

Listing Constructional Data Report (CDR)

1.0 Reference and Address				
Report Number	103669881LAX-001	Original Issued:	10-Dec-2018	Revised: 21-Aug-2019
Standard(s)	Speakers For Commercial And Professional Use [UL 1480A:2016 Ed.1]			
Applicant	Crestron Electronics	Inc	Manufacturer	Meida Technology Suzhou Co., Ltd.
Address	15 Volvo Rockleigh, NJ 07647	7	Address	No. 5 Chun Shen Hu East Road, Xiang Cheng District, Suzhou City, Jingsu Province, China 215131
Country	USA		Country	China
Contact	Mr. Gary Freed		Contact	Mr. Michael Wang Mr. Alex Lhy
Phone	800-237-2041, ext 12305		Phone	86512851888993315 86512851888993315
FAX	N/A		FAX	N/A
Email gfreed@crestron.com		Email	michael.wang@meida-tech.com.cn alexlhy@meida-tech.com.cn	

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2.0 Product Description				
Product	In-Ceiling Tile Loudspeaker			
Brand name	NA			
Description	The product covered by this report is a commercial, indoor use, ceiling speakers intended for the fixed installation in accordance with Article 640 of the National Electrical Code, ANSI/NFPA 70. These products are not intended for mobile use. Dry location only, the units are non-active, meaning they have no connection towards mains supply voltages.			
Models	SAROS ICT5T-12-W-T-EACH, SAROS ICT5T-22-W-T-EACH			
Model Similarity Model SAROS ICT5T-22-W-T-EACH is identical to model SAROS ICT5T-12-W-T-except for the 2x2 construction of the baffle and grill.				
Ratings	70/100VAC or 8Ω, 16Wmax			
Other Ratings	Frequency range: 70 Hz to 18 kHz			

Issued: 10-Dec-2018 Revised: 21-Aug-2019 3.0 Product Photographs

Photo 1 - External top view of model SAROS ICT5T-12-W-T-EACH

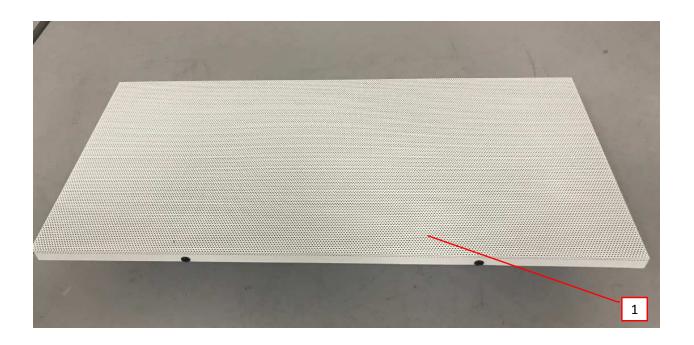


Photo 1a - External top view of model SAROS ICT5T-22-W-T-EACH



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3.0 Product Photographs

Photo 2 - External back view of model SAROS ICT5T-12-W-T-EACH



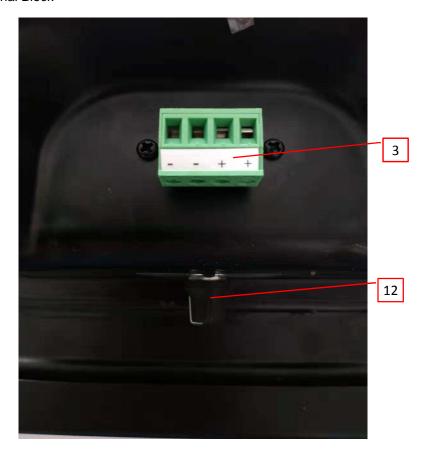
Photo 2a - External back view of model SAROS ICT5T-22-W-T-EACH



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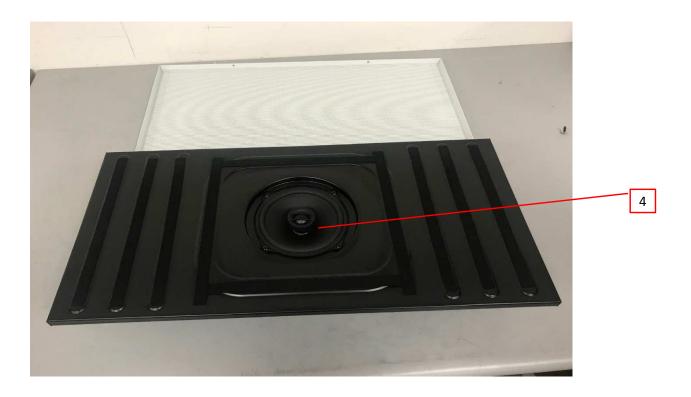
3.0 Product Photographs

Photo 3b - Terminal Block



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Photo 4 - top view of model SAROS ICT5T-12-W-T-EACH with the grill removed



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3.0 Product Photographs

Photo 5 - Top internal view of model SAROS ICT5T-12-W-T-EACH

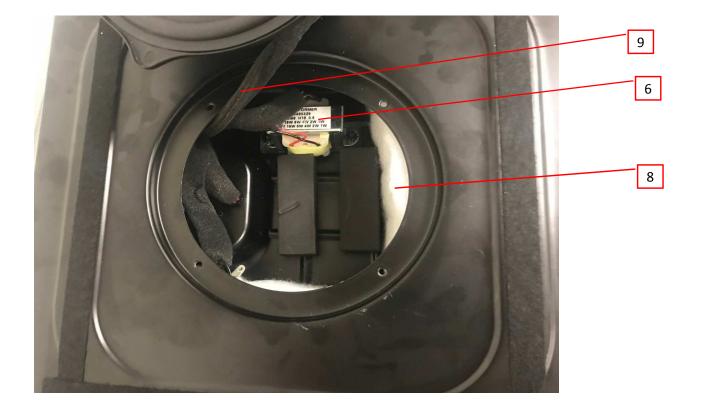


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3.0 Product Photographs

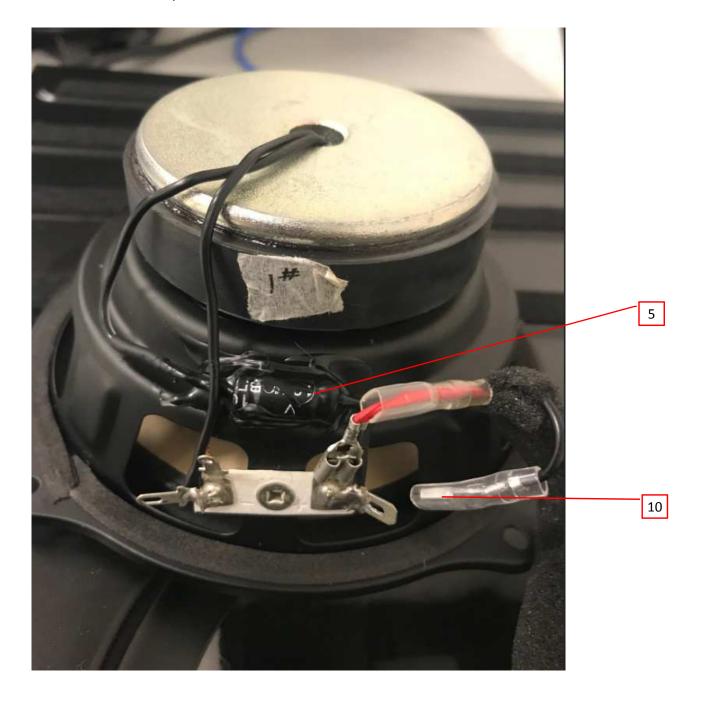
Photo 6 - Top internal view of model SAROS ICT5T-12-W-T-EACH



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3.0 Product Photographs

Photo 7 -Side view of the speaker



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4.0 (4.0 Critical Components					
Photo #	Item no.1	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity
1, 1a	1	Metal grill	Various	Various	SPCC Refer to illustrations # 1 and 1a	NR
2, 2a	2	Enclosure	Various	Various	SPCC, black powder coated Refer to illustration # 2 and 2a	NR
3a	3	Terminal Block	Various	PA66	12-28AWG, 15A, 300V, V-0, 105℃.	cURus
4, 5	4	Speaker woofer	Meiloon	WF	5.25" woofer 8ohm. Refer to illustration # 4	NR
5, 7	5	Capacitor	Shenzhen Hao Junxing Electronics Co., Ltd.	YC2018091101	1uF/100V	NR
5, 6	6	Matching transformer	Shanghai Sucheng Electric Co., LTD	WJ0480329	70/100Vac, 16W refer to illustration # 3	NR
За	7	Internal Wires (Not Shown)	Various	AWM 1007	300V, 22AWG, VW-1, 80°C	cURus
6	8	Insulation	Suzhou Banlan Electronic Technology co. LTD	Various	Sound-absorbing cotton . Rated V-0.	cURus
6	9	Wires insulation	Suzhou Shun hon Eletronics	EVA Foam	Polymer of polyvinyl acetate. Rated V-0	cURus
7	10	Terminal Insulation	Yueqing Tianda Electronic Sheath CO., LTD	Various	Rated V-0	cURus
1	11	Marking Label (Not Shown)	Various	Various	SILVER POLYESTER, .002" THK WITH PERMANENT ACRYLIC ADHESIVE	cURus
3a		Rotary Switch	Taiwan SWVR Enterprise Co. Ltd.	SR25	125Vac, 0.3A, 55°C,	NR

NOTES:

¹⁾ Not all item numbers are indicated (called out) in the photos, as their location is obvious.

^{2) &}quot;Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.

³⁾ Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

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5.0 Critical Unlisted CEC Components

No Unlisted CEC components are used in this report.

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6.0 Critical Features

<u>Recognized Component</u> - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

<u>Listed Component</u> - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

<u>Unlisted Component</u> - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

<u>Critical Features/Components</u> - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

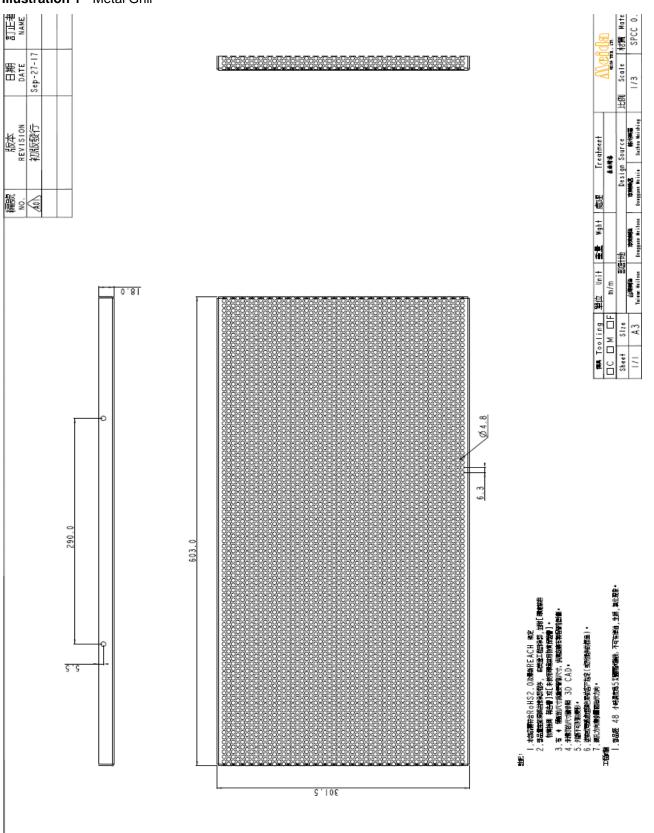
<u>Construction Details</u> - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

- 1. <u>Spacing</u> In primary circuits, 1.6 mm minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and 12.7 mm minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits.
- Mechanical Assembly Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
- 3. <u>Corrosion Protection</u> All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
- 4. <u>Accessibility of Live Parts</u> All uninsulated live parts in primary circuitry are housed within a metal enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
- 5. <u>Grounding</u> This product is not provided with a means of grounding as it is not required to be grounded since connected to low voltage audio circuits.
- 6. Polarized Connection NA
- 7. Internal Wiring Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring is minimum 22 AWG, with a minimum rating of 300V, 80℃.
- 8. Schematics NA
- 9. <u>Markings</u> The product is marked on a labeling system as described in item no. 11 of Section 4.0 as follows: brand name, model number, date of manufacturer, electrical ratings.
- 10. Cautionary Markings N/A
- 11. <u>Installation, Operating and Safety Instructions</u> Instructions for installation and use of this product are provided by the manufacturer. Refer to Illustration No(s). 5 and 6 for details.

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7.0 Illustrations

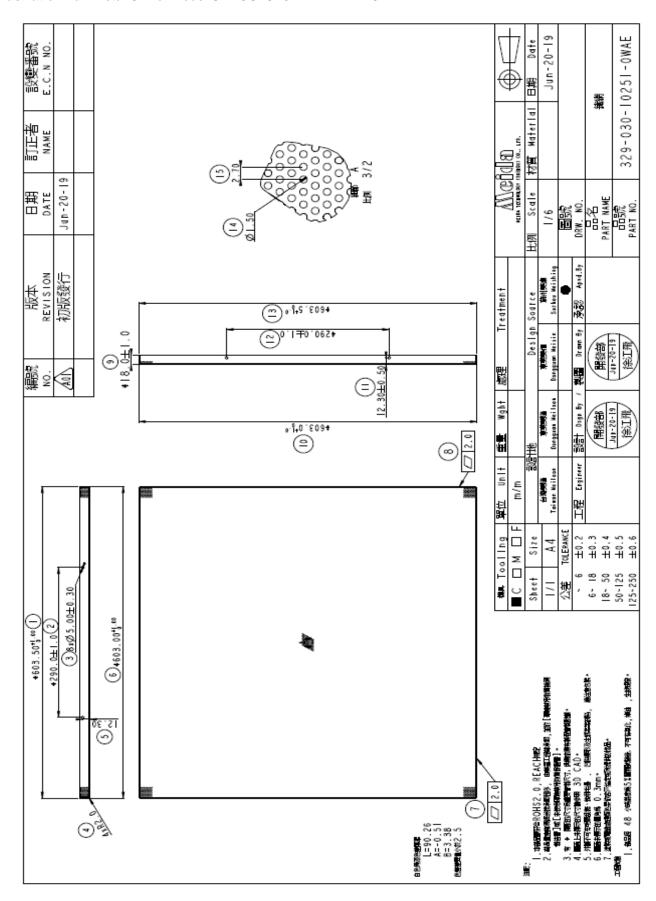
Illustration 1 - Metal Grill



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7.0 Illustrations

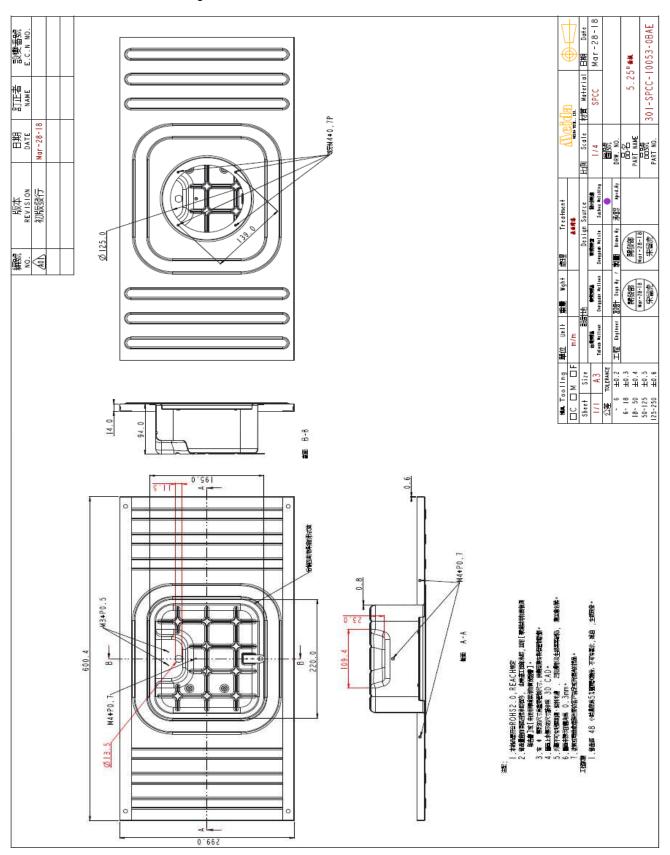
Illustration 1a - Metal Grill of model SAROS ICT5T-22-W-T-EACH



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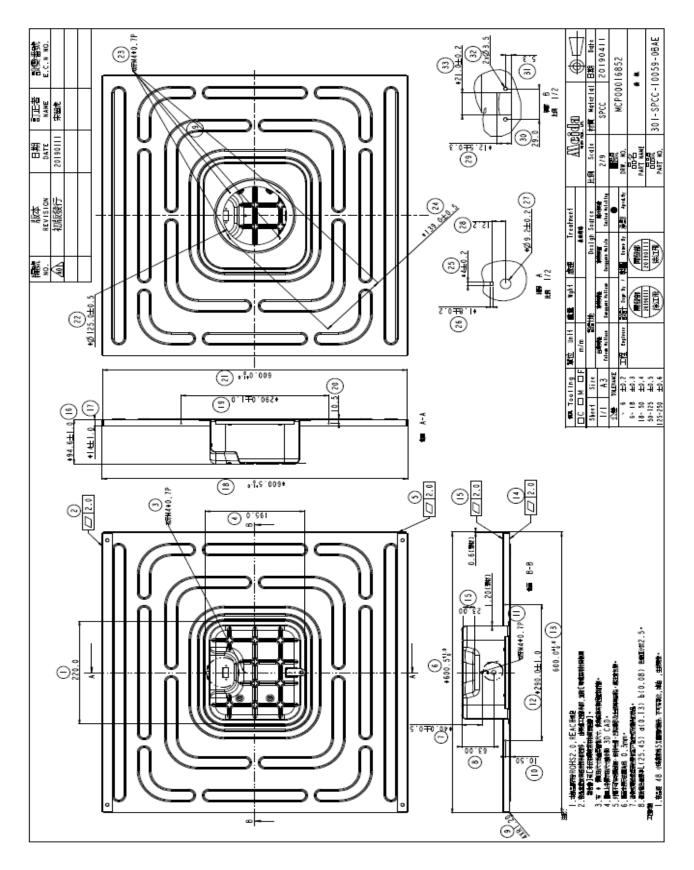
7.0 Illustrations

Illustration 2 - Enclosure Drawing



7.0 Illustrations

Illustration 2a - Enclosure Drawing of model SAROS ICT5T-22-W-T-EACH



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7.0 Illustrations

Illustration 3 - Transformer internal component

JUST-FOR-YOU ENTERPRISE CO. LTD.

WJ0480327

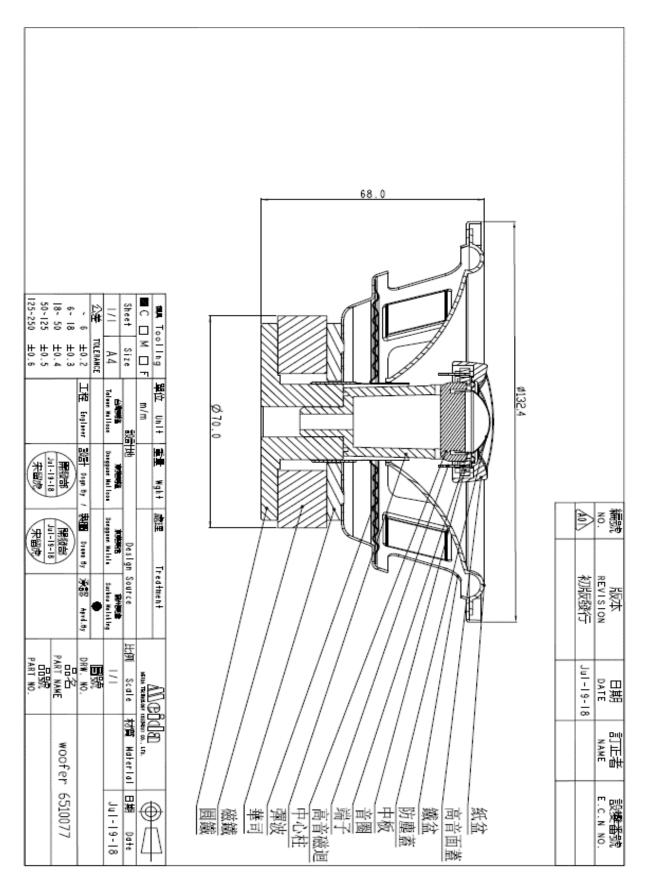
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		JUST-FOR-YOU ENT	ERPRISE	CO., LTD.
ITE	PART NAMI	Material	Safety Standar	d Manufacture
1	Core	E-I Lamminated Silicon Steel	.]	Nippon Steel Corporation.
	-	EI-48 (18/0.5A)		
2	Priamry winding	Polyurethane Enameled Copper Wire.	1	
		xUEW/130 MW 75-C	E227047	NINGBO JINTIAN NEW MATERIAL CO LTD
		UEW (MW75 130°C)	E214423	Shang Hai Pacific Electric Co., Itd
3	Bobbin	UL Recognized Plastic.	E 41938	EI DUPONT DE NEMOURS & CO., INC.
		PA66 101L (+) (f1)		
4	Secondary Winding	Polyurethane Enameled Copper Wire.		
		xUEW/130 MW 75-C	E227047	NINGBO JINTIAN NEW MATERIAL CO LTD
		UEW(MW75 130°C)	E214423	Shang Hai Pacific Electric Co., Itd
5	Input Lead Wire	UL&CSA 1007AWG22	E251538	JIANGSU ELECO ELECTRONICS TECHNOLOGY CO LTD.
			E170689	ZHEJING XINYA ELECTRNIC CO., LTD or EQUAL
6	Pri. Outer Wrap	Polyester Insulating Tape		
		0.025mm Polyester Tape/5 Turns.		
		Cat. No. : P2XXF (b) RATED 130C	E81174	CHYUN YIH TAPE CO LTD
		Cat. No. CT-280B	E165111	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., Ltd
7	Sec. Outer Wrap	0.38mm Pressed Paper/4 Pieces. Polyester Insulating Tape		
′	Sec. outer mrap	0.025mm Polyester Tape/3 Turns.		
3		Cat. No. : P2XXF (b) RATED 1300	E81174	CHYUN YIH TAPE CO LTD
1		Cat. No CT-280B	1: 1	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., Ltd
8	Crossover insulation	0.18*2 or 0.35mm Acetate Cloth taps		
			E81174	CHYUN YIH TAPE CO LTD
		Cat. No. : ACO*rated 130 C	E50292	SYMBIO INC
9	Output Lead Wire	UL&CSA AWG 1007#22	1	JIANGSU ELECO ELECTRONICS TECHNOLOGY CO LTD.
			E170689	ZHEJING XINYA ELECTRNIC CO., LTD or EQUAL
10	Endbell`	Steel		De Shuen Metal Manu Factory.
11	Varnishes	T4260 (a)	E228349	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD

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7.0 Illustrations

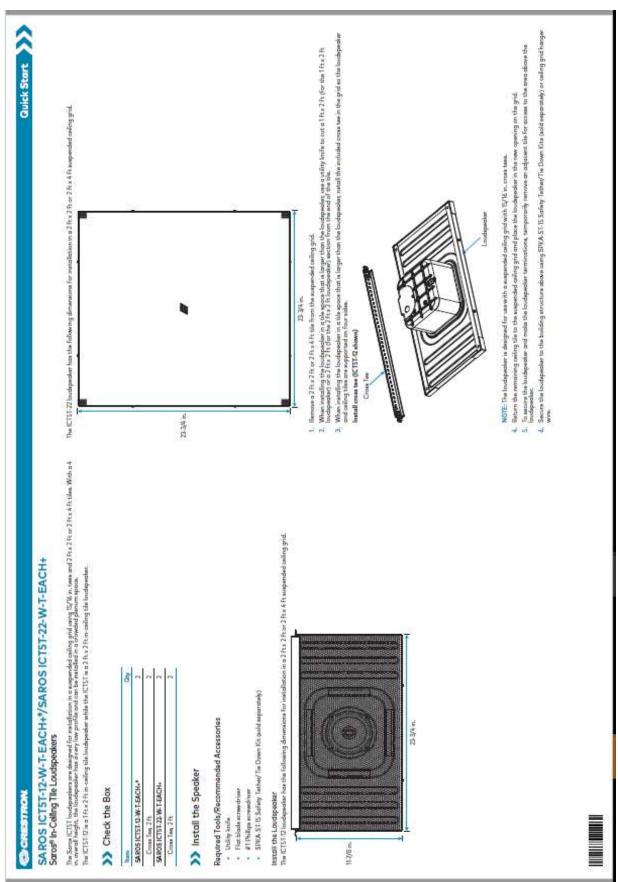
Illustration 4 - Woofer



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7.0 Illustrations

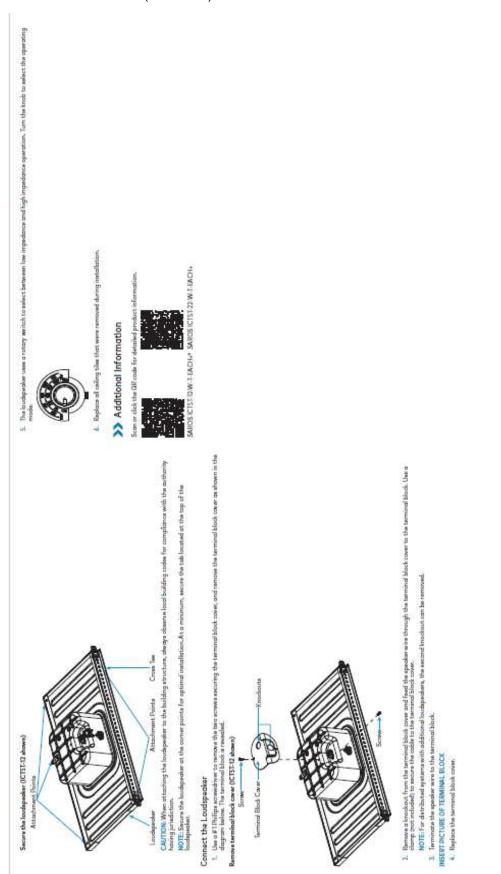
Illustration 5a -Installation Instructions



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7.0 Illustrations

Illustration 6a -Installation Instructions (Continues)



Completed by:

Title:

Signature:

Hristomir Guenov

Signature on file

Engineer

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8.0 Test Summary **Evaluation Period** 04/10/2018 -12/10/2018 Project No. G103669881 LAN1810090826-Condition Production Sample ID Sample Rec. Date 10-Apr-2018 001 25800 Commercenter Dr, Lake Forest, CA 92630 Test Location Test Procedure **Testing Lab** Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria. The following tests were performed: UL 1480A:2016 Test Description Ed.1 Input 21 Component Temperature Test 22 Abnormal Opertaion 23 Jarring Test 24.1 24.2 Impact Mounting/handle securement test 24.3 Speaker grill test 24.4 Dielectric Voltage-Withstand Test 29 Speaker Burnout 27 Project No. G103971148LAX **Evaluation Period** 6/13/2019 LAN1905231006-Sample Rec. Date 10-Jun-2019 Condition Production Sample ID. 25800 Commercenter Dr, Lake Forest, CA 92630 Test Location Test Procedure Testing Lab Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria. The following tests were performed: UL 1480A:2016 Ed.1 **Test Description** Dielectric Voltage-Withstand Test 29 8.1 Signatures A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.

Reviewed by:

Signature:

Title:

Richard Dobberstein

Technical Lead

Signature on file

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9.0 Correlation Page For Multiple Listings					
The following products, which are identical to those identified in this report except for model number and Listee					
name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.					
BASIC LISTEE	Crestron Electronics Inc				
Address	15 Volvo Rockleigh, NJ 07647				
Country	USA				
Product	In-Ceiling Tile Loudspeaker				
MULTIPLE LISTEE 1	None				
Address					
Country					
Brand Name					
ASSOCIATED MANUFACTURER					
Address					
Country					
MULTIPLE	LISTEE 1 MODELS	BASIC LISTEE MODELS			
-					
MULTIPLE LISTEE 2	None				
Address					
Country					
Brand Name					
ASSOCIATED					
MANUFACTURER					
Address					
Country					
	LISTEE 2 MODELS	BASIC LISTEE MODELS			
MULTIPLE	LISTEE 2 MODELS	BASIC LISTEE MODELS			
MULTIPLE LISTEE 3	None				
Address					
Country					
Brand Name					
ASSOCIATED					
MANUFACTURER	1				
Address					
Country					
	LIOTE CALOR TO				
MULTIPLE	LISTEE 3 MODELS	BASIC LISTEE MODELS			
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10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issue by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

For Canadian standards, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use. The facsimile need not have a control number. A control number will be issued after signed Certification Agreements have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

- 1. Conformance of the manufactured product to the descriptions in this Report.
- 2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
- 3. Manufacturing changes.
- 4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

- 1. Correct the non-conformance.
- 2. Remove the ETL Mark from non-conforming product.
- 3. Contact the issuing product safety evaluation center for instructions.

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10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation

Ship the samples to: Intertek Testing Services NA Inc. ETL Component Evaluation Center 45000 Helm Street, Suite 150 Plymouth Twp., MI 48170 USA Attn: Component Evaluation Center

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

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11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

None

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12.0 Revision Summary					
The following changes are in compliance with the declaration of Section 8.1:					
Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change	
11-Jul-2019		2		Changed Models From: "SAROS ICT5T-12-W-T-EACH" To: "SAROS ICT5T-12-W-T-EACH, SAROS ICT5T-22-W-T-EACH"	
		2		Change Model Similarities From: "NA" To: "Model SAROS ICT5T-22-W-T-EACH is identical to model SAROS ICT5T-12-W-T-EACH, except for the 2x2 construction of the baffle and grill."	
		3	1a, 2a	Added Photos 1a and 2a.	
		3	3	Removed Photo 3 and added Photo 3a	
	H. Guenov	4	1	Updated the Technical Data From: "SPCC Refer to illustrations # 1" To: "SPCC Refer to illustrations # 1 and 1a"	
G103971148LAX	R. Dobberstein	4	2	Updated the Technical Data From: "SPCC, black powder coated Refer to illustration # 2" To: "SPCC, black powder coated Refer to illustration # 2 and 2a"	
		4	3	Updated the Technical Data From: "14-22AWG, 17.5Am 450V, V-2." To: "12-28AWG, 15A, 300V, V-0, 105℃."	
		4	12	Added Rotary Switch component	
		7	1a, 2a	Added Illustrations 1a and 2a	
		7	5,6	Removed Illustrations 5 and 6 Added Illustrations 5a and 6a	
		8		Added new test block	
		8	1	Added new signatures	
	M. Yacoub		3a	Removed Photo 3a	
21-Aug-2019	Hules	3	3b	Added Photo 3b	
	R. Dobberstein	4	4	Updated Manufacturer From: Crestron To: Meiloon	
G103971148PRT			5	Updated Technical data From: 100UF/100V To: 1uF/100V	
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