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TEST HOUSE CERTIFICATE

CLIENT:	Symbol Technologies Ltd Symbol Place Winnersh Triangle Wokingham Berkshire, RG41 5TP	CERTIFICATE NUMBER	OR614322/01 Issue 1
		PROJECT NUMBER	OR614322
		CLIENT'S ORDER NUMBER	PTP

INCOMING RELEASE NOTE Declaration of Build State

DATE OF RECEIPT 2 June 2005

TEST ITEM(S) LS4208 Laser Scanner

NUMBER OF ITEMS TESTED One

TYPE NUMBER LS4208

PART NUMBER LS4208-SR20001ZZ

SERIAL NUMBER ALP8625

HARDWARE VERSION Rev A

PSU PART NUMBER 50-14000-009

TEST SPECIFICATION AND ISSUE
EN 55022: 1998, + A1: 2000 + A2: 2003
EN 55024: 1998, + A1: 2001 + A2: 2003
EN 61000-3-2: 2000
EN 61000-3-3: 1995, +A1: 2001
EN 61000-6-2: 2001
FCC CFR 47: Part 15 Subpart B: 2003

RELATED DOCUMENTS See Page 3

TEST PLAN Not Applicable

DATE OF TEST 7 June 2005 to 28 June 2005

SYSTEM CONFIGURATION See Page 3

TEST(S) APPLIED See Page 3

RESULT(S) OF TEST The results detailed in this certificate relate only to the actual item tested.

The Equipment Under Test (EUT) met the requirements of the applied tests. (Performance criteria specified in the Test Report OR614322/01 Issue 1: Section 1).

Approved by 
K Adsetts
Authorised Signatory

Date 3rd August 2005



RELATED DOCUMENTS

EN 61000-4-2: 1995, + A1: 1998, +A2: 2001
 EN 61000-4-3: 2002
 EN 61000-4-4: 1995, + A1: 2001, +A2: 2001
 EN 61000-4-5: 1995, + A1: 2001
 EN 61000-4-6: 1996
 EN 61000-4-8: 1993
 EN 61000-4-11: 1994, + A1: 2001
 ANSI C63.4 2001

Technical Description

The LS4208 is an industrial grade corded scanner with an RS232 serial data cable or USB cable.

Modes of Operation

Applicable testing was carried out with the EUT operated in both USB and RS232 test modes as detailed below.

Test Configuration

Table showing maximum cable lengths to be fitted to applicable test ports

Port Type	Identification	No. Off	Length of Cable
Serial/USB	Serial/USB	1	2m

Table showing Ancillaries fitted during testing

Ancillary	Manufacturer	Type	Part No
RS-232 Cable	Symbol Technologies Inc	RS-232	25-32465-20
USB Cable	Symbol Technologies Inc	USB	25-53492-22

Test Mode

The EUT was tested in two modes as follows:

Mode 1 configured with RS232 Serial Cable

Mode 2 Configured with a USB Cable

RS232

The LS4208 was powered using the following power supplies by

European testing 230V Power Supply Unit, Symbol Part Number 50-14000-009 for

FCC Testing 120V Power Supply Unit, Symbol Part Number 50-14000-008.

The RS232 Serial Cable was connected to a Dell Laptop Computer and the LS4208 was set to constantly scan a barcode. The data being scanned was displayed on Hyper Terminal on the Laptop.

USB

The LS4208 was powered by via the USB Cable.

The USB Cable was connected to a Dell Laptop Computer and the LS4208 was set to constantly scan a barcode. The data being scanned was displayed on Hyper Terminal on the Laptop. The Laptop was powered by a 230V Power Supply Unit or a 120V Power Supply Unit for FCC.

Primary Functions

- To scan barcodes.
- To send and receive data via an RS232 Serial Cable.
- To send and receive data via a USB Cable.

TESTS APPLIED

EN 55022: 1998, +A1: 2000 +A2: 2003

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|--|---------|
| 1. RADIATED DISTURBANCE, (Enclosure Port) (RS232 & USB) | Table 6 |
| 2. CONDUCTED DISTURBANCE, (AC Mains Input/Output Port) (RS232) | Table 2 |

EN 61000-3-2: 2000

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|---|--|
| 3. HARMONIC CURRENT EMISSIONS, (AC Mains Input/Output Port) (RS232) | |
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EN 61000-3-3: 1995

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| 4. VOLTAGE FLUCTUATIONS AND FLICKER, (AC Mains Input/Output Port) (RS232) | |
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EN55024: 1998, + A1: 2001 + A2: 2003

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| 5. POWER-FREQUENCY MAGNETIC FIELD, (Enclosure Port) (RS232 & USB) | EN 61000-4-8 |
| 6. RF ELECTROMAGNETIC FIELD, AMPLITUDE MODULATED (Enclosure Port) (RS232 & USB) | EN 61000-4-3 |
| 7. ELECTROSTATIC DISCHARGE, (Enclosure Port) (RS232 & USB) | EN 61000-4-2 |
| 8. RF CONTINUOUS CONDUCTED, (AC Mains Input Port) (RS232) | EN 61000-4-6 |
| 9. VOLTAGE DIPS, (AC Mains Input Port) (RS232) | EN 61000-4-11 |
| 10. VOLTAGE INTERRUPTS, (AC Mains Input Port) (RS232) | EN 61000-4-11 |
| 11. SURGES, (AC Mains Input Port) (RS232) | EN 61000-4-5 |
| 12. FAST TRANSIENTS, (AC Mains Input Port) (RS232) | EN 61000-4-4 |

EN 61000-6-2: 2001

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|---|---------------|
| 13. POWER-FREQUENCY MAGNETIC FIELD, (Enclosure Port) (RS232 & USB) | EN 61000-4-8 |
| 14. RF ELECTROMAGNETIC FIELD, AMPLITUDE MODULATED, (Enclosure Port) (RS232) | EN 61000-4-3 |
| 15. ELECTROSTATIC DISCHARGE, (Enclosure Port) (RS232 & USB) | EN 61000-4-2 |
| 16. RF COMMON MODE, (AC Mains Input/Output Port) (RS232) | EN 61000-4-6 |
| 17. VOLTAGE DIPS, (AC Mains Input Port) (RS232) | EN 61000-4-11 |
| 18. VOLTAGE INTERRUPTS, (AC Mains Input Port) (RS232) | EN 61000-4-11 |
| 19. SURGES, (AC Mains Input Port) (RS232) | EN 61000-4-5 |
| 20. FAST TRANSIENTS, (AC mains Input/Output Port) (RS232) | EN 61000-4-4 |

47 CFR 15: Subpart B, August 2002 (Unintentional Radiators)

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| 21. CONDUCTED EMISSIONS, (Enclosure Port). (RS232 & USB) | 15.107 |
| 22. RADIATED EMISSIONS, (Enclosure Port). (RS232 & USB) | 15.109 |

Customer's Additional Requirements

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| 23. RF ELECTROMAGNETIC FIELD, AMPLITUDE MODULATED (Enclosure Port) RS232 Mode Only (1GHz-2GHz @ 10V/m) | EN61000-4-3 |
| 24. ELECTROSTATIC DISCHARGE, (Enclosure Port) (RS232 & USB) (8kV contact discharge & 15kV air discharge) | EN61000-4-2 |