



## 100W Wide Band Solid State EMC Benchtop Power Amplifier 6GHz~12GHz



### Features

- Wideband Solid State Power Amplifier
- Psat: +50 dBm
- Gain: 70 dB
- Supply Voltage: +110/220VAC
- 50 Ohm Matched.

### Typical Applications

- Wireless Infrastructure
- Short Haul / High Capacity Links
- RF Microwave and Vsat
- Military & Aerospace Applications
- Test Instrumentation



### Electrical Specifications, $T_A = +25^\circ\text{C}$ , $V_{CC} = +110/220 \text{ VAC}$

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	6 – 10			10 – 12			GHz
Gain		72			67		dB
Gain Flatness		±6			±6		dB
Gain Variation Over Temperature (-45°C ~ +85°C)		±3			±3		dB
Input Return Loss		10			10		dB
Output Return Loss		10			10		dB
Saturated Output Power (Psat)		50			49		dBm
Input Max Power(no damage)	Psat – Gain			Psat – Gain			dBm
Weight	≈ 50						lbs
Impedance	50						Ohms
Input /Output Connector	Input N-Type Female --- Output N-Type Female						
Finishing	Nickel Plated Interior Housing						
Material	Aluminum / Copper						
Package Sealing	Screw Tight Sealing						

\* P1dB, P3dB and Psat power test signal: 200µs pulse width with 10% duty cycle.

\* For average CW power testing or increased duty cycle, a 5dB back off from Psat is required unless water/oil cooling system is applied.

100W Wide Band Solid State EMC-Benchtop Power Amplifier 6GHz-12GHz



# RF-LAMBDA

The power beyond expectations

## REMC06G12GD

Absolute Maximum Ratings	
Supply Voltage	110v/220v AC
RF Input Power (RFIN) Pin_max = Psat - Gainsat	Psat – Gain
Storage Temperature(C°)	-50 to +125

Note: Maximum RF input power is set to assure safety of amplifier. Input power may be increased at own risk to achieve full power of amplifier. Please reference gain and power curves

Note: The operating temperature for the unit is specified at the package base. It is the user's responsibility to ensure the part is in an environment capable of maintaining the temperature within the specified limits

Ordering Information	
Part No	Description
REMC06G12GD	6GHz~12GHz Power Amplifier

Biasing Up Procedure	
Step 1	Connect input and output with 50 Ohm source/load. ( in band VSWR<1.9:1 or >10dB return loss)
Step 2	Turn on AC power.
Step 3	Follow front panel LCD screen instruction
Power OFF Procedure	
Step 1	Turn off RF output power
Step 2	Turn Off DC power
Step 3	Disconnect input and output

### Amplifier Use

Ensure that the amplifier input and output ports are safely terminated into a proper 50 ohm load before turning on the power. Never operate the amplifier without a load. A proper 50 ohm load is defined as a load with impedance less than 1.9:1 or return loss larger than 10dB relative to 50 Ohm within the specified operating band width.

#### Power Supply Requirements

Power supply must be able to provide adequate current for the amplifier. Power supply should be able to provide 1.5 times the typical current or 1.2 times the maximum current (whichever is greater).

In most cases, RF-Lambda amplifiers will withstand severe mismatches without damage. However, operation with poor loads is discouraged. If prolonged operation with poor or unknown loads is expected, an external device such as an isolator or circulator should be used to protect the amplifier.

Ensure that the power is off when connecting or disconnecting the input or output of the amp.

Prevent overdriving the amplifier. Do not exceed the recommended input power level.

Adequate heat-sinking required for RF amplifier modules. Please inquire.

Amplifiers do not contain Thermal protection, Reverse DC polarity or Over voltage protection with the exception of a few models. Please inquire.

Proper electrostatic discharge (ESD) precautions are recommended to avoid performance degradation or loss of functionality.

#### What is not covered with warranty?

Each of RF-Lambda amplifiers will go through power and temperature stress testing. Due to fragile of the die, IC or MMIC, those are not covered by warranty. Any damage to those will NOT be free to repair.

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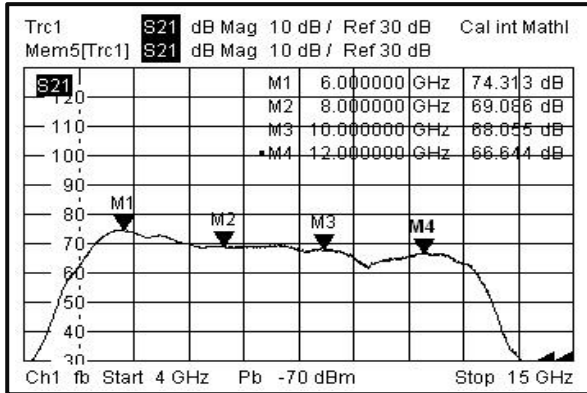


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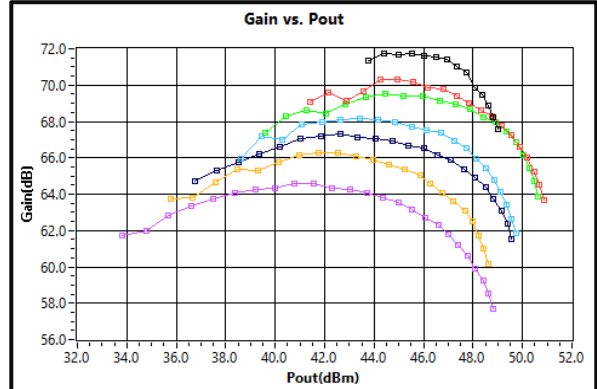
The power beyond expectations

REMC06G12GD

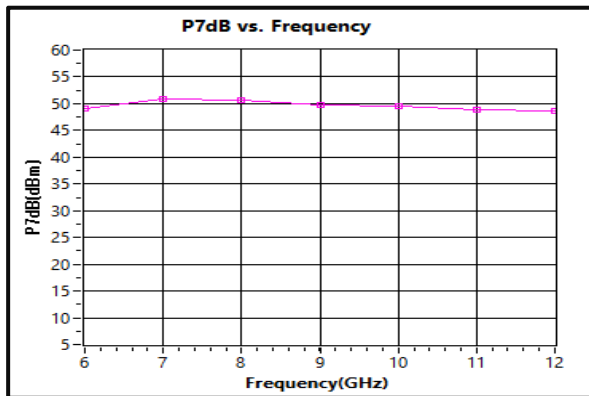
## Gain



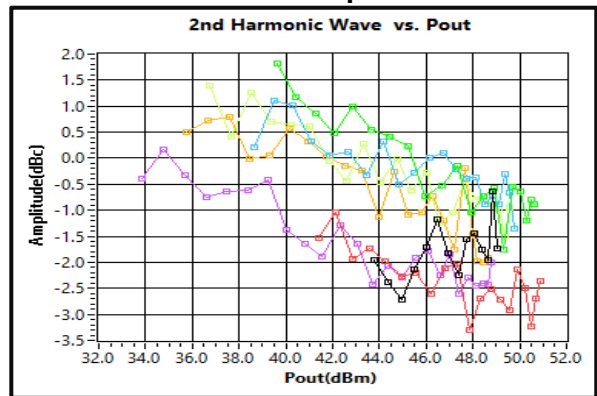
## Gain vs. Output Power



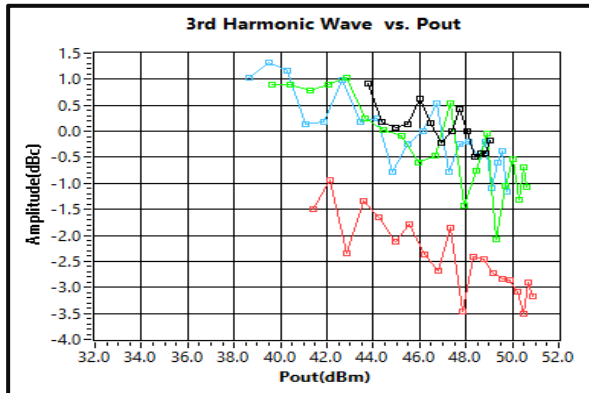
## P7dB vs. Frequency



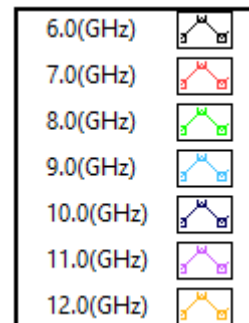
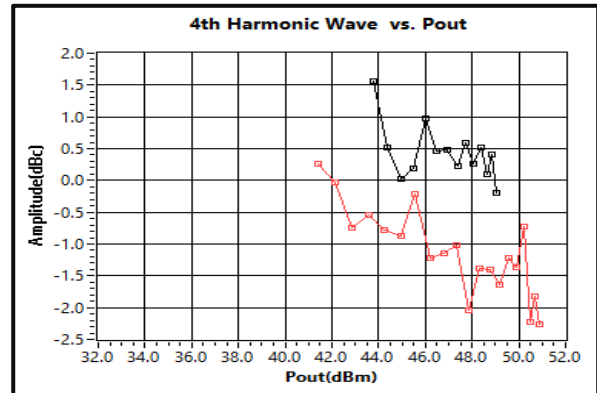
## 2nd Harmonic Wave Output Power



## 3rd Harmonic Wave Output Power



## 4th Harmonic Wave Output Power



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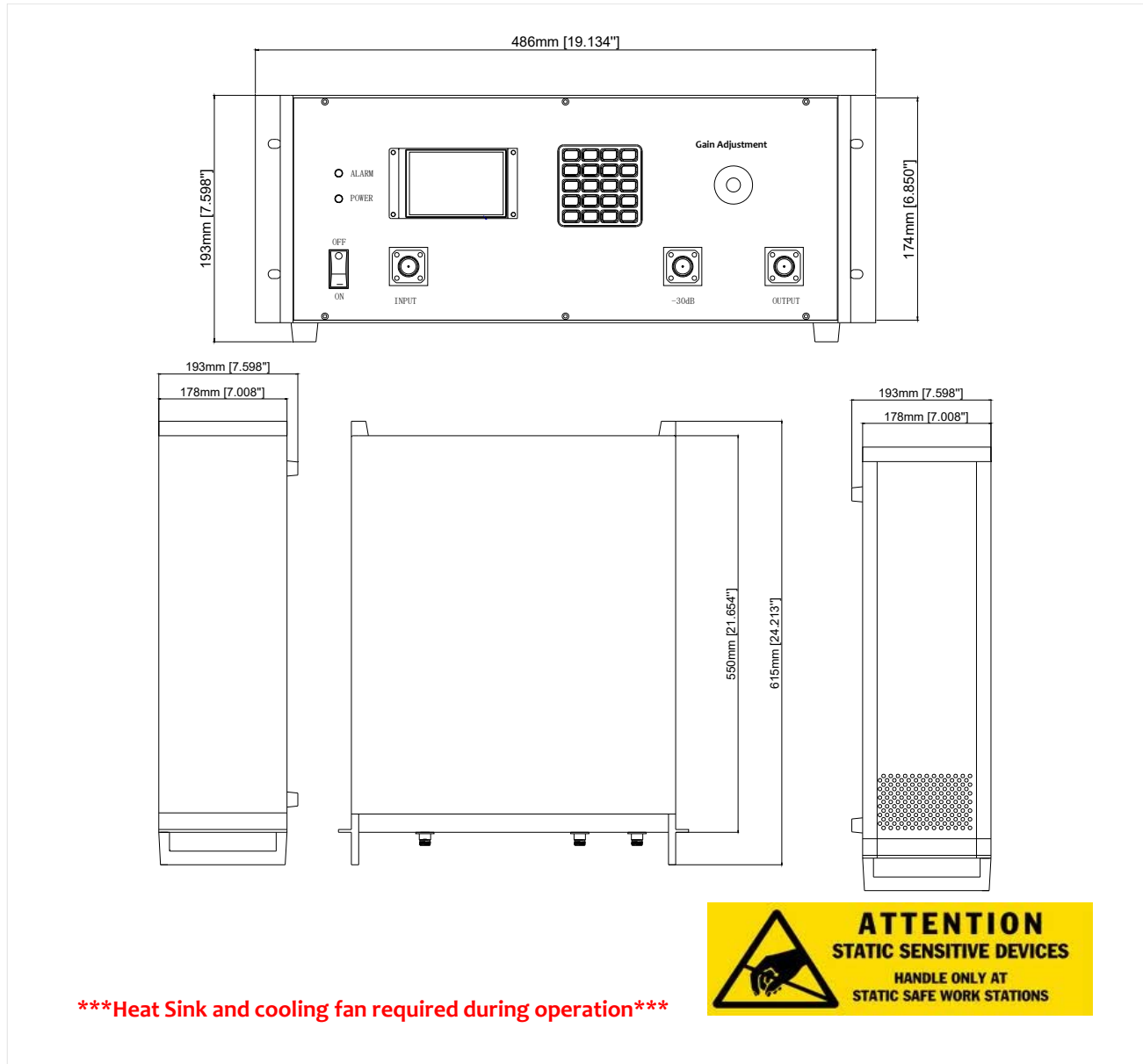
# RF-LAMBDA

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REMC06G12GD

## Outline Drawing Including Air Cooling:

All Dimensions in mm



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### Important Notice

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