Datasheet

DAC Passive Cable 10Gb HPE compatible

PRODUCT FEATURES:

Passive DAC 10Gb SFP+ HPE compatible cable

Cable type: Passive Copper Twinax Cable

Electrical interface specifications per SFF-8431

Compatible to SFP+ MSA

Improved Pluggable Form Factor (IPF) compliant for enhanced EMI/EMC performance

Up to 10,3Gb/s bi-directional data links

Single +3.3V power supply

SPECIFICATIONS:

Device type:	HPE SFP+ DAC
Package:	SFP+ MSA
Data rate:	10,3Gbps
Distance/Power Budget:	Up to 10 Meters
Power Supply Voltage:	3,3V
Cable type:	Copper Twinax AWG30 to AWG24
Operating Temperature:	0 - 70 °C
Application:	10 Gigabit Ethernet
Compatiblity:	100 % HPE BladeSystem Compatible
ROHS:	Compliant

PART NUMBERS:

Compatible P/N	Original P/N	Length	AWG
487649-B21-C	487649-B21	0,5 metros	AWG 30
487652-B21-C	487652-B21	1 metro	AWG 30
487655-B21-C	487655-B21	3 metros	AWG 30
537963-B21-C	537963-B21	5 metros	AWG 26

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ABSOLUTE MAXIMUM RATINGS:

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these or any other conditions in excess of those given in the operational sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature	Ts	-40	85	°C
Relative Humidity	RH	5	95	%
Supply Voltage	Vcc	-0,5	4,0	V

RECOMMENDED OPERATING CONDITIONS:

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Case Temperature	Tc	0	25	70	°C
Supply Voltage	Vcc	3,15	3,3	3,45	V
Data rate	-	-	10,3125	-	Gb/s

PERFORMANCE SPECIFICATION:

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	0 to 70 °C
Flammability Rating	UL 94 V-0
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Plug	
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching w/Pull
Insertion Force	30N Max
Withdrawal Force	20N Max
Retention Force	90N Max
Durability	50 Cycles Min

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PERFORMANCE SPECIFICATION (cont.):

Cable	
Conductor	Solid
Wire Gauge	AWG30, AWG28, AWG26, AWG24
Impedance	100± 5 ohms
Cable Outer diameters	AWG 30 :4.2mm
	AWG 28 :4.7mm
	AWG 26:5.2mm
	AWG 24: 6.0mm
Jacket Type	PVC
Bend Radius	5X Cable OD

ELECTRICAL CHARACTERISTICS

Parameter	24AWG	26AWG	28AWG	30AWG
Differential impedance	100±5Ω @ TDR	100±5Ω	100±5Ω	100±5Ω @ TDR
Mutual capacitance	14pF/ft nominal	14pF/ft nominal	14pF/ft nominal	14pF/ft nominal
Time delay, nominal	4.3ns/m	4.3ns/m	4.3ns/m	4.3ns/m
Time delay skew (within pairs)	80ps/10m max.	120ps/8.5m max.	120ps/7m max.	50ps/5.5m max.
Time delay skew (between pairs)	350ps/10m max.	500ps/8.5m max.	500ps/7m max.	350ps/5.5m max.
Attenuation (@ 1.25Ghz)	10dB/10m max.	10dB/8.5m max.	10dB/7m max.	8.4dB/5.5m Max.
Conductor DC Resistance (@ 20ºC)	0.026Ω /ft max.	0.04Ω /ft max.	0.06Ω/ft max.	0.01Ω/ft max.

PHYSICAL CHARACTERISTICS

	24AWG	26AWG	28AWG	30AWG
Conductors (two pair)	24AWG Solid, Silver plated copper	26AWG Solid, Silver plated copper	28AWG Solid, Silver plated copper	30AWG Solid, Silver plated copper
Insulation	Foam polyolefin	Foam polyolefin	Foam polyolefin	Foam polyolefin
Pair drain wire	26AWG Solid, Silver plated copper	28AWG Solid, Silver plated copper	30AWG Solid, Silver plated copper	30AWG Solid, Silver plated copper
Overall cable shield	Aluminum/polyester tape, 125% coverage, Tin plated copper braid, 38AWG, 85% coverage	Aluminum/polyester tape, 125% coverage, Tin plated copper braid, 38AWG, 85% coverage	Aluminum/polyester tape, 125% coverage, Tin plated copper braid, 38AWG, 85% coverage	Aluminum/polyester tape, 125% coverage, Tin plated copper braid, 38AWG, 85% coverage
Outer diameter	6.0mm	5.2mm	4.7mm	4.2mm