

Features

High speed current source for laser diodes and LEDs
 CW, pulsed, modulated or mixed current waveforms
 Very short rise and fall time
 Excellent dynamic performance
 Two analogue inputs
 Trigger input
 Onboard pulse generator
 LEDs for status indication
 Fast current monitor output
 USB interface for configuration, controlling and monitoring
 Closed-loop-adaptation adjustable via software with Graphical User Interface (GUI)


Specification

Diode current	0 ... 5 A
Diode voltage	0 ... 44 V
Supply voltage	10 V ... 48 V, max. 50 V
Rise time	<10 ns (load dependent)
Fall time	<10 ns (load dependent)
Modulation (input 50 Ω)	0 ... 50 MHz max
Modulation (input 10 k Ω)	0 ... 100 kHz max
Onboard pulse generator	1 Hz ... 5 MHz, 100 ns ... 1 s in steps of 10 ns

Inputs

Diode current set point	0 ... 1000 mV (input 50 Ω) or 0 ... 5 V (input 10 k Ω)
Trigger, Enable, Reset	TTL 5 V

Outputs

Diode current monitor	0 ... 250 mV (into 50 Ω)
Temperature	0 ... 4 V corresponds to 0 ... 80 °C
Ready, Error	TTL 5 V

General specifications

Ambient temperature	0 ... +45 °C
Dimensions	95 mm x 60 mm x 30 mm
Weight	150 g

Ordering Codes

VFS 05-50-U	10100548
USB Cable USB C to SubD9M	11002352
USB Cable USB C to USB A	11002351
MPC GUI software for PC	31000057

Description

The VFS 05-50-U is a linear current modulator for laser diodes and LEDs. Adaptation to the internal capacitive and inductive parasitics of the diode can be easily done by the customer using the MPC GUI software. To achieve maximum performance, diodes must be connected via low inductance metal sheets (striplines) which are optionally available. Modulation can be accomplished by external analog signals (analog inputs), external digital signal (trigger input) or by onboard pulse generator (gate input). The onboard pulse generator is synchronized to the external trigger signal with no missing or clipping pulses.