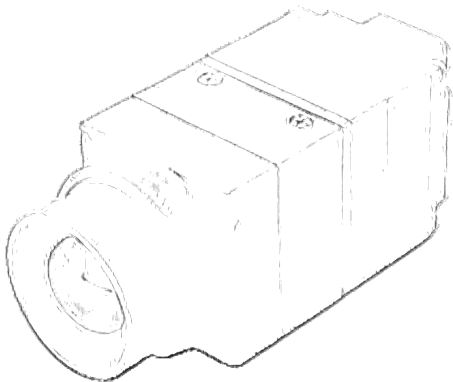


AC-THE02F

User Guide



AC-THE02F Overview



Thermal imaging module based on a VOx detector, available in SoC (USB output) and FPGA (CVBS output) variants.

AC-THE02F Specifications

• Basic Specifications

Detector Type	Vox
Resolution	640 × 512
Pixel Pitch	12 μm
NETD	≤ 40 mK (@F/1.0, 300K)
Weight (core w/o lens)	< 34 g
Frame Rate (SoC)	Typ. 30 Hz
Frame Rate (FPGA)	PAL 25/50 Hz · NTSC 30/60 Hz
Output (SoC)	USB 2.0
Output (FPGA)	CVBS
Core Dimension (SoC)	21 × 21 × 25 mm

AC-THE02F Specifications

• Basic Specifications

Core Dimension (FPGA)	20 × 20 × 38 mm
Lens Options (SoC)	9 mm (HFOV 48.8°) / 19 mm (HFOV 23.2°) / 13.4 mm (HFOV 32°)
Lens Options (FPGA)	9 mm (20 × 20 × 38 mm) / 6.8 mm (HFOV 62°)

AC-THE02F Setup

1. **Variant** — The SoC variant outputs USB 2.0 and the FPGA variant CVBS video; connect to the matching input.
2. **Lens** — Choose the lens option for the required field of view (see specifications).
3. **Mounting** — Mount with cooling and keep the lens unobstructed.

AC-THE02F Safety Notes

- Do not touch the lens; clean it with a soft cloth.
- Stay within the rated voltage and check polarity.
- Pull connectors by the housing, never by the wires.
- Beware of static discharge; do not operate in wet or dusty conditions.
- Never point the camera at the sun or intense heat sources such as welding arcs; the detector can be damaged.



<Detailed Manual>

novaX