



WML-100V.1

BROADCAST ST TV AMPLIFIER

100 WATT POWER AMPLIFIER

Product Description

100Watt Power Amplifier is a compact, high linear amplifier designed to meet the most stringent demand of professional use in Broadcast Transmission. It is designed to work in the entire band of UHF/VHF, with relevant power level in most common transmission Standard. This power amplifier is designed with high efficiency and high VSWR withstand capacity. It is fully protected from High VSWR, High temperature & High Forward power. It has RF input level limiting facility to protect itself from over input RF Signal. The design includes latest generation of LDMOS power devices making the Amplifier a state of art technology device.

It is designed to support analog signal as well as digital (DVB-T) signal. Basically it is analog and digital ready amplifier without any change in the internal modules.

A forced-air draft fan is used to cool heat sink mounted in inside cabinet. An actively 50 Ohm N Type Female connector is used as RF OUTPUT connection.

Design and Construction

Webel Mediatronics's no-compromise approach in the amplifier's electrical design and mechanical construction adds up to the ultimate in reliability and performance. Only high-grade components are used for the modular sub-assemblies in their strong, aluminum chassis.

Features

- Pallet based design.
- It supports analog and digital transmission.
- Micro controller based Monitoring & control.
- High speed AC fan.
- Protected from High VSWR, High FWD Power, High Heat Sink Temp.
- Gain flatness over the band.
- More headroom from rated power.
- Class AB operation for high efficiency i.e. low Current consumption.
- Low Noise.
- High stability.
- Extensive protection circuitry:
 - Input Limiting circuit prevents amplifier damage with gentle RF Input level reduction at clip threshold.
 - Video Detection facility monitors the availability of Video Signal before switching on the pallet.
 - Other protection circuitry: comprehensive thermal management, and short circuit, over voltage, over current, fwd high, high temperature protection.
- Better operating temperature range.
- Reliable & Rugged.
- Front panel circuit Display and RESET switch.
- Modular construction.
- High efficiency.

100WATT FRONT PANEL PICTURE



100WATT POWER AMPLIFIER

SPECIFICATIONS

Frequency Range	: Entire VHF/UHF Band.
Power Gain (Min)	:42 dB for VHF and 47dB for UHF Band.
Power Output	: 100W (sync Peak).
Class of operation	: Class A/ AB.
Impedance	: 50 Ohm.
Spurious	: <- 65 dBc.
RF Monitor Level	:-40 ±3 dB W.R.T. Output Power.
Supply Voltage	: 28V (48V Optional).
Current at rated output	: ≤8A.
Power Consumption	:< 240VA.
Protection	: Comprehensive protection measure of PA against No Video, VSWR High, Over Drive, Over Voltage, Over Current & Short Circuit.
Indications:	
PA ON RED LED	: When PWR ON.
PA OK GREEN LED	: When Health OK.
FWD HIGH RED LED	: When FWD PWR is excess.
RFL HIGH RED LED	: When RFL PWR is excess.
TEMP HIGH RED LED	: When Heat Sink temp is excess.
HEALTH	: TTL HIGH when PA Fails. : TTL LOW when PA OK
FAULT RED LED	: Blink When Over Voltage, Over Current, Voltage Short Temperature high occur. Glows when video is absent.
Metering Indication	:
FWD	: Indication in GREEN Range for rated Output PWR.
RFL	: Indication in RED Range for excess RFL PWR.
RF Output Connector	: N (F), 50E.
DC IN Connector	: Battery Terminal.
AC IN Connector	: Circular connector (3pin, Female type).
Pallet Current detection	: Probe terminal.

Applications

- Broadcast transmitter.
- Industrial application.
- Research & Development.
- Scientific equipments.
- Test and validation.

Benefits

Excellent ruggedness.
High power density.
High power gain.
High efficiency.
Support both analog and digital transmission.
Latest generation of LDMOS Power device.

100WATT REAR PANEL PICTURE

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