2.3 99% Occupied Bandwidth

2.3.1 Definition

According to FCC section 2.1049 and FCC § 22.917 &24.238 and IC RSS-GEN section 4.6 the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Occupied bandwidth is also known as the 99% emission bandwidth,

2.3.2 Test Description

See section 2.1.2 of this report.

2.3.3 Test Verdict

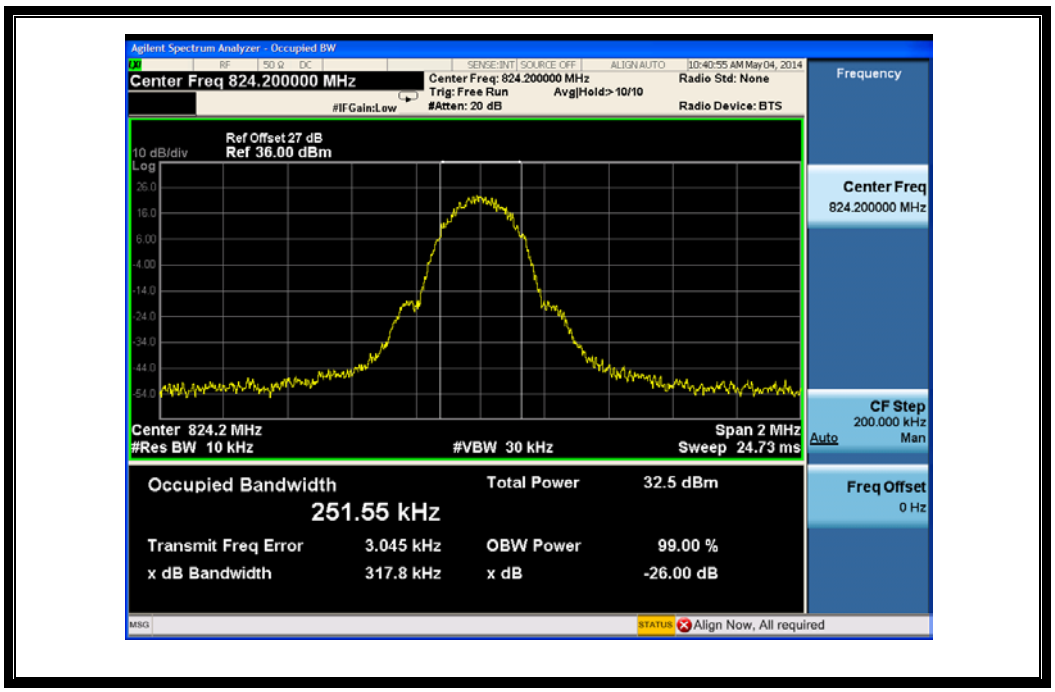
Here the lowest, middle and highest channels are selected to perform testing to verify the 99% occupied bandwidth.

2. Test Verdict:

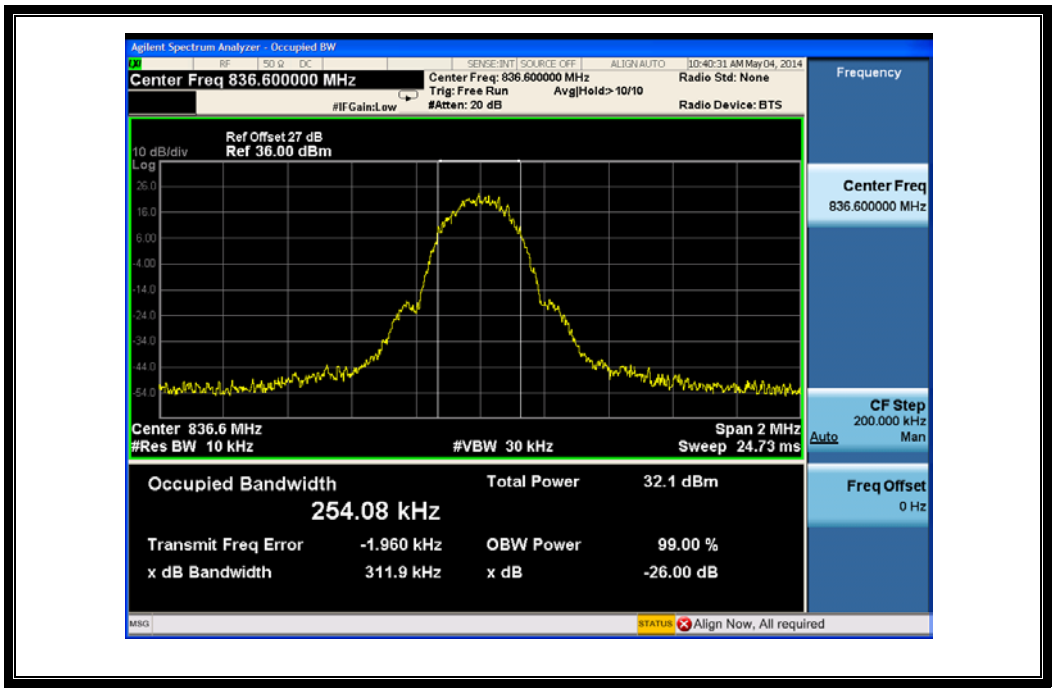
Band	Channel	Frequency (MHz)	26dB bandwidth	99% Occupied Bandwidth	Refer to Plot
EDGE 850MHz	128	824.2	317.8 KHz	251.55 KHz	Plot A
	190	836.6	311.9 KHz	254.08 KHz	Plot B
	251	848.8	320.7 KHz	259.09 KHz	Plot C
EDGE 1900MHz	512	1850.2	316.9 KHz	253.99 KHz	Plot D
	661	1880.0	319.0 KHz	257.08 KHz	Plot E
	810	1909.8	322.6 KHz	251.01 KHz	Plot F
WCDMA 850MHz	4132	826.4	4.643 MHz	4.1567 MHz	Plot G
	4175	835	4.635 MHz	4.1576 MHz	Plot H
	4233	846.6	4.643 MHz	4.1491 MHz	Plot I
WCDMA 1900MHz	9262	1852.4	4.645 MHz	4.1550 MHz	Plot J
	9400	1880	4.636 MHz	4.1527 MHz	Plot K
	9538	1907.6	4.652 MHz	4.1483 MHz	Plot L
HSDPA 850MHz	4132	826.4	4.633 MHz	4.1509 MHz	Plot M
	4175	835	4.641 MHz	4.1473MHz	Plot N
	4233	846.6	4.624 MHz	4.1468 MHz	Plot O
HSDPA 1900MHz	9262	1852.4	4.641 MHz	4.1465 MHz	Plot P
	9400	1880	4.640 MHz	4.1569 MHz	Plot Q
	9538	1907.6	4.640 MHz	4.1416 MHz	Plot R
HSUPA 850MHz	4132	826.4	4.651 MHz	4.1567 MHz	Plot S
	4175	835	4.633 MHz	4.1361 MHz	Plot T
	4233	846.6	4.625 MHz	4.1525 MHz	Plot U

Band	Channel	Frequency (MHz)	26dB bandwidth	99% Occupied Bandwidth	Refer to Plot
HSUPA 1900MHz	9262	1852.4	4.617 MHz	4.1533 MHz	Plot V
	9400	1880	4.629 MHz	4.1490 MHz	Plot W
	9538	1907.6	4.628 MHz	4.1442 MHz	Plot X
HSPA+ 850MHz	4132	826.4	4.648 MHz	4.1420 MHz	Plot Y
	4175	835	4.647 MHz	4.1462 MHz	Plot Z
	4233	846.6	4.639 MHz	4.1393 MHz	Plot A1
HSPA+ 1900MHz	9262	1852.4	4.631 MHz	4.1572 MHz	Plot B1
	9400	1880	4.637 MHz	4.1481 MHz	Plot C1
	9538	1907.6	4.635 MHz	4.1451 MHz	Plot D1
GSM 850MHz	128	824.2	305.3 KHz	246.65 KHz	Plot E1
	190	836.6	318.2 KHz	247.87 KHz	Plot F1
	251	848.8	317.9 KHz	241.12 KHz	Plot G1
GSM 1900MHz	512	1850.2	315.1 KHz	245.16 KHz	Plot H1
	661	1880.0	313.3 KHz	244.88 KHz	Plot I1
	810	1909.8	318.0 KHz	242.70 KHz	Plot J2
GPRS 850MHz	128	824.2	307.1 KHz	241.81 KHz	Plot K1
	190	836.6	317.7 KHz	245.75 KHz	Plot L1
	251	848.8	312.9 KHz	244.53 KHz	Plot M1
GPRS 1900MHz	512	1850.2	321.3 KHz	248.83 KHz	Plot N1
	661	1880.0	314.6 KHz	246.24 KHz	Plot O1
	810	1909.8	321.0 KHz	248.73 KHz	Plot P1

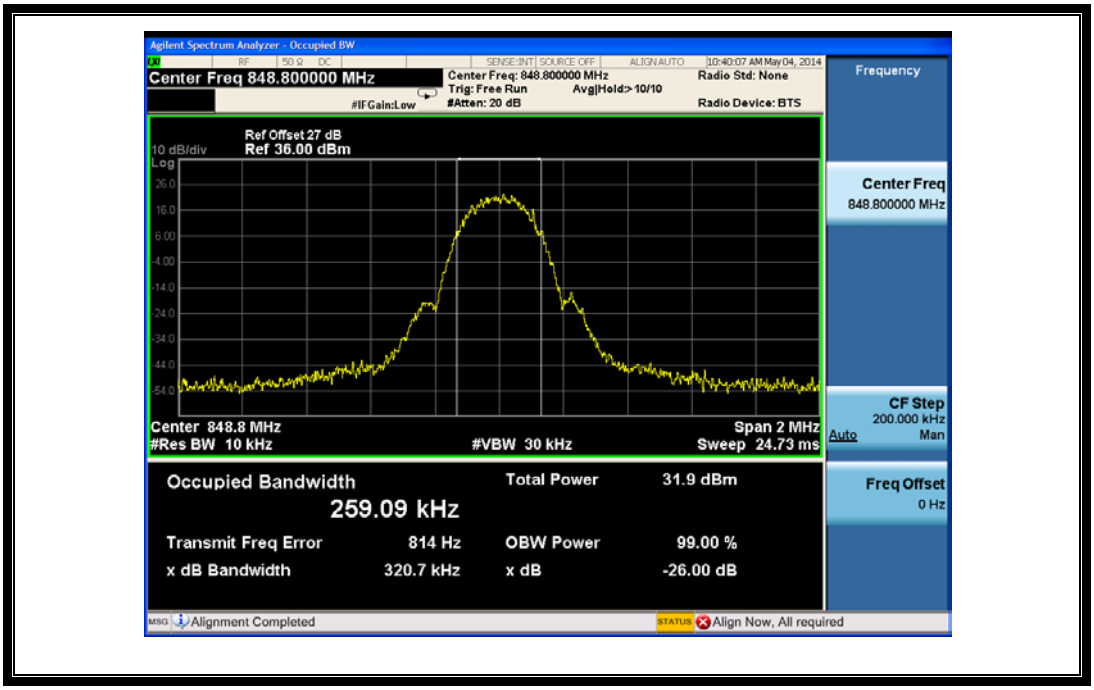
3. Test Plots:



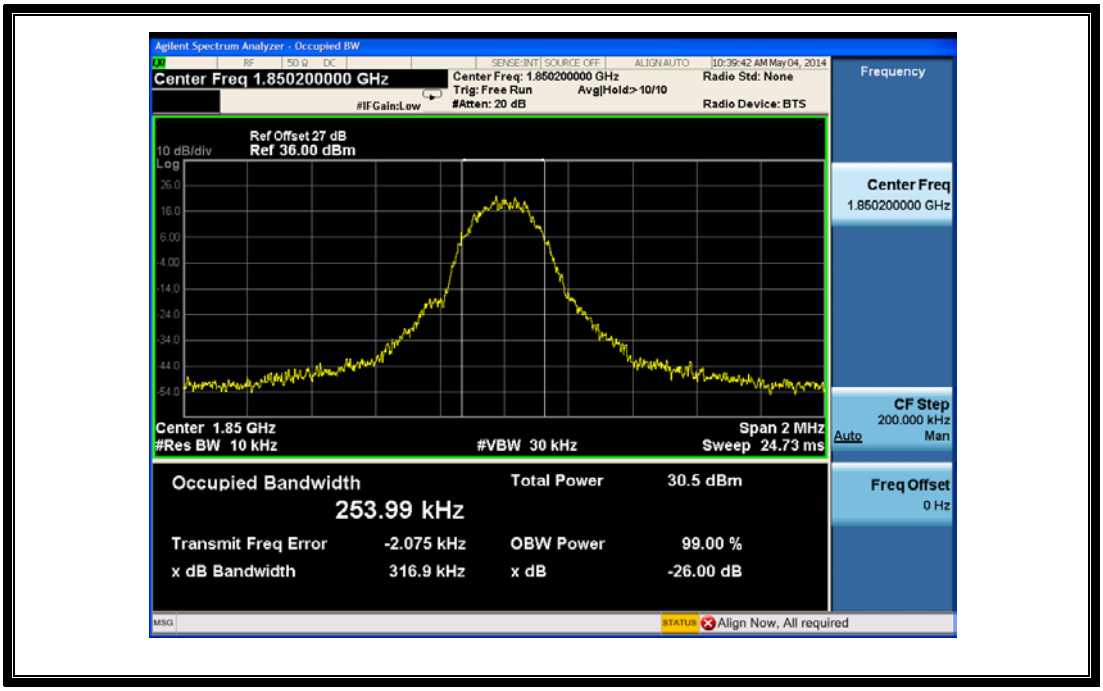
(Plot A: EGPRS 850MHz Channel = 128)



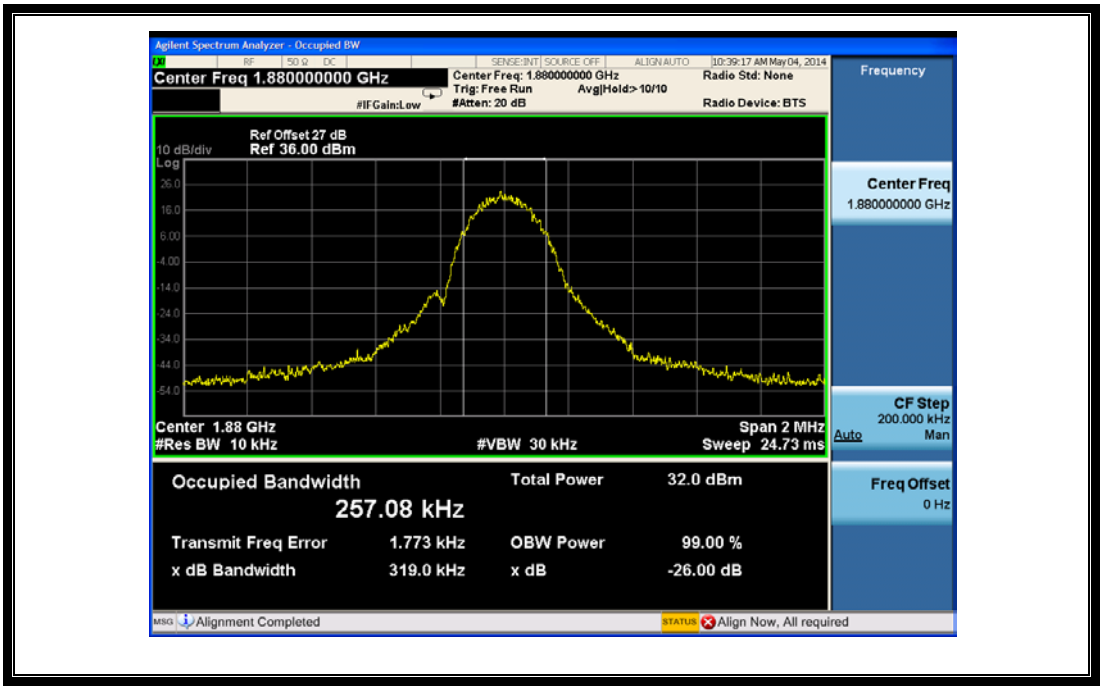
(Plot B: EGPRS 850MHz Channel = 190)



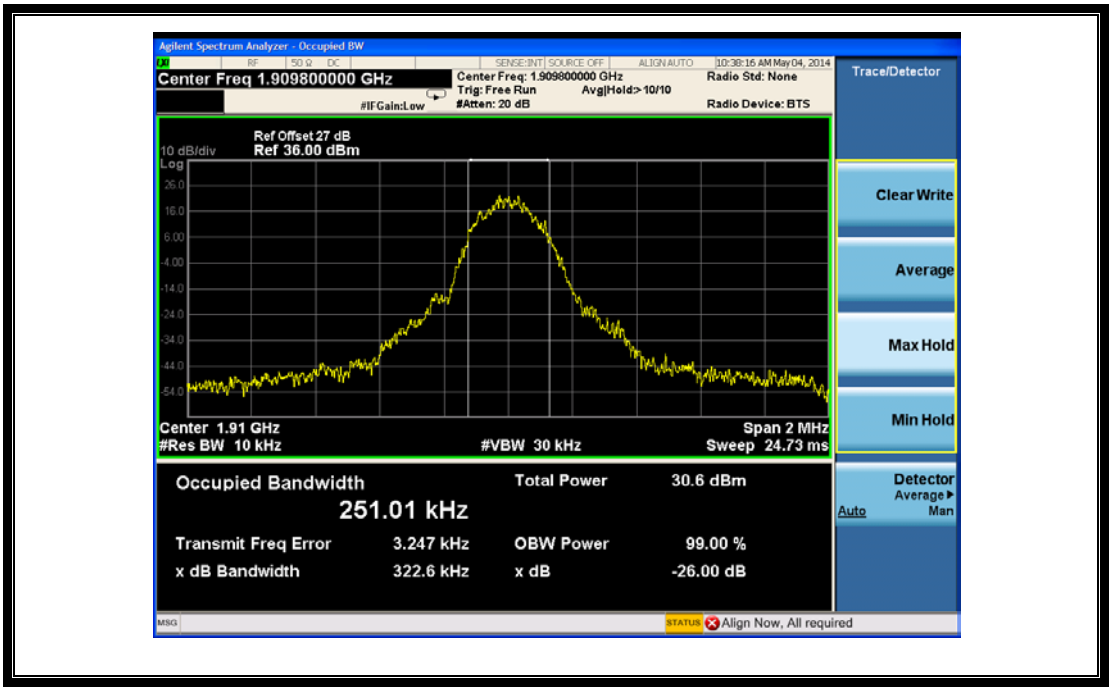
(Plot C: EGPRS 850MHz Channel = 251)



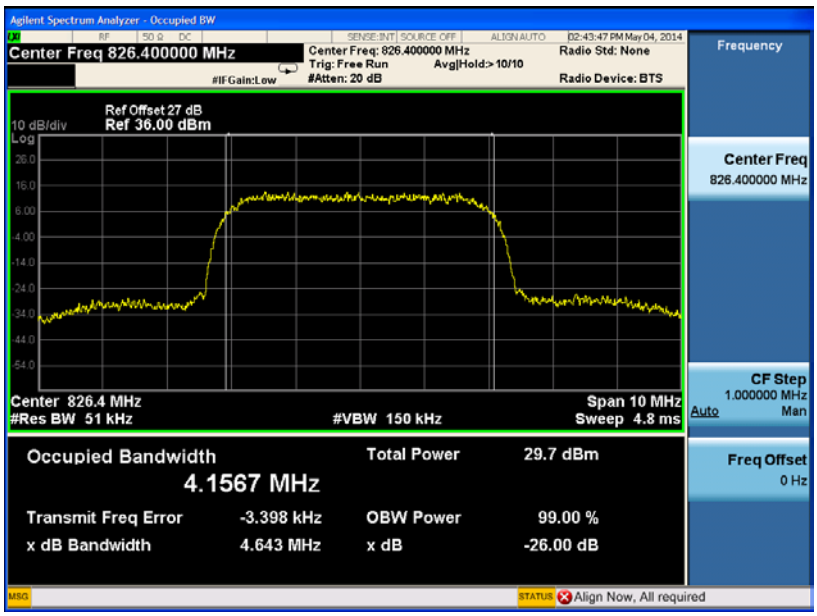
(Plot D: EGPRS1900MHz Channel = 512)



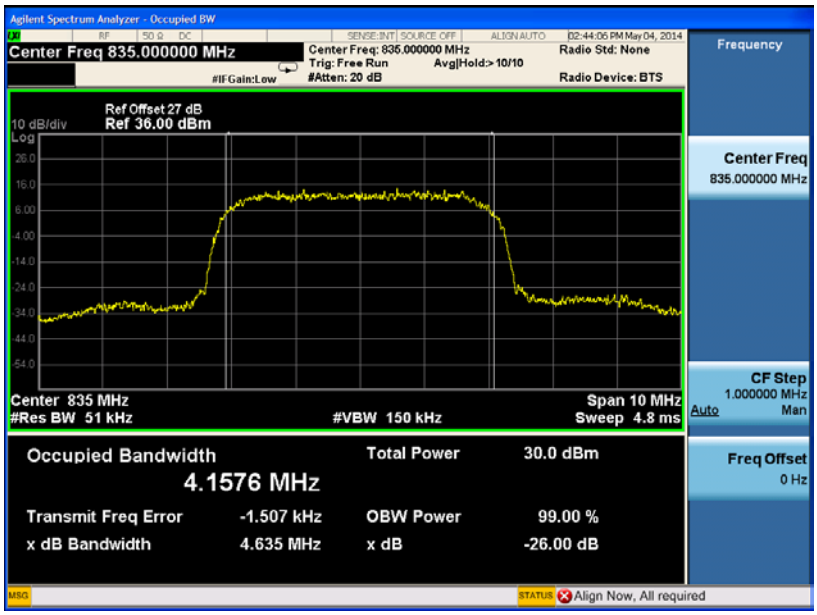
(Plot E: EGPRS1900MHz Channel = 661)



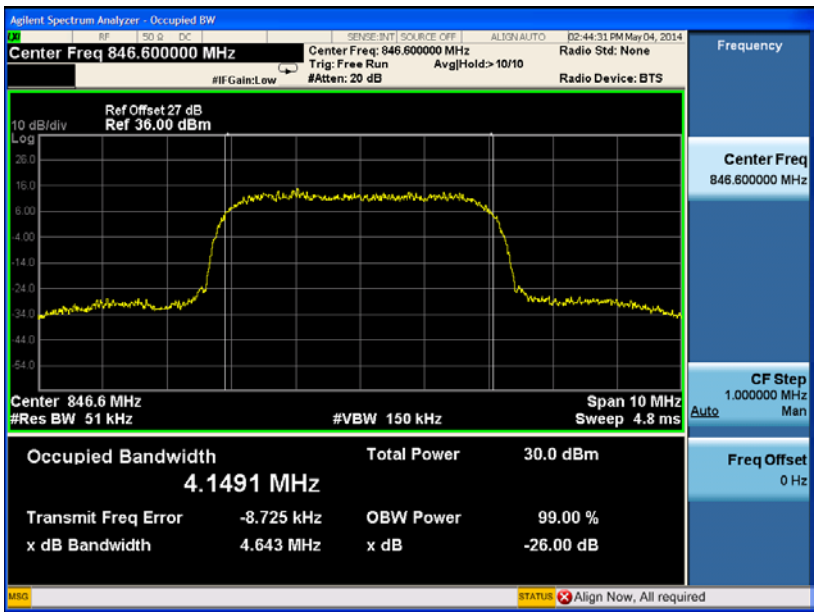
(Plot F: EGPRS 1900MHz Channel = 810)



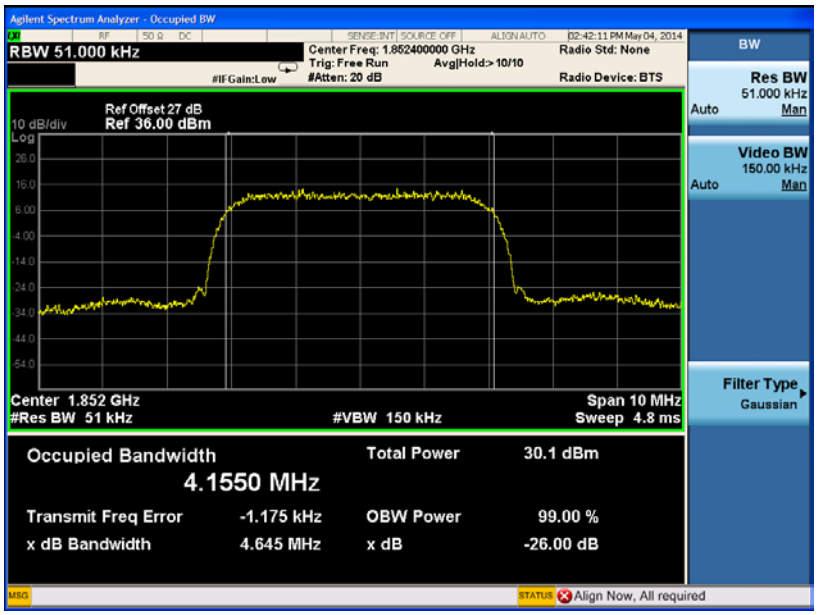
(Plot G: WCDMA 850MHz Channel = 4132)



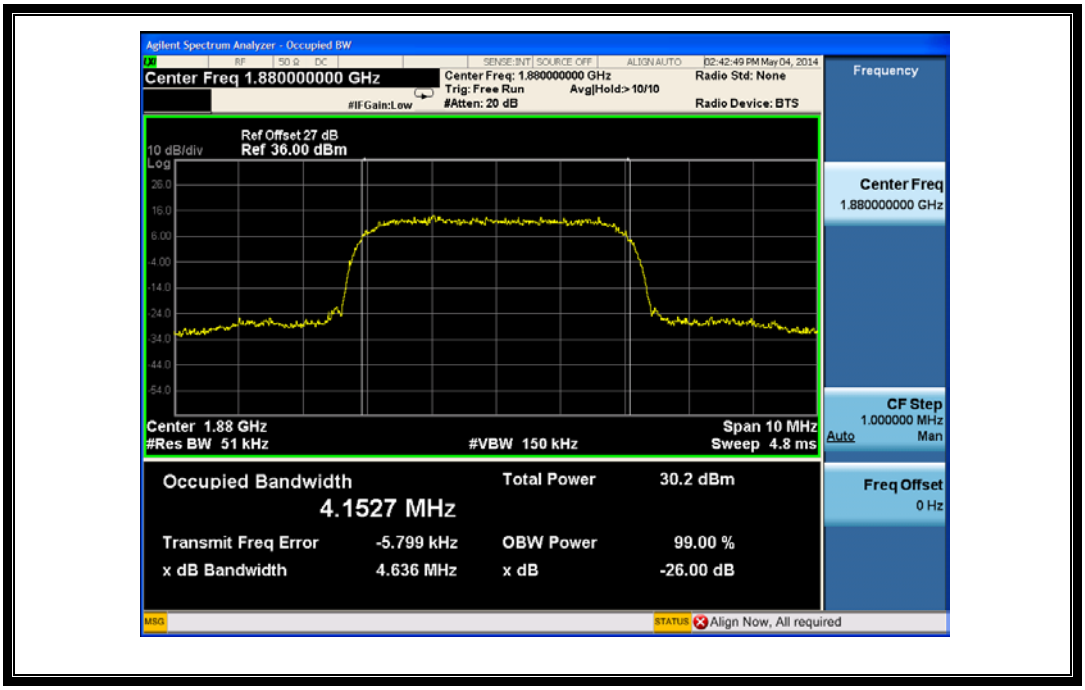
(Plot H: WCDMA 850 MHz Channel = 4175)



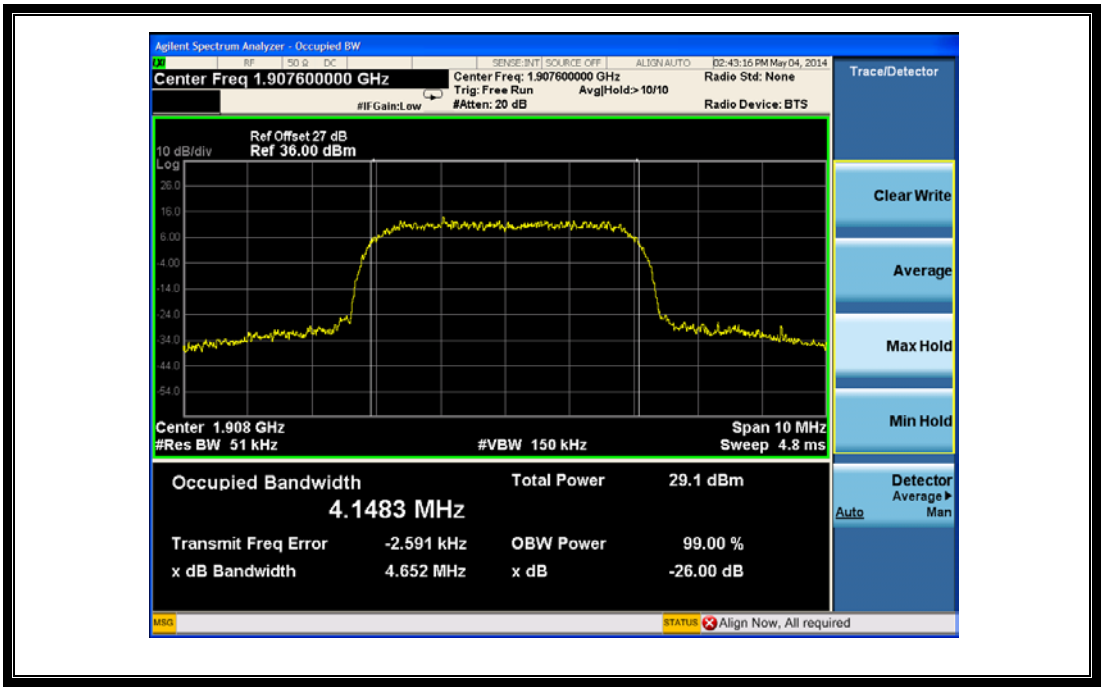
(Plot I: WCDMA 850MHz Channel = 4233)



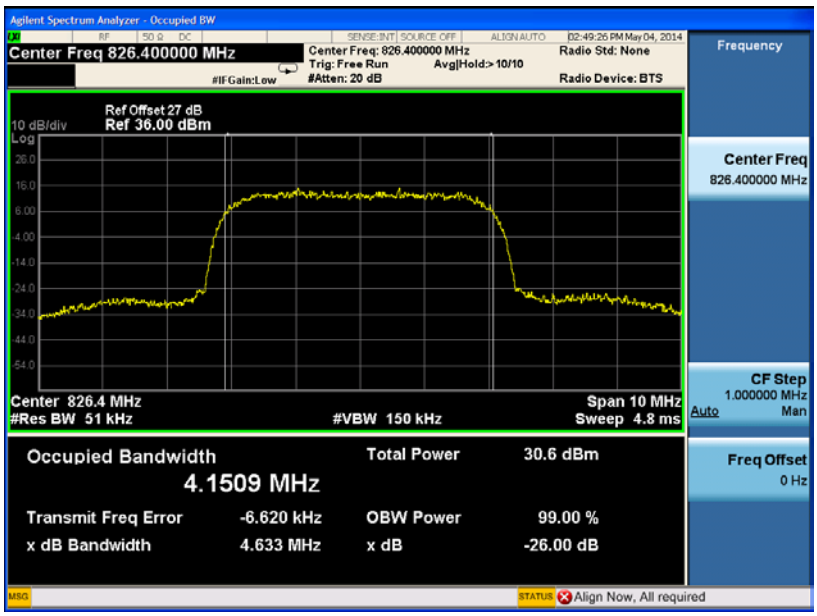
(Plot J: WCDMA 1900MHz Channel = 9262)



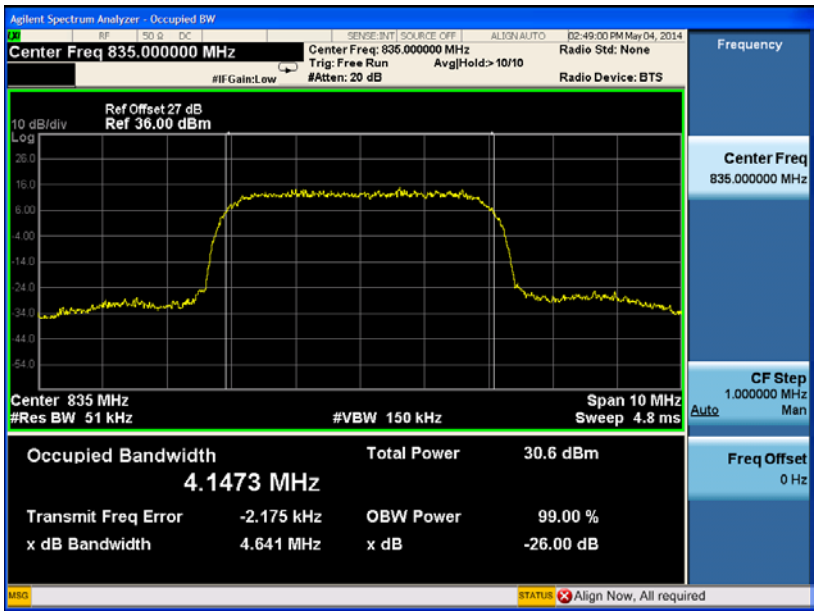
(Plot K: WCDMA 1900 MHz Channel = 9400)



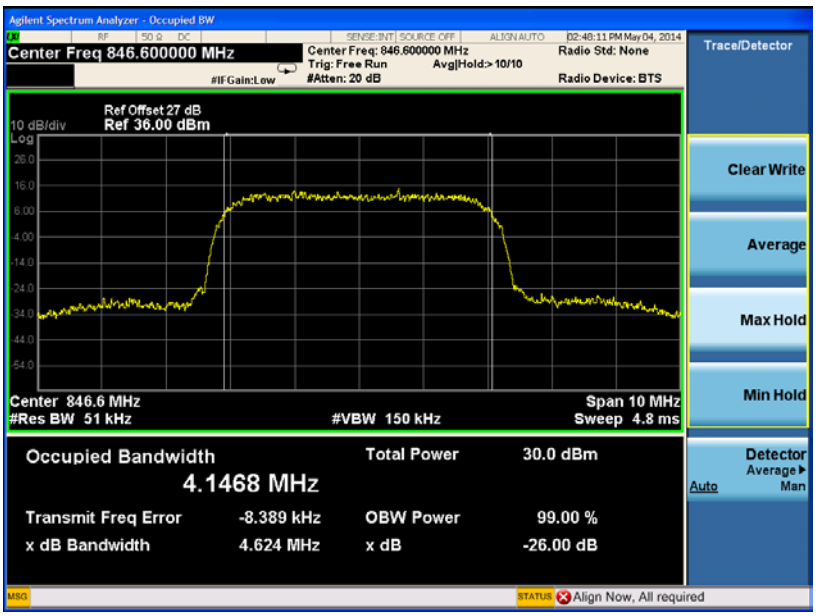
(Plot L: WCDMA1900MHz Channel = 9538)



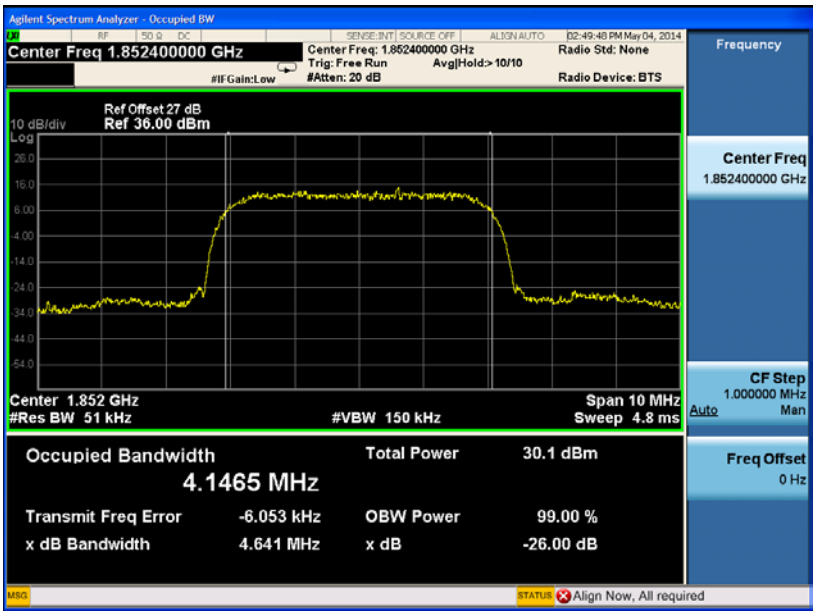
(Plot M: HSDPA 850MHz Channel = 4132)



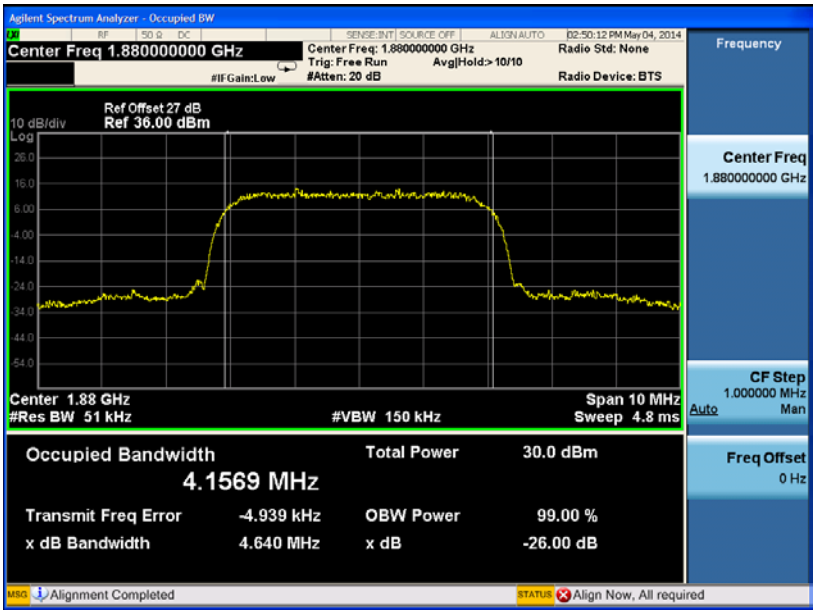
(Plot N: HSDPA850 MHz Channel = 4175)



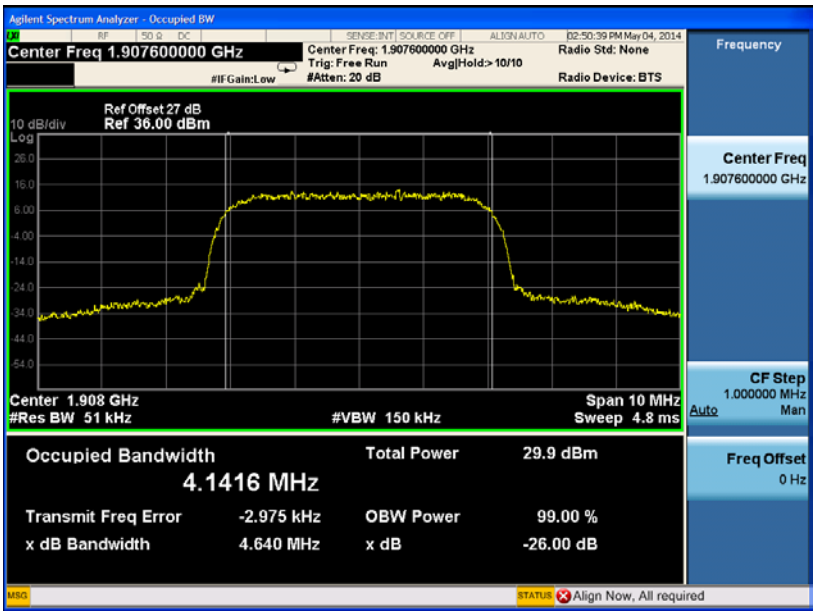
(Plot O: HSDPA 850 MHz Channel = 4233)



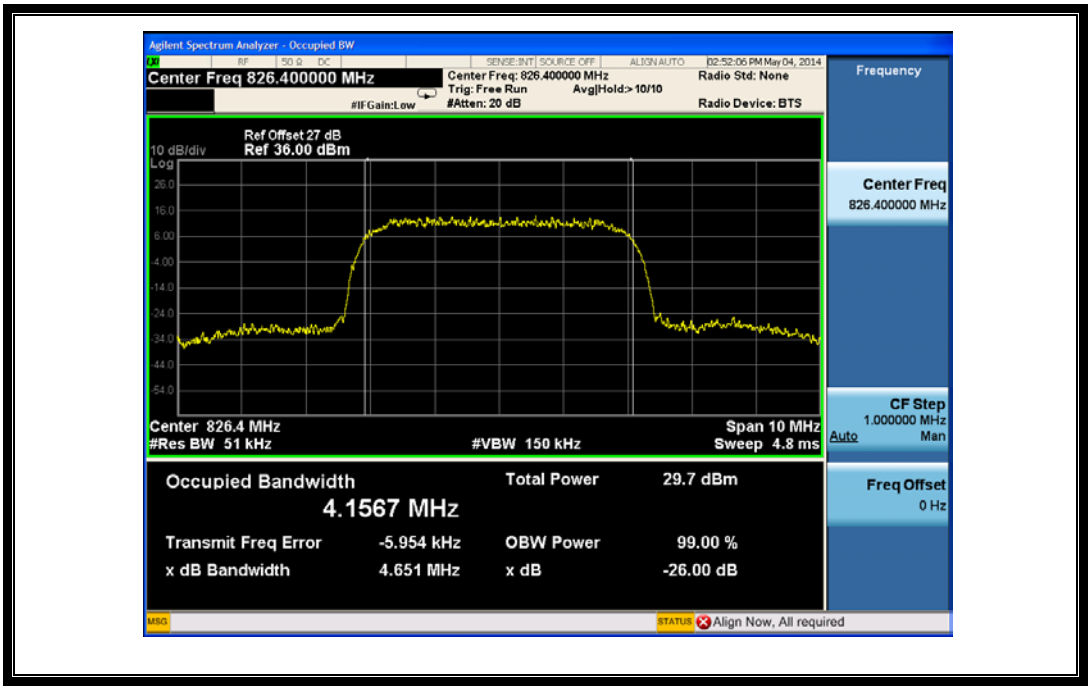
(Plot P: HSDPA1900 MHz Channel = 9262)



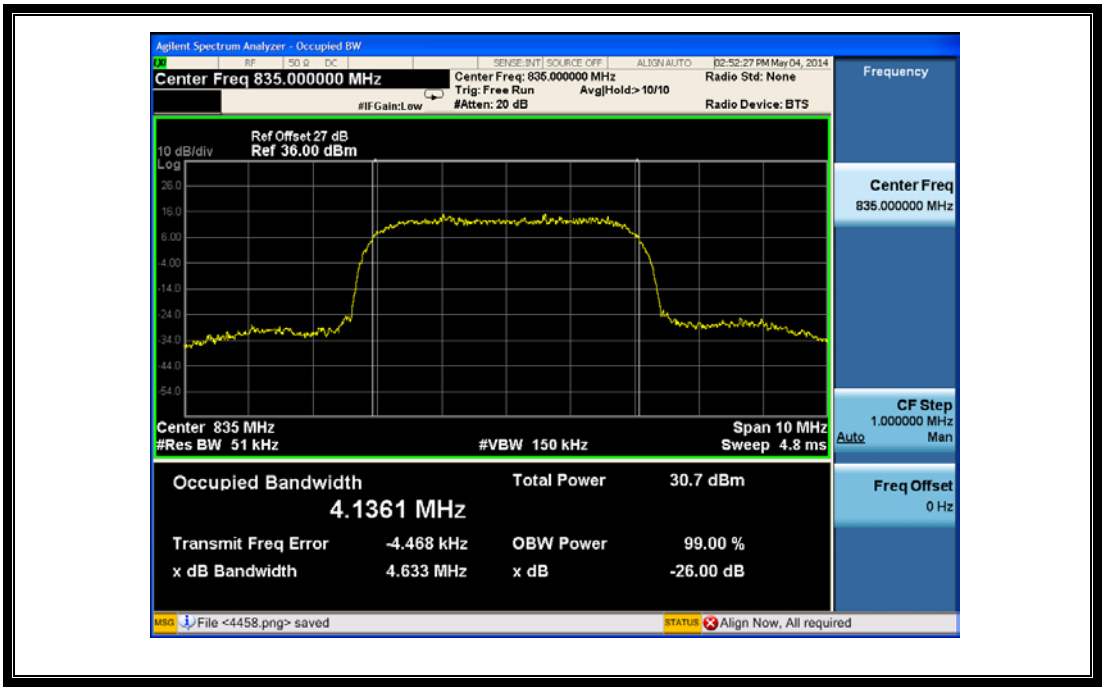
(Plot Q: HSDPA1900 MHz Channel = 9400)



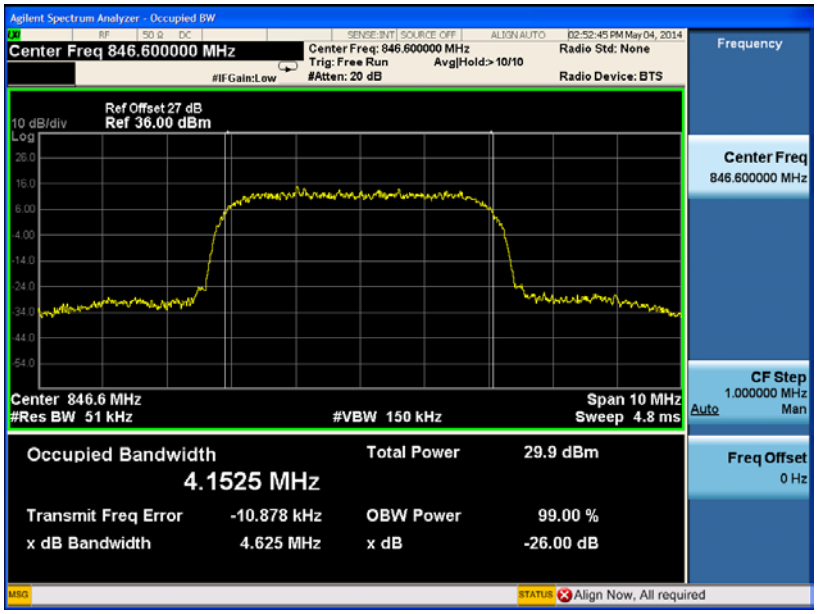
(Plot R: HSDPA 1900 MHz Channel = 9538)



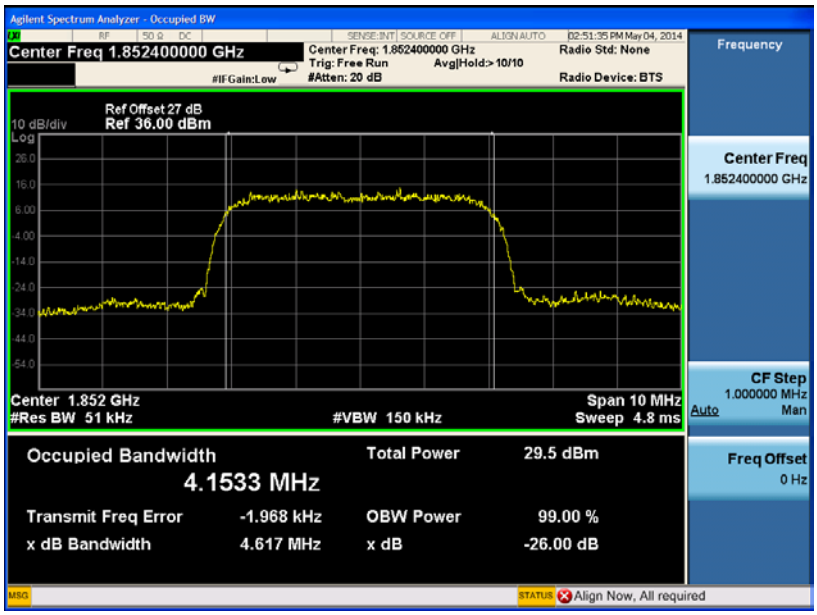
(Plot S: HSUPA850 MHz Channel = 4132)



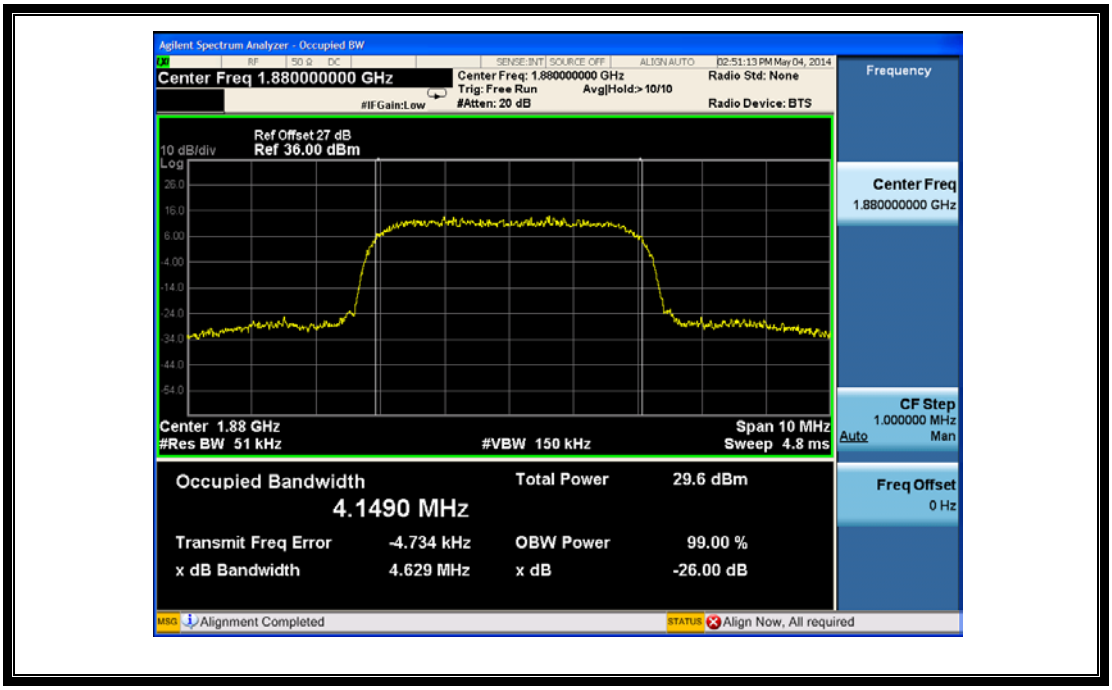
(Plot T: HSUPA850 MHz Channel = 4175)



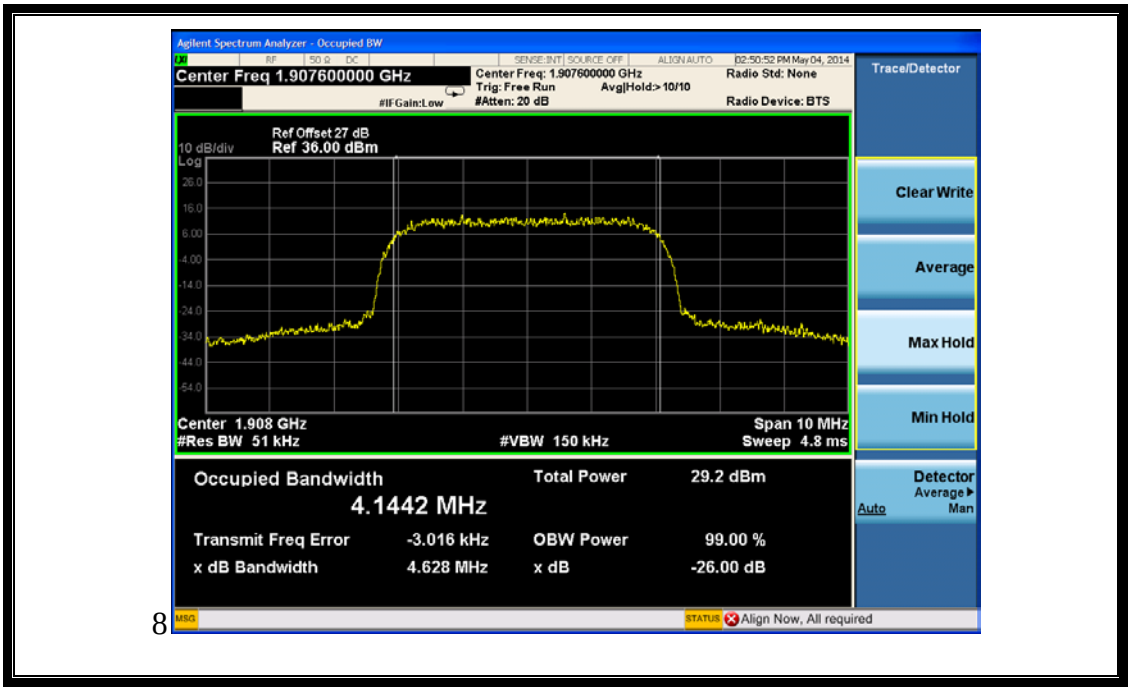
(Plot U: HSUPA850 MHz Channel = 4233)



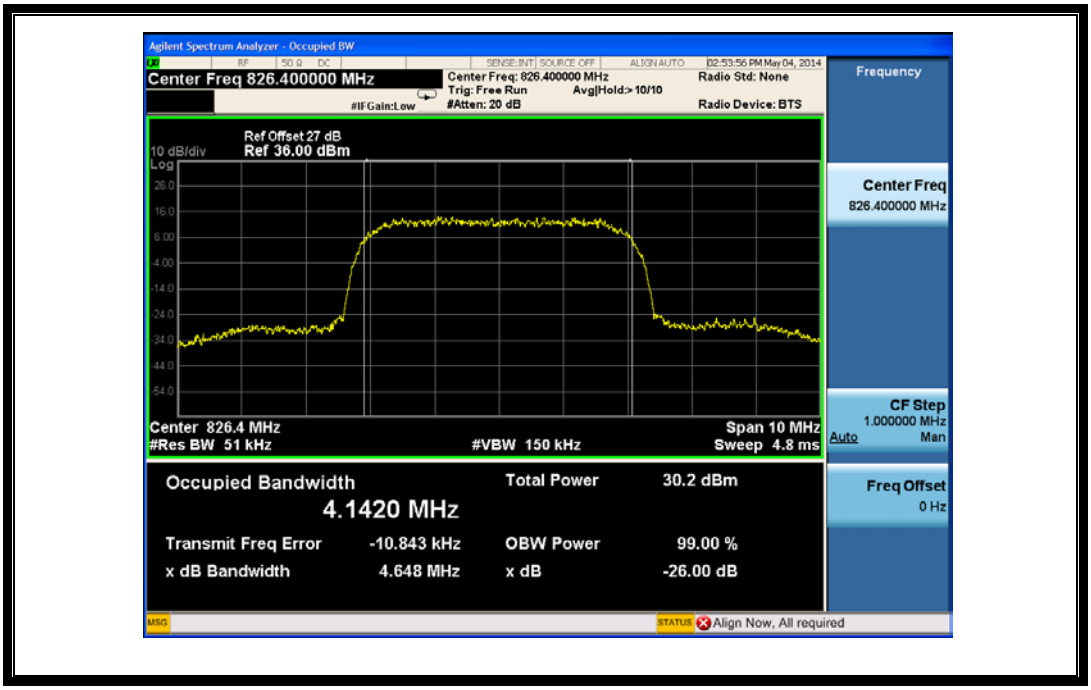
(Plot V: HSUPA1900 MHz Channel = 9262)



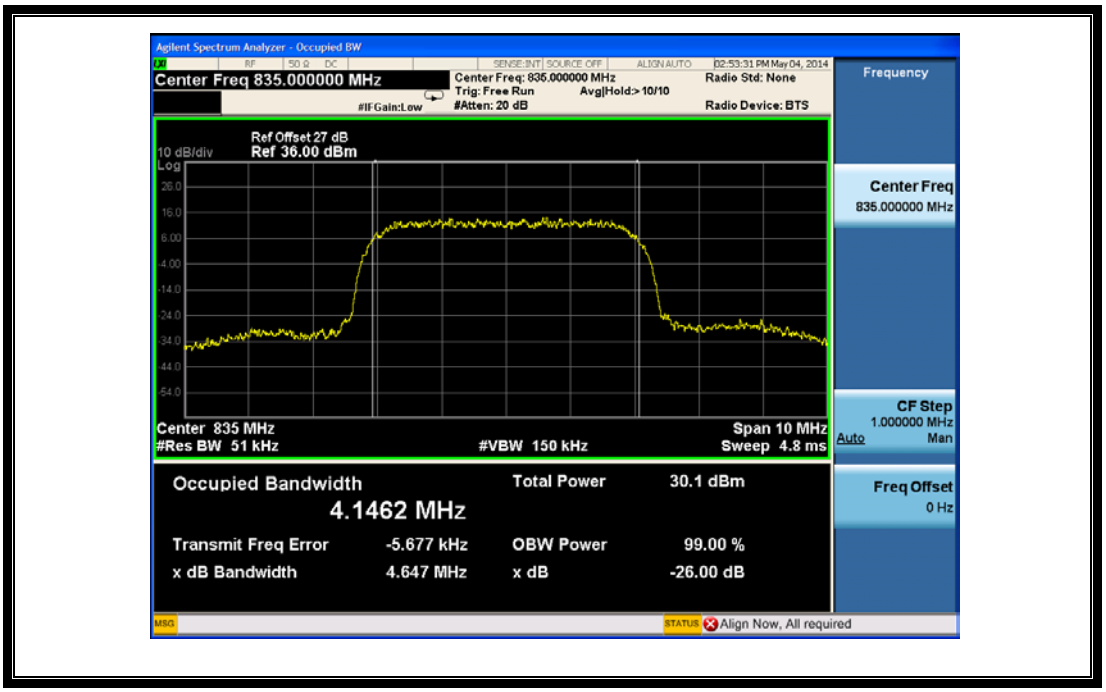
(Plot W: HSUPA1900 MHz Channel = 9400)



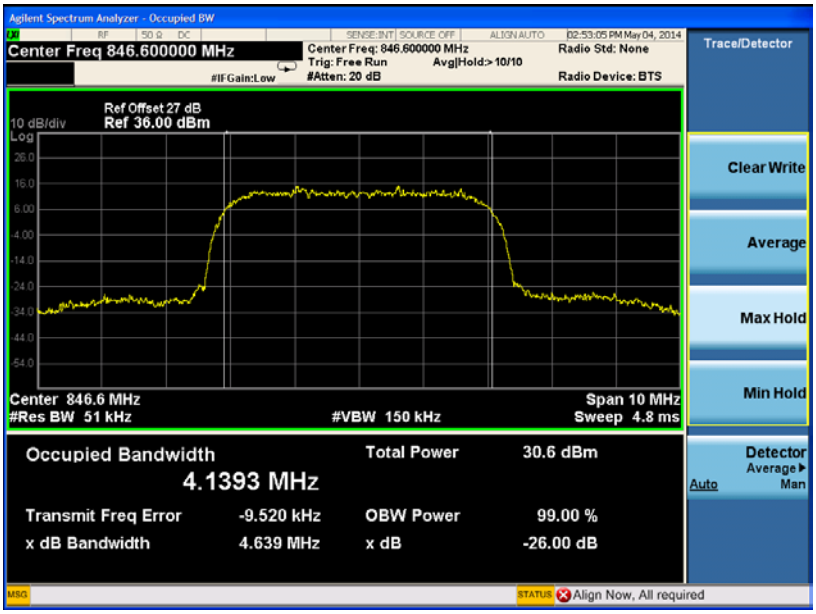
(Plot X: HSUPA1900 MHz Channel = 9538)



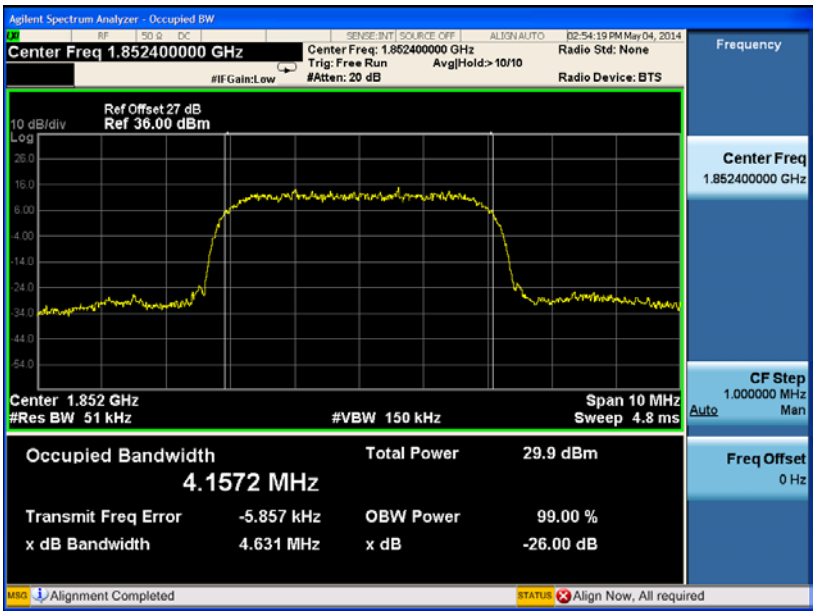
(Plot Y: HSPA+850 MHz Channel = 4132)



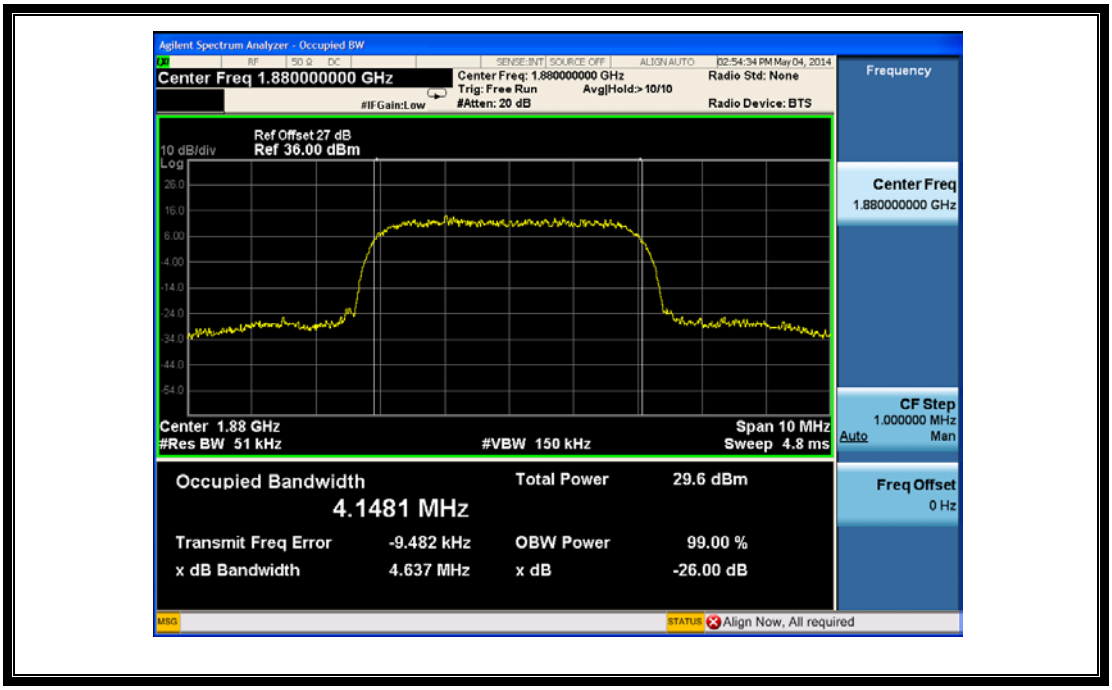
(Plot Z: HSPA+850 MHz Channel = 4175)



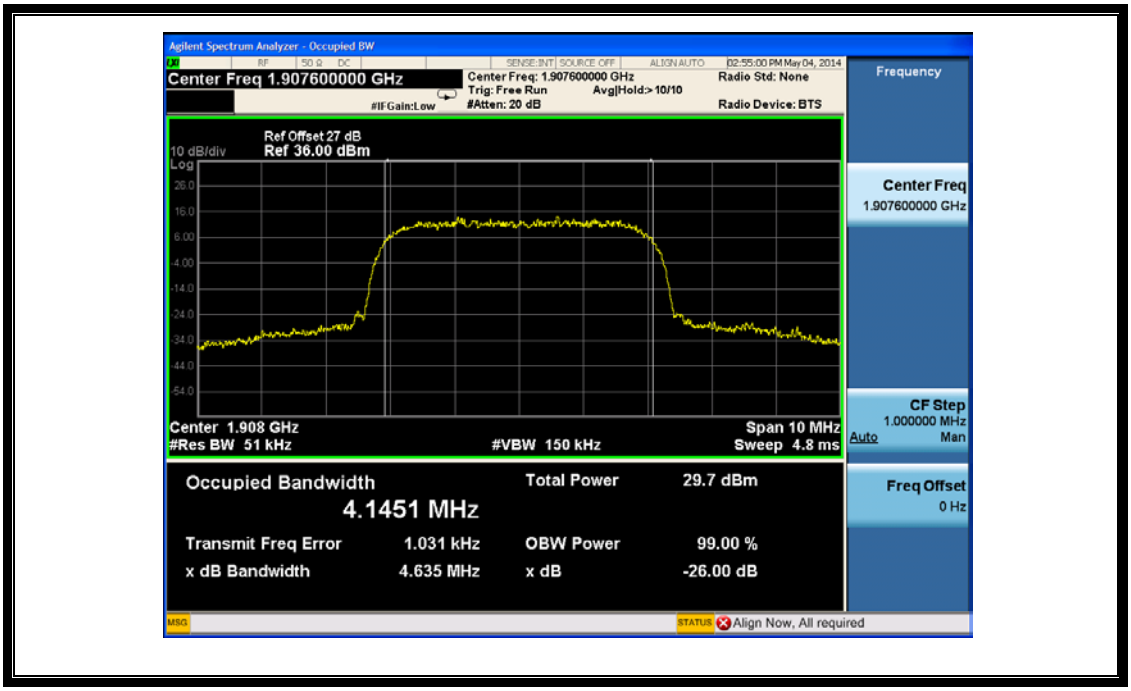
(Plot A1:HSPA+850 MHz Channel = 4233)



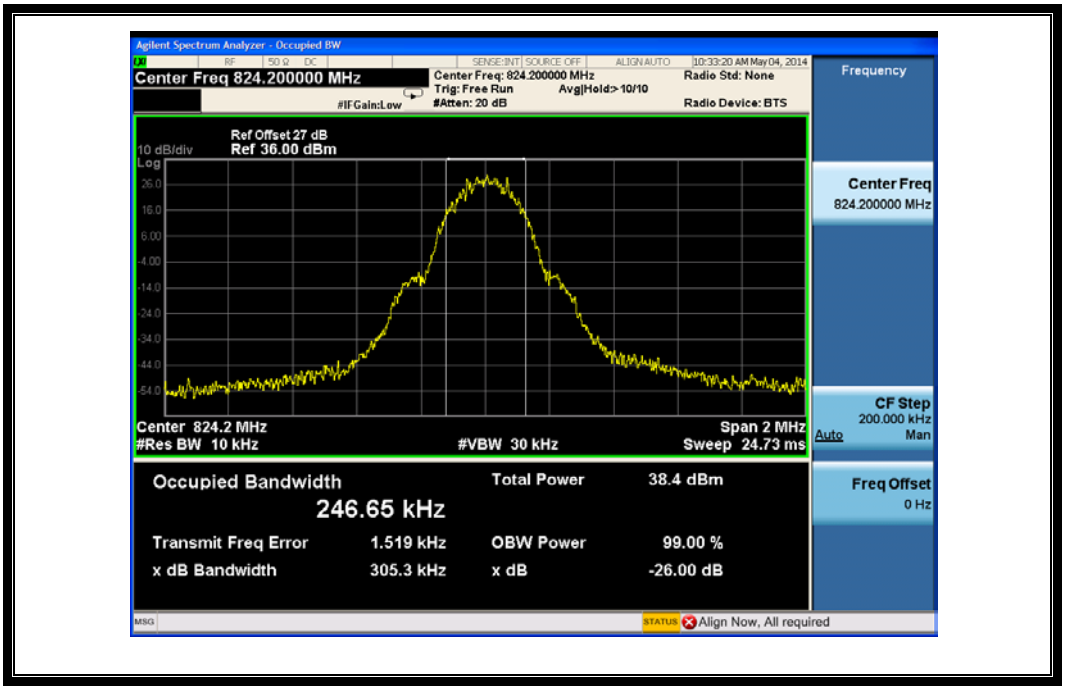
(Plot B1: HSPA+1900 MHz Channel = 9262)



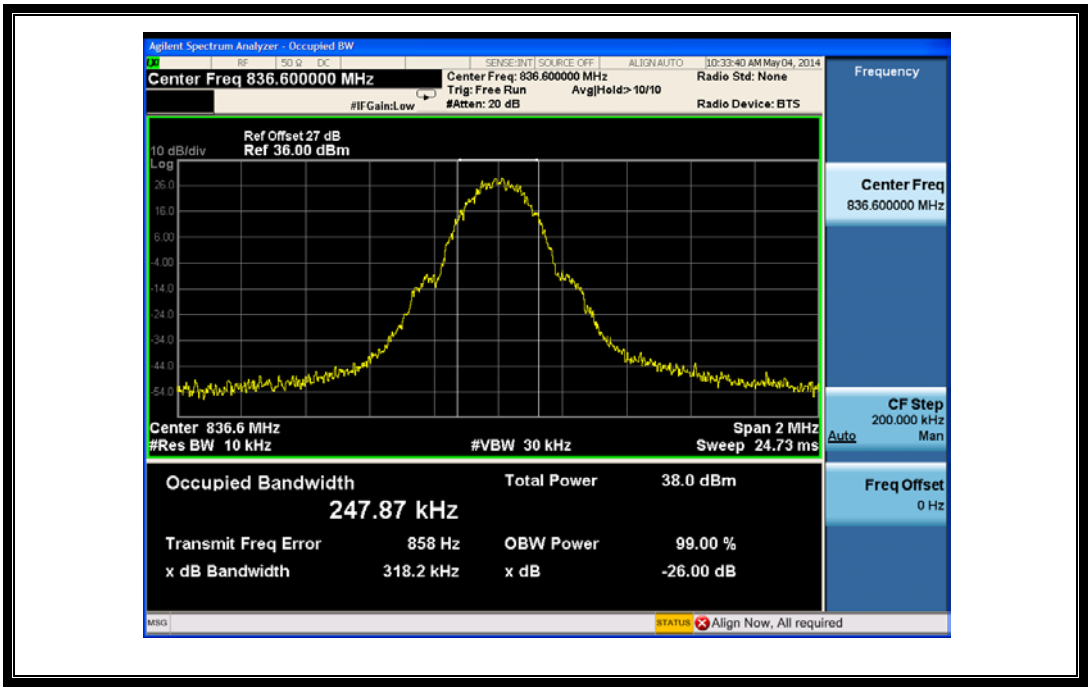
(Plot C1: HSPA+1900 MHz Channel = 9400)



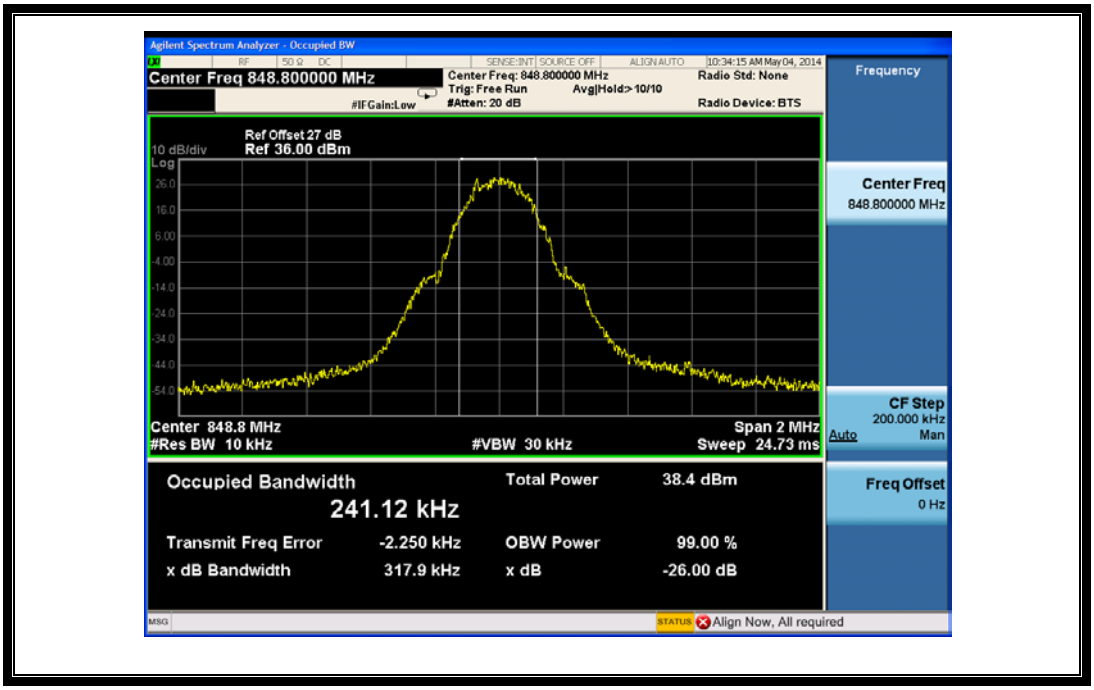
(Plot D1: HSPA+1900 MHz Channel = 9538)



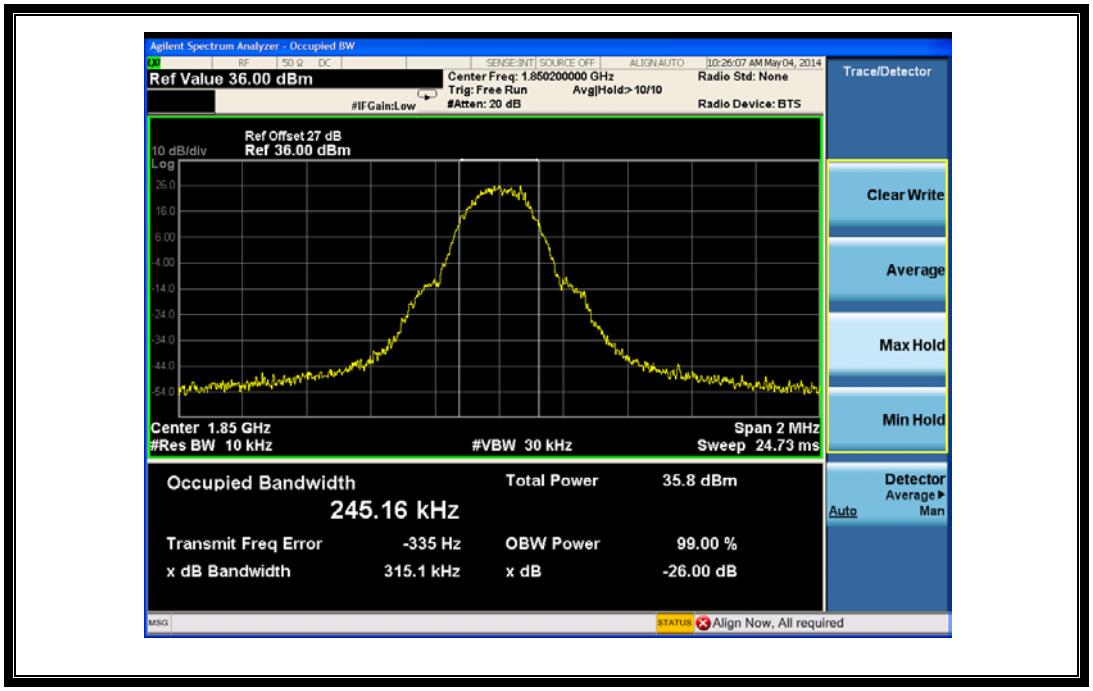
(Plot E1: GSM 850MHz Channel = 128)



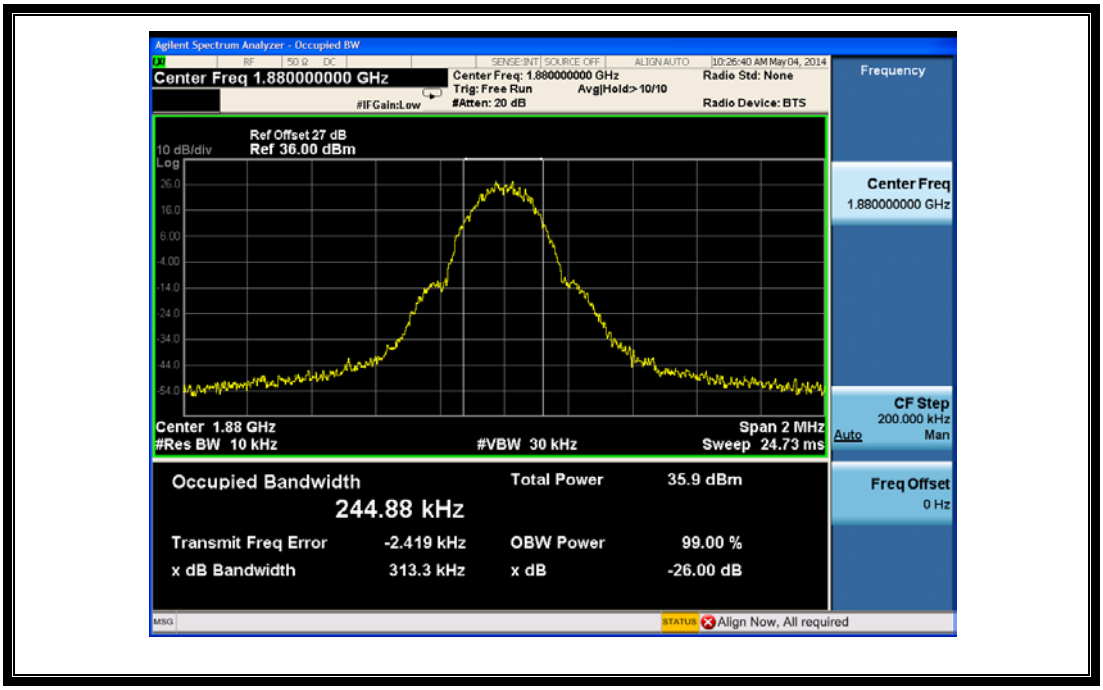
(Plot F1:GSM 850MHz Channel = 190)



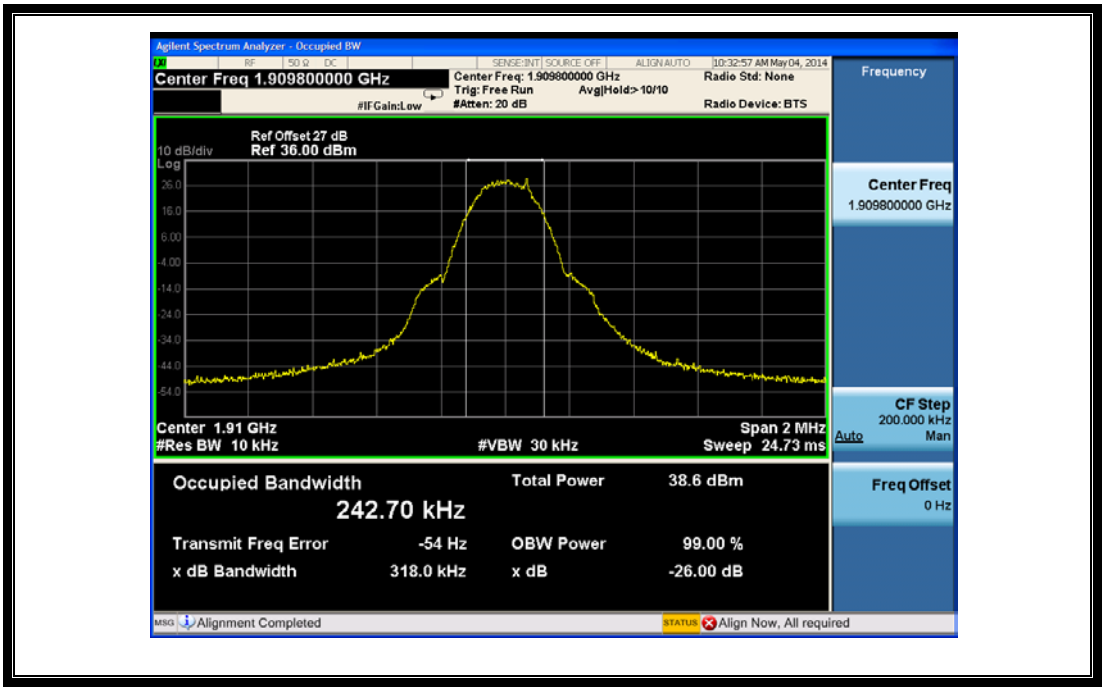
(Plot G1: GSM 850MHz Channel = 251)



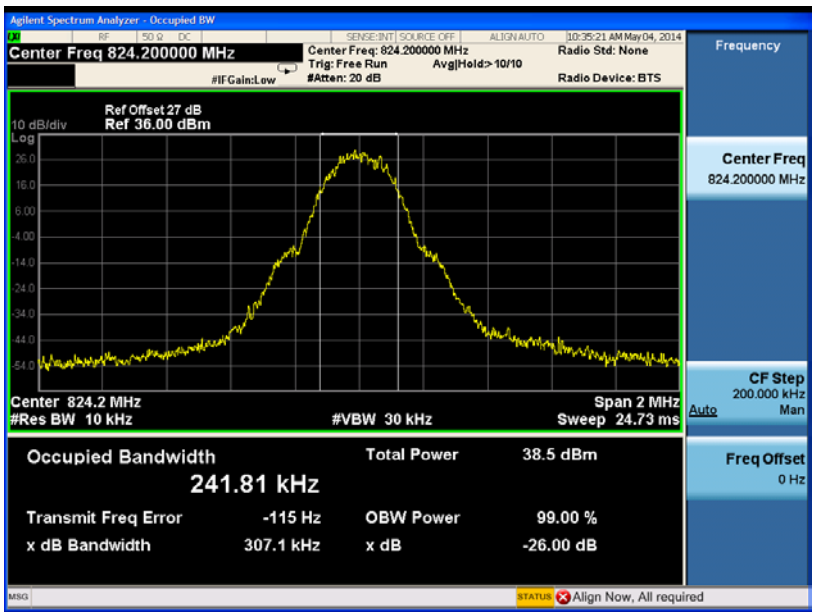
(Plot H1: GSM 1900MHz Channel = 512)



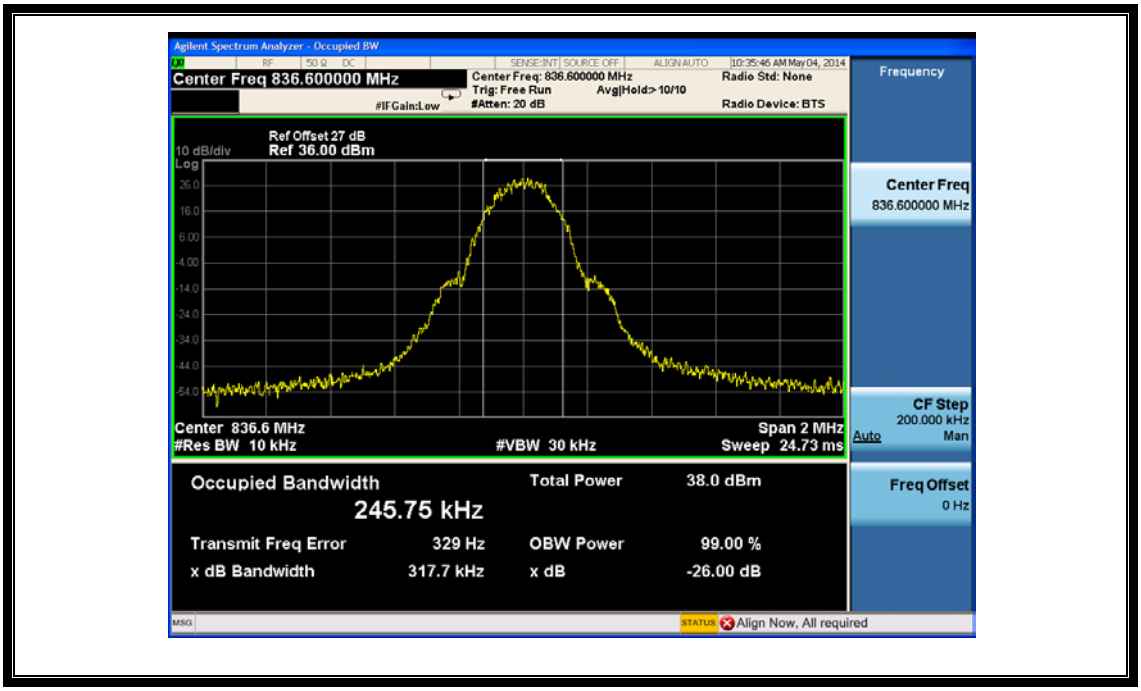
(Plot I1: GSM 1900MHz Channel = 661)



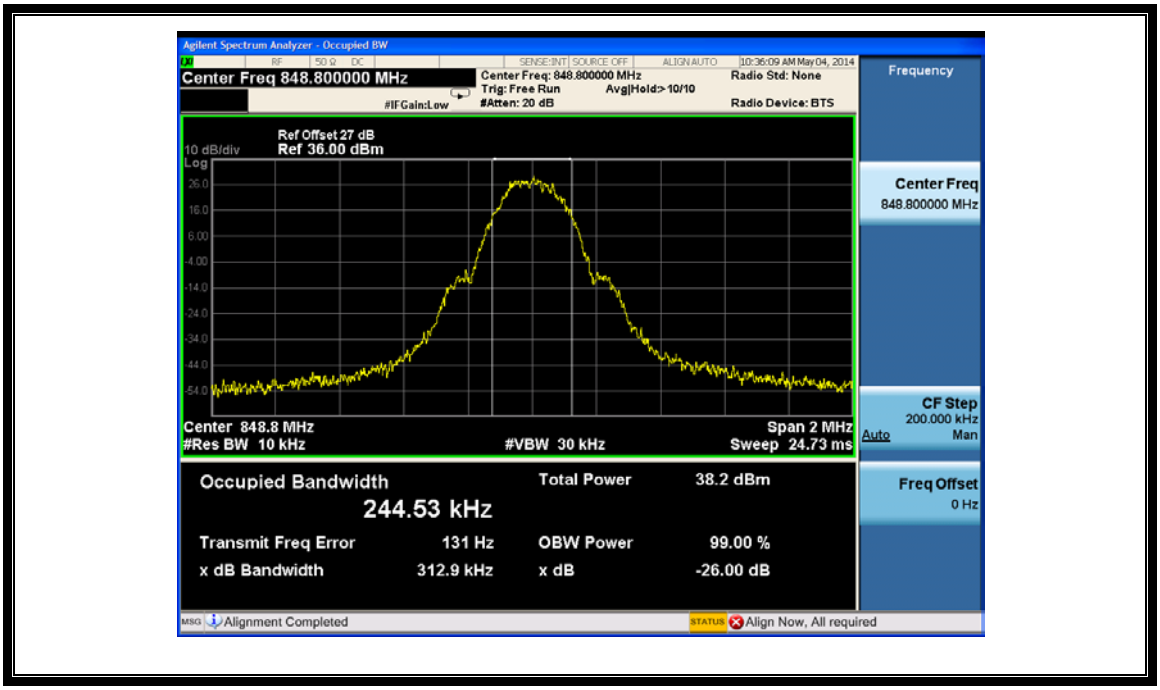
(Plot J1: GSM 1900MHz Channel = 810)



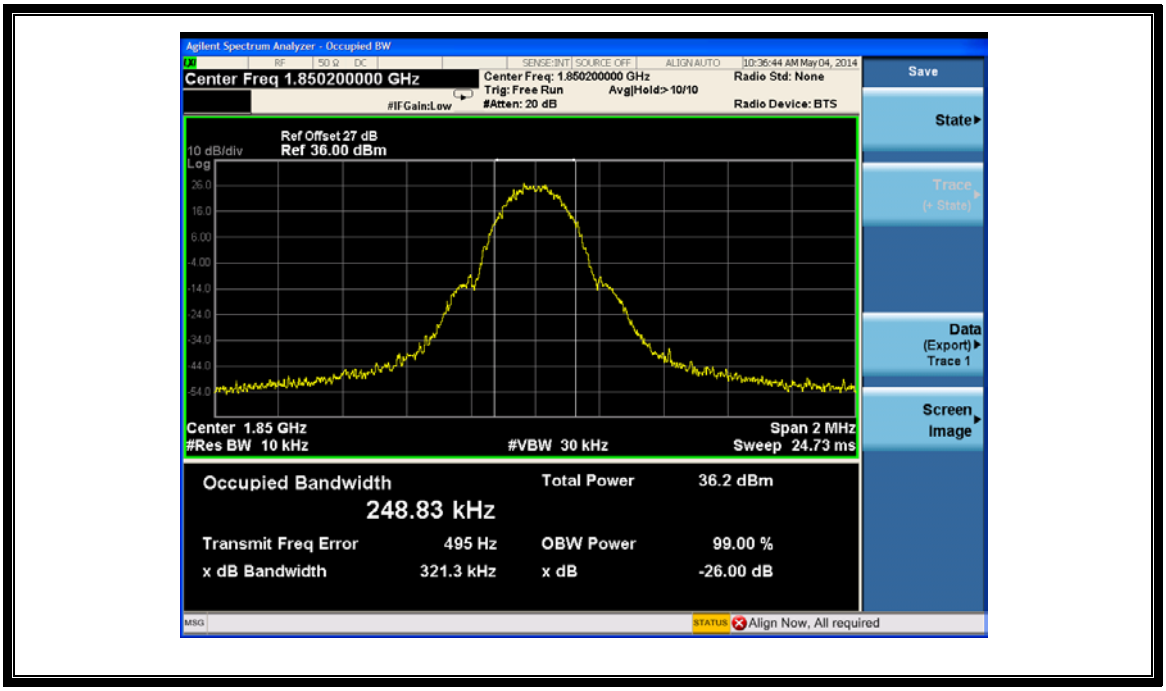
(Plot K1: GPRS 850MHz Channel = 128)



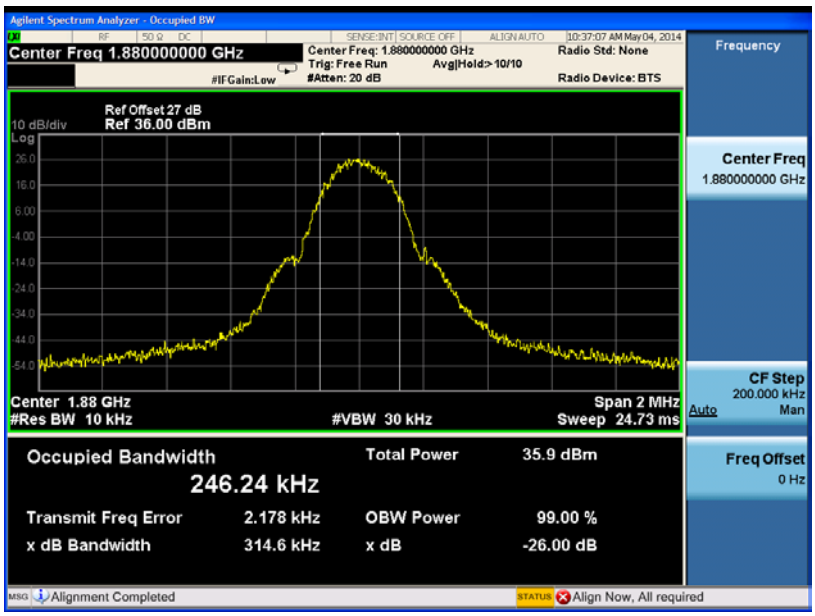
(Plot L1: GPRS 850MHz Channel = 190)



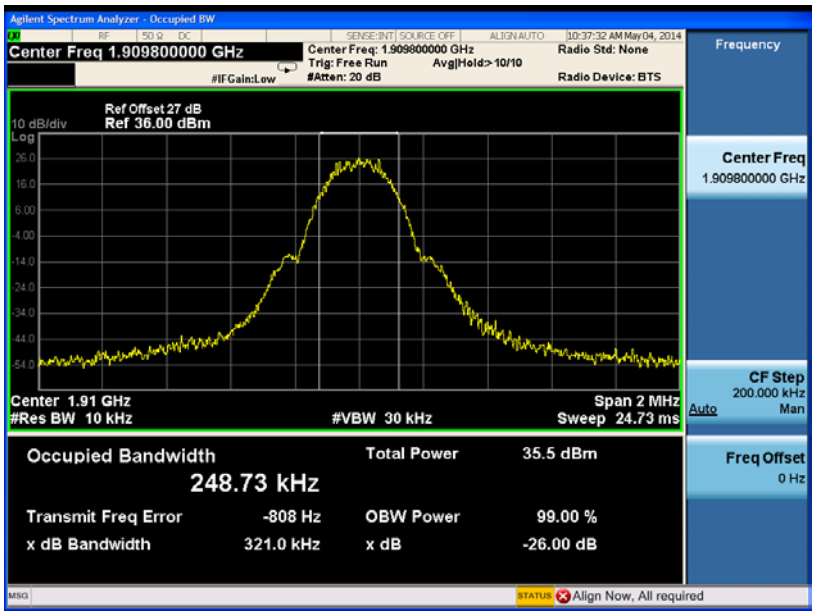
(Plot M1: GPRS850MHz Channel = 251)



(Plot N1: GPRS 1900MHz Channel = 512)



(Plot O1: GPRS 1900MHz Channel = 661)



(Plot P1: GPRS 1900MHz Channel = 810)