Elektromechanik
Entwicklungs- und Produktions GmbH

Acoustic Optic RF Driver – Atto

Features:

- ✓ **2.5 Watts Output**
- ✓ 20MHz- 460 MHz
- ✓ Power adj. 20mW…2500mW
- ✓ 24 V Industrial supply input
- ✓ Mismatch tolerant
- ✓ Unconditional stable
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Slim case style
- ✓ Over voltage and current protection
- ✓ Status LED - Fault monitor

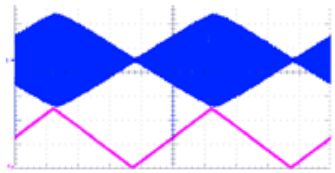
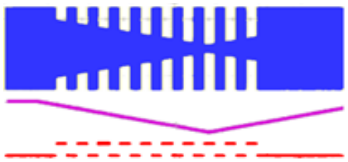
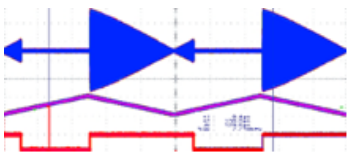
Application:

Our RF driver model **Atto** is designed for **Acoustic Optic Modulator** application. The use of the latest electronic technologies and components allowed a very small body shape. This slim design makes it to an ideal device for super-compact LASER assemblies.

General:

The **Atto** is a **slim RF transmitter** module with implemented **pulse and analogue modulation** inputs. The device has exceptional performance over the wide operating frequency range of **20 to 460 MHz**. The defined unit-to-unit single-test settings ensure excellent **repeatability** and **temperature stability**. This very small and **lightweight** transmitter delivers up to **2.5 watts** into a 50 Ω load with excellent **purity**, **fast modulation** and **with high contrast dynamic**. Operating settings for power and modulation can easily be adjusted by means of **accessible potentiometers** using a small screwdriver. The use and combination of the **linear** and **digital mode** allows complex RF forms. Hereby, an analogue voltage signal controls the output power and a synchronized gate signal controls blanking or full power as needed. Both input signals can be combined to modulation like the following examples.

Properties:

Amplitude Modulation	Pulse-Analogue Mode	Pulse-Analogue Mode
		
External Analogue 0% to 100% Power-set point	External Gated Analogue Power-set point to Analogue input	External Gated Analogue 0% to Analogue input

Controls:	Gain setting due an user accessible potentiometer.
Options:	RF-Cable and adaptors, Power supply, Power splitter-Combiner.
Accessories:	An optional heat sink and fan are available on request.

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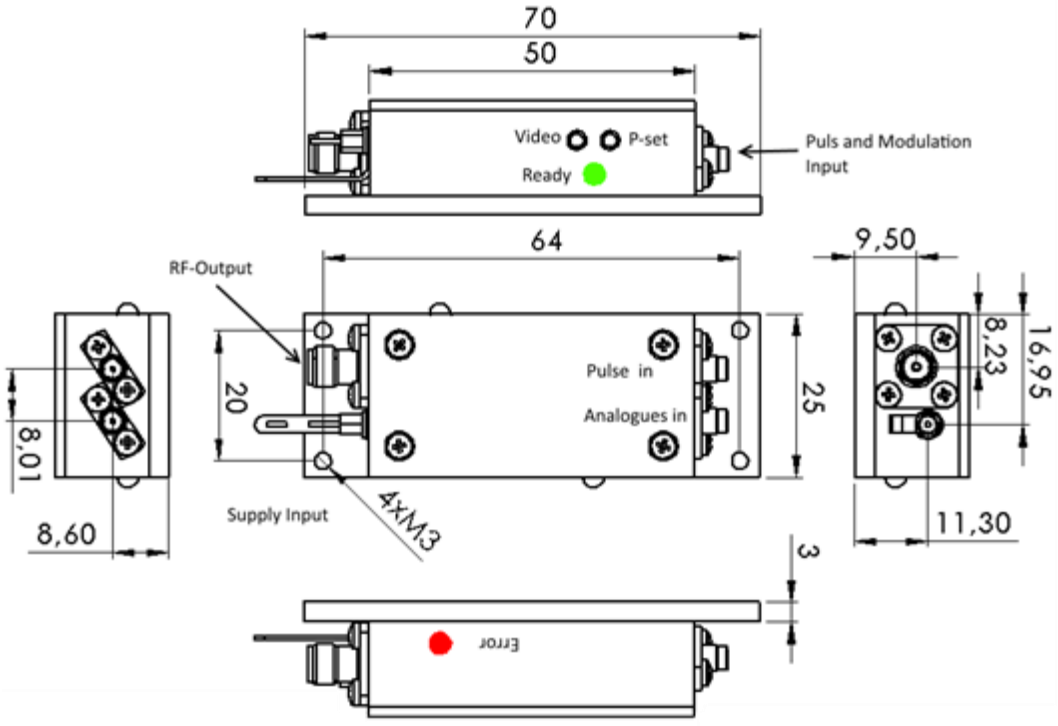
Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)	20	2500(@50Ω)	mW
Power set range	20	2500	mW
Power supply	23.5	24.5	V
Input current	0.6	0.7 @2W-50Ω	A
Power loss	12	14	W
Maximum permissible VSWR for 2 W output		2.0	-
Frequency factory setting	20	460	MHz
Harmonic suppression	-40		dBc
RF Output impedance	50		Ω
RF Output connector	Female SMA		-
Modulation input impedance	50/75/600		Ω
Modulation input connector	MMCX Female		
Pulse input (10K pull up or pull down)	LVTTL	TTL	
Pulse input connector	MMCX Female		
Dynamic			
Rise / Fall 10-90-10	3 @ (400MHz)	12 @ (40MHz)	ns
Dynamic Analogue	40	52	dB
Dynamic Pulse	70	102	dB
Thermal			
Temperature drift	-	+/- 0,01	$^{W}/_{K}$
Time to reach stability		300	s
Ambiance / Installation / Transport			
Cooling : Conductive - through base	5	+55	°C
Thermal shut down trip threshold		60	°C
Storage temperature	-20	+125	°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	-	50x25x15	mm
Weight		90	g

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

Dimension: (mm)



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