



AAD420 Two-channel AOM Driver



The MOGLabs AAD420 is a low-cost VCO-based RF driver for AOMs, with frequency stability and modulation capabilities comparable with much more expensive alternatives. Each channel includes two selectable VCOs that enable operation from 70 to 200 MHz, and an RF amplifier with output up to 4 watts (+36 dBm). Two external analogue inputs provide FM and AM with 500 kHz bandwidth for laser noise-eating and frequency locking applications. A third input provides fast on/off TTL control.

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 TTL digital input for fast on/off
- 10-turn frequency, single-turn power controls
- High stability VCOs with low phase noise

AOM Driver

Specifications AAD420 r5

RF characteristics

RF output power	+33 dBm to +36.5 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	Power
Power dial	Single turn (270°)
Frequency dial	10-turn

Dimensions and power

Dimensions	210x69 x 270mm WxHxD excluding knobs, connectors
Power	93 to 264 Vac, 50 to 60Hz