

EMC TECHNOLOGIES REPORT NUMBER: M021022_CERTIFICATION

APPENDIX H: MEASUREMENT GRAPHS

NB: The limits on these graphs do not consider the duty cycle of the transmitter

EMC Technologies Pty. Ltd. - Global Product Certification

FCC 15.231

Radiated Emissions (dBuV/m)

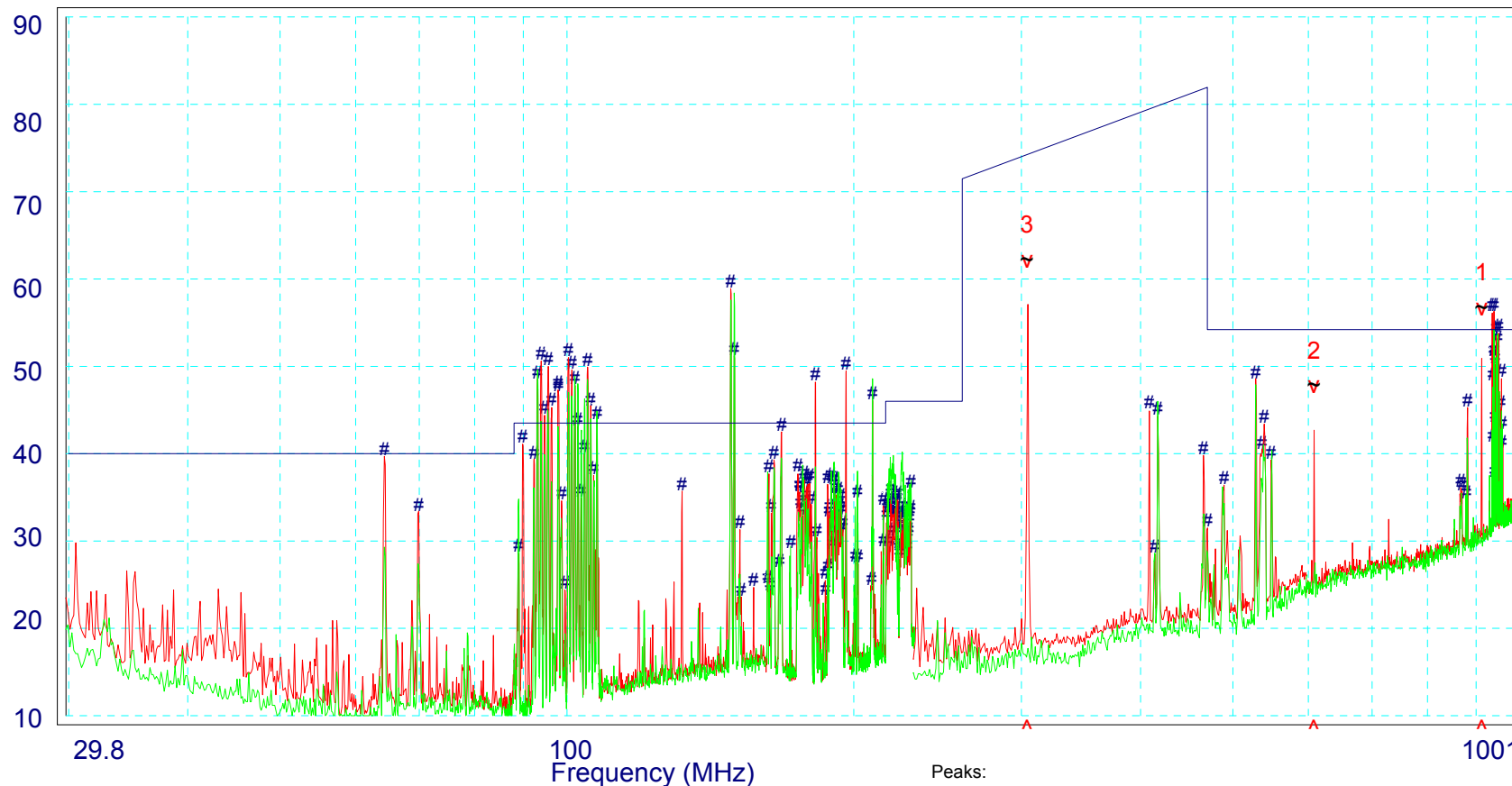
= Ambient

Job No:m021022

r:\PCF\m021022_1.PCF

Test Date: 29-11-02

GRAPH No. 1



Australian Arrow Pty Ltd
RFID Device
Sample # 21
Radiated Emissions - Vertical Polarity

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC231TX3L1 (dBuV/m)	3L1 (dB)
1	912.01	56.3	56.3	54.2	2.1
2	608.01	47.4	47.4	54.2	-6.8
3	304.00	61.8	61.8	74.2	-12.4

Limits:
FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:
_ Vertical Emissions

Ver 5.5 Build 84
radiated emissions site 1 lerderg
t:A1370703_10M c1:C1310103 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Source:
m021022r 69 70 71 72 73 41 42 39

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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FCC 15.231

Radiated Emissions (dBuV/m)

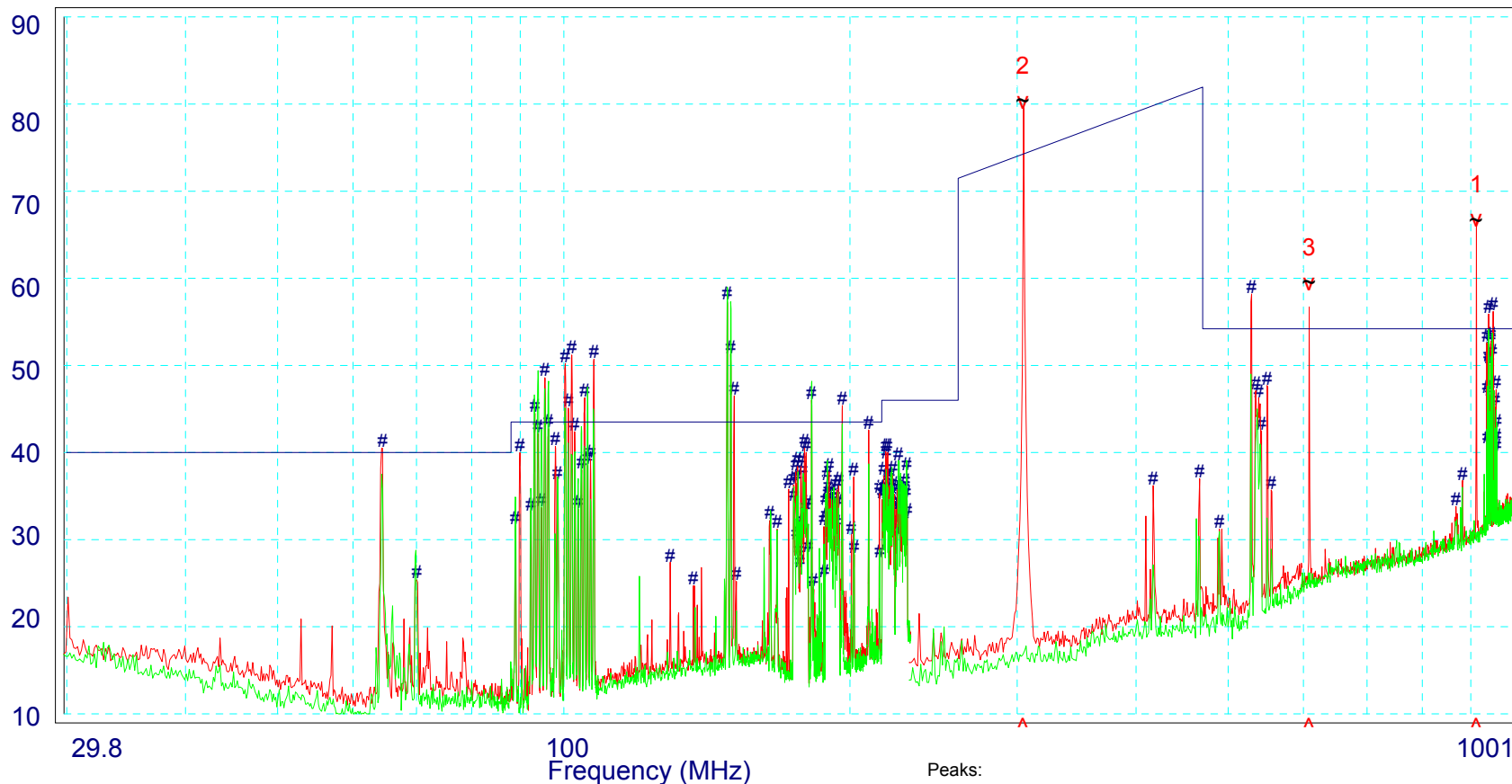
= Ambient

Job No:m021022

r:\PCF\m021022_2.PCF

Test Date: 29-11-02

GRAPH No. 2



Australian Arrow Pty Ltd

RFID Device

Sample # 21

Radiated Emissions - Horizontal Polarity

Limits:

FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:

— Horizontal Emissions

Ver 5.5 Build 84

radiated emissions site 1 lerderg

t:A1370703_10M c1:C1310103 c2:NONE p:NONE a:NONE

Site ID: OATS1,Lerderg Gorge Rd, Bacchus Marsh, VIC

Test Officer:Chieu Huynh

Source:

m021022r 74 75 76 77 78 30 31 40

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC231TX3L1 (dBuV/m)	L1 (dB)
1	911.96	66.4	66.2	54.2	12.0
2	303.98	79.9	79.9	74.2	5.7
3	607.97	59.1	59.1	54.2	4.9

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

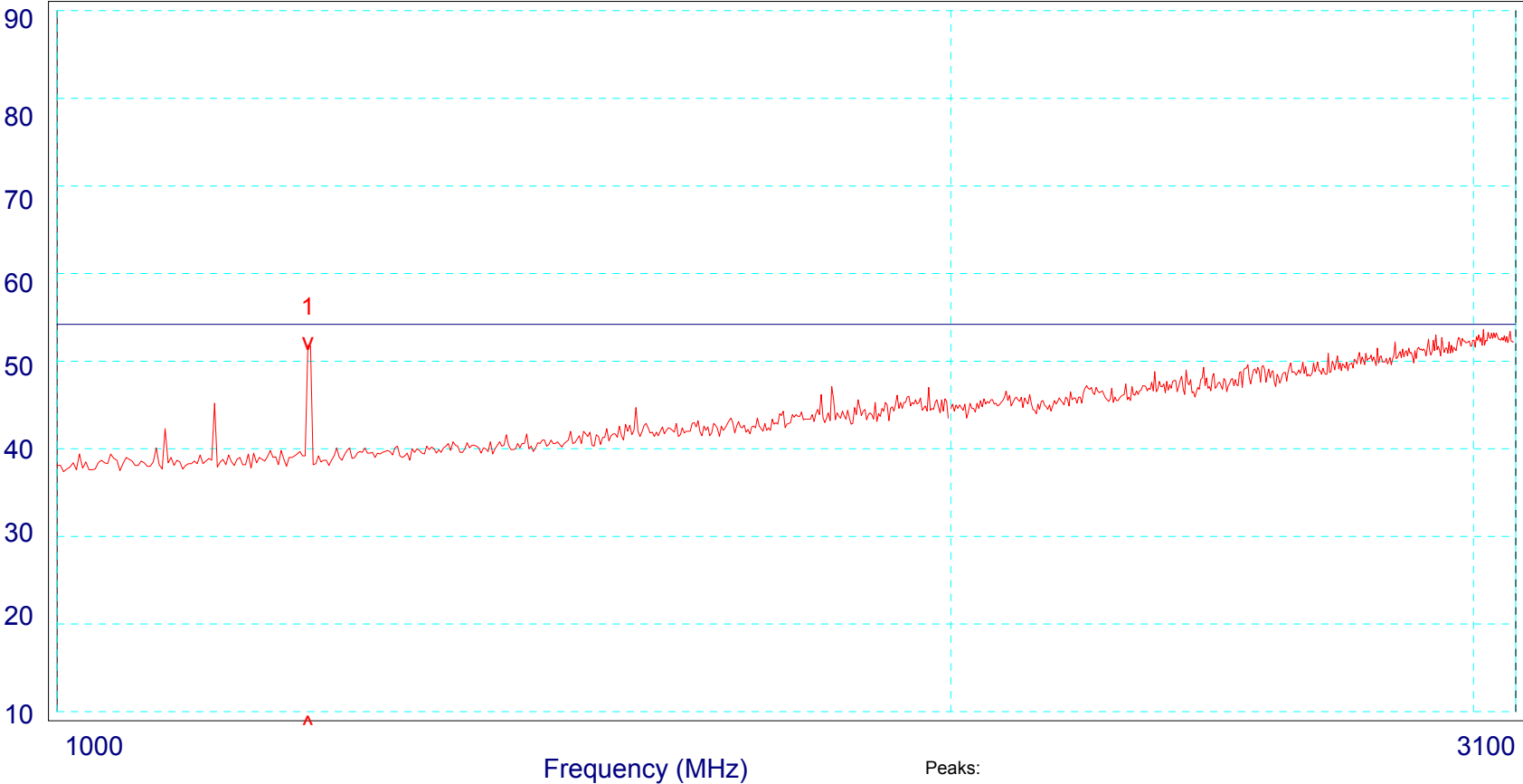
EMC Technologies Pty. Ltd. - Global Product Certification

FCC 15.231
Radiated Emissions (dBuV/m)
= Ambient

Job No:m021022 r:\PCF\m021022_3.PCF

Test Date: 29-11-02

GRAPH No. 3



Australian Arrow Pty Ltd
RFID Device
Sample # 21
Radiated Emissions - Vertical Polarity

Limits: FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs
Legend: Vertical Emissions
Ver 5.5 Build 84
radiated emissions site 1 lerderderg 1-5G without preamp
t:A0040103 c1:C1310103 c2:NONE p:NONE a:NONE
Source: m021022r 61 62
Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Peaks:			
No	Freq (MHz)	Peak (dBuV/m)	FCC231TX3L1 (dBuV/m) (dB)
1	1214.68	54.2	-2.4

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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FCC 15.231

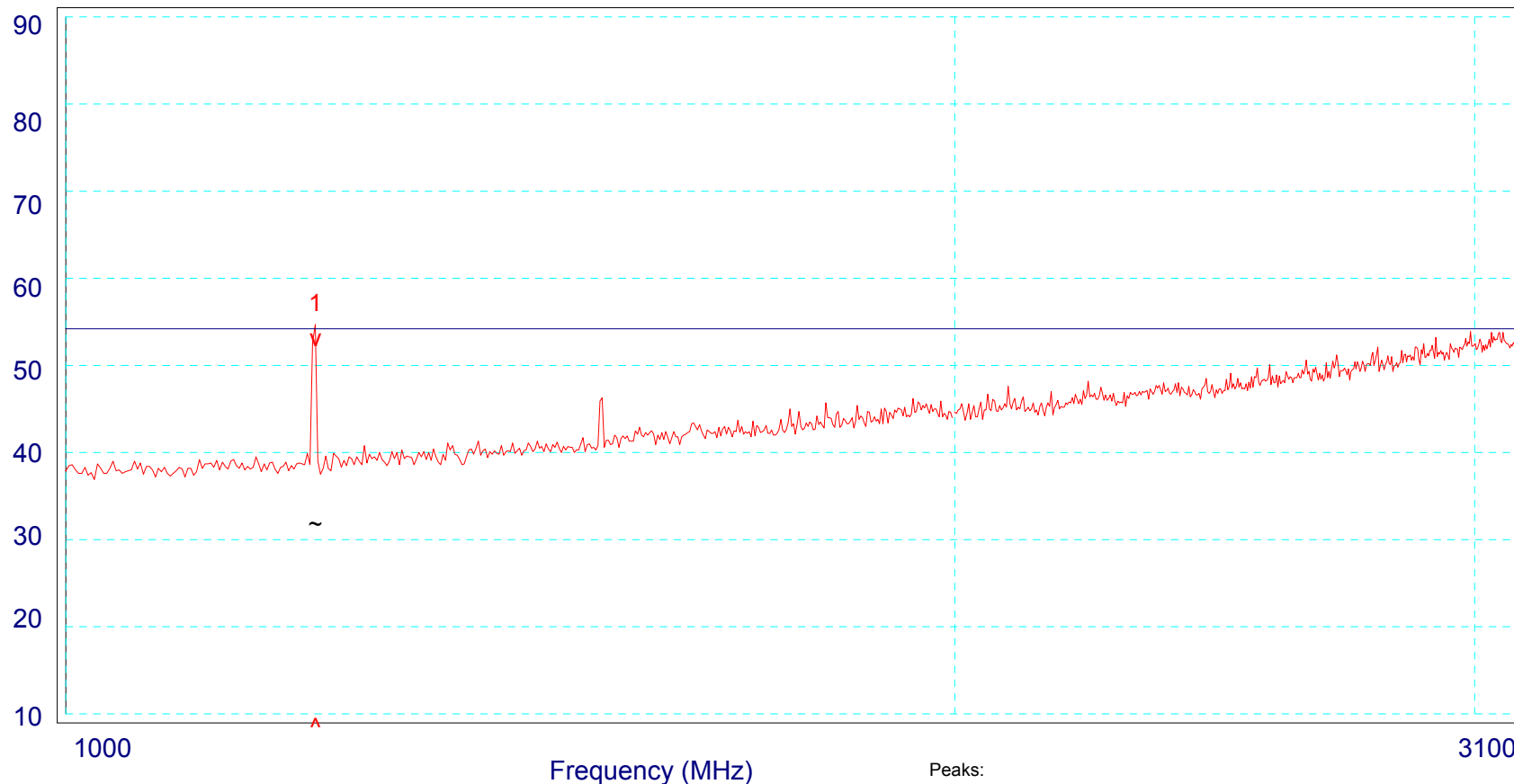
Radiated Emissions (dBuV/m)

= Ambient

Job No:m021022 r:\PCF\m021022_4.PCF

Test Date: 29-11-02

GRAPH No. 4



Australian Arrow Pty Ltd

RFID Device

Sample # 21

Radiated Emissions - Horizontal Polarity

Limits:

FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:

Horizontal Emissions

Ver 5.5 Build 84

radiated emissions site 1 lerderderg 1-5G without preamp

t:A0040103 c1:C1310103 c2:NONE p:NONE a:NONE

Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC

Test Officer:Chieu Huynh

Source:

m021022r 58 52

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	FCC231TX3L1 (dBuV/m) (dB)
1	1215.00527	54.2	-1.5

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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FCC 15.231

Radiated Emissions (dBuV/m)

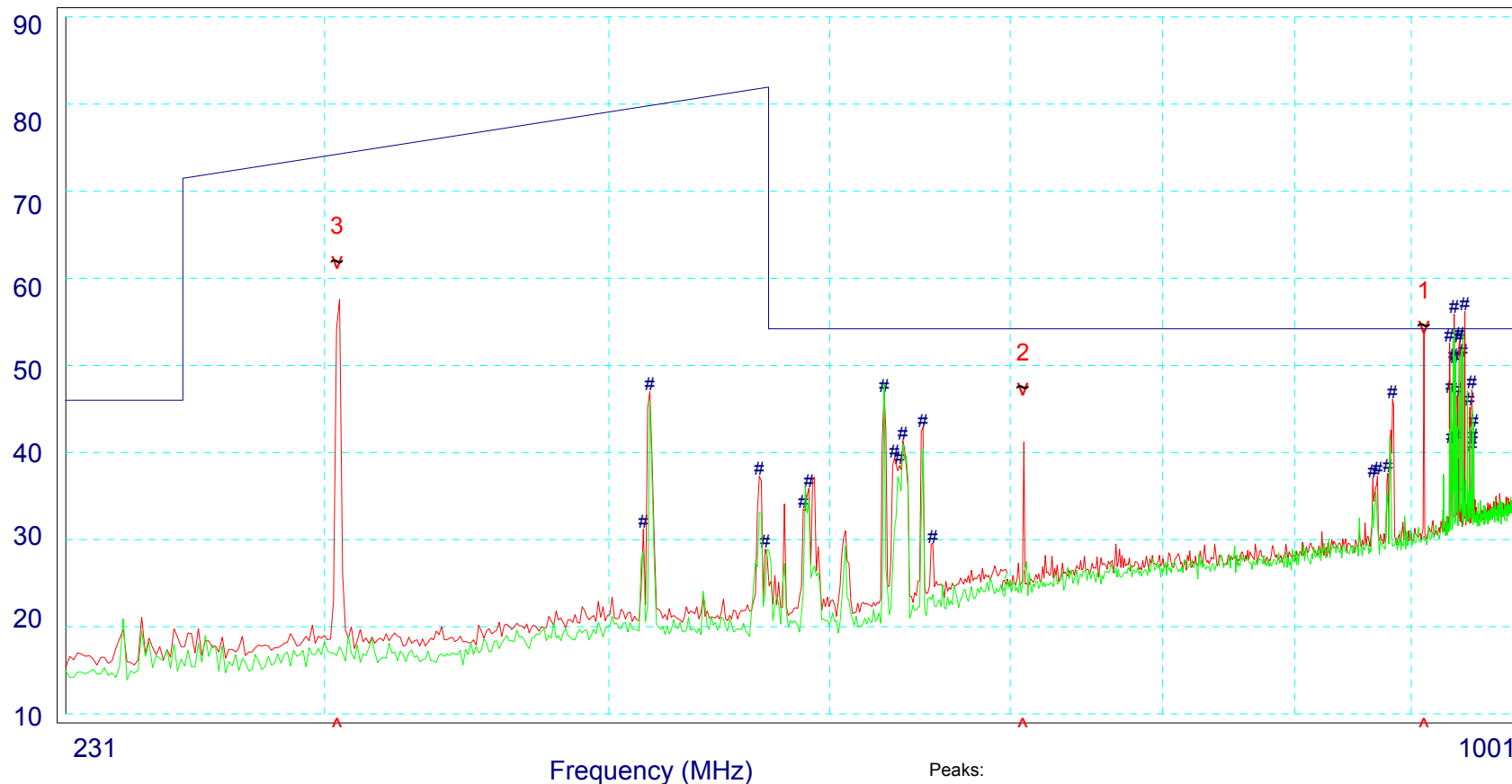
= Ambient

Job No:m021022

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Test Date: 29-11-02

GRAPH No. 5



Australian Arrow Pty Ltd
RFID Device
Sample # 22
Radiated Emissions - Vertical Polarity

Limits:
FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:
_ Vertical Emissions

Ver 5.5 Build 84
radiated emissions site 1 lerderg
t:A1370703_10M c1:C1310103 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Source:
m021022r 44 45 40

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC231TX3L1 (dBuV/m)	L1 (dB)
1	911.58	54.1	54.1	54.2	-1
2	607.73	47.0	47.0	54.2	-7.2
3	303.84	61.5	61.5	74.2	-12.7

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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FCC 15.231

Radiated Emissions (dBuV/m)

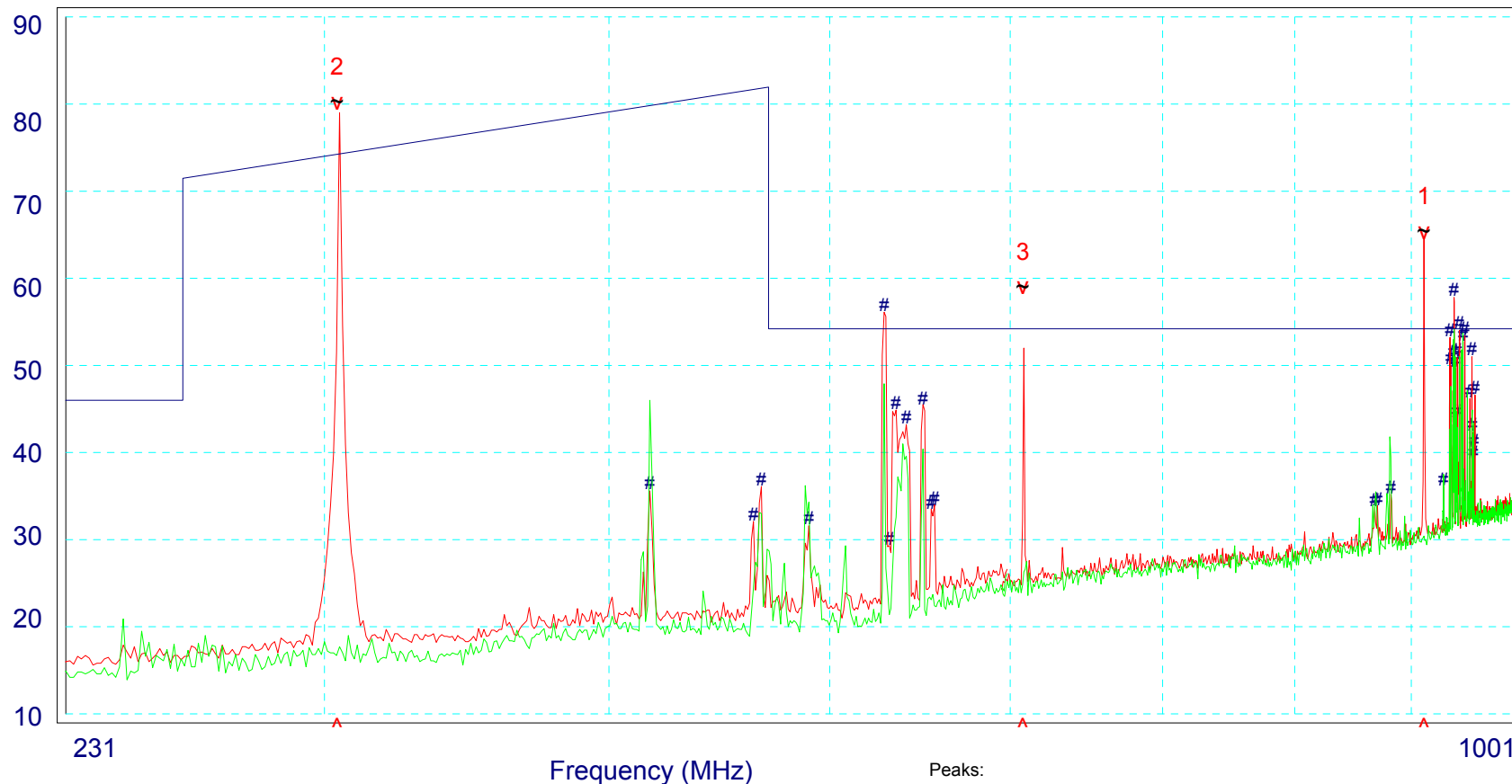
= Ambient

Job No:m021022

r:\PCF\m021022_6.PCF

Test Date: 29-11-02

GRAPH No. 6



Australian Arrow Pty Ltd

RFID Device

Sample # 22

Radiated Emissions - Horizontal Polarity

Limits:

FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:

Horizontal Emissions

Ver 5.5 Build 84

radiated emissions site 1 lerderg

t:A1370703_10M c1:C1310103 c2:NONE p:NONE a:NONE

Site ID: OATS1,Lerderg Gorge Rd, Bacchus Marsh, VIC

Test Officer:Chieu Huynh

Source:

m021022r 33 34 47

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC231TX3L1 (dBuV/m)	3L1 (dB)
1	911.55	65.0	65.0	54.2	10.8
2	303.84	79.9	79.8	74.2	5.6
3	607.70	58.6	58.6	54.2	4.4

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

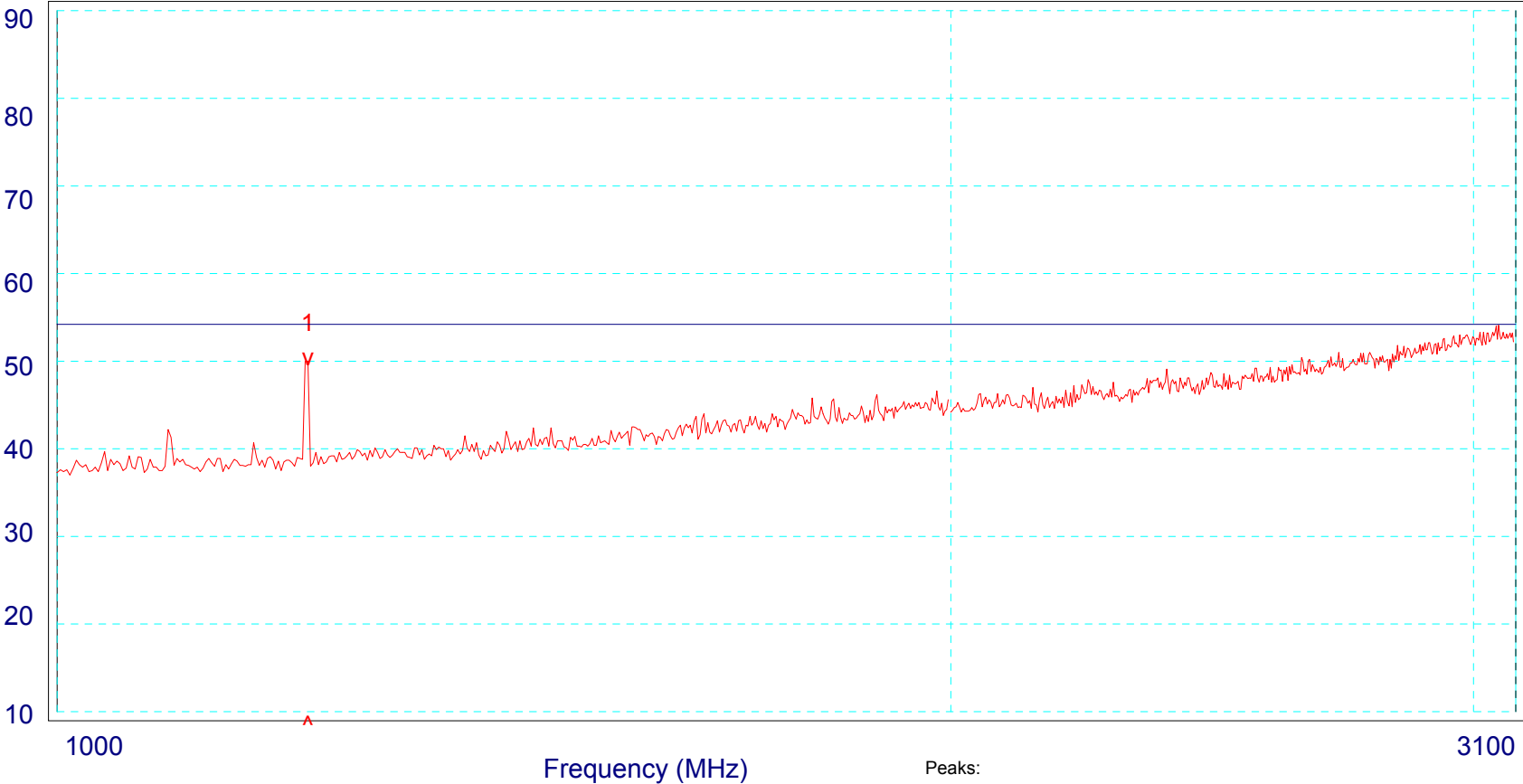
EMC Technologies Pty. Ltd. - Global Product Certification

FCC 15.231
Radiated Emissions (dBuV/m)
= Ambient

Job No:m021022 r:\PCF\m021022_7.PCF

Test Date: 29-11-02

GRAPH No. 7



Australian Arrow Pty Ltd
RFID Device
Sample # 22
Radiated Emissions - Vertical Polarity

Limits:
FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:
Vertical Emissions

Ver 5.5 Build 84
radiated emissions site 1 lerderderg 1-5G without preamp
t:A0040103 c1:C1310103 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Source:
m021022r 67 68

Peaks:			
No	Freq (MHz)	Peak (dBuV/m)	FCC231TX3L1 (dBuV/m) (dB)
1	1214.68	50.0	54.2 -4.2

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

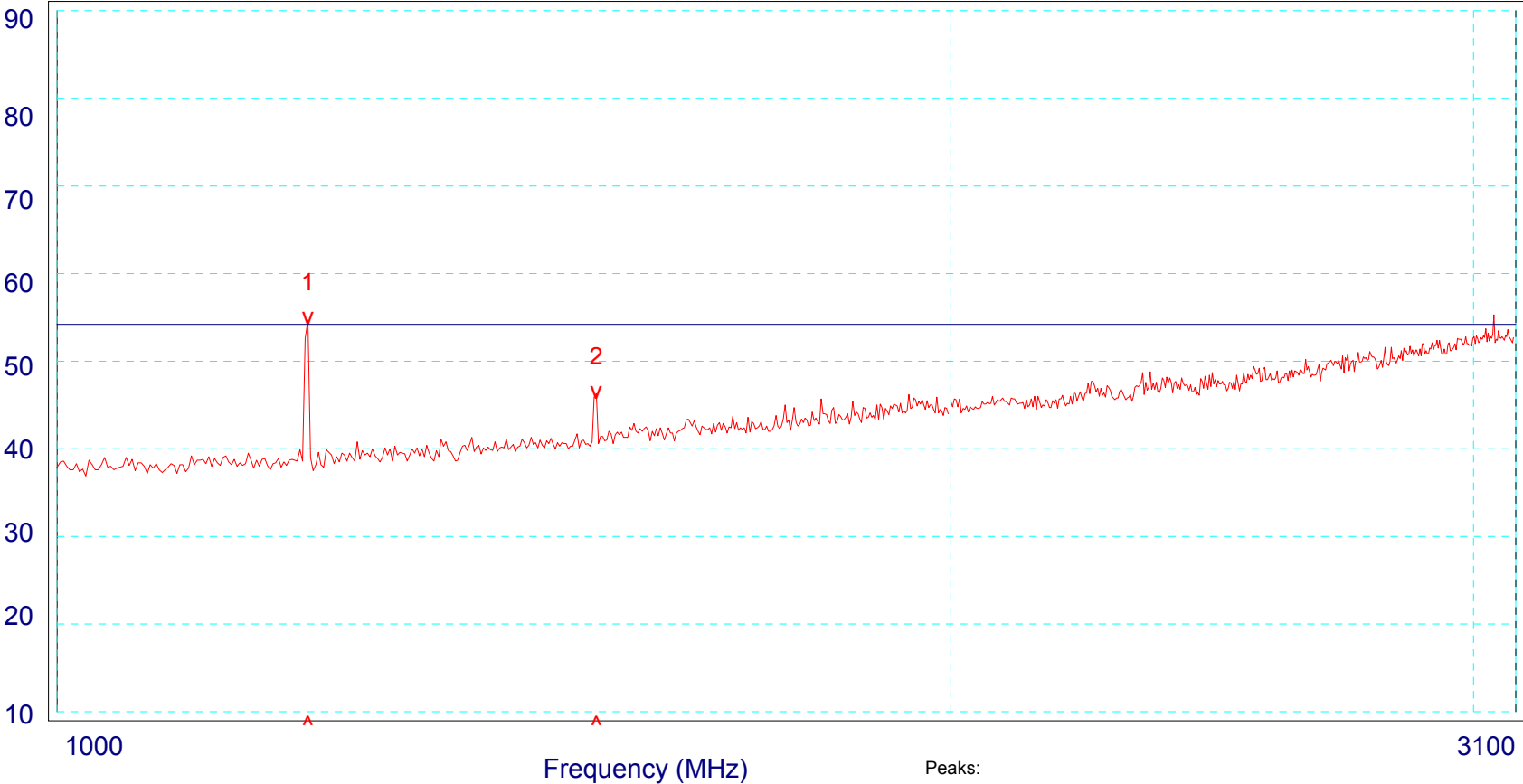
EMC Technologies Pty. Ltd. - Global Product Certification

FCC 15.231
Radiated Emissions (dBuV/m)
= Ambient

Job No:m021022 r:\PCF\m021022_8.PCF

Test Date: 29-11-02

GRAPH No. 8



Australian Arrow Pty Ltd
RFID Device
Sample # 22
Radiated Emissions - Horizontal Polarity

Limits: FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs
Legend: Horizontal Emissions
Ver 5.5 Build 84
radiated emissions site 1 lerderderg 1-5G without preamp
t:A0040103 c1:C1310103 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Peaks:			
No	Freq (MHz)	Peak (dBuV/m)	FCC231TX3L1 (dBuV/m) (dB)
1	1214.68	54.6	54.2 .4
2	1519.21	46.1	54.2 -8.1

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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FCC 15.231

Radiated Emissions (dBuV/m)

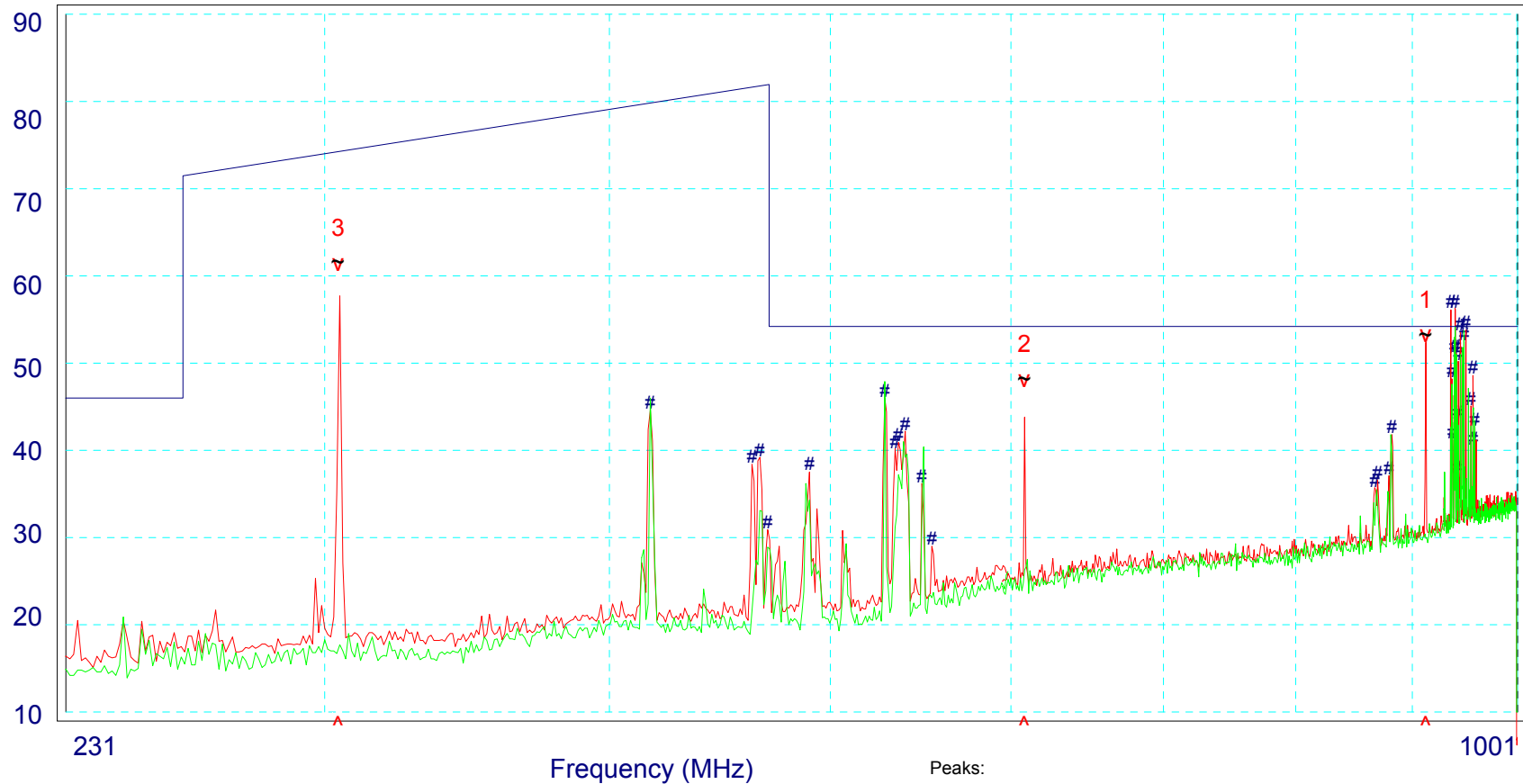
= Ambient

Job No:m021022

r:\PCF\m021022_9.PCF

Test Date: 29-11-02

GRAPH No. 9



Australian Arrow Pty Ltd

RFID Device

Sample # 23

Radiated Emissions - Vertical Polarity

Limits:

FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:

Vertical Emissions

Ver 5.5 Build 84

radiated emissions site 1 lerderg

t:A1370703_10M c1:C1310103 c2:NONE p:NONE a:NONE

Site ID: OATS1,Lerderg Gorge Rd, Bacchus Marsh, VIC

Test Officer:Chieu Huynh

Source:

m021022r 48 49 39

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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FCC 15.231

Radiated Emissions (dBuV/m)

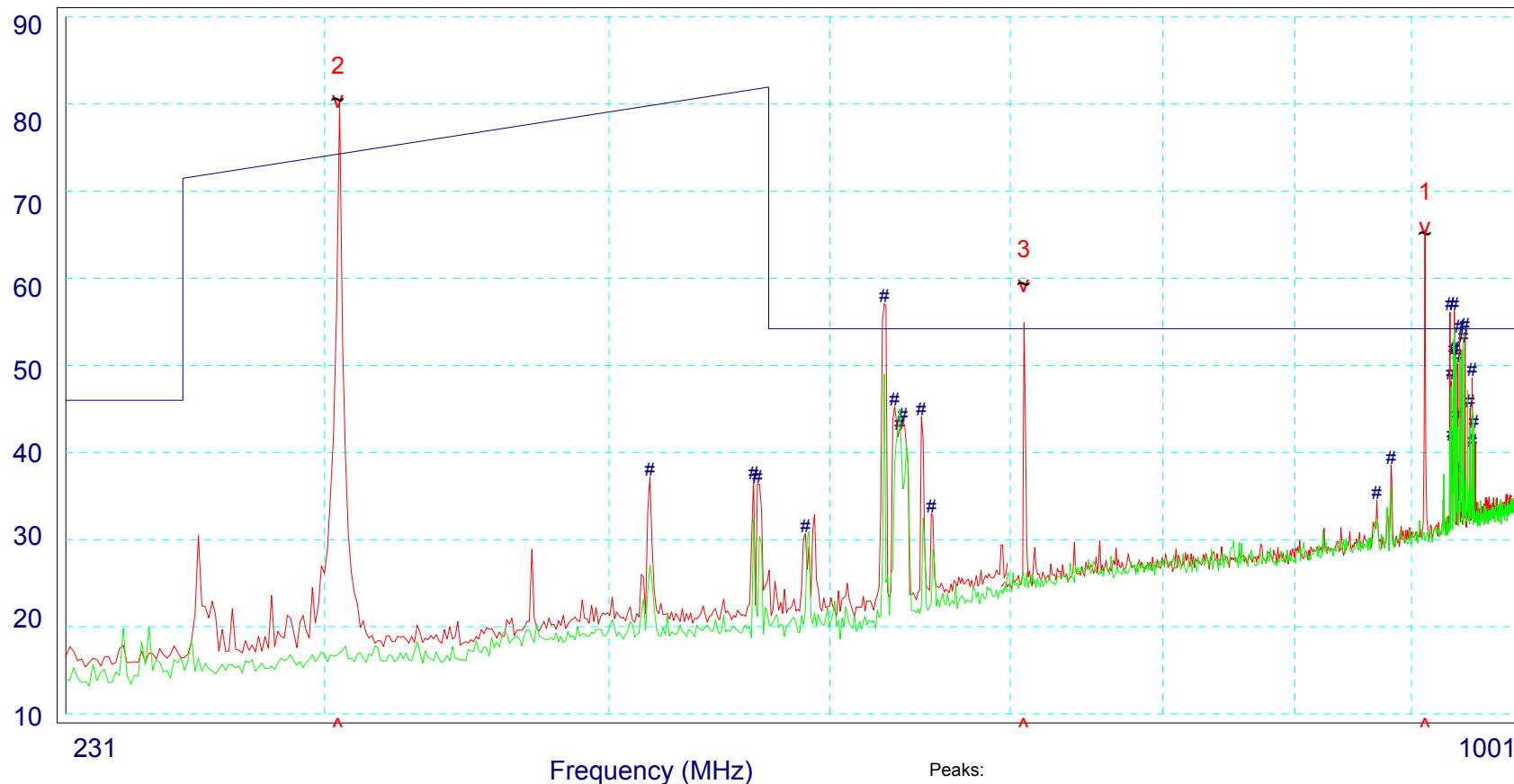
= Ambient

Job No:m021022

r:\PCF\m021022_10.PCF

Test Date: 29-11-02

GRAPH No. 10



Australian Arrow Pty Ltd
RFID Device
Sample # 23
Radiated Emissions - Horizontal Polarity

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC231TX3L1 (dBuV/m)	3L1 (dB)
1	912.22	65.5	64.7	54.2	10.5
2	304.07	80.0	80.0	74.2	5.8
3	608.14	58.9	58.9	54.2	4.7

Limits:
FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs

Legend:

— Horizontal Emissions

Ver 5.5 Build 84

radiated emissions site 1 lerderderg

t:A1370703_10M c1:C1310103 c2:NONE p:NONE a:NONE

Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC

Test Officer:Chieu Huynh

Source:

m021022r 36 37 39

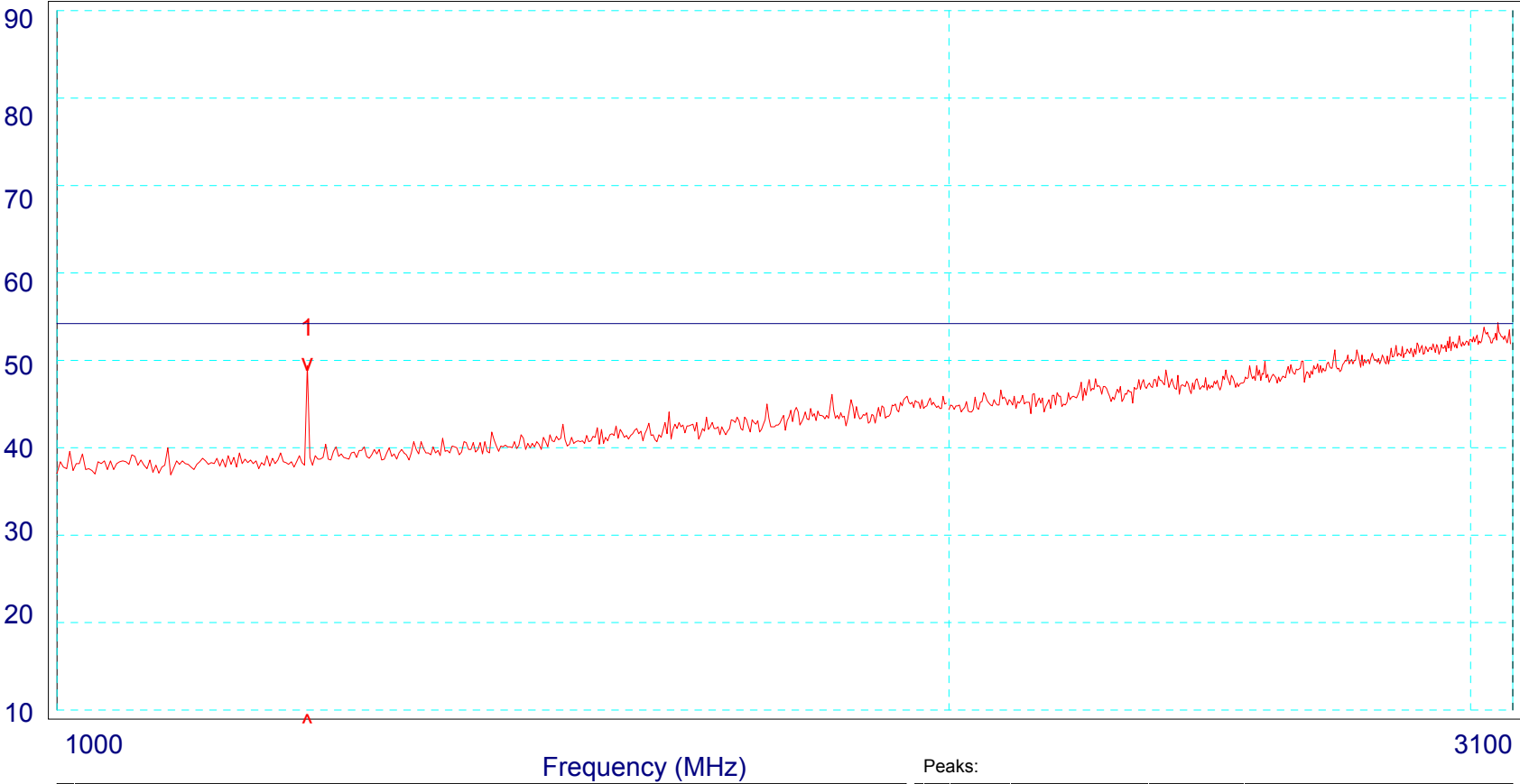
Melbourne- 57 Assembly Drv Tullamarine, 3043, Vic, Australia Ph+(613) 9335 3333 Fax+(613) 9338 9260
Sydney----- 16,6 Gladstone Rd Castle Hill, 2154, NSW, Australia Ph+(612) 9899 4599 Fax+(612) 9899 4019

EMC Technologies Pty. Ltd. - Global Product Certification

FCC 15.231
Radiated Emissions (dBuV/m)
= Ambient

Job No:m021022 r:\PCF\m021022_11.PCF
Test Date: 29-11-02

GRAPH No. 11



Australian Arrow Pty Ltd
RFID Device
Sample # 23
Radiated Emissions - Vertical Polarity

Limits: FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs
Legend: Vertical Emissions
Ver 5.5 Build 84
radiated emissions site 1 lerderderg 1-5G without preamp
t:A0040103 c1:C1310103 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Peaks:			
No	Freq (MHz)	Peak (dBuV/m)	FCC231TX3L1 (dBuV/m) (dB)
1	1214.68	49.3	54.2 -4.9

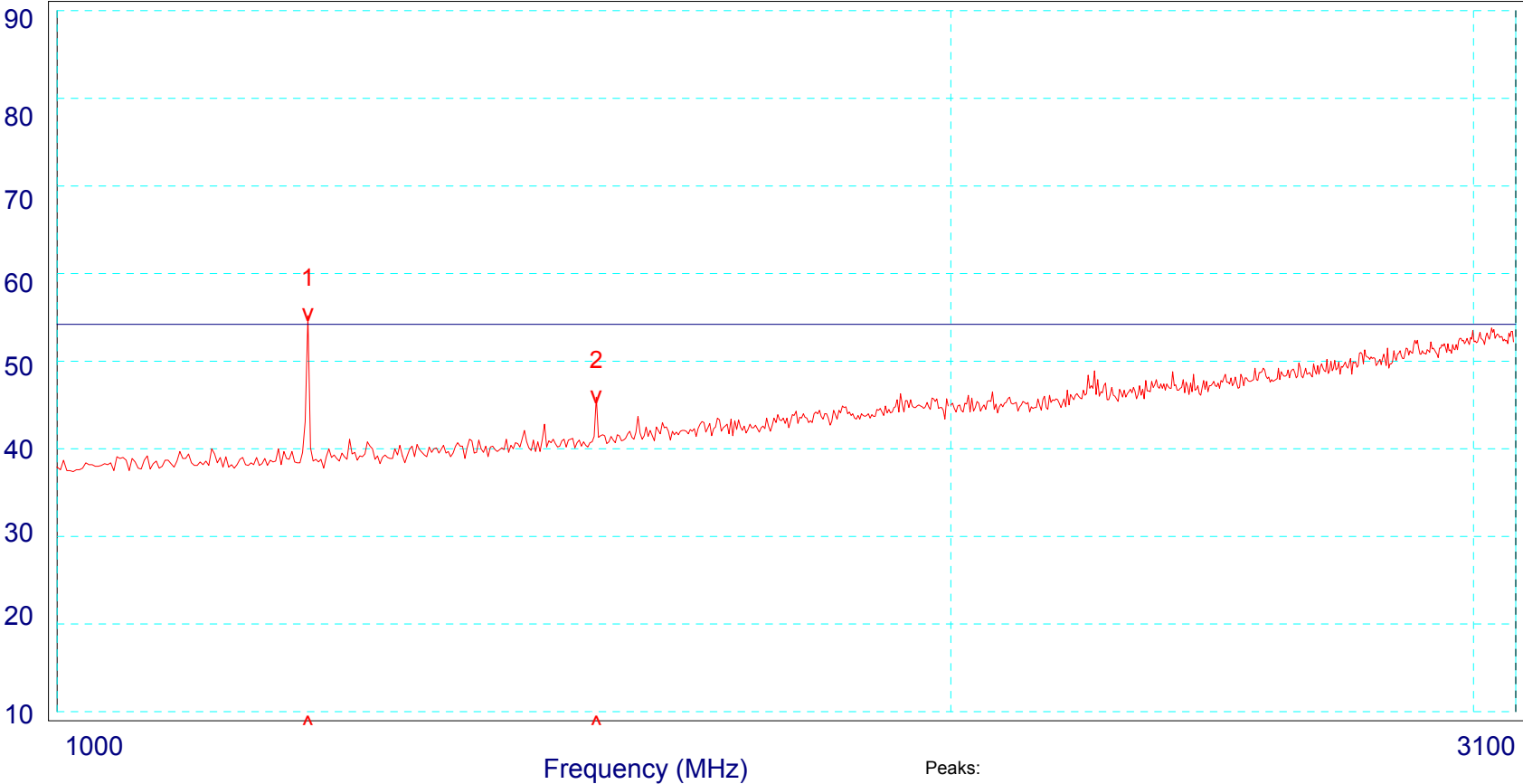
Melbourne- 57 Assembly Drv Tullamarine, 3043, Vic, Australia Ph+(613) 9335 3333 Fax+(613) 9338 9260
Sydney----- 16,6 Gladstone Rd Castle Hill, 2154, NSW, Australia Ph+(612) 9899 4599 Fax+(612) 9899 4019

EMC Technologies Pty. Ltd. - Global Product Certification

FCC 15.231
Radiated Emissions (dBuV/m)
= Ambient

Job No:m021022 r:\PCF\m021022_12.PCF
Test Date: 29-11-02

GRAPH No. 12



Australian Arrow Pty Ltd
RFID Device
Sample # 23
Radiated Emissions - Horizontal Polarity

Limits: FCC231TX3 FCC PART 15.231 TX LMTS FOR 260-470MHz AT 3mtrs
Legend: Horizontal Emissions
Ver 5.5 Build 84
radiated emissions site 1 lerderderg 1-5G without preamp
t:A0040103 c1:C1310103 c2:NONE p:NONE a:NONE
Site ID: OATS1,Lerderderg Gorge Rd, Bacchus Marsh, VIC
Test Officer:Chieu Huynh

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	FCC231TX3L1 (dBuV/m)	L1 (dB)
1	1214.6855.1	54.2	54.2	.9
2	1519.2145.7	54.2	54.2	-8.5

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