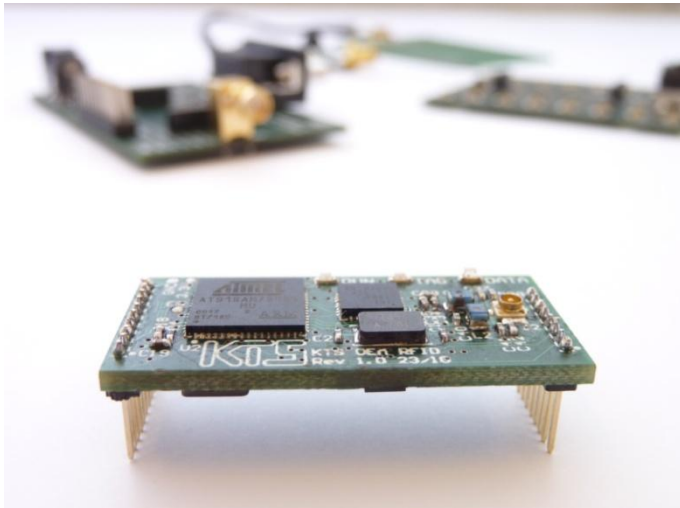


Data sheet

RFID HF Module

Article No.: RFIDM1356-00X



Picture 1 – RFID OEM Module

Description:

The KTS RFID Module provides the functionality to read and write RFID transponders according to ISO15693 as well as ISO14443A/B and can be easily integrated into any customer-specific, existing circuit.

It consists of a RFID transceiver which communicates with the transponder as well as of a microcontroller providing pin header access to the interfaces needed

for control. The interfaces include a UART-compatible serial interface to control the module, a RF interface with 50 Ohm output impedance to connect antennas as well as a proprietary interface to control multiplexers. Both the serial interface and the multiplexer extension have CMOS-compatible logic levels.

The module requires +5V DC voltage for power supply, which is also fed via pin strip. Both module configuration and data exchange with the transponders are made by a simple AT command which is similar to a modem command set. To easily use the module in own circuits, KTS provides a component library for the „Altium Designer“ CAD system with schematic symbols and a footprint.

Capability characteristics:

Mechanical sketch of the module:

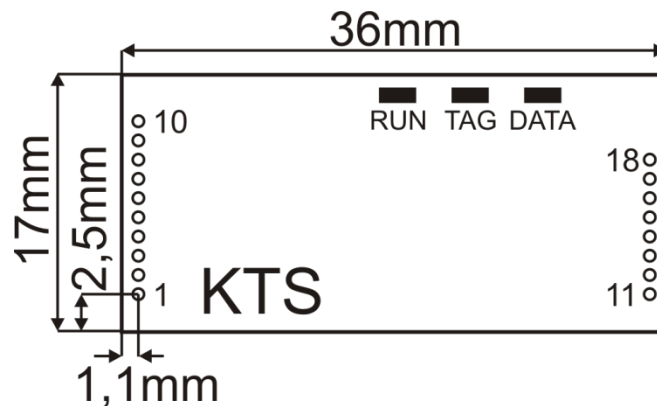


Abbildung 2 - mechanical sketch - NOT technical drawing (for precise dimension please contact)

Status LEDs:

The module has three status LEDs: „RUN“, „TAG“, „DATA“.

The **green „RUN“-LED** indicates the module's operational readiness through slow blinking. Once one of the scan modes has been selected and the module does a permanent scan for transponders, it starts blinking quickly.

The **yellow „TAG“-LED** lights up once a transponder has been detected in the reader's field. The **red „DATA“-LED** signals by blinking, that data are being transferred to the host via the serial interface.

Technical data:

Technical specifications

Product type	RFID OEM Module			
Operating frequency	13.56 MHz			
Antenna connection	Via pin strip or U.FL connector (50 Ohm)			
RF output power	100mW or 200mW, switchable via software			
Power supply	+5V DC			
Power consumption	approx. 100mA			
Interfaces	Serial (UART compatible) RF interface 50 Ohm output impedance Proprietary interface for multiplexers			
Dimensions (LxW)	36 x 17 [mm]			
Mechanical and electrical connection	2 pin header with 1.27mm pitch (10-ways and 8-ways), protected against reversed polarity			
RSSI display	Per software			
Write/Read range	ISO 15693	ISO 14443A	ISO 14443B	Multi-Standard
HID-Mode	Yes	-	-	Yes
CDC Mode	Yes	Yes	Yes	Yes
Chiptype	NXP	MIFARE Ultralight		Look left
	ICode-SLI	MIFARE SmartMX		
	TI Tag-It	MIFARE DESFire		
	Infineon EM	MIFARE DESFire EV1		
Log / command set	Simple commands for tag scanning, access to tag memory as well as modifications of hardware parameters and firmware update via AT commands			
Communication	UART-compatible serial interface with CMOS level (TX, RX) Interface parameter: 115200, 8, N, 1 (adjustable), as an option with hardware flow control (RTS, CTS)			
Anticollision	Yes, bulk reading supported			
Other	Status LEDs to display various operating conditions			
Order number	RFIDM1356-001 (Pin header)			

Further KTS RFID components:

