



Electronic Components, Assemblies & Materials Association

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Minutes of P-2.2 SubCommittee on Film & Mica Capacitors

Monday, October 4, 2004 Holiday Inn on the Bay San Diego, CA

P-2.2 Committee's Scope:

Aluminum electrolytic, paper, film, and mica capacitors for all AC and DC applications, except inductive heating and utility power-factor correction.

Attendees:

NAME	COMPANY
Travis Ashburn	Kemet
Susan Barkal	Kemet
Terry Charles	Panasonic
Nick Holmberg	Intel
Mike Lauri	IBM
Carl Lindquist	SAN-O
Laird Macomber	Cornell Dubilier
Len Metzger	Panasonic
Ed Mikoski	EIA/ECA
Chris Reynolds	AVX
Dave Richardson	Vishay

An attendance sheet was circulated and self-introductions were made.

<u>Member Organizations Present</u>	<u>Present at this meeting</u>	<u>Present at previous meeting?</u>	<u>Present at meeting prior to previous?</u>
AVX	Y	Y	Y
Cornell Dubilier	Y	Y	Y
IBM	Y	N	Y
Intel	Y [^]	n/a	n/a
Kemet	Y [^]	n/a	n/a
Panasonic	Y	Y	Y

[^]Indicates activated as member of committee

<u>Member Organizations Absent</u>	<u>Present at This Meeting?</u>	<u>Present at previous meeting?</u>	<u>Present at meeting prior to previous?</u>
DSCC	N	N	Y
Yageo	N	Y	Y

* Indicates not used in determination of quorum due to record of non-attendance

<u>Other Organizations Present</u>
EIA/ECA
San-O-Industrial
Vishay

1.0 Introduction

Chairman Laird Macomber called the meeting to order at 11:15am.

2.0 Committee Organization and Procedures

2.1 Membership and attendance

Self-introduction was made and attendance taken. We had a quorum.

2.2 Approval of the Agenda

The agenda was unanimously approved.

2.3 Approval of the Minutes

The minutes were unanimously approved with correction of topic 4.7 to reflect EIA-463-B rather than EIA-463-A.

2.4 Correspondence

No Correspondence was received.

2.5 Review of the Committee's Scope

No reports.

3.0 Reports

3.1 DSCC report

No reports.

3.2 Report on the S-1 Committee

The S1 committee would convene on Tuesday, October 5, at 8 a.m. Therefore no report was available.

4.0 Old Business

4.1 Status of Task Group drafting SMT film capacitor specification.

Tom Saunders of ITW Paktron will not be in the task group. He has said that Paktron is no longer is a member of the ECA, is focused on specific customers and cannot justify spending time on industry standards. Laird, Chris and Terry are the task group to create the generic specification for SMT film capacitors. The specification will include but not limited to the following:

- 1) DC Bias
- 2) Lead free limited to PPS versus PET due to reflow soldering.
- 3) Difference of dielectrics

Ed Mikoski will furnish a copy of specification for EIA-376/376-1 for a development of new chip film capacitors. Terry Charles will rewrite this EIA-376/376-1 to put it in an electronic format.

Laird Macomber will setup a conference call for Chris Reynolds, Mike Lauri, and Terry Charles and himself to begin discussion of new standard.

4.2 Status of PN-4283 (EIA-797), Aluminum Electrolytic Capacitor Application Guideline.

There are some questions from the Chairman concerning the status of PN4283 (EIA-797). Ed indicated that this document is still a PN and is out for ballot. It is Ed Mikoski's assumption that some comments were not resolved, however, Laird said that all comments were resolved. Some committee members have not seen the document, but Ed suggested we proceed with it to standard proposal stage. If there are any comments, they will come back to EIA. Mike Lauri made a motion to move this document on to Standard Proposal (SP) ballot stage and approval for ANSI Standard as well. Laird will send the electronic clean version of PN4283 to Cecelia for SP ballot. The committee unanimously approved to make this document an international standard.

4.3 Status of PN 4985, Aluminum Electrolytic Chip Capacitor with Polymer Cathode

Ed Mikoski will determine status and send out PN 4985 for SP ballot per prior meeting minutes.

4.4 Status of PN 4984 Aluminum Electrolytic Capacitor Qualification Specification

Ed Mikoski will determine status and send out PN 4984 for SP ballot per prior meeting minutes.

4.5 Status of Revision to EIA-463-A, Fixed Aluminum Capacitors for AC Motor Starting

Based on the document, the EIA-463-A is already published, so therefore the minutes should be updated to reflect EIA-463-B. Ed will check to see what is holding this document up from being published, and then send out for ballot.

4.6 Five-year Review of Documents

Terry Charles will generate a new electronic version of EIA-376. Ed Mikoski suggested to the committee to review all documents that we would like to consider being put on the archive list, based on the committee approval. Laird will review the documents, and create a list of what is need to be archived. It was suggested that each document be reviewed. Ed furnished Committee Document Query pages showing the status of all EIA documents assigned to subcommittee P-2.2 or assigned to the earlier P-2.4 Aluminum Electrolytic Capacitor subcommittee.

The documents are:

- PN-1791 Specification for Fixed Aluminum Electrolytic Capacitor
- PN-4984 Aluminum Electrolytic Chip Capacitor with Polymer Cathode Qualification Specification
- PN 4985 Aluminum Electrolytic Chip Capacitor with Polymer Cathode Component Specification
- EIA-395 Polarized Aluminum Electrolytic Capacitors for Long Life (Type 1) and for General Purpose Application (Type 2)
- EIA-463-B Fixed Aluminum Electrolytic Capacitors for Alternating Current Motor Starting, Heavy Duty (Type 1) and Light Duty (Type 2)
- EIA/IS-749 Rectified Mains Application Expected Wear-Out Lifetime Test
- EIA-797 Aluminum Electrolytic Capacitor Application Guide
- EIA-815 Miniature Aluminum Electrolytic Capacitor (Leaded) Qualification Specification
- EIA-361 Feed-Through Radio Interference Capacitors—Paper, Film and Paper/Film Dielectric
- EIA-376 Fixed Film Dielectric Capacitors in Metallic and Non-Metallic Cases for DC Application
- EIA-376-1 Parts List Supplement to EIA-376 Fixed Film Dielectric Capacitors in Metallic and Non-Metallic Cases for DC Application

- EIA-377 Metallized Dielectric Capacitors in Metallic and Non-Metallic Cases for Direct Current Applications
- EIA-377-1 Parts List Supplement to EIA-377 Metallized Dielectric Capacitors in Metallic and Non-Metallic Cases for Direct Current Applications
- EIA-401 Paper, Paper/Film, Film Dielectric Capacitors for Power Semiconductor Applications
- EIA-454 Fixed Paper and Film-Paper Dielectric Capacitors with Non-PCB Impregnants for Alternating Current Applications
- EIA-479-A Film-Paper, Film Dielectric Capacitors for Microwave Ovens
- EIA-495-A Film Dielectric Capacitors with Metallized Paper Electrodes for Alternating Current Applications
- EIA-580-A000 Sectional Specification for Fixed Chip Capacitors with Metallized Electrodes and Polyethylene-Terephthalate Dielectric for Use in Electronic Equipment
- EIA-580-A0AB Detail Specification for Fixed Polyethylene-Terephthalate Film Dielectric DC Capacitors Radial-Leaded
- EIA-580-A0AC Detail Specification for Fixed Metallized Polyethylene-Terephthalate Film Dielectric DC Capacitors Axial Leaded
- EIA-580-AA00 Blank Detail Specification for Fixed Metallized Polyethylene-Terephthalate Film Dielectric Chip Capacitors for Direct Current-Encapsulated
- EIA-580-B000 Sectional Specification for Fixed Metallized Electrode Film Dielectric AC Capacitors
- EIA-580-BA00 Blank Detail Specification for Fixed Metallized Electrode Film Dielectric AC Capacitors

Ed suggested that Laird ask Cecelia Yates for copies so that he can recommend renewal, archival or rescission for the documents.

5.0 New Business

5.1 Review of P-2.2 time-slot and meeting length.

The committee would like to adjust its time slot to avoid any conflicts with schedule time for the Ceramic and Tantalum meetings.

6.0 Next Meeting

The next meeting will be held the week of 16-19 May 2005 at the Chateau Sonesta Hotel in New Orleans, LA.

7.0 Adjournment

The meeting was adjourned at approximately at 12:15pm.

This meeting was conducted in accordance with the EIA Legal Guidelines and the Manual of Organization and Procedures.

Laird Macomber
Chairman

Terry D. Charles
Acting Secretary