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APPENDIX M
OF
TEST REPORT T71003_F

OPERATIONAL DESCRIPTION

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

Date: 25th October 2007

Brief Operation Description of MSTRP-5050 Tunel RFID Reader

The Magellan PJM StackTag Tunnel Reader (Model number : MSTRP-5050) is designed primarily to work with high speed belt conveyors and in situations where a large quantity of RFID tagged items in all orientations need to be identified quickly and reliably.

The MSTRP-5050 PJM StackTag Tunnel Reader has an aperture of 500 x 500mm and is a multi axis tunnel reader which switches the magnetic field rapidly between the three axies of X, Y and Z.

It will read and write to all PJM ItemTag and StackTag labels within the internal working volume of the tunnel despite the orientation of the tags. The tags need to be of a size appropriate to the reader.

The MSTRP-5050 PJM StackTag Tunnel Reader complies with ISO/IEC 18000-Mode 2. The command signal is generated internally by the reader and phase modulated onto 13.56MHz, the carrier frequency, prior to propagating to the integrated loop antenna. The command data rate is 424 kBit/s and it is encoded with MFM modulation. Tags are replying at 106kBit/s with BPSK encoded data.

The Reader operates as a peripheral device to a normal PC via Ethernet or USB interface. It is capable of reliably read and write to tightly stacked, overlapping or touching tags.