

# Keysight 11857B 75Ω Type-N Test Port Return Cable Set

NOTICE: This document contains references to Agilent Technologies. Agilent's former Test and Measurement business has become Keysight Technologies. For more information, go to **[www.keysight.com](http://www.keysight.com)**.



---

## Documentation Warranty

THE MATERIAL CONTAINED IN THIS DOCUMENT IS PROVIDED “AS IS,” AND IS SUBJECT TO BEING CHANGED, WITHOUT NOTICE, IN FUTURE EDITIONS. FURTHER, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, KEYSIGHT DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED WITH REGARD TO THIS MANUAL AND ANY INFORMATION CONTAINED HEREIN, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. KEYSIGHT SHALL NOT BE LIABLE FOR ERRORS OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, USE, OR PERFORMANCE OF THIS DOCUMENT OR ANY INFORMATION CONTAINED HEREIN. SHOULD KEYSIGHT AND THE USER HAVE A SEPARATE WRITTEN AGREEMENT WITH WARRANTY TERMS COVERING THE MATERIAL IN THIS DOCUMENT THAT CONFLICT WITH THESE TERMS, THE WARRANTY TERMS IN THE SEPARATE AGREEMENT WILL CONTROL.

---

## DFARS/Restricted Rights Notice

If software is for use in the performance of a U.S. Government prime contract or subcontract, Software is delivered and licensed as “Commercial computer software” as defined in DFAR 252.227-7014 (June 1995), or as a “commercial item” as defined in FAR 2.101(a) or as “Restricted computer software” as defined in FAR 52.227-19 (June 1987) or any equivalent agency regulation or contract clause. Use, duplication or disclosure of Software is subject to Keysight Technologies’ standard commercial license terms, and non-DOD Departments and Agencies of the U.S. Government will receive no greater than Restricted Rights as defined in FAR 52.227-19(c)(1-2) (June 1987). U.S. Government users will receive no greater than Limited Rights as defined in FAR 52.227-14 (June 1987) or DFAR 252.227-7015 (b)(2) (November 1995), as applicable in any technical data.

---

## Safety Note

The following safety note is used throughout this document. Familiarize yourself with this note and its meaning before performing any of the procedures in this document.

---

<b>CAUTION</b>	Caution denotes a hazard. It calls attention to a procedure that, if not correctly performed or adhered to, could result in damage to or destruction of the instrument. Do not proceed beyond a caution note until the indicated conditions are fully understood and met.
----------------	---

---

---

## Printing Copies of This Document

To print copies of this document, download the PDF file from the Keysight Web site:

- Go to <http://www.keysight.com>.
- Enter the document's part number (located on the title page) in the search box.
- Click **Search**.
- Print the document.

---

## Contacting Keysight

Assistance with test and measurements needs and information on finding a local Keysight office are available on the Web at:

<http://www.keysight.com/find/assist>

If you do not have access to the Internet, please contact your Keysight field engineer.

---

<b>NOTE</b>	In any correspondence or telephone conversation, refer to the Keysight product by its model number and full serial number. With this information, the Keysight representative can determine whether your product is still within its warranty period.
-------------	---

---

---

## General Information

To obtain optimum performance from this cable set, observe these simple precautions:

- Flex and straighten the cables as little and seldom as possible.
- Make connections carefully to avoid misalignment and connector damage or inaccurate measurements.
- Keep the connectors free of dirt and metallic particles.
- If you must clean the connectors, try clean compressed air first. Do not use abrasives. With a plastic swab, apply *only* liquid Freon (trichlorotrifluoroethane) as a solvent.
- Type-N (f) center conductor protrusion: 0.207 inch maximum.
- Type-N (m) center conductor shoulder or dielectric recession: 0.208 inch minimum.

---

## Description

The 11857B RF cable set consists of two type-N 75 $\Omega$  cables, specified from 300 kHz to 2 GHz. This set provides shielded RF connections to extend the test ports of S-parameter test sets such as the 85046B. The cables can be ordered as either phase-matched or unmatched.

Model	Description	Number of Cables in Set	Replacement Cable Part Number
11857B Standard	Phase matched type-N 75 $\Omega$ cables male-male connectors male-female connectors	1 1	Cables available as a matched pair only
11857B Option B24	Unmatched type-N 75 $\Omega$ cables male-male connectors male-female connectors	1 1	11857-60005 11857-60007

**Figure 1. Model 1857B Cables, Option B24**



---

## Operating Characteristics

	11857B Standard	11857B Option B24
Impedance	75 $\Omega$ (nominal)	75 $\Omega$ (nominal)
Connectors	Type-N, male-male Type-N, male-female	Type-N, male-male Type-N, male-female
Phase Match	$\leq 4^\circ$ (at 2 GHz)	n/a
Return Loss	$\geq 24$ dB (300 kHz to 2 GHz)	$\geq 24$ dB (300 kHz to 2 GHz)

---

**CAUTION** Mating a 75 $\Omega$  (f) connector with a 50 $\Omega$  (m) connector will *destroy* the 75 $\Omega$  (f) connector.

---

---

**CAUTION** When mating a 75 $\Omega$  (f)/(m) connector with an adaptor, do *not* rotate the adaptor body. Rotate only the hexagon nut of the adaptor to tighten or loosen the connection. Damage to the center conductor can occur if the adaptor body is rotated. Recommended adaptors are Keysight part numbers 00909-60019 (m) and 00909-60020 (f).

---

---

## Physical Characteristics

	11857B Standard	11857B Option B24
Length	61 cm (24 inches)	61 cm (24 inches)
Weight (both cables):		
Net	0.91 kg (2 lbs)	0.91 kg (2 lbs)
Shipping	1.36 kg (2 lbs)	1.36 kg (2 lbs)

This information is subject to change without notice.

© Keysight Technologies 2010 - 2015

January 2015



11857-90016  
[www.keysight.com](http://www.keysight.com)