

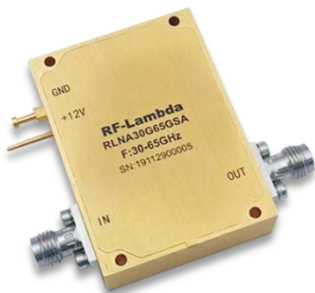


RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RLNA30G65GSA

Medium Power Wide Band Driver Amplifier 30GHz~65GHz



Features

- Gain: 38dB Typical
- Saturated Output Power: +22dBm Typical
- Supply Voltage: +12V

Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

Electrical Specifications, $T_A = +25^{\circ}\text{C}$, $V_{CC} = +12\text{V}$

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	30		40	40		60	60		65	GHz
Gain	30	36	40	33	38	43	24	30	40	dB
Gain Flatness		± 2.5			± 3.0			± 5.0		dB
Gain Variation Over Temperature ($-45^{\circ}\text{C} \sim +85^{\circ}\text{C}$)		± 3.0			± 3.0			± 3.0		dB
Input VSWR		2.0	3.0		2.5	3.5		2.0	3.0	: 1
Output VSWR		2.5	3.5		2.5	3.5		2.0	3.0	: 1
Output 1dB Compression Point (P1dB)	16	20		17	21		15	18		dBm
Saturated Output Power (Psat)		21			22			19		dBm
Output Third Order Intercept (OIP3)		26			28			25		dBm
Supply Current ($V_{CC}=+12\text{V}$)		450	1000		450	1000		450	1000	mA
Isolation S12		-70			-60			-55		dB
Weight	4.6 Max.									ounces
Impedance	50									Ohms
Input / Output Connectors	1.85mm-Female									
Finish	Gold Plated									
Material	Copper									
Package Sealing	Epoxy Sealed (Standard)									
	Hermetically Sealed (Optional)									

Medium Power Wide Band Driver Amplifier 30GHz~65GHz



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RLNA30G65GSA

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power	-8dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing
Power OFF Procedure	
Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	MIL-STD-883	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)		MIL-STD-883 (For Hermetically Sealed Units)

Medium Power Wide Band Driver Amplifier 30GHz~65GHz



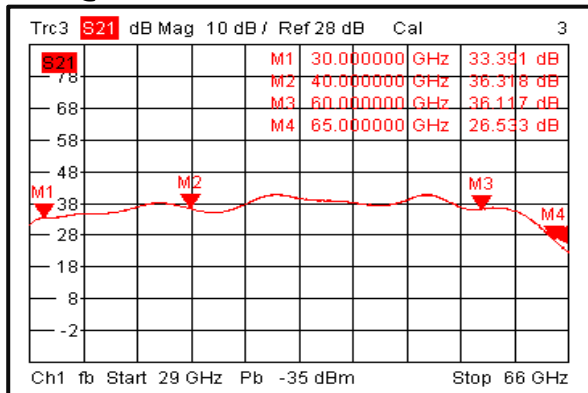
RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

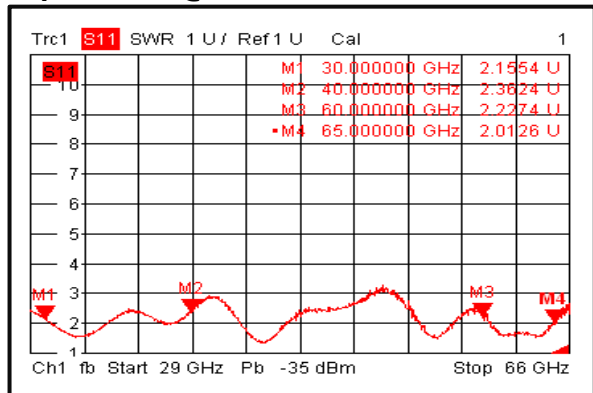
RLNA30G65GSA

Typical Performance Plots

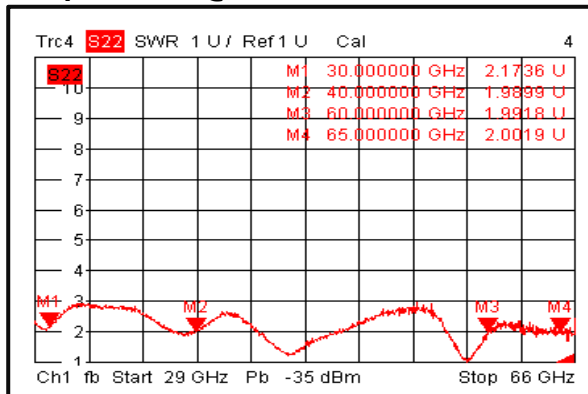
Gain@+25°C



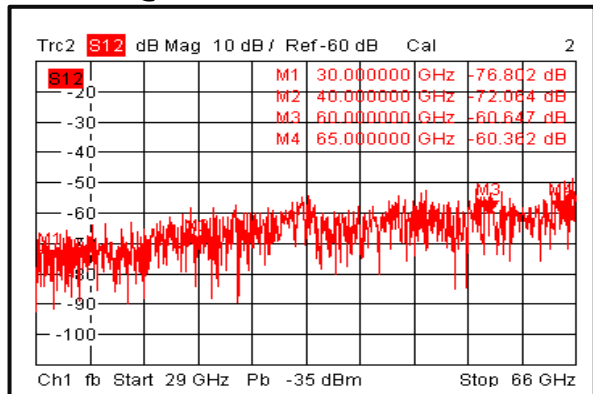
Input VSWR@+25°C



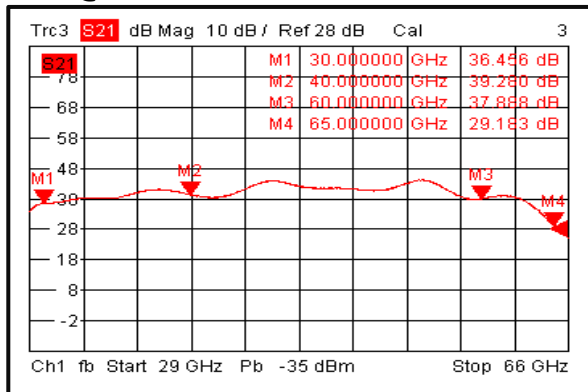
Output VSWR@+25°C



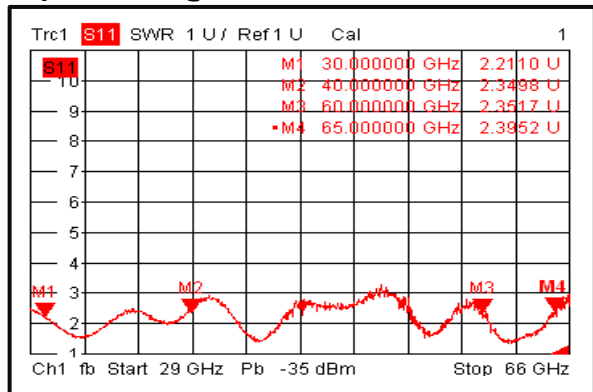
Isolation@+25°C



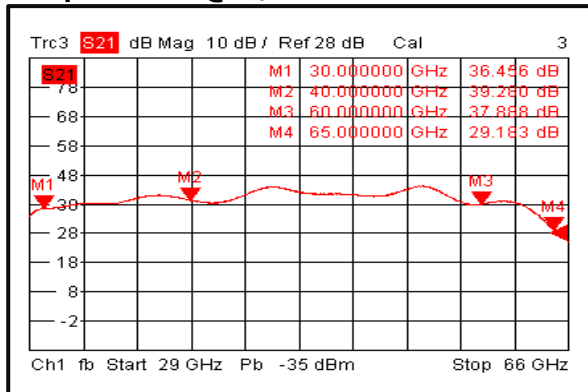
Gain@-45°C



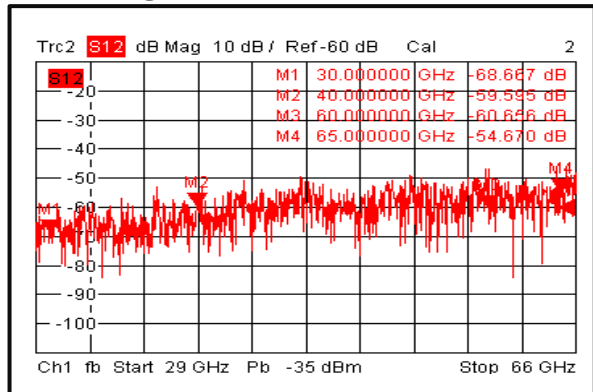
Input VSWR@-45°C



Output VSWR@-45°C



Isolation@-45°C



Medium Power Wide Band Driver Amplifier 30GHz~65GHz

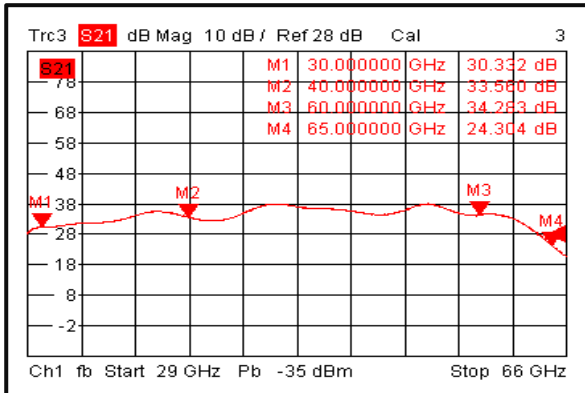


RF-LAMBDA

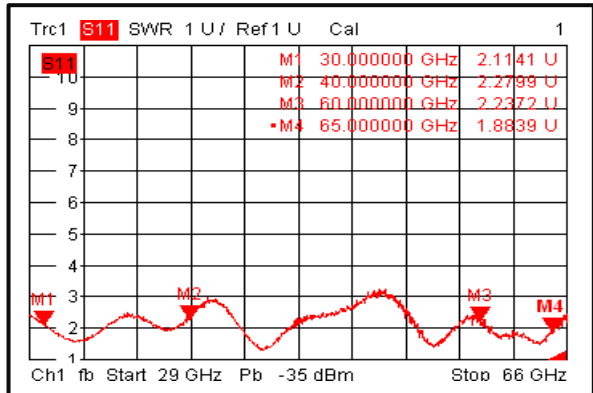
LEADER OF RF BROADBAND SOLUTIONS

RLNA30G65GSA

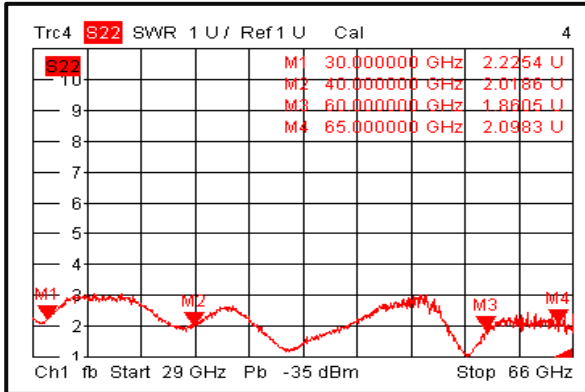
Gain@+85°C



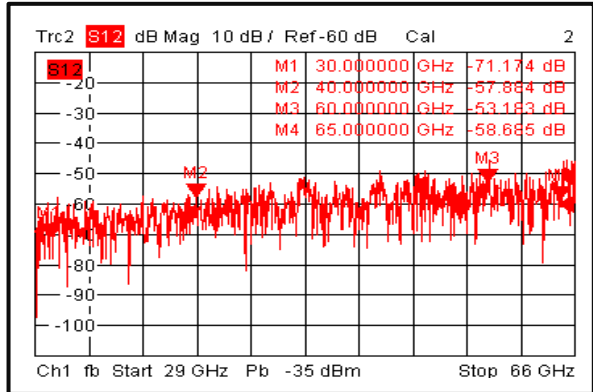
Input VSWR@+85°C



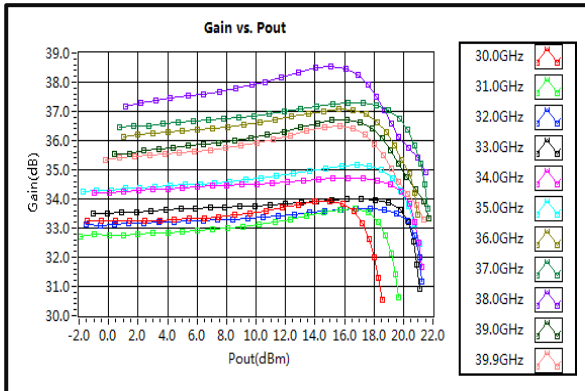
Output VSWR@+85°C



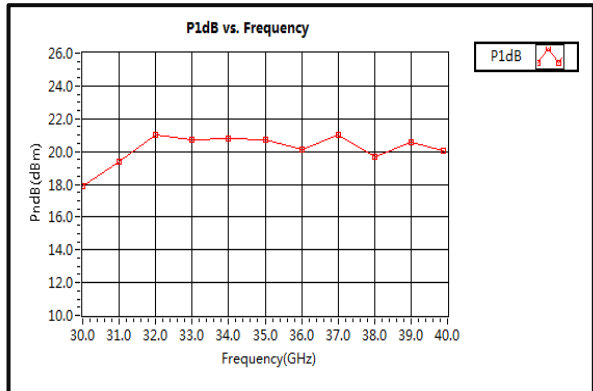
Isolation@+85°C



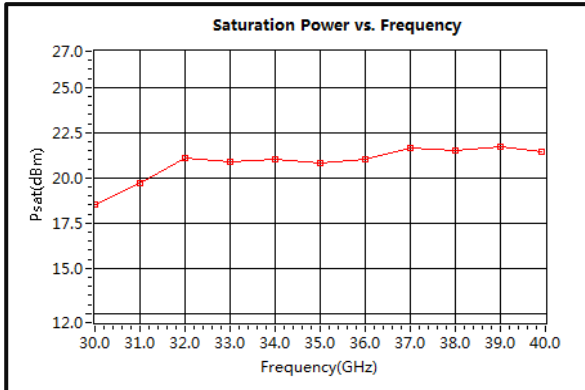
Gain vs. Output Power



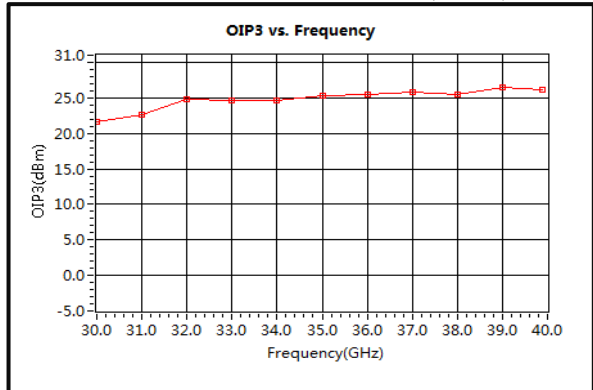
P1dB vs. Frequency



Saturation Power vs. Frequency



Output Third Order Intercept (OIP3)

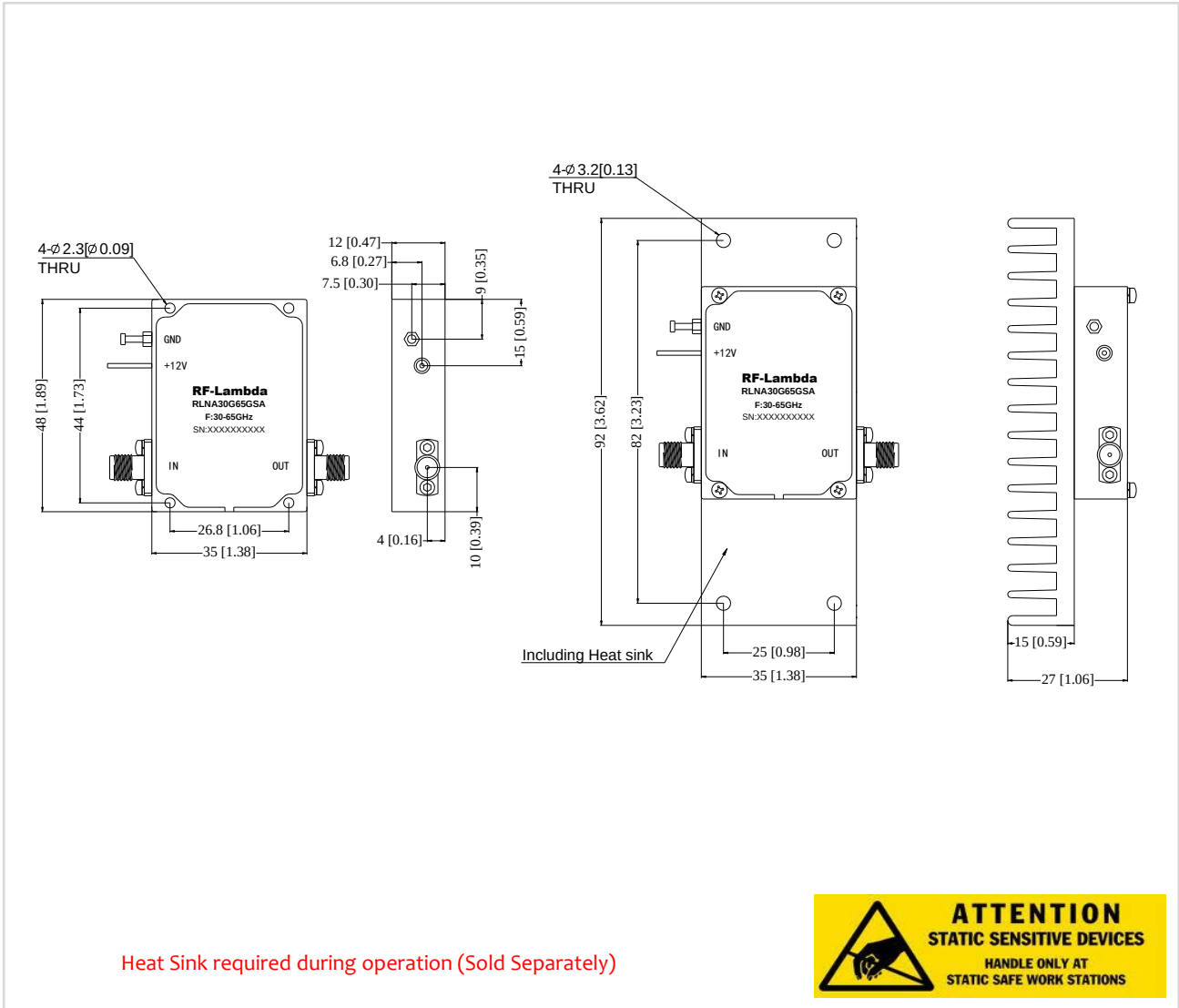


Medium Power Wide Band Driver Amplifier 30GHz~65GHz



Outline Drawing:

All Dimensions in mm [inches]



Ordering Information

Part No.	ECCN	Description
RLNA30G65GSA	EAR99	30-65GHz Medium Power Wide Band Driver Amplifier

Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.