



DESCRIPTION

The P10-VHF-H-20 is an integrated linear amplifier designed for the television integrator. Providing a minimum of 5W Pk Sync linear power, this is the perfect driver for use in any high band VHF transmitter or LPTV application.

- No RF assembly or circuit tuning
- 10 watts of linear output power
- 20dB typical gain at channel 13
- Combined video and aural at full rated power
- Modular construction for ease of integration

TECHNICAL SUMMARY

Frequency Range:	170 to 230 MHz
P1dB:	10 Watts CW
Class:	A
Supply Voltage:	28 V
Gain:	20 dB
Efficiency:	10 %
Temperature Range:	0 to +70 °C
Max VSWR:	5 : 1

ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	170		230	MHz	
P1dB	10			W, CW	
Linear Power Out	5	10		W	
IMD3	-40	-44		dBc	For 2 tones, 1MHz spacing, 5W PEP
Power Input		100		mW, CW	
Gain	18	20		dB	
Vsupply		28		V, DC	
Drain Current		1	2	A, DC	
Input VSWR		1.2:1	1.5:1		
Insertion Phase Variation		±5		°	Unit to unit
Gain Variation		±1		dB	Unit to unit
F2 Second Harmonic		-35		dBc	
F3 Third Harmonic		-15		dBc	
Operating Temperature	0		+70	°C	
Physical Dimensions					2.2" x 3.4" x 1.5"

All specifications valid for 50 Ω output load, $V_{sup} = +28VDC$, $I_{dq} = 1.0A$

ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	34	V, DC	
Stable Operating Voltage	26 to 32	V, DC	
Maximum Bias Current	1.5	A, DC	
Maximum Drain Current	2	A, DC	
Load Mismatch Survival	5:1		
Storage Temperature	-40 to +105	°C	
Max Operating Baseplate Temperature	+70	°C	

FEATURES

- Amplifier disable
- Current sense
- Connectorized power