

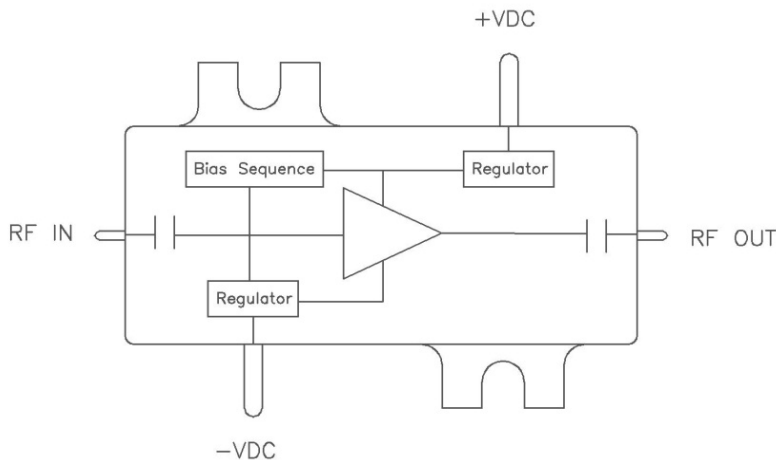


Features

- Wideband Operation
- 50Ω I/O, Field Replaceable SMA
- Gain=16dB at 10GHz
- P1dB=24dBm at 10GHz
- Internal DC Blocking
- Internal Bias Sequencing
- Internal Voltage Regulators Allow for Wide Range of DC Inputs

Applications

- Driver for Single-ended (SE) MZM, NRZ, DPSK, ODB, RZ
- Clock Driver for RZ and CS Pulse Carver
- Broadband ATE
- Instrumentation
- Military
- Aerospace



Functional Block Diagram

Product Description

RFMD's RFAM9000 is a hermetic, SMA Connectorized module which uses RFMD's SDA-3000 GaAs MMIC to provide broadband performance from DC to 24GHz. The internally biased amplifier provides 15dB of gain, 3dB to 4dB noise figure and 24dBm of output power at P1dB. The flat gain response support applications including fiber optic modulator drivers, clock drivers for RZ and CS pulse carvers and may different ATE and instrumentation requirements. The module is 50Ω matched at the input and output and provides internally DC blocks.

Ordering Information

RFAM9000 Wideband Power Amplifier Module

Optimum Technology Matching® Applied

- | | | | |
|--------------------------------------|--------------------------------------|--|------------------------------------|
| <input type="checkbox"/> GaAs HBT | <input type="checkbox"/> SiGe BiCMOS | <input checked="" type="checkbox"/> GaAs pHEMT | <input type="checkbox"/> GaN HEMT |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS | <input type="checkbox"/> Si CMOS | <input type="checkbox"/> BiFET HBT |
| <input type="checkbox"/> InGaP HBT | <input type="checkbox"/> SiGe HBT | <input type="checkbox"/> Si BJT | <input type="checkbox"/> LDMOS |

Absolute Maximum Ratings

Parameter	Rating	Unit
Supply Voltage (+V _{DC})		V
Supply Voltage (-V _{DC})		V
Maximum Current	220	mA
Maximum VSWR	5:1	
Storage Temperature	-40 to +150	°C
Operating Temperature	-40 to +85	°C
ESD JESD22 - A114 Human Body Model (HBM)	CLASS 0 MIL-STD-883H, METHOD 3015.8	



Caution! ESD sensitive device.

Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability. Specified typical performance or functional operation of the device under Absolute Maximum Rating conditions is not implied.

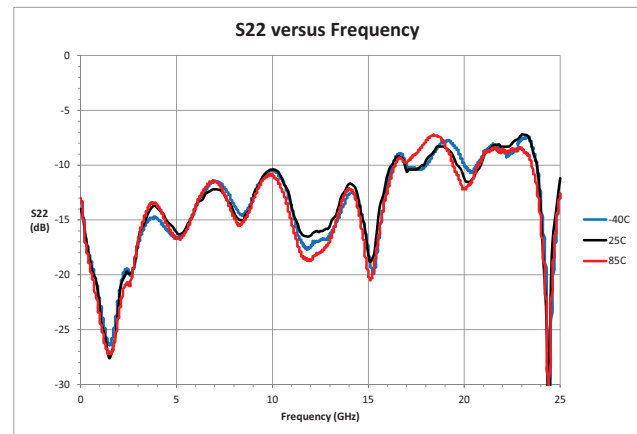
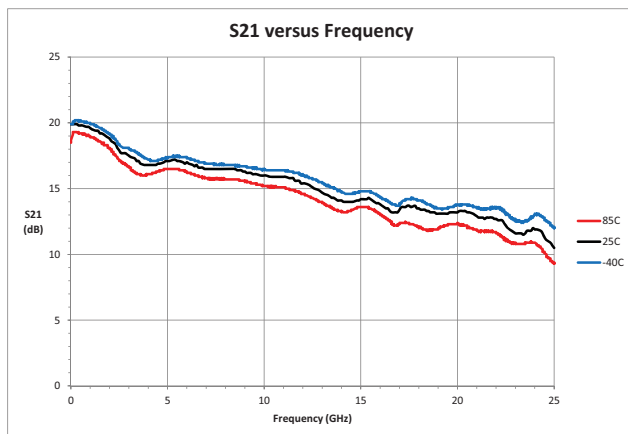
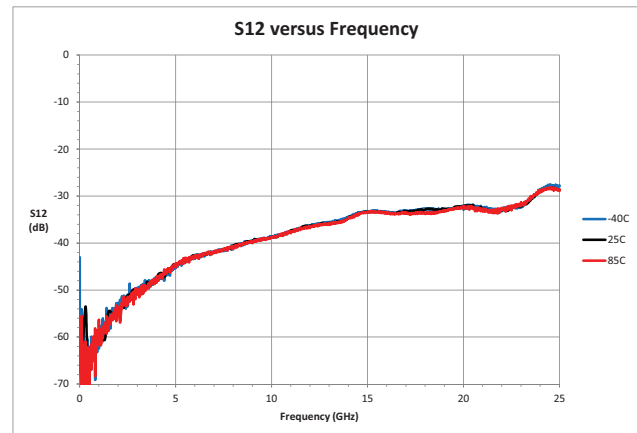
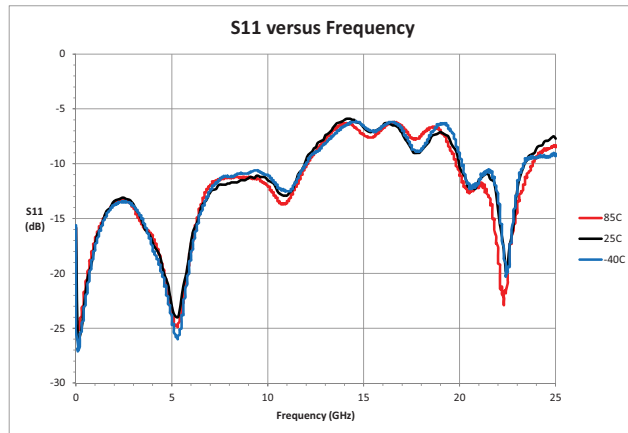
RoHS status based on EUDirective2002/95/EC (at time of this document revision).

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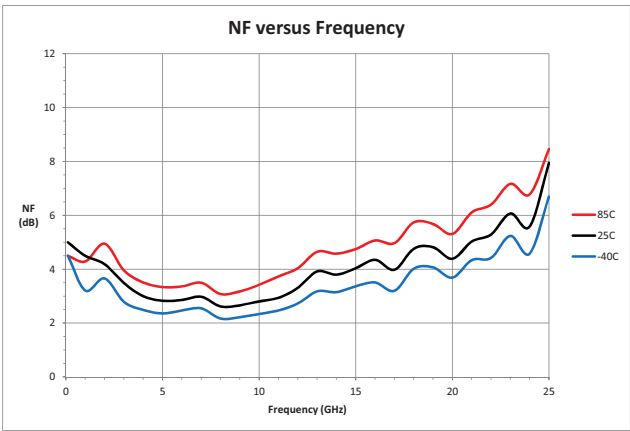
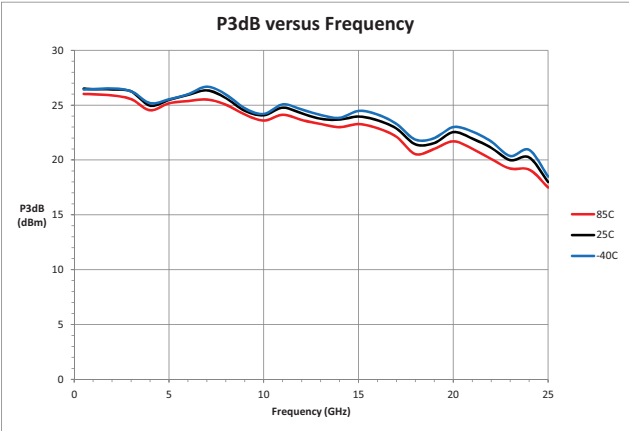
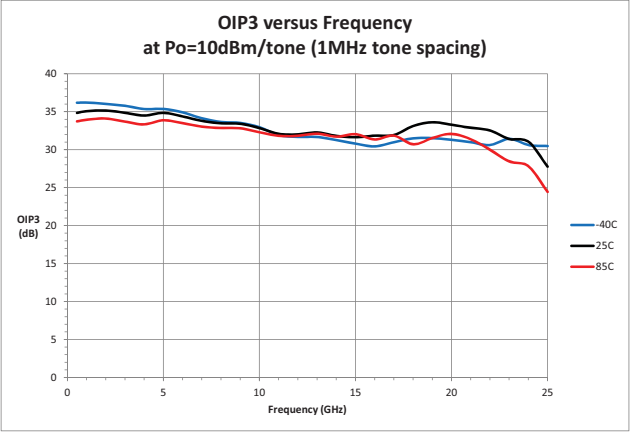
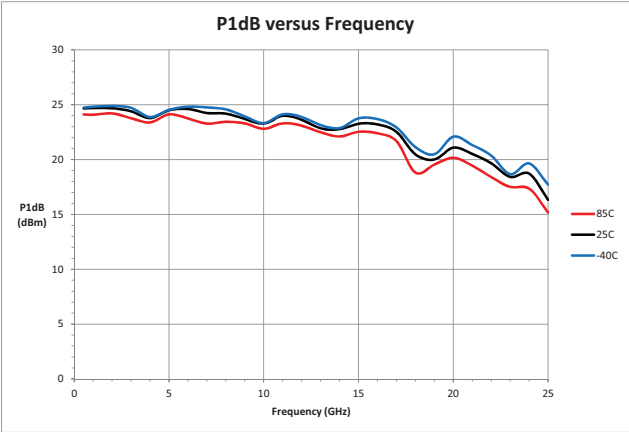
Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Electrical Specifications					
Frequency Range	1		24	GHz	
Supply Voltage (+V _{DC})	9.0	12.0	18.0	V	Recommended operating range.
Supply Voltage (-V _{DC})	-7.0	-12.0	-18.0	V	Recommended operating range.
Supply Current		220		mA	Quiescent
Gain (S21)	15	16		dB	10GHz
P1dB	23	24		dBm	10GHz
P3dB		32		dBm	
OIP3		45		dBm	
Input Return Loss	10			dB	
Output Return Loss	10			dB	
Noise Figure		-50		dBc	
Spurious Response		-50		dBc	

Test Conditions: +V_{DC}=+10V, -V_{DC}=-10V, +I_{DC}=220mA Typical T=25°C unless noted otherwise.

Typical Electrical Performance



Typical Electrical Performance



Package Drawing

