



Minitek[®] Pwr Hybrid 4.2 & 3.0

Product Presentation

Basics Portfolio



Agenda



- Value Proposition
- Product Overview
- Product Specifications
- Features & Benefits
- Part Numbers
- Markets & Applications
- Marcomm Collaterals

Minitek® Pwr Hybrid 4.2 & 3.0



Value Proposition

Minitek® Pwr Hybrid 4.2 & 3.0 connectors are designed for **power and signal application** with current rating **up to 9A** per circuit for **4.2mm** and **5A** per circuit for **3.0mm**, available for **dual row** and **2 to 24 power** circuits, and **2 to 12 signal** for Wire-to-Board application.

Crimp, snap-in receptacle contacts are used to terminate discrete wires.

Receptacle housings allow Wire to-Board configurations and **Board mounted vertical headers** support Wire-to-Board interconnections.

Wave soldering headers are available in **through-hole configuration**.

Crimping and removal tools are available for wire harness assembly..

Minitek® Pwr Hybrid 4.2 & 3.0



Solution Overview

Circuit Size	Minitek Pwr™ 4.2	Minitek Pwr™ 3.0	Right Angle Minitek Pwr™ 4.2	Minitek Pwr™ Hybrid 4.2	Minitek Pwr™ Hybrid 3.0
Available Configuration	Power: 2 ~ 24 Signal: N/A	Power: 2 ~ 24 Signal: N/A	Power: 2 ~ 24 Signal: N/A	Power: 2 ~ 24 Signal: 0 ~ 6	Power: 2 ~ 24 Signal: 0 ~ 12
PCB Termination	Wire to Wire, Wire to Board, Panel Mount	Wire to Wire, Wire to Board	Wire to Wire, Wire to Board	Wire to Board	Wire to Board
Applied Wire	Right Angle & Vertical Through Hole		Wire to Wire, Wire to Board	Vertical Through Hole	Vertical Through Hole
Max. Current per Contact	16 ~ 22, 24 ~ 28 AWG	20~30 AWG	16 ~ 22, 24 ~ 28 AWG	Power: 16 ~ 22, 24 ~ 28 AWG Signal: 24 ~ 30 AWG	Power: 22 ~ 28 AWG Signal: 22 AWG
Pitch	9A	5A	9A	Power: 9A	Power: 5A
Features	4.2mm	3.0mm	4.2mm	4.2mm	3.0mm
	Minifit JR Compatible	Microfit Compatible	Minifit JR Compatible	Compatible to standard 4.2 Minifit product	Compatible to standard 3.0 Microfit product

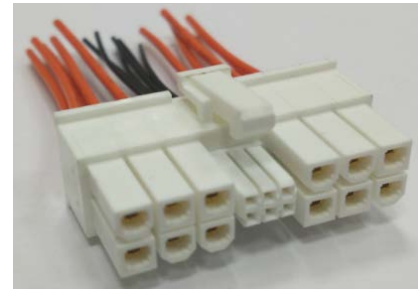
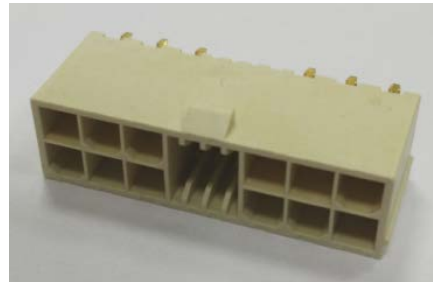
Minitek® Pwr Hybrid 4.2 & 3.0



Solution Overview

Minitek® Pwr Hybrid 4.2 & 3.0 Wire-to-Board connectors are designed in 2 rows. Power pitch is 4.2mm & 3.0mm, and signal pitch is 2.0mm. And, they are the vertical type.

Minitek® Pwr Hybrid 4.2



Minitek® Pwr Hybrid 3.0



Minitek® Pwr Hybrid 4.2 & 3.0



Product Specifications

Product Facts

- Power & Signal Hybrid design
- Two-Row Symmetric design with active latching
- High Temperature performing plastic for header
- Variety of Positions, Power 4~24 and Signal 2~12

Electrical Performances

- Current Rating
 - 4.2: 9A Max /Power contact; 1A /Signal
 - 3.0: 5A Max /Power contact; 1A /Signal
- Insulation Resistance: 1000 M Ω min.
- Dielectric withstanding voltage: 1500 V

Mechanical Performances

- Mating cycles: 30

Environmental

- Operating Temperature : -40~105°C

Technical Data

- Housing : High temperature resin for header, and Nylon66 for receptacle.
 - 4.2: Natural color
 - 3.0: Black color
- Pin: copper alloy
- Plating: Gold, GXT or Tin over 1.27 μ m (50 μ ”) nickel

Specifications

- Product specification
 - 4.2: GS-12-1288
 - 3.0: GS-12-1287

Packaging

- Header in Tray, Receptacle Housing in PE bag, Terminal in reel

Minitek® Pwr Hybrid 4.2 & 3.0



Features & Benefits

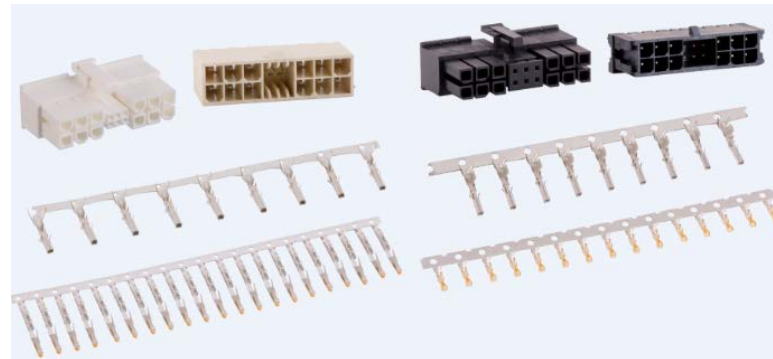
Features	Benefits
Separated power and signal contacts	Provide power contacts for power distribution and signal contacts for power control
Flexible modular design	Number and placement of power and signal contacts are highly configurable for customer power needs
Flexible design with signal pin	Backward mateable with traditional 4.2mm & 3.0mm power connector if signal pin is absent
Power pin is separated by signal pin in center position	Better heat dissipation, hence better current rating capability
Enlarged active latch with low thumb latch operation	Prevents unexpected unmating and provides secure locking mechanism
Signal pin with lower insertion and extraction force than power pin	Relatively easy to mate and un-mate compared to the similarly configured traditional 4.2mm power connector
Available in UL94V-0 flammability	High flammability rating
RoHS compliance and Lead free	Meet environmental, health and safety requirements

Minitek® Pwr Hybrid 4.2 & 3.0



Part Numbers

Item	Product series	Product	Description
1	10129817	Minitek Pwr Hybrid 4.2	Vertical through-hole header
2	10129815	Minitek Pwr Hybrid 4.2	Vertical through-hole receptacle housing
3	10129084	Minitek Pwr Hybrid 4.2	Receptacle Power terminal
4	10134048	Minitek Pwr Hybrid 4.2	Receptacle Signal terminal
5	10129811	Minitek Pwr Hybrid 3.0	Vertical through-hole header
6	10129812	Minitek Pwr Hybrid 3.0	Vertical through-hole receptacle housing
7	10129814	Minitek Pwr Hybrid 3.0	Receptacle Power terminal
8	77138	Minitek Pwr Hybrid 3.0	Receptacle Signal terminal AWG26-30
9	10044403	Minitek Pwr Hybrid 3.0	Receptacle Signal terminal AWG22-24



Minitek® Pwr Hybrid 4.2 & 3.0



Main Markets & Application

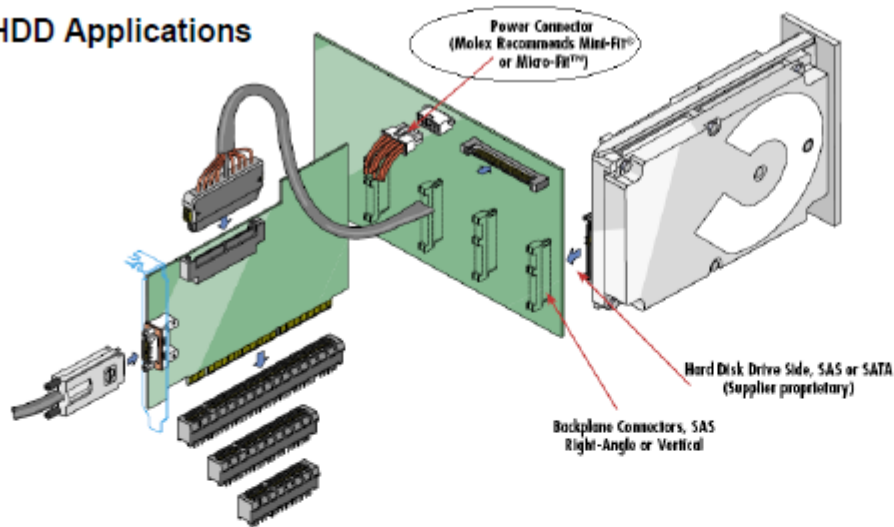
- Consumer
 - Set Top Box
 - Refrigerator
 - Air Conditioning
- Industrial & Instrumentation
 - Medical
 - Hospital Bed
 - Defibrillator
 - Patient Monitor
 - Ultrasound Equipment
 - Military
 - Chemical Detection System
 - Radar Equipment
 - Customer Premises Equipment
- Data
 - HDD
 - Rack – Mount Server
 - Server
 - Desktop Pc and MotherBoard
- Telecommunications
 - 1U Rack Box
 - Telecom Box
 - Wi – Max Box
 - Interface Converter
 - Customer Premises Equipment

Minitek® Pwr Hybrid 4.2 & 3.0



Main Markets & Application

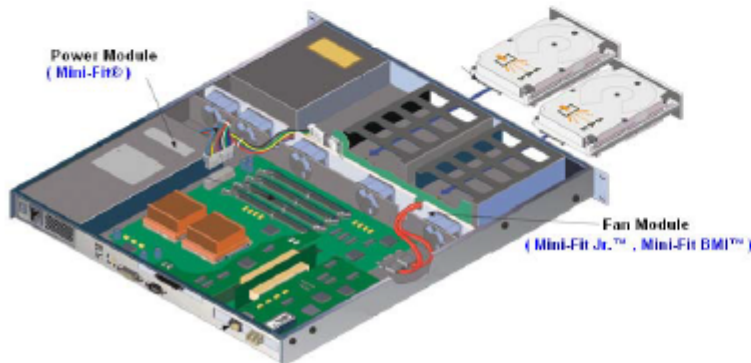
■ HDD Applications



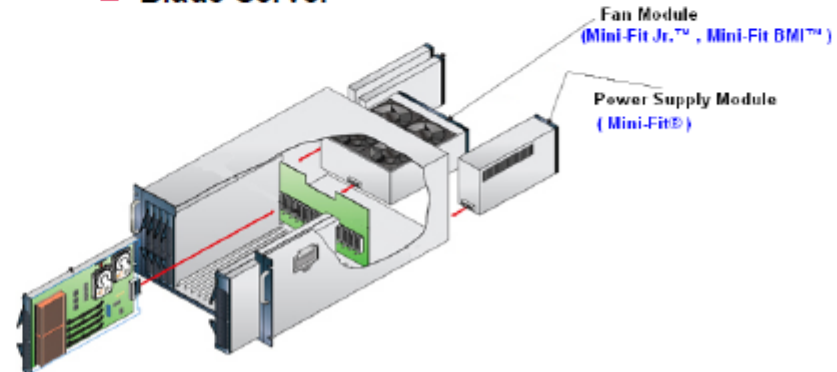
■ Major Data Applications:

- Desktops/ tower
- High end computers
- Storage
- Servers
- Networking Equipment
- Power supplies

■ Rack-Mount Server



■ Blade Server



Minitek® Pwr Hybrid 4.2 & 3.0



Collaterals

Available on FCI.com:

- Technical Data Sheet

BOARD/WIRE-TO-BOARD CONNECTORS



Minitek® Pwr Hybrid 4.2

OVERVIEW

Minitek® Pwr Hybrid 4.2 connectors are designed for power and signal application with current rating up to 9A per circuit, available for dual row and 2 to 24 power circuits, and 2 to 12 signal for Wire-to-Board application.

Crimp, snap-in receptacle contacts are used to terminate AWG 16-30 wires. Receptacle housings allow Wire-to-Board configurations. Crimping and removal tools are available for wire harness assembly. Board mounted vertical headers support Wire-to-Board interconnections. Wave soldering headers are available in through-hole configuration.



FEATURES

- Separated power and signal contacts
- Flexible modular design
- Flexible design with signal pin
- Signal contact in 2mm pitch and power contact in 4.2mm pitch
- Power pin is separated by signal pin in center position
- Enlarged active latch with low thumb latch operation
- Signal pin with lower insertion and extraction force than power pin
- High retention force for terminal within housing
- Available in UL94V-0 (flammability rated LCP
- RoHS compliance and Lead free

BENEFITS

- Provide power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for customer power needs
- Backward mateable with traditional 4.2mm power connector if signal pin is absent
- Compact size design and clear identification for cable harness termination
- Better heat dissipation, hence better current rating capability
- Prevents unexpected unmating and provides secure locking mechanism
- Relatively easy to mate and un-mate compared to the similarly configured traditional 4.2mm power connector
- Well secures terminal in housings
- High flammability rating
- Meet environmental, health and safety requirements

BOARD/WIRE-TO-BOARD CONNECTORS



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Collaterals

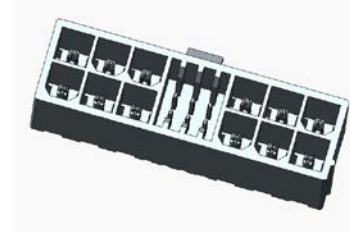
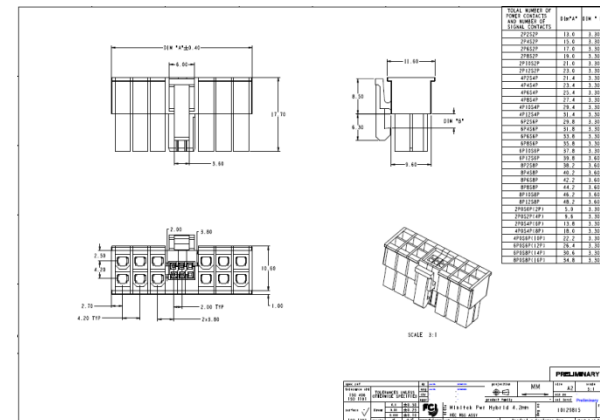
Available on FCI.com:

- Part Numbers

- Pre-Release Drawings

- 3D Views

Part Number	Image	Status	Product Name
10129815-22200LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 2P+2S+2P
10129815-44400LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 4P+4S+4P
10129815-64600LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 6P+4S+6P
10129815-80800LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 8P+0S+8P
10129815-84800LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 8P+4S+8P
10129815-86800LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 8P+6S+8P
10129815-88800LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 8P+8S+8P
10129815-8B800LF		PRE-RELEASED	Minitek Pwr Hybrid 4.2. Receptacle Housing, 4.20mm pitch Power, 2.00mm pitch Signal, Double Row, Vertical, 8P+12S+8P





THANK YOU

