

# CEM313

COM Express Type 6 Compact Module with Intel® Pentium® Processor N4200 & Celeron® Processor N3350

## Features

- Intel® Pentium® processor N4200 & Celeron® processor N3350 (Apollo Lake)
- 2 DDR3L-1600 SO-DIMM, up to 8GB
- Max. up to 4 lanes of PCIe
- 2 SATA-600
- 4 USB 3.0 and 8 USB 2.0
- AXView 2.0 intelligent remote management software for industrial IoT applications
- TPM 1.2 supported (optional)

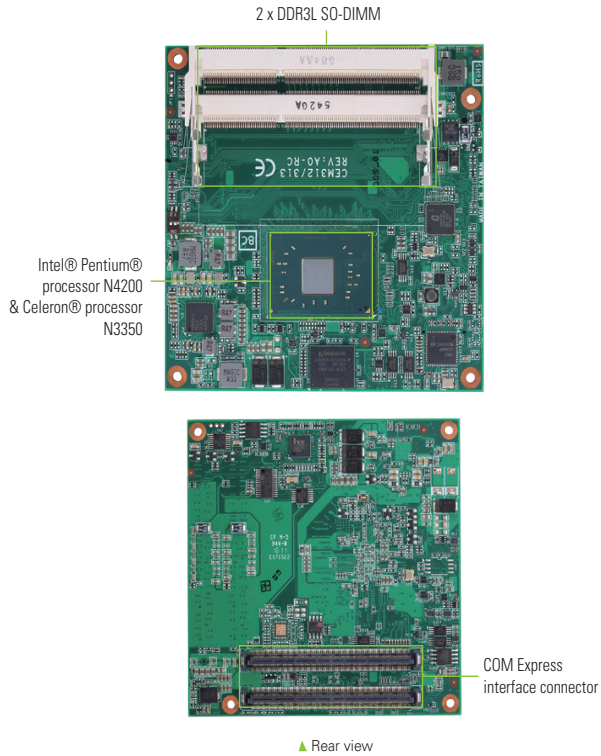


### Core System

CPU	Intel® Quad/Dual core Pentium® processor N4200 & Celeron® processor N3350 onboard (Apollo Lake)
System Memory	2 x 204-pin SO-DIMM DDR3L-1600, up to 8GB
Chipset	SoC integrated
BIOS	AMI uEFI (Legacy free)
SSD	eMMC 5.0 up to 64GB (optional)
Watchdog Timer	65536 levels, 0 ~ 65535 sec.
Expansion Interface	4 x PCIe lanes (3 lanes while internal LAN is connected)
Battery Lithium	N/A
Power Input	ATX: 12V, +5VSB AT: 12V
Size	95 x 95 mm
Board Thickness	2.0 mm
Temperature	-20°C ~ +70°C (-4°F ~ +158°F), operation
Operation Humidity	10% ~ 95% relative humidity, non-condensing
Vibration	3.5 Grms

### I/O

MIO	1 x LPC interface 1 x SPI interface 2 x Serial TX/RX 1 x I <sup>2</sup> C
SATA	2 x SATA-600
Hardware Monitoring	Yes
Ethernet	1 port as 10/100/1000 Mbps supports Wake-on-LAN, PXE Boot ROM with Intel® i211AT
Audio	HD link interface to baseboard for Codec
USB	4 x USB 3.0 8 x USB 2.0
TPM	TPM 1.2 (optional)
SMBus	Yes
Digital I/O	4 channels IN & 4 channels OUT
Smart Battery	Yes



### Display

Chipset	Intel® gen 9 Graphics Engine Supports Gfx - DX12.0, OCL 2.0, OGL 4.3
Display Interface	2 x DDI (DP, HDMI, DVI); VGA optional 1 x LVDS; 18/24-bit dual channel (eDP option)

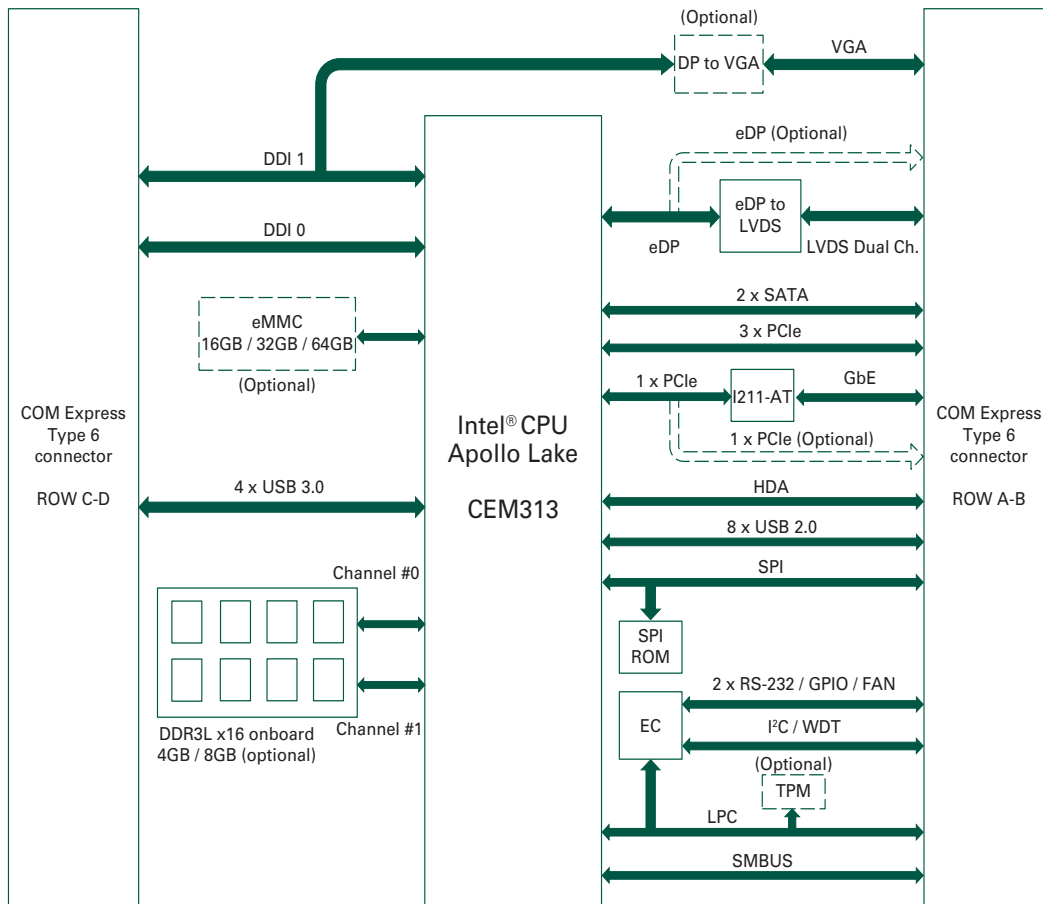
### Packing List

Quick installation guide; user's manual/utility CD

### Ordering Information

Standard	
CEM313PG-N4200 (P/N: E38D313100)	COM Express Type 6 compact module with Intel® Pentium® processor N4200, DDI/LVDS, USB 3.0 and GbE LAN
CEM313PG-N3350 (P/N: E38D313101)	COM Express Type 6 compact module with Intel® Celeron® processor N3350, DDI/LVDS, USB 3.0 and GbE LAN
Optional Accessories	
CEB94011 (P/N: E394011100)	CEB94011 COM Express Type 6 evaluation board
7128D313000E	CEM313 heat spreader
7118D313000E	CEM313 heat sink without fan

**Block Diagram**



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508  
Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050  
Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28  
Business Registration Number: 07699660