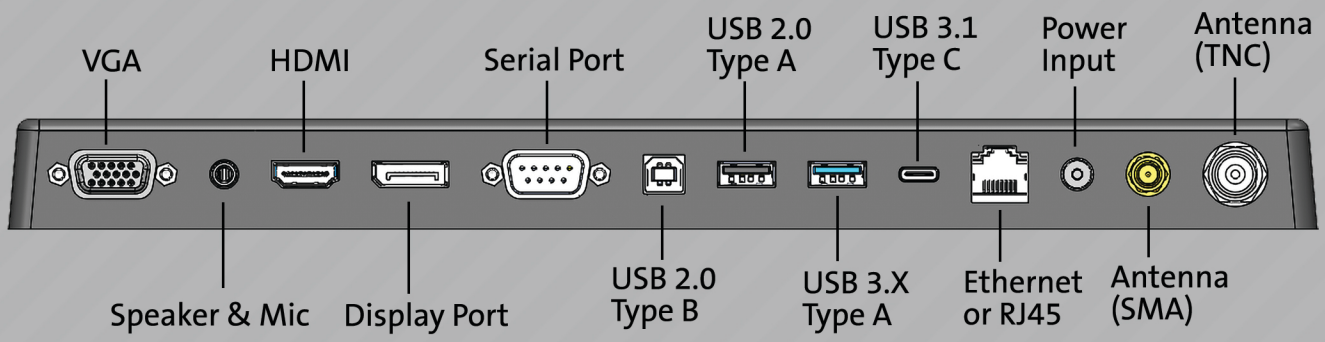
DELL SPEEDS & FEEDS



THE INS AND OUTS OF DOCKING STATIONS



VGA	Video Graphics Array (VGA) port: analog signal for video
Speaker & Mic	Audio ports: analog signal for audio: green=audio out; pink= microphone in
HDMI	High Definition Multimedia Interface: digital signal for audio & video
Display Port	Digital signal for audio & video
Serial Port	RS232 port, analog signal to connect peripherals
USB 2.0 Type B	Digital signal, transmission rate of 480 Mbps; B type square connector
USB 2.0 Type A	Digital signal, transmission rate of 480 Mbps; A type rectangle connector
USB 3.X Type A	Digital signal, transmission rate of 5 Gbps; A type rectangle connector
USB 3.1 Type C	Digital signal, transmission rate of 10 Gbps; C type micro rectangle connector
Ethernet	RJ45 port: analaog & digital signals, transmission rate of 100Mbps to 10 Gbps
Power Input	Barrel connector: transfer 10-12v electrical current
Antenna (SMA)	Coaxial RF 1/4" female connector with external threads: mobile & WiFi
Antenna (TNC)	Coaxial RF 7/16" female connector with external threads: mobile & WiFi

Havis Docking Station
LATITUDE RUGGED NOTEBOOKS
5430, 7330, 5420, 5424, & 7424
DS-DELL-420 Series



Latitude Laptop Solution

- Low profile, lightweight and flexible design
- Port replication with integrated strain relieving
- Triple pass-thru antenna connections (Optional)
- External power supply (Optional)
- Bundles available for convenient solutions

PART NUMBER	ETHERNET	USB 2.0	USB 3.0	HDMI	VGA	SERIAL	SPEAKER/ MIC	POWER INPUT	PASS-THRU ANT	ANT TYPE	EXT POWER
DS-DELL-421	1	1 Front	3 Rear	1	1	2	1 Each	19.5 V*			
DS-DELL-421-3	1	1 Front	3 Rear	1	1	2	1 Each	19.5 V*	Triple	TNC	
DS-DELL-422	1	1 Front	3 Rear	1	1	2	1 Each	19.5 V			LPS-137
DS-DELL-422-3	1	1 Front	3 Rear	1	1	2	1 Each	19.5 V	Triple	TNC	LPS-137
DS-DELL-423											
DS-DELL-423-3									Triple	TNC	
DS-DELL-425	1	1 Front	3 Rear				1 Each	19.5 V*			
DS-DELL-425-3	1	1 Front	3 Rear				1 Each	19.5 V*	Triple	TNC	
DS-DELL-426	1	1 Front	3 Rear				1 Each	19.5 V			LPS-137
DS-DELL-426-3	1	1 Front	3 Rear				1 Each	19.5 V	Triple	TNC	LPS-137

** Requires an external Dell authorized DC power supply*

SPECIFICATIONS

Height: 10.33-in (26.23 cm)
Width: 12.39-in (31.48 cm)
Depth: 2.73-in (6.93 cm)
Weight: 4.75lbs (2.15 kg)
Mounting: Bracket fits most motion devices

CERTIFICATIONS & TESTING

CE Certified; RoHS Compliant
Vibration Testing: MIL-STD 810H 514
Impact Test: SAE J1455 30mph Crash Testing
Cycle Test: Latch Handle & Docking Connectors Mechanism 30,000 cycles
Environmental Testing: Hot/Cold operational (-20C to 60C) & storage (-40C to 85C)

Havis Docking Station
LATITUDE RUGGED 12” TABLETS
7212, 7220
DS-DELL-600 Series



Latitude Tablet Solution

- Low profile, lightweight and flexible design
- Port replication with integrated strain relieving
- PC-ABS & Steel material construction
- Dual Pass-Thru Antenna Connections (Optional)
- External Power Supply (Optional)
- Bundles available for convenient solutions

PART NUMBER	ETHERNET	USB 2.0	USB 3.0	HDMI	VGA	SERIAL	POWERED SERIAL	DISPLAY PORT	SPEAKER/ MIC	POWER INPUT	PASS-THRU ANT	ANT TYPE	EXT POWER	INT POWER
DS-DELL-601	1	1 Front	2 Rear		1	2		1	1 Each	19.5 V*				
DS-DELL-601-2	1	1 Front	2 Rear		1	2		1	1 Each	19.5 V*	Dual	TNC		
DS-DELL-602	1	1 Front	2 Rear		1	2		1	1 Each	19.5 V			LPS-138	
DS-DELL-602-2	1	1 Front	2 Rear		1	2		1	1 Each	19.5 V	Dual	TNC	LPS-138	
DS-DELL-603														
DS-DELL-603-2											Dual	TNC		
DS-DELL-604	1	1 Front	2 Rear		1	2		1	1 Each	10-17 V				Yes
DS-DELL-607	1	1 Front	2 Rear			2			1 Each	19.5 V*				
DS-DELL-607-2	1	1 Front	2 Rear			2			1 Each	19.5 V*	Dual	TNC		
DS-DELL-608	1	1 Front	2 Rear			2			1 Each	19.5 V			LPS-138	
DS-DELL-608-2	1	1 Front	2 Rear			2			1 Each	19.5 V	Dual	TNC	LPS-138	

** Requires an external Dell authorized DC power supply*

SPECIFICATIONS

Height: 11.5-in (29.2 cm)
Width: 11.3-in (28.7 cm)
Depth: 3.5-in (8.9 cm)
Weight: 4.9 lbs (2.2 kg)
Mounting: Bracket fits VESA 75 & most motion devices

CERTIFICATIONS & TESTING

CE Certified; RoHS Compliant
Vibration Testing: MIL-STD 810G 514.5
Impact Test: Crash Simulation per SAE J1455
Cycle Test: Latch Tested 30,000 cycles
Environmental Testing: Hot/Cold Operation & Storage

Havis Docking Station
LATITUDE EXTREME RUGGED 12” TABLETS
7230
DS-DELL-900 Series



Latitude Extreme Tablet Solution

- Low profile, lightweight and flexible design
- Advanced or Standard port replication (Optional)
- Quad Pass-Thru Antenna Connections (Optional)
- Options for internal or external power supplies
- Compatible with Dell 7230 tablet accessories including hard & soft handles, magnetic mount, rotating hand strap & shoulder strap

PART NUMBER	ETHERNET	USB -C	USB 3.0	HDMI	POWERED SERIAL	POWER INPUT	PASS-THRU ANT	ANT TYPE	EXT POWER	INT POWER
DS-DELL-901	1	1 Rear	2 Rear 1 Side		1 @ 5V	9-36V				NON-ISO
DS-DELL-901-4	1	1 Rear	2 Rear 1 Side		1 @ 5V	9-36V	Quad	SMA		NON-ISO
DS-DELL-902	1	1 Rear	2 Rear 1 Side	1	1 @ 5V	9-36V				NON-ISO
DS-DELL-902-4	1	1 Rear	2 Rear 1 Side	1	1 @ 5V	9-36V	Quad	SMA		NON-ISO
DS-DELL-903										
DS-DELL-903-4							Quad	SMA		
DS-DELL-904	1	1 Rear	2 Rear 1 Side		1 @ 5V	19.5V*				
DS-DELL-904-4	1	1 Rear	2 Rear 1 Side		1 @ 5V	19.5V*	Quad	SMA		
DS-DELL-907	1	1 Rear	2 Rear 1 Side	1	1 @ 5V	19.5V*				
DS-DELL-907-4	1	1 Rear	2 Rear 1 Side	1	1 @ 5V	19.5V*	Quad	SMA		

** Requires an external Havis-approved DC power supply*

SPECIFICATIONS

Height: 10.2-in (25.9 cm)
Width: 10-in (25.4 cm)
Depth: 3.5-in (8.9 cm)
Weight: 2.75 lbs (1.25 kg)

CERTIFICATIONS & TESTING

CE Certified; RoHS Compliant
Vibration Testing: MIL-STD 810H 514.5
Impact Test: Crash Simulation per SAE J1455
Cycle Test: Latch Tested 30,000 cycles
Environmental Testing: Hot/Cold Operation & Storage

Havis Docking Station
LATITUDE EXTREME RUGGED 12” TABLETS
7230
PKG-DELL-1000 Series



Latitude Extreme Tablet Solution

- Two-piece design provides IP65 rating & device mobility
- One-handed docking & undocking
- Port replication for seamless integration of multiple peripherals
- Internal, non-isolated (9-36VDC) or external, isolated power supply
- LED power indicator

PART NUMBER	TABLET ADAPTER	DOCKING STATION	ETHERNET	USB 3.0	POWERED SERIAL	POWER INPUT	EXT POWER	INT POWER
PKG-DELL-1001-1232	TA-101	DS-TAB-301	1	3	1 @ 5V	12-32 V	LPS-186	
PKG-DELL-1001-2060	TA-101	DS-TAB-301	1	3	1 @ 5V	20-60 V	LPS-187	
PKG-DELL-1002	TA-101	DS-TAB-302	1	3	1 @ 5V	9-36 V		YES

SPECIFICATIONS

Height: 9.64-in (24.47 cm)
Width: 9.35-in (23.75 cm)
Depth: 3.20-in (8.13 cm)
Weight: 2.82 lbs (1.28 kg)

CERTIFICATIONS & TESTING

CE Certified; RoHS Compliant
Vibration Testing: MIL-STD 810H 514.8
Impact Test: Crash Simulation per SAE J1455
Cycle Test: Latch Tested 30,000 cycles
Environmental Testing: Hot/Cold Operation & Storage

Havis Docking Station
LATITUDE EXTREME RUGGED 10” TABLETS
7030
DS-DELL-1100 Series



Latitude Extreme Tablet Solution

- Compact design with one-handed docking & undocking
- Advanced or basic port replication (optional)
- Non-isolated internal or external power supply (optional)
- LED power indicator

PART NUMBER	ETHERNET	USB -C	USB 3.0	HDMI	POWERED SERIAL	POWER INPUT	PASS-THRU ANT	ANT TYPE	EXT POWER	INT POWER
DS-DELL-1101	1	1 Rear	2 Rear 1 Side		1 @ 5V	9-36V				NON-ISO
DS-DELL-1102	1	1 Rear	2 Rear 1 Side	1	1 @ 5V	9-36V				NON-ISO
DS-DELL-1103										
DS-DELL-1104	1	1 Rear	2 Rear 1 Side		1 @ 5V	19.5V*				
DS-DELL-1107	1	1 Rear	2 Rear 1 Side	1	1 @ 5V	19.5V*				

** Requires an external Havis-approved DC power supply*

SPECIFICATIONS

Height: 9.14-in (23.22 cm)
Width: 9.5-in (24.13 cm)
Depth: 3.45-in (8.7 cm)
Weight: 2.26 lbs (1.03 kg)

CERTIFICATIONS & TESTING

CE Certified; RoHS Compliant
Vibration Testing: MIL-STD 810H 514.5
Impact Test: Crash Simulation per SAE J1455
Cycle Test: Latch Tested 30,000 cycles
Environmental Testing: Hot/Cold Operation & Storage

Havis Docking Station
LATITUDE EXTREME RUGGED 10” TABLETS
7030
PKG-DELL-1200 Series



Latitude Extreme Tablet Solution

- Two-piece design provides IP65 rating & device mobility
- One-handed docking & undocking
- Port replication for seamless integration of multiple peripherals
- Internal, non-isolated (9-36VDC) or external, isolated power supply
- LED power indicator

PART NUMBER	TABLET ADAPTER	DOCKING STATION	ETHERNET	USB 3.0	POWERED SERIAL	POWER INPUT	EXT POWER	INT POWER
PKG-DELL-1201-1232	TA-102	DS-TAB-301	1	3	1 @ 5V	12-32 V	LPS-186	
PKG-DELL-1201-2060	TA-102	DS-TAB-301	1	3	1 @ 5V	2-60 V	LPS-187	
PKG-DELL-1202	TA-102	DS-TAB-302	1	3	1 @ 5V	9-36 V		YES

SPECIFICATIONS

Height: 9.64-in (24.47 cm)
Width: 9.35-in (23.75 cm)
Depth: 3.20-in (8.13 cm)
Weight: 2.77 lbs (1.26 kg)

CERTIFICATIONS & TESTING

CE Certified; RoHS Compliant
Vibration Testing: MIL-STD 810H 514.8
Impact Test: Crash Simulation per SAE J1455
Cycle Test: Latch Tested 30,000 cycles
Environmental Testing: Hot/Cold Operation & Storage

WHICH I/O DO I NEED FOR MY DOCKING STATIONS?

Port	Connector	Type	Audio	Video	Periph	Network	Camera	Power	Cell	GPS	WiFi
VGA	VGA	A/V		X							
Speaker & Mic	3.5 mm	A/V	X								
HDMI	HDMI	A/V	X	X							
Display Port	DisplayPort	A/V	X	X							
Serial	DB9	Data			X						
USB 2.0	Type B	Data			X						
USB 2.0	Type A	Data			X						
USB 3.X	Type A	Data			X						
USB 3.1	Type C	Data/Power			X			X			
Ethernet	RJ45	Network				X	X				
Power	Varies	Power						X			
Antenna SMA	SMA	Signal							X	X	X
Antenna TNC	TNC	Signal							X	X	X

1. What is "pass through antenna"? Which one do I need?

"Pass through antenna" offers connectivity through the docking station instead of external devices. Pass through antennas are used to connect to devices via cellular data, WiFi, SMC connector for radio, or GPS.

2. What is the difference between USB 2.0, 3.0 and 3.1? What is a connector type?

USB 3.1 is capable of 10Gbps, 3USB 3.0 5Gbps and USB 2.0 480 Mbps. The connector type refers to the shape. Connector A is rectangle, B type is square and C type is micro with bi-directional power.

3. What is the difference between serial and powered serial ports?

Serial ports use a 9 pin connector to connect to peripherals like Bar Code Readers where data transfer is low. Powered serial ports assign of the 9 pins to power the peripheral device.

4. What is the difference between VGA and HDMI?

VGA connection offers display but requires a separate audio port for a full audio/video experience. HDMI intergates audio with a high de,nition video signal, thus fewer connections.

5. Do I need ethernet in a mobile application? Is ethernet still a viable I/O?

Ethernet ports enable in-vehicle networking with other computers and external vehicle networking when paired with a mobile modem. Peripherals like video camera systems use Ethernet to transmit data.

6. What is the differnce between a docking station and a cradle?

Docking stations offer port replication for a majority of the input/output connections on the device. A cradle does not offer electronics for connectivity, nor port replication.

7. What is the difference between Basic and Advanced port replication options?

"Advanced" port replication will offer the fullest set of input/output for a given platform. "Basic" versions offer a reduced set for less demanding applications.

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Havis is the leader in providing end-to-end rugged mobility solutions for demanding environments. We partner with leading automotive and technology companies to design innovative products that maximize productivity, safety, and quality.

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