

P2.1 Ceramic Capacitors

Wednesday, April 2, 2008: Brown Hotel – Louisville, KY

Scope of the P-2.1 Subcommittee on Ceramic Dielectric Capacitors (approved 09/26/07): All types of non-polarized ceramic dielectric capacitors.

Chair Michael Cannon called meeting to order at 12:06 pm.

Attendees:

Mary Carter Berrios	KEMET
Michael Cannon	TDK
Casey Crandall	Wright Capacitor
Michael Lauri	IBM
Carl Lindquist	SAN-O Industrial Corp.
Laird Macomber	Cornell Dubilier Electronics
Lanney McHargue	Murata Electronics
Chris Reynolds	AVX
Dave Richardson	Vishay
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
ATC (now part of AVX)	N	Y	Y
AVX	Y	N	Y
Cornell Dubilier	Y	Y	Y
IBM	Y	Y	Y
Intel	N	Y	Y
KEMET	Y	Y	Y
KOA Speer	N	N	Y
Murata	Y	Y	N
Presidio Components	N	N	Y
Samsung Electro-Mechanics	N	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	N	Y
Yageo	N	N	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 nine of the fifteen member organizations (for purposes of quorum) was present.

1.2 Approval of Fall 2007 Minutes from San Antonio, TX

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

No correspondence has been received. No comments about the Committee Scope were made.

1.5 Report of Task Groups and Committees

1.5.1 DSCC, Defense Supply

There was no update from DSCC. No further input is expected.

1.5.2 Automated Component Handling (ACH)

No report from ACH to P2.1.

1.5.3 S-1 Steering Committee

-ECA environmental update was presented by Ralph Justus

-Bob Willis presented on the realignment of the EIA

-Tom Costello of Ice Tech presented on dry ice cleaning applications

-Mark Crawford of the Dept. of Commerce spoke on the business impact of counterfeits.

1.5.4 Soldering Technology Committee (STC)

-J-STD-002C has been published and is available

-Replacements for steam aging are being investigated

1.5.5 Ceramic Working Group

Topics: EIA 198-III PTH and SMD product reviews; EIA 595/521; PN-4563 high frequency characterization test method.

2.0 Old business

2.1 Status of EIA-595-A (SP-5094) Visual & Mechanical Inspection

Voting pool of 12 was established during Spring 2006 returned 5 favorable ballots of 12. It was moved and unanimously approved to re-assign the voting pool to the attending members at this meeting. It was unanimously approved to send the document to EIA for publishing as ANSI/EIA-595-B

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 has been in collecting of case sizes and tolerances for MLCCs $\leq 250V$.

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

2.2.2.1 Combination of radial conformal and radial molded is under /4 as PN 5153. It was unanimously voted to send this document out for 90-day ANSI ballot. Voting pool was assigned Spring 2007.

2.2.2.2 Combination of axial conformal and axial molded is under /6 as PN 5154. It was unanimously voted to send this document out for 90-day ANSI ballot. Voting pool was assigned Spring 2007.

2.2.2.3 High voltage /9 applies to both PTH and SMD constructions $>500V$. It was unanimously voted to send this document out for 60-day ANSI ballot. Voting pool was assigned as members attending this meeting.

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, high CV dielectrics, document listing). It was determined by ECA that it is allowable to use catalog information from manufacturers.

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

It was decided to send this document out on a 45-day EIA ballot. Voting pool was previously established Spring 2007.

3.0 New Business

3.1 Documents review

ECA will provide an update to the Standards database. Ralph will be sending committee chairs a 5-year standards review tracking and PN listing by June.

3.2 New EIA 198 individual specifications

At next Ceramic Working Group meeting, work will be done on generating the slash sheets for low inductance reverse geometry and multi-terminal MLCCs (/10) and arrays (/11).

4 Time and Place of Next Meetings

4.1 Fall 2008- Salt Lake City, Red Lion Hotel, October 6-9, 2008.

Spring 2009- New Orleans, LA with Greenville, SC being the alternate site.

4.2 Starting with the Fall 2008 meeting, and until further notice, this P2.1 meeting time slot will be reduced to 1 hour.

5.0 Adjournment

Motion made, seconded, and unanimously voted to adjourn at 1:21 PM

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

Michael C. Cannon

Michael C. Cannon
Chairman

Casey Crandall

Casey Crandall
Vice-Chairman