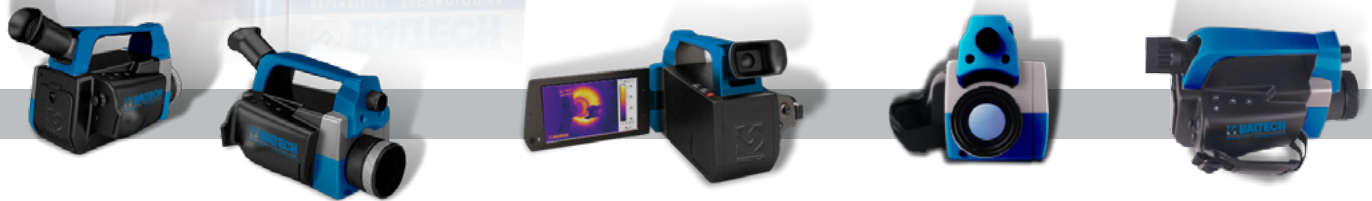# THERMAL IMAGING CAMERAS
BALTECH TR-0170 and BALTECH TR-0180

BALTECH TR-0170 and BALTECH TR-0180 are with cutting-edge thermal imaging technology, provide high performance with 5MP visual camera, interchangeable lens, large 5" foldable and rotatable LCD, manual & auto focus.

Thermal imaging cameras BALTECH TR-0170 and BALTECH TR-0180 are with ergonomic design, super image quality, multiple measurements, providing powerful assistance for thermographers to have the most efficient instrument for maintenance inspections.

BALTECH TR-0170 and BALTECH TR-0180 have a wide range temperature measurement to satisfy variety of thermograph applications, they enable you to identify the small temperature difference that could cause big problems.

Features

- High IR resolution
- Excellent thermal image and high accuracy temperature measurement
- Folding and 270° rotatable display
- Auto/Motor focus for one-hand operation
- Bright LED light, Laser pointer
- Built-in digital camera
- Wide temperature measurement range
- 60sec voice annotation
- Interchangeable IR lens
- Scalable P-I-P and Thermal fusion
- Multiple Measurement
- Real-time thermal video transfer to PC via USB, and remote transfer via MSN and Skype
- New generation BALTECH Expert analysis software

Applications

RELIABILITY TECHNOLOGIES
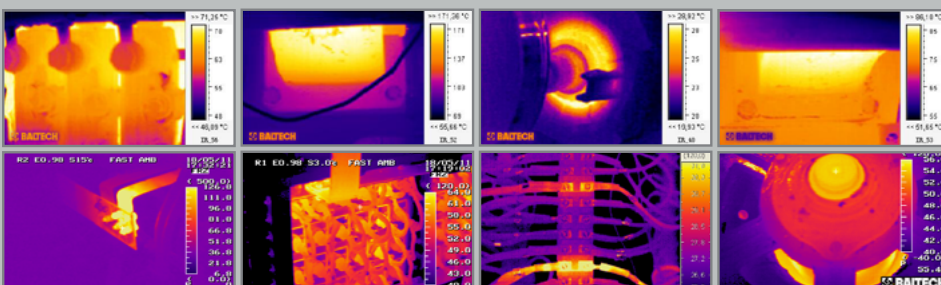
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Technical Specifications Thermal Imaging Cameras

Item	BALTECH TR-0170	BALTECH TR-0180
Detector Data		
Detector type	Uncooled FPA	Uncooled FPA
IR resolution	384×288	640×480
Pixel pitch	25μm	25μm
Spectral range	8~14μm	8~14μm
Image Performance		
FOV/Min focus distance	24°×18°/ 0.4m, 48°×36°/ 0.3m, 6°×4.5°/ 1m	24°×18°/ 0.6m, 48°×36°/ 0.3m, 6°×4.5°/ 1.2m
IFOV	1.3mrad (24°×18°)	0.65mrad (24°×18°)
NETD/Sensitivity	< 65mk@30°C	< 60mk@30°C
Frequency	50Hz/60Hz	50Hz/60Hz
Focus	Manual/Motor/Auto	Manual/Motor/Auto
Digital Zoom	1~8× continuous	1~8× continuous
Visual camera	5.0 mega pixel	5.0 mega pixel
Spotlight	10cd/m²	10cd/m²
Image mode	Thermal image, visual imgae, P-I-P, thermal fusion, W-I-W	Thermal image, visual imgae, P-I-P, thermal fusion, W-I-W
Image Display		
Viewfinder	0.6" color OLED, with magnification	0.6" color OLED, with magnification
Display	5", 270° tiltable LCD, 800x480 pixels	5", 270° tiltable LCD, 800x480 pixels
Measurement		
Temperature range	-20°C ~ 350°C (Standard) -20°C ~ 1200°C (optional)	-20°C ~ 350°C (Standard) -20°C ~ 1200°C (optional)
Temperature accuracy	±2°C or ±2% of reading	±2°C or ±2% of reading
Measurement correction	Auto/Manual	Auto/Manual
Spotmeter	4 adjustable spots	4 adjustable spots
Area	3 adjustable boxes with max./min./avg temperature value	3 adjustable boxes with max./min./avg temperature value
Line profile	Vetical/Horizental	Vetical/Horizental
Isotherms analysis	Capture high/low temperatureerature/interval	Capture high/low temperatureerature/interval
Delta T	Yes	Yes
Emissivity correction	djustable from 0.01 to 1.0 or selected from list of materials	djustable from 0.01 to 1.0 or selected from list of materials
Alarm	Voice, color	Voice, color
Dew point alarm	Yes	Yes
Color Palletes	12 palletes (Including iron, rainbow, white hot and black hot etc.)	12 palletes (Including iron, rainbow, white hot and black hot etc.)
Image adjustment	Adjust contrast and brightness auto/manual	Adjust contrast and brightness auto/manual
Setting function	Date/time, temperatureerature unit°C/°F/K, language	Date/time, temperatureerature unit°C/°F/K, language
Background temperature correction	Auto	Auto
Atmospheric transmissivity correction	Auto	Auto
Languages	10 Languages (English, French, Italian, German, Spanish, Portuguese, Russian, Korean, Japanese, Simplified Chinese & Traditional Chinese)	10 Languages (English, French, Italian, German, Spanish, Portuguese, Russian, Korean, Japanese, Simplified Chinese & Traditional Chinese)
Image Storage		
Storage type	Built-in flash card, up to 700 radiometric JPEG images,8G SD card, up to >5600 radiometric JPEG images	Built-in flash card, up to 700 radiometric JPEG images,8G SD card, up to >5600 radiometric JPEG images
Voice annotation	60s voice record, stored with per image via built-in microphone.	60s voice record, stored with per image via built-in microphone.
Periodic image storage	User definited, 10s at least	User definited, 10s at least
Laser Point		
Grade/Type	Class 2, 1mW/635nm Red	Class 2, 1mW/635nm Red
Power System		
Battery type	Rechargeable and replaceable li-lion battary	Rechargeable and replaceable li-lion battary
Battery operating time	3 hours	3 hours
Charging System	In camera, AC adapter, car charger	In camera, AC adapter, car charger
AC supply	110~240V AC, 50/60Hz, 9~12V DC output	110~240V AC, 50/60Hz, 9~12V DC output
Power saving	Auto shutdown (user defined)	Auto shutdown (user defined)
Enviroment Parameters		
Operation temperature	-20°C - +50°C	-20°C - +50°C
Storage temperature	-40°C - +70°C	-40°C - +70°C
Humidity	≤95% (Non- condense)	≤95% (Non- condense)
Encapsulation	IP54 (IEC60529)	IP54 (IEC60529)
Shock	25G,IEC60068-2-29	25G,IEC60068-2-29
Vibration	2G,IEC60068-2-6	2G,IEC60068-2-6
Physical Data		
Size, L x W x H	200*117*127mm	200*117*127mm
Weight	≤1.3Kg (with battery and standard lens)	≤1.3Kg (with battery and standard lens)
Interfaces		
USB	Radiometric images transfer to and from PC	Radiometric images transfer to and from PC
Blue tooth	Yes	Yes
Video output	CVBS	CVBS
Audio output	Yes	Yes
Power	Yes	Yes
Tripod	1/4"_20	1/4"_20
Packing		
Standard	Thermal imaging camera with standard IR lens, 2 Li-ion batteries, Battery charger, Adapter, USB cable, SD card, SD card reader, BALTECH Expert Software CD, warranty card, transport case	Thermal imaging camera with standard IR lens, 2 Li-ion batteries, Battery charger, Adapter, USB cable, SD card, SD card reader, BALTECH Expert Software CD, warranty card, transport case

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