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Interface Practices Subcommittee

SCTE STANDARD

SCTE 143 2018

Test Method for Salt Spray

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1.0 SCOPE

This document is identical to SCTE 143 2013 except for informative components which may have been updated such as the title page, NOTICE text, headers and footers. No normative changes have been made to this document.

This test method provides guidelines for salt spray testing of broadband communications equipment.

2.0 NORMATIVE REFERENCES

The following documents contain provisions, which, through reference in this text, constitute provisions of the standard. At the time of Subcommittee approval, the editions indicated were valid. All standards are subject to revision; and while parties to any agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents may not be compatible with the referenced version.

2.1 Standards from other Organization

ASTM B 117-07, Standard Practice for Operating Salt Spray (Fog) Apparatus

3.0 COMPLIANCE NOTATION

| | |
|--------------|---|
| “SHALL” | This word or the adjective “REQUIRED” means that the item is an absolute requirement of this specification. |
| “SHALL NOT” | This phrase means that the item is an absolute prohibition of this specification. |
| “SHOULD” | This word or the adjective “RECOMMENDED” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighted before choosing a different course. |
| “SHOULD NOT” | This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label. |
| “MAY” | This word or the adjective “OPTIONAL” means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item. |

4.0 TEST SPECIMEN

- 4.1 Examples of typical test specimens are: RF amplifier, fiber optic node, tap, splitter, F connector, etc.
- 4.2 Non-signal passing hardware may be tested as well such as: steel pole line strand, strand clamps, or drop hardware.

5.0 TEST SPECIMEN PREPARATION

- 5.1 Specimens to be tested shall be assembled with all components per manufacturer's instructions. For example, torque housing bolts to specified torque.
- 5.2 If the specimen has ports, they shall be sealed to prevent moisture and/or salt ingress during the test.
- 5.3 If applicable, the specimens to be tested must be installed and oriented in the salt spray chamber as they would typically be installed and oriented in the field. If the specimen has ports, the ports shall point to the direction on the chamber spray nozzle.
- 5.4 Specimens to be tested shall be supported by non-reactive support apparatus.

6.0 MINIMUM NUMBER OF SPECIMENS REQUIRED

The following table specifies the minimum number of specimens required in the salt spray chamber during a specified test period:

| EQUIPMENT TYPE | MIN. # OF SPECIMENS IN CHAMBER |
|---|---------------------------------------|
| ACTIVES | -- |
| amplifiers/nodes | 1 |
| line extenders | 1 |
| bridgers | 1 |
| directional couplers | 1 |
| house amps | 1 |
| PASSIVES | -- |
| taps | 5 |
| F-81s | 5 |
| connectors-HL | 5 |
| Connectors, drop | 5 |
| splitters-include mounting hardware & ground wire | 5 |
| ground blocks-include mounting hardware & ground wire | 5 |
| hardware-non signal passing | 5 |
| pole line-strand, strand clamps | 5 |
| cable-drop | 5 |

Table 1 – Min. No. of Specimens Required by Equipment Type

7.0 EXPOSURE PERIOD

The specimen shall be exposed to the salt fog, created and maintained per ASTM B117-07, Standard Practice for Operating Salt Spray (Fog) Apparatus. The exposure time shall be defined in the equipment specifications.

8.0 INTERPRETATION OF RESULTS

The end user shall interpret the results of the salt spray test with the understanding that this is a comparative test and not representative of real world environmental conditions nor correlative to corrosion that would occur in said environment.

APPENDIX A: TEST REPORT

Device(s) under test (specimen):

| | | | |
|--------------------------------|--|-----------------------|--|
| Equipment Type: | | Manufacturer: | |
| Model Number: | | Serial number: | |
| Qty of DUTs in chamber: | | Size of DUT: | |

Test equipment/apparatus:

| Description | Manufacturer | Model Number | Serial Number | Calibration Date |
|--------------------|---------------------|---------------------|----------------------|-------------------------|
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Chamber Operational Parameters:

| | Recording |
|---|------------------|
| Salt solution composition | |
| Exposure zone temperature in °C(F) | |
| Volume of salt solution collected in ml/hr/80 cm² (12.4 in²) | |
| Specific gravity of solution collected at 35°C (95°F) | |
| pH of solution collected | |

DUT(s) pre-test preparation:

| | Description |
|---|--------------------|
| Method of Cleaning | |
| Method of supporting/suspending DUT in chamber | |
| Protection method (as required) | |
| Any other additional pre-test preparation | |

Additional Parameters:

| | Recording |
|---|------------------|
| Exposure period (in hours) | |
| Interruptions in exposure, cause, and length of time | |

DUT(s) post-test preparation:

| | Description |
|---|--------------------|
| Method of Cleaning | |
| Any other additional post-test preparation | |

Inspections (after post-test preparation):

| Type | Recording |
|--------------------------------|-----------|
| Visual | |
| Mass loss (as required) | |
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| | |

| Tested by | Date |
|-----------|------|
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