



## Discussion of Power level values.

Reference FCC ID: OJB-APC4-365 and OJB-SSC7-365

Axxcelera first received Grants of Equipment Authorization for two separate products in accordance with 47CFR90 subpart Z, on July 9, 2008. Specifically, an Access Point (master device) with FCC ID: OJB-APC4-365 as well as a client device with FCC ID: OJB-SSC7-365. As evidenced by test reports on file at the FCC, Power levels recorded on the grants are maximum *conducted* measurements at the RF port using a spectrum analyzer *peak* detector. These levels do not account for any antenna gain, and therefore do not represent final EIRP level. These original grants do not mention EIRP.

Subsequently, Axxcelera filed a class 2 permissive change on each product which added an additional channel bandwidth. The change was approved and new Grants of Equipment Authorization were issued on May 4, 2009. The new grants continued to show *peak conducted* power for the original bandwidths, as well as for the newly added bandwidth. However, when issuing the grants, FCC included a note that "Output is EIRP". Axxcelera now realizes this to be an inconsistency.

With the current class2 permissive change filing we seek to correct the inconsistency between conducted levels and the conflicting EIRP notation. We understand from review of FCC document 1/13/2010 3 552295 D01 CBT Guidance for 3650 3700 Band v01r01, (see footnote 1 on page 5), that FCC desires to include "Output is EIRP" as a comment on the grant. Thus, form 731 is showing maximum output power as truly the EIRP allowable under the rules; 1W/MHz.

### **There has been no change to maximum conducted transmitter power of the devices.**

Conducted power has again been measured and recorded in the submitted test reports.

In accordance with FCC document 965270 D01 Pwr Meas Part 90 Z Equipment v01, released 4/15/2010, we have now performed all power measurements, as directed, with use of a spectrum analyzer RMS detector. This of course makes it a bit difficult to directly compare prior power level data (Peak detector) with new power level data (RMS detector).

To assist in that comparison, we have taken additional measurements with the previously used peak detector method, and submit that data within this document. The summary tables below verify excellent repeatability in power measurement results when comparing new versus prior measurements. The selected test conditions are based on repeating those particular conditions which had produced the maximum measured power levels recorded on the existing grants.

Table 1: Access Point FCCID: OJB-APC4-365

Channel Bandwidth	Grant Power Level		Test Condition	Verified Power Level	Delta	Plot #
(MHz)	(W)	(dBm)		(dBm)	(dBm)	
3.5	3.24	35.11	QAM64, High channel	35.29	0.18	1
5	3.08	34.89	BPSK, Low channel	34.81	-0.08	2
7	4.57	36.60	QAM64, Mid channel	36.32	-0.28	3

Table 2: CPE FCC ID: OJB-SSC7-365

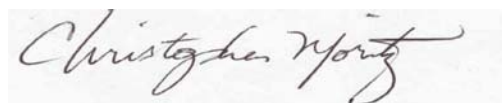
Channel Bandwidth	Grant Power Level		Test Condition	Verified Power Level	Delta	Plot #
(MHz)	(W)	(dBm)		(dBm)	(dBm)	
3.5	1.12	30.49	QAM64, Mid channel	30.45	-0.04	4
5	1.1	30.41	QAM64, Low channel	30.21	-0.20	5
7	1.51	31.79	BPSK, Mid channel	31.63	-0.16	6

From these tables, excellent repeatability can be seen, on the order of 0.2dB.

When using comparable measurement methods (use of a peak detector), it is clear that,

**There has been no change to maximum conducted transmitter power of the devices.**

On the following pages are the captured plots referenced in the tables.

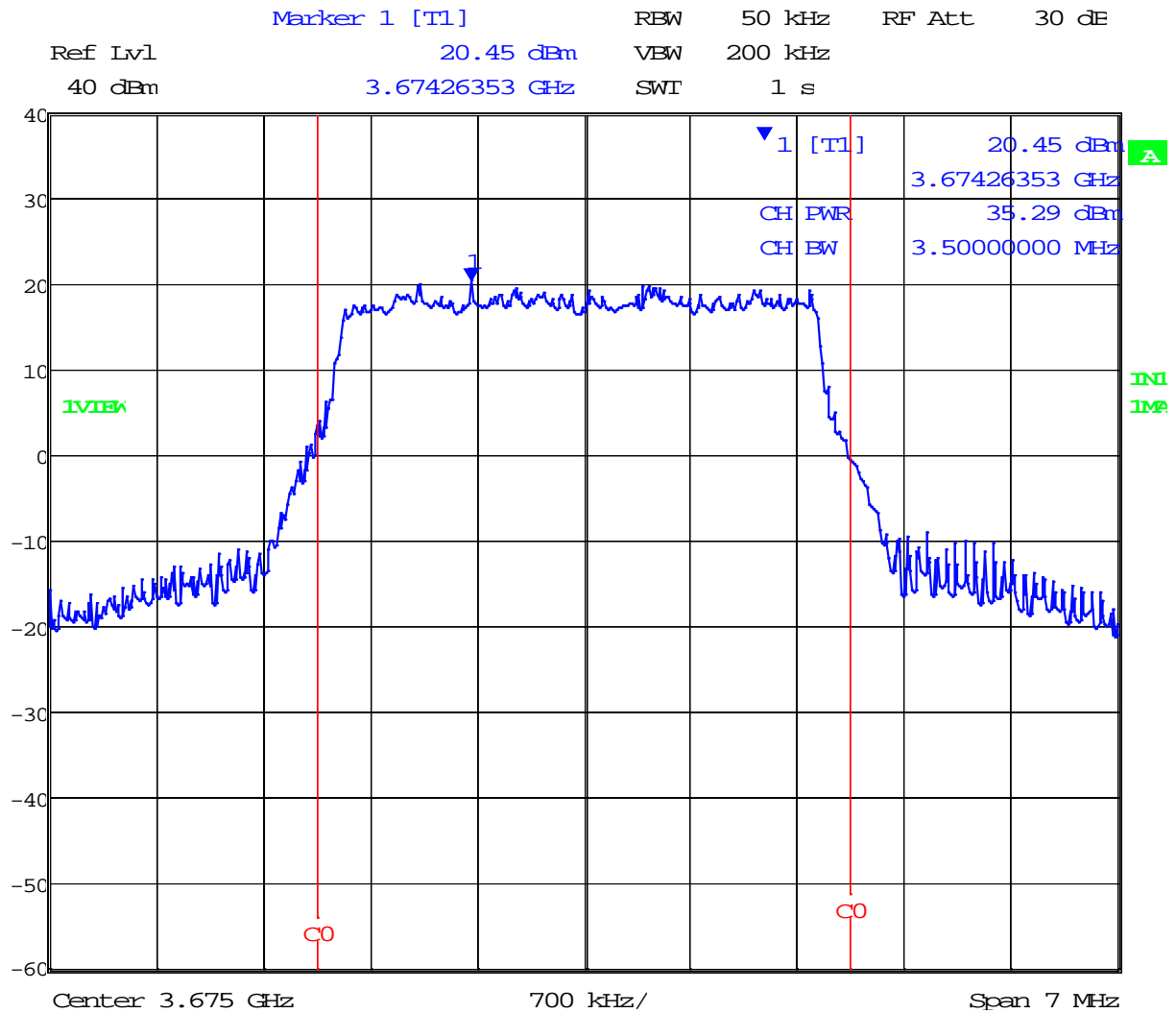


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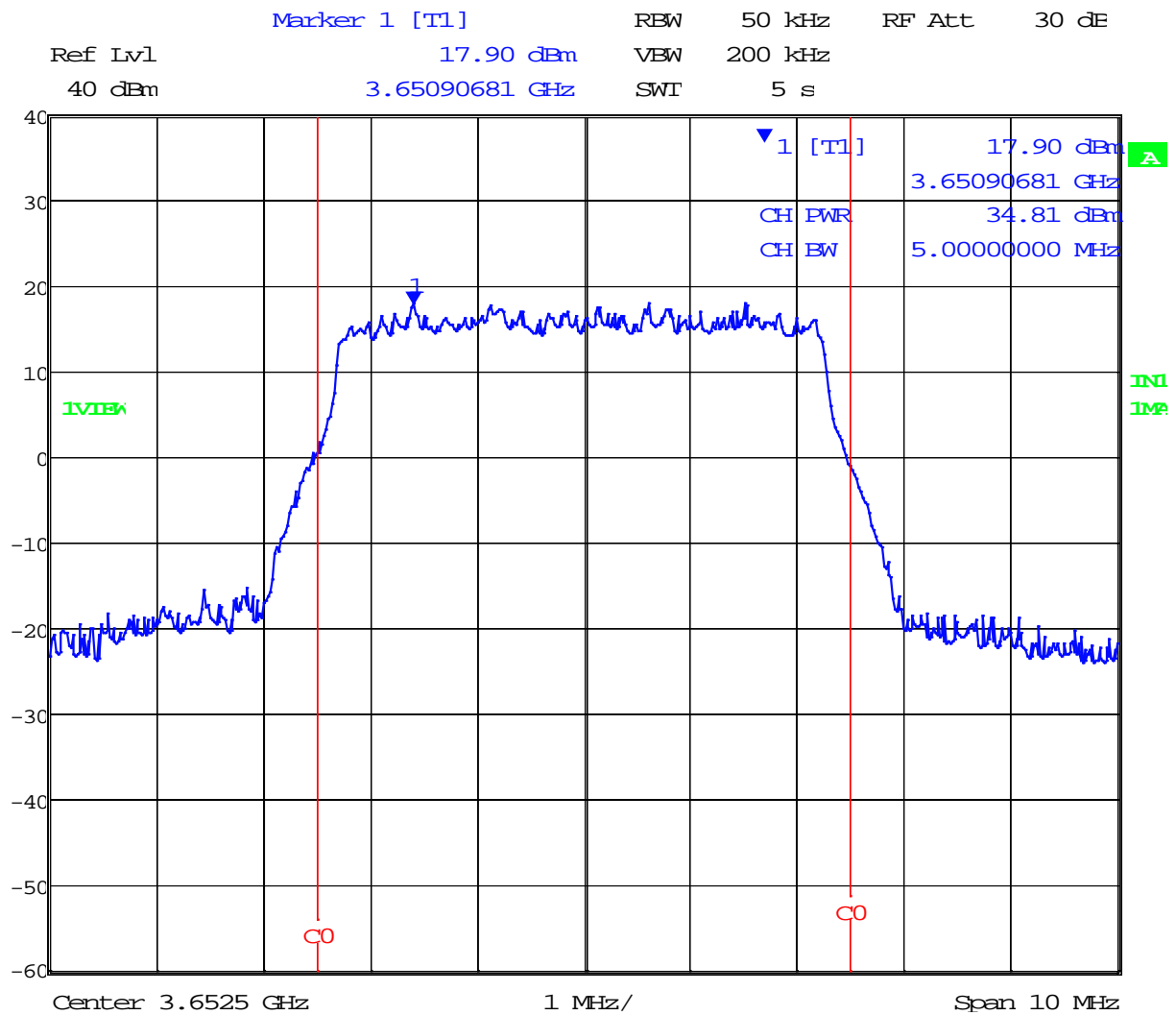
Axxcelera Broadband Wireless, Inc.

Plot 1: AP, 3.5MHz BW, 35.29dBm



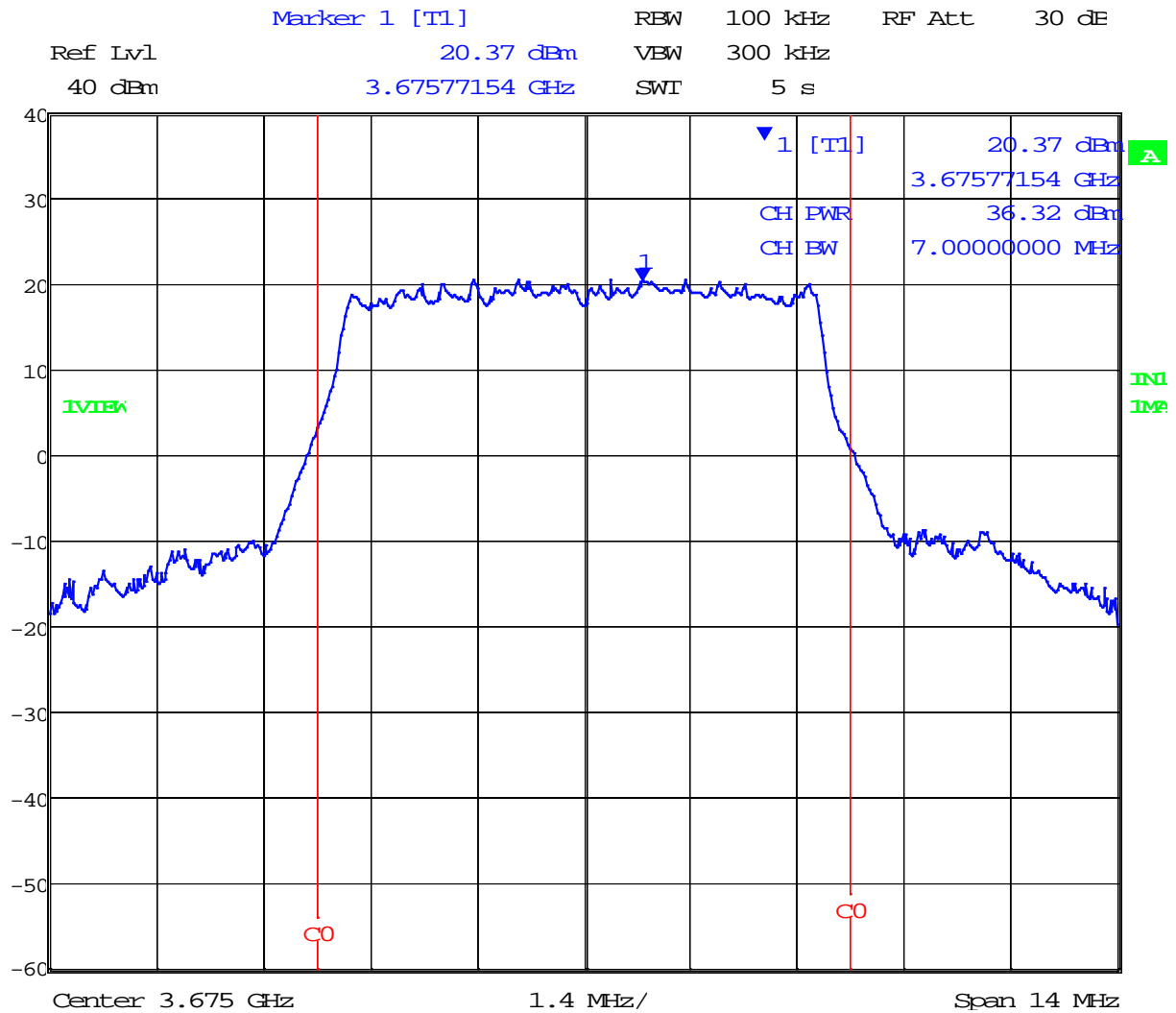
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Plot 2: AP, 5MHz BW, 34.81dBm



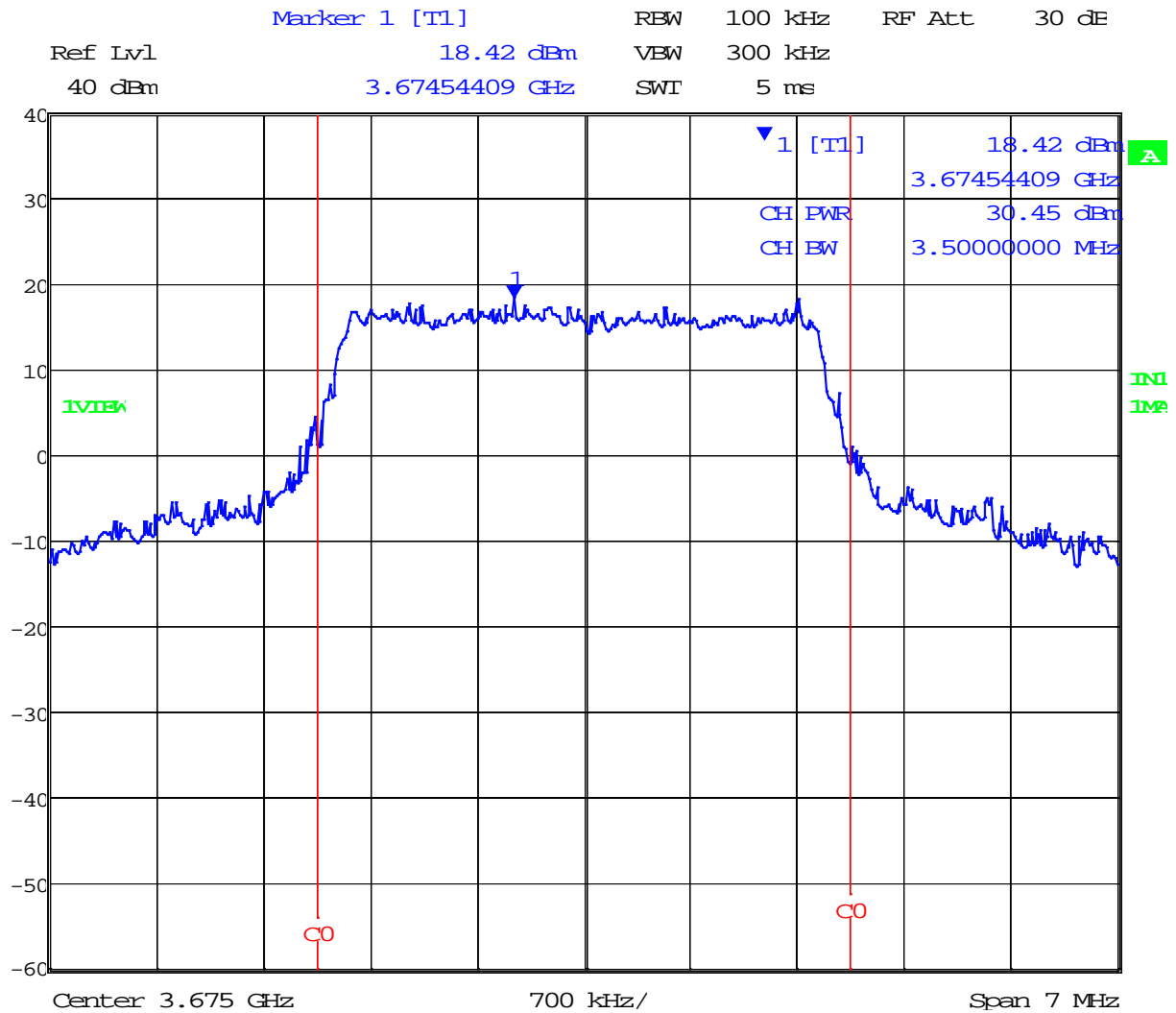
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Plot3: AP, 7MHz BW, 36.32dBm



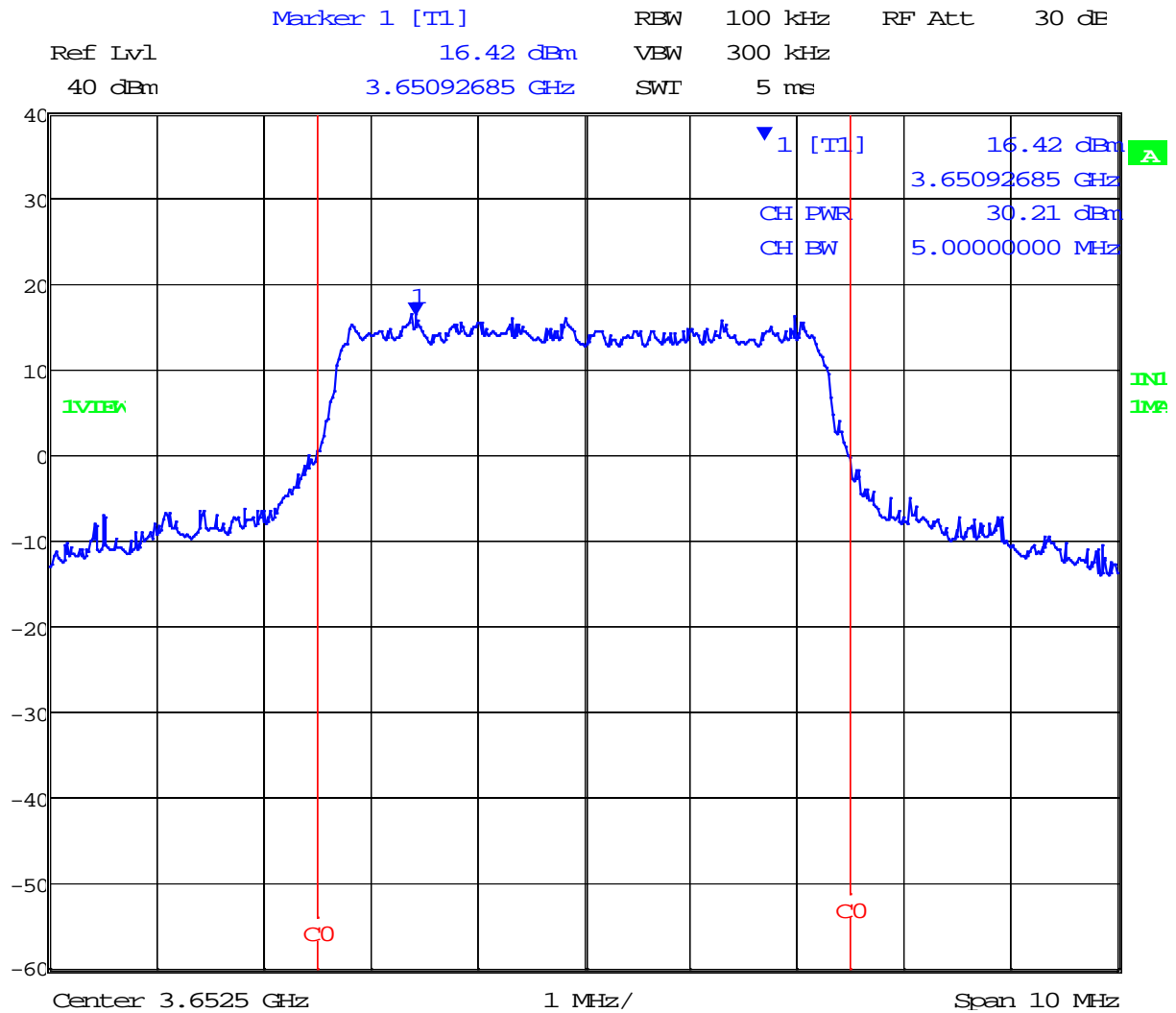
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Plot 4: CPE, 3.5MHz BW, 30.45dBm



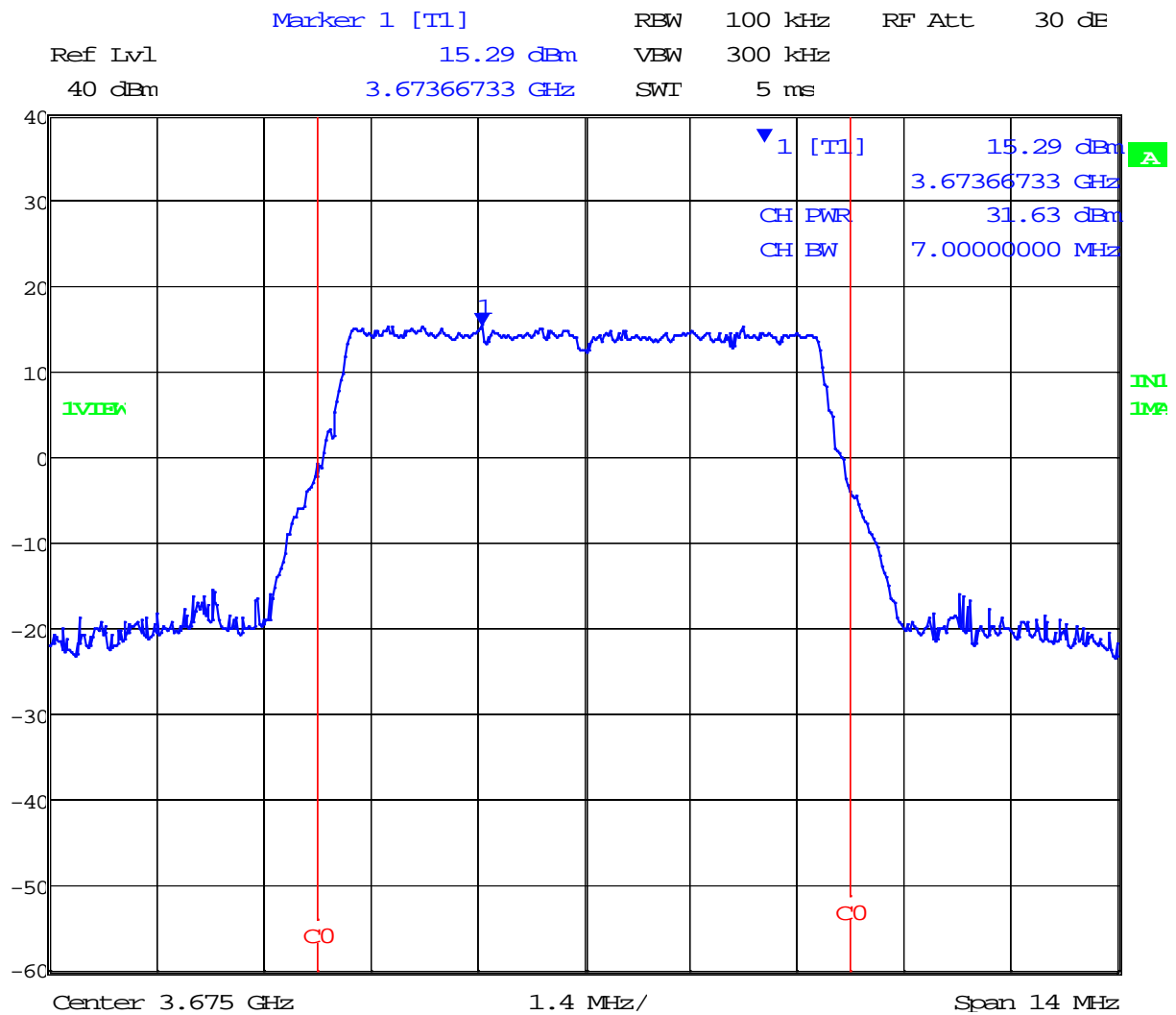
Date: 18.MAY.2010 12:11:36

Plot 5: CPE, 5MHz BW, 30.21dBm



Date: 18.MAY.2010 12:15:15

Plot 6: CPE, 7MHz BW, 31.63dBm



Date: 18.MAY.2010 12:03:10