



ZHM-230U

HIGH POWER TV AMPLIFIER

175 W

This is our TV UHF amplifier 175 W RF power built-in a high quality box. It is fully broadband for all UHF TV channels from 470 MHz- 1000 MHz. This amplifier needs 0.5 W RF power for the full 60 W output/50 ohms. Power supply is DC voltage 28 V /2.8A. 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!

(Blowing fan needed.)



Technical Specifications	
FREQUENCY RANGE:	470 MHz –1000 MHz
IMPEDANCE:	50 ohm IN/OUT
RF INPUT	MIN POWER 0.5 W, MAX -1 W
GAIN	19 dB/470 MHz
DC POWER:	28V
INTERMODULATION DISTORTION:	-49 dBc
POWER OUTPUT:	60 W
CURRENT CONSUMPTION:	2,890 mA
INPUT/OUTPUT CONNECTORS:	N TYPE
POWER PLUG:	STANDARD 2.5 mm

Electrical Specifications					
PARAMETER	MIN.	TYP.	MAX	UNITS	NOTE
FREQUENCY	470		1000	MHz	
P1DB	50	60	68	W	
POWER		50		W _{pep}	2 tones, 100 kHz spacing (-27 dBc)
IMD3		-45		dBc	2 tones, 100 kHz spacing (20 W _{pep})
POWER INPUT		0,5	1.1	W	
GAIN	17	18.8	19	dB	
V SUPPLY		28	30	V _{dc}	
DRAIN CURRENT			3.2	A	
INPUT RETURN LOSS		-2		dB	See note 1
PHASE VARIATION		+/- 5%			Unit to unit
GAIN VARIATION			+/-1.5	dB	
F2 SECOND HARMONIC		-36	-25	dBc	
F3 THIRD HARMONIC		-43	-30	dBc	
BASEPLATE TEMP.	-10		+75	C	
VIDEO PARAMETER					
ANALOG POWER (ATV)			50	W _{ps}	Common amplification
DIGITAL POWER (DVB)			19	W _{rms}	
M.E.R (DVB)				dB	
SHOULDERS (DVB)				dBc	At +/- 4.2 MHz

Physical Dimensions (L x W x H): 11.0" x 4.1" x 3.4"
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	60	W	
INPUT POWER	1.5	W	
OPERATING VOLTAGE	30	V _{dc}	
STABLE OPERATIONS	28	V _{dc}	
BIAS CURRENT	0.7	A	
DRAIN CURRENT	3.2	A	
VRSW	3:1		
STORAGE TEMP	-20 +80	C	
BASE PLATE TEMP	75°	C	