

GENERAL INFORMATION

Product description of the Tunnel antenna

TAGSYS RFID TUNNELS

The ultimate solution for dynamic item-level tracking



TAGSYS RFID reader tunnels offer utmost efficiency and accuracy in HF item reading and tracking. The RF-tagged internal contents of packages are instantly identified as they pass through this conveyor tunnel featuring a state-of-the-art reader and internal antennas. Fast moving, packaged items can be detected whether bulked or stacked, and no matter what their orientation. No wonder that logistics managers attest to the value such tunnels bring to their operations in terms of quick, easy packaging/order/inventory verification and assembly.

TAGSYS' proven 3D RFID tunnels integrate easily with existing infrastructure and are adaptable to most industrial settings. Three tunnel sizes are offered to handle standard tag/item performance needs and variations. They come with or without adjustable conveyor systems and their associated automation systems.

Product description of the L400 reader

The Medio L400 is a long-range 13.56MHz RFID reader intended for RFID applications requiring a high performance, long range RFID infrastructure.

The L400 uses advances in Digital Signal Processing (DSP) and RF Front End technology to achieve breakthrough performance in read range and read speed with industry leading signal to noise ratio. The L400 has been specifically designed to operate in noisy environments such as manufacturing plants and distribution facilities while maintaining the highest levels of data integrity for item level track and trace, inventory management and security. Designed as a network device, the L400 conserves critical network bandwidth by filtering tag data to remove redundancies before transmitting to enterprise systems.

With breakthrough sensor technology and self diagnostic capability, the L400 is the industry's first self-correcting intelligent RFID reader. The L400 can be remotely managed and administered to ensure you get the highest levels of performance from your RFID infrastructure. The L400 and e-connectware, TAGSYS' comprehensive set of management and administrative tools, create an intelligent platform to allow you to manage your RFID infrastructure just as you do a voice or data network to enable scalable, secure and persistent RFID Quality of Service.

3.1 Key Features

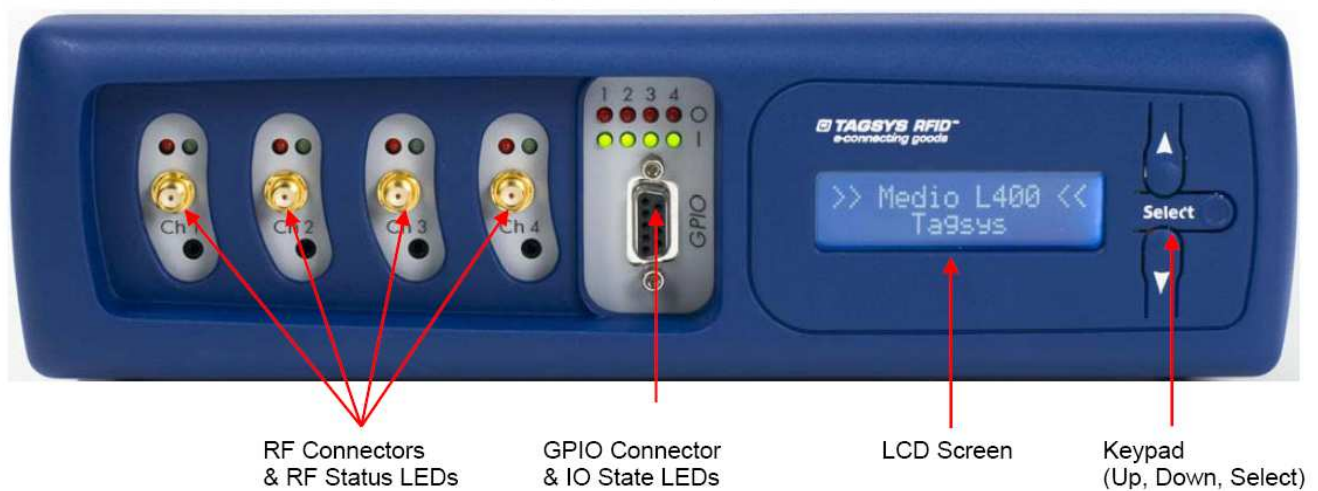
Table 1: Medio L400 Key Features

Description	Medio L400
Operating Frequency	13.56 MHz
Chip Compatibility	ISO15693 ISO18000-3 Mode 1 C370(I-Code SLI) C270 (I-Code 1) I-Code ePC I-Code UID Upgradable to the anticipated EPCglobal HF Gen2 Standard
Number of channels	2 (Medio L400-2) 4 (Medio L400-4)
RF Output Power	500mW to 5W (+/- 10%)
Communication Interfaces	RS232 (up to 115200 bauds) USB 1.1 10/100 Ethernet
Communication Protocols	TAGSYS StxNG Telnet & Serial Console Standalone Mode Heartbeat
I/O Ports (GPIO)	4 Inputs 4 Outputs
User Interface	LCD Screen With Backlight (2x16 Characters) Keypad (Up, Down, Select)

Remote Monitoring	Many health indicators are remotely accessible, such as : . System uptime . Read/Write count (per channel) . RF power amplifiers consumption . RF power amplifiers operating temperature . Antennas tuning status, . Real-time Raw signal capture, ...
Firmware	Remotely upgradeable

The front panel is dedicated to RF & I/O connectors as well as a LCD & Keypad.

Figure 1: Front panel



The rear panel is dedicated to the power supply and communication connectors.

Figure 2: Rear panel



- **10/ 100 Ethernet Connector**

RJ 45 connector (Please refer to the Ethernet network cabling rules).

- **USB Connector**

USB connector type B. Use standard A/B cable to connect to the host.

- **RS-232 Connector**

Male DB-9 connector. Use a standard crossed RS-232 cable (NULL-MODEM) to connect to the host. Please see [Technical Specifications section](#) for more details.

- **Service Connector**

For TAGSYS internal use only. Do not connect any cables here.

- **24VDC Connector**

A power supply bayonet connector. Only connect the provided power supply here.

- **Fuse holder**

Fuse holder. Use only T2.5A, timelag rated fuses (24VDC minimum)

- **Off / On Switch**

Power on/off switch.

1.1. Related Submittal(s) / Grant(s)

All host equipments used in the test configuration are FCC granted, when relevant.

1.2. Tested System Details

The FCC IDs for all equipment, with description of all cables used in the tested system are:

Trade Mark – Model Number (Serial number)	FCC ID	Description	Cable description
TAGSYS- L400-4 * Sn: H0815001D0	QHKMEDIOL400CHAN4	4 channels 13.56MHz reader	4xBNC for RF cables, 50Ω (with 6 ferrites on reader's side) 4x Synchro cables, shielded Ethernet, USB, Serial, I/O: shielded DC: unshielded
TAGSYS – Tunnel antenna 500x500 (Q=80) * Sn: TO534003AO		RFID tunnel antenna	4xBNC for RF cables, 50Ω (with 6 ferrites on reader's side) 4x Synchro cables, shielded
TELEMECANIQUE - ABL 7RM24025 (Input: 100-240V / 50-60Hz; Output: 24Vdc / 2.5A)	none	AC/DC converter	Power cables unshielded
TAGSYS - RFID tag (I-Code1/270TL)			
TAGSYS - RFID tag (ISO 15693)			

*: Equipment under test.

1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-2003, FCC Part 15 Subpart C.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.4. Test facility

Tests have been performed from April 28th to 30th, 2008 and July 21st, 2008.

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4-2003 in a letter dated March 25th, 2008 (registration number 94821). This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.