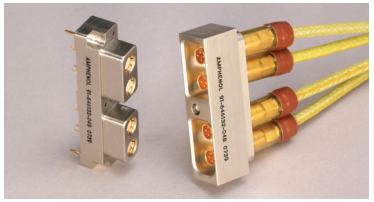
HIGH SPEED PROTOCOL PRODUCT GUIDE

Amphenol Aerospace




Protocol Name	Impedance (ohms)	Data Signaling rate (Gbps) per High-Speed Data Pair	Effective High-Speed Data Pairs	High-Speed Data Pairs	Signal Pins	Power Pins	Ground/Shield Pins	Total Pins	High Speed Product
1000 BASE T Ethernet	100	0.25	4	4 (all bi-directional)	0	0	0	8	(8) Size 22D (2) Star Quadrax (2) Split Pair Quadrax (1) OCS 13-53 arrangement (1) 9 Pin MRC
1000 BASE CX Ethernet	150	1.25	1	2 (1 transmit; 1 receive)	0	0	0	4	(1) 150 Ohm Star Quadrax
10G BASE T Ethernet	100	2.5	4	4 (all bi-directional)	0	0	0	8	(2) Split Pair Quadrax (1) OCS 13-53 arrangement (1) 9 Pin MRC (1) Octonet
10G BASE-CX4	100	3.125	4	8 (4 transmit; 4 receive)	0	0	0	16	(4) Split Pair (2) OCS 13-53 arrangement
XAUI, SERDES @ 3.125 Gbps only	100	3.125	4	8 (4 transmit; 4 receive)	0	0	0	16	(4) Split Pair (2) OCS 13-53 arrangement
SATA Gen1 (1.5 Gbps SATA)	100	1.5	1	2 (1 transmit; 1 receive)	0	0	3	7	(1) 9-35 arrangement (1) 9 Pin MRC (1) Star Quadrax & (3) 22D's (1) Split Pair Quadrax & (3) 22D's (1) OCS 13-53 arrangement
SATA Gen2 (3 Gbps SATA)	100	3	1	2 (1 transmit; 1 receive)	0	0	3	7	(1) 9 Pin MRC (1) Split Pair Quadrax & (3) 22D's (1) OCS 13-53 arrangement
SATA Gen3 (6 Gbps SATA)	100	6	1	2 (1 transmit; 1 receive)	0	0	3	7	(1) Split Pair Quadrax & (3) 22D's (1) OCS 13-53 with Tensolite 24463/9P025X-2(LD) (cable length limited)
DVI 1.0 (Single link)	100	1.65	3	4 (3 signal; 1 clock)	3 (digital only) 8 (digital & analog)	1	5 (digital only) 6 (digital & analog)	17 (digital only) 23 (digital & analog)	(1) MRC 19 Pin (digital only) (1) Octonet + 22D's (2) Quadrax + 22D's in a 19-18 arrgt (2) Split Pair + 22D's in a 19-18 arrgt
DVI 1.0 (Dual link)	100	1.65	6	7 (6 signal; 1 clock)	3 (digital only) 8 (digital & analog)	1	5 (digital only) 6 (digital & analog)	23 (digital only) 29 (digital & analog)	(2) Octonet + 22D's (4) Star Quadrax + 22D's in 19-18 arrgt (4) Split Pair + 22D's in a 19-18 arrgt
HDMI 1.3a, HDMI 1.4	100	3.4	3	4 (3 signal; 1 clock)	5	1	5	19	(2) Split Pair +(7) 22D contacts (1) Octonet +22D's in a 17-2 arrgt
HD-SDI (SMPTE 292M)	150	1.485	1	1	2	0	2 (outer body)	2	75 Ohm Matched Impedance Coax (1) Size 8 21-033591/592-XXX (1) Size 12 21-033650/651-XXX

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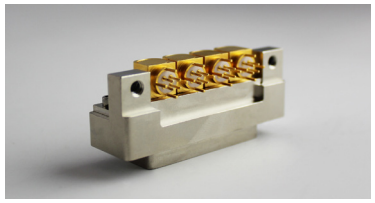



Protocol Name	Impedance (ohms)	Data Signaling rate (Gbps) per High-Speed Data Pair	Effective High-Speed Data Pairs	High-Speed Data Pairs	Signal Pins	Power Pins	Ground/Shield Pins	Total Pins	High Speed Product
DisplayPort v1.0 (reduced rate)	100	1.62	4	4	3	1	8	20	(1) Octonet + 22D's (2) Split Pair Quadrax + 22D's
DisplayPort v1.0 (full rate)	100	2.7	4	4	3	1	8	20	(1) Octonet + 22D's (2) Split Pair Quadrax + 22D's
DisplayPort v1.2	100	5.4	4	4	3	1	8	20	(2) Split Pair Quadrax + 22D's OCS 15-59 Limited to 5 ft or less cable length
USB 2.0 (High-speed USB)	90	0.48	1	1 (bi-directional)	0	1	1	4	(1) Star Quadrax (1) OCS 13-53
USB 3.0 (SuperSpeed USB) USB 3.1 Gen 1 (5 Gbps SuperSpeed)	90	5	2	3 (2 USB 3.0 pairs; 1 USB 2.0 pair)	0	1	2	9	(2) Split Pair Quadrax + 22D's (1) Octonet (1) OCS 13-53 (1) 9 Pin MRC All limited to 3 meters max cable length
PCI Express 2.0 (x8)	100	5	8	17 (16 signal; 1 clock)	18	8	38	98	OCS 23-58 arrangement
6G-SDI	150	6	1	1	0	0	2 (outer body)	2	75 Ohm Matched Impedance Coax (2) Size 8 21-033591/592-XXX (2) Size 12 21-033650/651-XXX
USB 1.1 (Full-speed USB)	90	0.012	1	1 (bi-directional)	0	1	1	4	(4) 22D contacts
HDMI 2.0	100	6	3	4 (3 signal; 1 clock)	5	1	5	19	(1) Octonet + 22D's (2) Split pair Quadrax + 22D's OCS 19-86 arrangement
PCIe Gen3 (x8)	100	8	8	17 (16 signal; 1 clock)	18	8	38	98	OCS 23-58 arrangement
RapidIO (1.25 and 2.5 Gbaud)	100	From 1.25 Gbps to 2.5 Gbps	1	2 (1 transmit; 1 receive)	0	0	0	4	(1) Star Quadrax (1) Split Pair Quadrax (1) Octonet (for 2 lanes or more)
RapidIO (3.125, 5 and 6.25 Gbaud)	100	From 3.125 Gbps to 6.25 Gbps	1	2 (1 transmit; 1 receive)	0	0	0	4	(1) Split Pair Quadrax
CoaXPress	150	From 1.25 Gbps to 12.5 Gbps	1	1	0	0	2 (outer body)	2	Size 8 Matched Impedance Coax (2) 21-033592-031 (2) 21-033591-031 with Belden 1855A

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