

# Direct Attach Copper Cables

## 100G PAM4 SFP-DD Straight Throughs and Breakouts

Regional Availability – Global



Siemon's 50G per lane PAM4 Ethernet SFP-DD passive Direct Attach Copper cable assemblies (DACs) are designed to exceed industry standard performance offering a cost-effective, low latency, low-power option for high-speed data center interconnects. The Direct Attach Cable assemblies support 100G PAM4 applications and are available in standard lengths up to 3 meters including 1:2 breakouts.



1. Global Jacket Options Available

2. Ultra-Low Crosstalk for Enhanced Performance

3. Positive Retention Pull-Release Latch System

4. MSA Compliant Connectors

### Applications

- Ethernet 100GBASE CR2
- Top-of-Rack
- Rack-to-Rack
- Switch-to-Switch
- Switch-to-Server
- Network Interface Adapter
- Accelerator Cards
- Storage
- Routers
- Servers

### Standards Compliance

#### SFP-DD

IEEE 802.3cd  
SFP-DD MSA  
SFP-DD MIS

#### SFP

IEEE 802.3cd  
SFF-8402  
SFF-8071  
SFF-8419  
SFF-8472

#### QSFP

IEEE 802.3cd  
SFF-8636  
SFF-8661  
SFF-8672  
SFF-8679

#### OSFP-RHS

IEEE 802.3cd  
OSFP MSA  
CMIS

## PHYSICAL PROPERTIES – CONNECTOR

CONNECTOR TYPE		SFP-DD	QSFP	OSFP-RHS	SFP
LANES UTILIZED		CR2	CR2	CR2	CR1
CONNECTOR SIDE(S)		A/B	B	B	B
CABLE ASSEMBLY TYPE		1:1	1:1	1:1	1:2
50G PER LANE ETHERNET	Application Speed	100G PAM4	100G PAM4	100G PAM4	50G PAM4
	Power Supply Current Per End (Max)	0.03 A	0.03 A	0.03 A	0.03 A
	Power Consumption Per End (Max)	0.1 W	0.1 W	0.1 W	0.1 W
SUPPLY VOLTAGE		3.3VDC	3.3VDC	3.3VDC	3.3VDC
INSERTION FORCE (Max)		40N	60N	55N	18N
EXTRACTION FORCE (Max)		30N	30N	45N	12.5N
RETENTION FORCE (Max)		90N	90N	125N	90N
DURABILITY (Min)		50 cycles	250 cycles	50 cycles	250 cycles
OPERATING TEMPERATURE		0 to 70°C (32 to 158°F)			
STORAGE TEMPERATURE		-40 to 85°C (-40 to 185°F)			

## PHYSICAL PROPERTIES – CABLE

JACKET TYPE		LSZH/AWM		
JACKET MATERIAL		LSZH		
FLAMMABILITY RATING		UL94 V-0 (AWM)		
TWINAX PAIRS PER CABLE		2	4	8
CABLE CONFIGURATION		CR(X)/CR1	CR(X)/CR2	CR(X)/CR4, CR(X)/CR8
CABLE O.D. PER AWG	30AWG	4.6 mm	6.0 mm	7.5 mm
	28AWG	-	-	-
	27AWG	-	-	-
	26AWG	5.6 mm	7.4 mm	9.8 mm
	25AWG	-	-	-
CONSTRUCTION		Twinaxial		
SHIELD		Braid/Foil		
CONDUCTOR		Solid		
IMPEDANCE		100± 5 ohms		
GREEN FEATURES		RoHS, Lead-Free and REACH		

		50G PER LANE ETHERNET
MAX LENGTHS PER AWG	30AWG	2.0 m
	28AWG	-
	27AWG	3.0 m
	26AWG	3.0 m
	25AWG	-

# Ordering Information

## 100G PAM4 SFP-DD DAC

(XXX) (XXX) P (XX.X) -8 (X) (X)

CONNECTOR TYPE	Side A	Side B	SPEED PER LANE	LENGTH (meters)	JACKET TYPE	JACKET COLOR
SDD	SFP-DD (CR2)	SFP-DD (CR2)	-56 = 50G PAM4 Ethernet	00.5 = 0.5 m	L = LSZH/AWM	B = Black
SDQ	SFP-DD (CR2)	QSFP (CR2)		01.0 = 1.0 m		
SDR	SFP-DD (CR2)	OSFP-RHS (CR2)		01.5 = 1.5 m		
SD2	SFP-DD (CR2)	2SFP (CR1)		02.0 = 2.0 m		
				02.5 = 2.5 m		
			03.0 = 3.0 m			

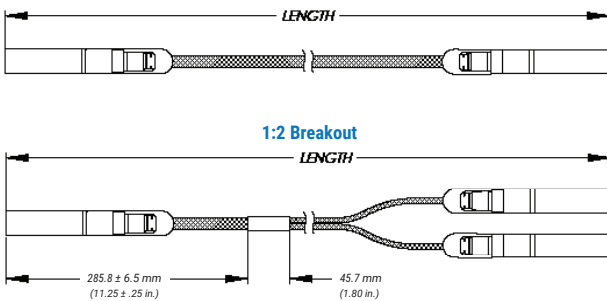
Please contact our Technical Sales Group if you require connectivity or cable configurations that are not listed above.

### Part Number Examples:

Part Number	Description
SDD-56P01.0-8LB	DAC, 100G PAM4, CR2/CR2, SFP-DD, 1m, LSZH/AWM, Black
SDQ-56P01.5-8LB	DAC, 100G PAM4, CR2/CR2, SFP-DD/QSFP56, 1.5m, LSZH/AWM, Black
SDR-56P02.0-8LB	DAC, 100G PAM4, CR2/CR2, SFP-DD/OSFP-RHS, 2m, LSZH/AWM, Black
SD2-56P03.0-8LB	DAC, 100G PAM4, CR2/CR1, SFP-DD/2SFP56, 3m, LSZH/AWM, Black

### Notes:

SFP, SFP-DD, and QSFP-DD are not supported by InfiniBand™  
RS-544 FEC



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