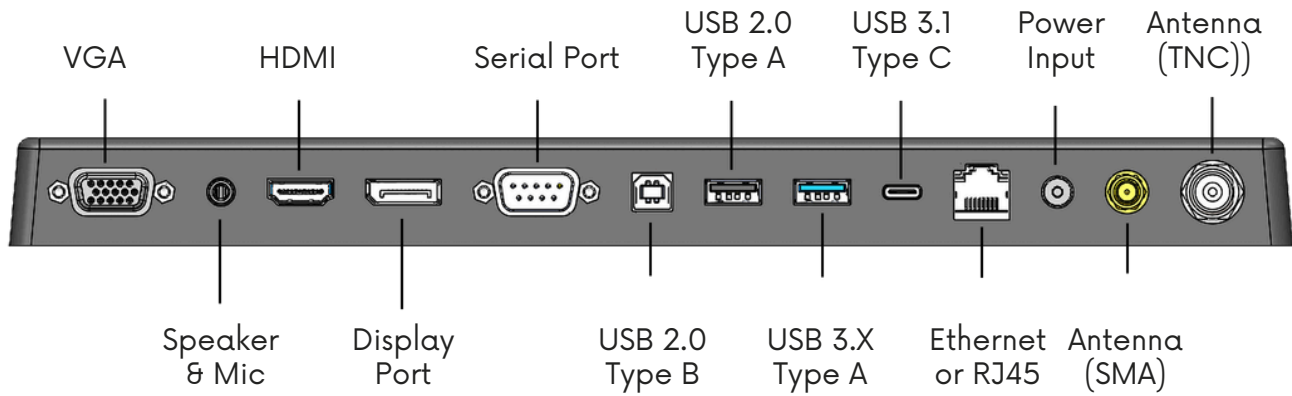


# DELL SPEEDS & FEEDS



# THE INS & 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 rectangle 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 of rectangle connector
USB 3.1 Type C	Digital signal, transmission rate of 5 Gbps; C type of rectangle connector
Ethernet	RJ45 port: analog & digital signals, transmission rate of 100 Mbps to 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-430 SERIES



## Latitude Laptop Solution

- Compact design with one-handed docking & undocking
- Advanced or standard port replication (optional)
- Triple pass-thru antenna connection (optional)
- External power supply (optional)
- Bundles available for a convenient solution

PART NUMBER	ETHERNET	USB-C	USB 3.0	HDMI	VGA	SERIAL	SPEAKER / MIC	POWER INPUT	PASS-THRU ANT	ANT TYPE	EXT POWER
DS-DELL-431	1	1 FRONT	3 REAR	1		1		19.5V*			
DS-DELL-431-3	1	1 FRONT	3 REAR	1		1		19.5V*	TRIPLE	TNC	
DS-DELL-432N	1	1 FRONT	3 REAR	1		1		19.5V*			INCL.
DS-DELL-432N-3	1	1 FRONT	3 REAR	1		1		19.5V*	TRIPLE	TNC	INCL.
DS-DELL-433											
DS-DELL-435	1	1 FRONT	3 REAR			1		19.5V*			
DS-DELL-435-3	1	1 FRONT	3 REAR			1		19.5V*	TRIPLE	TNC	
DS-DELL-436N	1	1 FRONT	3 REAR			1		19.5V*			INCL.
DS-DELL-436N-3	1	1 FRONT	3 REAR			1		19.5V*	TRIPLE	TNC	INCL.

\* REQUIRES AN EXTERNAL DELL AUTHORIZED DC POWER SUPPLY

### SPECIFICATIONS

Height: 2.73-in (69.3mm)  
Width: 12.39-in (314.7mm)  
Depth: 10.59-in (269mm)  
Weight: 3.30 lbs (1.50 kg)  
Mounting Bracket: 1.42 lbs (0.64 kg)

### CERTIFICATIONS & TESTING

Vibration Testing: MIL-STD 810H 514.8  
Crash Testing: SAE J1455 30mph  
Cycle Testing: Latch handle and docking connectors 30K cycles  
Environmental Testing: Hot/Cold operational -20° C to 63° C (-4° F to 145° F);  
Hot/Cold storage -40° C to 85° C (-40° F to 185° F)

# Havis Docking Station

## PRO RUGGED 12 TABLETS

## LATITUDE EXTREME RUGGED 12" TABLETS (7230)

### DS-DELL-900 SERIES



### Pro Rugged & Latitude Extreme Tablet Solution

- Low profile, lightweight and flexible design
- Advanced or Standard port replication (Optional)
- Quad Pass-Thru Antenna Connections (Optional)
- External power supplies (Optional)
- Compatible with Pro Rugged 12 & 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-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-905N	1	1 REAR	2 REAR 1 SIDE		1 @ 5V	19.5V*			INCL.	
DS-DELL-905N-4	1	1 REAR	2 REAR 1 SIDE		1 @ 5V	19.5V*	QUAD	SMA	INCL.	
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		
DS-DELL-908N	1	1 REAR	2 REAR 1 SIDE	1	1 @ 5V	19.5V*			INCL.	
DS-DELL-908N-4	1	1 REAR	2 REAR 1 SIDE	1	1 @ 5V	19.5V*	QUAD	SMA	INCL.	

\* 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 514.8  
 Impact Test: Crash Simulation per SAE J1455  
 Cycle Test: Latch Tested 30,000 cycles  
 Environmental Testing: Hot/Cold Operation & Storage

# Havis Docking Station

## PRO RUGGED 12 TABLETS

## LATITUDE EXTREME RUGGED 12" TABLETS (7230)

### PKG-DELL-1010 SERIES



### Pro Rugged & Latitude Extreme Tablet Solution

- Two-piece design provides IP66 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 2.0	POWERED SERIAL	POWER INPUT	EXT POWER	INT POWER
PKG-DELL-1011-1232	TA-101	DS-TAB-311	1	3	1 @ 5V	12-32V	LPS-186	
PKG-DELL-1011-2060	TA-101	DS-TAB-311	1	3	1 @ 5V	20-60V	LPS-187	
PKG-DELL-1012	TA-101	DS-TAB-312	1	3	1 @ 5V	9-36V		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

## PRO RUGGED 10 TABLETS

## LATITUDE EXTREME RUGGED 10" TABLETS (7030)

### DS-DELL-1100 SERIES



### Pro Rugged & Latitude Extreme Tablet Solution

- Compact design with one-handed docking & undocking
- Advanced or basic port replication (optional)
- 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-1103										
DS-DELL-1104	1	1 REAR	2 REAR 1 SIDE		1 @ 5V	19.5V*				
DS-DELL-1105N	1	1 REAR	2 REAR 1 SIDE		1 @ 5V	19.5V*			INCL.	
DS-DELL-1107	1	1 REAR	2 REAR 1 SIDE	1	1 @ 5V	19.5V*				
DS-DELL-1108N	1	1 REAR	2 REAR 1 SIDE	1	1 @ 5V	19.5V*			INCL.	

\* 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 514.8  
 Impact Test: Crash Simulation per SAE J1455  
 Cycle Test: Latch Tested 30,000 cycles  
 Environmental Testing: Hot/Cold Operation & Storage

# Havis Docking Station

## PRO RUGGED 10 TABLETS

## LATITUDE EXTREME RUGGED 10" TABLETS (7030)

### PKG-DELL-1210 SERIES



### Pro Rugged & Latitude Extreme Tablet Solution

- Two-piece design provides IP66 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 2.0	POWERED SERIAL	POWER INPUT	EXT POWER	INT POWER
PKG-DELL-1211-1232	TA-102	DS-TAB-311	1	3	1 @ 5V	12-32V	LPS-186	
PKG-DELL-1211-2060	TA-102	DS-TAB-311	1	3	1 @ 5V	2-60V	LPS-187	
PKG-DELL-1212	TA-102	DS-TAB-312	1	3	1 @ 5V	9-36V		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

### 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 devices via cellular data, WiFi, SMA connector for radio, or GPS.

### WHAT IS THE DIFFERENCE BETWEEN USB 2.0, 3.0 AND 3.1? WHAT IS 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 rectangular, B type is square and C type is micro with bi-directional power.

### 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 1 of the 9 pins to power the peripheral device.

### 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 integrates audio with a high definition video signal, thus fewer connections.

### 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.

### WHAT IS THE DIFFERENCE 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.

### 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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