

## 1. GENERAL INFORMATION

### 1.1. Product description of MEDIO S004 EVM

#### 3.1 EVM Description

The Evaluation Module (EVM) provided by Tagsys allows the OEM to test the reader before its integration within their solution:

- The EVM provides all necessary connections to perform tests and includes also an embedded antenna.
- The EVM is not meant to be integrated within a final solution; it is only intended to test the performance of the Medio S004 reader.
- The EVM is supplied with a foot print pattern that can be used to solder the Medio S004 reader to it.

#### 3.2 Medio S004 Reader Description

TAGSYS Medio S004 reader is dedicated to Original Equipment Manufacturer (OEM) applications. The Medio S004 reader is a Universal Short Range RFID reader designed to operate at 13.56 MHz with any I-Code™ EPC, I-Code™ UID, I-Code™ 1, and ISO 15693 compliant tags.

The Medio S004 reader's technical features make it the ideal device for easy integration into handheld computers and printers. It offers the following features on a small printed circuit board:

- A high-performance radio processing unit operating at 13.56 MHz,
- A digital processing unit that incorporates chip drivers and the anti-collision feature depending on the type of chip.
- The Medio S004 reader is provided with solder pads to help its soldering fixation to the EVM.

Medio S004 EVM requires minimal computing power (host workstation) and communicates at high speed, thanks to the TAGSYS enhanced communication protocol (STX-E) already used for the Medio P101 series and the Medio L100/L200 readers.

The Medio S004 reader is fixed onto the EVM with help of screws and is electrically connected to the EVM using the 10 pin Molex cable.



In case you were to solder the Medio S004 reader to the EVM, do not use the Molex Cable connector.

### 3.3 Medio S004 EVM Delivery

The Medio S004 EVM reader kit is supplied with the following items:

**Table 1: Package Contents**

Quantity	Item
1	Medio S004 reader mounted onto the EVM
1	CD-ROM including: <ul style="list-style-type: none"> <li>• Medio S004 Integrator's Guide</li> <li>• Medio S004 Command Set</li> <li>• User-friendly Sx Explorer software provided for test and debug operations on Windows® 9x, NT®, 2000 and XP platforms</li> <li>• Medio STX Windows® DLLs to facilitate the development of your own applications on Windows® Mobile platform</li> <li>• Medio STX Windows® DLL Programming Guide</li> <li>• One set of Microsoft® Visual C++® source code and executable samples using the Medio STX Windows® DLLs</li> </ul>
1	Welcome Letter / Product Return Form

### 3.4 Medio S004 EVM Key Features

**Table 2: Medio S004 EVM Key Features**

Description	Medio S004
Operating Frequency	13.56 MHz
Chip Compatibility	ISO 15693 compliant I-Code EPC™ I-Code UID™ C270 (Philips I-Code™-1)
Serial Link	Asynchronous serial TTL (RS-232 compliant) or 3-wired Synchronous
I/O	1 input 1 Output

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

All host equipment 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
TAGSYS – MEDIO S004 EVM * Sn: Sample1	QHKGMEIOS004EVAL	Evaluation board for the RF MEDIO S004 RF module	Power cable (12V) unshielded USB cable: shielded
TOSHIBA SATELITE S1410-704 (PS141E-04YCM-3V) sn: 13594938G with its power supply unit (PA3201U-1ACA SEB100P2-15.0)	D.O.C	Laptop Personal Computer	Power cable unshielded USB cable: shielded

\*: 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 (F<30MHz) and 3m (F>30MHz). 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 on December 8 and 9<sup>th</sup>, 2006.

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.