**OBSETECH T-Core**

Reliable and popular uncooled LWIR shutter thermal imaging core with excellent impact and vibration resistance designed for multiple integrations: vehicles, UGVs, UAVs and other systems. T-Core supports analog and digital video output incl. USB 3.0 and 16bit raw data.

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| Detector | |
| **Type** | Uncooled VOx Microbolometer |
| **Pixel resolution** | 640×512 or 800x600 (optional) |
| **Pixel pitch** | 17μm (12μm optional) |
| **Spectral Range** | 8～14μm |
| **Sensitivity (NETD)** | ≤40mK @ f/1.0 / 25℃ |
| Image | |
| **Frame rate** | 25Hz or 50Hz (PAL), 30Hz or 60Hz (NTSC) |
| **Analog video** | PAL / NTSC (switchable) |
| **Digital video** | 8-bit or 14-bit serial LVDS, 8-bit or 14 bit parallel CMOS,  8-bit BT656 (Support BT601, MSB/LSB) |
| **Digital zoom** | 1x, 2x, 4x |
| **Color palettes** | 9 standard (customized on demand) |
| **Boot time** | < 15 s |
| **Compensation** | Shutter |
| **Automatic Gain Control** | Yes, adaptive dynamic range compression |
| **Intelligent image enhancement** | Yes |
| **SDK** | Support secondary development and function expansion |
| Control | |
| **Communication protocol** | RS232-TTL |
| **Baud rate** | 115200 (default) |
| Power | |
| **Power supply** | 4.0 - 6.0 VDC |
| **Power consumption** | ≦1.8W @ 5V @ 23 ± 3℃ |
| Interface | |
| **Standard external interface** | 50-pin Hirose: DF 12-50DS-0.5V(86) |
| Environment | |
| **Operating temperature** | -40℃～+70℃ external temp |
| **Storage temperature** | -45℃～+85℃ external temp |
| **Humidity** | 5-95% non-condensing |
| **Certification** | ROHS, REACH and WEEE |
| **EMC** | FCC, CE Class B |
| Physical Characteristic | |
| **Dimension** | 44.5mm x 44.5mm x 44.5mm (W x H x L)（without lens） |
| **Weight** | < 90g（without lens incl. M34 lens adapter ring） |
| **Lens interface** | M34/0.5 |
| **Mounting interface** | 6 attach points in lens mount, M2 x 0.4 x on 3 sides, 2 per side |
| Optional features | |
| Expansion boards (VPC, Camera Link or USB 3.0 board), Tripod, M34 lens adapter ring, Multiple lens available (athermalized, continuous zoom, manual or motorized focus etc.) | |

Temperature measurement version available on request. Specific requirements can be customized.



