

OSP™ VNA Calibration Kits

8780A Standard Kits & 8780B Fixed Termination Kits

Features

- ▶ OSP™ Connectors
- ▶ Precision Coupling
- ▶ Sliding Load and Fixed Load Calibration
- ▶ DC to 18 GHz

Description

These calibration kits are designed for use in calibrating vector network analyzers (VNAs) for making error-corrected measurements of devices with OSP™ blind-mate connectors from DC to 18 GHz. The positive coupling system featured in these connectors permits standards to be mated using a calibrated torque wrench. This provides precise repeatability of each calibration interface and significantly improves accuracy compared to non-captivated, blind-mate interfaces.

The 8780A standard kits include fixed shorts, opens, fixed and sliding loads, a torque wrench, an open-end wrench, and a 3-1/2 inch data disk that provides the VNA software for your specific VNA. The 8780B fixed termination kits have the same components but lack the sliding loads. Each kit comes in a foam-lined wood instrument case with operating instructions.

Connector Description

The connectors on these components are Maury precision LCP/OSP™ connectors that are mating compatible with standard OSP™ and Dynawave/Dynamate™ series blind-mate connectors. They are low VSWR connectors rated from DC to 18 GHz. For interface specifications see Maury data sheet 5E-065.

Recommended Accessories

Connector Gage Kits See page 92.

A039C Connector gage kit (push-on type)



8780A17

Components Included in 8780A/B Kits

QUANTITY	DESCRIPTION	MODEL
1	OSP™ female fixed offset short	8781A
1	OSP™ male fixed offset short	8781B
1	OSP™ female open	8782A
1	OSP™ male open	8782B
1	OSP™ female fixed termination	8783A
1	OSP™ male fixed termination	8783B
1	OSP™ sliding termination (with interchangeable female and male connectors)	8784E*
1	9/16-inch hex torque wrench (8 in. lbs)	2698H1
1	5/16-inch open-end wrench	8770Z6
1	7/16-inch open-end wrench	8770Z7
1	VNA software disk	—
1	Operating Instructions (manual)	—
1	Instrument case	—

Note: These kits can also include a set of phase matched 3.5mm or 7mm user-specified adapters per the Option Finder below. (See page 37.)

* Included in 8780A standard kits. Not included in 8780B fixed termination kits.

Recommended Adapters

Phase Matched Adapters See page 118.

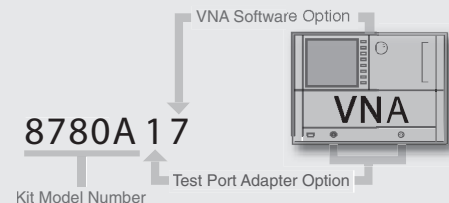
- 8787J Type N female to OSP™ female
- 8787K Type N male to OSP™ male

Ordering Options

To specify the test port adapter and VNA software options you need, simply add two digits to the end of the kit model number (as shown in the diagram at right). The first digit is the test port adapter option number, and the second is the VNA software option number (as found in the **Option Finder** below). The example in the diagram shows the combination of digits needed to order a 8780A kit configured with the adapters and software for use with an Agilent PNA that has 3.5mm test ports.

Option Finder

VNA TEST PORT TYPE	TEST PORT ADAPTER OPTIONS (see page 33)	VNA SOFTWARE OPTIONS						
		KITS W/O SOFTWARE OPTION 0	ROHDE & SCHWARZ ZV SERIES OPTION 1	AGILENT ENA SERIES OPTION 2	AGILENT 8510C OPTION 4	AGILENT 8719/20/22 OPTION 5	AGILENT PNA SERIES OPTION 7	ANRITSU 37000 OPTION 9
OSP™	0	—	01	02	04	05	07	09
7mm	1	10	11	12	14	15	17	19
3.5mm	2	20	21	22	24	25	27	29



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Key Literature: Maury data sheet 2Z-037.

OSP™ VNA Calibration Kits

8780F/M Single-Sex Fixed Termination Kits

Description

These kits are offered as a lower-cost single-sex alternative for users who don't need all of the components in the 8780A/B kits. The 8780F kits include only female standards and the 8780M kits include only male standards. (See the list at right.) Each kit comes in a foam-lined wood instrument case with operating instructions. The VNA software for specific VNAs are included in the operating instructions and can be keyed in from the front panel of the VNA.

Adapter Set Options for 8780F/M Kits

To order a set of phase matched adapters for the 8780F or M kits add one of the two-digit option numbers in the table below to the basic kit model number.

NETWORK ANALYZER TEST PORT TYPE	TEST PORT ADAPTER SET OPTIONS	Adapters Included in each Set			
		For 8780F Kits		For 8780M Kits	
7mm	10	2 ea. 7mm to OSP™ male adapters	8787H	2 ea. 7mm to OSP™ female adapters	8787G
		1 ea. 7mm to OSP™ female adapter	8787G	1 ea. 7mm to OSP™ male adapter	8787H
7mm	11	1 ea. 7mm to OSP™ male adapter	8787H	1 ea. 7mm to OSP™ female adapter	8787G
3.5mm	20	2 ea. 3.5mm female to OSP™ male adapters	8787S	2 ea. 3.5mm female to OSP™ female adapters	8787Q
		1 ea. 3.5mm female to OSP™ female adapter	8787Q	1 ea. 3.5mm female to OSP™ male adapter	8787S
3.5mm	21	1 ea. 3.5mm female to OSP™ male adapter	8787S	1 ea. 3.5mm female to OSP™ female adapter	8787Q
Type N	30	2 ea. Type N male to OSP™ male adapters	8787K	2 ea. Type N male to OSP™ female adapters	8787J
		1 ea. Type N male to OSP™ female adapter	8787J	1 ea. Type N male to OSP™ male adapter	8787K
Type N	31	1 ea. Type N male to OSP™ male adapter	8787K	1 ea. Type N male to OSP™ female adapter	8787J

Components Included in 8780F/M Kits

QUANTITY	DESCRIPTION	MODEL
1	OSP™ female fixed offset short	8781A*
1	OSP™ male fixed offset short	8781B**
1	OSP™ female open	8782A*
1	OSP™ male open	8782B**
1	OSP™ female fixed termination	8783A*
1	OSP™ male fixed termination	8783B**
1	Operating Instructions (manual)	—
1	Instrument case	—

* Included in 8780F kits; not included in 8780M kits.

** Included in 8780M kits; not included in 8780F kits.

Adapter Set Options for 8780A/B Kits

Adapters Included in 8780Z5 (7mm) Sets

TEST PORT ADAPTER OPTION	QUANTITY	DESCRIPTION	MODEL
1	2	7mm to OSP™ female	8787G
	2	7mm to OSP™ male	8787H

Adapters Included in 8780Z6 (3.5mm) Sets

TEST PORT ADAPTER OPTION	QUANTITY	DESCRIPTION	MODEL
2	1	3.5mm female to OSP™ female	8787Q
	1	3.5mm male to OSP™ female	8787R
	1	3.5mm female to OSP™ male	8787S
	1	3.5mm male to OSP™ male	8787T

Note: All of the adapters within each set are phase matched (same electrical length) so they may be interchanged for measurement of non-insertable devices.

Adapter Specifications

The Maury precision adapters included in these sets conform to the following:

Precision 7mm to OSP™ Adapters

Models 8787G/H (for more detail see page 118)

Frequency Range DC to 18.0 GHz
 Maximum VSWR:
 DC to 4.0 GHz 1.04
 4.0 to 18.0 GHz 1.08
 Nominal Impedance 50 ohm

Precision 3.5mm to OSP™ Adapters

Models 8787Q/R/S/T (for more detail see page 118)

Frequency Range DC to 18.0 GHz
 Maximum VSWR:
 DC to 4.0 GHz 1.04
 4.0 to 18.0 GHz 1.08
 Nominal Impedance 50 ohm

Precision Type N to OSP™ Adapters

Models 8787J/K (for more detail see page 118)

Frequency Range DC to 18.0 GHz
 Maximum VSWR:
 DC to 4.0 GHz 1.065
 4.0 to 18.0 GHz 1.13
 Nominal Impedance 50 ohm

 Key Literature: Maury data sheet 2Z-037.

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