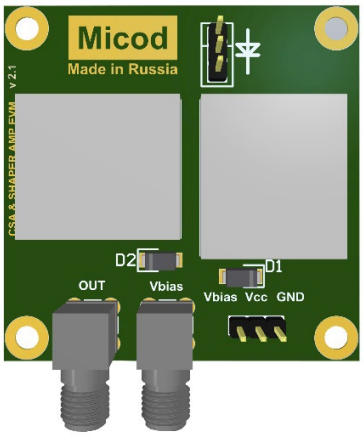
SHMYTOV

CSA-SA EVM

Revision: July 2026

FEATURES:

- **Single-supply operation**
- **Low power consumption**
- **Easy to use**



APPLICATIONS

- **Prototyping and testing**
- **Portable dosimeters**
- **Personal dose monitors**
- **Radiation monitoring systems**
- **Nuclear instrumentation**
- **Gamma-ray spectrometers**
- **Demonstration of scintillator-photodiode detector operation**
- **Educational and laboratory experiments**

Table 1 - ABSOLUTE MAXIMUM RATINGS

Name	Value
Supply voltage, Vcc	+5.5 V
Detector bias voltage, Vbias	210 V

Table 2 - SPECIFICATIONS

Name	Min.	Recommended / Typical	Max.
Supply voltage, Vcc(1)		+5 V	
Detector bias voltage, Vbias(1)	> 0 V		200 V
Supply current		~2 mA	
Weight			30 g

(1) Low-noise, low-ripple, high-stability power supplies are recommended.

RELATED DATASHEETS

CSA-250 / α-CSA: https://shmytov.com/assets/datasheet/CSA-250_EN.pdf
SA-25: https://shmytov.com/assets/datasheet/SA-25_EN.pdf

EXAMPLE OUTPUT SIGNAL

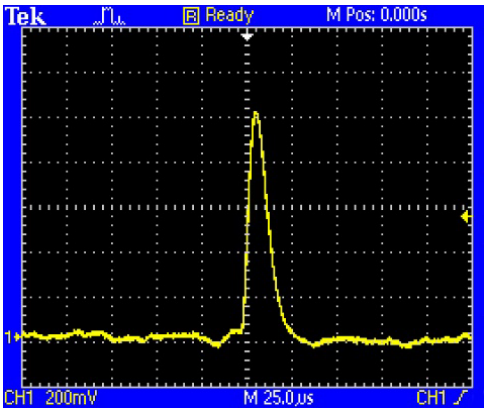


Fig. 1. Typical output waveform.

ESD CAUTION

This device may be damaged by electrostatic discharge (ESD).
ESD damage may cause degradation of electrical parameters or complete device failure.

EVM BOARD

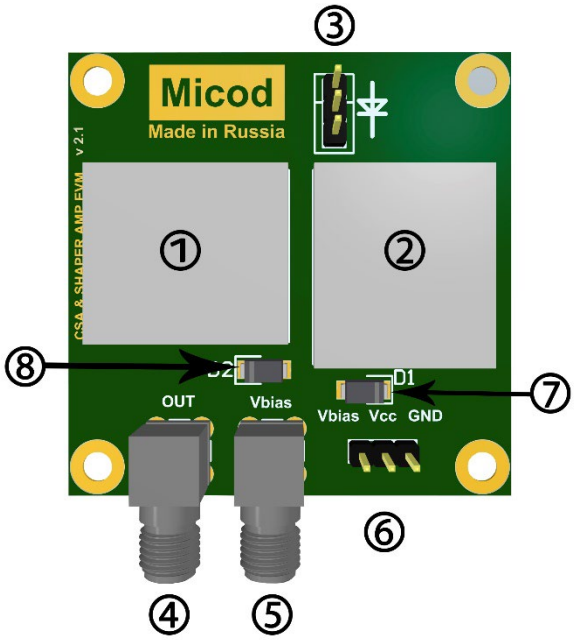


Fig. 2. EVM board[(1)].

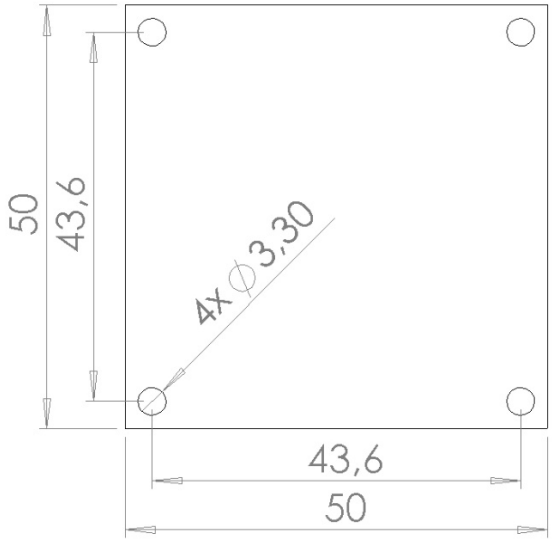


Fig. 3. EVM board dimensions.

1 Shaper amplifier — SA module;
2 Charge-sensitive amplifier — CSA module;
3 Detector connector for a photodiode, alpha detector, or other sensor. Soldering is recommended;
4 OUT signal connector — SMA;
5 Vbias connector — SMA;
6 Power connector — Vbias, +Vcc, GND;
7 Vcc protection TVS diode — SMAJ5.0CA or equivalent;
8 Bias-voltage protection TVS diode — not installed by default.

(1) PCB color and surface finish are selected at the manufacturer's discretion. Typical configuration: green solder mask and ENIG surface finish.

CONNECTION DIAGRAM

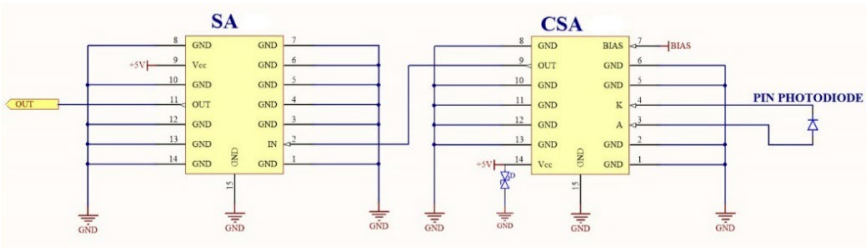


Fig. 4. Main connection diagram.

CONTACT AND ORDERING INFORMATION: **Web: https://shmytov.com**

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