Elektromechanik
Entwicklungs- und Produktions GmbH

Acoustic Optic RF Driver – Mini

Features:

- ✓ **120 Watts Output**
- ✓ 20MHz- 46 MHz
- ✓ 24 V Industrial Supply input
- ✓ Mismatch tolerant
- ✓ Unconditional stable
- ✓ Power set 10…120W
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Compact case style
- ✓ Over voltage and current protection
- ✓ Operation monitoring

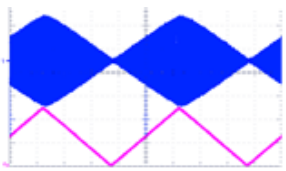
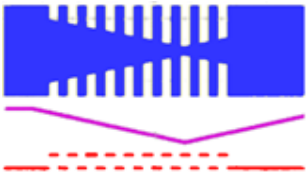
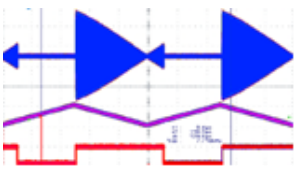
Application:

Our powerful RF module **Mini** is designed for the control of **Acoustic-Optical Modulator**. This device is equipped with the latest technology and high-end electronic that make it suitable for all laser applications in harsh environments.

General:

The Mini is a compact RF Transmitter module with implemented **digital pulse and analogue modulation** options. The device has high power stability over the whole **20 up to 46 MHz** frequency range. The **precise** electronic **setting** of each device on the test station ensures a particularly **uniform unit-to-unit performance** and ensures a constant operating result. This very **small and lightweight** transmitter delivers up to 120 watts into a 50 Ω load with excellent **purity** and **fast modulation** as well as **high contrast dynamic**. All settings are easy to adjust with a small screwdriver due internal **user-accessible potentiometers**. An optional **serial interface** allows full data access through a **graphical user interface**. The main application is the analogue signal control (modulation) with a synchronized gate signal, which can perform a blanking or full RF-output like the following examples.

Properties:

Amplitude Modulation	Pulse-Analogue Mode	Pulse-Analogue Mode	(Option) Serial Interface
			
External Analogue 0% to 100% Power-set	External Gated Analogue Power-set to Analogue input	External Gated Analogue 0% Analogue input	Remote Programming

Controls:	Analogues Modulation, Digital Pulse input, Power and Video gain
Options:	Remote control, optional heat sink and fan are available on request.
Accessories:	RF-Cable and adaptors, Power supply, Power splitter-Combiner

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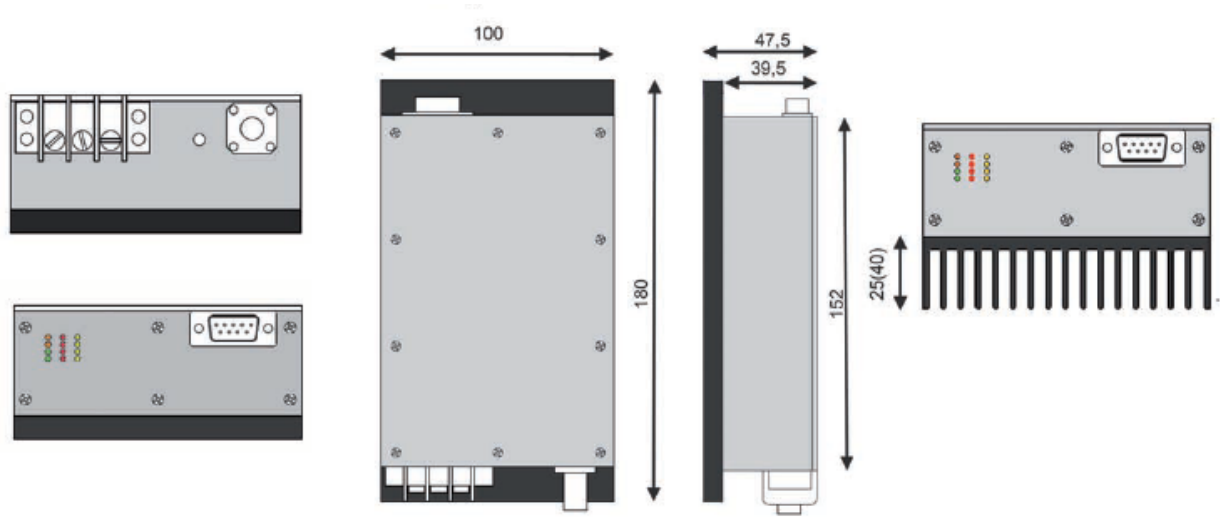
Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)	10	120@50Ω	W
Power supply	23.5	24.5	V
Input current	6	12	A
Power loss	-	160	W
Maximum permissible VSWR for 120 W output		1.35	-
Frequency	20	46	MHz
Harmonic suppression	40		dBc
Output impedance	50		Ω
Output connector	BNC,TNC Female		-
Modulation input impedance	50/75/600		Ω
Modulation input SMA,SMB	SMA,SMB Female		
Pulse input impedance	50/75/600/4700		Ω
Pulse input	LVTTL	TTL	
Dynamic			
Fall time 90-10	80 @40MHz	120 @27MHz	ns
Rise time 10-90		100	ns
Dynamic RF ON / OFF ratio	40	52	dB
Thermal			
Temperature drift	-	+/- 0,2	$^{W}/_{K}$
Time to achieve stability		300	s
Ambiance / Installation / Transport			
Cooling : Conductive – through base	5	+55	°C
Air flow : Heat sink 152x100x40	3,5		l/s
Thermal shut down trip threshold		60	°C
Storage temperature	-20	+80	°C
Transport temperature (temporary)	-20	+150	°C
Relative humidity in storage		90	%
Ambient temperature	+5	+75	°C
Relative humidity during operation		75	%
Ambient conditions	Atmospheric max. 3000m above sea level		
Body dimensions L x W x H	-	152x100x39.5	mm
Weight depending on heat sink	1100	1800	g

Specification ratings are based on measurements in a 50 Ω system.

Dimension: (mm)



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