RF Q-Switch Driver – QSD Micro

Features:

- ✓ **60 Watts Output**
- ✓ 24 MHz-46 MHz
- ✓ 24 V Industrial supply
- ✓ Analogue modulation
- ✓ Digital pulse control
- ✓ **F**irst **P**ulse **S**uppression
- ✓ Power setting 6W…60W
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Fault monitoring
- ✓ Space saving case Style

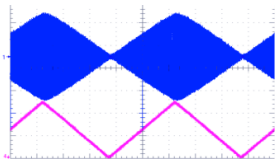
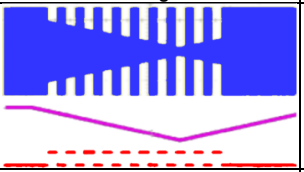
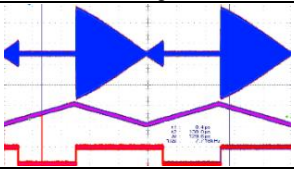
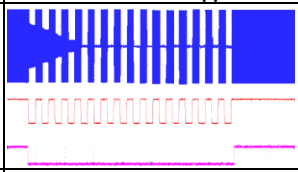
Application:

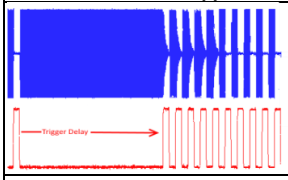
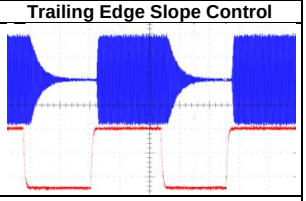
QSD MICRO is especially developed for laser sources with medium power as an **A**coustic-**O**ptic **Q-switch** RF driver. It is specifically designed for the control of Q-switch applications. The space-saving and compact design facilitates the system integration.

General:

Our **QSD-Micro** 60 Watt RF driver module is designed as compact as possible in its class and manufactured with the latest electronic components and modules. Its implemented automatic **F**irst **P**ulse **S**uppression simplifies the creation of top laser engraving systems. Versatile automatic modes with combination and correlation to applied external control signals with additional analogue modulation enlarge the **FPS** function capability for fast integration into any Q-switch application. Some typical signal control functions are listed below.

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 Analogue 0% to Analogue	Internal Ramp Generator

Intern First Pulse Suppression	Trailing Edge Slope Control
	
Burst Trigger Automatic	Adjustable Trailing

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

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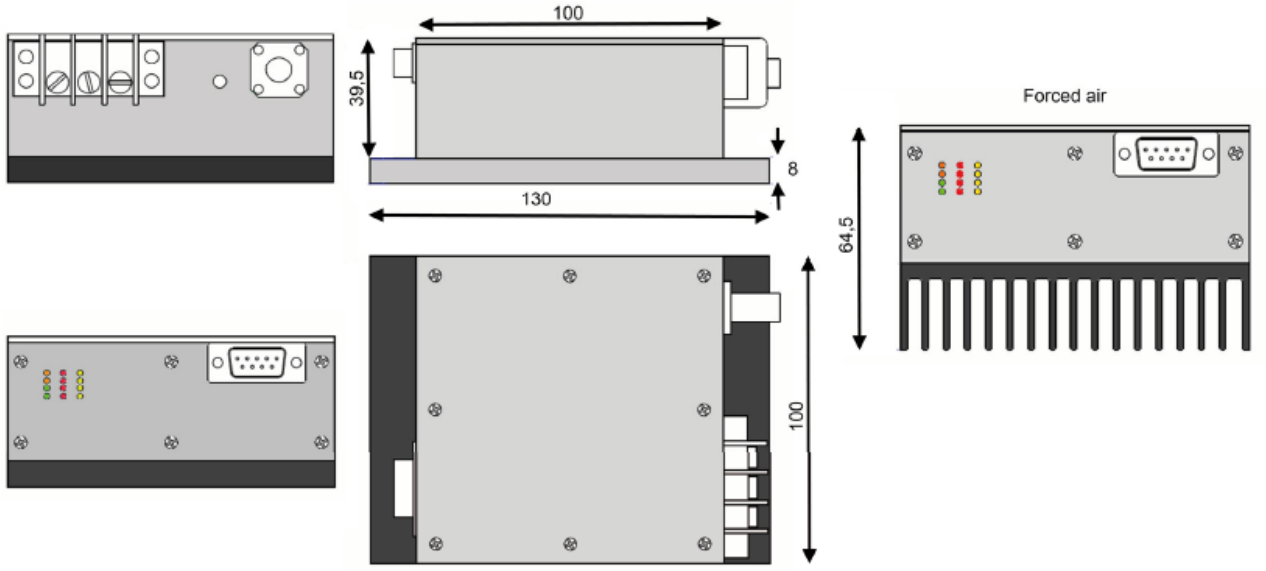
Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)		60	W
Power setting range	6	60	W
Power supply	23.5	24.5	V
Input current	4	6,8 @60W	A
Power loss	-	104	W
Recommended permissible VSWR for continues Operation	-	1.35	1
Pulse rate ext. ver. Internal FPK	DC	500	KHz
Modulation, analogues	DC	5 @50ΩInput	MHz
Linearity - deviation	-	7	%
Operating frequency	24	46	MHz
Dynamic			
Fall time (Pulse) 10-90	60 @80 MHz	120 @27MHz	ns
Rise time (Pulse) 10-90		100 @27MHz	ns
Harmonics suppression	40	-	dB
Dynamic -Extinction Ratio	40	-	dB
Thermal			
Temperature drift	-	0,1	W/K
Time to achieve stability		300	s
Ambiance / Installation / Transport			
Airflow rate @ 40°C standard heat sink 100x100x25	2	-	l/s
Storage temperature	-20	+80	°C
Relative humidity in storage		90	%
Ambient temperature during operation heat sink Body temperatures flanged	+5	+45	°C
Relative humidity during operation	+5	90- non condensation	°C
Ambient conditions, room air	Atmospheric		
Body Dimensions L x W x H	-	100 x 100 x 39,5	
Weight * heat sink	680	700	mm

Specifications are based on measurements in a 50 Ω system.

Dimension: (mm)



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