

# HIGH-FREQUENCY PRECISION TEST ADAPTERS

**NPI INNOVATION**

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*creating connections for life*

**molex**

# HIGH-FREQUENCY PRECISION TEST ADAPTERS

Molex offers a broad line of high-frequency within series and between series adapters. Interfaces include 2.92mm (40 GHz), 2.40mm (50 GHz), 1.85mm (67 GHz) and 1.00mm (110 GHz).

## Key Product Information

**Category:** High-frequency within series and between series adapters



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### Series

73157	<b>67 GHz 1.85mm to 1.85mm Adapters</b>
73164	<b>110 GHz 1.00mm to 1.00mm Adapters</b>
73252	<b>40 GHz 2.92mm to 1.85mm and 2.92mm to 2.92mm Adapters</b>
73386	<b>50 GHz 2.40mm to 1.85mm and 2.40mm to 2.92mm Adapters;</b> <b>67 GHz 1.85mm to 1.00mm Adapters</b>
73387	<b>50 GHz 2.40mm to 2.40mm Adapters</b>

# MARKETS AND APPLICATIONS



## Telecommunications and Networking

- Network systems
- Testing and instrumentation
- Automated test equipment
- Wireless communications
- 5G applications
- High-speed data transmission



## Commercial Aviation

- Aerospace
- Satellites



## Internet of Things (IoT)

- Smart appliances
- Home security systems
- Smart farming
- Patient monitoring

# SOLVING INDUSTRY CHALLENGES

Industry Need	Industry Challenge	Industry Solution	Anticipated Results
<b>Adaptability</b>	Customers want the right adapters on hand for all test and measurement needs.	Off-the-shelf high-frequency adapters from a single vendor are available through multiple distributors.	Shorter lead times and reduced risk of supply chain problems are available while maintaining consistent quality.
<b>Accurate, repeatable results</b>	Finding the right precision adapter can be difficult.	Molex offers a wide range of within series and between series adapters ranging from 40 to 110 GHz.	Tested and proven high-frequency adapters with outstanding electrical performance ensure accurate, repeatable results.
<b>Finding reasonably priced adapters at low volume</b>	Some purchasers may sacrifice quality over price due to the cost of high-frequency adapters.	Molex high-frequency adapters are reasonably priced for the market and provide excellent performance.	Cost savings can be achieved without sacrificing performance.

# PRODUCT FEATURES AND ADVANTAGES

## Within and between series available

Offer any combination for every situation

## Intermateability

Provides design flexibility, making it possible to mate 2.40mm with 1.85mm connectors or mate 2.92mm connectors with SMA or 3.50mm connectors

## Off-the-shelf solutions

In stock at multiple distributors

## Wide frequency ranges

Offer a range of capabilities, with frequencies ranging from 40 GHz up to 110 GHz, depending on the interface used

## Excellent electrical performance

Ensures accurate, repeatable results

## Precision machined interfaces

Are ideal for precise laboratory measurements



67 GHz 1.85 to 1.85mm Adapter



67 GHz 1.85 to 1.00mm Adapter



50 GHz 2.40 to 1.85mm Adapter

Key Specifications	
Impedance	50 Ohms
Operation Frequency	1.00mm: DC to 110 GHz 1.85mm: DC to 67 GHz 2.40mm: DC to 50 GHz 2.92mm: DC to 40 GHz
VSWR (max.)	1.00mm: 1.3:1 @ 110 GHz 1.85mm: 1.2:1 @ 67 GHz 2.40mm: 1.3:1 @ 50 GHz 2.92mm: 1.2:1 @ 40 GHz

# SPECIFICATIONS AND SUPPORTING INFORMATION

Reference Information	Physical	Additional Resources
Designed in: Millimeters	Dielectric: Ultem	Web Overview Page <a href="https://www.molex.com/molex/products/family/bsa">https://www.molex.com/molex/products/family/bsa</a>
RoHS: Yes	Contact: Brass, Gold plated	Datasheet <a href="987652-5711.pdf">987652-5711.pdf</a> (molex.com)
	Body: Passivated Stainless Steel	Training Presentation <a href="High-Frequency%20Precision%20Test%20Adapters%20_PRES.pdf">High-Frequency Precision Test Adapters_PRES.pdf</a>
Electrical		Product Specifications <a href="Part%20Details.pdf">Part Details.pdf</a> (series 73157)
Impedance: 50 Ohms		
Operation Frequency		
1.00mm: DC to 110 GHz		
1.85mm: DC to 67 GHz		
2.40mm: DC to 50 GHz		
2.92mm: DC to 40 GHz		
VSWR (max.)		
1.00mm: 1.3:1 @ 110 GHz		
1.85mm: 1.2:1 @ 67 GHz		
2.40mm: 1.3:1 @ 50 GHz		
2.92mm: 1.2:1 @ 40 GHz		



THANK YOU

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