**Features**

- **CHIPSET**: AMD® A55E
- **APU**: AMD® T56N (-BT56N) / AMD® T40N (-BT40N)
- **MEMORY**: 1 DDR3 SODIMM up to 8GB
- **EXPANSION**: 6 PCIe x1, 4 PCI
  - 1 LPC, 1 SMBus, 1 IDE
  - 1 VGA, 1 LVDS
  - 8 USB 2.0
  - 8-bit DIO
- **LAN**: 1 Gigabit LAN interface
- **DIMENSIONS**: 95mm x 95mm (3.74” x 3.74”)

**Mechanical Drawing**

**Block Diagram**
## Specifications

### APU (Accelerated Processing Unit)
- OT905-BT56N:
  - AMD® T56N, 1.65GHz, 2x 512KB L2, 18W TDP, dual-core
  - Cooling option: heat sink with cooling fan
- OT905-BT40N:
  - AMD® T40N, 1.0GHz, 2x 512KB L2, 9W TDP, dual-core
  - Cooling option: heat sink with cooling fan

### CHIPSET
- AMD® AS5E Controller Hub

### SYSTEM MEMORY
- One 204-pin DDR3 SODIMM socket
- Supports DDR3 1066/1333MHz (OT905-BT56N)
  - Supports single channel memory interface
  - Supports up to 8GB system memory
  - DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

### ONBOARD GRAPHICS FEATURES
- Advanced discrete-level GPU integrated in the processor
  - AMD Radeon™ HD 6320 (OT905-BT56N)
  - AMD Radeon™ HD 6290 (OT905-BT40N)
- Supports LVDS and VGA interfaces
- Supports DirectX 11, OpenGL 3.2 and OpenCL 1.1
- AMD Turbo Core 2.0 technology
- LVDS: Chrontel CH7511B, 24-bit dual channel
- VGA display resolution:
  - Up to 2048x1536 (OT905-BT56N)
  - Up to 1920x1200 (OT905-BT40N)
- Supports Hardware H.264, MPEG4 Part 2, VC-1, and MPEG2 decode

### ONBOARD AUDIO FEATURES
- Supports High Definition Audio interface

### ONBOARD LAN FEATURES
- Intel® 82574L Gigabit Ethernet Controller
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

### SERIAL ATA (SATA) INTERFACE
- Supports 4 Serial ATA interfaces
- SATA 3.0 with data transfer rate up to 6Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller
- Supports RAID 0/1/5/10

### IDE INTERFACE
- JMicron JMB368 PCI Express to PATA host controller
- DMA mode: Ultra ATA up to 100MB/s
- PIO mode: up to 16MB/s

### TRUSTED PLATFORM MODULE (TPM) - optional
- Provides a Trusted PC for secure transactions
- Provides software license protection, enforcement and password protection

### WATCHDOG TIMER
- Watchdog timeout programmable via software from 1 to 256 seconds

### EXPANSION INTERFACES
- Supports 8 USB 2.0 ports
- Supports 6 PCIe x1 interfaces
- Supports 4 PCIe interfaces
- Supports 8-bit Digital I/O
- Supports 1 IDE interface
- Supports LPC interface
- Supports SMBus interface

### DAMAGE FREE INTELLIGENCE
- Monitors CPU temperature and overheat alarm
- Monitors CPU fan speed and failure alarm
- Monitors Vcore/Vnb/1.5V voltages and failure alarm
- Watchdog timer function

### BIOS
- 32bit SPI BIOS

### POWER CONSUMPTION
- 17.21 W with T40N at 1.0GHz and 1x 2GHz DDR3 SODIMM

### TEMPERATURE
- Operating: 0°C to 60°C
- Storage: -20°C to 85°C

### HUMIDITY
- 10% to 90%

### POWER INPUT
- 12V, 5VSB, VCC_RTC (ATX mode)
- 12V, VCC_RTC (AT mode)

### PCB
- Dimensions:
  - COM Express® Compact: 95mm (3.74") x 95mm (3.74")
- Compliance:
  - PICMG COM Express® R2.0, Type 2

### CERTIFICATION
- CE
- FCC Class B
- RoHS

### Packing List
- 1 OT905-BT56N or OT905-BT40N board
- 1 Heat sink kit
- 1 DVD
- 1 QR (Quick Reference)

### Optional Items
- COM330-B carrier board kit
- Cable kit for carrier board