



High Speed Serial Extender

Model 1053AS

The Model 1053AS miniature high-speed digital modem offers multi-rate Async/Sync speeds to 115.2/128 kbps with transparent modem signal controls. 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 115.2 kbps

Noise Immunity

The 1053AS 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

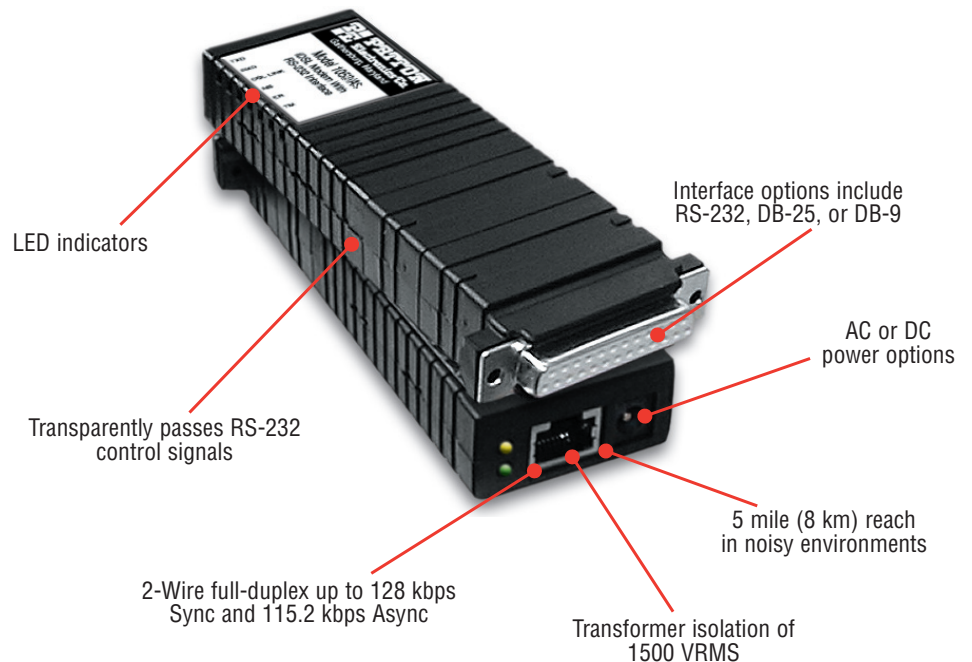
Universal AC power (90–260 VAC) as well as -12, -24, & -48 VDC

Patton's Model 1053AS is a long-range powered, digital modem that operates synchronously or asynchronously at full duplex over a single twisted pair. The Model 1053AS utilizes 2B1Q modulation for superior signal strength even in the noisiest environments. RS-232 serial connections with speeds of 128 kbps can now be extended to distances over 5 miles (8 km) without the use of repeaters! Using ordinary voice-grade wire, the 1053AS Serial Extender provides a cost-effective solution for high speed, dedicated end-to-end connections with synchronous line rates up to 128 kbps and asyn-

chronous line rates up to 115.2 kbps that include RTS, CTS and DCD modem signals.

The Model 1053AS modem's miniature size allows for a direct connection to your transmission devices serial port. 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. Additionally, LEDs are conveniently located on the side of the Model 1053AS to provide at-a-glance status indication of the unit.

For more information, visit www.patton.com.

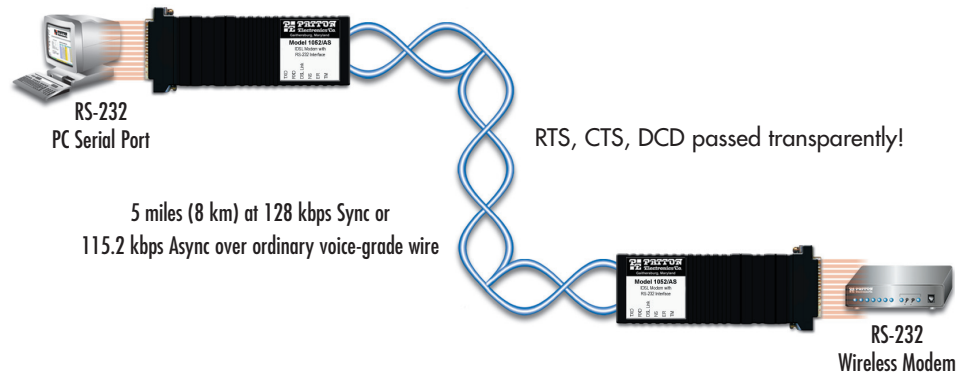


Features

- ✓ 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 1053AS 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: 38.4, 57.6, 76.8, and 115.2 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)

07M1053AS-DS2

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