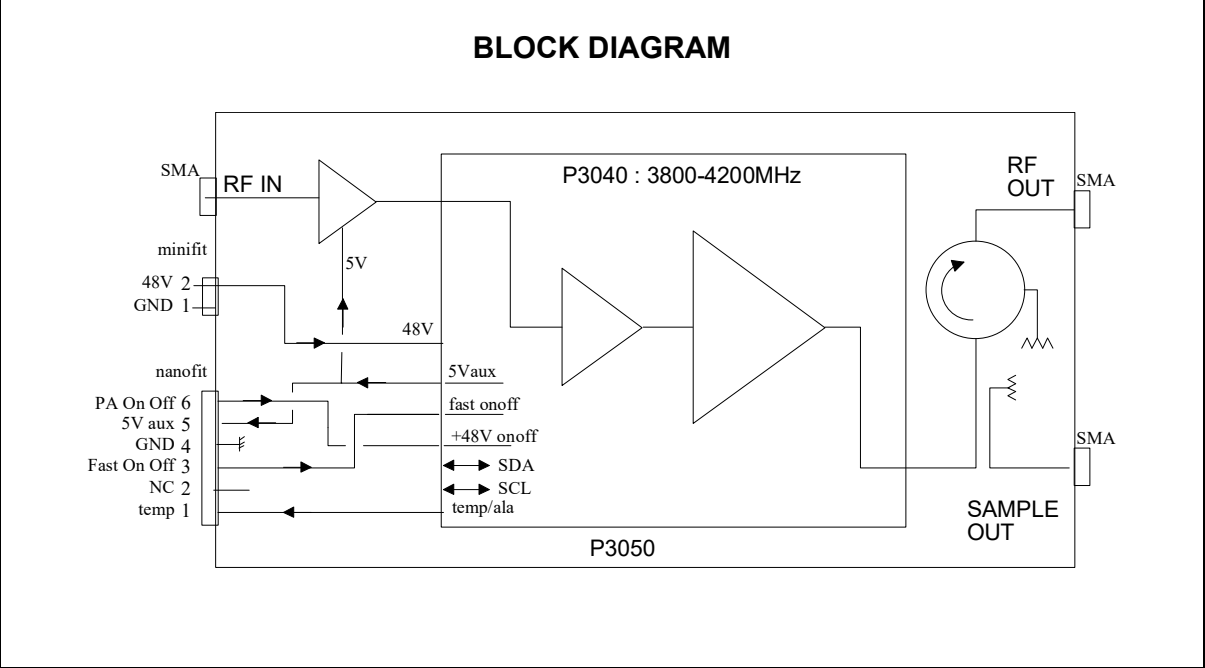


LINEAR POWER AMPLIFIER	LPA-AH0C-040AB-3800M-4200M-48-00
P3050	
FEATURES ◆ 3800-4200MHz ◆ Gain : 33 dB ◆ 40W P-2dB, Class AB ◆ CW or pulse operation ◆ +48V / 2.4 A @ 40W CW ◆ Protection against reverse voltage, over current and over temperature ◆ Fast On/Off switching ◆ RoHS compliant	AH0C PACKAGE  APPLICATIONS ◆ Instrumentation



Specifications and information are subject to change without notice

Electrical characteristics: 50 ohms; +48V; -25°C to +80°C (1)

Ref	parameter	conditions	note	min	typ	max	units
1	Bandwidth			3800		4200	MHz
3	Small signal Gain	4000 MHz; 50°C		33	35		dB
4	Gain variation vs frequency	3800 MHz - 4200 MHz				1	dBpp
5	Gain variation vs temperature	-25°C to +80°C	2		5		dB
6	Sample output	Relative to main output			-30		dB
7	Input return loss	50 ohms				-15	dB
8	Output return loss	50 ohms				-15	dB
9	Multi tones intermodulation	10 tones 1MHz spacing, 50W peak,	3		-27	-25	dBc
10	Peak envelope power	2 tones , IMD3 = -27 dBc			50		W
11	Current consumption	48V, idle			0.2		A
12	Current Consumption	48V, 50W CW 4000MHz			2.4		A
13	Fast on/off control	TX ON			0	0.3	V
14	Fast on/off control	TX OFF		2.5	3		V
15	signal rise time	3V to 0V negative edge	4			1	μs
16	Rise time delay		4			3	μs
17	Signal fall time	0V to 3V positive edge	4			1	μs
18	Fall time delay		4			3	μs
19	Gain TX OFF	Tx=3V			-50		dB

1. Unless otherwise specified
2. Hot Spot Temperature
3. Peaked phases
4. Low impedance drive

Maximum ratings

Ref	parameter	conditions	note	min	Nom	max	units
1	Operating temperature	Flange temperature		-40		+90	°C
2	Supply voltage			30	48	50	V
3	Input power	CW				+3	dBm
4	Reverse power					47	dBm
5	Max load VSWR	@ 50W output				∞:1	-

Protections

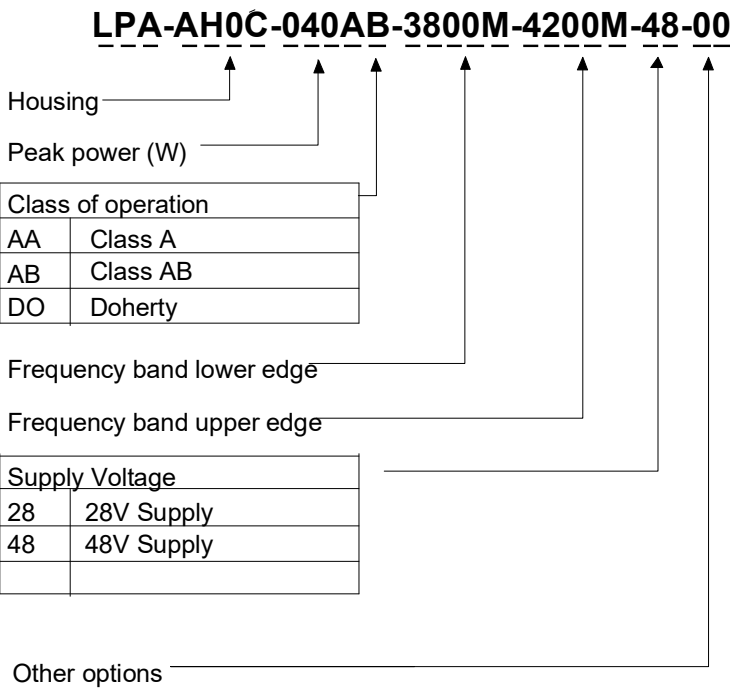
Ref	parameter	description	remarks
1	Overvoltage	Shut down if supply > 50 V	
2	Under voltage	Shut down if supply < 30 V	
3	Reverse voltage	No current drawn	
4	Overcurrent	Shut down if current > 2.7 A	Lower power and PA On/Off to recover
5	Temperature	Shut down if temp > 80°C	Auto recover at 70°C

Monitoring & control

Ref	characteristic	description	remarks
1	PA On/Off	48V switching (used for reset)	+3V=ON internal pull up
2	Fast On/Off	Gain switching	+3V=ON internal pull up
3	Temperature	Analog output	-40°C to +100°C (TMP20)
4	Alarm		<0.1V for alarm

Specifications and information are subject to change without notice

Part numbering:



Support material

Ref	Characteristic	Description	Remarks
1	T280	Analog control board	Supplied by 5V aux from amplifier
2			
3			

Related products

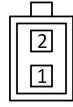
Ref	Characteristic	Description	Remarks
1			
2			
3			

Communication DC Connector Molex NanoFit 105405-1206

Pin description			PINOUT
Pin 1 : Analog temperature	Pin 4 : Gnd	Mate with 105308-1206	
Pin 2 : NC	Pin 5 : 5V aux		
Pin 3 : Fast on/off	Pin 6 : Power On/Off		

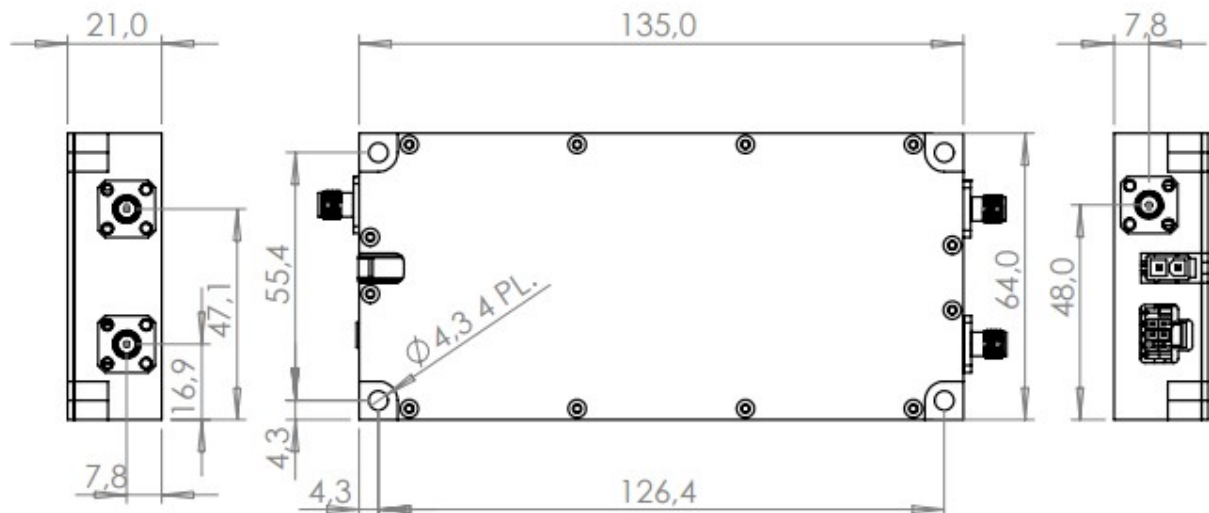
Specifications and information are subject to change without notice

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

Pin description			PINOUT
Pin 2 : Supply +48V		Mate with 39-01-2020 and inserts 39-00-0038	
Pin 1 : Gnd			

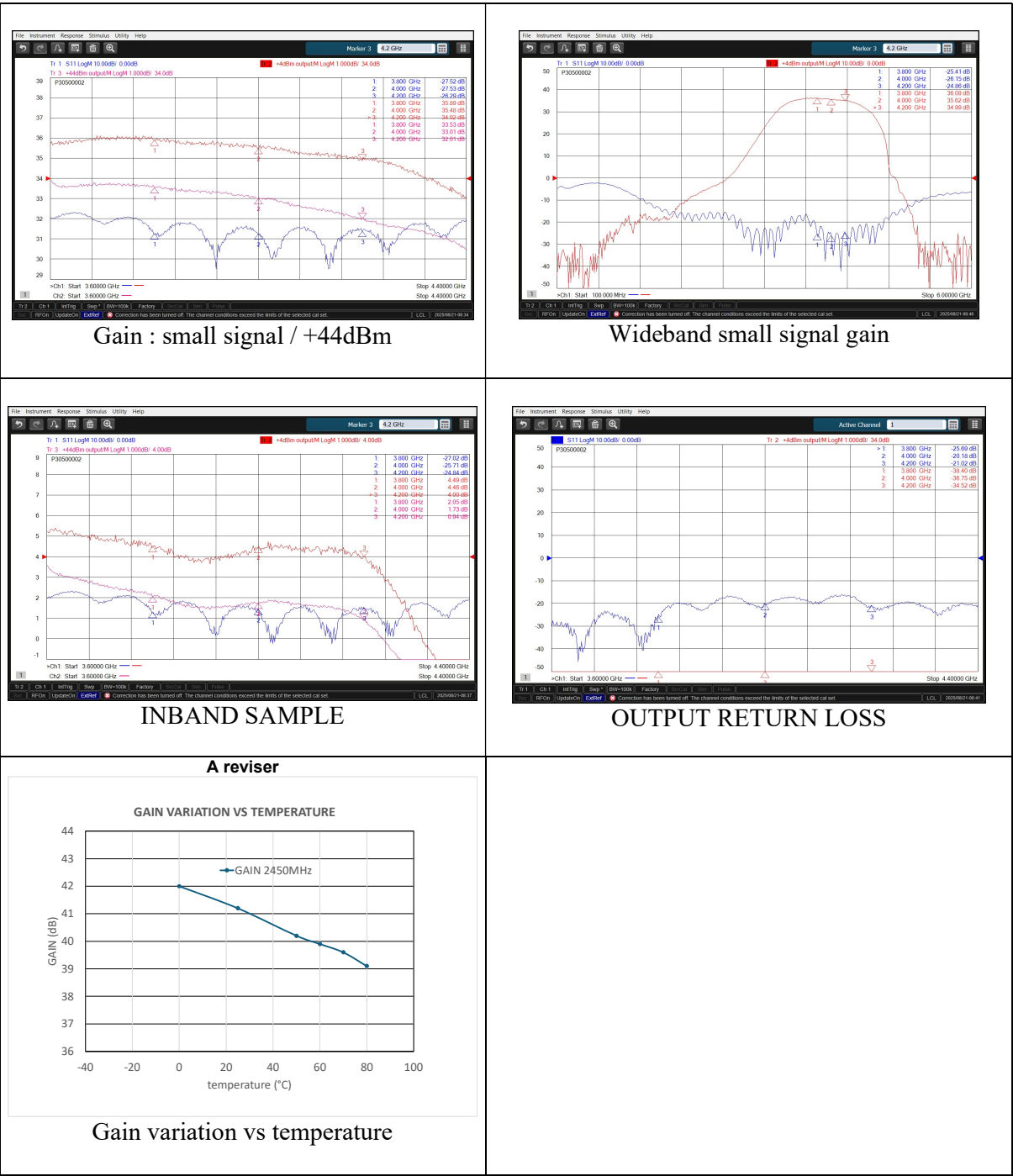
Mechanical characteristics

Ref	characteristic	description	remarks
1	Housing dimensions	135mm x 64mm x 21mm	
2	Housing finish	Surtec 650	
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:

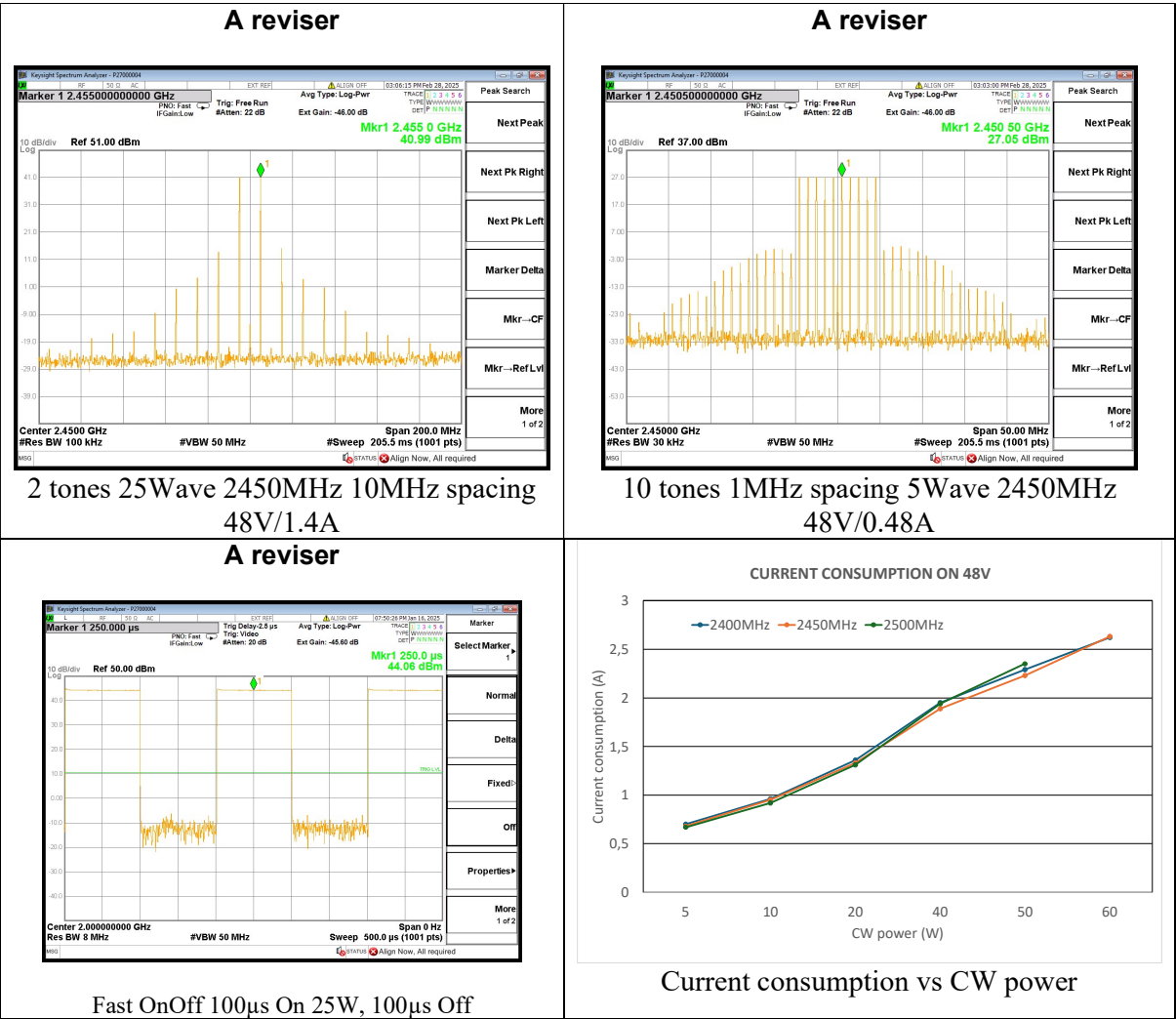
Specifications and information are subject to change without notice

TYPICAL PERFORMANCE



Specifications and information are subject to change without notice

TYPICAL PERFORMANCE (continued)



Specifications and information are subject to change without notice