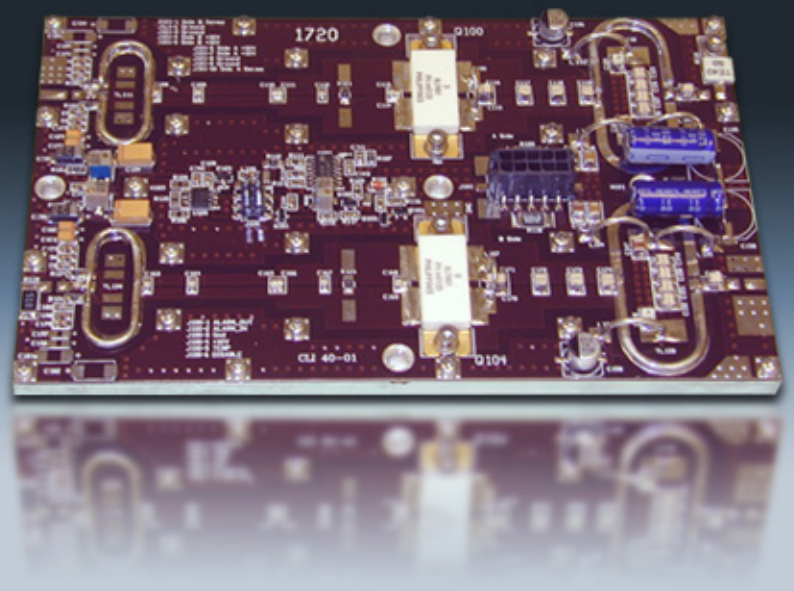
PowerVision

P150-UHF-13

150W UHF TV Pallet Amplifier



DESCRIPTION

The P150-UHF-13 is a linear amplifier designed for the television integrator. Providing a minimum of 150W Pk linear power, this is the perfect amplifier for any broadband UHF transmitter. Featuring quadrature input and output combining, the amplifier is isolated from most external circuit problems. Gold-metallized LDMOS technology gives 13 dB typical gain.

- No RF assembly or circuit tuning
- 180 watts of pk sync output power
- Combined video and aural at full rated power
- 13dB typical gain at channel 69
- Modular construction for ease of integration

TECHNICAL SUMMARY	
Frequency Range:	470 to 860 MHz
P1dB:	55 Watts CW
Class:	AB
Supply Voltage:	32 V
Gain:	13 dB
Efficiency:	45 %
Temperature Range:	0 to +70 °C
Max VSWR:	1.5 : 1

PowerVision

P150-UHF-13

Technical Specifications

ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	470		860	MHz	
P1dB	52	55		W, CW	
Linear Power Out	150	180		W	
IMD3	-40			dBc	For 2 tones, 1MHz spacing, 150W PEP
Power Input		5.0	8.0	W, CW	
Gain	12	13		dB	
Vsupply	28	32	34	V, DC	
Drain Current		14		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		-20		dBc	
F3 Third Harmonic		-35		dBc	
Operating Temperature	0		+70	°C	
Physical Dimensions				6.3” x 3.8” x 1.2”	

All specifications valid for 50 Ω output load, V_{sup} = +32VDC, I_{dq} = 2.0A

ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	34	V, DC	
Stable Operating Voltage	28 to 32	V, DC	
Maximum Bias Current	3.0	A, DC	
Maximum Drain Current	14	A, DC	
Load Mismatch Survival	3:1		
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
- Amplifier disable
- Current sense, each transistor
- Connectorized power and I/O
- Flexible RF locations