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RFPA2013 Application Note

Product Description

The RFPA2013 is a 0.5W QFN package power amplifier specifically designed for Wireless Infrastructure applications. The RFPA2013 is a single-stage GaAs HBT power amplifier offering ultra-linear operation at a comparably low DC power making it ideal for next generation radios requiring high efficiency. This amplifier is ideal for GaAs Pre-Driver for Base Station Amplifiers, PA Stage for Commercial Wireless Infrastructure, 2nd or 3rd Stage LNAs, and Class AB Operation for GSM, DCS, PCS, UMTS, WiMAX, TD-SCDMA, and LTE Transceiver Applications. The RFPA2013 offers a low noise figure making it an excellent solution for 2nd and 3rd stage LNAs.

The RFPA2013 is capable of operating in other bands such as 425MHz to 475MHz and 675MHz to 725MHz. Its external matching allows for use across various radio platforms within 400MHz to 2700MHz.

The following performance data of other band application is collected at normal operation condition (room temperature and V_{BIAS} and V_{REF} at 5V).

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RFPA2013 Typical Performance - 425MHz to 475MHz Application Circuit

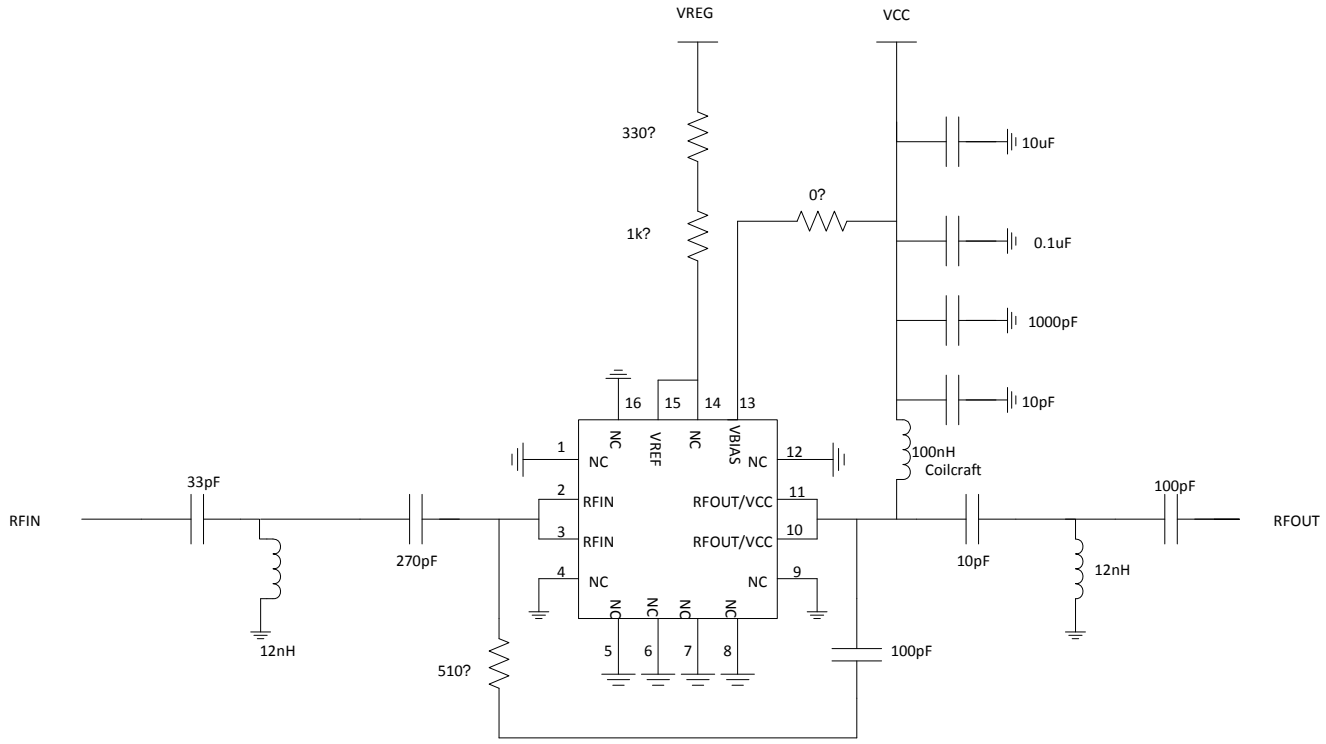

Figure 1. Schematic

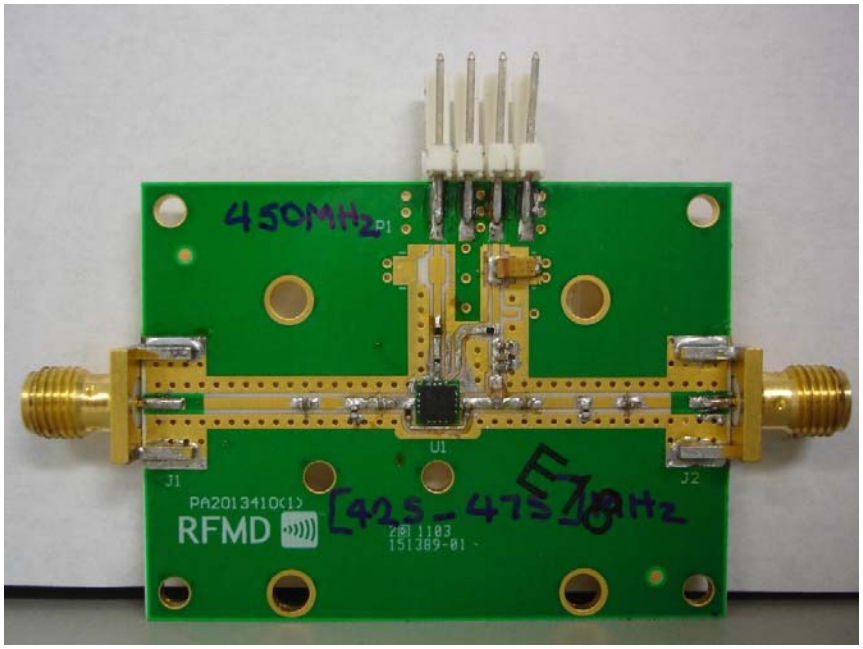

Figure 2. 425MHz to 475MHz Application Circuit

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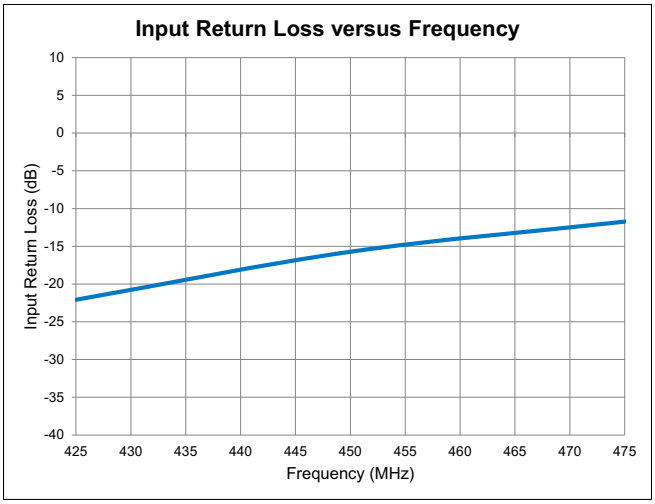
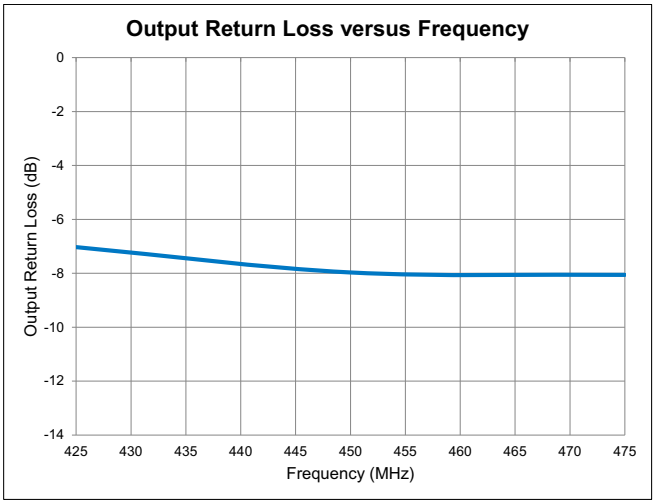
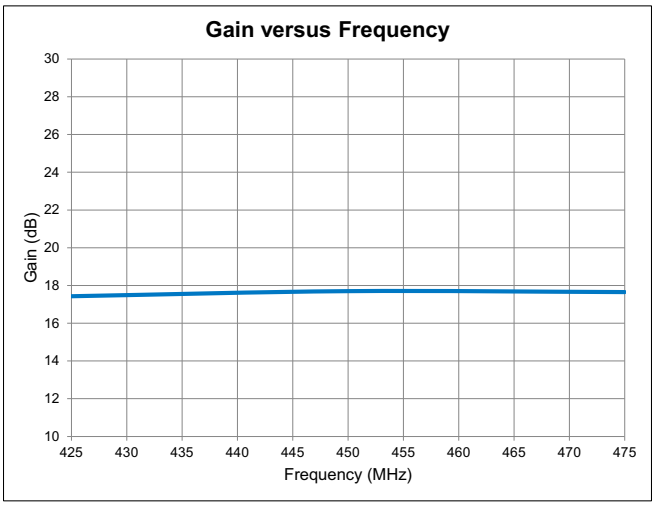
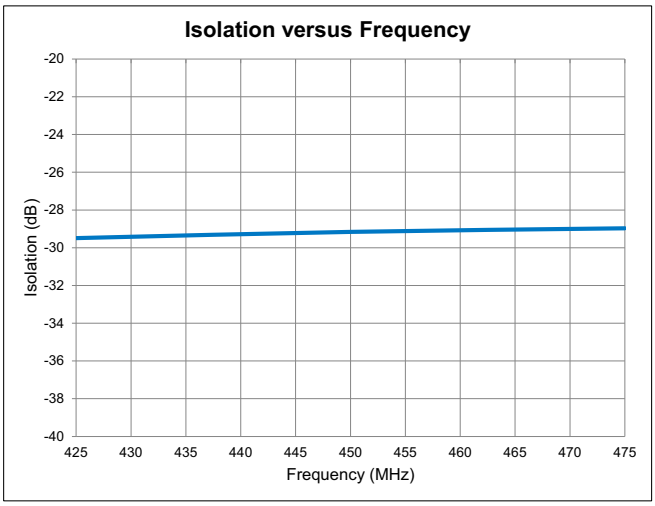
S-Parameters: 425MHz to 475MHz









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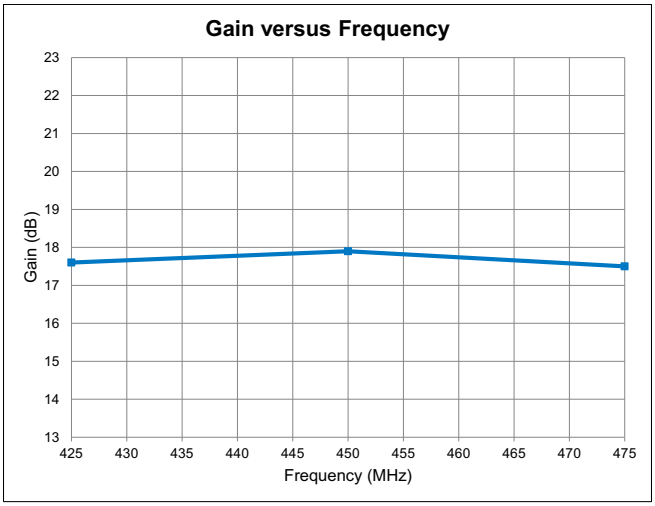
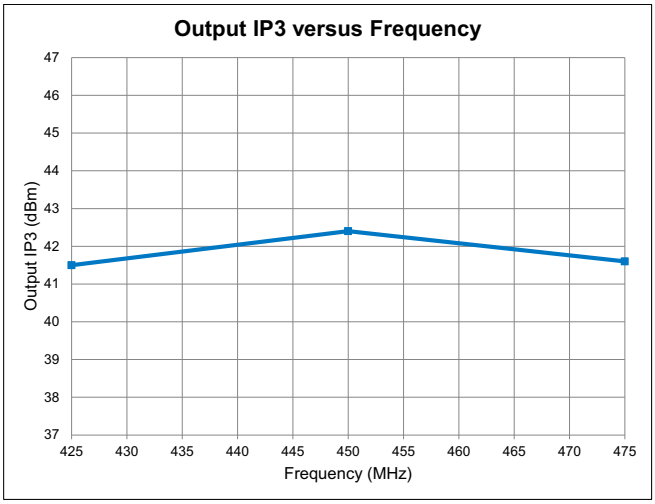
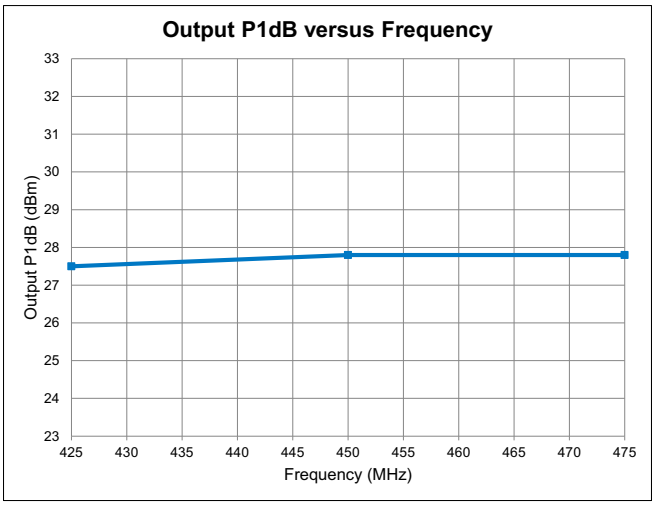
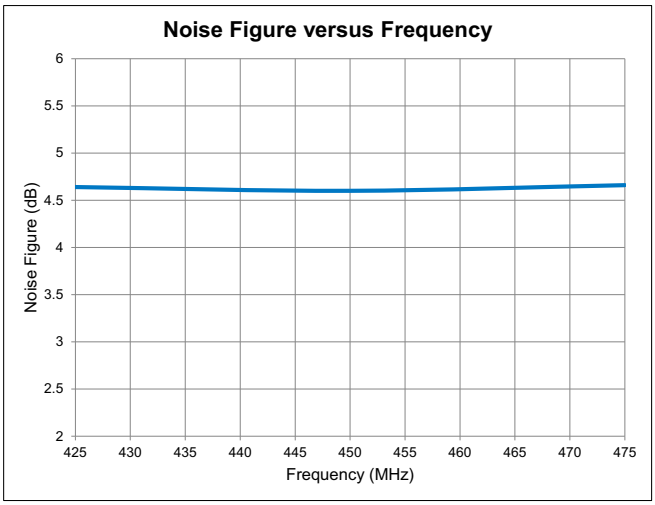
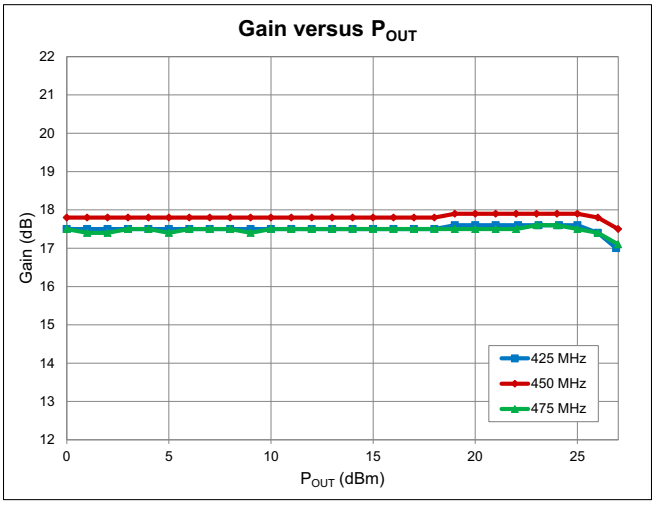
Data: 425MHz to 475MHz

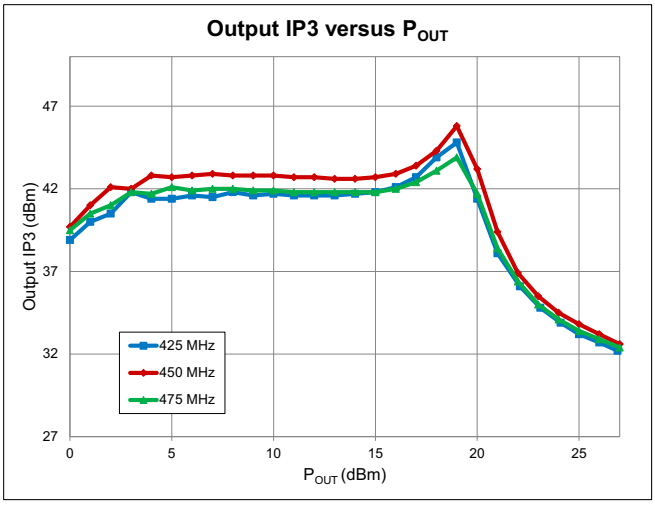












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RFPA2013 Typical Performance - 675MHz to 725MHz Application Circuit

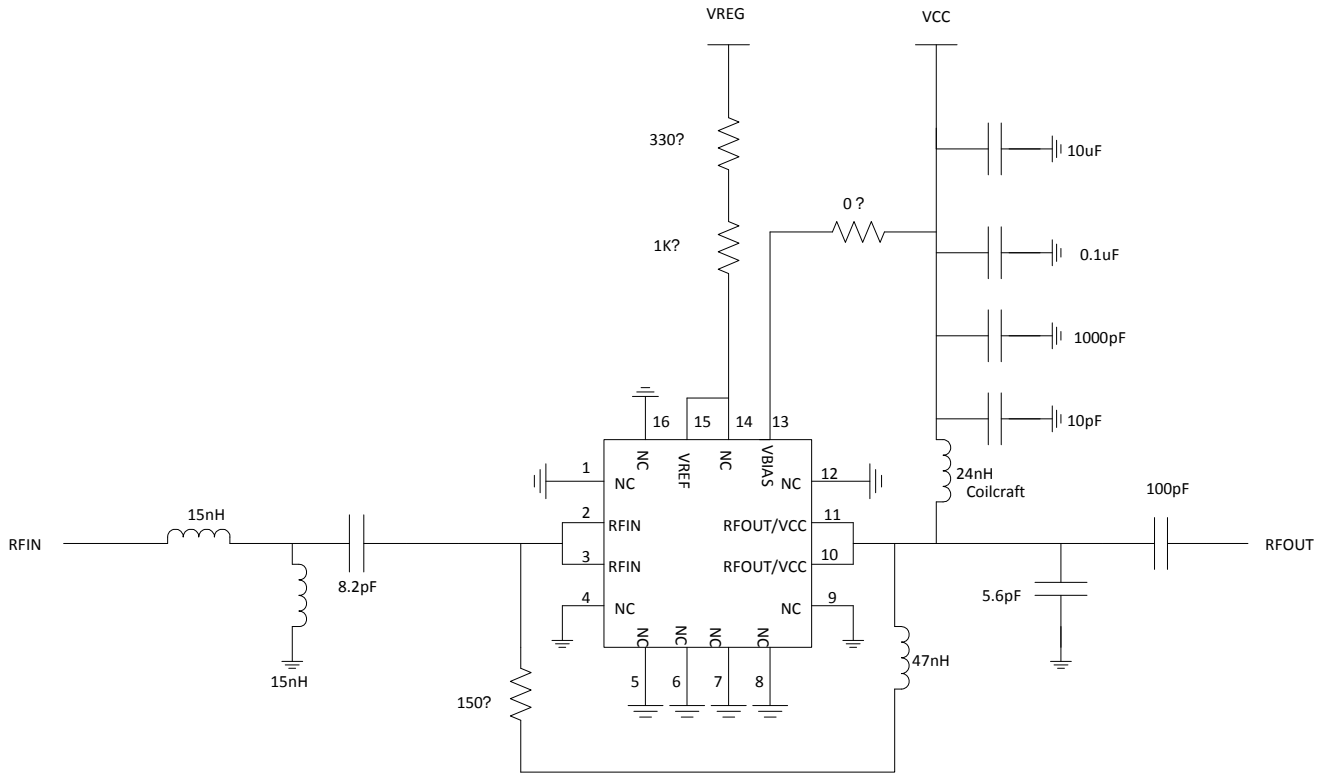

Figure 3. Schematic

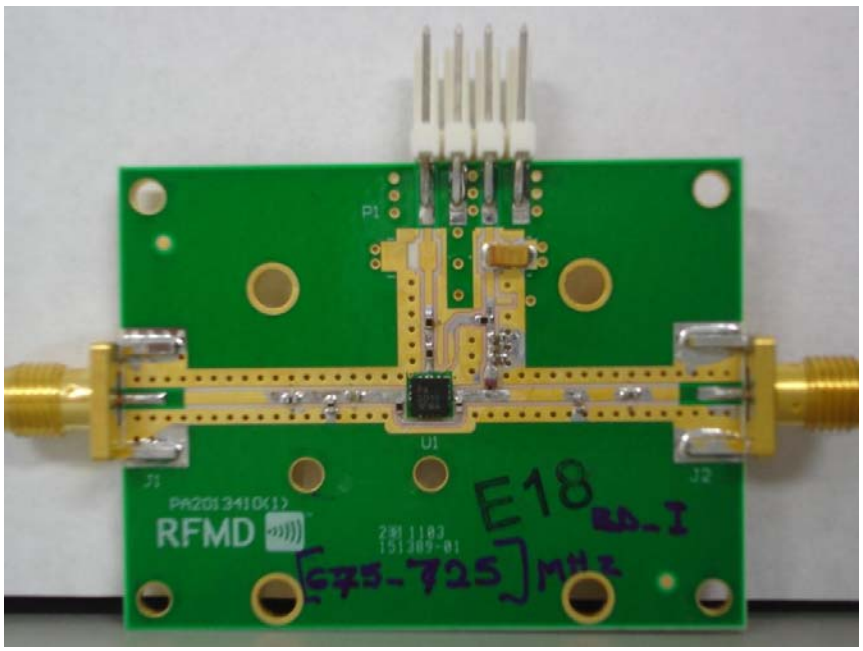

Figure 4. 675MHz to 725MHz Application Circuit

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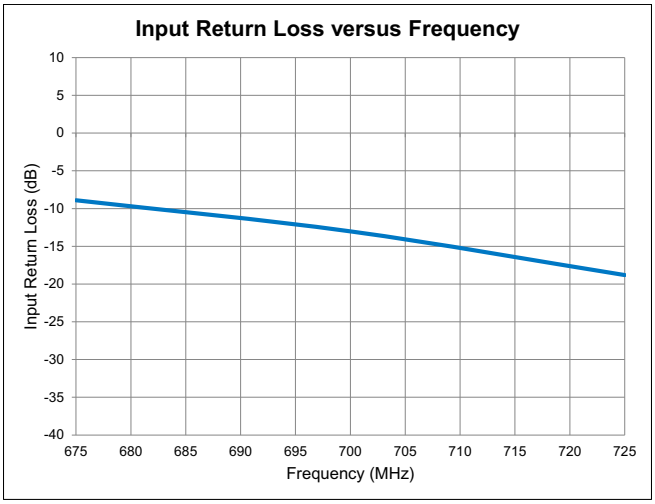
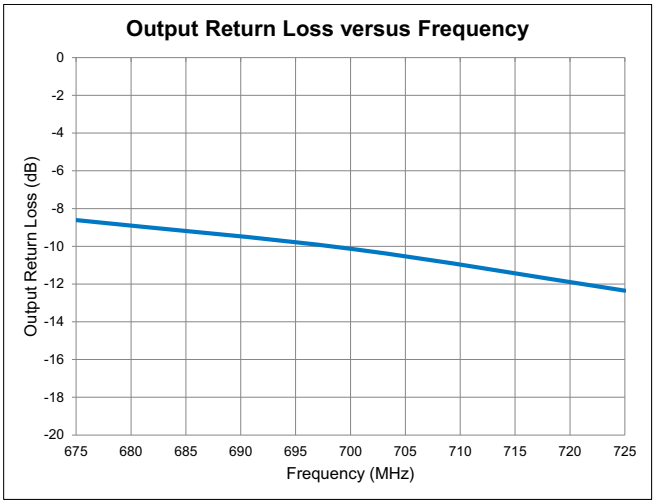
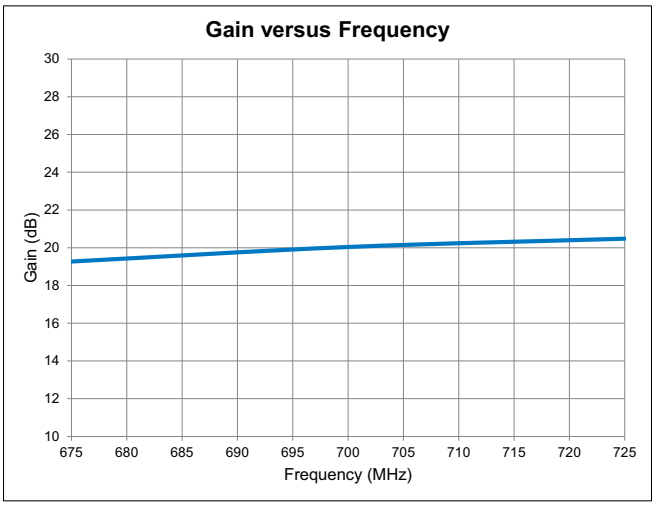
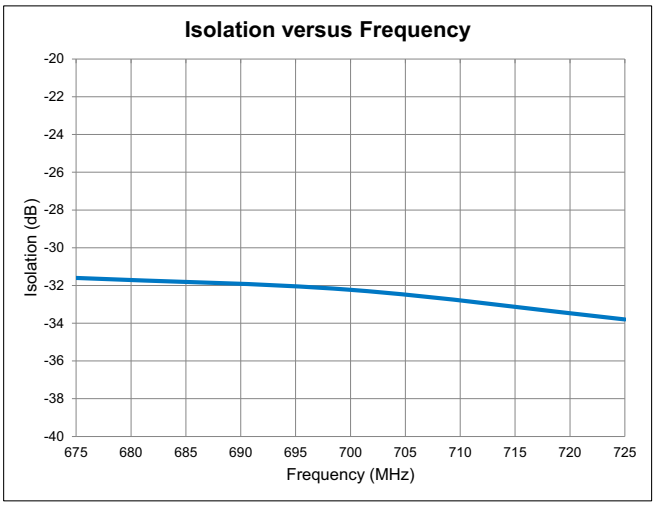
S-Parameters: 675MHz to 725MHz









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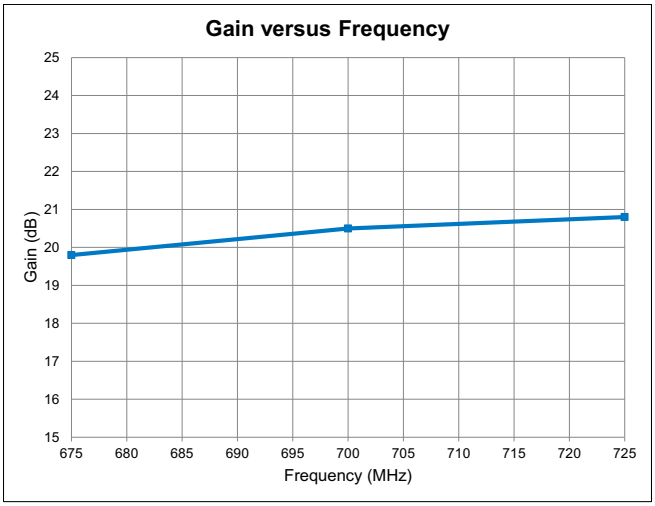
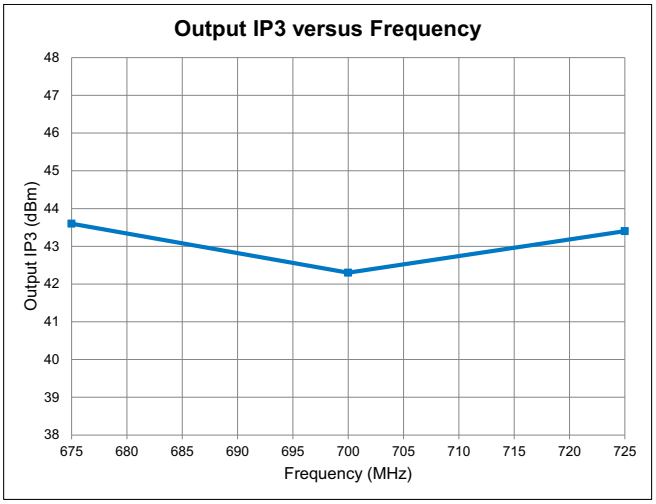
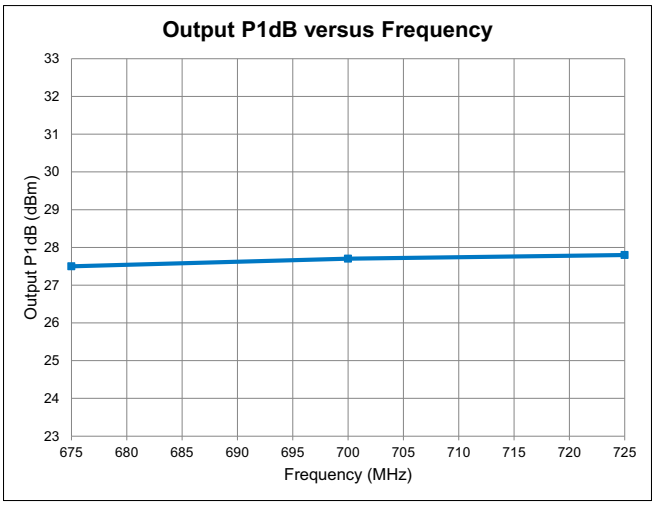
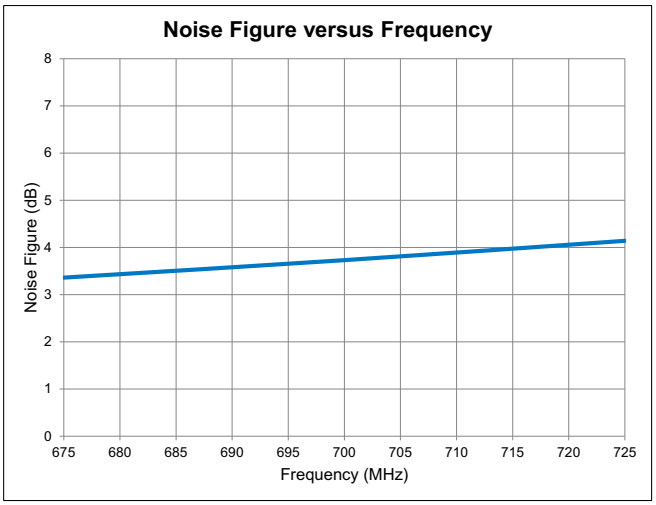
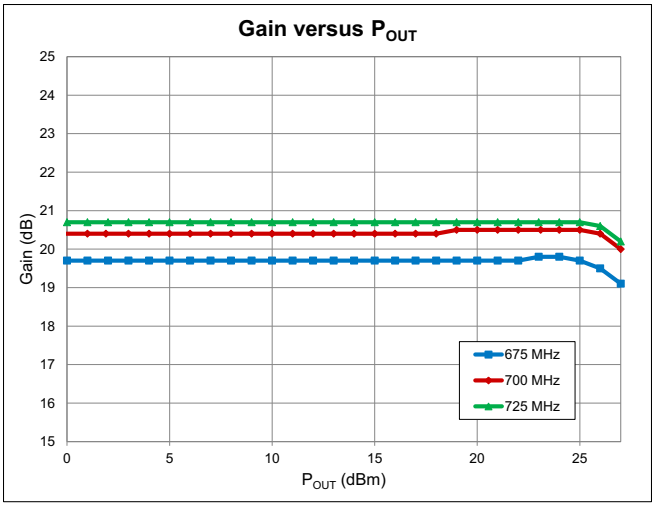
Data: 675MHz to 725MHz

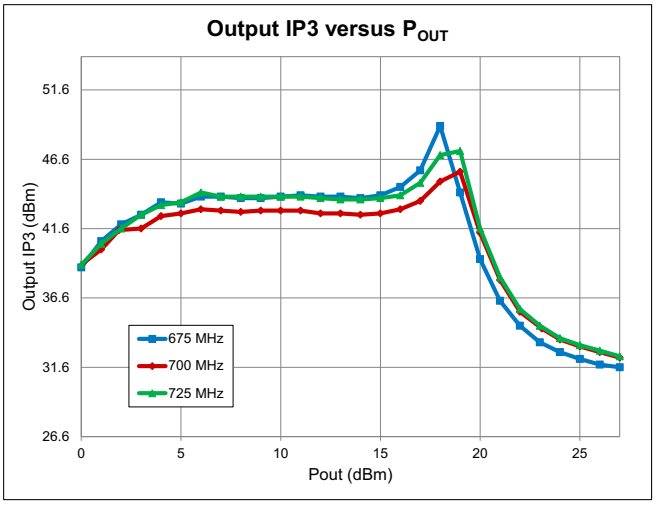












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