

# Keysight 11857F 75 Ohm Type-F Test Port Cable Set

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# Notices

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11857-90025

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### CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

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## General Information

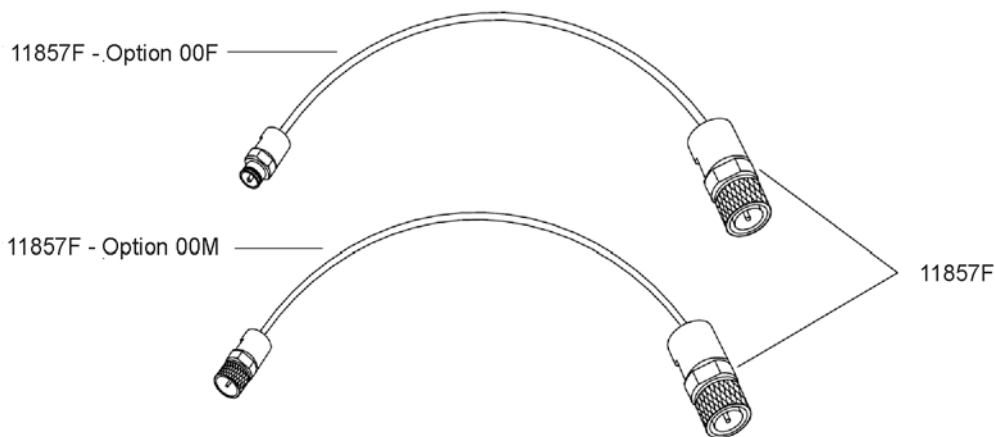
To obtain optimum performance from this cable set, observe these simple precautions.

- Flex and straighten the cables as little and as 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 lint-free swab, apply only isopropyl alcohol as a solvent.
- Type-N male connector center conductor protrusion: 0.207 inch maximum.
- Type-N female connector center conductor shoulder: 0.207 inch minimum.

## Description

The standard 11857F 75 ohm type-F test port cable set consists of two RF cables. See [Figure 1](#). Individual cables may be ordered. See [Table 1](#) for information and model numbers.

**Figure 1 11857F Cable Set**



11857\_025\_01

**Table 1 Test Port Cables**

Model Number	Quantity	Description
11857F	2 cables	75 ohm type-N male and type-F female 75 ohm type-N male and type-F male
11857F - Option 00F	1 cable	75 ohm type-N male and type-F female, 61 cm (24 inches)
11857F - Option 00M	1 cable	75 ohm type-N male and type-F male, 61 cm (24 inches)
11857F - Option K02	1 cable	75 ohm type-N male and type-F male, 1 meter (3.28 feet)

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**NOTE** When ordering cables, it is important to identify the proper cable(s). Please refer to the correct model number – 11857F - Option 00F, 11857F - Option 00M, 11857F - Option K02, or 11857F.

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### Operating Characteristics

Impedance	75 ohms $\pm$ 2 ohms
Connectors	75 ohm type-N male and type-F female (Option 00F) 75 ohm type-N male and type-F male (Option 00M and Option K02)
Insertion loss	0.45 dB at 3 GHz (per cable) (Option 00F and Option 00M) 0.65 dB at 3 GHz (per cable) (Option K02)
Transmission Stability	Phase Stability: $0.5^\circ + (0.83 \times F)^\circ$ <sup>1</sup> Magnitude Stability: $\pm 0.025$ dB maximum Return Loss Stability: $-45$ dB <span style="float: right;"><sup>1</sup> Where F is frequency in GHz</span>
Return Loss	26 dB (to $\leq 1$ GHz) 24 dB ( $> 1$ GHz to 3 GHz)

### Physical Characteristics

Length	61 cm (24 $\pm$ 0.25 inches) (Option 00F and Option 00M); 1 meter (3.28 feet) (Option K02)	
Weight (approximate)	Net	Shipping
11857F	0.66 lbs	2.0 lbs
11857F - Option 00F	0.33 lbs	1.6 lbs
11857F - Option 00M	0.33 lbs	1.6 lbs
11857F - Option K02	0.42 lbs	1.8 lbs

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**CAUTION** Mating a 50 ohm male connector with a 75 ohm female connector will DESTROY the 75 ohm female connector.

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## Visual Inspection

Visual inspection and, if necessary, cleaning should be done every time a connection is made. Metal particles from the connector threads may fall onto the mating plane surface of the connector when it is disconnected. One connection made with a dirty or damaged connector can damage both connectors beyond repair.

Magnification is helpful when inspecting connectors, but it is not required and may actually be misleading. Defects and damage that cannot be seen without magnification generally have no effect on electrical or mechanical performance. Magnification is of great use in analyzing the nature and cause of the damage and in cleaning connectors, but it is not required for inspection. Use the following guidelines when evaluating the integrity of a connector.

### Look for Obvious Defects and Damage First

Examine the connector first for obvious defects and damage: badly worn plating on the connector interface, deformed threads, or bent, broken, or misaligned center conductors. Connector nuts should move smoothly and be free of burrs, loose metal particles, and rough spots.

### What Causes Connector Wear?

Connector wear is caused by connecting and disconnecting the cable. The more use a connector gets, the faster it wears and degrades. The wear is greatly accelerated when connectors are not kept clean, or are connected incorrectly.

Connector wear eventually degrades performance of the cable. Replace cables with worn connectors.

The test port connectors on the network analyzer test set may have many connections each day, and are therefore also subject to wear. It is recommended that an adapter be used as a test port saver to minimize the wear on the test set's test port connectors.

### Inspect the Mating Plane Surfaces

Flat contact between the connectors at all points on their mating plane surfaces is required for a good connection. Look especially for deep scratches or dents, and for dirt and metal particles on the connector mating plane surfaces. Also look for signs of damage due to excessive or uneven wear or misalignment.

Light burnishing of the mating plane surfaces is normal, and is evident as light scratches or shallow circular marks distributed more or less uniformly over the mating plane surface. Other small defects and cosmetic imperfections are also normal. None of these affect electrical or mechanical performance.

If a connector shows deep scratches or dents, particles clinging to the mating plane surfaces, or uneven wear, clean and inspect it again. Cables with damaged connectors should be repaired or discarded. Determine the cause of damage before connecting a new, undamaged connector in the same configuration.

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## Contacting Keysight

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

[www.keysight.com/find/assist](http://www.keysight.com/find/assist)

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### NOTE

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.

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