

## FP21 Handheld Thermal Imager



The handheld thermal imager is a handheld temperature measurement product suitable for multiple scenarios. Equipped with a high-resolution detector, it delivers clear imaging and high thermal sensitivity, enabling effective detection of temperature variations and precise temperature measurement of targets. The handheld thermal imager supports multiple palettes, making it suitable for various on-site environments including fire detection, rescue, and buildings, etc.

### ▪ Features

- Thermal resolution: 256 x 192 (49,152 pixels), NETD: < 30 mK (@ 25 °C, F#=1.0)
- Temperature measurement range: -20°C to 550°C
- Measurement presets: Center spot, Hot spot, Cold spot
- 25 Hz image frequency
- 3.2" LCD screen display
- Support ODE and SuperIR image enhancement technologies
- Start up time: 9 second (with IR image), 10 second (with OSD)
- Support auto sleep mode
- Support screen lock function

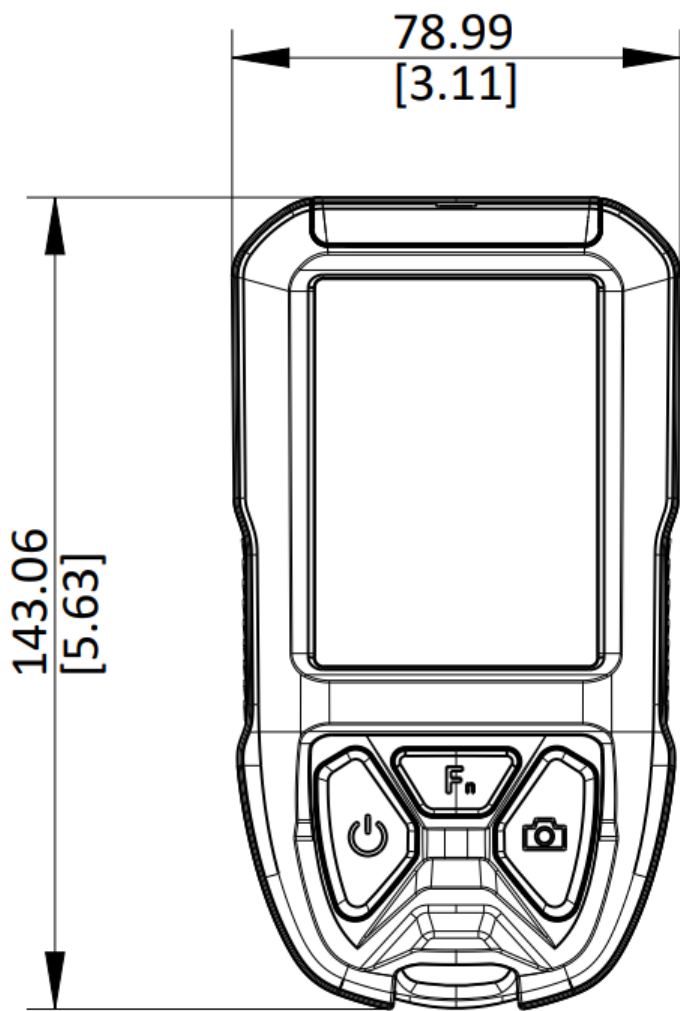
## • Specification

| Infrared Image                 |                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------|
| IR Resolution                  | 256 × 192 (49,152 pixels)                                                                  |
| NETD                           | < 30 mK (@ 25 °C, F#=1.0)                                                                  |
| Image Frequency                | 25 Hz                                                                                      |
| Detector Pitch                 | 12 μm                                                                                      |
| Spectral Range                 | 7.5 to 14 μm                                                                               |
| Focal Length                   | 3.6 mm                                                                                     |
| F-number                       | F1.0                                                                                       |
| Field of View (FOV)            | 37.2° × 50.0°                                                                              |
| Spatial Resolution (IFOV)      | 3.33 mrad                                                                                  |
| Min. Focus Distance            | 0.3 m (0.98 ft)                                                                            |
| Focus Mode                     | Focus Free                                                                                 |
| SuperIR                        | Yes, on captured images and live view                                                      |
| Image Display                  |                                                                                            |
| Display                        | 640 × 480 Resolution, 3.2"LCD Screen                                                       |
| Digital Zoom                   | 1x, 2x, 4x                                                                                 |
| Color Palettes                 | Basic, Smooth, White Hot, Black Hot, Fire Detection, Rescue, Hot Area, Cold Area, Building |
| Image Modes                    | Thermal                                                                                    |
| Measurement and Analysis       |                                                                                            |
| Object Temperature Range       | Range -20°C to 150°C<br>Range 0°C to 550°C                                                 |
| Measurement Tools              | Center Spot, Hot Spot, Cold Spot                                                           |
| Data Storage and Communication |                                                                                            |
| Storage Media                  | Built-in 4 GB flash memory                                                                 |
| Image Storage Capacity         | Approx. 8400 Images                                                                        |
| Video Storage Capacity         | Approx. 26.5 h                                                                             |
| Video File Format              | MP4                                                                                        |
| General                        |                                                                                            |
| USB Interface                  | USB Type-C                                                                                 |
| LED Light                      | Yes                                                                                        |
| Battery Type                   | Rechargeable Li-ion battery                                                                |
| Battery Charging Time          | Approx. 3 hours via USB; 4 hours with battery charger                                      |
| Wi-Fi                          | Yes                                                                                        |
| Battery Operating Time         | Approx. 6 hours                                                                            |
| Protection Level               | IP67, IEC 60529                                                                            |
| Safety                         | EN 62368                                                                                   |
| Drop Test Height               | 2 m, IEC 60068-2-31                                                                        |
| EMC                            | EN 301 489-1, EN 301 489-17, EN IEC 61000-6-2, EN IEC 61000-6-3                            |
| Vibration                      | 2 g, IEC 60068-2-6                                                                         |
| Shock                          | 25 g, IEC 60068-2-27                                                                       |

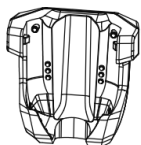
|                           |                                                                    |
|---------------------------|--------------------------------------------------------------------|
| Working Temperature Range | -10°C to 55°C (default settings)                                   |
|                           | 85°C, 30min                                                        |
|                           | 150°C, 10min                                                       |
|                           | 260°C, 5min                                                        |
| Storage Temperature Range | -20°C to 60°C                                                      |
| Relative Humidity         | IEC 60068-2-30, 24 hours, 95% relative humidity, 25–40°C, 2 cycles |
| Dimension                 | 52.7×143×79 mm (2.1 × 5.6 × 3.1 in)                                |
| Weight                    | Approx. 398 g (0.88 lb)                                            |

▪ **Available Model**  
HRYXBSZ-256-FP21

▪ **Dimension**



## ▪ Packaging List



Charging Base (x1)



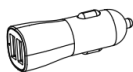
Imager Quick Start Guide (x1)



In-line Fuse (x1)



Charging Base Quick Start Guide (x1)



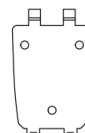
Car Cigarette Lighter (x1)



USB Cable (x1)



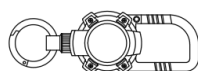
M5x16 Screws (x3)



Metal Bracket (x1)



Neck Strap (x1)



Retractable Lanyard (x1)



Patch Cable (x1)



M2.5x6 Screws (x2)

## ▪ COMPLIANCE NOTICE:

The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.



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\*Note: Specifications are subject to change without notice. For the current specs,  
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