



# RS-232 Serial Extender

## Model 1052AS

*The Model 1052AS miniature digital modem offers multi-rate Async/Sync speeds to 38.4/128 kbps while transparently passing modem control signals. This 2-wire full-duplex modem uses 2B1Q modulation for superior noise immunity.*

### Multi-Rate Speeds

Full-duplex synchronous rates to 128 kbps and asynchronous rates to 38.4 kbps.

### Noise Immunity

The 1052AS uses 2B1Q for improved performance in noisy environments.

### Pass RS-232 Control Signals

Transparently passes CTS, RTS, and DCD over the 2-wire line

### Long Reach

Industry leading distances of over 26,000 feet (8 km) without repeaters

### Power Options

Universal AC power (90-260 VAC) as well as -12, -24, & -48 VDC

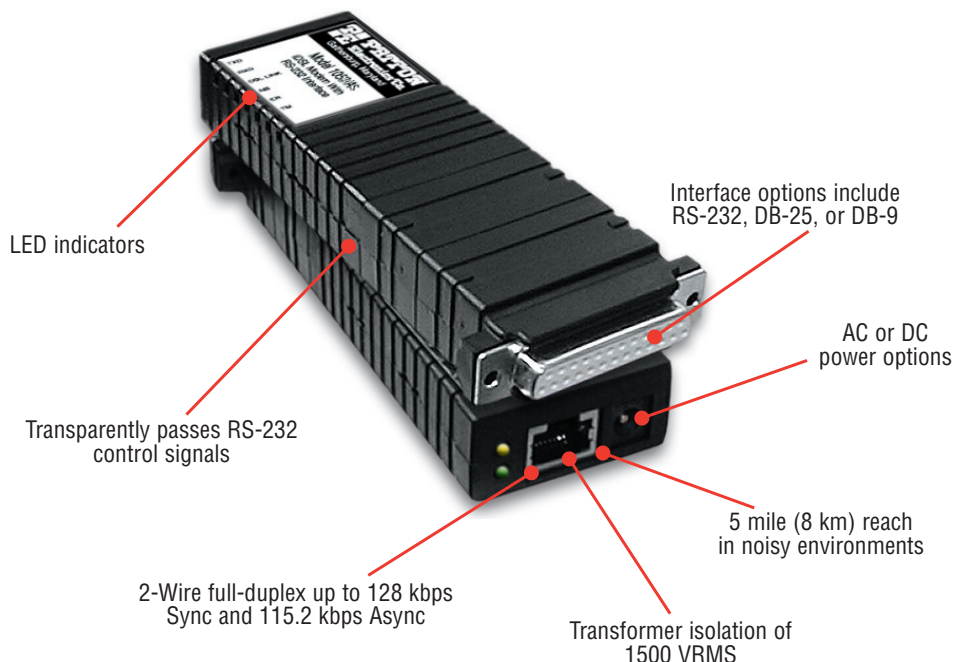
**P**atton's Model 1052AS is a long-range powered, RS-232 digital modem.

Operating synchronously or asynchronously at full duplex over a single twisted pair, the Model 1052AS uses 2B1Q modulation for superior signal strength even in noisiest environments. RS-232 serial connections can now be extended to distances over 5 miles (8 km) without the use of repeaters! Using ordinary voice-grade wire, the 1052AS RS-232 Serial Extender provides a cost-effective solution for dedicated end-to-end connections with synchronous line rates up to 128 kbps and asynchronous line rates up

to 38.4 kbps including RTS, CTS and DCD modem signals.

The miniature size of the Model 1052AS allows for a direct connection to your transmission devices serial port. LEDs are conveniently located on the side of the Model 1052AS to provide at-a-glance status indication of the unit. Additionally, two 8-position dip switches are located at the bottom of the unit to allow the configuration of various asynchronous or synchronous line rate settings.

For more information, visit [www.patton.com](http://www.patton.com).

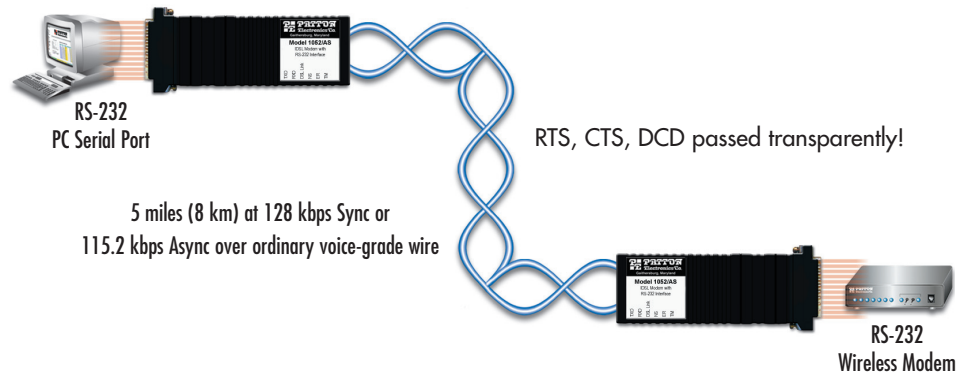


## Features

- ✓ Extends serial devices up to 5 miles (8 km) over ordinary grade twisted pair
- ✓ Miniature size for direct connections to your serial port
- ✓ 2B1Q modulation enhances signal immunity in noisy environments and increases the distance of RS-232 signals.
- ✓ Multiple user-configurable asynchronous and synchronous rate options
- ✓ Transparently passes RS-232 control signals over the link.

## Typical Application

The Patton Model 1052AS offers premium performance using the most common, inexpensive cabling infrastructure in the world, voice-grade telephone wire. Using 2B1Q modulation a serial port can be extended to distances of over 5 miles (8 km).



## Specifications

### Clocking

Internal, external, or receive recover

### Line Coding

2B1Q conforming to ANSI T1.601 and ETSI ETR-080 standards

### Line Interface

RJ-45; Two-wire twisted-pair using pins 4 & 5; Transformer coupled 1500 VRMS isolation

### Maximum Line Distance for All Data Rates

10.1 miles (16.4 km) on 19 AWG (0.9 mm) wire  
7.2 miles (11.5 km) on 22 AWG (0.64 mm) wire

5.0 (8 km) on 24 AWG (0.5 mm) wire

3.4 (5.5 km) on 26 AWG (0.4 mm) wire

### Serial Interface

DB-25 Female or DB-9 Female depending on model ordered

### Serial Data Rates

**Synchronous:** 32, 56, 64, and 128 kbps

**Asynchronous:** 0–38.4 kbps.

### LED Indicators

TXD, RXD, Link, NS (no signal), ER (CRC error)

### Power Supplies

External wall-mount power supply with universal 90–260 VAC input or -12,-24, and -48 VDC input

### Dimensions

5.18L x 1.69W x 0.75H in.  
(13.16L x 4.29W x 1.91H cm)

### Weight

2.01 lbs. (<1.0 kg)

### Compliance

#### EMC

- FCC Part 15, subpart B, class A (US)
- EMC Directive 89/336/EEC (EU)
- ICES-003 (Canada)

- AZ/NZS 3548 (Australia C-Tick)

- CISPR 22 (International)

### Safety

- UL 60950/CAN-CSA-C22.2 60950 (Safety—US/Canada)
- EN 60950 (Safety—Europe/International)

### Environment

Operating temperature: 32–122°F (0–50°C)

Humidity: 5–95% non-condensing

Altitude: 0–15,000 feet (0–4,572 meters)

07M1052AS-DS2

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PE-Inalp Networks Private Ltd

An Associate of

**PATTON**  
Electronics Co., USA

Old No. 14 and New No.6,  
Brahadambal Road,  
Nungambakkam High Road  
Chennai: 600 034, India  
Phone **+91 44 45490395/6/7**  
Fax **+91 44 4549.0394**  
Email **sales@patton.co.in**  
Web **www.patton.co.in**

Patton-Inalp Networks AG

**PATTON**  
inalp networks

Meriedweg 7  
CH-3172 Niederwangen  
Switzerland  
Phone **+41 (31) 985 25 25**  
Fax **+41 (31) 985 25 26**  
E-mail **sales@inalp.com**  
Web **www.inalp.com**

Patton Electronics Co.

**PE PATTON**  
Electronics Co.

7622 Rickenbacker Drive  
Gaithersburg, Maryland 20879  
USA  
Phone **+1 301 975 1000**  
Fax **+1 301 869 9293**  
E-mail **sales@patton.com**  
Web **www.patton.com**