

# Latitude 7230 Rugged Extreme Tablet

## Setup and Specifications

## Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.


 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

# Contents

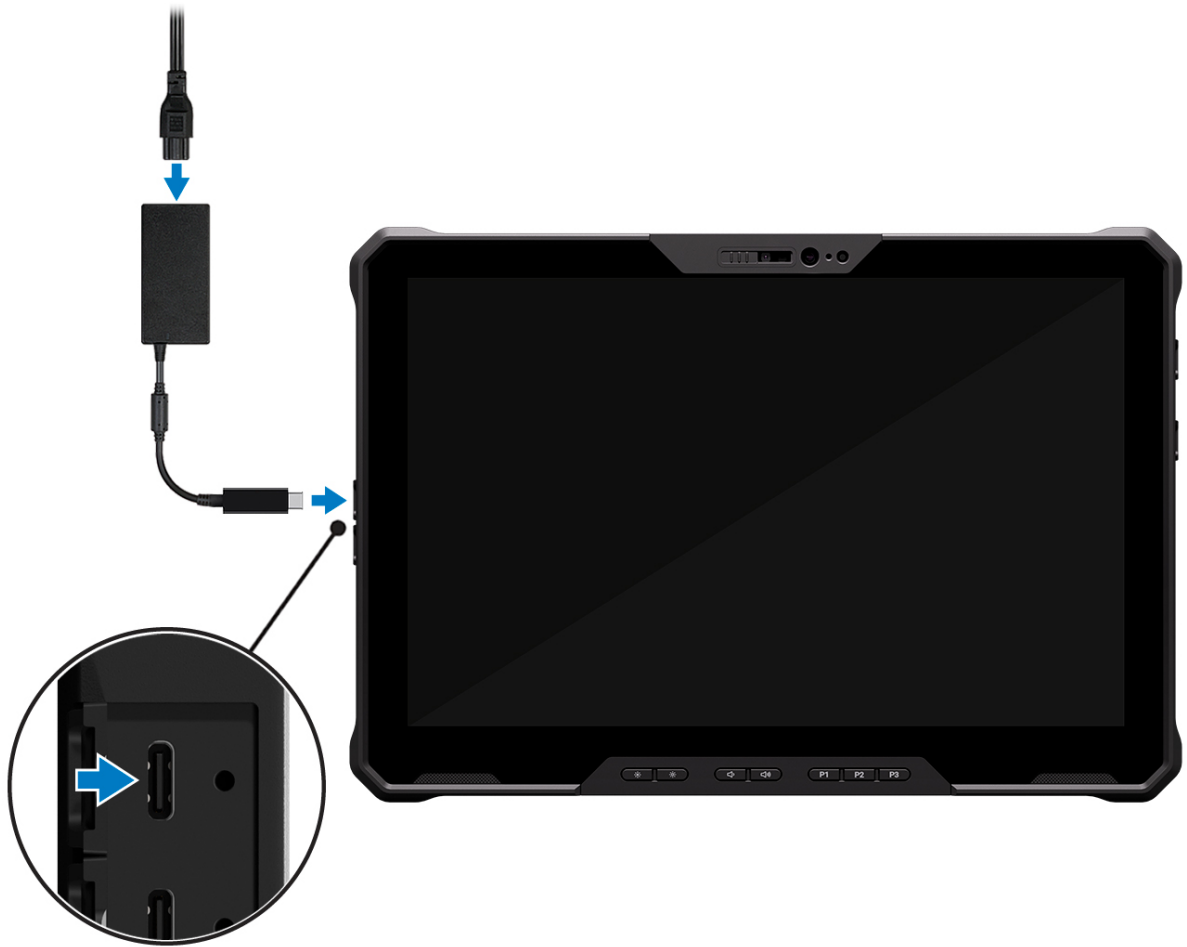
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# Set up your Latitude 7230 Rugged Extreme Tablet

 **NOTE:** The images in this document may differ from your computer depending on the configuration you ordered.

1. Connect the power adapter and press the power button.




 **NOTE:** To conserve battery power, the battery might enter power saving mode. Connect the power adapter and press the power button to turn on the computer.

2. Finish operating system setup.







**For Windows:**

Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:

- Connect to a network for Windows updates.
  -  **NOTE:** If connecting to a secured wireless network, enter the password for the wireless network access when prompted.
- If connected to the internet, sign-in with or create a Microsoft account. If not connected to the internet, create an offline account.
- On the **Support and Protection** screen, enter your contact details.

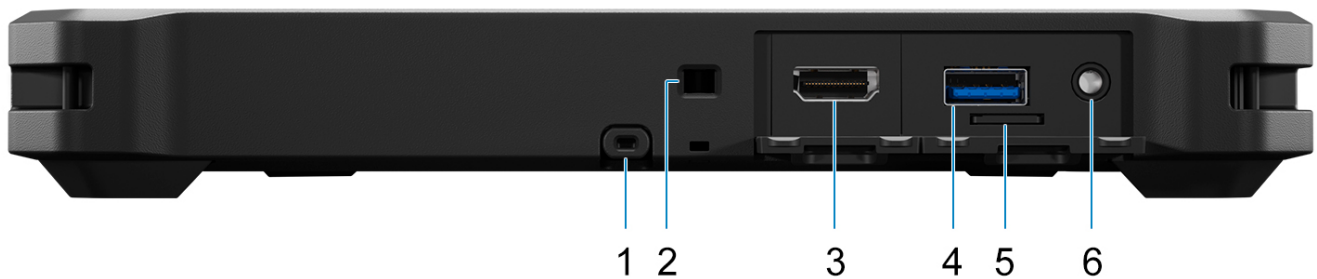
3. Locate and use Dell apps from the Windows Start menu—Recommended.

**Table 1. Locate Dell apps**

Resources	Description
	<p><b>Dell Product Registration</b> Register your computer with Dell.</p>
	<p><b>Dell Help &amp; Support</b> Access help and support for your computer.</p>
	<p><b>SupportAssist</b> SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you need to make system updates. SupportAssist proactively checks the health of your system's hardware and software. When an issue is detected, the necessary system state information is sent to Dell to begin troubleshooting. SupportAssist is preinstalled on most of the Dell devices running Windows operating system. For more information, see SupportAssist for Home PCs User's Guide on <a href="http://www.dell.com/serviceabilitytools">www.dell.com/serviceabilitytools</a>.</p> <p> <b>NOTE:</b> In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>
	<p><b>Dell Update</b> Updates your computer with critical fixes and latest device drivers as they become available. For more information on using Dell Update, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>
	<p><b>Dell Digital Delivery</b> Download software applications, which are purchased but not preinstalled on your computer. For more information on using Dell Digital Delivery, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>

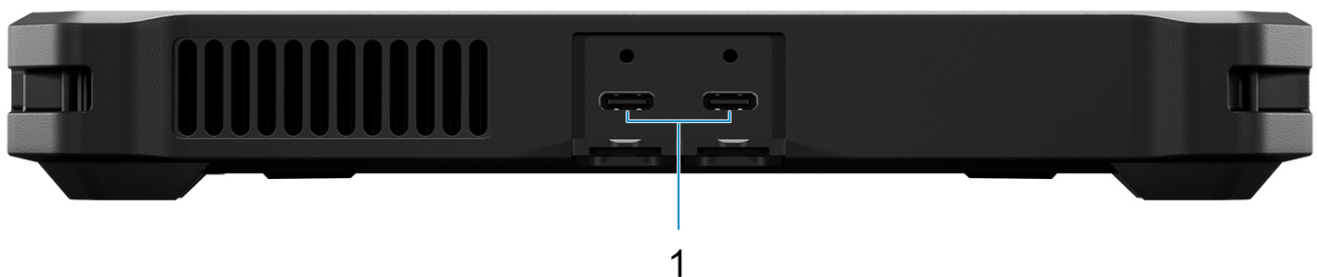
# Views of Latitude 7230 Rugged Extreme Tablet

## Right



1. Stylus slot
2. Wedge-shaped lock slot
3. Optional I/O bay (Choose from: HDMI 2.0/USB 3.2 Gen 1 Type-A)
4. USB 3.2 Gen 1 port with PowerShare
5. microSD-card slot
6. Headset (headphone and microphone combo) port

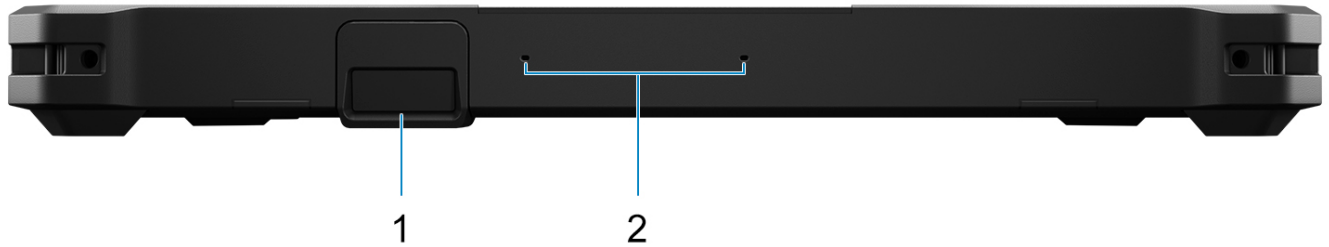
## Left



1. Two Thunderbolt 4 ports with DisplayPort Alt Mode/USB4/Power Delivery

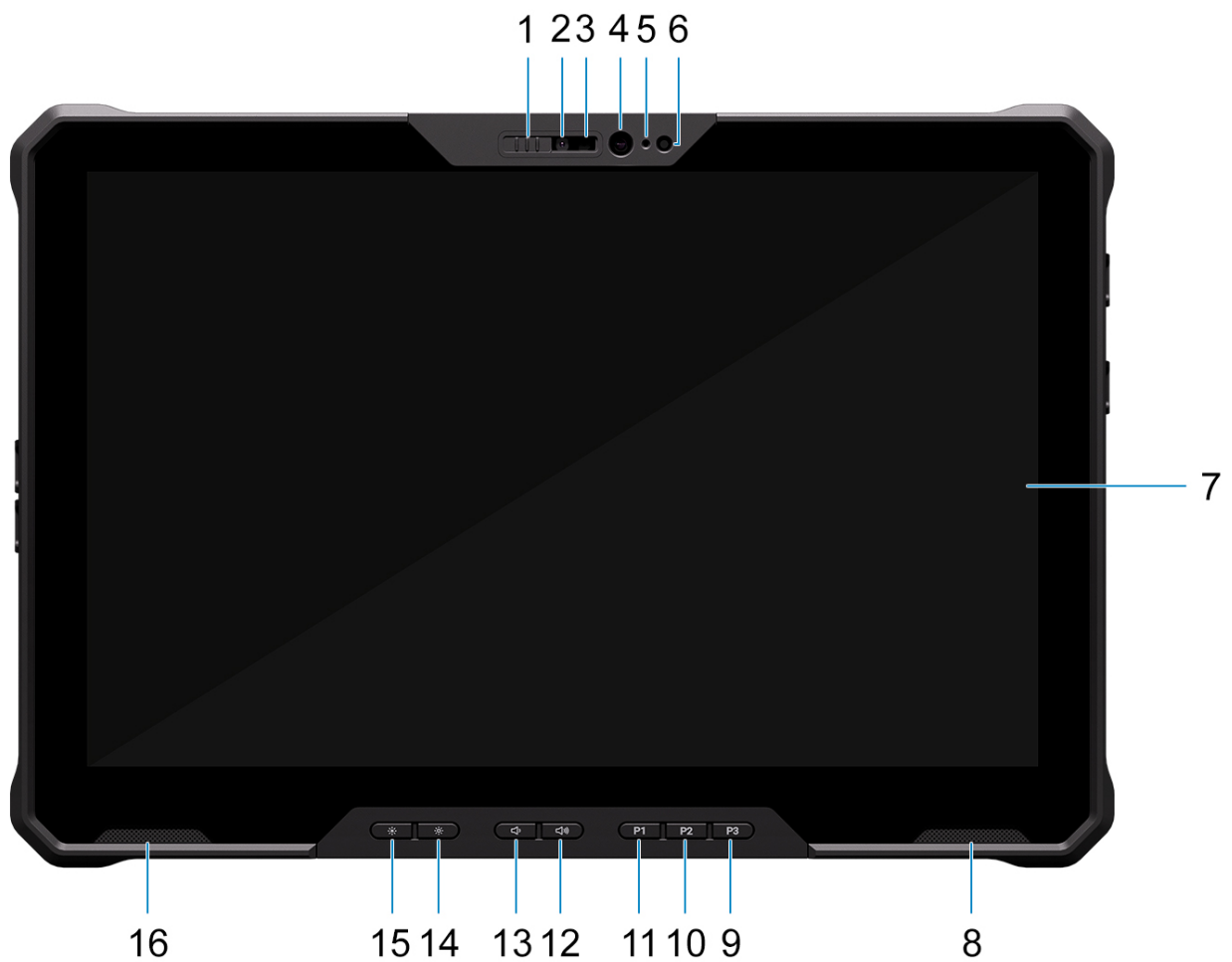


## Top



1. Optional I/O bay (Choose from: RJ-45/Fischer USB 3.0/Mini-serial RS-232 / 1D-2D barcode scanner/Blank)
2. Microphone

## Display



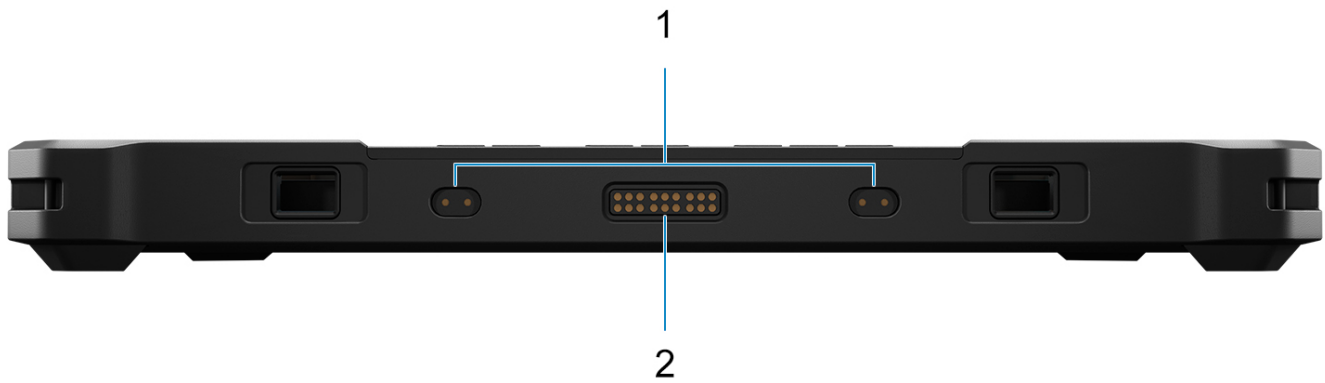
1. Camera shutter door
2. RGB camera
3. IR camera

4. IR emitter
5. Camera status light
6. Ambient Light Sensor (ALS)
7. Display
8. Speaker
9. P3—User programmable button 3
10. P2—User programmable button 2
11. P1—User programmable button 1

**i** **NOTE:** You can configure P1/P2/P3 buttons using Rugged Control Center. For more information about Rugged Control Center, refer Rugged Control Center User's Guide and Quick Start Guide at [Dell.com/support/Rugged-Control-Center](http://Dell.com/support/Rugged-Control-Center).

12. Volume increase button
13. Volume decrease button
14. Brightness increase button
15. Brightness decrease button
16. Speaker

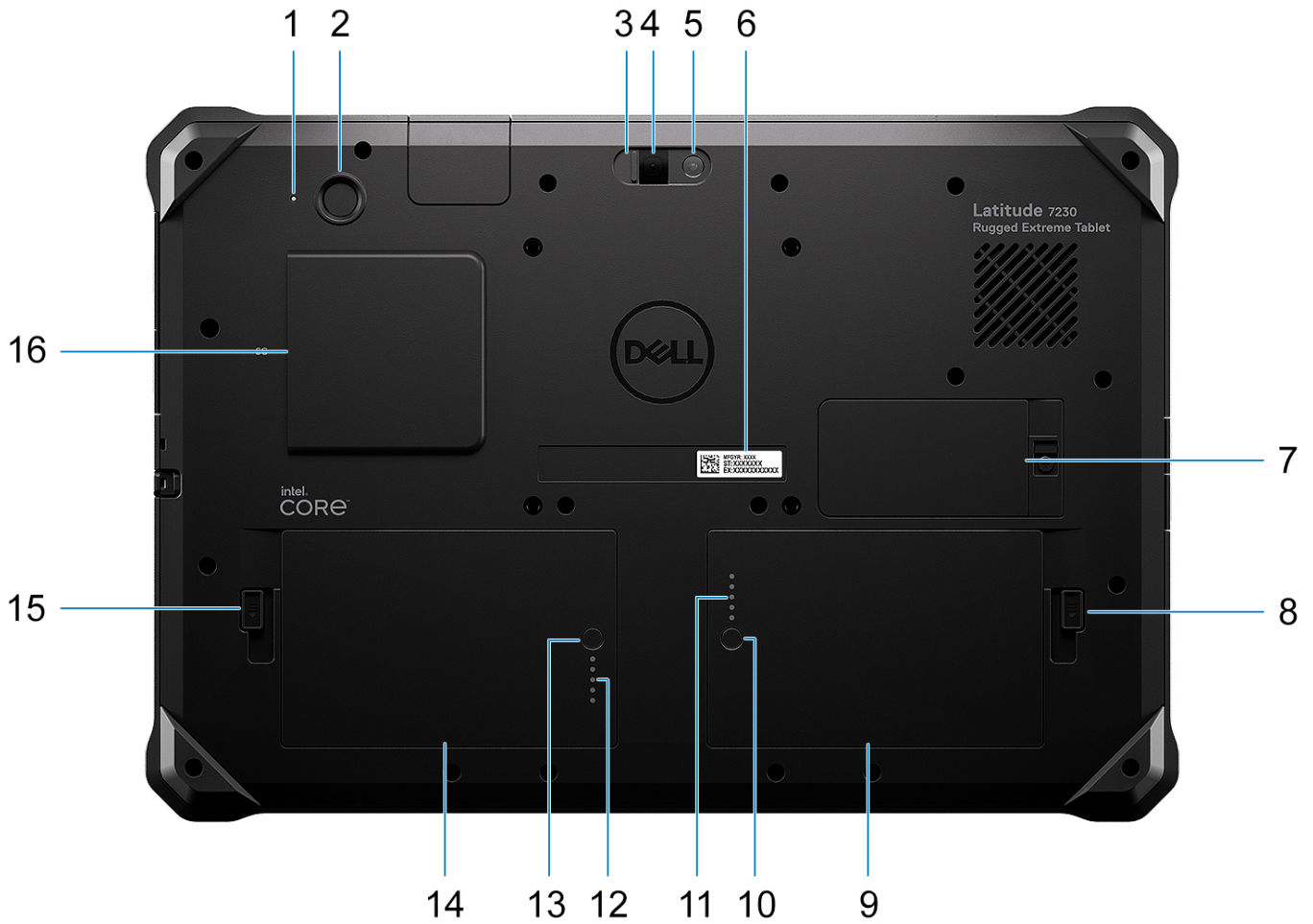
## Bottom



1. RF Passthrough dummy cover
2. Docking pogo connector

**i** **NOTE:** Used to dock a docking station or a rugged keyboard.

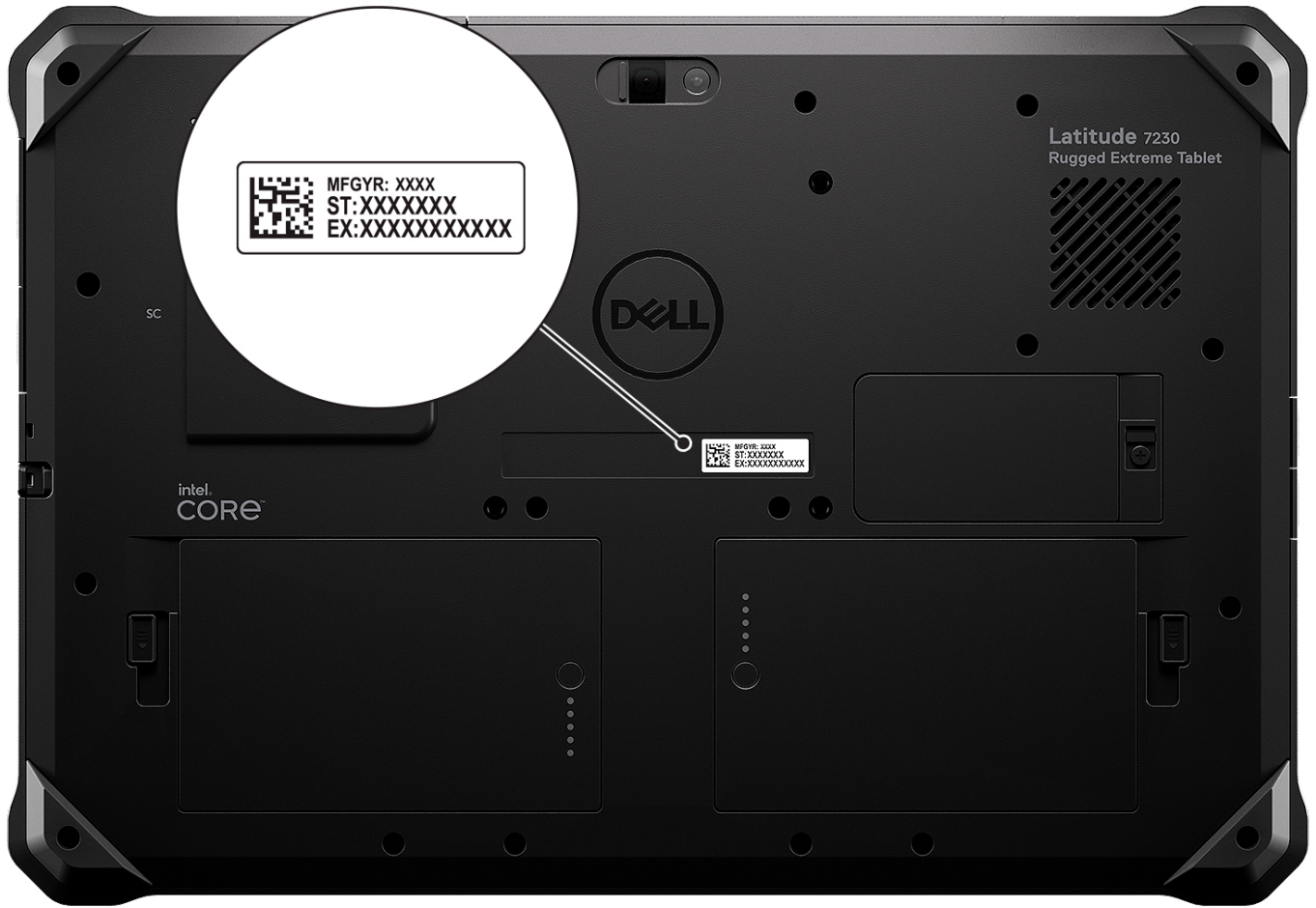
# Back



1. Power button LED
2. Power button with fingerprint
3. Camera shutter door
4. Camera Lens
5. LED flash
6. Service tag
7. Solid-state drive door
8. Battery latch knob
9. Battery
10. Battery button
11. Battery status LED
12. Battery status LED
13. Battery button
14. Battery
15. Battery latch knob
16. Smart card reader slot

## Service Tag

The service tag is a unique alphanumeric identifier that allows Dell service technicians to identify the hardware components in your computer and access warranty information.



## Battery charge and status light

The following table lists the battery charge and status light behavior of your Latitude 7230 Rugged Extreme Tablet.

**Table 2. Battery charge and status light behavior**

Power Source	LED Behavior	System Power State	Battery Charge Level
AC Adapter	Off	S0 - S5	Fully Charged
AC Adapter	Solid White	S0 - S5	< Fully Charged
Battery	Off	S0 - S5	11-100%
Battery	Solid Amber (590+/-3 nm)	S0 - S5	< 10%


- S0 (ON) - System is turned on.
- S4 (Hibernate) - The system consumes the least power compared to all other sleep states. The system is almost at an OFF state, expect for a trickle power. The context data is written to hard drive.
- S5 (OFF) - The system is in a shutdown state.

# Specifications of Latitude 7230 Rugged Extreme Tablet

## Dimensions and weight

The following table lists the height, width, depth, and weight of your Latitude 7230 Rugged Extreme Tablet.

**Table 3. Dimensions and weight**

Description	Values
Height:	
Front height	0.94 in. (23.90 mm)
Rear height	0.94 in. (23.90 mm)
Width	11.65 (296.00 mm)
Depth	7.99 (203.00 mm)
Weight	<ul style="list-style-type: none"> <li>• Minimum—1.26 kg (2.78 lbs)</li> <li>• Maximum—1.59 kg (3.49 lbs)</li> </ul>
 <b>NOTE:</b> The weight of your computer depends on the configuration ordered and manufacturing variability.	

## Processor

The following table lists the details of the processors supported by your Latitude 7230 Rugged Extreme Tablet.

**Table 4. Processor**

Description	Option one	Option two	Option three
Processor type	12 <sup>th</sup> Generation Intel Core i3-1210U	12 <sup>th</sup> Generation Intel Core i5-1240U	12 <sup>th</sup> Generation Intel Core i7-1260U
Processor wattage	9 W	9 W	9 W
Processor core count	6	10	10
Processor thread count	8	12	12
Processor speed	Up to 4.40 GHz	Up to 4.40 GHz	Up to 4.70 GHz
Processor cache	10 MB	12 MB	12 MB
Integrated graphics	Intel UHD Graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics

# Chipset

The following table lists the details of the chipset supported by your Latitude 7230 Rugged Extreme Tablet.

**Table 5. Chipset**

Description	Values
Chipset	Intel ADL-P PCH
Processor	12 <sup>th</sup> Generation Intel Core i3/i5/i7
DRAM bus width	64-bit
Flash EPROM	32 MB/48 MB
PCIe bus	Up to Gen4

# Operating system

Your Latitude 7230 Rugged Extreme Tablet supports the following operating systems:

- Windows 11 2022H2 Pro
- Windows 11 2021H2 Pro
- Windows 10 2021H2 Pro
- Windows 10 2021H1

# Memory

The following table lists the memory specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 6. Memory specifications**

Description	Values
Memory slots	Two integrated on system board
Memory type	Dual-channel LPDDR5 (Non-ECC)
Memory speed	5200 MHz
Maximum memory configuration	32 GB
Minimum memory configuration	8 GB
Memory configurations supported	<ul style="list-style-type: none"><li>• 8 GB, 2 x 4 GB, LPDDR5, 5200 MHz</li><li>• 16 GB, 2 x 8 GB, LPDDR5, 5200 MHz</li><li>• 32 GB, 2 x 16 GB, LPDDR5, 5200 MHz</li></ul>

## External ports

The following table lists the external ports of your Latitude 7230 Rugged Extreme Tablet.


**Table 7. External ports**

Description	Values
Network port	Ethernet connection available through optional Expansion Module or dock
USB ports	<ul style="list-style-type: none"><li>• Two Thunderbolt 4 ports with DisplayPort Alt Mode/USB4/Power Delivery</li><li>• One optional I/O bay (Choose from: HDMI/USB Type-A USB3.2 Gen1)</li><li>• One USB 3.2 Gen 1 port with PowerShare</li><li>• One optional I/O bay (Choose from: RJ-45/Fischer USB 3.0/Mini-serial RS232/1D-2D barcode scanner/Blank)</li></ul>
Audio port	One headset (headphone and microphone combo) port
Video port	Supported through a dock or directly through USB Type-C/HDMI
Media-card reader	One microSD-card slot
Power-adapter port	65 W/90 W adapter USB-C
Security-cable slot	One wedge-shaped lock slot

## Internal slots

The following table lists the internal slots of your Latitude 7230 Rugged Extreme Tablet.

**Table 8. Internal slots**

Description	Values
M.2	<ul style="list-style-type: none"><li>• One M.2 2230 slot for solid-state drive</li><li>• One M.2 2230 slot for Wi-Fi and Bluetooth card</li><li>• One M.2 3042 slot for WWAN card</li></ul> <p> <b>NOTE:</b> To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>

## Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 9. Ethernet specifications**

Description	Values
Model number	Intel Ethernet i219LM
Transfer rate	10/100/1000 Mbps

# Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules supported on your Latitude 7230 Rugged Extreme Tablet.

**Table 10. Wireless module specifications**

Description	Option one	Option two
Model number	Qualcomm WCN6856-DBS	Intel AX211
Transfer rate	Up to 3571 Mbps	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz/6 GHz
Wireless standards	<ul style="list-style-type: none"> <li>• WiFi 802.11a/b/g</li> <li>• Wi-Fi 4 (WiFi 802.11n)</li> <li>• Wi-Fi 5 (WiFi 802.11ac)</li> <li>• Wi-Fi 6E (WiFi 802.11ax)</li> </ul>	<ul style="list-style-type: none"> <li>• WiFi 802.11a/b/g</li> <li>• Wi-Fi 4 (WiFi 802.11n)</li> <li>• Wi-Fi 5 (WiFi 802.11ac)</li> <li>• Wi-Fi 6E (WiFi 802.11ax)</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>• 64-bit/128-bit WEP</li> <li>• AES-CCMP</li> <li>• TKIP</li> </ul>	<ul style="list-style-type: none"> <li>• 64-bit/128-bit WEP</li> <li>• AES-CCMP</li> <li>• TKIP</li> </ul>
Bluetooth	Bluetooth 5.3	Bluetooth 5.2

# WWAN module

The following table lists the Wireless Wide Area Network (WWAN) module supported on your Latitude 7230 Rugged Extreme Tablet.

## WWAN module specifications

Description	Option one	Option two
Model number	Qualcomm Snapdragon X20 Global Gigabit LTE, CAT16	Qualcomm Snapdragon X55 Global 5G Modem
Form factor	M.2 3042 Key-B	M.2 3042 Key-B
Host interface	USB 3.0/2.0	PCIe Gen3
Network standard	LTE FDD/TDD, WCDMA/HSPA+, GPS/GLONASS/Beidou/Galileo	NR FR1(Sub6) FDD/TDD, LTE FDD/TDD, WCDMA/HSPA+, GPS/GLONASS/Beidou/Galileo
Transfer data rate	<ul style="list-style-type: none"> <li>• Up to 1 Gbps DL (CAT16)</li> <li>• Up 150 Mbps UL</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 3Gbps DL (3GPP Release15 NR/LTE CAT20)</li> <li>• Up to 250 Mbps UL</li> </ul>
Operating Frequency Bands	<ul style="list-style-type: none"> <li>• LTE(B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B42, B43, B46, B66)</li> <li>• HSPA+ (1, 2, 4, 5, 6, 8, 9, 19)</li> </ul>	<ul style="list-style-type: none"> <li>• NR(n1, n2, n3, n5, n7, n8, n12, n20, n28, n38, n41, n66, n71, n77, n78, n79)</li> <li>• LTE(B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71*)</li> <li>• HSPA+ (1, 2, 4, 5, 6, 8, 9,19)</li> </ul> <p>*Only enabled on specific platforms</p>
Power supply	DC 3.135 V to 4.4 V, Typical 3.3 V	DC 3.13 V to 3.63 V, Typical 3.3 V



Description	Option one	Option two
SIM card	Supported through external SIM slot	Supported through external SIM slot
eSIM with Dual SIM (DSSA)	Supported (the availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements)	Supported (the availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements)
Antenna Diversity	Supported	Supported
Radio On/Off	Supported	Supported
Wake On Wireless	Supported	Not supported
Temperature	<ul style="list-style-type: none"> <li>Normal operating temperature: -30°C to +70°C</li> <li>Extended Operating temperature: -40°C to +85°C</li> </ul>	<ul style="list-style-type: none"> <li>-Normal operating temperature: -30°C to +70°C</li> <li>-Extended Operating temperature: -40°C to +85°C</li> </ul>
Antenna connector	<ul style="list-style-type: none"> <li>WWAN Main Antenna x 1</li> <li>WWAN Diversity Antenna x 1</li> <li>4 x 4 MIMO Antenna x 2</li> </ul>	<ul style="list-style-type: none"> <li>WWAN ANT0 x 1</li> <li>WWAN ANT1 x 1</li> <li>WWAN ANT2 x 1</li> <li>WWAN ANT3 X 1</li> </ul>

## Audio

The following table lists the audio specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 11. Audio specifications**

Description	Values	
Audio controller	Realtek ALC3254	
Stereo conversion	Supported	
Internal audio interface	High definition audio interface	
External audio interface	Universal Audio Jack/HDMI 1.4b port	
Number of speakers	2	
Internal-speaker amplifier	Supported	
External volume controls	Supported	
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output	Supported	
Microphone	Dual-array	

## Storage

This section lists the storage options on your Latitude 7230 Rugged Extreme Tablet.

Your Latitude 7230 Rugged Extreme Tablet supports one of the following storage configuration:

- One M.2 2230 solid-state drive

**Table 12. Storage specifications**

Storage type	Interface type	Capacity
M.2 2230 solid-state drive	PCIe NVMe Gen4 x4	256 GB/512 GB/1 TB
M.2 2230 solid-state drive, Self-encrypting, Opal 2.0	PCIe NVMe Gen3 x4	256 GB
M.2 2230 solid-state drive, Self-encrypting, Opal 2.0	PCIe NVMe Gen4 x4	256 GB

## Media-card reader

The following table lists the media cards supported by your Latitude 7230 Rugged Extreme Tablet.

**Table 13. Media-card reader specifications**

Description	Values
Media-card type	One microSD 4.0 card
Media-cards supported	<ul style="list-style-type: none"> <li>• Micro Secure Digital (mSD)</li> <li>• Micro Secure Digital High Capacity (mSDHC)</li> <li>• Micro Secure Digital Extended Capacity (mSDXC)</li> </ul>
<p><b>NOTE:</b> The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.</p>	

## Keyboard

The following table lists the keyboard specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 14. Keyboard specifications**

Description	Values
Keyboard type	1-zone RGB backlit keyboard
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"> <li>• United States and Canada: 82 keys</li> <li>• United Kingdom: 83 keys</li> <li>• Japan: 86 keys</li> </ul>
Keyboard size	X=19.05 mm key pitch Y=19.05 mm key pitch
Keyboard shortcuts	<p>Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key.</p> <p><b>NOTE:</b> You can define the primary behavior of the function keys (F1–F12) changing <b>Function Key Behavior</b> in BIOS setup program.</p>

# Camera

The following table lists the camera specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 15. Front camera specifications**

Description		Values
Number of cameras		Two
Camera type		5M RGB camera/VGA IR camera
Camera location		Front camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	2592 x 1944 megapixel
	Video	1920 x 1080 (VGA/HD) at 30 fps
Infrared camera resolution:		
	Still image	640 x 480 megapixel
	Video	640 x 480 (VGA/HD) at 30 fps
Diagonal viewing angle:		
	Camera	92.0 degrees
	Infrared camera	77.3 degrees

**Table 16. Rear camera specifications**

Description		Values
Number of cameras		One
Camera type		11M RGB camera
Camera location		Rear camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	3976 x 2736 megapixel
	Video	1920 x 1080 (VGA/HD) at 30 fps
Diagonal viewing angle:		
	Camera	97.0 degrees

# Touchpad

The following table lists the touchpad specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 17. Touchpad specifications**

Description		Values
Touchpad resolution:		
	Horizontal	>300 dpi
	Vertical	e.g. 749


**Table 17. Touchpad specifications (continued)**

Description		Values
Touchpad dimensions:		
	Horizontal	104.4 mm
	Vertical	54.9 mm
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article at <a href="https://support.microsoft.com">support.microsoft.com</a> .

## Power adapter

The following table lists the power adapter specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 18. Power adapter specifications**

Description	Option one	Option two
Type	65 W adapter USB-C	90 W adapter USB-C
Power-adapter dimensions:		
	Height	28 mm (1.1 in.)
	Width	22 mm (0.87 in.)
	Depth	51 mm (2.01 in.)
		66 mm (2.6 in.)
		112 mm (4.41 in.)
		130 mm (5.12 in.)
Input voltage	100 VAC to 240 VAC	100 VAC to 240 VAC
Input frequency	50 Hz to 60 Hz	50 Hz to 60 Hz
Input current (maximum)	1.7 A	1.5 A
Output current (continuous)	<ul style="list-style-type: none"> <li>● 20 V/3.25 A (Continuous)</li> <li>● 15 V/3 A (Continuous)</li> <li>● 9.0 V/3 A (Continuous)</li> <li>● 5.0 V/3 A (Continuous)</li> </ul>	<ul style="list-style-type: none"> <li>● 20 V/4.5 A (Continuous)</li> <li>● 15 V/3 A (Continuous)</li> <li>● 9.0 V/3 A (Continuous)</li> <li>● 5.0 V/3 A (Continuous)</li> </ul>
Rated output voltage	20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/15 VDC/9 VDC/5 VDC
Temperature range:		
	Operating	0°C to 40°C (32°F to 104°F)
	Storage	-40°C to 70°C (-40°F to 158°F)
 <b>CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.</b>		

# Battery

The following table lists the battery specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 19. Battery specifications**

Description		Option one	Option two
Battery type		35.6 Wh 2-cell battery, ExpressCharge™	35.6 Wh 2-cell battery, Long Lifecycle ExpressCharge™
Battery voltage		7.6 VDC	7.6 VDC
Battery weight (maximum)		0.17 kg	0.17 kg
Battery dimensions:			
	Height	103.98 mm	103.98 mm
	Width	62.83 mm	62.83 mm
	Depth	15.15 mm	15.15 mm
Temperature range:			
	Operating	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
	Storage	-20°C to 65°C (-4°F to 149°F)	-20°C to 65°C (-4°F to 149°F)
Battery operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate) <i>i</i> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on <a href="http://www.dell.com">www.dell.com</a> .		<ul style="list-style-type: none"> <li>0~15°C—4 hours (when the computer is off)</li> <li>16~45°C—2 hours (when the computer is off)</li> <li>46~50°C—3 hours (when the computer is off)</li> </ul>	<ul style="list-style-type: none"> <li>0~15°C—4 hours (when the computer is off)</li> <li>16~45°C—2 hours (when the computer is off)</li> <li>46~50°C—3 hours (when the computer is off)</li> </ul>
Coin-cell battery		CR2032	CR2032
<p><b>CAUTION:</b> Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.</p> <p><b>CAUTION:</b> Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.</p> <p><b>NOTE:</b> For more information about the battery FAQs, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>			

# Display

The following table lists the display specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 20. Display specifications**

Description		Values
Display type		Full High Definition Plus (FHD+)
Touch options		Touch support
Display-panel technology		Wide Viewing Angle (WVA)
Display-panel dimensions (active area):		
	Height	162.00mm
	Width	259.20 mm
	Diagonal	305.70 mm
Display-panel native resolution		1920 x 1200
Luminance (typical)		1200 nits (with touch glass)
Megapixels		2.304 megapixels
Color gamut		100% (sRGB)
Pixels Per Inch (PPI)		188
Contrast ratio (min)		1000:1
Response time (max)		35 ms
Refresh rate		60 Hz
Horizontal view angle		88 +/- degrees
Vertical view angle		88 +/- degrees
Pixel pitch		0.135 mm x 0.135 mm
Power consumption (maximum)		8.15 W
Anti-glare vs glossy finish		Anti-glare touch glass surface

# Fingerprint reader

The following table lists the fingerprint-reader specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 21. Fingerprint reader specifications**

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	363 dpi

**Table 21. Fingerprint reader specifications (continued)**

Description	Values
Fingerprint-reader sensor pixel size	76 mm x 100 mm

## Sensor

The following table lists the sensor of your Latitude 7230 Rugged Extreme Tablet.

**Table 22. Sensor**

Sensor support
Hall Effect Sensor
Accelerometer+Gyroscope
eCompass/Magnetometer
Ambient Light Sensor
Proximity Sensor (SAR)

## GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Latitude 7230 Rugged Extreme Tablet.

**Table 23. GPU—Integrated**

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	12 <sup>th</sup> Generation Intel Core i3
Intel Iris Xe Graphics	Shared system memory	12 <sup>th</sup> Generation Intel Core i5/i7

## Multiple display support matrix

The following table lists the multiple display support matrix for your Latitude 7230 Rugged Extreme Tablet.

**Table 24. Multiple display support matrix**

Graphics Card	Direct Graphics Controller Direct Output Mode	Supported external displays with computer internal display on	Supported external displays with computer internal display off
Intel UHD Graphics	Not applicable	3	4
Intel Iris X <sup>e</sup> Graphics	Enabled	3	4

## Hardware security

The following table lists the hardware security of your Latitude 7230 Rugged Extreme Tablet.

**Table 25. Hardware security**

Hardware security
Wedge-shaped lock slot

**Table 25. Hardware security (continued)**

<b>Hardware security</b>
Trusted Platform Module (TPM) 2.0 discrete
ControlVault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification
FIPS (Federal Information Processing Standards) 140-2 certification for Trusted Platform Module (TPM)
Trusted Computing Group(TCG) Certification for TPM
Fingerprint Reader with Control Vault 3
Contacted Smart Card and Control Vault 3
Optional Contactless Smart Card, NFC, and Control Vault 3
Self Encrypting Drive (SED), Opal 2.0 only - PCIe Interface
Chassis Intrusion Detection
Battery Removal Detection
RPMC SPI flash
SPI Flash Tamper Detection/Prevention Shunt Circuit

## Smart-card reader

### Contactless smart-card reader

This section lists the contactless smart-card reader specifications of your Latitude 7230 Rugged Extreme Tablet.


**Table 26. Contactless smart-card reader specifications**

<b>Title</b>	<b>Description</b>	<b>Dell ControlVault 3 contactless smart-card reader with NFC</b>
Felica Card Support	Reader and software capable of supporting Felica contactless cards	Yes
ISO 14443 Type A Card Support	Reader and software capable of supporting ISO 14443 Type A contactless cards	Yes
ISO 14443 Type B Card Support	Reader and software capable of supporting ISO 14443 Type B contactless cards	Yes
ISO/IEC 21481	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO/IEC 18092	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO 15693 Card Support	Reader and software capable of supporting ISO15693 contactless cards	Yes
NFC Tag Support	Supports reading and processing of NFC compliant tag information	Yes
NFC Reader Mode	Support for NFC Forum Defined Reader mode	Yes
NFC Writer Mode	Support for NFC Forum Defined Writer mode	Yes



**Table 26. Contactless smart-card reader specifications (continued)**

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
NFC Peer-to-Peer Mode	Support for NFC Forum Defined Peer to Peer mode	Yes
EMVCo Compliant	Compliant with EMVCO smart card standards as posted to www.emvco.com	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
NFC Proximity OS Interface	Enumerates NFP (Near Field Proximity) device for OS to utilize	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers	Yes
Windows Certified	Device certified by Microsoft WHCK	Yes
Dell ControlVault support	Device connects to Dell ControlVault for usage and processing	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	Yes

 **NOTE:** 125 Khz proximity cards are not supported.

**Table 27. Supported cards**

Manufacturer	Card
HID	jCOP readertest3 A card (14443a)
	1430 1L
	DESFire D8H
	iClass (Legacy)
	iClass SEOS
NXP/Mifare	Mifare DESFire 8K White PVC Cards
	Mifare Classic 1K White PVC Cards
	NXP Mifare Classic S50 ISO Card
G&D	idOnDemand - SCE3.2 144K
	SCE6.0 FIPS 80K Dual+ 1 K Mifare
	SCE6.0 nonFIPS 80K Dual+ 1 K Mifare
	SCE6.0 FIPS 144K Dual + 1K Mifare
	SCE6.0 nonFIPS 144K Dual + 1 K Mifare
	SCE7.0 FIPS 144K
Oberthur	idOnDemand - OCS5.2 80K
	ID-One Cosmo 64 RSA D V5.4 T=0 card

## Contacted smart-card reader

The following table lists the contacted smart-card reader specifications of your Latitude 7230 Rugged Extreme Tablet.

**Table 28. Contacted smart-card reader specifications**

Title	Description	Dell ControlVault 3 smart-card reader
ISO 7816 -3 Class A Card Support	Reader capable of reading 5V powered smart mcard	Yes
ISO 7816 -3 Class B Card Support	Reader capable of reading 3V powered smart card	Yes
ISO 7816 -3 Class C Card support	Reader capable of reading 1.8V powered smart card	Yes
ISO 7816-1 Compliant	Specification for the reader	Yes
ISO 7816 -2 Compliant	Specification for smart card device physical characteristics (size, location of connection points, etc.)	Yes
T=0 support	Cards support character level transmission	Yes
T=1 support	Cards support block level transmission	Yes
EMVCo Compliant	Compliant with EMVCo (for electronic payment standards) smart card standards as posted to <a href="http://www.emvco.com">www.emvco.com</a>	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers.	Yes
Windows Certified	Device certified by WHCK	Yes
FIPS 201 (PIV/HSPD-12) Compliant via GSA	Device compliant with FIPS 201/PIV/HSPD-12 requirements	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	Yes

## Operating and storage environment


This table lists the operating and storage specifications of your Latitude 7230 Rugged Extreme Tablet.

**Airborne contaminant level:** G1 as defined by ISA-S71.04-1985

**Table 29. Computer environment**

Description	Operating	Storage
Temperature range	-29°C to 63°C (-20.2°F to 145.4°F)	-51°C to 71°C (-59.8°F to 159.8°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	5% to 95% (non-condensing)
Vibration (maximum)*	0.20 GRMS	1.37 GRMS

**Table 29. Computer environment (continued)**

Description	Operating	Storage
Shock (maximum)	40 G†	30 G†
Altitude range	12192 (4000 ft)	12192 (4000 ft)
 <b>CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.</b>		

\* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse.

# Rugged Control Center

Dell Rugged Control Center brings mission-critical tasks to the forefront of your rugged device, making them easily accessible. Some of the tasks include configuring programmable buttons and edge menus, operating the barcode scanner, enabling and disabling your WiFi and Bluetooth services, and so on.

Using Dell Rugged Control Center, you can also configure a range of settings on your rugged device such as application settings, keyboard backlight, night mode, stealth mode, GPS configuration, and antenna switch.

Dell Rugged Control Center is preinstalled on Latitude Rugged, and Latitude Rugged Extreme Notebooks and Tablets. To launch the application, open the Windows Start menu, and search for Dell Rugged Control Center.

Dell Rugged Control Center consists of five main parts-Dashboard, Program, Feature List, Settings, and Policy.


For more information about Rugged Control Center, refer *Rugged Control Center User's Guide and Quick Start Guide* at [Dell.com/support/Rugged-Control-Center](https://Dell.com/support/Rugged-Control-Center).

# Getting help and contacting Dell

## Self-help resources


You can get information and help on Dell products and services using these self-help resources:


**Table 30. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a> <a href="http://www.dell.com/support/linux">www.dell.com/support/linux</a>
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at <a href="http://www.dell.com/support">www.dell.com/support</a> .  For more information on how to find the Service Tag for your computer, see <a href="#">Locate the Service Tag on your computer</a> .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> <li>1. Go to <a href="http://www.dell.com/support">www.dell.com/support</a>.</li> <li>2. On the menu bar at the top of the Support page, select <b>Support &gt; Knowledge Base</b>.</li> <li>3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.</li> </ol>

## Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [www.dell.com/contactdell](http://www.dell.com/contactdell).

 **NOTE:** Availability varies by country/region and product, and some services may not be available in your country/region.

 **NOTE:** If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.