

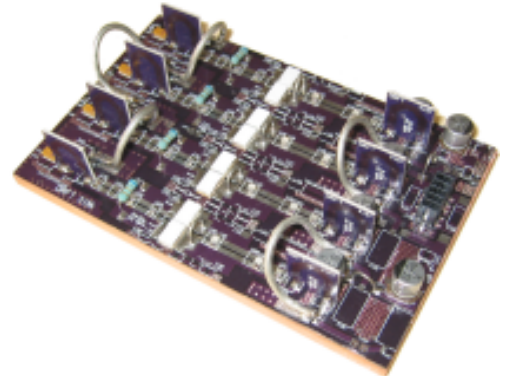


P300-UHF-16

High Power RF Amplifiers and Accessories

350W UHF 470-660 MHz, 635-860 MHz TV Linear Pallet Amplifier

The **P300-UHF-16** is an integrated TV linear amplifier designed for the television integrator in mind. This third generation LDMOS based pallet amplifier was specifically created to allow a 4-pallet for 1kW+ solution (Analog) and 250W+ solution (Digital). Quadrature input / output combining isolates the pallet from most external circuit problems. Multiple LDMOS devices combine to form an advanced thermal design which allows elevated baseplate temperature operation by spreading the heat across the entire width of the pallet amplifier.



A band split has been chosen mid-band with overlap from 635 - 660MHz between -A and -B versions - please specify when ordering.

- No RF assembly or circuit tuning!
- 350 Watts typical of Pk Sync Output Power!
- Combined **Video and Aural** at full rated power!
- 15.5dB typical gain at Channel 69!
- Graceful degradation!

Specifications: $V_{sup}=+32V_{dc}$, $I_{dg}=4.6A$, 470-660, 635-806MHz

Parameter	Min	Typ	Max	Units
Power Output, P1dB	56.0	57.0		+dBm
Linear Power Out, Pk Sync <small>Full Field red, NTSC-NA, IMD-54dBc, 470-806MHz</small>	325	350		Watts
Power Input <small>For 350W Pk Sync Power Output</small>	6		9	Watts
Power Gain	14.5	15.5	16.5	dB
Drain Current		21		A
Input VSWR		1.2:1	1.5:1	
Insertion Phase Variation <small>(unit to unit)</small>		±5		°
Power Gain Variation <small>(unit to unit)</small>		±1		dB
Differential Gain <small>For 350W Pk Sync, 10dB Aural</small>		3	5	%
Sync Compression <small>350W Pk Sync, 10dB Aural, S.L.Black</small>		3	10	%
F2 Second Harmonic		-20		dBc
F3 Third Harmonic		-30		dBc
Baseplate Operating Temp	0		+70	°C
Physical Dimensions	6.0 x 3.8 x 1.2			inches
	15.2 x 9.7 x 3			cm

Absolute Maximum Ratings:

Parameter	Value	Units
Maximum Operating Voltage	+33.0	V DC
Stable Operating Voltage	+26.0 to +33.0	V DC
Maximum Bias Current <small>Per pair. Factory set to 1.0A per transistor pair.</small>	2.0	A
Maximum Drain Current	25	A
Load Mismatch Survival <small>At all phase angles with the base plate held at 40C and Id current limited to 18A, 10 seconds maximum</small>	5:1	
Storage Temperature	-40 to +105	°C
Maximum Operating Baseplate Temperature	+70	°C

Features Include:

- Temperature Compensated Bias
- High Temp alarm with automatic PA disable
- Amplifier Disable
- Current Sense, Each Half
- Connectorized Power

This data sheet contains preliminary information regarding the design goal for a development product. Every attempt has been made to give accurate information but the final specifications and performance may vary from this information.

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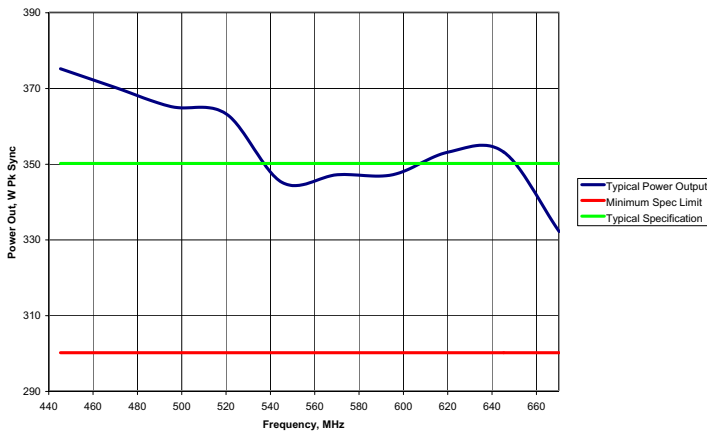


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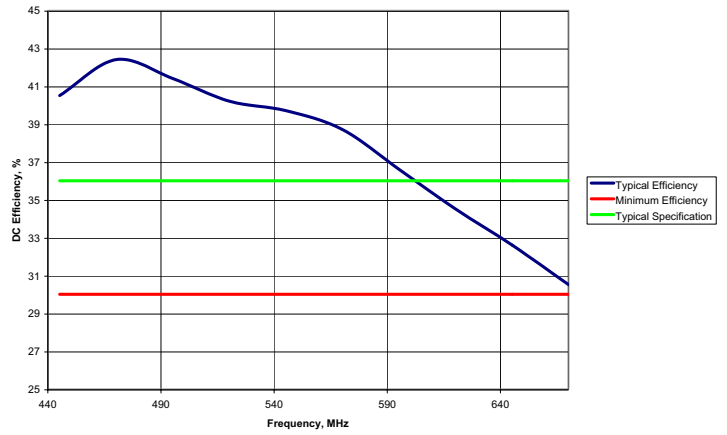
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Typical Linear Power Out, TV -A Version

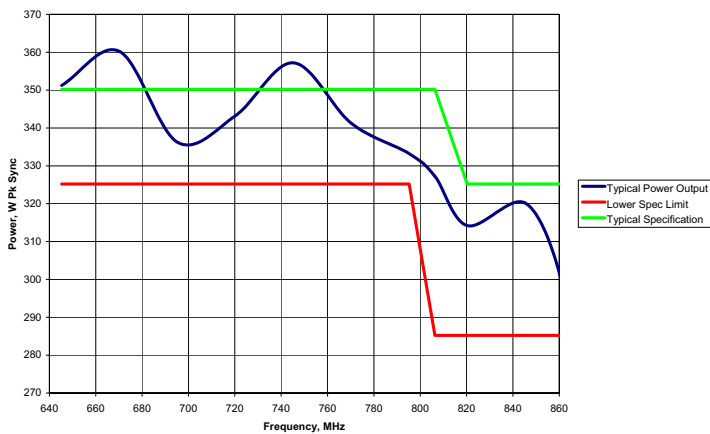


Efficiency, TV Conditions, -A Version

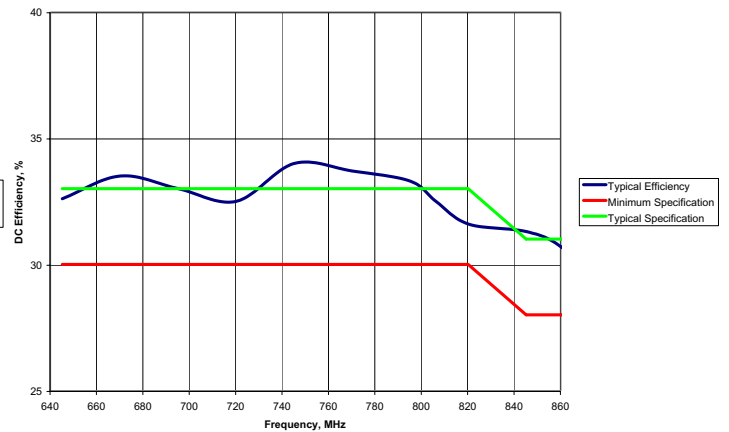


P300-UHF-16-A, Power Out: 350W Pk Sync, -54dBc NTSC-NA test conditions, combined video/aural (-10dBc)

Typical Linear Power Out, TV -B Version



Efficiency, TV Conditions, -B Version



P300-UHF-16-B, Power Out: 350W Pk Sync, -54dBc NTSC-NA test conditions, combined video/aural (-10dBc)



P300-UHF-16

High Power RF Amplifiers and Accessories

350W UHF 470-660 MHz, 635-860 MHz TV Linear Pallet Amplifier

