



**Minutes of P-2.2 Subcommittee Meeting  
Paper, Film, Mica & Wet-Electrolytic Capacitors**

Wednesday April 29, 2009,  
Chateau Bourbon Hotel, 800 Iberville Street, New Orleans, LA 70112, (504) 586-0800

**1.0 Call to Order - Circulate Membership Roster**

Meeting called to order at 1:45 PM by Chairman Laird Macomber

**2.0 Committee Organization and Procedures**

2.1 Membership Intros were conducted and Roster circulated.

The attendance was as follows:

<b>NAME</b>	<b>COMPANY</b>
Michael Lauri [via telephone]	IBM
Laird Macomber	CDE
Mary Carter Berrios	KEMET
Jayson Young	KEMET
Chris Reynolds	AVX

A quorum was present.

<b>Member Organizations Present</b>	<b>Present at this Meeting (Spring 2009)</b>	<b>Present at this Meeting (Fall 2008)</b>	<b>Present at this Meeting (Spring 2008)</b>
Cornell Dubilier	Y	Y	Y
IBM	Y	Y	Y
KEMET	Y	Y	Y
AVX	Y	Y	Y

<b>Member Organizations Absent</b>	<b>Present at this Meeting (Spring 2009)</b>	<b>Present at this Meeting (Fall 2008)</b>	<b>Present at this Meeting (Spring 2008)</b>
KOA Speer	N	N	N
Yageo	N	N	N
SOC America Inc.	N	Y	Y
Vishay	N	Y	N

<b>Other Organizations Present</b>
none

2.2 Approval of Agenda: Approved  
62392:9/09

2.3 Approval of October 8, 2008, P-2.2 Subcommittee Meeting Minutes: Approved

2.4 Correspondence: No correspondence had been received.

2.5 Review of Committees Scope: Paper, film, mica and wet-electrolytic capacitors for all applications, except those for inductive heating and utility power-factor correction. The scope was slightly modified by unanimous vote.

3.0 Reports: No reports had been received.

4.0 Old business

4.1 Status PN 5182 Fixed Film Dielectric Capacitors Stacked Metallized Chip Capacitors, the SMT film cap specification: This new standard is to be sent to EIA for issuance as a Standard Proposal for 60-day ballot when complete. The draft originally written by Terry Charles of Panasonic has been expanded to include PET and PPS dielectrics. The committee agreed to change the format to be like ceramic and add references to IEC 60384-1, -19, -20 and -23. Case sizes in these film dielectrics are not standardized, and Mike suggested only including a range of sizes for the capacitance values from the E6 series. The committee agreed to publish case-size ranges for each dielectric. Cannot specify land patterns because there is too much variation among makers.

The committee agreed that marking would be optional with EIA marking recommended. Tolerances would be per EIA.

Mary wants to add these tests:

- Qualification 2000 hour life test
- Charge/discharge 10,000 cycles
- Temperature cycling
- Resistance to solder heat
- Solderability
- Humidity
- Electrical test for cap, DF and IR

And include requirements for sample size, test conditions and acceptance criteria.

4.2 Five-year review of documents: Review website list of projects and specification, Chairman Laird to review and determine active, obsolete and rescinded status. Laird will ask Bob Willis for list of documents.

5.0 New Business

5.1 New standard for medium-power film capacitors: Chris Reynolds said that he would look at IEC test conditions for use with medium power film capacitors and would provide a list of companies for possible standard offering.

6.0 Next Meeting: It will be Wednesday, October 7, 2009, Doubletree Hotel, Savannah, GA

7.0 Adjournment: Meeting was adjourned at 3:30 pm

8.0 Action Items

1. Laird is to set up a web conference for PN 5182.
2. Bob Willis to provide list of documents for 5-year review, and Chairman Laird is to review and update as needed
3. Chris Reynolds of AVX is to propose scope and product definition for medium-power film capacitors for new EIA standard.



---

Laird L Macomber  
Chairman

---

Michael Lauri  
Acting Secretary