

P2.1 Ceramic Capacitors

Wednesday April 18, 2007: Holiday Inn, Bayside – San Diego, CA

Scope of the P-2.1 Subcommittee on Ceramic Dielectric Capacitors (approved 10/13/99): All types of ceramic dielectric capacitors.

Chair Michael Cannon called meeting to order at 12:07 pm.

Attendees:

Michael Cannon	TDK
Mary Carter Berrios	KEMET
Casey Crandall	Wright Capacitors
Michael Griffith	KOA Speer Electronics
Sucha Virdi	American Technical Ceramics
Michael Lauri	IBM
Mihee Lee	Samsung
Carl Lindquist	SAN-O Industrial Corp.
Laird Macomber	Cornell Dubilier Electronics
Larry Mosley	Intel
Ed Mikoski	EIA/ECA
Maria Petkova	Presidio Components
Christine Pollock	Presidio Components
Dave Richardson	Vishay
Dave Ritchey	Yageo
Jayson Young	KEMET

Member Organizations Present *member not used in quorum calculation	<u>Present at this meeting</u>	<u>Present at previous meeting?</u>	<u>Present at meeting prior to previous?</u>
AEM*	N	N	N
American Technical Ceramics	Y	Y	Y
AVX	N	Y	Y
Cornell Dubilier	Y	Y	Y
IBM	Y	Y	Y
Intel	Y	Y	N
KEMET	Y	Y	Y
KOA Speer	Y	Y	Y
Murata	N	N	Y
Presidio Components	Y	Y	N
Samsung Electro-Mechanics	Y	Y	Y
SAN-O Industrial Corp.	Y	Y	Y
Taiyo-Yuden*	N	N	N
TDK	Y	Y	Y
Vishay	Y	Y	Y
Wright Capacitors	Y	Y	Y
Yageo	Y	Y	Y

Other Organizations Present

EIA/ECA

1.0 Introductions

1.1 Circulate Membership Roster

Self introductions were made and attendance was taken. A quorum of thirteen of the sixteen member organizations was present.

1.2 Approval of Fall 2006 Minutes from Reno, NV.

The minutes were unanimously approved.

1.3 Approval of Agenda for Present Meeting

The agenda was unanimously approved.

1.4 Correspondence and Review of Committee Scope

ECA was informed that Panasonic Industrial Corporation will no longer participate in the ECA. The P2.1 subcommittee recognizes with appreciation the contributions that Mr. Terry Charles and Mr. Len Metzger brought to the group.

1.5 Report of Task Groups and Committees

1.5.1 DSCC, Defense Supply

There was no update from DSCC. Cannon will contact DSCC prior to the Fall Engineering Summit.

1.5.2 Automated Component Handling (ACH)

No report from ACH to P2.1.

1.5.3 S-1 Steering Committee (formerly U-1)

General session was held Tues., April 17th at 8am. There were two presentations: 1) Ed Mikoski of ECA spoke to IEC standards processes and organization; 2) Sia Afshari of RMD, Inc presented "Understanding XRF Technology and Clarification of its Applications for RoHS Directives". Additionally, the Joint Standard subcommittee is working on PN5149 for processing non-IC components. Committee chair Michael Lauri (IBM) reported.

1.5.4 Soldering Technology Committee (STC)

Meeting was held on Tues., April 17th at 1:30pm.

1.5.5 Ceramic Working Group

Meeting was held on Mon., April 16th at 9am.

Topics: PTH and SMD product reviews; EIA 595/521; high frequency characterization test method. Mary Carter Berrios (Kemet) reported.

2.0 Old business

2.1 Status of EIA-595-B (PN-5094) Visual & Mechanical Inspection

Members voted unanimously to put this document out for ANSI ballot. ECA will be sent the final copy of EIA 595 B completed under PN 5094.

2.2 Status of EIA-198-F “Ceramic Dielectric Capacitors Classes I, II, III, & IV”

2.2.1 Part III – standard two-terminal SMD (PN 5099)

Draft-in-progress work of EIA 198 III/3 will be posted on the ECA Message Board for comments.

2.2.2 Part III – Pin-through-hole (PTH) focus area

2.2.2.1 PN 5152 was assigned to EIA 198 III/5. Under this PN, the members unanimously voted to rescind this document.

2.2.2.2 PN 5153 was assigned to the combined content of EIA 198 III/4 and /5. Under this PN, the members unanimously voted to put this document out for ANSI ballot. ECA will be sent the final copy of EIA 198 III/4 completed under PN 5153. Voting pool will be attending members plus AVX and Murata.

2.2.2.3 PN 5154 was assigned to combined content of EIA 198 III/6 and /7. Under this PN, the members unanimously voted to put this document out for ANSI ballot. ECA will be sent the final copy of the work completed under PN 5154. Voting pool will be attending members plus AVX and Murata.

2.2.2.4 PN 5155 was assigned to EIA 198 III/7. Under this PN, the members unanimously voted to rescind this document.

2.3 Status of ANSI/EIA 521 (PN 5095) Application Guide for MLCCs

Graphics in this standard need updating (e.g. DC bias characteristic curves). The latest revision will be posted on the ECA Message board for comments.

2.4 Status of PN 4563- Test procedure for high frequency characterization of low inductance multilayer ceramic chip capacitors.

This final draft has been posted for several months on the ECA Message Board. With no further comments, the members voted unanimously to put this document up for EIA ballot. The voting pool was assigned to be the attending members plus AVX and Murata.

3.0 New Business

3.1 Active members listing review

ECA will provide the member roster for P2.1 subcommittee review and updating.

3.2 Selection of new Vice-chairman

With the P2.1 subcommittee's thanks and appreciation, Mr. Casey Crandall (Wright Capacitor) has agreed to serve as Vice-Chairman.

3.3 Published Standards Status

Ms. Pollock (Presidio) brought to our attention that EIA 469 D was not yet available from IHS Global Documents. The ECA will investigate this situation.

3.4 Mechanical outlines

Christine Pollock (Presidio) and Dave Richardson (Vishay) have agreed to work with the P-4 Mechanical Outlines committee on an "interim basis" providing CAD drawings of ceramic capacitors.

3.5 Documents review

3.5.1 Several P-2.1 documents are older than 5 years. All of the working group attendees are invited to participate in the review process.

3.5.2 The active projects document file posted on the ECA website is outdated and inaccurate. This file will be marked-up, scanned-in and sent to ECA for updating.

4 Time and Place of Next Meetings

- 4.1** Fall 2007- San Antonio, TX. September 24-27, 2007
Spring 2008- Louisville, KY with alternate in New Orleans.

5.0 Adjournment

So moved, seconded, and unanimously agreed to adjourn at at 12:58 PM

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

Michael C. Cannon

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Chairman