

Acoustic Optic RF Driver – Nano

Features:

- ✓ **30 Watts Output**
- ✓ 24 MHz -120 MHz
- ✓ 24 V Industrial supply
- ✓ Analogue modulation
- ✓ Digital pulse control
- ✓ Power adj.3 W...30 W
- ✓ Serial bus interface RS-232 /RS-485
- ✓ Configuration software
- ✓ Temperature compensation
- ✓ Thermal overload protection



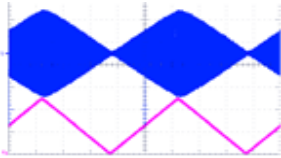
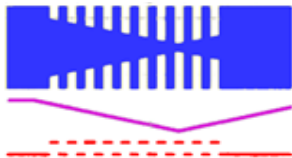
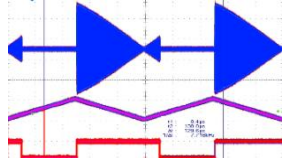

Application:

The RF driver Nano is designed for use in the **Acoustic Optics Modulator** application field. Smart engineering, with the use of the most advanced electronic components and modules on the market results in this miniaturization. This small design makes it to an ideal device for **compact LASER engraving machines**.

General:

This **compact** and **lightweight** transmitter delivers up to **30 watts** into a 50 Ω load with excellent **purity, fast modulation and high contrast dynamic**. Each device is **individually trimmed** on the test bench while the internal **microcontroller compensation** ensuring long term high repeatability and excellent **signal stability, temperature stability and high-resolution** accuracy. The mixed **analogue / digital** mode allow the modelling of complex RF modulation. In this case, an analogue signal controls the output power and a **synchronized gate** signal controls blanking or full power on demand. Both input signals can be combined to a **very complex** RF shapes as the following examples.

Properties:

Amplitude Modulation	Pulse-Analogue Mode	Pulse-Analogue Mode	Serial Interface
			
External Analogue 0% to 100% Power-set point	External Gated Analogue Power-set to Analogue input	External Gated Analogues 0% to Analogue input	Programming and Remote

Controls: Comfortable remote control due the implemented serial interface.
Options: An optional heat sink and fan are available up on request.
Accessories: RF-Cable and adaptors, Power supply, Power splitter-Combiner

Subject change without notice V10_R14

Specification:

Electrical	Min	Max	Unit
Output power (into 50Ω)	3	30	W
Power supply	23.5	24.5	V
Input current	0.8	4.5	A
Power loss	19	50	W
Harmonics suppression	40	-	dBc
Recommended permissible VSWR for continues Operation		1.25	1
Modulation, analogue	DC	5 @50Ωinput	MHz
Modulation input	3,3	10	V
Input impedance	50	4700	Ω
Operating frequency	24	120	MHz
Dynamic			
Fall time 90-10	20 @80 MHz	40 @27MHz	ns
Rise time 10-90		40	ns
Dynamic 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 80x50x25	1.5	-	l/s
Storage temperature	-20	+100	°C
Transport temperature (temporary)	-20	+150	°C
Relative humidity in storage		90	%
Ambient temperature during operation heat sink	+5	+45	°C
Body temperatures flanged			°C
Relative humidity during operation	+5	+60	%
Ambient conditions, room air	Atmospheric max. 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)

