

75Ω Type N VNA Calibration Kits

DATA SHEET / 2Z-061A

Models:

8880CK40 – Fixed Load Kit

8880CK41 – Fixed Load Kit Plus Adapters



75Ω Type N VNA Calibration Kits

888040/41 SERIES

Features

- > 75Ω Type N Connectors
- > DC to 18 GHz
- > Simple Fixed Load Calibration
- > Keysight, Rohde & Schwarz and Anritsu VNAs Supported

Calibration Methods Supported

- > 8880CK40/41 – Fixed Load SOLT (DC–18 GHz)

The Importance of VNA Calibration

Imperfections exist in even the finest test equipment. If uncorrected these systematic imperfections cause the equipment to yield less accurate measurements. The basis of network analyzer error correction is referred to as “calibration” of which multiple methods exist.

Calibration Method

SOLT calibration, which uses Short, Open and Load standards, requires precise models of the standards’ electrical performance. Fixed load SOLT uses fixed terminations and is adequate for measuring devices with mid-range reflection coefficients. The lowest return loss is limited by the reflection coefficient of the fixed load standard (typically better than 20 dB return loss*).

8880CK40/41 kits are configured for use in performing one-port SOL (Short-Open-Load) response calibrations (a method used for measuring VSWR/ Return Loss), and full two-port SOL T (Short-Open-Load-Thru) calibration (for performing forward and reverse transmission and reflections measurement).

8850CK41 kits include three 75Ω Type N in-series adapters for applications that require female/female, male/male, or male/female connections.

**Refer to specifications on page 4.*

A020G



Recommended Accessories

A020G 75Ω Dial Indicator Style Connector Gage Kit:

This kit contains one (1) “push-on” type gages for measuring the female and male contact pin locations for 75Ω type N connectors.

2698C2 3/4-inch Precision Torque Wrench (12.0 inch lbs):

For proper torquing of 7mm, LPC7, Type N, NMD3.5, NMD2.92 and NMD2.4 connections. Factory preset to 12.0 inch lbs to ensure the precise torque needed for optimum repeatability. Employs a “break” design that makes it impossible to over-torque your connections. These torque wrenches are highly recommended for use with 8880CK40/41 kits.

2698C2



8882E3 & 8882E4 75Ω Type N to 3.5mm NMD 50Ω test port adapters:

Precision 75Ω Type N to NMD3.5mm; DC–18.0 GHz. Saves unnecessary wear and tear on your VNA test ports.

8882E3

8882E4



Kit Description

Maury precision 75Ω Type N VNA calibration kits include each of the calibration standards shown in the tables below. The 8880CK40 kits do not include adapters; the 8880CK41 kits include one each of the in-series adapters shown.

Components Included in 8880CK40 Kits

QUANTITY	DESCRIPTION	MODEL
1	75Ω Type N female fixed short circuit	8884A1
1	75Ω Type N male fixed short circuit	8884B1
1	75Ω Type N female open circuit	8885A1
1	75Ω Type N male open circuit	8885B1
1	75Ω Type N female fixed termination	8883A1
1	75Ω Type N male fixed termination	8883B1
1	Foam-lined wood Instrument case	—

8880CK40



Components Included in 8880CK41 Kits

QUANTITY	DESCRIPTION	MODEL
1	75Ω Type N female fixed short circuit	8884A1
1	75Ω Type N male fixed short circuit	8884B1
1	75Ω Type N female open circuit	8885A1
1	75Ω Type N male open circuit	8885B1
1	75Ω Type N female fixed termination	8883A1
1	75Ω Type N male fixed termination	8883B1
1*	75Ω Type N female to 75Ω Type N female adapter	8882A1
1*	75Ω Type N male to 75Ω Type N male adapter	8882B1
1*	75Ω Type N female to 75Ω Type N male adapter	8882C1
1	Foam-lined wood Instrument case	—

8880CK41



* These adapters are provided in the 8880CK41 kits, but are not included in the 8880CK40 kits.

Warning: Do not mate 75 ohm type N connectors to 50 ohm type N connectors. Mating a 75 ohm female connector to a 50 ohm type N male connector will destroy the female contact. Mating a 75 ohm male connector to a 50 ohm type N female connector will leave a gap between the male and female contacts which will not provide proper electrical contact for the center conductors.

COMPONENT SPECIFICATIONS



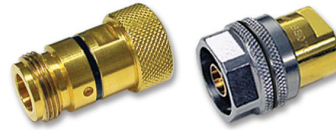
Fixed Terminations – Models 8883A1 and 8883B1

Frequency Range -- DC to 18 GHz
 Maximum VSWR -- 1.10
 Nominal Impedance -- 75 ohm
 Power Handling -- 1 watt CW



Open Circuits – Models 8885A1 and 8885B1

Frequency Range -- DC to 18 GHz
 Phase Accuracy -- ± 2.0 degrees
 Nominal Impedance -- 75 ohm



Fixed Shorts – Models 8884A1 and 8884B1

Frequency Range -- DC to 18 GHz
 Phase Accuracy -- ± 2.0 degree
 Nominal Impedance -- 75 ohm



Precision 75Ω Type N Adapters – Models 8882A1, 8882B1 and 8882C1

Frequency Range -- DC to 18 GHz
 Maximum VSWR -- 1.15
 Nominal Impedance -- 75 ohm

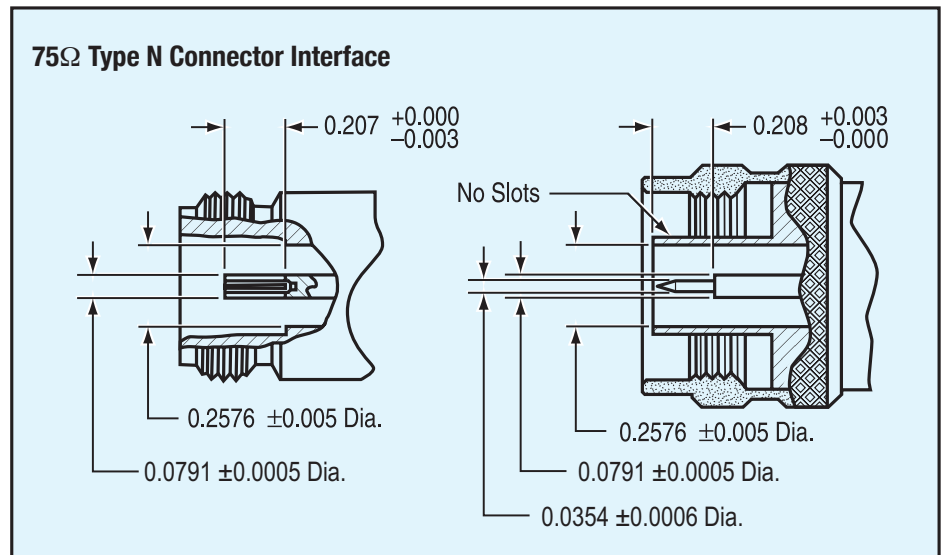
(Note: These adapters are included in the 8880CK41 kits, but are not included in the 8880CK40 kits.)

Connector Description

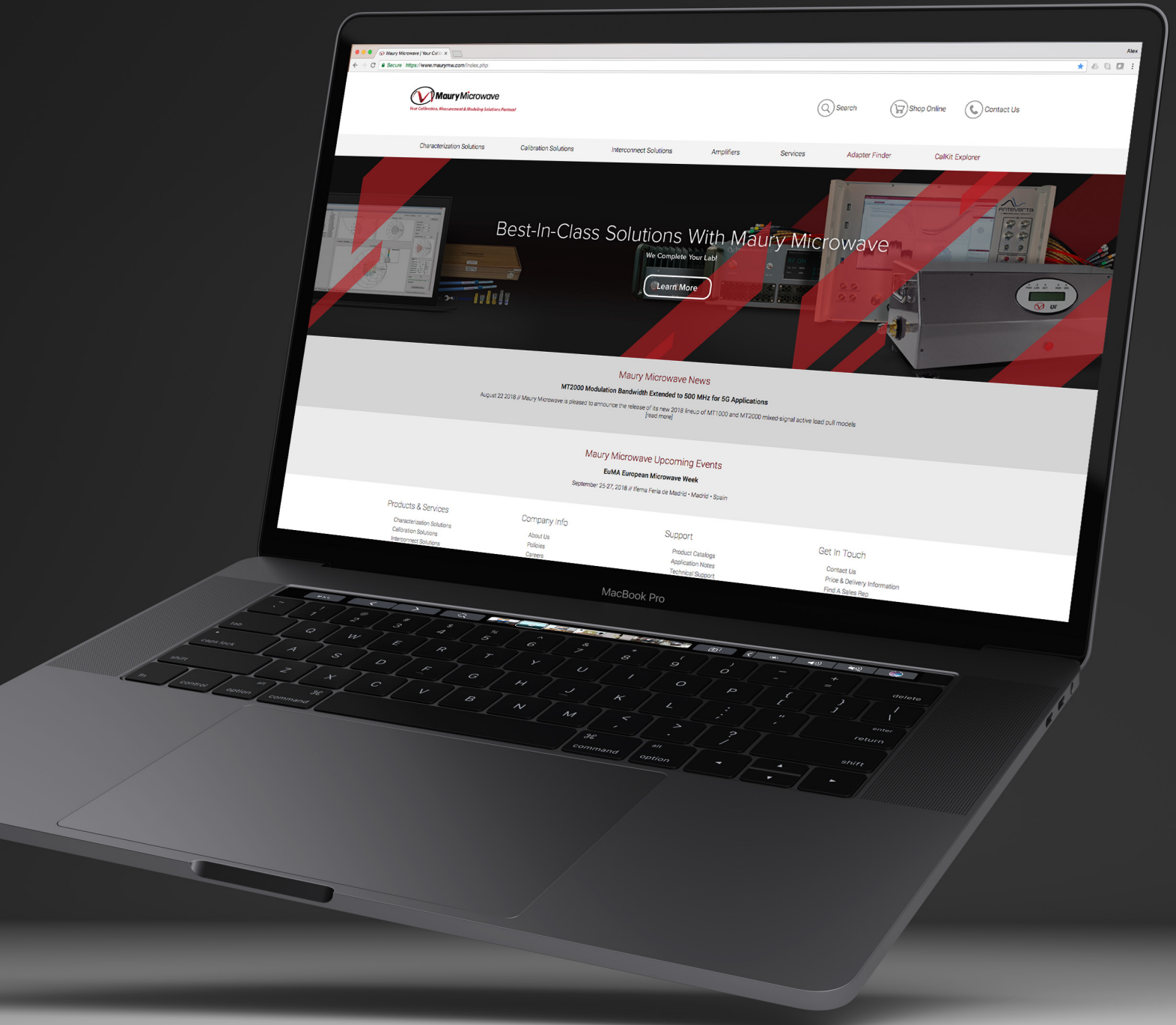
The precision 75Ω Type N connectors on the components in these kits are a precision version developed by Maury Microwave that meets all applicable requirements of IEEE 287.1 Rev D.

These connectors exhibit extremely low VSWR and are rated to 18 GHz. The male connectors are provided with 3/4-inch hex coupling nuts to allow for proper torquing to 12.0 inch lbs.

Both male and female connectors are marked with an incised black radial band to provide a visual recognition aide that identifies them as 75 ohm connectors.



VISIT OUR WEB STORE
TO LEARN MORE ABOUT
OUR PRODUCTS



www.maurymw.com



CONTACT US:

W / maurymw.com

E / maury@maurymw.com

P / +1-909-987-4715

F / +1-909-987-1112

2900 Inland Empire Blvd

Ontario, CA 91764

