Fast-Poll Industrial Grade Modem for High Speed Multi-point Communications

The Synxcom Fast Poll industrial modem is designed and manufactured from the ground up for rugged communication networks. Boasting the latest innovative digital signal processing (DSP)-based communication device, the SM19202FP delivers a cost-effective 19200 bps asynchronous solution for point-to-point and multipoint polling network with the industry’s fastest train time.

The SM19202FP Fast-Poll modem is ideal for multi-point communication applications including SCADA systems, RTUs, traffic monitor and control, and industrial automation networks. The SM19202FP supports RTUs with an EIA RS-232 or RS-485 serial port at speeds of 19200, 9600, 4800, 2400, and 1200 bps.

The SM19202FP Fast Poll modem is designed to operate over 4-wire or 2-wire unconditioned leased lines or private metallic circuits. For optimum performance, the modem employs QAM and FSK modulations to communicate over a variety of transmission lines.

The SM19202FP Fast Poll modem is designed to operate with a wide range of AC or DC power supply voltages and temperatures. With proven reliability and ease of installation, the SM19202FP is ideal for point-to-point and point-to-multipoint polling networks, where high speed and low-network latency are critical for system performance.

**KEY FEATURES**

- Multiple data rate support: 19200, 9600, 4800, 2400, or 0-1800 bps
- QAM modulation for 19200, 9600, 4800, or 2400 bps over Telco voice-band lines
- FSK modulation for Bell 202T and ITU-V.23 modes
- Fast-train high-speed data pump design for point-to-point or multipoint networks with shortest RTS/CTS delay of 17.5 ms.
- EIA RS-232/V.24 and RS-485 DTE support
- Cable equalizer extends operating distance over unloaded cables
- Built-in local and remote diagnostics and trouble shooting
- Heavy-duty surge protection provided at power supply and leased line interface
- Supports wide range of AC & DC power supply options
- Supports DC power supplied from DTE or DB-9 connector
- Wide range operating temperatures from -40 to +85°C
- Optional mounting options for DIN rail and wall-mounting.
General Specifications

Data Rate Support
Data Speed:
- 19200, 9600, 4800 or 2400 bps in fast poll mode
- 0-1800 bps in Bell 202T mode
- 0-1200 bps in ITU-V23 mode
Data Format: Asynchronous, 8 or 9 data bits, 10- or 11-bit character with 1 or 2 stop bits

Front Panel Indicators & Controls
LED. Indicators:
- RTS, CTS, TD, CD, RD, DSR, ALB, DLB
TEST Switch:
- Push Button for Analog Loopback, Digital Loopback, and Remote Digital Loopback

Power Supply Specifications
Three models support various power options:
- Stand-alone: 90-264 VAC
- Stand-alone: 10-48 VDC
- Rack mount: RM16M module
Power Consumption:
- Idle mode: 1.0 watts
- Normal mode: 2.0 Watts, typical

Modem Equalizers
Automatic & adaptive equalizer
Enhanced fixed cable equalizers for extended range

Transmission Line Interface
Leased Line:
- TELCO voice band 2- or 4-wire leased lines
- Private or metallic circuits 2- or 4-wire, 19-26 AWG
Connector: 5-position terminal block with safety ground.

Modulation
QAM for 19200, 9600, 4800 and 2400 bps in fast poll mode
FSK for 0-1200 or 0-1800 for V23 or Bell 202T mode

Data Format: Asynchronous, 8 or 9 data bits
- 0-1200 bps in ITU-V23 mode
- 0-1800 bps in Bell 202T mode

Data Speed:
- 19200, 9600, 4800 or 2400 bps in fast poll mode
- 0-1800 bps in Bell 202T mode
- 0-1200 bps in ITU-V23 mode

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Mechanical Specifications
Enclosure dimensions:
- 5.0”(W) x 6.75”(L) x 1.3” (H)
- 127mm(W) x 172mm(L) x 33mm(H)
Weight: 1.0 pound, without AC power module

Environment Specifications
Temperature:
- Operation: -40° to + 85° C
- Storage: -40° to +100° C
Humidity:
- Up to 95 % non-condensing

Dry Contact Detection (optional)
2 optical isolated dry contact detections are provided for external devices (consult factory for additional information)

Model Numbers and Optional Features
SM19202FP: Stand-alone with AC power supply
- 90-264 VAC or 115-400 VDC
SM19202FP-DC: Stand-alone, DC power,
- SM19202FP-DC 10-60 VDC
SM19202FP-RM: Stand-alone with AC power supply
- AC Power w/ DIN Rail mounting option
SM19202FP-DC-DIN: Stand-alone, DC power,
- 10-60 VDC w/ DIN Rail mounting option
SM19202FP-RM: Stand-alone with AC power supply
- RM16 rack-mount plug-in module