Attenuator Driver GPDVC-15/100

Operation Manual

ELVA-1, Ltd.

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General remarks.

Driver GPDVC-15/100 provides biasing current for Voltage Controlled Variable Attenuator (VCVA). The Driver is controlled by IBM PC via GPIB interface.

Ambient conditions.

The Driver is an indoor device intended for using in laboratory conditions:
air temperature: +5°…+40°C;
air humidity: up to 95% at 30°C;
atmospheric pressure: 84 – 112 kPa.

Device parameters.

Power supply: DC 5.1V , 3.0 A (Power adapter AC-DC)
Output current*): 0…< +100 mA DC
*) Max value of output current is matched to VCVA-XX attenuator used with the driver.

Set

1. Driver GPDVC-15/100 - 1 pc
2. Power adapter AC-DC - 1 pc
3. Cable BNC – SMA - 1 pc

Figure 1. Set

Disposition of controls and connectors on the device panels.

Figure 2. Rear panel
1 – Power socket DC 5.1V , 3.0 A; 2 – Connector for GPIB bus;

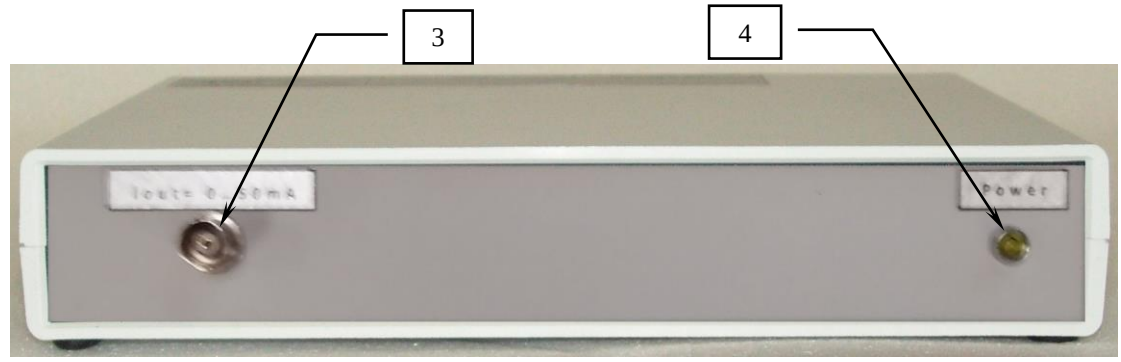

Figure 3. Front panel
3 – Output for VCVA, BNC connector. 4 - Power LED.

Principle of functioning

The Driver converts input 12-bit hexadecimal code, entering it through GPIB interface, into the output current.

Code 0000 → 0 mA and

Code 0FFF → Max mA.

GPIB configuration and operation commands.

The device is configured to work properly, so the only thing that can be changed in its settings is the GPIB address - we have set the default value to "4".
If you want to change GPIB address you need to send the following command (without apostrophes):
'SYST:COMM:GPIB:ADDR xx', where xx – new GPIB decimal address.

GPIB operation

1. Connect Driver to GPIB bus.
2. Connect the Attenuator with applied cable to connector 4 of the Driver.
3. Turn on the Driver by inserting the connector of the AC-DC adapter into the power socket on the rear panel.
4. GIPB command is the following:

"PO B3B2B1B0", where
B0 - "0" bit of sending byte in hexadecimal code
B1 - "1" bit of sending byte in hexadecimal code
B2 - "2" bit of sending byte in hexadecimal code
B3 - "3" bit of sending byte, which should be always equal 0.

5. For setting needed attenuation to use applied calibrations data for VCVA - attenuation vs code.