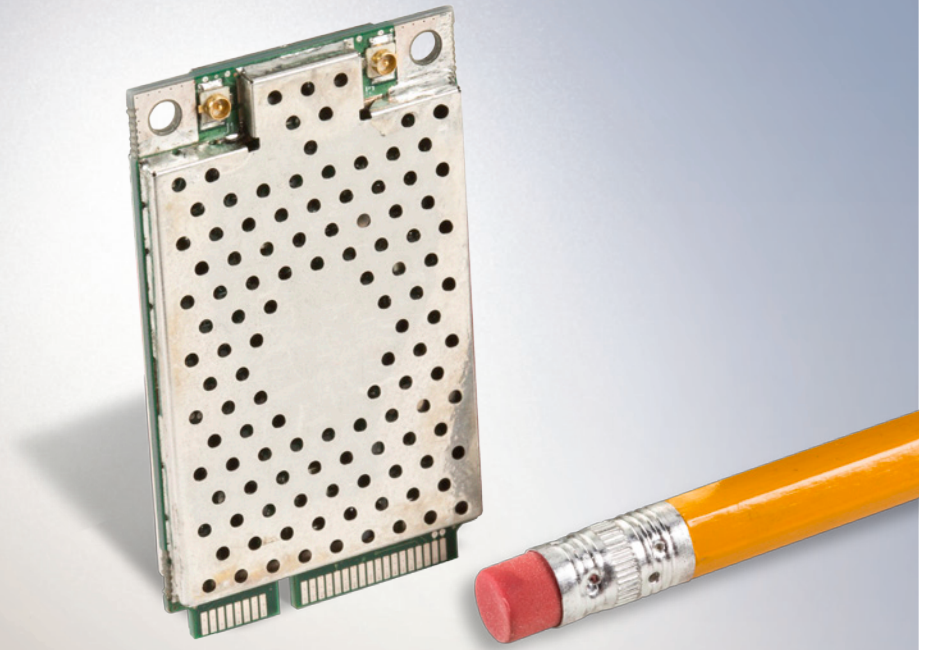


Product profile

IM11

UHF RFID Reader Module



- Small form factor designed for highly-integrated products
- Easily embedded for fast integration and time-to-market
- Up to 1 Watt (30 dBm) output power
- Low power consumption
- Cost-effective and highly scalable
- Full OEM Developer's Kit available

Built with Embedded in Mind

The Intermec IM11 UHF RFID Reader Module is designed to serve market applications that require high performance at a low cost. The module enables adding UHF RFID to nearly any product, but is especially suited for use in mobile computers and tablets, fixed position readers, handheld scanners, and diagnostic equipment. With an enhanced radio frequency (RF) design, the Intermec IM11 is one of the smallest and most cost-effective high-performance UHF reader modules available today. Providing RF output power up to 1 Watt (30 dBm) and superior receiver performance, the IM11 offers exceptional flexibility for medium to long-range applications.

Intermec built the IM11 with the necessary features of highly-integrated end-products in mind: the module is the core of Intermec's leading 70 Series RFID mobile computers. Because the module is used in our own products, you can rest assured that the IM11 has been designed and tested to support the rigorous demands of high-reliability rugged mobile computers.

While the IM11 is ideal for adding embedded RFID to handheld and portable devices, its small size and high performance can enable nearly any device to take advantage of the capability of RFID to automate workflows and provide enhance customer services.

No-Compromise Performance

Don't be fooled by the small size of the IM11, it packs high-end performance into a small package. The module supports a full 1 Watt of output power, twice as much as many small form factor competitive modules. The IM11 module is based on the latest RF technology to provide a superior read rate with low power consumption and low-voltage operation, helping to extend the battery life of mobile devices. The IM11 also supports a wide frequency range, 860-928 MHz, enabling the module to be certified in nearly any regulatory region.

Part of a Leading RFID Reader Family

The IM11 uses the same flexible and easy to use Basic Reader Interface (BRI) API that all of Intermec's RFID readers support, allowing developers to use the Intermec Developer Library (IDL) tools for Java, .NET, and C# environments and get the module up and running quickly.

Intermec is a pioneer in developing RFID readers and technology. With the IM11 UHF RFID Reader Module, Intermec takes the pain out of the design and test process required to develop an RFID reader. The small form factor, high performance, and ease of integration allows customers to add standardized UHF RFID to nearly any device, enabling manufacturers and integrators to shrink

their development time and get their product to market faster and at a lower cost for an improved return on investment.

A full developer's kit is available to help OEM's begin software and hardware integration and perform preliminary testing of antennas and performance.

RF Microprocessor
ams AS3993

Antenna Ports
2 antenna ports u.FL Type, mono-static, 50 ohms

Frequency
860-928 MHz, regional dependent

Communication Interfaces
Bus Interface: USB 2.0 compliant client 12 Mbps (full speed)
Serial 115.2 Kbps

General Purpose Input/Output: 4 in/4 out

Environmental
Operating Temp: -20° to 60° C (-4° to 140° F)
Storage Temp: -40° to 70° C (-40° to 158° F)
Humidity: 25 °C to 60 °C, 0% to 95% relative humidity, noncondensing
Shock: 2000 g, 0.5 ms pulse, 10 times on each axis
Operating Vibration: 10 to 500 Hz, 1 grms, in 3 axis
Drop Survival: Tested to withstand 6-foot drop, (1.8 meter) per MIL-STD 810G when packaged into Intermec handheld computer

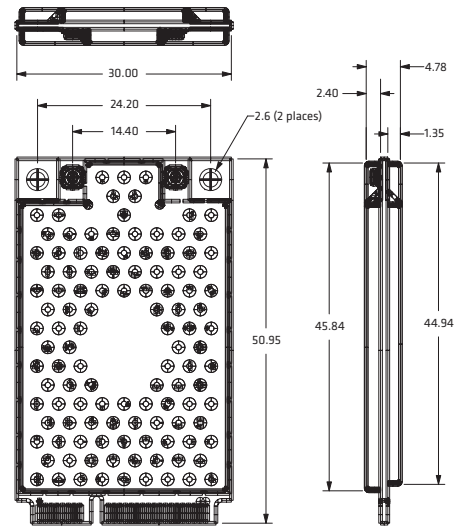
Power Supply
Operating Voltage: 2.8 to 5.2 VDC
Read Current: 1.3 Amps, typical (3.8V) @ 30 dB
Standby Current: 30 mA (3.8V)
Deep Sleep Current: 100 microamps

Transceiver
Output Power Control: 10.5 - 30 dBm (1W), regionally dependent, EPC or ISO
RF Output Impedance: 50 Ohms with better than 10 dB return loss
Modulation: PR-ASK
Data Encoding: DRM or FM0
RF Sensitivity: -70 dBm typical (minimum RF conducted power for measuring a 15 dB return loss on the antenna port)
Tag Data Rate: DRM back link frequency of at least 320 KHz
FM0 back link frequency 160 KHz
Read Range: Approximately 6 m (20 ft), using DRM operation mode and 9 dBic antenna
Tag Singulation: Up to 200 tags per second (conducted tags)
RFID Protocol Support: EPC Class 1 Gen 2, ISO 18000-6C

Physical Characteristics
Length: 2.0 in (50.95 mm)
Width: 1.2 in (30 mm)
Thickness: 0.19 in (4.76 mm)

Regulatory Certifications
FCC and ETSI modular certification with representative antenna

Warranty
Intermec standard one-year product warranty



IM11 RFID Reader Module Physical Specifications
50.95 mm long x 30 mm wide x 4.78 mm thick
Exceptions to the MiniPCI Express form factor: top side thickness is 2.4 mm (instead of 2.01 mm) and bottom side thickness is 1.35 mm (instead of 1.75 mm).

To order, please contact OEM Sales at (425) 348 2762.

Copyright © 2013 Intermec Technologies Corporation. All rights reserved. Intermec is a registered trademark of Intermec Technologies Corporation. All other trademarks are the property of their respective owners.
612262-B 05/13

In a continuing effort to improve our products, Intermec Technologies Corporation reserves the right to change specifications and features without prior notice.

