



## DESCRIPTION

The PA5-UHF-30 is a two stage LDMOS pallet amplifier designed for low power TV use and as a driver for both analog and digital television. Offering full-band class A performance, this pallet offers superior flexibility and performance.

A proper heatsink is required for operation.

## TECHNICAL SUMMARY

Frequency Range:	470 to 860 MHz
P1dB:	20 Watts CW
Class:	A
Supply Voltage:	28 V
Gain:	30 dB
Efficiency:	10 %
Temperature Range:	-20 to +60 °C
Max VSWR:	10 : 1

### ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	470		860	MHz	
P1dB	15	20		W, CW	
Linear Power Out		5		W, PEP	
IMD3		-45		dBc	For 2 tones, 4.5MHz spacing, 5W PEP
Power Input		6		dBm	For 5W output
Gain	30	31		dB	For 5W output, $\pm 1.5$ dB
Vsupply	24		32	V, DC	
Drain Current		2.2		A, DC	
Input VSWR			1.5:1		
Insertion Phase Variation		$\pm 5$		$^{\circ}$	Unit to unit
Gain Variation		$\pm 1$		dB	Unit to unit
F2 Second Harmonic		-50	-25	dBc	
F3 Third Harmonic		-50	-25	dBc	
Operating Temperature	-20		+60	$^{\circ}$ C	
Physical Dimensions					2.5" x 3.8" x 1.0"

All specifications valid for 50  $\Omega$  output load,  $V_{sup} = +28$ VDC,  $I_{dq} = 2.2$ A

### ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	32	V, DC	
Stable Operating Voltage	24 to 32	V, DC	
Maximum Bias Current, Q100	0.4	A, DC	Factory set to 0.4A
Maximum Bias Current, Q101	2.5	A, DC	Factory set to 1.75A
Maximum Drain Current	2.5	A, DC	
Load Mismatch Survival	10:1		
Storage Temperature	-40 to +105	$^{\circ}$ C	
Max Operating Baseplate Temperature	+60	$^{\circ}$ C	

### FEATURES

- Amplifier disable
- Current sense
- Connectorized power and I/O