



DOUBLE D ELECTRONICS LTD

DDA289 Converter Redundancy Switch

- * 1+4 and 1+8 Configurations standard
- * Many special configurations available
- * Integral 18GHz and IF switches
- * 50 ohm or 75 ohm IF
- * Colour touch screen for local control
- * Option for separate input switch control
- * Remote Monitoring & Control Port
- * Network port with browser/SNMP
- * Automatic monitoring and update of standby
- * Supports industry-standard up converters
- * 3U package
- * Redundant power feeds



The DDA289 is a versatile redundancy switch, intended for protecting up converters, down converters, modems, encoders and similar equipments.

Typically the RF section comprises separate IF (to 300MHz) and RF (to 18GHz) switching subsystems, and is available in 1+4 and 1+8 configurations. (Other configurations can be supplied on request, including units with all IF switches or all SHF switches, and a 4U high unit with an extra set of IF switches). Normally the input and output switches are controlled together; where the standby converter is dual fed there is an option to control the input switch separately.

The unit may be controlled locally from the front panel; this allows configuration of key unit settings, as well as mode control and manual switching. The LCD permits user-friendly prompts, as well as display of more extensive information than is possible on a conventional LED display.

The unit connects to the protected equipment via a local serial port. Through this it continuously monitors the settings of the main path up converters, at a configurable rate. When an automatic changeover occurs the standby is updated with the settings of the failed main path. The update can include an offset to compensate for varying path losses.

Switching may also be performed manually from the front panel.

The DDA289 includes a 10/100BaseT network port, used for both RF configuration and RC&M. Configuration uses a web browser. RC&M uses either a high speed 'sockets' interface, or SNMP.

RC&M capability is also available through a separate serial port, using identical message formats to the TCP/IP 'sockets' interface.

The RC&M protocol allows access to all the front panel control and monitoring facilities. In addition it is possible to set key configuration parameters in this way. The up converter settings may be obtained (and changed) either by accessing the up converter directly through a different RC&M address, or via the DDA289 in a converter-independent format.

The DDA289 can also act as a protocol converter. The host RC&M port supports two industry-standard protocols, while the up converter serial port handles any protocols required by the equipment supported. It is also possible to support other protocols on the host port where this is appropriate to the application.

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SPECIFICATION

- Physical: 3U 19" rack, 360mm deep (excluding connectors)
- Power: 90-250V a.c. standard; 48V d.c. option. 50VA max. Redundant power feeds.
- RF: SMA connectors. Switching system specified d.c. to 18GHz. Worst-case loss 2.0dB for main path, 6.5dB in 1+8 system with standby in use (at 18GHz).
- IF: BNC Connectors. 50Ω and 75Ω options. Specified d.c. to 200MHz. Worst-case loss 1.0dB for main path, 3.5dB in 1+8 system with standby in use.
- Converters: Up/Down Converters from the following manufacturers are supported:
Miteq
Novella Satcom
Peak
Vertex RSI
Support for other manufacturers is planned - please contact factory.
- Modems: EF-Data/Adaptive Broadband SDM-2020
Tandberg Television SM5600, SM6600
Radyne Comstream DM240
- Settings: The DDA289 handles frequency, attenuator, spectrum inversion, mute and remote/local if these are supported by the converter.
- Host Serial: 4-wire RS-422/RS-485, various format options. Supports "Printable ASCII" and "STX/ETX" protocols.
- Network: 10/100Base T port with browser, 'sockets' and SNMP
- Alarms: 9-D socket for each protected equipment (and standby). Input for volt-free contact, form C buffered alarm output.

Converter Serial

Interface: 4-wire RS-422/RS-485. Fixed settings for each make of up converter. Converter polling interval configurable from "as fast as possible" to 99 minutes; also manual poll option. Settings stored in non-volatile memory.

Automatic Switching:

Configurable delay before switching - 0.1 to 25 seconds.
Multi-level prioritisation scheme allocates standby to failed path with highest priority.
Optional automatic restoration of main path when no longer failed.
Paths may be temporarily excluded from automatic switching for maintenance purposes.

Accessories: Cable sets to connect between the DDA289 and the protected units can be supplied on request.

Ordering Information

DDA289-04/75 1+4 Up Converter Redundancy switch, 75Ω IF
DDA289-08/75 1+8 Up Converter Redundancy switch, 75Ω IF
DDA289-04/50 1+4 Up Converter Redundancy switch, 50Ω IF
DDA289-08/50 1+8 Up Converter Redundancy switch, 50Ω IF

For 48V d.c. power, add suffix "-48" to the part number

Please contact factory for other ordering options