

RFID Embedded Modules

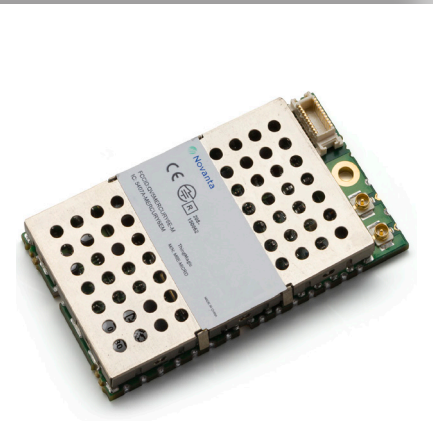
Embedded RFID Reader Modules are the building blocks of RFID devices. RFID modules are not used for out-of-the-box deployments, but instead are used for creating a new, RFID-enabled product, or adding RFID capabilities into an existing product.

There are currently 8 RFID Reader Modules available for purchase at different price points, frequencies, sizes, etc. For more information on these modules, [contact us](#).

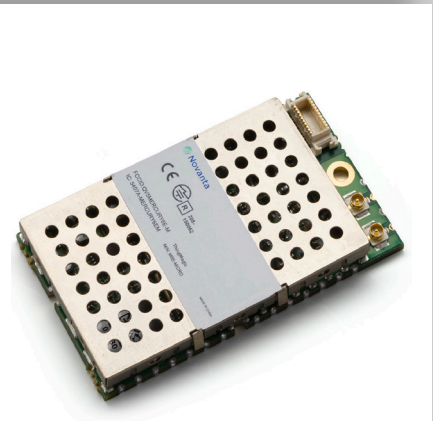
SKU Product Code	M6E	M6E-M	M6E-MICRO	M6E-NANO	SM-M2-MH	SM-MN-SH	SM-GM-UB	PLT-RFID-M3E-X
Air Interface Protocol Published Air Interface Protocol	EPCglobal Gen 2 (18000-63) with DRM*	EPCglobal Gen 2 (18000-63) with DRM*	EPCglobal Gen 2 (18000-63) with DRM*	EPCglobal Gen 2 (18000-63)	ISO 14443 A/B (parts 2-4); ISO 15693	ISO 15693	ISO 14443 A/B (parts 2-4); ISO 18092	ISO 15693; ISO 14443A/B; ISO 18092*
Frequency Range Published Frequency Range	(865-869 MHz) or (902-928 MHz) or (840-960 MHz)**	(865-868 MHz) or (902-928 MHz)	(865-868 MHz) or (902-928 MHz)	(865-870 MHz) or (915-928 MHz)	13.56 MHz	13.56 MHz	13.56 MHz	LF (125 and 134.2 kHz), HF (13.56 MHz)
Transmit Power Published Transmit Power	30 dBm in North America; +31.5 dBm in Europe	-5 to +30 dBm	-5 to +30 dBm	0 to +27 dBm	200 mw	Maximum 20 mw; Minimum 63 mw	125 mw	N/A
Max Receive Distance In Ideal Environments	Over 9 m (30 ft)	Over 9 m (30 ft)	Over 9 m (30 ft)	Over 3 m (10 ft)	Up to 8 cm (3.1 in); Up to 16 cm (6.3 in) (proximity; vicinity)	Up to 5 cm (2 in)	Up to 5 cm (2 in); Up to 8 cm (3.1 in) (internal; external antenna)	Up to 5 cm (2 in) (Tag & Antenna dependent)
Max Read Rate Published Maximum Read Rate	Up to 750 tags/second	Up to 750 tags/second	Up to 50 tags/second	Up to 200 tags/second	N/A	N/A	N/A	N/A
Data Interface Published Data Interface	UART 3.3/5V; USB 2.0	UART 3.3/5V; USB 2.0	UART 3.3/5V; USB 2.0	UART 3.3 V	UART (TTL), SPI, USB, I2C	UART (TTL), SPI, I2C	UART (TTL), SPI, USB, I2C	UART (TTL)
GPIO Input/Output Ports	Four 3.3V Bi-directional ports	Two 3.3V Bi-directional ports	Two 3.3V Bi-directional ports	Four 3.3V Bi-directional ports	7 inputs/outputs	N/A	4 inputs/outputs	4 Bi-directional TTL
DC Power Requirement Published DC Power Requirement	5.0 V	3.5 to 5.25 V	3.5 to 5.25 V	3.3 to 5.25 V	3.5 to 5.5 V	3.2 to 6 V	1.8 to 5.5 V	3.0 to 5.5 V
Antenna Ports Number of Antenna Ports Available	Four 50 Ohm connections	Two 50 Ohm connections	Two 50 Ohm connections	Single 50 Ohm connection	Single 50 Ohm connection	Internal or External 50 Ohm Port	Internal Antenna: Single 50 Ohm connection	One HF Port, One LF Port
Dimensions Published Dimensions	69 x 43 x 7.5 mm (2.7 x 1.7 x 0.3 in)	46 x 26 x 4.0 mm (1.8 x 1.0 x 0.16 in)	46 x 26 x 4.0 mm (1.8 x 1.0 x 0.16 in)	22 x 26 x 3.0 mm (0.87 x 1.02 x 0.118 in)	70 x 53 x 9 mm (2.75 x 2.08 x 0.35 in)	25.4 mm x 3 mm (1 x 0.11 in)	40 x 38 x 5 mm (1.6 x 1.5 x 0.2 in)	26 x 22 x 3 mm (1.02 x 0.87 x 0.118 in)
Weight Published Weight	0.032 kg (0.07 lbs)	0.008 kg (0.018 lbs)	0.008 kg (0.018 lbs)	0.003 kg (0.007 lbs)	0.01 kg (0.02 lbs)	0.0015 kg (0.0033 lbs)	0.0065 kg (0.013 lbs)	0.003 kg (0.007 lbs)
Operating Temperature Safe Operating Temperature Range	-40° to +60°C (-40° to +140°F)	-20° to +60°C (-4° to +140°F)	-20° to +60°C (-4° to +140°F)	-20° to 70°C (-4° to 158°F)	-10 °C to +70 °C (-14 °F to +158 °F)	-10 °C to +70 °C (-14 °F to +158 °F)	-10° to 70°C (14° to 158°F)	-40°C to +65 °C (-40 °F to +149 °F)
Host API Published API	ThingMagic Mercury API C#/.NET, Java, C	ThingMagic Mercury API C#/.NET, Java, C	ThingMagic Mercury API C#/.NET, Java, C	ThingMagic Mercury API C#/.NET, Java, C	SkyeTek API C, C #, .NET	SkyeWare API C, C #, .NET	SkyeTek API C, C #, .NET	ThingMagic Mercury API C#/.NET, Java, C



ThingMagic M6e



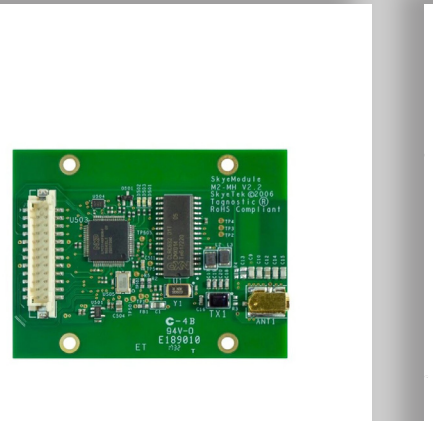
ThingMagic Micro



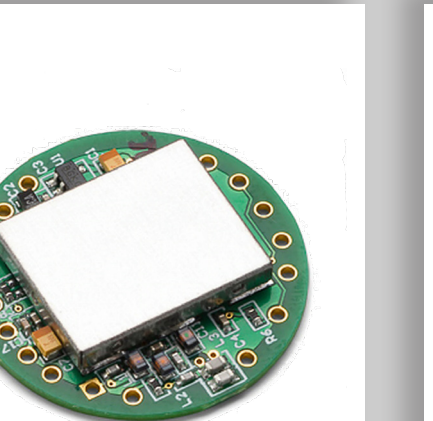
ThingMagic Micro-LTE



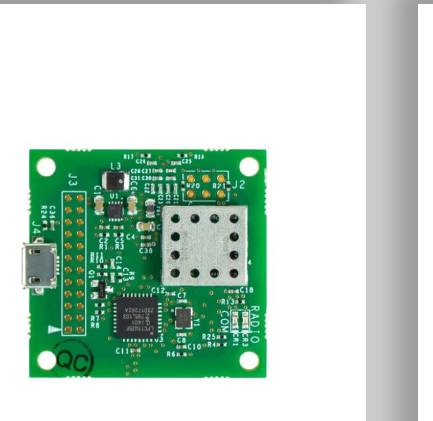
ThingMagic Nano



ThingMagic M2 HF



ThingMagic M1-Mini Shielded HF



ThingMagic Gemini HF/NFC



ThingMagic M3E HF/LF

*Optional licenses available, module dependant | **Global Frequency Range 840 - 960 MHz is for use via an optional license, and is not the standard available frequency range.