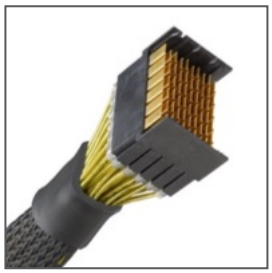
Impel and Impel Plus Custom Backplane Cable Assemblies

molex

Impel and Impel Plus Custom Cable Assemblies deliver next-generation data rates with industry-leading signal integrity and density in a complete backplane solution

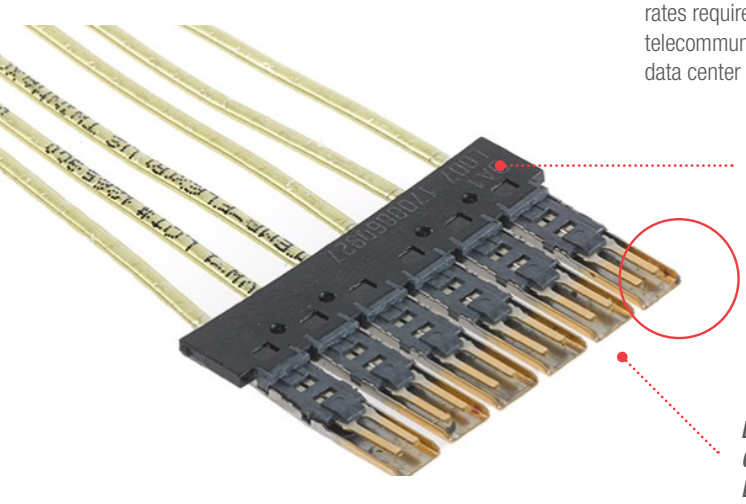


Impel Backplane Cable Assembly

Features and Benefits

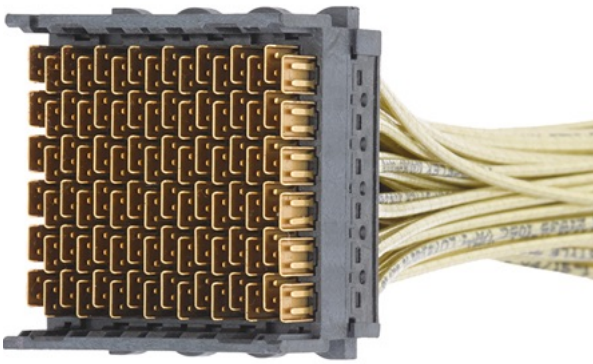
Broad-edge coupled signal pairs in lead frames
Optimizes signal integrity performance

Cable assemblies with Temp-Flex Twinax Cables (28 or 30 AWG)
Achieves data rates required by telecommunications and data center industries



Impel Cable Wafer with 30 AWG Cable

Up to 40 Gbps (NRZ) with Impel Connector; Up to 56 Gbps (NRZ/PAM4) with Impel Plus
Achieves data rates required by telecommunications and data center industries



Impel Cable Wafer with 30 AWG Cable

Staggered mating interface
Lowers mating force. Eases assembly and operator fatigue

3-, 4- and 6-pair Impel Backplane Connectors available off the shelf
Provides design flexibility and faster time to market

Fully shielded between columns through the mating surface
Delivers signal integrity performance. Prevents crosstalk

Applications

Telecommunications/Networking
- Servers
- Switches
- Routers

Data Center Solutions
- Server
- Storage Systems

Data / Computing
- Servers
- Storage Systems

Data Center

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Specifications

Impel Backplane Interconnect System

REFERENCE INFORMATION
Packaging: Tray
UL File No.: E28179
Mates with: Impel Headers
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes

ELECTRICAL
Voltage —
Daughtercard Receptacle (max.): 150V AC RMS
Cable Assembly (max.): 30VAC RMS
Current (max.): 0.75A
Contact Resistance (max.): 100mA; 20mV
Dielectric Withstanding Voltage:
Headers/Receptacles: 500V AC
Cable Assembly: 300V DC
Insulation Resistance — Daughtercard Receptacle: 500V

MECHANICAL
Insertion Force to PCB:
Backplane Header — 26.69N
Daughtercard Receptacle — 17.80N
Mating Force: 60g per signal; 80g per shield
Unmating Force (min.): 15g
Durability (min.): 200 cycles

PHYSICAL
Housing: LCP
Contact: Copper Alloy
Plating:
Contact Area — 30µ
Compliant Pin Area — select Matte Tin
Underplating — Nickel
PCB Thickness (min.): 1.00mm
Operating Temperature: -40 to +105°C

Impel Plus Backplane Interconnect System

REFERENCE INFORMATION
Packaging: Tray
UL File No.: Pending
Mates With: Impel Vertical Backplane Headers (see other available Impel Header options)
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes

ELECTRICAL
Voltage (max):150V AC RMS
Current (max): 0.75A
Contact Resistance: 100mA; 20mV
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500V

MECHANICAL
Insertion Force to PCB (max.): 26.69N per tail
Mating Force: 60g per signal; 80g per shield
Unmating Force (min.): 60g
Durability (min.): 200 Cycles

PHYSICAL
Housing: LCP
Contact: Copper Alloy
Plating:
Contact Area — 0.76 µm (30µ") Gold (Au)
Solder Tail Area — select Matte Tin (Sn)
Underplating — Nickel (Ni)
PCB Thickness (min.): 1.00mm
Operating Temperature: -40 to +105°C

Ordering Information

Custom Product	Description
Contact Molex	Impel and Impel Plus Backplane Cable Assemblies

www.molex.com/link/impel.html

Order No. 987651-7471 USA/0k/GF/2017.10