



DOUBLE D ELECTRONICS LTD

DDA217 Protocol Converter

- * Converts between popular Satcoms protocols
- * Simplifies RC&M systems
- * RS-232/RS-485 host interface
- * RS-232/RS-485 equipment interface
- * Free-standing unit
- * I/O ports (optional)
- * Other packaging options available
- * Summary alarm output (optional)
- * Processing functions available



The DDA217 may be used to convert between various protocols frequently found in the Satellite Communications area. These include protocols used by CPI, STS, Scientific Atlanta, NDS, Novella, Miteq, Multipoint, LNR, EF-Data and Peak, as well as other manufacturers who have adopted the same standards. In addition, the popular ModBus industrial protocol is supported. On the host side it is able to automatically identify the protocol being used, and receive messages addressed to it. The equipment side is set to use a specific protocol, and the message received from the host is re-encoded using this protocol. Any reply from the equipment is decoded, then forwarded back to the host in the protocol used by the host. The embedded message is not changed in any way; only protocol-specific items such as start and end characters, addressing information and checksums are converted.

The DDA217 includes eight general-purpose inputs, and six open collector outputs, which may be accessed via the host serial port.

The DDA217 may be configured to occupy a block of either two or ten addresses within the address space of the host protocol. The lowest address is used to access the local I/O, while messages received on any of the remaining nine addresses are forwarded to the connected equipment. The address is set via an externally accessible block of switches.

The DDA217 may be customised to suit specific applications; typically by adding processing of the messages for command set translation, or by packaging in other forms. Examples of special applications already done include:

Protocol converter to convert and encapsulate messages sent to an unusual redundancy switch.

Adding a summary alarm relay contact to equipment which lacks the facility, while maintaining RC&M access via the equipment's serial port.

SPECIFICATION

Physical:	Free standing case, 185 (W) x 180 (D) x 65 (H)
Power:	90-250V a.c., 20VA max from external PSU
Host:	RS-232 or 4-wire RS-485 on 9-pin D-socket. Selectable 9600,n,8 or 9600,e,7
Equipment:	RS-232 or 4-wire RS-485 on 9-pin D-socket. Selectable 9600,n,8 or 9600,e,7 (9600,e,8 forced for some protocols)
Protocols:	Printable ASCII (used by CPI, Miteq, STS, Novella) STX/ETX (used by Scientific Atlanta, Continental Microwave, Xicom) NDS Alteia *LNR (for up converters) *ASCII/length (used on Chloride UPS) EF-Data *STX/length (used by Peak, Comscience, Maxtech) *ASCII/CR (used by Leitch) (Asterisked protocols are available only on the equipment port) ModBus
Alarm Output:	Volt-free relay contact signals alarm on power supply or processor failure.
Inputs:	Accept volt-free contact or NPN open collector.
Outputs:	Open drain rated 30V d.c. 100mA continuous.

Ordering Information

DDA217-01	Protocol converter including power supply.
DDA217-02	Protocol converter with summary alarm, and special alarm functionality, including power supply.
DDA217-03	Unit for remote control of HPA mute signals and similar, with watchdog on comms fail. Including power supply.
DDA217-04	Protocol converter with IDB and ModBus protocol support, summary alarm, including power supply.
DDA217-05	As DDA217-04, with four readable inputs
DDA217-11	Protocol converter with I/O ports and summary alarm, including power supply.