

1.85mm (V) Connector Fixed Termination Calibration Kits

For Tektronix TDR and Electrical Sampling Modules

Features

- ▶ 1.85mm (V) Connectors
- ▶ DC to 67 GHz (Operates to 70 GHz)
- ▶ High Performance
- ▶ Fixed Load Calibration

Description

These precision 1.85mm connector calibration kits are designed for use with Tektronix TDR and Electrical Sampling Modules equipped with 1.85mm (V) connectors from DC to 67 GHz.

Each kit includes a full complement of calibration standards (shorts, opens, and fixed loads) and comes housed in an attractive, foam-lined, wood instrument case.

Connector Description

The precision 1.85mm connectors on the components in this kit are miniature, instrument grade, air-interface connectors that operate mode free up to 67 GHz, and comply with IEEE standard 287 general precision connector, instrument grade GPC1.85. For interface specifications please refer to Maury data sheet 5E-059.

Recommended Accessories

- A048A Digital connector gage kit (thread-on type)
 7821C 1.85mm Female to Male Connector Saver
 7843S3.00 1.85mm Female to Male Beadless Air Line*

* Note: Use two (2) 7821C adapters for converting the 7843S3.00 Beadless Air Line to a Bead Supported configuration.

Ordering Options

MODEL	ADAPTER SET	SET CONTENTS
7850TK	NONE	NONE
7850TK20	7850Z2	See Page 2
7850TK30	7850Z3	See Page 2

Note: 1.85mm (V) and 2.4mm connectors are fully mateable. Resulting junctions are calibrated out and are not critical.



Components Included in 7850TK Kits

QUANTITY	DESCRIPTION	MODEL
1	1.85mm female fixed short	7846A
1	1.85mm male fixed short	7847A
1	1.85mm female open	7848A10
1	1.85mm male open	7848B10
1	1.85mm female low band fixed termination	7831A1
1	1.85mm male low band fixed termination	7831B1
1	1.85mm female high band fixed termination	7832A
1	1.85mm male high band fixed termination	7832B
1	Torque wrench (8 in/lbs)	8799A1
1	5/16-inch double end wrench	—
1	Instrument case	—

Note: Each kit also includes a set of adapters that is user specified per the Ordering Options (at left).

See Page 2 for component specifications.

Single sex kits are also available.

Please contact our Sales Department for details
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COMPONENT SPECIFICATIONS

The Maury precision 1.85mm components included in these kits have the following specifications:

Beadless Air Line – Models 7843S3.00

Frequency Range DC to 67.0 GHz
 Electrical Length 3.00cm
 Electrical Length Accuracy 0.0025cm
 Minimum Return Loss
 (excluding connector interface)..... 48 dB
 Nominal Impedance 50 ohm

Fixed Offset Shorts - Models 7846A & 7847A

Frequency Range DC to 67.0 GHz
 Minimum Reflection Coefficient 0.98
 Offset Length 0.197 in. (0.500cm)
 Phase Accuracy ±4.0 degrees
 Nominal Impedance 50 ohm

Open Circuits - Models 7848A10/B10

Frequency Range DC to 67.0 GHz
 Minimum Reflection Coefficient 0.98
 Phase Accuracy ± 10.0 degrees
 Nominal Impedance 50 ohm

Fixed Terminations - Low Band Models 7831A1/B1

Frequency Range DC to 50.0 GHz
 Maximum VSWR:
 DC to 1.0 GHz 1.02
 1.0 to 10.0 GHz 1.07
 10.0 to 26.5 GHz 1.10
 26.5 to 50.0 GHz 1.20

Power Handling 0.25 watt CW, 0.5 kW peak
 Nominal Impedance 50 ohm

Fixed Terminations - High Band Models 7832A/B

Frequency Range 10.0 to 67.0 GHz
 Maximum VSWR 1.10
 Power Handling 0.5 watt CW, 0.5 kW peak
 Nominal Impedance 50 ohm

ADAPTERS & ADAPTER SET OPTIONS – Adapter Sets (7850Z1, 7850Z2 & 7850Z3)

Precision 1.85mm (V) Adapters

Models 7821A/B/C

Frequency Range DC to 67.0 GHz
 Maximum VSWR:
 DC to 26.5 GHz 1.06
 26.5 to 40.0 GHz 1.10
 10.0 to 26.5 GHz 1.10
 40.0 to 67.0 GHz 1.15
 Nominal Impedance 50 ohm

Models 7821A/B/C

Frequency Range DC to 40.0 GHz
 Maximum VSWR:
 DC to 4.0 GHz 1.05
 4.0 to 20.0 GHz 1.08
 20.0 to 40.0 GHz 1.12
 Nominal Impedance 50 ohm

Adapters Included in 7850Z2 Sets

TEST PORT ADAPTER OPTION	QUANTITY	DESCRIPTION	MODEL
2	1	1.85mm female to 1.85mm female	7821A
	1	1.85mm male to 1.85mm male	7821B
	1	1.85mm female to 1.85mm male	7821C

Adapters Included in 7850Z3 Sets

TEST PORT ADAPTER OPTION	QUANTITY	DESCRIPTION	MODEL
3	1	1.85mm female to 2.92mm female	7826A
	1	1.85mm female to 2.92mm male	7826B
	1	1.85mm male to 2.92mm female	7826C
	1	1.85mm male to 2.92mm male	7826D