

	<b>MASTER DOCUMENT</b>	
	Rev. 1	Date: 8/3/15
	Title: Amplifier Use Procedure	RE:

## 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).
- RF-Lambda Power Amplifiers are tested under 200us pulse with 10% duty cycle. Any different type input signal, please contact manufacture for advice.
- 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. Max. 20C degree delta between case and ambient temperature. Heatsink and air cooling fan are strongly recommended during operation. Any power amplifier Psat over 27dBm, heatsink and air cooling fan are mandatory.
- 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.