



Homogeneous Materials and SGS Report – Ceramic TCXO 10LD Package

Doc no: QI-91 Rev: A01

Revision History

Rev.	Description of Change	Reason for Change
A00	Initial Release	10LD TCXO Homogeneous Material and SGS Report Document released for customer
A01	Added word Ceramic into the doc name	For better identification

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1.0 Purpose and Scope

- 1.1 Purpose: To list homogeneous materials used in SiTime Ceramic TCXO 10LD 5.0mmX3.2mm documentation of SGS report availability
- 1.2 Scope: All products manufactured for SiTime in Ceramic TCXO package

2.0 Reference Documents

- 2.1 SGS/ICP analysis reports provided by the homogeneous material suppliers/ assembly subcon
- 2.2 Internal References
 - 2.2.1 QI-1 SiTime green partner and RoHS/Green Compliance
 - 2.2.2 QI-90 Ceramic TCXO Composition Report

3.0 Information

- 3.1 The list of homogeneous materials contained in Ceramic TCXO package is given in Table-1
- 3.2 The SGS/ICP analysis reports for the homogeneous materials are received from the supplier (updated every year) and reviewed and maintained at SiTime.
- 3.3 Actual SGS reports can be obtained from SiTime sales support by request. Contact SiTime sales support at salesupport@sitime.com
- 3.4 As per industry standard practice (JEDEC Standard JESD46), the customer notification will be done when any major change in the material composition is implemented which affects form, fit and function. No annual updating will be done

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to this document. The updates to this document (and updating the SGS report) will be done only when,

- 3.4.1 There is any change in the material contents of the package or homogeneous material
- 3.4.2 The regulation changes dictate that new analysis be done to the homogeneous material for compliance to the regulation

4.0 Homogeneous Material Content Tables

**Table-1 Homogeneous Material List Contained in Ceramic TCXO
10LD 5.0mmX3.2mm Package-KDS**

Homogeneous Material	Material Name/Model	Supplier	SGS Report
Base	Ceramic	Kyocera Corporation	√
Lid	Kovar/Ni plating	Goto Precision Engineering Co., Ltd.	√
CMOS Die	Silicon	TSMC	√
MEMS Die	Silicon	Bosch	√
Die attach material	Conducting adhesive agent	Fujikura Kasei Co., Ltd	√
Polymer (CMOS)	HD-4000E	Hitachi	√
UBM (CMOS)	CuTi	Umicore	√
Polymer (MEMS)	HD-4000E	Hitachi	√
UBM (MEMS)	CuTiNiV	Umicore	√
Wire	Gold	Tanaka Denshi Kogyo K.K.	√
Solder paste	MA35-R1	Mitsubishi	√
Underfill	UH-05	Hitachi	√

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