

Acoustic Optic RF Driver – Femto

Features:

- ✓ **5 Watts Output**
- ✓ 20MHz- 460 MHz
- ✓ 24 V Industrial supply input
- ✓ Power adj. 0.5W...5W
- ✓ Mismatch tolerant
- ✓ Unconditional stable
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Slim case style
- ✓ Over voltage and current protection
- ✓ Operation monitoring



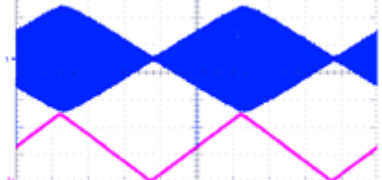
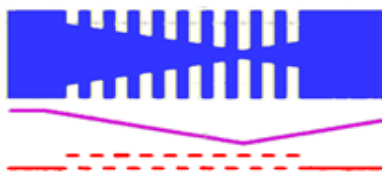
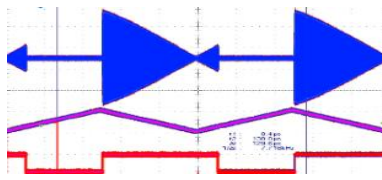
Application:

RF driver **Femto** is intended for **Acoustic Optic Modulator**- Bragg cell- applications. That small device, constructed with the highest density modern components, is especially tailored for use in medium power LASER machines.

General:

This **very small** and light transmitter delivers up to **5 watts** into a 50 Ω load with excellent **purity**, **fast modulation** and a **high contrast dynamic**. It has an implemented **pulse and analogue** modulation function and operates with exceptional stability over the wide frequency range from **20 to 460 MHz**. A defined unit-to-unit setting on the test bench provides excellent performance stability in **long-term operation**. Therefore, this device is an excellent instrumentation in the wide range of **LASER AOM** applications. By using the **dual input** technology, an analogue signal controls the output power and a **synchronized gate** signal can perform a blanking or full output power on command. Both input signals can be combined to a very **complex RF modulation** as in 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: Setting due user accessible potentiometers.
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_R17

Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)	0,5	5(@50Ω)	W
Power supply	23.5	24.5	V
Input current	-	1.6 @5W-50Ω	A
Maximum permissible VSWR for 5 W output		2.0	-
Frequency	20	460	MHz
Harmonic suppression	-40		dBc
Output impedance	50		Ω
Output connector SMA ,SMB	Female		-
Modulation input Impedance	50/75/600		Ω
Modulation input	D-Sub 3W3, SMA,SMB Female		
Input impedance	50/75/600		Ω
Digital Input	LVTTL	TTL	
Dynamic			
Rise / Fall 10-90-10	6@ (400MHz)	12 @ (40MHz)	ns
Dynamic RF ON / OFF ratio	40	52	dB
Digital	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	-	50x40x21.5	mm
Weight		180	g

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

Dimension: (mm)

