



An Introduction to Electronics Systems Packaging

Video Course -2012

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Quiz for Module 9

**Embedded Passives Technology**

Video Sequence 40-41

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1. What are the functions of passive components?
  2. Do they share a large real estate area in handheld products? If so roughly, how much?
  3. What do you understand by the term 'embedded' in embedded passives technology?
  4. Outline in points the motivation for adopting embedded passives for handheld products. Which of those do you think is the most important driver for migrating to embedded passives?
  5. Why is there a reluctance to move to embedded passives technology in spite of several advantages?
  6. Do you think microvia technology and SBU technology play a part in promoting embedded passives technology?
  7. Do you believe that today, certain PTH components are unavoidable in terms of reliability and tolerance values?
  8. Define sheet resistance of a material. How do you use this for calculating resistance of a material?
  9. List the three known routes to embedded resistor fabrication.
  10. Draw the cross-section of a capacitor and write the equation for capacitance. What is the role of dielectric constant of a material in the calculation of capacitance?
  11. List two routes to embedded capacitor fabrication.
  12. Write a paragraph on the future trend in electronics packaging with respect to new materials and processes.
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