MultiChannel RF Driver 100441A

Spectronix

32 Channel RF Amplifier / Signal Generator

| High IP3	DDS	+29dBm	200MHz	Digital

Features:

Digital Synthesizer on Each Channel with Individual Phase, Freq, Amplitude Control

Individual Programmable Modulation: Internal or External

Up to 32 Independent High Linearity RF Channels

Temperature / Power Monitor and Protection

USB and optional Ethernet with Alarm Output

Internal / External Reference

Applications:

AO Cell Driver

Overview

The MultiChannel RF Driver is a 32 channel signal generator / amplifier intended to drive multchannel acousto-optic cells such as the Harris H-601. The driver can be operated either as an RF amplifier, providing 32dB of gain or as a high power signal generator making use of a dedicated 1GSPS, 14bit digital synthesizer on each channel. Modulation can be performed through the use of the internal source or external global input.
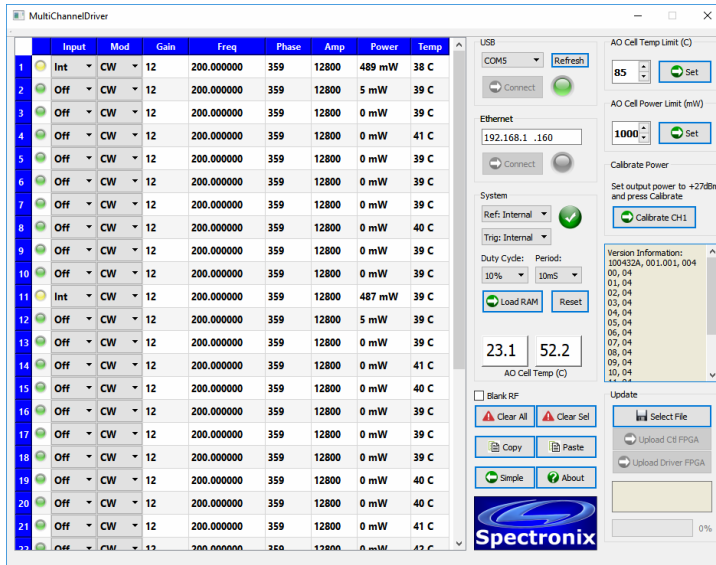
Configuration and control are accomplished using the supplied Windows application and a USB or optional Ethernet connection. Once connected, each channel can be individually configured for input source, modulation, frequency, phase, and amplitude. Output power and temperatures are continuously monitored and updated; should a temperature or power level reach the configurable critical limit, the applicable channels will turn off in an attempt to protect the AO cell. A global RF blanking feature is also included to quickly turn off all outputs in tandem.

Ordering Information

Part No.	Description
100441A-16	MultiChannel Driver System with Controller, Power Supply, and 16 Dual RF Driver Modules
100441A	MutiChannel Driver Chassis / Power Supply Assembly
100432A	MultiChannel Driver Controller Module
100434A	MultiChannel Driver Dual RF Module (up to 16 per chassis)
100453A	MultiChannel Driver Optional Cable Support Tray

Operation

Specifications

Parameter	Units	Typical Specifications
Number of channels		Up to 32
Frequency	MHz	150 to 250 with 1Hz resolution
Frequency accuracy	ppm	50 (internal), or external 10MHz reference
RF channel gain	dB	32 (adjustable in 1dB steps)
1dB RF compression	dBm	29
Two tone, third order intercept	dBm	47
Channel to channel cross talk	dBc	67
Maximum input power	dBm	+10 (no damage)
RF input / output impedance	Ohms	50, SMA
Maximum any channel to any channel skew	nS	5
Relative RF phase adjustment range	Deg	0 to 359 in 1 degree steps
Digital input / output logic levels	V	3.3 CMOS levels
Internal modulation period	mS	.3125, .625, 1.25, 2.5, 5, 10, 20, 40
Internal modulation duty cycle	%	10 or 50
Maximum RAM Modulation Table Size	Samp	16,384
Computer Interface		USB-2 or Ethernet (optional)
Power		120VAC, 5A max
Unit Dimension		19", 6U rackmount with mounting ears