

BergStak[®] FX10 0.5mm Board to Board Connector

Product Presentation

Amphenol Information Communications
and Commercial Products

 ***FCi Basics***

Amphenol ICC

- Value Proposition
- Product Overview
- Product specifications
- Features & Benefits
- Part Numbers
- Market Applications
- Collaterals

- The BergStak® product range is expanded to include 0.50mm BergStak® FX10 board-to-board connector, known for its fast data transmission and high signal quality.
- This connector is offered in 144 positions and is available in 4.30mm and 6.00mm stack height options. Product position is extendable up to 168 positions.
- BergStak® FX10 supports speed performance up to 15Gb/s+ and is available in vertical SMT configuration. This high density connector saves space on PCB and is highly suitable for high-density applications in automotive, data, medical, communication and industrial markets.
- Licensed to Hirose FX10.

BergStak® FX10 0.5mm

Product Overview



Header 1:
10147520-144-SHLF



Header 2:
10147520-144-THLF

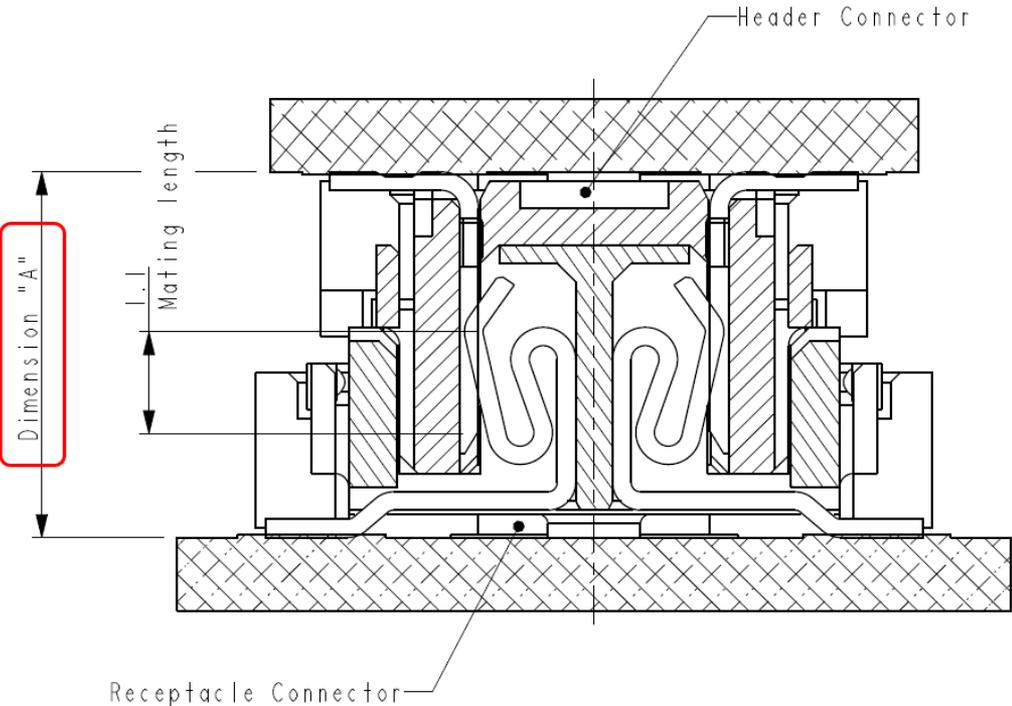


Receptacle 1:
10147523-144-1HLF

Item	Hirose P/N	AICC P/N
1	FX10A-144P-SV(83)	10147520-144-SHLF
2	FX10A-144P-SV2(83)	10147520-144-THLF
3	FX10A-144S-SV(83)	10147523-144-1HLF

BergStak® FX10 0.5mm

Product Overview



Stack Height Dimension "A"	Receptacle 1 10147523-XXX-1HLF
Header 1 10147520-XXX-SHLF	4.30mm
Header 2 10147520-XXX-THLF	6.00mm

XXX denotes the number of positions

BergStak® FX10 0.5mm

Product Specifications

Performance Characteristics

- Durability: 100 cycles
- Mating / Un-mating Force: 86.4Nmax , 11.5N min.
- Current Rating: 0.4A per contact
- Contact Resistance: 60mΩ max.
- Signal Integrity
 - Data rate: 15Gb/s+
 - Differential impedance: 100 Ω
 - Single-ended impedance: 50 Ω

Materials

- Housing: Glass filled LCP (UL94V-0, MSL level 1)
High temperature thermoplastic
- Contact Base Metal
- Receptacles: Copper Alloy
- Headers: Copper Alloy
- Contact Area: Gold
- Plating: Solder Area Finish in Au flash, Sn over Ni

Environmental

- Industrial Atmosphere Duration: 14days
- Vibration (Sinusoidal): 10g
- Shock (Half-sine): 50g

Technical Documents

- Product Spec.: GS-12-1529

BergStak® FX10 0.5mm

Features & Benefits

FEATURES

- Authorized second source to Hirose FX10 series
- High speed performance up to 15Gb/s+
- Suitable for high-density applications
- OIF MSA-100GLH electrical interface
- Hold-down feature
- Halogen-free and RoHS compliant

BENEFITS

- Fully compatible with Hirose product offering
- Meets next generation high speed transmission requirements
- Saves space
- Standard connector for OIF
- Robust and steady design for customer application
- Meets environmental, health and safety requirements



9.2 Electrical Connector

The Hirose FX10A-168P/S-SV(83) connector assembly [N3] is specified for the host line card – MSA-100GLH electrical connector. This connector is a two component (header, receptacle), 168 position, board mounted style assembly. It meets CEI-11G-MR [N2] signal integrity performance and provides 4mm - 8mm mated stack height flexibility by header component changes only, i.e. the MSA-100GLH receptacle component remains fixed. Detailed mechanical specifications and layout design application notes may be found at [N3].

BergStak® FX10 0.5mm

Part Numbers



Stack Height Dimension "A"	Receptacle 1 144pos 10147523-144-1HLF
Header 1 144pos 10147520-144-SHLF	4.30mm
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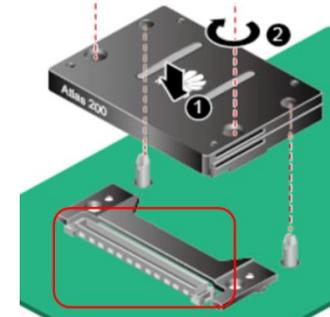
Remark: More options can be extended according to the market needs

BergStak® FX10 0.5mm

Main Markets & Applications

- Datacom/Telecom

- Server
- Storage
- Small cell
- NB-IoT



- Automotive

- Camera system
- Body control



- Industrial and Instrumentation

- Embedded Computer
- Test Equipment
- Measurement Equipment



- Available on Amphenol FCI website:
Technical Datasheet

The screenshot shows a technical datasheet for the BergStak® FX10 0.50mm Board-to-Board Connector. The page features the Amphenol ICC logo at the top right and the product title in blue. Below the title, it is categorized as a 'HIGH SPEED HIGH DENSITY MINIATURE CONNECTOR'. A descriptive paragraph explains that the product range is expanded to include 0.50mm BergStak® FX10 board-to-board connectors, known for fast data transmission and high signal quality, available in 144 positions and stack height options of 4.30mm and 6.00mm. A 'BergStak® FX10' image shows three gold-plated connectors. A 'TARGET MARKETS' section includes icons for automotive, medical, and industrial applications. The 'FEATURES' and 'BENEFITS' sections are presented in two columns. The footer contains the website URL and the company name.

FCi Basics Amphenol ICC

BergStak® FX10 0.50mm Board-to-Board Connector

HIGH SPEED HIGH DENSITY MINIATURE CONNECTOR

The BergStak® product range is expanded to include 0.50mm BergStak® FX10 board-to-board connector known for its fast data transmission and high signal quality. This connector is offered in 144 positions and is available in 4.30mm and 6.00mm stack height options. Product position is extendable up to 168positions.

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- Licensed to Hirose FX10 series
- Data transmission speed up to 15Gb/s+
- Suitable for high density applications

TARGET MARKETS

FEATURES

- Authorized second source to Hirose FX10 series
- High speed performance up to 15Gb/s+
- Suitable for high-density applications
- OIF MSA-100GLH electrical interface
- Hold-down feature
- Halogen-free and RoHS compliant

BENEFITS

- Fully compatible with Hirose product offering
- Meets next generation high speed transmission requirements
- Saves space
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Thank You!