

SPECIFICATION OF 25W VHF POWER AMPLIFIER (PALLET)

Introduction

Pallet (25W, VHF) should be a linear amplifier and it is to be designed to work in the entire VHF band (i.e. 170 - 230MHz) with relevant power level. Amplifier should be built with latest generation of LDMOS Transistor(s).

Operational Characteristics of the pallet

- Frequency Range: 170 – 230 MHz.
- Pout: 10 W DVB-T Signals.
- Pout: 20 W ps. (Peak sync) Analog TV.
- Gain: 35dB.(+/- 1 dB)
- Input Impedance & output Impedance. 50 Ohms
- Class AB Operation.
- Supply: 48V DC nominal (28 to 48 V DC)
- High temperature protection.
- Dimension: (LxWxH) 60x140x30mm (Max)

Application Area:

- Broadcast Transmitter.

Electrical Specifications:

Parameter	Min.	Typ.	Max.	Units	Note
Frequency Range	170		230	MHz	
Power gain	33	35		dB	
Analog TV power Imd < -50 dBc (G standard red field common amplification)	20	25		Wps	Without Pre-correction
DVB-T power Shoulder <-33 dBc	10	15		W rms	Without Pre-correction
ATSC DTV Shoulder < -40dBc from carrier	10	15		W rms	Without Pre-correction
Supply Voltage		50		V	
Efficiency 10W DVB-T	10	12		%	
Efficiency 20W Analog	20	25		%	