

Up-Converter Redundancy Switch

- +4 and 1+8 Configurations standard
- Many special configurations available
- Integral 18GHz and IF switches
- 50 ohm or 75 ohm IF
- Option for separate input switch control
- Remote Monitoring & Control Port
- Automatic monitoring and update of standby
- Supports most industry-standard up-converters
- 3U package
- Redundant power feeds
- Front panel liquid crystal display & keyboard



The DDA89-02 is a versatile redundancy switch, intended for protecting up-converters, downconverters, modems, encoders and similar equipment.

Typically the RF section comprises separate IF (to 200MHz) and RF (to 18GHz) switching subsystems, and is available in 1+4 and 1+8 configurations. (Other configurations can be supplied on request, including units with all IF switches, and a 4U high unit with an extra set of IF switches).

Normally the input and output switches are controlled together; where the standby converter is dual fed there is an option to control the input switch separately.

The unit may be controlled locally from the front panel; this allows configuration of key unit settings, as well as mode control and manual switching. The LCD permits user-friendly prompts, as well as display of more extensive information than is possible on a conventional LED display.

The unit connects to the up-converters via a local serial port. Through this it continuously monitors the settings of the main path up-converters, at a configurable rate. When an automatic changeover occurs the standby is updated with the settings of the failed main path.

Switching may be performed manually from the front panel; an option determines whether the standby parameters are updated as it is switched on line.

The remote monitoring and control port allows access to all the front panel control and monitoring facilities. In addition it is possible to set the configuration of the unit via the RC&M port. The up-converter settings may be obtained (and changed) either by accessing the up-converter directly through a different RC&M address, or via the DDA89 in a converter-independent format.

Up-Converter Redundancy Switch (cont.)

The DDA89 can also act as a protocol converter. The host RC&M port supports two industry standard protocols, while the up-converter serial port handles any protocols required by the equipment supported. It is also possible to support other protocols on the host port where this is appropriate to the application.

The DDA89 is supplied with a configuration utility program which runs on most Windows platforms. This allows configuration of many of the unit's options, as well as a number of "one-time" setup parameters. It also shows current up-converter settings and allows control of the DDA89; thus it can be used to confirm correct operation of the hardware before implementing a full RC&M system.

Specifications

Physical	3U 19" rack, 360mm deep (excluding connectors)
Power	90-250V a.c., 50VA max. Redundant power feeds
RF	SMA connectors. Switching system specified d.c. to 18GHz. Worst-case loss 2.0dB for main path, 6.5dB in 1+8 system with standby in use (at 18GHz).
IF	BNC Connectors. 50Ω and 75Ω options. Specified d.c. to 200MHz. Worst-case loss 1.0dB for main path, 3.5dB in 1+8 system with standby in use.
Converters	Up/Down Converters from the following manufacturers are supported: Miteq Multipoint Continental Microwave Peak Scientific Atlanta
Modems	EF-Data/Adaptive Broadband SDM-2020 Tandberg Television SM5600 Radyne Comstream DM240
Settings	The DDA89 handles frequency, attenuator, spectrum inversion, mute and remote/local if these are supported by the converter.
Host Serial	4-wire RS-422/RS-485, various format options. Supports "Printable ASCII" and "STX/ETX" protocols.
Converter Serial Interface	4-wire RS-422/RS-485. Fixed settings for each make of up converter. Converter polling interval configurable from "as fast as possible" to 99 minutes; also manual poll option. Settings stored in non-volatile memory.
Automatic Switching	Configurable delay before switching - 0.1 to 25 seconds. On SDM2020 parameters which are updated on switching can be configured via supplied utility. Multi-level prioritisation scheme allocates standby to failed path with highest priority. Optional automatic restoration of main path when no longer failed. Paths may be temporarily excluded from automatic switching for maintenance purposes.
Accessories	Cable sets to connect between the DDA89 and the protected units can be supplied on request.

Selection Guide

DDA89-02/4/75	1+4 Up-Converter Redundancy switch, 75Ω IF
DDA89-02/8/75	1+8 Up-Converter Redundancy switch, 75Ω IF
DDA89-02/4/50	1+4 Up-Converter Redundancy switch, 50Ω IF
DDA89-02/8/50	1+8 Up-Converter Redundancy switch, 50Ω IF