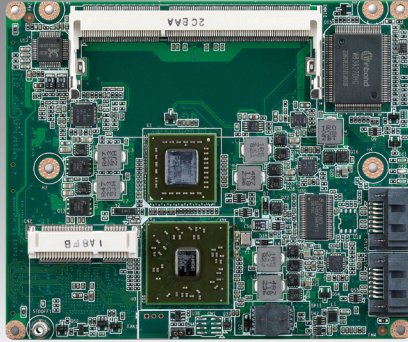


# SOM-4466

## AMD G-Series Processor ETX CPU Module



### Features

- AMD G-Series Processor + FCH A55E
- Supports DX11, OGL3.2, and H.264/AVC, VC-1 HW Acceleration
- Supports DDR3-1066 up to 4GB
- Supports PCI, ISA, SMBus, I<sup>2</sup>C
- Supports 10/100 LAN, SATA, mSATA Socket, IDE, USB2.0

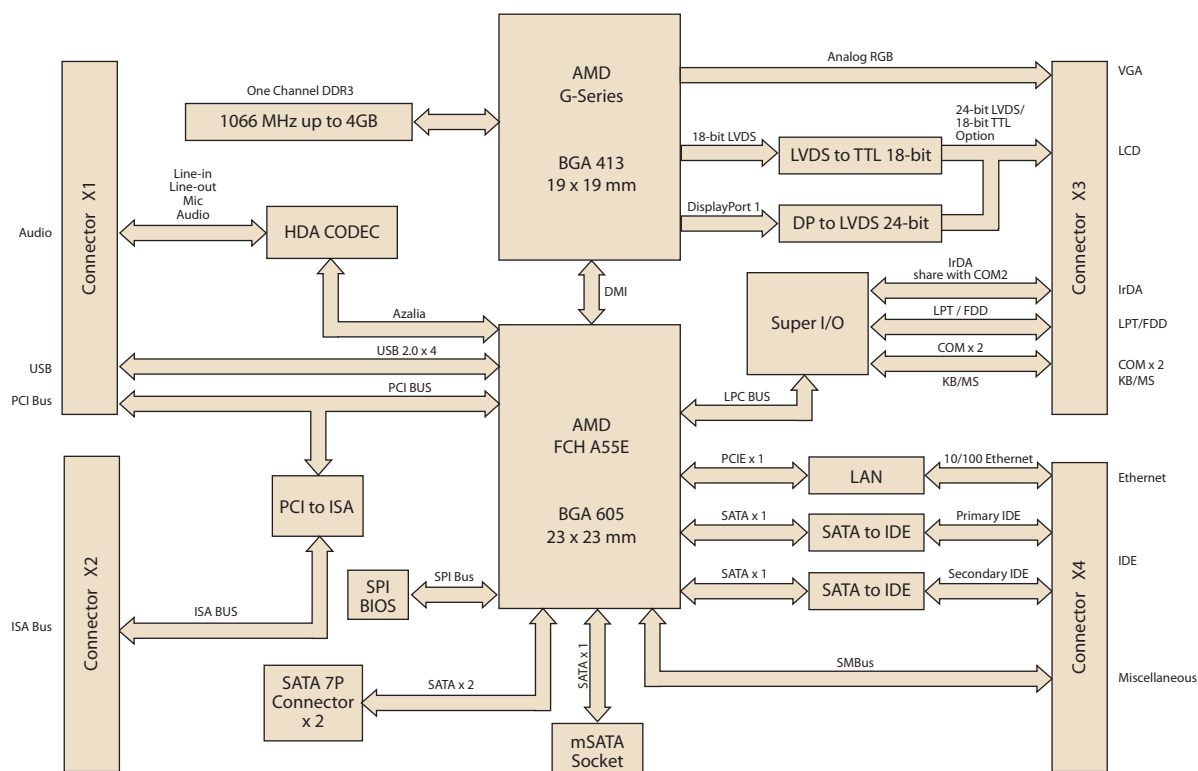
#### Software APIs:



### Specifications

|                  |                             |                                                                                                                    |
|------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------|
| Compliance       | Pin Define                  | ETX V3.02                                                                                                          |
|                  | Form Factor                 | ETX Module 114 x 95 mm (3.74" x 4.5")                                                                              |
| Processor System | CPU Frequency/Core/L2 Cache | AMD T16R 615 MHz/Single Core/512 KB<br>AMD T40E 1GHz/Dual Core/512KB<br>AMD T56N 1.65GHz/Dual Core/512KB           |
|                  | Chipset                     | AMD A55E                                                                                                           |
|                  | BIOS                        | AMI 32 Mbit, SPI                                                                                                   |
|                  |                             |                                                                                                                    |
| Memory           | Technology                  | DDR3-1066 MHz non-ECC unbuffered                                                                                   |
|                  | Capacity                    | 1 SODIMM up to 4 GB                                                                                                |
| Display          | Graphic Engine              | AMD Radeon HD 6320 / HD 6250                                                                                       |
|                  | Graphic Memory              | Share with system memory up to 512MB                                                                               |
|                  | Capacity                    | Support DX11, OGL3.2, OCL1.1 and HW acceleration for H.264/AVC, VC-1, MPEG2                                        |
|                  | VGA                         | Resolution up to 1920 x 1200 @ 30 bpp                                                                              |
|                  | LCD                         | TTL Version: 18-bit up to 800 x 600<br>LVDS Version: 24-bit up to 1024 x 768                                       |
|                  | Dual Display                | VGA + LCD                                                                                                          |
| Expansion I/F    | PCI                         | PCI V2.3, up to 4 masters                                                                                          |
|                  | ISA                         | Support Memory and I/O decode                                                                                      |
| Serial Bus       | SMBus                       | Yes                                                                                                                |
|                  | I <sup>2</sup> C Bus        | Yes                                                                                                                |
| I/O              | Ethernet                    | Realtek RTL8105E 10/100 LAN                                                                                        |
|                  | SATA                        | 2 Port on ETX Module , SATA Gen3 600 MB/s compliant. Support IDE/AHCI Mode, RAID 0, 1                              |
|                  | mSATA socket                | 1 Half-Size mSATA socket on ETX Module, SATA Gen 3 600 MB/s compliant                                              |
|                  | IDE                         | 2 Channels, each channel support up to 1 IDE device. ATA/ATAPI-7 (UDMA133) compliant                               |
|                  | USB2.0                      | 4 Ports                                                                                                            |
|                  | Audio                       | Realtek ALC262. Support Line-in(L/R), Line-out(L/R), MIC                                                           |
|                  | COM Port                    | 2 Ports                                                                                                            |
|                  | LPT/Floppy                  | 1 Port shared                                                                                                      |
|                  | Keyboard & Mouse            | 1 Keyboard and 1 Mouse                                                                                             |
|                  | GPIO/GPE                    | 1 GPIO, 2 GPE                                                                                                      |
|                  | Watchdog Timer              | 256 level timer interval, from 0 to 255 sec or min setup by software, jumperless selection, generates system reset |
| Power            | Type                        | ATX, AT                                                                                                            |
|                  | Supply Voltage              | ATX: +5 V and +5 VSB, AT: +5 V                                                                                     |
|                  | Power Consumption (Idle)    | +5 V @ 1.22 A                                                                                                      |
|                  | Power Consumption (Max.)    | +5 V @ 1.55 A                                                                                                      |
| Environment      | Temperature                 | Operating: 0 ~ 60° C (32 ~ 140° F)<br>Storage: -40 ~ 85° C (-40 ~ 185° F)                                          |
|                  | Humidity                    | Operating: 40° C @ 95% relative humidity, non-condensing<br>Storage: 60° C @ 95%relative humidity, non-condensing  |

## Block Diagram



## Ordering Information

| Part No.          | CPU  | L2 Cache | Chipset | Bundled DDR | LVDS   | TTL    | PCI Master | ISA | GbE | SATA | mSATA Socket | IDE | USB 2.0 | Thermal Solution | Operating Temperature |
|-------------------|------|----------|---------|-------------|--------|--------|------------|-----|-----|------|--------------|-----|---------|------------------|-----------------------|
| SOM-4466L-M0A1E   | T16R | 512KB    | A55E    | N/A         | 24-bit | N/A    | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Passive          | 0 ~ 60° C             |
| SOM-4466T-M0A1E   | T16R | 512KB    | A55E    | N/A         | N/A    | 18-bit | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Passive          | 0 ~ 60° C             |
| SOM-4466L-S0A1E   | T40E | 512KB    | A55E    | N/A         | 24-bit | N/A    | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Active           | 0 ~ 60° C             |
| SOM-4466L-S6A1E   | T56N | 512KB    | A55E    | N/A         | 24-bit | N/A    | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Active           | 0 ~ 60° C             |
| SOM-4466LZ-M0A1E  | T16R | 512KB    | A55E    | N/A         | 24-bit | N/A    | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Passive          | -20 ~ 80° C           |
| SOM-4466LZ2-M0A1E | T16R | 512KB    | A55E    | N/A         | 24-bit | N/A    | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Passive          | -40 ~ 85° C           |
| SOM-4466TZ-M0A1E  | T16R | 512KB    | A55E    | N/A         | N/A    | 18-bit | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Passive          | -20 ~ 80° C           |
| SOM-4466TZ2-M0A1F | T16R | 512KB    | A55F    | N/A         | N/A    | 18-bit | 4          | 1   | 1   | 2    | 1            | 2   | 4       | Passive          | -40 ~ 85° C           |

Note: Passive = fanless: Active = with fan

## Development Board

| Part No.         | Description               |
|------------------|---------------------------|
| SOM-DB4700-00A1F | Development Board for ETX |

## Packing List

| Part No.       | Description         | Quantity |
|----------------|---------------------|----------|
| -              | SOM-4466 ETX Module | 1        |
| 1960058558N001 | Heatspreader        | 1        |

## Optional Accessories

| Part No.           | Description                                   |
|--------------------|-----------------------------------------------|
| 1960012091T00S     | Semi-Heatsink 114 x 96 x 15 mm                |
| 17500001980        | Cooler I-PM-M95W 114 x 96 x 15-SC 12V0.3A-35C |
| 96LEDK-A084SV45NB2 | 8.4" LED PANEL 450N 800 x 600(G) G084SN05 V9  |
| 96LEDK-C150XG40NG1 | 15" LED PANEL 400N 1024 x 768(G) G150XGE-L04  |

## Embedded OS

| OS      | Part No.   | Description                                  |
|---------|------------|----------------------------------------------|
| WES2009 | 2070011641 | Image XPE WES2009 SOM-4466 V4.3 ENG; SA      |
| WES7    | 2070011640 | Image WES7E SOM-4466 V5.1.4 ENG; SA          |
| WEC7    | 2070013746 | Image WEC7 SOM-4466 V1.1 ENG (RTL8105E only) |

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[SOM-4466TZ-M0A1E](#)