

Minitek® Multipitch 1.25mm WTB Product Presentation

Product Presentation

7/3/2020

Amphenol Information Communications
and Commercial Products

 **FCi Basics**

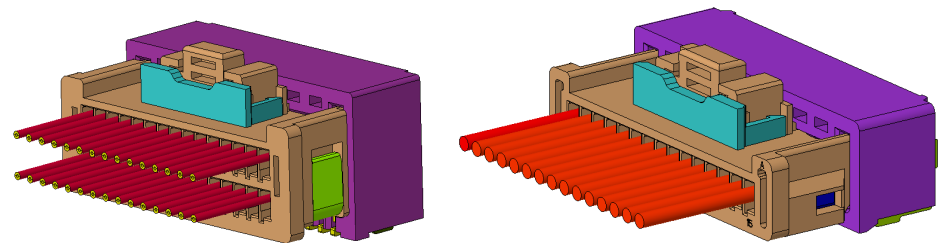
Amphenol ICC

- Value Proposition
- Product Overview
- Product Specifications
- Features & Benefits
- Part Numbers
- Tooling information
- Markets & Application

Minitek® Multipitch 1.25mm WTB

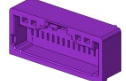
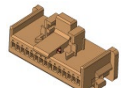
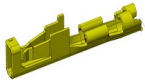
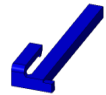
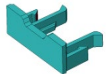
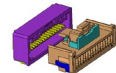
Value Proposition

- The Multipitch 1.25mm pitch connector's compact design addresses the growing demand for miniaturizing components. The connector system is single and double row with active latching, TPA and CPA features.
- The connector has nominal current carrying capacity of 1A and cable external diameter from 26 AWG to 28 AWG.
- The connector is available in 2 to 15 positions single row with horizontal and 10 to 30 position double row horizontal configurations.
- The connector can be applied in the Automotive-like applications, industry, customer...



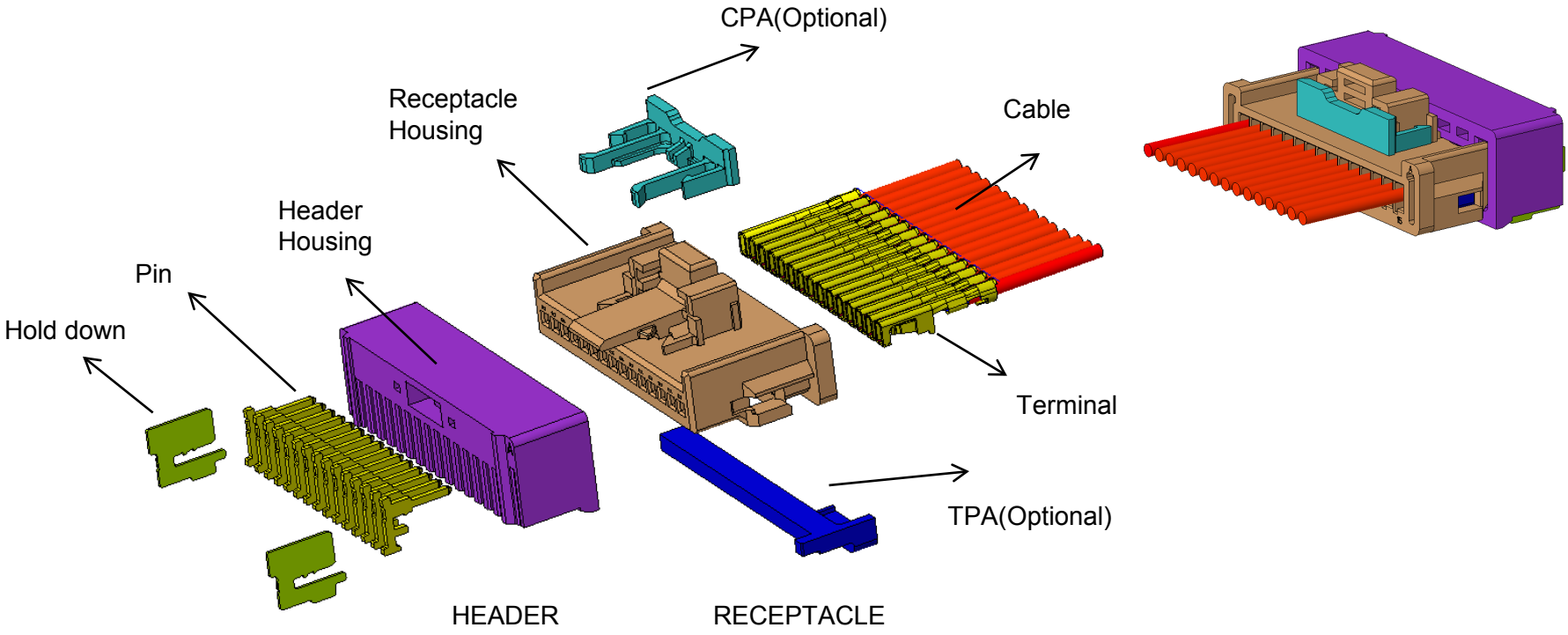
Minitek® Multipitch 1.25mm WTB FCi Basics

Value Proposition

- Header Housing with pins (Male connector) ----- 
- Receptacle Female housing ----- 
- Terminal CTW contact ----- 
- TPA Terminal position assurance ----- 
- CPA Connector position assurance ----- 
- Right angle Connection axis parallel to the board ----- 

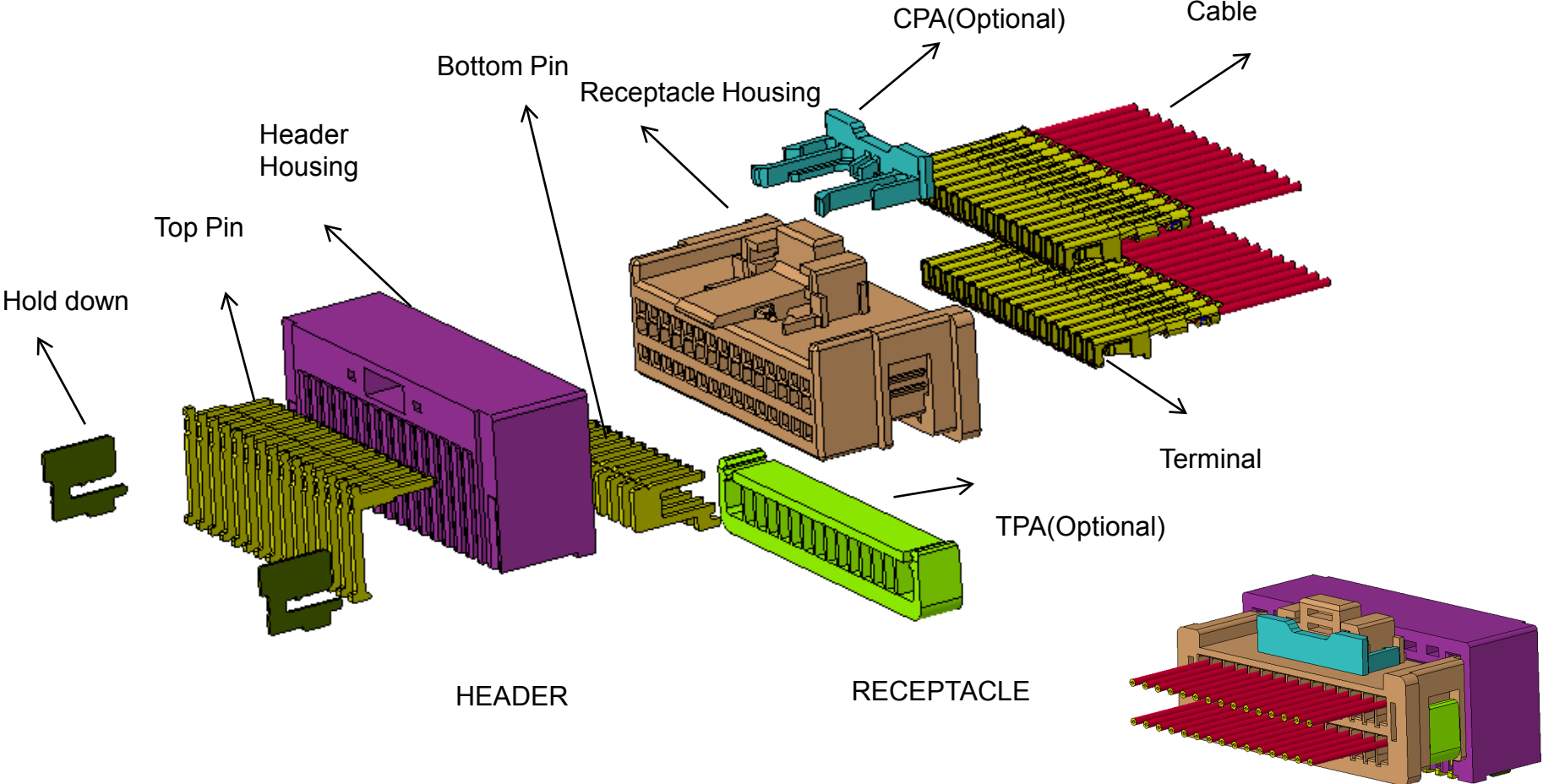
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Product Overview single row



Minitek® Multipitch 1.25mm WTB

Product Overview double row



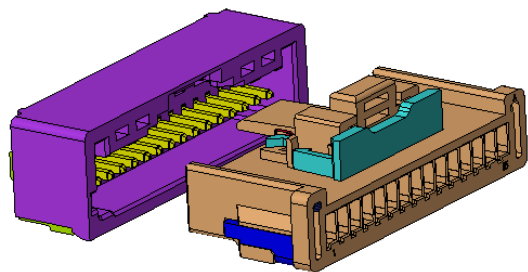
Minitek® Multipitch 1.25mm WTB

Product Overview

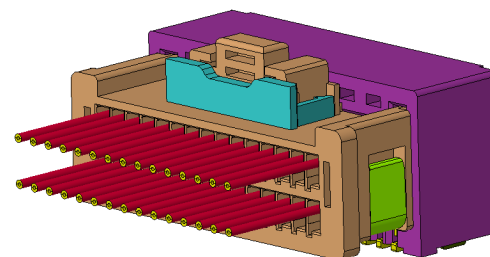
Family Configuration matrix

Configurations	Descriptions	Part number
Single Row	R/A SMT Header	10157547
	Housing	10157554
Double Row	R/A SMT Header	10158832
	Housing	10158828
Contact	Receptacle terminal	10157551

- Latch position: *Top*
- Single row (positions): *2 to 15*
- *Double row (positions): 10 to 30*
- Header soldering options: *Reflow soldering SMT*



Single Row



Double Row

Minitek[®] Multipitch 1.25mm WTB

Product Specifications

MATERIALS

- Header Connector: PA9T
- Housing: High temp. UL94V-0
- Terminal for Crimping: High Current Alloy

ELECTRICAL PERFORMANCES

- Low Level Contact Resistance: < 40mΩ
- Insulation Resistance: 100MΩ
- Voltage Rating: 50V
- Dielectric Withstand Voltage: 500VAC
- Current Rating: 1.0A at 20°C ambient , T° Rise : 30°C max.

ENVIRONMENTAL

- Operating Temperature: -40°C to +105°C

MECHANICAL PERFORMANCE

- Crimp Terminal Insertion Into Housing: < 4.9N
- Crimp Terminal Retention Into Housing: > 6.9N
- Plug Terminal Retention Into Housing: > 2.94N
- Durability: 30 mating cycles.
- Mating Force/Terminal: 4N max.
- Housing retention force: 9.8N Min.

PACKAGING

- PCB Header: Tape and reel
- Receptacle housing: Bag
- Crimping terminal: Reel

SPECIFICATION

- Product Specification: GS-12-1610
- Packaging Specification: GS-14-2615
- Application Specification: GS-20-0660
- Hand tool: 10158871-001LF

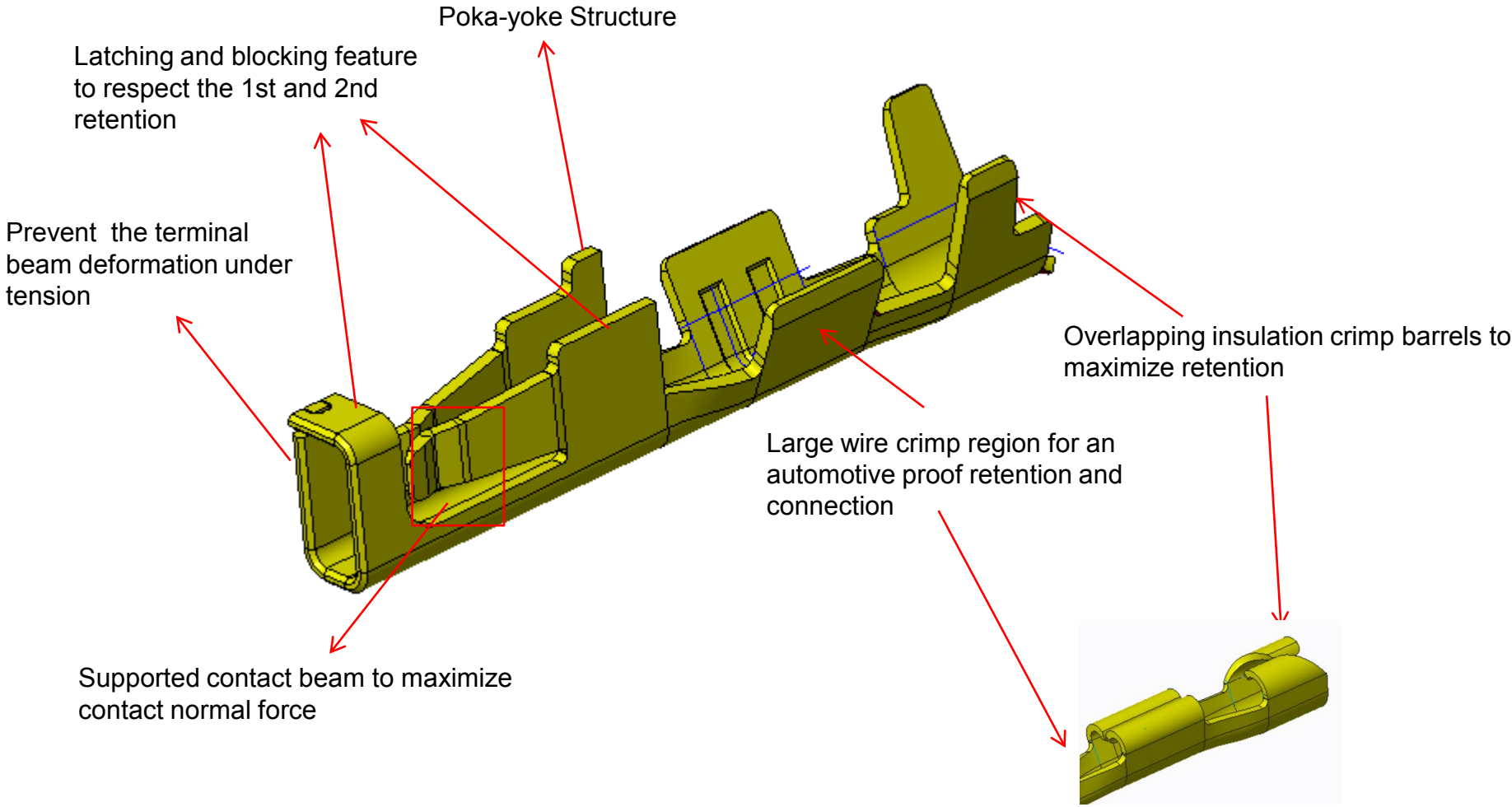
Minitek® Multipitch 1.25mm WTB

Features & Benefits

Features	Benefits
Housing with positive locking.	Ensures secure mating retention
Hold down features	Increase the board grip force
Terminal position assurance (TPA)	Ensures proper terminal insertion position and retention
Connector positioning assurance(CPA)	Assures that connectors are properly mated and locked together
Polarized mating geometry	Keying to prevent visual mismatching

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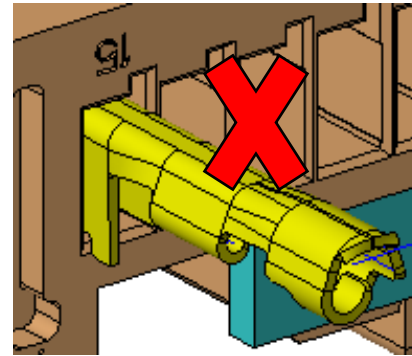
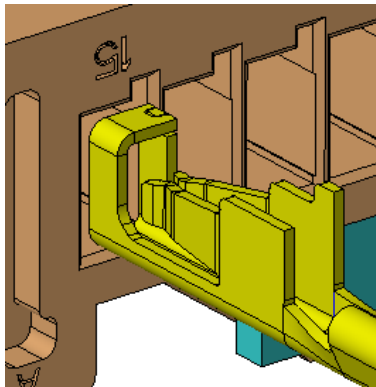
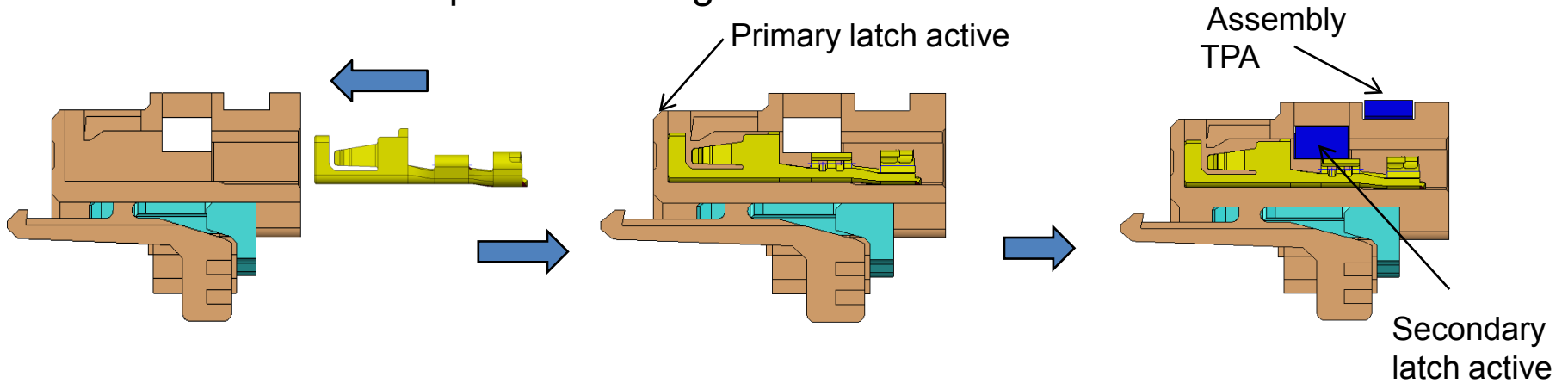
Terminal Features



Minitek[®] Multipitch 1.25mm WTB **FCi Basics**

Terminal Ass.& TPA Features

Insert terminal into receptacle housing

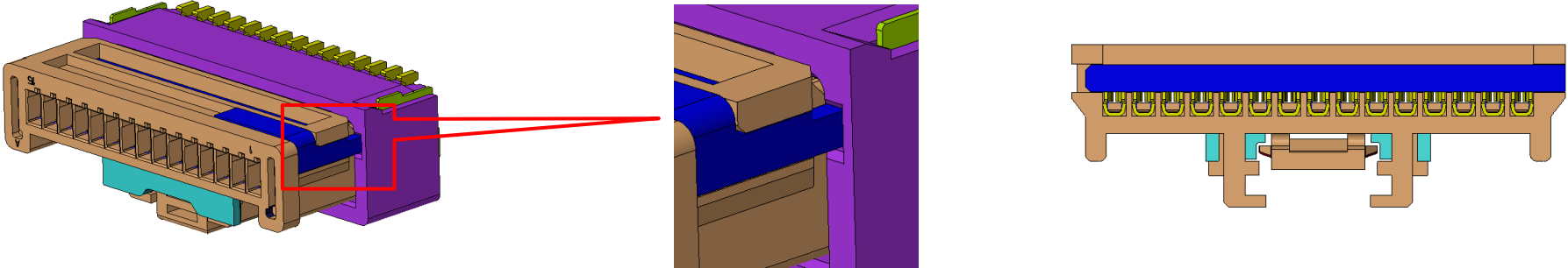


Keying function of terminal prevents wrong instertion

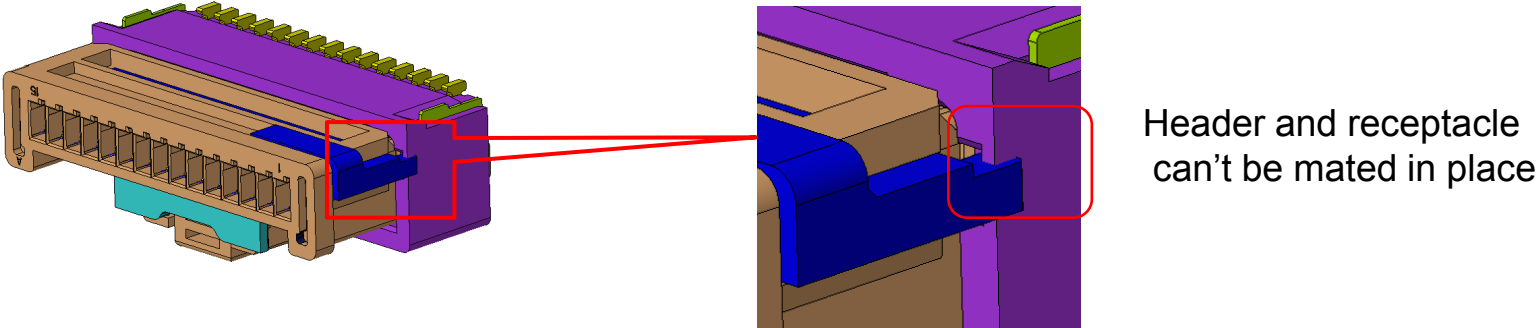
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TPA Features

TPA function



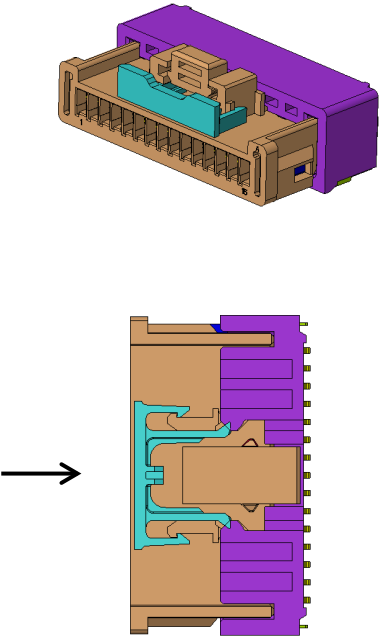
TPA is assembled in a right place, header and receptacle can be mated.



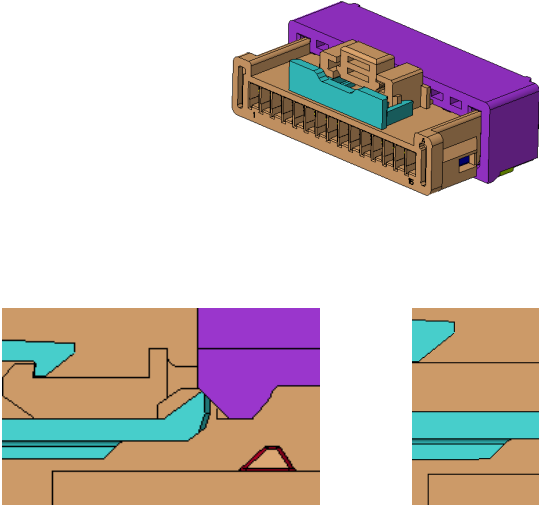
Header and receptacle can't be mated if TPA is not in a correct position.

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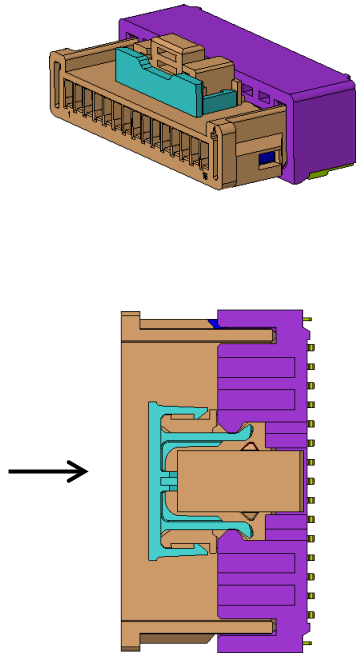
CPA Features



Insert receptacle to the header housing



Header slope feature unblock the CPA from the receptacle



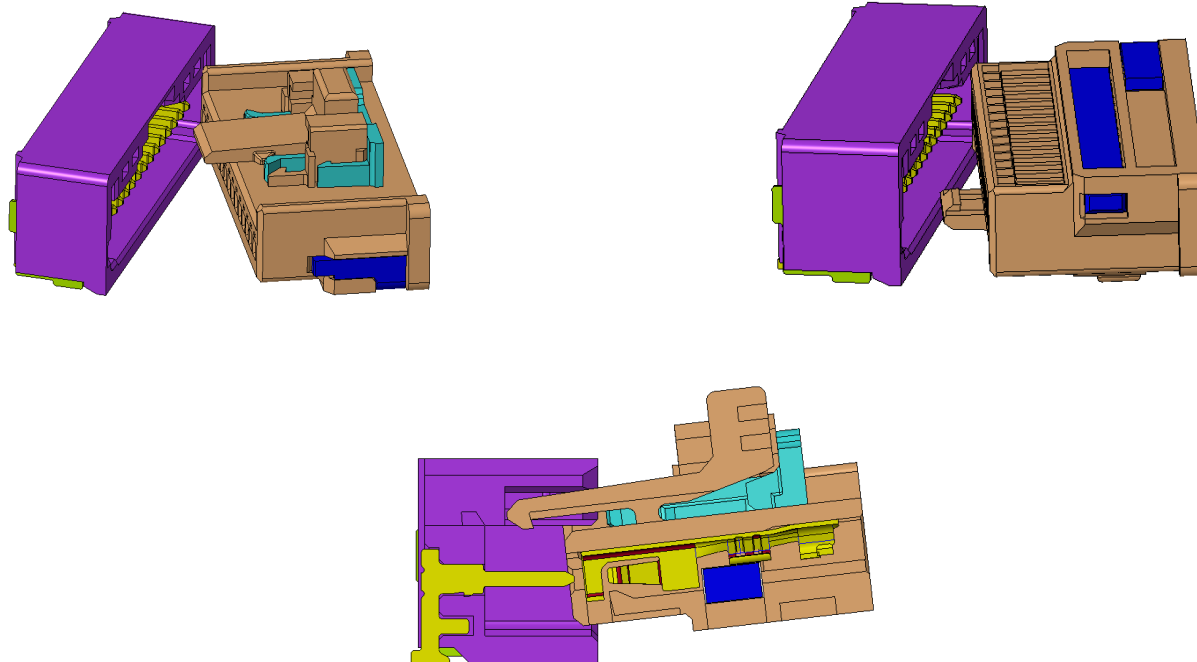
At the end position the CPA block the actuation of the latch

CPA can be actuated only if the receptacle is mounted into the header at the final position

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Pokayoke Features

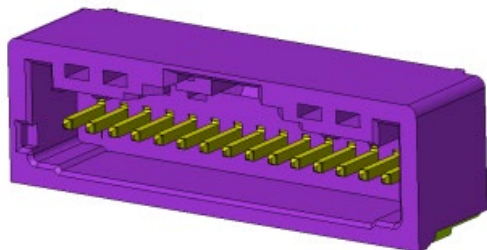
Avoid error insertion, oblique insertion and reverse insertion (180°):



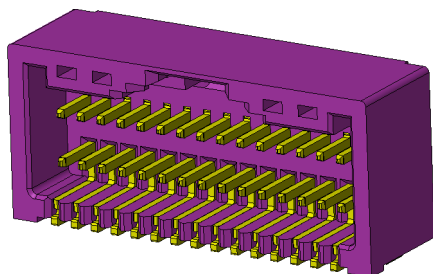
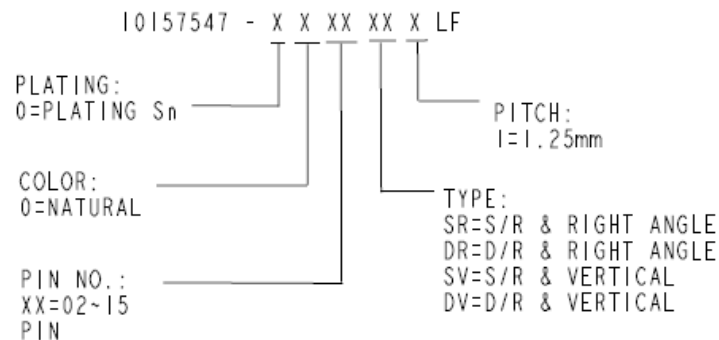
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Part numbers

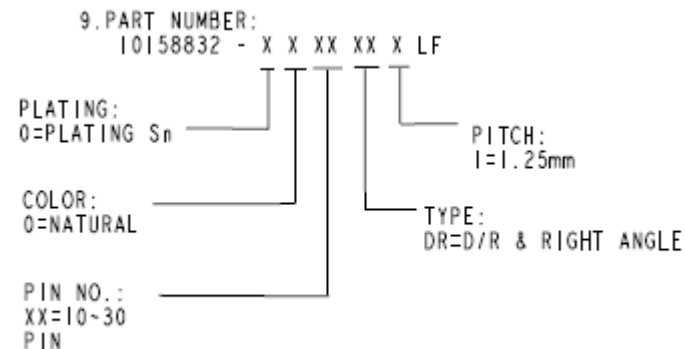
Board header



Single row R/A SMT Header



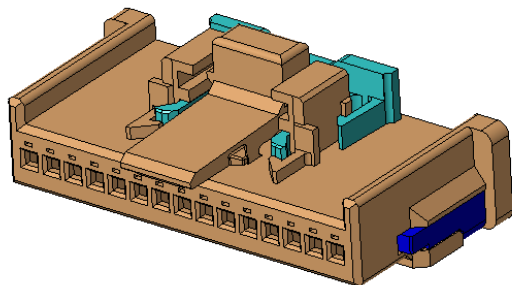
Double row R/A SMT Header



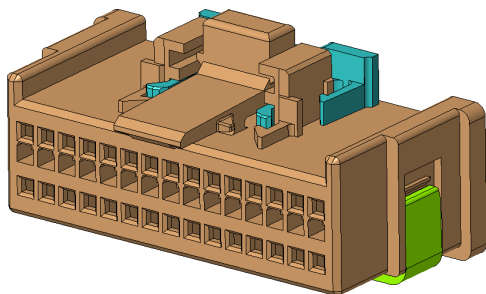
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Part numbers

Cable side



Single row Receptacle housing



Double row Receptacle housing

PART NUMBER: 10157554 - X X X X X LF

COLOR:
0=NATURAL

PIN NO.:
XX=2~15 PIN

PITCH:
1=1.25mm

TYPE:
1=WITH TPA&CPA(7~15PIN)
2=WITH TPA/WO CPA(2~15PIN)
3=WITH CPA/WO TPA(7~15PIN)
4=WO TPA & CPA

PART NUMBER: 10157554 - X X X X X LF

COLOR:
0=NATURAL

PIN NO.:
XX=2~15 PIN

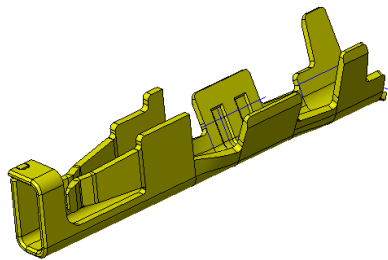
PITCH:
1=1.25mm

TYPE:
1=WITH TPA&CPA(7~15PIN)
2=WITH TPA/WO CPA(2~15PIN)
3=WITH CPA/WO TPA(7~15PIN)
4=WO TPA & CPA

Minitek® Multipitch 1.25mm WTB *FCi Basics*

Part numbers

Cable side



Terminal

6. PART NUMBER:
10157551 - X X X X LF

PLATING:
0=Sn 110~220u'' Plated

MATERIAL:
P=C5210R-SH

0=BLANK

WIRE SIZE RANGE:
1=26 to 28mm

Minitek® Multipitch 1.25mm WTB

Tooling Information

Crimping Hand Tool: 10158871-001LF



- *See application spec GS-20-0660 ...*

Minitek® Multipitch 1.25mm WTB *FCi Basics*

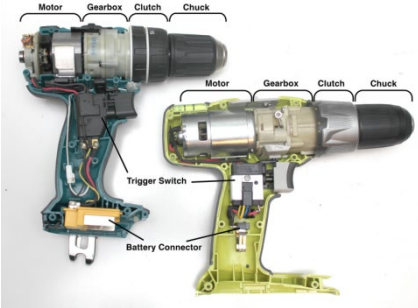
Marketing and Application



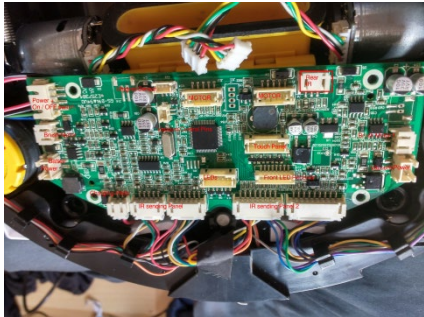
Steering Control Button
Infotainment
Lighting



Robotics , PLC, power tool



Personal Care Devices (Air Dryer)
Home Care Devices (Cleaning Robot)
Home Automation (Alarm System)



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THANK YOU