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. The DS-Micro is even more compact in a 1u high chassis supporting up to 8 ports.

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.

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.

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
Intuitive PC configuration tool
**DS-32 / DS-Micro**

*Compact Switch Equipment*

**Operator Interface**

There are two operator control options for the DS-32 & DS-Micro 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 and DS-Micro 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 is also supported, together with the capability to solicit location data from system users.

Audio recording facilities are provided at two locations within the DS 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.

**Specification**

**Power Supply:**
- (DS32) 90 - 264 volts AC 50 - 60Hz
- (DS-Micro) 8 Volts DC

**Dimensions:**
- (DS32) 3u 19” standard enclosure
- (DS-Micro) 1u / 19” standard enclosure

**Serial Interface:**
- RS232

**Line Interface:**
- 4 wire 600 Ohms

**Line Level:**
- -2 to -22dBm

**Record Level:**
- -10dBm

**Auxiliary Level:**
- -10dBm

**Line signalling standards:**
- Full M80 emulation
- Local or Remote Supervisors
- Motorola Tone Remote user selectable key tone
- AWCSL proprietary FFSK line control protocol
- Analogue outputs for local control of a directly connected base station

**Ports capacity - DS-32:**
32 port capacity in single shelf systems, expandable to 64 ports with expansion shelf
Duplicated power supply option available for fully redundant applications

**Ports capacity - DS-Micro:**
4, 6 and 8 port capacity options in a single 1u tray

**Compatibility:**

The DS-Micro switch system was designed specifically for small system configurations. In the event of network expansion, all of the channel cards are fully re-usable in the DS-32 switch hardware platform.