



AMP-50WDTV-BXM

HIGH POWER TV AMPLIFIER

50W RF POWER

This is our TV UHF amplifier 50 W RF power built-in a high quality box. It is fully broadband for all UHF TV channels from 470 MHz- 550 MHz. This amplifier needs 30-50 mW RF power for the full 50 W output/50 ohms. Required power supply is 12 V / 7.5A. Extremely linear this amplifier has been made for small TV stations and studios. It is ideal as an exciter for a high power TV stages. This amplifier comes assembled and tested.



Technical Specifications	
FREQUENCY RANGE:	470 MHz – 550 MHz
IMPEDANCE:	50 ohm IN/OUT
RF INPUT	MIN POWER 30 mW, max 50 mW
GAIN	17.5 dB/470 MHz
DC POWER:	12 V-14 V
INTERMODULATION DISTORTION:	-49 dBc
POWER OUTPUT:	50 W
CURRENT CONSUMPTION:	7.5 A / 12 V
INPUT/OUTPUT CONNECTORS:	BNC / N
POWER PLUG:	STANDARD 2.1 mm
MAX P1dB:	60 W +- 10%
TYP. EFFICIENCY:	>40 % At 1dBcp
ANALOGUE TV:	50 Wps CW
TEMPERATURE RANGE:	-10 to +75 °C
DVB:	2,5 Wrms
MAX VSWR:	3:1
WORKING CLASS:	AB
DUAL TONE	

Electrical Specifications					
PARAMETER	MIN.	TYP.	MAX	UNITS	NOTE
FREQUENCY	470		550	MHz	
P1DB	50	60		W	
POWER		60		W _{pep}	2 tones, 100 kHz spacing (-27 dBc)
IMD3		-45		dBc	2 tones, 100 kHz spacing (20 W _{pep})
POWER INPUT		50		mW	
GAIN	16	17		dB	
V SUPPLY	12	14		V _{dc}	
DRAIN CURRENT			7.5	A	
INPUT RETURN LOSS		-2.8		dB	See note 1
PHASE VARIATION		+/- 5%			Unit to unit
GAIN VARIATION			+/-1.5	dB	
F2 SECOND HARMONIC		-32	-25	dBc	
F3 THIRD HARMONIC		-49	-30	dBc	
BASEPLATE TEMP.	-10		+75	C	
VIDEO PARAMETER					
ANALOG POWER (ATV)			50	W _{ps}	Common amplification
DIGITAL POWER (DVB)				W _{rms}	
M.E.R (DVB)				dB	
SHOULDERS (DVB)				dBc	At +/- 4.2 MHz

Physical Dimensions (L x W x H): 6.0" x 3.0" x 2.0"
Weight: 680 g / 1.5 lb

Note 1: The In / Out return loss value is low due to push-pull single stage configuration of this amplifier (without Hybrid)
It is recommended to put a 4-5 dB attenuator in input in order to avoid a ripple of the gain in the final equipment.

ABSOLUTE Maximum Ratings			
PARAMETER	VALUE	UNITS	NOTE
OUTPUT POWER	50	W	
INPUT POWER	50	mW	
OPERATING VOLTAGE	14.4	V _{dc}	
STABLE OPERATIONS	14	V _{dc}	
BIAS CURRENT	N/A	A	
DRAIN CURRENT	N/A	A	
VRSW	3:1		
STORAGE TEMP	-20 +80	C	
BASE PLATE TEMP	75°	C	