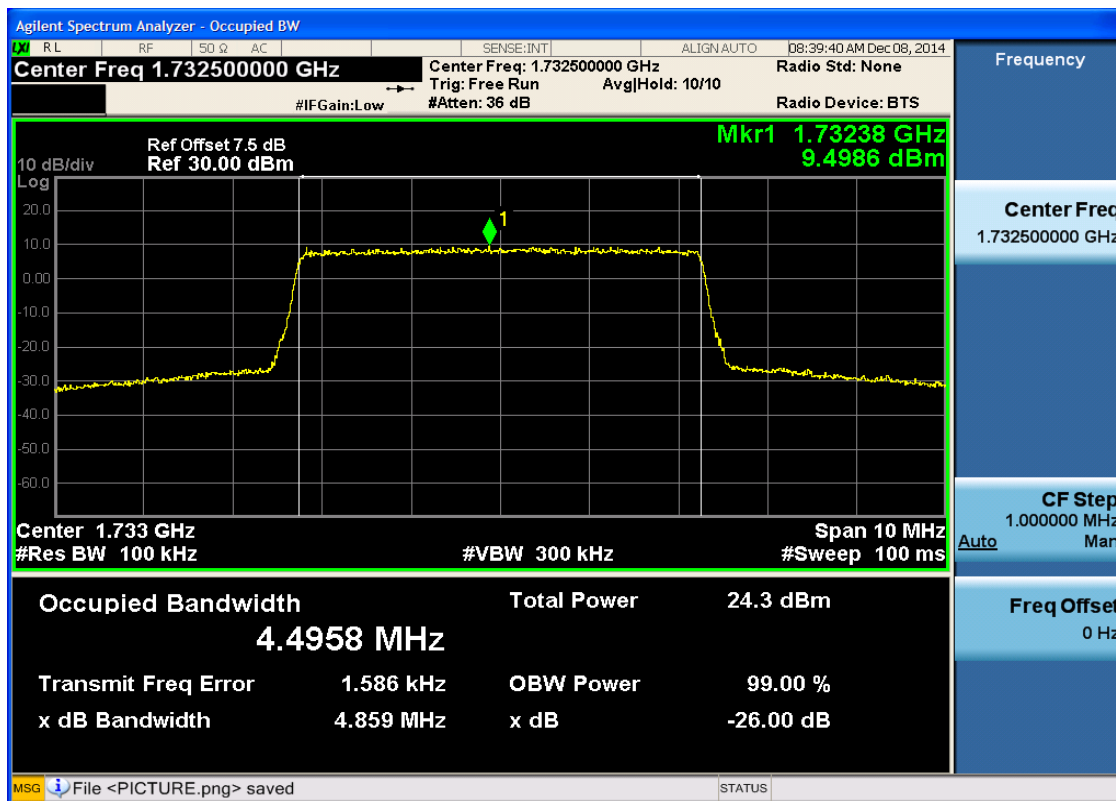
4.3.2.1.3.1 Test Channel = LCH

4.3.2.1.3.1.1 Test RB = RB25#0



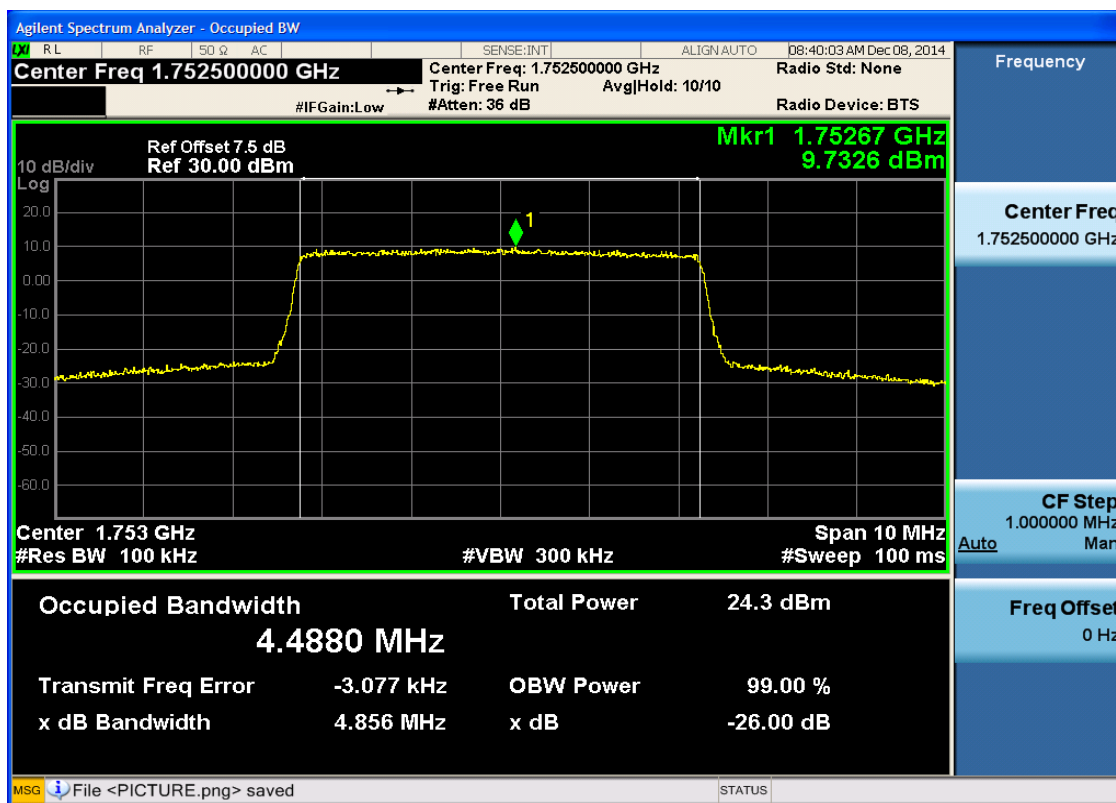
4.3.2.1.3.2 Test Channel = MCH

4.3.2.1.3.2.1 Test RB = RB25#0



4.3.2.1.3.3 Test Channel = HCH

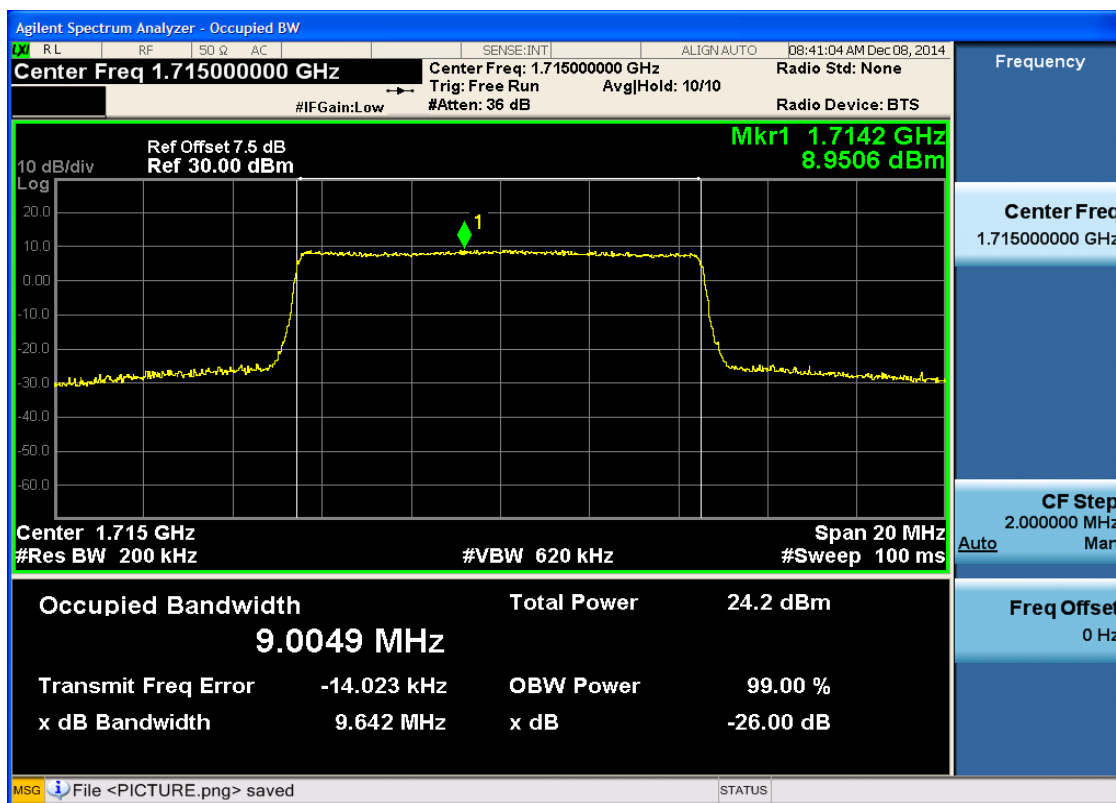
4.3.2.1.3.3.1 Test RB = RB25#0



4.3.2.1.4 Test Bandwidth = 10

4.3.2.1.4.1 Test Channel = LCH

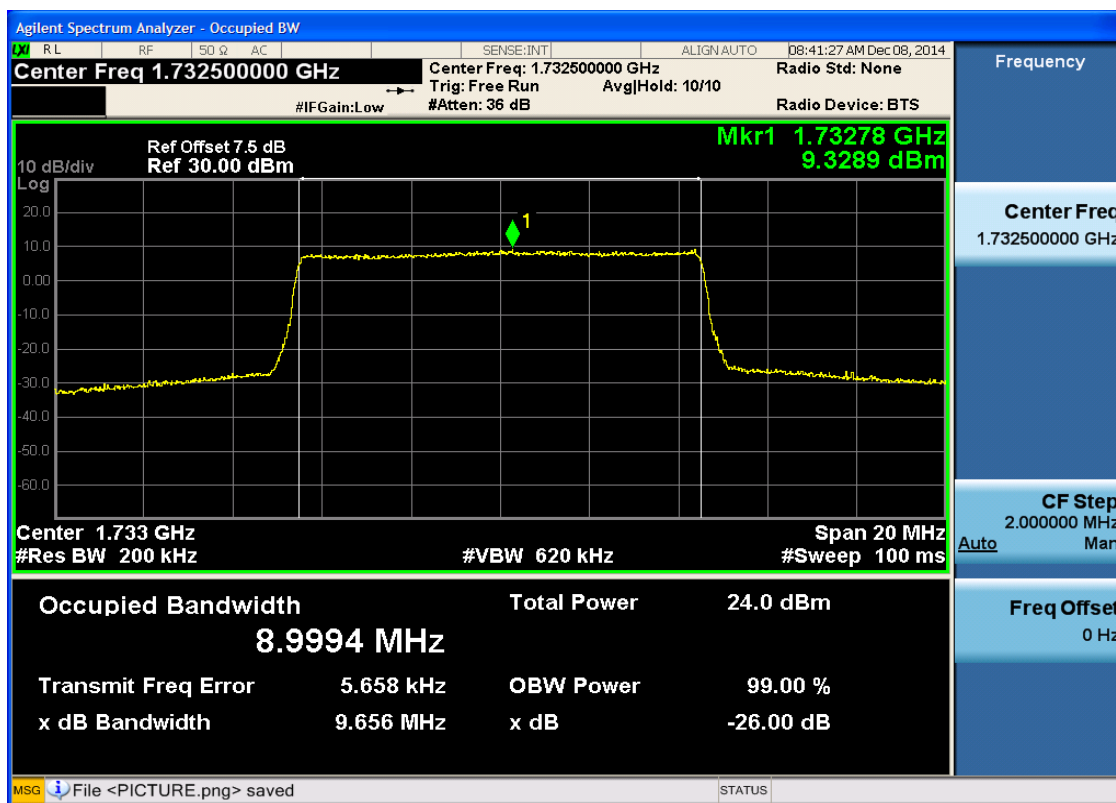
4.3.2.1.4.1.1 Test RB = RB50#0





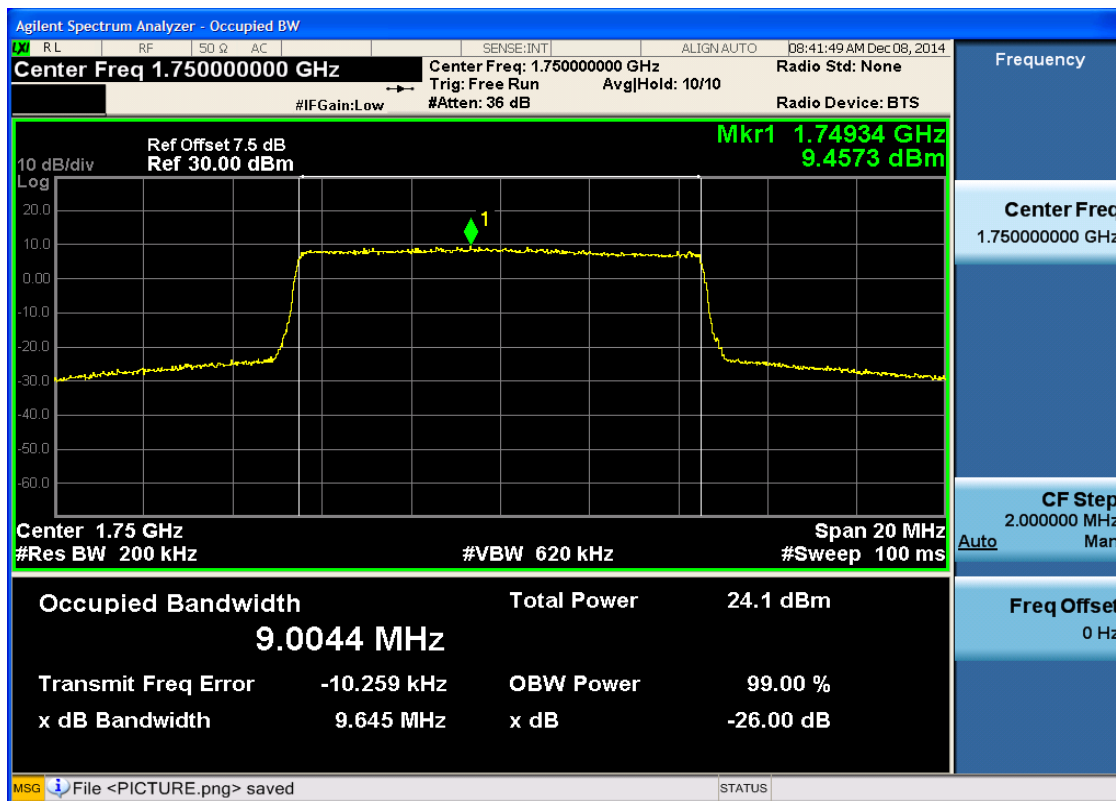
4.3.2.1.4.2 Test Channel = MCH

4.3.2.1.4.2.1 Test RB = RB50#0



4.3.2.1.4.3 Test Channel = HCH

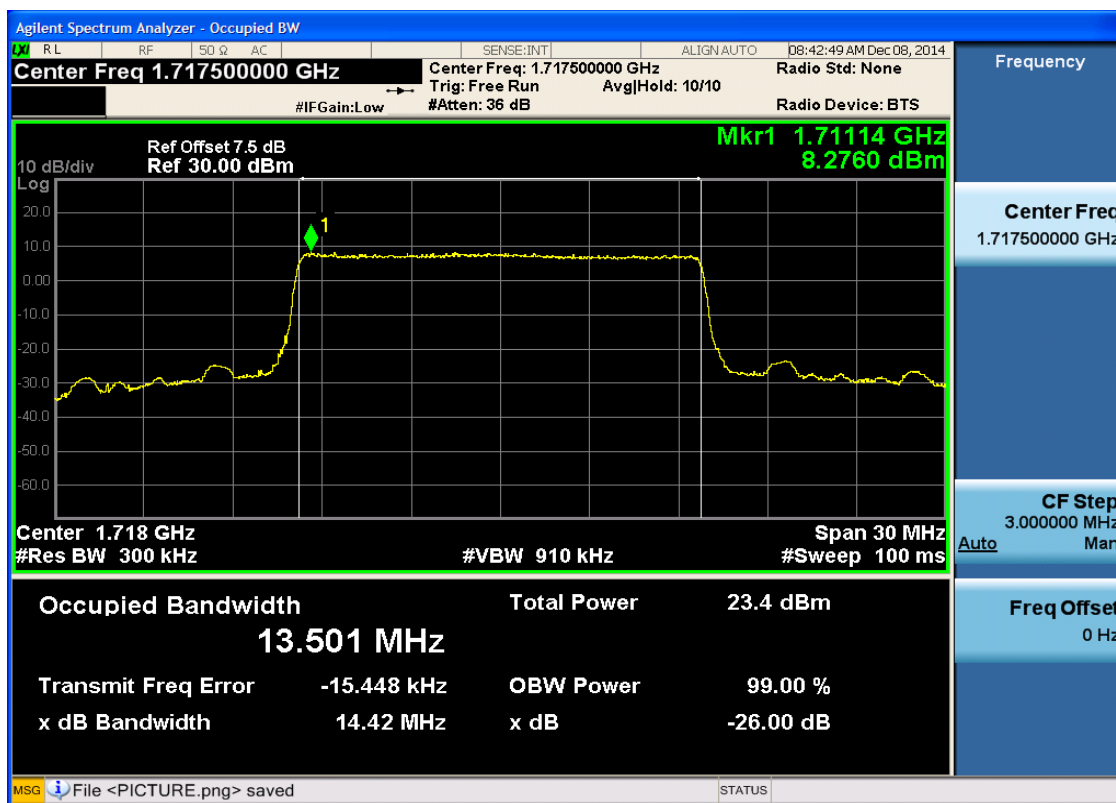
4.3.2.1.4.3.1 Test RB = RB50#0



4.3.2.1.5 Test Bandwidth = 15

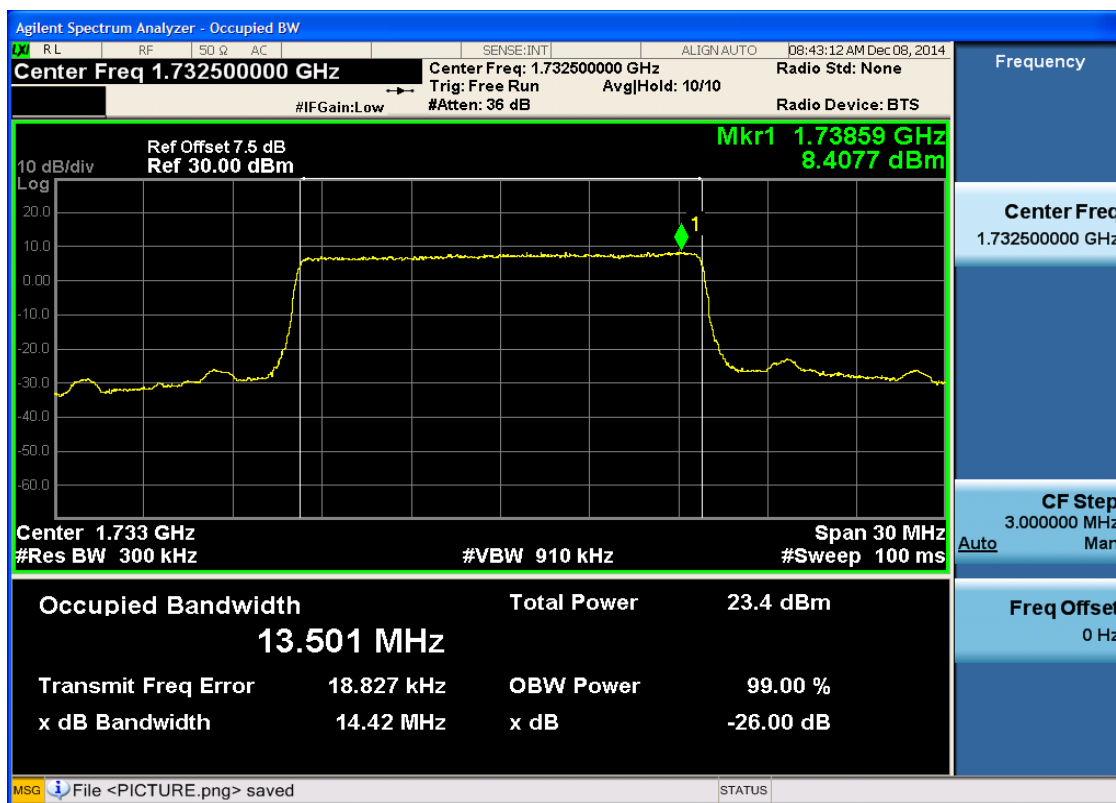
4.3.2.1.5.1 Test Channel = LCH

4.3.2.1.5.1.1 Test RB = RB75#0



4.3.2.1.5.2 Test Channel = MCH

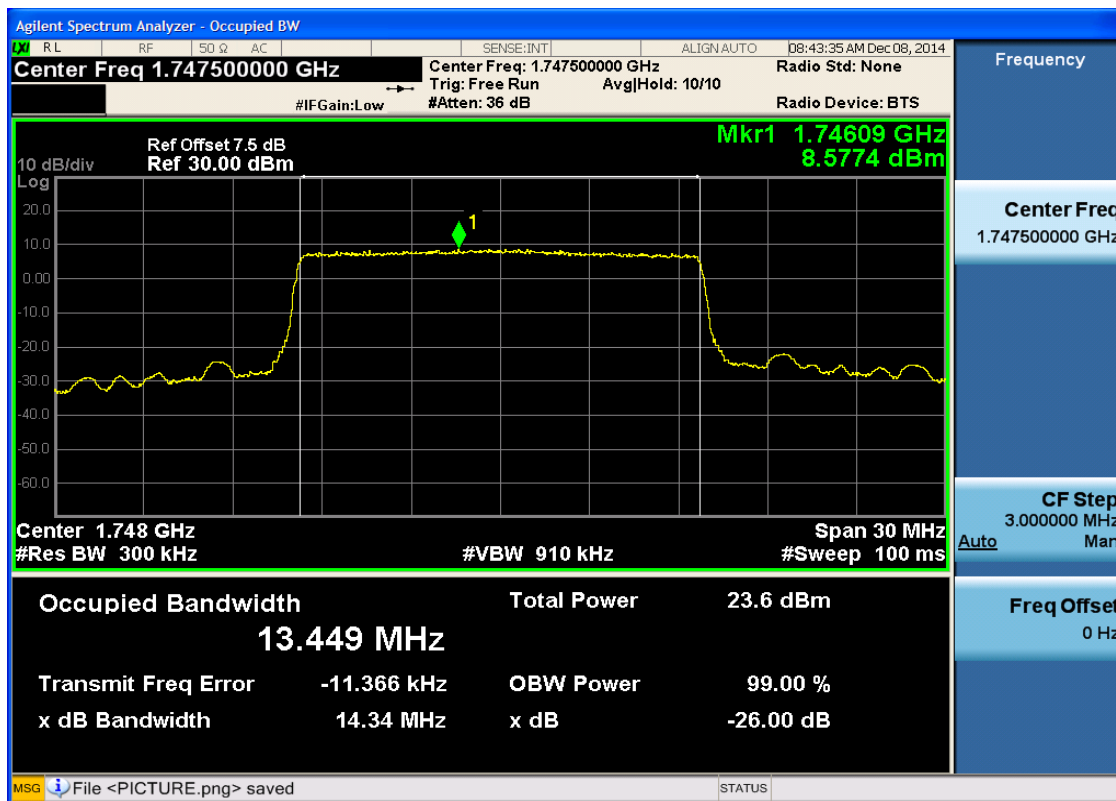
4.3.2.1.5.2.1 Test RB = RB75#0





4.3.2.1.5.3 Test Channel = HCH

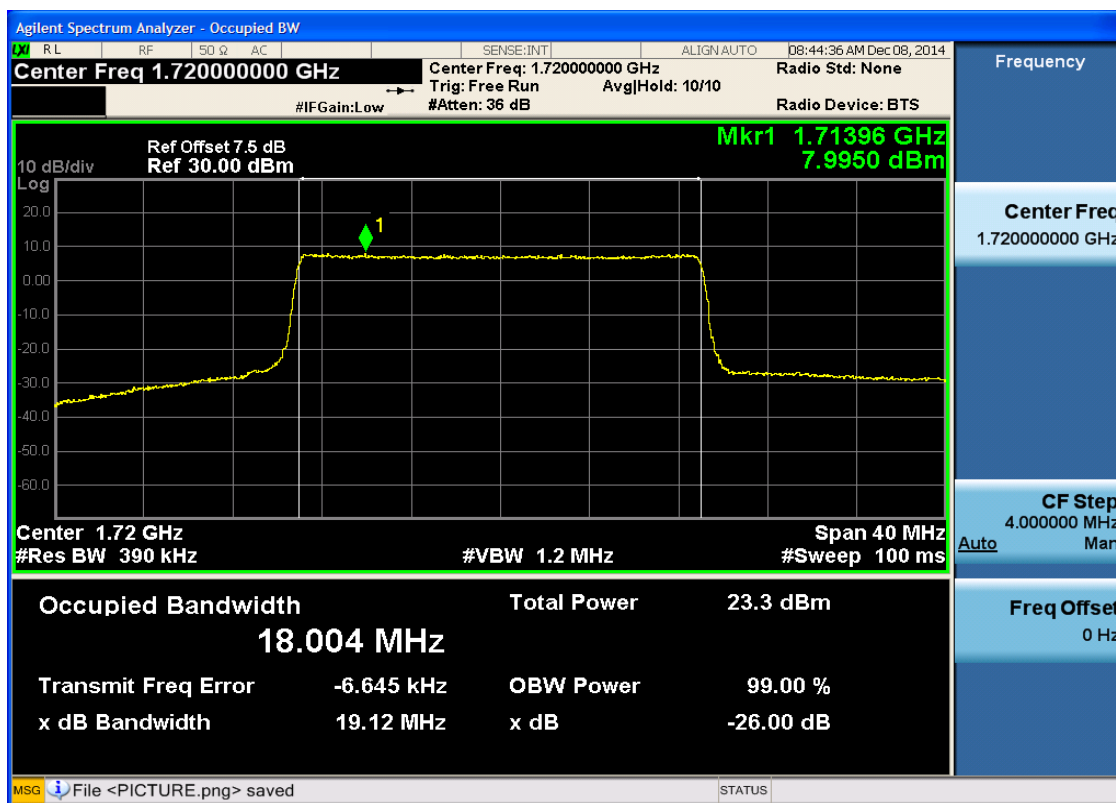
4.3.2.1.5.3.1 Test RB = RB75#0



4.3.2.1.6 Test Bandwidth = 20

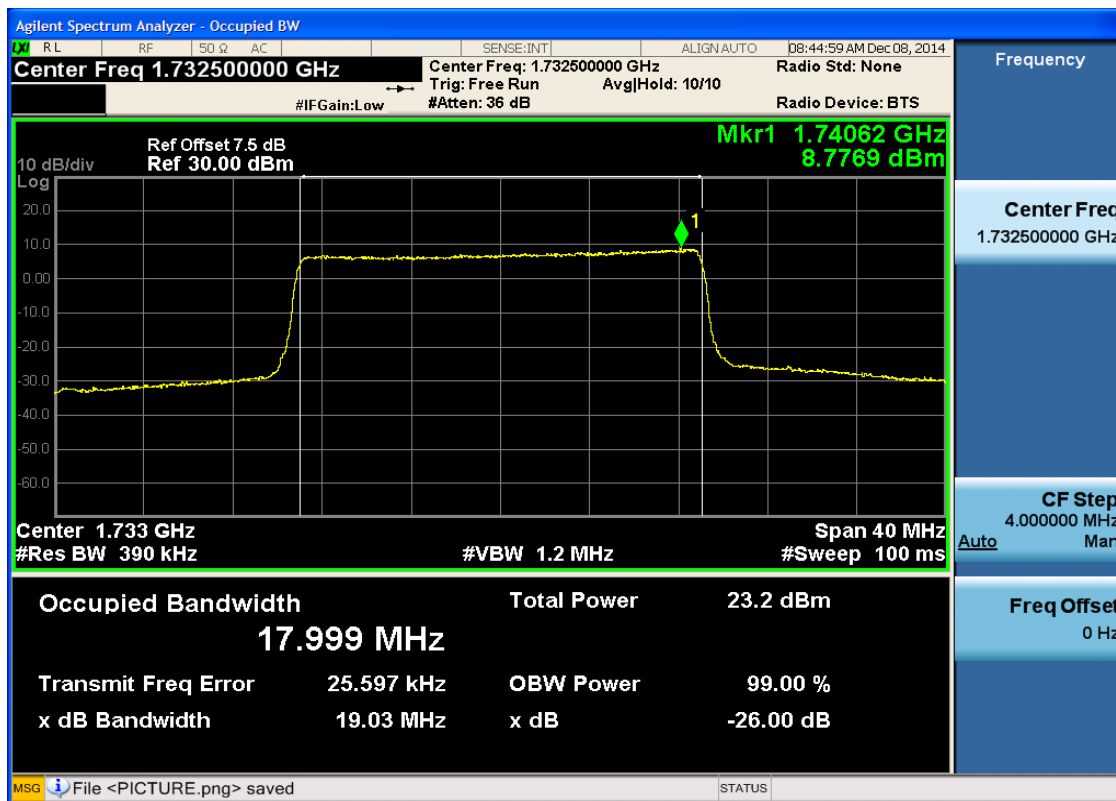
4.3.2.1.6.1 Test Channel = LCH

4.3.2.1.6.1.1 Test RB = RB100#0



4.3.2.1.6.2 Test Channel = MCH

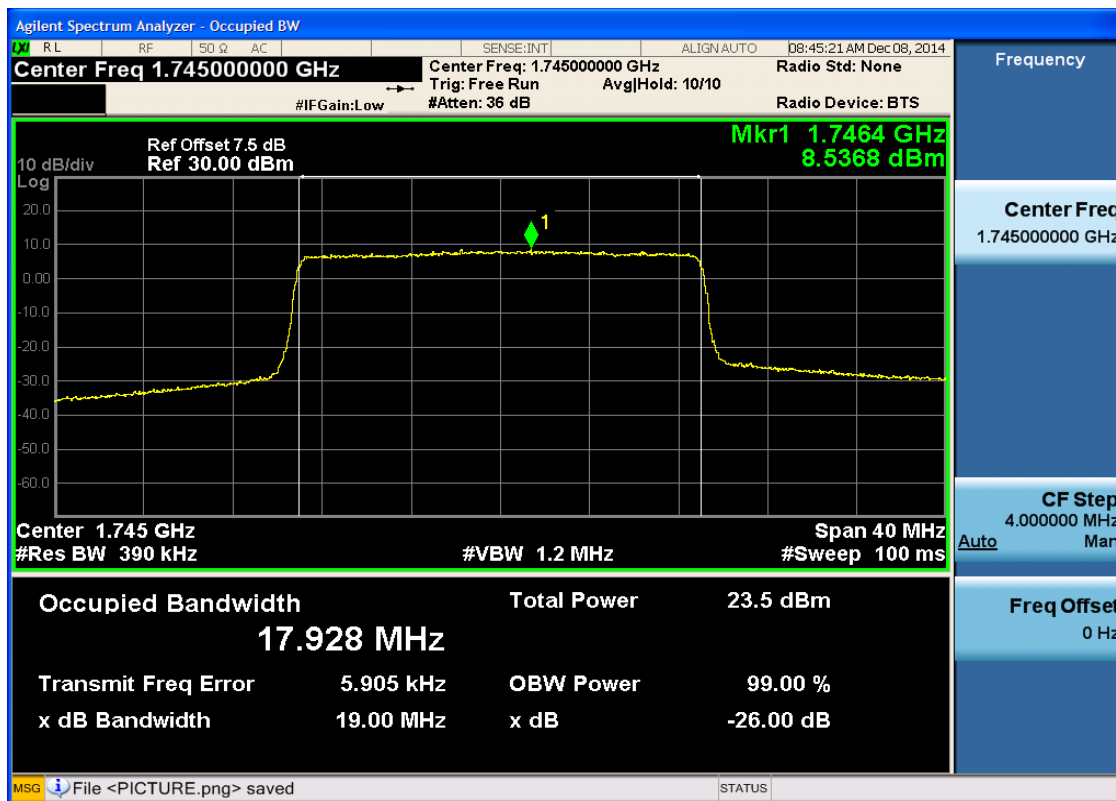
4.3.2.1.6.2.1 Test RB = RB100#0





4.3.2.1.6.3 Test Channel = HCH

4.3.2.1.6.3.1 Test RB = RB100#0

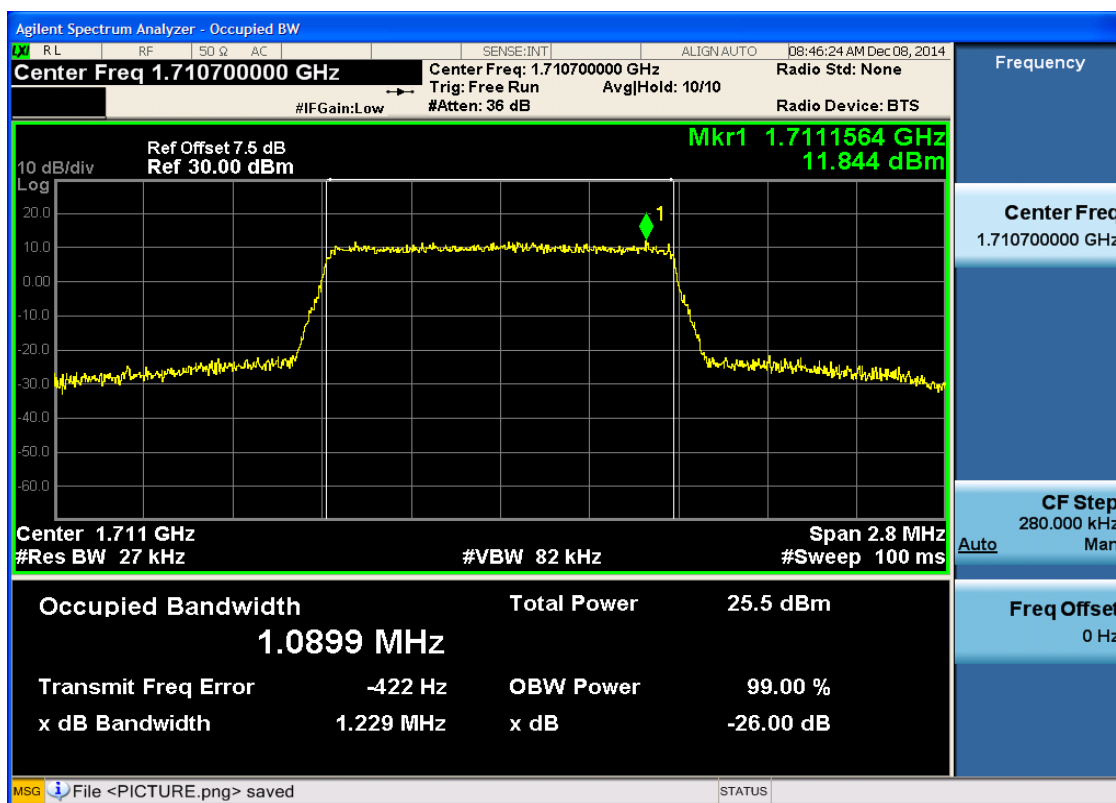


4.3.2.2 Test Mode = LTE/TM2

4.3.2.2.1 Test Bandwidth = 1.4

4.3.2.2.1.1 Test Channel = LCH

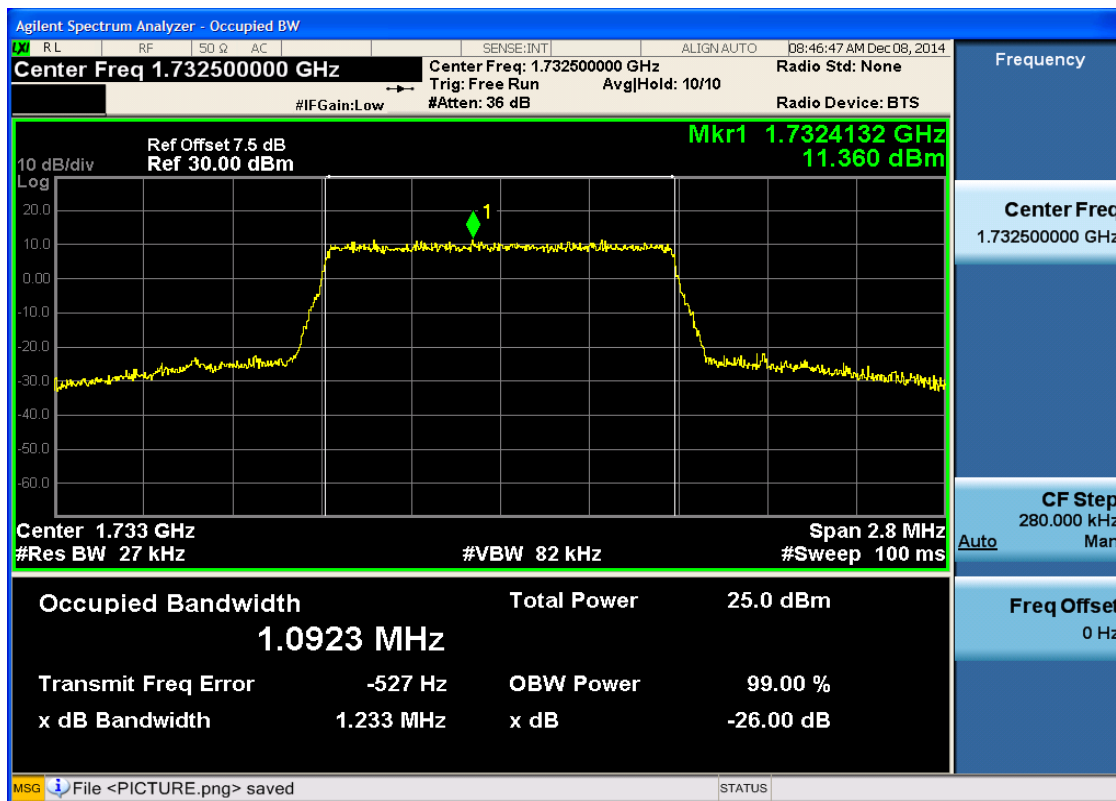
4.3.2.2.1.1.1 Test RB = RB6#0





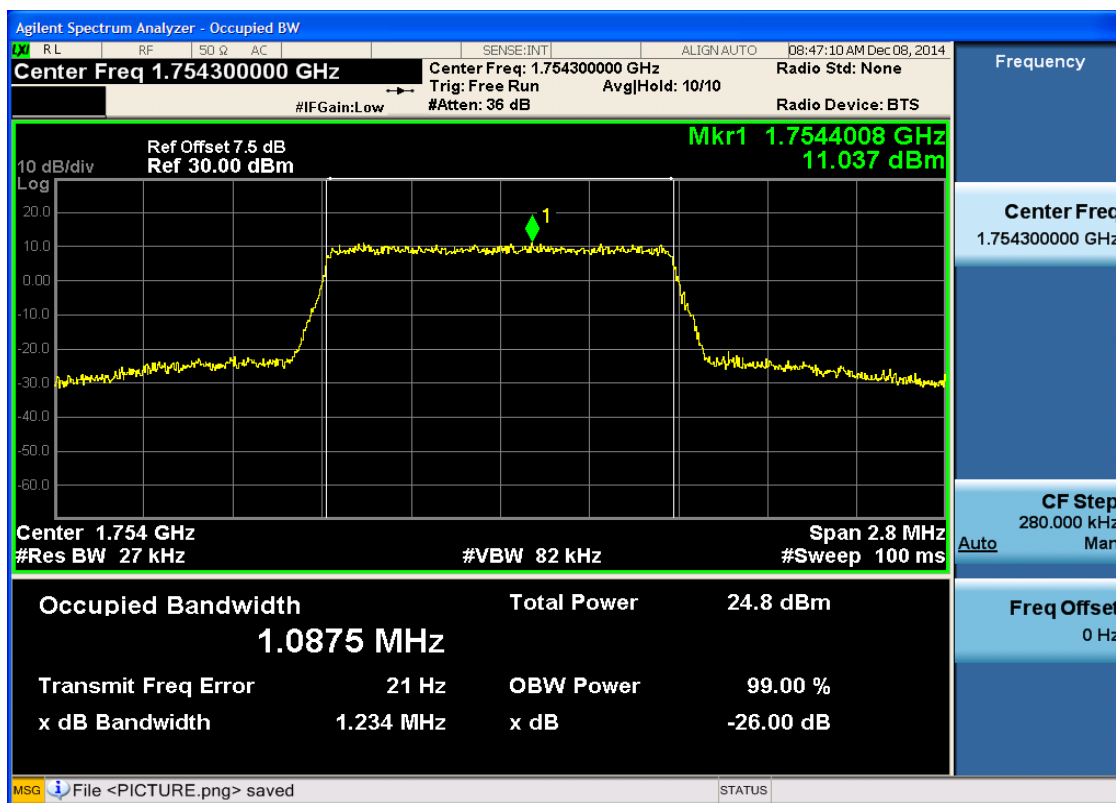
4.3.2.2.1.2 Test Channel = MCH

4.3.2.2.1.2.1 Test RB = RB6#0



4.3.2.2.1.3 Test Channel = HCH

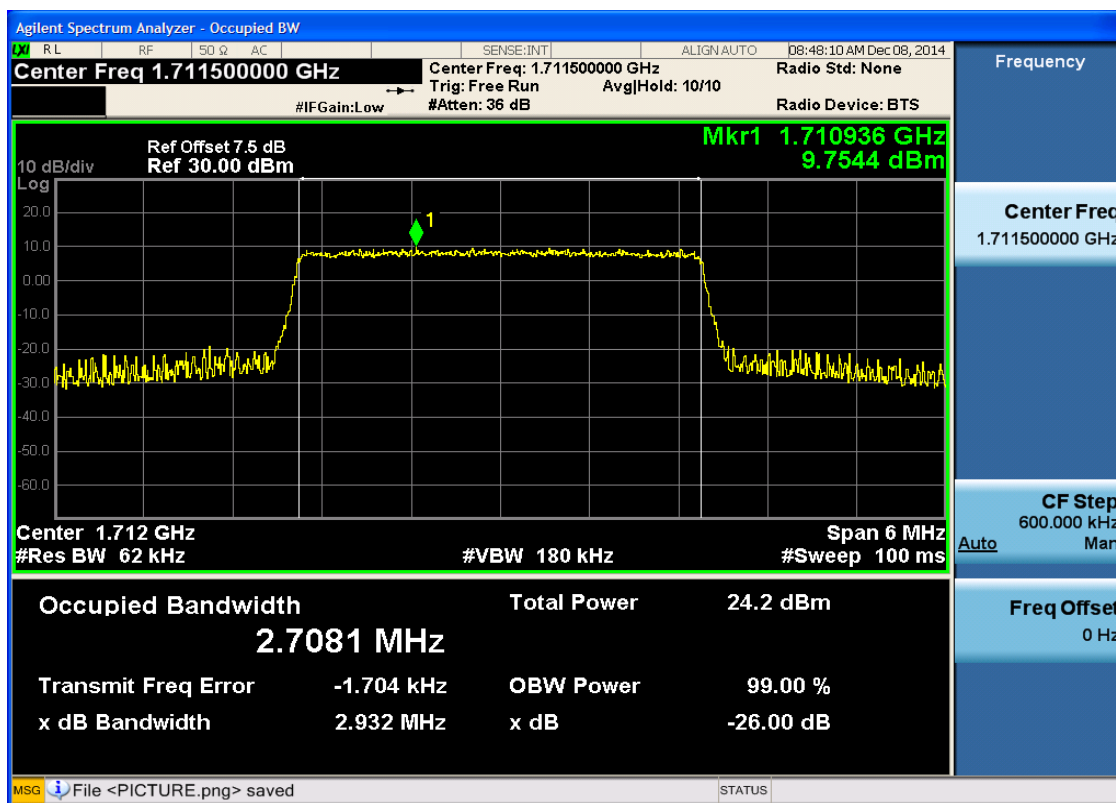
4.3.2.2.1.3.1 Test RB = RB6#0



4.3.2.2.2 Test Bandwidth = 3

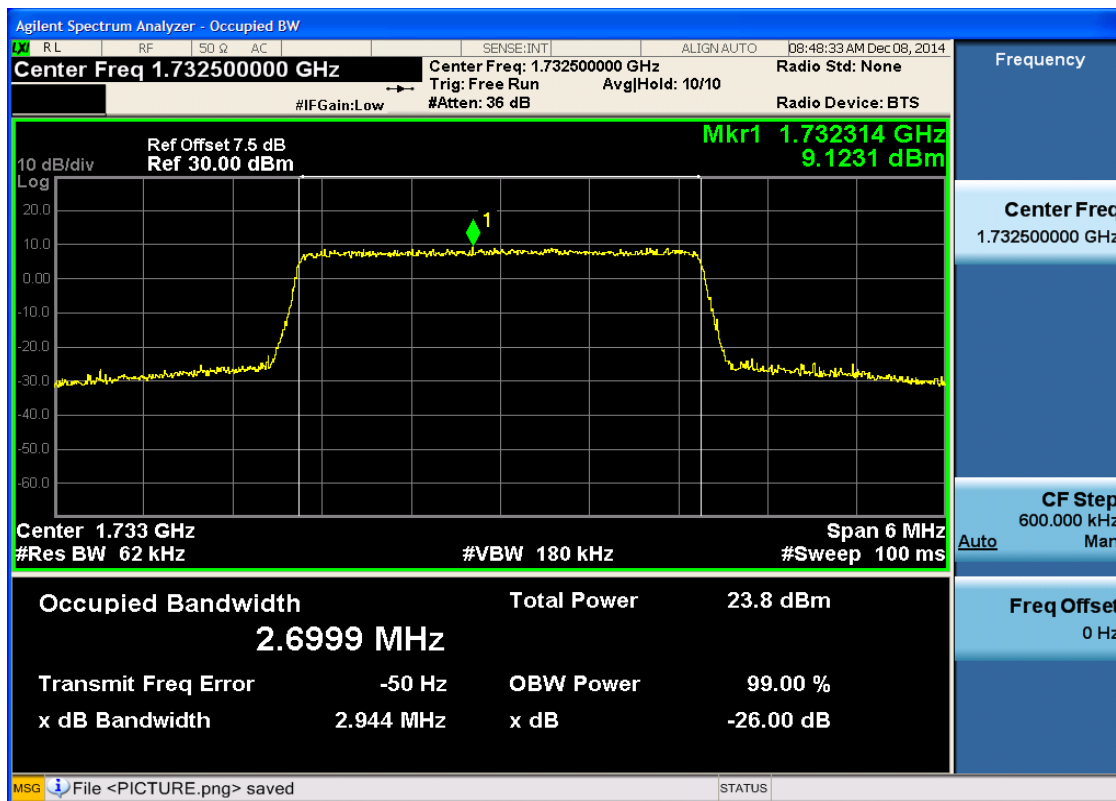
4.3.2.2.2.1 Test Channel = LCH

4.3.2.2.2.1.1 Test RB = RB15#0



4.3.2.2.2 Test Channel = MCH

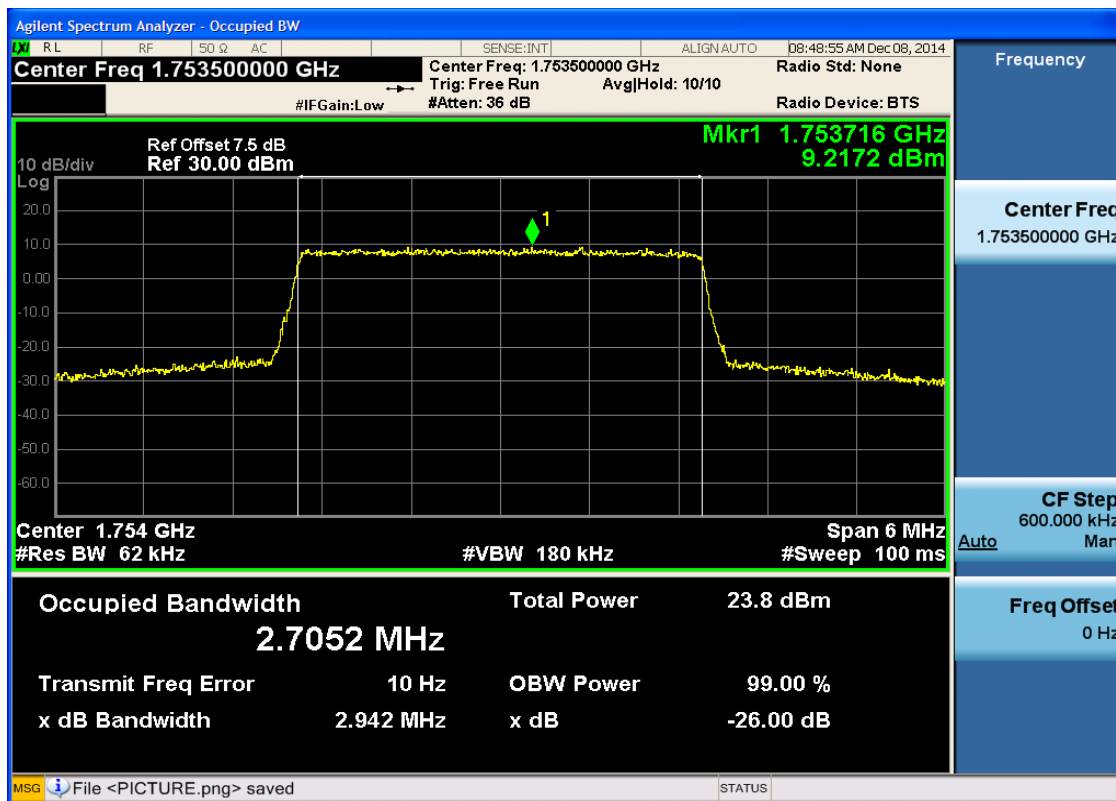
4.3.2.2.2.1 Test RB = RB15#0





4.3.2.2.3 Test Channel = HCH

4.3.2.2.3.1 Test RB = RB15#0



4.3.2.2.3 Test Bandwidth = 5

4.3.2.2.3.1 Test Channel = LCH

4.3.2.2.3.1.1 Test RB = RB25#0

