

APPENDIX H GRAPHS

CONDUCTED EMI

Graph 1:	0.15 MHz - 30 MHz	Active Line
Graph 2:	0.15 MHz - 30 MHz	Neutral Line

RADIATED EMI

Graph 3:	100 kHz – 150 kHz	10m Measurement
Graph 4:	30 MHz – 1000 MHz	Vertical Polarisation
Graph 5:	30 MHz – 1000 MHz	Horizontal Polarisation

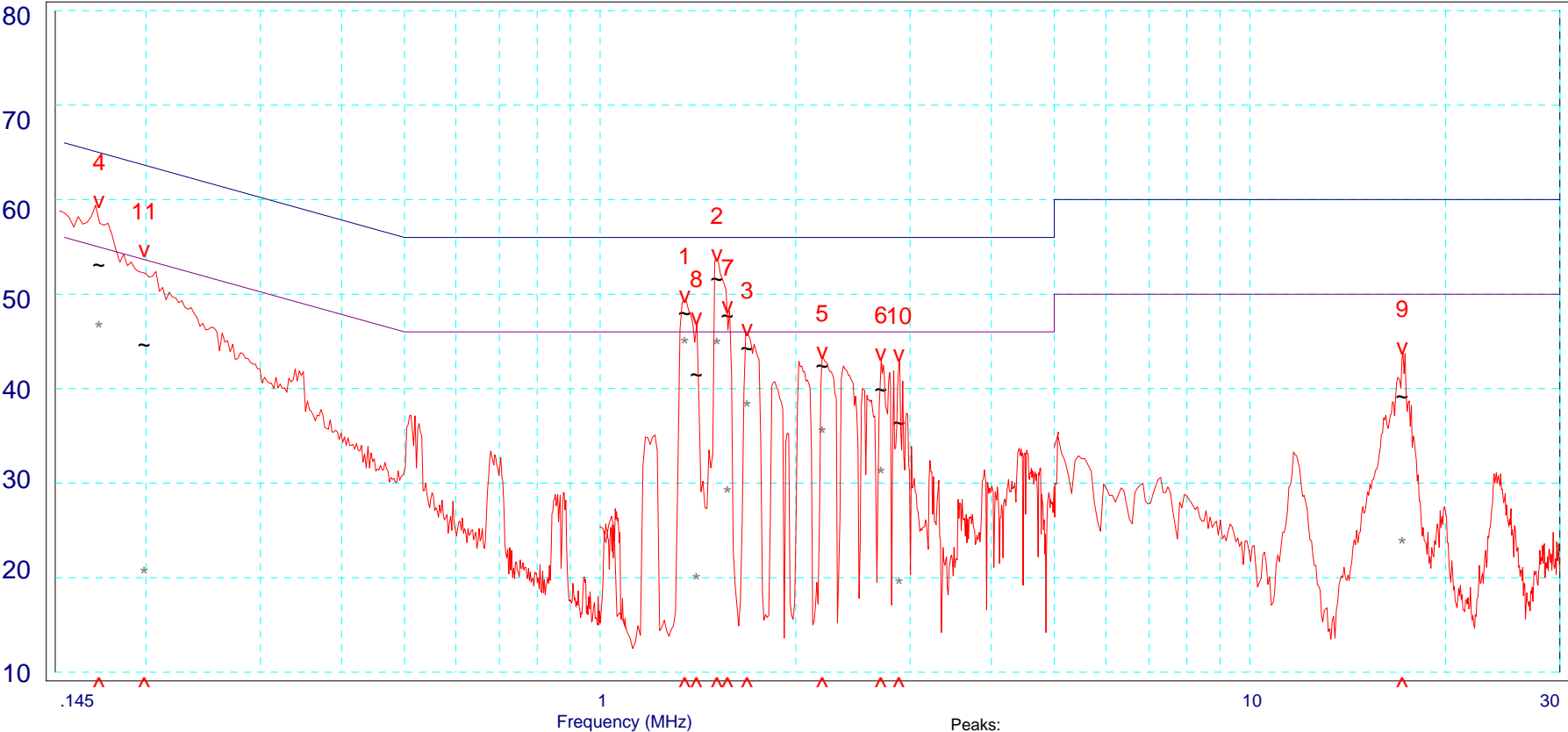
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Conducted Emissions (dBuV)

Job No:m130107 p:\PCF\m130107_1.PCF

Test Date: 01/02/2013

GRAPH No. 1



Aleis
FFNB Series RFID Reader

Active line

Limits:
FCC_BQPN FCC PART 15 CLASS B CONDUCTED QP LIMITS (2002)
FCC_BAVN FCC PART 15 CLASS B CONDUCTED AVERAGE LIMIT (2002)

Legend:
— Active Line

Ver 5.5 Build 160
room 2 cond emissions MAINS
Pnts:400 t:L0220914 c1:C3990313 c2:C4320613 p:NONE a:L0180813
Site ID: Room#2,176 Harrick Rd, Keilor Park,Vic
Test Officer:Chieu Huynh 02-01-2013 14:40:00

Source:
M13010706, 18, 20

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Phone+(613) 9365 1000 Fax+(613) 9331 7455

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCC_BQPN (dBuV)	dL1 (dB)	Av Val (dBuV)	FCC_BAVN (dBuV)	dL2 (dB)
1	1.350	49.4	47.5	56.0	-8.5	43.9	46.0	-2.1
2	1.513	53.7	51.2	56.0	-4.8	43.8	46.0	-2.2
3	1.683	45.8	43.8	56.0	-12.2	37.2	46.0	-8.8
4	0.169	59.3	52.6	65.0	-12.4	45.6	55.0	-9.4
5	2.197	43.3	41.9	56.0	-14.1	34.5	46.0	-11.5
6	2.704	43.2	39.4	56.0	-16.6	30.2	46.0	-15.8
7	1.571	48.2	47.3	56.0	-8.7	28.1	46.0	-17.9
8	1.406	47.0	41.1	56.0	-14.9	18.9	46.0	-27.1
9	17.16	43.8	38.7	60.0	-21.3	22.7	50.0	-27.3
10	2.884	43.1	36.0	56.0	-20.0	18.5	46.0	-27.5
11	0.199	54.2	44.2	63.7	-19.5	19.6	53.7	-34.1

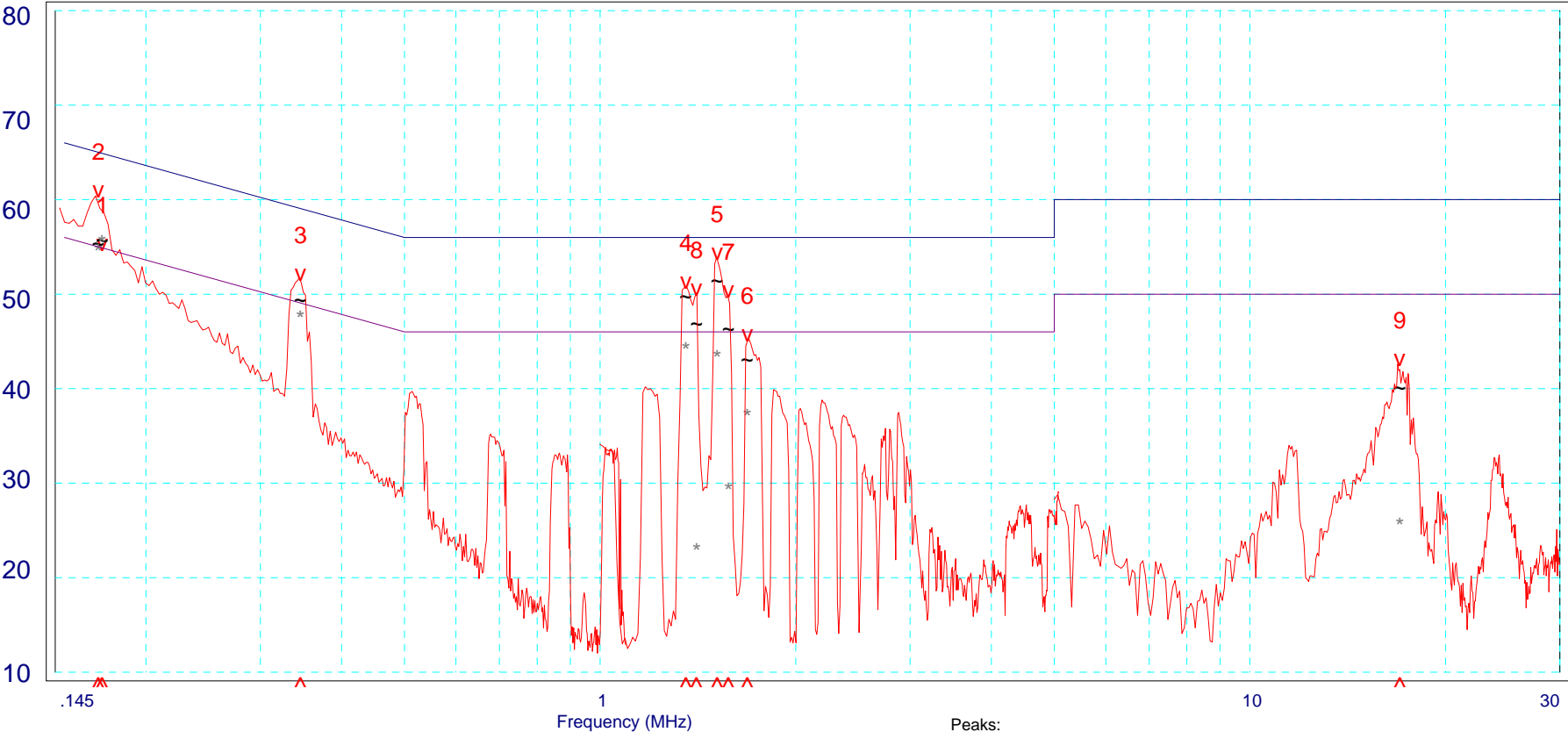
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Conducted Emissions (dBuV)

Job No:m130107 p:\PCF\m130107_2.PCF

Test Date: 01/02/2013

GRAPH No. 2



Aleis
FFNB Series RFID Reader

Neutral line

Limits:
FCC_BQPN FCC PART 15 CLASS B CONDUCTED QP LIMITS (2002)
FCC_BAVN FCC PART 15 CLASS B CONDUCTED AVERAGE LIMIT (2002)

Legend:
— Neutral Line

Ver 5.5 Build 160
room 2 cond emissions MAINS
Pnts:400 t:L0220914 c1:C3990313 c2:C4320613 p:NONE a:L0180813
Site ID: Room#2,176 Harrick Rd, Keilor Park,Vic
Test Officer:Chieu Huynh 02-01-2013 14:41:13

Source:
M13010701, 12, 14

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Aleis

FFNB Series RFID Reader

Perpendicular

Limits:

Legend:

— EUT on

Ver 5.5 Build 160

10m setup for Room 12 ALSE

Pnts:400 t:A3101115E c1:C4220113 c2:C4370213 p:NONE a:NONE

Site ID: Room#12(iOATS),176 Harrick Rd, Keilor Park,Vic

Test Officer:Chieu Huynh02-01-2013 14:41:52

Source:

M130107R9 ,20 ,15 ,43 ,40 ,41

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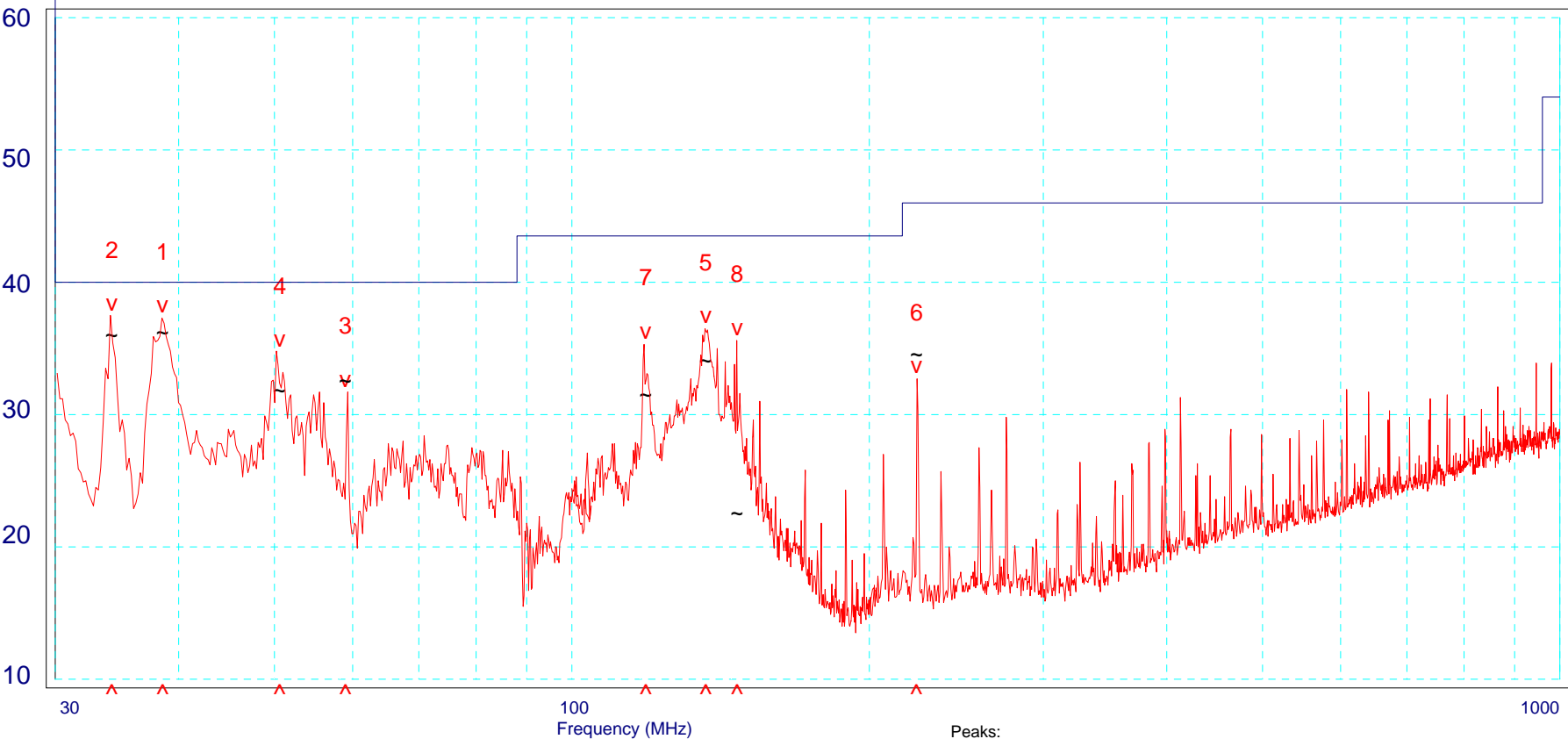
No	Freq (MHz)	Peak (dBuV/m)	QP Val	(dBuV/m)	dL1 (dB)
1	0.134	108.3	107.5	.0	107.5

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Radiated Emissions (dBuV/m)
= Ambient

Job No:m130107 p:\PCF\m130107_4.PCF
Test Date: 14/01/2013

GRAPH No. 4



Aleis
FFNB Series RFID Reader

Radiated Emissions - Vertical Polarisation

Limits:
FCC15209 FCC PART 15.209 3mtr LMTS

Legend:
— Vertical Emissions

Ver 5.5 Build 160
3m setup for Room 12 radiated
Pnts:400 t:A3630213 c1:C4210113 c2:C4370213 p:NONE a:NONE
Site ID: Room#12(iOATS),176 Harrick Rd, Keilor Park,Vic
Test Officer:Chieu Huynh 02-01-2013 14:42:32

EMC Technologies (Melbourne) 176 Harrick Rd, Keilor Park, 3042, Vic, Australia
Phone+(613) 9365 1000 Fax+(613) 9331 7455

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	QP Val	FCC15209 (dBuV/m)	dL1 (dB)
1	38.53	37.3	35.3	40.0	-4.7
2	34.23	37.4	35.1	40.0	-4.9
3	58.99	31.7	31.7	40.0	-8.3
4	50.61	34.7	31.0	40.0	-9.0
5	136.65	36.5	33.2	43.5	-10.3
6	223.31	32.7	33.6	46.0	-12.4
7	118.78	35.3	30.6	43.5	-12.9
8	147.01	35.6	21.7	43.5	-21.8

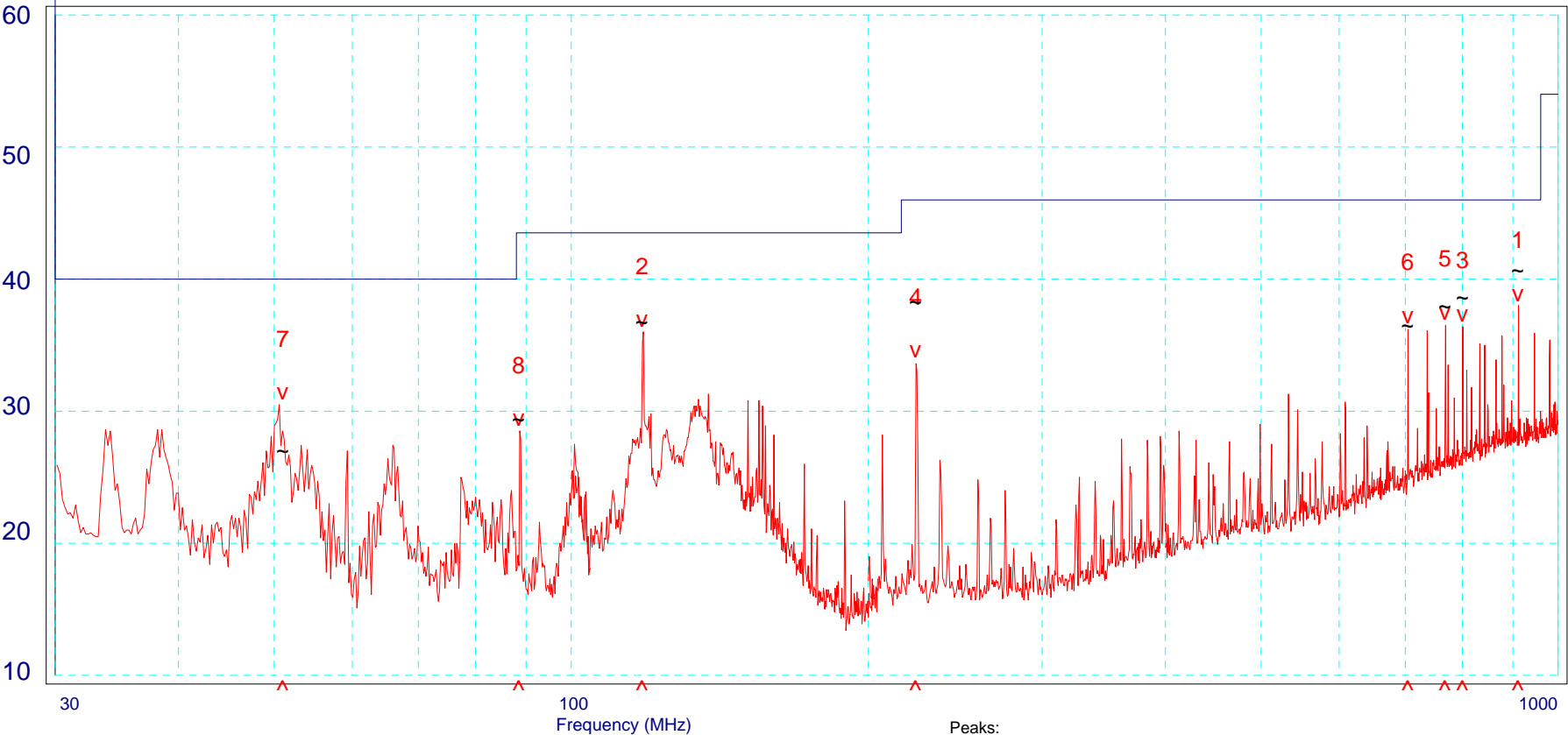
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Radiated Emissions (dBuV/m)
= Ambient

Job No:m130107 p:\PCF\m130107_5.PCF

Test Date: 14/01/2013

GRAPH No. 5



Aleis
FFNB Series RFID Reader

Radiated Emissions - Horizontal Polarisation

Limits:
FCC15209 FCC PART 15.209 3mtr LMTS

Legend:
— Horizontal Emissions

Ver 5.5 Build 160
3m setup for Room 12 radiated
Pnts:400 t:A3630213 c1:C4210113 c2:C4370213 p:NONE a:NONE
Site ID: Room#12(iOATS),176 Harrick Rd, Keilor Park,Vic
Test Officer:Chieu Huynh 02-01-2013 14:43:12

Source:
M130107 27, 28, 29, 30, 31

EMC Technologies (Melbourne) 176 Harrick Rd, Keilor Park, 3042, Vic, Australia
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No	Freq (MHz)	Peak (dBuV/m)	QP Val	FCC15209 (dBuV/m)	dL1 (dB)
1	910.41	37.9	39.7	46.0	-6.3
2	117.96	36.0	35.9	43.5	-7.6
3	800.00	36.4	37.7	46.0	-8.3
4	223.31	33.6	37.4	46.0	-8.6
5	768.00	36.5	37.0	46.0	-9.0
6	703.99	36.3	35.6	46.0	-10.4
7	51.02	30.5	26.1	40.0	-13.9
8	88.47	28.5	28.5	43.5	-15.0