

## RC-5400 HD/SD Serial Digital Re-clocking 1x4 DA



### General:

The Maxtron RC-5400 is a small, low-cost, 1x4 SD/HD (dual-rate) re-clocking distribution amplifier featuring four separately buffered HD/SD-SDI outputs. The RC-5400 provides automatic input cable equalization up to 175 meters at 1.45GHz. Output #1 is failsafe protected using a dry-contact 3GHz relay to provide signal pass through in case of power failure.

An included adaptive equalizer measures the amplitude of the the signal applied to the RC-5400 and applies equalization based upon this attenuated level. After the level has be compensated, the data is written into hardware registers and read out with a stable clock. Two of the major specifications for a reclocker are it's jitter tolerance -- how much jitter can there be on the input, and the amount of residual jitter -- how much jitter gets through to the output. The jitter tolerance for the RC-5400 is >6UI and the residual jitter at the output is <0.05 UI (typical) using colorbars.

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/SD: SMPTE 292M, SMPTE 344M, SMPTE 259M, DVB-ASI compliant, 1x BNC
- Outputs:  
SD/HD: HD-SDI, SDI, Equalized and re-clocked, 800mv, 3x BNC  
SD/HD: HD-SDI, SDI, Equalized, re-clocked, and failsafe bypass, 800mv, BNC
- Equalization:  
HD: 175m @ 1.5Gb/s with Belden 1694A or equal  
SD: 375m @ 270Mb/s with Belden 1694A or equal
- Jitter Tolerance:  
HD/SD: >6 UI @ 1.5Gb/s
- Output Jitter:  
HD/SD: < 0.05 UI (typical) measured with color bar input
- LED Indicator:  
HD Lock - Green; SD Lock - Amber; No Lock - Red; Bypass - OFF
- Formats Supported:  
HD: SMPTE 292M, SMPTE 344M  
SD: SMPTE 259M, DVB-ASI at 270 Mbps

