

# TNC VNA CALIBRATION KITS

## 8650P Fixed Termination Kits

### Key Features

- Fixed Load Calibration
- MPC/TNC Connectors
- DC to 18.0 GHz

### Description

Maury's 8650P calibration kits are designed for calibrating vector network analyzers (VNAs) for measuring devices equipped with TNC connectors from DC to 18 GHz. Each kit is supplied with a full complement of calibration standards (shorts, opens, and fixed loads) and can be configured for any VNA version. All required calibration standards, along with a 3.5-inch disk or flash drive (containing the VNA software) and operating instructions, come in an attractive foam-lined wood instrument case.

### Connector Description

The TNC connectors (MPC/TNC) on the components in this kit are precision connectors that mate with MIL-C-39012 and MIL-T-81490 connectors. They are low VSWR connectors rated from DC to 18 GHz. For interface specifications, see Maury data sheet 5E-053.

### Available Kits

VNA MANUFACTURER AND MODEL	MAURY KIT MODEL <sup>1</sup>
Rohde & Schwarz ZV series	8650P11
Agilent ENA series	8650P12
Agilent 8510C	8650P14
Agilent 8719/20/22	8650P15
Agilent PNA series	8650P17
Anritsu 37000 and Vector Star Family	8650P19

<sup>1</sup> **Note:** These fixed termination kits **DO NOT** include adapters. Adapters must be ordered separately (see **Recommended Adapters** on page 2.)



8650P17

### Recommended Accessories

#### Torque Wrench

2698G1 9/16-inch torque wrench (12 in. lbs)

#### Connector Gage Kits

A012A Connector gage kit (push-on type)

### Components Included in 8650P Kits

QUANTITY	DESCRIPTION	MODEL
1	TNC female fixed offset short	8615A
1	TNC male fixed offset short	8615B
1	TNC female open	8609B
1	TNC male open	8610B
1	TNC female fixed termination	332E
1	TNC male fixed termination	332F
1	VNA software media (3.5-in. disk or flash drive)	—
1	Operating instructions (manual)	—
1	Instrument case	—



## 8650P Kit Component Specifications

### Fixed Terminations:

**Model 332E**, TNC female

**Model 332F**, TNC male

Frequency Range .....DC - 18 GHz

VSWR ..... 1.06 maximum, DC - 4 GHz

1.10 maximum, 4 - 12 GHz

1.15 maximum, 12 - 18 GHz

Impedance ..... 50 ohms nominal

Power handling ..... 1 watt CW

### Fixed Shorts:

**Model 8615A**, TNC female

**Model 8615B**, TNC male

Frequency Range .....DC - 18 GHz

Reflection Coefficient ..... 0.98 minimum

Impedance ..... 50 ohms nominal

Phase Accuracy .....  $\pm 5^\circ$

### Open Circuits:

**Model 8609B**, TNC female

**Model 8610B**, TNC male

Frequency Range .....DC - 18 GHz

Reflection Coefficient ..... 0.98 minimum

Impedance ..... 50 ohms nominal

Phase Accuracy .....  $\pm 5^\circ$

## Recommended Adapters

### In-Series Adapters

232A11 TNC female to TNC female adapter

232B11 TNC male to TNC male adapter

232C11 TNC female to TNC male adapter

### Between-Series Adapters — 7mm to TNC

2622A1 7mm to TNC female adapter

2622B 7mm to TNC male adapter

### Between-Series Adapters — Type N to TNC

8817A Type N female to TNC female adapter

8817B Type N female to TNC male adapter

8817C Type N male to TNC female adapter

8817D Type N male to TNC male adapter

### Between-Series Adapters — 3.5mm to TNC

8025A1 3.5mm female to TNC female adapter

8025B1 3.5mm female to TNC male adapter

8025C1 3.5mm male to TNC female adapter

8025D1 3.5mm male to TNC male adapter

### Ruggedized Test Port Adapters — NMD3.5mm to TNC

8619A NMD3.5mm female to TNC female adapter

8619B NMD3.5mm female to TNC male adapter