

# Power Amplifier Kit

RFS P7022

### Power Amplifier Kit Description

The RFS P7022 is a Power Amplifier Kit containing the RFS P2010 and the RFS P5022, high-performance PAs designed for use in transmit applications in the 2.4 - 2.5 GHz frequency band and in the 4.9 - 5.9 frequency band (respectively).

Below is a brief description of both PAs. Please refer to their individual data sheets for more information.

## *RFS P2010*

### **Product Description**

The RFSP2010 power amplifier is a high-performance GaAs HBT IC designed for use in transmit applications in the 2.4 – 2.5 GHz frequency band. With a P1dB of 26 dBm, the device is ideal as a final stage for wireless LAN applications requiring high transmit linearity. Designed with propriety linearizing techniques, the part is operable closer to P-1dB, which enables the device to achieve a specific error vector magnitude (EVM) with less backoff. The PA exhibits unparalleled linearity and efficiency for both 802.11b- and 802.11g-based WLAN systems. The part operates off a single +3.3V supply.

### **Applications**

- 802.11b/g WLAN
- 2.4 GHz ISMB and Wireless Equipment

### **Product Features**

- 26 dBm P1dB@3.3V
- 22 dB Gai n
- 2.5 % EVM; 110 mA @ P<sub>OUT</sub> = +19 dBm with 54 M bps OFDM Signal
- Single +3.3V Supply Voltage
- PA Power On/Off Logic
- Input and Output Matched to 50 Ohms

# *RFS P5022*

### **Product Description**

The RFSP5022 power amplifier is a high-performance GaAs HBT IC designed for use in transmit applications in the 4.9 – 5.9 GHz frequency band. With a P1dB of 25 dBm, the device is ideal as a final stage for wireless LAN applications requiring high transmit linearity. The part demonstrates very low error vector magnitude (EVM) at the full 54 Mbps data rate for 802.11a. The input of the PA is matched to 50 ohms and the output can be easily matched for optimum linearity and power performance at the desired frequency of operation between 4.9 and 5.9 GHz.The part operates off a single +3.3V supply.

### **Applications**

- 802.11a WLAN
- HiperLAN/2 WLAN
- U-NII Fixed Wireless Equipment

#### **Product Features**

- 25 dBm P1dB@3.3V
- 23 dB Gain
- 2.5% EVM; 180 mA @ P<sub>OUT</sub> = +19 dBm with 54 Mbps OFDM Signal
- Single +3.3V Supply Voltage
- Input Matched to 50 Ohms
- PA Power On/Off Logic



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