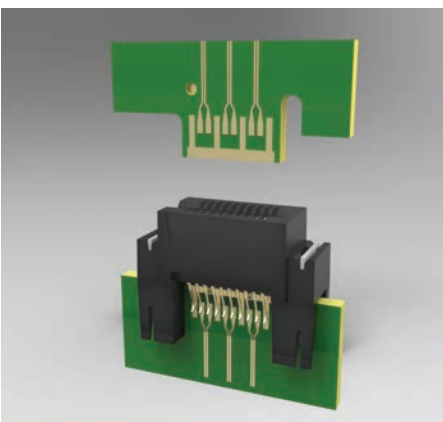
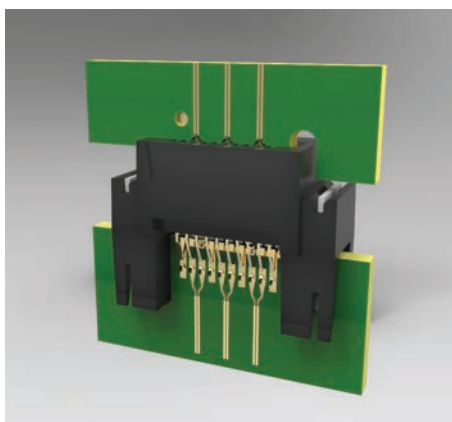
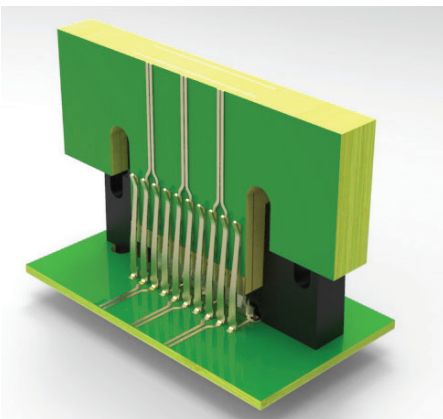
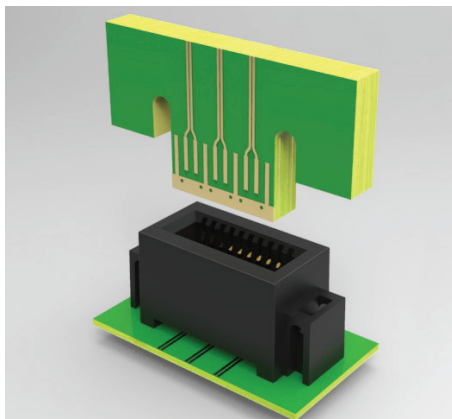


Card Edge Connectors

Contact System



HIGH SPEED CARD EDGE AND BOARD-TO-BOARD CONNECTIVITY



CarlisleIT's Card Edge Connectors contact system is designed for high-speed, high-density applications. Card Edge Connectors have a smooth mating surface area, which reduces the wear and tear of contacts, and increases the durability and cycle life of the contact system. They also lower insertion and withdrawal forces while supporting data rates up to 25GHz with excellent signal integrity. These connectors are suitable for multiple applications—like cable-to-board and board-to-board mount—for PCBs with multiple thickness profiles.

In addition to increased durability and extended cycle life, Card Edge Connectors contact system offers superior electrical performance (e.g., lower insertion loss, low return loss and perfect impedance matching), compared to most similar contact systems. The contact pins parallel each other and, when housed in the plastic insulator, offer low crosstalk and coupling, improving the overall interconnect performance. The contact pin design and grounding are optimized for 100-ohm signaling systems.

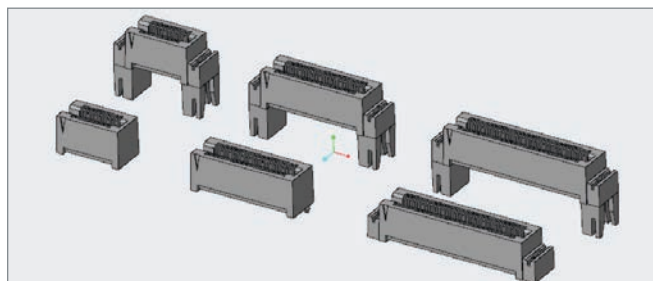
Card Edge Connectors contact system

FEATURES & BENEFITS

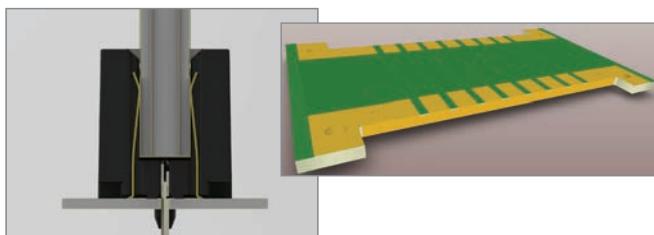
Feature	Customer Benefit
High-Speed Differential Data Rate	Offers excellent signal integrity and performance up to 56Gbps
Multiple PCB Thicknesses (0.062 and 0.093 Inch)	Allow for complex PCB designs
Edge Plating	Provides a continuous GND path, low return loss and low RF leakage
Surface Mount and Edge Mount Options	Enable high-speed, pick-and-place assembly
0.8mm Pitch	Access signals in dense environments and save PCB space
Integrated GND Plate	Delivers improved performance and uninterrupted GND
7mm Max Height	Up to 30 pins for low-profile system designs
500 Mate/Demate Cycles	High reliability and low cost of ownership
Wide Operating Temperature	-55°C to 155°C

SPECIFICATIONS & PERFORMANCE

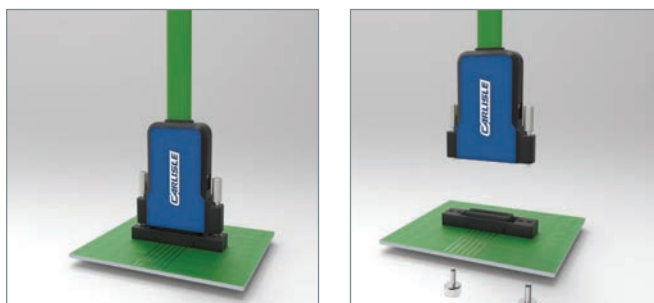
Parameter	Specifications	
Frequency Range	DC to 25GHz	
Impedance	100 $\Omega \pm 2.5$	
Return Loss	Frequency Range	Return Loss
	DC - 20GHz	$\geq -38\text{dB}$
	20 GHz - 25GHz	$\leq -10\text{dB}$
Insertion Loss	-2dB (max) at 25GHz	
Contact Pitch	0.8mm	
PCB Thicknesses Supported	0.062 in, 0.093 in	
Max Height	7mm	
Mate/Demate Cycles	500	
Temperature Range	-55°C to 155°C	



Board-to-Board Connectors

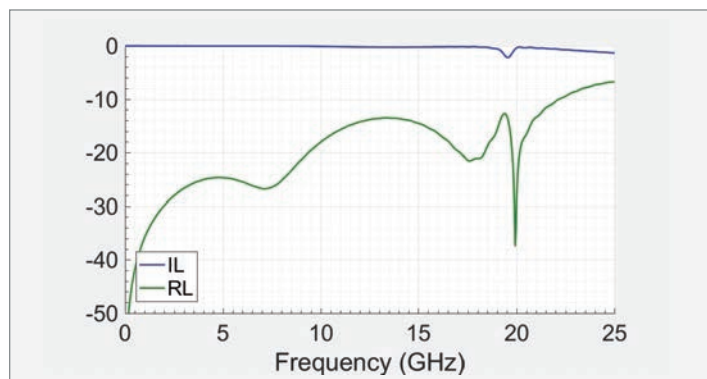


GND Contact with Edge Plating



Cable Options with Twinax or Coax

Insertion Loss & Return Loss



PINOUTS

	1	2	3	4	5	6	7	8	9	10
Total Diff Pairs: 4 1 Tx, 1 Rx Clk, Sync and Sideband	GND	P	N	GND	P	N	GND	SB	SB	SB
	GND Blade									
	GND	P	N	GND	P	N	GND	SB	SB	SB

Total Diff Pairs: 10 4 Tx, 4 Rx Clk, Sync and Sideband	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND		SB	SB	SB
	GND Blade																			
	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND		SB	SB	SB

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Total Diff Pairs: 18 8 Tx, 8 Rx Clk, Sync and Sideband	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N
	GND Blade																													
	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N	GND	P	N

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