

PFI-S650D Thermal Monocular Camera



Key Features

- Vanadium oxide uncooled focal plane detector.
- Dual FOV lens.
- Ergonomic buttons layout.
- Crystal breathing power button.
- Carbon fiber decorative texture design.
- FHD OLED display.
- Replaceable 18650 battery.
- High optical magnification.
- Connects to the mobile app through Wi-Fi.
- Six color palettes.
- Built-in EMMC (64 GB).
- IP67 rated.

Technical Specification

Thermal	
Detector Type	Vanadium oxide uncooled focal plane detector
Effective Pixels	640 (H) × 512 (V)
Pixel Pitch	12 μm
Spectral Range	8 μm–14 μm
Sensitivity (NETD)	≤18 mK@f/1.0, 25 °C
Focal Length	25 mm; 50 mm
Aperture	25 mm: F0.88 50 mm: F1.1
Field of View	25 mm: H: 17.9°; V: 14.2°/H: 30.7 m; V: 24.6 m (@100 m) 50 mm: H: 8.8°; V: 7.0°/H: 15.4 m; V: 12.3 m (@100 m)
Focus Control	Manual
Close Focus Distance	25 mm: 2 m (6.56 ft) 50 mm: 8 m (26.25 ft)
Detection Distance	25 mm: 1,300 m (4,265.09 ft) 50 mm: 2,600 m (8,530.18 ft)
Recognition Distance	25 mm: 331 m (1,085.96 ft) 50 mm: 662 m (2,171.92 ft)
Identification Distance	25 mm: 166 m (544.62 ft) 50 mm: 331 m (1,085.96 ft)
Magnification	25 mm: 1.72× 50 mm: 3.45×
Frame Rate	50 Hz
Display	
Screen	1920 × 1080, 0.49 inch, OLED
Color Palettes	6 (white hot/black hot/iron red/alarm/emerald/amber)
Video Compression	H.264
Diopter	–5D to +3D
Eye Relief	15 mm (0.59 inch)
Exit Pupil	8 mm (0.31 inch)
Function	
Digital Zoom	1×, 2×, 4×, 8×
Video Recorder	Yes
Snapshot	Yes
Wi-Fi Hotspot	Yes
Hot Spot Track	Yes
FFC Calibration	Auto, Manual, External Correction
Standby Mode	Yes
DPC (Defective Pixel Correction)	Yes
MIC	Yes

Compass	Yes
Storage	Built-in 64 GB
Power	
Battery Type	Replaceable 18650 battery
Battery Life	6 h@25 °C (Wi-Fi off)
Power Supply	5 VDC/2 A
Port	USB Type-C
Overvoltage Protection	Yes
General	
Operating Temperature	−30 °C to +55 °C (−22 °F to +131 °F)
Operating Humidity	≤95%
Protection Grade	IP67
Packaging Dimensions	291 mm × 140 mm × 127 mm (11.46" × 5.51" × 5") (L × W × H)
Product Dimensions	223 mm × 61 mm × 71.4 mm (8.78" × 2.4" × 2.81") (L × W × H)
Gross Weight	1.31 kg (2.89 lb)
Net Weight	573 g (1.26 lb)

Dimensions (mm[inch])

