RigExpert© 2.1GPA
Bidirectional 2.1 GHz Power Amplifier

Product Overview

Bidirectional 2.1 GHz band amplifier, designed for low voltage application.
Provides around 12dB RX gain for small signals in passband and 15 dB for TX.
The output power 3W
VOX based TX/RX switching. VOX level can be adjusted by replacing resistors

Applications

- TX/RX Amplifier for UAV Systems
- SDR
- HAM Radio
- IoT
- Test & Measurement

Main Features

- 2110-2200 MHz Operation
- Automatic TX/RX switching
- Tiny Size
- Low Voltage Operation, 5 V Power Supply
- 15 dB TX RF gain
- 12 dB RX RF gain
- 2.32 W CW TX Power
- 2.4 W Pulse TX Power
- ESD Protection

Specifications

Table 1. Absolute Maximum Ratings

Parameter	Rating
Max RF Input TX Power	30 dBm
Min RF Input TX Power	3 dBm
Device Voltage	5.25 V

**Important note: Input TX Power can be adjusted by changing input ATT.

Table 2. Recommended Operating Conditions

Parameter	Min	Typ.	Max	Units
RF Input TX Power	3		20	dBm
Device Voltage	+4.75	+5	+5.25	V

Table 3. Electrical Specifications

Parameter	Conditions	Min	Typ.	Max	Units
Operational Frequency Range		2100		2200	MHz
TX Gain	2100-2200 MHz	13	15	15	dB
RX Gain	2100-2200 MHz	12	12	13	dB
Output Power CW	Input RF Power 20dBm @ 2150 MHz	2,58	2,58	2,58	W
Output Power Pulse	Input RF Power 20dBm @ 2150 MHz	2,85	2,85	2,85	W
Power Consumption in TX			10		W
Power Consumption in RX			0.4		W

Mechanical Specifications

Table 4. Dimensions and weight

Dimensions, mm	38 x 56 x 13
Weight, g	38

Laboratory measurement results

NOTICE. All measurements are done with 5 V power supply and room temperature 22°C.

Figure 1. RX Gain. Input RF signal 20dBm

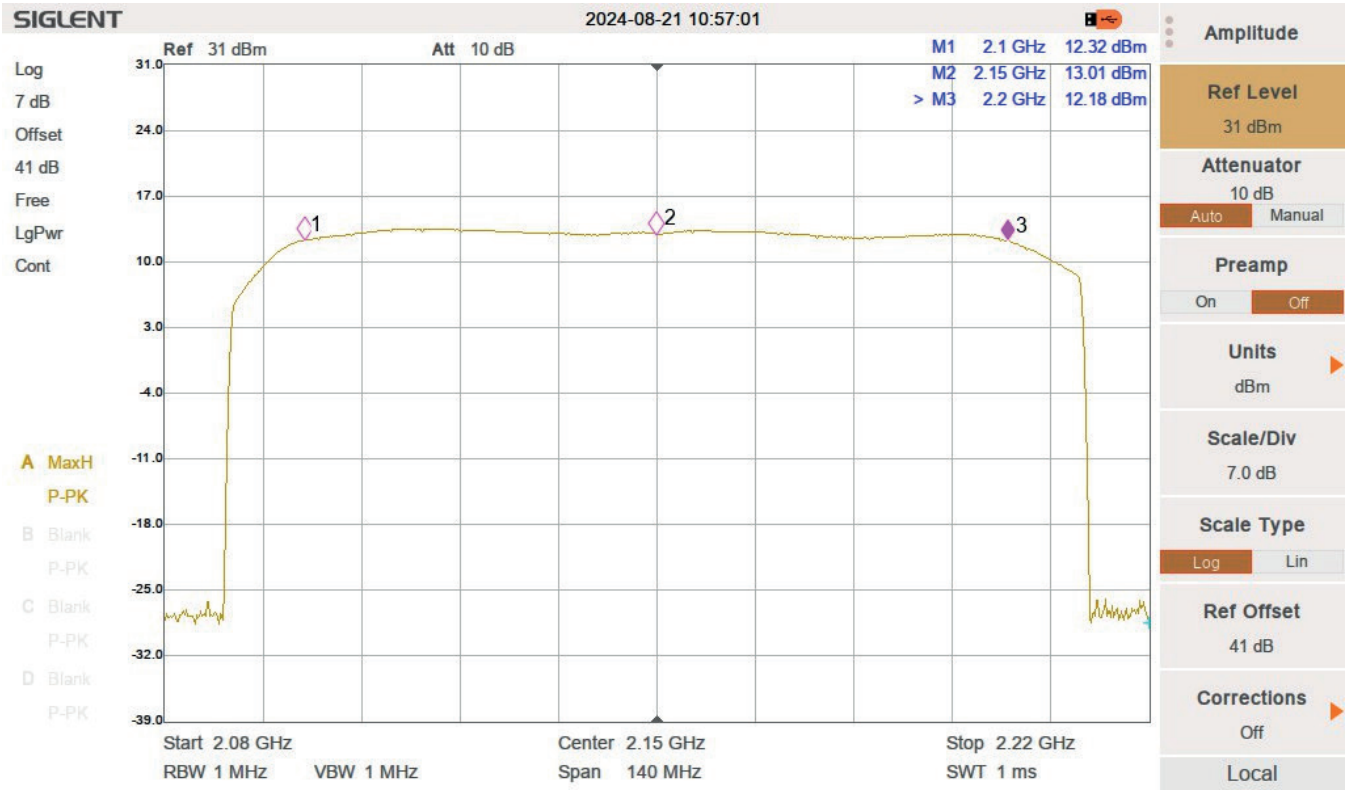

Figure 2. Output Power Pulse. Input RF signal 20dBm

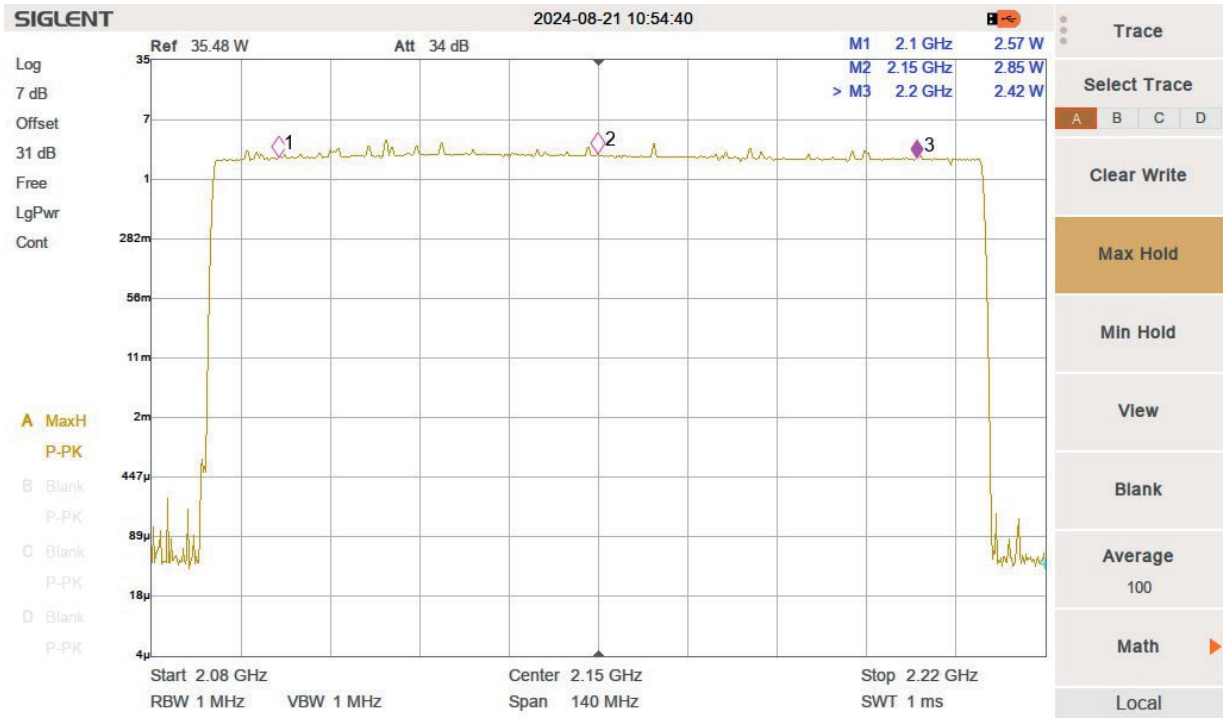

Figure 3. Output Power CW. Input RF signal 20dBm