



IDI 1600 NTCIP Field Device Controller

The IDI 1600 is one of a family of low-cost controllers that make the perfect engine to control signs, traffic count systems, weather stations, cameras or any custom applications where NTCIP communication and a keyboard/LCD interface is required.

Five serial ports are provided (2 ports jumper selectable to be RS232 or RS485). An Ethernet port provides a powerful optional connection for high speed communication. The IDI 1620 incorporates a "flash disk" (16 MB standard) for storage of any graphical data or other information. This makes it a perfect choice for applications where large capacity on-board data storage is required. The powerful parallel processor architecture makes the implementation of custom menus easy.

The NTCIP application runs in the first processor (as an NTCIP server), and the menus run completely independently in the second (as an NTCIP client). The two processors are connected via a high speed parallel bus. Custom menus can then be implemented without making ANY changes to the standard NTCIP engine.

IDI 1600 Features:

- > Low cost NTCIP solution
- > Five serial ports are provided
- > Watchdog supervision is standard
- > Includes a time clock module
- > Battery backup maintains system memory and real time clock
- > Optional Ethernet port
- > Optional 16 MB Flash disk for on-board data storage
- > On-board temperature sensor standard
- > Parallel processor architecture
- > Supports digital inputs, digital outputs and analog inputs



HARDWARE SPECIFICATION

Module Size	5.7" x 4.8" x .6" (144mm x 122mm x 18mm – Standard)
(overall, including connectors)	5.7" x 4.8" x .9 (144mm x 122mm x 24mm – Ethernet)
Attachment	Qty. 4, 0.156" (4mm) holes
Operating Temp	-40°C to +74°C (-40°F to +165°F)
Humidity	5-95% non-condensing
Power Requirement	8-30 V AC or DC – Less than 100mA
Digital I/O	8 inputs , 4 outputs
Analog Inputs	4 Inputs – 12 bit accuracy
Processor Speed	22.1 MHz
SRAM	512 kB (standard)
Code Flash	512 kB (standard)
Data Flash (optional)	16 MB
Serial Ports	4 Total (2 – RS232 Full Hardware Flow Control, 2 – RS232 Full Hardware Flow Control or 4 Wire RS485)
Watchdog Supervisor	Yes
Time/date Clock	Yes
Battery Back up	Yes
Temperature Sensor	Yes
LED	4 – Heartbeat, Rx, Tx, Diagnostics
Keyboard and LCD	Accepts standard PS/2 keyboard and 4x40 backlit LCD.
Switches	Reset, 8 position DIP
Ethernet (Optional)	10 BaseT with 2 diagnostic LED's

SOFTWARE SPECIFICATION

PROTOCOL STACKS SUPPORTED

Direct Connect (RS-232):	Data Objects > SNMP > Null > PMPP > RS-232 > DB9M
Direct Connect (RS-485):	Data Objects > SNMP > Null > PMPP > RS-485 > Twisted Pair
Dial Up :	Data Objects > SNMP > Null > PMPP > V Series Modem > Telephone Co
	Data Objects > SNMP > UDP/IP > PPP > V Series Modem > Telephone Co
Ethernet (optional):	Data Objects > SNMP > TCP/IP > Ethernet > RJ-45
	Data Objects > SNMP > UDP/IP > Ethernet > RJ-45

STANDARD MASTER OID TABLES

1201 – Global Objects	1203 – Dynamic Message Signs
1204 – Environmental Sensor Systems	1205 – CCTV Camera Control
1209 – Transportation System Sensors	Custom Conformance Group Configuration available

PROGRAMMING

Custom device drivers programmed in “C”, running as a separate task in a real time multi-tasking operating system.

OPTIONS

Training, Application Assistance, Telephone Support, Upgrades and Enhancements

ORDERING INFORMATION

IDI 1600 - Base Controller
IDI 1601 - Base Controller with Ethernet
IDI 1620 - Base Controller with 8 MB Data Flash
IDI 1621 - Base Controller with 8 MB Data Flash and Ethernet