Fast Poll Industrial Modem for Motorola/UDS RM16M Modem Rack

The Synxcom SM19202FP-RM & SM96202FP-RM fast poll modems are specifically designed and manufactured as plug-in modules for the Motorola/UDS RM16M modem nest. Boasting the latest innovative digital signal processing (DSP)-based communication device, the SM19202FP-RM modem delivers a cost-effective 19200 bps asynchronous solution for point-to-point and multipoint connectivity, while the SM96202FP-RM supports up to 9600 bps.

The SM19202FP series Fast-Poll modem is ideal for industrial 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 plug-and-play into the Motorola/UDS modem nest. It is compatible with the Synxcom fast poll series standalone modems and Motorola/UDS 202T modems as well.

KEY FEATURES

Motorola/UDS RM16 Compatible. Single board modem module

Multiple data rates supported: 19200, 9600, 4800, 2400, or 0-1800 bps, asynchronous

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 multi-point networks with short RTS/CTS delay (17.5 ms)

4 wire full duplex or 2 wire half duplex communication over leased or private owned lines

Cable equalizer extends operating distance over unloaded cables

Built-in local and remote analog and digital loopback diagnostics test features

Heavy-duty surge protection provided at power supply and leased line interface

Wide range of operating temperatures (-40 to +85° C)
General Specifications

Data Rate Support
Data Speed:
- 19200, 9600, 4800, 2400 bps fast poll (SM19202FP)
- 9600, 4800, 2400 bps in fast poll mode (SM96202FP)
- 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

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

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: RJ-45, provided by RM16M modem rack

DTE/RTU Interface
The modem provides serial ports to support RS-232/V24 Interface:
RS-232 Interface
Connector: DB25-F (Provided by RM16M)
Signals: RTS, CTS, CD, TD, RD, DSR, SG

Front Panel Indicators & Controls
LED. Indicators:
- PWR, 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: AC or DC voltage from RM16M modem rack
Power Consumption:
- Idle mode: 1.0 watts
- Normal mode: 2.0 Watts, typical

Mechanical Specifications
Board dimensions:
- 6.32” (H) x 0.82” (W) x 8.62” (D)
- 160mm (H) x 20.8mm (W) x 219mm (D)
Weight: 0.50 pound

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

Model Numbers and Optional Features
SM19202FP-RM
- RM16 rack mount plug in module, up to 19200 bps

SM96202FP-RM
- RM16 rack mount plug in module, up to 9600 bps

SM19202FP: Stand-alone with AC power supply
- 90-264 VAC or 115-400 VDC

SM19202FP-DC: Stand-alone, DC power only
- SM19202FP-DC 10-48 VDC

Multi-point Polling Network with the SM19202FP