

RF Q-Switch Driver – QSD Femto

Features:

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



Application:

RF Driver **QSD-Femto** is constructed for the control of **A**coustic **O**ptics **M**odulators and **Q**-Switch. It has been designed especially compact for small and medium power laser machines. The design bases on electronic components with the highest power density to meet this slim frame size for space saving machine integration.

General:

This slim HF transmitter contains digital and analogue modulation modes. A built-in ramp generator, for the first pulse suppression, supports the simplification of the engraving machine construction or comparable use. The First Pulse Suppression ramp generator is user-friendly adjustable by accessible potentiometers due a small screwdriver. The stable operation over the whole operating frequency range is achieved by precise settings in the test field. This guarantees also excellent power stability for the entire operating temperature range. This small transmitter provides up to 5 Watts in a 50 Ω load with excellent signal purity. The fast modulation and high dynamics are also highlighting characteristics of the device.

Properties:

Amplitude Modulation	Pulse-Analogue Mode	Pulse-Analogue Mode	Gated First Pulse Suppression
External Analogue 0% to 100%	External Gated Analogue 100% Power to Analogue	External Gated Analogues 0% Power to Analogue	Internal Ramp Generator
Intern First Pulse Suppression	Trailing Edge Control		
Burst Trigger Automatic	Adjustable Trailing		

Controls:

Options:

Accessories:

Settings due user accessible potentiometers

Internal pulse generator/ heat sink and fan are available on request.

RF-Cable and adaptors /power supply/power splitter-Combiner

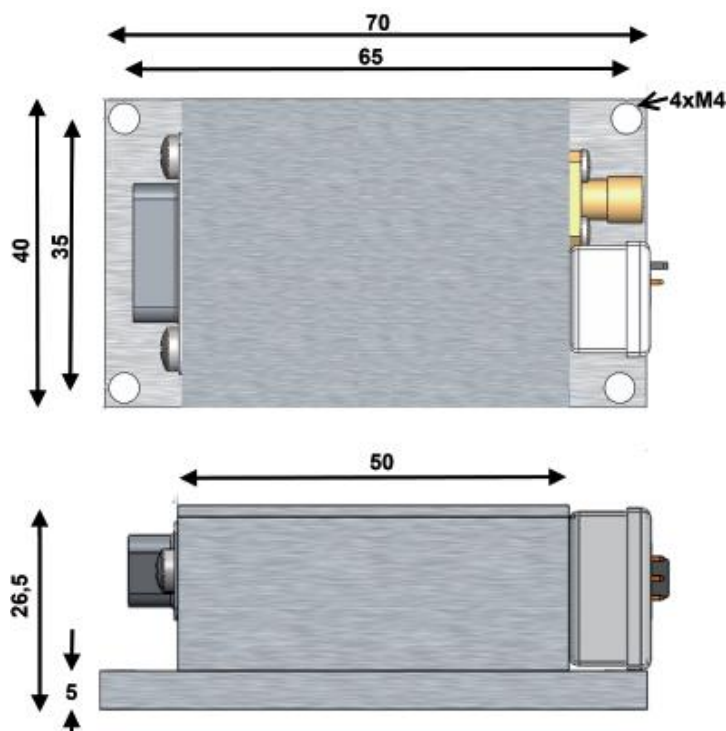
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Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)		5(@50Ω)	W
Power setting range	0,5	5	W
Power supply	23.5	24.5	V
Input current	-	1,8@5W-50Ω	A
Power loss			W
Maximum permissible VSWR for 2 W output		2.0	-
Frequency	20	460	MHz
Harmonic Distortion	-40		dBc
Output impedance	50		Ω
Output connector SMA ,SMB	Female		-
Modulation input Impedance	50/75/600		Ω
Modulation input SMA,SMB	SMA,SMB Female		
Input Impedance	50/75/600		Ω
Digital Input	LVTTL	TTL	
Dynamic			
Rise / Fall 10/90	3 @ (400MHz)	12 @ (40MHz)	ns
Dynamic RF ON / OFF ratio	40	52	dB
Digital	70		dB
Thermal			
Temperature drift	-	+/- 0,01	W _I /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, room air	3000m above sea	
Body Dimensions L x W x H	-	50x40x21.5	mm
Weight		240	g

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

Dimension: (mm)



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