



Verizon NEBS™ Compliance: Universal Test Sets (UTS)

Verizon Technical Purchasing Requirements

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1.0 PURPOSE

The purpose of this Verizon Technical Purchasing Requirement document is to provide test requirement for Universal Test Sets (UTS) for Fiber Optical Test and Measurement Equipment.

2.0 SCOPE

FOC- Test Equipment

3.0 REFERENCES

GR-63-CORE	NEBS™ Requirements: Physical Protection
GR-1089-CORE	Electromagnetic Compatibility and Electrical Safety – Generic Criteria for Network Telecommunications Equipment
GR-2876-CORE	Generic Requirements Universal Test Sets (UTS)
IEC 60068-2-32	Environmental Testing. Part 2: Tests. Tests Ed: Free Fall

4.0 ACRONYMS

FOC	Fiber Optic Components
ITL	Independent Testing Laboratory
SIT	System Integration & Testing
TPR	Technical Purchasing Requirement
UTS	Universal Test Sets

5.0 TEST REQUIREMENTS FOR UNIVERSAL TEST SETS (UTS)

This TPR is issued to provide test requirements for Universal Test Sets (UTS) for Fiber Optical Test and Measurement Equipment.



Definitions

Portable Use: A temporary installation of Test and Measurement Equipment that does not meet the definition for a permanent installation. A temporary installation includes hand held devices.

Controlled Environmental Location: Operating temperature range of 5 to 40⁰C.

Uncontrolled Environmental Location: Operating temperature range of -40 to 46⁰C.

Portable Use Test and Measurement Equipment Qualification Test Requirements

All portable use Test and Measurement Equipment shall comply with the following NEBS requirements:

a. GR-1089-CORE

3.2 EMI Emissions Criteria

3.3 EMI Immunity Criteria

b. GR-63-CORE

4.1.2 Operating Temperature and Humidity (for environmentally controlled locations only)

Portable use Test and Measurement Equipment used in an environmentally uncontrolled environment, including hand-held devices, shall also comply with the following requirements:

c. GR-63-CORE

4.1.2 Operating Temperature and Humidity (Modified temperature extremes of -18⁰C to 46⁰C plus Solar Loading)

d. IEC 60068

68-2-32 Free Fall Tested at -18⁰C (this test applies to hand-held devices only)

***NOTE:** Since temperature is not specified for this test, the low temperature requirement was selected based on GR-950-CORE R5-15 Vertical Drop for ONU Closures, since it is unlikely operators will be performing service calls and using hand-held Test and Measurement equipment at temperatures below -18⁰C.*



e. GR-2876-CORE Generic Requirements Universal Test Sets (UTS)

- All applicable requirements
- A sample size of 3 shall be used for all the tests

Testing Laboratory Requirements

Verizon requires that manufacturers submit their Test and Measurement equipment to a Verizon approved laboratory for testing and verification of conformance to the qualification test requirements in this document. For a list of Verizon approved laboratories and locations, consult Verizon web page at www.verizonnebs.com.