Bidirectional 770 MHz Power Amplifier RigExpert© 770 MPA-LD

Product Overview

Bidirectional ISM band (740-810 MHz) amplifier, designed for low voltage application.
Provides around 15dB RX gain for small signals in passband and 20dB for TX.
The output power 3 W.
VOX based TX/RX switching.
VOX level can be adjusted by replacing resistors

Applications

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

Main Features

- 740-810 MHz Operation
- Automatic TX/RX switching
- Tiny Size
- Low Voltage Operation, 5 V Power Supply
- 20 dB TX RF gain
- 15 dB RX RF gain
- 2.8 W CW TX Power
- 3.5 W Pulse TX Power
- ESD/EMI shield
- Passive cooling
- Convenient MMCX connectors

Specifications

Table 1. Absolue Maximum Ratings

Parameter	Rating
Max RF Input TX Power	20 dBm
Min RF Input TX Power	From 3 dBm
Device Voltage	5.25 V

**Important note: Input TX Power can be adjusted b 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		740		810	MHz
TX Gain	740-810 MHz	18	20	22	dB
RX Gain	740-810 MHz	13	15	15.96	dB
Output Power CW	Input RF Power 20dBm @ 750 MHz		2.82		W
Output Power Pulse	Input RF Power 20dBm @ 750 MHz		3.53		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

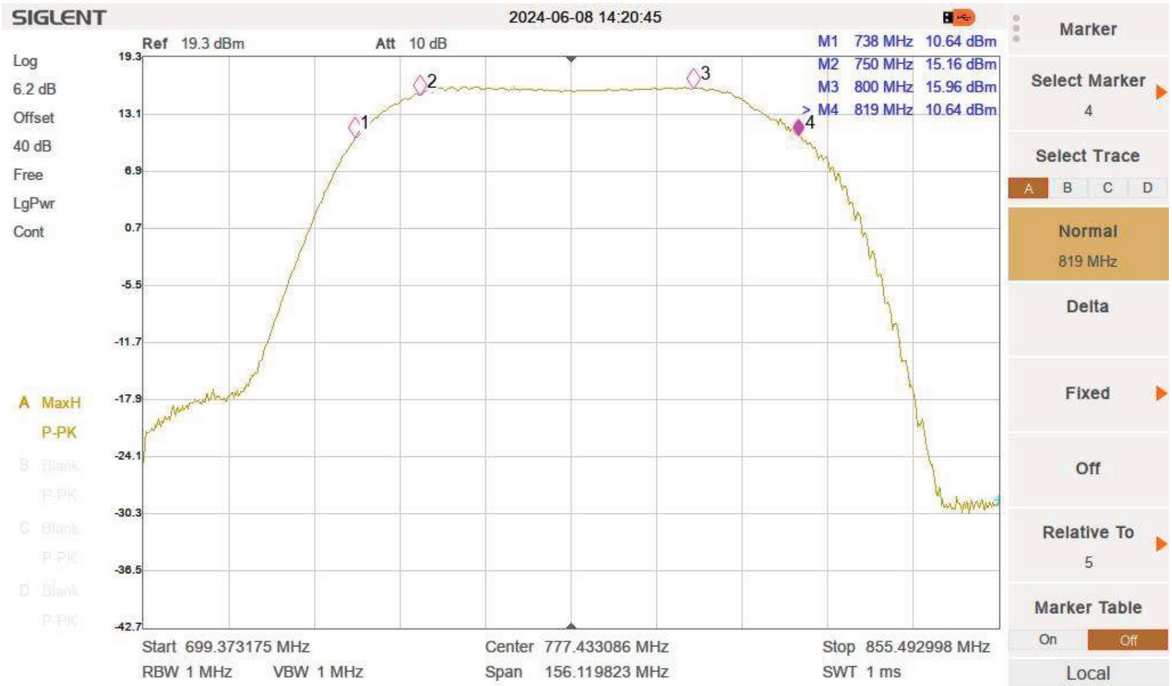

Figure 2. Output Power Pulse. Input RF signal 20dBm

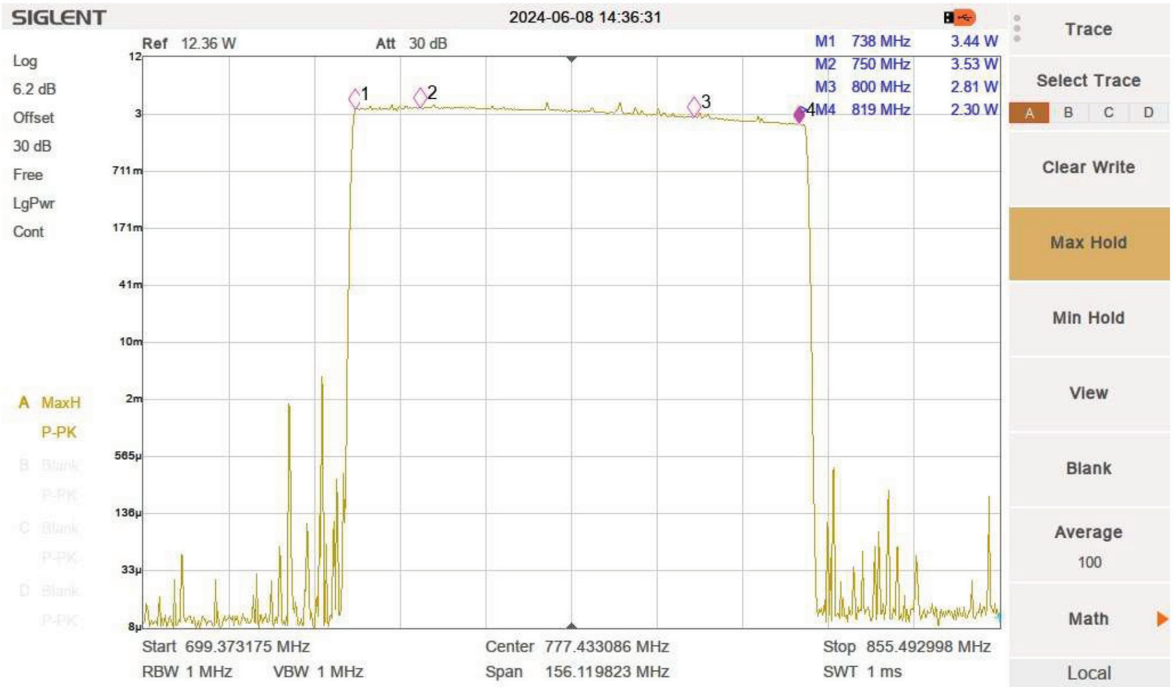

Figure 3. Output Power CW. Input RF signal 20dBm