



Subjects 444 and 2965
MELVILLE
November 1, 2018

TO: Subscribers to UL's Certification Services for:

Local Area Network (LAN) Cable Verified in Accordance With National or International
Specifications (DVBI)
Communications Cables (DUZX)
Communications Cable Assemblies (DUNH)
Communication Circuit Accessories (DUXR)

SUBJECT: Proprietary Structured Cabling Programs (VZZX)

This bulletin will serve as the testing and Follow-Up Service reference document for UL's Proprietary Structured Cabling Program and replaces UL's May 1, 2013 Bulletin on the same subject. This bulletin will be updated as needed, when new or revised requirements are introduced into UL's LAN Performance Verification Programs. This bulletin can be accessed at:

https://industries.ul.com/wp-content/uploads/sites/2/2014/01/Proprietary-Structured-Cabling-Program2018Final_.pdf

As Local Area Network applications have demanded higher bandwidth, there have been concerns for current and newly installed systems regarding interoperability and backward compatibility. Newly published standards have addressed some of these issues, however, end-users are demanding Verification of these systems in order to give them the extra assurance that their applications will work over any network with minimal or no network down time. In order for manufacturers to be able to meet the demands of their end-users, turnkey multi-vendor Solutions are available. These Solutions consist of multiple vendors for cabling and connectivity.

UL's Proprietary Structured Cabling Performance Verification Program verifies the compliance of a PERMANENT LINK, BASIC LINK, CHANNEL, SYSTEM Direct Attach or Modular Plug Terminated Link to the performance criteria specified in National Standards, International Standards, or Proprietary Manufacturer Specifications. This program offers end-users, manufacturers and distributors a way to verify Solution performance prior to expensive installation, in order to provide a level of assurance that the Solution, if installed properly, will meet pre-determined performance criteria.

Program Scope

The Proprietary Structured Cabling Performance Verification Service offers two options:

1. Certification Service – Under this option, there is both initial qualification testing and ongoing compliance testing. Products in compliance with the applicable performance standard are authorized to bear the UL Verification Mark, as described in this bulletin and appear in UL's published records as Verified products.
2. Letter Report Service – Under this option, there is one-time Verification testing, with no ongoing compliance testing.

The Program covers Solutions testing, which may include variations of the configurations shown below, using copper cabling. This cabling may employ unshielded twisted pair (UTP), foiled twisted pair (FTP), shielded twisted pair (STP), screened twisted pair (ScTP), Coaxial Cable and Optical Fiber Cable or a combination of all of the above, for horizontal or other cabling runs. The Solution would also include connecting hardware, patch cords and other active or passive components to complete the Permanent Link, Basic Link, Channel or System.

Configuration Definitions

For the purposes of this program, the following definitions apply:

PERMANENT LINK – A 90 meter horizontal run of cable terminating in a telecommunications outlet connector or either a transition point (TP) connector or consolidation point (CP) connector at one end and in a telecommunications cross connection at the other end. Total Length, 90 meters.

BASIC LINK - A 90 meter horizontal run of cable terminating in a telecommunications outlet connector or either a transition point (TP) connector or consolidation point (CP) connector at one end and in a telecommunications cross connection at the other end with 2 meter patch cords at each end. Total Length, 94 meters.

CHANNEL - A 90 meter horizontal run of cable terminating in a telecommunications outlet connector or either a transition point (TP) connector plus a 5 meter patch cord or consolidation point (CP) connector plus a 5 meter patch cord at one end and in a telecommunications cross connection plus a 5 meter patch cord at the other end with 2 meter patch cords at each end. Total Length, 100 meters.

SYSTEM - A system if defined as a number of Permanent Links, Basic Links or Channels assembled together for the distribution of multi-signal sources over various copper and or optical fiber media types. The system may vary in length beyond 100 meters if applicable and may contain various types of connectivity supplied by multiple manufacturers.

DIRECT ATTACH - A reduced length channel definition that includes plug connectors at the beginning and end of the channel and does not contain connecting hardware within the channel.

MODULAR PLUG TERMINATED LINK - A type of link terminated with a modular plug on one end.

Certification Process

UL Listing and Verification is not a requirement for components used in the overall cabling Solution being submitted for testing under the Program. The cabling Solution will be assembled at UL, the supplier or manufacturer's site and tested in accordance with the applicable performance standard.

The Solution may be suspended in air in long and very narrow loops without crossovers or coiled very loosely on a nonconductive floor and or as specified by the applicable performance standard, at a room temperature of $20^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and a relative humidity of $50 \pm 5\%$. Measurements will be made in a swept-frequency range as specified by the applicable performance standard. The test methods used are those described in the American Society for Testing and Materials (ASTM) Standards Test Methods for Electrical Performance properties of Insulation and Jackets for Telecommunication Wires and Cables, ASTM D 4566 and/or other applicable standards.

Upon successful completion of Performance Verification testing under option 1 (UL Certification Service), a Follow-Up Service Procedure is issued which documents the construction of the Solution submitted for evaluation. The test results will be provided to the Solution partners. If a proprietary manufacturer's performance specification is used for testing, the manufacturer must keep dated revision numbers/issue dates for this specification.

Each Solution partner will receive a Follow-Up Service Procedure identifying them as Applicant, Manufacturer, and Listee (the party appearing in UL's published records). The Follow-Up Service Procedure will identify each Solution in a separate descriptive section. This way, one UL Procedure can document the various partnerships (and Solution constructions) in effect for a given client.

Unlike typical UL certification programs, coverage under this program is not manufacturer (location) dependent. There is no factory Follow-Up Service component under this program. The Program assumes that the UL Verified Solution is compliant, regardless of which location produces the cable, connecting hardware etc.

Ongoing compliance is verified through Follow-Up testing at UL. This testing is performed once a year unless a higher frequency is specified by the Solution partners or in the Performance Standard. UL engineers will obtain representative samples of the components needed to assemble the authorized Solution from telecommunications product distributors. The solution will be assembled and tested against the applicable performance standard to assure compliance with requirements. The test results will be reported to the Solutions partners. The expenses associated with the purchase of the components, along with the testing costs for the solution, will be billed to the partners or as pre-arranged by UL.

Publication of Certification

Solution partners, under option 1, will be identified in UL's Online Directory, under the category of "Proprietary Structured Cabling Program" (VZZX).

Use of the UL Performance Verification Mark

Since Solutions are field assembled cabling and connectivity products, the Type R UL Verification Mark (label) is not directly applied to Solutions. The complete Verification Mark (illustrated below) may appear on a Bill of Lading, a Bulk Shipment Certificate, or on UL's Certificate of Conformity Assessment. The Verification Mark may also be used in print advertising, web-based advertising, and specification sheets. In these cases, the Mark must be reproduced in its entirety and clearly associated with the Solution which was investigated by UL. Both Solution partners are authorized to use the Verification Mark.



VERIFIED

Performance Specification Name and Number
Solution Name and Part Number
Control Number¹

Note 1 - The control is a permanent, four character alphanumeric code assigned to the subscriber by UL.

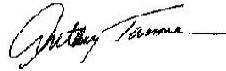
The Mark includes a permanent four-character, alphanumeric "control number" that is assigned by UL. The Mark can be obtained from either a UL authorized printer, or printed in-house via computer generation, without UL involvement. The Follow-Up Service Procedure will contain a Verification Mark Data Page which illustrates the Mark. The page will reflect the control number assigned by UL that will appear in the Mark. No service charge is associated with the use of these Type R Marks.

The primary Solution partner must submit Verification Mark artwork to their supporting Label Center for review and the assignment of a control number. Design proportion sheets may also be obtained on-line by accessing UL's Website at <http://www.ul.com/mark/art.htm> and downloading the appropriate UL logo and format.

Any questions regarding this bulletin can be referred to either of the undersigned. Thank you for your participation in UL's Performance Verification Programs.



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