

BUREAU OF INDIAN STANDARDS

For BIS use only

MINUTES**JOINT MEETING OF****FIFTEENTH MEETING OF SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENTS AND DEVICES SECTIONAL COMMITTEE, LITD 05****PRINTED CIRCUIT BOARDS DESIGN AND MANUFACTURE FOR ELECTRONIC APPLICATION SUB-COMMITTEE, LITD 05: 1,****WORKING GROUP 1 ON PRINTED CIRCUIT BOARD (PCB) AND PRINTED CIRCUIT BOARD ASSEMBLIES (PCBA)**

DATE & TIME	VENUE
Date : 04th March 2022 Day : Friday Time : 0930h	Through Webex

Members Present :

1. In the Chair: Shri Jery Varghese K **2.Member Secretary** Shri Bipin Jambholkar

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| 3. Dr. Nidhi Chaturvedi | Central Electronics Engg. Research Institute (CEERI) |
| 4. Shri Gajendra Kumar | Directorate General of Quality Assurance (DGQA) |
| 5. Shri Ashok Kumar Duggal | ELCINA |
| 6. Dr. Ashish Saurikhia | ELCINA |
| 7. Shri Yogesh Adalatwale | ELCINA |
| 8. Shri Rajneesh Garg | Indian Printed Circuit Association (IPCA) |
| 9. Shri V K Mahajan | Uniautomation |
| 10. Shri K.S.Babu | Indian Printed Circuit Association (IPCA) |
| 11. Shri Saurabh Saxena | IPC-India (LITD 05: 01 SubCommittee) |
| 12. Dr. Niranjnan Prasad | IETE /Defence Electronics Research Laboratory |
| 13. Dr. Bharat Kumar Yadav | Ministry of Electronics and Information Technology (MeitY) |

Regretted

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| 14. Prof. Venu Mitter | IPC-India (LITD 05: 01 SubCommittee) |
| 15. Ms. P.Anjali | ECIL |

ITEM 0 WELCOME

0.1 Member Secretary welcomed all members present in fifteenth meeting of LITD 05 on behalf of BIS. He hoped all members and their family are healthy and doing well.

He informed during last five years the Committee has reviewed a large number of Standards and approx. 100 Indian Standards which were either obsolete/old/outdated were withdrawn or superseded by new Indian Standard or revised as per latest technology.

He updated the Committee on Printed Circuit Board (PCB) and Printed Circuit Board Assembly draft Standards. He also informed that, BIS had written letters to various laboratories and also conducted a webinar for wide coverage of draft Standards. However no specific comments were received.

He also thanks the Convener and members of Working Group 1 on Printed Circuit Board (PCB) and Printed Circuit Board Assemblies (PCBA) for their contribution and active participation in formulation of draft standards on PCB and PCBA.

He also thanks Shri Jerry Varghese, Chairman LITD 05 for guiding the Committee.

0.2 Dr. Bharat Kumar Yadav,. He requested that Industry should practically check all the requirements by testing in laboratories. Regarding queries from members regarding testing facilities, he informed about various proposals for PCB/PCBA labs are under process.

0.3 Chairman, Shri Jerry Varghese also welcomed all members to the meeting He also requested all labs to inform about their feedback on PCB/PCBA testing. Regarding adoption of IPC Standard, he requested IPC-India and IPCA to inform about how testing and compliance being done in other developed and developing countries. He also requested BIS/industry to explore the labs for testing of PCB/PCBA.

ITEM 1 FORMAL CONFIRMATION OF THE MINUTES OF LAST MEETING

1.1 The minutes of the last meeting of Semiconductor and Other Electronic Components and Devices Sectional Committee, LITD 05 were circulated vide LITD 05/A-2.14

1.2 The minutes of the last meeting were formally confirmed by the Committee.

ITEM 2 REVIEW OF COMPOSITION OF SECTIONAL COMMITTEE LITD 05

2.1 The Committee noted the composition of Semiconductor and Other Electronic Components and Devices Sectional Committee, LITD 05, is given in ANNEX A (Pg 10-11). Members regretted lack of participation even in the webex from large number of organization.

2.2.1 It was decided that members will give latest contact details of all organizations who are not attending the meeting.

ITEM 4 DRAFT STANDARDS FOR FINALIZATION

Sl. No	Draft Indian Standard	Circular No. and Date	Remarks
1	LITD 05 (16612) Printed Circuit Board Assembly Part 1 Safety Requirements	LITD 05/T Dt. 24/12/21	Approved for printing
2	Doc. No. : LITD 05 (18108) IS/IEC TR 63091: 2017 Study for the derating curve of surface mount fixed resistors – Derating curves based on terminal part temperature ICS 31.040.10	LITD 05/T Dt. 24/12/21	Approved for printing as single no. standard
3	Doc. No.: LITD 05 (18462) IS/IEC 60068-2-20: 2021 Environmental testing – Part 2 Tests Section 20 Tests Ta and Tb: Test methods for solderability and resistance to soldering heat of devices with leads ICS 19.040 [Superseding 1) IS 9001 (Part 9): 1981 and 2) IS 9000 (Part 18/Sec 1 to 3):1981]	LITD 05/T Dt. 24/12/21	-do-
4	Doc. No. : LITD 05 (18463) IS/IEC 60115-1: 2020 Fixed resistors for use in electronic equipment Part 1 Generic specification ICS 31.040.10 [Superseding 1) IS 5786 (Part 1): 2018 and 2) IS/QC 400000: 1982]	LITD 05/T Dt. 24/12/21	-do-
5	Doc. No. : LITD 05 (18464) IS/IEC 60195:2016 Method of measurement of current noise generated in fixed resistors ICS 31.040.10 [Superseding IS 5027 : 1969]	LITD 05/T Dt. 24/12/21	-do-
6	Doc. No. : LITD 05 (18465) IS/IEC 60440 : 2012 Method of measurement of non-linearity in resistors ICS 31.040 [Superseding IS 13504 : 1992]	LITD 05/T Dt. 24/12/21	-do-
7	Doc. No. : LITD 05 (18469) IS/IEC 60738-1: 2009 Thermistors – Directly heated positive temperature coefficient –Part 1 Generic specification [Superseding 1) IS 11534 (Part 1): 1985 and 2) IS QC 440000: 1994] ICS 31.040.30	LITD 05/T Dt. 24/12/21	-do-

8	Doc. No. : LITD 05 (18472) IS/IEC 60384-4: 2016 Fixed capacitors for use in electronic equipment – Part 4 Sectional specification – Fixed aluminium electrolytic capacitors with solid (MnO ₂) and non-solid electrolyte ICS 31.060.50 [Superseding 1) IS 4317: 1983 and 2) ISQC 300300 : 1992]	LITD 05/T Dt. 24/12/21	-do-
9	Doc. No. : LITD 05 (18473) IS/IEC 60384-9: 2015 Fixed capacitors for use in electronic equipment –Part 9: Sectional specification Fixed capacitors of ceramic dielectric, Class 2 ICS 31.060.20 [Superseding 1) IS 2786 (Part 1): 1978 and 2) ISQC 300700: 1994]	LITD 05/T Dt. 24/12/21	-do-
10	Doc. No. : LITD 05 (18474) IS/IEC 60384-14: 2016 Fixed capacitors for use in electronic equipment –Part 14 Sectional specification – Fixed capacitors for electromagnetic interference suppression and connection to the supply mains [Superseding ISQC 302400 : 1994] ICS 31.060.10	LITD 05/T Dt. 24/12/21	-do-
11	Doc. No. : LITD 05 (18476) IS/IEC 60384-14-1: 2016 [Fixed capacitors for use in electronic equipment – Part 14 Blank detail specification– Fixed capacitors for electromagnetic interference suppression and connection to the supply mains Section 1 Assessment level DZ ICS 31.060.10 Superseding ISQC 302401 : 1994]	LITD 05/T Dt. 24/12/21	-do-
12	Doc. No. : LITD 05 (18477) IS/IEC 60384-15: 2017 Fixed capacitors for use in electronic equipment – Part 14 Blank detail specification– Fixed capacitors for electromagnetic interference suppression and connection to the supply mains Section 1 Assessment level DZ [Superseding ISQC 300200 : 2000] ICS 31.060.10	LITD 05/T Dt. 24/12/21	-do-

ITEM 5 PRESENT POSITION OF WORK AND REVIEW OF STANDARDS

5.1 The Committee reviewed the present position of work (POW) of LITD 05 given in Agenda. Chairman asked the BIS to expedite the review of old Standards. Member Secretary informed that in last 5 years more than 100 standards were either withdrawn or superseded/revised as new Indian Standards.

5.2 The Committee noted the BIS procedure for review of Indian Standards.

5.2.1 The Following decision were taken

S. No	IS.No. & Title	Corresponding International Standard	Latest Position of International Standard/ OTHER REMARKS	Remarks/Recommendations
1.1	IS 8909 (Part 2) : 1978 Specification for fixed resistors general purpose power Part 2 type FRP1	A. It is mentioned in the standard that it shall be read in conjunction with IS: 8909 (Part 1)-1978. B. IS 8909 (Part 1) has been withdrawn to avoid duplicity with IS 5786 (Part 1): 2018, which is based on IEC 60115-1: 2008. C. Technology used in the IS 8909 (Part 2) is no longer used in the latest version of IS 5786 (Part 1): 2018.		<ol style="list-style-type: none"> 1. Technology used in the IS 8909 (Part 2) is no longer used in the latest version of IS 5786 (Part 1): 2018. 2. Hence the Standard may be withdrawn.
2	IS 8909 (Part 3) : 1978 Specification for fixed resistors general purpose power Part 3 type FRP 2	A. It is mentioned in the standard that it shall be read in conjunction with IS : 8909 (Part 1)-1978. B. IS 8909 (Part 1) has been withdrawn to avoid duplicity with IS 5786 (Part 1): 2018, which is based on IEC 60115-1: 2008. C. Technology used in the IS 8909 (Part 3) is no longer used in the latest version of IS 5786 (Part 1): 2018.		<ol style="list-style-type: none"> 1. Technology used in the IS 8909 (Part 3) is no longer used in the latest version of IS 5786 (Part 1): 2018. 2. Hence the Standard may be withdrawn.
3	IS 8909 (Part 4) : 1978 Specification for fixed resistors general purpose power Part 4 type FRP 3	It is mentioned in the standard that it shall be read in conjunction with IS: 8909 (Part 1)-1978. IS 8909 (Part 1) has been withdrawn to avoid duplicity with IS 5786 (Part 1): 2018, which is based on IEC 60115-1: 2008.		<ol style="list-style-type: none"> 1. Technology used in the IS 8909 (Part 4) is no longer used in the latest version of IS 5786 (Part 1): 2018. 2. Hence the Standard may be withdrawn.

		Technology used in the IS 8909 (Part 4) is no longer used in the latest version of IS 5786 (Part 1): 2018.	
4	IS 8909 (Part 5) : 1978 Specification for fixed resistors general purpose power Part 5 type FRP 4	It is mentioned in the standard that it shall be read in conjunction with IS: 8909 (Part 1)-1978. IS 8909 (Part 1) has been withdrawn to avoid duplicity with IS 5786 (Part 1) : 2018, which is based on IEC 60115-1: 2008. Technology used in the IS 8909 (Part 5) is no longer used in the latest version of IS 5786 (Part 1): 2018.	<ol style="list-style-type: none"> 1. Technology used in the IS 8909 (Part 5) is no longer used in the latest version of IS 5786 (Part 1): 2018. 2. Hence the Standard may be withdrawn
5	IS 9256 (Part 2) : 1979 Specification for fixed metallized polyester film dielectric capacitors Part 2 type FCPM 1	It is mentioned in the standard that it shall be read in conjunction with IS : 9256 (Part 1) - 1979 IS: 9256 (Part 1) - 1979 has been in 2019, which is based on IEC 60384-2:2011 Type FCPM used in the IS 9256 (Part 2) is no longer used in IS 9256 (Part 1). Type FCPM tech. no longer being used in industry.	<ol style="list-style-type: none"> 1. Type FCPM used in the IS 9256 (Part 2) is no longer used in IS 9256 (Part 1). Type FCPM tech. no longer being used in industry. 2. Hence the Standard may be withdrawn
6	IS 9256 (Part 3): 1979 Specification for fixed metallized polyester film dielectric capacitors Part 3 type FCPM 2	It is mentioned in the standard that it shall be read in conjunction with IS: 9256 (Part 1) - 1979 IS: 9256 (Part 1) - 1979 has been in 2019, which is based on IEC 60384-2:2011 Type FCPM used in the IS 9256 (Part 3) is no longer used in IS 9256 (Part 1). Type FCPM tech. no longer being used in industry.	<ol style="list-style-type: none"> 1. Type FCPM used in the IS 9256 (Part 3) is no longer used in IS 9256 (Part 1). Type FCPM tech. no longer being used in industry. 2. Hence the Standard may be withdrawn
7	IS 9414 (Part 1 / Sec 1) : 1979 Detail specification for digital	Standards refers to IS: 7441 (Part 1): 1974 'Essential ratings and characteristics of digital integrated circuits: Part I General format	All the requirements are covered in the latest IS 12970 (Part 2): 2021 which is identical to IEC 60748-2.

	integrated circuits Part 1 NAND gate TTL Sec 1 single 8 input positive	IS 7441 (Part 1) was later superseded by IS 12970 (Part2/Sec 3), which was later superseded by IS 12970 (Part 2): 2021	Also all environmental requirements are given IS 14901 (Part 1): 2010/ IEC 60747-1 : 2006. Hence the Standard may be withdrawn to avoid duplicity.
8	IS 9414 (Part 1 Sec 2) : 1979 Detail specification for digital integrated circuits Part 1 NAND gate TTL Sec 2 dual 4 input positive	Standards refers to IS: 7441 (Part 1): 1974 ‘Essential ratings and characteristics of digital integrated circuits: Part I General format IS 7441 (Part 1) was later superseded by IS 12970 (Part2/Sec 3), which was later superseded by IS 12970 (Part 2): 2021	Hence the Standard may be withdrawn to avoid duplicity.
9	IS 9414 (Part 1 /Sec 3): 1979 Detail specification for digital integrated circuits Part 1 NAND gate TTL Sec 3 triple 3 input positive	A. Standards refers to IS: 7441 (Part 1): 1974 ‘Essential ratings and characteristics of digital integrated circuits: Part I General format B. IS 7441 (Part 1) was later superseded by IS 12970 (Part2/Sec 3), which was later superseded by IS 12970 (Part 2): 2021	All the requirements are covered in the latest IS 12970 (Part 2): 2021 which is identical to IEC 60748-2. Also all environmental requirements are given IS 14901 (Part 1): 2010/ IEC 60747-1 :2006 Hence the Standard may be withdrawn to avoid duplicity.
10	IS 9414 (Part 1 /Sec 4): 1979 Detail specification for digital integrated circuits Part n and gate TTL Sec 4 quad 2 input positive	A. Standards refers to IS: 7441 (Part 1): 1974 ‘Essential ratings and characteristics of digital integrated circuits: Part I General format B. IS 7441 (Part 1) was later superseded by IS 12970 (Part2/Sec 3), which was later superseded by IS 12970 (Part 2): 2021 C.	A. All the requirements are covered in the latest IS 12970 (Part 2) : 2021 which is identical to IEC 60748-2. B. Also all environmental requirements are given IS 14901 (Part 1): 2010/IEC 60747-1 :2006 Hence the Standard may be withdrawn to avoid duplicity.
11	IS 9437 (Part 1) : 1979 Specification	IEC 60115-5: 1978	IEC has withdrawn the Standard
			1. BIS has adopted IEC 60384-8 as ISQC 300600 : 1992

	for fixed precision resistors Part 1 general requirements and methods of test		and replaced by IEC 60384-8	2. Hence the IS 10825-1 may be withdrawn to avoid duplicity of Standards.
12	IS 9437 (Part 2) : 1980 Specification for fixed precision resistors Part 2 type FRPR 1	<ul style="list-style-type: none">) IS 9437 (Part 2) shall be read in conjunction with IS 9437 (Part 1), which has been proposed for withdrawal.) IS 9437 (Part 1) was based on IEC 60115-5, which has been withdrawn by IEC without any replacement.) Also type FRBR are not mentioned in latest Indian Standards, which shows that the variety is no longer being used. 		<ol style="list-style-type: none"> 1. Also type FRBR are not mentioned in latest Indian Standards, which shows that the variety is no longer being used. 2. Hence IS 9437 (Part 2) may be recommended for withdrawal to LITDC.
13	IS 9437 (Part 3) : 1980 Specification for fixed precision resistors Part 3 type FRPR 2	<ul style="list-style-type: none">) IS 9437 (Part 3) shall be read in conjunction with IS 9437 (Part 1), which has been proposed for withdrawal.) IS 9437 (Part 1) was based on IEC 60115-5, which has been withdrawn by IEC without any replacement.) Also type FRBR are not mentioned in latest Indian Standards, which shows that the variety is no longer being used.) Hence IS 9437 (Part 3) may be recommended for withdrawal to LITDC. 		<ol style="list-style-type: none"> 1. Also type FRBR are not mentioned in latest Indian Standards, which shows that the variety is no longer being used. 2. Hence IS 9437 (Part 3) may be recommended for withdrawal to LITDC.
14	IS 9437 (Part 4) : 1980 Specification for fixed precision resistors Part 4 type FRPR 3	<ul style="list-style-type: none">) IS 9437 (Part 4) shall be read in conjunction with IS 9437 (Part 1), which has been proposed for withdrawal.) IS 9437 (Part 1) was based on IEC 60115-5, which has been withdrawn by IEC without any replacement. 		<ol style="list-style-type: none"> 1. Also type FRBR are not mentioned in latest Indian Standards, which shows that the variety is no longer being used. 2. Hence IS 9437 (Part 4) may be recommended for withdrawal to LITDC.

) Also type FRBR are not mentioned in latest Indian Standards, which shows that the variety is no longer being used.		
15	IS 9512 : 1980 Guidance for pulse testing of resistors	Indigenous Standard		Pulse resistors were being used in older TV Sets, first generations PC etc and are not relevant today. IS 9512 : 1980 may be withdrawn
16	IS 9596 : 1981 General requirements and classification of tests for micro circuits	BS 9400 : 1970	Superseded by many Standards Latest is BS EN 190000 1996	A. The BS 9400 was Superseded by: BS CECC 90000. This Standard was superseded by BS EN 190000: 1996 Harmonized System of Quality Assessment for Electronic Components Generic Specification: Monolithic Integrated Circuits. B. This Standard is similar to IS QC 001001: 2000 /IEC QC 001001 (1998) IEC C. Hence IS 9596 : 1981 may be withdrawn to avoid duplicity of Standards.
17	IS 9614 (Part 1) : 1980 Specification for fixed high - Meg resistors Part 1 type FRHM 1	Since IS 9614 (Part 1) has to be read in conjunction with IEC 5786 (Part 1): 1978. This Standard has been revised in 2018. In the Latest Standard Type FRHM 1 technology used in Standard no longer being used		Hence IS 9614 (Part 1) may be recommended for withdrawal to LITDC.
18	IS 9614 (Part 2) : 1980 Specification for fixed high - Meg resistors Part 2 type FRHM 2	Since IS 9614 (Part 1) has to be read in conjunction with IEC 5786 (Part 1): 1978. This Standard has been revised in 2018. In the Latest Standard Type FRHM 1 technology used in Standard no longer being used		Hence IS 9614 (Part 1) may be recommended for withdrawal to LITDC.

19	IS 9614 (Part 3): 1980 Specification for fixed high - Meg resistors Part 3 type FRHM 3	Since IS 9614 (Part 3) has to be read in conjunction with IEC 5786 (Part 1): 1978. This Standard has been revised in 2018. In the Latest Standard Type FRHM 1 technology used in Standard no longer being used.	Hence IS 9614 (Part 3) may be recommended for withdrawal to LITDC.
20	IS 9638 (Part 2) : 1984 Specification for fixed polyester film dielectric capacitors for direct current Part 2 type FCPE 1	A. IS 9638 (Part 2) shall be read in conjunction with IS : 9638 (Part 1): 1980 which is based on IEC 60384-11 and JSS 50212(1972), B. IEC 60384-11 latest version is IEC 60384-11: 2019 And JSS : 50212 (1972) has been withdrawn C. Variety FCPE 1 is not mentioned in IEC 60384-1/11. Hence the variety is no longer being used by Industry.	1. Variety FCPE 1 is not mentioned in IEC 60384-1/11. Hence the variety is no longer being used by Industry. 2. In view of above IS 9638 (Part 2) may be withdrawn.
21	IS 9638 (Part 3) : 1985 Specification for fixed polyester film dielectric capacitors for direct current Part 3 type FCPE	A. IS 9638 (Part 2) shall be read in conjunction with IS : 9638 (Part 1): I980 which is based on IEC 60384-11 and JSS 50212(1972), B. IEC 60384-11 latest version is IEC 60384-11: 2019 and JSS : 50212 (1972) has been withdrawn C. Variety FCPE 1 is not mentioned in IEC 60384-1/11. Hence the variety is no longer being used by Industry.	1. Variety FCPE 1 is not mentioned in IEC 60384-1/11. Hence the variety is no longer being used by Industry. 2. In view of above IS 9638 (Part 3) may be withdrawn.
22	IS 9638 (Part 4) : 1984 Specification for fixed polyester film dielectric capacitors for	A. IS 9638 (Part 3) shall be read in conjunction with IS : 9638 (Part 1): I980 which is based on IEC 60384-11 and JSS 50212(1972), B. IEC 60384-11 latest version is IEC 60384-11:	1. The above mentioned variety is not mentioned in IEC 60384-1/11. Hence the variety is no longer being used by Industry.

	direct current Part 4 type FCPE	2019 and JSS : 50212 (1972) has been withdrawn C. This Standards covers polyester film dielectric capacitors, oval, non-hermetically sealed, in non-metal case with radial/axial terminations.. D. The above mentioned variety is not mentioned in IEC 60384-1/11. Hence the variety is no longer being used by Industry.		2. In view of above IS 9638 (Part 4) may be withdrawn.
23	IS 10249 (Part 2 /Sec 1): 1983 Specification for voltage dependent resistors Varistors Part 2 low voltage Sec 1 type VDF 1	A) This standard (Part 2/See 1) shall be read in conjunction with IS : 10249(Part 1): 1982. This is similar to IEC 61051. B) IEC 61051-1 does not cover varistors, low voltage, disc types, non-insulated with terminations.		1. IEC 61051-1 does not cover varistors, low voltage, disc types, non-insulated with terminations. 2. Hence Standard may be withdrawn
24	IS 10249 (Part 2 /Sec 2): 1983 Specification - for voltage dependent resistors Varistors Part 2 low voltage Sec 2 type VDS 1	A) This standard (Part 2/Sec 2) shall be read in conjunction with IS : 10249(Part 1) 1982. B) IEC 61051-1 does not cover varistors, low voltage, disc types, non-insulated without terminations.		1. IEC 61051-1 does not cover varistors, low voltage, disc types, non-insulated without terminations. 2. Hence Standard may be withdrawn
25	IS 10825 (Part 1): 1975 Specification for ceramic dielectric capacitors type 1 Part 1 general requirements and methods of tests	IEC Pub 108-1967	IEC has withdrawn the Standard and replaced by IEC 60384-8	A. Based IEC 60108-1967 has been withdrawn and replaced by IEC 60384-8 version B. BIS has adopted IEC 60384-8 as ISQC 300600 : 1992 C. Hence the IS 10825-1 may be withdrawn to avoid duplicity of Standards.
26	IS 10825 (Part 2) : 1984 Specification	A. This standard (Part 2) shall be read in conjunction with IS 10825 (Part 1): 1975.		1. BIS has adopted IEC 60384-8 as ISQC 300600 : 1992

	for ceramic dielectric capacitors type 1 Part 2 type FCCT - 1	<p>B. This standard (Part 2) covers fixed ceramic dielectric capacitors temperature compensated, moulded type insulated.</p> <p>C. Above mentioned variety is not covered in IS 824 /IS 7305(IEC 60384-1) and IEC 60384-8</p> <p>D. Based IEC 60108-1967 has been withdrawn and replaced by IEC 60384-8 version.</p> <p>E. BIS has adopted IEC 60384-8 as ISQC 300600 : 1992</p>	2. In view of above, IS 10825 (Part 2) : 1984 may be withdrawn.	
27	IS 10825 (Part 3) : 1984 Specification for ceramic capacitors type 1 Part 3 FCCT 2	<p>A) This standard (Part 3) shall be read in conjunction with IS 10825 (Part 1): 1975.</p> <p>B) This standard (Part 3) covers fixed ceramic dielectric capacitors temperature compensated, disc type insulated.</p> <p>C) Above mentioned variety is not covered in IS 824 /IS 7305(IEC 60384-1) and IEC 60384-8</p> <p>D) Based IEC 60108-1967 has been withdrawn and replaced by IEC 60384-8 version BIS has adopted IEC 60384-8 as ISQC 300600 : 1992</p>	<p>1. Based IEC 60108-1967 has been withdrawn and replaced by E)IEC 60384-8 version BIS has adopted IEC 60384-8 as ISQC 300600 : 1992</p> <p>2. In view of above, IS 10825 (Part 3): 1984 may be withdrawn.</p>	
28	IS 10991 (Part 1) : 1984 Specification for fixed metallized polypropylene film dielectric capacitors Part 1 general requirements and methods of tests	IEC Pub 384-16	IEC 60384-16: 2019	<p>A. IEC 60384-16 has been adopted as ISQC 301200 : 1993</p> <p>B. In view of above the Standard may be withdrawn to avoid duplicity of Standards</p>

29	IS/QC 400000 : 1988 Fixed Resistors For Use In Electronic Equipment Generic Specification	IECQC 400000:1982	The IEC 60115-1 : 2008 has been adopted as IS 5786 (Part 1): 2018.	A. The IEC 60115-1: 2008 has been adopted as IS 5786 (Part 1): 2018. B. To avoid duplicity of Standards. IS/QC 400000 : 1988 may be withdrawn
30	IS/QC 410000 : 2000 'Potentiometers for use in electronic equipment - Part 1 Generic specification'	IECQC 410000:1989 IEC 60393-1 : 2008	The IEC 60393-1 : 2008 has been adopted as IS 8873 (Part 1) : 2018.	A. The IEC 60393-1 : 2008 has been adopted as IS 8873 (Part 1) : 2018. B. To avoid duplicity of Standards. IS/QC 410000 : 2000 may be withdrawn

Following Standards were reaffirmed

Sl.No	IS No. and Title	Reaff.
1	IS 8872 (Part 1) : 2018 Potentiometers for use in electronic equipment Part 1 generic specification First Revision	Nov-21
2	IS 8909 (Part 2) : 1978 Specification for fixed resistors general purpose power Part 2 type FRP1	Dec-21
3	IS 8909 (Part 3) : 1978 Specification for fixed resistors general purpose power Part 3 type FRP 2	Dec-21
4	IS 8909 (Part 4) : 1978 Specification for fixed resistors general purpose power Part 4 type FRP 3	Dec-21
5	IS 8909 (Part 5) : 1978 Specification for fixed resistors general purpose power Part 5 type FRP 4	Dec-21
6	IS 9001 (Part 9) : 1981 Guidance for environmental testing Part 9 solderability and resistance to soldering heat	Nov-21
7	IS 9256 (Part 2) : 1979 Specification for fixed metallized polyester film dielectric capacitors Part 2 type FCPM 1	Dec-21
8	IS 9256 (Part 3) : 1979 Specification for fixed metallized polyester film dielectric capacitors Part 3 type FCPM 2	Dec-21
9	IS 9414 (Part 1 / Sec 1) : 1979 Detail specification for digital integrated circuits Part 1 NAND gate TTL Sec 1 single 8 input positive	Dec-21
10	IS 9414 (Part 1 Sec 2) : 1979 Detail specification for digital integrated circuits Part 1 NAND gate TTL Sec 2 dual 4 input positive	Dec-21
11	IS 9414 (Part 1 /Sec 3) : 1979 Detail specification for digital integrated circuits Part 1 NAND gate TTL Sec 3 triple 3 input positive	Dec-21
12	IS 9414 (Part 1 /Sec 4) : 1979 Detail specification for digital integrated circuits Part n and gate TTL Sec 4 quad 2 input positive	Dec-21

13	IS 9437 (Part 1) : 1979 Specification for fixed precision resistors Part 1 general requirements and methods of test	Dec-21
14	IS 9437 (Part 2) : 1980 Specification for fixed precision resistors Part 2 type FRPR 1	Dec-21
15	IS 9437 (Part 3) : 1980 Specification for fixed precision resistors Part 3 type FRPR 2	Dec-21
16	IS 9437 (Part 4) : 1980 Specification for fixed precision resistors Part 4 type FRPR 3	Dec-21
17	IS 9512 : 1980 Guidance for pulse testing of resistors	Dec-21
18	IS 9596 : 1981 General requirements and classification of tests for micro circuits	Dec-21
19	IS 9614 (Part 1) : 1980 Specification for fixed high - Meg resistors Part 1 type FRHM 1	Dec-21
20	IS 9614 (Part 2) : 1980 Specification for fixed high - Meg resistors Part 2 type FRHM 2	Dec-21
21	IS 9614 (Part 3): 1980 Specification for fixed high - Meg resistors Part 3 type FRHM 3	Dec-21
22	IS 9638 (Part 1) : 1980 Specification for fixed polyester film dielectric capacitors for direct current Part 1 general requirements and methods of tests	Dec-21
23	IS 9638 (Part 2) : 1984 Specification for fixed polyester film dielectric capacitors for direct current Part 2 type FCPE 1	Dec-21
24	IS 9638 (Part 3) : 1985 Specification for fixed polyester film dielectric capacitors for direct current Part 3 type FCPE	Dec-21
25	IS 9638 (Part 4) : 1984 Specification for fixed polyester film dielectric capacitors for direct current Part 4 type FCPE	Dec-21
26	IS 9816 : 1981 General requirements and classification of tests for semiconductor devices	Dec-21
27	IS 10249 (Part 1) : 1982 Specification for voltage dependent resistors Varistors Part 1 general requirements and methods of tests	Dec-21
28	IS 10249 (Part 2 /Sec 1): 1983 Specification for voltage dependent resistors Varistors Part 2 low voltage Sec 1 type VDF 1	Dec-21
29	IS 10249 (Part 2 /Sec 2): 1983 Specification - for voltage dependent resistors Varistors Part 2 low voltage Sec 2 type VDS 1	Dec-21
30	IS 10825 (Part 1): 1975 Specification for ceramic dielectric capacitors type 1 Part 1 general requirements and methods of tests	Dec-21
31	IS 10825 (Part 2) : 1984 Specification for ceramic dielectric capacitors type 1 Part 2 type FCCT - 1	Dec-21
32	IS 10825 (Part 3) : 1984 Specification for ceramic capacitors type 1 Part 3 FCCT 2	Dec-21
33	IS 10991 (Part 1) : 1984 Specification for fixed metallized polypropylene film dielectric capacitors Part 1 general requirements and methods of tests	Dec-21
34	IS 11534 (Part 1) : 1985 Specification for directly heated positive step - Function temperature coefficient thermistors Part 1 general requirements and methods of tests	Dec-21
35	IS 12970 (Part 1): 2010 Semiconductor devices integrated circuits Part 1 general	Dec-21

36	IS 13562 : 1992 Terminology related to microprocessors	Dec-21
37	IS 15866 (Part 1): 2010 Fixed inductors for electromagnetic interference suppression Part 1 generic specification	Dec-21

5.3.1 Member Secretary then requested the Committee to provide their comments on the draft.

ITEM 6 INTERNATIONAL ACTIVITIES

6.1 The Committee noted the NMCs of LITD 05

6.2 The Committee noted the India is P-Member and O-Membership in various committees.

6.3 The Committee noted the list of IEC standards published along with work program under progress of IEC/TC 40, IEC/TC 47, IEC/SC 47A, IEC/SC 47D, IEC/SC 47E, IEC/SC 47F and IEC/TC 91 are given in Annex D.

6.4 The list of *Subcommittee(s) and/or Working Group(s)* under various IEC/TC and SC's are given below:

Sr No	Title	Subcommittee/Working Groups/Project Teams/Maintenance Teams	Expert
1	IEC/TC 40 – Capacitors and resistors for electronic equipment ('P' Member)	WG 36 – Packaging of components for automatic handling.	Mr Mandar Pramod Sinnarkar
		WG 39 – General items and harmonization	Mr Mandar Pramod Sinnarkar
		WG 40 – Capacitors, Inductors and Filters	1) Mr Mandar Pramod Sinnarkar 2) Mr. Bipin Jambholkar 3) Mr. Vidyadhar K Mahajan
		WG 41 – Resistors	Mr Mandar Pramod Sinnarkar
		WG 43-Non-linear Resistors	-
		Project Team PT 62812-Method of measurement of low resistance	Mr Mandar Pramod Sinnarkar
		PT 62956-Hybrid electric double layer capacitors for use in electric and electronic equipment	Mr Mandar Pramod Sinnarkar
		Maintenance Teams MT 60115-1 Fixed resistors for use in electronic equipment - Part 1: Generic specification	Mr Mandar Pramod Sinnarkar

	MT 60115-2-1- Fixed resistors for use in electronic equipment - Part 2: Blank detail specification: Leaded fixed low power film resistors, Classification level G	Mr Mandar Pramod Sinnarkar
	MT 60115-4- Fixed resistors for use in electronic equipment - Part 4: Sectional specification: Fixed power resistors	Mr Mandar Pramod Sinnarkar
	MT 60286-1- Packaging of components for automatic handling - Part 1: Tape packaging of components with axial leads on continuous tapes	Mr Mandar Pramod Sinnarkar- Convenor
	MT 60384-15- Fixed capacitors for use in electronic equipment. Part 15: Sectional specification: Fixed tantalum capacitors with non-solid or solid electrolyte	Mr Mandar Pramod Sinnarkar

ITEM 7 WTO-TBT ENQUIRY POINT

The Committee noted the content.

ITEM 8 ELECTRONICS AND INFORMATION TECHNOLOGY GOODS (REQUIREMENTS FOR COMPULSORY REGISTRATION) ORDER, 2012

The Committee noted the content.

ITEM 9 INFORMATION ON E-SALE OF STANDARDS BY BIS

The Committee noted that Indian Standard are available free of cost except for adopted standard.

ITEM 10 NATIONAL INSTITUTE FOR TRAINING IN STANDARDISATION (NITS)

The Committee noted the content.

ITEM 11 DATE AND PLACE FOR THE NEXT MEETING

It was decided to conduct the meeting at the earliest.