

IEC QUALITY ASSESSMENT SYSTEM (IECQ)

covering Electronic Components,
Assemblies, Related Materials and Processes

For rules and details of the IECQ visit www.iecq.org

Schedule of Scope to Certificate of Conformity

Approved Component - Capability

IECQ Certificate No.: IECQ-C BSI 14.0053

CB Certificate No.: E059/CA

Schedule Number: IECQ-C BSI 14.0053-S Rev No.: 13 Revision Date: 2020/11/05 Page 1 of 3

Basic Technology Thick Film passive and Hybrid Integrated Circuits

Construction: Alumina Substrate

Resistors: Ruthenium based, screen printed, laser trimmed

Conductors: Gold: 5 multilayer on dielectric, 1 on alumina top and reverse

Palladium silver: 1 layer on dielectric and alumina

Terminations: By soldered leadouts

Add on Components

Types: Surface Mount Diodes, transistors

Assessment Category: Level K

Packages and Sealing: Integral substrate / package maximum area 1522 mm²

Maximum number of leads 20 pin SIL, 40 pin DIL





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Boundaries of Capability:

Resistors:

Range; 4.44Ω to $4M\Omega$

 10Ω / sq decade. Less than 10Ω $\pm 0.1\Omega$

 $10\Omega - 100\Omega$ / sq decades. $10\Omega - 100\Omega$ ± 1.0%

 100Ω , $1K\Omega$, $10K\Omega$, $100K\Omega$ / decades 100Ω to $\pm 0.5\%$

300K Ω

100KΩ, 1MΩ / sq decades. 300KΩ – 2MΩ ± 1.0 %

 $1M\Omega$ / sq decade. > $2M\Omega$ ± 5.0%

Matching tolerance $13\Omega - 130$ KΩ ± 0.3 %

TCR 10Ω / sq decade ± 250 ppm/°C TCR 100Ω , $1K\Omega$, $10K\Omega$, $100K\Omega$ / sq decades ± 100 ppm/°C

TCR 1M Ω / sq decade ± 250ppm/°C

TCR tracking $130\Omega - 130K\Omega$ ± 50ppm/°C

Stability 1% - 5%

Storage Temperature - 65°C to +150°C

Operating Range - 55°C to +125°C (-40°C Add on components)

Substrate Power 6.2mW/mm² @ +70°C

Screening Level K, others by agreement with the

customer

Customer Participation in Design

Any level by agreement

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BS CECC 63200	Test	Conditions	CQC
4.5.1	Storage at High Temperature	150°C, 168 hours	6,7
4.5.2	Storage at Low Temperature	- 65°C, 168 hours	6,7
4.5.3	Damp Heat; Steady State	56 days, 55°C, 90%RH	6,7
4.5.6	Vibration	78Hz to 2000Hz 196m/s ²	7
4.5.7	Acceleration	5000g Y1	7
4.5.8	Rapid Change of Temperature	10 cycles 150°C - 65°C	6,7
4.5.10	Solderability	235°C, 2s	6,7
4.5.11	Resistance to Soldering Heat	350°C, 3.5s	6,7
4.5.12	Terminal Robustness	2 bends, 1 direction, 0.5Kgm	3,4,6,7
4.5.14	Endurance	2000 hours @ +125°C	6,7
4.5.16	Flammability	10s	7

Note: It may not be possible to achieve all the individual limits of capability in combination.

