

TECHNICAL REPORT



Device embedding assembly technology – Part 2-8: Guidelines – Warpage control of active device embedded substrate

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DEVICE EMBEDDING ASSEMBLY TECHNOLOGY –**Part 2-8: Guidelines –
Warpage control of active device embedded substrate****FOREWORD**

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DEVICE EMBEDDING ASSEMBLY TECHNOLOGY –

Part 2-8: Guidelines – Warpage control of active device embedded substrate

1 Scope

This part of IEC 62878 describes a warpage control of active device embedded substrate along with parameters for determining warpage, which are useful during package assembly. Warpage results are explained using warpage driving force, resistance and neutral axis, for typical die embedded substrate, where the discrete active dies are placed in the core of substrate and interconnected to the substrate by direct Cu bonding. The same principles are applicable in other device embedded substrates. Even though the detailed structure of other device embedded substrates might be different, the origin and determination of the parameters of warpage are the same and thus the purpose of this report is to help engineers improve the warpage behaviours of their products by applying this principle.

2 Normative references

IEC 60194 (all parts), *Printed boards design, manufacture and assembly – Vocabulary*