

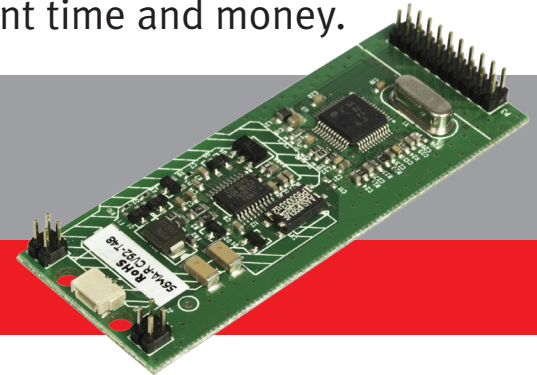
56K* V.92 EMBEDDED SERIAL MODEM

The USRobotics 56K* Embedded Serial Modem combines the superior performance and reliability of a controller-based modem with the convenience of a compact and flexible design to make any system ready for communications. V.22, V.29 Fast Connect, and secure connectivity make this modem ideal for Point of Sale (POS) systems, Machine to Machine (M2M) applications, and Remote Server Management applications including Out-of-Band remote diagnostics, troubleshooting, maintenance and server back-ups. This embedded modem provides OEMs easy integrated data and fax with a design that works in a wide range of environments and platforms - saving development time and money.

USRobotics®

A Division of UNICOM® Global

Powerful, secure dial-up connections for your business



Data & fax features and functionality†

- 56K (V.92 and V.90), 33.6K (V.34), and 2400 bps (V.22bis) Data Rate compatibility
- 33.6K (V.34), 14.4K (V.17) Fax Rate compatibility
- V.44 & V.42bis Data Compression
- V.42 Error Correction and Selective Reject
- V.80 Synchronous Access
- SDLC/HDLC for POS applications
- DTE Asynchronous serial rates up to 230 Kbps
- Caller ID and Distinctive Ring
- Line status detection

Advanced features and functionality

- Permanently store preferred modem default settings
- 4 different power save modes

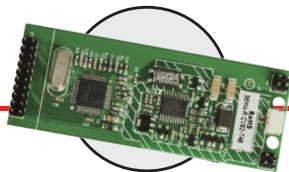
Get the speed you need

- Fast Connect (V.22 & V.29) allows either 1200 or 9600 bps connections without error control in less than 1 second[§], making this modem ideal for POS and ATM transactions that require lightning fast connections.
- Quick Connect* (V.92) reduces the time it takes to establish your dial-up Internet connection.
- V.92* lets you send attachments up to 50% faster.
- Controller based data/fax modem does all the processing internally.

Complete Modem Solution

- Designed for any system including Linux and Windows based M2M, POS, and Remote Server Management systems as well as custom systems.
- Complete solution including controller, data pump and DAA
- Supplied in custom unit bulk packs
- Compact design ideal for embedded systems

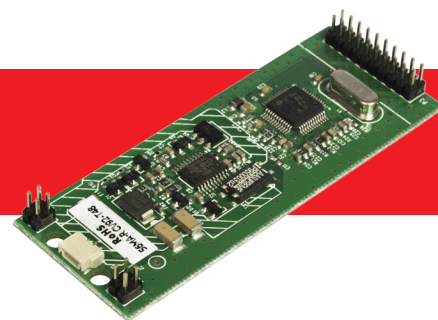




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PC or POS system with USRobotics V.92 Embedded Serial Modem

MODEL 56MA 56K* V.92 EMBEDDED SERIAL MODEM



SPECIFICATIONS & STANDARDS

GENERAL

- V.92, V.90, V.34, V.32bis, V.32, V.22bis, V.23, V.21, Bell 103, and Bell 212A
- V.42/MNP 2-4 error correction, V.44 & V.42 bis/MNP 5 compression, V.42 Selective Reject
- V.80 Synchronous Data Interface
- Voice: V.253, V.250, Telephone Answering Machine (TAM)
- Fax: V.17, V.29, V.27ter, V.21; T.31 (Class 1)
- SDLC/HDLC for point-of-sale applications
- Type 1/2 Caller ID[‡] and distinctive ring

PHYSICAL

- DTE Interface: RS232/20 Pin Header
- Phone Line Interface: Mini RJ connector

ENVIRONMENTAL

- **Temperature:** Operating Temperature conditions: 0 to 60 degrees C, Non-Operating Temperature conditions: -20 to 70 degrees C
- **Humidity:** Operating Humidity conditions: 10% to 90% non-condensing, Non-Operating Humidity conditions: 5% to 95% non-condensing

ELECTRICAL CHARACTERISTICS

PIN Number	PIN Name	Direction	Level	Tolerance
2, 12	GND	NA	NA	
20	VCC	NA	3.3V	Min 3.0V Max 3.6V
4	TXD	Host -> Modem	3.3V	5V tolerant
5	DCD	Modem -> Host	3.3V	
6	DTR	Host -> Modem	3.3V	5V tolerant
7	RI	Modem -> Host	3.3V	
8	RTS	Host -> Modem	3.3V	5V tolerant
9	RXD	Modem -> Host	3.3V	
10	CTS	Modem -> Host	3.3V	
11	DSR	Modem -> Host	3.3V	

REGULATORY

- FCC approved (Part 15 Class B/Part 68)
- CE approved (Class B)

POWER CONSUMPTION

- Typical: $\approx 310\text{mW}$ active, $\approx 450\text{mW}$ max

PACKAGE DIMENSIONS

- 8.27 x 5.83 x 1.77 in (210 x 148 x 45 mm)

PRODUCT DIMENSIONS/WEIGHT

- 2.71 x 1.02 x .39 in (69 x 26 x 10 mm)
- .02 lb (9.07 g)

MINIMUM SYSTEM REQUIREMENTS

- Asynchronous Serial Interface
- Analog Phone Line

POWER SUPPLY REQUIREMENTS

- Voltage: $3.3 \pm 0.3\text{V}$
- Maximum supply current: 135 mA

PACKAGE CONTENTS

- 16 USRobotics V.92 Embedded Serial Modems per box

WARRANTY

- 2-year limited manufacturer warranty from date of purchase

* Capable of receiving at up to 56 Kbps and sending at up to 48 Kbps (or 31.2 Kbps with V.90 server). Due to FCC regulations on power output, receiving speeds are limited to 53.3 Kbps. Actual speeds may vary. V.92 and V.90 features require compatible phone service and support from your Internet Service Provider (ISP). USRobotics modems featuring V.92 enhancements are backward compatible and will negotiate the highest possible speed when connecting to an ISP.

† Advanced fax functionality may require installation of bundled software.

§ Time measured from start of modem tones, amount of time may be slightly longer with error control enabled.

‡ Caller ID and distinctive ring require service from your local phone company. Caller ID may not be supported in some countries

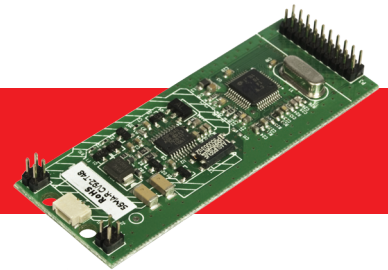
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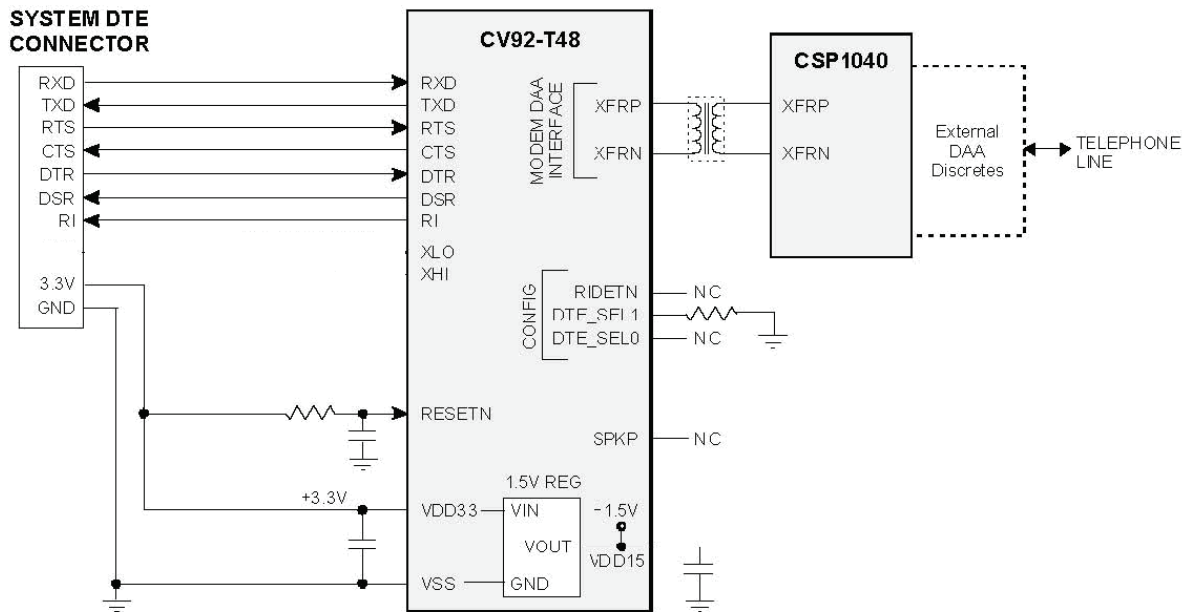
For connection to the Public Switched Telephone Network (PSTN)



MODEL 56MA V.92 EMBEDDED SERIAL MODEM



BLOCK DIAGRAM



MECHANICAL DRAWINGS

