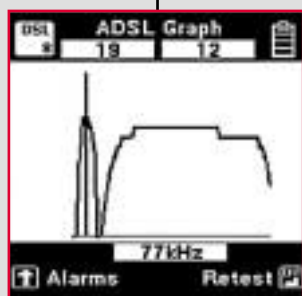
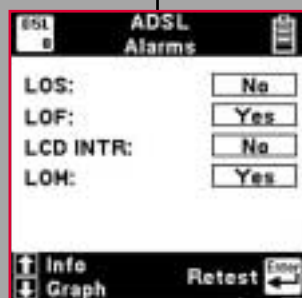
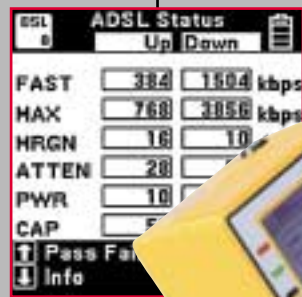
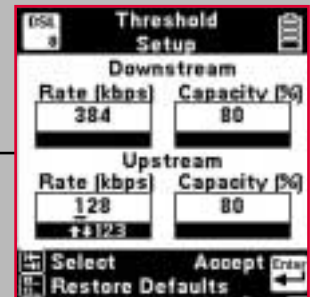




# Dynatel™

## 965DSP Series Subscriber Loop Analyzer with ADSL Modem





## **Pass the test with 3M™ Dynatel™ 965DSP Series Loop Analyzers.**

The Dynatel 965DSP Subscriber Loop Analyzer is an industry leader in POTS and wideband line qualification and troubleshooting. It now includes an internal ADSL modem to answer customer demand for a rugged, integrated test set that combines line qualification, trouble detection and fault location with ISDN and ADSL modem link testing.

The Dynatel 965DSP/ADSL and 965DSP/SA/ADSL Loop Analyzers feature an Alcatel™ MTK-20150 ADSL modem chipset in the proven 965DSP platform. The 965DSP/ADSL provides the ability to perform active ADSL testing to address the growing number of residential and business ADSL customers. It delivers all the multi-function capabilities of the 965DSP plus the testing functions of the new ADSL modem. The 965DSP/SA/ADSL adds comprehensive DSL parametric measurements to this integrated solution. Extended loss measurement ranges, spectrum analyzer and E, F & G filtered wideband noise measurements complete this comprehensive family of rugged loop testers.

The hand-held 965DSP/ADSL and 965DSP/SA/ADSL test sets are housed in a lightweight, ergonomically designed case for portability and ease of use. The units are weather resistant and weigh only three pounds (4.5 lbs. with test leads and soft case). Preserving the rugged dependability of all Dynatel products, the /ADSL option incorporates an innovative design that adds a durable “spacer” element to the current 965DSP molded plastic case. This spacer permits easy and robust expansion of the new circuit board in the existing test set.



Used with the 3M Far End Device, 965DSP Loop Analyzers enable improved craft productivity by permitting a single technician to complete comprehensive pre-qualification and troubleshooting of DSL lines up to 1.2MHz. Simply connect the Far End Device to the end of the cable pair and conduct complete diagnostic testing from the near end using DTMF signaling. Once the loop qualification is complete, use the 965DSP/ADSL or 965DSP/SA/ADSL to verify bit rates and noise margins from the Central Office or remote cabinet DSLAM.

ADSL test results may be saved in the 965DSP/ADSL and 965DSP/SA/ADSL analyzers and transferred to a PC using the latest version of 3M PC Link software. Test results can then be uploaded to office databases from the PC as needed.

Today, optimal loop performance is critical. The ability to quickly and accurately analyze and repair local loop cable is a key competitive advantage. From fault locating to line qualification, the 3M Dynatel 965DSP/ADSL and 965DSP/SA/ADSL help you make the most of your network.

# 3M™ Dynatel™ 965DSP Series Subscriber Loop Analyzer with ADSL Modem

## Physical Specifications

|                         |                                     |
|-------------------------|-------------------------------------|
| Size H x W x D in. (cm) | 10.3 x 4.6 x 3.75 (25 x 11.7 x 9.5) |
|-------------------------|-------------------------------------|

|                      |          |
|----------------------|----------|
| Net weight lbs. (kg) | 3 (1.36) |
|----------------------|----------|

|  |         |
|--|---------|
| Net weight lbs. (kg) with soft case and test leads | 4.5 (2) |
|--|---------|

|                           |         |
|---------------------------|---------|
| Shipping weight lbs. (kg) | 8 (3.6) |
|---------------------------|---------|

## Environmental Specifications

|                       |                              |
|-----------------------|------------------------------|
| Operating temperature | 0° to 140° F (-18° to 60° C) |
|-----------------------|------------------------------|

|                     |                                |
|---------------------|--------------------------------|
| Storage temperature | -40° to 165° F (-40° to 75° C) |
|---------------------|--------------------------------|

|          |                          |
|----------|--------------------------|
| Humidity | 0 to 95%, non-condensing |
|----------|--------------------------|

|           |  |
|-----------|--|
| Vibration | Random 3-axis vibration for 20 minutes |
|-----------|--|

|                  |                      |
|------------------|----------------------|
| Water Resistance | Meets UL50 Rain Test |
|------------------|----------------------|

|       |   |
|-------|---|
| Shock | 10 drops on corners and sides from 30 in. (without soft case)<br>and 10 drops on corners and sides from 60 in. (with soft case) |
|-------|---|

|        |        |
|--------|--------|
| Safety | IEC950 |
|--------|--------|

## Operational Specifications

Product will incorporate all the features of the 965DSP and/or 965DSP/SA Subscriber Loop Analyzers at the accuracy currently specified for these products (see 965DSP family product documentation). ADSL Datalink capability is limited to link synchronization. No 'PING' or data application capability is provided. Modem will initiate a connection with the far-end under operator command. Status messages indicating link progress will be returned.

|                              |  |
|------------------------------|--|
| ANSI/ITU Standards Supported | ITU G.992.2 (G.Lite), ITU G.992.1 (G.DMT), ANSI T1.413 Issue 2 |
|------------------------------|--|

|            |                                |
|------------|--------------------------------|
| ADSL Modes | ANSI, G.DMT, G.Lite, MultiMode |
|------------|--------------------------------|

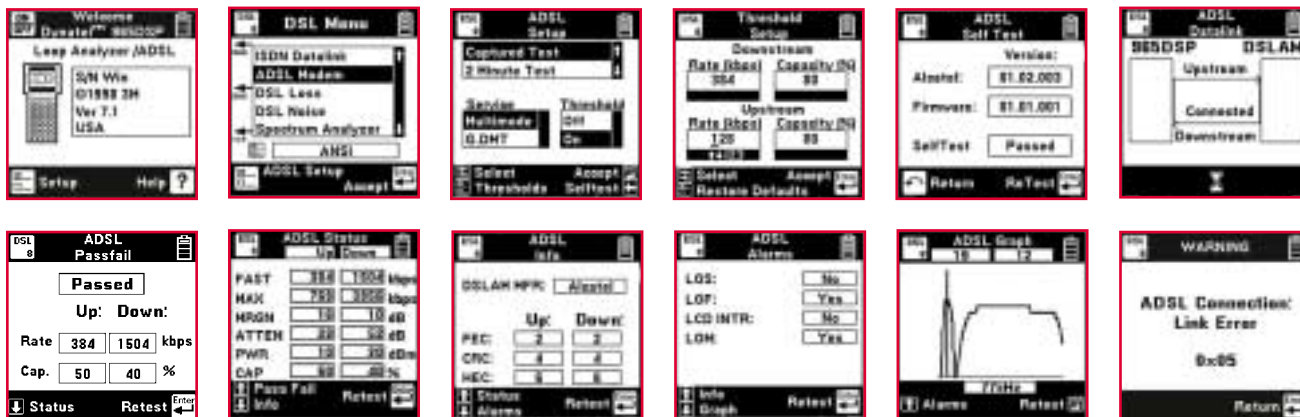
|       |   |
|-------|---|
| Reach | Designed to synchronize at distances from 0 ft. to 18,000 ft. |
|-------|---|

|            |   |
|------------|---|
| Statistics | Actual and maximum upstream and downstream connect rates<br>Upstream and downstream percent used ADSL line capacity<br>Upstream and downstream noise margin<br>Upstream and downstream signal attenuation<br>Upstream and downstream power levels<br>Modem manufacturer identification<br>Upstream and downstream FEC, CRC, and HEC counts<br>Alarm codes including LOS, LOF, LCD and LOM<br>Graphical display of bits-per-bin count for the DMT signal |
|------------|---|

|                 |   |
|-----------------|---|
| Operating Modes | Captured – Modem auto-disconnects from the far-end after statistics gathered<br>Continuous – Modem gathers statistics for up to two minutes |
|-----------------|---|

# 3M™ Dynatel™ 965DSP Series Subscriber Loop Analyzer with ADSL Modem

## Sample Screens



## Ordering Information

To order, call **1-800-426-8688** and specify the appropriate 965DSP Series Subscriber Loop Analyzer with ADSL modem. The set includes the analyzer with NiMH battery pack, ADSL modem, AC adapter, AC power cord, test leads, alkaline battery holder, conductor strap and operating manual. You may order the ADSL modem and Far End Device accessory for the 965DSP and 965DSP/SA separately. For further information, please contact your local 3M Representative.

## Kit Contents for 965DSP Series Subscriber Loop Analyzers

| Product                           | 965DSP | or       | 965DSP/SA | 965DSP/ADSL | or | 965DSP/SA/ADSL |
|-----------------------------------|--------|----------|-----------|-------------|----|----------------|
| Analyzer                          |        | •        |           |             | •  |                |
| Nickel metal hydride battery pack |        | •        |           |             | •  |                |
| AC adapter                        |        | •        |           |             | •  |                |
| Specified test cables             |        | •        |           |             | •  |                |
| Alkaline battery holder           |        | •        |           |             | •  |                |
| Conductor strap                   |        | •        |           |             | •  |                |
| Wire gauge                        |        | •        |           |             | •  |                |
| Self-test circuit board           |        | •        |           |             | •  |                |
| Instruction manual                |        | •        |           |             | •  |                |
| ADSL Modem                        |        | Optional |           |             | •  |                |



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