DOUBLE D ELECTRONICS LTD

Satellite Ground Station Equipment
RF Switching and Redundancy Systems
RF and Microwave Subsystems
Remote Monitoring & Control Peripherals
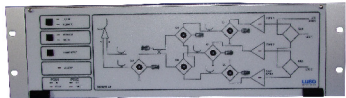**SNMP and Network Interfaces**
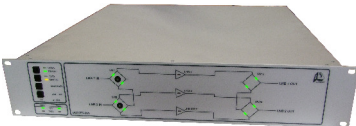**Equipment designed and manufactured to specific requirements**

DDA289 Redundancy switch for frequency converters and similar equipment such as modems, encoders, decoders. 1+4 and 1+8 configurations. IF d.c. to 300MHz. RF d.c. to 18GHz. Automatic changeover with selectable path priority. RC&M port with near-transparent serial access to converters. On changeover updates standby with appropriate parameters - no need to separately program standby. Options for additional IF channel, two 18GHz paths, network port, etc (As **DDA89,** with graphical display)
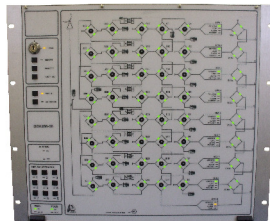
DDA286-XX Redundancy and switching controller with network port - waveguide, coaxial, data, general I/O. LNA/LNB controllers and PSUs, changeover switches. Power levelling. Single or redundant power supplies. Wide range of compatible modules, configurable for many applications. (Also **DDA267** outdoor version).

DDA293 Outdoor controller for smaller systems. Ideal for RC&M-only control. Often used as a satellite controller where cross-site distances are too far for conventional switch wiring. RS-422 and fibre cross-site options.

DDA275 I/O unit and waveguide switch controller - 1U rack mount, single/dual power supplies, modular construction. Network port, SNMP interface. Input, output and waveguide switch control interfaces. Optional front panel. Also **DDA265** wall mount fixed configuration.

DDA219-XXX 1+1 redundancy controller for HPAs, frequency converters, LNBs, modulators etc. Waveguide switches, internal or external coaxial switches, RS-422 data, LNB PSUs. 1U high, RC&M port, redundant power supplies.

DDA290-XX 1+1, 1+2 redundancy and switching controllers with colour touch screen UI, network port

DDA266 Diversity controller. Complete site changeovers in response to beacon level changes. Sequenced switching for transfer of services with one command.

Mobile Satcom Equipment

DDA224-XXX 1+1 redundancy controller for waveguide switches, internal or external coaxial switches. 1U high, optional RC&M port, single power supply.

Satellite Ground Station Equipment

Switching and Redundancy Controllers (for HPAs, frequency converters, LNA/LNB, modems)

DDA219-XXX 1+1 redundancy controller 1U high - see above

DDA289-XX Up converters, down converters, modem switch. See above.

DDA286-XX Highly configurable, networkable, modular solution. See above.

DDA219-XXX 1+1 controllers, 1U high, redundant PSU as above.

DDA290-XX 1+1, 1+2 controllers, 3U high, with GUI, network port

DDA293-XX General outdoor controller; 1+1, 1+2, remote switching

DDA282-XX 1+2 controllers, 2U high, network port

DDA285-XX 1+2 controllers, 2U high, with LNA/LNB included, network port

DDA235-01, DDA251-01 - Single Waveguide Switch Controller; serially controlled for remote control applications. 24-28V power.

DDA202-XX Mute override switching unit - 1U rack, completely passive

DDA78-XX VRPC/CRCA Controller. Allows two HPAs to air, with automatic changeover on failure. Includes RF splitter/phase shifter. RC&M port. 1U and 2U rack mount options.
Many other switching controllers and matrices can be configured to specific requirements, often from standard modules to minimise design effort.

Alarm Units

DDA241-XX 8-channel IF level monitor with settable thresholds. 1U, dual supplies.
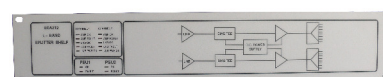
DDA76-01 12 inputs for contact or voltage. Configurable input polarity, debounce time etc - via front panel or PC. RS-232 and addressable RS-485 RC&M interfaces. Receiving attention facility.

DDA276-01 16 inputs for contact or voltage, network port. Configurable input polarity, debounce time etc - via front panel or PC. RS-232 and addressable RS-485 RC&M interfaces. Receiving attention facility.

RF Subsystems

DDA220-01 Dual L-Band combiner and amplifier shelf. Redundant power supplies, two outputs from each channel with variable attenuator. 2U rack mount.

DDA212-01 Dual LNB power supply and splitter. Redundant power supplies, LNB power, microprocessor controlled alarm thresholds and monitoring. 2U rack mount.

DDA242-XX Combiner/splitter for transmit & receive paths on single thread systems. LNB power supply, BUC/SSPA power supply; both with current and voltage monitoring.

DDA226-XXX IF amplifier shelf - up to 9 IF (50-300MHz) 50Ω or 75Ω amplifiers with optional splitter/combiner or redundancy controller. 3U or 6U, single or dual power supplies. Various gain options.

Other RF subsystems can be assembled from standard components - e.g. combiner/splitter shelves, patch panels, amplifiers, switching matrices.

Remote Monitoring and Control

DDA275 I/O peripheral for RC&M systems - various mixes of input and output, waveguide switch interfaces. Network port, SNMP, RS-232/422/485 interface. 1U rack mount. Single/dual power supplies

DDA94-02 small I/O peripheral - RS-485 serial access to 8 inputs, 8 out. Small desktop unit.

DDA217-XX Protocol Converter. Free-standing unit converts between protocols used by various equipment to simplify RC&M system software requirements. Options for I/O.

DDA225-01 Dual RS-232 to RS-485 converter/monitor with patch

DDA232-01 Remote alarm unit - automatically dials in on state changes.

SNMP Interfaces and network interfaces can be provided for most of our equipment.

Need to extend an existing system? We can produce units which emulate an existing protocol or command set.

Bespoke Equipment

We can design and manufacture a wide variety of equipment to meet specific requirements - often using our existing range of standard modules to minimise development effort. We also have other products not mentioned here, as well as a comprehensive software capability - so please ask if you can't see what you want, or visit our web site - **www.doubledelectronics.co.uk**.