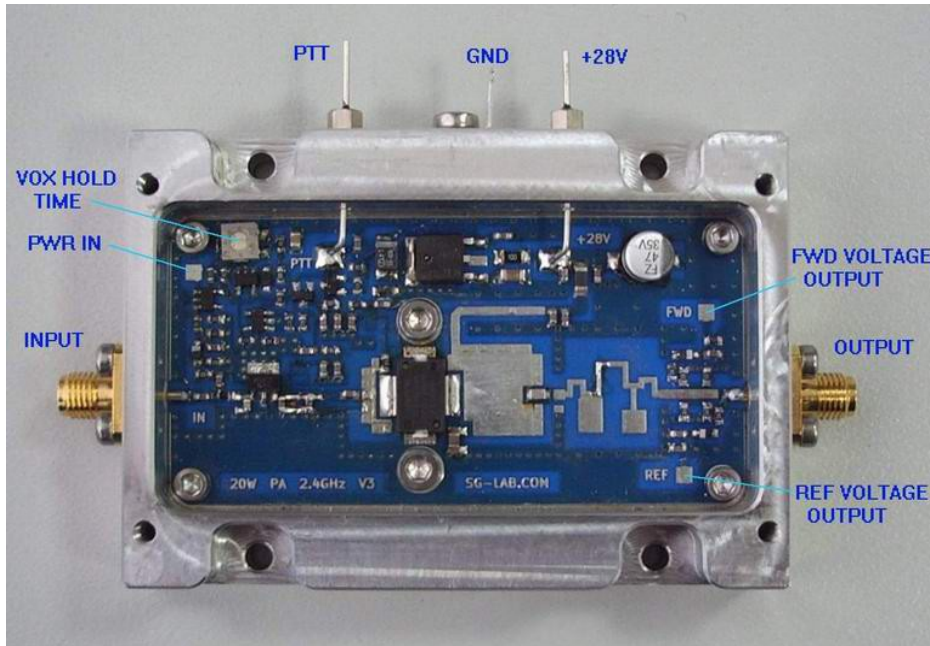


# SG Lab

## 2.4 GHz 20W Power Amplifier V3



### Specifications

	Min.	Typ.	Max.
Frequency range RF	2.38 GHz	2.4 GHz	2.42 GHz
Output Power at 28V DC	18 W	20 W	22 W
Output Power at 24V DC	15 W	17 W	
Power Gain (small signal)		30dB	
Input Power for 20W output		40 mW	50 mW
RF VOX treshold		1 mW	
Maximum input power			100 mW
Power Supply Voltage	24 V	28 V	28 V
Quiescent current	0.4 A	0.5 A	0.6 A
Current Consumption at 20W out		1.6 A	1.7 A
Efficiency		45%	
Dimensions without SMA conn.		82 x 57 x 19 mm	

## Features

**LDMOS transistor**

**20W output power**

**High speed RF VOX**

**Preamplifier included**

**30 dB power gain**

**Internal Directional Couplers with diode detectors at PA Output**

**PTT Switching :** PTT is switched ON by connecting PTT pin to the ground.

**RF VOX** is always switched ON. Hold time can be tuned in range 0... 3sec by on-board trimmer.

### Directional Coupler Voltages:

1. FWD Voltage Output 3.5V typ. @ 20W Output power
2. REF Voltage Output - reflected wave , can be used to calculate estimated output SWR

**PWR IN** - Voltage related to input power :

- 1 mW - 0.6 V
- 5 mW - 2.0 V
- 10 mW - 3.2 V
- >15mW - 5.0 V

