



## WDM900 Lightwave Test Set

U.S. Patent Pending

### Features

- Health Meter summarizes channel performance in less than 3 seconds
- Detail Display provides one-touch diagnosis of any performance issue
- Automatic compensation for monitor tap ratio
- Onboard report generation
- IEC 61280-2-9 OSNR measurement
- Meets stringent GR-2952-CORE mechanical design criteria

### Applications

- Testing node splits in PON and broadband networks
- Testing DWDM overbuilds of CWDM networks
- Commissioning CWDM/DWDM mobile backhaul networks
- DAS installation and troubleshooting
- Restoration of Metro-E wavelength services
- Troubleshooting live mobile backhaul network
- Headend and CO signal path checks

The WDM900 is a rugged, portable and easy-to-use optical test set that simplifies in-service testing of live DWDM and CWDM networks. Within just seconds of connecting to a network port, WDM900 users know the status of each channel, which channels require attention and exactly what action is required.

The WDM900 is engineered to perform under the harsh conditions typically found in a central office, headend, network node and other outside plant locations. Its highly-integrated solid state design features a hermetically-sealed optical path and no moving parts. An internal wavelength reference and temperature-stabilized measurement circuits eliminate long warm-up periods and accuracy drifts induced by sudden temperature and humidity changes. The WDM900 is the only portable WDM measurement system that satisfies Telcordia GR-2952-CORE environmental specifications.

Two different models of WDM900 are available.

- WDM900-40 – designed for commissioning, testing and troubleshooting of DWDM Access/Metro network links
- WDM900-60 – designed for commissioning, testing and troubleshooting of CWDM and DWDM Access/Metro network links

For more information, visit [www.aflglobal.com/WDM900](http://www.aflglobal.com/WDM900)

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### Specifications <sup>a</sup>

OPTICAL	DWDM	CWDM
Usable Channel Spacing <sup>b</sup>	50 GHz, 100 GHz,	20 nm
Optical Return Loss	30 dB	30 dB
Adjacent Channel Rejection Ratio ORR @50 GHz	48 dB	25 dB
Noise Floor (typical)	-74 dBm	-60 dBm
Measurement Time	3 sec	3 sec
WAVELENGTH MEASUREMENT		
Channel Numbers (ITU)	1527.99 nm to 1568.77 nm 196.2 THz to 191.1 THz 50 GHz & 100 GHz channel spacing	CWDM 1–18
POWER MEASUREMENT		
Range	<b>WDM900-40</b> -45 to -4 dBm <sup>c</sup>	<b>WDM900-60</b> -42 to -1 dBm <sup>c</sup>
Accuracy	±1.0 dB <sup>c</sup>	
Resolution	0.1 dB <sup>c</sup>	
Repeatability	0.1 dB <sup>c</sup>	
WAVELENGTH MEASUREMENT		
Accuracy	±0.16 nm	
Resolution	0.008 nm	
OSNR MEASUREMENT		
Standard	IEC 61280-2-9	
Range	28 dB	
Accuracy	± 2.0 dB	
Repeatability	± 0.75 dB	
RATINGS		
Absolute Maximum Input Power	<b>WDM900-40</b> +21 dBm	<b>WDM900-60</b> +24 dBm

#### Notes:

- All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).
- Hardware 25 GHz spacing ready.
- Channel power <-4 dBm, total input power <9 dBm for WDM900-40 model  
Channel power <-1 dBm, total input power <12 dBm for WDM900-60 model.

### Ordering Information

DESCRIPTION	AFL NO.
Includes a WDM900 Lightwave Test Set configured for 50 or 100 GHz DWDM C-band operation, SC/FC/LC test port adapters, SC/ FC/LC input attenuators, (2) One-Click Cleaners, AC adapter, user's guide and soft carry case.	WDM900-40
Includes a WDM900 Lightwave Test Set configured for CWDM, 50 GHz and 100 GHz DWDM C-band operation, SC/FC/LC test port adapters, SC/FC/LC input attenuators, (2) One-Click Cleaners, AC adapter, user's guide and soft carry case.	WDM900-60

ENVIRONMENTAL RESILIENCE	
Dust Resistance	Hermetically-sealed Light Path
Shock Resistance, Intended Use	GR-2952-CORE, O4-14: 30 in drop onto hard surface, base
Vibration Resistance	GR-2952-CORE, R4-15 10 Hz to 500 Hz @1.5 g on 3 principal axes
Operating Environment	GR-2952-CORE, R4-19: -5 °C (@ uncontrolled humidity) to 50 °C (@95% relative humidity)
Non-operating Environment	GR-2952-CORE, R4-18: modified to -30 °C (@ uncontrolled humidity) to 60 °C (@95% relative humidity)
Electromagnetic Emissions	GR-2952-CORE, R4-21 & GR-1089-CORE and EN 5510
Electromagnetic Susceptibility	GR-2952-CORE, R4-22 and GR-1089-CORE and EN 61000-4-6
OTHER CHARACTERISTICS	
Display	6.5 in, high brightness, outdoor enhanced, 640 x 480 color TFT
Touchscreen	Resistive technology, unaffected by moisture or water droplets
Connectivity	2 x USB 2.0 Host 1 x USB 2.0 Client RJ-45 LAN port (hardware only) IEEE 802.11 b/g/n (hardware only) Bluetooth 2.0 (hardware only)
DATA STORAGE	
Internal Memory	4 GB Flash
External Storage	Removable USB Flash drive
Report Formats	.csv and .pdf
BATTERY	
Type	User replaceable Li-ion, rechargeable
Battery Life	8 hours minimum
AC Adapter	Universal 100 to 240V AC, 47–63 Hz input, 18V DC output



### International Sales and Service Contact Information

Available at [www.AFLglobal.com/Test/Contacts](http://www.AFLglobal.com/Test/Contacts)