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APPENDIX K OF TEST REPORT T71003_F

GRAPHS OF EMI MEASUREMENT

FCC ID: TVN-MSTRP
Manufacturer: Magellan Technology Pty Limited
Test Sample: PJM Stack Tag Tunnel Reader
Model: MSTRP-5050
Serial No: Production Prototype

Date: 5th December 2007

APPENDIX K**GRAPHS OF EMI MEASUREMENT****CONDUCTED****Polycarbon Based Antenna:**

Graph 1:	Active Line	0.145 to 30.5 MHz
Graph 2:	Neutral Line	0.145 to 30.5 MHz

PCB Based Antenna:

Graph 3:	Active Line	0.145 to 30.5 MHz
Graph 4:	Neutral Line	0.145 to 30.5 MHz

Transmitter Terminated with a Resistive Load**PCB Based Antenna:**

Graph 5:	Active Line	5 to 30.5 MHz
Graph 6:	Neutral Line	5 to 30.5 MHz

PCB Based Antenna:

Graph 7:	Active Line	5 to 30.5 MHz
Graph 8:	Neutral Line	5 to 30.5 MHz

RADIATED EMI**Polycarbon Based Antenna**

Graph 9:	Magnetic Loop Antenna	9 kHz to 30 MHz
Graph 11:	Carrier 13.56 MHz	13.552 to 13.568 MHz
Graph 13:	Vertical Antenna Polarisation	30 to 1000 MHz
Graph 14:	Horizontal Antenna Polarisation	30 to 1000 MHz

PCB Based Antenna

Graph 10:	Magnetic Loop Antenna	9 kHz to 30 MHz
Graph 12:	Carrier 13.56 MHz	13.552 to 13.568 MHz
Graph 15:	Vertical Antenna Polarisation	30 to 1000 MHz
Graph 16:	Horizontal Antenna Polarisation	30 to 1000 MHz

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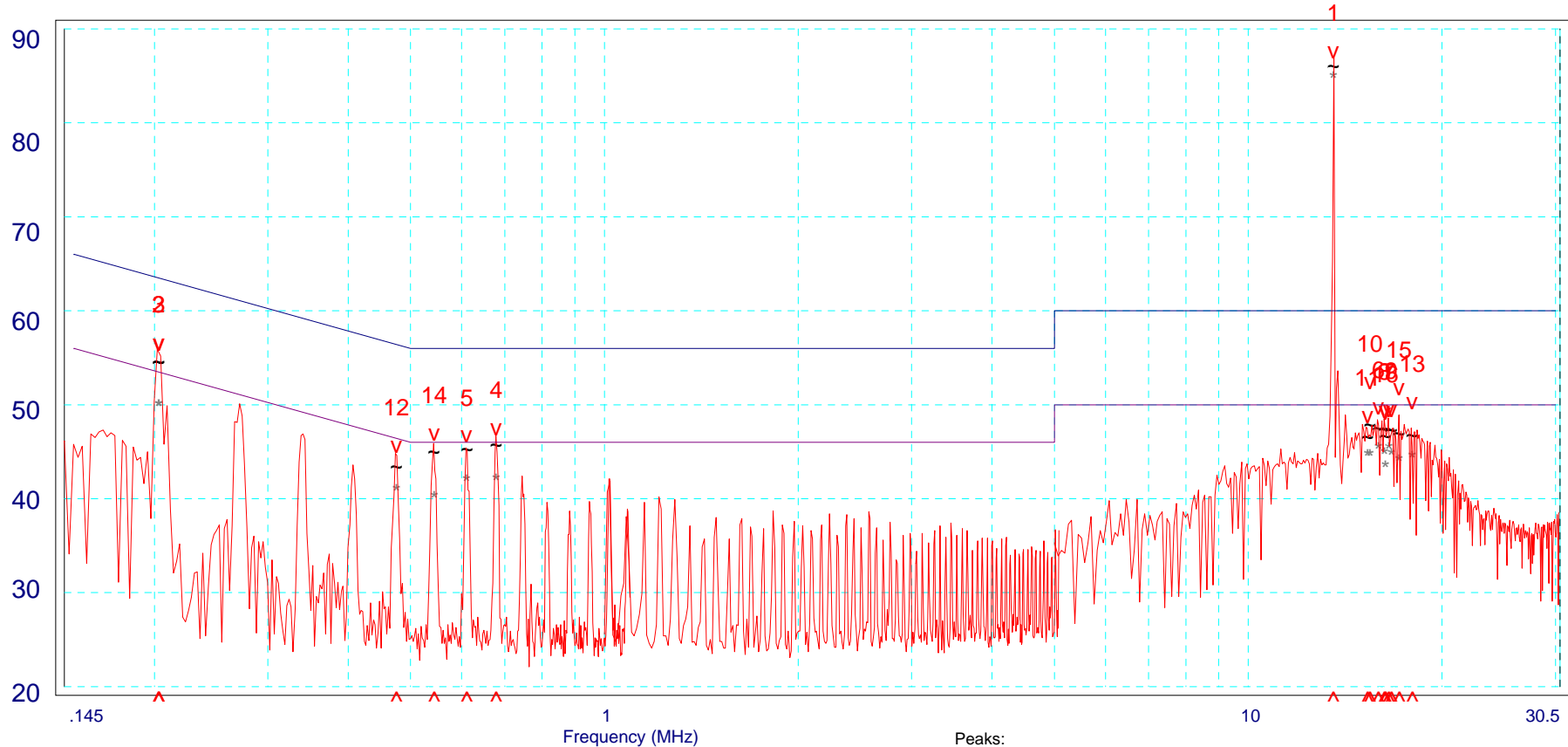
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 1



Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	13.56	87.0	85.6	60.0	25.6	83.9	50.0	33.9
2	0.203	56.0	54.1	63.5	-9.3	49.0	53.5	-4.5
3	0.203	56.0	54.1	63.5	-9.4	49.0	53.5	-4.5
4	0.679	47.0	45.3	56.0	-10.7	41.1	46.0	-4.9
5	0.612	46.2	44.9	56.0	-11.1	41.0	46.0	-5.0
6	15.93	49.1	47.1	60.0	-13.0	44.4	50.0	-5.6
7	16.54	48.9	47.0	60.0	-13.0	44.4	50.0	-5.6
8	16.28	48.9	46.9	60.0	-13.1	43.9	50.0	-6.1
9	16.69	49.0	46.8	60.0	-13.2	43.8	50.0	-6.2
10	15.46	51.9	47.4	60.0	-12.6	43.7	50.0	-6.3
11	15.33	48.3	46.1	60.0	-13.9	43.7	50.0	-6.3
12	0.476	45.1	43.0	56.4	-13.4	40.0	46.4	-6.4
13	17.98	49.7	46.3	60.0	-13.7	43.5	50.0	-6.5
14	0.544	46.4	44.6	56.0	-11.5	39.2	46.0	-6.8
15	17.15	51.2	46.5	60.0	-13.5	43.1	50.0	-6.9
16	16.34	48.7	46.2	60.0	-13.8	42.5	50.0	-7.5

Magellan Technology
Tunnel Reader
Model: MSTRP-5050. No transmitter resistive load.
Polycarbon based antenna Power Source: 120V 60Hz

Limits: FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend: Active Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle
Source: T71003C21, 10, 9

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

EMC Technologies Pty. Ltd. - Global Product Certification

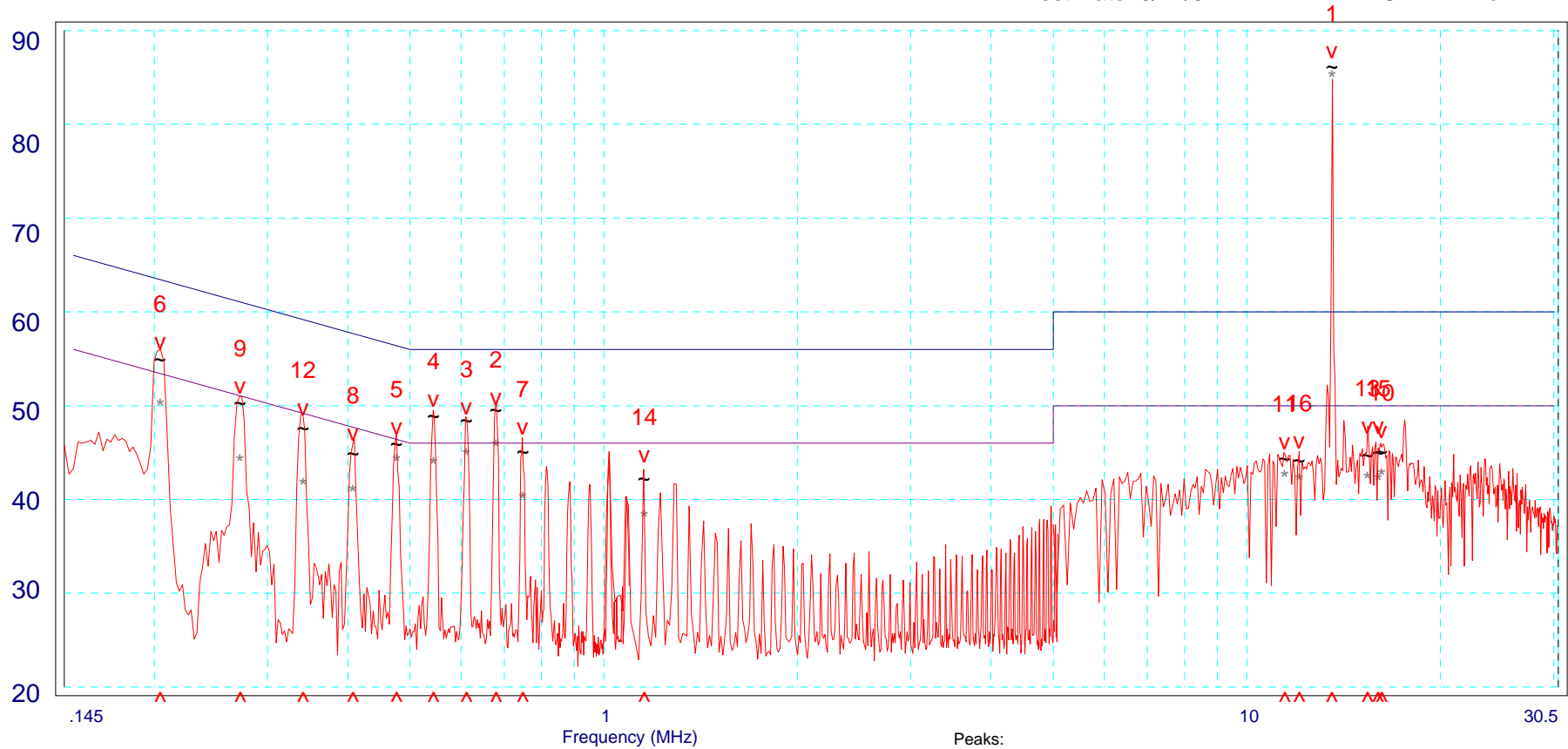
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 2



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. No transmitter resistive load.
Polycarbon based antenna Power Source: 120V 60Hz

Limits:
FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend:
— Neutral Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	13.56	87.2	85.7	60.0	25.7	84.2	50.0	34.2
2	0.680	50.3	49.1	56.0	-6.9	44.8	46.0	-1.2
3	0.612	49.3	48.0	56.0	-8.0	43.9	46.0	-2.1
4	0.544	50.1	48.5	56.0	-7.5	43.0	46.0	-3.0
5	0.477	47.1	45.5	56.4	-10.9	43.2	46.4	-3.2
6	0.204	56.2	54.5	63.4	-8.9	49.2	53.4	-4.2
7	0.749	47.2	44.6	56.0	-11.4	39.2	46.0	-6.8
8	0.407	46.5	44.4	57.7	-13.3	40.0	47.7	-7.7
9	0.272	51.5	49.8	61.1	-11.3	43.2	51.1	-7.9
10	16.21	46.8	44.7	60.0	-15.3	41.8	50.0	-8.2
11	11.45	45.6	43.8	60.0	-16.2	41.6	50.0	-8.4
12	0.341	49.2	47.2	59.2	-12.0	40.7	49.2	-8.5
13	15.40	47.3	44.3	60.0	-15.7	41.4	50.0	-8.6
14	1.156	44.1	41.7	56.0	-14.3	37.3	46.0	-8.7
15	16.01	47.2	44.5	60.0	-15.5	41.2	50.0	-8.8
16	12.06	45.7	43.7	60.0	-16.3	41.2	50.0	-8.8

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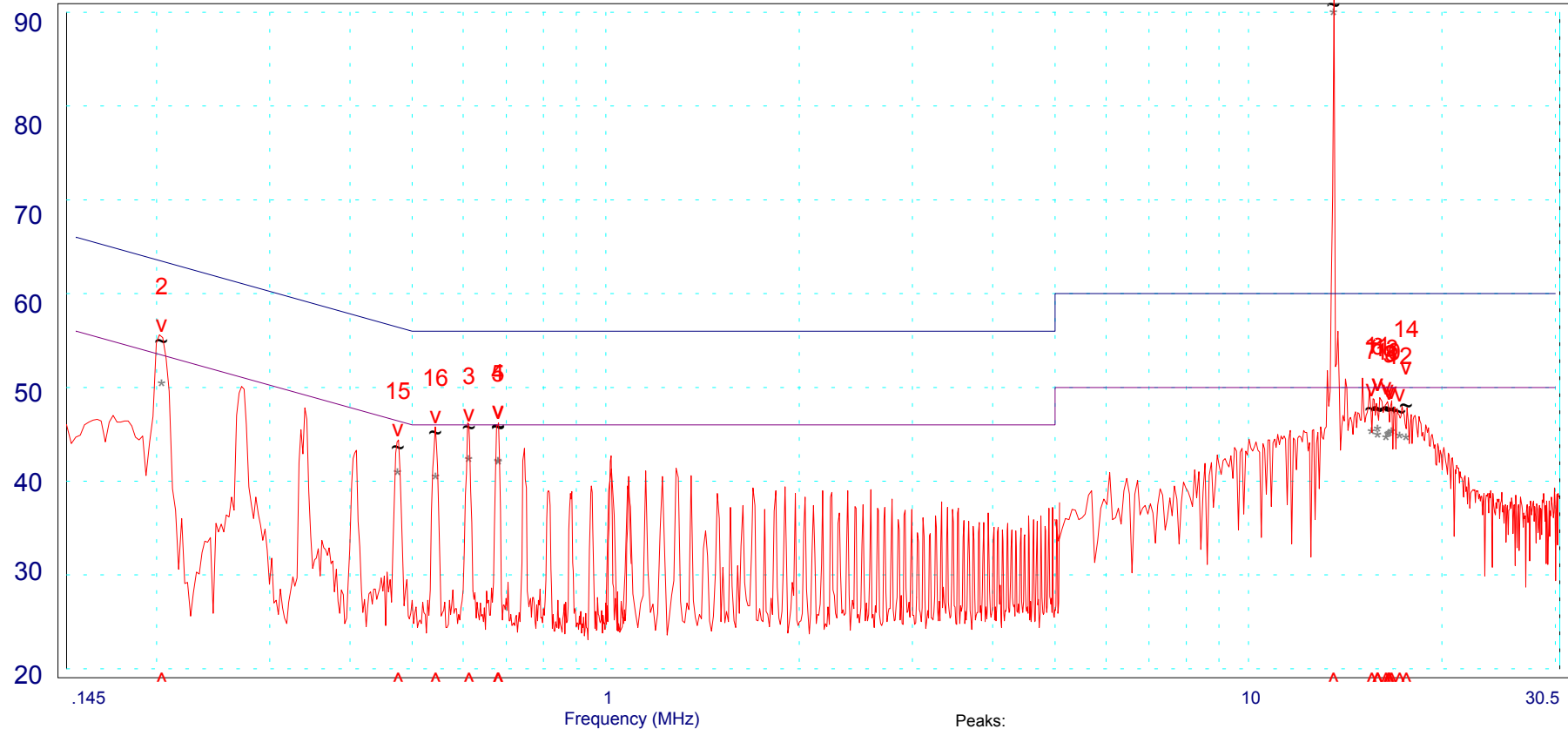
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 3



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. No transmitter resistive load.
PCB based antenna Power Source: 120V 60Hz

Limits:
FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend:
— Active Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	13.56	92.0	90.2	60.0	30.2	88.8	50.0	38.8
2	0.204	56.2	54.3	63.5	-9.1	49.3	53.5	-4.2
3	0.612	46.5	45.1	56.0	-10.9	41.2	46.0	-4.8
4	0.680	47.0	45.2	56.0	-10.9	41.0	46.0	-5.0
5	0.680	46.9	45.1	56.0	-10.9	40.9	46.0	-5.1
6	15.88	49.8	47.2	60.0	-12.8	44.4	50.0	-5.6
7	15.54	49.3	47.1	60.0	-12.9	44.2	50.0	-5.8
8	16.69	49.0	46.9	60.0	-13.1	44.2	50.0	-5.8
9	16.57	48.9	47.1	60.0	-12.9	44.0	50.0	-6.0
10	16.50	49.2	47.2	60.0	-12.9	43.9	50.0	-6.1
11	15.88	49.8	47.0	60.0	-13.0	43.8	50.0	-6.2
12	17.18	48.8	46.8	60.0	-13.3	43.7	50.0	-6.3
13	16.36	49.5	47.0	60.0	-13.0	43.5	50.0	-6.5
14	17.59	51.6	47.4	60.0	-12.6	43.5	50.0	-6.5
15	0.475	45.0	43.0	56.4	-13.5	39.8	46.4	-6.6
16	0.544	46.4	44.5	56.0	-11.5	39.3	46.0	-6.7

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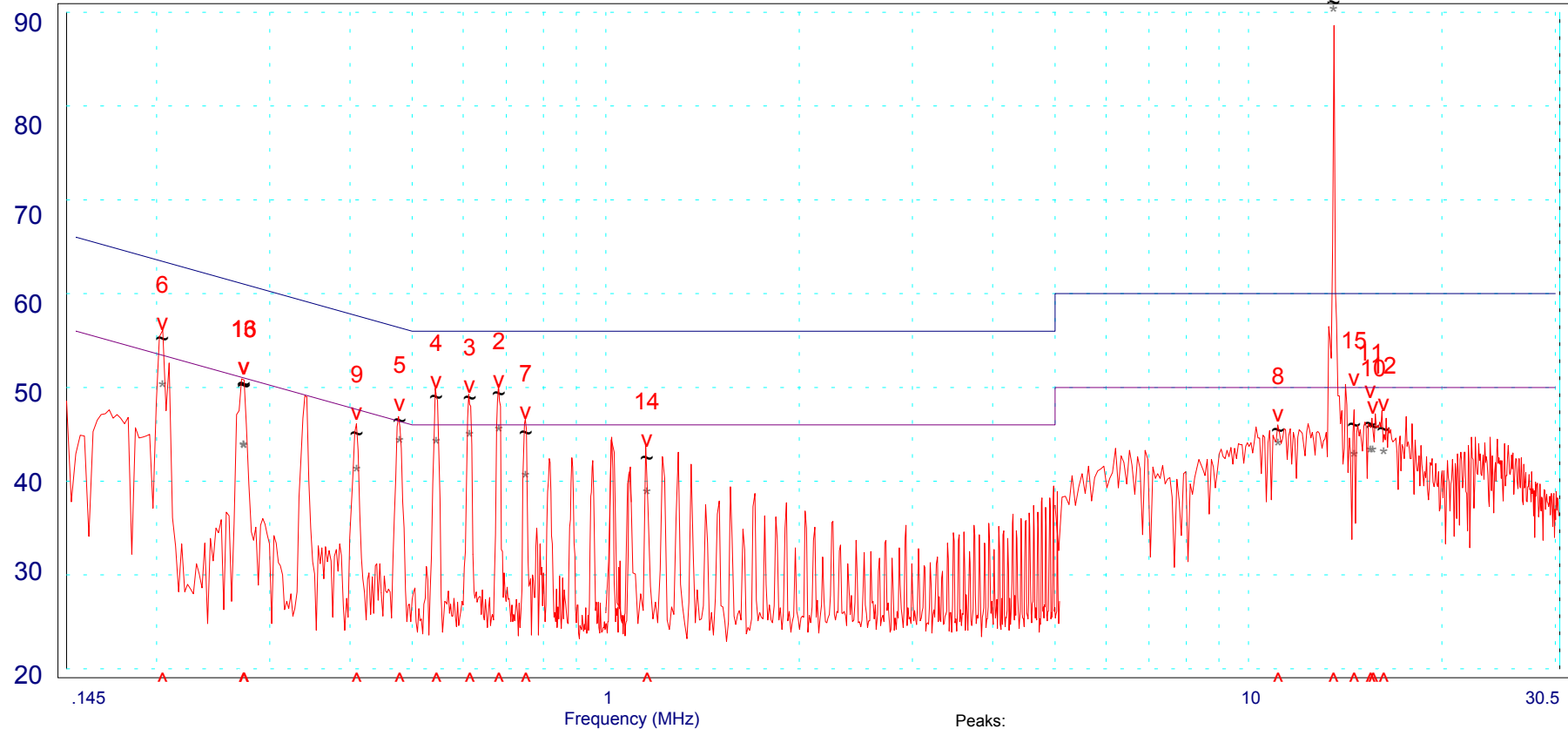
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 4



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. No transmitter resistive load.
PCB based antenna Power Source: 120V 60Hz

Limits:
FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend:
— Neutral Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

Source:
T71003C2 , 5 , 6

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Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	13.56	92.3	90.5	60.0	30.5	89.2	50.0	39.2
2	0.682	50.3	48.7	56.0	-7.3	44.4	46.0	-1.6
3	0.614	49.6	48.3	56.0	-7.7	43.9	46.0	-2.1
4	0.545	50.1	48.4	56.0	-7.6	43.1	46.0	-2.9
5	0.478	47.8	45.9	56.4	-10.5	43.3	46.4	-3.1
6	0.204	56.3	54.6	63.4	-8.8	49.2	53.4	-4.2
7	0.751	46.9	44.6	56.0	-11.4	39.5	46.0	-6.5
8	11.12	46.6	44.8	60.0	-15.2	43.0	50.0	-7.0
9	0.410	46.7	44.4	57.7	-13.2	40.2	47.7	-7.5
10	15.62	47.4	45.2	60.0	-14.8	42.2	50.0	-7.8
11	15.48	49.1	45.5	60.0	-14.5	42.2	50.0	-7.8
12	16.23	47.7	44.9	60.0	-15.1	42.0	50.0	-8.0
13	0.273	51.6	49.7	61.0	-11.3	42.8	51.0	-8.2
14	1.159	43.9	41.8	56.0	-14.2	37.8	46.0	-8.2
15	14.60	50.4	45.3	60.0	-14.7	41.7	50.0	-8.3
16	0.274	51.6	49.6	61.0	-11.4	42.7	51.0	-8.3

EMC Technologies Pty. Ltd. - Global Product Certification

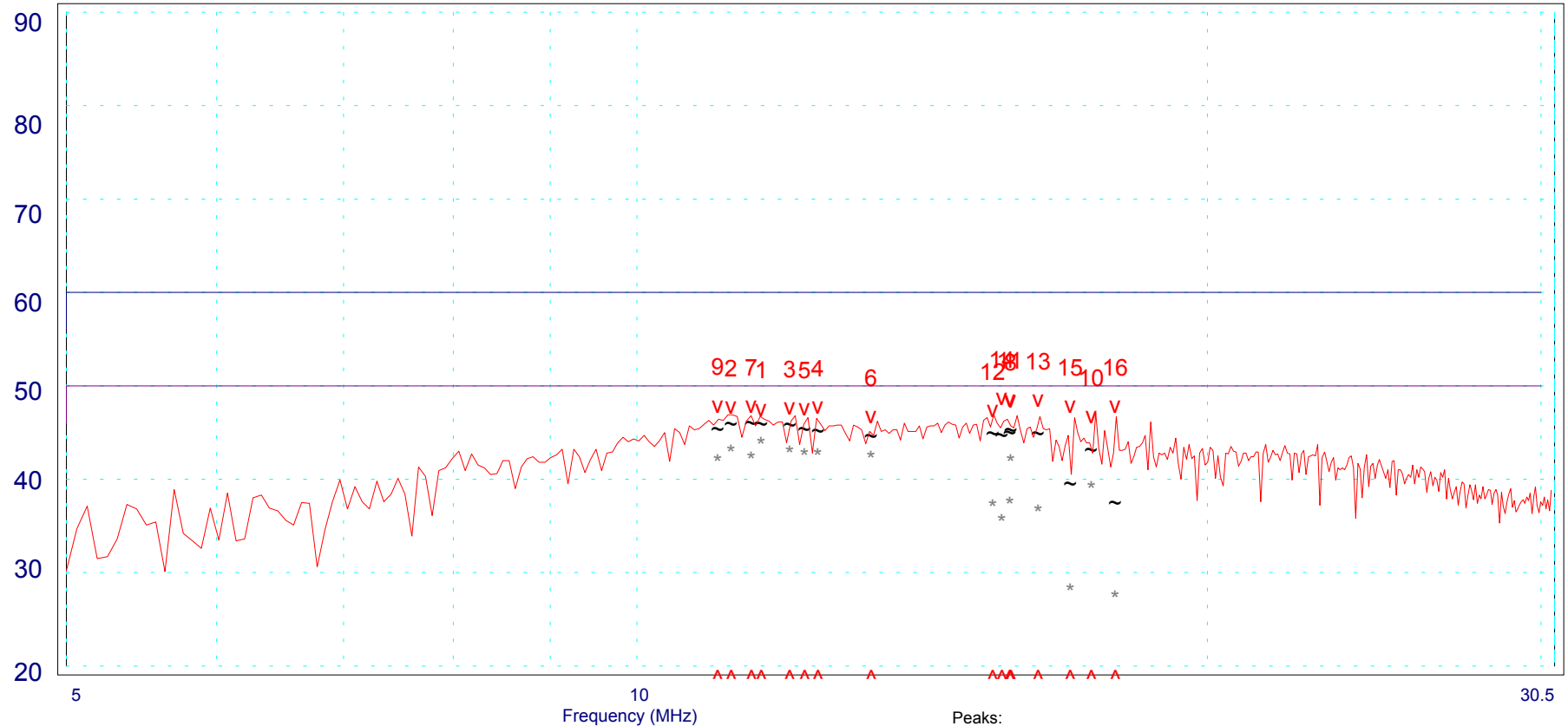
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 5



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. Transmitter resistive load fitted.
Polycarbon based antenna Power Source: 120V 60Hz

Limits: FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend: Active Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	11.63	47.0	45.2	60.0	-14.8	43.0	50.0	-7.0
2	11.21	47.3	45.3	60.0	-14.7	42.1	50.0	-7.9
3	12.04	47.1	45.2	60.0	-14.8	42.0	50.0	-8.0
4	12.46	47.2	44.6	60.0	-15.4	41.7	50.0	-8.3
5	12.26	47.1	44.8	60.0	-15.3	41.7	50.0	-8.3
6	13.29	46.2	44.0	60.0	-16.0	41.5	50.0	-8.5
7	11.49	47.3	45.4	60.0	-14.7	41.4	50.0	-8.6
8	15.75	47.9	44.6	60.0	-15.4	41.1	50.0	-8.9
9	11.03	47.4	44.8	60.0	-15.2	41.1	50.0	-8.9
10	17.37	46.2	42.5	60.0	-17.5	38.2	50.0	-11.8
11	15.73	48.0	44.4	60.0	-15.7	36.5	50.0	-13.5
12	15.41	46.9	44.3	60.0	-15.8	36.3	50.0	-13.7
13	16.28	48.0	44.2	60.0	-15.8	35.7	50.0	-14.3
14	15.58	48.2	44.1	60.0	-15.9	34.7	50.0	-15.3
15	16.93	47.3	38.9	60.0	-21.1	27.3	50.0	-22.7
16	17.88	47.3	36.9	60.0	-23.2	26.5	50.0	-23.5

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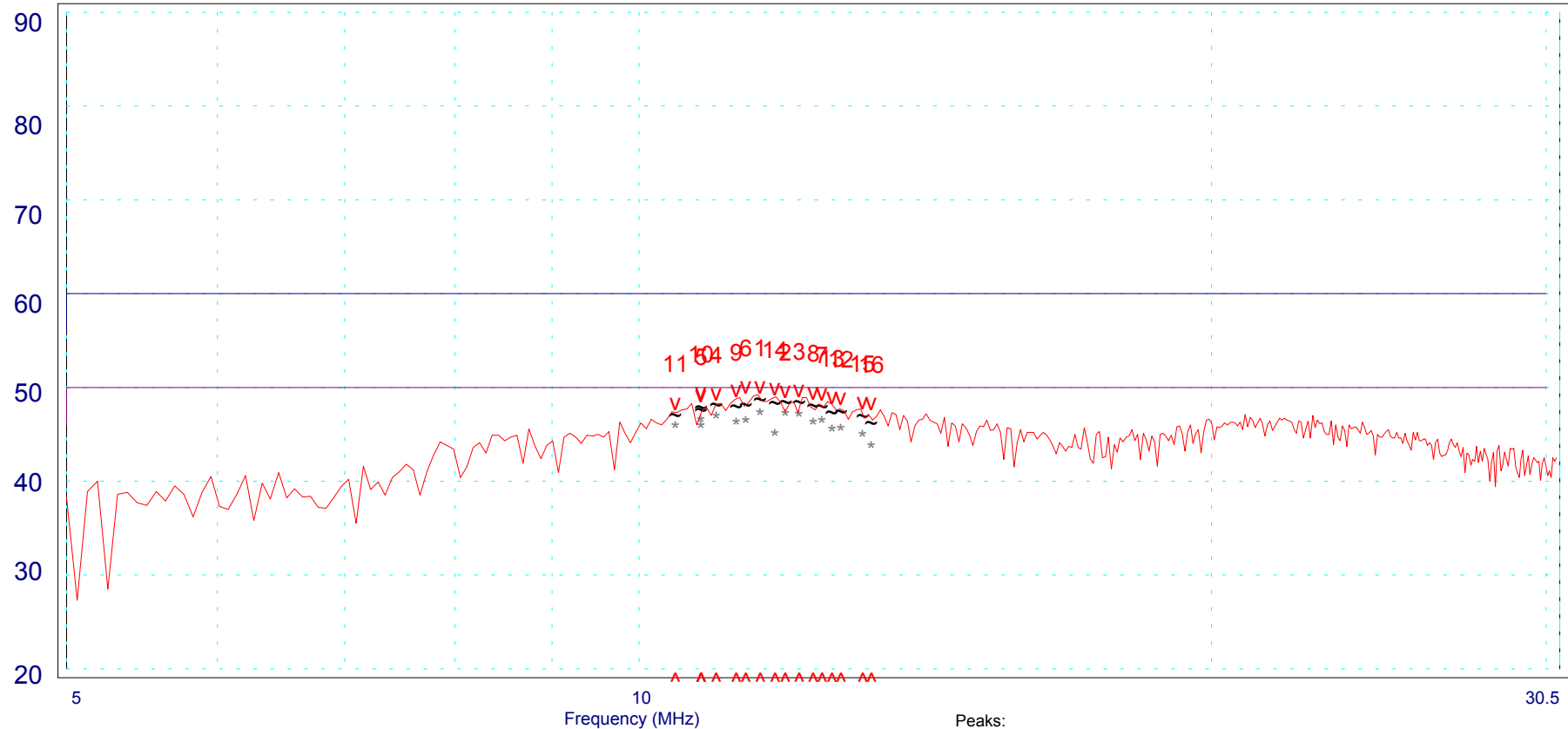
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 6



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. Transmitter resistive load fitted.
Polycarbon based antenna Power Source: 120V 60Hz

Limits: FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend: Neutral Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

Source:
T71003C25

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	11.58	49.6	48.1	60.0	-11.9	46.2	50.0	-3.8
2	11.94	49.1	47.8	60.0	-12.2	46.1	50.0	-3.9
3	12.14	49.2	47.8	60.0	-12.2	46.0	50.0	-4.0
4	10.98	48.8	47.5	60.0	-12.5	45.8	50.0	-4.2
5	10.78	48.6	47.2	60.0	-12.8	45.5	50.0	-4.5
6	11.38	49.5	47.5	60.0	-12.5	45.4	50.0	-4.6
7	12.48	48.8	47.3	60.0	-12.7	45.4	50.0	-4.6
8	12.35	48.9	47.4	60.0	-12.6	45.2	50.0	-4.8
9	11.25	49.1	47.3	60.0	-12.7	45.2	50.0	-4.8
10	10.78	48.9	46.9	60.0	-13.1	44.8	50.0	-5.2
11	10.45	47.8	46.4	60.0	-13.6	44.8	50.0	-5.2
12	12.77	48.3	46.7	60.0	-13.3	44.5	50.0	-5.5
13	12.63	48.5	46.7	60.0	-13.3	44.4	50.0	-5.6
14	11.79	49.4	47.7	60.0	-12.3	44.0	50.0	-6.0
15	13.11	47.9	46.3	60.0	-13.7	43.9	50.0	-6.1
16	13.25	47.8	45.6	60.0	-14.4	42.7	50.0	-7.3

EMC Technologies Pty. Ltd. - Global Product Certification

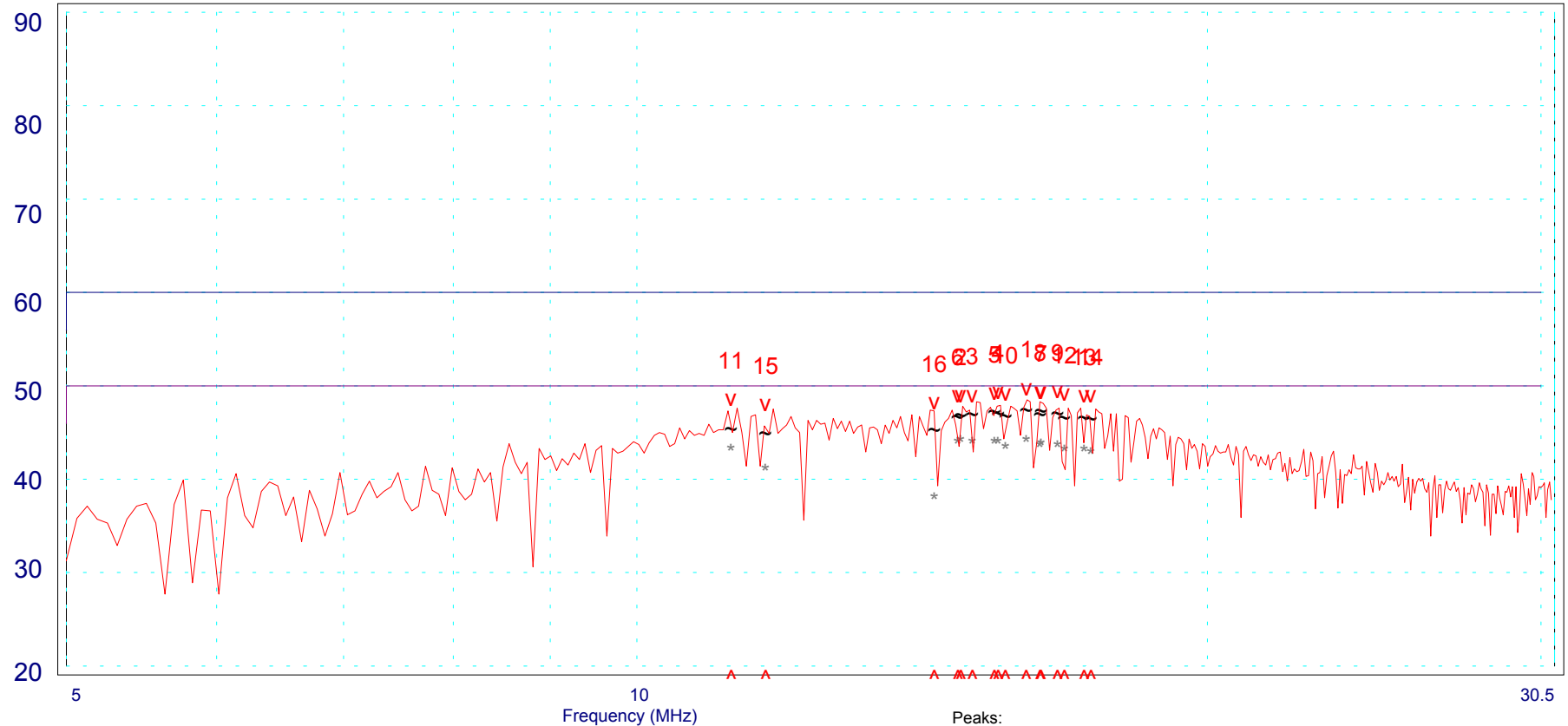
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 7



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. Transmitter resistive load fitted.
PCB based antenna Power Source: 120V 60Hz

Limits: FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend: Active Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

Source:
T71003C2

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	16.05	49.2	46.8	60.0	-13.2	43.1	50.0	-6.9
2	14.82	48.5	46.2	60.0	-13.8	43.1	50.0	-6.9
3	15.03	48.5	46.3	60.0	-13.7	43.0	50.0	-7.0
4	15.51	48.9	46.5	60.0	-13.6	43.0	50.0	-7.0
5	15.44	48.8	46.5	60.0	-13.5	43.0	50.0	-7.0
6	14.77	48.5	46.0	60.0	-14.0	43.0	50.0	-7.0
7	16.34	48.8	46.7	60.0	-13.4	42.8	50.0	-7.2
8	16.32	48.9	46.3	60.0	-13.7	42.6	50.0	-7.4
9	16.67	48.9	46.4	60.0	-13.6	42.6	50.0	-7.4
10	15.65	48.6	46.2	60.0	-13.9	42.4	50.0	-7.6
11	11.21	48.1	44.8	60.0	-15.3	42.2	50.0	-7.8
12	16.81	48.6	45.9	60.0	-14.1	42.1	50.0	-7.9
13	17.22	48.4	46.0	60.0	-14.0	42.1	50.0	-7.9
14	17.36	48.5	45.8	60.0	-14.2	41.9	50.0	-8.1
15	11.69	47.5	44.3	60.0	-15.7	40.1	50.0	-9.9
16	14.35	47.7	44.6	60.0	-15.4	37.0	50.0	-13.0

EMC Technologies Pty. Ltd. - Global Product Certification

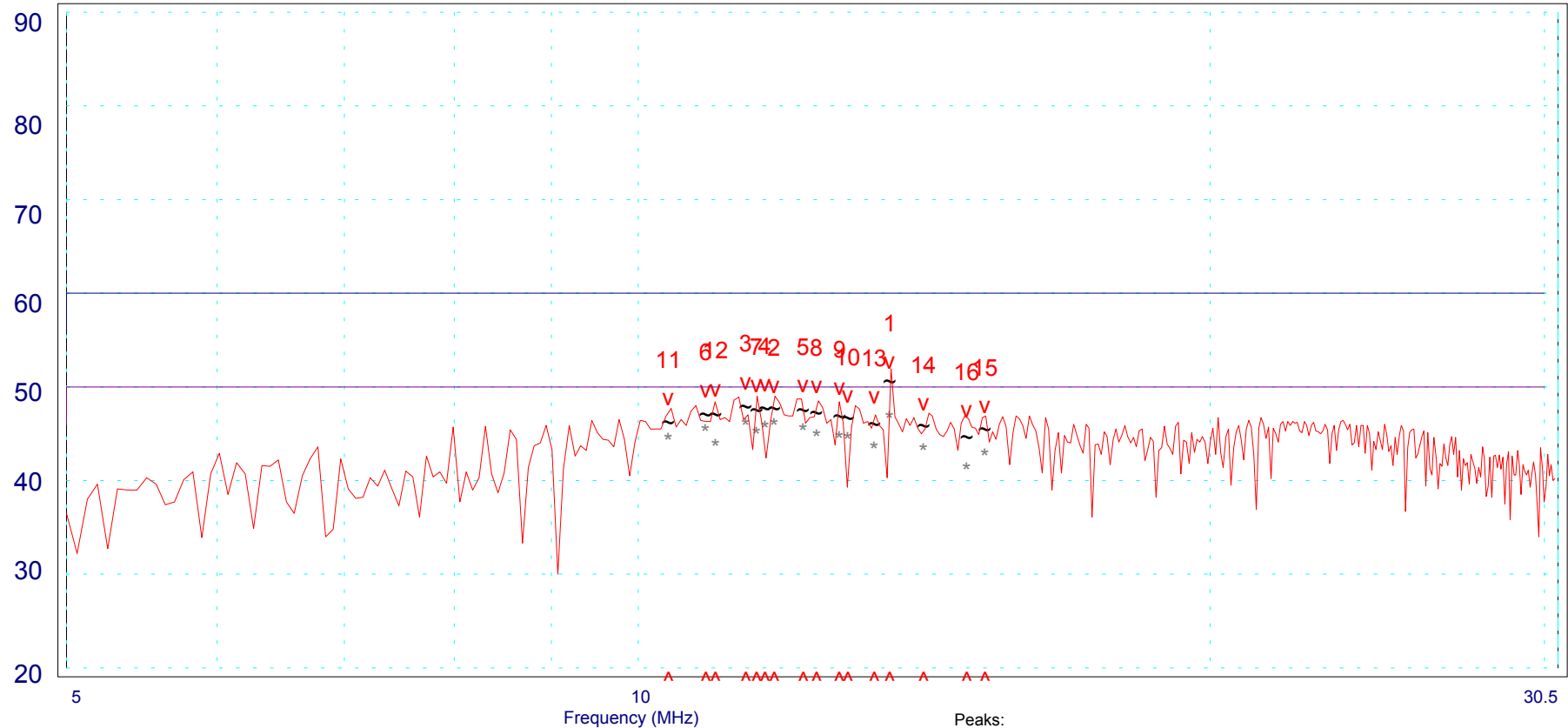
FCC Class B
Conducted Emissions (dBuV)

Job No:T71003

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Test Date: 3/12/07

GRAPH No. 8



Magellan Technology
Tunnel Reader
Model: MSTRP-5050. Transmitter resistive load fitted.
PCB based antenna Power Source: 120V 60Hz

Limits: FCCN_BQP FCC CLASS B QP CONDUCTED LIMITS (CISPR)
FCCN_BAV FCC CLASS B AV CONDUCTED LIMITS (CISPR)
Legend: Neutral Line

Ver 5.5 Build 153
Generic file for any test.
t:L0361207 c1:C0180908 c2:NONE p:NONE a:L0030708
Site ID: Syd Room#2,3/87 Station Rd, Seven Hills, NSW
Test Officer: Jodie Foyle

Source:
T71003CZ

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV)	QP Val (dBuV)	FCCN_BQP (dBuV)	dL1 (dB)	Av Val (dBuV)	FCCN_BAV (dBuV)	dL2 (dB)
1	13.56	52.1	50.0	60.0	-10.0	45.8	50.0	-4.2
2	11.79	49.6	47.0	60.0	-13.0	45.1	50.0	-4.9
3	11.39	50.0	47.2	60.0	-12.8	45.1	50.0	-4.9
4	11.66	49.7	47.1	60.0	-12.9	44.8	50.0	-5.2
5	12.21	49.6	46.9	60.0	-13.2	44.5	50.0	-5.5
6	10.85	49.1	46.4	60.0	-13.6	44.4	50.0	-5.6
7	11.54	49.6	46.9	60.0	-13.1	44.2	50.0	-5.8
8	12.41	49.6	46.6	60.0	-13.4	43.9	50.0	-6.1
9	12.76	49.4	46.2	60.0	-13.8	43.7	50.0	-6.3
10	12.89	48.6	46.0	60.0	-14.0	43.6	50.0	-6.4
11	10.37	48.3	45.6	60.0	-14.4	43.5	50.0	-6.5
12	10.98	49.3	46.4	60.0	-13.6	42.9	50.0	-7.1
13	13.31	48.4	45.4	60.0	-14.6	42.6	50.0	-7.4
14	14.13	47.7	45.2	60.0	-14.8	42.4	50.0	-7.6
15	15.22	47.4	44.8	60.0	-15.2	41.9	50.0	-8.1
16	14.89	47.0	44.0	60.0	-16.0	40.4	50.0	-9.6

EMC Technologies Pty. Ltd. - Global Product Certification

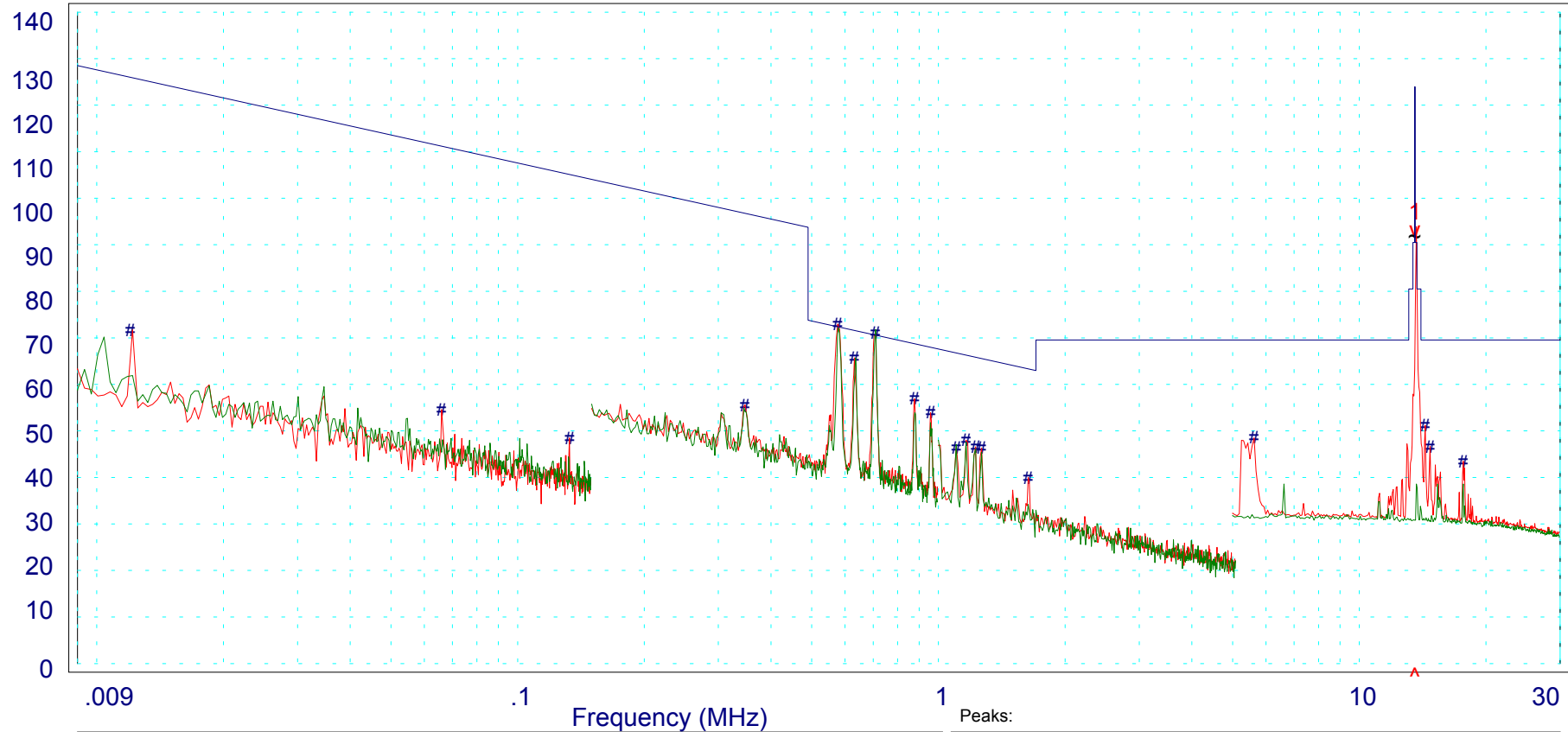
FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 05-12-07

GRAPH No. 9



Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC05

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC_loop_3dL1 (dBuV/m)	dL1 (dB)
1	13.56	93.9	92.6	124.0	-31.4

Limits:
FCC_loop_3mFcc Pt15 Subpart C Section 15.209(a) 3Metre Limits

Legend:
— Ambients
— Emissions

Ver 5.5 Build 107
Colo Radiated Test Setup Active Loop
t:A0080408E c1:C0200208 c2:NONE p:NONE a:NONE
Site ID: OATS#1,1247 Upper Colo Rd. Colo, NSW
Test Officer: Bruce Holdsworth

Source:
T71003r6 6 7 8 9
T71003r6 1 2 3 4

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

EMC Technologies Pty. Ltd. - Global Product Certification

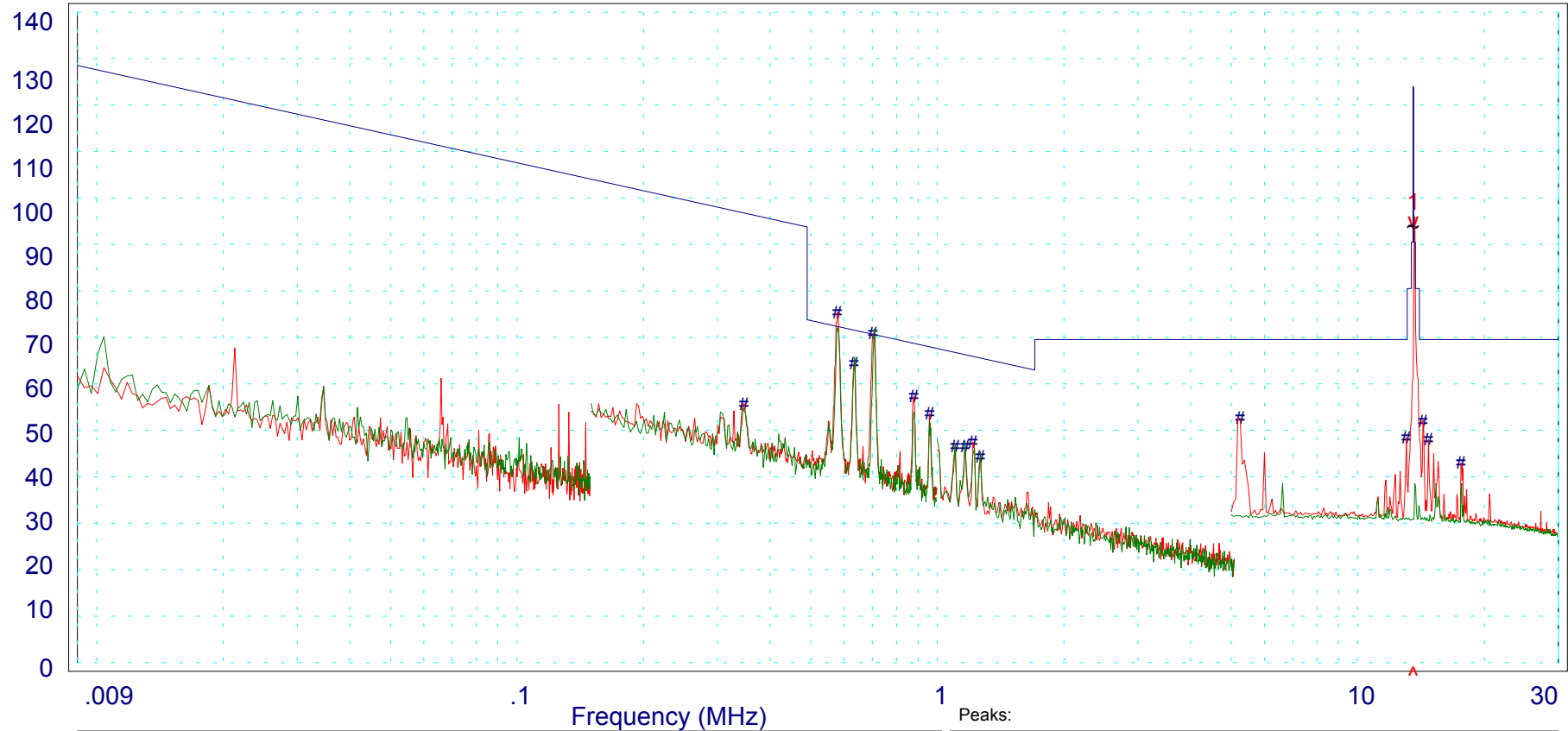
FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

C:\plotting\PCF\T71003_2.PCF

Test Date: 05-12-07

GRAPH No. 10



Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC_loop_3dL1 (dBuV/m)	3dL1 (dB)
1	13.56	95.9	94.5	124.0	-29.5

Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC06

Limits:
FCC_loop_3mFcc Pt15 Subpart C Section 15.209(a) 3Metre Limits

Legend:
— Ambients
— Emissions

Ver 5.5 Build 107
Colo Radiated Test Setup Active Loop
t:A0080408E c1:C0200208 c2:NONE p:NONE a:NONE
Site ID: OATS#1,1247 Upper Colo Rd. Colo, NSW
Test Officer: Bruce Holdsworth

Source:
T71003r6 6 7 8 9
T71003r6 10 11 12 13

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

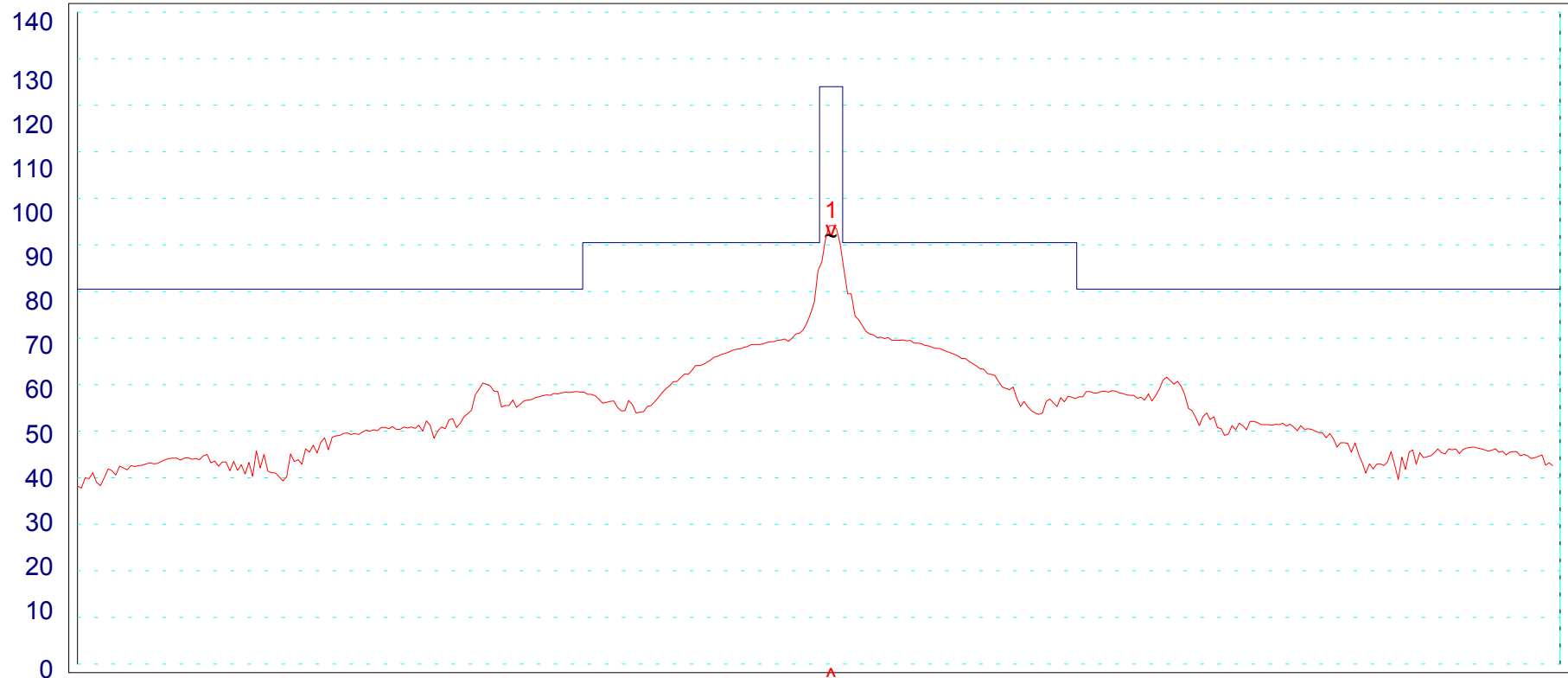
EMC Technologies Pty. Ltd. - Global Product Certification

FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 05-12-07

GRAPH No. 11



13.11

Frequency (MHz)

14.01

Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC05

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC_loop_3dL1 (dBuV/m)	dL1 (dB)
1	13.56	94.3	92.7	124.0	-31.3

Limits: FCC_loop_3mFcc Pt15 Subpart C Section 15.209(a) 3Metre Limits

Legend:

— Carrier

Ver 5.5 Build 107
Colo Radiated Test Setup Active Loop
t:A0080408E c1:C0200208 c2:NONE p:NONE a:NONE
Site ID: OATS#1,1247 Upper Colo Rd. Colo, NSW
Test Officer: Bruce Holdsworth

Source:
T71003r6 5

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

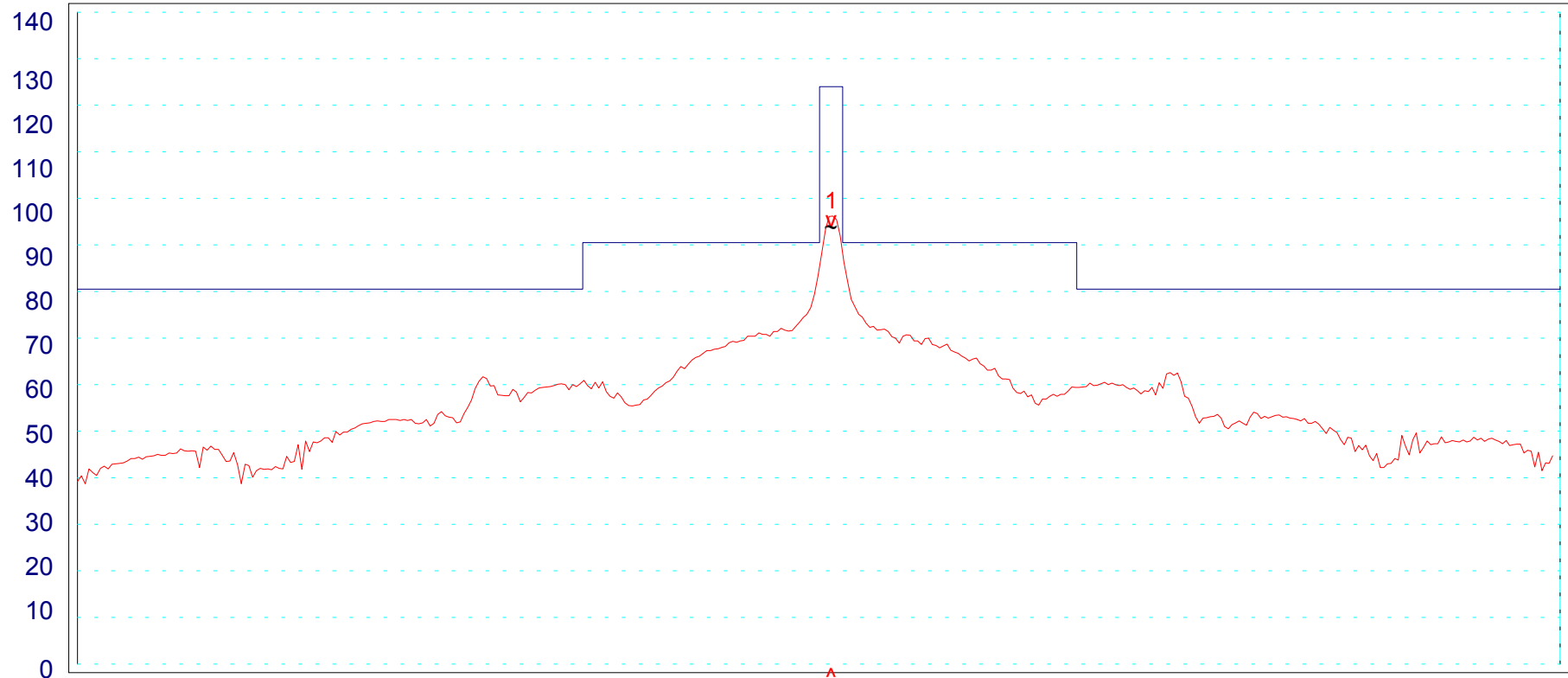
EMC Technologies Pty. Ltd. - Global Product Certification

FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 05-12-07

GRAPH No. 12



13.11

Frequency (MHz)

14.01

Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC06

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC_loop_3dL1 (dBuV/m)	dL1 (dB)
1	13.56	96.3	94.6	124.0	-29.4

Limits: FCC_loop_3mFcc Pt15 Subpart C Section 15.209(a) 3Metre Limits

Legend:

— Carrier

Ver 5.5 Build 107
Colo Radiated Test Setup Active Loop
t:A0080408E c1:C0200208 c2:NONE p:NONE a:NONE
Site ID: OATS#1,1247 Upper Colo Rd. Colo, NSW
Test Officer: Bruce Holdsworth

Source:

T71003r6 14

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

EMC Technologies Pty. Ltd. - Global Product Certification

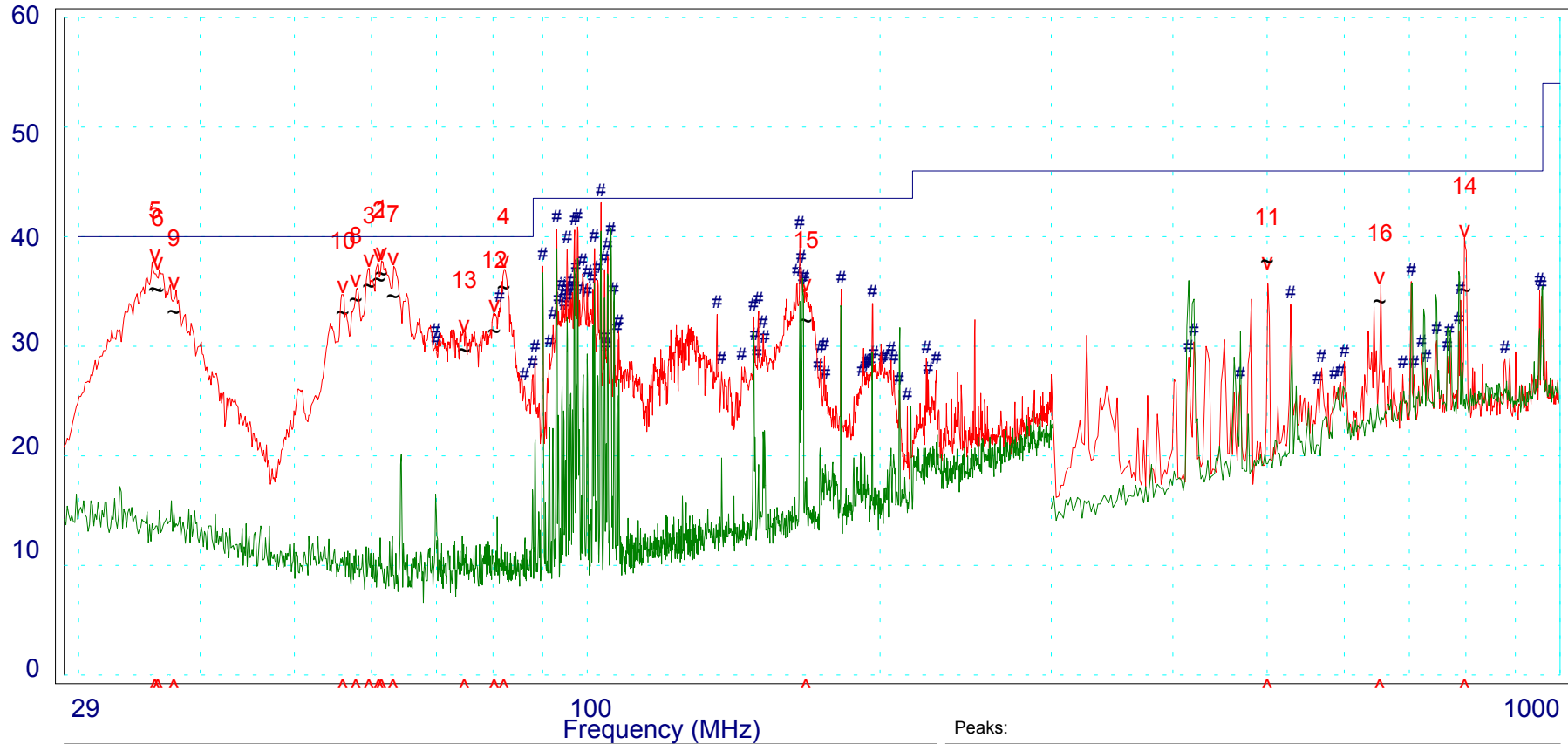
FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 04-12-07

GRAPH No. 13



Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC05

Limits: FCC-B3 FCC CLASS B RAD 3M LIMITS
Legend: Vertical Ambients (green line), Vertical Emissions (red line)
Source: Vamb1211 1 2 3 4 5 11, T71003r4 1 2 3 4 5 11

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC-B3 (dBuV/m)	dL1 (dB)
1	61.43	37.8	35.8	40.0	-4.2
2	61.08	37.6	35.2	40.0	-4.8
3	59.66	37.1	34.6	40.0	-5.4
4	82.09	37.0	34.5	40.0	-5.5
5	35.95	37.6	34.4	40.0	-5.6
6	36.19	36.9	34.3	40.0	-5.7
7	63.15	37.3	33.7	40.0	-6.3
8	57.82	35.3	33.4	40.0	-6.6
9	37.59	35.1	32.3	40.0	-7.7
10	56.07	34.8	32.2	40.0	-7.8
11	499.99	37.0	37.0	46.0	-9.0
12	80.24	33.0	30.5	40.0	-9.5
13	74.74	31.2	28.8	40.0	-11.2
14	797.73	39.9	34.3	46.0	-11.7
15	167.82	34.9	31.5	43.5	-12.0
16	652.48	35.5	33.3	46.0	-12.8

EMC Technologies Pty. Ltd. - Global Product Certification

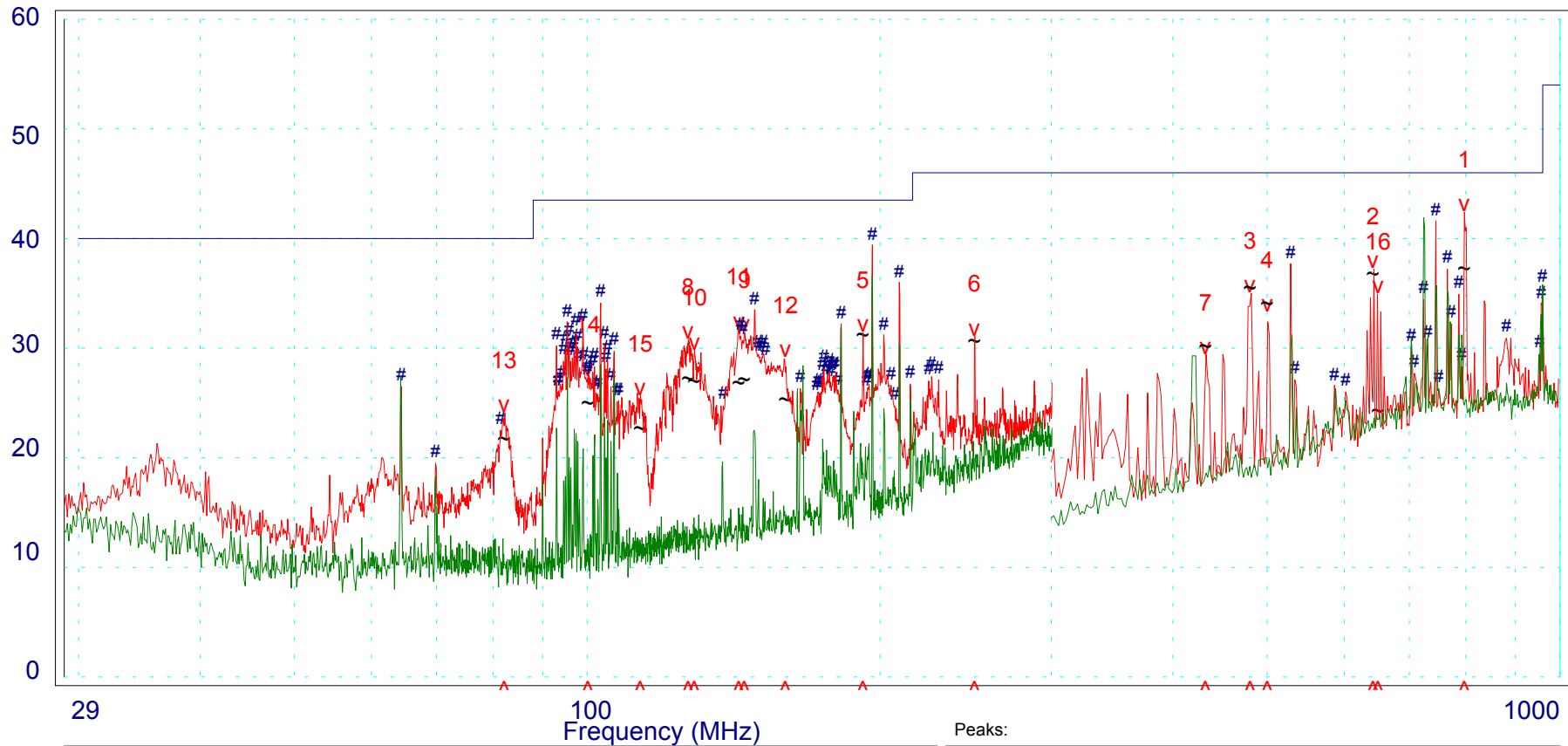
FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 04-12-07

GRAPH No. 14



Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC05

Limits: FCC-B3 FCC CLASS B RAD 3M LIMITS
Legend: Horizontal Ambients (green line), Horizontal Emissions (red line)

Ver 5.5 Build 107
Colo Radiated Test Setup
t:A0690208 c1:C0200208 c2:NONE p:A0961108 a:NONE
Site ID: OATS#1,1247 Upper Colo Rd. Colo, NSW
Test Officer: Bruce Holdsworth

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

Peaks:

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC-B3 (dBuV/m)	dL1 (dB)
1	796.93	42.4	36.5	46.0	-9.5
2	642.05	37.2	36.0	46.0	-10.0
3	480.02	35.0	34.7	46.0	-11.3
4	500.00	33.3	33.3	46.0	-12.7
5	192.01	31.4	30.4	43.5	-13.2
6	250.01	31.1	29.8	46.0	-16.2
7	432.03	29.4	29.3	46.0	-16.7
8	126.93	30.8	26.4	43.5	-17.1
9	145.04	31.4	26.3	43.5	-17.2
10	128.85	29.8	26.2	43.5	-17.3
11	143.13	31.7	26.0	43.5	-17.5
12	159.83	29.1	24.5	43.5	-19.0
13	82.11	24.1	20.9	40.0	-19.1
14	100.15	27.4	24.2	43.5	-19.3
15	113.34	25.6	21.8	43.5	-21.7
16	650.01	34.9	23.5	46.0	-22.5

EMC Technologies Pty. Ltd. - Global Product Certification

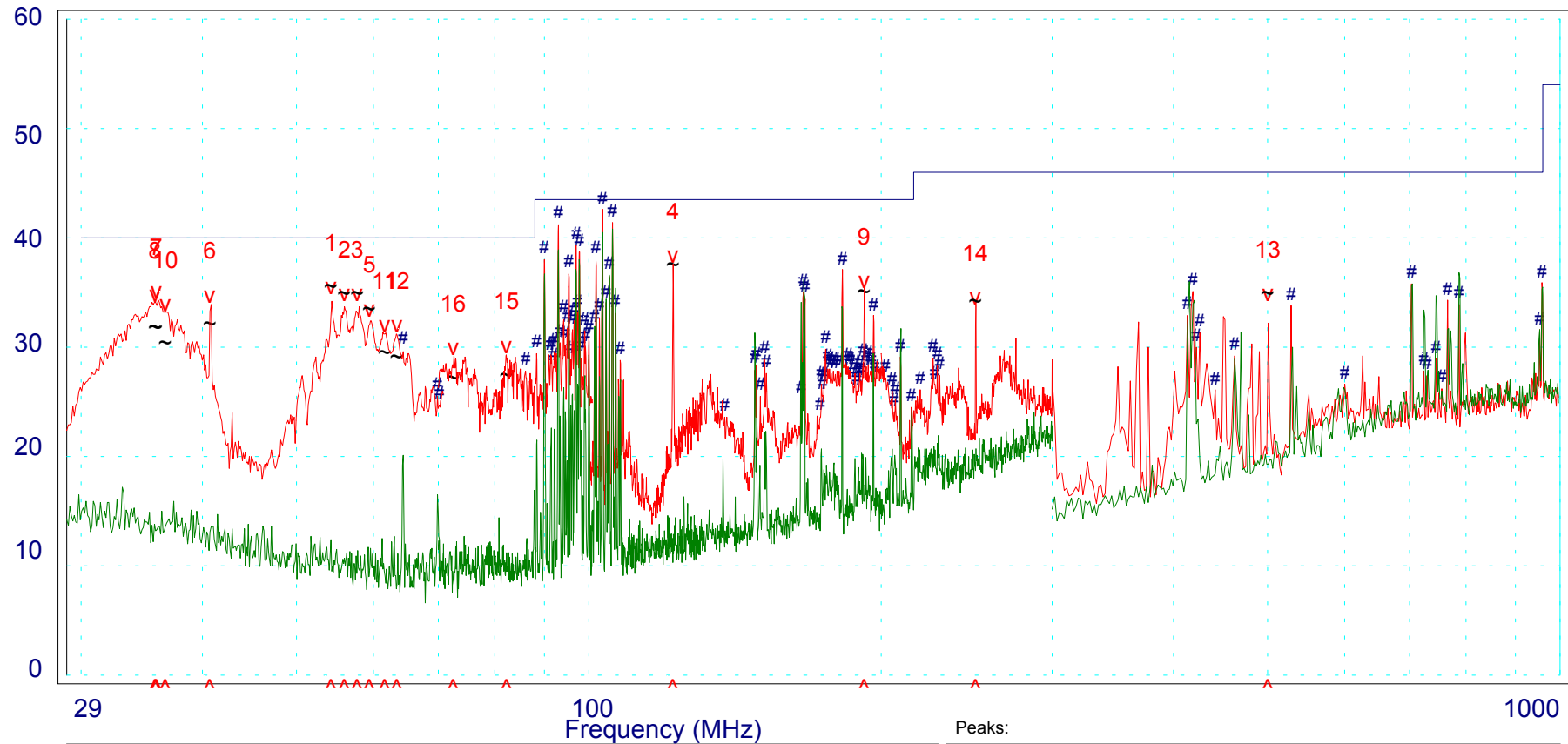
FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 04-12-07

GRAPH No. 15



Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC06

Limits: FCC-B3 FCC CLASS B RAD 3M LIMITS
Legend: Vertical Ambients (green line), Vertical Emissions (red line)
Source: Vamb1211 1 2 3 4 5 11, T71003r5 1 2 3 4 5 11

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC-B3 (dBuV/m)	dL1 (dB)
1	54.25	34.7	34.7	40.0	-5.3
2	56.00	34.1	34.1	40.0	-5.9
3	57.73	34.1	34.1	40.0	-5.9
4	122.05	37.6	36.8	43.5	-6.7
5	59.42	32.7	32.7	40.0	-7.3
6	40.69	34.0	31.4	40.0	-8.6
7	35.84	34.3	31.1	40.0	-9.0
8	35.75	34.1	31.0	40.0	-9.0
9	192.01	35.3	34.3	43.5	-9.3
10	36.63	33.2	29.6	40.0	-10.4
11	61.64	31.3	28.7	40.0	-11.3
12	63.41	31.3	28.3	40.0	-11.7
13	499.99	34.1	34.1	46.0	-11.9
14	250.00	33.8	33.4	46.0	-12.6
15	82.24	29.4	26.6	40.0	-13.4
16	72.47	29.2	26.4	40.0	-13.6

EMC Technologies Pty. Ltd. - Global Product Certification

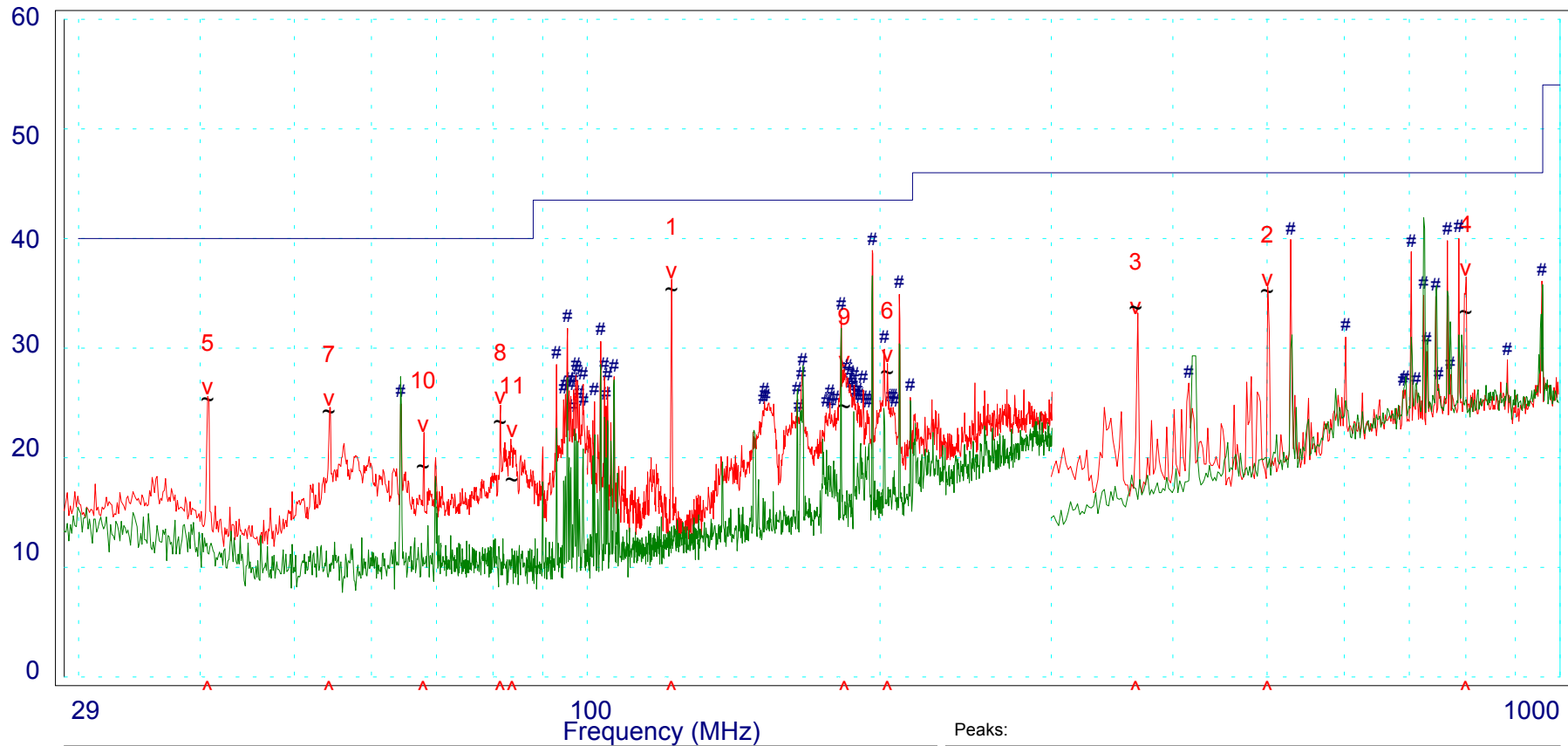
FCC Class B
Radiated Emissions (dBuV/m)
= Ambient

Job No:T71003

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Test Date: 04-12-07

GRAPH No. 16



Magellan Technology Pty Ltd
Tunnel Reader
Model: MSTRP5050
Antenna Type: MLC06

Limits: FCC-B3 FCC CLASS B RAD 3M LIMITS
Legend: Horizontal Ambients (green line), Horizontal Emissions (red line)

Ver 5.5 Build 107
Colo Radiated Test Setup
t:A0690208 c1:C0200208 c2:NONE p:A0961108 a:NONE
Site ID: OATS#1,1247 Upper Colo Rd. Colo, NSW
Test Officer: Bruce Holdsworth

EMC Technologies (Sydney) 3/87 Station Rd, Seven Hills, NSW, 2147, NSW, Australia
Phone +(612) 9624 2777 Fax+(612) 9838 4050

No	Freq (MHz)	Peak (dBuV/m)	Qp Val	FCC-B3 (dBuV/m)	dL1 (dB)
1	122.03	36.3	34.6	43.5	-8.9
2	499.99	35.5	34.3	46.0	-11.7
3	366.13	33.0	32.8	46.0	-13.2
4	799.58	36.5	32.5	46.0	-13.5
5	40.69	25.7	24.5	40.0	-15.5
6	203.41	28.6	27.0	43.5	-16.5
7	54.25	24.6	23.4	40.0	-16.6
8	81.37	24.8	22.4	40.0	-17.6
9	183.70	28.1	23.9	43.5	-19.6
10	67.79	22.3	18.4	40.0	-21.6
11	83.67	21.8	17.1	40.0	-22.9