



# DOUBLE D ELECTRONICS LTD

## DDA224-XXX Low Cost 1+1 Switch Controller & Redundancy Controller

- \* Ideal for mobile applications
- \* Up to two coaxial or waveguide switches
- \* Protects two sets of equipment
- \* Up to three items of equipment per chain
- \* Automatic redundancy mode
- \* Custom front panel options
- \* Single universal mains supply
- \* Optional RS-232 or RS-422/485 serial ports
- \* 1U 19" rack mount
- \* Optional Summary alarm output

The DDA224 is a general purpose controller for 1+1 switching systems using coaxial or waveguide switches, and includes automatic redundancy facilities. Its compact size makes it ideal for mobile use, and other applications where space is at a premium.

A wide range of switch types are supported, including IF coaxial (50Ω or 75Ω), SHF coaxial and waveguide. Input and output switches may be different types, giving support for a wide range of equipment including HPAs, up and down converters, LNAs, LNBs and modems.

There is a separate connector for alarms from each protected equipment chain, with support for up to three fault signals from each chain. There is a mute output available for each chain, which is active during switching (it can be ignored if none required).

For applications requiring remote monitoring and control a serial link can be provided as an optional module. It can support both 4-wire RS-485 and RS-232, and is compatible with the command set of the larger DDA70 family.

The front panel provides local control and status. A number of standard front panel mimics can be supplied, including a generic layout and some showing typical redundancy configurations. Alternatively custom mimics can be provided, based on the standard indicator and switch positions.

## SPECIFICATION

- Physical: 19" rack, 1U high, 260mm deep (excluding connectors).
- Power: 90-254V a.c., 48-62Hz, 80VA max. Single power feed via IEC mains inlet
- Switches: Support for up to two switches:  
**Option 0** - No switch  
**Option 1** - External coaxial or waveguide, 24V coils, common negative, including inputs for lock. Coil drive up to 2.5A.  
**Option 2** - External coaxial, 24V coils, common positive. Coil drive up to 300mA.  
**Option 3** - Internal latching coaxial transfer switch, 50Ω, to 18GHz. SMA connectors.  
**Option 5** - Internal latching coaxial transfer switch, 50Ω, to 200MHz. BNC connectors  
**Option 7** - Internal latching coaxial transfer switch, 75Ω, to 200MHz. BNC connectors
- Chain Alarms: 9-pin D-socket; three alarm signals per chain accept volt-free contact or NPN open collector.  
Mute output Form C relay contact 30V d.c. 0.1A on alarm connector
- Host Serial: 9-pin D-socket; RS-232 and 4-wire RS-422/RS-485, fixed 9600,7,e,1. Supports "Printable ASCII" and "STX/ETX" protocols. (Optional module)
- Summary Alarm: 9-pin D-plug; volt-free relay contact signals alarm on any detected fault.

### Ordering Information

DDA224-MIOS 1+1 Redundancy and Switching Controller.

In the above part number, substitute as follows:

M Mimic type: 0 = as above

I, O Input and output switch types - option number as per the 'Switches' section of the specification.

S 0 = No serial interface  
1 = RS-232 serial interface  
2 = RS-422/485 serial interface