

# Keysight Technologies

## 83059 Precision 3.5 mm Coaxial Adapters DC - 26.5 GHz

Technical Overview





# Introduction

## Outstanding Performance

You don't have to sacrifice measurement integrity when using general purpose adapters and connector savers. The Keysight Technologies, Inc. 83059 instrument grade 3.5 mm coaxial adapters offer outstanding performance to 26.5 GHz. With SWR typically better than 1.05, these adapters are ideal for most connector saver and interconnect needs.

## Applications

Out-of-spec SMA and poor quality 3.5 mm connectors can cause considerable damage to expensive test port connectors. To help protect your test port connectors from damage, use 83059 adapters. These adapters offer test port safety without compromising accuracy.

You can use the 83059 adapters to perform adapter swap calibrations when testing non-insertable devices on network analyzers.

For general purpose test and measurement applications, the 83059 adapters offer far better performance than most instrument grade adapters available today.

## Features

- Low SWR
- Excellent repeatability
- Low loss
- Precision "instrument grade"  
3.5 mm coax connectors
- Ideal connector savers

## Convenient Kits

Damaged adapters can damage your test ports. The 83059 adapters are available in kits of three, packaged in protective foam to help reduce damage and are supplied in an attractive wooden box you can use to store them in so there's less chance of losing your adapters.

## Specifications

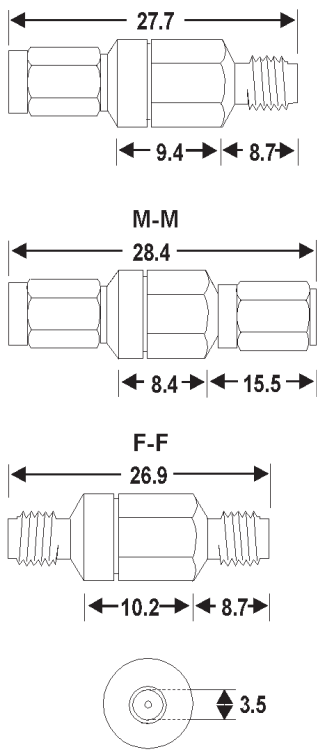
Specifications describe the instrument's warranted performance over the temperature range 0 to 55° C (except where noted). Supplemental Characteristics are intended to provide information useful in applying the instrument by giving typical but nonwarranted performance parameters. These are denoted as "typical," "nominal," or "approximate."

### Performance characteristics<sup>1</sup>

Model number	Connector type <sup>2</sup>	Frequency (GHz)	Typical min. return loss	Typical max. insertion loss <sup>3,4</sup>
83059A	3.5 mm (m-m)	DC - 26.5	- 32 dB	0.074 dB
83059B	3.5 mm (f-f)	DC - 26.5	- 32 dB	0.074 dB
83059C	3.5 mm (m-f)	DC - 26.5	- 32 dB	0.074 dB
83059K (kit)	3.5 mm (m-m) (f-f), (m-f)	DC - 26.5	- 32 dB	0.074 dB

1. Typical values are defined as 2 from the mean.
2. m = plug, f = jack
3. Typical measurements were taken from the f-f 83059B; they represent the worst case for the Keysight 83059 family.
4. Insertion loss values were derived using a short circuit technique; values displayed are half the measured "round trip" values.

"Instrument Grade" connectors are intended for use with precision test and measurement equipment where maintaining high performance through many connect/disconnect cycles is of paramount importance. They feature the traditional slotted female contacts, rather than the slotless design used by "Metrology Grade" connectors.

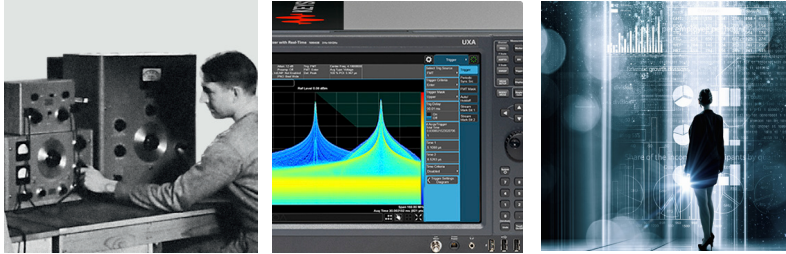


Dimensions in millimeters  
Net Weight: 14 Grams each

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