

Special Handling Information for Power Small Outline Package (PSOP) and Power Shrunk Small Outline Package (PSSOP) Products

RF Micro Devices is pleased to introduce a new high volume low cost packaging technology for our GaAs HBT power amplifiers. These packages are considered **JEDEC level 5 for moisture sensitivity** and require special handling to assure reliable performance.

The Power Small Outline Package (PSOP) and Power Shrunk Small Outline Package (PSSOP) packages are beginning to see common usage within the industry and offer significant advantages for power amplifier applications. The exposed copper slug on the bottom of the package improves both thermal and electrical performance. Since the RFIC is mounted directly on the thermal slug, and the slug is soldered directly to the PCB, the thermal resistance to the PCB is minimized. Also, the RF ground for the power amplifier is established through this copper slug as it is soldered to the ground plane on the PCB. This offers the least inductance ground path available.

Care must be taken when soldering these packages to the PCB. They are currently considered JEDEC Level 5 for moisture sensitivity. Therefore the parts must be handled in a dry environment prior to soldering, as is specified in the JEDEC Specification. Specifically, RFMD recommends the following procedure prior to assembly:

1. Dry-bake the parts at 125°C for 24 hours, minimum. Note: the shipping tubes can not withstand 125°C baking temperature.
2. Parts delivered on Tape and Reel are already dry baked and dry packed. These can be stored up to one year, but must be assembled within 48 hours within opening the bag.
3. Assemble the dry-baked parts within 2 (two) days of removal from the oven.
4. During this 2-day period, the parts must be stored in humidity less than 60%.

IMPORTANT! If the 2-day period is exceeded, then this procedure must be repeated prior to assembly.

If there are any questions or concerns, please feel free to contact us at RF Micro Devices. We look forward to supporting your power amplifier requirements.

For more information about the JEDEC standard, please refer to: <http://www.eia.org/jedec/download/std020.pdf>

