

**Wide Band Radio Frequency Amplifier  
 WBA 2**

**Features:**

- ✓ 2.5 Watts Output  
 4 Watts typical saturated output power
- ✓ 20MHz- 500MHz
- ✓ 33dB nom. Gain
- ✓ Gain adj. +/-10dB
- ✓ 24 V Industrial supply input
- ✓ Mismatch tolerant
- ✓ Unconditional stable
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Over voltage and current protection
- ✓ Status monitoring



Case Style 1



Case Style 2

**Application:**

This tiny amplifier series WBA2 has been designed with focus on acoustic-optic applications in the laser field. Like the stimulation for Acousto-Optic Modulators, deflectors and pulse pickers. They can also be used for other general HF applications.

**General:**

This small powerful **class “A” broadband** amplifier module provides up to **2.5 watts** RF output power while covering the wide frequency span from **20 to 500 MHz**. Precise settings increase repeatable unit-to-unit accuracy and ensure extended **temperature stability**. Furthermore, it has flat amplification variation over the entire frequency. The module provides a high **signal-to-noise ratio** with excellent linearity and intermodulation characteristics to achieve a **high intercept 3-point**. A **high gain** in combination with its **fine tuning** allows easy integration into existing systems or in new designs. Operating **gain is settable** with a small screwdriver due an internal user accessible potentiometer. The operating status is indicated due two LEDs.

**Properties:**

Gain variation	Sideband	Channel cross talk	Input	Intermodulation
<p>Full span +/- 0.5dB</p>	<p>10 Watts -70dBc</p>	<p>1<sup>st</sup> modulated - all others CW</p>	<p>VSWR</p>	<p>10Watts Output Power</p>

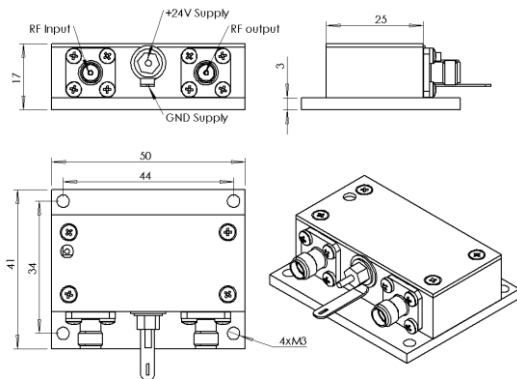
- Controls: Gain setting due user accessible potentiometer.  
 Options: An optional heat sink and fan are available upon request.  
 Accessories: RF-Cable and adaptors /power supply/power splitter/ multi-channel RF synthesizer

**Specification:**

Electrical	MIN	Max	Unit
Output power (into 50Ω ) @ 1 dB	na	2.5 (@50Ω)	W
Power supply	23.5	24.5	V
Input current	0.6	0.7 @2W-50Ω	A
Power loss	14	16	W
Maximum permissible VSWR for 2 W output		2.0	-
Frequency	20	500	MHz
Gain flatness	+/- 0.5	+/-0,75	dB
Gain set	20	40	dB
Noise figure	3,5 (@20dB gain)	6 (@40dBGain)	dB
Input Impedance	50		Ω
Continuous RF input power	-		dBm
Input VSWR	-	1.2	-
Max input power no damage	23		dBm
Output impedance	50		Ω
Input connector SMA,SMB	Female		-
Output connector SMA ,SMB	Female		-
<b>Dynamic response</b>			
2 <sup>nd</sup> Harmonic @ P 1 dB	-35		dBc
3 <sup>rd</sup> Harmonic @ P 1 dB	-30		dBc
Third-order intercept point	44		dBm
<b>Thermal</b>			
Temperature drift	-	+/- 0,01	W/K
Time to achieve stability		300	s
<b>Ambiance / Installation / Transport</b>			
Cooling : Conductive - through base	5	+55	°C
Thermal shut down trip threshold		60	°C
Storage temperature	-20	+125	°C
Transport temperature ( temporary )	-20	+150	°C
Relative humidity in storage		90	%
Ambient temperature	+5	+75	°C
Relative humidity during operation		75	%
Ambient conditions	Atmospheric, room air	Max. 3000m above sea level	
Body Dimensions L x W x H	-	50x45x23.5	mm
Weight		90	g

**Dimension: (mm)**

Case Style 1



Case Style 2

