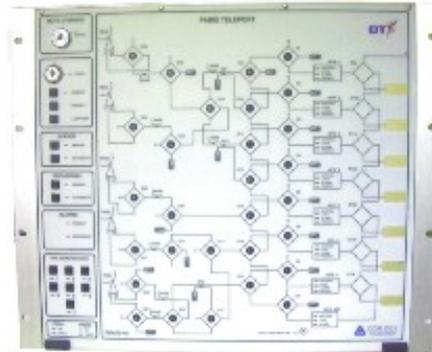




DOUBLE D ELECTRONICS LTD

DDA70 Waveguide System Redundancy Controller

- * Up to 40 Waveguide Switches
- * HPA and Chain Redundant Configurations
- * Power Levelling
- * HPA muting
- * Remote Monitoring & Control Port
- * Front panel mimic
- * Flexible configuration
- * Redundant Power Feeds
- * Coaxial switch support
- * Remote switch capability



The DDA70 is a versatile redundancy switch, providing manual and automatic control of waveguide switches and other switching systems. The controller is not limited to redundancy applications - it may be used in any situation where local and remote control of waveguide switches is required.

The DDA70 is equipped with a system-specific mimic diagram, making it easy to identify the required switching actions. (Generic or blank front panels also available).

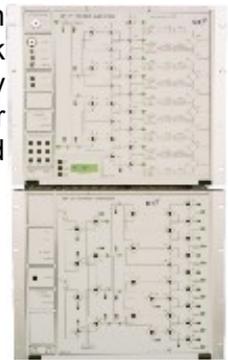
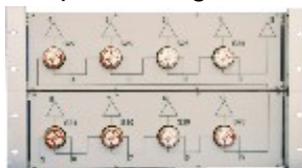
During switching the DDA70 identifies HPAs connected to the switch which is moving, and automatically mutes them. This facility is also operational when a switch is moved manually. External mute inputs can selectively mute those HPAs connected to a particular antenna. An optional mute override keyswitch disables the internally generated muting; alternatively the separate DDA202 mute override unit can be used.

In automatic mode the DDA70 monitors alarm contacts from the HPAs (and optionally up converters, equalisers and other equipment on each chain); when an alarm is present for a defined time it replaces the failed chain with the standby. For larger systems the DDA70 may also connect to the HPAs (and optional up converters) via a local serial port. Through this it continuously monitors the settings of the main path equipment. When a main path equipment fails and an automatic changeover occurs the standby equipment is updated with the settings of the failed main path. This includes setting the channel on KPA systems - either from user-defined values or from the main path KPA.

The remote monitoring and control port allows access to all the front panel control and monitoring facilities, as well as the HPAs and up converters where present. Additional ports dedicated to the HPAs and up converters can be provided.

For applications where there is a long distance between the controller and the target switches the DDA70 can communicate with up to two further remote waveguide switch controllers (DDA70, DDA86, DDA219 etc), integrating the status and control of both waveguide switches and HPAs with that for its own local interfaces.

The DDA70 supports a wide range of options, including electrical ganging of switches, variable time delays, pre-emptible standby path, blocking of invalid switch position combinations, and software muting to minimise tellback requirements. The highly configurable software means that virtually any system configuration or switching requirement can be accommodated. For example multiple 1+1 systems in a single controller, LNB controllers and complex waveguide networks.



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SPECIFICATION

- Physical: 19" rack, 360mm deep (excluding connectors). Height to suit system
- Power: 90-250V a.c., 50VA normal, 200VA switching. Redundant power feeds
- HPAs: CPI Compact TWTA, MPA, CIM
CPI GEN-III/GEN-IV
Xicom TWTA and KPA
E2V Stellar
Support for other HPAs can be provided on request
- Up Converters: Miteq
Multipoint
Continental Microwave
LNR
Novella Satcom
RSI
Support for other manufacturers is planned - please contact factory.
- Host Serial: 4-wire RS-422/RS-485, fixed 9600,7,e,1. Supports "Printable ASCII" and "STX/ETX" protocols.
Local Serial
- Interface: 4-wire RS-422/RS-485. Settings and protocol configured to suit connected HPAs and up converters.
- Automatic Switching:
Configurable delay before switching - 0.1 to 25 seconds.
Priority facility for key service
Maintenance facility to temporarily exclude path
Preemptible standby support
Update of standby path parameters if local serial port used - attenuator, channel, power, frequency etc as supported by equipment.
- Features: Mute override (or use separate unit DDA202)
Keyswitch for remote/local
Configurable delay and sequencing options
Wide range of status indicators
Waveguide switch fault indication
Summary Alarm
Buffered HPA/Converter alarm outputs

Ordering Information

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

DDA70 Waveguide Switch controllers may also be obtained through various waveguide network suppliers