



DOUBLE D ELECTRONICS LTD

DDA286 Networkable Switching Controller

- * Modular Construction
- * Waveguide Switch, Coaxial Switch Control
- * LNA/LNB Power Supplies
- * Data Circuit Switching
- * 10/100BaseT Network port
- * SNMP V1 and V2c
- * TCP/IP 'Sockets' communication
- * Web browser configuration and status
- * Wide range of interfaces
- * Automatic Changeover logic
- * Remote monitoring & Control
- * Local front panel

The DDA286 is a family of units and modules for switching controllers (including LNA/LNB controllers) and switching systems where a network port is desirable. A modular construction allows support for virtually any configuration, and non-standard features can be incorporated on request.

The main features are as follows:

Construction

19" rack mount. All units are plug-in, allowing simple field maintenance. 3U, 6U and 9U options, governed by capabilities required and the size of any front panel mimic diagram. Coaxial switching systems may incorporate the switches (and possibly other RF components) within the unit, in which case this also affects the size.

Power Supplies

Universal input 90-240V a.c. 50-60Hz. Options for single and redundant power feeds.

Coaxial Switch Control

Most standard coaxial switches can be accommodated. IF transfer switches (d.c. to 200MHz) are available in 50 Ω and 75 Ω versions. Coaxial transfer and multi-way switches operating at up to 18GHz (or 26GHz) are also available.

Waveguide Switch Control

Up to three switches per module, using the same interface as the DDA70 family of controllers.

HPA Interface

DDA70 compatible connections support three HPAs per module, each with three fault inputs and a mute output. Buffered alarm outputs can be provided.

Data Circuit Switching

Switching modules allow selection of low-frequency signals, based round either 9-pin D-connectors (typically for serial interfaces) or the IEEE-488 interface. A typical application is the provision of a hot standby computer for RC&M systems. A further module provides electronic switching of RS-422 signals. Included in the range is a

watchdog card which monitors pulses from the on-line computer, changing over after a timeout.

LNA/LNB Power

A variety of options to power LNAs and LNBs. For simple systems a fixed 24V d.c. output is often adequate. Options provide for variable output voltage. Switched voltage units are available for dual band systems. For units with dual mains feed and other than 24V output, the local power generation circuitry may also be made redundant.

Up to six outputs can be provided; each from a separate circuit for best reliability. Each is on a separate rear panel connector, with its own self-resetting fuse. Where LNB power has to be fed via its coaxial output connector, a range of bias tees can be provided.

Each LNB power supply is individually monitored, and an alarm generated if the current drain goes outside preset limits.

Input/Output

Further modules provide various input and output options to suit the application.

Control Facilities

Most control facilities can be implemented in software, typically including redundancy controllers, switching logic and general I/O interface.

The unit includes up to four serial ports, which may be used for various purposes. All ports support RS-232, RS-422 and 4-wire RS-485 at a variety of baud rates. The industry standard 'Printable ASCII' and 'STX/ETX' protocols are supported. On the RC&M side, commands vary according to the facilities required, and are generally based on the DDA70 Waveguide Switch Controller command set.

Power Levelling

The controller can be configured to support power levelling, where the standby is updated with the settings of the main path equipment it is replacing during a switching sequence.

Local Control

For most units a local front panel provides manual control of the switching, and various status indications.

Mute Override

For units interfacing to HPAs, an integral Mute Override keyswitch can be provided (although use of the standalone DDA202 Mute Override unit is often preferable).

Ordering Information

A unique reference is allocated to each unit after determining the precise specification in discussion with our Technical Sales.

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