



Homogeneous Materials and SGS Report - Third Generation DEXO, VCXO Package

Doc no: QI-86 Rev: A01

Revision History

Rev.	Description of Change	Reason for Change
A00	Initial Release	Third Generation DEXO, VCXO Homogeneous Material and SGS Report Document released for customer
A01	Added table for 5.0mmX3.2mm package	New release

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1.0 Purpose and Scope

- 1.1 Purpose: To list homogeneous materials used in SiTime Third Generation DEXO, VCXO 6LD 3.2mmX2.5mm and 7.0mmX5.0mm packages and 6LD & 10LD 5.0mmX3.2mm documentation of SGS report availability
- 1.2 Scope: All products manufactured for SiTime in Third Generation DEXO, VCXO 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-87 Third Generation DEXO, VCXO Composition Report

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3.0 Information

- 3.1 The list of homogeneous materials contained in Third Generation DEXO, VCXO package is given in Table-1 and Table-2
- 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 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



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**Table-1 Homogeneous Material List Contained in Third Generation DEXO, VCXO
6LD 3.2mmX2.5mm and 7.0mmX5.0mm Package-ASE**

Homogeneous Material	Material Name/Model	Supplier	SGS Report
Leadframe	C7025 PPF	Mitsui (MJA)	√
Plating	NiPdAu	Mitsui (MJA)	√
CMOS Die	Silicon	TSMC	√
MEMS Die	Silicon	Bosch	√
Die attach material	Non-conductive epoxy	Henkel	√
Polymer (CMOS)	HD-4000E	Hitachi	√
UBM (CMOS)	CuTi	Umicore	√
Polymer (MEMS)	HD-4000E	Hitachi	√
UBM (MEMS)	CuTiNiV	Umicore	√
Wire	Gold	Heraeus	√
Solder paste	MA35-R1	Mitsubishi	√
Mold Compound	EME-G770HJ	Sumitomo	√

**Table-2 Homogeneous Material List Contained in Third Generation DEXO, VCXO
6LD & 10LD 5.0mmX3.2mm Package-ASE**

Homogeneous Material	Material Name/Model	Supplier	SGS Report
Leadframe	C194 PPF	Mitsui (MJA)	√
Plating	NiPdAu	Mitsui (MJA)	√
CMOS Die	Silicon	TSMC	√
MEMS Die	Silicon	Bosch	√
Die attach material	Non-conductive epoxy	Henkel	√
Polymer (CMOS)	HD-4000E	Hitachi	√
UBM (CMOS)	CuTi	Umicore	√
Polymer (MEMS)	HD-4000E	Hitachi	√
UBM (MEMS)	CuTiNiV	Umicore	√
Wire	Gold	Heraeus	√
Solder paste	MA35-R1	Mitsubishi	√
Mold Compound	EME-G770HJ	Sumitomo	√

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