47 CFR §15.209 Radiated Emission Limits; General Requirements.

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Honeywell International,Inc.
6160 VPADT X Axis
Keypad with Prox Reader
intentional radiated
Tested By: MA Limit: FCC Part 15 Subpart C 15.209

Horizontal 30 - 200MHz

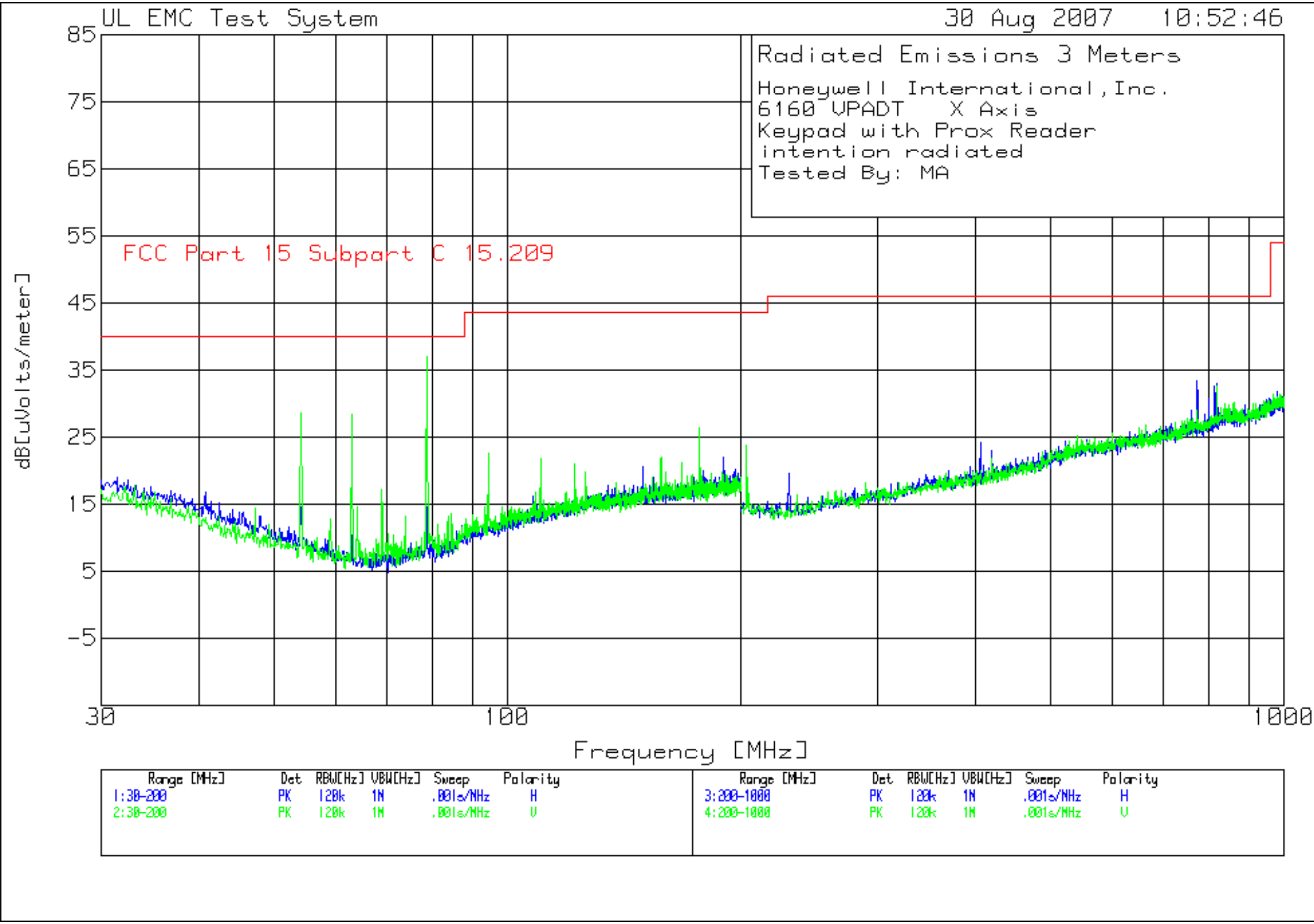
Test No.	Meter Frequency [MHz]	Gain/Loss Reading [dB(uV)]	Transducer Factor [dB]	Level Factor [dB]	dB [uVolts/ meter]	Limit				
4	773.1821	10.44 pk	1.4	21.5	33.34	46	Azimuth:299	Height:200 Horz	Margin [dB]	-12.66
5	820.6805	8.88 pk	1.6	22.4	32.88	46	Azimuth:299	Height:101 Horz	Margin [dB]	-13.12

Vertical 30 - 200MHz

1	78.7658	30.06 pk	-.1	7.1	37.06	40	Azimuth:183	Height:101 Vert	Margin [dB]	-2.94
2	63.002	22.53 pk	-.2	6.0	28.33	40	Azimuth:293	Height:101 Vert	Margin [dB]	-11.67
3	54.2695	20.52 pk	-.1	8.1	28.52	40	Azimuth:74	Height:101 Vert	Margin [dB]	-11.48
6	819.6131	7.93 pk	1.5	23.1	32.53	46	Azimuth:340	Height:200 Vert	Margin [dB]	-13.47

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector, qp - Quasi-Peak detector, av - Average detector,
avlg - denotes average log detection, ave - denotes average detection, tm - Trace Math Result


UL EMC Test System
30 Aug 2007 10:52:46
Radiated Emissions 3 Meters
Honeywell International,Inc.
6160 VPADT X Axis
Keypad with Prox Reader
intention radiated
Tested By: MA
FCC Part 15 Subpart C 15.209
dB[uVolts/meter]
85
75
65
55
45
35
25
15
5
-5
30
100
1000
Frequency [MHz]
Range [MHz] Det RBW[Hz] VBW[Hz] Sweep Polarity
1:30-200 PK 120k 1M .001s/MHz H
2:30-200 PK 120k 1M .001s/MHz V
Range [MHz] Det RBW[Hz] VBW[Hz] Sweep Polarity
3:200-1000 PK 120k 1M .001s/MHz H
4:200-1000 PK 120k 1M .001s/MHz V

FCC Part 15.225 Operation within the band 13.110-14.010 MHz.
IC RSS 210 A2.6 Operation within the band 13.110-14.010 MHz

NOTE: RSS 210.A2.6 and Part 15.225(a) are now harmonized:

"The field strength of any emission shall not exceed the following limits:"

" The field strength of any emission shall not exceed the following limits: "

15.848 millivolts/meter at 30 m < THIS IS THE SAME VALUE > 15,848 microvolts/meter at 30 m

In accordance with 15.31, a correction of 40 db per decade of distance must be applied to the 15.225(a) readings for use on a 3 Meter Site:

Correction Factor = 40 log (distance 1/ distance 2) = 40 log (30/3) = 40 dB

Correction Factor = 10^(40 dB/20) = 100 X

3 Meter limit = 15,848 microvolts/meter X 100 = 1,584,800. uV/M = 1,584.8 mV/M

The center of the UUT & sense loop antenna must remain at a constant 1 meter height during the test.

Transmit Frequency:	13.5603 MHz	2ed Harmonic Frequency:	27.1206 MHz
CABLE "A"& "B", Cable/Amp Factor (dB):	1.2db	CABLE "A"& "B", Cable/Amp Factor (dB):	1.3db
Antenna Factor (dB):	36.15	Antenna Factor (dB):	26.00
	WORST READINGS:		
Unit Position:	OBLQ	Unit Position:	OBLQ
Loop Position:	0 deg	Loop Position:	0 DEG
Reading (mV/M):	1.7	Reading (dB uV):	38
LIMIT:	1,584.80	LIMIT:	40

[(Meter reading + Cable/Amp factor + Antenna factor) / 20)]

Conv. Reading = 10

Observed Freq:	Unit Position:	Loop Position:	DBuV: S/A Reading:	db: Cable Loss:	db: AF:	mV/M: FS:	mV/M: LIMIT:
13.5603 MHz	HORS	0 DEG	20.49	1.2	36.15	0.8	1,584.8
13.5603 MHz	VERT	0 DEG	26.29	1.2	36.15	1.5	1,584.8
13.5603 MHz	OBLQ	0 DEG	27.39	1.2	36.15	1.7	1,584.8
13.5603 MHz	HORS	90 DEG	21.19	1.2	36.15	0.8	1,584.8
13.5603 MHz	VERT	90 DEG	24.59	1.2	36.15	1.3	1,584.8
13.5603 MHz	OBLQ	90 DEG	22.89	1.2	36.15	1.0	1,584.8
13.5603 MHz	HORS	45 DEG	20.61	1.2	36.15	0.8	1,584.8
13.5603 MHz	VERT	45 DEG	22.59	1.2	36.15	1.0	1,584.8
13.5603 MHz	OBLQ	30 DEG	24.99	1.2	36.15	1.3	1,584.8