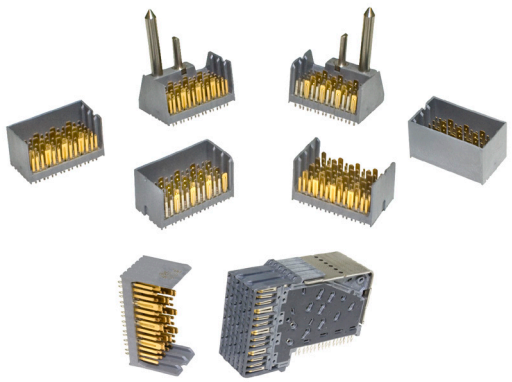
XCEDE® BACKPLANE CONNECTOR SYSTEM

OVERVIEW

XCede® connector platform is designed to provide headroom for high-speed, serial data rates demanded by data centers and service provider networks. The use of polymers in a resonance-damping shield enables low crosstalk across a wide frequency range.

XCede® connectors also address requirements for high linear signal density at the backplane and daughter card interface. Complementary guide and power modules are also included in the product range. An organizer can be used to combine groups of right-angle signal, guide and power modules establishing an integrated daughter card connector or monoblock.

The XCede® backplane header system provides ruggedness and long-term reliability required by today's systems. The wide ground contacts feature a stiffness-enhancing rib and are advanced ahead of the signals for robustness and signal pin protection.



FEATURES & BENEFITS

- High-speed backplane system
- Resonance dampening shield aids in reduction of crosstalk resonances
- Two ground vias between differential pairs allow elongated anti-pads to improve impedance control
- Optional short compliant pins permit deeper back-drilling and dual diameter vias to enhance return loss performance
- Intermate electrically and mechanically interchangeable equivalency as a licensed second source to Amphenol TCS
- Daughter card monoblocks combine signal, guide and power modules to simplify board application

TARGET MARKETS/APPLICATIONS

- Communications
  - Switches
  - Networking
  - Access
  - Transport
  - Wireless
- Data
  - Servers
  - Storage Systems
- Industry
  - Medical
  - Test & Measurement

TECHNICAL INFORMATION

MATERIALS

- Contacts: Copper alloy
- Platings:
  · Performance based plating at separable interface (Telecordia GR-1217 CORE Central Office)
- Housings: High temperature thermoplastic, UL94-V0
- Wafer organizer: Stainless steel

ELECTRICAL PERFORMANCE

- Contact resistance: 10mΩ max. change from initial reading after environmental exposure
- Current rating (with < 30 °C temperature rise above ambient):
  · Signal contact: 1 A/contact
  · Wide ground contact: 2 A/contact
  · Power contact: 6 A/blade
- Insertion loss performance: see SI Report Reference
- Crosstalk performance: see SI Report Reference

MECHANICAL PERFORMANCE

- Signal mating force: 0.74 N max. per contact
- Signal unmating force: 0.15 N min. per contact
- Power mating force: 0.98 N max. per blade
- Power unmating force: 0.44 N min. per blade
- Press-fit insertion force: 36 N max. per tail

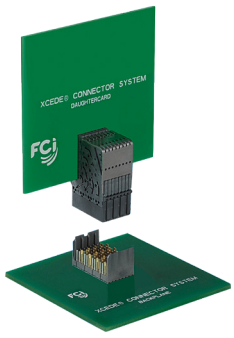
SPECIFICATIONS

- XCEDE® product specification: GS-12-588
- XCEDE® application specification: GS-20-121
- XCEDE® power product specification: GS-12-0989
- XCEDE® power product specification: GS-20-0342
- XCEDE® HD product specification: GS-12-9
- XCEDE® HD application specification: GS-20-34
- Telcordia GR-1217-CORE Central Office (EIA-364-21)

APPROVALS AND CERTIFICATIONS

- UL and CSA approvals

APPLICATIONS



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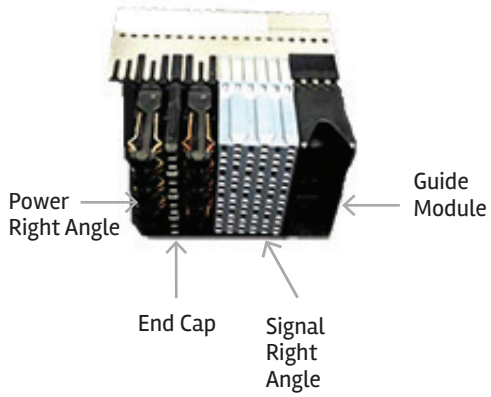
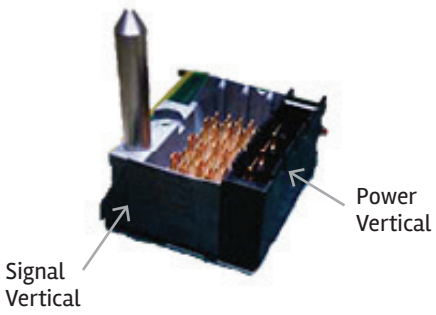
XCEDE® ACCESSORIES

Xcede® accessories include vertical power, right-angle power, guide modules and end cap.

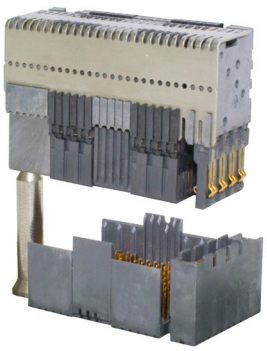




DAUGHTER CARD

Additional Features

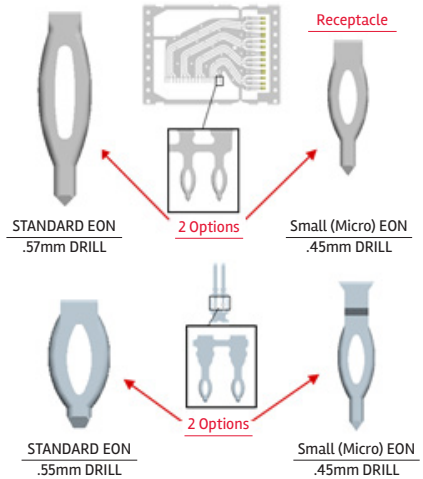
- In addition to providing individual right-angle receptacle signal modules, customized groupings of right-angle signal, guidance and power modules can be attached to a single wafer organizer to form an integrated daughter card connector.



BACKPLANE

Additional Features

- The wide ground contacts in the vertical backplane headers feature a stiffening rib that extends near the tip of the contact and are advanced ahead of the signal contacts for robustness and signal pin protection.



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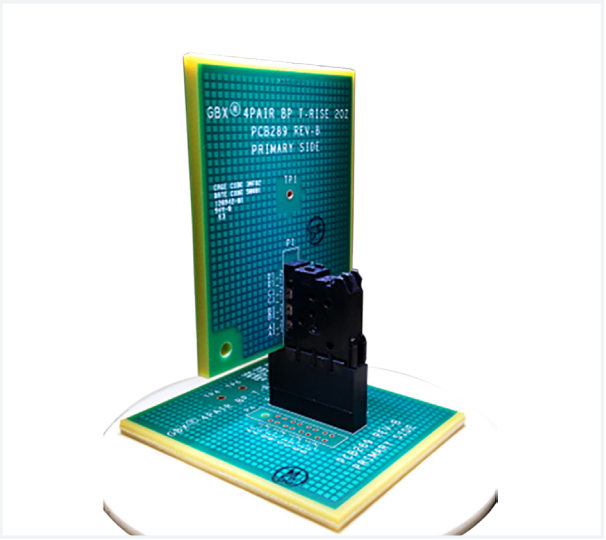
XCEDE® POWER SYSTEM

- 150 grams normal force nominal
- 3 levels of sequencing: 4.5mm, 6.0mm, 7.5mm

POWER RATING

- Modular construction gives an effective current density of 8.6amps per mm.
- Designed to meet UL 1977 CAF (Conductive Anodic Filament) spacing requirement
- Housing: High-temperature thermoplastic, UL94-V0
- Wafers: High-temperature thermoplastic, UL94-V0
- Contacts: High-performance copper alloy
- Platings: Performance based plating, at separable interface GR-1217-CORE (Central Office)



XCEDE® VERTICAL POWER PART NUMBER MATRIX

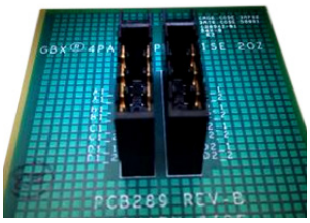
10091930 — 1 X X 0 0 LF

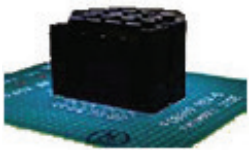
Column	Number
1	1
2	2
3	3

Lead Free

Compliant Version	Number
Performance based plating for Telcordia Central Office (CO)	1

Wipe Distance (mm)	Number
4.5	1
6.0	2
7.5	3





Height	Number of Columns	Differential pairs per column	Part Number
Standard	1,2 or 3	4	10091830
Less 1 mm	1,2 or 3	4	10091831
Less 3 mm	1,2 or 3	4	10115237
Standard	1,2 or 3	6	10115240
Less 1 mm	1	6	10115241

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PART NUMBERS

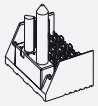
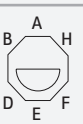
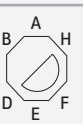
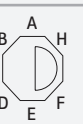
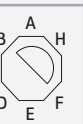
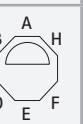
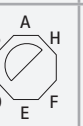
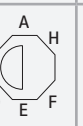
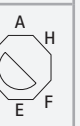
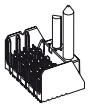
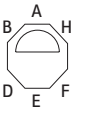
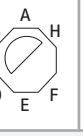
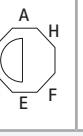
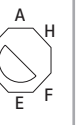
Lead-free part numbers are listed in the table; tin-lead versions are available upon request. Header part numbers shown provide 2mm signal contact wipe length; versions providing 3mm wipe length are also available. Customization of Monoblocks are also available. Contact your local FCI sales representative for further information.

XCEDE® & XCEDE® HD PART NUMBER MATRIX

10091767	—	X	0	C	X	0	D	LF	Lead Free

Description	Letter
6-Column Differential Signal Module	C

Plating by Telcordia Application	Letter
CO(LF)	D

Module Description	Letter Designation Represented in Dash Number									Base Module
Left Polarizing Guidance Module (See Sheet 3)	J	A	B	C	D	E	F	G	H	
										
Left Polarizing Guidance Module (See Sheet 4)	Y	P	Q	R	S	T	U	V	W	
										
Open Module (Two Wall) (See Sheet 2)	0 (ZERO)									
Left Wall Module (See Sheet 5)	L									
Right Wall Module (See Sheet 6)	M									
Four Wall Module (See Sheet 7)	1									

Signal	Contact Mating Wipe Length		Number
	Wide Ground	Compliant Pin Drill Size	
2	4	Ø0.55 [0.0217in.]	1
3	4	Ø0.55 [0.0217in.]	2
2	4	Ø0.45 [0.0177in.]	3
3	4	Ø0.45 [0.0177in.]	4
2	3	Ø0.55 [0.0217in.]	5
3	3	Ø0.55 [0.0217in.]	6

Signal	Contact Mating Wipe Length		Number
	Wide Ground	Compliant Pin Drill Size	
2	3	Ø0.45 [0.0177in.]	7
3	3	Ø0.45 [0.0177in.]	8

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XCEDE® HD Vertical Header			
Col Designator	Number of Columns	Differential pairs per column	Part Number
X0J	4	3	10119126
X0C	6	3	10119128
X0E	8	3	10120124
X0J	4	4	10120126
X0C	6	4	10120128
X0E	8	4	10115091
X0J	4	6	10120130
X0C	6	6	10119130
X0E	8	6	10120132

XCEDE® Right Angle Receptacle			
Col Designator	Number of Columns	Differential pairs per column	Part Number
–	4	4	10091844
–	6	4	10091799
–	8	4	10091812
–	4	6	10105004
–	6	6	10105007
–	8	6	10105010

XCEDE® HD Vertical Header			
Col Designator	Number of Columns	Differential pairs per column	Part Number
X0J	4	2	10114868
X0C	6	2	10113947
X0E	8	2	10113949
X0J	4	3	10119187
X0C	6	3	10119189
X0E	8	3	10119191
X0J	4	4	10091836
X0C	6	4	10091767
X0E	8	4	10091777
X0J	4	6	10114508
X0C	6	6	10104997
X0E	8	6	10104999

BPLXCEDE0115EA4

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