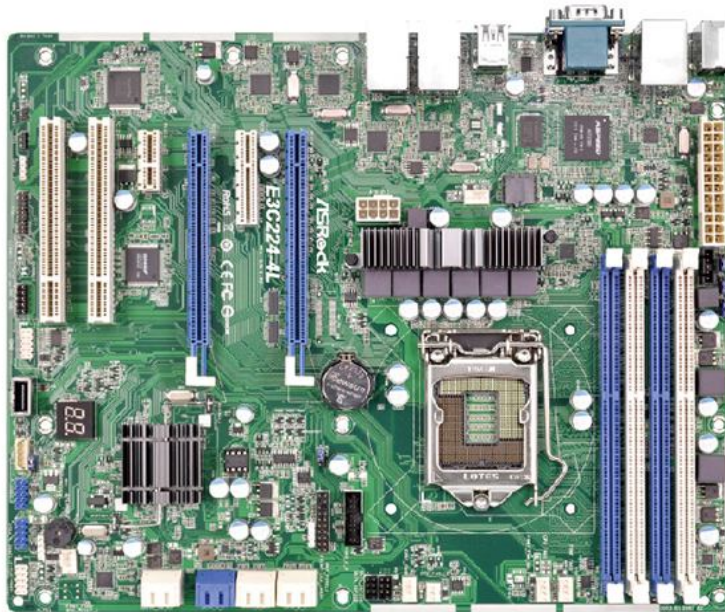


DESKTOP MOTHERBOARD SERVICE TRAINING



Duration	30 days
Course Type	Regular / Fast Track / Weekend
Timing	Regular : 1.00 Hrs Fast Track : 2.00 Hrs Weekend : 4.00 Hrs
We Provide	Common: Course Materials Troubleshooting/Installation Manuals & ID Card Worldwide Online Verification Certificate Job Support: Job Reference as per Job provider's requirement. Self Employment Whole Sale Materials Purchase Address

CLASS	TOPICS
SESSION-1	INTRODUCTION <ol style="list-style-type: none"> 1. What is Motherboard? 2. How to Service Motherboard? 3. Motherboard Manufacturers Company List 4. Various types of Intel CPU socket and its identification 5. Various types of AMD CPU socket and its identification 6. Various types of motherboard and its parts identification 1. Chip level tools and its usage method: 1.hot air blower 2.soldering iron 3.soldering lead 4.soldering flux 5. De solders wick 6.tweezer 7.magnifying lamp and etc., 2. Various Types of Testing Equipments and Its Usage Method: <ol style="list-style-type: none"> 1. Digital multimeter 2.RCL meter 3.Debug card and etc., 3. Advanced Tools and Its Usage Method: 1.CRO [oscilloscope] 2.BIOS programmer 3.BGA reworks machine 4.BGA Reballing kit and etc, 4. Other Hardware Testing Spares -1.testing smps, RAM, CPU, FAN and etc.,
SESSION-2	SESSION-2 RESISTOR
SESSION-3	SESSION-3 CAPACITOR
SESSION-4	SESSION-4 INDUCTOR & TRANSFORMER
SESSION-5	SESSION-5 DIODE
SESSION-6	SESSION-6 TRANSISTOR
SESSION-7	INTEGRATED CIRCUITS [IC]
SESSION-8	ARCHITECTURE OF MOTHERBOARD <ol style="list-style-type: none"> 1. P3/P4/DUAL CORE & QUAD CORE Motherboard Architecture 2. Latest i3/i5 & i7 Motherboard Architecture 3. Intel 845e Motherboard architecture 4. Intel 865G/865GV/865PE/865P Motherboard architecture 5. Intel 875 Motherboard architecture 6. Intel D915 Motherboard architecture 7. Intel 945 Motherboard architecture 8. Intel Dg31motherboard Architecture 9. Intel DG41RQ Motherboard architecture 10. Intel 965 Motherboard block diagram 11. Intel 5 Series Chipset Motherboard H55, H57, P55 & Q57 block diagram 12. Intel 7 Series Motherboard block diagram-1 13. Intel 7 Series Motherboard block diagram-2 14. AMD Motherboard Architecture-1 15. AMD Motherboard Architecture-2 16. Bus Connectivity of Chipset 17. Working Function of Chipsets and Other Parts 18. Motherboard Block Diagram Explain
SESSION-9	MOTHERBOARD COMPONENTS IDENTIFICATION <ol style="list-style-type: none"> 1. Various Types of Motherboard Ic's List <ul style="list-style-type: none"> <input type="checkbox"/> 1.CPU power supply IC [VRM] <input type="checkbox"/> 2.Mosfet Gate Driver IC

	<ul style="list-style-type: none"> ❑ 3.Ram Power Supply IC [VDDQ] ❑ 4.Ram Clock Volt Supply IC [VTT] ❑ 5. Super IO controller IC and etc., <ol style="list-style-type: none"> 2. Motherboard IC's Manufacturing Companies 3. Motherboard Parts Identification 4. Intel Motherboard Parts Identification 5. Gigabyte 965 Motherboard Parts Identification 6. Msi P965 Motherboard Parts Identification 7. Gigabyte i3/i5/i7 CPU support Motherboard Parts Identification
SESSION-10	<p>VARIOUS SECTION OF MOTHERBOARD</p> <ol style="list-style-type: none"> 2. Motherboard Sections Identification <p><u>Power section</u></p> <ol style="list-style-type: none"> 3. How Motherboard Power On? 4. How Work Smpls Power Supply? 5. Smpls Functional Block Diagram 6. How Generate The Power Good Signal? 7. How to Check the Smpls? 8. Smpls Voltage and Current Rating 9. Smpls Output Connector Pin Out and Voltage 10. How To Find The Smpls High/ Low Voltage? 11. Smpls Supply Voltage for Motherboard Circuit 12. Power Section Components 13. Practical
SESSION-11	<p>SUPER IO CONTROLLER SECTION</p> <ol style="list-style-type: none"> 1. What Is Super Io Controller? 2. Computer Devices Handled By the Super I/O Chip 3. Architecture of Io Chip-1 4. Io IC Identification 5. Io IC Brands 6. Smsc Io IC Serial Number List 7. Winbond Io IC Serial Number List 8. Ite Io IC Serial Number List 9. Various Types of Io IC And Its Datasheet 10. Winbond W83627hg Datasheet 11. Smsc Lpc47m 172 Datasheet 12. Practical
SESSION-1 2	<p>voltage regulator module [VRM] section</p> <ol style="list-style-type: none"> 1. What Is Voltage Regulator Module? 2. Cpu Vcore & Vtt & Graphics Core Voltages 3. General Block Diagram of CPU Power Section 4. General VRM Circuit Function 5. VRM Section Mosfet Voltage 6. VRM Section Mosfet Voltage Name 7. How to Work and Connects VRM Components? 8. Different Types of Motherboard & Its VRM Section Components Identification

	<p>9. Some CPU Section Ic's</p> <ul style="list-style-type: none"> ❖ 1. Block Diagram ❖ 2. Pin Diagram ❖ 3. Pin Description ❖ 4. Circuit Diagram <p>10. CPU Power Supply Circuit – 915 Chipset</p> <p>11. CPU Power Supply Circuit Diagram of RT 9241</p> <p>12. Rt 8802a-CPU Power Supply Circuit Diagram</p> <p>13. How Work CPU Voltage Regulator Module [VRM]?</p>
SESSION-13	<p style="text-align: center;">MEMORY SECTION</p> <ol style="list-style-type: none"> 1. What is RAM? 2. Working function of RAM 3. Ram Capacity & Clock Speed List 4. Type of RAM 5. STATICS RAM 6. DRAM: Dynamic Random Access Memory 7. DDR RAM Clock Speed /Voltage and Pins Comparison 8. DDR RAM Notch Comparison 9. Types of Memory Module 10. Some Memory [RAM] Control IC List 11. RAM Power Supply Circuit Components Identification 12. RAM Power Supply Circuit Working Function 13. Intel D865pe Motherboard RAM Power Circuit Section Voltage Checking Method 14. Practical
SESSION-14	<p style="text-align: center;">CHIPSETS AND ITS POWER SUPPLY SECTION</p> <ol style="list-style-type: none"> 1. What is Chipset? 2. Types of Chipsets 3. Chipset Manufacturers List 4. Chipsets Identification 5. Intel Chipset List 6. Intel G45 Chipset Diagram 7. INTEL X79 Chipset Diagram 8. SIS Chipset Diagram 9. NVIDIA Chipset Diagram 10. ATI Chipset Diagram 11. ALI Chipset Diagram 12. AMD Chipset Diagram 13. VIA Chipset Diagram 14. Northbridge Chipset Power Supply Circuit 15. Chipset Power Supply Control IC Pin Diagram 16. Functional Block Diagram 17. Chipset Power Supply Circuit Diagram 18. Intel Dg41rq Motherboard –NB Chipset Power Section & Its Components 19. Practical

SESSION-15	CLOCK GENERATOR SECTION <ol style="list-style-type: none"> 1. What is Clock Signal? 2. How Measured Clock Speed? 3. What is Clock Speed? 4. Block Diagram of Clock Generator 5. What is Phase-Locked Loop [PLL]? 6. What is Crystal Oscillator? 7. Various Clock Outputs for Motherboard 9. Where Ever Connect Clock Output? 9. Clock Generator IC Manufacturer List 10. Clock Generator IC Identification 11. Clock IC Pin Diagram 12. Clock Generator IC Internal Diagram 13. Practical
SESSION-16	COLD CHECKING OF MOTHERBOARD <ol style="list-style-type: none"> 1. How to Find CPU Circuit Fault? 2. How to Find CPU Section Mosfet Fault? 3. Mosfet and CPU Power Connector Short Finding Method 4. Gigabyte Motherboard Mosfet Short Finding Method
SESSION-17	HOT CHECKING OF MOTHERBOARD <ol style="list-style-type: none"> 1. Intel i7, i5, i3 Cpu Motherboard VRM Section Voltage Checking Method 2. Ddr-3 RAM Circuit Voltage Checking Method 3. Graphics Core Section Voltage Checking Method 4. Various Section of Voltage Checking For Intel D865pe Motherboard 1. CPU Circuit Volt 2. Chipset Circuit Volt 3. Keyboard & VGA Connector Volt 4. Bios & Clock IC Volt 5. Audio Section Volt 6. Usb Section Volt
SESSION-18	DEBUG CARD CHECKING <ol style="list-style-type: none"> 1. What Is Debug Card? 2. Various Types of Debug Card 3. Pci Slot Debug Card 4. Post Codes or Hexa Decimal Codes 5. Debug Card Definitions 6. How to Test the Motherboard? 7. General Problems - Post Codes 8. Motherboard Fault Finding Through Debug Card –see Video class 9. Practical
SESSION-19	BIOS AND CMOS SECTION <ol style="list-style-type: none"> 1. What Is Bios? 2. The Four Main Functions of Pc Bios 3. What Is Post – (Power on Self Test)

	<ol style="list-style-type: none"> 4. Bios Post Screen 5. Ami Bios Post Screen 6. How to Find Bios Version? 7. Bios IC Manufacturer List 8. Bios Chip Identification 9. Various Types of Bios Chip & Its Packages 10. Bios IC Pin Configuration 11. Bios Chip Functional Block Diagram 12. How to Find Memory Capacity for Bios Chip? 13. Marking Code of Bios Chip 14. What Is CMOS? 15. Fault Diagnosis by Bios Beeps 16. How to Reset Your Bios? <p>How update bios software?</p> <ol style="list-style-type: none"> 1. Bios Tool Kit and Its Parts 2. Bios Chip Identification 3. The Motherboard Bios Chip Remove & Fixing Method 4. How to Fix Bios Chip to SPI Flash Programmer Kit? 5. Bios Flashing Method 6. Bios Beep and Error Code 7. Bios Flashing Method
SESSION-20	<p>AUDIO & ETHERNET SECTION</p> <ol style="list-style-type: none"> 1. Audio section 2. Various Types of Motherboard Audio Port 3. Audio IC Working Function 4. Audio Codec IC Manufacturers List 5. Motherboard Audio Section and Its Components 6. Audio Codec Functional Block Diagram 7. Audio Codec IC Pin Diagram 8. Audio Codec IC Pin Function 9. Audio Codec Connection Diagram 10. Audio Codec IC Datasheet <p><u>ETHERNET SECTION</u></p> <ol style="list-style-type: none"> 1. Ethernet IC Identification 2. Ethernet IC Manufacturers List 3. Ethernet IC RTL 8100c Datasheet 4. Ethernet IC RTL 8201cp Datasheet 5. Ethernet IC List
SESSION-21	<p>MOTHERBOARD CONNECTORS PINOUT</p> <ol style="list-style-type: none"> 1. IO Ports and Its Name 2...Front Panel Power Connectors 3. PS/2 Keyboard And Mouse Pin out 4. USB Pin out 5. VGA Connector Pin out 6. DVI Port Pin out-Digital Video Interface 7. SATA Hard Disk Connector Pin out 8. Parallel Port

	<ul style="list-style-type: none"> 9. Com Port or Serial Port 10. Super Video Connector [S Video] 11. HDMI Connector Pin out 12. DDR1 Ram Pin Details 13. DDR2 Ram Pin Details 14. DDR3 Ram Pin Details 15. IDE Hard Disk Pin out 16. PCI Slot Pin Out 17. PCI Express Slot Pin Out 18. AGP Port Pin Out
SESSION-22	BGA CHIP REMOVAL PRACTICAL <ul style="list-style-type: none"> 1. What is BGA Machine? 2. BGA Machine Parts Identification? 3. BGA Chip Removing Method?
SESSION-23	BGA CHIP REBALLING PRACTICAL <ul style="list-style-type: none"> 1. BGA IC REBALLING & Fixing Method
SESSION-24	MOTHERBOARD TROUBLESHOOTING TIPS 20 trouble shooting and solution [1 to 20]
SESSION-25	MOTHERBOARD TROUBLESHOOTING TIPS 21 trouble shooting and solution [21 to 42]
SESSION-26	MOTHERBOARD TROUBLESHOOTING TIPS 11 Trouble Shooting and Solution [43 to 54]
SESSION-27	MOTHERBOARD CHECKING PRACTICAL
SESSION-28	MOTHERBOARD DOUBT CLEARING SECTION
SESSION-29	MOTHERBOARD PRACTICAL CLASS RIVISION
SESSION-30	MOTHERBOARD PRACTICAL CLASS RIVISION

<p><u>CHIP SYSTEMS</u> Old No.107,New No. 194,Ground floor, Lake View Road, West Mambalam, Chennai-33 Tamilnadu, INDIA (Near Postal colony 3rd Street) Phone: 044-2474 3860. Cell : +91-98410 99911, Cell : +91-94440 34246. Email : admin@chipsystems.in</p>	<p><u>CHIP TECHS</u> Old No.107,New No. 194,Ground floor, Lake View Road, West Mambalam, Chennai-33 Tamilnadu, INDIA (Near Postal colony 3rd Street) Phone: 044-2474 3860. Cell : +91-98410 99911, Cell : +91-94440 34246. Email : admin@chipsystems.in</p>
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