

# Advanced Handheld Thermal Imager



Upgraded

FOTRIC 340 Series

348A | 347A | 346A | 345A | 345M

## Cutting-Edge Image Algorithms

FOTRIC's imaging enhancement algorithms, such as TWB and IREdge, enable prominent image representation in complex environments.

#### **IRedge function**

The IRedge function strengthens the visual impact of object contour and edges to help users distinguish them from the background.



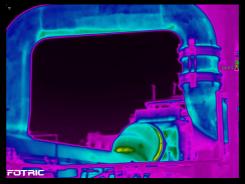
**IRedge OFF** 



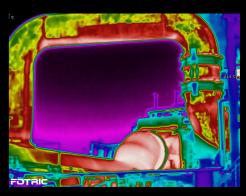
**IRedge ON** 

#### TWB function

TWB essentially re-scales the palette ribbon based on the number of pixels in representing each temperature range. Consequently, the temperature distribution of the entire image is more clearly laid out for the inspector.



TWB OFF



**TWB ON** 

## Extraordinary Performance

Reveal miniscule thermal difference at any temperature range

Up to

640\*480

IR resolution

Up to

-20~1550° C

Temperature range

Up to

30mK

Thermal sensitivity

Up to

0.19mrad

**IFOV** 

- Hand work eased like never before with programmable AI Quick-Access button.
- Turbo-Focus system enables swift and meticulous measurements.
- Interchangeable lenses provide coverage for any target, any scene.
- Complimentary access to Face Detection feature.

## Exceptional Field work

FOTRIC's fine-tuned new series is equipped to help you thrive in the toughest environments.

### "One imager to see them all"

Inspectors need to deal with objects far and near, large and small. And that's what FOTRIC products can accommodate. FOTRIC 340 series cameras come with interchangeable 44°, 25°, 12° and 7° lenses, making sure the owner can accurately acquire object's condition and temperature at any distance.





**IP54** 

2-meter

**Enclosure Rating** 

Drop-resistant design

- Professional laser meter for distance and area measurement. (\*Only for 340A series)
- Full-range radiometric video for post-analysis.
- Voice annotation via Bluetooth Headset.
- QR-code scan to save in Tags, for auto-naming of files.
- Outstanding battery performance for worryfree survey sessions.

## **Diversified Workflow**

The 340 series cameras produce standardized radiometric JPEGs that's accessible through different media. They can be supported by the professional, analytical software-AnalyzIR, with a brand new report template available. In addition, users can control, edit, and stream the camera through the mobile APP, EasyIR.



#### **AnalyzIR**

The powerful analytical software is designed for comprehensive and professional evaluation of the thermal images. Combined with strong connectivity and multidimensional capabilities, it is a robust tool that can meet even the most stringent requirements.





#### **EasylR**

The simple and elegant design of FOTRIC's newest APP aims to aid operators with automation and intuitive operation. With straightforward navigations, it enables engineers to control and view their thermal imagers remotely under the same WiFi connection.



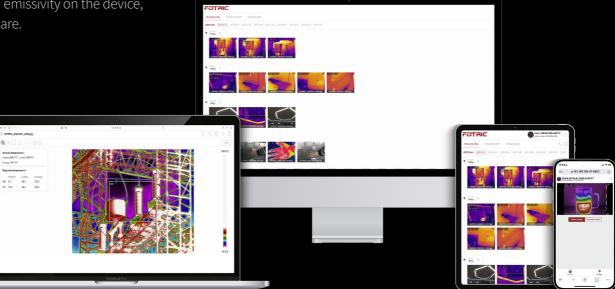
## **Diversified Workflow**

The 340 series cameras has never been more powerful. With the latest interactive platform, IRExplorer allows users to now control and stream the thermal imager remotely through any web browsers on PC, mobile, or tablets. Users can capture, share and edit the thermal images and synchronized them to the device.



#### **IRExplorer**

The powerful interactive platform is designed for inspectors to access thermal imager's data without the trouble of downloading new softwares. By opening the web browsers on Mac, Windows, IOS, Android, and tablets, users can process and share radiometric images easily. Furthermore, now users can change temperature range and emissivity on the device, and capture images wherever they are.



#### Светли LED светла за да осветлува во темница



# Specifications

Key Features	Fotric 348A	Fotric 347A	Fotric 346A	Fotric 345A	Fotric 345M	
Infrared Resolution	640*480	480*360	384*288	320*240	320*240	
Super Resolution (SR)	1280*960	960*720	768*576	640*480	640*480	
Thermal Sensitivity (NETD)		< 0.04°C @30°C ,40mk				
Temperature Measurement Range	-20°C to 1550°C (-4 °F to 2822 °F )			-20°C to 650°C (-4 °F to 1203 °F )		
High temperature expansion				Support	No support	
IFOV with Standard Lens	0.68mrad	0.91mrad	1.14mrad	1.36mrad	1.36mrad	
Digital Zoom		1-8x				
User-definable Spot Markers	16 spot markers	16 spot markers	16 spot markers	12 spot markers	12 spot markers	
User-defined Measurement Boxes	12 (rectangle or circle)	12 (rectangle or circle)	12 (rectangle or circle)	8 (rectangle or circle)	8 (rectangle or circle)	
User-defined Measurement Lines	8 measurement lines	8 measurement lines	8 measurement lines	4 measurement lines	4 measurement lines	
Minimum Focus Distance	0.25m	0.25m	0.1m	0.1m	0.1m	
Focus Mode	TurboFocus ™ Speedy I	Manual				
Laser Measurement	Distance, Length, and Area					
Common Features						
Field of View (FOV)	25° ×19°					
Al Programmable Key	Yes, for quick start					
Navigation Satellite System	Yes, support GPS					
Image Annotation	Favorites and AutoNaming					
Infrared Spectral Band	7μm~14μm					
Detector Type	Uncooled infrared focal plane detector					
Detector Pitch	17μm					
Frame Rate	30Hz					
Lens Options	Optional wide-angle lens, telephoto lens and ultra telephoto lens Optional wide-angle lens and telephoto lens					
Lens Recognition	Yes					
Storage Memory	Standard issue 128GB micro SD memory card, expandable up to 2TB					

Batteries	3 Lithium-ion rechargeable batteries (7.4V, 3500mAh)	2 Lithium-ion				
Ergonomic Design	Yes					
Standard Configuration	Infrared thermal imager, lens, lens cover, batteries, battery charger, power adapter, USB type-C to USB interface cable,micro HDMI to HDMI interface cable, SD card, SD card reader, accessory bag (wrist strap, 2 wrist strap holders, 2 M4 * 8 screws, lanyard, Allen wrench), information bag (packing list,user manual, calibration certificate, certificate of QC, certificate of inspection, warranty card, USB disk), portable soft bag, portable hard case					
Temp Analysis						
Accuracy	$\pm$ 2°C or $\pm$ 2 %, whichever is greater (ambient temp between15°C ~35°C )					
On-Screen Temperature Test	Temp Rise Test, Temp Differentiation Test					
Temperature Measurement	Center-point and center-box					
Highest/Lowest Temp Spot Mark	Yes,full-screen and measurement boxes both with highest/lowest temp spot marker					
On-screen Analysis	Emissivity, Partially emissivity, Reflected temperaure, Ambient temperature, Humidity, Distance and IR window compensation.					
Sound Alarms	Area alarm; High temperature alarm and low temperature alarm					
Color Alarms (temperature alarms)	High temperature, low temperature, and interval isotherms					
Image Display						
Display	Gorilla Glass Explosion-proof IPS LCD; Display pixels: 1280*720; Display size: 5inch (landscape)					
Build-in Digital Camera (visible light)	13-megapixel, industrial digital camera					
LED Light (torch and flash lamp)	Yes					
Picture-in-Picture	Yes,resizable and movable					
Palettes	16 standard palettes; 16 inverted palettes					
Temp Scale	Touch-screen, auto, manual					
Minimum Temp Span (Manual)	2°C (3.6 °F )					
Data Storage						
Analyze Radiometric Image Data	Yes					
Analyze Radiometric Video Data	Yes					
Image File Formats	Standard JPEG with measurement data included					
Video File Formats	Full radiometric video in IRS format;standard MPEG4 non-radiometric video;					
Gallery	Image preview and analyze, video preview and analyze					
Software	FOTRIC AnalyzIR, EasyIR, FOTRIC NaviTiR					
Voice Annotation	200 seconds built-in microphone and speaker on still image and video					
Text Annotation	Yes					

Remote Control Operations	Remote display and control operation through Fotric AnalyzIR software and EasyIR mobile APP					
Auto Capture	Yes, 1Hz to 12Hz frame rate adjustable; 2s to 60m59s interval adjustable					
Battery						
Battery Life	Over 4 hours per battery					
Battery Charging Time	2.5 hours to 90% full charge					
Battery Charging System	Two-bay battery charger with LED display (12V, 3A)					
AC Operation	AC operation with included power supply (100V ac -240V ac, 50/60Hz)					
Power Saving	User-selectable screen-off modes					
General Specifications						
WiFi Connection	Support 2.4GHz and 5 GHz frequency, support 902.11a/b/g/n/ac					
Bluetooth Connection	BT4.2 LE, connectable to bluetooth headphone					
FTP Data Transfer	Accessible through WiFi or Hotspot, rapid data transfer					
Device Interface	Support USB Type-C 3.0, Micro HDMI and SD card					
USB Interface	USB type-C type; conforms to USB 3.0 / 2.0 specification					
HDMI Interface	Micro HDMI type,Comply with HDMI 1.4 specification, support 1080p image video transmission at 60Hz frame rate					
SD Card Interface	Support SD 3.0					
Laser Ranger/Pointer	Independent key activation; Laser level: 2; Wavelength: 635nm; Power: <1mW; Laser distance: 0.1~50m, Accuracy:  d*0.01%±2mm  Independent key activation Not support distance measurement					
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F )					
Storage Temperature	-40°C to +70°C (-40 °F ~158 °F )					
Relative Humidity	< 95%RH					
Safety	EN 62368-1:2014+A11:2017 (Power Supply)					
Vibration	2g (GB/T 2423.10-2008/IEC 60068-2-6:1995)					
Shock	25g(GB/T 2423.5-2019/IEC60068-2-27:2008)					
Electromagnetic Compatibility	EN 61326-1:2013 (immunity); EN 61326-1:2013 Class A (emission)  FCC 47 CFR Part15 Class A (emission)					
Drop	Engineered to withstand 2 meters (6.5 feet) drop with standard lens					
Enclosure Rating	IP54, GB/T 4208-2017/IEC60529:2013					
Size (H x W x L)	312.8mm×123.3mm×139.2mm					
Tripod	UNC 1/4"-20 interface					

Weight (battery included)	< 1.0kg (lens not included)					
Hard Case	Hard rubber: PC + ABS, Soft rubber: TPE,Magnesium alloy, Flame retardant grade: UL94 HB					
Warranty	2 years (standard), extended warranties are available,10 years for core detector					
Recommended Calibration Cycle	2 years (assumes normal operation and normal aging)					
Supported Languages	English,Korean,Spanish,German, Italian, Portuguese					
Optional Lens	Fotric 348A	Fotric 347A	Fotric 346A	Fotric 345A	Fotric 345M	
Wide-angle	44° ×34° ( < 0.1m), IFOV: 1.20 mrad	44° ×34° ( < 0.1m), IFOV: 1.6 mrad	44° ×34° ( < 0.1m), IFOV: 2.0 mrad	44° ×34° ( < 0.1m), IFOV: 2.40 mrad	44° ×34° ( < 0.1m), IFOV: 2.40 mrad	
Telephoto	12° ×9° ( < 1.0m), IFOV: 0.33 mrad	12° ×9° ( < 1.0m), IFOV: 0.44 mrad	12° ×9° ( < 1.0m), IFOV: 0.55 mrad	12° ×9° ( < 1.0m), IFOV: 0.65 mrad	12° ×9° ( < 1.0m), IFOV: 0.65 mrad	
Ultra Telephoto	7° ×5° ( < 3.0m), IFOV: 0.19 mrad	7° ×5° ( ≤ 3.0m), IFOV: 0.25 mrad	7° ×5° ( < 3.0m), IFOV: 0.32 mrad			

# Innovation Excellence Integrity

Equipment described herein may require EU, US and UNSC authorization for export purposes.

Imagery for illustration purposes only.

Specifications are subject to change without notice.

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