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RFVA0016 Application Note

Product Description

The RFVA0016 is a small 5.2mm x 5.2mm leadless MCM package integrated analog controlled variable gain amplifier for broadband applications. It offers exceptional linearity over a greater than 30dB gain control. This analog controlled variable gain amplifier is ideal for Cellular, 3G Infrastructure, WiBro, WiMAX, LTE, Microwave Radio and High Linearity Power Control applications. This variable gain amplifier is controlled by a single 0V to 3.3V positive supply voltage when mode pin is 0V or 5V to 0V positive supply voltage when mode is pin 5V.

RFMD's RFVA0016 is capable of operating in other bands such as (890MHz to 910MHz, 1770MHz to 1830MHz). Its external matching allows for configurations in different bands with a single module across 400MHz to 2700MHz.

The following performance data of other band application was collected at room temperature, V_{CC}, V_{REF} is 5V and a single 0V to 3.3V positive supply voltage for voltage control when mode pin is 0V.

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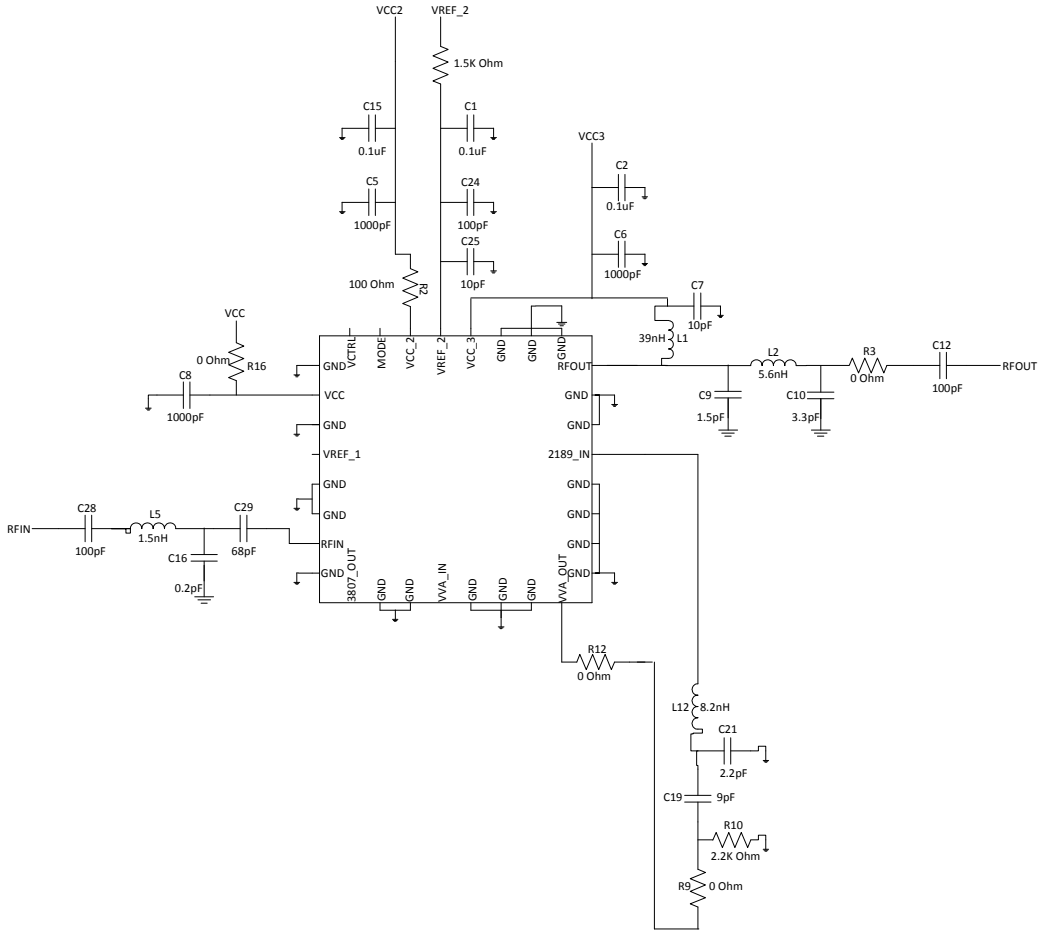
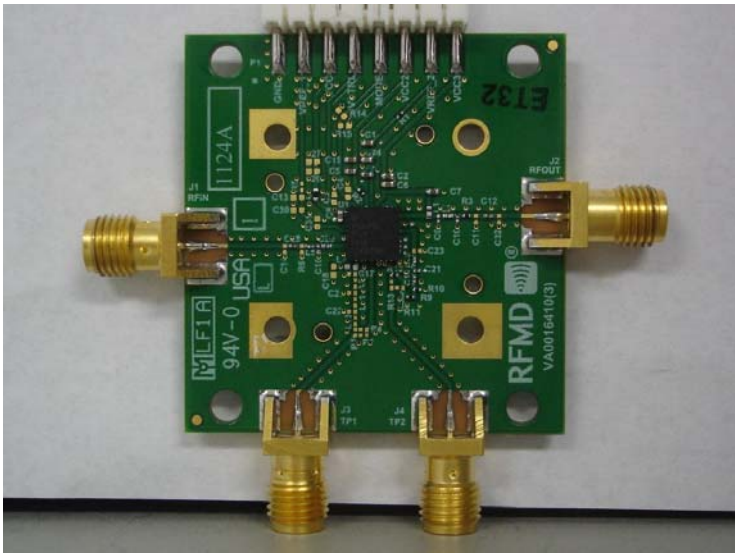
Other Band Application

1. RFVA0016 Typical Performance - 900MHz Application Circuit

1.1 Schematic





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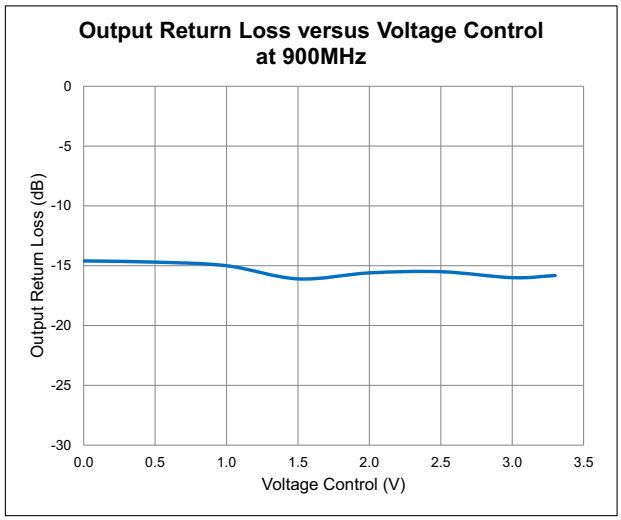
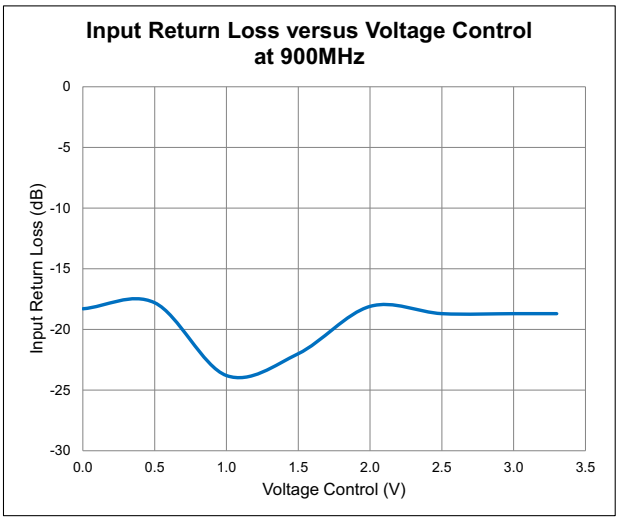
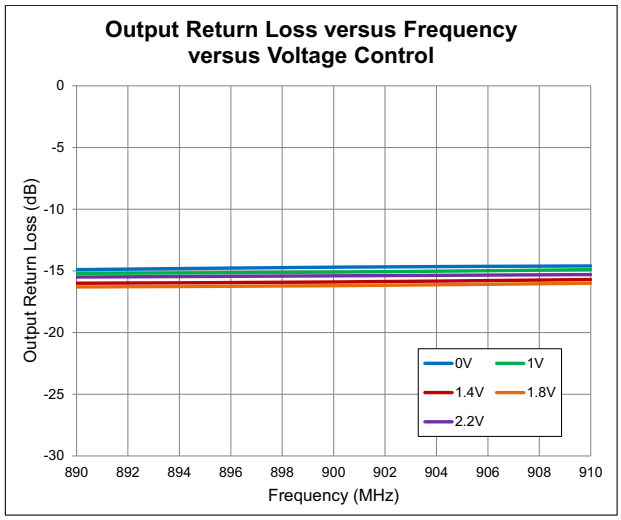
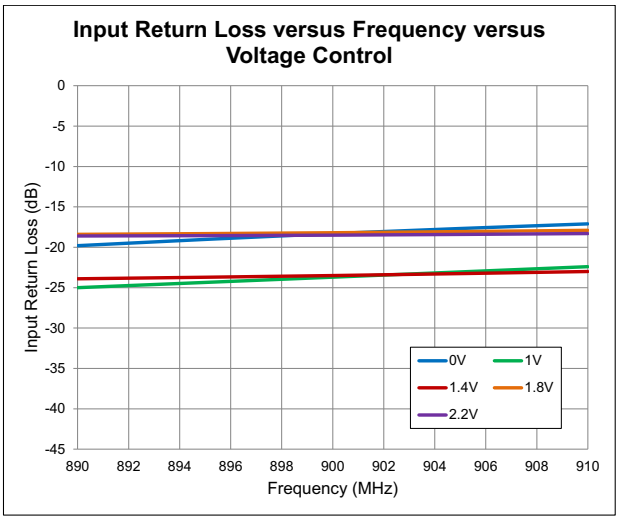
1.2 S-Parameters (890MHz to 910MHz)









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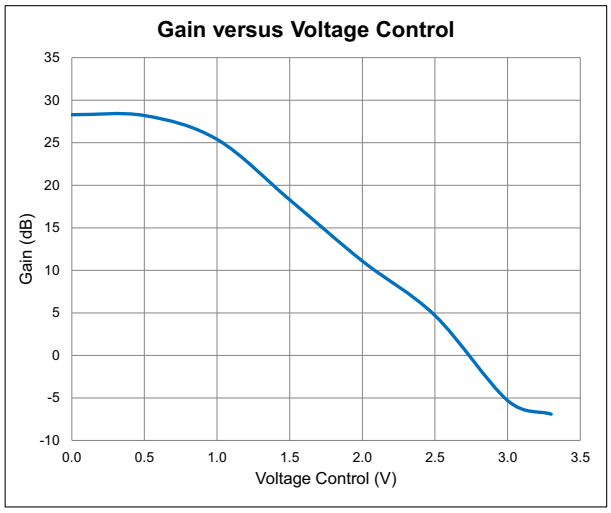
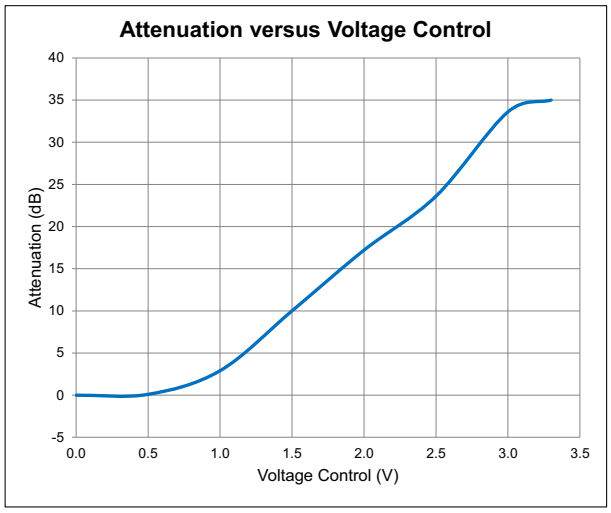
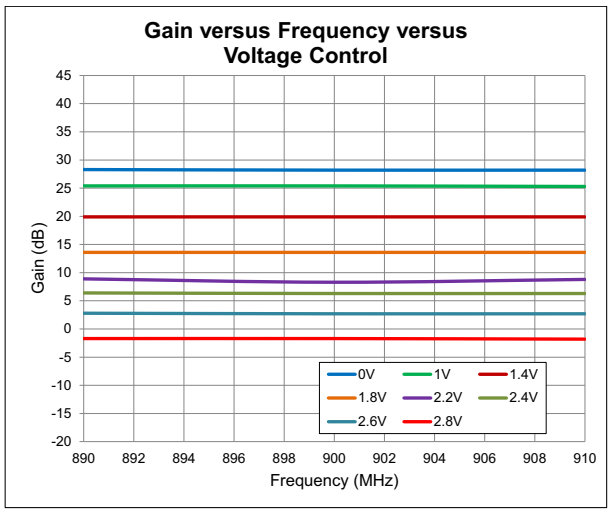
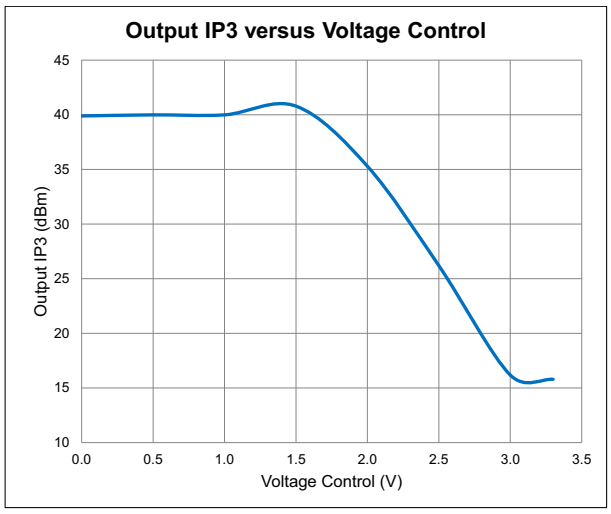
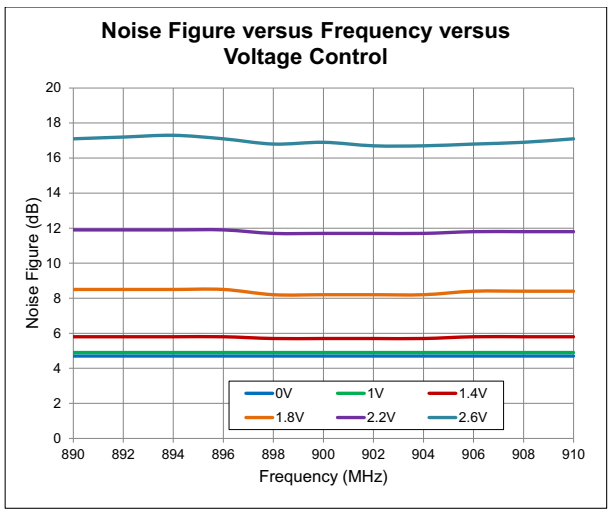
1.3 Data

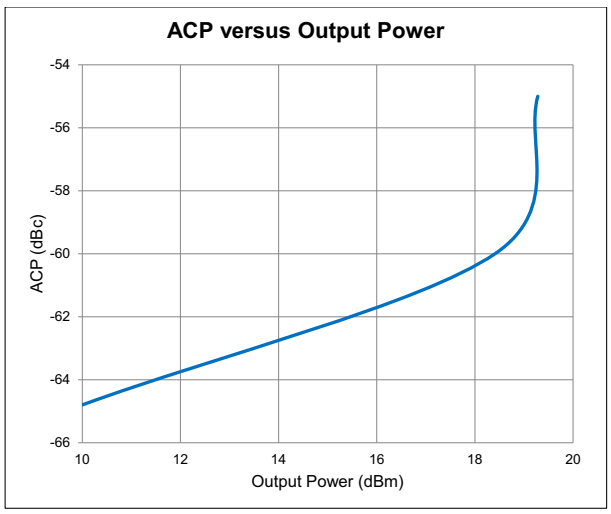












Modulation: W-CDMA 3GPP 3.5 for ACP

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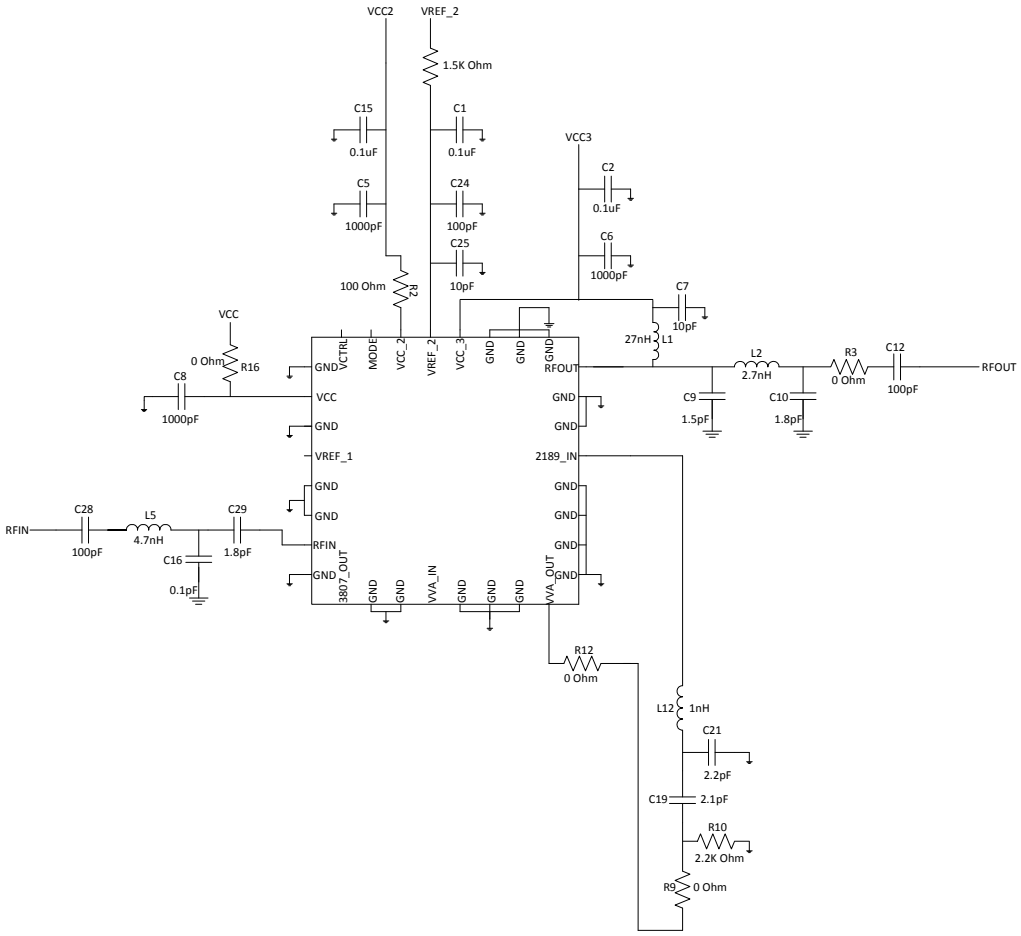
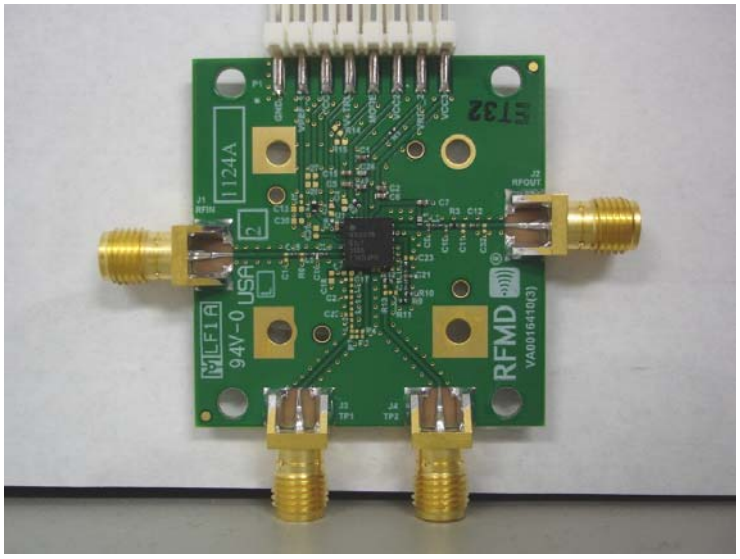
2. RFVA0016 Typical Performance - 1800MHz Application Circuit

2.1 Schematic





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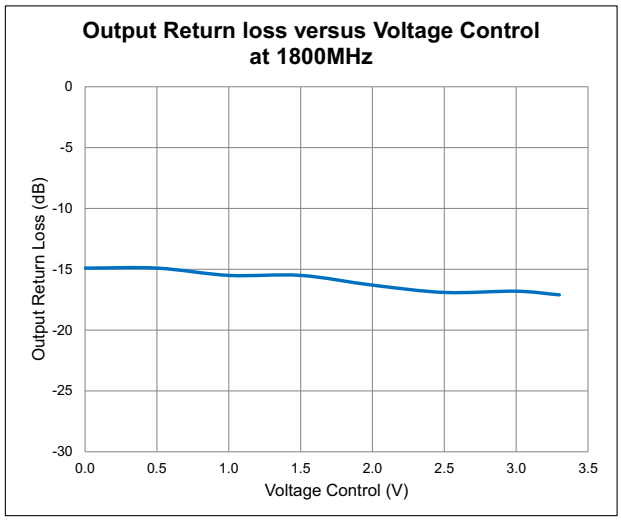
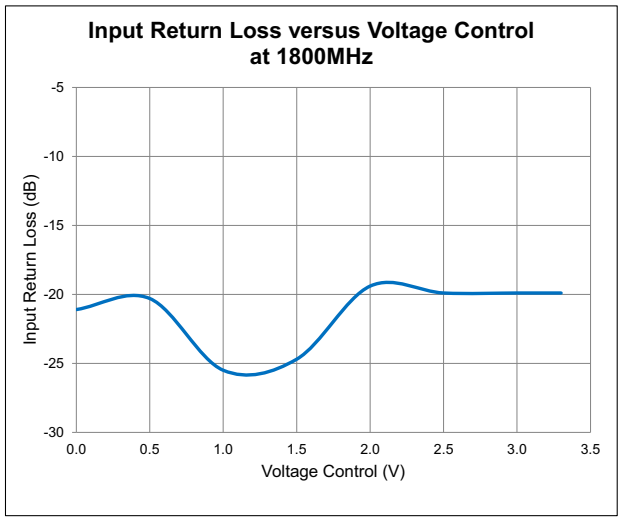
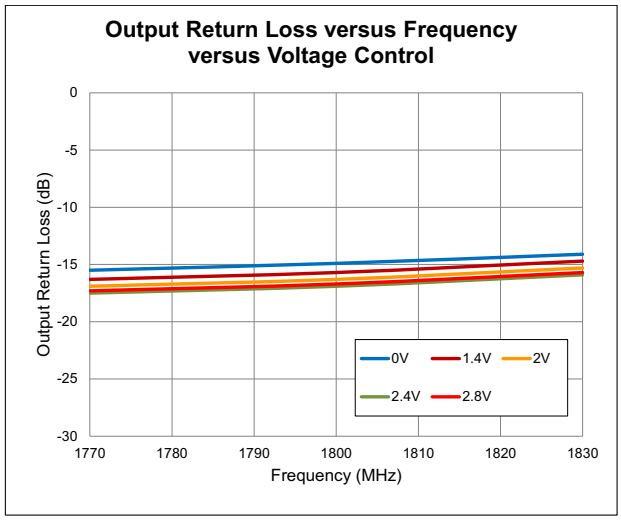
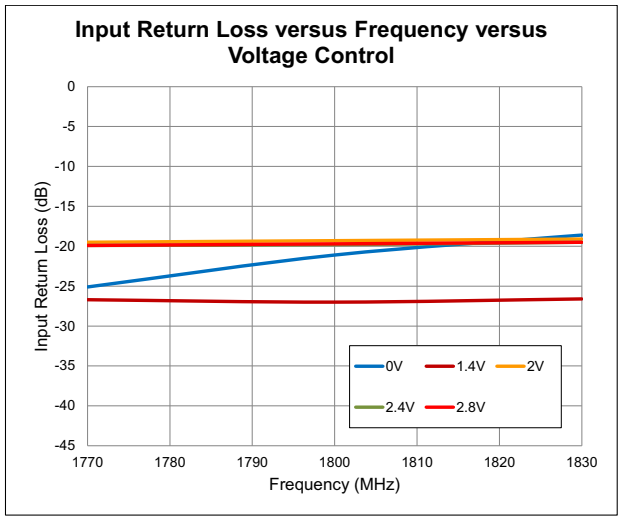
2.2 S-Parameters (1770MHz to 1830MHz)









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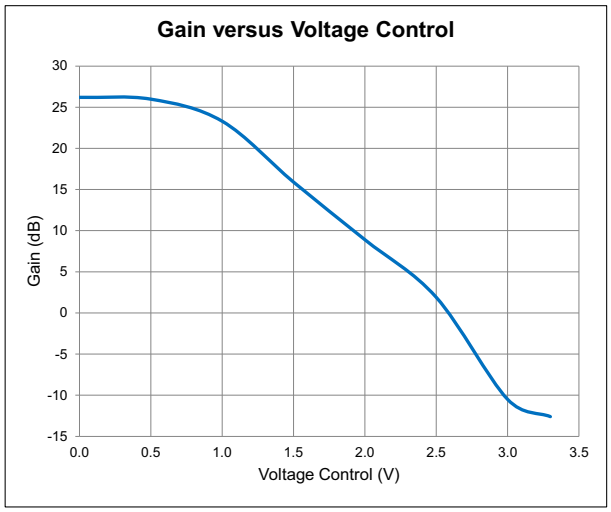
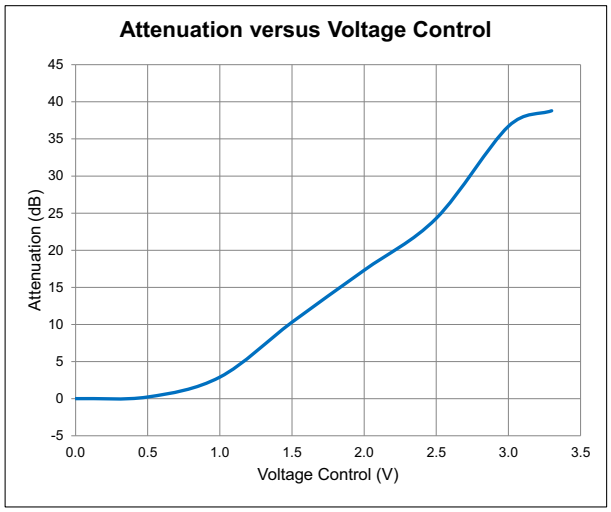
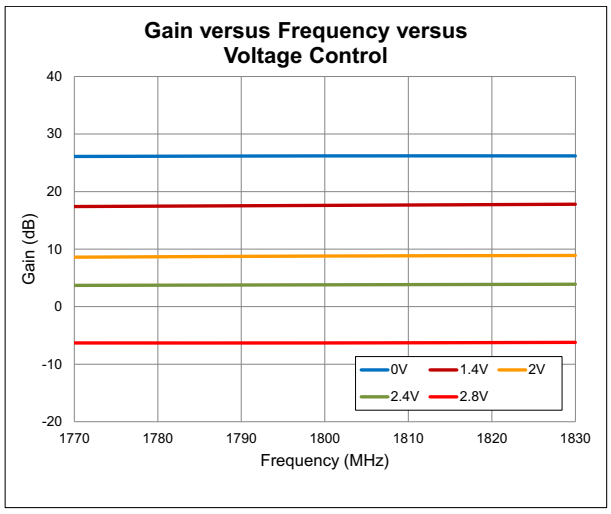
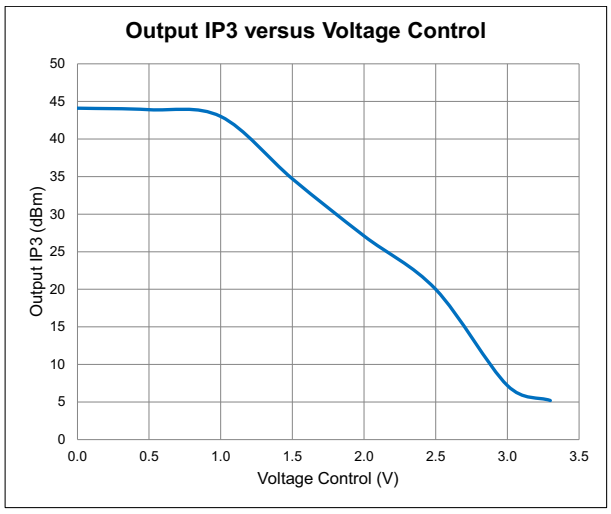
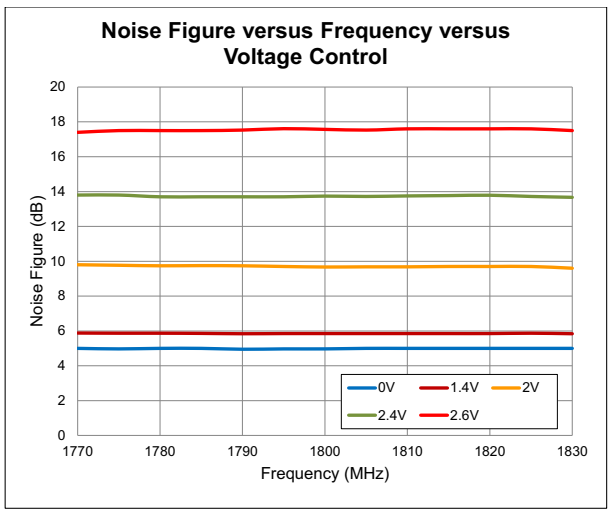
2.3 Data

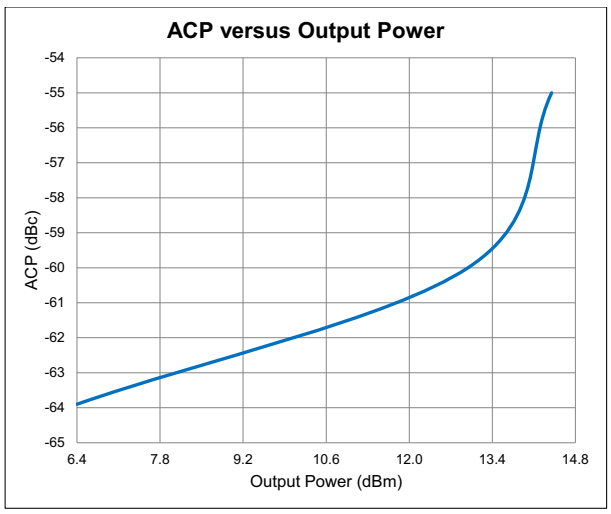












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