

Response to TCB Findings

1. Has the device been tested in 3 orthogonal planes with fresh batteries?

I can confirm that the device was tested in 3 orthogonal planes with fully charged batteries. The test results presented were the highest levels recorded of the each of the 3 planes

2. On page 12 of the test report Ref. No. frequency points 2,3,4 and 6 of the table are in the restricted band, therefore they are required to meet the limits of 15.209(a). Average readings at points 3,4 and 6 are above the limit.

*** Please describe how the device complies with the rules.**

Results in table were the peak detector results placed there in error. Correct average results are as follows:

Ref No.	Freq (MHz)	Det.	Ang. Deg.	Height (cm)	Pol.	MD (m)	SD (m)	Result at SD (dB μ V/m)	Spec. Limit (dB μ V/m)	Margin (dB)	Result Summary
1	80.188	QP	91	140	V	3	3	34.4	97	62.6	Pass
2	1694.58	Av	360	150	V	3	3	31.7	54	-22.3	Pass
3	2400	Av	170	100	V	3	3	42.95	97	-54.05	Pass
4	2483.5	Av	170	100	V	3	3	44.43	54	-9.57	Pass
5	4873.71	Av	180	100	V	3	3	50.66	54	-3.34	Pass
6	7310.54	Av	12	100	V	3	3	40.46	54	-13.54	Pass
7	9746.83	Av	260	100	V	3	3	48	97	-49	Pass
8	12184.26	Av	50	130	V	3	3	44.43	54	-9.57	Pass

*** Provide peak readings for frequencies above 1GHz as required by 15.35(b).**

Peak levels above 1 GHz were as follows

Freq (MHz)	Peak ResultsD (dB μ V/m)
1694.58	46.2
2400	57.0
2483.5	58.4
4873.71	64.7
7310.54	62.8
9746.83	55.5
12184.26	56.6

*** Describe measurement system settings (RBW, VBW) for these measurements.**

Peak measurements below 1 GHz RBW = VBW = 100 kHz

Peak measurements Above 1 GHz RBW = VBW = 1 MHz

Average measurements Above 1 GHz RBW = 1 MHz VBW = 10 Hz

3. **15.31(m) requires measurements on 3 channels (lowest, middle and highest channel) for devices with more than 10MHz operating band. Page 27 of the report mentions a fixed channel at 2.43GHz. Please supply peak power measurement data for the lowest and highest channels.**

Frequency (MHz)	Measured Peak Carrier EIRP (W)	Limit (W)
2401.920	0.097	1
2436.880	0.135	1
2481.408	0.094	1

4. **Please confirm that the public notice DA 00-705 was used for test procedures. Please supply plots for 20dB bandwidth and number of hopping channels tests.**

Confirmed that public notice DA 00-705 was used for test procedures. Plots are contained at the end of this document.

5. **Please also provide a plot showing channel separation as described in the above public notice.**

Plots are contained at the end of this document.

6. **Please supply details of channel occupancy (1.24ms) calculation with supporting plots. For example: During (0.4s x 93 channels) interval how many times did the transmitter activate and how long is the single activation?**

During (0.4s x 93 channels) interval transmitter would activate $(0.4 \times 93)/0.310$ times

= 120 times

single activation = 0.4025 ms

total activation = 0.4025×120 ms

= 48.3 ms

limit = 400 ms

Plots are contained at the end of this document.

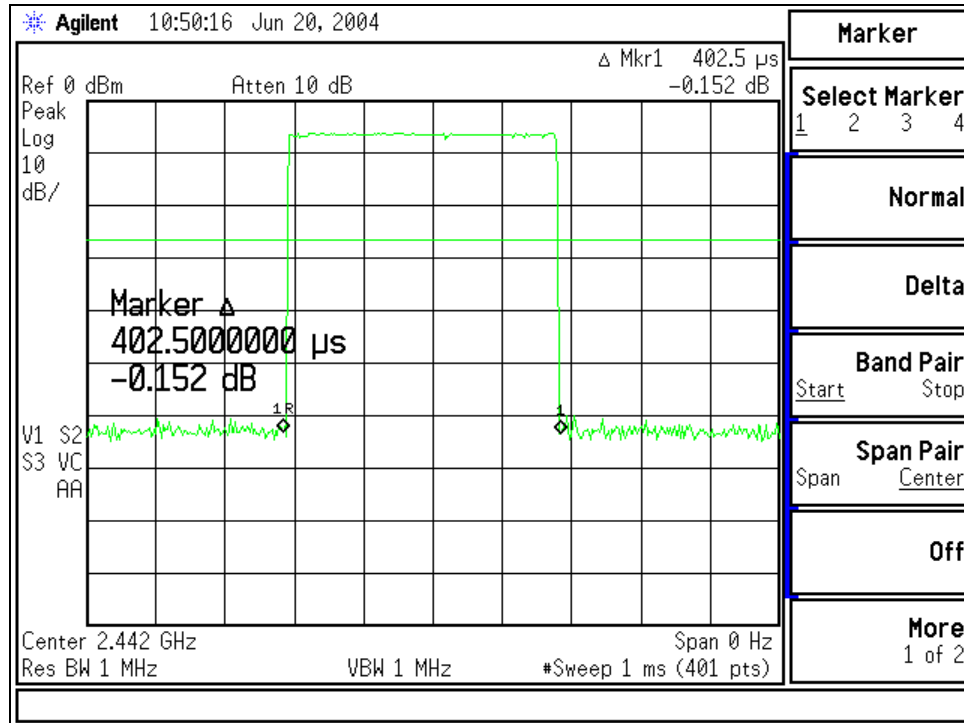
7. **Please supply band-edge field strength readings at 2.4GHz (when operating at lowest channel) and at 2.4835GHz (at highest channel) with RBW=VBW=1MHz. This is needed to demonstrate band-edge compliance.**

Included in tables above.

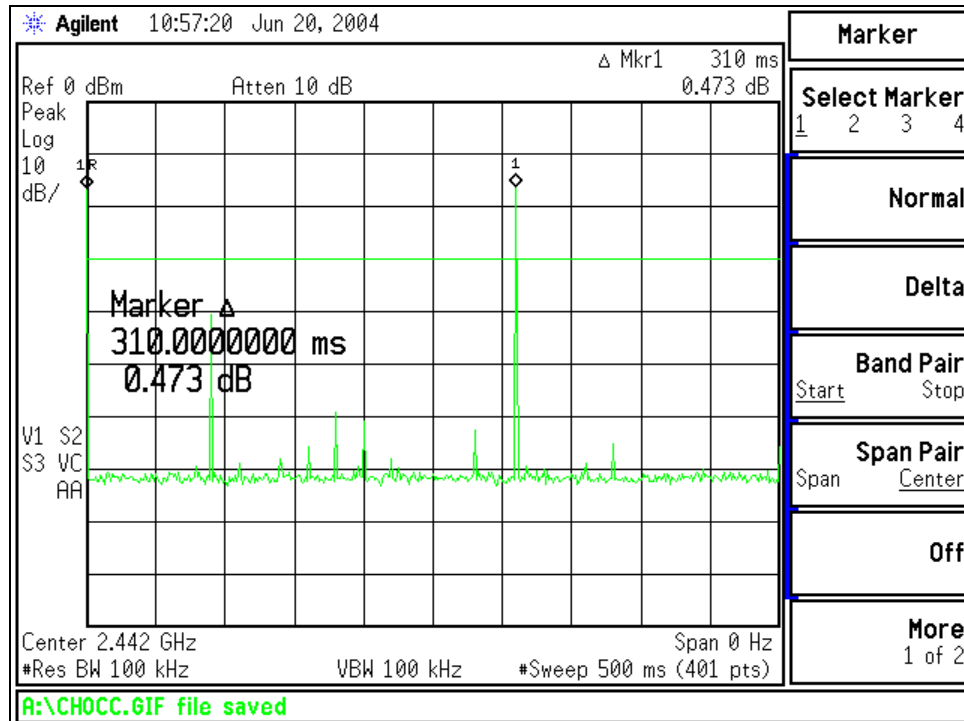
8. **The test set-up picture shows the charger racks and the test data does not include any details on that (such as AC line conducted emissions). Is this application intended for the handset only? Please clarify.**

I can confirm that the application is in respect of the handset only. The charger set-up photo was not relevant for this assessment.

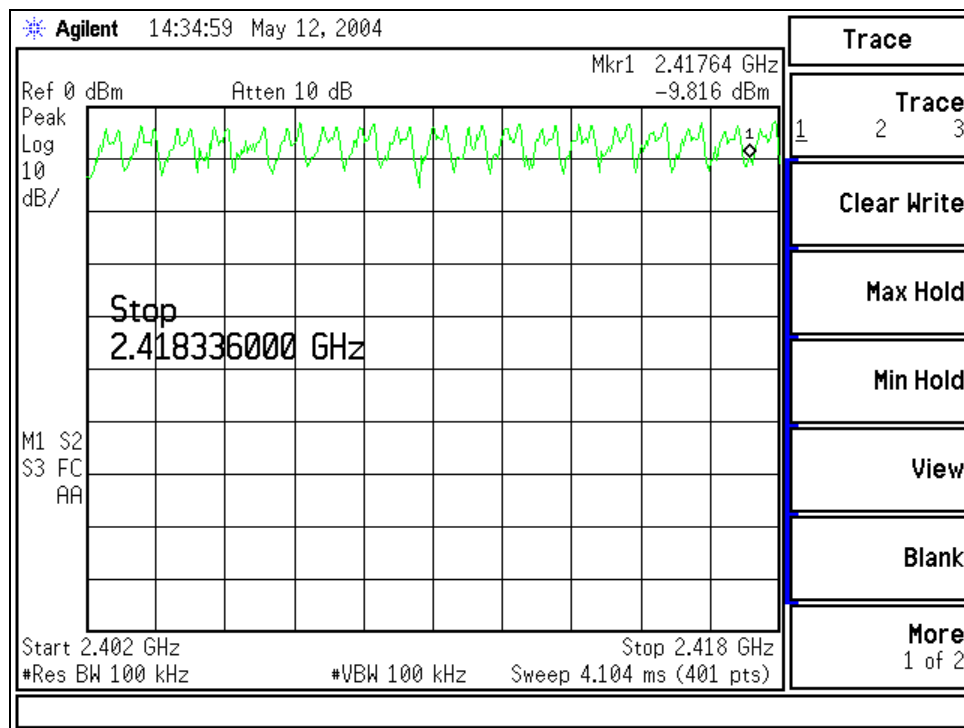
Plots of Measurements



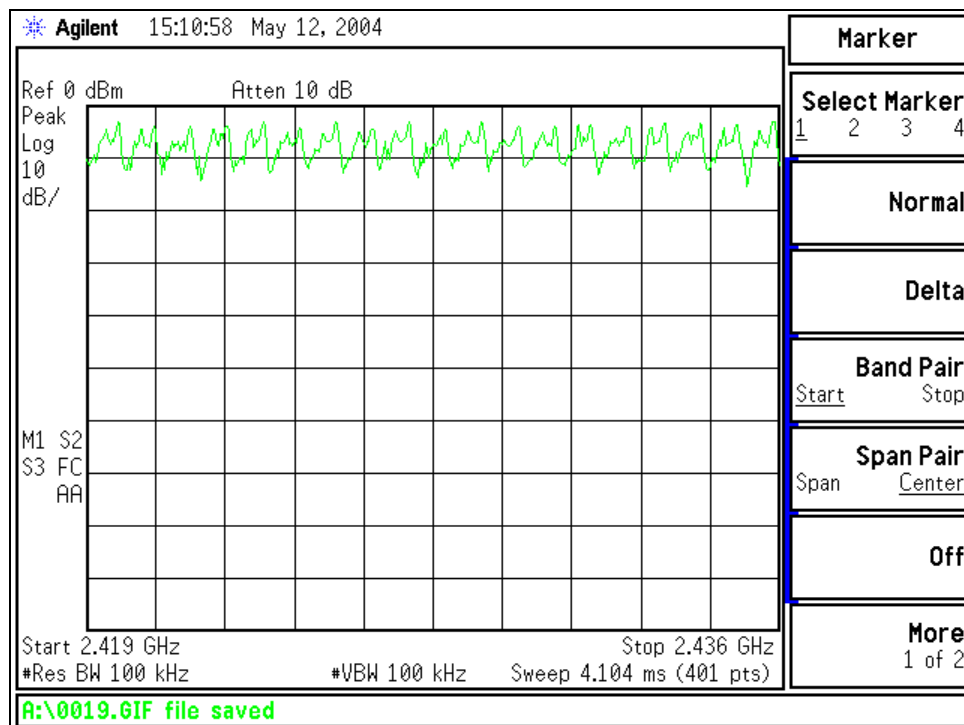
Channel Occupancy Time



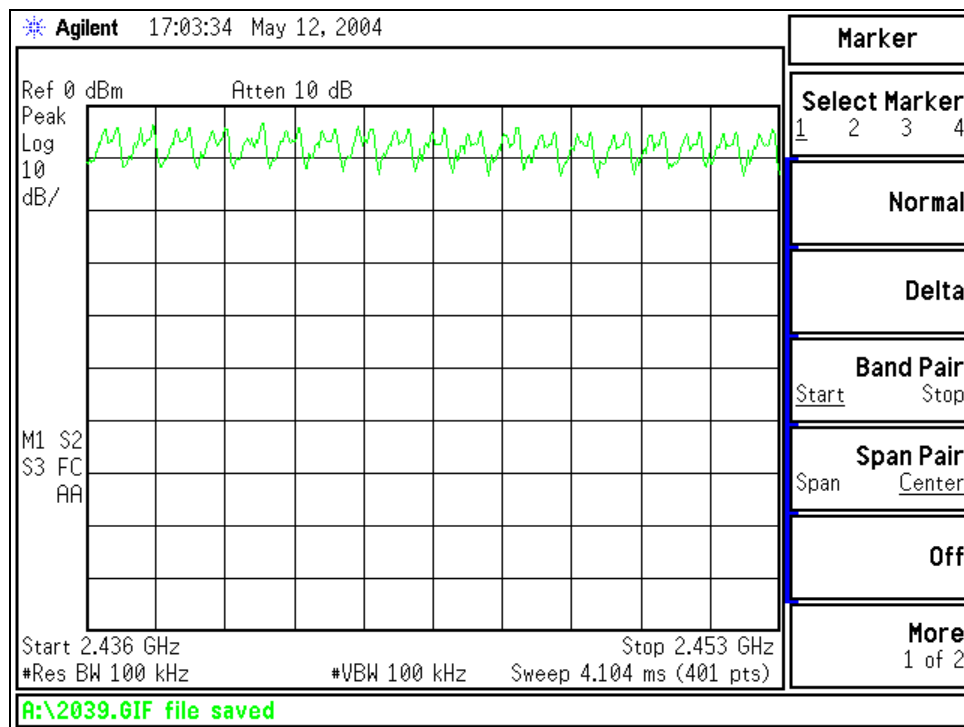
Channel repetition time.



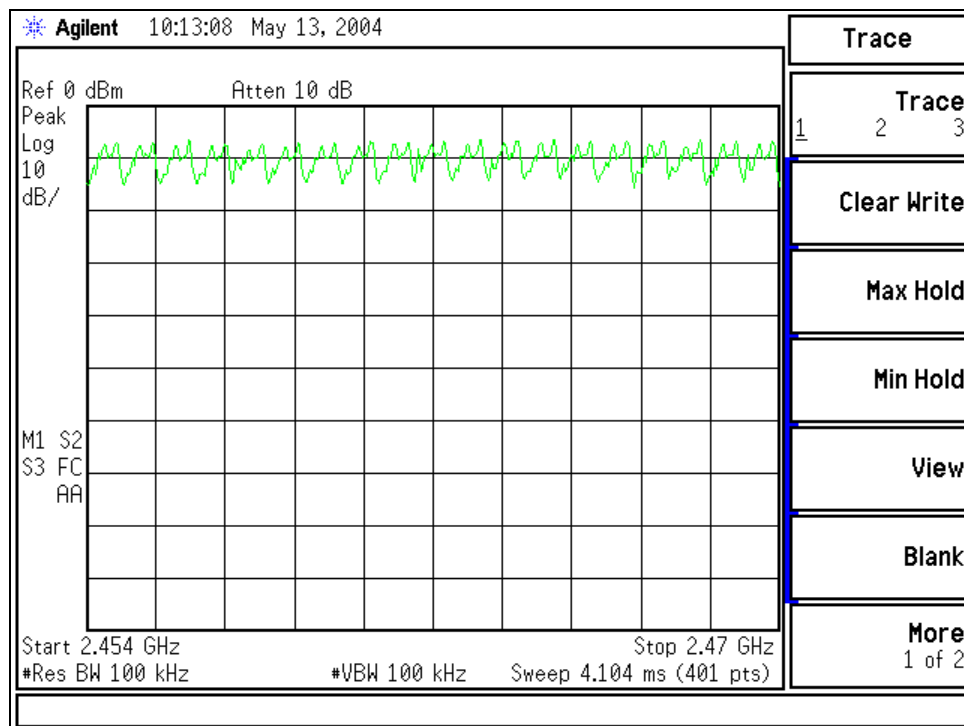
Channels 0 to 19



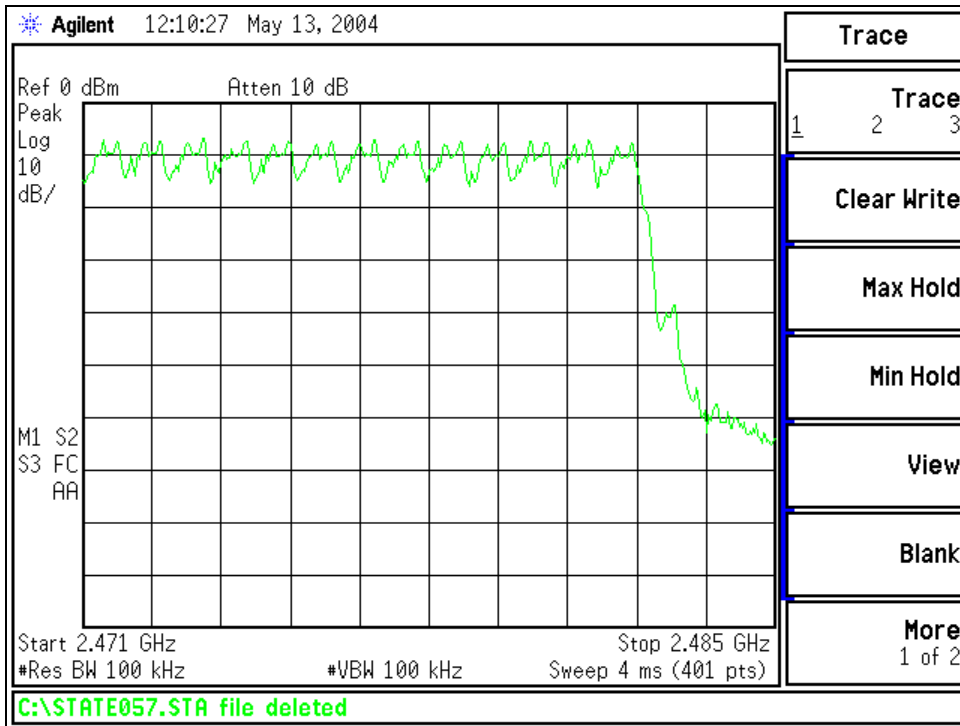
Channels 20 to 39



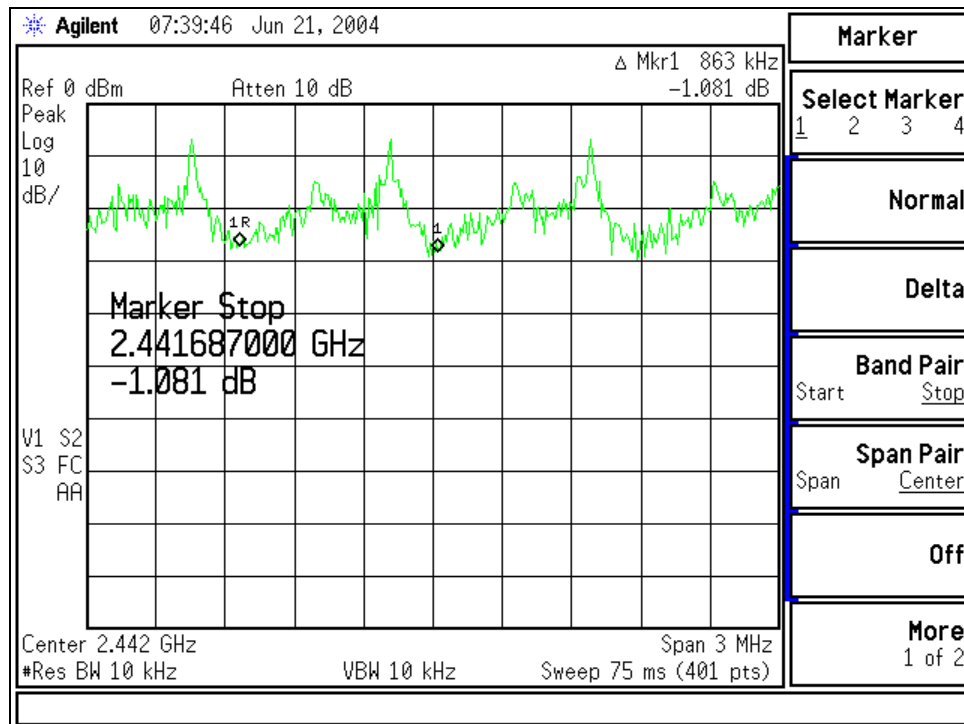
Channels 40 to 59



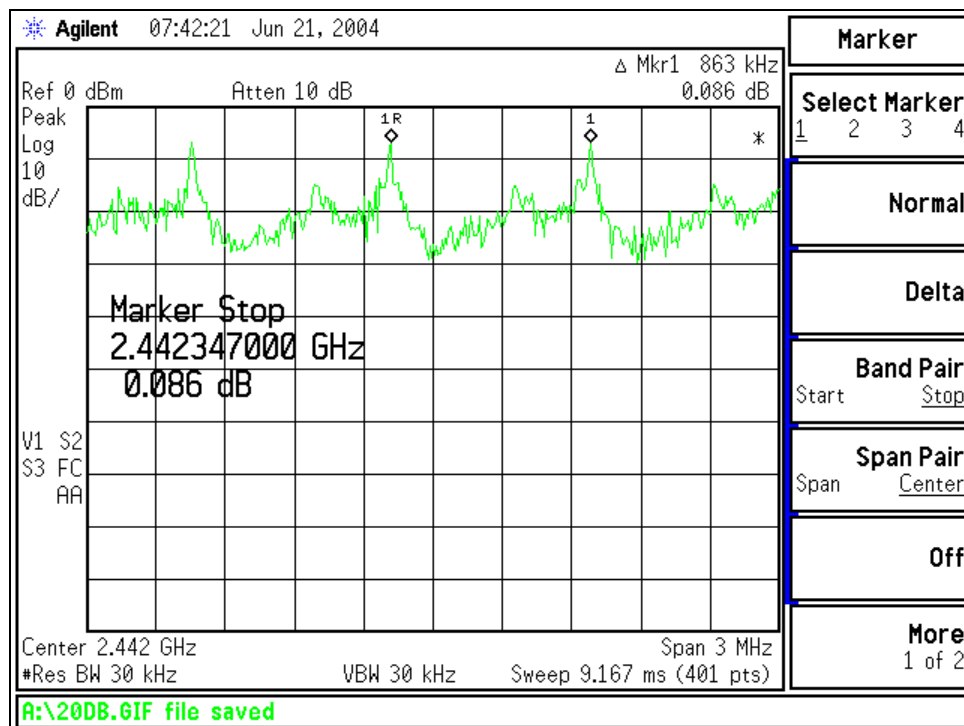
Channels 60 to 79



Channels 80 to 92



20 dB Bandwidth



Channel Spacing