



# Dynatel™

## 965DSP Series Subscriber Loop Analyzer with ADSL Modem

The image shows a technician using the Dynatel 965DSP Subscriber Loop Analyzer. The device's screen displays various menu options and test results. The following are the screens shown in the inset images:

- DSL Menu:** A list of menu items including ISDN Datalink, ADSL Modem, DSL Loss, DSL Noise, Spectrum Analyzer, and ANSI. The ADSL Modem option is highlighted.
- ADSL Passfail:** Shows a "Passed" status. It displays "Up: Down" and "Rate: 384 1504" and "Cap.: 50 40".
- Threshold Setup:** Shows "Downstream" and "Upstream" settings. Downstream: Rate (kbps) 384, Capacity (%) 80. Upstream: Rate (kbps) 128, Capacity (%) 80. A "+123" is also visible.
- ADSL Status:** Shows "Up Down" status. It lists parameters: FAST (384 1504 kbps), MAX (768 3056 kbps), HRGN (16 10), ATTN (28), PWR (10), and CAP (50 40). It also has "Pass Fail" and "Info" options.
- ADSL Info:** Shows "DSLAM MFR: Alcatel". It displays "Up: Down:" and "FEC: 2 2", "CRC: 4 4", and "HEC: 6 6". It has "Status", "Retest", and "Alarms" options.
- ADSL Alarms:** Shows alarm status: LOS: No, LOF: Yes, LCD INTR: No, LOH: Yes. It has "Info", "Graph", and "Retest" options.
- ADSL Graph:** Shows a frequency spectrum graph with a peak at 778Hz. It has "Alarms" and "Retest" options.



### **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)  
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

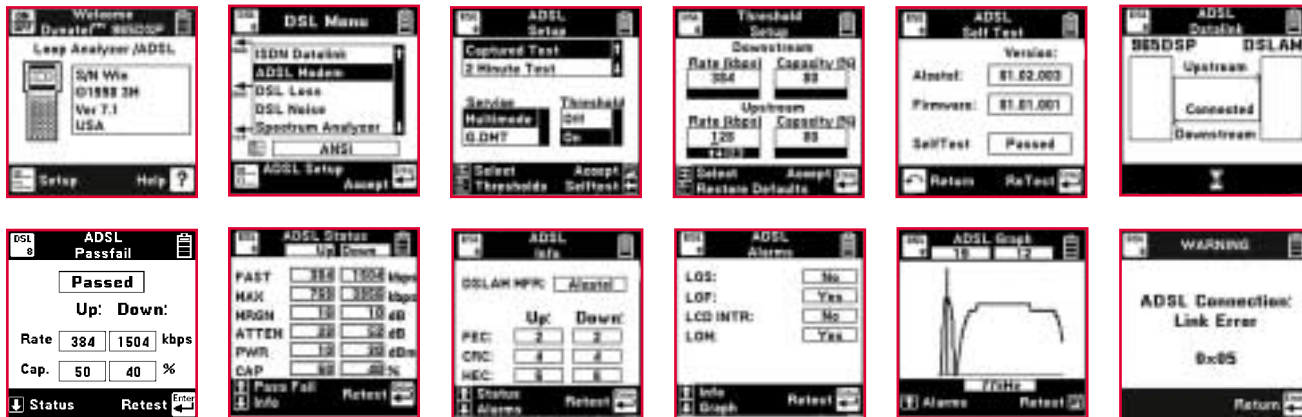
Reach Designed to synchronize at distances from 0 ft. to 18,000 ft.

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

Operating Modes Captured – Modem auto-disconnects from the far-end after statistics gathered  
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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