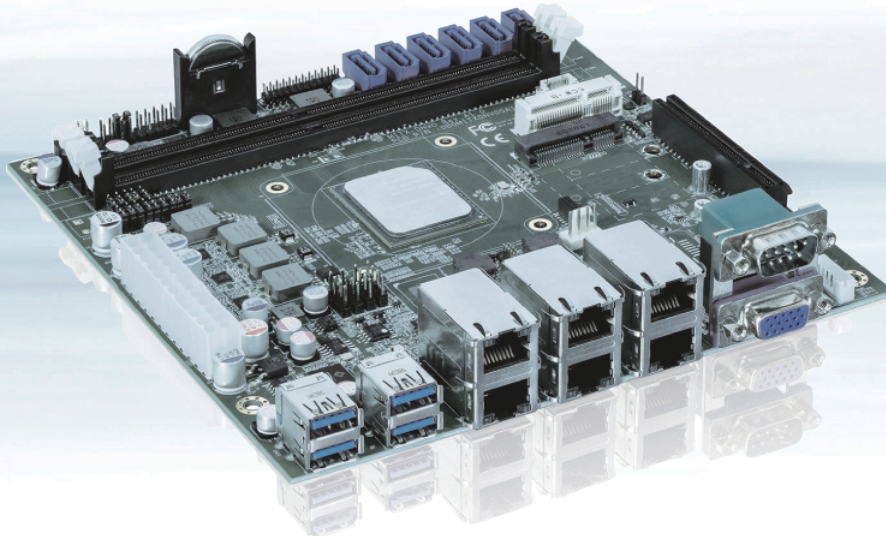


mITX-DNV

IDEAL FOR DENSE LOW-POWER APPLICATIONS



MINI-ITX INDUSTRIAL MOTHERBOARD WITH INTEL® ATOM® C3000 SERIES PROCESSORS

- ▶ 1x VGA for display output
- ▶ 6x GbE LAN for Ethernet
- ▶ 4x USB 3.0, 2x USB 2.0, 2x RS232/422/485, 1x 8-bit DIO for peripherals
- ▶ 6x SATA 3.0, Up to 1x mSATA, 1x M.2 Key B, optional eMMC for storage
- ▶ Up to 1x mPCIe, 1x PCIe x8 for expansion

mITX-DNV

MINI-ITX INDUSTRIAL MOTHERBOARD WITH INTEL® ATOM® C3000 SERIES PROCESSOR

mITX-DNV is a Mini-ITX industrial motherboard equipped with Intel® Atom® C3000 Series processors, which is specially suitable for dense low-power network, storage, and IoT applications.

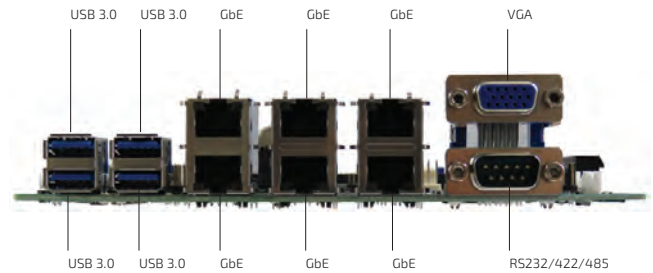
It has six SATA 3.0 sockets and one M.2 Key B socket for HDD / SSD storage device connection as well as optional eMMC drive soldered on-board. In addition, It also supports 6 GbE LAN ports to deliver

sufficient traffic flow for huge data volumes.

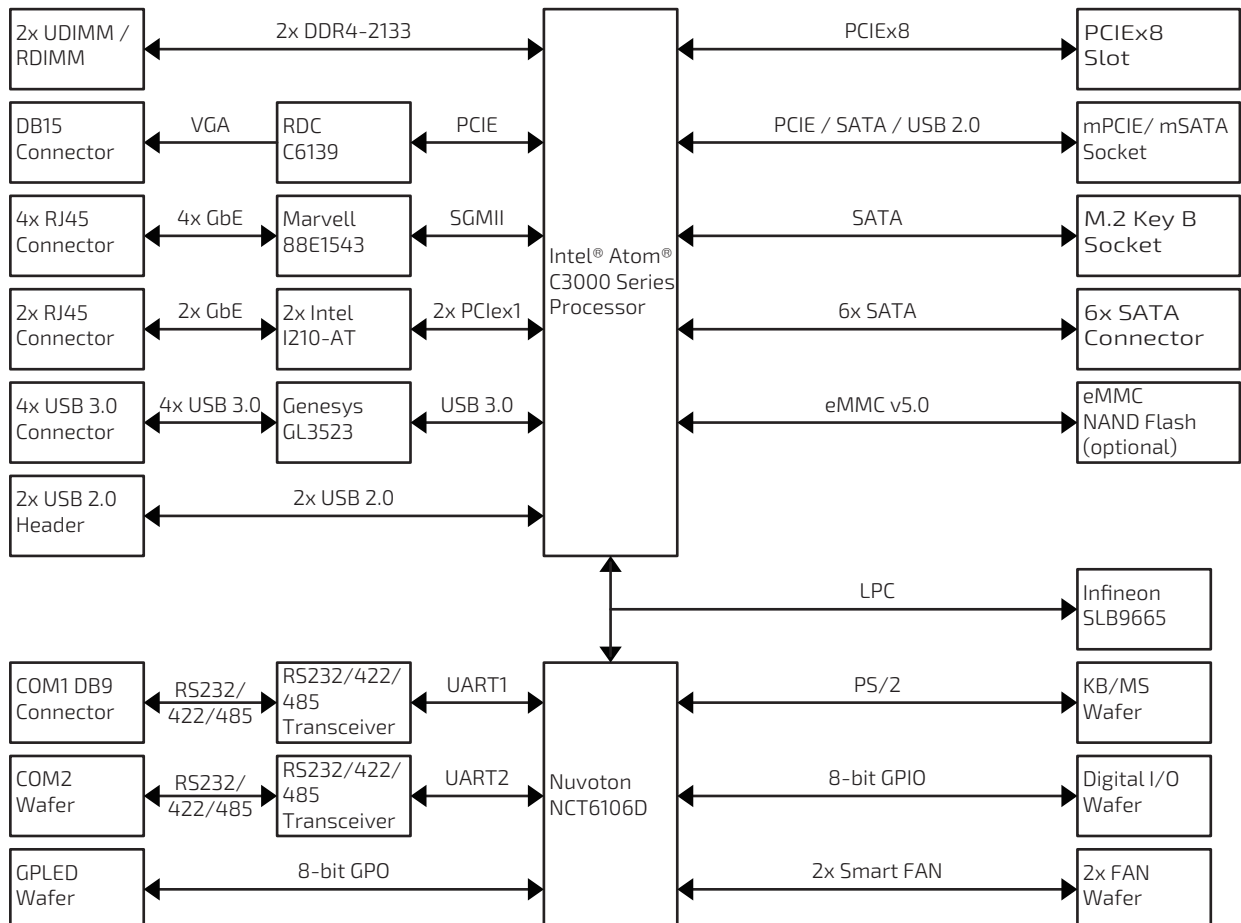
mITX-DNV reserves one mSATA / mPCIe slot and one PCIe x8 slot, allowing users to expand SSD or specific functions such as wireless connection or additional network interface card.

▶ PRODUCT HIGHLIGHTS

- ▶ Intel® Atom® C3000 Series processors
- ▶ Up to 2x DDR4 UDIMM memory socket
- ▶ 1x VGA for video output
- ▶ 6x GbE LAN for Ethernet
- ▶ 4x USB 3.0, 2x USB 2.0 for USB device connection
- ▶ 2x RS232/422/485 for serial device connection
- ▶ 8-bit DIO for device / signal control
- ▶ 6x SATA 3.0, 1x M.2 Key B, optional eMMC for storage
- ▶ 1x mSATA / mPCIe for SSD, WLAN, WWAN expansion
- ▶ 1x PCIe x8 for application-specific expansion
- ▶ TPM 2.0 support
- ▶ Extended temperature model available: -20 °C ~ 70 °C



▶ BLOCK DIAGRAM



► TECHNICAL INFORMATION

SYSTEM	PROCESSOR	Intel® Atom® C3338 (Dual Core, 4M Cache, up to 2.20 GHz, FCBGA1310, 9 W TDP)
	MEMORY	Intel® Atom® C3538 (Quad Core, 8M Cache, up to 2.10 GHz, FCBGA1310, 15 W TDP) 1x DDR4 1866 UDIMM up to 128 GByte (Atom® C3338 model) 2x DDR4 2133 UDIMM up to 256 GByte (Atom® C3538 model)
VIDEO	GRAPHICS DISPLAY INTERFACE	RDC® C6139 1x VGA (on rear, 1024 x 768 @ 60 Hz)
NETWORK CONNECTION	ETHERNET	6x GbE LAN (RJ45 on rear, 2x Intel® I210-AT, 4x Marvell® 88E1543)
PERIPHERAL CONNECTION	USB	4x USB 3.0 (Type A on rear from HUB) 2x USB 2.0 (by wafer from SoC)
	SERIAL PORT OTHER I/Os	2x RS232/422/485 (1x DB9 on rear w/ 5 V / 12 V output support, 1x by wafer) 1x 8-bit DIO (by wafer) 1x PS/2 Keyboard / Mouse (by wafer)
STORAGE & EXPANSION	SATA eMMC M.2 mPCIe / mSATA PCIe SIM CARD HOLDER	6x SATA 3.0 eMMC support (optional) 1x M.2 Key B (type 2280, for SSD only) 1x mPCIe / mSATA (full size, mixed with SATA, USB 2.0) 1x PCIe x8 (supporting PCIe x1 / x4 / x8 depending on HSIO selection) 1x SIM Card Cage (by wafer)
POWER	INPUT VOLTAGE CONNECTOR	DC +5 V / -5 V / +12 V / -12 V / +3.3 V / 5 VSB 2x12-pin ATX connector
FIRMWARE	BIOS WATCHDOG H/W MONITOR REAL TIME CLOCK SECURITY	AMI uEFI BIOS w/ 128 Mb SPI Flash Programmable WDT to generate system reset event Voltages, Temperatures SoC integrated RTC TPM 2.0 (Infineon SLB9665)
SYSTEM CONTROL & MONITORING	FP HEADER	1x Header for Reset button, HDD LED & External Speaker 1x Header for Power button, Power LED & SM bus 1x Header for 6x LAN LED 1x Header for mPCIe LED 1x Header for 8-bit GPLED
COOLING	FAN	1x Wafer for CPU Smart Fan 1x Wafer for System Smart Fan
SOFTWARE	OS SUPPORT	Windows Server
MECHANICAL	DIMENSION (L x W)	Mini-ITX (170 mm x 170 mm / 6.70" x 6.70")
ENVIRONMENTAL	OPERATING TEMPERATURE	0 °C ~ 60 °C / 32 °F ~ 140 °F (Standard)
	STORAGE TEMPERATURE	-20 °C ~ 70 °C / -4 °F ~ 158 °F (Extended)
	HUMIDITY	-20 °C ~ 80 °C / -4 °F ~ 176 °F (Standard) -40 °C ~ 85 °C / -40 °F ~ 185 °F (Extended) 0 % ~ 95 %
CERTIFICATION	EMC & SAFETY	CE Class A, FCC Class A

► ORDERING INFORMATION

ARTICLE	ORDERING CODE*	DESCRIPTION
	EMEA / AMERICA	
miTX-DNV-C3338	46013-0000-15-2	Intel® Atom® C3338, 1x DDR4 UDIMM, Operating Temperature: 0 °C ~ 60 °C
miTX-DNV-C3538	46013-0000-21-4	Intel® Atom® C3538, 2x DDR4 UDIMM, Operating Temperature: 0 °C ~ 60 °C
miTX-DNV-C3338-ET	46013-0000-15-2EXT	Intel® Atom® C3338, 1x DDR4 UDIMM, Operating Temperature: -20 °C ~ 70 °C
miTX-DNV-C3538-ET	46013-0000-21-4EXT	Intel® Atom® C3538, 2x DDR4 UDIMM, Operating Temperature: -20 °C ~ 70 °C

(* For ordering code for APAC, contact your local account manager.)

ACCESSORIES

ARTICLE	ORDERING CODE		DESCRIPTION
	EMEA / AMERICA	APAC	
COM PORT CABLE*	1064-2427	0C5020000005130L	10-pin pitch = 1.25 mm to DB9 connector, L = 350 mm
DIO CABLE*	1065-3137	0C5020000003360L	MX51021-10P 1x10P 1.25 pitch to D-SUB-9P (Female), L = 200 mm
USB 2.0 CABLE*	1069-7366	0C5040000000110L	DP-2.54 2x5P pitch = 2.54 mm to 2x USB Female, L = 340 mm
SATA CABLE*	1064-2431	0C5020000004240L	With lock, 1.27 mm pitch 1x7P, L = 460 mm
PS/2 CABLE*	1065-3151	0C5020002500010L	Y-cable, 6-pin pitch 2.0 mm wafer connector to KB & MS connector, L = 250 mm
SIM CARD HOLDER KIT*	1064-2434	0ZHK12003GSIM003	W/ Mini SIM card holder x1, cable x1
HEATSINK*	1065-3265	0H05XX000002280L	60 x 60 x 45 mm, w/ Thermal Pad, Max. 15 W TDP support
ACTIVE COOLER*	1067-5544	0H05XX000002130L	60 x 60 x 30 mm, w/ Thermal Pad, w/ Bracket, Max. 25 W TDP support

(*: Optional)

► GLOBAL HEADQUARTERS

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