

AOD RF Driver 100473A



Compact Three Phase RF Driver

200MHz

>3W

Compact

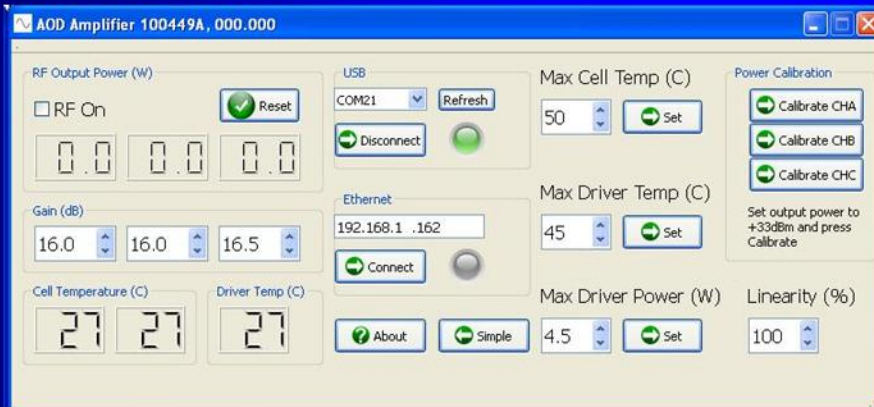
3 Phase

USB



Features:

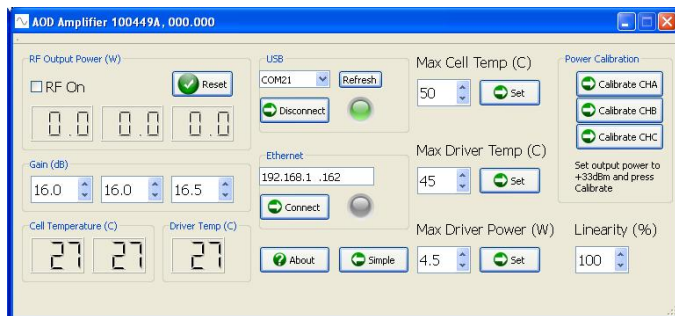
- Wide VSWR tolerance
- 200MHz, Highly Linear
- Phase shifted RF outputs
- Flat Frequency Response
- Temperature / Power Monitor
- Overpower Protection
- USB and Optional Ethernet
- 19", 1U Chassis
- Alarm Output



Applications:
AO Cell Driver

Overview

The Acousto-Optic Deflector (AOD) RF Driver is a highly stable gain flattened three phase driver amplifier intended to drive AO devices such as the Harris H-902. The driver accepts a single low level RF input and produces three high power phase shifted outputs. The driver features adjustable gain, power monitoring, and programmable automatic protection features. The exceptional linearity, gain flatness, and VSWR tolerance allow the use of multi-tone and complex waveforms with minimal distortion.



Operation

Configuration and control are accomplished using the supplied Windows application and USB or optional Ethernet connection. Once connected, the operating parameters can be configured. Each output features independent gain control and power monitoring. Should the RF power on any of the three outputs reach the preprogrammed trip level, the RF power will be automatically disabled to protect the connected load. Driver temperature and AOD cell temperatures are also continuously monitored and displayed.

Ordering Information

Part Number	Description
100473A	Compact AOD Amplifier Assembly

Specifications

Parameter	Units	Typical Specifications
Frequency	MHz	150 to 250
Relative RF output timing (A-B-C)	nS	5, +/- 0.05
RF channel gain (input to each output)	dB	36 (adjustable in 0.5dB steps)
Gain flatness @ +27dBm	dB	+/-0.5 ¹
3dB RF compression	dBm	35 ¹
Second harmonic @ 30dBm output	dBc	38 ¹
Two tone, third order spurs @ 1MHz	dBc	43 ²
Two tone, third order spurs @ 10MHz	dBc	40 ²
Two tone, third order spurs @ 60MHz	dBc	40 ²
Maximum input power (no damage)	dBm	+10
RF input / output impedance	Ohms	50, SMA
Alarm output	V	3.3 CMOS levels
Computer interface		USB-2 or optional Ethernet, Windows driver supplied
Power		120VAC, 5A max
Unit Dimension		19" x 8" x 1U rackmount with mounting ears

1: +36dB overall gain, into 50Ω load or H-902 AO cell unless otherwise noted

2: +23dBm per tone, +36dB overall gain unless otherwise noted