DA-5200 HD/SD Serial Digital to Analog Converter

MAXTRON VIDEO PRODUCTS

General:

The Maxtron DA-5200 is a dual-rate universal 20/10-bit HD/SD SDI digital-to-analog converter with an in-line video processing amplifier. The DA-5200 integrates SDI sources into an analog video environment where a mix of analog and SDI sources is required. Applications include video monitors, disk recorders, broadcast production, nonlinear editing stations, and rental and staging events. For HD-SDI inputs, the DA-5200 outputs full bandwidth (SMPTE-274M) HD compliant YUV video with tri-level syncs or RGsB video, and for SD-SDI inputs, the DA-5200 outputs YUV video or RGsB video or composite and S-video. All broadcast HD and SD standards are supported, including ITU-R BT.601/ITU-R BT.656 (486i, 576i), SMPTE 293M (486p), ITU-R BT.1358M (576p), SMPTE 274M (1080i), SMPTE 296M (720p), or SMPTE 240M (1035i), all with automatic detection and configuration.

Unique to the DA-5200 is the integrated in-line video processing amplifier. The proc-amp allows the user to match any format level differences. In the SD mode, YUV levels, Brightness, Hue (±20°), and Dynamic Noise Reduction are adjustable. In the HD mode, Sharpness, UV order are adjustable. There is a common mode to provide an LCD gamma curve in applications where the DA-5200 drives LCD displays.

Powered by standard 5V wall mounted power supply (provided), and protected with automatic reset fuses, these units incorporate built-in power surge and transit protection. All Maxtron products are RoHS and Green compliant.

Specifications:

- Inputs:
  - HD-SDI or SDI SMPTE 259/292/296, 10-bit, BNC
- Outputs:
  - HD: YUV, RGsB (SMPTE-274), 3x BNC
  - SD: YUV, RGsB, Composite, S-Video (NTSC/PAL), 3x BNC
- Frequency Response:
  - HD: Y -0.5db to 30 MHz, B/U, R/V ± 0.25db to 13.5 MHz
  - SD: Y ± 0.25db to 5.5 MHz, C ± 0.25db to 2.5 MHz
- Linearity:
  - SD: Differential gain/phase <0.25% / 0.25°
- Formats Supported:
  - HD: 1080i @ 50/59.94/60 Hz; 1035i @ 50/50.94/60 Hz;
    1080psf @ 23.98/24/25/29.97/30 (displayed as Interlaced);
    720p @ 59.94/60 Hz; 576p @ 50 Hz; 486p @ 59.94 Hz
  - SD: 525 @ 59.94Hz, 625 @ 50Hz