

RF Q-Switch Driver – QSD Nano

Features:

- ✓ 30 Watts Output
- ✓ 24 MHz -120 MHz
- ✓ 24 V Industrial supply
- ✓ Analogue modulation
- ✓ Digital pulse control
- ✓ First Pulse Suppression
- ✓ Serial bus interface RS-232 /RS-485
- ✓ Configuration software
- ✓ Temperature compensation
- ✓ Thermal overload protection
- ✓ Status monitoring an power metering
- ✓ Compact case style



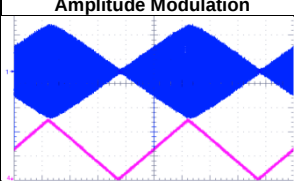
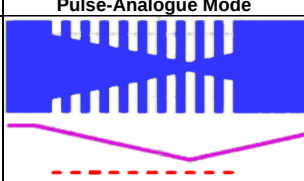
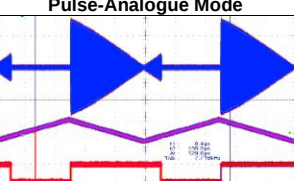
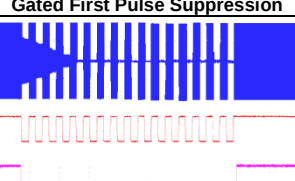
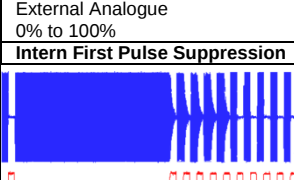
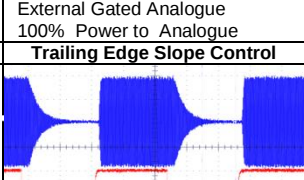
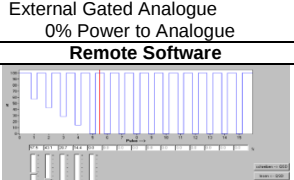
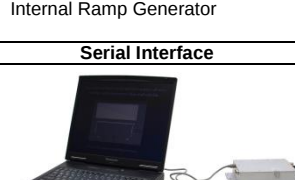
Application:

The **QSD NANO** RF driver is a compact RF transmitter for **Acoustic Optical Modulators** and **Q-Switch** stimulation .The compact and robust design, using state-of-the-art electronics and technologies, enabled the development of laser machines with versatile engraving functions. All development and design elements are for medium-sized laser systems in industrial, medical and scientific purpose.

General:

QSD-Nano is a compact lightweight 30 Watt RF Transmitter module with implemented pulse and analogue modulation option. The device is prepared with sophisticated control features for AOQ purpose as well wide operation RF frequency range. Automated First Pulse Suppression provides versatile, flexible and powerful system solutions for many tricky applications. A serial interface expands the features and increases the flexibility of the functions, while the graphical user interface simplifies all system settings. The mixed signal mode uses an analogue signal to control the RF output power with an additional synchronized gate signal can control the idle or full power. Both input signals can be combined to a very complex RF modulation, as the selected examples below.

Properties:

			
External Analogue 0% to 100%	External Gated Analogue 100% Power to Analogue	External Gated Analogue 0% Power to Analogue	Internal Ramp Generator
			
Burst Trigger Automatic	Adjustable Trailing	Full Device Control and Setup	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

Subject change without notice V10_R13

Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)		30	W
Power setting range	3	30	W
Power supply	23.5	24.5	V
Input current	0.8	4	A
Power loss	19	45	W
Recommended permissible VSWR for continues Operation		1.25	1
Pulse rate ext. ver. Internal FPK	DC	500	KHz
Modulation, analogues	DC	5 @50Ω Input	MHz
Linearity - deviation	-	7	%
Operating frequency	24	120	MHz
Dynamic			
Fall time (Pulse) 10-90	20 @80 MHz	40 @27MHz	ns
Rise time (Pulse) 10-90		40	ns
Harmonics suppression	40	na	dB
Dynamic -Extinction Ratio	40	na	dB
Thermal			
Temperature drift	-	0,1	W/k
Time to reach stability		120	s
Ambiance / Installation / Transport			
Airflow rate @ 40°C standard heat sink 80x50x25	1.5	-	l/s
Storage temperature	-20	+80	°C
Relative humidity in storage		90	%
Ambient temperature during operation heat sink	+5	+45	°C
Body temperatures flanged			°C
Relative humidity during operation	+5	90- non condensatio	%
Ambient conditions, room air	Atmospheric, room air 3000m above sea level		
Body Dimensions L x W x H	-	80 x 50 x 21	mm
Weight * heat sink	315	400	g

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

Dimension: (mm)

