



# Feature Description Document

## Configuring TITAN Thermal Calibration



## Purpose

This document outlines the process of configuring Thermal Calibration settings using IXM WEB & TITAN.

## Applies to

TITAN
All Devices with Enhancement Kit

## Description

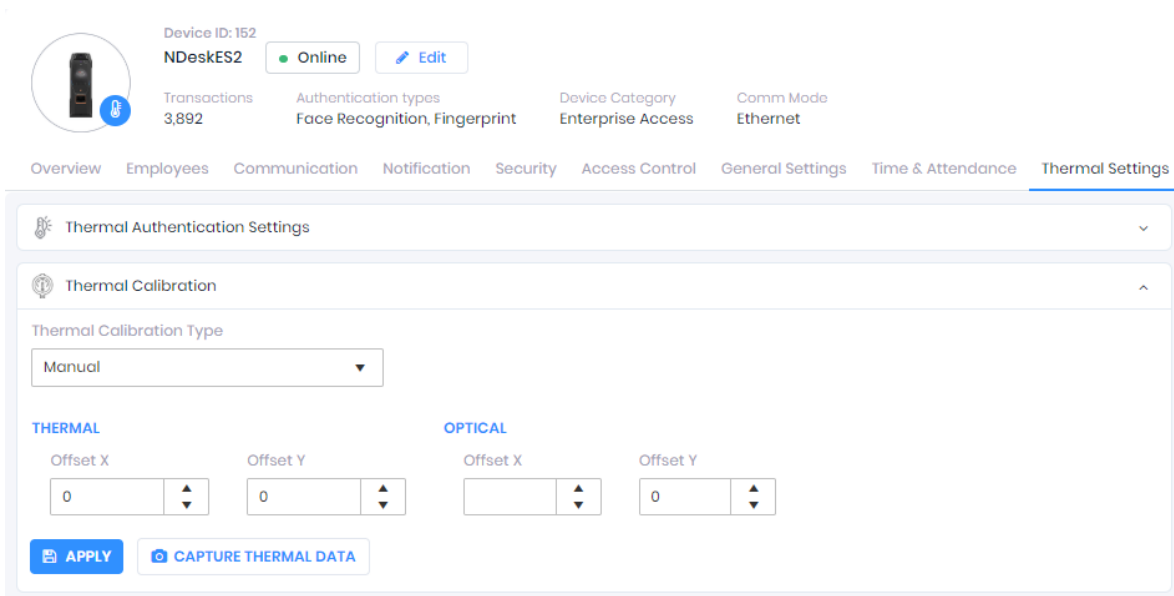
INVIXIUM's new TITAN Enhancement Kit includes a thermal infrared (TIR) camera to screen temperature at the tear duct. When the TITAN device is mounted with the Enhancement Kit, it captures two different images of the user upon showing face. One image is captured by the TITAN's camera, whereas the second image is captured by the Enhancement Kit TIR camera.

When take, the images will not be aligned together. To align both images, IXM WEB & the TITAN device provide configuration to set offset values for "X" & "Y" coordinates of TITAN's camera & the Enhancement Kit's TIR camera.

When a TITAN is purchased from the factory with the Enhancement Kit, INVIXIUM will prepopulate calibration values for the cameras. However, when the Enhancement Kit is added in a field upgrade to an existing TITAN, the user will have to contact Invixium's Technical Services team. Users will have to capture thermal data and Invixium will provide offset values for "X" & "Y" coordinates to complete the calibration.

## Configuring Thermal Calibration in IXM WEB

1. Click the **Devices** tab >> Select **Device** >> Select **Thermal Settings** >> **Thermal Calibration** to view default settings.



2. The settings along with their functions are:

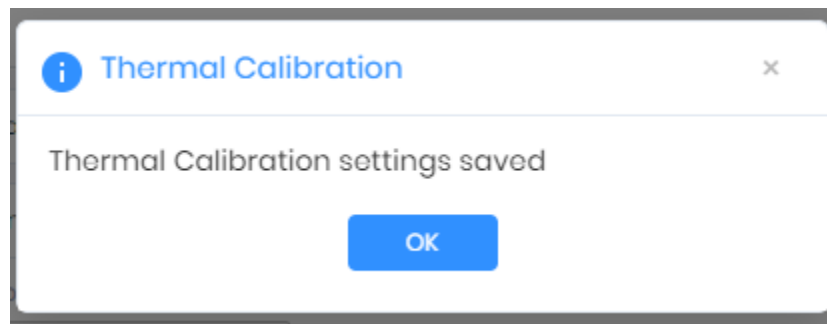
- **Thermal Calibration Type:**

- Manual
- Face
- Black Body

INVIXIUM supports only Manual Thermal Calibration and does not recommend the user to select any other option.

- **Offset X (Thermal Section):** Users can set the value for the offset X coordinate of the TIR camera.
- **Offset Y (Thermal Section):** Users can set the value for the offset Y coordinate of the TIR camera.

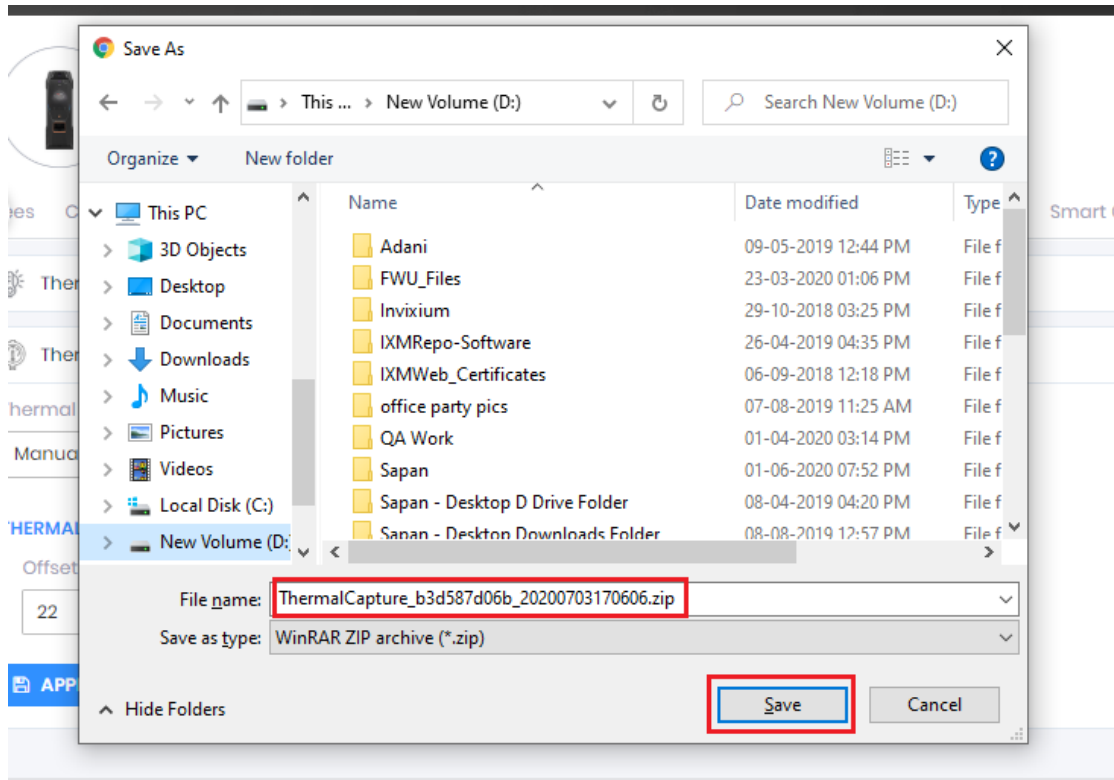
- **Offset X (Optical Section):** Users can set the value for the offset X coordinate of the TITAN camera.
  - **Offset Y (Optical Section):** Users can set the value for the offset Y coordinate of the TITAN camera.
3. Once all the settings have been configured, click **Apply**, then click **OK**.



4. To provide the Thermal Data to the Invixium Technical Services team using IXM WEB, the user needs to click **Capture Thermal Data**. It will open the popup window and ask the user to show their face 3 times.



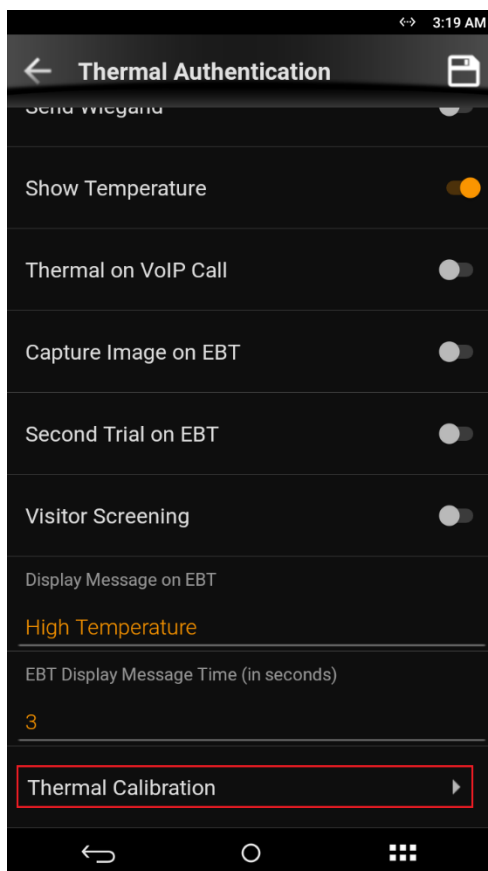
5. Once the face is captured 3 times, it will ask the user to save the “.zip” file.



6. Click **Save** to store the zip file, then send this file to [support@invixium.com](mailto:support@invixium.com). Invixium’s Technical Services team will process this file and respond to the user with calibrated values for “X” & “Y” coordinates for the TIR camera and TITAN’s camera.

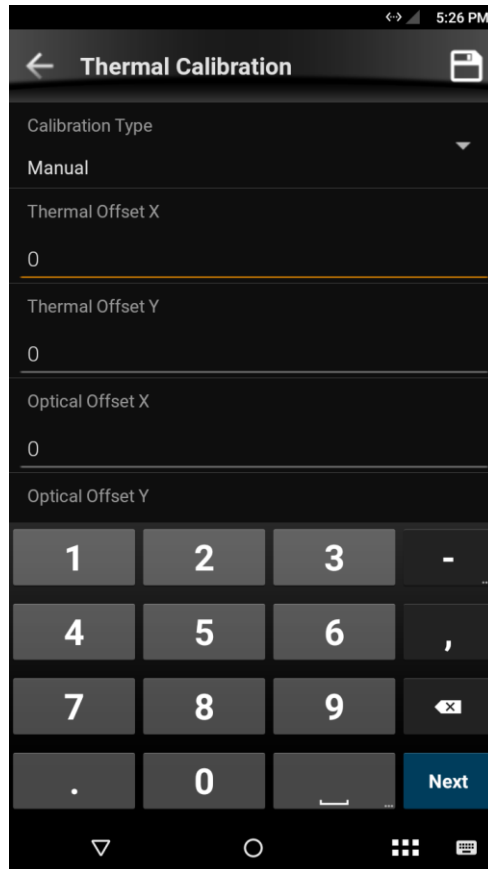
## Configuring Thermal Calibration in Device

1. Open **Menu** and tap **Settings**. Scroll down and tap **Thermal Authentication** settings. By default, Thermal Authentication Settings will be disabled.
2. Toggle Thermal Authentication Settings to enable. Scroll down and tap **Thermal Calibration**.



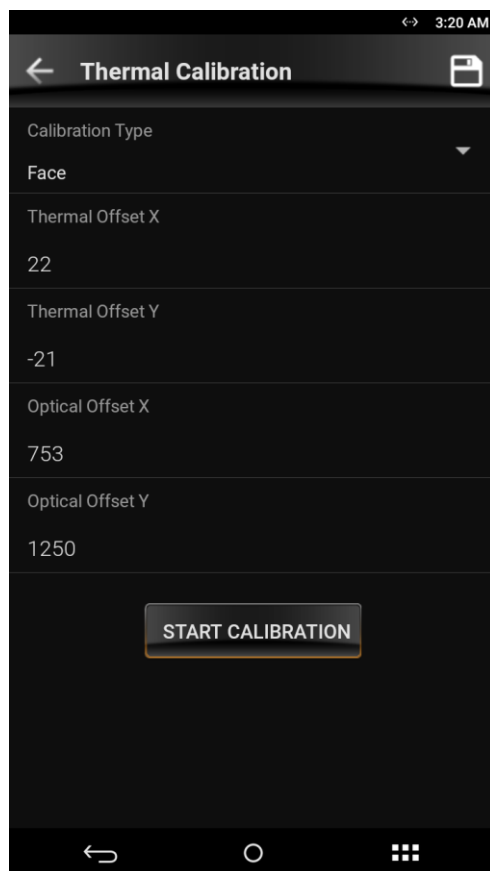


3. TITAN will display a default view of Thermal Calibration settings.





- Users can provide values for Thermal Offset X, Thermal Offset Y, Optical Offset X, and Optical Offset Y fields. Once the values are entered, tap on the **Save** icon on the top-right corner of the device.



- When a user enables Thermal Calibration settings by selecting “Face” as a Calibration Type, tapping **Start Calibration** will ask the user to show face. Based on the captured face image, offset values for Thermal and Optical will be populated. If Calibration Type is selected as “Black Body”, TITAN will automatically search for any Black Body in its camera’s view.

**NOTE:** INVIXIUM does not support Face or Black Body Calibration Types. The only supported Calibration Type is Manual.





## Support

For more information relating to this Feature Description document, please contact us at [support@invixium.com](mailto:support@invixium.com)

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