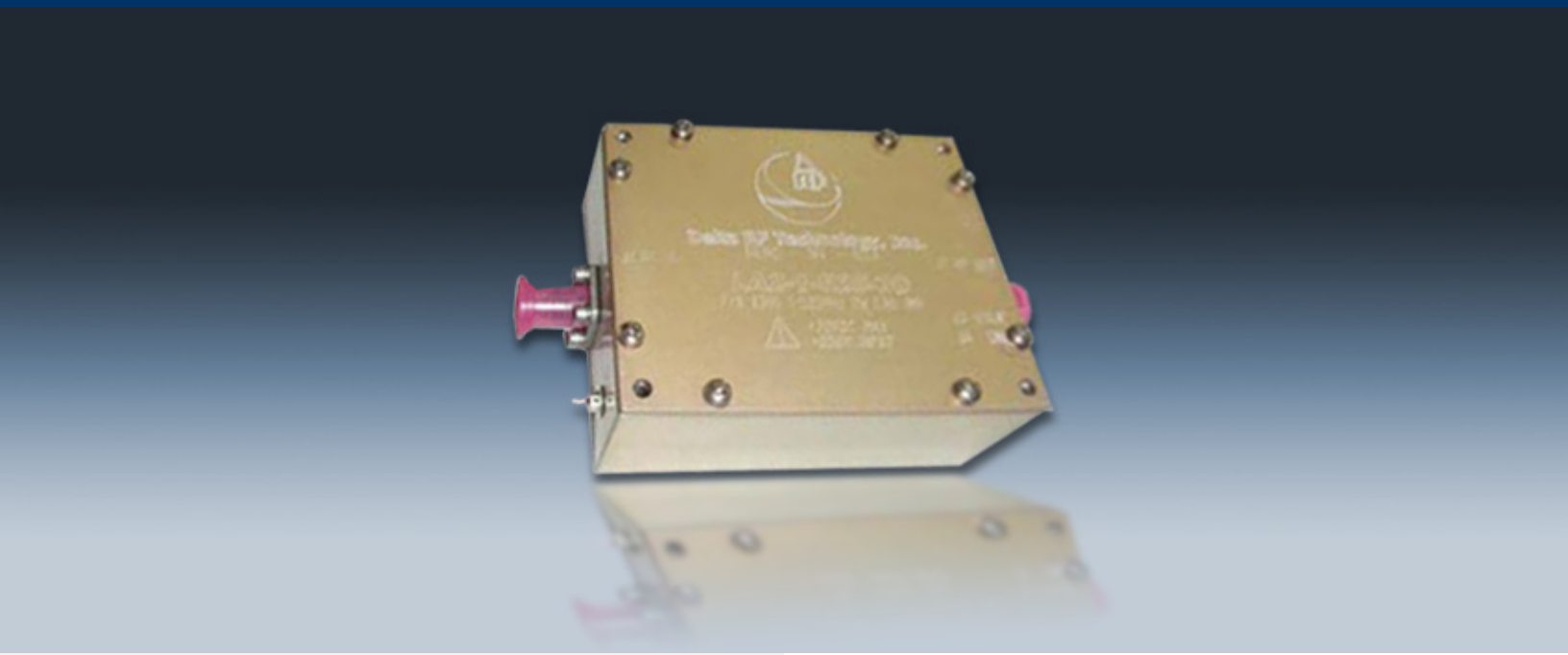
PowerVision

LA2-1-525-30

2W Laboratory Amplifier



DESCRIPTION

The LA2-1-525-30 laboratory amplifier is a true class A amplifier that covers 500kHz to 525MHz and features a minimum of 1.7W CW. Using a third generation ultra-reliable gold metallized LDMOS transistor, this unit outperforms any laboratory amplifier in its class.

Requiring only a modest heatsink, which is also available as a factory option, this laboratory amplifier will give you years of service in any application. Designed for general purpose bench work, this amplifier may be used for antenna measurements, EMR testing, signal generator boosting, and amplifier testing.

TECHNICAL SUMMARY	
Frequency Range:	0.5 to 525 MHz
P1dB:	2 Watts CW
Class:	A
Supply Voltage:	28 V
Gain:	30 dB
Efficiency:	14 %
Temperature Range:	0 to +50 °C
Max VSWR:	∞ : 1

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Technical Specifications

ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	0.5		525	MHz	
P1dB	1.5	2.5		W, CW	
Psat		4		W, CW	
IMD3		-26		dBc	For 2 tones, 10kHz spacing, 2W PEP
Power Input	0	1.5	3	dBm, CW	For 2W output
Gain	30	31.5		dB	2W
Vsupply	24	28	30	V, DC	
Drain Current	0.45	0.5	0.6	A, DC	
Input VSWR		1.2:1	1.5:1		
Insertion Phase Variation		±5		°	Unit to unit
Gain Variation		±1.2	±1.5	dB	2W
F2 Second Harmonic		-20	-15	dBc	2W
F3 Third Harmonic		-25	-20	dBc	2W
Operating Temperature	0		+50	°C	
Physical Dimensions				2.35” x 2.95” x 1.2”	

All specifications valid for 50 Ω output load, V_{sup} = +28VDC, I_{dq} = 0.5A

ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	30	V, DC	
Stable Operating Voltage	24 to 30	V, DC	
Maximum Bias Current, Q100	0.5	A, DC	Factory set to 0.5A
Maximum Drain Current	0.6	A, DC	
Load Mismatch Survival	∞:1		
Storage Temperature	-40 to +85	°C	
Max Operating Baseplate Temperature	+50	°C	

FEATURES

- Optional amplifier disable function