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# AMP-10WDTV-BX-02 HIGH POWER TV AMPLIFIER FOR DIGITAL APPLICATIONS AND SDR RADIO's 10 W

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This Is a professional TV UHF amplifier 10 W RF power built-in a high quality RF enclosure to minimize the interferences. It is fully broadband for all UHF TV channels from 470 MHz- 860 MHz. This amplifier needs only 0.1-0.5 mW of RF power for the full 10 W output/50 ohms. Power supply is DC voltage 12-24V /1.8A. 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.



Technical Specifications	
FREQUENCY RANGE:	470 MHz – 860 MHz
IMPEDANCE:	50 ohm IN/OUT
RF INPUT	MIN POWER 0.3 W, MAX-0.65 W
GAIN	60 dB/470 MHz
DC POWER:	12V-24VDC
INTERMODULATION DISTORTION:	-49 dBc
POWER OUTPUT:	10 W
CURRENT CONSUMPTION:	1.8 A / 12.6 V
INPUT/OUTPUT CONNECTORS:	BNC / SMA
POWER PLUG:	STANDARD 2.1 mm
MAX P1dB:	20 W +- 10%
TYP. EFFICIENCY:	>40 % At 1dBcp
ANALOGUE TV:	10 Wps
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		862	MHz	
P1DB	15	20		W	
POWER		20		W <sub>pep</sub>	2 tones, 100 kHz spacing (-27 dBc)
IMD3		-42		dBc	2 tones, 100 kHz spacing ( 20 W <sub>pep</sub> )
POWER INPUT		0,5		mW	
GAIN	59	60		dB	
V SUPPLY	26	28	30	V <sub>dc</sub>	
DRAIN CURRENT			1.8	A	
INPUT RETURN LOSS		-2		dB	See <b>note 1</b>
PHASE VARIATION		+/- 5%			Unit to unit
GAIN VARIATION			+/-1.5	dB	
F2 SECOND HARMONIC		-35	-25	dBc	
F3 THIRD HARMONIC		-45	-30	dBc	
BASEPLATE TEMP.	-10		+75	C	
VIDEO PARAMETER					
ANALOG POWER (ATV)				W <sub>ps</sub>	Common amplification
DIGITAL POWER (DVB)				W <sub>rms</sub>	
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	20	W	
INPUT POWER	0.8	W	
OPERATING VOLTAGE	26	V <sub>dc</sub>	
STABLE OPERATIONS	14-24	V <sub>dc</sub>	
BIAS CURRENT	0.6	A	
DRAIN CURRENT	1.8	A	
VR <sub>SW</sub>	3:1		
STORAGE TEMP	-20 +80	C	
BASE PLATE TEMP	75°	C	