Photonics On Crystals

POC-OC-120218-Fixed Frequency RF Drivers Datasheet

Key Features

- High stability and multifunctional RF drivers compatible with all acousto-optic devices.
- Customizable frequencies, power levels, and control methods.
- Multiple modulation signal outputs tailored for specific application requirements.
- Compatibility with conduction and water-cooled configurations for diverse operating conditions.
- Designed for integration with Q-switches, modulators, and other acousto-optic devices.

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2. General Description

The **Fixed Frequency RF Drivers** from Photonics of Crystals (POC) are engineered to deliver high-performance electronic control for acousto-optic devices. These drivers are available in a variety of models to cater to specific usage requirements, including frequency range, power output, and cooling methods. Utilizing advanced design and customization options, POC's RF drivers efficiently generate waveforms through diverse modulation signals to meet the needs of precision control applications.

The modularity of these drivers ensures their adaptability across various acousto-optic devices. They incorporate a stable output design to support continuous operation with minimal signal degradation. Customers can choose from conduction-cooled or water-cooled configurations depending on their environmental needs. Whether used for Q-switching, frequency modulation, or pulse picking, these drivers are the cornerstone for reliable optical device operation.

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3. Applications

- **Acousto-Optic Q-Switches**: Provide stable driving signals for precision laser modulation.
- **Modulators for Optical Devices**: Enable amplitude, frequency, or phase modulation in laser systems.
- **Frequency Control in Advanced Systems**: Suitable for synchronization in cutting-edge laser-based applications.

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4. Standard Products and Model Numbers

Series (s)	RF Frequency (f)	Supply Voltage (v)	Output Power (Pout)	Cooling (t)	Channel (h)	Mode (m)	Function (e)	RF Connector (c)
A1	40.68 MHz, 68 MHz, 80 MHz	15 D (15 VDC), 24 D (24 VDC)	20 W	C (Conduction)	1	F (FPS), P (PPK)	Analog	AF (SMA-F)
A2	40.68 MHz, 68 MHz, 80 MHz	12 D (12 VDC), 15 D (15 VDC)	12 W, 15 W	C (Conduction)	1	F (FPS), P (PPK)	Analog	AF (SMA-F)
D1	40-200 MHz	15 D (15 VDC), 24 D (24 VDC)	5 W	C (Conduction)	1	A (A05)	Analog	AF (SMA-F)
D3	27.12 MHz, 40.68 MHz, 80 MHz, 110 MHz	24 D (24 VDC), 28 D (28 VDC)	50 W, 100 W	W (Water)	1	D (Digital), A (Analog)	Digital/Analog	AF (SMA-F)
E1	80 MHz, 200 MHz, 250 MHz, 300 MHz	24 D (24 VDC), 28 D	2.5 W	W (Water)	1	D (Digital), A (Analog)	Digital/Analog	AF (SMA-F)

		(28 VDC)						

5. Typical Specifications

- **Frequency Range**: 27.12 MHz – 300 MHz
- **Output Power**: 2.5 W – 100 W
- **Cooling Options**: Conduction cooling or water cooling.
- **Modes Supported**: Digital and analog functions with TTL compatibility.
- **Supply Voltage**: Configurable between 12 VDC and 28 VDC.

6. Housing Dimensions

Model	Dimensions (mm)
CARD-Fs-f-vpt-bme	Length: 120 mm, Width: 80 mm, Height: 40 mm

7. POC Strength and Capabilities

Photonics of Crystals (POC) is renowned for its expertise in designing advanced optical control systems and components. Our Fixed Frequency RF Drivers epitomize precision and reliability, developed to meet the stringent requirements of modern photonics applications. With complete control over the design and manufacturing process, POC guarantees product quality and performance.

Our team excels in providing:

- **Customization**: Tailored RF drivers to meet specific operational and environmental conditions.
- **Integration Expertise**: Seamless compatibility with POC's range of acousto-optic devices.
- **Innovation**: Cutting-edge RF signal technology ensuring stable and high-efficiency performance.