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› MiLESEEEY TR256i Thermal Camera User Manual

MiLESEEEY TR256i

MiLESEEEY TR256i Thermal Camera User Manual

High-Resolution Thermal Imaging for Android Devices

1. INTRODUCTION

The MiLESEEEY TR256i is a compact, high-resolution thermal imaging camera designed to connect directly to your Android smartphone or tablet. It transforms your mobile device into a powerful thermal analysis tool, capable of detecting temperature variations across a wide range of applications. With its advanced sensor and user-friendly interface, the TR256i provides accurate and detailed thermal data for industrial inspections, building diagnostics, electrical maintenance, and more.



Figure 1.1: The MiLESEEEY TR256i Thermal Camera, showing its compact design, connection to a smartphone displaying a thermal image, and included accessories (carrying case and USB-C extension cable).

2. SETUP AND INSTALLATION

2.1 Package Contents

- MiLESEEEY TR256i Thermal Camera
- Protective Carrying Case
- USB-C Extension Cable (approximately 19.7 inches)
- User Manual (this document)

2.2 System Requirements

- Android device running Android 7.0 or higher.
- USB-C port on the Android device.

- Sufficient storage space for the MiLESEEEY thermal imaging application.

2.3 Application Installation

1. Search for the "MiLESEEEY Thermal" application on the Google Play Store.
2. Download and install the application on your Android device.
3. Grant necessary permissions when prompted (e.g., camera, storage).

2.4 Connecting the Device

1. Ensure the MiLESEEEY thermal application is installed and ready.
2. Connect the TR256i thermal camera directly to your Android device's USB-C port.
3. Alternatively, use the provided USB-C extension cable for more flexible positioning or to connect to a laptop with USB-C.
4. The application should automatically detect the camera and display the thermal image.



Figure 2.1: The TR256i connected to both a smartphone and a laptop, demonstrating the use of the 19.7-inch extension cable for versatile

3. OPERATING INSTRUCTIONS

3.1 Basic Thermal Imaging

Once connected, the MiLESEEEY application will display a real-time thermal image. The screen will show temperature readings, often with a color palette indicating temperature variations. Hotter areas typically appear in brighter colors (e.g., white, yellow, red), while cooler areas appear in darker colors (e.g., blue, purple).

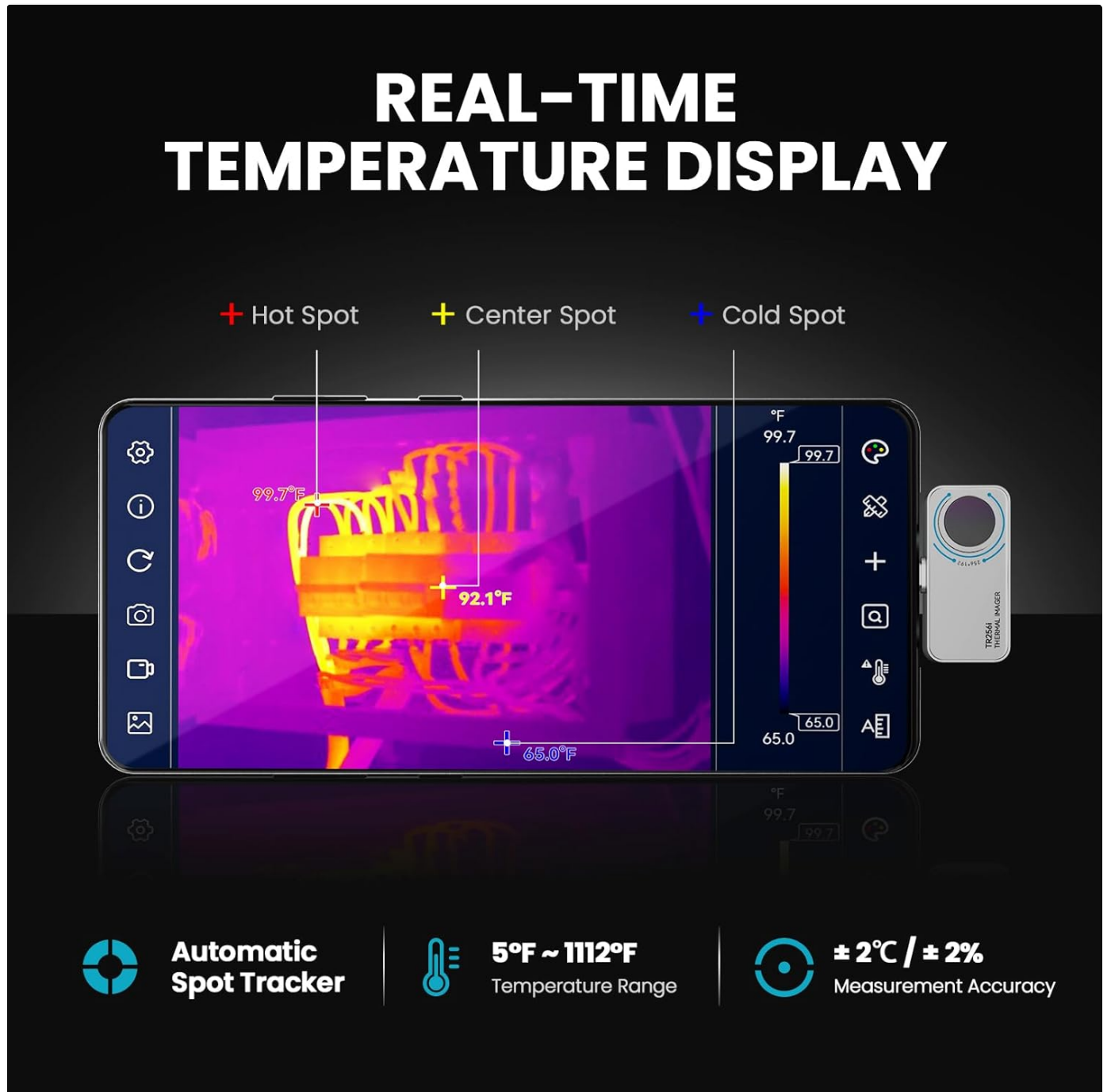


Figure 3.1: Real-time temperature display on the smartphone screen, highlighting automatic tracking of hot, cold, and center spots, along with the temperature range and measurement accuracy.

3.2 Temperature Measurement Features

- **Spot Measurement:** Tap on any point on the screen to get an instant temperature reading for that specific spot.
- **Regional Measurement:** The camera supports adding points, lines, and rectangular boxes for temperature measurement.

- **Line Tool:** Draw a line across an area to display the maximum and minimum temperatures along that line.
- **Box Tool:** Draw a rectangular box to analyze the temperature distribution within a specific area, showing real-time maximum and minimum temperatures.
- **Temperature Tracking:** The application can automatically lock onto and display the highest, lowest, and center temperatures within the entire field of view, providing continuous monitoring.



Figure 3.2: Customizable image effects and measurement options within the application, including tools for spots, lines, and area measurements, adjustable temperature range, high temperature alarm, and various color palettes.

3.3 Image and Video Capture

The MiLESEEY application allows you to capture thermal images (photos) and record thermal videos. These files are saved directly to your Android device's storage for later review and analysis.

- **Photo Capture:** Tap the camera icon within the app to take a still thermal image.
- **Video Recording:** Tap the video icon to start and stop thermal video recording.

PHOTO & VIDEO OUTPUT

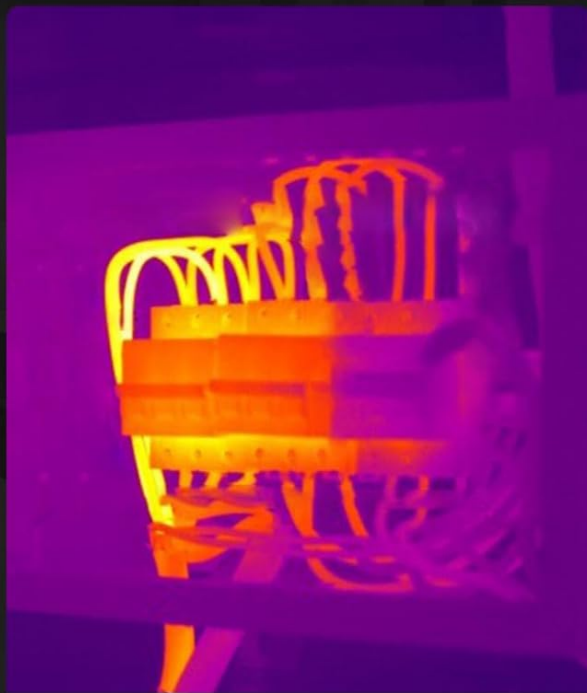


Image Quality



Smooth Video

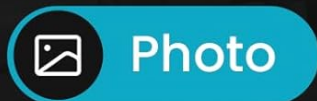


Figure 3.3: Demonstration of the camera's capability to produce high-quality thermal photos and smooth thermal videos.

3.4 Advanced Settings

- **Emissivity Adjustment:** Adjust the emissivity setting based on the material being inspected for more accurate temperature readings. Refer to the application's help section for common emissivity values.
- **Color Palettes:** Select from various color palettes (e.g., Iron Red, Rainbow, Black Hot, White Hot) to visualize temperature differences in a way that best suits your application.
- **High Temperature Alarm:** Set a threshold for high temperatures. The application can alert you when temperatures exceed this set limit.

4. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the camera body. For the lens, use a lens cleaning cloth and solution specifically designed for optical lenses. Do not use abrasive materials or harsh chemicals.
- **Storage:** Store the TR256i in its protective carrying case when not in use to prevent dust and physical damage.

Keep it in a cool, dry place away from direct sunlight and extreme temperatures.

- **Software Updates:** Regularly check for updates to the MiLESEEEY thermal application through the Google Play Store to ensure optimal performance and access to new features.

5. TROUBLESHOOTING

- **Camera Not Detected:**

- Ensure the camera is securely connected to the USB-C port.
- Verify that your Android device is running Android 7.0 or higher.
- Check if the MiLESEEEY thermal application has the necessary permissions.
- Try restarting the application or your Android device.
- Test with the provided extension cable.

- **Inaccurate Temperature Readings:**

- Ensure the emissivity setting in the application is correctly adjusted for the material you are measuring.
- Make sure the lens is clean and free from dust or smudges.
- Avoid measuring through glass or highly reflective surfaces, as these can affect accuracy.

- **Application Crashing or Freezing:**

- Close and restart the application.
- Clear the application's cache from your device settings.
- Ensure your Android device has sufficient free memory.
- Update the application to the latest version.

- **General Issues:**

If you encounter any issues not listed here, please contact MiLESEEEY customer support for assistance.

6. SPECIFICATIONS

Feature	Detail
Model	TR256i
IR Resolution	256 x 192 pixels
Temperature Range	5°F to 1112°F (-15°C to 600°C)
Measurement Accuracy	±2°C or ±2%
Thermal Sensitivity (NETD)	<50 mK
Refresh Rate	25 Hz
Dimensions (L x W x H)	1.3 x 2.2 x 0.4 inches (approx.)
Weight	20 grams (approx.)
Compatibility	Android 7.0 or higher
Interface	USB Type-C
Extension Cable Length	19.7 inches (approx.)

EXCEPTIONAL IMAGE CLARITY



256X192
IR Resolution



<50 mK
Thermal Sensitivity



25 Hz
Refresh Rate

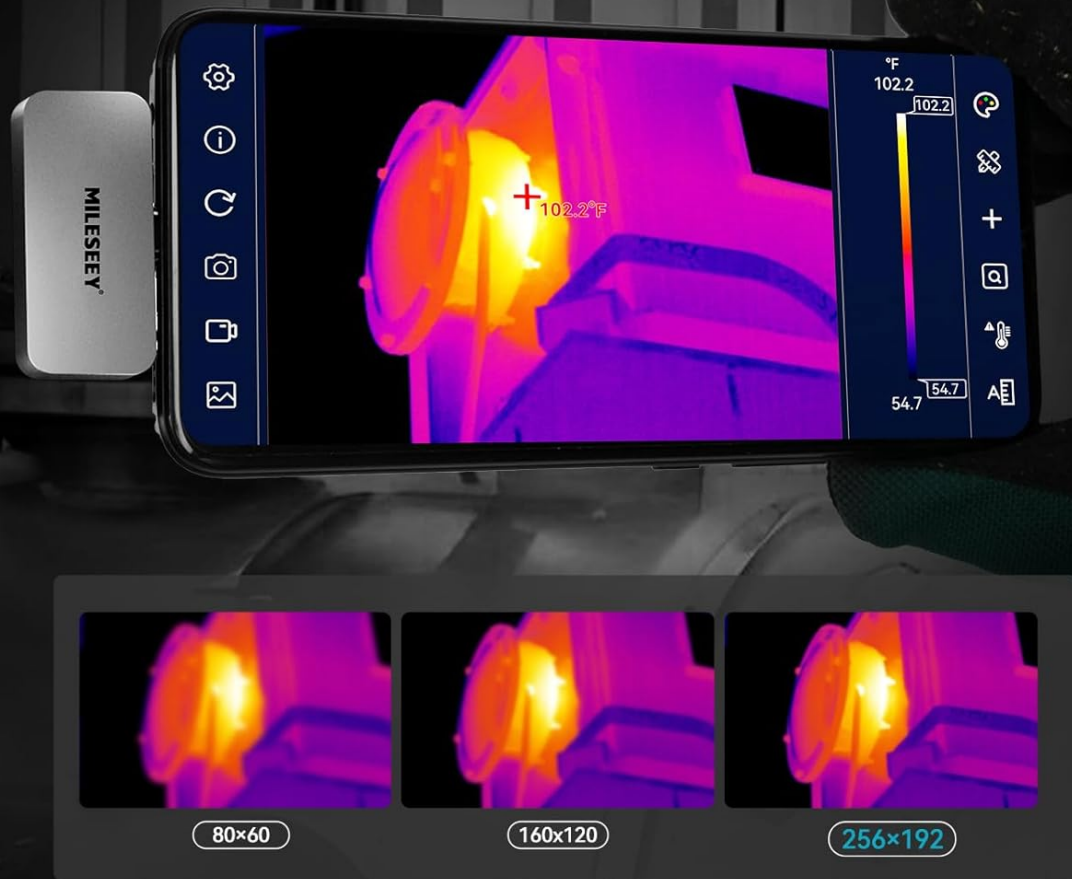


Figure 6.1: Visual representation of the exceptional image clarity provided by the TR256i, demonstrating its 256x192 IR resolution, thermal sensitivity, and refresh rate.

WIDE APPLICATIONS



Figure 6.2: Examples of wide applications for the TR256i, showcasing its utility in diverse fields such as automotive, industrial, electrical, and building inspections.

7. WARRANTY AND SUPPORT

MiLESEEEY products are designed for reliability and performance. For specific warranty details, please refer to the warranty card included with your product or visit the official MiLESEEEY website.

For technical support, troubleshooting assistance, or any inquiries regarding your MiLESEEEY TR256i thermal camera, please contact MiLESEEEY customer service. Contact information can typically be found on the product packaging, the official MiLESEEEY website, or within the MiLESEEEY thermal application.

When contacting support, please have your product model (TR256i) and a detailed description of the issue ready to facilitate a quicker resolution.



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Product Model: TR256i