

CoreHC™ Ganged Interconnect System

Description:

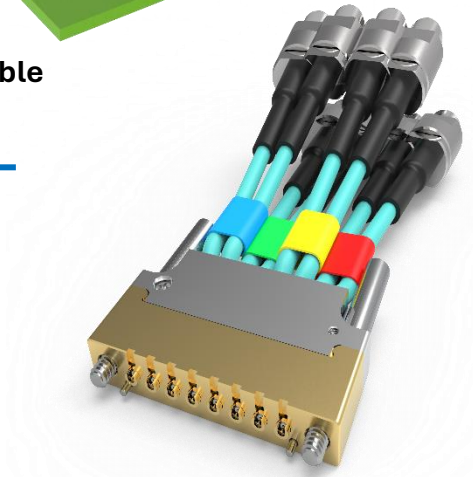
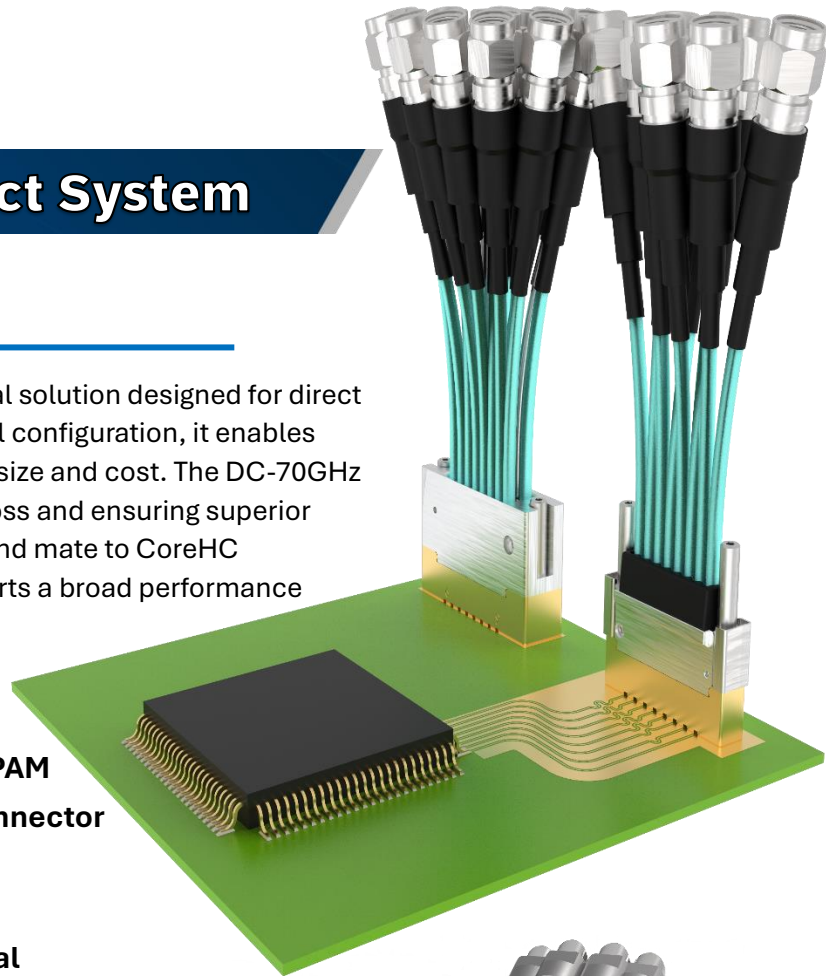
CoreHC™ is a high-performance, solderless ganged coaxial solution designed for direct PCB attachment. Featuring a 2.5mm pitch signal-to-signal configuration, it enables engineers to maximize space savings while reducing PCB size and cost. The DC-70GHz connector minimizes trace lengths, optimizing insertion loss and ensuring superior performance. Available in vertical mount, edge mount (blind mate to CoreHC assembly), and right-angle configurations, CoreHC supports a broad performance range for both RF and Digital Applications.

Key Benefits:

- **Performance:** DC – 70GHz | 56G PAM 4 | 112G PAM
- **Solderless and Repeatable:** Ruggedized connector with 1000-cycle mate and de-mate repeatability
- **Density:** 2.5mm signal-to-signal
- **Ease of Use:** Quick attach of Multiple RF/Digital
- **Cost Savings:** Reusable across programs and field refurbishable

Applications:

- Semiconductor Validation and Characterization
- ATE and Production Test
- Military and Aerospace
- Quantum Computing



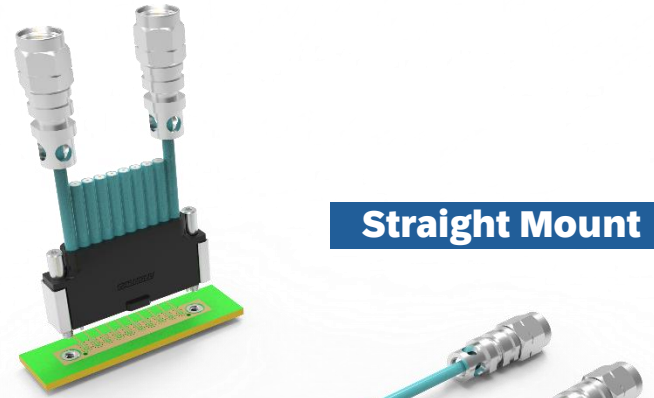
Part Builder

TM 4S X S H2 8 L H2 R 050 C

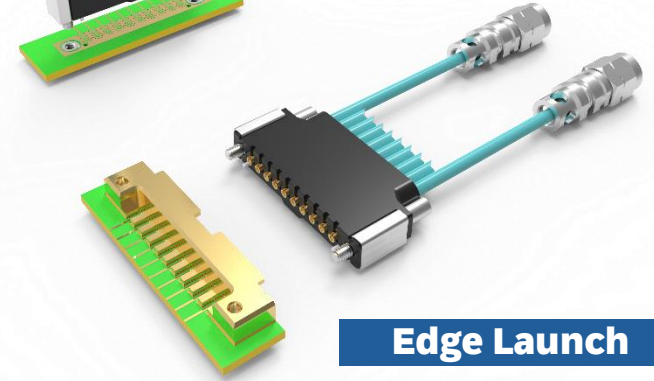
<p>CABLE CODE 4S-0.047" 7S-0.079"</p> <p>STRAIN RELIEF S- HEATSHRINK SHORT M-HEATSHRINK MEDIUM L-HEATSHRINK LONG X-NO HEATSHRINK</p> <p>NO. OF ROWS S- SINGLE ROW D-DOUBLE ROW</p>	<p>CABLE END A</p> <p>CABLE END B</p> <p>CONNECTOR ORIENTATION R-RUGGED STRAIGHT F-FLEX STRAIGHT L-RT ANGLE</p> <p># OF CHANLES PER ROW 2, 4, 6, 8, 10</p> <p>CONNECTOR TYPE H2-COREHC CPW T2-COREHC STRIPLINE</p>	<p>LENGTH (cm) 050=500mm 100=1000mm</p>	<p>PHASE MATCHING C ± 2ps (PAIR) (AS STANDARD) D ± 1ps (PAIR) E ± 0.5ps (PAIR) F ± 2ps (LOT) G ± 1ps (LOT) H ± 0.5ps (LOT)</p>
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Specifications and Performance:

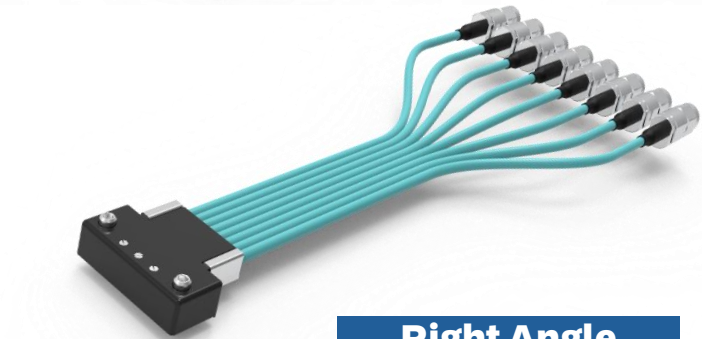
	DC – 50GHz 56Gbps PAM4	50 – 70Gz 112Gbps PAM4
Electrical Specifications		
Insertion Loss **Meter	.047" : -9.25dB @ 40GHz	.047" : -13.5 dB @ 70GHz
	.078" : -6 dB @ 40GHz	.078" : -8 dB @ 70GHz
Return Loss	< -20dB thru 50GHz	< -17dB thru 50GHz
xtalk (Assembly Only)	< -75dB thru 70GHz	
Impedance	50Ω +/- 2.5Ω	
Phase Matching	+/-2ps Standard, +/-1 and +/-0.5ps available upon request	
VSWR	DC 20GHz: 1.20:1	30 – 65GHz: 1.40:1
	20 – 30GHz: 1.25:1	
Max Current(amps)	2A	
Mechanical Specifications		
Pitch	2.5 mm	
PCB Transition	Microstrip/CPW & Stripline	
Cable Options	.047" & .078"	
Cable Static Bend Radius	.047" = 0.185" (4.7mm) .078" = 0.492" (12.5mm)	
End 2 Connector	SMP, 3.5mm, 2.92(SMA)	SMPM, 2.92(SMK), 1.85mm (SMV)
Compliant Connector Design	Spring Loaded Center Contact and Ground Shielding	
# of Rows/Assembly	Single and Dual Row Available	
Standard Channel Counts:	Single Row: 1, 2, 4, 6, 8, 10 Dual Row: 4, 8, 12, 16, 20	
Standard Lengths	4" (~10cm), 6" (~15cm), 9" (~23cm), 12" (~30cm), 18" (~46cm)	
Form Factors	Straight Mount Right-Angle Edge Launch	Straight Mount Edge Launch
Mate and De-Mate Cycles	1,000	
Repair and Refurbishment	Single Channel Sub-assemblies Allow for Easy Field Refurbishment	



Straight Mount



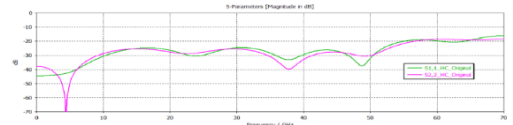
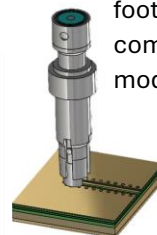
Edge Launch



Right Angle

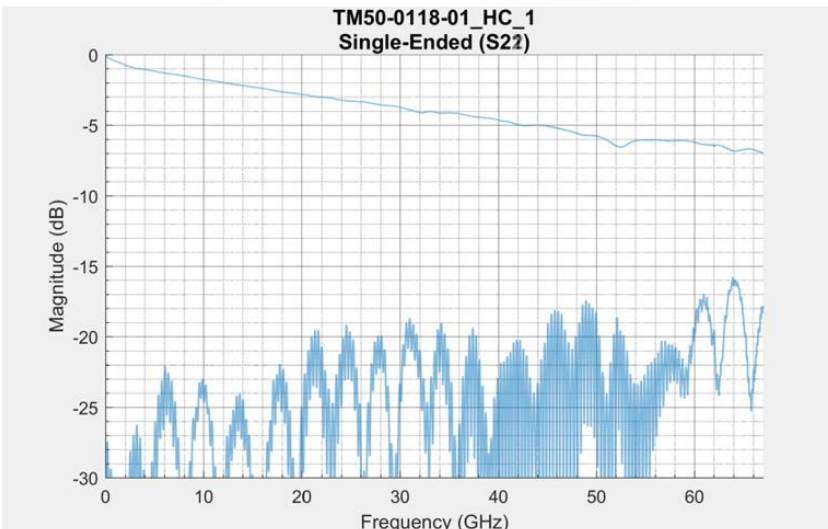
Optimization Services:

The Amphenol CIT offers comprehensive support through simulation services that optimize your footprint based on your specific PCB stack-up, complemented by a suite of encrypted HFSS models for independent footprint analysis.



Measurement Includes a 31cm .078" Ø CoreHC™ Assembly, 25.3 mm of CPW trace, and a 1.85mm Edge Launch

**TM50-0118-01_HC_1
Single-Ended (S21)**



Contact Us:

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- To Receive a quote: email@amphenol-cdi.com
- www.Amphenol-CDI.com