

COPPER COMMUNICATION CABLE MEASUREMENT

MEASURE HF/LF PARAMETERS
OF INCREASINGLY COMPLEX
COPPER COMMUNICATION
CABLES IN A TRANSPARENT
AND EFFICIENT WAY, WHILE
ENSURING FULL TRACEABILITY



AESA Cortailod

IN COPPER TWISTED PAIR WIRE NETWORKS, CABLE CERTIFICATION IS ACHIEVED THROUGH A THOROUGH SERIES OF TESTS IN ACCORDANCE WITH MAIN INTERNATIONAL STANDARDS FROM ORGANIZATIONS LIKE TIA (TELECOMMUNICATIONS INDUSTRY ASSOCIATION) OR IEC (INTERNATIONAL ELECTROTECHNICAL COMMISSION).

OUR SOLUTION

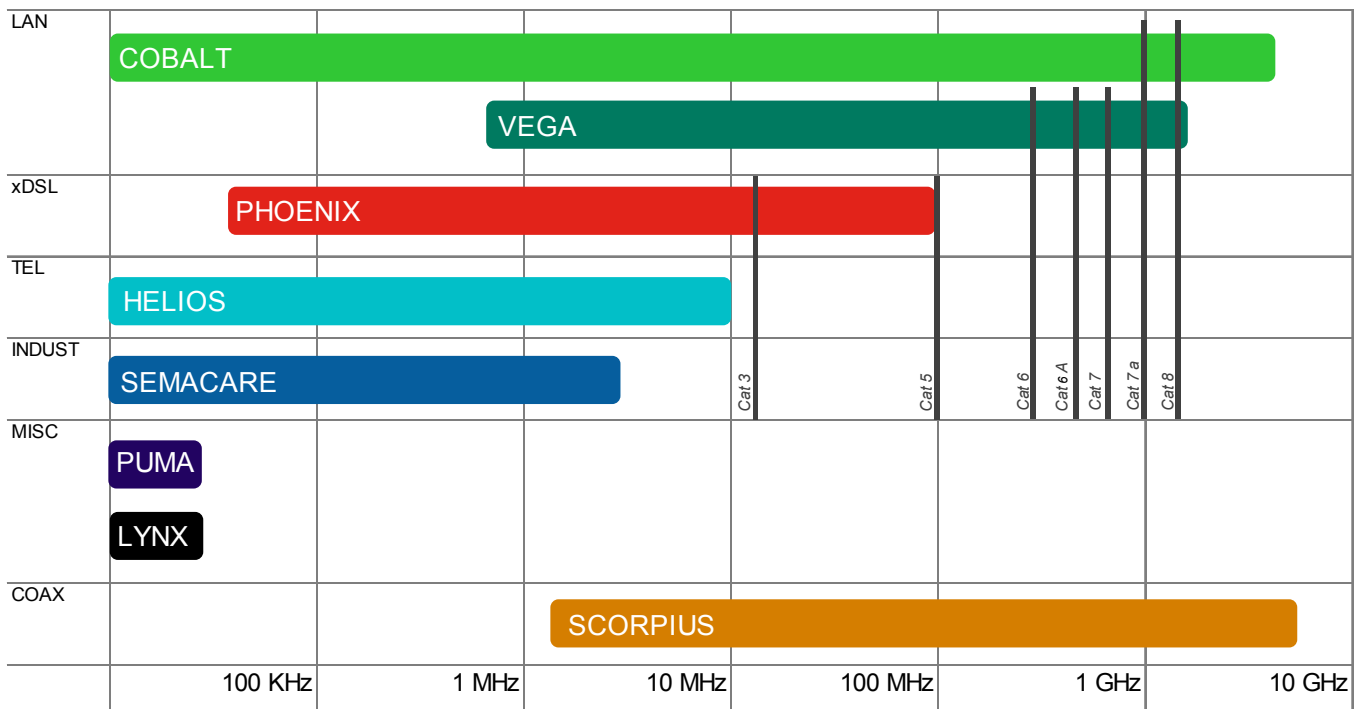
Automatic Test Equipment (ATE) must be used to perform these numerous tests that not only provide "Pass" or "Fail" information but also the complete cable characterization.

AESA range of ATE covers the performance tests according to procedures defined in the respective standards. With its low and high frequency modules, these can be customized depending on the specifications or requirements of the final user. From the Lynx system - for intermediate test - to the balunless Cobalt - for Cat8 and higher frequencies - AESA provides a complete set of solutions for all type of cables such as, QUAD, LAN cables or Coax, as well as for patch cords with connectors.

OUR OFFERING

AESA provides a full range of equipment to fulfil the specificities of all types of cables going from low frequencies to very high frequencies for wire/pairs/quads like:

- LAN Cable
- xDSL Cable
- Telephone cable
- Coax cables
- Industrial cables (like railway, instrumentation, signalling, etc...)
- Patch cords and assemblies



COBALT

LAN cables are specified for increasingly broader frequency ranges. Conventional (balun based) equipment cannot measure more than three frequency decades, and that is the reason why the cable industry is looking for a substitution measuring method.

Cobalt, the unique automatic balunless test system on the market based on the modal decomposition mathematical algorithm, is your perfect solution.

OUR OFFERING

By conducting measurements on individual wires and not just on pairs, Cobalt allows measurement of a particularly wide range of parameters that cannot generally be tested by conventional methods. Cobalt is a valuable tool also to assist you in cable development.

Equally important, final cable testing is rendered simpler and more reliable as it is fully automated, thus eliminating the need for the operator to conduct very cumbersome tasks with the associated risks of handling errors.

KEY FEATURES

- Very broad frequency range (>4GHz), for Cat 8 and higher
- No balun = full dB dynamic of the VNA is available for the measurement
- More than 170 parameters (including TCL/LCL/ELTCTL automatic measurement)
- Able to measure very short cables
- Individual values (per wire)
- Compliant with the standard ANSI/TIA-1183-1 and IEC 61156-1-2 Amd.1
- EMC parameters (option)
- Alien XT (option)



VEGA

Looking for an effective solution for testing LAN cables up to Cat 8?

Fitted with ultra-reliable relays, the **Vega** system offers you the fastest and most reproducible solution on the market to test LAN cables up to 2GHz.



OUR OFFERING

This automatic testing system has been developed to offer an effective solution for testing Cat 5 to Cat 8 LAN cables. It allows low frequency measurement of pairs and quads (RCKE) as well as high frequency parameters up to 2 GHz.

Different options such as EMC (AC, AS, TI) or alien crosstalk (AXT) functionalities offer considerable flexibility in terms of parameters, thus allowing full characterization of your cable, including shielding parameters.

Thanks to AESA "OptiTest" software module (an element of the CIQ family) supplied with it, operators can work quickly and efficiently. The "OptiTest" software also allows analysis of parameter measurements for process control, traceability or any other functions requiring statistical information.

KEY FEATURES

- Ideal for LAN cables measurement from Cat 5 up to Cat 8
- High Accuracy
- Fast measurements
- Perfect reproducibility
- Easy to operate
- LF certified ISO 17025
- Different models :
 - Vega standard (trolley)
 - Vega DT (desktop)
 - Vega AXT (28 pairs)

PHOENIX & HELIOS

Phoenix has been developed to offer an effective solution for testing xDSL cables Cat 3, 4 and 5.

Helios has been developed to offer an effective solution for testing telephone and xDSL cables up to 10MHz.

They allow the automatic low frequency measurement of pairs and quads (RCKE) as well as high frequency parameters.



OUR OFFERING

Customer requirements can vary considerably in terms of size and design of connecting frames depending on how many pairs need to be hooked up to the frame simultaneously.

The Phoenix and Helios systems allow you to hook up a maximum of 112 pairs.

Thanks to the "OptiTest" software module (an element of the CIQ family) supplied with it, operators can work quickly and efficiently. OptiTest also allows analysis of parameter measurements for process control, traceability or any other functions requiring statistical information.

KEY FEATURES

- High Accuracy
- Several connecting frames available up to 112 pairs
- High Accuracy
- Fast measurements
- Perfect reproducibility
- Easy to operate
- LF certified ISO 17025

SEMACARE

You have to measure a cable on a drum whose ends are short or rigid? You have to qualify an installed cable directly on the field whose ends are several kilometers apart? SemaCare is the equipment that can easily reach all cable ends in various environments.

The ideal solution to characterize industrial cables in one run, the **SemaCare** device has been especially designed to accommodate constraints such as large diameter or rigid extremities.

Fast and easy to use, the SemaCare offers the added advantage of providing a concise test report summarizing all the results per parameter.



OUR OFFERING

Industrial cables (instrumentation, control, signaling, automation,...) each have their own specificities.

The SemaCare device has been especially designed to be fully compatible with all such types of cables.

In addition to its use for conducting low frequency measurements based on the 4-point Kelvin method, the SemaCare device also offers the added benefit of letting you perform measurements at the very low end of the high frequency range, either by using the fixed points or sweeping methods.

The connecting frames are compact and mobile which allow the operator to easily come into close proximity with the coil extremities (rigid or short ends). Different trolleys or supports are available to meet special requirements.

KEY FEATURES

- Versatile and mobile device
- LF certified ISO 17025
- HF parameters measured up to 4MHz
- Movable connecting frame to easily connect short or rigid extremities
- Possibility to support large wire diameters (diameter up to 2.5mm)
- Different models
 - Standard version (for drums measurement)
 - Remote version (for field measurement)

RESISTANCE AND CAPACITANCE (RCKE)

AUTOMATIC LF MEASURING SYSTEM PUMA

Puma has been developed especially for intermediate or final testing of telecom cables or sub-assemblies. It allows low frequency measurement of pairs and quads.

It can be equipped with mono-pliers or connecting frames (different configurations available), in order to match the specific needs of the test station.

With its state-of-the-art measuring technology, it offers a fast, safe and very precise solution.

Its embedded computer is fully efficient and compatible with software and accessories that are readily available on the market. Thanks to the "OptiTest" software module (an element of the CIQ family) supplied with, operators can work quickly and efficiently. The "OptiTest" software also allows analysis of parameter measurements for process control, traceability or any other functions requiring statistical information.

KEY FEATURES

- Embedded computer
- Flexibility
- Possibility to measure long lengths
- Compact or trolley version
- State-of-the-art
- Easy to operate



RCKE MEASUREMENT LYNX

The **Lynx** testing system has been specifically developed for intermediate testing during the manufacturing process.

The pairs or quads specifications can thus be checked at regular intervals. Results analysis provides data for process control, product traceability or any other function requiring statistical information. In addition to exceptionally high measuring accuracy and user-friendliness through the use of a touchscreen, this state-of-the-art device is fitted with a capacitance bridge with a choice of switchable frequencies allowing you to also measure long distance cables.



KEY FEATURES

- Easy operation via a touchscreen
- High accuracy
- Possibility to conduct long distance measurements
- Compact
- State-of-the-art



REFERENCES



ABERDARE
CABLES

Bayka

BELDEN
SENDING ALL THE RIGHT SIGNALS

Berk-Tek
A NEXANS COMPANY

Brand-Rex

CARLISLE
FOODSERVICE PRODUCTS

CABELTE

COFICAB

COMMSCOPE™

DATWYLER

Draka

Ducab دوکاب

ELSEWEDY
CABLES

FURUKAWA
ELECTRIC

General Cable

HUBER+SUHNER

LEONI

مسك
MESC

exans

nkt cables

PRYSMIAN
CABLES & SYSTEMS

RADIO FREQUENCY SYSTEMS
The Clear Choice™ **RFS**



SUMITOMO
ELECTRIC

SUPERIOR
ESSEX



AESA SA
Chemin de la Plaine 7
CH-2013 Colombier

AESA GmbH
TBG TechnologiePark Bergisch Gladbach
Friedrich-Ebert-Strasse
D-51429 Bergisch Gladbach

T +41 32 841 5177
F +41 32 842 4865
aesa@aesa-cortaillod.com
www.aesa-cortaillod.com

