



EMC Technologies (NZ) Ltd
PO Box 68-307
Newton, Auckland
Phone 09 360 0862
Fax 09 360 0861
E-Mail Address: aucklab@ihug.co.nz
Web Site: www.emctech.com.au

TEST REPORT

**PolyComp 32X80P7.621YHB
Electronic Sign**

tested to the specification

EN 55022, 2006

for

PolyComp Electronic Signs

A handwritten signature in black ink, appearing to read "Andrew Cutler", is placed over a light blue rectangular background.

This Test Report is issued with the authority of:

Andrew Cutler - General Manager



All tests reported
herein have been
performed in accordance
with the laboratory's
scope of accreditation

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1. STATEMENT OF COMPLIANCE

The **Polycomp 32X80P7.621YHB Electronic Sign** complies with EN 55022, 2006 as a Class A device, with measurement falling within the window of uncertainty.

2. RESULTS SUMMARY

The results from testing are summarised in the following table:

Parameter	Result
Noise Terminal Voltage 0.15 - 30 MHz	Not tested at the request of the client.
Radiated Emissions 30 - 1000 MHz	Complies with a 2.3 dB margin at 960.000 MHz (Vertical).
*Telecom port conducted emissions (T-LISN) 0.15 – 30 MHz	Not applicable.

3. INTRODUCTION

This report describes the tests and measurements performed for the purpose of determining compliance with the specification.

The client selected the test sample.

This report relates only to the sample tested.

This report contains no corrections or erasures.

Measurement uncertainties with statistical confidence intervals of 95% are shown below test results. Both Class A and Class B uncertainties have been accounted for, as well as influence uncertainties where appropriate.

4. CLIENT INFORMATION

Company Name Polycomp Electronic Signs.
Address Unit 7, 88 Elizabeth Knox Place
Mt Wellington.
City Auckland.
Country New Zealand.
Contact Nissim Cohen.

5. DESCRIPTION OF TEST SAMPLE

Brand Name Polycomp.
Model Number 32X80P7.621YHB.
Product Electronic Sign.
Manufacturer Unknown.
Country of Origin Unknown.
Serial Number Unknown.

6. SETUPS AND PROCEDURES

Standard

The sample was tested in accordance with EN 55022, 2006 as a Class A device.

Methods and Procedures

The measurement methods and procedures used were as follows:

Description of Radiated Emissions Test Set-up

Radiated emissions testing was carried out over the frequency range of 30.0 to 1000 MHz as the highest oscillator frequency in use is less than 108 MHz.

Testing was carried out at the laboratory's open area test site - located at Driving Creek, Orere Point, Auckland, New Zealand (Note: Site conforms to the requirements of CISPR 16, Part 1, Clause 16, and ANSI C63.4 - 2003).

Before testing was carried out, a receiver self-calibration was undertaken. Additionally, a check of all cables and programmed antenna factors was carried out.

The device was placed on the test tabletop, which was a total of 0.8 m above the test site ground plane.

Measurements of the radiated field were made with the antenna located at a 10 m horizontal distance from the boundary of the device under test.

Testing was carried out in the various modes in which the device operated. Any external cables were orientated for the worst-case emissions level.

Testing was carried out by manually scanning between 30 MHz and 1000 MHz in 100 kHz steps while aurally and visually monitoring for emissions.

When an emission is located, it is positively identified and its maximum level is found by rotating the automated turntable, and by varying the antenna height with an automated antenna tower. The emission is measured in both vertical and horizontal antenna polarisations.

During the test, a number of ambient emissions are identified (list of which can be provided upon request).

The emission level is determined in field strength by taking the following into consideration:

Level (dB μ V/m) = Receiver Reading (dB μ V) + Antenna Factor (dB) + Coax Loss (dB)

Measurement uncertainty with a confidence interval of 95% is:

- Free radiation tests (30 - 1000 MHz) \pm 4.1 dB

7. TEST EQUIPMENT USED

Instrument	Manufacturer	Model	Serial No	Asset Ref
Aerial Controller	EMCO	1090	9112-1062	RFS 3710
Aerial Mast	EMCO	1070-1	9203-1661	RFS 3708
Biconical Antenna	Schwarzbeck	BBA 9106	-	RFS 3612
Log Periodic Antenna	Schwarzbeck	UHALP 9107	-	RFS3702
Measurement Receiver	Rohde & Schwarz	ESCS 30	847124/020	E1595
Measurement Receiver	Rohde & Schwarz	ESHS 10	838693/002	3800
Turntable	EMCO	1080-1-2.1	9109-1578	RFS 3709
Artificial Mains Network	Rohde & Schwarz	ESH 2-Z5	881362/034	3628

8. ACCREDITATIONS

The tests were carried out in accordance with the terms of EMC Technologies (NZ) Ltd's International Accreditation New Zealand (IANZ) Accreditation to NZS/IEC/ ISO 17025.

All measurement equipment has been calibrated in accordance with the terms of EMC Technologies (NZ) Ltd's International Accreditation New Zealand (IANZ) Accreditation to NZS/IEC/ ISO 17025.

International Accreditation New Zealand has Mutual Recognition Arrangements for testing and calibration with a number of accreditation bodies in various economies. This includes NATA (Australia), UKAS (UK), SANAS (South Africa), NVLAP (USA), A2LA (USA), SWEDAC (Sweden). Further details can be supplied on request.

9. RESULTS

Radiated Emissions

Device powered from 230 volts AC running continuously flashing up a preprogrammed message in large font. A laptop was attached to the serial lead.

Frequency MHz	Vertical dBuV/m	Horizontal dBuV/m	Limit dBuV/m	Margin dB	Result	Antenna
30.050	22.4		40.0	17.6	Pass	Vertical
31.125	24.7		40.0	15.3	Pass	Vertical
36.000	26.7	25.3	40.0	13.3	Pass	Vertical
60.000	29.4		40.0	10.6	Pass	Vertical
64.000	23.4	22.4	40.0	16.6	Pass	Vertical
71.870	23.9		40.0	16.1	Pass	Vertical
83.870	32.5	26.3	40.0	7.5	Pass	Vertical
96.000	24.7		40.0	15.3	Pass	Vertical
112.000		26.1	40.0	13.9	Pass	Horizontal
121.950		23.5	40.0	16.5	Pass	Horizontal
122.750	25.8		40.0	14.2	Pass	Vertical
131.800	35.7	34.2	40.0	4.3	Pass	Vertical
140.000		36.7	40.0	3.3	Uncert	Horizontal
143.400	35.8		40.0	4.2	Pass	Vertical
144.900		36.4	40.0	3.6	Uncert	Horizontal
148.000	33.8	35.7	40.0	4.3	Pass	Horizontal
156.000		30.4	40.0	9.6	Pass	Horizontal
164.000	31.8	36.5	40.0	3.5	Uncert	Horizontal
172.000	33.5	30.4	40.0	6.5	Pass	Vertical
188.000	29.8	29.7	40.0	10.2	Pass	Vertical
200.000	35.4		40.0	4.6	Pass	Vertical
280.000	25.8		47.0	21.2	Pass	Vertical
312.000		22.4	47.0	24.6	Pass	Horizontal
312.000	35.2		47.0	11.8	Pass	Vertical
320.000		21.6	47.0	25.4	Pass	Horizontal
320.000	34.2		47.0	12.8	Pass	Vertical
328.000	38.9		47.0	8.1	Pass	Vertical
335.450		29.6	47.0	17.4	Pass	Horizontal
336.000	34.7		47.0	12.3	Pass	Vertical
384.000	34.5		47.0	12.5	Pass	Vertical
408.000		23.4	47.0	23.6	Pass	Horizontal
416.000	39.7	29.4	47.0	7.3	Pass	Vertical
448.000	36.3	32.5	47.0	10.7	Pass	Vertical
503.150	35.9		47.0	11.1	Pass	Vertical
512.000	38.4	25.7	47.0	8.6	Pass	Vertical
527.100	39.2		47.0	7.8	Pass	Vertical
544.000	44.6	40.5	47.0	2.4	Uncert	Vertical
560.000		31.6	47.0	15.4	Pass	Horizontal
560.000	34.8		47.0	12.2	Pass	Vertical
622.950	36.8	37.8	47.0	9.2	Pass	Horizontal

Frequency MHz	Vertical dBuV/m	Horizontal dBuV/m	Limit dBuV/m	Margin dB	Result	Antenna
640.000		32.0	47.0	15.0	Pass	Horizontal
736.000	35.4		47.0	11.6	Pass	Vertical
768.000	31.5		47.0	15.5	Pass	Vertical
775.250		27.8	47.0	19.2	Pass	Horizontal
832.000	35.9		47.0	11.1	Pass	Vertical
838.600	35.3		47.0	11.7	Pass	Vertical
864.000	36.3		47.0	10.7	Pass	Vertical
886.500	35.8		47.0	11.2	Pass	Vertical
960.000	44.7		47.0	2.3	Uncert	Vertical

10. PHOTOGRAPHS

