DATASHEET

molex

SMPS Board-to-Board Connectors ›

Providing rugged and future-proof connectivity in next-generation aerospace, 5G/6G and test-and-measurement applications, high-frequency Subminiature Push-On Sub-Micro (SMPS) Board-to-Board Connectors deliver precision performance up to 65 GHz in a microminiature 2.65mm footprint. Blind-mate push-on coupling, versatile options and compliance with industry standards help streamline integration, accelerate assembly and improve reliability.

ADVANTAGES AND FEATURES

Reduces PCB space usage
The microminiature SMPS connector is 30% smaller than SMPM connectors, with a PCB footprint of 2.65 by 2.65mm that enables the use of smaller boards in space-constrained applications.

Enhances design flexibility
Various available bullet lengths, PCB mounting styles and multi-port configuration options allow greater board design freedom and reduce design constraints.

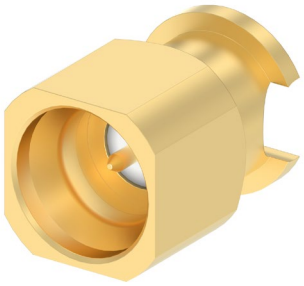
Complies with industry standards
These connectors meet VITA 67.3 standards for interoperability and durability, minimizing validation requirements for aerospace and defense applications.

Frequency	DC to 65 GHz
Impedance	50 Ohms
Connector Type	SMPS
Configurations	Full-detent or smooth-bore surface mount

Supports next-generation, high-frequency applications
The 65 GHz performance of the SMPS connector helps future-proof designs and enables use with advanced microwave, mmWave and ultra-wideband applications.

Delivers exceptional reliability
Available gold plating provides corrosion resistance and stable electrical performance in harsh environments.

Improves manufacturing efficiency
With blind-mating capability that features positive tactile and audible mating responses, the SMPS design allows for easier mating during the assembly process, minimizing errors and facilitating faster assembly.



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MARKETS AND APPLICATIONS

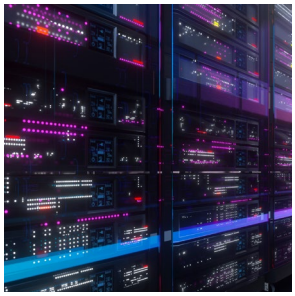
Aerospace
Instrumentation panels
Radar systems
Satellite communication equipment

Defense
Global positioning satellite system equipment
Handheld radios
Improvised explosive device-jamming modules

MedTech
Computed tomography scanners
Magnetic resonance imaging machines
Portable defibrillators and ventilators

Networking
VITA 67.3 data transmission equipment

Instrumentation Panels



Quantum Computer Architectures

Oscilloscopes

Quantum Computing
Quantum computer architectures

Test and Measurement
Oscilloscopes
Vector network analyzers

SPECIFICATIONS

Reference Information
Packaging: Tray, tape and reel
Designed in: Inches
1011/656/EU (RoHS): Yes
2006/1907/EC (REACH): Yes
Halogen Free: Yes

Electrical
Frequency: DC to 65 GHz
Impedance: 50 Ohms
Voltage Standing Wave Ratio (max.):
- 1.1:1 at DC to 10 GHz
- 1.18:1 at DC to 26.5 GHz
- 1.25:1 at 26.5 to 40 GHz
- 1.376:1 at 40 to 65 GHz

Dielectric Withstanding Voltage: 250V AC (RMS)

Mechanical
Connector Type: SMPS
Configurations: Full-detent or smooth-bore surface mount
Axial Misalignment (max.): 0.010" (0.25mm)
Radial Misalignment (max.): 3°
Insertion Force:
- Smooth bore—1.2 lbs (5.3N)
- Full detent—2.5 lbs (11.1N)

Withdrawal Force:
- Smooth bore—1.0 lbs (4.5N)
- Full detent—4.5 lbs (20N)

Durability (min.):
- Smooth bore—500 cycles
- Full detent—100 cycles

Physical
Contact: Brass and beryllium copper
Plating: Gold
Insulators: Polytetrafluorethylene, liquid crystal polymer
Operating Temperatures: -55 to +165°C

www.molex.com

Order No. 987652-9661 USA/0k/GF/2026.02