

EMC Technologies Report Number: M040612_Cert_Immobilizer_Rx

APPENDIX H – GRAPHS OF EMI MEASUREMENT



EMC Technologies Pty. Ltd. - Global Product Certification

Radiated Emissions (dBuV/m)

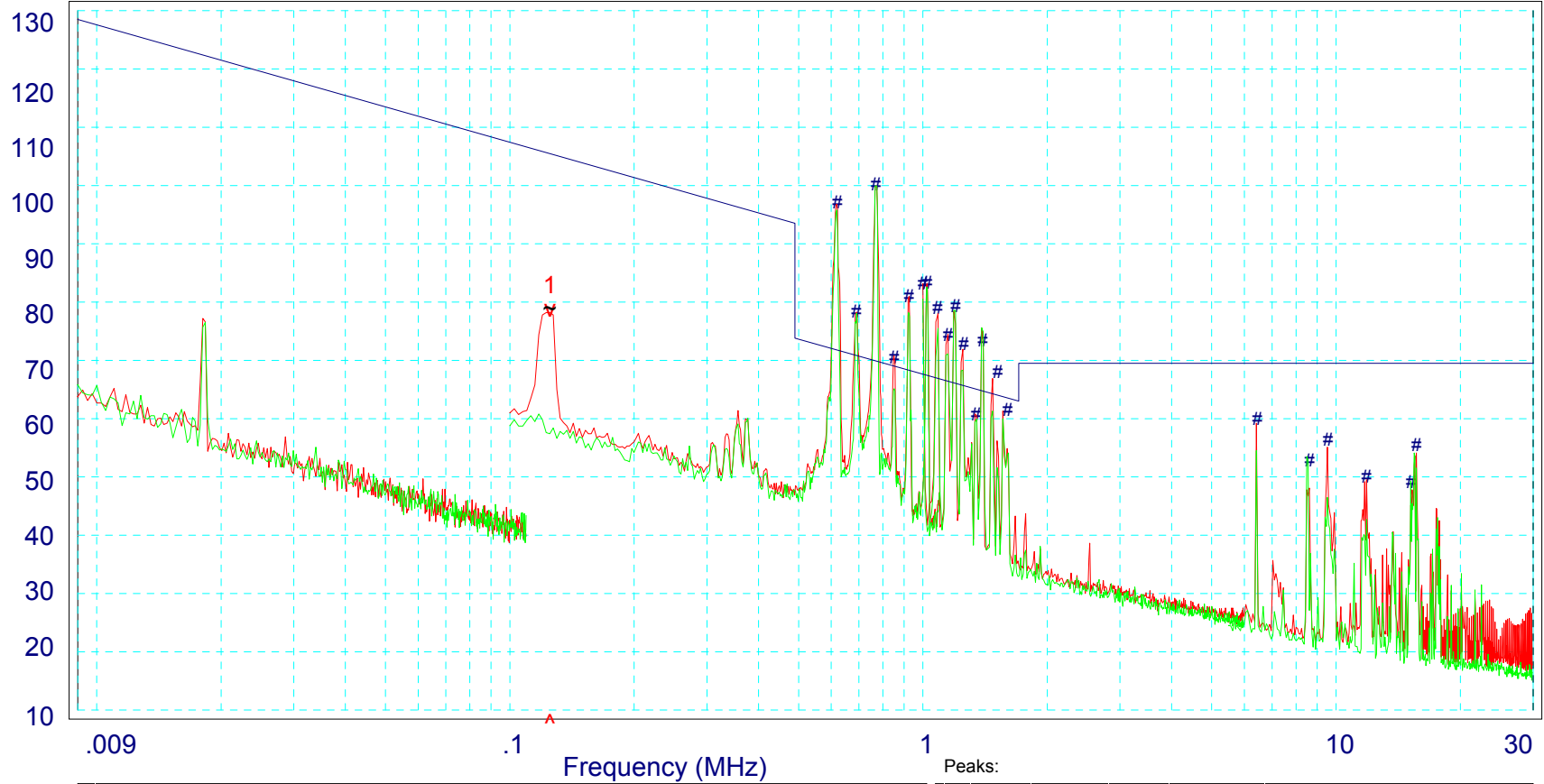
Job No:m040612

r:\PCF\m040612i_1.PCF

Test Date: 16-06-04

GRAPH No. 1

= Ambient



Robert Bosch (Australia) Pty Ltd
 HYUNDAI - 125kHz Immobiliser
 Antenna Parallel

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC15209 (dBuV/m)	dL1 (dB)
1	0.125	79.3	79.3	105.5	-26.2

Limits: FCC15209 FCC PART 15.209 3mtr LMTS
 Legend: Ambients (green line), Emissions (red line)
 Source: m040612r 5 6 7 8, m040612r 12 9 10 11
 Ver 5.5 Build 93
 setup for low frequency electric field loop test.
 t:A1530704E c1:C1310105 c2:NONE p:NONE a:
 Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
 Test Officer:Chieu Huynh

Melbourne- 57 Assembly Drv Tullamarine, 3043, Vic, Australia Ph+(613) 9335 3333 Fax+(613) 9338 9260
 Sydney----- 16,6 Gladstone Rd Castle Hill, 2154, NSW, Australia Ph+(612) 9899 4599 Fax+(612) 9899 4019

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Radiated Emissions (dBuV/m)

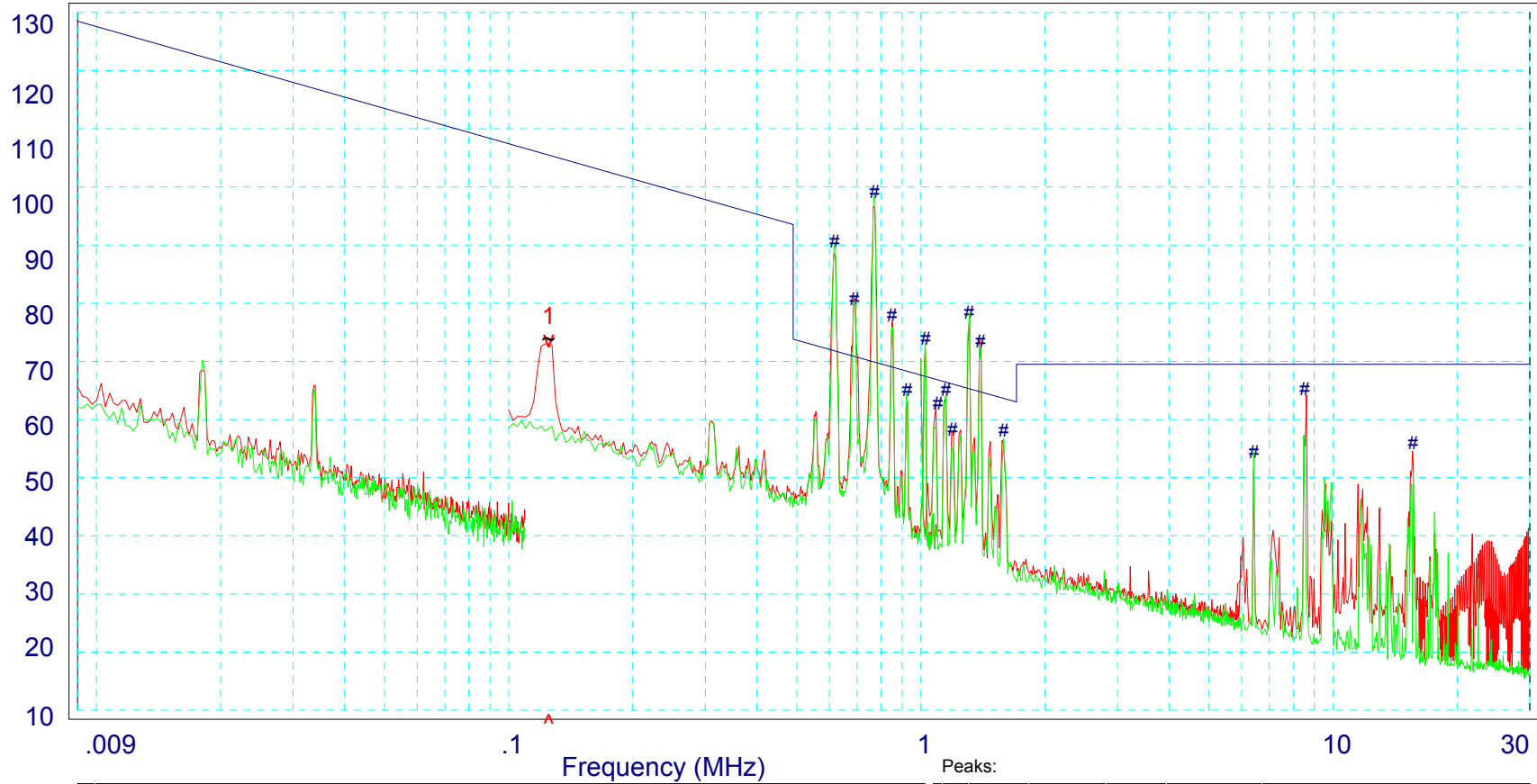
Job No:m040612

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Test Date: 16-06-04

GRAPH No. 2

= Ambient



Robert Bosch (Australia) Pty Ltd
 HYUNDAI - 125kHz Immobiliser
 Antenna Perpendicular

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC15209 (dBuV/m)	dL1 (dB)
1	0.125	74.1	74.1	105.5	-31.4

Limits: FCC15209 FCC PART 15.209 3mtr LMTS
 Legend: — Ambients — Emissions
 Source: m040612r 1 2 3 4
 m040612r 13 14 15 16
 Ver 5.5 Build 93
 setup for low frequency electric field loop test.
 t:A1530704E c1:C1310105 c2:NONE p:NONE a:
 Site ID: OATS1,Lerderberg Gorge Rd, Bacchus Marsh, VIC
 Test Officer:Chieu Huynh

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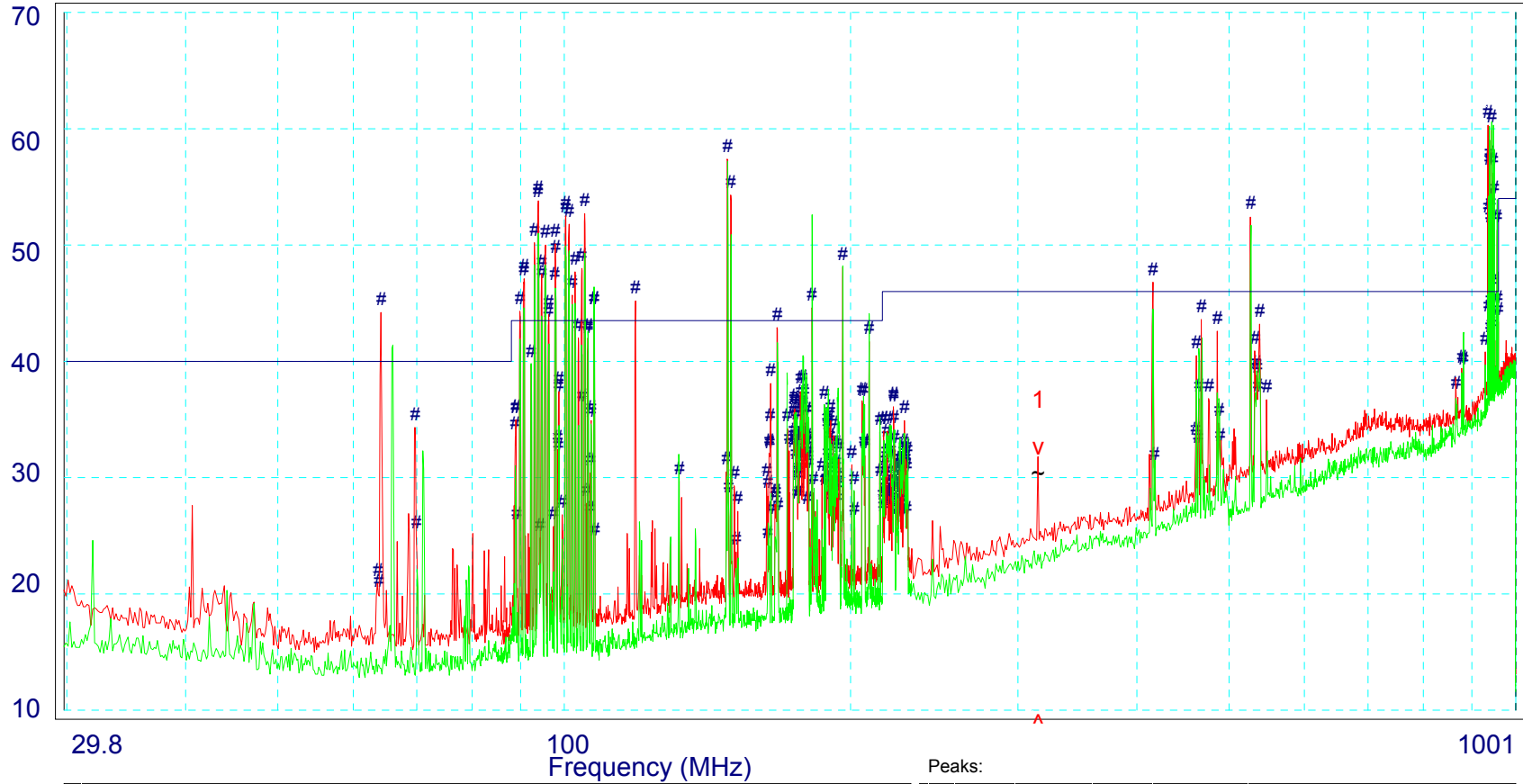
EMC Technologies Pty. Ltd. - Global Product Certification

Radiated Emissions (dBuV/m)
= Ambient

Job No:m040612 r:\PCF\m040612r_1.PCF

Test Date: 16-07-04

GRAPH No. 1



Robert Bosch (Australia) Pty Ltd
HYUNDAI - Receiver

Radiated Emissions - Vertical Polarity

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC-B3 (dBuV/m)	dL1 (dB)
1	315.08	31.8	29.5	46.0	-16.5

Limits: FCC-B3 FCC CLASS B RAD 3M LIMITS

Legend: Vertical Emissions

Source: 040612r2 29 25 26 27 28 22 23 24

Ver 5.5 Build 93
radiated emissions site 1 lerderberg
t:A1370704_10M c1:C1310105 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderberg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

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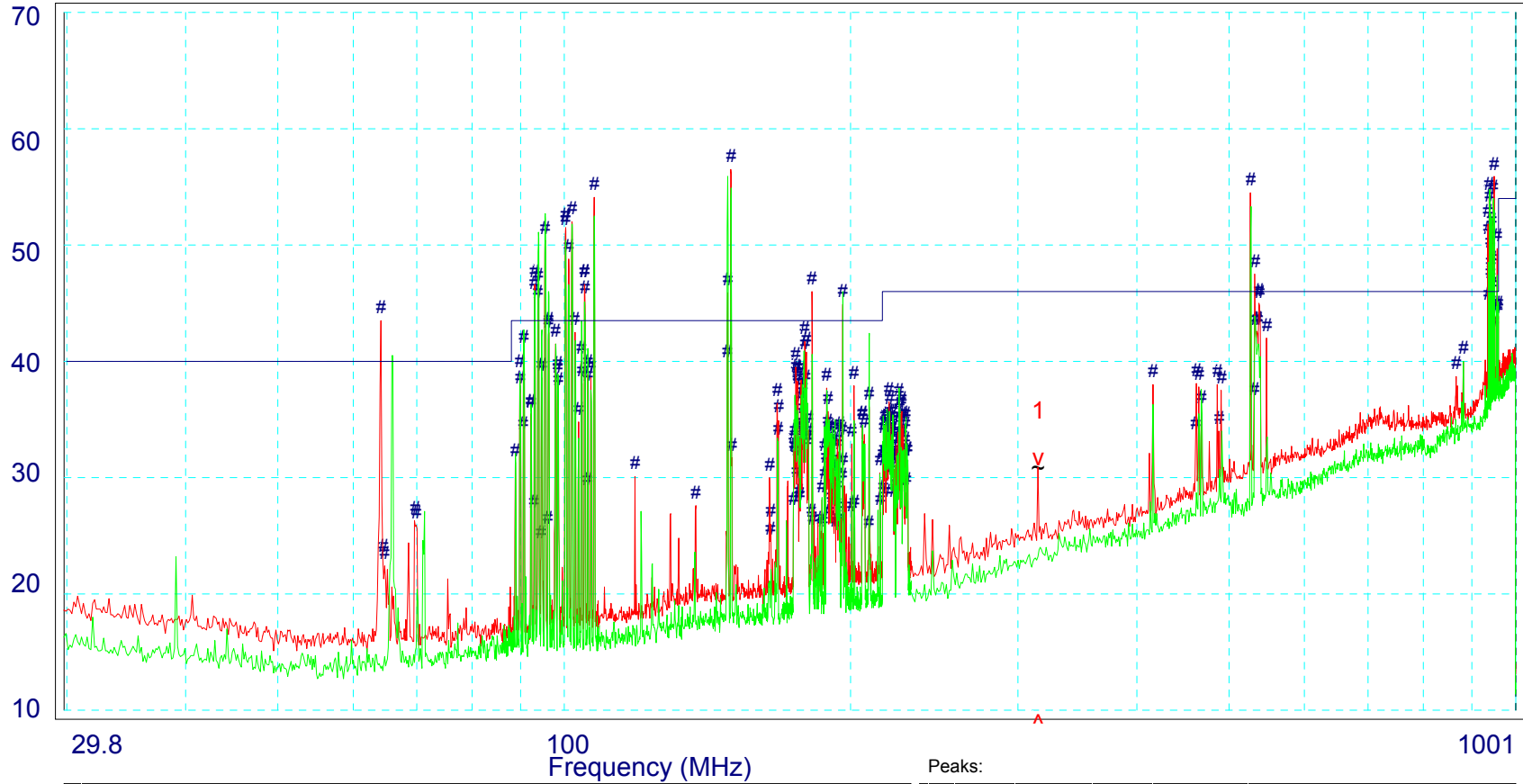
Radiated Emissions (dBuV/m)
= Ambient

Job No:m040612

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Test Date: 16-07-04

GRAPH No. 2



Robert Bosch (Australia) Pty Ltd
HYUNDAI - Receiver

Radiated Emissions - Horizontal Polarity

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC-B3 (dBuV/m)	dL1 (dB)
1	315.01	30.9	30.0	46.0	-16.1

Limits: FCC-B3 FCC CLASS B RAD 3M LIMITS

Legend: — Horizontal Emissions

Ver 5.5 Build 93
radiated emissions site 1 lerderderg
t:A1370704_10M c1:C1310105 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Source: 040612r2 30 31 32 33 34 18 20 21

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Sydney----- 16,6 Gladstone Rd Castle Hill, 2154, NSW, Australia Ph+(612) 9899 4599 Fax+(612) 9899 4019