

## GENERAL INFORMATION

### 1.1. 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

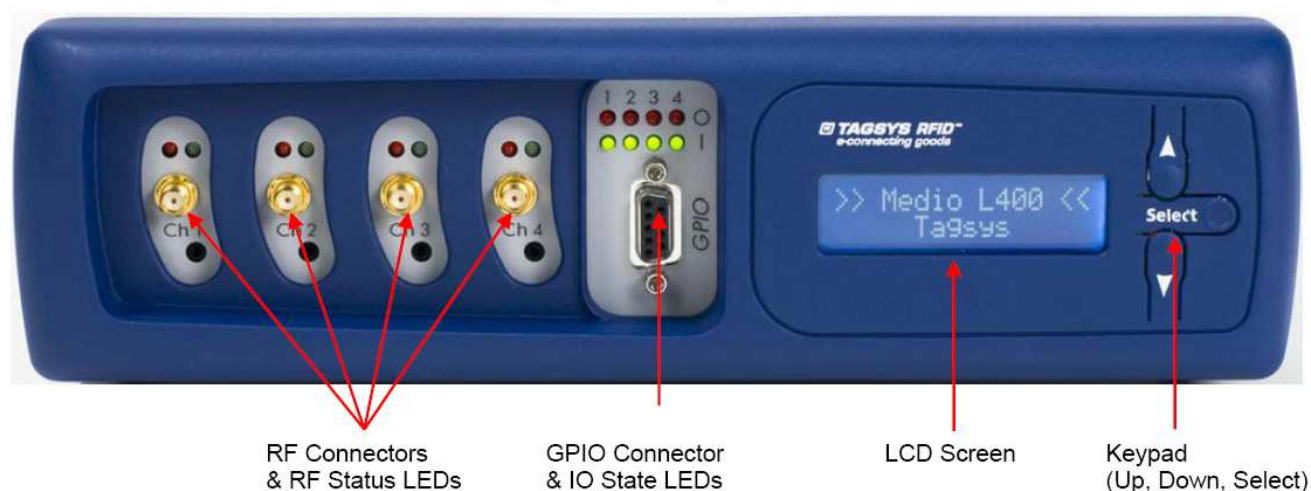
**Table 1: Medio L400 Key Features**

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 : <ul style="list-style-type: none"> <li>. System uptime</li> <li>. Read/Write count (per channel)</li> <li>. RF power amplifiers consumption</li> <li>. RF power amplifiers operating temperature</li> <li>. Antennas tuning status,</li> <li>. Real-time Raw signal capture, ...</li> </ul>
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.

## 1.2. Related Submittal(s) / Grant(s)

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

## 1.3. 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
<b>TAGSYS *</b> <b>L400-2</b> Sn: H0744002C0	QHKMEDIOL 400CHAN2	RFID tag reader (2 channels)	Power cable: unshielded USB, Ethernet, serial, O/Os: shielded RF cable: BNC, 50Ω, 6 ferrites on reader's side
HEWLETT PACKARD –Vectra VL420.DT Sn: FR14122957	DOC	Laptop Personal Computer	Power cable: unshielded Serial cable: shielded
HEWLETT PACKARD P/N: C4742-60101 Sn: C990897683	DOC	Keyboard	PS2 cable (1.2m)
DELL M/N : M-UK Sn : HCJ61966988	DOC	Mouse	USB cable (1.2m)
Hewlett Packard P/N : D2846 Sn : JP4001000	DOC	Video Monitor	Standard AC power cable VGA cable, shielded
TAGSYS - RFID tag (I-Code1/270TL)	-	TAG	
TAGSYS - RFID tag (ISO 15693)	-	TAG	
TAGSYS- AERO LC antenna	-	13.56MHz RF antenna	BNC, 50Ω, 6 ferrites on reader's side
TAGSYS- AERO LB antenna	-	13.56MHz RF antenna	BNC, 50Ω, 6 ferrites on reader's side

\*: Equipment under test.

## 1.4. 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.

## 1.5. Test facility

Tests have been performed from December 14<sup>th</sup>, 2007 to January 18<sup>th</sup>, 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 July 14, 2005 (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.