Fiber Optic Convection Cooled Ethernet Switch

168-Channel 25G/100G

PDS - 374



DESCRIPTION

Amphenol's rugged 168-channel 25G/100G Fiber Optic Convection Cooled Ethernet switch box offers configurable system connectivity, supporting a variety of speeds, port types, and seamless integration with high-speed media converters and connectors. Additionally, the switch is capable of supporting 1G, 10G, and 40G speeds.

Featuring 168 multi-mode fiber optic ports, each supporting up to 25G Ethernet, this switch undergoes rigorous testing at Amphenol's state-of-the-art communications testing center. It is tested at line rates in accordance with RFC 2889 for switching and RFC 2544 for Layer 2/Layer 3 performance, including metrics such as latency, packet forwarding, and other key performance indicators.

The switch is built using Amphenol's MIL-DTL-38999 Series connectors, incorporating standard AS39029-qualified Size 22D contacts, Octonet contacts, and 48F MT Ferrule Fiberoptic contact assemblies. For fiber optic Ethernet ports, Amphenol employs advanced MT ferrules, while the MT 38999-style contacts are utilized for power input and management functions.

FEATURES & BENEFITS

- 168 channels of up to 25G fiber Ethernet
- 28V MIL-STD-704 input module; MFM and DC/DC mil-spec power supply with hold-up capacitor and in-rush current limiting circuit.
- Built-in test functionality for power up, initiated, and continuous operation.
- Link status on demand, port counter status, configurable port speed/routing, ARP list, drop report, ping, MTU configuration, LUA configuration
- Power connector, debug connector, maintenance connector all D38999's
- · Mil-Spec black painted chassis with cold plate external conduction cooling

Part Number	Description
CF-02WA00-33X	168-channel 25G fiber Ethernet switch box

SOFTWARE FEATURES

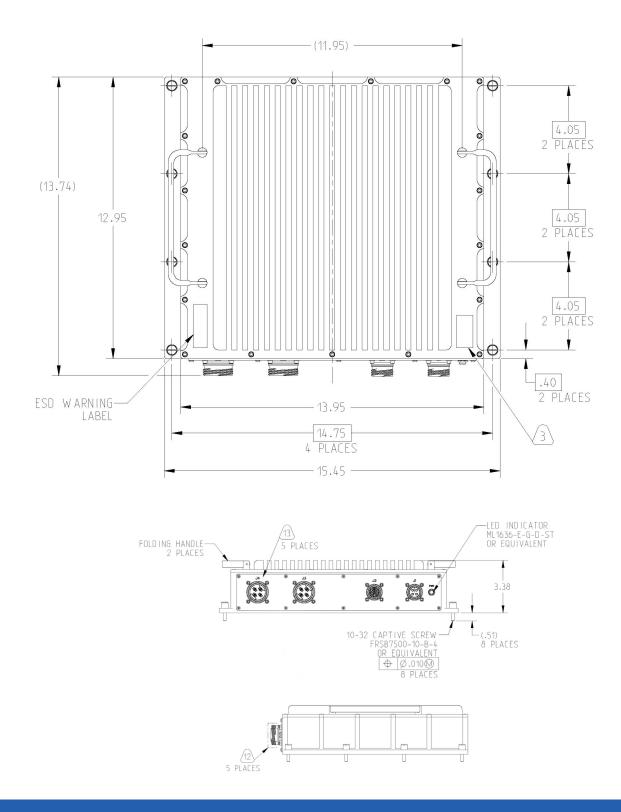
Stacking
Stacking Ring Topology
Stacking Chain Topology
Stacking Members and Unit ID
Removing and Replacing Stacking Members
Exchanging Stacking Members
Switching the Stacking Master
Configuring System Time
Configuring Daylight Savings Time
Configuring SNTP
Polling for Unicast Time Information
Polling for Anycast Time Information
Broadcast Time Information
Defining SNTP Settings
Configuring Device Security
Configuring Management Security
Configuring Authentication Methods
Defining Access Profiles
Defining Profile Rules
Defining Authentication Profiles
Mapping Authentication Methods
Defining RADIUS Settings
Defining TACACS+ Authentication
Configuring Passwords
Defining Local Users
Defining Line Passwords
Defining Enable Passwords
Configuring Network Security
Network Security Overview
Port-Based Authentication
Advanced Port-Based Authentication
Defining Port Authentication Properties
Defining Port Authentication
Configuring Multiple Hosts
Defining Authentication Hosts
Viewing EAP Statistics
Defining Access Control Lists
Defining IP Based Access Control Lists
Defining MAC Based Access Control Lists
Binding Device Security ACLs
Managing Port Security
Enabling Storm Control
Configuring System Logs
Defining General Log Properties
Viewing Memory Logs
Viewing Flash Logs
Defining System Log Servers
Configuring Interfaces
Configuring Ports
Aggregating Ports
Configuring LACP

P
Configuring VLANs
Defining VLAN Properties
Defining VLAN Membership
Defining VLAN Interface Settings
Configuring GARP
Defining GARP
Defining GVRP
Viewing GVRP Statistics
Defining IP Addresses
Configuring IP Addressing
Defining IP Addresses
Defining ARP
Defining Domain Name Servers
Defining DNS Servers
Defining DNS Host Mapping
Defining the Forwarding Database
Defining the Forwarding Database
Defining Access Profiles
Configuring Spanning Tree
Defining Classic Spanning Tree
Defining STP on Interfaces
Defining Rapid Spanning Tree
Defining Multiple Spanning Tree
Defining MSTP Instance Settings
Defining MSTP Interface Settings
Configuring SNMP
SNMP v1 and v2c
SNMP v1 and v2c SNMP v3
SNMP v3
SNMP v3 Configuring SNMP Security
SNMP v3 Configuring SNMP Security Defining SNMP Security
SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP View
SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP View Defining SNMP Group Profiles
SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP View Defining SNMP Group Profiles Defining SNMP Group Members
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SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP View Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Members Defining SNMP Communities SNMP Communities Basic Table SNMP Communities Advanced Table Configuring SNMP Notifications Defining SNMP Notification Global Parameters Defining SNMP Notification Filters Defining SNMP Notification Recipients SNMPv1,2c Notification Recipients SNMPv3 Notification Recipients Configuring Multicast Forwarding Multicast Forwarding
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SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP View Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Members Defining SNMP Communities SNMP Communities Basic Table SNMP Communities Advanced Table Configuring SNMP Notifications Defining SNMP Notification Global Parameters Defining SNMP Notification Filters Defining SNMP Notification Recipients SNMPv1,2c Notification Recipients SNMPv3 Notification Recipients Configuring Multicast Forwarding Multicast Forwarding Typical Multicast Setup Multicast Operation
SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Members Defining SNMP Communities SNMP Communities Basic Table SNMP Communities Advanced Table Configuring SNMP Notifications Defining SNMP Notification Global Parameters Defining SNMP Notification Filters Defining SNMP Notification Recipients SNMPv1,2c Notification Recipients SNMPv3 Notification Recipients Configuring Multicast Forwarding Multicast Setup Multicast Qperation Multicast Registration
SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Members Defining SNMP Communities SNMP Communities Basic Table SNMP Communities Advanced Table Configuring SNMP Notifications Defining SNMP Notification Global Parameters Defining SNMP Notification Recipients SNMPv3 Notification Recipients SNMPv3 Notification Recipients Configuring Multicast Forwarding Multicast Forwarding Multicast Operation Multicast Address Properties
SNMP v3 Configuring SNMP Security Defining SNMP Security Defining SNMP View Defining SNMP Group Profiles Defining SNMP Group Profiles Defining SNMP Group Members Defining SNMP Communities SNMP Communities Basic Table SNMP Communities Advanced Table Configuring SNMP Notifications Defining SNMP Notification Global Parameters Defining SNMP Notification Recipients SNMPv1,2c Notification Recipients SNMPv3 Notification Recipients Configuring Multicast Forwarding Multicast Forwarding Typical Multicast Setup Multicast Address Properties Defining Multicast Properties

Amphenol MILITARY HIGH SPEED

Configuring IGMP Snooping
Configuring MLD Snooping
Viewing IGMP/MLD IP Multicast Groups
Defining Multicast Router Ports
Defining Forward All Multicast
Defining Unregistered Multicast Settings
Managing System Files
Downloading System Files
Firmware Download
Configuration Download
Uploading System Files
Upload Type
Software Image Upload
Configuration Upload
Copying Files
Restoring the Default Configuration File
Configuring Quality of Service
Quality of Service Overview
VPT Classification Information
CoS Services
Defining General QoS Settings
Configuring QoS General Settings
Restoring Factory Default QoS Interface Settings
Defining Queues
Defining Bandwidth Settings
Mapping CoS Values to Queues
Mapping DSCP Values to Queues
Defining QoS Basic Mode
Defining Basic Mode Settings
Rewriting Basic Mode DSCP Values
Defining QoS Advanced Mode
Setting Policy Binding
Managing Device Diagnostics
Configuring Port Mirroring
Viewing Statistics
Viewing Interface Statistics
Viewing Interface Statistics
Receive Statistics
Transmit Statistics
Viewing Etherlike Statistics
Managing RMON Statistics
Viewing RMON Statistics
Configuring RMON History
Defining RMON History Control
Viewing the RMON History Table
Configuring RMON Events
Defining RMON Events Control
•
Viewing the RMON Events Logs
Defining RMON Alarms

DIMENSIONAL INFORMATION



Pinout Chart

I/O CHART												
CONNECTOR DESCRIPTION												
11	A	IN	28VDC_IN									
(POW ER)	В	OUT	28VDC_RTN									
15-4P	C	·	SAFETY GROUND / CHASSIS									
KEYING	D		NOT CONNECTED									
" <u>N</u> "	SHELL		CHASSIS									

		I/O CHA	RT							
CONNECTOR DESCRIPTION	PIN NO.	DATA DIRECTION	SIGNAL NAME							
	1	OUT	RS232_CONSOLE_TX							
	2	IN	RS232_CONSOLE_RX							
	3		GND							
	4		N/C							
	5		N/C							
	6		GND SWITCHBOX_RESET							
	7	BI								
	8		GND							
	9		N/C							
	10		N/C							
	11		GND							
	12		DEBUG1_1GBase-T_DA+							
	13		DEBUG1_1GBase-T_DA-							
	14		DEBUG1_1GBase-T_DB+							
	15		DEBUG1_1GBase-T_DB-							
	16	BI	DEBUG1_1GBase-T_DC+							
	17		DEBUG1_1GBase-T_DC -							
J2	18		DEBUG1_1GBase-T_DD+							
(DEBUG)	19		DEBUG1_1GBase-T_DD-							
15-35P	20		N/C							
KEY ING ″N″	21		GND							
LN .	22		N/C							
	23		N/C							
	24		N/C							
	25		N/C							
	26		N/C							
	27		GND							
	28		N/C							
	29		N/C							
	30		DEBUG2_1GBase-T_DA+							
	31		DEBUG2_1GBase-T_DA-							
	32	-	DEBUG2_1GBase-T_DB+							
	33	-	DEBUG2_1GBase-T_DB-							
	34	BI -	DEBUG2_1GBase-T_DC+							
	35	-	DEBUG2_1GBase-T_DC-							
	36	+ -	DEBUG2_1GBase=T_DD+							
	37		DEBUG2_1GBase=T_DD+							
	SHELL		CHASSIS							
	SHELL		LURASSIS							

	I/0	CHART			I/0	CHART			I/O CHART				1/0	CHART	
CONNECTOR DESCRIPTION	PIN NO	SIGNAL NAME	ETHERNET PORT NO	CONNECTOR DESCRIPTION	PIN NO	SIGNAL NAME	ETHERNET PORT NO	CONNECTOR	PIN NO	SIGNAL NAME	ETHERNET PORT NO	CONNECTOR	PIN NO	SIGNAL NAME	ETHERNET PORT NO
	A1	25GBase-SR_RX	12		B1	25GBase-SR_RX	36		C1	25GBase-SR_RX	60		D1	25GBase-SR_RX	84
	A2 256Base-SR_RX 11 A3 256Base-SR_RX 10 A4 256Base-SR_RX 9			B2	25GBase-SR_RX	35		C.2	25GBase-SR_RX	59		D2	25GBase-SR_RX	83	
			B3	25GBase-SR_RX	34		C 3	25GBase-SR_RX	58		D3	25GBase-SR_RX	82		
			B4	25GBase-SR_RX	33		C 4	25GBase-SR_RX	57		D 4	25GBase-SR_RX	81		
	A5	256Base-SR_RX	8		B5	25GBase-SR_RX	32		C5	25GBase-SR_RX	56		D5	25GBase-SR_RX	80
	A6	25GBase-SR_RX	7		B6	25GBase-SR_RX	31		C.6	25GBase-SR_RX	55		D6	25GBase-SR_RX	79
	A7	25GBase-SR_RX	6		B7	25GBase-SR_RX	30		C7	25GBase-SR_RX	54		D7	25GBase-SR_RX	78
	A8	25GBase-SR_RX	5		B8	25GBase-SR_RX	29		C8	25GBase-SR_RX	53		D8	25GBase-SR_RX	77
	A9	25GBase-SR_RX	4		B9	25GBase-SR_RX	28		09	25GBase-SR_RX	52		D9	25GBase-SR_RX	76
	A10	25GBase-SR_RX	3		B10	25GBase-SR_RX	27		C 10	25GBase-SR_RX	51		D 10	25GBase-SR_RX	75
	A11	25GBase-SR_RX	2		B11	25GBase-SR_RX	26		C 11	25GBase-SR_RX	50		D 11	25GBase-SR_RX	74
	A12	25GBase-SR_RX	1		B12	25GBase-SR_RX	25		C 12	25GBase-SR_RX	49		D12	25GBase-SR_RX	73
	A13	25GBase-SR_TX	12		B13	25GBase-SR_TX	36		C 13	25GBase-SR_TX	60		D 13	25GBase-SR_TX	84
	A14	25GBase-SR_TX	11		B14	25GBase-SR_TX	35		C 14	25GBase-SR_TX	59		D14	25GBase-SR_TX	83
	A15	25GBase-SR_TX	10 9		B15	25GBase-SR_TX	34		C 15	25GBase-SR_TX	58		D 15	25GBase-SR_TX	82
	A16 A17	25GBase-SR_TX	~		B16	25GBase-SR_TX	33			25GBase-SR_TX			D 16	25GBase-SR_TX	81
		25GBase-SR_TX	8		B17	25GBase-SR_TX			C 17	25GBase-SR_TX	56		D17	25GBase-SR_TX	80
	A18 A19	25GBase-SR_TX	6		B18 B19	25GBase-SR_TX	31		C 18 C 19	25GBase-SR_TX	55		D18	25GBase-SR_TX	
		25GBase-SR_TX	5		B19 B20	25GBase-SR_TX	30		C 20	25GBase-SR_TX	53		D19 D20	25GBase-SR_TX 25GBase-SR_TX	78
					25GBase-SR_TX 25GBase-SR_TX				25GBase-SR_TX	53					
13	A21 A22	25GBase-SR_TX	4	13	B21 B22		28	L3	C 21	25GBase-SR_TX 25GBase-SR_TX	51	EL	D21	25GBase-SR_TX	76
04.010		25GBase-SR_TX 25GBase-SR_TX	2	04.010		25GBase-SR_TX 25GBase-SR_TX		04.010		25GBase-SR_TX		04.010		25GBase-SR_TX 25GBase-SR_TX	75
21-04S	A23	25GBase-SR_TX	1	21-04S	B23 B24	25GBase-SR_TX	26	21-04S	C23	25GBase-SR_TX	50 49	21-04S 4X 48F MT	D23	25GBase-SR_TX	74
4X 48F MT	A24	256Base-SR_RX	24	4X 48E MT	B25	25GBase-SR_RX	48	4X 48E MT	C24	25GBase-SR_RX	72		D24	25GBase-SR_RX	96
4/ 401 111	A26	25GBase-SR_RX	24	4/ 401 111	B26	25GBase-SR_RX	40	47 401 111	C25	25GBase-SR_RX	72	4 4 4 01 111	D25	25GBase-SR_RX	90
KEYING	A27	25GBase-SR_RX	22	KEYING	B20	25GBase-SR_RX	47	KEYING	C20	25GBase-SR_RX	70	KEYING	D20	25GBase-SR_RX	94
"N"	A28	25GBase-SR_RX	21	"N"	B28	25GBase-SR_RX	40	"N"	C28	25GBase-SR_RX	69	"N"	D28	25GBase-SR_RX	93
	A29	25GBase-SR_RX	20		B20	25GBase-SR_RX	45		C20	25GBase-SR_RX	68		D20	25GBase-SR_RX	92
	A30	25GBase-SR_RX	19		B30	25GBase-SR_RX	44		C 30	25GBase-SR_RX	67		D 30	25GBase-SR_RX	91
	A31	25GBase-SR_RX	18		B31	25GBase-SR_RX	4.2		C 31	25GBase-SR_RX	66		D 31	25GBase-SR_RX	90
	A32	25GBase-SR_RX	17		B32	25GBase-SR_RX	42	C32	25GBase-SR_RX	65		D32	25GBase-SR_RX	89	
	A33	25GBase-SR_RX				C 33	25GBase-SR_RX	64		D 33	25GBase-SR_RX	88			
	A34	25GBase-SR_RX	15		B34	25GBase-SR_RX	39		C34	25GBase-SR_RX	63		D 34	25GBase-SR_RX	87
	A35	25GBase-SR_RX	14		B35	25GBase-SR_RX	38		C 35	25GBase-SR_RX	62		D 35	25GBase-SR_RX	86
	A36	25GBase-SR_RX	13		B36	25GBase-SR_RX	37		C 36	25GBase-SR_RX	61		D 36	25GBase-SR_RX	85
	A37	25GBase-SR_TX	24		B37	25GBase-SR_TX	48		C 37	25GBase-SR_TX	72		D 37	25GBase-SR_TX	96
	A38	25GBase-SR_TX	23		B38	25GBase-SR_TX	47		C 38	25GBase-SR_TX	71		D 38	25GBase-SR_TX	95
	A39	25GBase-SR_TX	22		B39	25GBase-SR_TX	46		C 39	25GBase-SR_TX	70		D 39	25GBase-SR_TX	94
	A40	25GBase-SR_TX	21		B40	25GBase-SR_TX	45		C40	25GBase-SR_TX	69		D40	25GBase-SR_TX	93
	A41	25GBase-SR_TX	20		B41	25GBase-SR_TX	44		C 41	25GBase-SR_TX	68		D41	25GBase-SR_TX	92
	A42	25GBase-SR_TX	19		B42	25GBase-SR_TX	43		C42	25GBase-SR_TX	67		D42	25GBase-SR_TX	91
	A43	25GBase-SR_TX	18		B43	25GBase-SR_TX	42		C 4 3	25GBase-SR_TX	66		D43	25GBase-SR_TX	90
	A44	25GBase-SR_TX	17		B44	25GBase-SR_TX	41		C 4 4	25GBase-SR_TX	65		D44	25GBase-SR_TX	89
	A45	25GBase-SR_TX	16		B45	25GBase-SR_TX	40		C 4 5	25GBase-SR_TX	64		D45	25GBase-SR_TX	88
	A46	25GBase-SR_TX	15		B46	25GBase-SR_TX	39		C46	25GBase-SR_TX	63		D46	25GBase-SR_TX	87
	A47	25GBase-SR_TX	14		B47	25GBase-SR_TX	38		C47	25GBase-SR_TX	62		D47	25GBase-SR_TX	86
	A48	25GBase-SR_TX	13		B48	25GBase-SR_TX	37		C 4 8	25GBase-SR_TX	61		D48	25GBase-SR_TX	85

I/O CHART					1/0	CHART			1/0	CHART			1/0	CHART	
CONNECTOR DESCRIPTION	PIN NO	SIGNAL NAME	ETHERNET PORT NO	CONNECTOR DESCRIPTION	PIN NO	SIGNAL NAME	ETHERNET PORT NO	CONNECTOR	PIN NO	SIGNAL NAME	ETHERNET PORT NO	CONNECTOR	PIN NO	SIGNAL NAME	ETHERNE PORT NO
	A1	25GBase-SR_RX	108		B1	25GBase-SR_RX	132		C1	25GBase-SR_RX	156				
	A2	25GBase-SR_RX	107		B2	25GBase-SR_RX	131		C2	25GBase-SR_RX	155				
	AB	25GBase-SR_RX	106		B3	25GBase-SR_RX	130		С 3	25GBase-SR_RX	154				
-	A4	25GBase-SR_RX	105		B4	25GBase-SR_RX	129		€4	25GBase-SR_RX	153				
	A5	25GBase-SR_RX	10.4		B5	25GBase-SR_RX	128		C.5	25GBase-SR_RX	152				
	A6	25GBase-SR_RX	103		B6	25GBase-SR_RX	127		C 6	25GBase-SR_RX	151				
	A7	25GBase-SR_RX	102		B7	25GBase-SR_RX	126		C7	25GBase-SR_RX	150				
	A8	25GBase-SR_RX	101		B8	25GBase-SR_RX	125		C.8	25GBase-SR_RX	14.9				
	A9	25GBase-SR_RX	100		B9	25GBase-SR_RX	124		C 9	25GBase-SR_RX	14.8				
	A10	25GBase-SR_RX	99		B10	25GBase-SR_RX	123		C 10	25GBase-SR_RX	147				
	A11	25GBase-SR_RX	98		B11	25GBase-SR_RX	122		C 11	25GBase-SR_RX	146		D		
	A12	25GBase-SR_RX	97		B12	25GBase-SR_RX	121		C 12	25GBase-SR_RX	145				
	A13	25GBase-SR_TX	108		B13	25GBase-SR_TX	132		C 13	25GBase-SR_TX	156				
	A14	25GBase-SR_TX	107		B14	25GBase-SR_TX	131		C 14	25GBase-SR_TX	155				
	A15	25GBase-SR_TX	106		B15	25GBase-SR_TX	130		C 15	25GBase-SR_TX	154				
	A16	25GBase-SR_TX	105		B16	25GBase-SR_TX	129		C 16	25GBase-SR_TX	153				
	A17	25GBase-SR_TX	104		B17	25GBase-SR_TX	128		C 17	25GBase-SR_TX	152				
 	A18	25GBase-SR_TX	103		B18	25GBase-SR_TX	127		C 18	25GBase-SR_TX	151				
	A19	25GBase-SR_TX	102		B19	25GBase-SR_TX	126		C 19	25GBase-SR_TX	150	J4 21-04S 4X 48F MT KEYING			
	A20	25GBase-SR_TX	101		B20	25GBase-SR_TX	125		C 20	25GBase-SR_TX	14.9				
	A21	25GBase-SR_TX	100	J4	B21	25GBase-SR_TX	124	J4	C21	25GBase-SR_TX	14.8				
	A22	25GBase-SR_TX	99		B22	25GBase-SR_TX	123		C 22	25GBase-SR_TX	14.7				
21-04S	A23	25GBase-SR_TX	98	21-04S	B23	25GBase-SR_TX	122	21-04S	C23	25GBase-SR_TX	146			NO CONNECT	
V LOF MT	A24	25GBase-SR_TX	97	IV LOF MT	B24	25GBase-SR_TX	121	UV LOF MT	C 24	25GBase-SR_TX	145				NECIT
4X 48F MT	A25	25GBase-SR_RX	120	4X 48F MT	B25	25GBase-SR_RX	14.4	4X 48F MT	C 25	25GBase-SR_RX	168				
KEYING	A26	25GBase-SR_RX	119	KEYING	B26	25GBase-SR_RX	143	KEYING	C 26	25GBase-SR_RX	167				
"A"	A27	25GBase-SR_RX	118	"A"	B27	25GBase-SR_RX	14.2	"A"	C 27	25GBase-SR_RX	166	"A"			
14	A28	25GBase-SR_RX	117	~	B28	25GBase-SR_RX	141	n	C 28	25GBase-SR_RX	165	~			
	A29 A30	25GBase-SR_RX	116		B29	25GBase-SR_RX	140		C 29	25GBase-SR_RX	164				
		25GBase-SR_RX	115		B30	25GBase-SR_RX	139		C 30	25GBase-SR_RX	163				
	A31 A32	25GBase-SR_RX 25GBase-SR_RX			B31 B32	25GBase-SR_RX 25GBase-SR_RX	138		C 31 C 32	25GBase-SR_RX	162				
	A32 A33	25GBase-SR_RX	113 112		B32 B33	25GBase-SR_RX	137 136		033	25GBase-SR_RX 25GBase-SR_RX	161 160				
	A34	25GBase-SR_RX	112		B34	25GBase-SR_RX	135		C34	25GBase-SR_RX	159				
	A34 A35	25GBase-SR_RX	110		B35	25GBase-SR_RX	135		035	25GBase-SR_RX	158				
	A36	25GBase-SR_RX	109		B36	25GBase-SR_RX	133		C36	25GBase-SR_RX	157				
	A37	25GBase-SR_TX	120		B37	25GBase-SR_TX	14.4		C 37	25GBase-SR_TX	168				
	A38	25GBase-SR_TX	119		B38	25GBase-SR_TX	143		C 38	25GBase-SR_TX	167				
	A39	25GBase-SR_TX	118		B39	25GBase-SR_TX	14.2		C 39	25GBase-SR_TX	166				
	A40	25GBase-SR_TX	117		B40	25GBase-SR_TX	142		C 40	25GBase-SR_TX	165				
	A40	25GBase-SR_TX	116		B40 B41	25GBase-SR_TX	141		C40	25GBase-SR_TX	164				
	A41 A42	25GBase-SR_TX	110		B41 B42	25GBase-SR_TX	140		C41	25GBase-SR_TX 25GBase-SR_TX	163				
	A42 A43	25GBase-SR_TX	115		B42 B43	25GBase-SR_TX	139		C43	25GBase-SR_TX	162				
	A43	25GBase-SR_TX	114		B43 B44	25GBase-SR_TX	130		C43	25GBase-SR_TX	161				
	A44 A45	25GBase-SR_TX	112		B44 B45	25GBase-SR_TX	137		C 4 5	25GBase-SR_TX	160				
	A45 A46	25GBase-SR_TX	112		B45 B46	25GBase-SR_TX	130		C45	25GBase-SR_TX 25GBase-SR_TX	159				
	A40 A47	25GBase-SR_TX	110		B40 B47	25GBase-SR_TX	134		C40 C47	25GBase-SR_TX	159				
	A47 A48	25GBase-SR_TX	109		B47 B48		134		C48		150				

Amphenol Ruggedization Design

OVERVIEW:

Amphenol integrated electronic products are designed and manufactured to our Ruggedization guidelines listed below. These guidelines ensure years of reliable operation in harsh environment applications where extreme operating temperatures, shock, vibration, and corrosive atmospheres are regularly experienced. Unless otherwise noted, the parts conform to the below specifications

TEMPERATURE:

- Operating Temperature- Thermal Cycles between -40°C and 85°C while device is operating
- Temperature is measured at chassis housing or card edge
- Storage Temperature- Thermal Cycles between -55°C and 125°C

HUMIDITY:

- Operating Humidity- Humidity cycle between 0-100% non-condensing humidity while device operating
- Storage Humidity- Humidity cycle between 0-100% condensing humidity

SEALING:

 Sealing can be optionally provided at the MIL-DTL-38999 interface with up to 10-5 cc/sec performance

SHOCK AND VIBRATION:

- Sine Vibration 10g Peak, 5-2,000Hz
 - Based on a sine sweep duration of 10 minutes per axis in each of three mutually perpendicular axes. May be displacement limited from 5 to 44 Hz, depending on specific test.
- Random Vibration 0.0005 @ 5Hz, 0.1 @ 15 Hz, 0.1 @ 2,000 Hz
 - 60 minutes per axis, in each of three mutually perpendicular axes.
- 40 G Peak Shock Cycle
 - Three hits in each axis, both directions, ½ sine and terminal-peak saw tooth, Total 36 hits.

FLUIDS SUSEPTABILITY:

MIL-DTL-38999 receptacle interface per EIA-364-10E

Amphenol

MILITARY HIGH SPEED

ALTITUDE:

 -1,500 to 60,000 ft Altitude Testing w/ Rapid Depressurization

ELECTRONMAGNETIC COMPATIBILITY:

Designed to comply with MIL-STD-461E

PRINTED CIRCUIT BOARD ASSEMBLIES:

- Conformal Coat
- Amphenol performs Conformal Coting to both sides of printed circuit board assemblies using HUSMISEAL IB31 in accordance with IPC-610, Class 3.
- Printed Circuit Board Rigidity
- Amphenol printed circuit boards are fabricated in accordance with IPC-6012, Class 3.
- Printed Circuit Board Fabrication
- Amphenol printed circuit boards acceptance criteria is in accordance with IPC-610, Class 3.

RELIABILITY PREDICTIONS (MTBF):

Amphenol can perform Mean Time Between Failure (MTBF) reliability analysis in full compliance with MIL-HDBK-217F-1 Parts Count Prediction and MIL- HDBK-217F-1 Parts Stress Analysis Prediction. We can also perform reliability analyses in full compliance of ANSI/VITA 51.1 if it is required or preferred over the later method

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Specifications are typical and may not apply to all connectors.

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