

# A. Specifications

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## In This Appendix

This appendix provides detailed technical specifications for the PDS. The following topics are discussed:

- [Input Specifications](#)
- [Output Specifications](#)
- [Physical and Electrical Specifications](#)
- [Communications Specifications](#)
- [Agency Specifications](#)
- [Pinouts](#)

## A. Specifications

### Input Specifications

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## Input Specifications

The table below lists PDS input specifications.

**Table A-1.** PDS Input Specifications

Parameter	Detail	Specification
Inputs 1 - 4	Connector	HD-15 VGA
	Format	RGBHV / RGBS / RGB computer video, YPbPr video (SD or HD), S-video, or composite video
	Sampling	10-bits/color at 150 MHz maximum
		Supports 1:1 sampling up to 1920x1080p @60Hz
	Sources with native pixel rates > 150 MHz will be filtered and undersampled at 150 Mhz, including: <ul style="list-style-type: none"><li>• 1600x1200@60 (162 MHz)</li><li>• 1920x1080p@60 (173.0 MHz)</li><li>• 1920x1200@60 (193.25 MHz)</li><li>• 2048x1080p@60 (183.75 MHz)</li></ul>	
Inputs 5 - 8	Connector	DVI-I, per DDWG 1.0
	Format (Digital)	8-bit DVI, RGBHV data via analog pins
	Format (Analog)	RGBHV / RGBS / RGB computer video, YPbPr video (SD or HD), S-video, or composite video
	HDCP hardware support	HDCP version 1.0 compliant
Input 9	Connector	BNC
	Format	SD-SDI per SMPTE 259M-C (NTSC/PAL resolution)
		HD-SDI per SMPTE 292M (HDTV)
	3G-SDI per SMPTE 425	

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## Output Specifications

The table below lists PDS output specifications:

**Table A-2.** PDS Output Specifications

Parameter	Detail	Specification
Outputs	DVI output	1 x DVI connector
	RGB output	1 x HD-15 VGA connector
	HDCP Encryption	On DVI connector only

## Physical and Electrical Specifications

The table below lists PDS physical and electrical specifications.

**Table A-3.** PDS Physical and Electrical Specifications

Parameter	Detail	Specification
Power	Connector	Standard IEC, integral on/off switch
	Power	100-240 VAC, 50-60 Hz
Mechanical	Chassis	<b>H:</b> 1.75 inches (4.4 cm), 1 RU rack mount
		<b>W:</b> 17.00 in. (43.2 cm), 19.06 in. (48.4 cm) with wings
		<b>D:</b> 14.25 in. (36.19 cm)
Temperature		0-40 degrees C
Humidity		0-95% non-condensing
Weight		12.5 lbs (5.67 kg)
Shipping Weight		16 lbs (7.25 kg)

## Communications Specifications

The table below lists PDS communications specifications.

**Table A-4.** PDS Communications Specifications

Parameter	Detail	Specification
Communications	Ethernet	RJ-45, 10/100 Mbps
	Serial	DB-9 Female, DCE, 115k Baud

## A. Specifications

### Agency Specifications

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## Agency Specifications

The table below lists PDS agency specifications.

**Table A-5.** PDS Agency Specifications

Parameter	Detail	Specification
Agency Specifications	EMI/EMC	EN55103-1 E4, EN55103-2, FCC Part 15 Subpart B Class A
	Safety	EN 60950 Class 1

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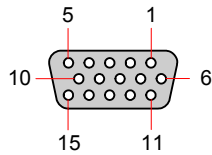
## Pinouts

The following topics are discussed in this section:

- [Analog 15-pin D Connector](#)
- [DVI-I Connector](#)
- [Ethernet Connector](#)
- [Serial Connector](#)

### Analog 15-pin D Connector

The figure below illustrates the analog 15-pin D connector:



**Figure A-1.** Analog 15-pin D connector, chassis view

The table below lists Analog 15-pin D connector pinouts.

**Table A-6.** Analog 15-pin D Connector Pinouts

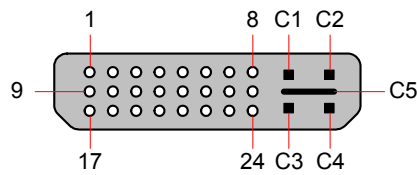
Pin	Signal	Pin	Signal
1	Red	9	+5V DDC Power
2	Green	10	GND
3	Blue	11	
4		12	DDC Data
5		13	H Sync or C Sync
6	Red return	14	V Sync

**Table A-6.** Analog 15-pin D Connector Pinouts

Pin	Signal	Pin	Signal
7	Green return	15	DDC Clock
8	Blue return		

## DVI-I Connector

The figure below illustrates the DVI-I connector:



**Figure A-2.** DVI-I connector

The table below lists DVI-I connector pinouts. Please note:

- T.M.D.S = Transition Minimized Differential Signal
- DDC = Display Data Channel

**Table A-7.** DVI-I Connector Pinouts

Pin	Signal	Pin	Signal
1	T.M.D.S. Data 2-	13	T.M.D.S. Data 3+
2	T.M.D.S. Data 2+	14	+5V Power
3	T.M.D.S. Data 2/4 Shield	15	ground (for +5V)
4	T.M.D.S. Data 4-	16	Hot Plug Detect
5	T.M.D.S. Data 4+	17	T.M.D.S. Data 0-
6	DDC Clock	18	T.M.D.S. Data 0+
7	DDC Data	19	T.M.D.S. Data 0/5 Shield
8	Analog Vertical Sync	20	T.M.D.S. Data 5-
9	T.M.D.S. Data 1-	21	T.M.D.S. Data 5+
10	T.M.D.S. Data 1+	22	T.M.D.S. Clock Shield
11	T.M.D.S. Data 1/3 Shield	23	T.M.D.S. Clock +
12	T.M.D.S. Data 3-	24	T.M.D.S. Clock -
<b>MicroCross Pins</b>			
C1	Analog Red Video	C4	Analog Horizontal Sync

## A. Specifications

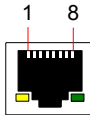
### Pinouts

**Table A-7.** DVI-I Connector Pinouts

Pin	Signal	Pin	Signal
C2	Analog Green Video	C5	Analog Common Ground Return
C3	Analog Blue Video		

## Ethernet Connector

The figure below illustrates the Ethernet connector:



**Figure A-3.** Ethernet connector

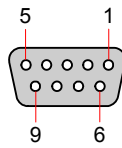
The table below lists Ethernet connector pinouts.

**Table A-8.** Ethernet Connector Pinouts

Pin	Signal	Wire Color
1	TX Data +	White / Orange
2	TX Data -	Orange
3	RX Data +	White / Green
4		Blue
5		White / Blue
6	RX Data -	Green
7		White / Brown
8		Brown

## Serial Connector

The figure below illustrates the DB-9 **Serial** connector.



**Figure A-4.** Serial connector

The table below lists **Serial** connector pinouts.

**Table A-9.** Serial Connector Pinouts

Pin	RS-232 Signal	Description
1	CD	Carrier Detect
2	TXD	Transmitted Data
3	RXD	Received Data
4	DSR	Data Set Ready
5	GND	Signal Ground
6	DTR	Data Terminal Ready
7	CTS	Clear To Send
8	RTS	Request To Send
9	RI	Unused