

EMC QUALIFICATION TEST REPORT

RF CONCEPTS

RF AMPLIFIER, 8406

TESTED TO CONFORM WITH:

☒ **Emissions Standards**

for

TIA-603C

TEST REPORT NUMBER: 100817-1608-1

DATE OF TEST COMPLETION: SEPTEMBER 20, 2010

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Approved by:



Laboratory Director

DOCUMENT REVISION HISTORY

REVISION #	REPORT NUMBER	DESCRIPTION OF REVISION	DATE OF REVISION
1	100817-1608-1	ORIGINAL REPORT	2010-10-04

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Any questions regarding this report should be directed to:

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EMC QUALIFICATION TEST REPORT

RF AMPLIFIER, 8406

1.0 EXECUTIVE SUMMARY

1.1 PURPOSE

The purpose of this report is to present EMC test data and demonstrate conformity to the requirements of the prescribed standards for Emissions and/or Immunity.

1.2 CONFORMITY

The test article was tested to the standards listed in Table I with the indicated conformity status. All test methods were performed in accordance to with the standards listed.

TABLE I. EMISSIONS CONFORMITY SUMMARY

TEST TYPE	COMPLIANCE STANDARD	TESTING TECHNIQUE	TEST DESCRIPTION	PRODUCT CLASSIFICATION	CONFORMITY STATUS
EMISSIONS	<u>FCC Part 15</u>	<input checked="" type="checkbox"/> IEC/EN 55022	Unintentional Radiated Emissions	Class B	PASSED
EMISSIONS	<u>TIA-603C</u>	<input checked="" type="checkbox"/> TIA-603C	Radiated Spurious Emissions		PASSED

1.3 EQUIPMENT UNDER TEST (EUT)

EUT NAME: **RF AMPLIFIER**
EUT MODEL/PART NUMBER(S): **8406**
EUT SERIAL NUMBER(S): **8406103300001**

2.0 EMISSIONS TEST STANDARDS

TIA-603C
FCC Part 15, Subpart B

Class B
Class B

2.1 ☒ UNINTENTIONAL RADIATED EMISSIONS

Measurements for *Radiated Emissions* were performed over the frequency range of 30 MHz to 1000 MHz in the horizontal and vertical antenna polarities to the requirements of:

FCC Part 15

Class B

Testing Conditions

Date of Test: August 17, 2010
Temperature: 19° C
Relative Humidity: 50%
Test Voltage: 240 VAC 60 Hz
Test Operator: SP

Test Location

Criterion Technology Open Area Test Site

Test Distance

Antenna Distance: **3 meter(s)** **Final Measurement(s)**

Test Equipment

- ☒ Rohde and Schwarz Receiver, ESVS-30
- ☒ Veratech Pre-Amp #3
- ☒ Chase BiLog Antenna, Model CB6111

Test Accessories: See Appendix C for support equipment details

Test Results of Radiated Emissions

Test Status: **PASSED**

Frequency Range: **30 MHz to 1000 MHz**

Minimum Margin to Limit: **-5.74** dB at **34.26** MHz

Under 1GHz @ 3 meters

Uncertainty Horizontal under 200 MHz:	<u>4.64</u>	dB
Uncertainty Horizontal over 200 MHz:	<u>4.04</u>	dB
Uncertainty Vertical under 200 MHz:	<u>4.85</u>	dB
Uncertainty Vertical over 200 MHz:	<u>4.64</u>	dB

Remarks

See: **APPENDIX A** for EUT Photographs
APPENDIX B for Data Sheets
APPENDIX D for Test Equipment Calibration Status

2.2 ☒ **LICENSED AMPLIFIER**

Measurements for *Spurious Radiated Emissions* were performed over the frequency range of 50 MHz to 505 MHz the horizontal and vertical antenna polarities to the requirements of:

TIA-603C**Class B**Testing Conditions

Date of Test: September 20, 2010
Temperature: 17? C
Relative Humidity: 37%
Test Voltage: 240 VAC 60 Hz
Test Operator: SP

Test Location**Criterion Technology Open Area Test Site**Test DistanceAntenna Distance: **3 meter(s)** **Final Measurement(s)**Test Equipment

- ☒ Rohde and Schwarz Receiver, ESVS-30
- ☒ Veratech Pre-Amp #3
- ☒ Chase BiLog Antenna, Model 1121

Test Accessories: **See Appendix C for support equipment details**Test Results of Radiated EmissionsTest Status: **PASSED** Frequency Range: **50 MHz to 505 MHz**Minimum Margin to Limit: **-12.7** dB at **50.1** MHzUnder 1GHz @ 3 meters

Uncertainty Horizontal under 200 MHz:	<u>4.64</u>	dB
Uncertainty Horizontal over 200 MHz:	<u>4.04</u>	dB
Uncertainty Vertical under 200 MHz:	<u>4.85</u>	dB
Uncertainty Vertical over 200 MHz:	<u>4.64</u>	dB

Remarks

See: **APPENDIX A** for EUT Photographs
APPENDIX B for Data Sheets
APPENDIX D for Test Equipment Calibration Status

3.0 APPENDIX A: EUT PHOTOGRAPHS

3.1 RADIATED EMISSIONS – REAR VIEW



4.0 RADIATED EMISSIONS – FRONT VIEW



5.0 APPENDIX B: DATA SHEETS**5.1 RADIATED EMISSIONS DATA**

Criterion Technology Tue Aug 17 18:06:09 2010

EUT: RF Amplifier, 8406

s/n 840610330001

Manufacturer: RF Concepts

Tester: sp

Special ID: 100817-1608

EUT Level: Production Unit

EUT Information: Normal Ops standby mode

Test information: 240VAC/60Hz FCC P-15 Class B, 3m

Minimum Margin to Limit: **-5.74** dB at **36.8703** MHz**Table 1: Scan List, sorted by margin to limit FCC-B, -20.0dB filter**

<u>Freq, MHz</u>	<u>Value</u> <u>dBuV/m</u>	<u>Sts</u>	<u>Margin to</u> <u>FCC-B limits</u> <u>(dB)</u>	<u>TT</u>	<u>Hght</u>	<u>Az</u>	<u>Comment</u>
36.8703	34.26	m	-5.74	268	101	V	.
65.5385	32.97	m	-7.03	118	123	V	.
47.1070	29.79	m	-10.21	138	102	V	.
52.2420	29.48	m	-10.52	29	101	V	.
51.1982	27.75	m	-12.25	6	102	V	.
152.4021	30.25	m	-13.27	49	399	V	.
52.0261	25.17	q	-14.83	0	100	V	.
69.6360	24.57	q	-15.43	90	150	V	.
32.7665	23.12	q	-16.88	270	101	V	.
614.3114	28.32	m	-17.70	347	156	V	.
55.2963	21.76	q	-18.24	270	101	V	.
137.2514	24.73	m	-18.79	274	347	H	.
86.0155	21.16	q	-18.84	270	150	V	.
644.3114	27.12	m	-18.90	69	112	V	.
35.2564	20.67	q	-19.33	270	101	V	.
61.4404	20.65	q	-19.35	270	101	V	.
74.9690	20.58	q	-19.42	270	101	V	.
76.5893	20.54	q	-19.46	180	101	V	.
49.8485	20.34	q	-19.66	270	101	V	.
73.7270	20.29	q	-19.71	0	100	V	.

Table 2: Scan List for FCC-B, sorted by Frequency, -20.0dB filter

<u>Freq, MHz</u>	<u>Final Value</u> <u>dBuV/m</u>	<u>Sts</u>	<u>Margin to</u> <u>FCC-B limits</u> <u>(dB)</u>	<u>TT</u>	<u>Hght</u>	<u>Az</u>	<u>Comment</u>
32.7665	23.12	q	-16.88	270	101	V	.
35.2564	20.67	q	-19.33	270	101	V	.
36.8703	34.26	m	-5.74	268	101	V	.
47.1070	29.79	m	-10.21	138	102	V	.
49.8485	20.34	q	-19.66	270	101	V	.
51.1982	27.75	m	-12.25	6	102	V	.
52.0261	25.17	q	-14.83	0	100	V	.
52.2420	29.48	m	-10.52	29	101	V	.
55.2963	21.76	q	-18.24	270	101	V	.
61.4404	20.65	q	-19.35	270	101	V	.
65.5385	32.97	m	-7.03	118	123	V	.
69.6360	24.57	q	-15.43	90	150	V	.
73.7270	20.29	q	-19.71	0	100	V	.
74.9690	20.58	q	-19.42	270	101	V	.
76.5893	20.54	q	-19.46	180	101	V	.
86.0155	21.16	q	-18.84	270	150	V	.
137.2514	24.73	m	-18.79	274	347	H	.
152.4021	30.25	m	-13.27	49	399	V	.
614.3114	28.32	m	-17.70	347	156	V	.
644.3114	27.12	m	-18.90	69	112	V	.

Table 3: Complete Scan List Sorted by Frequency

<u>Freq, MHz</u>	<u>I-val before xducer factors dBuV</u>	<u>Final Value dBuV/m</u>	<u>Sts</u>	<u>TT</u>	<u>Hght</u>	<u>Az</u>	<u>Time</u>	<u>Comment</u>
32.7665	28.68	23.12	q	270	101	V	Tue Aug 17 16:39:35 2010	.
35.2564	27.38	20.67	q	270	101	V	Tue Aug 17 16:39:41 2010	.
36.8703	41.61	34.26	m	268	101	V	Tue Aug 17 17:15:55 2010	.
46.8313	32.18	19.60	q	0	100	V	Tue Aug 17 11:27:18 2010	.
47.1070	42.50	29.79	m	138	102	V	Tue Aug 17 17:33:44 2010	.
49.8485	34.33	20.34	q	270	101	V	Tue Aug 17 16:40:00 2010	.
51.1982	42.45	27.75	m	6	102	V	Tue Aug 17 17:32:00 2010	.
52.0261	40.27	25.17	q	0	100	V	Tue Aug 17 11:27:34 2010	.
52.2420	44.65	29.48	m	29	101	V	Tue Aug 17 17:29:00 2010	.
55.2963	37.62	21.76	q	270	101	V	Tue Aug 17 16:40:16 2010	.
61.4404	36.89	20.65	q	270	101	V	Tue Aug 17 16:40:21 2010	.
65.5385	48.98	32.97	m	118	123	V	Tue Aug 17 17:25:04 2010	.
69.6360	40.38	24.57	q	90	150	V	Tue Aug 17 15:25:23 2010	.
72.2633	27.31	11.71	q	270	101	V	Tue Aug 17 16:40:32 2010	.
72.5991	28.92	13.36	q	0	100	V	Tue Aug 17 10:34:54 2010	.
73.7270	35.73	20.29	q	0	100	V	Tue Aug 17 11:28:00 2010	.
74.7472	34.50	19.14	q	270	150	V	Tue Aug 17 16:37:54 2010	.
74.9690	35.92	20.58	q	270	101	V	Tue Aug 17 16:40:41 2010	.
76.5893	35.77	20.54	q	180	101	V	Tue Aug 17 15:54:48 2010	.
76.7990	34.48	19.27	q	270	101	V	Tue Aug 17 16:40:45 2010	.
86.0155	34.94	21.16	q	270	150	V	Tue Aug 17 16:38:08 2010	.
114.6894	28.22	18.11	q	270	101	V	Tue Aug 17 16:40:55 2010	.
122.8817	25.40	15.75	q	180	150	V	Tue Aug 17 16:06:12 2010	.
131.0713	29.01	19.38	q	0	100	V	Tue Aug 17 11:28:25 2010	.
137.1994	32.66	22.95	m	12	232	V	Tue Aug 17 17:57:40 2010	.
137.2514	34.44	24.73	m	274	347	H	Tue Aug 17 17:50:19 2010	.
137.6720	33.12	23.43	q	270	101	V	Tue Aug 17 16:41:07 2010	.
152.4021	40.68	30.25	m	49	399	V	Tue Aug 17 17:43:36 2010	.
152.9285	30.20	19.70	m	286	101	V	Tue Aug 17 18:04:45 2010	.
186.3121	29.17	16.96	q	270	250	V	Tue Aug 17 16:20:10 2010	.
200.7064	27.29	15.94	q	0	250	H	Tue Aug 17 15:07:21 2010	.
208.8990	24.97	13.43	q	0	150	V	Tue Aug 17 14:45:03 2010	.
217.0905	26.52	15.16	q	90	201	H	Tue Aug 17 15:13:24 2010	.
225.2850	27.38	16.80	q	270	101	V	Tue Aug 17 16:41:29 2010	.
233.4755	29.07	19.15	q	270	101	V	Tue Aug 17 16:41:32 2010	.
243.8195	24.76	15.55	q	270	101	V	Tue Aug 17 16:41:34 2010	.
249.3321	27.23	18.64	q	90	201	H	Tue Aug 17 15:13:32 2010	.
250.0774	26.14	17.64	q	0	151	V	Tue Aug 17 11:32:10 2010	.
256.4794	27.99	19.94	q	270	101	H	Tue Aug 17 16:44:11 2010	.
263.2235	25.42	17.07	q	270	150	H	Tue Aug 17 16:28:30 2010	.
614.3114	28.54	28.32	m	347	156	V	Tue Aug 17 17:41:21 2010	.
644.3114	26.64	27.12	m	69	112	V	Tue Aug 17 17:38:38 2010	.

5.2 ☒ SPURIOUS RADIATED EMISSIONS TO TIA-603C CLASS BMinimum Margin to Limit: -12.7 dB at 50.1 MHz

Harmonic	Freq. (MHz)	Measured Radiated emissions level @ 10M (dBuV/m)	Rx Pol	Turntable azimuth (deg)	Sample Height (cm)	CW Level into Ref Antenna to match measured (dBm)	Reference Antenna Gain (dBi)	Equivalent CW Level into Isotropic Radiator (dBm)	TIA-603C EIRP limit (dBm)	Margin to Limit (dB)
Fund.	50.1	52.2	v	100	154	-27.8	2.1	-25.7	-13	-12.7
2	100.2	38	v	100	208	-34.6	2.1	-32.5	-13	-19.5
3	150.3	32	v	108	22	-59.1	2.1	-57	-13	-44
4	200.4	37.9	v	100	302	-46.6	2.1	-44.5	-13	-31.5
5	250.5	32	v	100	169	-57.3	2.1	-55.2	-13	-42.2
6	300.6	31.6	v	100	86	-58	2.1	-55.9	-13	-42.9
7	350.7	31	*	*	*	-38.9	2.1	-36.8	-13	-23.8
8	400.8	31	*	*	*	-51.6	2.1	-49.5	-13	-36.5
9	450.9	31	*	*	*	-51.6	2.1	-49.5	-13	-36.5
10	501	31	*	*	*	-51.7	2.1	-49.6	-13	-36.6
* Noise floor implies RE below this level and positioning does not apply										

Margin to Limit is calculated from the following.

Margin to Limit = TIA603 Limit – (SigGenPwr – Cable Loss) + Reference Antenna Gain

(Signal Generator Power – Cable Loss) is measured at end of Reference Antenna cable after matching.

6.0 APPENDIX C: PRODUCT INFORMATION FORM**General Information**Date Aug. 15, 2010Company Name: RF ConceptsCompany Address: 6185 Arapahoe Rd., Boulder, CO 80303Contacts: Mike Higgins Phone: 303 246-3518email: mhiggins@mesanetworks.net**Market Information (Check all that Apply)**USA ☒ Canada ☐ Euro.Union ☐ Taiwan ☐ Japan ☐ New Zealand ☐ Australia ☐Other ☐**Product Information**Name RF Amplifier Model Number 8406 Serial Number: 840610330001Product Dimensions: 17.3" W x 7" H x 21.0" D Including Fan Space Weight: 65 lbs.FCC Number: DGVPA-8406**Product Power Source:**Battery: **No**Voltage

AC Supply:

of cords: 1Voltage for each: 120-240 VAC

I/O Cables:

of cords under 3 meters: None# of cords over 3 meters:

List Support equipment if any:

Device: 50 MHz transceiverManufacturer: ICOMModel: IC-756- Pro-IISerial number: 01887**Emissions Testing:**Is this equipment to be used in a residence: ☐ No (Class A) ☒ Yes (Class B)Does this have a transmitter or Transceiver: ☒ No ☐ YesHighest oscillator/Clock frequency (including internal clocks only to the microprocessor): 10 MHz

To be compliant with C63.4-2003 test methodology, for the emissions testing, the equipment must be exercising all of the functionality within the capability of the Equipment under test. In addition, the equipment must be equipped in the configuration of maximum capability, which will be offered to customers. The test software installed in the Equipment Under Test (EUT) must exercise all of the modules in this maximum capability configuration.

Description of the maximum capability configuration: Amplifier capable of 1500 watts out at 50 MHz with 50 watts drive input power.Name and revision # of the test software used for the emissions test:

Specifications

Frequency	50-54 MHz
Input drive Level	50 Watts Nominal
Power Output	1500 watts
SWR Tolerance	3:1
Duty Cycle	100 %
Tubes	(4CX1500B)
Inter Modulation Level	34 dB minimum, Two Exciter
Harmonics	-72 dBc
Mode of Operation	CW, SSB, FM
Input AC Voltage	100-240 Selectable
AC Current	<13 5mps @240 VAC @1500 watts
Input Impedance	50 Ohms
Output Impedance	50 Ohms
RF Connectors	“N” Female
Cooling	Forced Air
Size	17.3” W x 7”H x 21.0” D Including Fan Space
Weight	70 lbs., 31.8 kg
T/R Relay	Vacuum QSK
Tuning /Band switching	Manual
Display	Bargraph LED
Interface	USB
Protection	Against all common faults
RF Bypass Level	Less than 200 watts

6.0 APPENDIX D: TEST EQUIPMENT AND CALIBRATION STATUS

Manufacturer	Name/Description	Model Number	Serial Number	Cal. Due Date
Veratech	Preamplifier (AMP2)	unknown	N/A	9/6/2010
FCC	EM Clamp	F2031	309	10/2/2010
FCC	CDN	FCC-801-M3-25	9714	10/2/2010
Rohde/ Schwarz	VHF/UHF Receiver	ESVS-30	863342014	10/8/2010
Rohde/ Schwarz	LISN	ESH2-Z5	828739-001	10/8/2010
Rohde/ Schwarz	HF Receiver	ESHS-30	826003/011	10/8/2010
Solar Electronics	LISN	8012-50-R-24-BNC	892310	10/15/2010
Haefely Trench	Test Mag	Mag 100	80162	10/15/2010
Gigatronics	Power Sensor	80301A-410	1831996	10/15/2010
Gigatronics	Power Meter	8541C	1830945	10/15/2010
Hewlett Packard	Tracking Generator	HP85645A	3210A00124	10/22/2010
FCC	LISN	FCC-TLISN-T4-02	20252	11/24/2010
Calorina Instruments	AC Power Source Pacs-1	5001iX-CTS-411	55637/ 72242	3/24/2011
Haefely Trench	Surge Generator	PSURGE 6.1	083-906-07	5/26/2011
Haefely Trench	EFT Tester	PEFT Junior	583-333-51	5/26/2011
Haefely Trench	Surge Coupler	FP-Surge 32.1	083-925-05	5/26/2011
EMCO	Active Loop	6502	2626	5/28/2011
Amplifier Research	E-Field Probe	FP2080	20236	10/16/2011
Amplifier Research	E-Field Probe	FP2000	19682	10/19/2011
EMCO	Horn	3160-08	1147	1/19/2012
Hewlett Packard	Signal Generator	HP 8648D	3642000145	3/9/2012
Hewlett Packard	Quasi Peak Adapter	85650A	3014A18942	5/3/2012
Hewlett Packard	Spectrum Analyzer	HP 8566B	2240A0195	5/21/2012
Hewlett Packard	Spectrum Analyzer Display	HP 85662A	3014A18942	5/21/2012
Haefely Trench	ESD Gun	PESD 1600	H605100	6/2/2012

7.0 APPENDIX E: TEST DIRECTIVES, STANDARDS AND METHODS

7.1.1 EUROPEAN DIRECTIVES, STANDARDS AND METHODS

89/336/EEC: Council Directive of 03 May 1989 on the Approximation of the Laws of the Member States Relating to Electromagnetic Compatibility, OJEC No. L 139/19-26, Aug 1993.

BS DD ENV 50204 (CENELEC): Testing and Measurement Techniques; Radiated Electromagnetic Field from Digital Radio Telephones - Immunity Test, 1996.

EN 55011 (CENELEC): ISM Radio-Frequency Equipment Radio Disturbance Characteristics - Limits and Methods of Measurement, 2007.

EN 55014-1 (CENELEC): Part 1. Electromagnetic Compatibility Requirements for Household Appliances, Electric Tools and Similar Apparatus - Part 1. Emission - Product Family Standard, 2007.

EN 55022 (CENELEC): ITE - Radio-Frequency Equipment Radio Disturbance Characteristics - Limits and Methods of Measurement, 2008.

CISPR 22: Information Technology Equipment – Radio Disturbance Characteristics - Limits and Methods of Measurement, 2009.

EN 55024 (CENELEC): ITE - Immunity Characteristics - Limits and Methods of Measurement, 2008.

EN 55103-1: Product Family standard for audio, video, audio - visual and entertainment lighting control apparatus for professional use. Part 1: Emissions, April 1997.

EN 55103-2: Product Family standard for audio, video, audio - visual and entertainment lighting control apparatus for professional use. Part 2: Immunity, April 1997.

EN 60601-1-2 (CENELEC): Medical Electrical Equipment. Part 1. General Requirements for Safety - Section 1.2. Collateral Standard: Electromagnetic Compatibility - Requirements and Tests, Third Edition 2007.

EN 61000-6-1: EMC- Part 6-1. Generic Standard-Immunity for residential, commercial and light-industrial Environments 2007.

EN 61000-6-2: EMC- Part 6-2. Generic Standard-Immunity for Industrial Environments, 2005.

EN 61000-6-3: EMC- Part 6-3. Generic Standard-Emissions for residential, commercial and light-industrial Environments 2007.

EN61000-6-4 (CENELEC): EMC - Generic Emission Standard, Part 6-4: Industrial Environment, 2007.

EN 61000-3-2 (CENELEC): EMC - Part 2. Limits for Harmonic Current Emissions (Equipment Input Current ? 16 A per phase), with Amendment 14, 2006.

EN 61000-3-3 (CENELEC): EMC - Part 3. Limitation of Voltage Fluctuation and Flicker in Low-Voltage Supply Systems for Equipment with Rated Current ? 16 A, 2008.

EN 61000-4-2 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 2. Electrostatic Discharge Immunity Test, 2009.

EN 61000-4-3 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 3. Radiated, Radio-Frequency, Electromagnetic Field Immunity, A2:2010.

EN 61000-4-4 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 4. Electrical Fast Transient/Burst Immunity Test, A1:2010.

EN 61000-4-5 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 5. Surge Immunity Test, 2006.

EN 61000-4-6 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 6. Immunity to Conducted Disturbances, Induced by Radio-Frequency Fields, 2009.

EN 61000-4-8 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 8. Power Frequency Magnetic Field Immunity Test, 2010.

EN 61000-4-11 (CENELEC): EMC - Part 4. Testing and Measurement Techniques; Section 11. Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests, 2004

EN 61326 (CENELEC): Electrical Equipment for Measurement, Control and Laboratory Use - EMC Requirements, 2005.

EN 61326-1 Electrical Equipment for Measurement, Control and Laboratory Use - EMC Requirements, - Part 1: General Requirements, 2008

7.1.2 47 CFR FCC PART 15 RADIO FREQUENCY DEVICES: OCT 2009

Subpart A General.

Subpart B Unintentional Radiators.

Subpart C Intentional Radiators.

Subpart D Unlicensed Personal Communications Service Devices.

7.1.3 47 CFR FCC PART 22 PUBLIC MOBILE SERVICES: OCT 2009

7.1.4 47 CFR FCC PART 24 PERSONAL COMMUNICATIONS SERVICES: OCT 2009

7.1.5 JAPAN

VCCI V-3

7.1.6 CANADA

ICES-001: Interference-Causing Equipment Standard - ISM RF Generators, 2006.

ICES-003: Interference-Causing Equipment Standard - Digital Apparatus, 2004.

7.1.7 AUSTRALIA/NEW ZEALAND

SAA AS/NZ 3548: Limits and Methods of Measurement of Radio Disturbance Characteristics of ITE, 1997.

AS/NZS CISPR22

7.1.8 TAIWAN

CNS13438, 2006.

7.1.9 KOREA

KN22, September 29, 2005

KN 24, 1998