MOSCAD-L

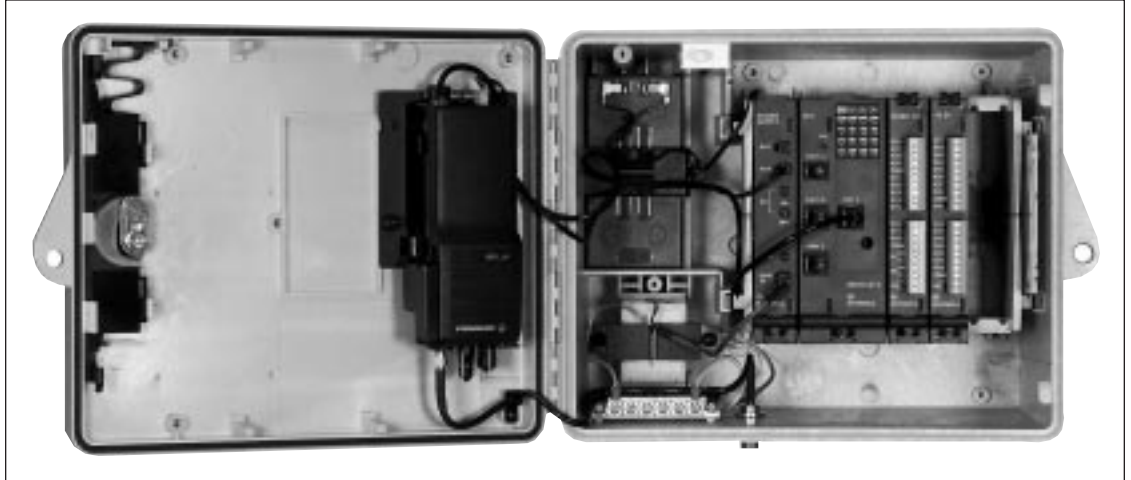## SCADA Remote Terminal Unit

MOSCAD-L provides the most-asked-for features of MOSCAD in a smaller and leaner package for use in locations where space is limited.

FEATURES/ BENEFITS

MOSCAD-L is Smaller

The size of MOSCAD-L is noticeably smaller than the equivalent full size MOSCAD. The available enclosure meets the requirements of NEMA-4X for use indoors or outdoors in mild corrosive environments.

▶ *MOSCAD-L may be easily installed in space restricted locations. Mounting options are available for wall-or pole-mount situations, and MOSCAD-L is small enough to fit with other equipment in many enclosures provided by others.*

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MOSCAD-L provides Communications

MOSCAD-L and MOSCAD both use the MDLC communication protocol which is based on the International Standards Committee's 7-layer protocol recommendation. Messaging, both RTU-initiated and poll-response, may occur to a central system management site or peer-to-peer between any RTUs (Remote Terminal Units) in the system. Communications may occur on popular two-way radio frequencies or by wireline or fiber optic modems.

▶ *MOSCAD-L provides the communication task, so important in distributed intelligence automation systems. There is no add-on communication package to locate and integrate.*

▶ *RTU-initiated messaging virtually eliminates any need for continuous polling to transfer information RTU-to-central – the RTU sends data only when something noteworthy occurs on-site. MOSCAD-L may operate on radio channels that are shared by other users including voice users.*

▶ *MOSCAD-L and MOSCAD may exchange data among each other. MOSCAD-L may be added to, and be a full member of, existing MOSCAD systems.*

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MOSCAD-L is Leaner

The commonly used I/O capabilities of MOSCAD, including RS-232 and RS-485, are available with MOSCAD-L. Advanced technology is used to provide these capabilities at lower operating power requirements.

▶ *When the situation requires advanced performance at low power burdens, MOSCAD-L may be the solution. Solar or LP powered sites may particularly benefit from this capability.*

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MOSCAD-L is Programmable

The specific automation solution to the system requirement may be programmed into MOSCAD-L. The same application already developed for MOSCAD may also be used in MOSCAD-L if the I/O requirement is satisfied.

▶ *Automation solutions may be tailored to satisfy specific customer requirements. Programming is accomplished by using an advanced version of tried and proven ladder logic, complemented by "C" function. It is supported by the MOSCAD-L Programming ToolBox.*

▶ *MOSCAD-L and MOSCAD may be intermingled within a customer's system. New sites may be automated with MOSCAD-L using the same application solution developed for existing MOSCAD-automated sites.*

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Ⓜ MOTOROLA

MOSCAD-L
SCADA Remote Terminal Unit

SPECIFICATIONS

Power Supply Module:	**Input Voltage:**	From 117V ac (nominal) line transformer, 230V ac line transformer optional Interface to external 20-28 Vac/21-50V dc power source optional
	Output Voltage/Current:	5V dc at 0.6 amp; 14.3V dc at 2.0 amp; 24V dc at 0.25 amp
	Backup Battery:	1.2 Ah at 12V dc (nominal); 3.0 Ah optional
CPU Module:	**Processor:**	Motorola 68LC302 (16/32 bit) CMOS; 16.6 MHz clock
	Memory:	1024 kB Flash for operating system and application, 256 kB RAM
	Application Size:	Approximately 256 kB
	Clock:	Software clock; year, month, date, day, hour, minute, second supported
	Serial Data Ports:	Port 1: RS-485 2-wire multidrop or RS-232 (no handshake); up to 57.6 kbps Port 2: RS-232 with full DTE/DCE support; up to 57.6 kbps
	Communication Port:	1200 bps DPSK to internal or external radio, or 600 bps Intrac to internal or external radio, or 1200 bps or 2400 bps wireline modem, or RS-232 Sync or Async; up to 57.6 kbps
I/O Modules:	**16 Digital Input:**	see catalog sheet R3-11-1013
	Mixed I/O:	see catalog sheet R3-11-1014
General:	**Physical:**	NEMA4X lexan (fiberglass reinforced) enclosure: 14.75″ x 11″ x 8.5″
	Environmental:	–30° to +60°C; 90% RH @ +50°C

COMMUNICATION DATA

Wireline Modems:	**PSTN:**	600-2400 bps dial-up/answer; full-duplex
	Leased Line:	300-2400 bps 2-wire or 4-wire full-duplex
	Multidrop:	1200 bps 2-wire half-duplex
Two-Way radio:	**Conventional:**	136-174 MHz @ 5 watt (variable to 1.2 watt) power output 403-430, 450-470 MHz @ 4 watt (variable to 1.2 watt) power output
	Trunked:	806-869 MHz @ 3 watt (variable to 1.2 watt) power output
External radio::	**Interface:**	5 wire (data in, data out, PTT, channel monitor, ground)
	Emission:	F2 (DPSK or Intrac)
RS-232:	**Interface:**	7 wire DTE/DCE (data in, data out, CTS, RTS, DTR, CD, gnd); 0.6-57.6 kbps

Specifications subject to change without notice.

Rear view of enclosure, showing:
a) four corner mounting brackets (left); brackets shown in vertical position but may also be horizontal.
b) optional wall-/pole-mount plate (right); it is attached to the mounting surface before the enclosure slides and locks onto the plate.

Wall-mount plate

SUPPORT SERVICES
Wherever Motorola sells, our product is backed by service. Our products are serviced throughout the world by a wide network of company or authorized independent distributor service organizations.

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