

# **Interface Modules**



### **4A4D** FOUR CHANNEL ANALOG, DIGITAL PCM RECORD & REPLAY

The 4A4D interface supports a combination of four analog input/output channels and four digital PCM input/output channels. The analog channels are user-configurable with respect to input & output voltage level and impedance. Additionally, all four channels support independent sample rates from 10KSPS to 80 MSPS and DC input coupling. Each captured sample has 8 bits of resolution.

The digital PCM channels support bit-rates up to 40Mbps and can be configured with respect to input & output clock phase, PCM code, signal level, randomize and de-randomization. Advanced features include, PCM packing format, PCM frame definition with frame lock indication.

The 4A4D interface also supports a monitor mode (E-to-E) in which the input signals are presented on the output connectors during RECORD and IDLE.



#### **12D** 12 CHANNEL DIGITAL PCM RECORD & REPLAY

The 12D interface board supports twelve digital PCM input/output channels. The digital PCM channels support bit-rates up to 40Mbps and can be configured with respect to input & output clock phase, PCM code, signal level, randomize and de-randomization. Advanced features include, PCM packing format, PCM frame definition with frame lock indication.

The 12D interface also supports a monitor mode (E-to-E) in which the input signals are presented on the output connectors during RECORD and IDLE.



## **2IF70, 140 & 370** TWO CHANNEL IF (70, 140, 370 MHZ) RECORD & REPLAY

The DRS-IFB-2IFxx supports two I/O channels for specific IF applications, with Input AGC to maintain constant signal levels for sampling. Input and output filters are tuned to specific Intermediate Frequency bands to provide superior signal capture and reproduction fidelity by removing any unwanted signals,

such as harmonics and aliasing artifacts.

Additional digital filters are implemented on this interface with sinx/x correction for specific rates, which improves the flatness of the frequency response.



# **8E** EIGHT CHANNEL 1000, 100 & 10 BASE T ETHERNET RECORD & REPLAY

The 8E interface board supports eight Ethernet input/output channels. The Ethernet channels can record all network traffic or custom filtered packets based on IP address and/or UDP port. During replay the Ethernet data is output as it was originally recorded or redirected to different destinations by IP

address and/or UDP port. The replay output can also be filtered based on IP address and/or UDP port. Each channel can be configured for copper or optical I/O with COTS SFP modules.



#### **2V-HD** TWO CHANNEL SD/HD VIDEO, AUDIO RECORD & REPLAY

The 2V-HD interface supports two separate SD and HD-SDI video/audio record/ playback channels using MPEG2 and MPEG4 H.264 compression.

Each channel supports both standard definition (SD) and high definition (HD. Analog/composite video is input/output for SD and digital SDI is used for HD. Video resolutions include NTSC 720 x 480, PAL 720 x 576, SDI 480i, 576i, 720 at



### Interface Module Technical Description & Specifications



60fps and 1080 at 30fps. Each channel supports independent video bit rates from 1 to 12Mbps. Time overlay is also supported in both channels.

The 2V interface board supports a monitor mode (E-to-E) in which the video input signals are presented on the output connectors during record and while in IDLE.

### ADDITIONAL BOARD OPTIONS

2CHAI: Two Channel High Speed Analog Record and Replay 4E4S: 4 Channel Ethernet & 4 Channel UART Record and Replay 4A4S: 4 Channel Analog & 4 Channel UART Record and Replay 16A4D: 16 Channel Analog & 4 Channel Digital PCM Record and Replay 4DBS: 4 Channel Digital PCM with Bit Sync Record and Replay 12APM: 12 Channel Power Monitor Record 16A: 16 Channel Analog Record and Replay 16CAN: 16 Channel Can Bus 2.0 Record and Replay 16M1553: 8 Channel Dual Redundant 1553 Military Bus Record and Replay 2AR818: 2 Channel ARINC 818 Avionics Bus Record and Replay 2E10G: 2 Channel 10000 base T Ethernet Record and Replay 32AR429: 32 Channel ARINC 429 Avionics Bus Record and Replay 64DISC: 64 Channel Discrete Record and Replay 8AFDX: 8 channel Avionics Full Duplex Ethernet Record and Replay 8AS5725A: 8 Channel combined 1553 Military Bus and Discrete Record **8BCCDL:** 8 Channel Buffered Cross Channel Data Link Record 8F1394(200B): 8 Channel IEEE-1394 Firewire (200B) Record 8S: 8 Channel UART Full & Half Duplex Record and Replay

