

Linescout® C2⁺

Portable DSL Link Tester for ADSL/ADSL2plus and VDSL2 links

Test any VDSL2/ADSL2plus/ADSL link between modems and DSLAM's.
Configurable as a DSLAM to check the modem and vice versa.
Chip set independent tester.



A cost effective solution for field technicians and installation companies who use the Linescout to quickly verify if the link is possible and what maximum speed in upstream and downstream direction can be obtained with or without accepting errors. Information available in the modem or in the DSLAM can be made visible at a touch of a button.

The newest member of the Linescout family, the C2⁺, is a very complete and handsome DSL Link tester that brings features to the field technicians which were never available in one compact line tester before. Finally any DSL link test is possible independent of which chip sets are used in the DSLAM or the MODEM under test. This device fulfills the promise of a versatile tester that can be used by anyone without in-depth knowledge of VDSL or ADSL technology.

DSLAM OR MODEM TEST

The unit works fast in all modes and is very simple to use. Installation time is kept to a minimum since the unit can be set as DSLAM or as MODEM. As such it is possible to test the service even before the DSLAM is on line, or to check the DSL communication with the DSLAM from the customer premises before activating the service. This pre-deployment test can be expanded with an option that allows a double check with a loop attenuation reference usable at both sides of the connection.

Information like Noise Margin (NM), Power, QLN are made visible on the screen. In the presence of noise, the tester will give information on the CRC errors, FEC and HEC. All parameters can be downloaded to a PC with the Bitload Status View software. Additional information on NEAR & FAR END signal loss is indicated with parameters like LOS, LOF, LPR or LPO. System failures as of initialization error is also indicated with the standardized parameter Lineint.

BANDPLAN SETTINGS

V-lan tags are programmable and allow for PTM or ATM mode testing, if required. Once DSL links are up and running the LSC C2⁺ can truly act as a modem at full speed of 120 Mbit/s upstream and downstream. Bits per tone can be displayed in Real Time with the Linescout Bitload Software.

IP THROUGHPUT TESTING

The higher layer can be tested with IP Ping feature in PPoE, PPoA or LLC bridge mode compliant to RFC 1483/2684, RFC 2516 and RFC 2364. TX and RX packages are counted, with delay and average time.

All test results can be stored for each test and made available on a PC via the Ethernet port. Specific software will display the measurement results for further analysis, or for documentation attached to the installation completion files when customers are put into service.

The Linescout C2⁺ is a portable test unit with built-in rechargeable LiPo batteries that allows for + 4 hours of continuous testing in fully loaded status reached after 12 hours charging cycle. Low battery status is also indicated and gives 15 minutes spare-time use. The unit comes with a kit of banana, RJ-45 and RJ-11, and rubber insulated crocodile clips connectors, as well as the AC power supply/charger and a car charger unit.

APPLICATIONS

- ADSL-ADSLReach-ADSL2-ADSL2plus
- VDSL-VDSL2
- VDSL & ADSL over POTS
- VDSL2 & ADSL2plus over ISDN

Standards

ITU-T G.992.1/3/3L/3M/5
ITU-T G.993.1/2
T1.413 issue 2

Chipset compatibility

Broadcom, Conexant, Ikanos, Infineon

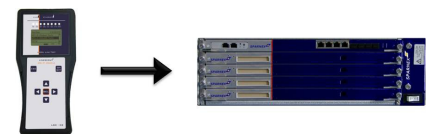
Graphical Interface

Windows Real Time Linescout Bitload Status View

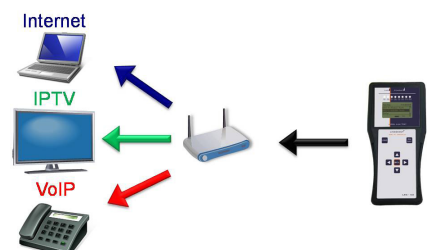
Special features & Options

Line attenuation and impedance reference INP 1/2, Fast and Interleaved Outside Plant protection kit IP 54

Modem emulation



DSLAM emulation



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SPECIFICATIONS

xDSL Function

• Emulation:

- Modem Replacement with max. throughput for ADSL and VDSL
- Router for Link and PING test
- DSLAM CO / DSLAM replacement

• DSL Standards:

- ANSI DMT T1.413 issue 2
- G.DMT G.992.1
- G.lite G.992.2
- ADSL2 G.992.3
- RE-ADSL G.992.3L
- ADSL2 All Digital G.992.3M
- ADSL2plus G.992.4
- ADSL2plus G.992.5A and B
- VDSL2 G.993.1/2
- G.hs G.994.1

• Chipset Compatibility:

Infineon
Ikanos
Broadcom
More under development (Upgrade)

• Up-/Downstream Test:

- Max. Bit Rate Up- / Downlink
- Actual Upstream Bit Rate up to 120 Mbps
- Actual Downstream Bit Rate up to 120 Mbps
- Noise margin Up- / Downlink

- Noise level -64dB to +64dB

- Attenuation 0 to +127dB

- Transmit (Tx) level -90 to 0dB

- Interleaving delay in ms

- Interleaver depth in frames

- Bits per tone Real Time graph with optional "Live View" s/w

• Performance Parameters:

- Errors FEC, CRC, HEC

• Near End and Far End Loss:

- Loss of Signal LOS
- Loss of Frame LOF
- Loss of Power LOP
- Initialization error Lineinit
- ATM error LPO

• IP Information (IP over Ethernet):

- RFC 1483/2684 LLC bridging routing mode static and DHCP IP address

• IP over PPPoE

- RFC 2516 PPPoE (static and dynamic) with PAP/CHAP PPP connection

• IP over PPPoA

- RFC 2346 / LLC PPPoA
- RFC 2364 / VC-MUX PPPoA

• Test results:

- IP PING statistic
- number of transmit
- number of received packages
- missing and unreachable addresses
- delay and average time (max-min)

- LAN port RJ-45 10/100 M auto detection

- LED's for Link
Data
Speed

Cable parameter Measurements

- DC Voltage: Line Voltage upto 199VDC

General Data

- Graphical LCD display with backlight

- Languages English
French
German
Italian
Portuguese
Spanish

• Connections

- Test port RJ-11
- LAN port RJ-45
- PC interface RJ-45 (Ethernet)
- Power supply Built-in LiPo battery
- Capacity 4+ hours (continuous test mode)
- Low battery Coloumb indicator
- Temperature / Humidity 10-50°C / 5-90%

Unit comes with:

- AC power supply and charger
- Test leads RJ-11 - RJ-45
- RJ-11 - banana plug with rubber insulated crocodile clamps
- cross-connect Ethernet cable for PC connection
- pouch made of rugged Cordura with additional space
- Windows-based software for download of test results and firmware upgrade of the unit

Optional:

- Car charger unit for 12V DC
- Windows-based s/w for real time tracing
- Rubber protection boot

Dimensions:

- Size 250 x 110 x 50 mm (H x W x D)
- Weight 650g
- Housing high impact resistant ABS
- Display protected by plexiglas

ORDER INFORMATION

Linescout C2+

Car charger unit for 12V DC

Windows-based software for real time tracing