



# DOUBLE D ELECTRONICS LTD

## DDA219-XXE General Purpose 1+1 Switch Controller & Redundancy Controller

- \* Up to two coaxial or waveguide switches
- \* LNB Power supply option
- \* 1U 19" rack mount
- \* 10/100BaseT Network port for RC&M, configuration
- \* Automatic redundancy mode protects two equipments
- \* Muting control when used with HPAs
- \* Redundant Power Supplies
- \* RS-232 and RS-422/485 serial ports for RC&M
- \* TCP/IP Sockets RC&M interface, SNMP
- \* Summary alarm output



The DDA219 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.

Alternative switching interfaces provides electronic buffering and switching of RS-422 signals, including two separately buffered outputs, or analog signal selection.

There is a separate connector for alarms from each protected equipment chain; there is support for two fault signals from each chain (typically alarm and fault) and there is a volt-free contact for HPA muting during switching.

HPA muting is generated within the controller; the HPAs are muted during switching, and if a switch is moved manually or becomes disconnected.

The DDA219 includes a 10/100BaseT network port which supports a TCP/IP 'sockets' interface for remote monitoring and control, as well as being used for configuration. A serial port supporting 4-wire RS-485 and RS-232 also provides RC&M facilities. The control protocol is compatible with the larger DDA286/DDA267 family as well as most of our other controllers.

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.

## SPECIFICATION

- Physical:** 19" rack, 1U high, 450mm deep (excluding connectors).
- Power:** 90-254V a.c., 48-62Hz, 150VA max. Redundant power feed (dual power supplies) via two IEC mains inlets
- Switching:** Support for up to 4 mechanical switches:  
**Option 1** - External latching coaxial or waveguide, 24V coils, common negative, including inputs for locks.  
**Option 2** - External latching coaxial switch, 24V coils, common positive.  
**Option 3** - Internal latching coaxial transfer switch, 50Ω, to 18GHz.  
**Option 5** - Internal latching coaxial transfer switch, 50Ω, to 300MHz  
**Option 7** - Internal latching coaxial transfer switch, 75Ω, to 300MHz  
**Option 8** - RS-422 changeover option (electronic switching and buffering) - max one per unit.  
**Option 9** - dual monitored LNB power supplies. See separate data sheet.  
**Option A** - External latching coaxial or waveguide, 24V coils, common positive, including inputs for locks.  
**Option B** - Internal latching coaxial transfer switch, 50Ω, to 40GHz.  
**Option C** - Internal latching analog 1 of 2 selector (mostly for beacon receivers) ±10V range, unity gain
- Chain Alarms:** 9-pin D-socket; two alarm signals per chain accept volt-free contact or NPN open collector.  
Volt-free changeover contact for muting.
- 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.
- Summary Alarm:** 9-pin D-plug; DPDT volt-free relay contact.
- Network:** 10/100BaseT network port - TCP/IP sockets, SNMP, web browser

## **Ordering Information**

DDA219-mioE 1+1 Redundancy and Switching Controller.

In the above part number, substitute as follows:

m Mimic type:  
0 - Standard generic mimic (upper drawing on previous page)  
9 - Remote control unit - PSU indications only  
(Other standard options available; bespoke mimic for one-off cost)

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

Example: DDA219-051E has a generic mimic, 50Ω IF input switch and output to drive an external coaxial or waveguide switch.