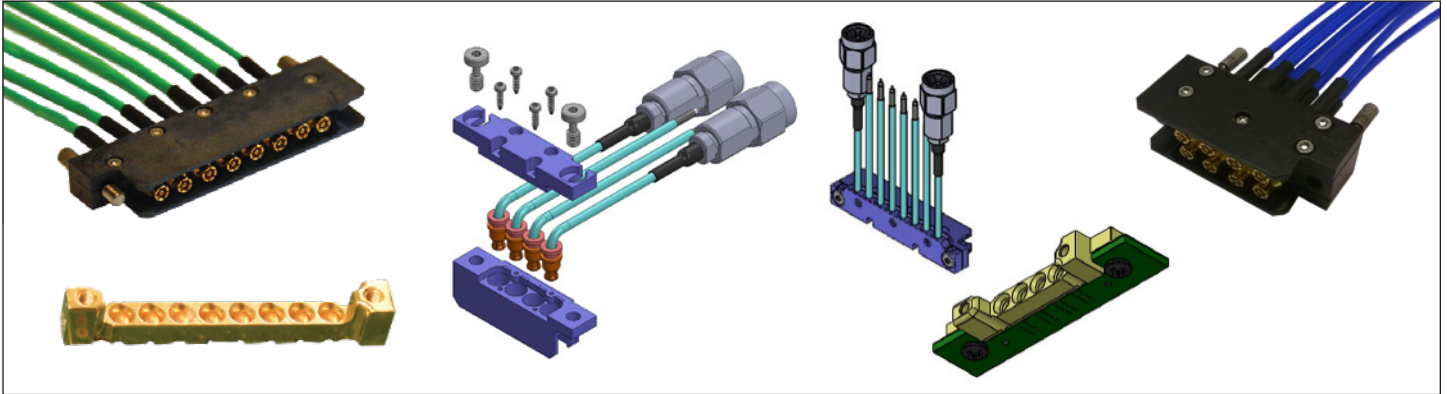


CoreGD™ High-Performance Ganged Interconnect System

WHEN SIGNAL INTEGRITY AND DENSITY MATTER



CoreGD™ vertical, right-angle, edge-launch, and dual-row solutions

Amphenol CIT CoreGD™ is a high-performance, multi-port, ganged SSMP interconnect system that offers excellent signal integrity for complex layouts and crowded PCBs used in a variety of applications.

It is a low-cost solution optimized for applications with demanding bandwidth up to 65 GHz, pushing the envelope up to 100 GHz.

- » Available in single and dual rows, vertical-mount, edge-launch, and right-angle mount configurations
- » Needs board-side connector that can be soldered or mounted just by using screws without any soldering
- » Commercial off-the-shelf interconnect system available today
- » Designed into evaluation and validation test systems to analyze key parameters like insertion loss, crosstalk and frequency response
- » High-performance interconnect solution, at a significantly lower cost compared to similar competitive solutions
- » CoreGD technology can be readily integrated into custom, hybrid RF + Digital + Power interconnect solutions to meet uniquely demanding requirements
- » Multiple position offerings available (2, 4, 6, 8, 10). Learn more: Amphenol-CIT.com

FEATURES	BENEFITS
Frequency range: DC to 65 GHz SSMP (SMPM); DC to 100 GHz WMP (SMPS), preliminary	<ul style="list-style-type: none"> • Broad frequency range covers a variety of applications today, current and emerging needs of tomorrow, reducing overall cost
Pitch: 4 mm SSMP (SMPM); 2.5 mm WMP (SMPS), preliminary	<ul style="list-style-type: none"> • Test in dense environments and save PCB space with small pitch offerings
Field-replaceable	<ul style="list-style-type: none"> • Save time and cost with quick and easy repair of damaged cable components in cable assembly
Simplified pre-tinned Surface Mount Technology (SMT)	<ul style="list-style-type: none"> • Reduce mount install time of board connectors and associated costs • Lead-free reflow soldering ready
Innovative design overcomes push-on interface performance consistency	<ul style="list-style-type: none"> • Eliminates electrical length or phase variation under vibration, shock, or other movement, ensuring stable and reliable signals
Multi-port offering (2, 4, 6, 8, 10) including stackable, side-to-side, and back-to-back	<ul style="list-style-type: none"> • Selection of appropriate standard position loading reduces time to market and supports flexible designs driving to lowest cost solutions
Available Configurations: » Vertical-mount and board-to-board stack » Edge-mount and right-angle-mount	<ul style="list-style-type: none"> • Availability of multiple configurations enables optimum performance at the lowest total cost
Solderless mounting	<ul style="list-style-type: none"> • Ease-of-use and design flexibility resulting in consistently excellent signal integrity performance

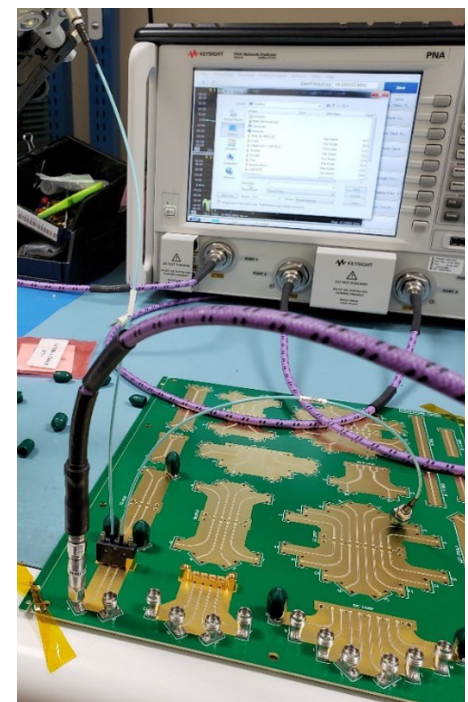
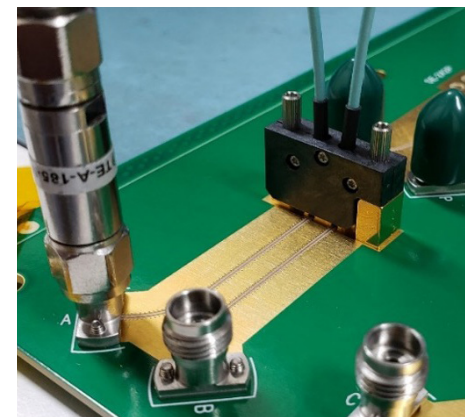
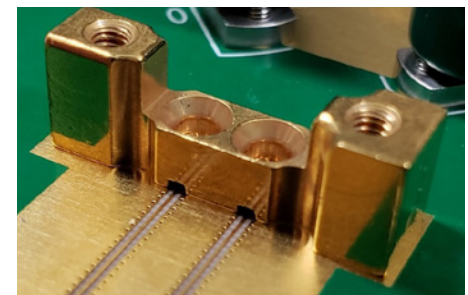
CoreGD™ High-Performance Ganged Interconnect System

SPECIFICATIONS & PERFORMANCE

Parameter		Specification			
		SSMP (SMPM)		WMP (SMPS), preliminary	
Impedance		50 Ω			
Frequency Range		DC to 65 GHz		DC to 100 GHz	
VSWR	Frequency Range	VSWR	Return Loss	VSWR	Return Loss
	DC - 26 GHz	1.11:1	26.00 dB	1.11:1	26.00 dB
	26 - 40 GHz	1.20:1	19.00 dB	1.20:1	20.83 dB
	40 - 50 GHz	1.25:1	17.69 dB	1.25:1	19.09 dB
	50 - 65 GHz	1.4	15.56 dB	1.35:1	16.54 dB
65 - 100 GHz*	N/A	N/A	1.45:1	14.72 dB	
Insertion Loss		0.10 x √F (GHz) dB		0.12 x √F (GHz) dB	
Crosstalk at PCB Transition		-50 dB to 30 GHz, -40 dB to 40 GHz			
Working Voltage		335 VRMS max @ Sea Level			
DWV (Dielectric Withstand Voltage)		500 VRMS (min)			
Insulation Resistance		5,000 MΩ (min)			
RF High Pot		325 VRMS @ 5 MHz			
Corona Level		125 VRMS at 70,000 ft.			
Force to Engage	Smooth Bore	0.5 lbs (max per channel)			
Force to Disengage	Smooth Bore	0.5 lbs (max per channel)			
Insertion Life		1,000 mating/de-mating cycles (repairable components)			
RF Leakage		-90 dB min.		-65 dB min.	
Pitch		4 mm SSMP (SMPM), 2.5 mm WMP (SMPS)			
Form Factor		SSMP (SMPM) male cable end and SSMP (SMPM) female board side			
Cabling		0.047" diameter			
Interface (Cable End to Equipment)		Female or male 2.92 mm or 1.85 mm connector			
Phase Matching		2.5 pS			
Temperature Range		-55 °C to 165 °C			
Environmental		Meets MIL-STD-202 for corrosion, vibration, moisture resistance, thermal and mechanical shock			

*Data beyond 65 GHz is simulated

Test Setup for Interconnect Performance



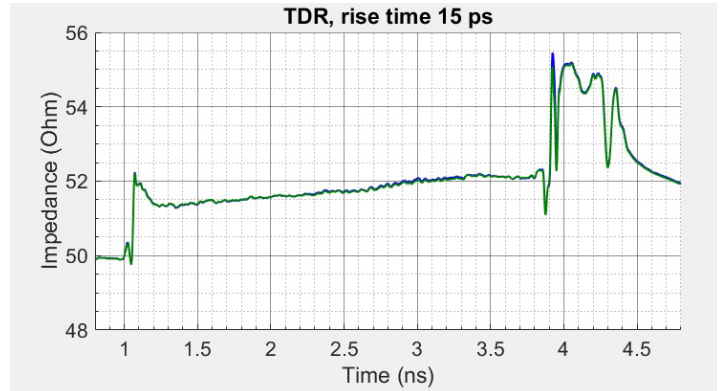
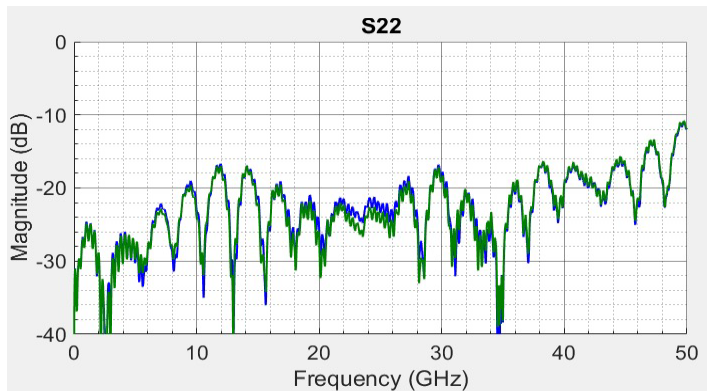
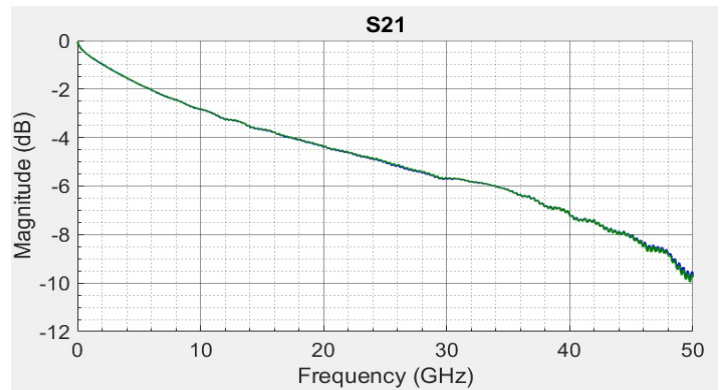
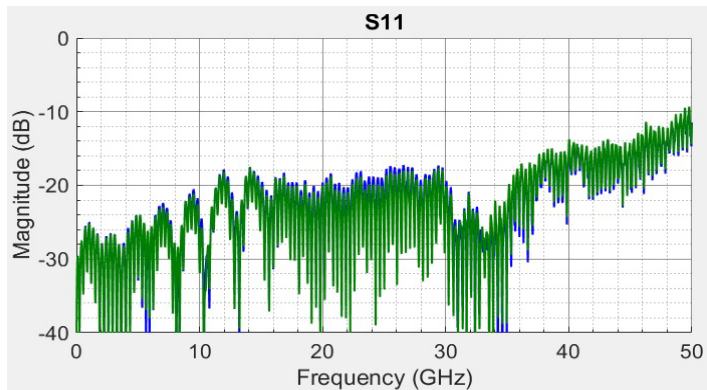
CoreGD™ High-Performance Ganged Interconnect System

SPECIFICATIONS & PERFORMANCE

The test setup shown in the images on page 2 includes:

- » 1 x 2 position SSMP board-side connector
- » 11" long 0.047" coax cables
- » 1" CPW long traces
- » 1.85 mm cable connectors on the other side of the traces on board

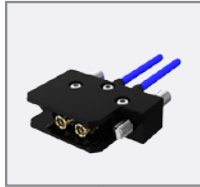
S-parametric measurements from our solderless CoreGD solution are shown in the figures below.



CoreGD™ High-Performance Ganged Interconnect System

SPECIFICATIONS & PERFORMANCE

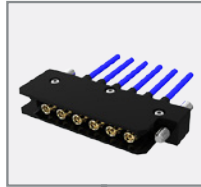
SSMP



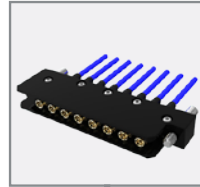
2 Position



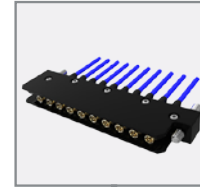
4 Position



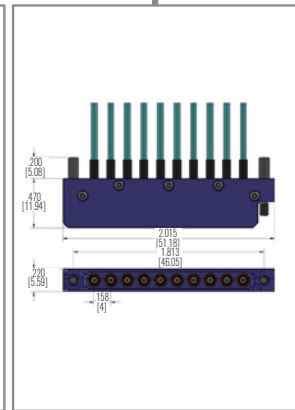
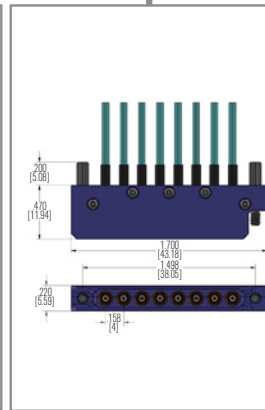
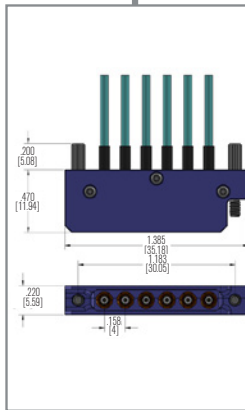
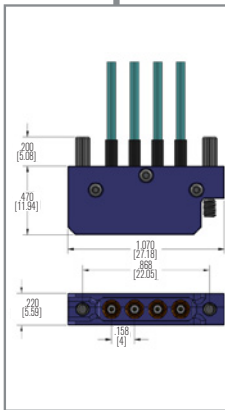
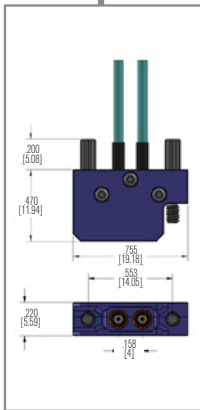
6 Position



8 Position



10 Position



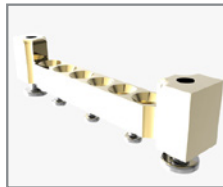
SSMP PCB Connectors - Vertical Mount



2 Position



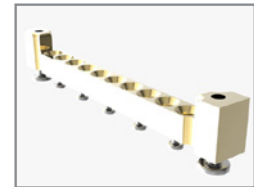
4 Position



6 Position



8 Position



10 Position

