

Features and Benefits

Conforms with ISO/IEC 14443A⁽¹⁾
 Conforms with ISO/IEC 15693
 Compatible with Tag-it™⁽²⁾ transponders
 Low external component count

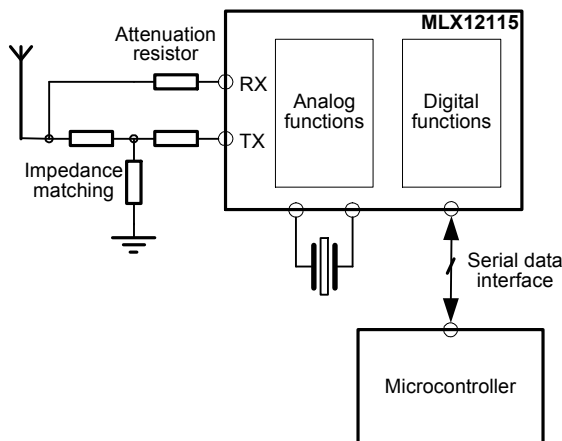
Applications

Portable data terminals
 Access control readers
 Contact-less payment terminals
 Smart label printers

Ordering Information

Part No.	Temperature Suffix	Package Code	Option code
MLX12115	E (-40°C to 85°C)	FR (Lead free SSOP20, 2 09 mils)	--

1. Functional Diagram



The main features include user selectable modulation depth in write mode, whereas single sub-carrier ASK, FSK and PSK modulations are recognized in the read mode.

Its low power consumption enable design of portable and fixed reader designs requiring tight footprint constraints. The IC minimizes onboard power requirements and reduces parts count in a final reader product.

With the addition of a micro-processor, crystal, and a few passive components a full functioning reader can be easily developed.

It can provide up to 200 milliwatts of RF power to a 50 ohms load with a 5 volts power supply using the recommended matching network. This is suitable for most short to mid range applications.

A simplified antenna and matching network can be used, at the expense of a reduced reading range, for example in hand-held reader applications.

The chip is configured with a serial interface. A synchronization signal is available when the majority voting is used.

2. Description

The MLX12115 is an ISO compliant 13.56MHz RFID transceiver integrated circuit.

It could be used as a drop-in replacement of Texas Instruments' S6700. The device supports multiple RF air interfaces, such as Tag-it™⁽²⁾, ISO15693 and ISO14443A⁽¹⁾ and opens with the direct mode where data can be passed directly to a transponder.

⁽¹⁾ Purchase of MLX12115s doesn't imply any grant of any ISO14443A license. Customers are advised to sign patent licensing agreements with all third parties, especially those companies listed in the introduction of the corresponding standard.

⁽²⁾ Purchase of MLX12115s doesn't imply any grant of any Tag-it™ license. Customers are advised to sign patent licensing agreements with Texas Instruments. Tag-it™ is a trademark of Texas Instruments Incorporated