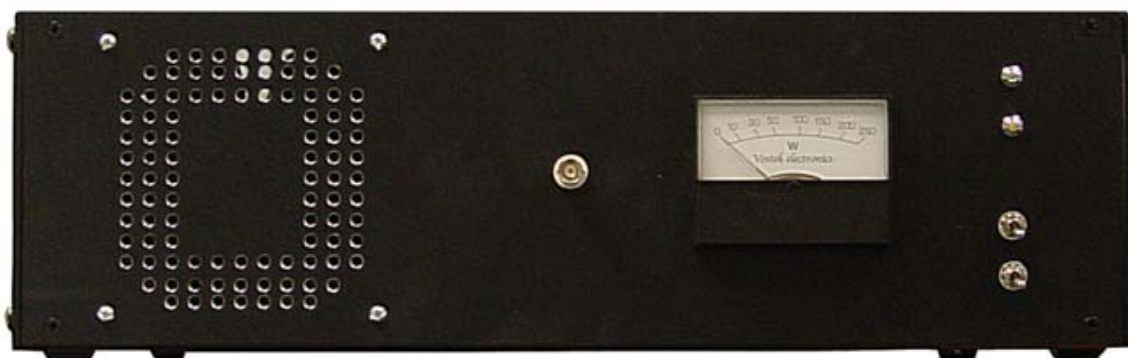


AMP 480-VHF HIGH POWER AMPLIFIER FOR VHF TV BROADCAST



480W pep –27dBc min Tetrafet Technology Amplifier

Designed for analog and digital TV transposers and transmitters, this amplifier incorporates microstrip technology and push-pull TETRAFET to enhance ruggedness and reliability.

- 170 - 230 MHz
- (28 ÷32 Volt) 30 Nominal
- Input/Output 50Ω - 50Ω
- Pout : 480W pep –27 dBc min (two-tone test 6MHz spacing)
- Pout 250W CW
- Gain : 13.5 dB min; 14.5 dB typ
- Class AB
- Devices: D1030UK or equivalent
- Connectorized version available

ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

Symbol	Parameter	Value	Unit
Vs	Voltage Supply	35	V dc
Is	Current Supply	25	A dc
Tstg	Storage Temperature Range	-20 + 80	°C
Tc	Operating Base Plate Temperature ¹	0 + 75 ²	°C
ψ	VSWR max	3:1 all phase angle	-
	Max input power	See note ³	-
	Max cw output power	250	Watt

ELECTRICAL SPECIFICATIONS (Base Plate T.= 45 °C, 50Ω loaded, Vd = 30 V)

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typ.	Max	
BW	Bandwidth	Pout = 250 W (CW)	170		230	MHz
Gp	Power gain	Pref = 250 W (CW)	13.5	14.5	-	dB
Pout –1dB	Power Output @ 1dB Compression	Referred to Pout = 60W (CW) ⁴	450	500	-	W
Iq *	Quiescent Current	Pout = 0 W – Total * ⁵	-	-	6.0	A
Itot	@ PMax	300W Ps Black Level Video + Audio	-	-	22	A
Irl	Input return loss	Pout = 250 W CW	16	20	-	dB
Ψ	Load mismatch	Pref = 250 W CW, f= 230 MHz, load VSWR	No degradation in			

		= 2:1, all phase angles		Pout		
Gr	Gain Flatness	Pref = 250 W CW, BW: 170-230 MHz		±0.5	±1.0	dB
η	Drain Efficiency	Pout = 300 W ⁶ (CW)	40	45	-	%
	Pout separate ampl.	Sync. Compression < 1dB without correction	400	450		Wps
	Pout common ampl.	Red field IMD < -45 dBc without correction	360	380		Wps
	Pout DVB-T	Shoulder < -27 dB	80	100		Wrms
	Pout DAB	Pout 170Wrms without precorrection	-27	-30		

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