Elektromechanik
Entwicklungs- und Produktions GmbH

Acoustic Optic RF Driver – Pico

Features:

- ✓ **10 Watts Output**
- ✓ 20 MHz- 125 MHz
- ✓ 24 V Industrial supply input
- ✓ Power adj. 1 W…10 W
- ✓ Serial bus interface RS-232 /RS485
- ✓ Configuration software
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Small case style

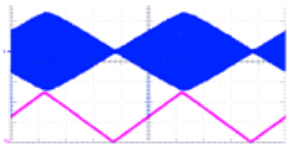
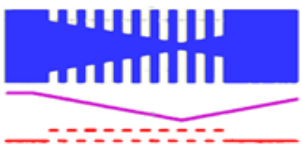
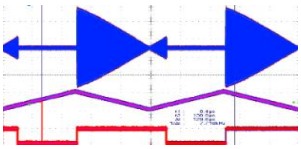
Application:

The HF driver **Pico** is designed for **A**coustic **O**ptical **M**odulator. Smart engineering, with the use of the most advanced electronic components and modules on the market, made this small construction possible. This small form factor makes it to an ideal choice for compact and small **LASER** units.

General:

The **Pico** is a high-performance **RF transmitter** module with implemented **digital pulse** and **analogue modulation** function. The device has exceptional operating performance over the entire operating frequency range of **20 to 120 MHz**. This very small and lightweight module delivers up to **10 watts** into a 50 Ω load, with excellent **purity**, **fast modulation** and high contrast dynamic. Each device is adjusted exactly at test bench, while the implemented **microcontroller compensation** ensures long-term repeatability and **temperature stability** as well a **high-resolution**. The mixed **analogue/digital operation** allows complex RF forms, here an analogue signal controls the output power and a synchronized gate signal controls blanking or full power on demand. Both input signals can be combined to **versatile and very complex RF modulation** as following examples.

Properties:

Amplitude Modulation	Pulse-Analogue Mode	Pulse-Analogue Mode	Serial Interface
			
External Analogue 0% to 100% Power	External Gated Analogue Power-set point to Analogue input	External Gated Analogue 0% to Analogue input	Programming and Remote

Controls:	Comfortable remote control due the implemented serial interface.
Options:	An optional heat sink and fan are available on request.
Accessories	RF-Cable and adaptors, Power supply, Power splitter-Combiner

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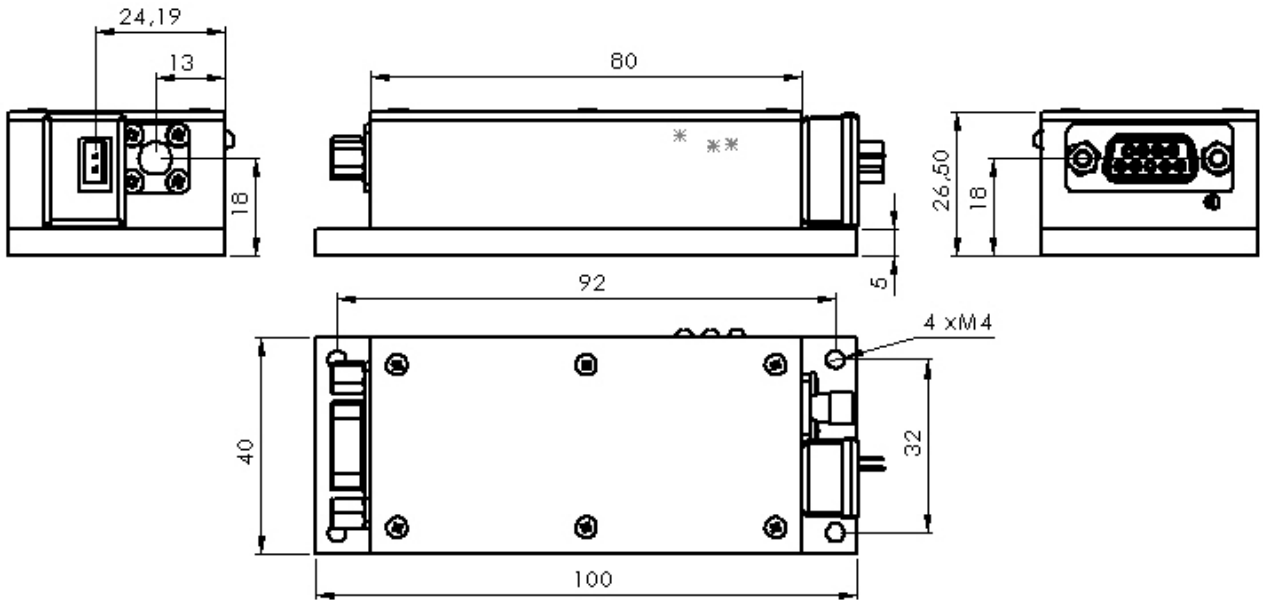
Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)	3	10	W
Power supply	23.5	24.5	V
Input current	0.6	1.2 @10W	A
Power loss	7	10	W
Harmonic suppression	40		dBc
Maximum permissible VSWR		1.25	-
Modulation, analogues	DC	2@50Ω	MHz
Modulation input	3,3	10V	V
Linearity - deviation	-	7	%
Operating frequency * (extended Frequency on request)	20	125	MHz
Dynamic			
Fall time 90-10	60* @40.68 MHz	80* @27MHz	ns
Rise time 10-90		100	ns
Dynamic Ratio	40		dB
Thermal			
Temperature drift	-	0,1	$^{W}/_{K}$
Time to reach stability		300	s
Ambiance / Installation / Transport			
Airflow rate @ 40°C standard heat sink 80x40x15	0,8	na	l/s
Storage temperature	-5	+100	°C
Transport (temporary)	-20	+150	°C
Relative humidity in storage		90	%
Ambient temperature during operation	+5	+45	°C
Relative humidity during operation		75	%
Ambient conditions, room air	Atmospheric max. 3000m above sea level		
Body dimensions L x W x H	-	80 x 40 x 21.5	mm
Weight * heat sink dependent	180	240	g

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

Dimension: (mm)



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