
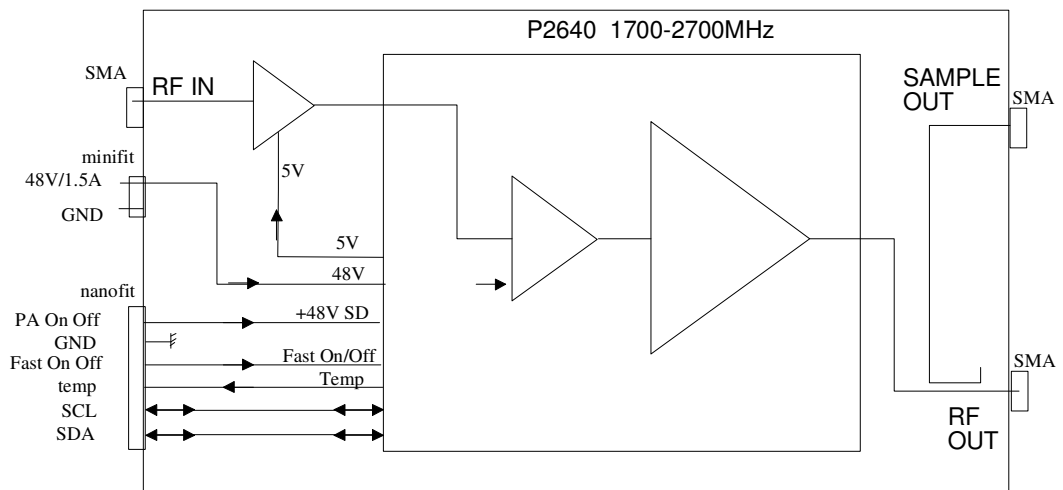


LINEAR POWER AMPLIFIER	LPA-AH0-050AB-1700M-2700M-48-00
P2640	
FEATURES <ul style="list-style-type: none"> ◆ 1700-2700MHz ◆ Gain : 40 dB ◆ 25Wave, 50W peak, Class AB ◆ +48V / 1.5 A @ 25W CW ◆ Protection against over voltage, current and temperature ◆ RoHS compliant 	AH0 PACKAGE 
	APPLICATIONS <ul style="list-style-type: none"> ◆ Instrumentation ◆ Communications ◆ Jammers ◆ Heating

BLOCK DIAGRAM



Specifications and information are subject to change without notice

Electrical characteristics: 50 ohms; +48V; -25°C to +85°C (1)

Ref	parameter	conditions	note	min	typ	max	units
1	Bandwidth			1700		2700	MHz
3	Gain small signal	2200 MHz; 50°C			40		dB
4	Gain variation vs frequency	1700 MHz - 2700 MHz				2	dBpp
5	Gain variation vs temperature	-25°C to +85°C	2		4		dB
6	Input return loss	50 ohms				-18	dB
7	Output return loss	50 ohms				-18	dB
8	Instantaneous bandwidth	Fctr=2200MHz @ 50Wp	3	100	...		MHz
10	Multi tones intermodulation	10 tones 1MHz spacing, 60W peak,	4		-30	-27	dBc
11	Peak envelope power	IMD3 = -30 dBc	3		60		W
12	Current consumption	48V, idle			0.15		A
13	Current Consumption	48V, 25W CW 2200MHz			1.5		A
14	Fast on/off control	TX ON			0	0.3	V
15	Fast on/off control	TX OFF		2.5	3		V
16	signal rise time	3V to 0V negative edge	6			1	μs
17	Rise time delay		6			3	μs
18	Signal fall time	0V to 3V positive edge	6			1	μs
19	Fall time delay		6			3	μs
20	Gain TX OFF	Tx=3V			-50		dB

1. Unless otherwise specified
2. Hot Spot Temperature
3. 10 CW, 2200MHz center frequency

Maximum ratings

Ref	parameter	conditions	note	min	Nom	max	units
1	Operating temperature	Flange temperature		-40°C		+90	°C
2	Supply voltage			30	48	50	V
3	Input power	CW				-2	dBm

Protections

Ref	parameter	description	remarks
1	Overvoltage	Shut down if supply > 50 V	
2	Under voltage	Shut down if supply < 30 V	
3	Overcurrent	Shut down if current > 2.5 A	Rsense = 20 mohms
4	Temperature	Shut down if temp > 85°C	PA On/Off to recover

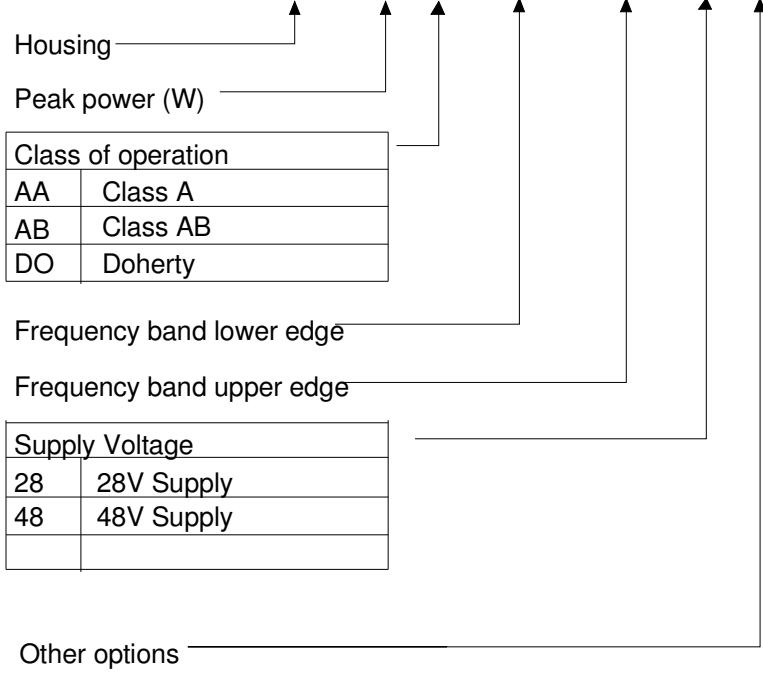
Monitoring & control

Ref	characteristic	description	remarks
1	PA On/Off	48V switching	Used for reset
2	Fast On/Off	Gain switching	
3	Temperature	Analog output	-40°C to +100°C (TMP20)
4	Alarm		

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Part numbering:

LPA-AH0-050AB-1700M-2700M-48-00

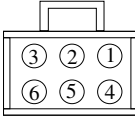


Support material:

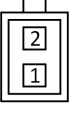
Ref	Document type	Document number	Title	Date
1				
2				
3				

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Communication DC Connector Molex NanoFit 105405-1206

Pin description			PINOUT
Pin 1 : Analog temperature	Pin 4 : Gnd	Mate with	
Pin 2 : SDA	Pin 5 : SCL		
Pin 3 : Fast On/Off	Pin 6 : Power On/Off		

Power Supply DC Connector Molex MiniFit Jr 39-30-1020

Pin description			PINOUT
Pin 2 : Supply +28V		Mate with	
Pin 1 : Gnd			

MTBF

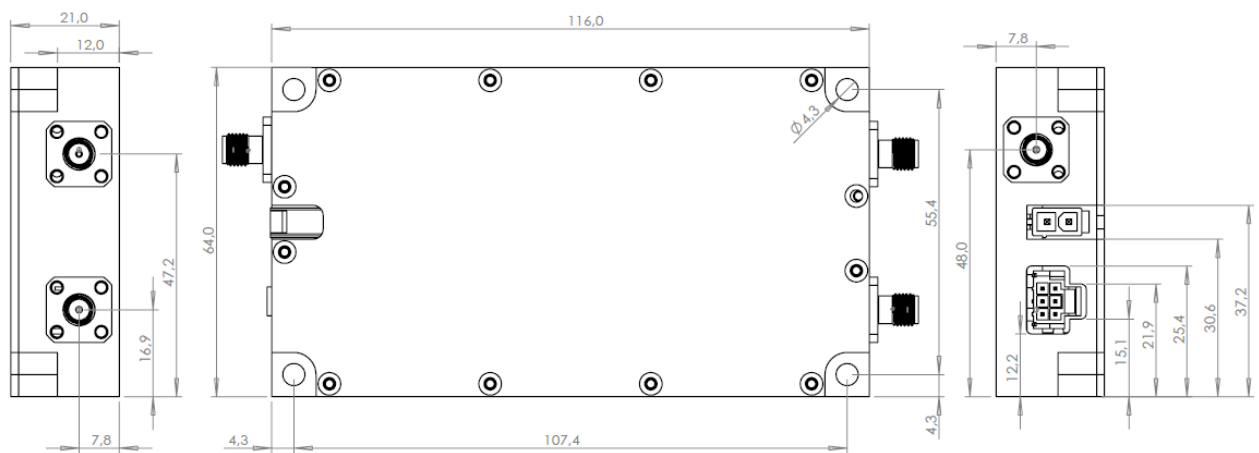
Temperature (sensor)	MTBF	First year failure rate
65°C (10)	>300 000 hours	TBD%

10. Although specified up to 85°C, this calculation assumes an average temperature of 65°C

Mechanical characteristics

Ref	characteristic	description	remarks
1	Housing dimensions	116mm x 64mm x 21mm	
2	Housing finish	Electroless nickel	
3	Mounting	4 M4 screws	
4	Input/output RF connectors	SMA	
5	DC supply connector	Molex 39-30-1020	Male type
6	DC controls connector	Molex 105405-1206	Male type
7	Weight	400 grams	

Package outline:



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TYPICAL PERFORMANCE

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