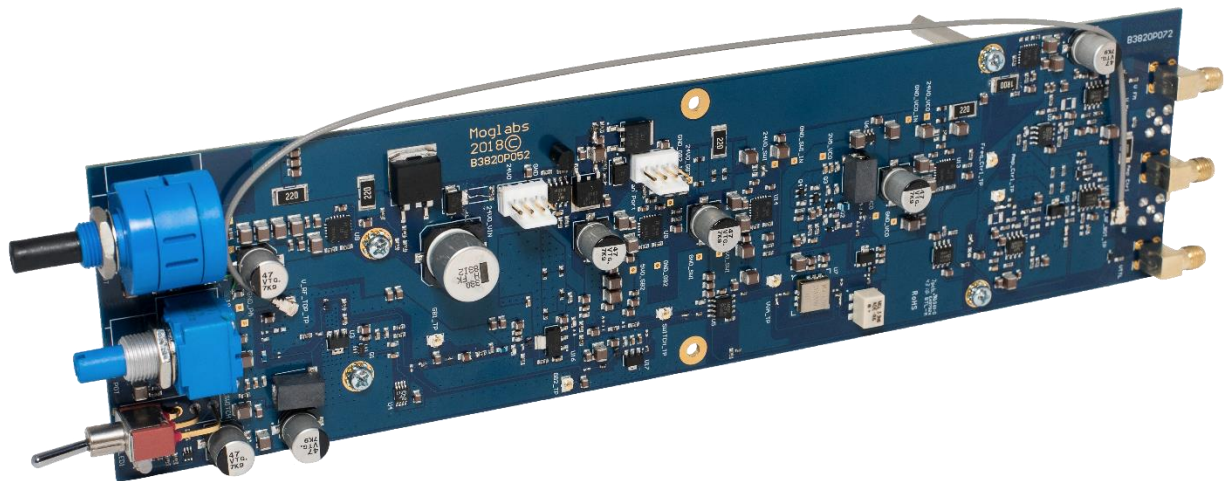




AADPCB AOM Driver



The MOGLabs AADPCB is a low-cost yet versatile VCO-based RF driver for AOMs, with frequency stability and modulation capabilities comparable with much more expensive alternatives. Running from a single +24 volt supply it includes two selectable VCOs that enable operation from 70 to 200 MHz and provides RF output up to 4 watts (+36 dBm). Two external analogue inputs provide FM and AM with 1 MHz bandwidth for laser noise-eating and frequency locking applications. A third input provides fast on/off TTL control.

The AAD is an all-in-one replacement for a tuneable oscillator (VCO), variable attenuator (VCA), RF switch, and output coupler, all running from a single +24V supply.

Features

- High output power: up to +36 dBm per channel
- Wide frequency range: 70 to 200 MHz
- High modulation bandwidth 500 kHz (FM and AM)
- RF power out and monitoring out (-22 dBc)
- External digital input for fast on/off
- 10-turn frequency, single-turn power controls
- High stability VCO, low phase noise

AOM Driver

Specifications AADPCB r5

RF characteristics

RF output power	+33 dBm to +36 dBm (4 W)
Frequency	70 to 120 MHz or 120 to 200 MHz (selectable via DIP switch)
Frequency stability	< 500 Hz/hr
Phase noise	- 85 dBc/Hz @ 100 kHz
First harmonic	- 12 dBc at +36 dBm out
RF monitor output	< - 22 ± 1.5 dBc

Inputs

Amplitude modulation	0 to +5 V, zero at +1.25 V
Frequency modulation	0 to +5 V, zero at +2.5 V
Modulation bandwidth	500 kHz
On/off	TTL (5 V or 3.3 V) 10MHz bandwidth
TTL response time	40 ns
TTL off extinction	< - 60 dBc

Controls

On/off toggle	Enables power to board
Power dial	Single turn (270°)
Frequency dial	10-turn

Dimensions and power

Dimensions	260x70 mm
Power	24 ± 0.5 Vdc, 0.5 A
Fan connector	Provides +24 Vdc to fan
Operating temperature	55 C