



DS-32 Compact Switch Equipment

Key Features

- On card selective calling encode / decode
- Automatic arbitration for high level of redundancy
- Hot card replacement
- On card tone remote or M80 emulation
- Automatic retrieval of last configuration data
- Duplicated power supply option
- Multiple receiver selection or voting option available
- 32 or 64 port versions as standard
- Intuitive PC configuration tool
- TETRA PEI interface option



In Brief

The DS32 is a modular matrix switch contained within a 3u high 19" card-frame. Each card-frame is designed to house a maximum of 16 two channel port cards although the shelf can be sub-equipped for smaller capacity systems. Each port card in the system is identical, and as such may be programmed to be either a channel port or an operator port.

The cards operate using our own DSP software code which greatly reduces the component count, thus providing a very cost effective method of providing a multi operator, multi channel control system.

System flexibility is built into each switch element. In the event of a failure to any switch port card the suspected faulty card can be removed and replaced without powering down the switch. Similarly, the switch port cards are not tied to a specific slot within the switch shelf; consequently, a replacement card can be configured prior to insertion in the shelf thus reducing system downtime.

System Communication

All of the system cards communicate with each other via a dual bus system controlled from one of the switch cards acting as a master controller running an arbitrator routine. Any one of the cards can function as the master controller thus ensuring a high level of redundancy within the switch system.

System wide broadcast messages enable all elements to be synchronised with systems events such as call status, channel occupancy, call alerts and alarm messages.

The switch node communicates with connected operator consoles via a serial data link. Another option is for remote operators to be routed to the switch utilising voice over IP technology. This will allow operator controllers networking via the internet or local intranet facilities.

Operator Options

There are two operator control options for the DS-32 switch; these are the DRC-32 desktop control unit and the DRC-Ops a PC based software application for the more complex control room solutions.

The basic DRC-32 is a telephone style desktop unit with LCD, numerical keypad and programmable function keys. Other features include; footswitch, headset and ancillary RS232 port to support the connection of the PC for the DRC-ops application.

System Facilities

Full selective calling capabilities are supported by the DS-32 switch. These include a call stack, emergency call and call alert tones.

Comprehensive call types are provided by the DS-32 system; Individual and group calls, Broadcast facility, system intercom channel connect and telephone to channel connect. GPS location data are also supported, together with the capability to solicit location data from system users.

Audio recording facilities are provided at two locations within the DS-32 system, centralised multi-channel recording is accessed via the recording port on each channel card. Similarly, local recording and play back is available from the tape output on the DRC-32 operator unit. Audio play back is presented via the DRC-32 handset, headset or loudspeaker.

System facilities are readily configurable via the intuitive and easy to use software application program available to the system administrator.

System Specification

Power supply:	90 - 264 volts AC 50 - 60Hz	Line interface:	4wire 600 ohms
Dimensions:	3u 19" standard enclosure	Line Level:	-2 to -22dBm
Serial Interface:	RS232	Record Level:	-10dBm
		Auxilliary Level:	-10dBm

Line Signalling Standards

Full M80 emulation Local or Remote Supervisories

Motorola Tone Remote user selectable key tone

AWCSL proprietary FFSK line control protocol

Analogue outputs for local control of a directly connected base station

32 port capacity in single shelf systems, expandable to 64 ports with expansion shelf

Duplicated power supply option available for fully redundant applications

In the interests of continued development, AWCSL reserves the right to change this specification without notice.

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