Modems
for the MOSCAD RTU

The MOSCAD RTU may communicate RTU-to-central or RTU-to-RTU on wirelines when desired. A family of modem accessories is available for direct installation within the MOSCAD NEMA or RackMount RTUl Operating power for the modems is derived from the MOSCAD power source, including the backup battery.

Mechanical

Each modem consists of two assemblies: the modem electronics installs within the CPU module of a no-radio MOSCAD RTU; the line interface unit installs in the space normally occupied by the radio.

◆ *The MOSCAD RackMount configuration provides additional places to install the line interface unit, so that simultaneous radio and wireline (modem) communications may be provided if needed..*

Electronics

Two versions of the modem electronics are available. Both provide low-speed (600 and 1200 bps) data communications, whereas one also provides mid-speed (2400 bps) data communications.

◆ *The modem electronics plugs into the CPU module in the space normally occupied by the radio interface electronics for an efficient connection to the microprocessor. The modem also operates from the MOSCAD backup battery power source.*

Line Interface

Three versions of the line interface units are available. These permit wireline communication systems that involve dial/answer operation through the Public Switched Telephone Network (PSTN), dedicated 2-wire or 4-wire point-to-point operation, or 2-wire point-to-multipoint (multidrop) operation.

◆ *The system manager may use the dial/answer (PSTN) capability to dial into the system for maintenance purposes. RTUs may also use this dial-in connection for their communication requirements. Three or more RTUs may be interconnected into a communications (sub)system by using point-to-multipoint (multidrop) modems.*

Connections

RJ-11 connectors or standard screw terminals may be used for 2-wire connections.

◆ *The RJ-11 connectors provide an easy method of connecting the modem to the telephone lines. Screw terminals are available if needed.*

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Specifications

Order	See chart below
Signal Levels	Wireline to Modem: -3 dBm to -47 dBm (-35 dBm for multidrop) into 600 ohms Modem to Wireline: -10 dBm into 600 ohms
Power	5 Vdc: 0 ma 12 Vdc: 6 ma
Environment	Humidity: 0 to 90% @ +50°C Temperature: -30 to +60°C

Plant Installed	Field Installed	Modem Type	Data Speed/ Modulation		Standard	Interface
V104	FRN5669 Plug-in board FRN1985 Line interface	Dial/Answer (PSTN)	600 1200	DPSK DPSK	CCITT V.22/Bell 212 CCITT V.22/Bell 212	Asynchronous Asynchronous
V226	FRN5639 Plug-in board FRN1985 Line interface	Dial/Answer (PSTN)	600 1200 2400	DPSK DPSK QAM	CCITT V.22 CCITT V.22/Bell 212 CCITT V.22*bis*	Asynchronous Asynchronous Asynchronous
V219	FRN5669 Plug-in board FRN1986 Line interface	Multidrop (point-to-multipoint) half-duplex	600 1200	DPSK DPSK	Proprietary (MDLC) Proprietary (MDLC)	Synchronous Synchronous
V285	FRN5669 Plug-in board FRN1987 Line interface	Leased wireline (point-to-point) full duplex	300 600 1200	FSK DPSK DPSK	CCITT V.21/Bell 103 CCITT V.22 CCITT V.22/Bell 212	 Sync/Asynchronous Sync/Asynchronous
V404	FRN5639 Plug-in board FRN1987 Line interface	Leased wireline (point-to-point) full duplex	300 600 1200 2400	FSK DPSK DPSK QAM	CCITT V.21/Bell 103 CCITT V.22 CCITT V.22/Bell 212 CCITT V.22*bis*	 Sync/Asynchronous Sync/Asynchronous Sync/Asynchronous

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