

AUTV/5000LD

LDMOS - UHF TV SOLID STATE AMPLIFIER

DESCRIPTION

The AUTV/5000LD belongs to the High Power UHF products family of Television Amplifiers fully in solid state technology.

The AUTV/5000LD series represents the 5kW TV Amplifier operating in the IV/V Band for Common amplification process (separate amplification available) of the Vision and Sound carriers. This Transmitters family has been designed to offer to the customer high performances, high reliability and greater simplicity in their operation and maintenance procedures.

The Vision and Sound signal processing is provided for all TV Standards and all types of Audio applications (Mono & Dual sound - NICAM) together with colour systems such as PAL - NTSC - SECAM. Thanks to the amplitude and phase pre-correction circuit, it is possible to cancel the distortions in the output stage, thus cutting down the operating costs. The RF transposition in the driver is carried out by a synthesizer with various possibilities of accuracy and stability as well as precision offset locked by internal or external frequency reference.

The RF amplifier is made up by four RF modules installed in a power rack, the modules are dedicated for the Vision and Sound carriers common amplification. The amplifiers employ solid state LDMOS technology in order to obtain wide band, reliability, and high efficiency. Each RF module has a built-in switching-mode power supply unit, self-protected against overcurrents and overvoltages, as well as overtemperature and VSWR for RF parameters. The cooling system is fully contained into the transmitter. The control unit provides full management of the transmitter without the presence of the operator, the system includes a central controller and several peripheral units installed in each RF module and rack. Controller and peripherals are connected by a RS485 full-duplex bus.

Power supply output voltages and currents, forward and reflected power of any single power amplifier are monitorized by central control unit. In that way there is a single interface point between user and all the transmitter. The operator interface is made by a high resolution LCD graphic display and a simple keyboard, the menu is very friendly and easy to use. The Control Unit can be fully controlled in REMOTE mode via link or via modem in RS232 or other interface.

The equipment design allows the soft degradation (RF power loss) for several transistors faults.