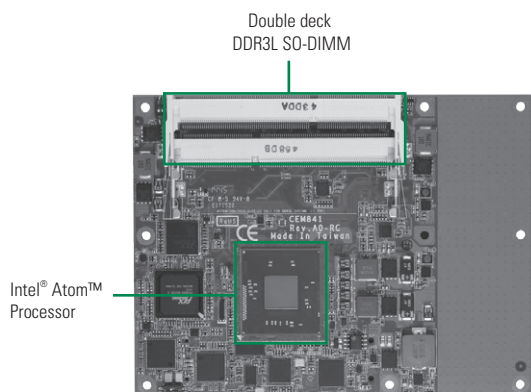


CEM841

Intel® Celeron® Processor J1900/N2807
COM Express Type 2 Basic Module



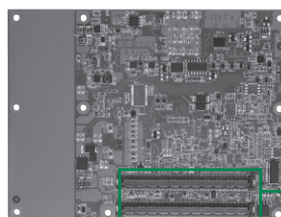
System

CPU	Intel® Celeron® processor J1900 2 GHz or Celeron® N2807 1.58 GHz onboard
System Memory	2 SO-DIMM support DDR3L-1066/1333 max up to 8 GB
Chipset	SoC integrated
BIOS	AMI uEFI
SSD	N/A
Watchdog Timer	255 levels, 1~255 sec. or min.
Expansion Interface	1 PCIe x4 plus 4 x PCIe x1 (or 3 x PCIe x1 while internal LAN is connected)
Battery Lithium	N/A
Power Requirements	ATX: +12V and 5VSB or AT: +12V
Size	125 x 95 mm
Board Thickness	2.0 mm
Temperature	0° ~ +60°C (32°F ~ 140°F), operation
Operation Humidity	10% ~ 95% relative humidity, non-condensing

I/O

MIO	1 x LPC interface 1 x IDE
SATA	1 x SATA-300
Hardware Monitoring	Yes
Ethernet	1 port as 10/100/1000Mbps supports Wake-on-LAN, PXE Boot ROM with Intel® i210AT
Audio	HD link interface to baseboard for Codec
USB	8 x USB 2.0
SMBus	Yes
Digital I/O	4 channels IN & 4 channels OUT

- Intel® Celeron® J1900/N2807 Quad/ Dual Core processor (Bay Trail)
- 2 SO-DIMM DDR3L-1066/1333 max up to 8 GB
- Max. up to 8 lanes of PCI Express
- 1 SATA-300 and 1 IDE interfaces
- 8 USB 2.0 ports



▲ Rear view

Packing List

Quick installation guide, user's manual/utility CD

Ordering Information

Standard	
CEM841VG-N2807 (P/N: E38D841100)	COM Express type 2 with Intel® Celeron® N2807, VGA/LVDS, USB and 10/100/1000Mbps Ethernet
CEM841VG-J1900 (P/N: E38D841101)	COM Express type 2 with Intel® Celeron® J1900, VGA/LVDS, USB and 10/100/1000Mbps Ethernet

Optional Accessories

CEB94000 (P/N: E394000100)	ATX form factor type 2 evaluation baseboard
5078D841100E	CEM841/2/3 Heatspreader
5078D842200E	CEM841/2/3 Heatsink without fan

Display

Chipset	Intel® HD graphics (Gen 7 Gfx) display engine Gfx APIs – DX11, OCL 1.2, OGL 3.0 2 independent displays
Display Interface	1 x VGA 1 x LVDS; 18/24-bit dual channel

Архангельск (8182)63-90-72
Астана +7(7172)727-132
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48

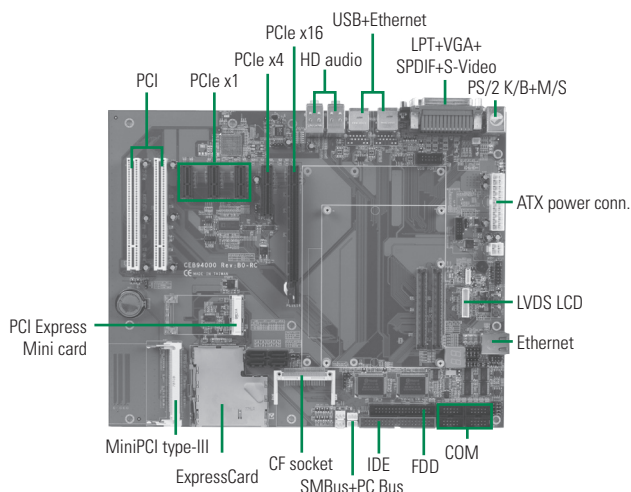
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
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Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78

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CEB94000

COM Express™ Type 2 Development Baseboard



System

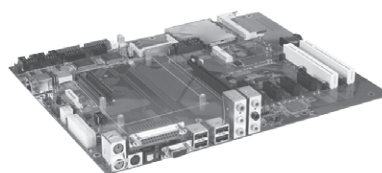
CPU	COM Express™ type 2 basic or extended module
System Memory	On the module
Chipset	SoC integrated
BIOS	On the module; optional socket on the baseboard
SSD	N/A
Watchdog Timer	255 levels, 1~255 sec.
Expansion Interface	1 x PCIe x16 slot for graphics and SDVO ADD2+ card 1 x PCIe x4 or 3 x PCIe x1 slot 2 x 32-bit/33MHz PCI slot 1 x ExpressCard slot 1 x PCI Express Mini Card socket 1 x MiniPCI type-III socket
Battery	Lithium 3V/196 mAH
Size	305 x 244 mm
Board Thickness	1.6 mm
Temperature	0° ~ +60°C (32°F ~ 140°F), operation
Relative Humidity	10% ~ 95% relative humidity, non-condensing

I/O

MIO	1 x IDE; PATA-100 1 x FDD 1 x PS/2 keyboard 1 x PS/2 mouse 1 x RS-232 (COM 2) 1 x RS-232 (COM 1) 1 x LPT; with SPP/EPP/ECP supported 1 x IrDA
SATA	4 x SATA
Hardware Monitoring	Supported by CPU module
Ethernet	1 x RJ-45 for 10/100/1000Mbps
Audio	HD Audio with rear surround/side surround/sub woofer, Line-in/line-out/MIC-in and SPIF
USB	6 x USB 2.0
SMBus	System Management Bus for advanced monitoring/control interface
Port 80 Display	Dual 7 segments Port 80 display for convenient debugging purpose through LPC interface
Display	1 x S-Video (depending on CPU module) 1 x LVDS LCD interface 1 x CRT D-Sub connector

Features

- Standard ATX form factor for development purpose
- 1 PCIe x16, 1 PCIe x4, 3 PCIe x1 and 2 PCI slots
- 1 ExpressCard, 1 PCI Express Mini Card and 1 MiniPCI



▲ Side view

Packing List

Standard		
Quick installation guide, user's manual/utility CD, cable		
Cable		
Part Number	Description	Qty
59382601000E	Ultra DMA66 IDE cable 40-pin 455mm	1
593826A0000E	SATA signal cable 500mm	2
59381400000E	FDD cable, P=2.54, L=300mm	1
59380703000E	COM port x 2 w/ bracket	1

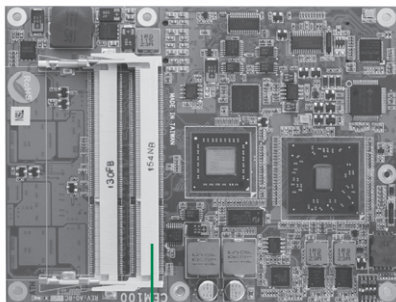
Ordering Information

Standard	
CEB94000VEA	COM Express™ baseboard with ExpressCard, PCI Express Mini Card, MiniPCI, 1 x RJ-45 and multiple I/O features
(P/N: E394000100)	

Compliant Modules and Accessories	
CEM850VG	COM Express™ baseboard with socket P and 10/100/1000Mbps
CEM830VG	COM Express™ SoM with socket M and 10/100/1000Mbps
CEM820VG	COM Express™ SoM with socket 478 and 10/100/1000Mbps
CEM831VG	COM Express™ SoM with Intel® Atom™ processor N270 and 10/100/1000Mbps
PK95300	LVDS-to-TTL 18-bit LCD converter for Hirose DF9-31P-1V
PK95301	LVDS-to-TTL 18-bit LCD converter for Hirose DF9-41P-1V
AX93221	LVDS-to-DVI converter
AX93218L	ADD2+ card for LVDS LCD
AX93218D	ADD2+ card for DVI-D

CEM100

AMD G-Series APU COM Express™ Type 2
Basic Module with AMD A55E



Double deck DDR3 SO-DIMM

System

CPU	AMD G-Series APU T56N 1.65 GHz/ T40R 1.0 GHz onboard
System Memory	2 x 204-pin SO-DIMMs support DDR3-1066 max. up to 8 GB
Chipset	AMD A55E
BIOS	AMI UEFI BIOS
SSD	N/A
Watchdog Timer	255 levels, 1~255 sec.
Expansion Interface	8 x PCIe x1 devices 4 x 32-bit PCI bus masters
Battery	N/A
Power Requirements	TBD
Size	125 x 95 mm
Board Thickness	2.0 mm
Temperature	0° ~ +60°C (32°F ~ 140°F), operation
Operation Humidity	10% ~ 95% relative humidity, non-condensing

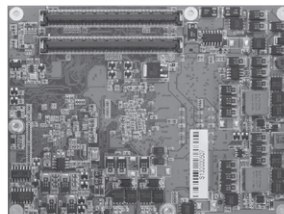
I/O

MIO	1 x LPC interface 1 x SPI interface 1 x IDE; PATA-100
SATA	4 x SATA-600 with RAID 0/1/5/10
Hardware Monitoring	N/A
Ethernet	1 port as 10/100/1000Mbps supports Wake-on-LAN, RPL/PXE Boot ROM with Broadcom BCM50610 PHY
Audio	HD link interface to baseboard for external Codec
USB	8 x USB 2.0
TPM 1.2	Infineon SLB9635 for trusted platform
SMBus	Yes
Digital I/O	4 channels IN & 4 channels OUT

Display

Chipset	AMD
Memory Size	Depending on integrated GPU
Display Interface	1 x VGA 1 x LVDS; 18/24-bit single/dual channel 2 x Digital output ports (DP, HDMI, DVI; DPO port is available if LVDS not used)

- AMD G-Series APU T56N 1.65 GHz/ T40R 1.0 GHz
- AMD A55E
- 2 DDR3-1066 SO-DIMMs max. up to 8 GB
- 8 lanes of PCIe Gen 2 at 5GT/s
- 4 SATA-600 with RAID 0, 1, 5, 10
- DirectX11, OpenGL 4.0, and OpenCL 1.0 supported
- TPM 1.2 supported



▲ Rear view

Packing List

Quick installation guide, user's manual/utility CD

Ordering Information

Standard	
CEM100VG-T56N (P/N: E38D100100)	COM Express type 2 module with T56N 1.6 GHz APU, VGA/LVDS, 10/100/1000Mbps Ethernet, USB and TPM
CEM100VG-T40R (Fanless) (P/N: E38D100101)	COM Express type 2 module with T40R 1 GHz APU, VGA/LVDS, 10/100/1000Mbps Ethernet, USB and TPM
Optional	
CEB94000	ATX form factor type 2 baseboard
5078D100000E	CEM100 heatspreader module
5078D100100E	COM Express SoM cooling kit with fan
5078D100200E	COM Express SoM cooling kit without fan

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