



MULTIPLE MIRROR TELESCOPE OBSERVATORY

Smithsonian Astrophysical Observatory and Steward Observatory, University of Arizona

MMT Technical Memorandum 84-16

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Subject: MMT Video Distribution System

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The MMTO has acquired and installed a Grass Valley Group 3400 Series Video Distribution System (VDS) to be used for the distribution of RS-170 compatible signals from the telescope and computers.

The VDS consists of 16 modular distribution amplifiers, each of which provides differential inputs, six outputs, and a 1 volt p-p composite video signal. This signal is adjustable from -2dB to +3dB with amplifier output isolation >50dB to 5 MHz between any two outputs. Common mode rejection at 60 Hz and 5 MHz is >60dB and 25dB, respectively, with common mode range of ± 30 V about ground. Power dissipation is two watts per amplifier.

Video source inputs to the VDS from the telescope via the derotator flange include the intensified vidicon, guide scope CCD, two top box CCDs, and two spare video source inputs for user video distribution. Video inputs from the computer room to the VDS include telescope coalignment system (TCS) status, TCS Grinnell, Telescope Phasing System (TPS) status, mount computer status, instrument status, and instrument Grinnell. Three additional video source inputs to the VDS are located in the control room at the observer's station, and include two video source inputs for user distribution and the instrument computer Grinnell video input. The six distributed video outputs of all sources are available for TV monitoring in the computer room

instrument rack, control room (operations and observer's stations), the chamber (wall along cat walk), and instrument preparation room. One output is not connected. The video input can be monitored at the mount computer rack. This should be terminated with 75 ohms when not in use.

Refer to H-1101 in the MMT0 documentation library for additional information.