Amphenol
Fiber Systems International

# AFSI 525N-30-MM Multimode Optical Line Test Set MTCK-004


*AFSI 525N-30 Multimode Optical Line Tester.*

## About the MTCK-004 525N-30-MM Multimode Optical Line Test Set

Amphenol Fiber Systems International (AFSI) offers the 525N-30 bi-directional optical test set as a compact, handheld instrument incorporating an Auto Test feature and Optical Power Meter and NAVSEA certified MQJ assemblies. It can be used to measure Insertion Loss in Duplex or simplex tests. The addition of a second 525N-30 unit will enable a technician to perform bi-directional testing simultaneously on two fibers significantly reducing overall test time required,

The 525N is fitted with a PC Universal Connector Interface on the laser source and a Snap-On Connector on the power meter, permitting the unit to be used with compatible connectors.

All models in the series incorporate fetures that make the fiber optic tests and measurements more efficient and convenient:

- Built-in LED source, simplifies test and measurement
- Non-volatile data storage for more than 1,000 measurements
- Pass/Fail testing mode
- RS232 interface for report printing, remote testing, data uploads/downloads
- Multiple power options, including rechargeable nickelmetal hydride (NiMH) batteries, alkaline batteries, concurrent AC/battery trickle charge mode and AC-only operation

A large, backlit LCD display enables users to easily view measured optical power levels and the calibration wavelength in use. Intuitive controls make measurements, data storage and retrieval and report printing easy and convenient.

## 525N-30-MM Series Multimode Optical Test Set

The 525N Series optical test set can perform optical power measurements within a range of +3 to -65dBm. They are calibrated at 850, 980, 1300, 1310, 1480, 1550 and 1625nm. There are LED sources available in the unit at 850 and 1300nm.

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## AFSI 525N-30-MM Multimode Optical Line Test Set Specifications

| Optical Power Meter Specifications | |
|---|---|
| **Power Measurement Range in dBm**<br>**Wavelength ≥ 850 - 1700nm** | +3 to -65dBm |
| **Wavelength Range** | 800 to 1700nm |
| **Calibration Points** | 850, 980, 1300, 1310, 1480, 1550, 1625nm |
| **Absolute Accuracy 1310nm**<br>**with -10dBm Input Power** | ≤ ±0.25dB (6%) |
| **Linearity @ 1310nm**<br>**Linearity Accuracy**<br>**+3 to -3dBm** | ±0.22dB |
| **-3 to -55dBm** | ±0.05dB |
| **-55 to -65dBm** | ±0.22dB |
| **Optical Stability**<br>**OPM Channel Only** | ≤ ±0.05dB (0 - 50°C ± 1°C<br>24 hr @ > 30dBm)[1] |
| **Setting Time, Auto-range** | 0.5 second (typical) |
| **Optical Power Measurements** | dBm, dB, Watt |
| **Polarization Dependency** | ≤ 0.10dB |
| **Mating Stability of SOC Connector** | ≤ 0.02dB |
| **Repeatability** | ≤ 0.05dB |
| **Optical Interface Power Meter** | SOC Abapter - FC, SC, ST Standard.<br>Other adapters available upon request. |
| **Optical Interface MM LED Power Source** | UCI-UPC flat polish Adapter, 62.5/125um |

1. While temperature is running a profile 0 to 50°C.

## AFSI 525N-30-MM Multimode Optical Line Test Set, Specification Summary of LEDs

| Specification Summary of LEDs | | |
|---|---|---|
| Central Wavelength | 850 ± 30nm | 1300 ± 30nm |
| Spectral Bandwidth<br>Stability<br>Variation of ≤ ±10°C from +17 to +40[1] | ≤ ±0.25dB | ≤ ±0.25dB |
| Variation from +0 to +50[2] | ≤ ±0.50dB | ≤ ±0.50dB |
| Power Output[1]<br>Continuous Wave | > -21dBm | > -21dBm |
| Typical (Factory Adjusted) | -20dBm ± 0.75dB | -20dBm ± 0.75dB |
| Coupled Power Ratio<br>(CPR) Launch | 25 - 29dB +0.50/-1.0dB | 21 - 22dB +0.50dB |
| High Order Power Mode | NA | 0.30 - 0.80dB |
| Mating Stability of Connector | ≤ 0.10dB | ≤ 0.10dB |
| Connector Interface | Universal Connector Interface (UCI-UPC) | |

1. Within specified ambient environment of +20°C to +20°C.

2. Instrument is ramped up from 0 to +50°C in 5°C steps/30min. The instrument is allowed to stabilize at each of these temperatures for 30 minutes. The initial reference power level is measured at approximately +25°C.

## AFSI 525N-30-MM Multimode Optical Line Test Set, AutoTest Specifications

| AutoTest Specifications | |
|---|---|
| Wavelength | 850/1300nm |
| Measurement Mode | Bi-directional Duplex |
| Measurement Range | <25dB |

## AFSI 525N-30-MM Multimode Optical Line Test Set, Mechanical Specifications

| Mechanical Specifications | |
|---|---|
| Dimensions<br>Enclosure | 6.50 x 1.75 x 3.90" |
| Rubber Boot | 7.60 x 4.30 x 2.30" |
| Accessories | Soft, shock-proof boot, Tilt Up Stand,<br>NIMH Battery Pack |
| Weight w/Batteries and Boot | 2.20lbs |

# AFSI 525N-30-MM Multimode Optical Line Test Set MTCK-004


## How to Order

For more information on how to order or to obtain a price quote on our AFSI MTCK-004 525N-30-MM or other products, please call us at 800.472.4225. For international calls, please dial 214.547.2400 or email us at info@fibersystems.com.

## About Amphenol Fiber Systems International

Amphenol Fiber Systems International (AFSI) designs, manufactures, markets and supports reliable and innovative fiber optic interconnect solutions that withstand the harsh environments of military, oil & gas, mining and broadcast applications. After more than a decade in business, AFSI continues to uphold its position as a global leader in fiber optic interconnect components and systems such as termini, M28876, MIL-ST, TFOCA and the TFOCA-II® connector, which AFSI developed and patented.

Altogether, AFSI has delivered millions of fiber optic connectors in more than 22 countries. Whenever there is a need for superior cost-effective fiber optic systems and products that will stand up to demanding operating environments, you can rely on AFSI for engineering know-how, top-quality products and expert technical support.

For more information about AFSI, please visit our web site at www.fibersystems.com.

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Amphenol Fiber Systems International, Inc.
1300 Central Expressway North, Suite 100
Allen, TX 75013
Phone: 214.547.2400 - 800.472.4225
Fax: 214.547.9344