

### Features

- AMD® Embedded R-Series APU with A77E Fusion Controller Hub
- Dual SODIMM socket DDR3L-1600 memory (up to 16 GB)
- 2x PCIe slot in parallel
- PCIe x16, PCIe x1 and Mini PCIe expansion
- 4 DisplayPort



### Specifications

#### Processor & System

CPU	AMD Embedded R-Series APU (code name: Bald Eagle) RX-427BB 2.7GHz (3.6GHz boost), 35W (4C/8CU) RX-425BB 2.5GHz (3.4GHz boost), 35W (4C/6CU) RX-225FB 2.2GHz (3.0GHz boost), 17W (2C/3CU)
Memory	Dual channel non-ECC 1600/1333 MHz DDR3L memory up to 16 GB in dual vertical SODIMM sockets
BIOS	AMI EFI in 8MB SPI BIOS Optional socket SPI BIOS socket onboard and SPI header for external BIOS, dual BIOS support Optional TPM module soldered onboard, dual BIOS support
SEMA Support	Supports: voltage/current monitoring, power sequence debug support, AT/ATX mode control, logistics and forensic information, flat panel control, general purpose I <sup>2</sup> C, failsafe BIOS (dual BIOS), watchdog timer, triple smart fan control
Debug Header	40-pin multipurpose flat cable connector. Use in combination with DB-40 debug module providing BIOS POST code LEDs, BMC access, SPI BIOS flashing, power testpoints, debug LEDs

#### I/O Interfaces

Expansion Slots	1 PCIe x16 Gen3 slot (PCIe 3.0) 1 PCIe x1 Gen2 slot (PCIe 2.0) 1 full-size Mini PCIe slot supporting PCIe+USB or mSATA by jumper setting (on the bottom side) 1 half-size Mini PCIe slot supporting PCIe and USB (on the top side) 1 SPI header for external BIOS
Serial ATA	3x SATA 6 Gbps ports Ports 0 and 1 provide clearance for SATADOMs
USB	4x USB 3.0 and 4x USB 2.0 on rear I/O 2x USB 2.0 on front panel header 2x USB 2.0 on standard header 1x USB 2.0 on vertical connector with keep out area for dongle 1x USB 2.0 on Mini-Pcie (top) and 1x USB 2.0 on mSATA / Mini PCIe (bottom)
KB/MS	1x PS/2 internal header
Serial Ports	1x RS-232/422/485 on internal header 3x RS-232 on internal headers
Digital IO	10 GPIO on internal feature connector

#### Audio

Audio Codec	Realtek® ALC886
Interfaces	7.1 channel audio via 5 jacks and S/PDIF output on rear I/O 7.1 channel audio signals and S/PDIF output on internal header

#### Display

Graphics core	AMD® Radeon HD 9000
DisplayPort	4 outputs with resolution up to 4096 x 2160 @ 30Hz
LVDS	Optional single/dual channel 24-bit up to 1920 x 1200 @ 60 Hz, LVDS and 1x DP are co-lay

#### Ethernet

Controller	2x Intel® i211AT Ethernet controller
Interface	PCI Express x1 Bus
Wake On LAN	Yes

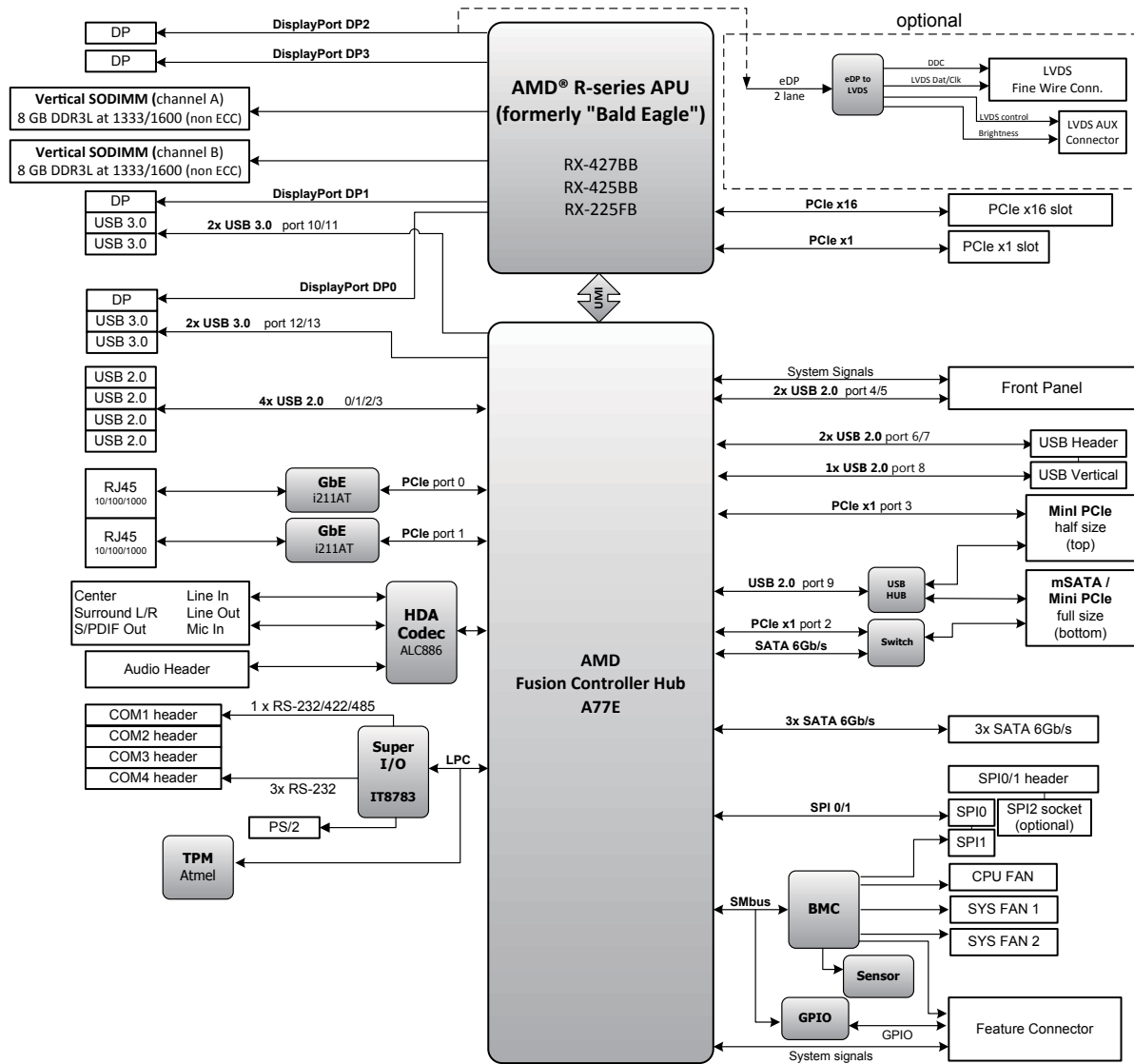
#### Power

Standard Input	ATX = 12V ±5%/5Vsb ±5% from internal header AT = 12V ±5% from internal header
Peripherals output	Onboard headers for fan and SATA power

#### Mechanical and Environmental

Form Factor	Mini-ITX
Dimensions	170 mm x 170 mm (L x W)
Operating Temp.	0°C to +60°C
Storage Temp.	-20°C to +80°C
Certifications	CE, FCC Class A
Relative Humidity	10% to 90%, non-condensed

# Functional Diagram



## Ordering Information

### Modules

Model Number	Description/Configuration
AmITX-BE-G-RX427BB	Mini-ITX with AMD® RX-427BB
AmITX-BE-G-RX425BB	Mini-ITX with AMD® RX-425BB
AmITX-BE-G-RX225FB	Mini-ITX with AMD® RX-225FB
AmITX-BE-G-RX427BB-LVDS	Mini-ITX with AMD® RX-427BB, LVDS+3x DisplayPort
AmITX-BE-G-RX425BB-LVDS	Mini-ITX with AMD® RX-425BB, LVDS+3x DisplayPort
AmITX-BE-G-RX225FB-LVDS	Mini-ITX with AMD® RX-225FB, LVDS+3x DisplayPort

### Packing List

Model Number	Description
30-20872-0000	ATX/AT Power Cable
30-20875-0000	SATA Dual Power Cable
30-10057-0600	SATA Cable
34-25314-0000	Rear I/O Shield

### Optional Accessories

Model Number	Description
30-20876-0000	COM Port Cable, 1 Port, 25cm
30-20873-0000	PS/2 KB/MS Cable, 40cm
30-20874-1000	USB 2.0 Cable, 2 ports, 20cm
32-20478-0000	5010-CU-CJ APU Cooler
32-20499-0000	5010-AL-RG APU Cooler