



TECHNICAL BULLETIN

HIGH GAIN BROADBAND RF POWER AMPLIFIER

E10090-01-05

Rev.B

Designed for Wide-band High Power application in the V-UHF range. This amplifier utilizes class A Silicon RF Power LDMOSFET devices that provide high gain, wide dynamic range and good 3rd order intercept point. The amplifier includes an internal circuit that provide the external Voltage Control of Gain. High efficiency, reliable operation and Flat gain are being achieved by employing unique broadband RF networks, custom machined housing and heavy duty components. Each unit undergoes extensive burn-in prior to final test and Q/A.

Absolute Maximum Ratings

Parameter	Rating	Units
Supply Voltage	30	Vdc
Output Power	18	W
Operating Temperature	-40 to + 90	°C
Storage Temperature	-54 to +125	°C

Electrical Characteristics @ T = 25 °C & VDD = 28.0 Vdc

Parameter	Values		Units
Frequency Range	10 - 500	min	MHz
Output Power @ 1 dB comp.	10	min (1)	W
Output Power @ saturation	18	min (2)	W
Small Signal Gain	40	min	dB
Gain Flatness	+/- 3	max	dB
Third Order Intercept Point	+ 50	min	dBm
2 nd Harmonic @ 1 dB comp	- 25	min	dBc
3 rd Harmonic @ 1 dB comp	- 15	min	dBc
V AGC Input @ 50 mA	0 - 10		V
Gain Control Dynamic Range	60	min	dB
Noise Figure	10	max	dB
Input/Output VSWR	3 : 1	max	

(1) The Output Power @ 1 dB comp., becomes 5 Watts from 10 to 20 MHz

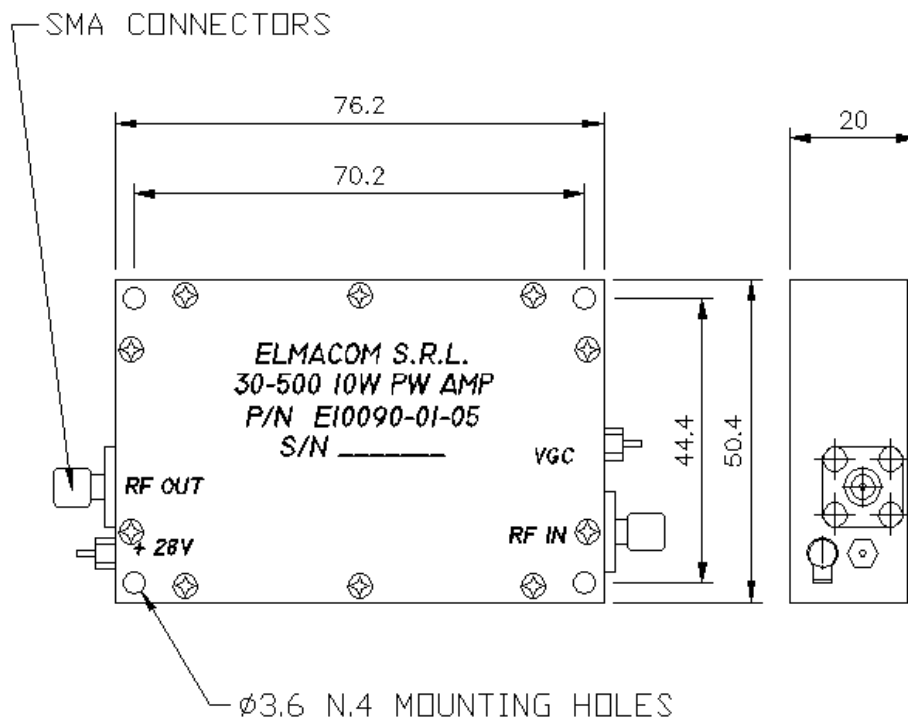
(2) Output Power @ saturation, becomes 10 watts from 10 to 20 MHz

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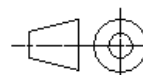
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OUTLINE DRAWING "Adequate Heatsink Required"



ALL DIMENTIONS ARE IN mm



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