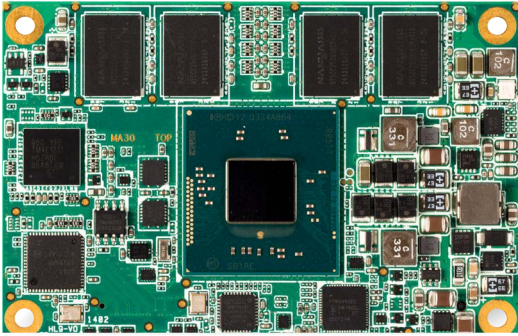


# POWERFUL AND SMALL

# conga-MA3

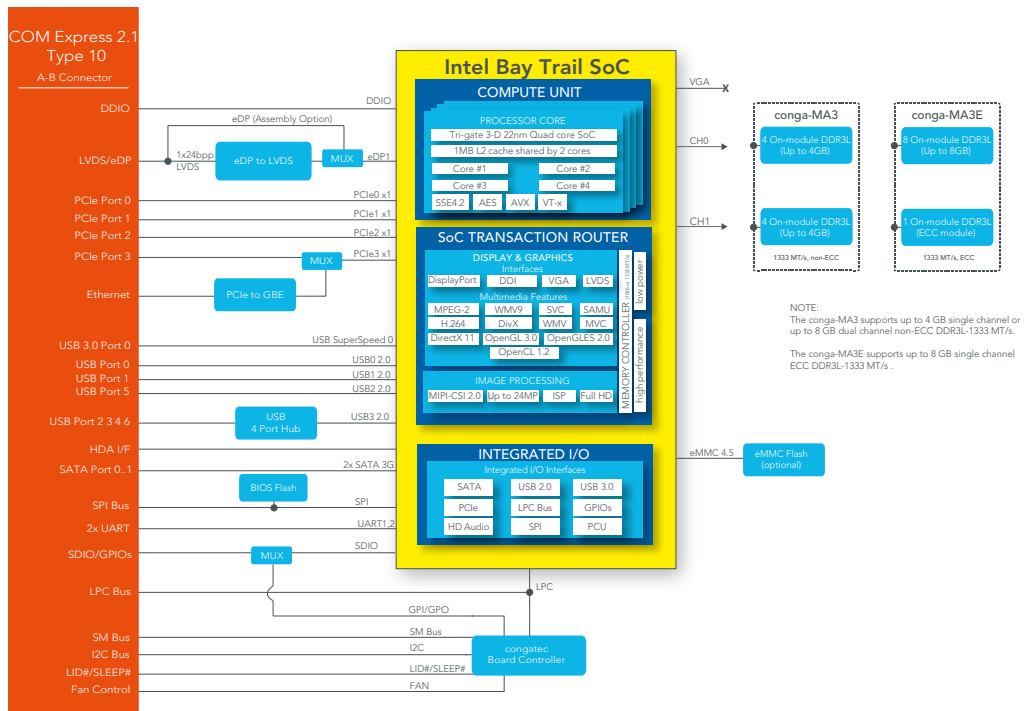


- 3<sup>rd</sup> Gen. Intel® Atom™ | Intel® Celeron® processor family
- COM Express Mini Type 10 module
- High resolution Intel® Gen. 7 graphics
- Temperature range up to -40°C .. +85°C



Formfactor	Formfactor COM Express® Mini   (55 x 84 mm)   Type 10			
CPU	Intel® Atom™ E3845	1.91GHz Quad Core	L2 cache 2MB	10W TDP
	Intel® Atom™ E3827	1.75GHz Dual Core	L2 cache 1MB	8W TDP
	Intel® Atom™ E3826	1.46GHz Dual Core	L2 cache 1MB	7W TDP
	Intel® Atom™ E3815	1.46GHz Single Core	L2 cache 512kB	5W TDP
	Intel® Celeron® N2807	1.58GHz Single Core	L2 cache 1MB	4.3W TDP
	Intel® Celeron® N2930	1.86GHz Quad Core	L2 cache 2MB	7.5W TDP
DRAM	Onboard DDR3L memory support for up to 8 GByte with 1333MT/s			
Chipset	Integrated in SoC			
Onboard storage	eMMC 4.51 interface   up to 64GB of MLC NAND   up to 4GB of SLC NAND			
Ethernet	Intel I210 Gigabit Ethernet			
I/O Interfaces	Up to 4x PCIe x1 lanes with 5 Gb/s PCI Express 2.0   2x SATA 2.0 3Gb/s ports   7x USB 2.0   1x USB 3.0   LPC   SPI   I <sup>2</sup> C bus (fast mode 400 kHz, multi-master)   SDIO			
Sound	Digital High Definition Audio Interface			
Graphics	Intel® HD Graphics Gen 7   Full hardware acceleration for MPEG2   H.264   DirectX11   OCL 1.2   OGL 3.2   WMV9 and VC1			
LVDS	Single channel LVDS transmitter   support for flat panels with 1x18 bit/1x24 bit data mapping up to a resolution of 1920x1200@60Hz.			
Digital Display Interface	Displayport 1.1 up to 2560x1600 or DDI / DVI up to 1920x1200			
congatec Board Controller	Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board Information   Board Statistics   BIOS Setup Data Backup I <sup>2</sup> C bus (fast mode, 400 kHz, multi-master)   Power Loss Control			
Embedded BIOS Features	OEM Logo   OEM CMOS Defaults   LCD Control   Display Auto Detection   Backlight Control   Flash Update   based on AMI Aptio UEFI			
Power Management	ACPI 5.0 with battery support			
Operating Systems	Microsoft® Windows 10   Microsoft® Windows 10 IoT Enterprise   Microsoft® Windows 10 IoT Core   Microsoft® Windows® 8   Microsoft® Windows® 7   Linux   Microsoft® Windows® Embedded Standard   Microsoft® Windows® 7 Embedded Compact   Android   Yokto   MoonIsland / WindRiver IDP			
Power Consumption	Typ. application: see user's guide for full details			
Temperature	Commercial : Operating: 0 to +60°C   Storage: -20 to +80°C Industrial : Operating: -40 to +85°C   Storage: -45 to +85°C			
Humidity	Operating: 10 - 90% r. H. non cond.   Storage: 5 - 95% r. H. non cond.			
Size	55 x 84 mm (2.17" x 3.31")			

# conga-MA3 | Block diagram



# conga-MA3 | Order Information

Article	PN	Description
conga-MA3/E3845-4G eMMC8	047400	Intel® Atom™ E3845 quad core processor with 1.91GHz   2MB L2 cache   4GB 1333MT/s DDR3L onboard memory and 8GB eMMC onboard flash.
conga-v MA3/E3827-2G eMMC4	047401	Intel® Atom™ E3827 dual core processor with 1.75GHz   1MB L2 cache   2GB 1333MT/s DDR3L onboard memory and 4GB eMMC onboard flash.
conga-MA3/E3826-2G eMMC4	047402	Intel® Atom™ E3826 dual core processor with 1.46GHz   1MB L2 cache   2GB 1066MT/s DDR3L onboard memory and 4GB eMMC onboard flash.
conga-MA3/E3815-2G	047404	Intel® Atom™ E3815 single core processor with 1.46GHz   512kB L2 cache   2GB 1066MT/s DDR3L onboard memory.
conga-MA3/N2930-2G	047406	Intel® Celeron® N2930 quad core processor with 1.83GHz up to 2.16GHz   2MB L2 cache and 2GB 1333MT/s DDR3L onboard memory. Low power consumption with 7.5W TDP
conga-MA3/N2807-2G	047407	Intel® Celeron® N2807 single core processor with 1.58GHz up to 2.16GHz   1MB L2 cache and 2GB 1333MT/s DDR3L onboard memory. Low power consumption with 4.3W TDP
conga-MA3/i-E3845-4G eMMC8	047410	Intel® Atom™ E3845 quad core processor with 1.91GHz   2MB L2 cache   4GB 1333MT/s DDR3L onboard memory and 8GB eMMC onboard flash. Industrial grade temperature range from -40°C to 85°C.
conga-MA3/i-E3827-2G eMMC4	047411	Intel® Atom™ E3827 dual core processor with 1.75GHz   1MB L2 cache   2GB 1333MT/s DDR3L onboard memory and 4GB eMMC onboard flash. Industrial grade temperature range from -40°C to 85°C
conga-MA3/i-E3845-2G eMMC4	047413	Intel® Atom™ E3845 quad core processor with 1.91GHz   2MB L2 cache   2GB 1333MT/s DDR3L onboard memory and 4GB eMMC onboard flash. Industrial grade temperature range from -40°C to 85°C.
conga-MA3/i-E3815-2G	047414	Intel® Atom™ E3815 single core processor with 1.46GHz   512kB L2 cache   2GB 1066MT/s DDR3L onboard memory. Industrial grade temperature range from -40°C to 85°C.
conga-MA30/HSP-T	047450	Standard heatspreader for COM Express Type 10 module conga-MA3. All standoffs are M2.5 thread.
conga-MA30/HSP-B	047451	Standard heatspreader for COM Express Type 10 module conga-MA3. All standoffs are 2.7mm bore hole.
conga-MA30/CSP-T	047452	Standard passive cooling solution for COM Express Type 10 module conga-MA3 with fins. All standoffs are M2.5mm thread.
conga-MA30/CSP-B	047453	Standard passive cooling solution for COM Express Type 10 module conga-MA3 with fins. All standoffs are 2.7mm bore hole.
<b>Accessories</b>		
conga-MEVAL	065400	Evaluation carrier board for Type 10 COM-Express-modules
conga-LDVI/EPI	011115	LVDS to DVI converter board for digital flat panels with onboard EEPROM