

## FEATURES

- Supports leading HF smart labels  
Reads/writes different tags and smart labels via a single module
- Single connection to serial interface and power supply  
Connects easily to existing devices
- Configurable baud rate and serial level (RS232 or TTL)  
Permits interfacing to a wide range of devices
- Secure firmware download facility via the serial interface  
Allows field upgrades for future firmware releases
- Factory adjustable antenna output power  
Enables the product to comply with local regulations
- Bi-directional serial communications protocol  
Provides fast, reliable data transfer

## TAGS SUPPORTED

ISO 15693  
Inside PicoTag™  
Philips I-CODE  
Microchip MCRF355/360  
TI-RFID™ Tag-it™  
EPCglobal™ HF

## INfinity 166

### High Frequency 13.56 MHz RFID & Smart Label OEM Reader Module

#### Overview

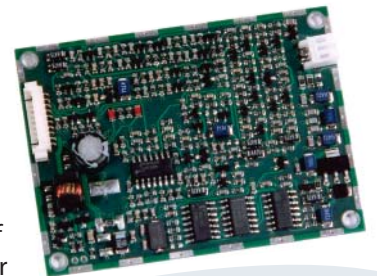
Supporting most leading 13.56 MHz RFID tags and smart labels, the INfinity 166 is a compact yet powerful OEM module designed for integration within a wide range of industrial automation products.

Connection to the board is made via a single connector, which provides the board with power and enables the bi-directional transfer of serial data at 0 to 3.3V TTL logic levels.

Configured to meet application requirements, the INfinity 166 can be attached to a variety of external antenna types to provide proximity or medium range operation. In addition, to enable future upgrading of new tag types and code enhancements, firmware can be flash upgraded through the serial interface. This permits the product to be easily updated in its surrounding environment.

#### Applications

Typical applications for the INfinity 166 include industrial printers for the programming of smart labels at source, non life-critical medical applications, product verification and access control.



# INfinity 166

## 13.56 MHz RFID & Smart Label Reader Module



### Performance Characteristics

Frequency:	HF Band, 13.56 MHz
Supported Transponders:	ISO 15693, Inside PicoTag, Philips I-CODE, Microchip MCRF355/360, TI-RFID Tag-it, EPCglobal HF
Communications Protocol:	Serial packet based with proprietary error detection
Communications Parameters:	57600/38400/19200/9600 (factory set), 8 data bits, no parity, 1 stop bit
Communications Signal Level:	RS232 or TTL level (factory set)
Interface Connector:	Single 10-way Molex connector for power and communications
Antenna Type:	External. Impedance: 50 ohms at 13.56 MHz, Q: 10 - 25)
Upgradeable Firmware:	Yes

### Physical Characteristics

Dimensions (LxWxD):	70.0 x 51.5 x 12.3 mm (2.76 x 2.03 x 0.48 in.)
Weight:	18 g (0.63 oz.)
Mounting:	4 corner-mounted holes of 2.8 mm (0.11 in.)

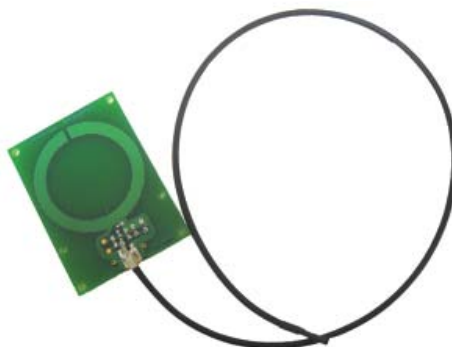
### Environment

Operating Temperature:	-30°C to +70°C (-22°F to 158°F)
Storage Temperature:	-40°C to +85°C (-40°F to 185°F)
Relative Humidity:	80%, non-condensing
Power:	
Input Voltage:	+5 VDC ±5%, <50 mV ripple
Active Current:	145 mA (antenna dependent)
Standby Current:	Negligible
Idle:	60 mA
RF Output Power:	120 mW max (typ) factory configurable
Regulatory:	Final application dependent

Model:



INfinity 166 HF Reader Module



INfinity 166 HF Reader Antenna (Optional)

### About Sirit Inc.

Sirit Inc. (TSX: SI) is a leading provider of Radio Frequency Identification (RFID) reader technology to OEMs and solution providers worldwide. Harnessing the power of Sirit's enabling-RFID technology, customers are able to more rapidly bring high quality RFID solutions to the market with reduced initial engineering costs. Sirit's products are built on more than 12 years of RF domain expertise addressing multiple frequencies (LF/HF/UHF), multiple protocols and are compliant with global standards. Sirit's broad portfolio of products and capabilities are easily customized to address new and traditional RFID market applications including Supply Chain & Logistics, Cashless Payment, Access Control, Automatic Vehicle Identification, Inventory Control & Management, Asset Tracking and Product Authentication. For more information, visit [www.sirit.com](http://www.sirit.com).

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The "RFID by Sirit" symbol signifies that Sirit Inc.'s high quality RFID reader technology resides within this product.

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