

# TC53 Touch Computer



**ZEBRA**

## **Quick Start Guide**

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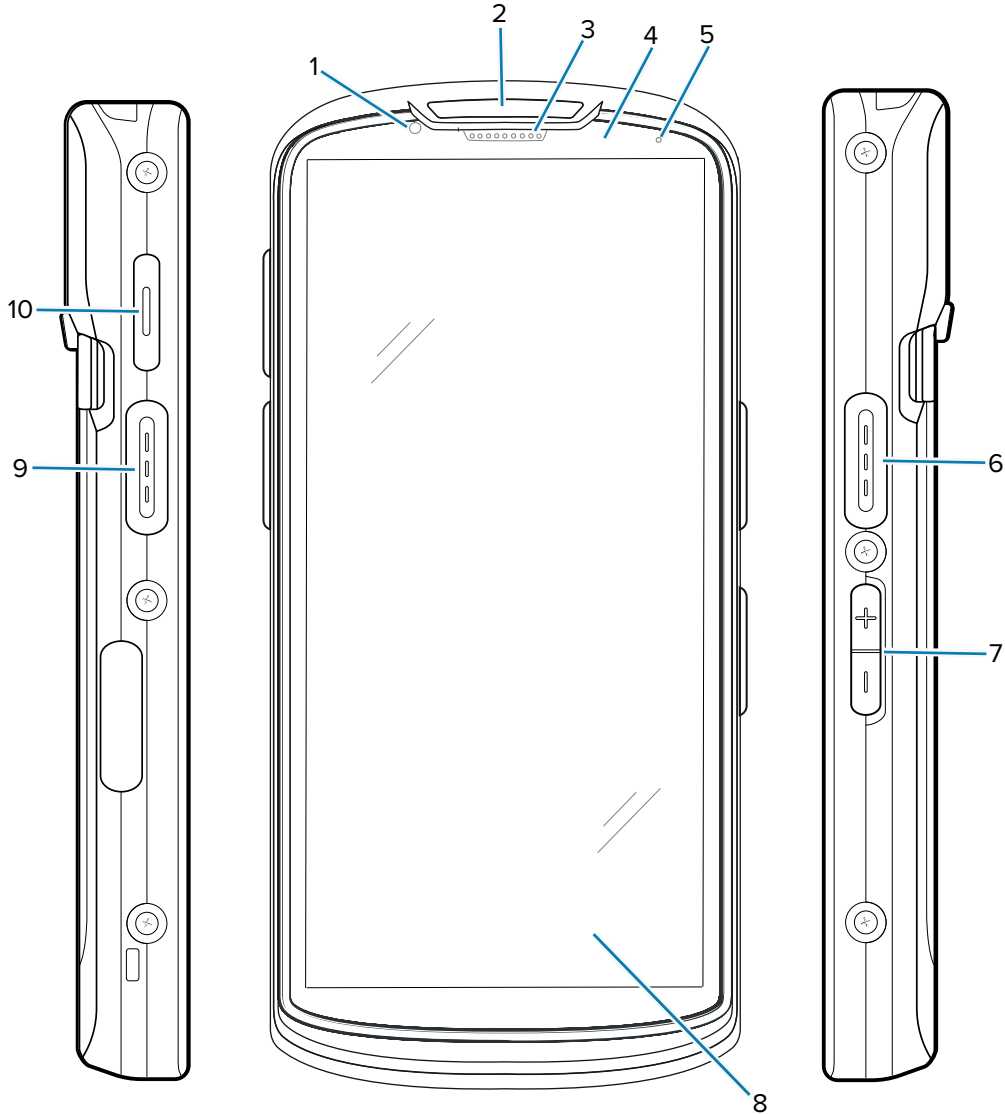
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## Features

This section lists the features of the TC53 touch computer.

**Figure 1** Front and Side Views



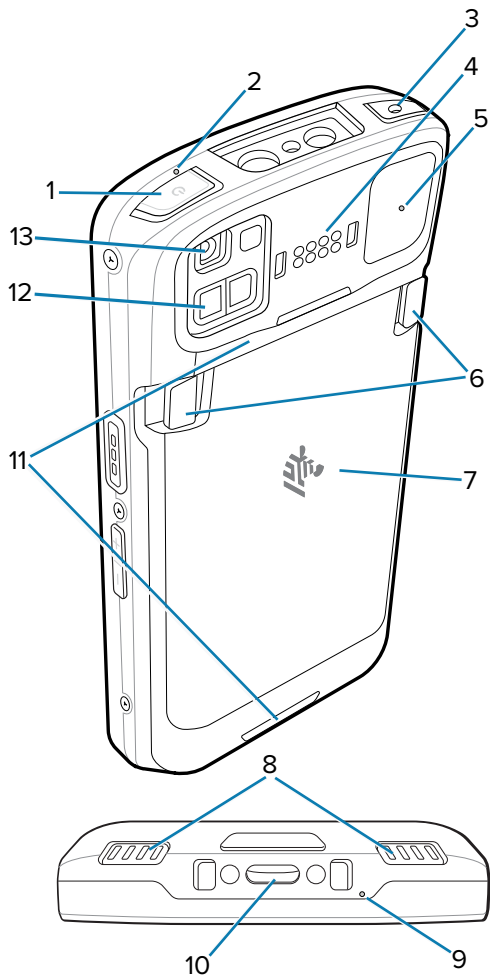
**Table 1** TC53 Front View

Number	Item	Description
1	Front camera 8MP	Takes photos and videos.
2	Scan LED	Indicates data capture status.
3	Receiver	Use for audio playback in Handset mode.
4	Proximity/light sensor	Determines proximity and ambient light for controlling display backlight intensity.

**Table 1** TC53 Front View (Continued)

Number	Item	Description
5	Battery status LED	Indicates battery charging status while charging and application generated notifications.
6, 9	Scan button	Initiates data capture (programmable).
7	Volume up/down button	Increase and decrease audio volume (programmable).
8	6 in. LCD touch screen	Displays all information needed to operate the device.
10	PTT button	Typically used for PTT communications. Where regulatory restrictions exist, button is configurable for use with other applications.

**Figure 2** Back, Top, and Bottom View



**Table 2** TC53 Rear View

Number	Item	Description
1	Power button	Turns the display on and off. Press and hold to reset the device, power off or swap battery.
2, 5, 9	Microphone	Use for noise cancellation.
3	Headset jack	For audio output to headset (TC53 only).
4	Back common 8 pins	Provides host communications, audio and device charging via cables and accessories.
6	Battery release latches	Press to remove the battery.
7	Battery	Provides power to the device.
8	Speaker	Provides audio output for video and music playback. Provides audio in speakerphone mode.
10	USB Type C and 2 charge pins	Provides power to the device using IO USB-C interface with 2 charge pins.
11	Hand strap attachment points	Attachment points for the hand strap.
12	ToF module	Employs time of flight techniques to resolve distance between the camera and subject (premium configurations only).
13	16 MP rear camera with flash	Takes photos and videos with flash to provide illumination for the camera.

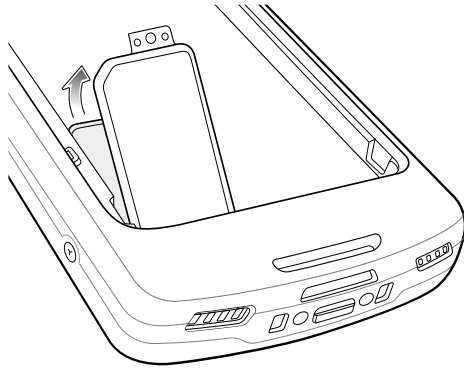
## Installing a microSD Card

The microSD card slot provides secondary non-volatile storage. The slot is located under the battery pack. Refer to the documentation provided with the card for more information, and follow the manufacturer's recommendations for use.

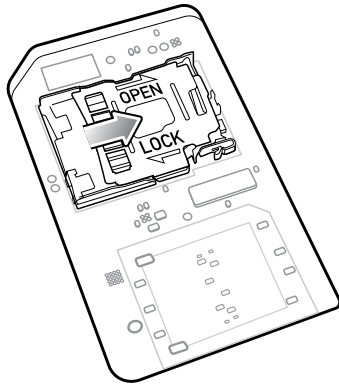


**CAUTION—ESD:** Follow proper electrostatic discharge (ESD) precautions to avoid damaging the microSD card. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring the operator is properly grounded.

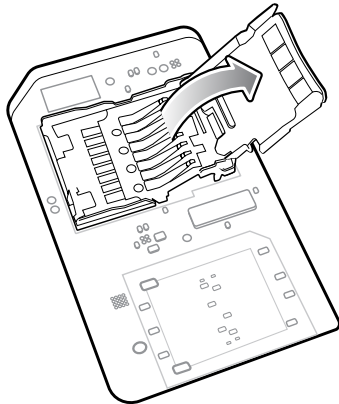
1. Lift the access door.



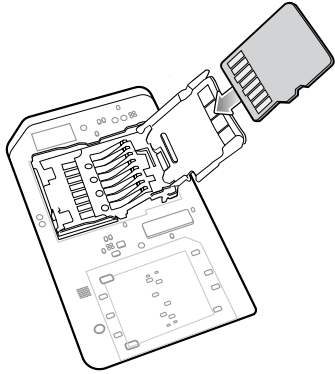
2. Slide the microSD card holder to the Open position.



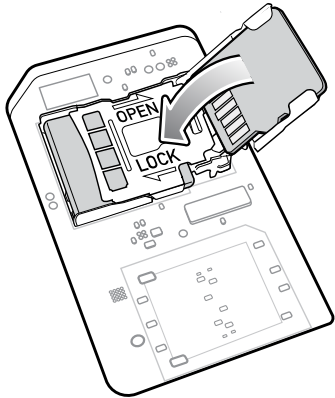
3. Lift the microSD card holder door.



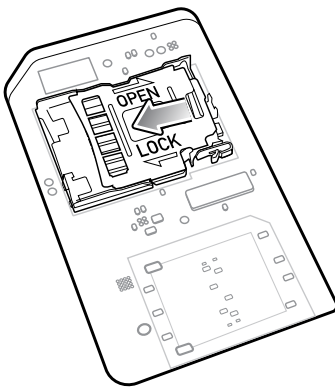
4. Insert the microSD card into the card holder ensuring that the card slides into the holding tabs on each side of the door.



5. Close the microSD card holder door.

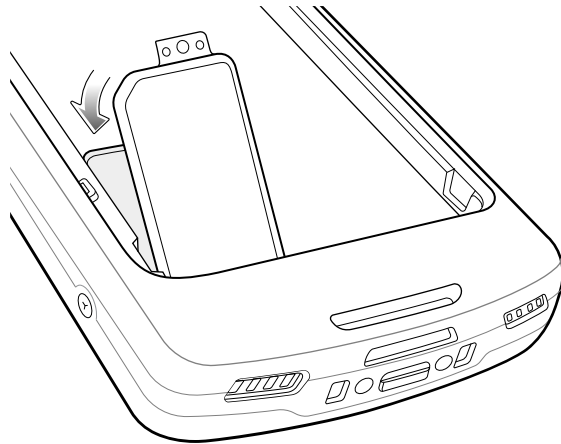


6. Slide the microSD card holder door to the Lock position.



**NOTE:** Access door must be replaced and securely seated to ensure proper device sealing.

7. Re-install the access door.



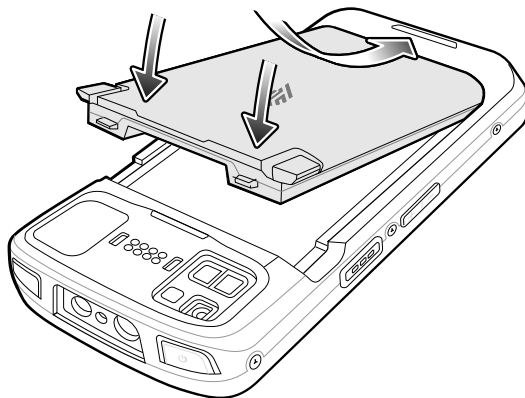
## Installing the Battery

This section describes how to install the battery into the device.



**NOTE:** User modification of the device, particularly in the battery well, such as labels, asset tags, engravings, stickers, etc., may compromise the intended performance of the device or accessories. Performance levels such as sealing (Ingress Protection (IP)), impact performance (drop and tumble), functionality, temperature resistance, etc. could be effected. **DO NOT** put any labels, asset tags, engravings, stickers, etc. in the battery well.

1. Insert the battery, bottom first, into the battery compartment in the back of the device.
2. Press the battery down until it snaps into place.



## Using the Rechargeable Li-Ion Battery with BLE Beacon

This device utilizes a rechargeable Li-Ion battery to facilitate BLE Beacon. Once enabled, the battery transmits a BLE signal for up to seven days while the device is powered off due to battery depletion.



**NOTE:** The device transmits a Bluetooth beacon only when the device is powered off or in Airplane Mode.



For additional information on configuring the Secondary BLE settings, see [techdocs.zebra.com/emdk-for-android/11/mx/beaconmgr](http://techdocs.zebra.com/emdk-for-android/11/mx/beaconmgr).

## Charging the Spare Battery

This section provides information on charging a spare battery.

1. Insert a spare battery into the spare battery slot.
2. Ensure the battery is seated properly. The Spare Battery Charging LED blinks indicating charging. See [Charging Indications](#) for charging indicators.

The battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately 3.5 hours. In many cases the 90% charge provides plenty of charge for daily use. Depending on the usage profile, a full 100% charge lasts for approximately 14 hours of use. To achieve the best charging results use only Zebra charging accessories and batteries.

## Charging

Use one of the following accessories to charge the device and/or spare battery.

### Charging and Communication

Description	Part Number	Charging		Communication	
		Battery (In device)	Spare Battery	USB	Ethernet
1-Slot USB/Charge Only Cradle Kit	CRD-NGTC5-2SC1B	Yes	Yes	No	No
1-Slot USB/Ethernet Cradle Kit	CRD-NGTC5-2SE1B	Yes	Yes	Yes	Yes
5-Slot Charge Only Cradle with Battery Kit	CRD-NGTC5-5SC4B	Yes	Yes	No	No
5-Slot Charge Only Cradle Kit	CRD-NGTC5-5SC5D	Yes	No	No	No
5-Slot Ethernet Cradle Kit	CRD-NGTC5-5SE5D	Yes	No	No	Yes
Charge/USB Cable	CBL-TC5X-USBC2A-01	Yes	No	Yes	No

## Charging the Device

This section provides information for charging the device.



**NOTE:** Ensure that you follow the guidelines for battery safety described in the TC53 Product Reference Guide.

1. To charge the main battery, connect the charging accessory to the appropriate power source.
2. Insert the device into a cradle or attach to a cable. The device turns on and begins charging. The Charging/Notification LED blinks amber while charging, then turns solid green when fully charged.








The standard battery charges from fully depleted to 90% in approximately two hours and from fully depleted to 100% in approximately three hours. In many cases the 90% charge provides plenty of charge for daily use. Depending on usage profile, a full 100% charge lasts for approximately 14 hours of use. To

achieve the best charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the device in sleep mode.

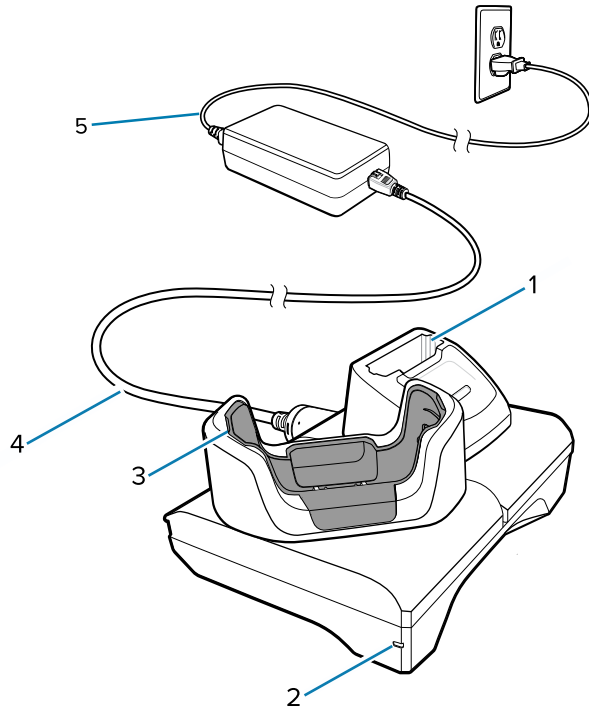
## Charging Indications

The charging/notification LED indicates charging status.

**Table 3** Charging/Notification LED Charging Indicators

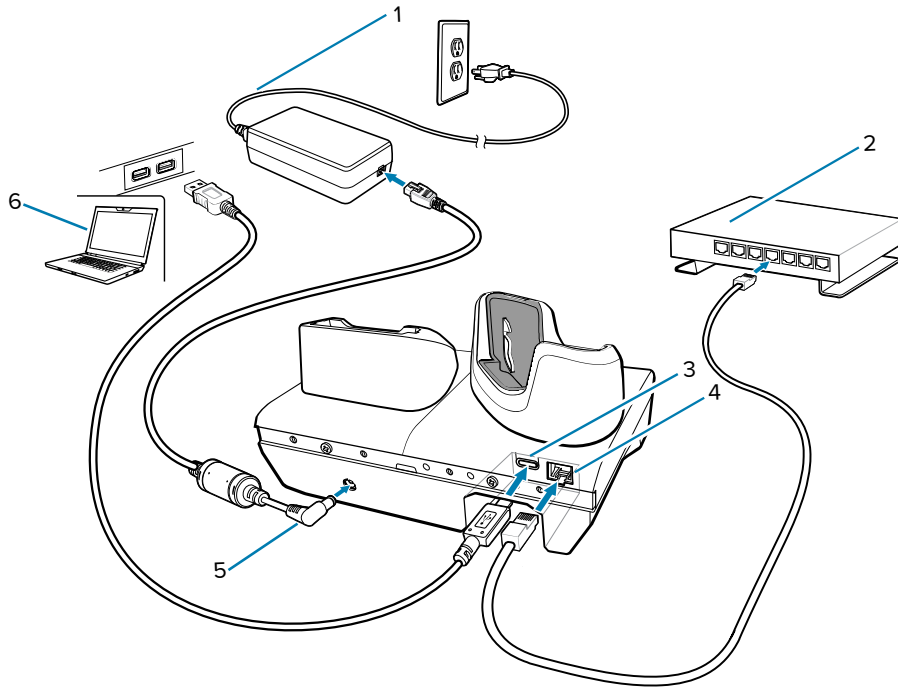
State	LED	Indications
Off		Device is not charging. Device is not inserted correctly in the cradle or connected to a power source. Charger/cradle is not powered.
Slow Blinking Amber (1 blink every 4 seconds)		Device is charging.
Slow Blinking Red (1 blink every 4 seconds)		Device is charging but the battery is at end of useful life.
Solid Green		Charging complete.
Solid Red		Charging complete but the battery is at end of useful life.
Fast Blinking Amber (2 blinks/second)		Charging error, e.g.: <ul style="list-style-type: none"> <li>• Temperature is too low or too high.</li> <li>• Charging has gone on too long without completion (typically eight hours).</li> </ul>
Fast Blinking Red (2 blinks/second)		Charging error but the battery is at end of useful life., e.g.: <ul style="list-style-type: none"> <li>• Temperature is too low or too high.</li> <li>• Charging has gone on too long without completion (typically eight hours).</li> </ul>

## 2-Slot (1 Device/1 Spare Battery) USB Charging Cradle



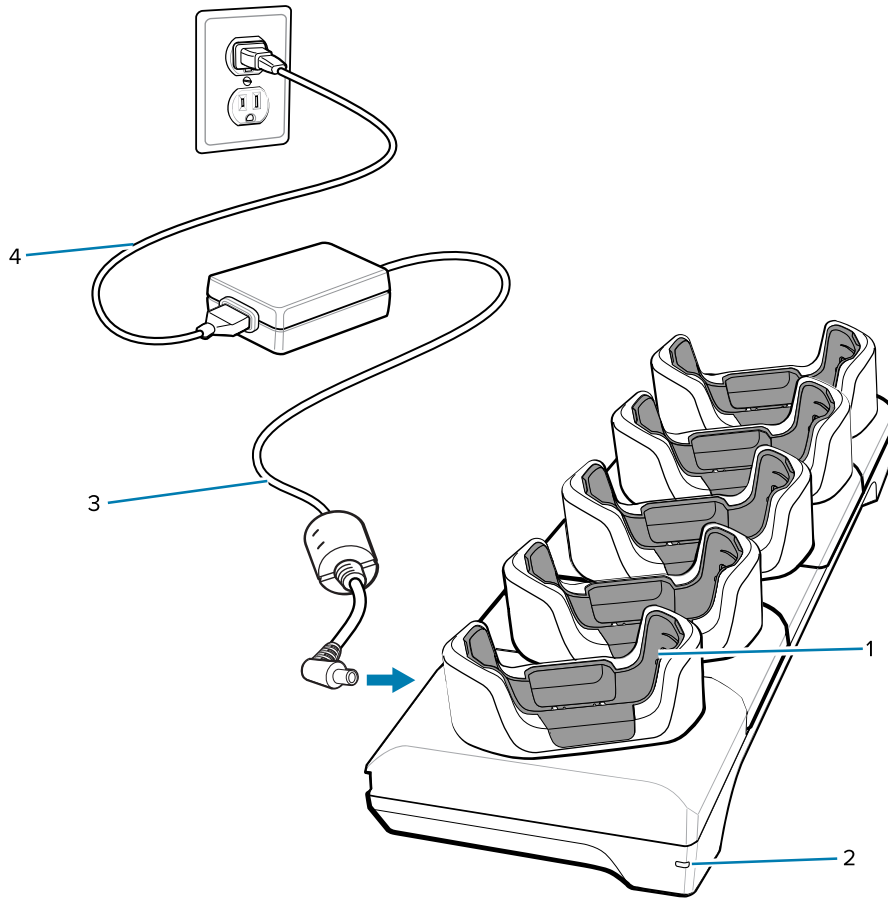
1	Spare battery charging slot
2	Power LED
3	Device charging slot
4	Power line cord
5	AC line cord

## 2-Slot (1 Device/1 Spare Battery) Ethernet and Communication Setup



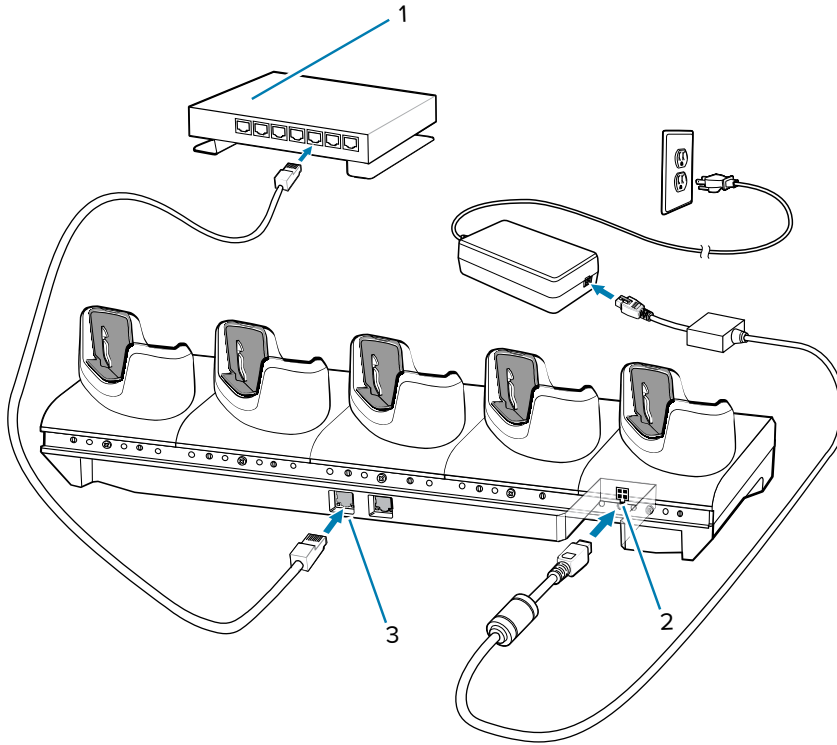
1	AC line cord
2	Ethernet switch
3	USB port
4	Ethernet port
5	Power supply
6	Host computer

## 5-Slot Charge Only Cradle



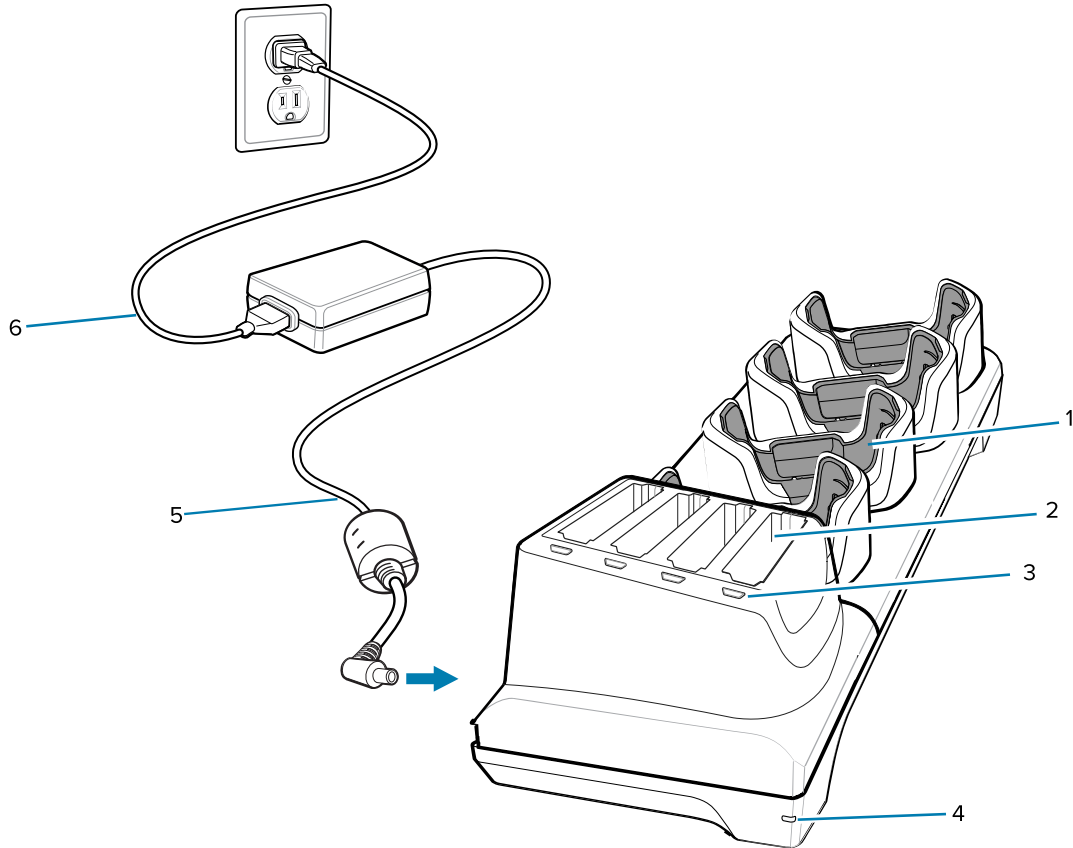
1	Device charging slot
2	Power LED
3	Power line cord
4	AC line cord

## 5-Slot Ethernet Cradle Setup



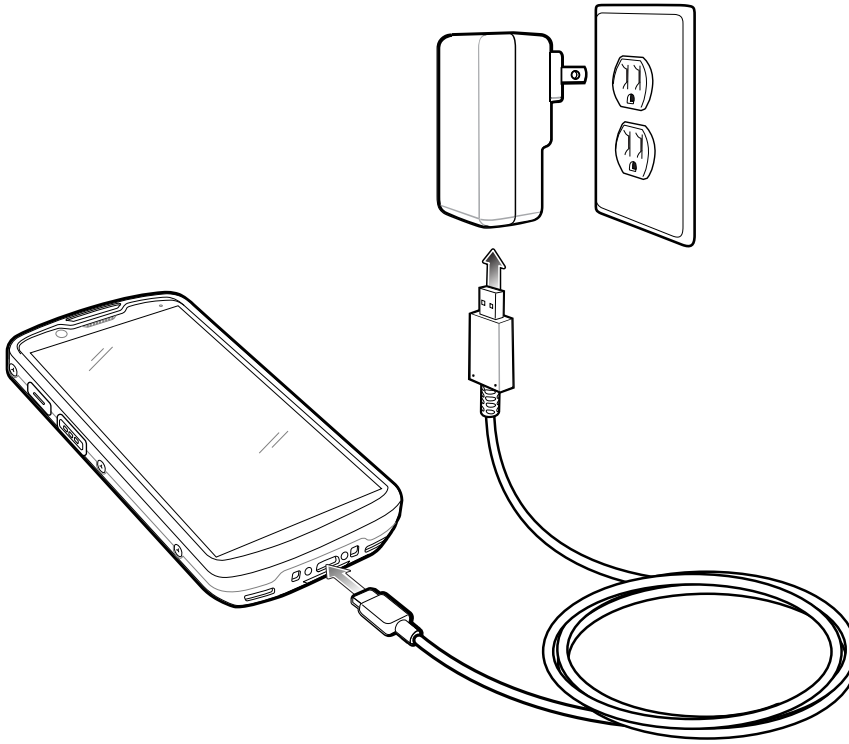
1	Ethernet switch
2	Ethernet port
3	Power supply

## 5-Slot Charge Only Cradle with Battery Charger



1	Device charging slot
2	Spare battery charging slot
3	Spare battery charging LED
4	Power LED
5	Power line cord
6	AC line cord

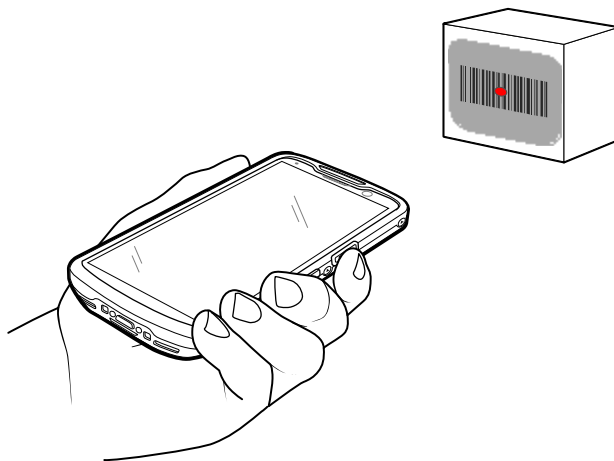
## Charge/USB-C Cable



## Scanning

To read a barcode, a scan-enabled application is required. The device contains the DataWedge application that allows the user to enable the imager, decode the barcode data and display the barcode content.

1. Ensure that an application is open on the device and a text field is in focus (text cursor in text field).
2. Point the exit window on the top of the device at a barcode.



3. Press and hold the scan button.

The red LED aiming pattern and red aiming dot turns on to assist in aiming.

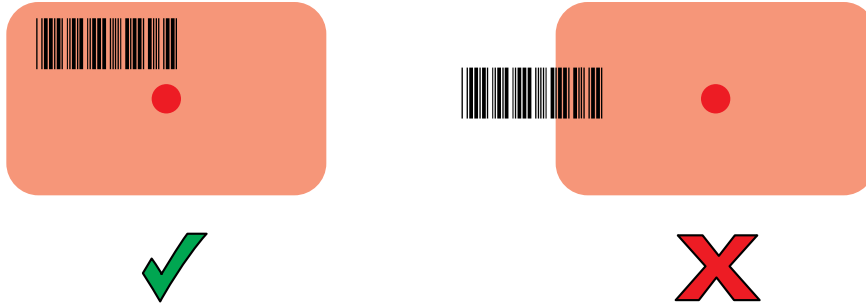




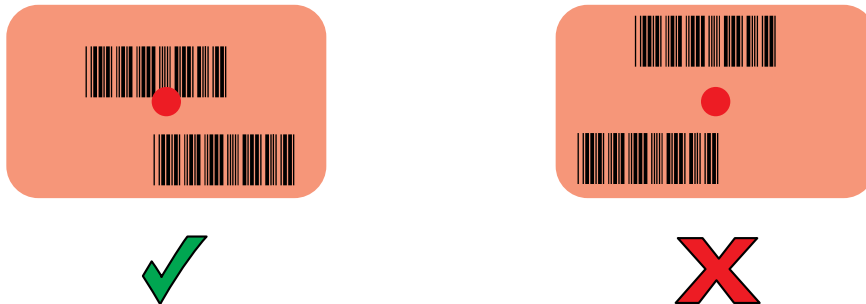
**NOTE:** When the device is in Picklist mode, the imager does not decode the barcode until the crosshair or aiming dot touches the barcode.

4. Ensure the barcode is within the area formed by the cross-hairs in the aiming pattern. The aiming dot is used for increased visibility in bright lighting conditions.

**Figure 3** Aiming Pattern



**Figure 4** Pick List Mode with Multiple Barcodes in Aiming Pattern



5. The Data Capture LED lights green and a beep sounds, by default, to indicate the barcode was decoded successfully.
6. Release the scan button.



**NOTE:** Imager decoding usually occurs instantaneously. The device repeats the steps required to take a digital picture (image) of a poor or difficult barcode as long as the scan button remains pressed.

7. The barcode content data displays in the text field.

# Ergonomic Considerations

