

## Embedded Modem

The Multi-Tech RJModem™ embedded modem creates communication-ready devices by integrating modem functionality into the most compact, integrated device. The first-of-its-kind RJ-11 form factor includes the controller, data pump, DAA and RJ-11 connector providing device manufacturers with the ability to integrate dial-up connectivity into any product design. With minimal engineering effort, the RJModem embedded modem instantly adds global communication capabilities, enhancing the end-user experience and increasing product value.

### Features

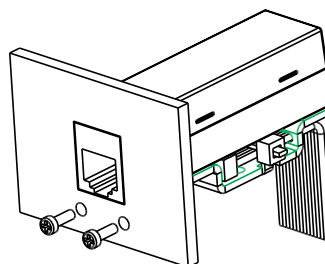
- Complete data modem including the controller, data pump, DAA and RJ-11 connector
- V.92/56K, V.34/33.6K, V.32bis/14.4K data rate options
- High speed models backward compatible with lower speeds
- Telecom approved in more than 50 countries (some pending)
- V.44 and V.42bis data compression
- V.42 error correction
- Intelligent DAA technology detects line status
- AT command compatible
- U.S. Caller ID reporting
- Low power/sleep mode
- FastPOS (V.29) and V.22bis Fast Connect
- V.80 Synchronous Access
- 3.3V or 5V power input options
- Board mount or remote panel mounting
- Two-year warranty



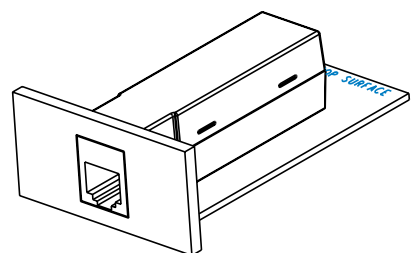
### Benefits

- Complete integrated modem
- RJ-11 form factor
- Global compliance

Remote Panel Mount  
(using MTRJ-RMK)



Board Mount



## Specifications

### Modem

ITU-T V.92/V.90/56K, V.34/33.6K, V.32bis/14.4K, V.22, V.23, & V.21; Bell 212A & Bell 103

V.42 LAPM, MNP 2-4 Error Correction

V.44, V.42bis, & MNP Class 5 data compression

### Power Requirements

Typical: 66mA (.33W @ 5VDC)

Maximum: 75mA (.39W @ 5.25VDC)

Typical: 95mA (.31W @ 3.3VDC)

Maximum: 105mA (.38W @ 3.6VDC)

### Physical Description

.709" w x 2.519" h x .752" d; .64 oz.  
(1.8 cm x 6.4 cm x 1.92 cm; 0.02 Kg)

### Operating Environment

Temperature Range: -40° to +85° C

### Certifications

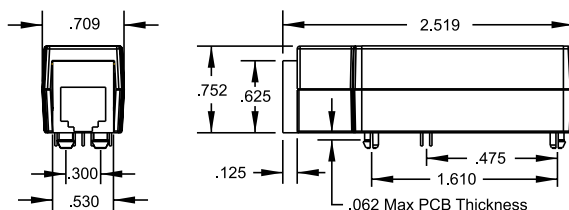
UL 60950-1, IEC60950-1, ACA TS001/AS3260, CCC

EMC: FCC CFR47 Part 15 (Class B); ICES-003 Canada (Class B); EN 55022 (Class B), EN 55024

## Highlights

### Integration Provides Quickest Time-to-Market.

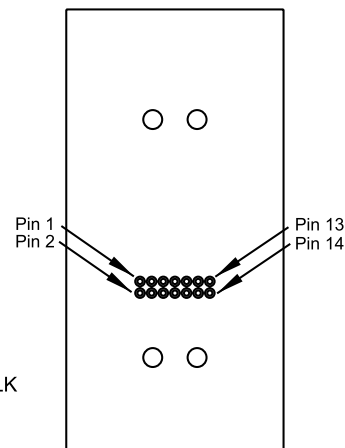
The RJModem embedded modem offers the highest level of integration and the quickest time-to-market for embedded modem connectivity. In the space slightly greater than one that is normally consumed by a connector, the RJModem embedded modem integrates the controller, data pump, DAA and RJ-11 connector. This complete, ready-to-deploy modem instantly allows you to enhance your product while you focus on developing its core features.



## RJModem Pin-out.

The RJModem embedded modem interfaces easily with devices through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 115.2K bps and can be interfaced directly to a UART or microcontroller. The RJ-11 jack provides a direct connection to the public switched telephone network.

- Pin 1 = Ring
- Pin 2 = CD
- Pin 3 = DTR
- Pin 4 = Reset
- Pin 5 = VCC In
- Pin 6 = CTS
- Pin 7 = RTS
- Pin 8 = TDCLK
- Pin 9 = TXD
- Pin 10 = RXD
- Pin 11 = External CLK
- Pin 12 = GND
- Pin 13 = Speaker
- Pin 14 = RDCLK



## Global Compliance.

The RJModem embedded modem is in the process of international compliance testing (homologation) for global approval. This means one module can be specified per design without having to integrate specific country approved modules for each system used across the world. Contact your Multi-Tech sales representative for a current list of approvals.

## Developer's Kit.

The Developer's Kit provides the ability to plug in the modem and use it for testing, programming and evaluation. The kit includes one development board with RS-232 DB-25 connector, universal power supply, RS-232 cable, RJ-11 cable, MTRJ-RMK remote mounting kit, and Developer guide CD.

## Ordering Information

| Product        | Description                      | Region |
|----------------|----------------------------------|--------|
| MT5656RJ-92    | V.92 Serial Data Only            | Global |
| MT5656RJ-34    | V.34 Serial Data Only            | Global |
| MT5656RJ-32    | V.32bis Serial Data Only         | Global |
| MT5656RJ-L-92  | V.92 Serial Data Only            | Global |
| MT5656RJ-L-34  | V.34 Serial Data Only            | Global |
| MT5656RJ-L-32  | V.32bis Serial Data Only         | Global |
| MTRJ-DK        | RJModem Developer Kit            | Global |
| MTRJ-RMK       | Panel Mounting Kit for RJModem   | Global |
| Ordering Codes | Description                      |        |
| 92             | V.92/56K Data Rate               |        |
| 34             | V.34/33.6K Data Rate             |        |
| 32             | V.32bis/14.4K Data Rate          |        |
| L              | 3.3V Power Input (default is 5V) |        |

### Services & Warranty

Multi-Tech's comprehensive Support Services programs offer a full array of options to suit your specific needs. These services are aimed at protecting your investment, extending the life of your solution or product, and reducing total cost of ownership. Our seasoned technical experts, with an average tenure of more than 10 years, can walk you through smooth installations, troubleshoot issues and help you with configurations. Products include a 2-year warranty.

### Installation Support

Multi-Tech's Installation Support Service delivers priority service with the ability to work one-on-one with an experienced Multi-Tech technical support engineer, to guide you through the installation process for our products.

### Technical Support Services

At Multi-Tech, we're committed to providing you personalized attention and quality service while providing you a quick response to your product support needs. We have several options of support for you to choose from.

For additional information on Support Services as well as other service offerings, please contact your Multi-Tech representative or visit [www.multitech.com/support.go](http://www.multitech.com/support.go).

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