



File E174344

Vol X1

Auth. Page 1

Issued: 2003-05-13

Revised: 2018-05-18

FOLLOW-UP SERVICE PROCEDURE  
(TYPE R)

INFORMATION TECHNOLOGY EQUIPMENT INCLUDING ELECTRICAL BUSINESS  
EQUIPMENT  
(NWXQ,NWXQ7)

Manufacturer: SEE ADDENDUM FOR MANUFACTURER LOCATIONS

100186 (Party Site)  
Applicant: CRESTRON ELECTRONICS INC  
(432288-002) 15 VOLVO DR  
ROCKLEIGH NJ 07647-2507

100186 (Party Site)  
Listee/Classified Co.: SAME AS APPLICANT  
(432288-002)

This Follow-Up Service Procedure authorizes the above Manufacturer(s) to use the marking specified by UL LLC, or any authorized licensee of UL LLC, including the UL Contracting Party, only on products when constructed, tested and found to be in compliance with the requirements of this Follow-Up Service Procedure and in accordance with the terms of the applicable service agreement with UL Contracting Party and any applicable Service Terms. The UL Contracting Party for Follow-Up Services is listed on addendum to this Follow-Up Service Procedure ("UL Contracting Party"). UL Contracting Party and UL LLC are referred to jointly herein as "UL."

UL further defines responsibilities, duties and requirements for both Manufacturers and UL representatives in the document titled, "UL Mark Surveillance Requirements" that can be located at the following web-site: <http://www.ul.com/fus> and in the document titled "UL and Subscriber Responsibilities" that can be located at the following website: <http://www.ul.com/responsibilities>. Manufacturers without Internet access may obtain the current version of these documents from their local UL customer service representative or UL field representative. For assistance, or to obtain a paper copy of these documents or the applicable Service Terms, please contact UL's Customer Service at <http://ul.com/aboutul/locations/>, select a location and enter your request, or call the number listed for that location.

The Applicant, the specified Manufacturer(s) and any Listee/Classified Co. in this Follow-Up Service Procedure must agree to receive Follow-Up Services from UL Contracting Party. If your applicable agreement is a Global Services Agreement ("GSA") with an effective date of January 1, 2012 or later and this Follow-Up Service Procedure is issued on or after that effective date, the Applicant, the specified Manufacturer(s) and any Listee/Classified Co. will be bound to a Service Agreement for Follow-Up Services upon the earliest by any Subscriber of use of the prescribed UL Mark, acceptance of the factory inspection, or payment of the Follow-Up Service fees which will incorporate such GSA, this Follow-Up Service Procedure and the Follow-Up Service Terms which can be accessed by clicking here: <http://www.ul.com/contracts/Terms-After-12-31-2011>. In all other events, Follow-Up Services will be governed by and incorporate the terms of your applicable service agreement and this Follow-Up Service Procedure.

It is the responsibility of the Listee/Classified Co. to make sure that only the products meeting the aforementioned requirements bear the authorized Marks of UL LLC, or any authorized licensee of UL LLC.

This Follow-Up Service Procedure contains information for the use of the above Manufacturer(s) and representatives of UL and is not to be used for any other purpose. It is provided to the Manufacturer with the understanding that it will be returned upon request and is not to be copied in whole or in part.

This Follow-Up Service Procedure, and any subsequent revisions, is the property of UL and is not transferable. This Follow-Up Service Procedure contains confidential information for use only by the above named Manufacturer(s) and representatives of UL and is not to be used for any other purpose. It is provided to the Subscribers with the understanding that it is not to be copied, either wholly or in part unless specifically allowed, and that it will be returned to UL, upon request.

Capitalized terms used but not defined herein have the meanings set forth in the GSA and the applicable Service Terms or any other applicable UL service agreement.

UL shall not incur any obligation or liability for any loss, expense or damages, including incidental, consequential or punitive damages arising out of or in connection with the use or reliance upon this Follow-Up Service Procedure to anyone other than the above Manufacturer(s) as provided in the agreement between UL LLC or an authorized licensee of UL LLC, including UL Contracting Party, and the Manufacturer(s).

UL LLC has signed below solely in its capacity as the accredited entity to indicate that this Follow-Up Service Procedure is in compliance with the accreditation requirements.

Bruce A. Mahrenholz  
Director  
North American Certification Program

LOCATION

1668996 (Party Site)  
JABIL CIRCUIT DE MEXICO S DE R L DE C V  
Technology Park # 420  
Carretera Nogales Km 13.5  
Av. Guadalupe # 225  
45010 Zapopan  
Jalisco MEXICO  
Factory ID: JG  
UL Contracting Party for above site is: UL AG

1764438 (Party Site)  
EPI de Mexico S de RL de CV  
Boulevard Independencia #1451 Int. 2  
Parque Industrial Intermex Oriente  
CP 32599 Juarez  
Chihuahua MEXICO  
Factory ID: V25  
UL Contracting Party for above site is: UL AG

1820647 (Party Site)  
CYPRESS TECHNOLOGY CO LTD  
6F, No. 172, Jiankang Rd., Zhonghe Dist.  
NEW TAIPEI  
23585 TAIWAN  
Factory ID: None  
UL Contracting Party for above site is: UL AG

(432288-001) 56081 (Party Site)  
Crestron Electronics Inc  
6 Volvo Dr  
Rockleigh NJ 07647  
Factory ID: RA  
UL Contracting Party for above site is: UL LLC

File		Volume	Page	Date:
E174344	Index	X1	1	2018-07-16

## Index

<u>Product Type</u>	<u>Model/Type Reference</u>	<u>Report Reference #</u>	<u>Status</u>
System Power Supply	C2N-SPWS300	E174344-A1-UL	
Professional Automation Mini Computer	PAC2M	E174344-A5-UL	
EIB Interfaces	CEN-EIB	E174344-A12-UL	
System Power Supply	CNPWS-75 CNPWSI-75	E174344-A16-UL	
Single/Dual-Channel Wireless Mic System	MP-FS200 Pak (System)	E174344-A17-UL	
Digital Graphic Engine	DGE-2	E174344-A18-UL	
Control System	PRO3-XXXX, AV3-XXXX,  Where X represents any letter, number or blank, denoting minor changes in appearance or SELV circuits, for marketing purpose only and no impact safety related constructions and critical components.  Optional Accessory Cards: C3RY-16 - 16 Relay ports card. C3RY-8 - 8 Relay ports card. C3IR-8 - 8 IR ports card. C3IO-16 - 16 I/O ports card. C3COM-3 - 3 Com ports card.	E174344-A19-UL	
Control System	CP3N-XXXX, CP3-XXXX and PYNG-XXX-XXX, where X represents any letter, number or blank, denoting minor changes in appearance or SELV circuits.  CEN-CI3-1-XXXX and CEN-CI3-3-XXXX, where X represents any letter, number or blank, denoting minor changes in appearance or SELV circuits.  ZUM-FLOOR-HUB  Optional Listed Accessory Cards for Use in Card Cage: C3RY-16 - 16 Relay ports card. Located in SELV Circuit. C3RY-8 - 8 Relay ports card Located in SELV Circuit. C3IR-8 - 8 IR ports card. Located in SELV Circuit. C3IO-16 - 16 I/O ports card. Located in SELV Circuit. C3COM-3 - 3 Com ports card. Located in SELV Circuit.	E174344-A20-UL	

File		Volume	Page	Date:
E174344	Index	X1	2	2018-07-16

16-Port Managed PoE Switch	CEN-SWPOE-16-XXXX, where X represents any letter or number, or may be blank, denoting minor changes in appearance or SELV circuits.	E174344-A21-UL	
Digital Media Series	DM-TX-100, DM-TX-201-C, DM-TX-201-S, DM-TX-201-S2, DM-TX-401-C, DM-TX-401-S, DM-TX-401-S2 DM-RMC-100-C, DM-RMC-100-S, DM-RMC-150-S, DM-RMC-200-C, DM-RMC-200-S, DM-RMC-200-S2, DM-RMC-SCALER-C, DM-RMC-SCALER-S, DM-RMC-SCALER-S2, DM-RMC-4K-100-C, DM-TX-4K-100-C-1G-B-T, DM-TX-4K-100-C-1G-W-T, DM-TX-200-C-2G-W-T, DM-TX-200-C-2G-B-T, USB-EXT-DM-LOCAL, USB-EXT-DM-REMOTE, DM-RMC-4K-SCALER-C, DM-RMC-4K-SCALER-C-DSP, DM-RMC-100-STR, HD-DA-2-QUAD, HD-DA-2, HD-TX1-F, HD-RX1-F, HD-TX3-F, HD-RX3-F, CAPTURE-HD-PRO, HD-EXT3-C-B SYSTEM, HD-EXT3-C-W SYSTEM, HD-EXT4-C-B SYSTEM, HD-EXT4-C-W SYSTEM, HD-MD6X2-4K-E, HD-MD4X2-4K-E, HD-MD4X1-4K-E, HD-SCALER-HD-E, HD-SCALER-VGA-E, HD-DA2-4K-E, HD-DA4-4K-E, HD-DA8-4K-E DM-RMC-4KZ-100-C DM-RMC-4KZ-SCALER-C	E174344-A30-UL	
Digital Media Switcher	DM-MD6X1, DM-MD6X4, DM-MD6X6	E174344-A34-UL	
Communication Control System	DIN-CENCN-2, DIN-CENCN-2-POE	E174344-A36-UL	

File		Volume	Page	Date:
E174344	Index	X1	3	2018-07-16

Digital Media Switcher	DMF-CI-8 Accessory Cards, DMCF-RX-4K-SFP or 6507964 DMCF-TX-4K-SFP or 6507965 DM-NVX-350C and DM-NVX-351C	E174344-A39-UL	
Communication Control System	CAEN-BLOCK-CENCN-2-POE	E174344-A42-UL	
Speaker Phone	CCS-UC-1 and CCS-UC-1-AV Accessory - CCS-UCA-MIC	E174344-A43-UL	
DigitalMedia Switcher	DM-MD128x128, DM-MD64x64 Accessory Cards: DMB-I-S, DMB-I-S2, DMB-O-S, DMB-O-S2, DMB-4K-I-HD-DNT, DMB-4K-O-HD-DNT, DMB-4K-I-C, DMB-4K-O-C, DMB-4K-O-HD, DMB-4K-I-HD, DMB-CPU-64, DMB-4K-CPU-64, DMB-CPU-128, DMB-4K-CPU-128 Accessory Fan Trays: DM-MDA-64-FANTRAY, DM-MDA-128-FANTRAY	E174344-A44-UL	
5",7",10.1" HD Touch Screen	TSW-560X-XX-XX-XX TSW-760X-XX-XX-XX TSW-1060X-XX-XX-XX XX can be any letter from A to Z, & Number from 0 to 9	E174344-A53-UL	
Power over DM (PoDM)	DM-PSU-16-PLUS, DM-PSU-8-PLUS	E174344-A54-UL	
Single International Square Gang Box Control System	MPC3-XXX-XX-XX where XX can be any letter from A to Z, & Number from 0 to 9	E174344-A56-UL	

## Generic Inspection Instructions

**GENERIC INSPECTION INSTRUCTIONS**

Product Category	Listing / Classification CCN	Component Recognition CCN **
Theater Dimmer Controls	EPCT, EPCT7	--
Graphic Arts Equipment	KCQT, KCQT7	-
Information Technology Equipment Including Electrical Business Equipment	NWGQ, NWGQ7	NWGQ2, NWGQ8
Photographic Equipment	QINT, QINT7	QINT2, QINT8
Power Distribution Centers for Communications Equipment	QPQY, QPQY7	QPQY2, QPQY8
Power Supplies for Information Technology Equipment Including Electrical Business Equipment	QQGQ, QQGQ7	QQGQ2, QQGQ8
Scales and Accessories	TUTT, TUTT7	TUTT2, TUTT8

\*\* These instructions shall also be used for the indicated Component Recognition CCNs unless specifically exempted from the factory production-line tests as noted in each individual Test Report.

These instructions contain the UL LLC Follow-Up inspection requirements for manufacturing and production-line tests. These requirements are considered to be certification requirements related to Follow-Up inspection of equipment, as such, they are not included in the Bi-National Standard as deviations from IEC 60950 or IEC 60950-1.

These instructions consist of the following Parts:

Part	Description
AA	Instructions and Duties for UL Representative
AB	Instructions for Follow-Up Tests at UL
AC	Responsibilities and Requirements for Manufacturer
AD	General Terminology
AE	General Product Construction Requirements
AF	UL Certification Marks

## Generic Inspection Instructions

**PART AA**

## INSTRUCTIONS AND DUTIES FOR UL REPRESENTATIVE

AA1.0	<b>UL REPRESENTATIVE'S DUTIES</b>
AA1.1	<p>The UL Representative's duties include, but are not limited to:</p> <ul style="list-style-type: none"> <li>A. Examining the construction of production intended to bear the UL Mark or Marking to determine compliance with the description of the product and any other requirements expressed in this Procedure.</li> <li>B. Where so specified in each Test Report, forwarding samples to UL for Follow-Up tests</li> <li>C. Where so specified by Part AC, inspecting the test records and facilities of the manufacturer to ensure that: <ul style="list-style-type: none"> <li>1. The proper number of samples are undergoing the required tests, and</li> <li>2. The required tests are being performed correctly, and</li> <li>3. The proper information is being recorded and is up-to-date, and</li> <li>4. The instruments being used for the tests have been calibrated at the prescribed interval and are in good working order.</li> </ul> </li> </ul>
AA2.0	<b>PROCEDURE IN CASE OF NONCONFORMANCE</b>
AA2.1	<p>Report to the manufacturer and UL LLC by means of a Variation Notice (VN) if:</p> <ul style="list-style-type: none"> <li>A. Variations in construction are found, or</li> <li>B. The manufacturer's method and/or frequency of testing is not as described, or</li> <li>C. The test records maintained by the manufacturer are not as described, or</li> <li>D. The manufacturer's inspection program is not being performed as described, or</li> <li>E. Nonconforming test results are witnessed during tests conducted specifically for the UL Representative.</li> </ul>
AA2.2	<p>Explain to the manufacturer that a VN is a means of communication with the manufacturer and applicant and forms a record of those items where nonconformance to the Procedure has been found. Reference is to be made to "Information for Manufacturer's Variation Notices" on the back of the VN.</p>
AA2.3	<p>When a product does not conform with the Procedure, require that the manufacturer:</p> <ul style="list-style-type: none"> <li>A. Remove any markings referencing UL from the product, or</li> <li>B. Suitably modify all products that do not comply with the Procedure, or</li> <li>C. Hold shipment pending further instructions from UL LLC</li> </ul> <p>Exception: Production may be temporarily accepted if it can be determined that the nonconformance does not present a conflict with the applicable UL requirements, and laboratory testing (other than Follow-Up testing) is not required to determine product compliance.</p>



## Generic Inspection Instructions

AA2.4	In the event of a disagreement between the manufacturer and the UL Representative as to whether a product is acceptable, the manufacturer shall hold production at the factory pending resolution of the variations. The manufacturer and applicant have the right to appeal the decision; and the UL Representative shall provide the name of the UL Engineer to whom the appeal is to be made. If the UL Engineer is not known the manufacturer is to be directed to contact the Client Advisor at the Reviewing Office. Should UL LLC grant temporary authorization for the continued use of the UL Mark, such temporary authorization shall only be for the time needed to review and/or process the Procedure revisions, or as otherwise specified to cover a particular lot or production run.
AA3.0	<b>INSTRUCTIONS FOR INSPECTION OF THE PRODUCT</b>
AA3.1	At each inspection, samples of current production and/or stock shall be examined for compliance with the applicable descriptions and requirements contained in this Procedure.
AA4.0	<b>INSTRUCTIONS FOR SAMPLE SELECTION</b>
AA4.1	Certain products contained in this Procedure employ plastic enclosures that may require Follow-Up testing when the material is not a Recognized Component Plastic (QMFZ2). Where indicated in each Test Report, samples shall be selected once per year.
AA4.2	Where Follow-Up tests are required, the number and type of samples to be selected and the tests to be conducted are indicated in each Test Report. Where different models shown use identical enclosures (material and dimensions), a single enclosure can be sent to represent all models. When several alternate materials are specified for particular models, only a sample of the enclosure material currently in use should be sent.
AA4.3	The selected samples shall be appropriately tagged to indicate materials, manufacturer and model/cat. no., and shall be forwarded to the appropriate Reviewing Office. Each enclosure sample should also be marked with the Procedure and Report Reference Number that the sample represents.

## Generic Inspection Instructions

**PART AB**

## INSTRUCTIONS FOR FOLLOW-UP TESTS AT UL

AB1.0	<b>GENERAL</b>
AB1.1	A Test Report may require Follow-Up Tests for specific products. The stated sample requirements and test specifics are based the information in AB2.0.
AB1.1	The samples forwarded by the UL Representative shall be subjected to the specified tests in accordance with the method and basis of acceptability noted in AB3.0.
AB1.2	All clause references are from the Standard for Safety of Information Technology Equipment, UL 60950, Third Edition and UL 60950-1, First Edition.

AB2.0	<b>SAMPLE REQUIREMENTS</b>		
	Test	Samples	Test Specifics
AB2.1	Impact	1 complete unit or 1 enclosure with supporting framework	Ball drop height = 1.3 m
AB2.2	Drop	1 complete unit	Unit drop height = 0.75 m or 1 m
AB2.3	Stress Relief	1 complete unit; or 1 enclosure with supporting framework	Oven temperature (°C)
AB2.4	3/4-Inch (19 mm) Flammability	3 enclosures or 3 sample parts with representative wall thickness and ventilation openings.	Oven temperature (°C)
AB2.5	5-Inch (127 mm) Flammability	3 enclosures or 3 sample parts with representative wall thickness and ventilation openings.	Oven temperature (°C)
AB2.6	Needle-Flame	3 enclosures or 3 sample parts with representative wall thickness and ventilation openings.	Oven temperature (°C)

AB3.0	<b>PERFORMANCE TESTS</b>		
	Test	Method (sub-clause)	Basis for Acceptability
AB3.1	Impact	4.2.5	4.2.1
AB3.2	Drop	4.2.6	4.2.1
AB3.3	Stress Relief	4.2.7	4.2.1
AB3.4	3/4-Inch (19 mm) Flammability	Annex A, A.2	Annex A, A.2
AB3.5	5-Inch (127 mm) Flammability	Annex A, A.1	Annex A, A.1
AB3.6	Needle-Flame	Annex A, A.2.7	Annex A, A.2.7

## Generic Inspection Instructions

**PART AC**

## RESPONSIBILITIES AND REQUIREMENTS FOR MANUFACTURER

AC1.0	<b>MANUFACTURER'S RESPONSIBILITIES (INCLUDING BUT NOT LIMITED TO)</b>
AC1.1	Control of UL Mark - Restrict the use of markings that reference UL (either directly or by use of the name, an abbreviation of it, or the UL symbol or Classification Mark, or indirectly by means of agreed-upon markings that are understood to indicate acceptance by UL) to those products that are found by the manufacturer's own inspection to comply with the Procedure description. Such restrictions apply to packaging, brochures or other means of advertising that reference UL. Use of such markings is further limited by the agreements that have been executed by the subscriber and UL.
AC1.2	Substitution of Non-Specified Plastic Materials - The product description may require the use of a Recognized Plastic with a minimum flammability rating. For these cases, before a plastic material may be used, current UL certification documentation must be checked to ensure that the plastic material has an acceptable flammability rating as specified at the thickness of use. Acceptable UL certification documentation includes: (a) the current edition of the Recognized Component Directory or Supplement; (b) the UL Online Certification Directory ( <a href="http://www.ul.com/database">http://www.ul.com/database</a> ). NOTE: The above does not apply to materials for which the specific manufacturer and type designation of the plastic is specified in the individual Test Reports (i.e. Enclosures).
AC1.3	Substitution of Non-Specified PWB's - Before a printed wiring board may be used, current UL certification documentation must be checked to ensure that the maximum solder temperature and dwell time is as indicated and that the printed wiring board has minimum flammability and operating temperature ratings as specified in the individual Test Reports or other specified requirements. Acceptable UL certification documentation includes: (a) the current edition of the Recognized Component Directory or Supplement; (b) the UL Online Certification Directory ( <a href="http://www.ul.com/database">http://www.ul.com/database</a> ).
AC1.4	Production-Line Tests - Conduct the tests detailed in Part AC2.
AC1.5	Test Equipment Calibration – Determine that the test equipment is functioning properly and have it calibrated at least annually, or whenever it has been subject to abuse (such as being dropped or struck with an object) or its accuracy is questionable. Calibration may be by the manufacturer or an outside laboratory. In either case, it shall be by comparison with a Standard that is traceable to the applicable U.S. or the appropriate country's National Standard. Certification of calibration shall be maintained by the manufacturer until the next succeeding certification, and shall be readily available for review by the UL Representative. A letter from an outside laboratory or from an off-site manufacturer's calibration lab stating that their lab Standards are directly traceable to their country's National Standard and outlining their traceability path is considered adequate proof of traceability. A tag or marking on the equipment alone is not to be considered as equivalent to certification, but may be used to reference the certification report.
AC1.6	Packaging - Ensure that there are no markings on the carton, package or contents that are, or could be construed to be, in conflict with or an extension of the uses covered in the instruction manual or Procedure.

Generic Inspection Instructions

AC1.7	<p>Power Supply Cords –</p> <p>A. Non-Detachable Power Supply Cord - A non-detachable power supply cord must be provided if described in a Test Report.</p> <p>B. Detachable Power Supply Cord - A detachable power supply cord described in a Test Report may or may not be shipped with the unit(s). When a cord is provided, it should either:</p> <ol style="list-style-type: none"> <li>1. Comply with the specific description in the Procedure, or,</li> <li>2. Be provided for products for use outside of the USA and/or Canada. In this case, the manufacturer is to supply the UL Representative with information that allows the Representative to verify that the products are intended to be sold outside of the USA and/or Canada <u>and</u> that the cord is certified or similarly appropriate for use in the destination country.</li> </ol>
AC1.8	<p>User and Installation (Safety) Instructions provided with Bulk Shipped Equipment</p>
AC1.8.1	<p>Bulk shipments may be provided with installation instruction sets totaling less than the total number of products in the shipment provided, or none at all provided that the following conditions are met.</p> <p>A. Bulk Shipment to Distribution Center - Bulk shipments from a manufacturing facility covered by the Procedure describing the product to an off-site distribution center need not have the user/installation instructions provided with the shipment if appropriate safety instructions will be added to individual products at the distribution center before final redistribution to the consumer. It is the dual responsibility of the manufacturer and distribution center to have a system in place to insure that all instructions required by the Procedure are provided with the product before final distribution to the consumer, but this system will not be subject to review by UL Follow-Up Service.</p> <p>Example: A product shipped in a bulk lot to an overseas distribution center where appropriate installation instructions in the local language are added before final redistribution.</p> <p>B. Bulk Shipment to Single Destination Which Controls Installation of Equipment and Manages Distribution of Instructions - Bulk shipments from a manufacturing facility covered by the Procedure to a single destination, where the redistribution and installation of the product, including distribution of instructions, is under the control of the customer, may include just one set of use/installation instructions provided that the user/installation instructions (original or copies) are made available to the users of the equipment, as needed.</p> <p>Alternatively, user/installation instructions need not be provided with such a shipment if appropriate safety instructions will be sent separately to single destination that controls installation of the equipment. For such cases, it is the responsibility of the manufacturer to have a system in place to insure that all instructions required by the Procedure are provided to the consumer, but this system will not be subject to UL Follow-Up Service.</p> <p>Example: A product shipped in bulk lots to a corporate customer where the equipment will be redistributed and installed locally by the corporate customer, and copies of user/installation instructions are not needed for all users of the equipment.</p> <p>C. Bulk Shipment to Single Destination Which Does Not Control Installation - Bulk shipments from a manufacturing facility covered by the Procedure describing the product to a single destination, where redistribution and installation of the product is not controlled, should be provided with individual sets of use/installation instructions for each product, unless subjected to special consideration.</p> <p>Example: A product shipped in bulk lots to a wholesale or retail outlet where the installation of the equipment will not be under the control of the wholesaler or retailer.</p>

## Generic Inspection Instructions

AC1.8.2	Compliance with these guidelines will be determined through a review of the content of the equipment's installation instructions during the product investigation, and information supplied to the UL Inspection Center Representative during inspection visits. Other options that provide an equivalent level of safety or control may be considered based on the application.
AC1.9	<p>Product Variations - In the event that a nonconformance to the Procedure is found, a Variation Notice (VN) will be issued. A VN is a means of communication with the applicant and manufacturer, and forms a record of those items where nonconformance to the Procedure has been found. The VN will indicate the specific model inspected and all other models with similar construction features, even when these models are not individually inspected.</p> <p>Unless directed otherwise by the UL Representative, when a product does not comply with the Procedure, the manufacturer shall either:</p> <p>A. Remove any markings referencing UL from the product, packaging, instructions, etc.; or  B. Suitably modify all products that do not comply with the Procedure; or  C. Hold shipment pending further instructions from UL LLC; or  D. Act in accordance with special arrangements made with the Reviewing Office.</p>
AC1.9.1	In the event of a disagreement between the manufacturer and the UL Representative as to whether or not a product is conforming, the manufacturer shall hold production at the factory pending resolution of the variations. The applicant or manufacturer has the right to appeal a decision with which he disagrees and should contact the appropriate UL Office to resolve any disagreements. Should UL LLC grant temporary authorization for the continued use of the UL Mark, such temporary authorization shall only be for the time needed to review and/or process the Procedure revisions, or as otherwise specified to cover a particular lot or production run.

AC2.0	<b>REQUIREMENTS FOR PRODUCTION-LINE TESTS</b>
AC2.1	The following Production-Line Tests shall be conducted on the products covered by this Procedure. During production, the test equipment shall be checked for proper operation at least once during each shift. When the tests are not performed concurrently, it is preferred that the Electric Strength (Dielectric Voltage-Withstand) Test be performed after the Earthing (Grounding) Continuity Test.
AC2.2	<b>Production-Line Earthing (Grounding) Continuity Test</b>
AC2.2.1	General
AC2.2.1.1	<p>For Listed products: Except as may be noted under "Exceptions" in each Test Report, the manufacturer shall subject 100 percent of production of all of the following products to a routine Production-Line Earthing Continuity Test as described in section AC2.2.3.</p> <p>A. Products that are provided with a non-detachable earthing type power supply cord, or  B. Products that are provided with an earthed type inlet which accepts a detachable power supply cord, or  C. Products that are provided with an earthing type terminal block or field wiring (pigtail leads) for permanent connection to the branch circuit.</p>
AC2.2.1.2	For Component Recognized products: When specifically noted in each Test Report, the manufacturer shall subject 100 percent of the specified models to a routine Production-Line Earthing Continuity Test as described in section AC2.2.3.
AC2.2.2	Test Equipment
AC2.2.2.1	Any suitable continuity-indicating device (such as an ohmmeter, a battery and buzzer combination, or the like) may be used to determine compliance with the Earthing Continuity Test requirements. Commercial earth continuity testers that pass a current through the earthing path may also be used to determine compliance with the same requirements.

## Generic Inspection Instructions

AC2.2.3	Method
AC2.2.3.1	Continuity shall be determined between the earthing conductor of the attachment plug cap, and/or the designated main protective earthing point, and accessible dead-metal parts of the product, using the test equipment indicated above.
AC2.2.3.2	A single test is sufficient if the accessible metal selected is conductively connected by design to all other accessible metal.
AC2.2.4	Basis for Acceptability
AC2.2.4.1	There shall be earthing continuity between the parts specified.
AC2.2.5	In Cases of Non-conformance
AC2.2.5.1	Any unit that does not conform shall be segregated from conforming units until repaired or otherwise brought into compliance. Records of non-conforming test results shall be retained for six (6) months and shall be readily available for review by the UL Representative. The records shall include the model or catalog designation of the product, the date of production of the unit, the date the test was performed, test results and action taken on rejection.
AC2.3	<b>Production-Line Electric Strength (Dielectric Voltage-Withstand) Test</b>
AC2.3.1	General
AC2.3.1.1	For Listed products: Except as may be noted under "Exceptions" in each Test Report, the manufacturer shall subject 100 percent of production of all products to a routine Production-Line Electric Strength Test as described in section AC2.3.3.
AC2.3.1.2	For Component Recognized products: When specifically noted in each Test Report, the manufacturer shall subject 100 percent of the specified models to a routine Production-Line Electric Strength Test as described in section AC2.3.3.
AC2.3.2	Test Equipment
AC2.3.2.1	The test equipment shall include a means of indicating the test potential, an audible or visual indicator of electrical breakdown, and either a manually operated reset device to restore the equipment after electrical breakdown or an automatic feature that rejects any unacceptable unit. If an ac test potential is applied, the test equipment shall also include a transformer having an essentially sinusoidal output.
AC2.3.2.2	If the output of the test-equipment transformer is less than 500 volt-amperes, the equipment shall include a voltmeter in the output circuit to indicate the test potential directly.
AC2.3.2.3	If the output of the test-equipment transformer is 500 volt-amperes or more, the test potential may be indicated (1) by a voltmeter in the primary circuit or in a tertiary-winding circuit, (2) by a selector switch marked to indicate the test potential, or (3), in the case of equipment having a single test-potential output, by a marking in a readily visible location to indicate the test potential. When marking is used without an indicating voltmeter, the equipment shall include a positive means, such as an indicator lamp, to indicate that the manually operated reset switch has been reset following a dielectric breakdown.
AC2.3.2.4	Test equipment other than that described above may be used when it can be shown that UL has previously confirmed in writing that the equipment complies with the above requirements and is deemed suitable for use for this test.

## Generic Inspection Instructions

AC2.3.3	Method
AC2.3.3.1	<p>Each product shall withstand without electrical breakdown, as a routine production-line test, the application of an ac potential at a frequency within the range of 40-70 Hz or a dc potential between (a) the primary wiring, including connected components, and (b) accessible dead metal parts that are likely to become energized.</p> <p>For purposes of these instructions, primary wiring encompasses input wiring for connection to power systems associated with both ac mains and dc mains that exceeds 60 V dc.</p> <p>Note: See the Specific Inspection Criteria in each Test Report for details or special instructions for test locations, such as testing of enamel coating on signal transformers associated with TNV circuits per 2.3.2 and 6.2.1 of UL 60950-1.</p>
AC2.3.3.2	When there are capacitors across the insulation under test, it is recommended that dc test voltages be used.
AC2.3.3.3	The production-line test potential for paragraph AC2.3.3.1 shall be in accordance with Table AC1 for protectively earthed (Class I) products and Table AC2 for double insulated (Class II) products, as applicable. The full test potential is to be applied for 1 second. The manufacturer's test conditions may be higher than those shown in Tables AC1 and AC2 when necessary to comply with other international product safety certifications.
AC2.3.3.4	The product may be in a heated or unheated condition for the test.
AC2.3.3.5	<p>The test shall be conducted when the product is complete (fully assembled), and it is not intended that the product be unwired, modified, or disassembled for the test, unless otherwise permitted below:</p> <p>A. A part, such as a snap cover or a friction-fit knob, that would interfere with conducting the test need not be in place.</p> <p>B. The test may be conducted before final assembly if the test parameters represent that for the completed product.</p> <p>C. The test need not be performed using the power supply cord provided with the product. However, if the manufacturer's test method employs a test power supply cord, then the continuity of the test power supply cord conductive connections shall be checked once daily.</p>
AC2.3.3.6	For the test, either a sufficient number of control devices are to be closed, or separate applications of the test potential are to be made, so that all parts of the primary circuit are tested.
AC2.3.3.7	<p>During the test, the primary switch is to be in the on position, both sides of the primary circuit of the product are to be connected together and to one terminal of the test equipment, and the second test-equipment terminal is to be connected to accessible dead metal, except as permitted below:</p> <p>A. A product (resistive, high-impedance winding, or the like) having circuitry not subject to excessive secondary voltage buildup in case of electrical breakdown during the test may be tested (1) with a single-pole primary switch, if used, in the off position, or (2) with only one side of the primary circuit connected to the test equipment when the primary switch is in the on position or when a primary switch is not used.</p> <p>B. The primary switch is not required to be in the on position if the testing means applies full test potential between the primary wiring and dead metal parts with the switch not in the on position.</p>
AC2.3.3.8	When authorized by the "Exceptions" included in each Test Report, solid-state components that might be damaged by a secondary effect (induced voltage surge, excessive heating, and the like) of the test may be short-circuited by means of a temporary electrical jumper or the test may be conducted without the component electrically connected, providing the wiring and terminal spacings are maintained. Transient voltage suppression devices other than capacitors connected from primary wiring to dead metal may also be disconnected during the test.

Generic Inspection Instructions

AC2.3.4	Basis for Acceptability
AC2.3.4.1	All products shall withstand the applied potential without an indication of electrical breakdown.
AC2.3.5	In Cases of Non-conformance
AC2.3.5.1	Any unit that does not conform when tested at the values as specified in Table AC1 or AC2 shall be segregated from conforming units until repaired or otherwise brought into compliance. Records of non-conforming test results shall be retained for six (6) months and shall be readily available for review by the UL Representative. The records shall include the model or catalog designation of the product, the date of production of the unit, the date the test was performed, test results and action taken on rejection.

TABLE AC1  
ELECTRIC STRENGTH TEST CONDITIONS  
FOR CLASS I (PROTECTIVELY EARTHED) EQUIPMENT

Appliance Voltage Rating	Test Potential (V rms)	Test Potential (V dc)	Time (seconds)
Rated less than or equal to 130 V rms (184 V dc)	1000	1400	1
Rated more than 130 V rms (184 V dc) and less than or equal to 600 V rms (849 V dc)	1500	2100	1

For products with special constructions and test conditions see "Exceptions" in each Test Report.

TABLE AC2  
ELECTRIC STRENGTH TEST CONDITIONS  
FOR CLASS II (DOUBLE INSULATED) EQUIPMENT

Appliance Voltage Rating	Test Potential (V rms)	Test Potential (V dc)	Time (seconds)
Rated less than or equal to 130 V rms (184 V dc)	2000	2800	1
Rated more than 130 V rms (184 V dc) and less than or equal to 600 V rms (849 V dc)	3000	4200	1

For products with special constructions and test conditions see "Exceptions" in each Test Report.



## Generic Inspection Instructions

**PART AD**

## GENERAL TERMINOLOGY

AD1.0	<b>ABBREVIATIONS / DEFINITIONS</b>	
AD1.1	Bounding Surface	The outer surface of the electrical enclosure, considered as though metal foil was pressed into contact with accessible surfaces of insulating material
AD1.2	Clearance	Shortest distance between two conductive parts or between a conductive part and the BOUNDING SURFACE of the equipment, measured through air
AD1.3	Creepage Distance	Shortest distance between two conductive parts, or between a conductive part and the BOUNDING SURFACE of the equipment, measured along the surface of the insulation
AD1.4	Extra Low Voltage (ELV)	A secondary circuit with voltages between any two conductors of the circuit, and between any one such conductor and earth, not exceeding 42.4 V peak, or 60 V dc, under normal operating conditions, which is separated from a HAZARDOUS VOLTAGE CIRCUIT by basic insulation, and which neither meets all of the requirements for an SELV circuit nor meets all of the requirements for a LIMITED CURRENT CIRCUIT.
AD1.5	Hazardous Energy Level (HAZ/EL)	An available power level of 240 VA or more having a duration of 60 s or more, or a stored energy level of 20 J or more, at a potential of 2 V or more.
AD1.6	Hazardous Voltage (HAZ/V)	A voltage exceeding 42.4 V peak, or 60 V dc, existing in a circuit that does not meet the requirements for either a LIMITED CURRENT CIRCUIT or a TNV CIRCUIT.
AD1.7	Limited Current Circuit (LCC)	A circuit which is so designed and protected, that, under both normal operating conditions and single fault conditions, the current which can be drawn is not hazardous
AD1.8	Limited Power Source (LPS)	A circuit which includes a transformer or battery, and which is either inherently limited to power levels considered not a risk of fire, or is not inherently limited and requires an over-current protective device to limit the source to power levels considered not a risk of fire
AD1.9	Primary (PRI)	A circuit that is directly connected to the ac mains supply. It includes, for example, the means for connection to the ac mains supply, the primary windings of transformers, motors and other loading devices.
AD1.10	Safety Extra Low Voltage (SELV)	A SECONDARY CIRCUIT which is so designated and protected that under normal operating conditions and single fault conditions, its' voltages do not exceed a safe value, generally 42.2 V peak or 60 V dc.
AD1.11	Secondary (SEC)	A circuit that has no direct connection to a PRIMARY CIRCUIT and derives its power from a transformer, converter or equivalent isolation device, or from a battery.
AD1.12	TNV Circuit	A telecommunications network voltage circuit, which is in the equipment and to which the accessible area of contact is limited, and that is so designed and protected that, under normal operating conditions and single fault conditions, the voltages do not exceed specified limit values based upon the type of TNV circuit.

Generic Inspection Instructions

**PART AE**

GENERAL PRODUCT CONSTRUCTION REQUIREMENTS

AE1.0	<b>CONSTRUCTION DETAILS</b>
AE1.1	Unless otherwise described or supplemented in individual Test Reports, the requirements specified in Table AE1 apply to all equipment included in this Procedure
AE1.2	All clause references are from the Standard for Safety of Information Technology Equipment, UL 60950-1, First and Second Edition.

TABLE AE1  
CONSTRUCTION DETAILS




Clause	Clause Title	Clause Specifics
		None specified

Generic Inspection Instructions

**PART AF**

UL CERTIFICATION MARK

<i>Product Category:</i>	Information Technology Equipment Including Electrical Business Equipment
<i>Product Category CCN:</i>	NWGQ

AF1.1	The Test Report covering each product must be consulted to determine which Listing Marks are authorized for use in conjunction with that product.
AF1.1.1	The following Listing Mark is authorized for use on products which are Listed <b>only</b> to the requirements for the United States: <div style="display: flex; align-items: center; justify-content: center;">  </div>
AF1.1.2	Either of the following Listing Marks is authorized for use on products that are Listed to the requirements of <b>both</b> the United States and Canada: <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>
AF1.1.3	The complete Listing Mark may appear on the unit container in which the product is packaged when the product is of such a size that only the UL Symbol can be applied to the product or when the product size, shape, material or surface texture makes it impossible to apply any legible marking to the product.
AF1.2	The Listing Mark consists of several elements that are placed in close proximity to each other and shall appear on Listed products only.
AF1.2.1	Element 1 - UL Symbol. There is no required minimum height for the UL Symbol, as long as it is legible. The minimum height of the registered trademark symbol ® shall be 3/64 of an inch. When the overall diameter of the UL Symbol is less than 3/8 of an inch, the trademark symbol may be omitted if it is not legible to the naked eye. Information on downloading electronic versions or receiving camera-ready artwork of the UL Symbols may be obtained at <a href="http://www.ul.com">www.ul.com</a>
AF1.2.2	Element 2 - The word "LISTED"
AF1.2.3	Element 3 - A product identity
AF1.2.3.1	The product identity is: "UL60950", "UL60950-1", "INFORMATION TECHNOLOGY EQUIPMENT", "NWGQ", "I.T.E.", "ITE", or "INFO. TECH. EQUIP.", and may also include one of the following product identities as appropriate "COPIER", "MODEM", "PAPER SHREDDER", "PERSONAL COMPUTER", "CORDLESS TELEPHONE", or another appropriate product identity as shown in the individual Test Reports.
AF1.2.3.2	The product identity may be omitted if the Listing Mark is directly and permanently applied to the product by stamping, molding, ink-stamping, silk screening or similar process. The product identity may appear elsewhere on the product if the other three elements are part of the nameplate that includes the rating or the catalog or model designation.
AF1.2.3.3	The product identity for a Listed Accessory or Conversion Unit/Kit shall include the word "ACCESSORY" or "CONVERSION", as appropriate where products are so indicated in individual Test Reports.
AF1.2.4	Element 4 – A control number represented above by XXXX is to be replaced with the Listee’s file number.
AF1.3	Element 5 – Products that are Complementary Listed to other categories shall include the statement "ALSO LISTED AS (PRODUCT IDENTITY)", where the product identity is that of the complementary category as indicated in the individual Test Reports.
AF1.4	A separable Listing Mark (not part of a nameplate and in the form of decals, stickers or labels) must include all elements.
AF1.5	For LISTED INTERCONNECTING CABLE ASSEMBLIES that are described in separate Test Reports of this Procedure, the Listing Mark may be part of the required marking (manufacturer’s name and type designation) and may appear at each end of the assembly.

Generic Inspection Instructions




AF1.6	The manufacturer may reproduce the Listing Mark or obtain it from a UL authorized supplier.
-------	---

Generic Inspection Instructions

## PART AF

### UL CERTIFICATION MARK

<i>Product Category:</i>	Information Technology Equipment Including Electrical Business Equipment
<i>Product Category CCN:</i>	NWGQ7

AF1.1	The Test Report covering each product must be consulted to determine which Listing Marks are authorized for use in conjunction with that product.
AF1.1.1	<p>The following Listing Mark is authorized for use on products that are Listed <b>only</b> to the requirements for Canada:</p> <div style="text-align: center;">  </div>
AF1.1.2	<p>Either of the following Listing Marks is authorized for use on products that are Listed to the requirements of <b>both</b> the United States and Canada:</p> <div style="text-align: center;">   </div>
AF1.1.3	The complete Listing Mark may appear on the unit container in which the product is packaged when the product is of such a size that only the UL Symbol can be applied to the product or when the product size, shape, material or surface texture makes it impossible to apply any legible marking to the product.
AF1.2	The Listing Mark consists of several elements that are placed in close proximity to each other and shall appear on Listed products only.
AF1.2.1	Element 1 - UL Symbol. There is no required minimum height for the UL Symbol, as long as it is legible. The minimum height of the registered trademark symbol ® shall be 3/64 of an inch. When the overall diameter of the UL Symbol is less than 3/8 of an inch, the trademark symbol may be omitted if it is not legible to the naked eye. Information on downloading electronic versions or receiving camera-ready artwork of the UL Symbols may be obtained at <a href="http://www.ul.com">www.ul.com</a>
AF1.2.2	Element 2 - The word "LISTED"
AF1.2.3	Element 3 - A product identity
AF1.2.3.1	The product identity is: "UL60950", "INFORMATION TECHNOLOGY EQUIPMENT", "NWGQ", "I.T.E.", "ITE", or "INFO. TECH. EQUIP.", and may also include one of the following product identities as appropriate "COPIER", "MODEM", "PAPER SHREDDER", "PERSONAL COMPUTER", "CORDLESS TELEPHONE", or another appropriate product identity as shown in the individual Test Reports.
AF1.2.3.2	The product identity may be omitted if the Listing Mark is directly and permanently applied to the product by stamping, molding, ink-stamping, silk screening or similar process. The product identity may appear elsewhere on the product if the other three elements are part of the nameplate that includes the rating or the catalog or model designation.
AF1.2.3.3	The product identity for a Listed Accessory or Conversion Unit/Kit shall include the word "ACCESSORY" or "CONVERSION", as appropriate where products are so indicated in individual Test Reports.
AF1.2.4	Element 4 – A control number represented above by XXXX is to be replaced with the Listee’s file number.
AF1.3	Element 5 – Products that are Complementary Listed to other categories shall include the statement "ALSO LISTED AS (PRODUCT IDENTITY)", where the product identity is that of the complementary category as indicated in the individual Test Reports.
AF1.4	A separable Listing Mark (not part of a nameplate and in the form of decals, stickers or labels) must include all elements.

## Generic Inspection Instructions

AF1.5	For LISTED INTERCONNECTING CABLE ASSEMBLIES that are described in separate Test Reports of this Procedure, the Listing Mark may be part of the required marking (manufacturer's name and type designation) and may appear at each end of the assembly.
AF1.6	The manufacturer may reproduce the Listing Mark or obtain it from a UL authorized supplier.

## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
<b>Product:</b>	Speaker Phone
<b>Model:</b>	CCS-UC-1 and CCS-UC-1-AV
<b>Rating:</b>	Accessory - CCS-UCA-MIC 24 VDC, 2.5 A or PoE (Not required)  Accessory - Connected to CCS-UC-1 and CCS-UC-1-AV
<b>Applicant Name and Address:</b>	CRESTRON ELECTRONICS INC 15 VOLVO DR ROCKLEIGH NJ 07647-2507 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.

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

Prepared by: Iqbal R. Syed / Project Handler

Reviewed by: Scott A. Shepler / Reviewer

### 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 CCS-UC-1 and CCS-UC-1-AV are table top speakerphones with integrated touch panel. They are powered by a certified external power supply or via Power over Ethernet (PoE).

This product includes Accessory CCS-UCA-MIC connected to Speaker Phone CCS-UC-1 and CCS-UC-1-AV (signal only).

### Model Differences

Models are identical to each other except minor SELV changes and aesthetics.

### Technical Considerations

- Equipment mobility : movable
- Connection to the mains : not directly connected to the mains
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC III
- 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 SELV)
- Considered current rating of protective device as part of the building installation (A) : N/A
- Pollution degree (PD) : PD 2
- IP protection class : IP 00
- Altitude of operation (m) : less than 2000 meters
- Altitude of test laboratory (m) : less than 2000 meters
- Mass of equipment (kg) : 2.72
- The product was submitted and evaluated for use at the maximum ambient temperature (T<sub>ma</sub>) permitted by the manufacturer's specification of: 35°C



- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): All input / output ports.
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

**Additional Information**

Marking Plate is representative of all models.

\*\*\*\*\*

Reissue - This Report is a reissue of CBTR Ref. No. E174344-A43-CB-1, CB Test Certificate No. US-28965-A3-UL. Based on the previously conducted testing and the review of product technical documentation including photos, schematics, wiring diagrams and similar, it has been determined that the product continues to comply with the standard.

During this reissue, the following Technical changes made to the report:

- Only the limited tests were deemed necessary for adding alternate PoE Module Crestron, Model PA07660.

**Additional Standards**

The product fulfills the requirements of: EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013

**Markings and instructions**

Clause Title	Marking or Instruction Details
Inter-connecting cables - Non-LPS or TNV	Non-LPS or TNV output connectors identify the type of circuit, intended cable type or relevant circuit characteristics. (Marking or Instruction)
Inter-connecting cables - External detachable	Listee's Name and Part number (Marking or Instruction)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
PoE Manual Statement	A statement indicating "PoE type networks connected to these ports are for intra-building use only and should not be connected to lines that run outside of the building in which this product is located." or similar.

**Special Instructions to UL Representative**

N/A

<b>Production-Line Testing Requirements</b>						
<b><u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u></b>						
Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
-	-	-	-	-	-	-
<b><u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u></b>						
All models						
<b><u>Electric Strength Test Exemptions - This test is not required for the following models:</u></b>						
All models						
<b><u>Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:</u></b>						
N/A						
<b><u>Sample and Test Specifics for Follow-Up Tests at UL</u></b>						
Model	Component	Material	Test	Sample(s)	Test Specifics	
-	-	-	-	-	-	

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
Enclosure	Interchangeable	Interchangeable	Metal. 2.4 mm thick with 34 openings measuring 13.5 mm by 3 mm and 4 openings measuring 10.5 mm by 3 mm.	-	-	
Power supply	NetBit	NBS65A240250M 2	Input: 100-240 Vac, 50/60 Hz, 1.5 A Output: 24.0 VDC, 2.5 A	QQGQ	UL	
Touch Screen	Tianma Microelectronic	TM070JVHG32-00	Supplied by SELV limited power source. Touch screen membrane is applied over a 1 mm thick sheet of glass.	-	-	
PoE Module (U43)	Silvertel	Ag5300	SELV. Converts 48 VDC PoE to 24 VDC.	-	-	
PoE Module (U43)	Crestron	PA07660	SELV. Converts 48 VDC PoE to 24 VDC.	-	-	
Optocoupler (U44)	Toshiba Corporation	TLP281	SELV. Isolation Voltage - 2500 V	FPQU2	UR	
Optocoupler - Alternate	Interchangeable	Interchangeable	SELV. Isolation Voltage - 2500 V	FPQU2	UR	
Connectors (SELV)	Interchangeable	Interchangeable	-	ECBT2	UR	
Connectors (SELV) - Alternate	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of certified plastic, min. V-2.	QMFZ2	UR	
Modular Jacks (SELV)	Interchangeable	Interchangeable	RJ45 type.	DUXR or DUXR2	UL or UR	
Modular Jacks (SELV) - Alternate	Interchangeable	Interchangeable	RJ45 type. Copper alloy pins housed in bodies of certified plastic, min V-2.	QMFZ2	UR	
Label	Avery Dennison Fasson	TC/S333/50# SCK ABC	Gloss coated silver polyester with permanent acrylic adhesive. Rated 80°C for the surface to which it is applied.	PGJ12	UR	
Label - Alternate	Interchangeable	Interchangeable	Rate 80°C. Suitable for application to enclosure.	PGJ12 or PGDQ2	UR	

Printed Wiring Boards	Interchangeable	Interchangeable	Min V-1, 105°C	ZPMV2	UR	
Ethernet Cable	Interchangeable	Interchangeable	Rated 30 V, 28 AWG, 60°C, VW-1 flammability min. 3.05 m. max.	AVLV2	UR	
USB Cable	Interchangeable	Interchangeable	Rated 30 V, 28 AWG, 60°C, VW-1 flammability min. 3.05 m. max.	AVLV2	UR	
HDMI Cable	Interchangeable	Interchangeable	Rated 30 V, 26 AWG, 60°C, VW-1 flammability min. 3.05 m. max.	QPTZ	UL	
RJ9 to RJ48	SURE-FIRE ELECTRICAL CORP	YF16114-0366-000	Rated 30 V, 24 AWG, 60°C, VW-1 flammability min. 3.05 m	AVLV2	UR	
Accessory CCS-UCA-MIC. Consist of the following items a through c.	-	-	-	-	-	
a. Enclosure- Top and bottom	-	-	Metal	-	-	
b. Modular Jacks (SELV)	Interchangeable	Interchangeable	RJ45 type	DUXR or DUXR2	UL	
c. Printed Wiring Boards	Interchangeable	Interchangeable	Min V-1, 105°C	ZPMV2	UL	

## **Enclosures**

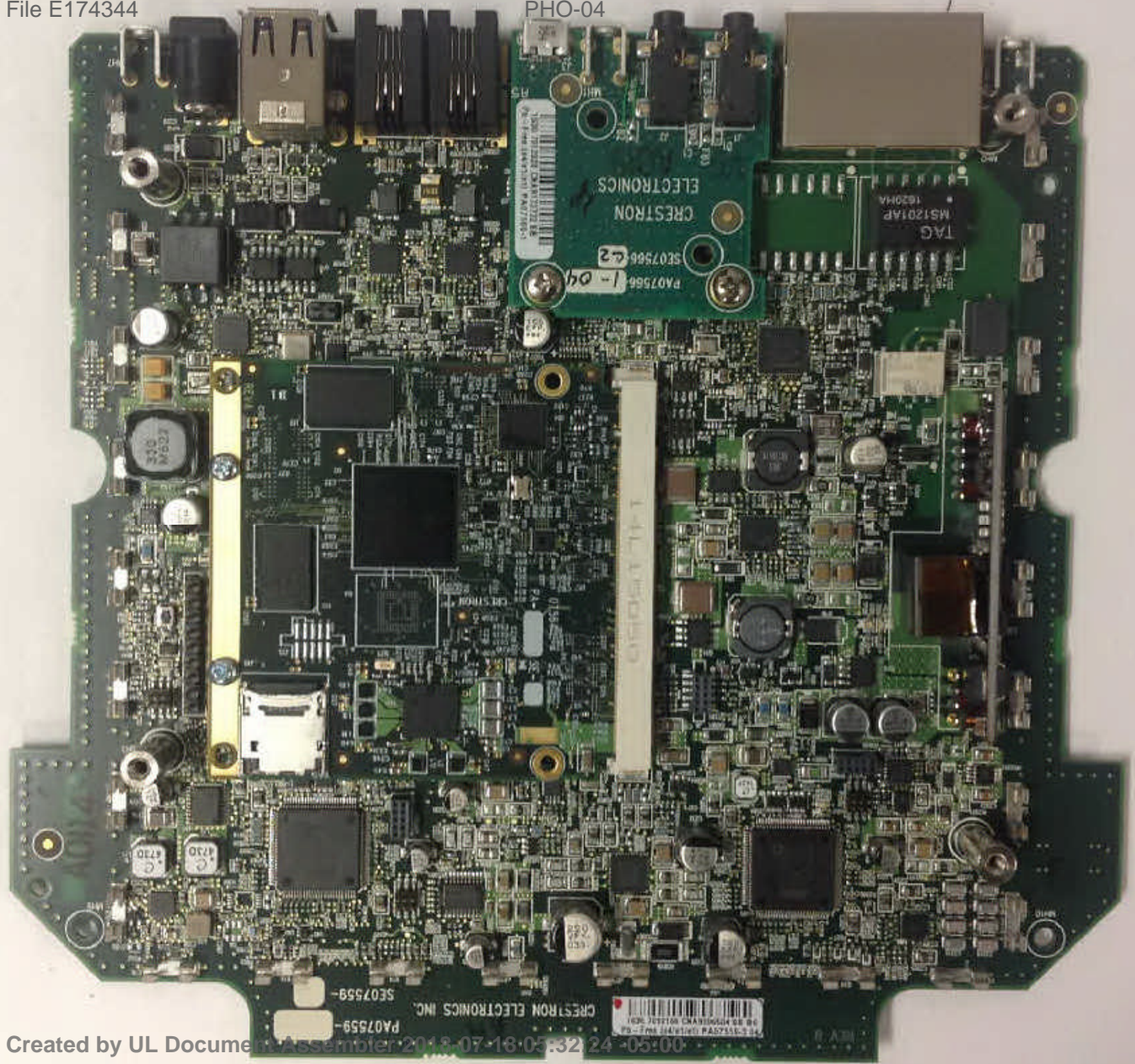
<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Front / Side View
Photographs	3-02	Front View
Photographs	3-03	Internal View
Photographs	3-04	Main Board - Top View
Photographs	3-05	Main Board - Bottom View
Photographs	3-06	Ports
Photographs	3-07	CCS-UCA-MIC - Top View
Photographs	3-08	CCS-UCA-MIC - Bottom View
Photographs	3-09	CCS-UCA-MIC - Internal Dante Board View
Photographs	3-10	CCS-UCA-MIC - Internal Main Board View
Miscellaneous	7-01	Letter of Assurance

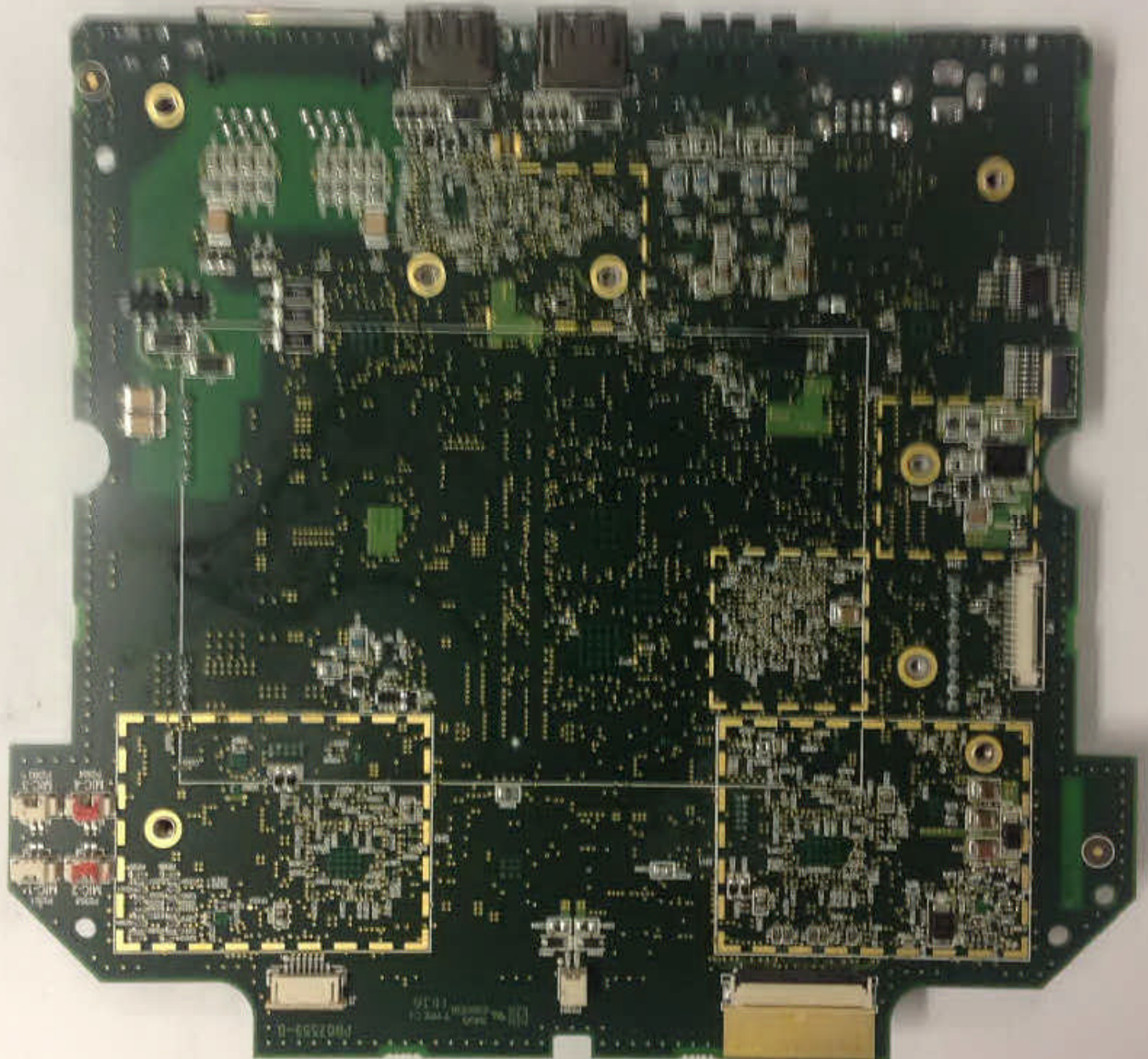
















USB/ACC

IR

COM


USB B

HDMI OUT

HDMI IN

1-MIC POD-2

USB/CAM

24V   
2.5A

LAN

AUX







T301

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received, including interference that may result from undesired operation.  
ICES-3(B)/NMB-3(B)

T426

**CRESTRON**  
CCS-UCA-MIC  
ASM IN USA

**CE**  
**EMC**

SEE MANUAL

SN X129628

PN 6508084

IN

INFO











## LETTER OF ASSURANCE

8/3/16

UL LLC  
 12 Laboratory Drive  
 Research Triangle Park, NC 27709  
 To: Jeff Smith  
 Subject: National Differences  
 Dear: Jeff Smith

This document confirms that Crestron Electronics Inc. will provide the following items needed to the accepting NCB along with the IT/CB test report.

Markings and Safety Instructions – All required safety instructions and markings in the language suitable for countries listed in the attached report will be provided at the time the IT/CB test report is submitted to the accepting NCB.

EMC Test Report – Where detailed in the National Differences, an EMC Test report or Declaration of Conformity (documentation determined by accepting NCB) will accompany this product when sent to countries that require EMC test results as part of their certification process.

Multiple Factories – This confirms that samples submitted for certification are representative of the products from each factory. The factories are noted in this CB test Report.

ROHS Directive – We have been advised that we will need to provide evidence of compliance with ROHS directive 2002/95/EC. The NCB may obtain this information from that Crestron electronics Inc. upon request.

Power Supply Cords and Plugs - All power cords and plug assemblies provided with the unit will be certified and suitable for use in the countries listed in the attached CB test report.

Production Line Tests – Production line electric strength and polarity verification testing will be carried out on 100 percent of units in accordance Annex N.

LEDs – All LEDs operate in the 400-710nm, visible spectrum, and are used as indicators only.

Chirag Patel  
 Compliance Engineer