

# Advanced Handheld Thermal Imager



Upgraded

**FOTRIC 340 Series**

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



# Cutting-Edge Image Algorithms

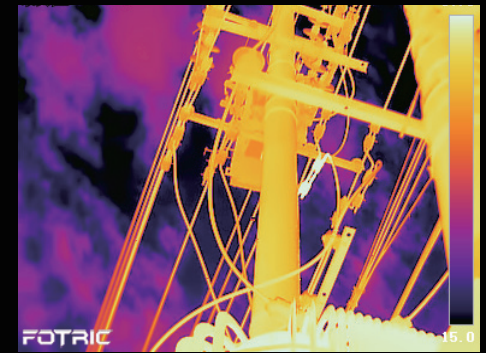
FOTRIC's imaging enhancement algorithms, such as TWB and IRedge, enable prominent image representation in complex environments.

## IRedge function

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



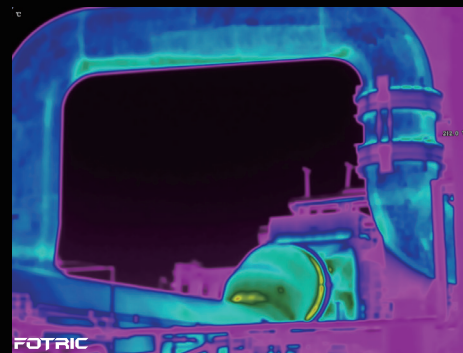
IRedge OFF



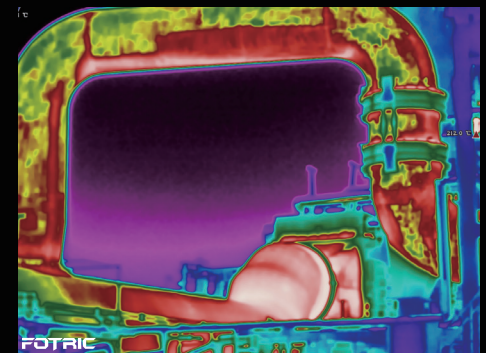
IRedge ON

## 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

**30mK**

Thermal sensitivity

Up to

**-20~1550° C**

Temperature range

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

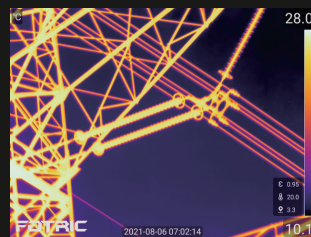
FOTRIC's fine-tuned new series is equipped to help you thrive in the toughest environments.

## *“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.



44° lens



7° lens



## IP54

Enclosure Rating

## 2-meter

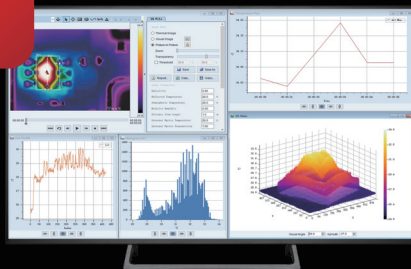
Drop-resistant design

- 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. Not only are they supported by the professional, analytical software-AnalyzIR, they can also be opened and organized through the Intuitive and user-friendly EasyIR.



## AnalyzIR

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



## EasyIR

The simple and elegant design of FOTRIC newest software aims to aid operators with automation and intuitive operation. With straight-forward navigations, it enables even beginners to easily get the job done.

**FOTRIC**  
Thermal Imaging Solutions

### FOTRIC Sample Report

Address: Phone: Fax:

Thermographic report

Inspection service: XXX

File name	FOTRIC_20201214_0010.jpg	Street	
Time	2020-12-14 12:35:57	Building	
Ambient	69.00	City	
Distance	3.28	Facility	
Emissivity	0.98	Equipment	
Max T		Inspector	

IR Image		Visible Image	

Marker's data	
ROI	Temperature
Sp1	215.21
Sp2	393.47
Sp3	332.35

Severity	
Plan	
State	
Suggestion	



Bright LED Lamps to illuminate the dark

Laser ranger for accurate distance and area measurement

Built-in 13 MP digital camera for dynamic image quality

Built-in speaker for temperature alarm

Multiple connection interfaces

Up to 128GB micro SD memory card

Gorilla 5" HD IPS touch screen

Tripod for 1/4" standard mounting

AI programmable key, for quick access

Interchangeable lenses

Auto-focus button and capture button

Ergonomic handheld design

Batteries for totally up to 12 hours of continuous operation





# 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)	< 0.03°C @30°C	< 0.03°C @30°C	< 0.03°C @30°C	< 0.03°C @30°C	< 0.04°C @30°C
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	1-10x,Continuous adjustment of roller				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 Intelligent Autofocus system for continuous, laser distance, graphic contrast,manual				Manual
Laser Measurement	Distance, Length, and Area				—
<b>Common Features</b>					
Field of View (FOV)	25° × 19°				
AI 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 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	
<b>Temp Analysis</b>		
Accuracy	$\pm 2^{\circ}\text{C}$ or $\pm 2\%$ , whichever is greater (ambient temp between $15^{\circ}\text{C}$ ~ $35^{\circ}\text{C}$ )	
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 temperature, 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	
<b>Image Display</b>		
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)	$2^{\circ}\text{C}$ (3.6 $^{\circ}\text{F}$ )	
<b>Data Storage</b>		
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	
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	
Auto Capture	Yes, 1Hz to 12Hz frame rate adjustable; 2s to 60m59s interval adjustable	
<b>Battery</b>		
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	
<b>General Specifications</b>		
WiFi Connection	Support 2.4GHz and 5 GHz frequency, support 802.11a/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: $d \times 0.01\% \pm 2\text{mm}$	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, Korea, Spanish				
<b>Optional Lens</b>	<b>Fotric 348A</b>	<b>Fotric 347A</b>	<b>Fotric 346A</b>	<b>Fotric 345A</b>	<b>Fotric 345M</b>
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.

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