



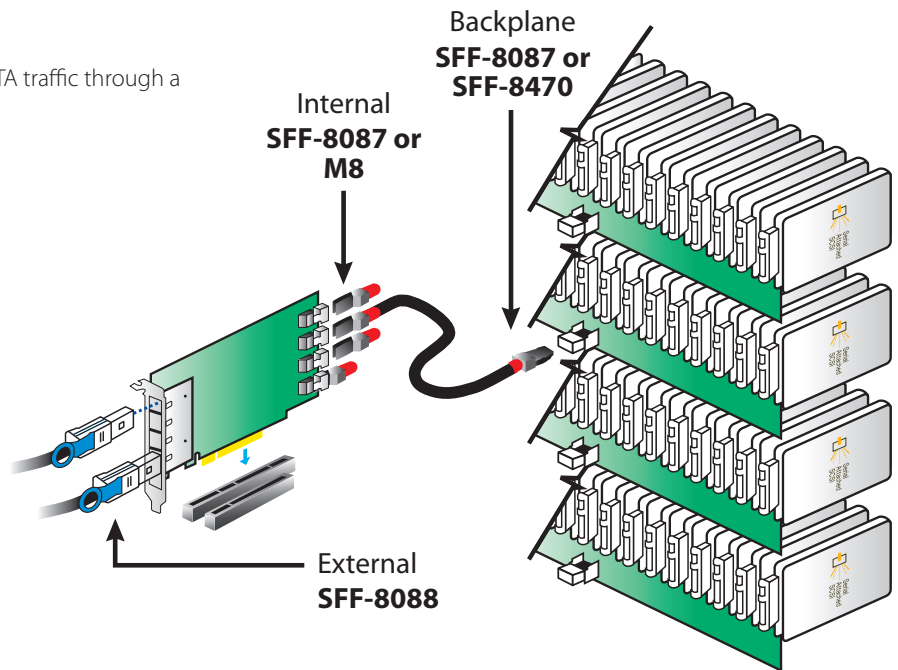
Get Connected via the Multi-lane™ Expressway

AMCC's award winning Multi-lane design enables highly reliable and streamlined enterprise-class SAS and SATA storage solutions by greatly reducing the number of cables needed to connect controllers, backplanes, and standard SAS/SATA drives.

The Multi-lane SATA cable/connection system is fast, secure, simple, and clutter free. It combines the RAID controller's multiple SAS/SATA ports into single locked connections. Multiple 3Gb/s lanes of SAS/SATA traffic travel through just one cable from the RAID controller to the system backplane or to multiple hard drives with a breakout cable.

Multi-lane Benefits

- Multiple lanes of high speed SATA traffic through a single cable
- Increased system reliability
- Reduced cable count
- Streamlined storage
- Locked connections
- Improved airflow



*Multi-lane SFF-8087, SFF-8470, and M8 cables provide internal connectivity from the controller to drives or the backplane.
Multi-lane SFF-8088 cables provide external connectivity from the controller to external enclosures.*



Multi-lane SAS and SATA Cable and Connector Systems

SFF-8088 to SFF-8088
(Multi-lane external SAS)



3ware Controller Model #
9690SA (-8E, -414E)
3ware order #
CBL-SFF8088SAS-10M (1.0 m)
CBL-SFF8088SAS-20M (2.0 m)

SFF-8088 to SFF-8470
(Multi-lane external SAS converter cable)



3ware Controller Model #
9690SA (-8E, -414E)
3ware order #
CBL-SFF8088IB-10M (1.0 m)
CBL-SFF8088IB-20M (2.0 m)

SFF-8087 to SFF-8482
(Forward SAS breakout cable w/ drive power connectors)



3ware Controller Model #
9690SA (-8I, -414E)
3ware order #
CBL-SAS8087OCF-06M (0.6 m)

SFF-8087 to SFF-8087
(Multi-lane internal)



3ware Controller Model #
9690SA (-8I, -414E)
9650SE (-4LPML, -8LPML, -12ML, -16ML)
9550SXU (-12ML, 16ML)
3ware order #
CBL-SFF8087-05M (0.5 m)
CBL-SFF8087-06M (0.6 m)

SFF-8087 to Discrete
(Forward breakout cable)*



3ware Controller Model #
9650SE (-4LPML, -8LPML, -12ML, -16ML)
9550SXU (-12ML, -16ML)
3ware order #
CBL-SFF8087OCF-05M (0.5 m)
CBL-SFF8087OCF-06M (0.6 m)
CBL-SFF8087OCF-10M (1.0 m)

Discrete to SFF-8087
(Reverse breakout cable)*



3ware Controller Model #
9550SXU (-4LP, -8LP, -12)
9500S-4LP
3ware order #
CBL-SFF8087OCR-05M (0.5 m)
CBL-SFF8087OCR-06M (0.6 m)
CBL-SFF8087OCR-10M (1.0 m)

SFF-8087 to SFF-8470
(Bi-directional Multi-lane hybrid cable)



3ware Controller Model #
9650SE (-4LPML, -8LPML, -12ML, -16ML)
9550SXU (-12ML, -16ML)
(SFF-8087 on controller)
3ware order #
CBL-SFF8087IB-05M (0.5 m)
CBL-SFF8087IB-06M (0.6 m)

M8 to SFF-8087
(Multi-lane internal "Y" cable)



3ware Controller Model #
9650SE-24M8
3ware order #
CBL-M8ML-06M (0.6 m)

M8 to Discrete
(Forward breakout cable)*



3ware Controller Model #
9650SE-24M8
3ware order #
CBL-M8OCF-06M (0.6 m)
CBL-M8OCF-10M (1.0 m)

Discrete SATA
(Standard, point-to-point SATA cable)



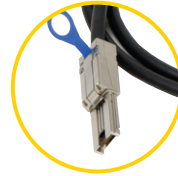
3ware Controller Model #
9650SE-2LP
9550SXU (-4LP, -8LP, -12)
9500S-4LP
8006-2LP
3ware order #
CBL-SATA-39 (39"/1 m)

Discrete to SFF-8470
(Reverse breakout cable)*



3ware Controller Model #
9550SXU (-4LP, -8LP, -12)
9500S-4LP
3ware order #
CBL-OCR-18 (0.5 m)
CBL-OCR-10M (1.0 m)

SFF-8088 to SFF-8088
(Multi-lane external)



3ware Controller Model #
(3ware Sidecar)
3ware order #
CBL-SFF8088-20M (2.0 m)

SFF-8470 to SFF-8087
(Bi-directional Multi-lane hybrid cable)



3ware Controller Model #
9550SXU-12MI
3ware order #
CBL-SFF8087IB-05M (0.5 m)
CBL-SFF8087IB-06M (0.6 m)

SFF-8470 to SFF-8470
(Multi-lane internal)



3ware Controller Model #
9550SXU-12MI
3ware order #
CBL-IB-05M (0.5 m)
CBL-IB-10M (1.0 m)




SFF-8470 to Discrete
(Forward breakout cable)*



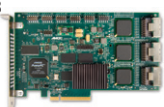








3ware Controller Model #
9550SXU-12MI
3ware order #
CBL-OCF-18 (0.5 m)
CBL-OCF-10M (1.0 m)

- * Breakout cables have a Multi-lane connector on one end and discrete connectors on the other end
 • Forward breakout cables have a Multi-lane connector on the controller end and discrete connectors to the drives
 • Reverse breakout cables have discrete connectors on the controller end and a Multi-lane connector to the backplane
 Note: Cable color may differ from colors shown

3ware Cable Matrix

Controller	Connector to Connector Options		Cable P/N Options	Cable Description	Where Used
	To Controller	To Drives/ Backplane			
3ware 9690SA SAS/SATA RAID Controllers					
9690SA-8E 	SFF-8088	SFF-8088	CBL-SFF8088SAS-10M	1.0 meter cable	Connects the controller's SFF-8088 Multi-lane connector(s) to the enclosure's Multi-lane SFF-8088 connector(s)
				CBL-SFF8088SAS-20M	
	SFF-8088	SFF-8470	CBL-SFF8088IB-10M	1.0 meter cable (converter cable)	Connects the controller's SFF-8088 Multi-lane connector(s) to the enclosure's Multi-lane SFF-8470 connector(s)
			CBL-SFF8088IB-20M	2.0 meter cable (converter cable)	
9690SA-8I 	SFF-8087	SFF-8087	CBL-SFF8087-05M	0.5 meter cable	Connects the controller's SFF-8087 Multi-lane connector(s) to the backplane's Multi-lane SFF-8087 connector(s)
				CBL-SFF8087-06M	
	SFF-8087	SFF-8482	CBL-SAS8087OCF-06M	0.6 meter forward breakout cable	Connects the controller's SFF-8087 Multi-lane connector(s) to up to four individual SAS or SATA drives; includes individual drive power connectors
9690SA-414E 	SFF-8088	SFF-8088	CBL-SFF8088SAS-10M	1.0 meter cable	Connects the controller's SFF-8088 Multi-lane connector(s) to the enclosure's Multi-lane SFF-8088 connector(s)
			CBL-SFF8088SAS-20M	2.0 meter cable	
	SFF-8088	SFF-8470	CBL-SFF8088IB-10M	1.0 meter cable (converter cable)	Connects the controller's SFF-8088 Multi-lane connector(s) to the enclosure's Multi-lane SFF-8470 connector(s)
			CBL-SFF8088IB-20M	2.0 meter cable (converter cable)	
	SFF-8087	SFF-8087	CBL-SFF8087-05M	0.5 meter cable	Connects the controller's SFF-8087 Multi-lane connector(s) to the backplane's Multi-lane SFF-8087 connector(s)
			CBL-SFF8087-06M	0.6 meter cable	
SFF-8087	SFF-8482	CBL-SAS8087OCF-06M	0.6 meter forward breakout cable	Connects the controller's SFF-8087 Multi-lane connector(s) to up to four individual SAS or SATA drives; includes individual drive power connectors	

Controller	Connector to Connector Options		Cable P/N Options	Cable Description	Where Used		
	To Controller	To Drives / Backplane					
3ware 9650SE Internal RAID Controllers							
9650SE-2LP 	Discrete	Discrete	CBL-SATA-39	39" (1m) standard, discrete, point-to-point SATA cable	Connects a controller's discrete SATA port(s) to the drives' or backplane's discrete SATA connector(s)		
			9650SE-4LPML, -8LPML, -12ML, -16ML 	SFF-8087	CBL-SFF8087-05M	0.5 meter cable	Connects the controller's SFF-8087 Multi-lane connector(s) to the backplane's SFF-8087 Multi-lane connector(s)
CBL-SFF8087-06M	0.6 meter cable						
SFF-8087	Discrete	CBL-SFF8087OCF-05M			0.5 meter forward breakout cable	Connects the controller's SFF-8087 Multi-lane connector(s) to the drives' or backplane's discrete SATA connector(s)	
		CBL-SFF8087OCF-06M		0.6 meter forward breakout cable			
		CBL-SFF8087OCF-10M		1.0 meter forward breakout cable			
SFF-8087	SFF-8470	CBL-SFF8087IB-05M		0.5 meter converter cable (internal hybrid)	Connects the controller's SFF-8087 Multi-lane (ML) connector(s) to the backplane's SFF-8470 Multi-lane (MI) connector(s)		
		CBL-SFF8087IB-06M	0.6 meter converter cable (internal hybrid)				
9650SE-24M8 	M8	SFF-8087	CBL-M8ML-06M	0.6 meter "Y" cable	Connects the controller's M8 Multi-lane connector(s) to the backplane's SFF-8087 Multi-lane connector(s)		
			Discrete	CBL-M8OCF-06M	0.6 meter forward breakout cable	Connects the controller's M8 Multi-lane connector(s) to the drives' discrete SATA connectors	
	M8	CBL-M8OCF-10M		1.0 meter forward breakout cable			
		3ware 9650SE with External Connectivity (3ware Sidecar Only)					
9650SE-4LPME 	SFF-8088	SFF-8088	CBL-SFF8088-20M	2.0 meter cable	Connects the controller's SFF-8088 Multi-lane connector to the 3ware Sidecar's SFF-8088 Multi-lane connector		
3ware 9550SXU Internal RAID Controllers							
9550SXU-4LP, -8LP, -12 	Discrete	Discrete	CBL-SATA-39	39" (1m) standard, discrete, point-to-point SATA cable	Connects the controller's discrete SATA port(s) to the drives' or backplane's discrete SATA connector(s)		
			SFF-8087	CBL-SFF8087OCR-05M		0.5 meter reverse breakout cable	Connects the controller's discrete SATA port(s) to the backplane's SFF-8087 Multi-lane connectors
				CBL-SFF8087OCR-06M		0.6 meter reverse breakout cable	
	CBL-SFF8087OCR-10M	1.0 meter reverse breakout cable					
	Discrete	SFF-8470	CBL-OCR-18	0.5 meter reverse breakout cable	Connects the controller's discrete SATA connector(s) to the backplane's SFF-8470 Multi-lane connector(s)		
			CBL-OCR-10M	1.0 meter reverse breakout cable			
9550SXU-12MI 	SFF-8470	SFF-8470	CBL-IB-05M	0.5 meter cable	Connects the controller's SFF-8470 Multi-lane connector(s) to the backplane's SFF-8470 Multi-lane connector(s)		
			CBL-IB-10M	1.0 meter cable			
	SFF-8470	Discrete	CBL-OCF-18	0.5 meter forward breakout cable	Connects the controller's SFF-8470 Multi-lane connector(s) to the drives' or backplane's discrete SATA connector(s)		
			CBL-OCF-10M	1.0 meter forward breakout cable			
	SFF-8470	SFF-8087	CBL-SFF8087IB-05M	0.5 meter converter cable (internal hybrid)	Connects the controller's SFF-8470 Multi-lane (MI) connector(s) to the backplane's SFF-8087 Multi-lane (ML) connector(s)		
			CBL-SFF8087IB-06M	0.6 meter converter cable (internal hybrid)			
9550SXU-12ML, 16ML 	SFF-8087	SFF-8087	CBL-SFF8087-05M	0.5 meter cable	Connects the controller's SFF-8087 Multi-lane connector(s) to the backplane's SFF-8087 Multi-lane connector(s)		
			CBL-SFF8087-06M	0.6 meter cable			
	SFF-8087	Discrete	CBL-SFF8087OCF-05M	0.5 meter forward breakout cable	Connects the controller's SFF-8087 Multi-lane connector(s) to the drives' or backplane's discrete SATA connector(s)		
			CBL-SFF8087OCF-10M	1.0 meter forward breakout cable			
	SFF-8087	SFF-8470	CBL-SFF8087IB-05M	0.5 meter converter cable (internal hybrid)	Connects the controller's SFF-8087 Multi-lane (ML) connector(s) to the backplane's SFF-8470 Multi-lane (MI) connector(s)		
			CBL-SFF8087IB-06M	0.6 meter converter cable (internal hybrid)			
3ware 9500S and 8006 Internal RAID Controllers							
9500S-4LP 	Discrete	Discrete	CBL-SATA-39	39" (1m) standard, discrete, point-to-point SATA cable	Connects the controller's discrete SATA port(s) to the drives' or backplane's discrete SATA connector(s)		
			SFF-8087	CBL-SFF8087OCR-05M		0.5 meter reverse breakout cable	Connects the controller's discrete SATA port(s) to the backplane's SFF-8087 Multi-lane connectors
				CBL-SFF8087OCR-06M		0.6 meter reverse breakout cable	
	SFF-8470	SFF-8470	CBL-SFF8087OCR-10M	1.0 meter reverse breakout cable			
CBL-OCR-18			0.5 meter reverse breakout cable	Connects the controller's SFF-8470 Multi-lane (MI) connector(s) to the backplane's SFF-8087 Multi-lane (ML) connector(s)			
CBL-OCR-10M	1.0 meter reverse breakout cable						
8006-2LP 	Discrete	Discrete	CBL-SATA-39	39" (1m) standard, discrete, point-to-point SATA cable	Connects a controller's discrete SATA port(s) to the drives' or backplane's discrete SATA connector(s)		

Multi-lane Quick Reference Chart

Cable/connector	Controller P/N Suffix	Connectivity	Also Known as
SFF-8470	MI	Internal	InfiniBand
SFF-8087	ML	Internal	Mini SAS 4i, Mini SATA Internal, iPass
SFF-8088	ME	External	Mini SAS 4x, Mini SATA External, iPass
M8	M8	Internal	—





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