

April 15, 2011

Letter Report No. 100371377BOX-001
Project No. G100371377

Scott Blatti
Microwave Radio Communications
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North Billerica, MA 01862

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Subject: Radiated Emissions Testing Of The HDX1100C3

Dear Mr. Blatti,

On 12 April 2011, we evaluated the HDX1100C3 transmitter for radiated emissions as required by FCC 47CFR Part 15 subpart B from 30 to 16000 MHz.

The results of the emissions testing are attached. The HDX1100C3 Transmitter met the Class A requirements for unintentional radiators from 30 to 16GHz without modification. Please note that the fundamental at 6.428GHz is exempt from the Class A restrictions.

This investigation was authorized by signed proposal # 500296020, dated 03/28/2011.

This letter report completes our evaluation covered by Intertek Project No. G100371377.


If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact the undersigned.

Please note; this Letter Report does not represent authorization for the use of any Intertek certification marks.

Completed by: Michael Houston
Title: Senior Project Engineer

Signature: 
Date: April 15, 2011

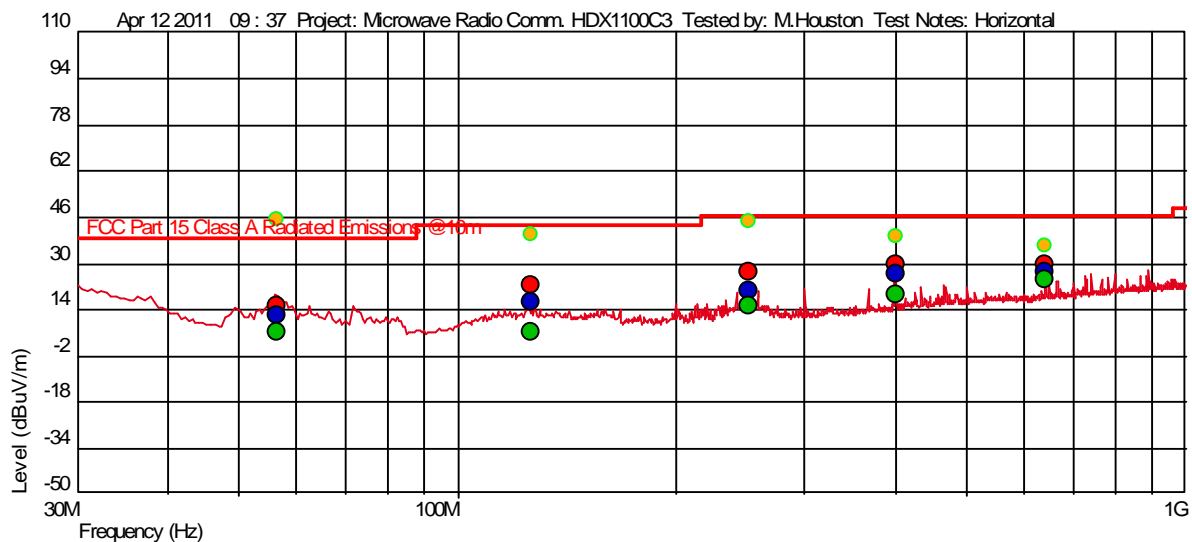
Reviewed by: Jeff Goulet
Title: Engineering Team Leader, EMC

Signature: 
Date: 04/25/11



Test Information

Test Details	User Input
Project:	Microwave Radio Comm. HDX1100C3
Test Notes:	Horizontal
Tested by:	M.Houston
Test Started:	Apr 12 2011 09 : 37



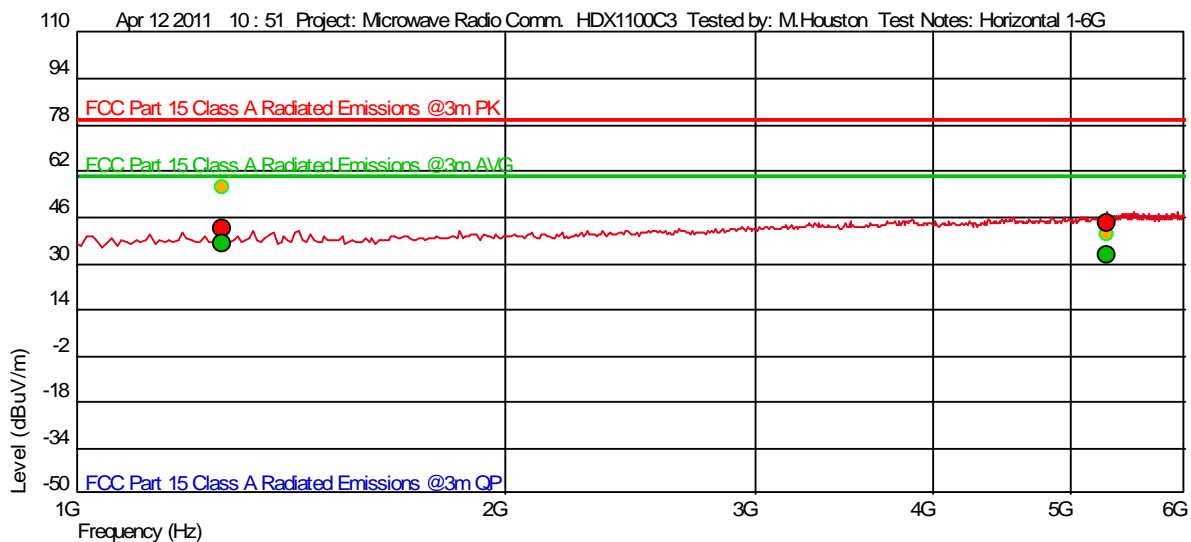
- Measured Peak Value
 - Measured Quasi Peak Value
 - Measured Average Value
 - Maximum Value of Mast and Turntable
- Level (dBuV/m) = AF + CL + PA + Raw
- AF = Antenna Factor
- CL = Cable Losses
- PA = Pre-Amplifier
- Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: QP

Frequency (Hz)	Level* (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Angle (Deg)	Mast Height (m)	RBW (Hz)
56.532576192 M	12.13	7.253	-26.162	39.00	-26.87	197	2.26	120 k
126.068848766 M	16.68	13.979	-25.595	43.50	-26.82	259	3.93	120 k
251.132309098 M	20.82	11.500	-24.820	46.50	-25.68	302	3.36	120 k
399.049053625 M	26.72	15.562	-24.401	46.50	-19.78	103	2.72	120 k
639.971476222 M	26.95	19.699	-24.410	46.50	-19.55	47	1.33	120 k

Test Information

Test Details	User Input
Project:	Microwave Radio Comm. HDX1100C3
Test Notes:	Horizontal 1-6G
Tested by:	M.Houston
Test Started:	Apr 12 2011 10 : 51



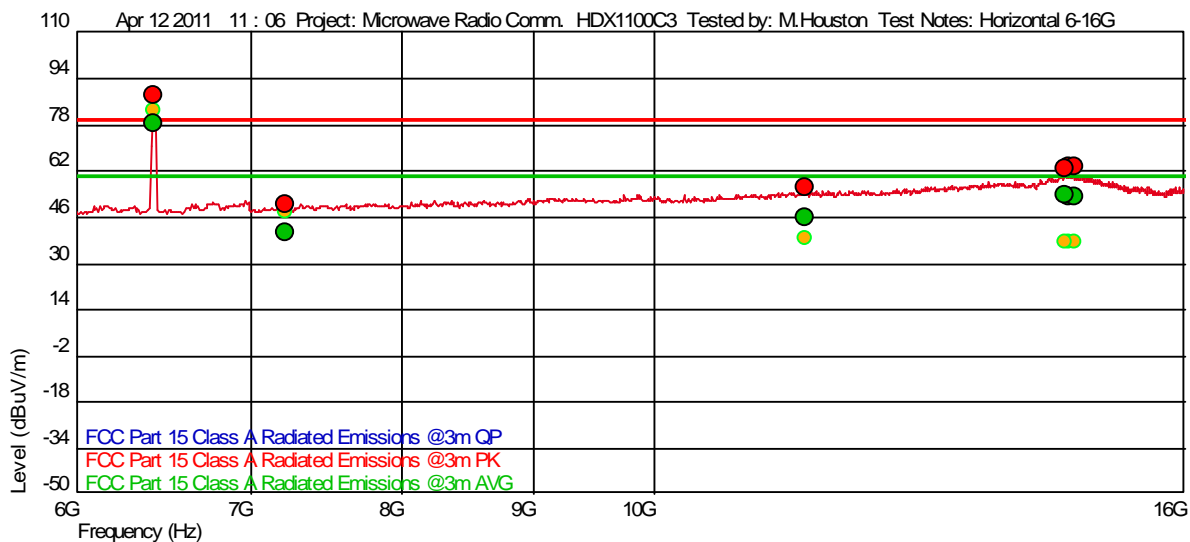
- Measured Peak Value
 - Measured Quasi Peak Value
 - Measured Average Value
 - Maximum Value of Mast and Turntable
- Level (dBuV/m) = AF + CL + PA + Raw
- AF = Antenna Factor
- CL = Cable Losses
- PA = Pre-Amplifier
- Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: AVERAGE

Frequency (Hz)	Level* (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Angle (Deg)	Mast Height (m)	RBW (Hz)
1.267128479 G	36.79	25.701	-29.759	60.00	-23.21	12	1.92	1 M
5.295966155 G	32.92	33.724	-26.196	60.00	-27.08	111	1.98	1 M

Test Information

Test Details	User Input
Project:	Microwave Radio Comm. HDX1100C3
Test Notes:	Horizontal 6-16G
Tested by:	M.Houston
Test Started:	Apr 12 2011 11 : 06



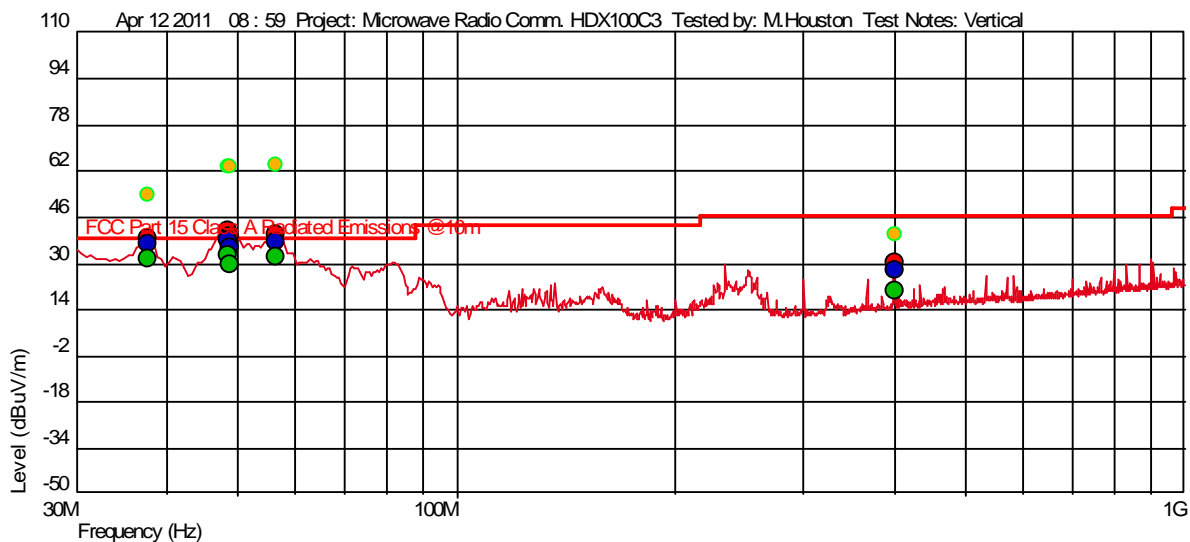
- Measured Peak Value
 - Measured Quasi Peak Value
 - Measured Average Value
 - Maximum Value of Mast and Turntable
- Level (dBuV/m) = AF + CL + PA + Raw
AF = Antenna Factor
CL = Cable Losses
PA = Pre-Amplifier
Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: AVERAGE

Frequency (Hz)	Level* (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Angle (Deg)	Mast Height (m)	RBW (Hz)
6.428253396 G	78.45	34.208	-25.604	60.00	18.45	336	1.20	1 M
7.216473391 G	40.90	35.952	-25.046	60.00	-19.10	211	2.04	1 M
11.432167891 G	45.91	38.964	-21.645	60.00	-14.09	322	2.70	1 M
14.40253173 G	53.47	41.991	-18.073	60.00	-6.53	107	3.54	1 M
14.446828323 G	53.37	41.926	-17.953	60.00	-6.63	198	1.51	1 M
14.507002895 G	53.09	41.824	-17.822	60.00	-6.91	133	2.09	1 M

Test Information

Test Details	User Input
Project:	Microwave Radio Comm. HDX100C3
Test Notes:	Vertical
Tested by:	M.Houston
Test Started:	Apr 12 2011 08 : 59



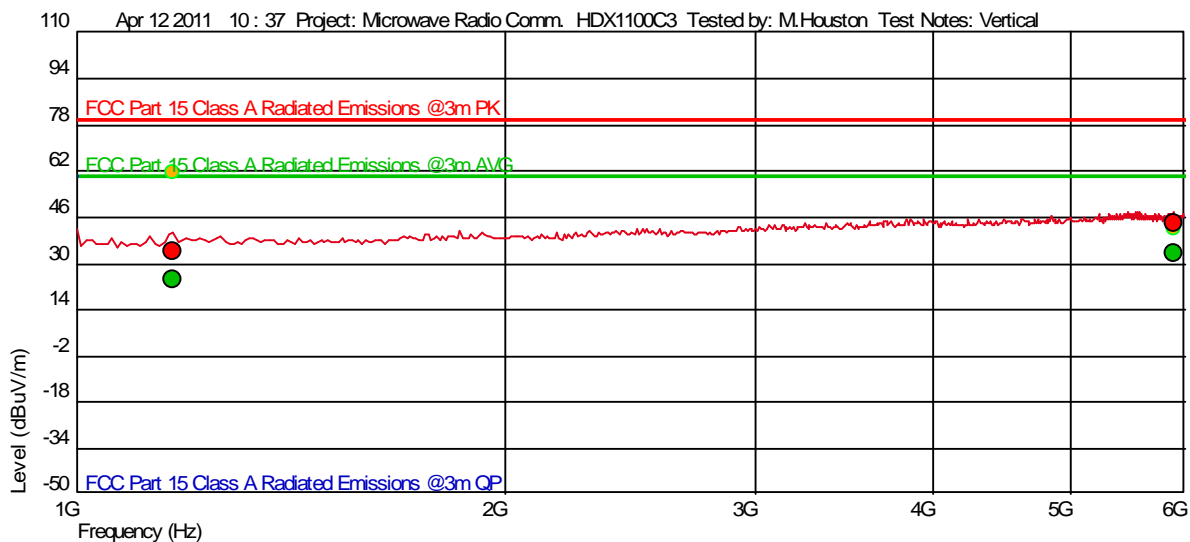
- Measured Peak Value
 - Measured Quasi Peak Value
 - Measured Average Value
 - Maximum Value of Mast and Turntable
- Level (dBuV/m) = AF + CL + PA + Raw
- AF = Antenna Factor
- CL = Cable Losses
- PA = Pre-Amplifier
- Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: QP

Frequency (Hz)	Level* (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Angle (Deg)	Mast Height (m)	RBW (Hz)
37.738432533 M	36.67	15.431	-26.512	39.00	-2.33	262	1.19	120 k
48.496659812 M	38.36	8.451	-26.319	39.00	-0.64	269	2.26	120 k
48.891872695 M	35.25	8.332	-26.311	39.00	-3.75	277	2.27	120 k
56.359073792 M	37.51	7.072	-26.165	39.00	-1.49	164	2.09	120 k
399.032887976 M	27.60	15.681	-24.401	46.50	-18.90	49	1.18	120 k

Test Information

Test Details	User Input
Project:	Microwave Radio Comm. HDX1100C3
Test Notes:	Vertical
Tested by:	M.Houston
Test Started:	Apr 12 2011 10 : 37



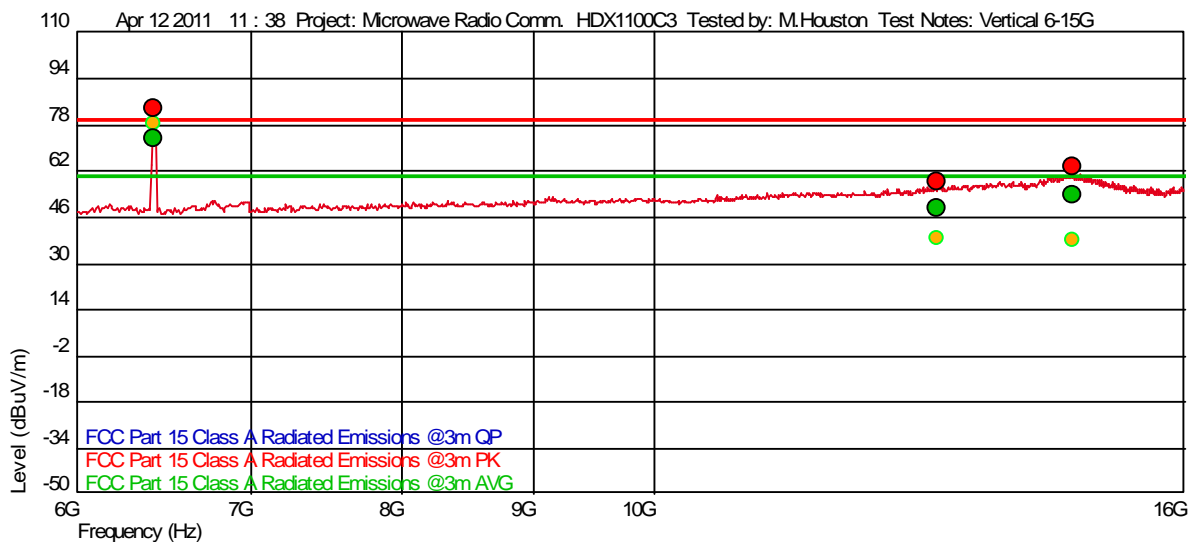
- Measured Peak Value
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 - Measured Average Value
 - Maximum Value of Mast and Turntable
- Level (dBuV/m) = AF + CL + PA + Raw
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- PA = Pre-Amplifier
- Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: AVERAGE

Frequency (Hz)	Level* (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Angle (Deg)	Mast Height (m)	RBW (Hz)
1.168524159 G	24.40	25.125	-29.978	60.00	-35.60	327	2.31	1 M
5.892669784 G	33.86	33.796	-25.546	60.00	-26.14	89	1.52	1 M

Test Information

Test Details	User Input
Project:	Microwave Radio Comm. HDX1100C3
Test Notes:	Vertical 6-15G
Tested by:	M.Houston
Test Started:	Apr 12 2011 11 : 38



- Measured Peak Value
 - Measured Quasi Peak Value
 - Measured Average Value
 - Maximum Value of Mast and Turntable
- Level (dBuV/m) = AF + CL + PA + Raw
 AF = Antenna Factor
 CL = Cable Losses
 PA = Pre-Amplifier
 Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: AVERAGE

Frequency (Hz)	Level* (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Angle (Deg)	Mast Height (m)	RBW (Hz)
6.430254732 G	73.41	34.190	-25.599	60.00	13.41	159	1.57	1 M
12.856824761 G	49.20	39.340	-19.840	60.00	-10.80	347	3.83	1 M
14.503944333 G	53.65	41.910	-17.817	60.00	-6.35	160	1.65	1 M