OBSETECH™
advanced observation

OBSETECH FT - Core series

Very reliable uncooled LWIR shutter thermal imaging core with excellent impact and vibration resistance designed for multiple integrations: vehicles, UGVs, UAVs, fire control systems as well as many other systems. FT - Core supports analog and digital video output and auto-focus.

Detector	
Type	**Uncooled VOx Infrared FPA**
Pixel resolution	**640×512** or 1024x800 (optional) or 1280 x 1024 (optional)
Pixel pitch	**12μm**
Spectral range	**8～14μm**
Sensitivity (NETD)	**≤40mK @ f/1.0 / 25℃**
Image	
Frame rate	50Hz
Analog video	1 Channel PAL / NTSC (switchable at any time)
Digital video	LVCMOS / BT.656 / BT.1120 / LVDS. (H.264 optional)
Digital zoom	1.0 ~ 8.0× Continuing Zooming (step 0.1), Zoom in any area
Color palettes	Support 18 types
Polarity	Black hot / White hot
Reticle	Reveal / Hidden / Shift
Compensation	Shutter
Image processing	Non-uniformity correction (NUC), Digital filter noise reduction (DNR), Digital detail enhancement (DDE), High temperature warning function, Fire alarm function
Image mirror	Right-left / Up-down / Diagonal
Brightness and Contrast	Manual / Auto 0 / Auto 1
Power	
Power supply range	5 - 24V DC
Typical service voltage	12V DC
Power protection	Over-voltage / Under-voltage / Reverse Connection
Typical power consumption	≦ 2.0 W (at 25℃)
Interface	
Serial communication protocol	RS-232, RS-485 (support PELCO-D protocols only)
Environment	
Operating temperature	-40℃～+60℃ external temp
Storage temperature	-45℃～+85℃ external temp
Humidity	5-95% non-condensing
Certification	ROSH, REACH
Physical Characteristic	
Dimension	44.5mm x 44.5mm x 43mm (W x H x L) (without lens)
Weight	< 85g (without lens)
Lens interface	M34/0.5
Mounting interface	flange
Optional features	
Various output boards available. Multiple lenses available.	

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PIN1
PIN1
3 × ⌀ 5 ▽ 2
(2.7)
PIN1
PIN1
PIN1

⌀ 53
⌀ 65
Optical Center
Forward Image
⌀ 59
110°
110°
3 × ⌀ 2.4

36.5±2
15.4
(12.6)
12.64±0.05
(2.7)
※ 24±0.1
37
43
FPA
4-M2 ▽ 5
bilateral symmetry
10.7±0.25

18.21
15.4
4.7
2
⌀ 1.5 ▽ 1.5
35.6
0.4
※ 30±0.1
38
44 45
2 × M2 ▽ 4
1.5