

Acoustic Optic RF Driver - Zepto

Features:

- ✓ **1 Watt Output**
- ✓ 20MHz- 460 MHz
- ✓ 12- 24 V Wide range supply input
- ✓ Power adj. 20mW...1000mW
- ✓ Mismatch tolerant
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Tiny case style
- ✓ Over voltage and current protection
- ✓ Operation monitoring



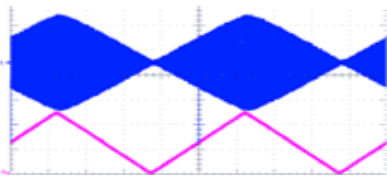
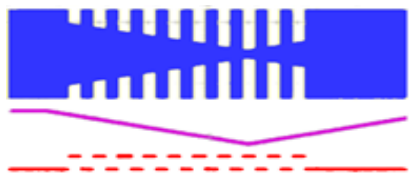
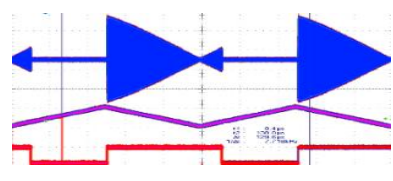
Application:

The RF Driver **Zepto** is especially designed for **Acoustic Optic Modulator** application. The use of the **latest** electronic components and technologies has allowed this **unique tiny** housing style and makes this module particularly suitable for the smallest Laser integration.

General:

Our **Zepto** is a **very small RF transmitter** module with implemented **pulse and analogue** modulation options. The device has exceptional power density over the enormous wide frequency range from **20 to 460MHz**. The defined unit-to-unit settings result in excellent **thermal stability** and **high dynamic** behaviour, with the particular focus on imaging applications. This lightweight transmitter module delivers up to **1 watt** into a 50 Ω load, with excellent **purity, fast modulation** and high **contrast dynamic**. The output power is adjustable by a **user-accessible potentiometer**. Two small coaxial jacks on the front provide access to modulation and pulse functions. A coaxial socket at rear side provides the RF signal. Both input signals can be combined into a **versatile and very complex RF modulation**.

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

Subject change without notice V10_R18

Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)		1000(@50Ω)	mW
Power set range	200	1000	mW
Power supply	11,5	26	V
Input current	0.2@24V	0.5 @13,8V	A
Power loss	5	6	W
Maximum permissible VSWR for 1 W output		2.0	-
Output Frequency factory setting	20	460	MHz
Harmonic suppression	-40		dBc
RF Output impedance	50		Ω
RF Output connector	MMCX Female		-
Analogues input impedance	50/75/600		Ω
Modulation / Pulse input	MMCX Female		
Digital Input (10K pull up or pull down)	LVTTTL	TTL	
Dynamic			
Rise / Fall 10-90-10	3 @ (400MHz)	12 @ (40MHz)	ns
Dynamic Analogue	40 (10.000)	52 (150.000)	dB
Dynamic Pulse	80	102	dB
Thermal			
Temperature drift	-	+/- 0,01	^W / _K
Time to achieve 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	-	50x25x9,5	mm
Footprint		70x25	
Weight		36	g

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

Dimension: (mm)

