

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Component Recognition
CCN:	NWGQ2, NWGQ8 (Information Technology Equipment Including Electrical Business Equipment)
Product:	STM1e Copper SFP Transceiver
Model:	STM1E-SFP26
Rating:	Ratings - N/A
Applicant Name and Address:	MAXIM INTEGRATED PRODUCTS SUITE 200 8516 ANDERSON MILL RD AUSTIN TX 78729 UNITED STATES

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

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Reviewed by: Gregory Ray

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

The equipment described by this report is Small Form-factor Pluggable (SFP) copper transceiver model. The SFP module is STM1e with Multi Source Agreement for SFPs, 155 Mbit/s electrical synchronous digital hierarchy (SDH) interface.

The products are to be powered by an LPS source which is not covered by this report.

Model Differences

N/A

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : No direct connection
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : No direct connection
- Tested for IT power systems : N/A
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class III (supplied by LPS)

- Considered current rating of protective device as part of the building installation (A) : --
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : maximum 2000
- Altitude of test laboratory (m) : maximum 2000
- Mass of equipment (kg) : 0.02
- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 55°C
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report).
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The following secondary output circuits are SELV: All
- The following secondary output circuits are at non-hazardous energy levels: All
- The following secondary output circuits are supplied by a Limited Power Source: All
- The investigated Pollution Degree is: 2
- The following end-product enclosures are required: Fire, Mechanical
- The product is to be powered by an LPS source.
- The SFP Modules have not been evaluated for connection to outside plant (TNV or CDS).

Additional Information

This CB Report is a reissue of CBTR Ref. E141114-A4-CB-1, CB Test Certificate No. US/15875/UL due to upgrading the Test Report from IEC/UL 60950-1 2nd Edition to IEC/UL 60950-1 2nd Edition, Amendment 1. Summary of Testing indicates that all required tests were conducted during the previous investigations under CBTR Ref. E143101-A10-CB-1, CB Test Certificate No. CA/1381/ULC.

Samples were not considered necessary under this investigation since no declared modifications to the product since the last testing; and construction analysis to verify compliance with the new standard was completed based on the review of the product technical documentation including the existing CBTR, previous and new photos, schematics, wiring diagrams and similar, and in all cases, the verification of critical components was completed based on documentation.

The EUT will be connected to a 3.3Vd.c. power supply and the tolerance is 3.15Vd.c. to 3.45Vd.c. Otherwise specified in the report, all the tests are performed at 3.45Vd.c. which is considered as most sever condition.

Additional Standards

The product fulfills the requirements of: EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number

Special Instructions to UL Representative

This product is only being built at the Bel Fuse Wing Ming Co., Ltd. manufacturer.