



## DESCRIPTION

The P400-VHF-L-18 is an integrated linear amplifier designed for the television integrator. Providing a minimum of 350W Pk Sync linear power, this is the perfect amplifier for any low band VHF transmitter. Featuring quadrature input and output combining, this unit is isolated from most external circuit problems. This amplifier is MOSFET based.

- No RF assembly or circuit tuning
- 400 watts of output power
- 18dB typical gain at channel 6
- Combined video and aural at full rated power
- Modular construction for ease of integration

## TECHNICAL SUMMARY

Frequency Range:	50 to 88 MHz
P1dB:	450 Watts CW
Class:	AB
Supply Voltage:	32 V
Gain:	18 dB
Efficiency:	40 %
Temperature Range:	0 to +70 °C
Max VSWR:	5 : 1

### ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	50		88	MHz	
P1dB		450		W, CW	
Linear Power Out	350	400		W	
IMD3	-40			dBc	For 2 tones, 1MHz spacing, 350W PEP
Power Input		6	10	W, CW	
Gain	18	19		dB	
Vsupply		32		V, DC	
Drain Current		20	23.5	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		-30		dBc	
F3 Third Harmonic		-10		dBc	
Operating Temperature	0		+70	°C	
Physical Dimensions					7.5" x 4.0" x 1.5"

All specifications valid for 50 Ω output load,  $V_{sup} = +32VDC$ ,  $I_{dq} = 1.6A$

### ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	34	V, DC	
Stable Operating Voltage	26 to 32	V, DC	
Maximum Bias Current	3.0	A, DC	
Maximum Drain Current	28	A, DC	
Load Mismatch Survival	5:1		
Storage Temperature	-40 to +105	°C	
Max Operating Baseplate Temperature	+70	°C	

### FEATURES

- Temperature compensated bias
- Temperature controller - analog temperature output
- High temperature alarm with selectable automatic PA disable
- High temperature alarm output
- Amplifier disable
- Current sense, each transistor
- Connectorized power and I/O