46 mm L x 26 mm W x 4.0 mm H

Features & Benefits:

- Small Form Factor Coupled with Powerful Performance
- RF Power Output of +31.5 dBm Results in Tag Read Distance Over 12 Meters*
- Features the Impinj E710 RAIN RFID Reader Chip
- Support for EPCglobal Gen2 (ISO 18000-63) Protocol Meets Industry Tag Standards
- Reads up to 800* Tags/ Second to Support Fast Moving Tags and Large Tag Populations
- Configured for Multiple Regions, such as FCC / ISED (North & South America), ETSI (European Union), and other Regions Including India, China, Korea, Australia and Japan
- Module Size and Feature Set comparable to ThingMagic M6e-a

High Performance, Gen2-Protocol, 4-Port, Embedded UHF RAIN® RFID Module

ThingMagic M7E-TERA is a 4-port module that meets or exceeds the performance requirements of the most demanding fixed position multi-antenna reader applications. The M7E-TERA's high read rate and RF power, coupled with its form factor and time-to-market advantages, make it the ideal solution for Original Equipment Manufacturer (OEM) applications. Transmitting up to +31.5 dBm and reading more than 800* tags/second, ThingMagic's M7E-TERA performance is outstanding in challenging applications.

The four RF connections to antennas can be made via edge pads or U.FL connectors

ThingMagic M7E-TERA is supported by ThingMagic Mercury API.

Applications:

- OEM
- Value-Added Reseller
- Solution Providers
- Medical Cabinets
- Race Timing
- Portals with Long Cable Runs
- Inventory Tracking.
- Conveyors Requiring Multiple Antennas

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Ordering Information	
Module	M7E-TERA
Module on Carrier Board	M7E-TERA-CB
Development Kit	M7E-TERA-DEVKIT
Physical	
Dimensions	46 mm L x 26 mm W x 4.0 mm H (1.8 in L x 1.0 in W x 0.16 in H)
Tag / Transponder Protocols	
RFID Protocol Support	EPCglobal Gen 2V2 (ISO 18000-63) with DRM
RF Interface	
RF Transceiver	Impinj E710
Antenna Connector	Four 50 Ω connections (board-edge or U.FL)
RF Power Output	Separate read and write levels, command-adjustable from 0 dBm to +31.5 in 0.5 dB steps, accurate to +/- 1 dBm
Regulatory	Pre-configured for the following regions: FCC (NA, SA) 902-928MHz; ETSI (EU) 865.6-867.6 MHz; TRAI (India) 865-867 MHz; KCC (Korea) 917-923.5 MHz; ACMA (Australia) 920-926 MHz; SRRC-MII (P.R. China) 920.1-924.9 MHz; MIC (Japan) 916.8-922.2 MHz; 'Open' (Customizable channel plan; 860-930 MHz)
Data/Control Interface	
Physical	38 board-edge connections providing access to 4 RF ports, DC power, communication, control and GPIO signals
Control/Data Interfaces	UART; 3.3V logic levels from 9.6 to 921.6 kbps
GPIO Sensors and Indicators	Four 3.3V bidirectional ports configurable as input (sensor) ports or output (indicator) ports
API support	C#/.NET, Java, C
Power	
DC Power Required	DC Voltage: 3.3 to 5V DC power consumption when reading: <7.2W @ +31.5 dBm*; <3W @ power levels under +17 dBm
Power Saving Options	Ready: 0.780W Sleep: 0.130W Shutdown: 0.090W
Environment	
Certification	USA (FCC 47 CFR Ch. 1 Part 15); Canada (Industry Canada RSS-247); EU (ETSI EN 302 208 v3.3.1, RED 2014/53/EU); JAPAN (MIC Article 38 Section 24)
Operating Temp.	-40°C to +60°C (case temperature)
Storage Temp.	-40°C to +85°C
Shock and Vibration	Survives 1 meter drop during handling
Performance	
Max Read Rate	Up to 800* tags/second using high-performance settings
Max Tag Read Distance	Over 12 meters (36 feet) with 6 dBi antenna (36 dBm EIRP) *

*Best case with good antenna matching
Specifications subject to change without notice.

ABOUT JADAK:

JADAK, a business unit of Novanta, is a market leader in machine vision, RFID, barcode, printing, and color and light measurement products and services for original equipment manufacturers. The business designs and manufactures custom embedded detection and analysis solutions that help customers solve unique inspection, tracking, scanning and documenting challenges. JADAK is based in Syracuse, New York, with sales and technical locations across the globe.

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