

LDU10-R

Product Name

GR04260

Part Number

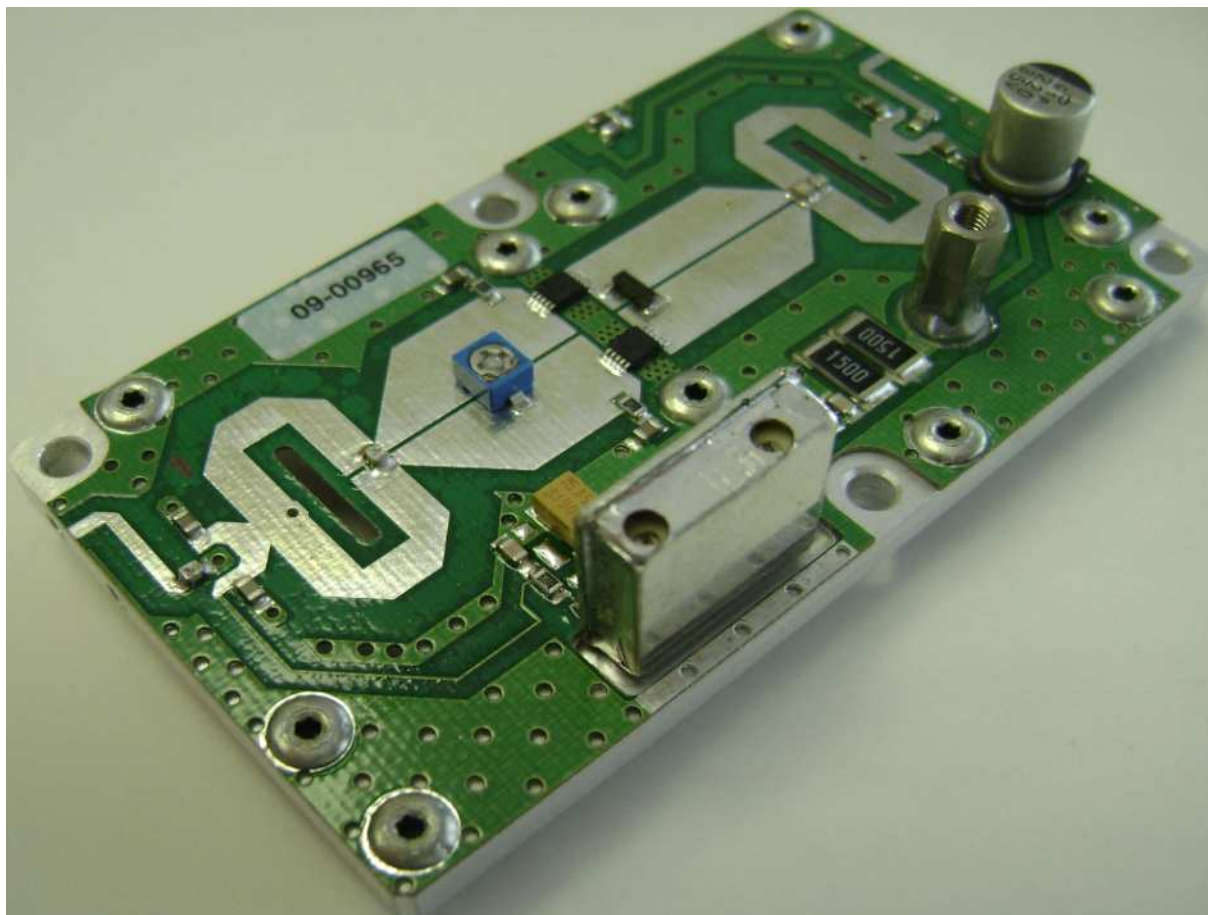
Technical Specification Summary

Frequency Range	470-862MHz	Typ. Gain	17 dB
P1dB	15 W	Typ. Efficiency	>40 % At 1dBcp
Analogue TV	10 Wps	Temperature Range	-10 to +75 °C
DVB	2,5 Wrms	Max VSWR	3:1
DTV		Working Class	AB
Dual tone		Supply Voltage	28 V
Devices:	PTF080101M or equivalent		

General Description

This power amplifier pallet has been design to cover the entire UHF TV band from 470 to 862 MHz. Designed for analog and digital applications, the LDU10-R incorporates microstrip technology and LDMOS power devices for increased ruggedness and reliability. Patented bias control (IR Smart Bias®, optional).

Actual Power Amplifier Picture



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Electrical Specifications

Parameter	Min.	Typ.	Max	Units	Notes
Frequency	470		862	MHz	
P1dB	15	20		W	
Power		20		W _{pep}	2 tones, 100kHz spacing (-27dBc)
IMD3		-42		dBc	2 tones, 100kHz spacing (20W _{pep})
Power Input		0,5		W	
Gain	16	17		dB	
V Supply		28	30	V _{dc}	
Drain Current			1,2	A	
Input return loss		-2		dB	See NOTE 1
Phase Variation		+/-5%			Unit to unit
Gain Variation			+/-1,5	dB	
F2 Second Harmonic		-35	-25	dBc	
F3 Third Harmonic		-45	-30	dBc	
Baseplate Temp.	-10		+75	C	

Video Parameter	Min.	Typ.	Max	Units	Notes
Analog Power (ATV)				W _{ps}	common amplification
Digital Power (DVB)				W _{rms}	
M.E.R. (DVB)				dB	
Shoulders (DVB)				dBc	At +/-4,2MHz

Physical Dimensions (LxWxH) 85,5mm x 47,8mm x 20mm / 3,36" x 1,88" x 0,79"
Weight 104 g. / 0,22 Pounds

NOTE 1: The In/out Return Loss value is low due to the push-pull single stage configuration of this amplifier (without hybrid).
It is recommended to put a 4 - 5 dB attenuator in input in order to avoid a ripple of the gain in the final equipment.

ABSOLUTE Maximum Ratings

Parameter	Value	Units	Notes
Output Power	20	W	
Input Power	0,5	W	
Operating Voltage	30	V _{dc}	
Stable operations	28	V _{dc}	
Bias Current	0,6	A	
Drain Current	1,2	A	
VSWR	3:1		
Storage Temp.	-20 +80	C	
Base Plate temp.	75°	C	

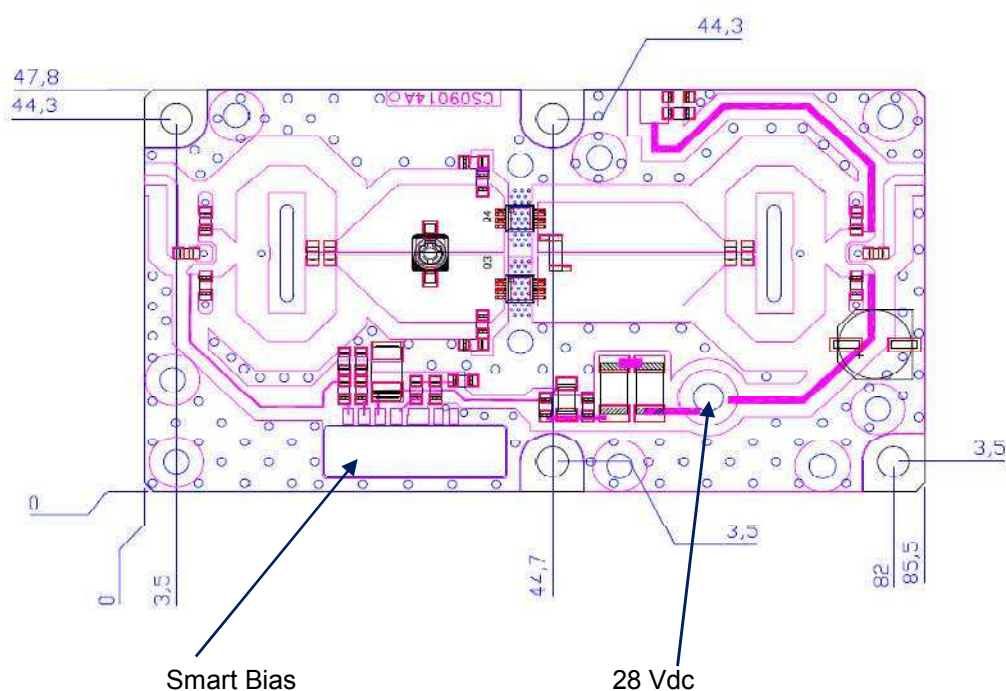
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Mechanical specifications



HEATSINK MOUNTING/HARDWARE

1. HEATSINK TOOLING

- Planarity: typical value 0.8
- Roughness: better than 0.03 mm

2. THERMAL COMPOUND

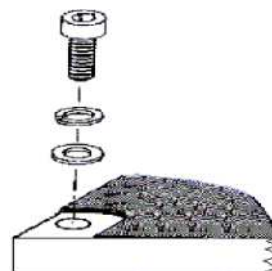
- Paste with silicones
 - Thickness: optimum between 0.06 mm
- on the whole back surface of the amplifier.

3. SCREWS

- 4 x M3 -Cross head screws (position 1, 2, 3, 4)
- The recommended Torque is 12 Kg/cm for M3 type screws

4. TIGHTENING ORDER

- See next figure:

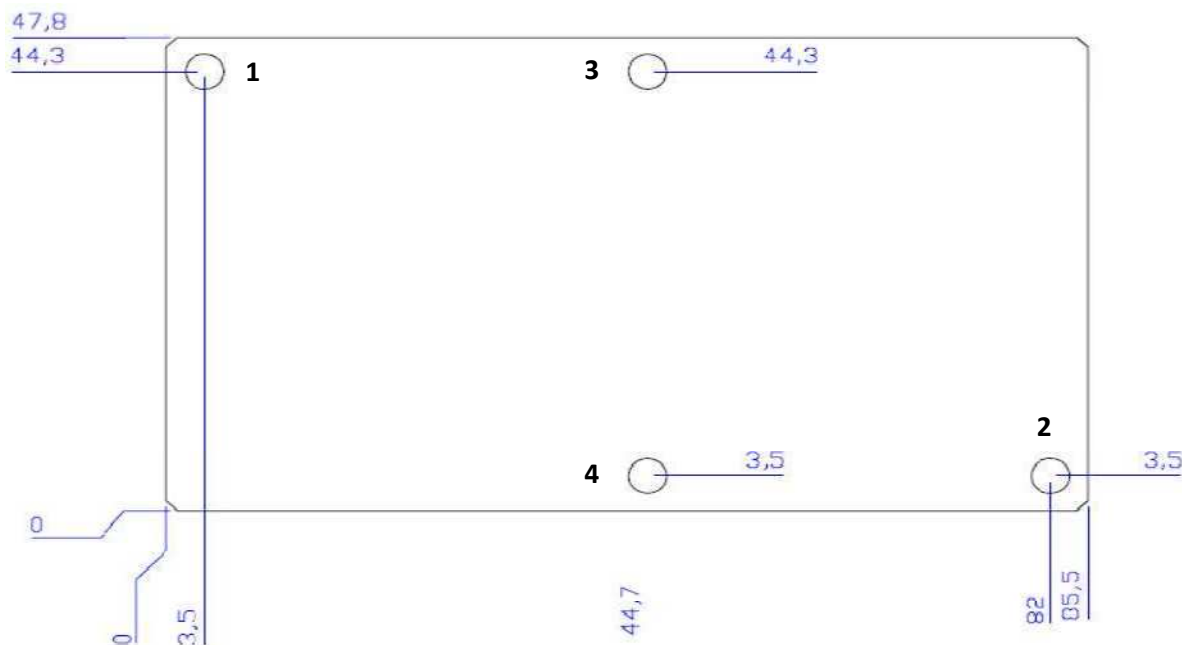


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Dimensions: mm[inch]

Ordering informations

Product Name	Manufacturer's Part n.	Feature Description
LDU10-R	GR04260	Analog Smart Bias
LDU10_SMART BIAS	GR04261	IR Smart Bias

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