

Assignment – I

Explore the common package types for the embedded electronic components. And discuss their use in embedded design with respect to the following criteria:

- Thermal implications
- Effects of vibrations
- Package size vs I/Os

Based on the descriptions form a conclusion, that which package is suitable according to which criteria and **motivate your answers**

Common package types.

1. QFN – Quad Flat No-lead
2. QFP – Quad Flat Pack
3. IPD – Integrated Passive Device
4. SIP – System in Package
5. SIB – System in Board
6. MCM – Multi Chip Module
7. PGA - Pin grid array
8. LGA - Land grid array
9. DIP – Dual Inline Package
10. SOIC – Small Outline Integrated Circuit
11. BGA – Ball Grid Array
12. LTCC – Low Temperature Co-fired Ceramic

Report

A comprehensive report on the topic should be submitted including the references for the information or figures used, no later than the deadline. Report should be presented in either PDF or Docx format. And a following presentation should be prepared for the seminar **10-15 minutes max.**

Literature

As a starting point for the assignment please see the reference literature given on the moodle course page. Please note that the assignments don't have to be limited to the reference literature, search for the scientific articles and other sources as well.