

MCD Multichannel LED Driver

APPLICATION

MCD driver is a utility board that unites several functions:

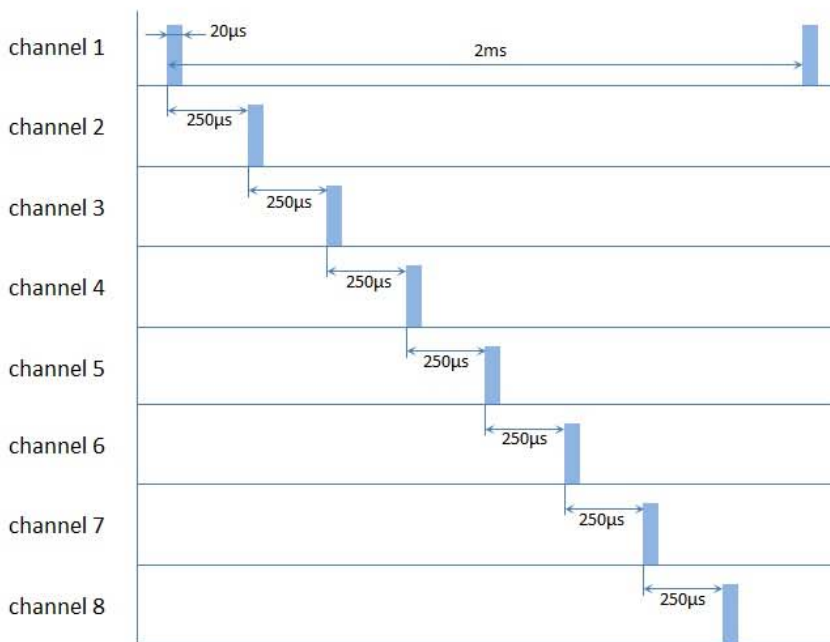
- power supply of arrays comprising of Mid-IR LEDs, supporting up to 8 channels;
- photodiode signal processing and amplification;
- synchronisation of LED and photodiode signals.



FEATURES

- Pulse mode operation (mode that provides maximum peak optical power).
- LED current amplitude and pulse duration are preset by manufacturer according to a customer's request.
- Ability to work either with PD models without a built-in preamplifier (enabling an on-board MCD preamplifier) or with PD models with a built-in preamplifier .
- Built-in 8-channel synchronous detector, which provides synchronisation of LED signals with a photodiode preamplifier and further signal amplification.

TECHNICAL CHARACTERISTICS



Pulse mode current-time relation

Main characteristics	
Parameter	Value
Input voltage	Stabilized +12 V
Voltage tolerance	-5..+5 %
Input current	< 0.25 A
Board dimensions	105×70×15 mm
Synchronization output voltage	11 V (-4 V for inverted photodiode signal)
Fixed parameters	
Pulse duration	20 µs
Repetition rate (per channel)	0.5 kHz
Repetition rate (8 channels)	4 kHz
Output current amplitude	0.4 A
Adjustable parameters	
Output signal gain	1x-10x