

## DAFTAR PUSTAKA

- [1] E. Nurhayati and K. Andreas, “Strategi Pengembangan Investasi Industri Semikonduktor Di Indonesia,” *Maj. Sainstekes*, vol. 10, no. 1, pp. 049–067, 2023, doi: 10.33476/ms.v10i1.2913.
- [2] M. Kitano, A. Nishimura, S. Kawai, and K. Nishi, “Analysis of package cracking during reflow soldering process,” pp. 90–95, 2003, doi: 10.1109/relphy.1988.23432.
- [3] R. Yasra, “Analisis Terjadinya Reject Pcb Led Pada Smt Line Dengan Menggunakan Metode Root Cause Analysis Fishbone Dan Fmea Di Pt Vjb,” *J. Tek. Ibnu Sina*, vol. 8, no. 01, pp. 1–14, 2023, doi: 10.36352/jt-ibsi.v8i01.637.
- [4] “Infineon Technologies Cegléd.” [Online]. Available: <https://www.infineon.com/cms/cegléd/en/about-us/>
- [5] Y. Fan, H. Cui, Z. Lou, J. Teng, Z. Tang, and J. Peng, “Base solder voids identification of IGBT modules using case temperature,” *Microelectron. Reliab.*, vol. 115, no. August, p. 113968, 2020, doi: 10.1016/j.microrel.2020.113968.
- [6] X. Liu, M. Du, G. Ma, and Y. Yin, “Monitoring Method of Solder Layer of IGBT Module Based on Dual-Branch Cauer Model,” *Taiyangneng Xuebao/Acta Energetica Solaris Sin.*, vol. 45, no. 2, pp. 336–341, 2024, doi: 10.19912/j.0254-0096.tynxb.2022-1544.
- [7] S. M. Yeo, H. K. Yow, and K. H. Yeoh, “Solder void size reduction in semiconductor package by vacuum reflow and pressure cure processes,”

- Solder. Surf. Mt. Technol.*, vol. 34, no. 4, pp. 239–254, Jan. 2022, doi: 10.1108/SSMT-05-2021-0018.
- [8] E. Tm, E. Tm, and E. Tm, “EasyPIM TM-Modules,” vol. 49, no. 0, pp. 1–12, 2005, [Online]. Available: [www.eupec.com](http://www.eupec.com)
- [9] S. Syahidin and A. Adnan, “Analisis Pengaruh Harga Dan Lokasi Terhadap Kepuasan Pelanggan Pada Bengkel Andika Teknik Kemili Bebesen Takengon,” *Gajah Putih J. Econ. Rev.*, vol. 4, no. 1, pp. 20–32, 2022, doi: 10.55542/gpjer.v4i1.209.
- [10] F. Kamal, “Model Pembelajaran Sorogan Dan Bandongan,” *Paramurobi J. Pendidik. Agama Islam*, vol. 3, no. 2, pp. 15–26, 2020, doi: 10.32699/paramurobi.v3i2.1572.
- [11] K. Wei, W. Wang, Z. Hu, and M. Du, “Condition Monitoring of IGBT Modules Based on Changes of Thermal Characteristics,” *IEEE Access*, vol. 7, pp. 47525–47534, 2019, doi: 10.1109/ACCESS.2019.2909928.
- [12] H. Wang, C. Chang, Z. Liang, J. Wang, D. Yi, and D. Yang, “Structure Design and Thermal Simulation Analysis of DBC Substrate for High-Power IGBT Module,” *2020 21st Int. Conf. Electron. Packag. Technol. ICEPT 2020*, pp. 5–8, 2020, doi: 10.1109/ICEPT50128.2020.9202651.
- [13] J. Chen *et al.*, “Study of the Solder Characteristics of IGBT Modules Based on Thermal–Mechanical Coupling Simulation,” *Materials (Basel)*, vol. 16, no. 9, 2023, doi: 10.3390/ma16093504.

- [14] J. P. Sommer, R. Bayerer, R. Tschirbs, and B. Michel, "Base plate shape optimisation for high-power IGBT modules," *CIPS 2008 - 5th Int. Conf. Integr. Power Electron. Syst. Proc.*, no. April 2008, pp. 323–326, 2008.
- [15] M. Sheng, H. Nogawa, M. H. Alvi, and R. D. Lorenz, "Current Sensing Integration with Lead Frames in 6-in-1 IGBT Modules," *2018 IEEE Energy Convers. Congr. Expo. ECCE 2018*, pp. 367–374, 2018, doi: 10.1109/ECCE.2018.8557785.
- [16] "Soldering technology Vacuum soldering system VADU 300XL." [Online]. Available: <https://www.pink.de/en/8-loettechnik/65-soldering-system-vadu-300xl.html>
- [17] S. He, R. Gao, J. Li, Y. A. Shen, and H. Nishikawa, "In-situ observation of fluxless soldering of Sn-3.0Ag-0.5Cu/Cu under a formic acid atmosphere," *Mater. Chem. Phys.*, vol. 239, no. October 2019, p. 122309, 2020, doi: 10.1016/j.matchemphys.2019.122309.
- [18] G. P. Robertson and P. M. Groffman, *Nitrogen transformations*, 4th ed. Elsevier Inc., 2006. doi: 10.1016/b978-0-12-415955-6.00014-1.
- [19] S. Jayaram and E. Gonzalez, "Design and construction of a low-cost economical thermal vacuum chamber for spacecraft environmental testing," *J. Eng. Des. Technol.*, vol. 9, no. 1, pp. 47–62, 2011, doi: 10.1108/17260531111121468.
- [20] R. Rosaly and A. Prasetyo, "Flowchart Beserta Fungsi dan Simbol-Simbol," *J. Chem. Inf. Model.*, vol. 2, no. 3, pp. 5–7, 2020.

- [21] R. Angely, “Model Usulan Perbaikan Selisih Persediaan Barang Menggunakan Metode Failure Mode And Effect Analysis (FMEA) di PT XYZ-Warehouse Mitra Adi Aktif Perkasa,” *J. Soc. Sci. Res.*, vol. 3, pp. 2291–2305, 2023.
- [22] Huberman and Miles, “Teknik Pengumpulan dan Analisis Data Kualitatif,” *J. Stud. Komun. dan Media*, vol. 02, no. 1998, pp. 1–11, 1992.
- [23] H. Hasanah, “TEKNIK-TEKNIK OBSERVASI (Sebuah Alternatif Metode Pengumpulan Data Kualitatif Ilmu-ilmu Sosial),” *At-Taqaddum*, vol. 8, no. 1, p. 21, 2017, doi: 10.21580/at.v8i1.1163.
- [24] R. Handayani, *Metode Penelitian Sosial*, no. September. 2020.
- [25] S. M. Yeo, A. Mahmood, and S. H. Ishak, “less Soldering Process in Semiconductor Package,” *2018 IEEE 38th Int. Electron. Manuf. Technol. Conf.*, pp. 1–7, 2018.
- [26] “Plants and systems for void-free soldering with vacuum Soldering technology PINK GmbH Thermosysteme A company with competence in vacuum technology”, [Online]. Available: <https://www.pink.de/en/products/vacuum-soldering-systems.html>
- [27] H. Eggeling, “Company presentation,” *57th Annu. AGIFORS Symp.*, vol. 2017-October, no. May, pp. 1–34, 2017./
- [28] A. Rijali, “Analisis Data Kualitatif Ahmad Rijali UIN Antasari Banjarmasin,” vol. 17, no. 33, pp. 81–95, 2018.