

Amphenol

COMMUNICATIONS SOLUTIONS

FitMate

- Wire to Board Connector Portfolio

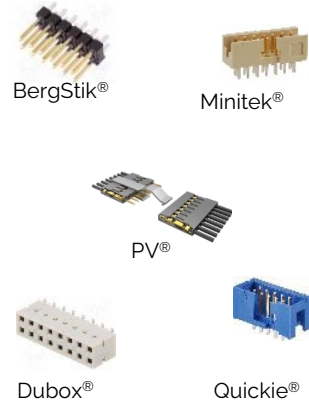
Presentation

 **FCi Basics**

FCI Basics: The Amphenol PCB Interconnect Specialist

Industry recognized portfolio combining leading edge technologies and proven solutions

Wire to Board Core



Wire to Board eMobility



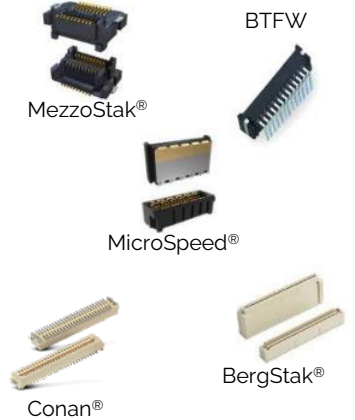
Input Output FFC FPC



Backplane



Board to Board



Leading Product Portfolio For Strategic Markets



Automotive

BMS, Lighting ,OBC, ADAS



Industrial

PLC/Controls, ESS, Metering



IT/Datacom

Servers, Storage, AI, Embedded



Consumer

Home Automation, Appliances



Value Add Solutions

Tailormade Cable Assemblies



Custom Competence

Design Local; Build Regional



Global Footprint

China; France; India; Mexico; Malaysia



Technology & Innovation

Dedicated Basics Engineering Teams

Agenda: FitMate - Wire to Board Connector Portfolio

- Value Proposition
- Features & Benefits
- Product Overview
- Product Specifications
- Markets & Application
- Marketing Tools

- Amphenol's FitMate is focus on fine pitch wire-to-board solution, offer various solution on different pitch, configurations and orientation.
- Now the family can support from 0.8mm to 1.5mm pitch, with position ranges from 2 to 50 pos, compatible with single row and double row.
- Active latch feature is available in 1.0mm / 1.25mm / 1.5mm range, support high retention force in vibration environment.
- It can offer crimping leads, or cable assembly solution based on customer request directly.
- Design is compatible with main competitor solution, best choice of equivalent or second source solution.

Features	Benefits
➤ Fine Pitch	❖ Saves space with reduced PCB footprint
➤ Low Profile Design	❖ Save PCB space
➤ UL94V-0 Flammability Rated Material	❖ High flammability rating
➤ RoHS Compliant & Lead-Free	❖ Meets health and safety requirements
➤ Active Latch System	❖ Ensure connecting in high shock environment
➤ Design Compatible	❖ Support equivalent or second source

Product Overview – FitMate

			R/A Header	VT Header	Receptacle	Terminal
Pitch	Configurations	Latch System	Base Number			
0.8MM	Single Row	-	10154206	10156841	10159026	10154208

Pitch	Row	Latch System	Base Number			
1.0MM	Single Row	-	10157375	10157376	10157377	10157378
1.0MM	Double Row	-	10164213	10164212	10164210	10157378
1.0MM	Single Row	Active Latch	10164366	10164365	10164367	10157098
1.0MM	Double Row	Active Latch	10157759	10157096	10157097	10157098

Pitch	Row	Latch System	Base Number			
1.25MM	Single Row	-	10114830	10114828	10114826	10114827
1.25MM	Single Row	Active Latch	10155242	10155243	10155244	10155245
1.25MM	Double Row	Active Latch	10169363	10169364	10169365	10169366

Pitch	Row	Latch System	Base Number			
1.50MM	Single Row	Active Latch	10155053	10155054	10155056	10166892
1.50MM	Double Row	Active Latch	10167624	10166584	10166893	10166892

First step

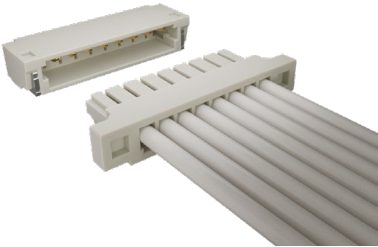
Coming soon

Product Specifications

FitMate 0.8

Basic Specifications

Configurations	Single Row
Latch System	-
PCB Termination	SMT
Conn Direction	Right Angle / Vertical
Pin Count	2-16p
Plating Option	Tin / Gold Flash Plating



Mechanical Performance

Mating / Unmating Force	Refer Product Spec GS-12-1546
Terminal / Housing Retention Force	3.43N Min
Latch Retention Force	-
Durability	30 cycles

Environmental

Operating Temperature Range	-25 ~ +85°C
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Recommend Part

10154206-04021LF	FitMate 0.8, header, right angle, SMT, gold flash plating, 4pos
10154206-08021LF	FitMate 0.8, header, right angle, SMT, gold flash plating, 8pos
10154206-12021LF	FitMate 0.8, header, right angle, SMT, gold flash plating, 12pos
10156841-04021LF	FitMate 0.8, header, vertical, SMT, gold flash plating, 4pos
10156841-08021LF	FitMate 0.8, header, vertical, SMT, gold flash plating, 8pos
10156841-12021LF	FitMate 0.8, header, vertical, SMT, gold flash plating, 12pos
10159026-1004LF	FitMate 0.8, receptacle, 4pos
10159026-1008LF	FitMate 0.8, receptacle, 8pos
10159026-1012LF	FitMate 0.8, receptacle, 12pos
10154208-20LF	FitMate 0.8, terminal, gold flash plating, 30-32AWG

Materials

Header	
Housing	LCP
Contact	COPPER ALLOY
Receptacle	PA46
Terminal	PHOSPHOR BRONZE

Electrical Performance

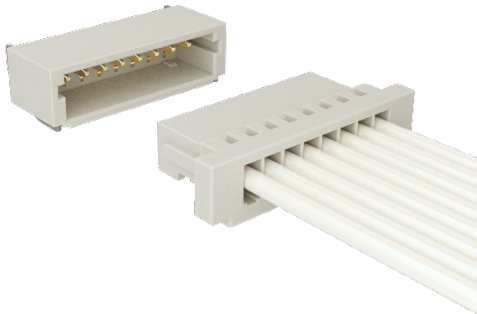
Current Rating	0.5A
Voltage Rating	30V
Contact Resistance	20 milliohm Max
Insulation Resistance	100 Megohm Min

Product Specifications

FitMate 1.0

Basic Specifications

Configurations	Single Row
Latch System	-
PCB Termination	SMT
Conn Direction	Right Angle / Vertical
Pin Count	2-16p
Plating Option	Tin / Gold Flash Plating



Mechanical Performance

Mating / Unmating Force	Refer Product Spec GS-12-1654
Terminal / Housing Retention Force	6.86N Min
Latch Retention Force	-
Durability	30 cycles

Environmental

Operating Temperature Range	-25 ~ +85°C
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Recommend Part

10157375-04101LF	FitMate 1.0, header, right angle, SMT, gold flash plating, 4pos
10157375-08101LF	FitMate 1.0, header, right angle, SMT, gold flash plating, 8pos
10157375-12101LF	FitMate 1.0, header, right angle, SMT, gold flash plating, 12pos
10157376-04101LF	FitMate 1.0, header, vertical, SMT, gold flash plating, 4pos
10157376-08101LF	FitMate 1.0, header, vertical, SMT, gold flash plating, 8pos
10157376-12101LF	FitMate 1.0, header, vertical, SMT, gold flash plating, 12pos
10157377-04111LF	FitMate 1.0, receptacle, 4pos
10157377-08111LF	FitMate 1.0, receptacle, 8pos
10157377-12111LF	FitMate 1.0, receptacle, 12pos
10157378-11LF	FitMate 1.0, terminal, gold flash plating, 28-32AWG

Materials

Header	
Housing	LCP
Contact	COPPER ALLOY
Receptacle	PA66
Terminal	PHOSPHOR BRONZE

Electrical Performance

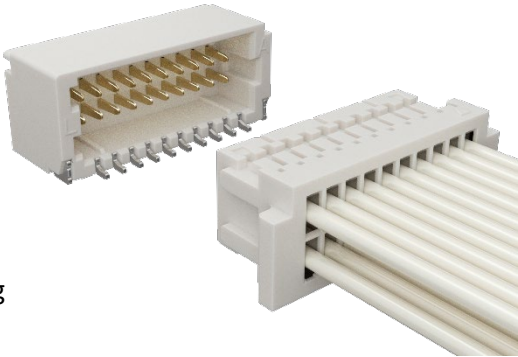
Current Rating	1A
Voltage Rating	50V
Contact Resistance	20 milliohms Max
Insulation Resistance	100 Megohms Min

Product Specifications

FitMate 1.0

Basic Specifications

Configurations	Double Row
Latch System	-
PCB Termination	SMT
Conn Direction	Right Angle / Vertical
Pin Count	10/20/30/40/50p
Plating Option	Tin / Gold Flash Plating



Mechanical Performance

Mating / Unmating Force	Refer Product Spec GS-12-1834
Terminal / Housing Retention Force	6.86N Min
Latch Retention Force	-
Durability	30 cycles

Environmental

Operating Temperature Range	-25 ~ +85°C
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Recommend Part

10164213-10011LF	FitMate 1.0, header, right angle, SMT, gold flash plating, 2x5pos
10164213-20011LF	FitMate 1.0, header, right angle, SMT, gold flash plating, 2x10pos
10164213-30011LF	FitMate 1.0, header, right angle, SMT, gold flash plating, 2x15pos
10164212-10011LF	FitMate 1.0, header, vertical, SMT, gold flash plating, 2x5pos
10164212-20011LF	FitMate 1.0, header, vertical, SMT, gold flash plating, 2x10pos
10164212-30011LF	FitMate 1.0, header, vertical, SMT, gold flash plating, 2x15pos
10164210-1010LF	FitMate 1.0, receptacle, 2x5pos
10164210-2010LF	FitMate 1.0, receptacle, 2x10pos
10164210-3010LF	FitMate 1.0, receptacle, 2x15pos
10157378-11LF	FitMate 1.0, terminal, gold flash plating, 28-32AWG

Materials

Header	
Housing	PA9T
Contact	COPPER ALLOY
Receptacle	PA66
Terminal	PHOSPHOR BRONZE

Electrical Performance

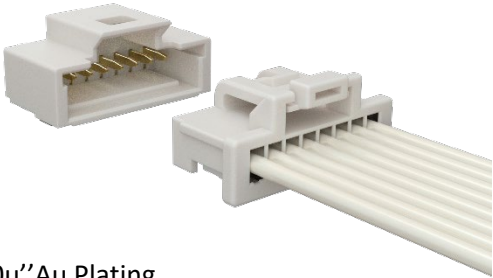
Current Rating	1A
Voltage Rating	50V
Contact Resistance	20 milliohms Max
Insulation Resistance	100 Megohms Min

Product Specifications

FitMate 1.0

Basic Specifications

Configurations	Single Row
Latch System	Active Latch
PCB Termination	SMT
Conn Direction	Right Angle / Vertical
Pin Count	2-15p
Plating Option	Tin / Gold Flash / 15u''Au / 30u''Au Plating



Mechanical Performance

Mating / Unmating Force	Refer Product Spec GS-12-1828
Terminal / Housing Retention Force	4.9N Min
Latch Retention Force	19.6N Min
Durability	30 cycles

Environmental

Operating Temperature Range	-40 ~ +105°C
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Recommend Part

10164366-00441LF	FitMate 1.0, header, right angle, SMT, active latch, gold flash plating, 4pos
10164366-00841LF	FitMate 1.0, header, right angle, SMT, active latch, gold flash plating, 8pos
10164366-01241LF	FitMate 1.0, header, right angle, SMT, active latch, gold flash plating, 12pos
10164365-00441LF	FitMate 1.0, header, vertical, SMT, active latch, gold flash plating, 4pos
10164365-00841LF	FitMate 1.0, header, vertical, SMT, active latch, gold flash plating, 8pos
10164365-01241LF	FitMate 1.0, header, vertical, SMT, active latch, gold flash plating, 12pos
10164367-0040LF	FitMate 1.0, receptacle, active latch, 4pos
10164367-0080LF	FitMate 1.0, receptacle, active latch, 8pos
10164367-0120LF	FitMate 1.0, receptacle, active latch, 12pos
10157098-101LF	FitMate 1.0, terminal, gold flash plating, 28-32AWG

Materials

Header	
Housing	PA4T
Contact	COPPER ALLOY
Receptacle	PA66
Terminal	PHOSPHOR BRONZE

Electrical Performance

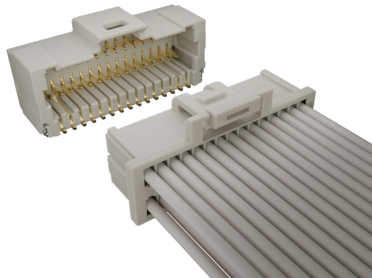
Current Rating	1A
Voltage Rating	100V
Contact Resistance	20 milliohms Max
Insulation Resistance	100 Megohms Min

Product Specifications

FitMate 1.0

Basic Specifications

Configurations	Double Row
Latch System	Active Latch
PCB Termination	SMT
Conn Direction	Right Angle / Vertical
Pin Count	20/30/40/50p
Plating Option	Tin / Gold Flash / 15u''Au / 30u''Au Plating



Mechanical Performance

Mating / Unmating Force	Refer Product Spec GS-12-1642
Terminal / Housing Retention Force	4.9N Min
Latch Retention Force	19.6N Min
Durability	30 cycles

Environmental

Operating Temperature Range	-40 ~ +105°C
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Recommend Part

10157759-01040LF	FitMate 1.0, header, right angle, SMT, active latch, gold flash plating, 2x10pos
10157759-01540LF	FitMate 1.0, header, right angle, SMT, active latch, gold flash plating, 2x15pos
10157759-02040LF	FitMate 1.0, header, right angle, SMT, active latch, gold flash plating, 2x20pos
10157096-01051LF	FitMate 1.0, header, vertical, SMT, active latch, gold flash plating, 2x10pos
10157096-01551LF	FitMate 1.0, header, vertical, SMT, active latch, gold flash plating, 2x15pos
10157096-02051LF	FitMate 1.0, header, vertical, SMT, active latch, gold flash plating, 2x20pos
10157097-01010LF	FitMate 1.0, receptacle, active latch, 2x10pos
10157097-01510LF	FitMate 1.0, receptacle, active latch, 2x15pos
10157097-02010LF	FitMate 1.0, receptacle, active latch, 2x20pos
10157098-101LF	FitMate 1.0, terminal, gold flash plating, 28-32AWG

Materials

Header	
Housing	PA4T
Contact	COPPER ALLOY
Receptacle	PA66
Terminal	PHOSPHOR BRONZE

Electrical Performance

Current Rating	1A
Voltage Rating	50V
Contact Resistance	20 milliohms Max
Insulation Resistance	100 Megohms Min



Consumers & Portable equipment

- Cooking Machine
- Office Equipment
- Test & Measurement
- Point-of-sale Terminal
- Portable terminal



IoT

- Smart Home Device
- Vacuum Cleaner Robot

- Samples available through www.amphenol-cs.com
- Website quick link:
 - FitMate 0.8: [Landing Page](#)
 - FitMate 1.0: [Landing Page](#)
- Available on website
 - Drawings
 - 3D Models
 - Datasheet
 - Product specifications
 - Product presentation

If you have any enquires, please contact to us:

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Thank You

Amphenol
COMMUNICATIONS SOLUTIONS

 **FCi Basics**