

Model 4500

ASI and SMPTE 310M Converter MPEG Transport Processor

The 4500 MPEG Transport Stream Processor works with both DVB-ASI and SMPTE 310M bitstreams. It provides stream content analysis with support for both Priority 1 and Priority 2 test protocols of the ETR 290 DVB measurement guidelines. As a converter, it can translate ASI to 310M or 310M to ASI. Using the reference input, the output bitstream can be synchronized to a video or 10MHz reference signal.

The 4500 module is useful in broadcast and transmission applications. Set the output of the 4500 module to the desired signal type, either ASI or 310M. The module autosenses what type of signal is on the input and converts as needed. Advanced configuration in the Avenue Control System allows choosing which services on the input are passed on to the output.

The built-in transport stream analyzer detects whether the input constitutes a valid signal by checking for PAT, PMT, and PID packets. In addition to the ETR 290 test protocols, the user can configure tests to define the minimum number of video and audio packets expected per second in a given service. Alarms can be generated via SNMP, Avenue PC, and contact closure outputs.

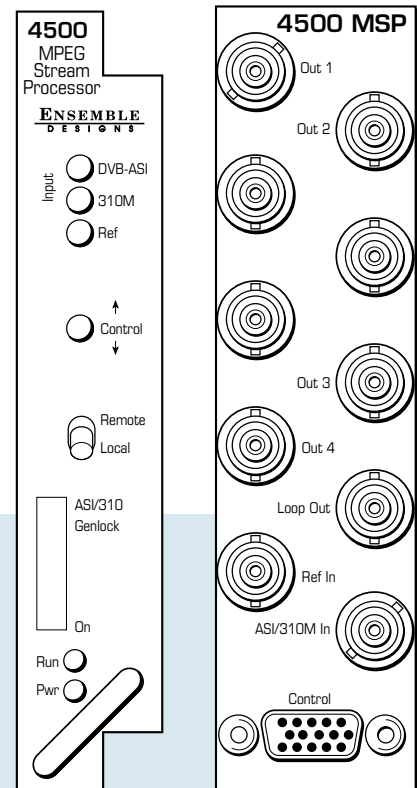
The output bitstream can be synchronized to a video or 10MHz reference signal. This is of particular importance in 310M applications where the symbol clock frequency acts directly in the transmitter modulation process. By using an Avenue 7400 SPG with the GPS reference option, the 4500 Stream Processor will ensure the highest possible accuracy in transmission.

Controls are easily accessed through an Avenue Control Panel, Avenue PC, GPIs, or front edge module controls.

For critical signals paths, consider using a 4450, 4455 or 7455 bypass protection switch.

Features

- » Convert between SMPTE 310M and ASI signals or ASI to SMPTE 310M for broadcast and transmission
- » Built-in signal analyzer detects Signal Presence, Program Packets, PMT, PAT and PIDs
- » Reference input synchronizes the bitstream clock on the output signal
- » ETR 290 Compliant for both Priority 1 and Priority 2
- » Stream monitor alarms via TCP-IP, SNMP, RS-232 and GPI
- » Remote control and monitoring



Input Signal

Number One
Signal Type DVB-ASI at 270 Mb/s or SMPTE 310M

Loopback

Number One
Impedance 75 Ω

Output Signal (processed)

Number Four
Signal Type DVB-ASI at 270 Mb/s or SMPTE 310M, selectable
Impedance 75 Ω

Reference Input

Number Two: External or Frame Master Reference
Signal Type PAL or NTSC composite video or 10 MHz 1V P-P sine or square
Return Loss >40 dB (applies to external ref input)

Signal Analysis

ETR 290 Compliant, Priority 1 and Priority 2

General Specifications

Power Consumption <7.0 watts
Temperature Range 0 to 40°C ambient (all specs met)
Relative Humidity 0 to 95%, noncondensing
Altitude 0 to 10,000 ft

