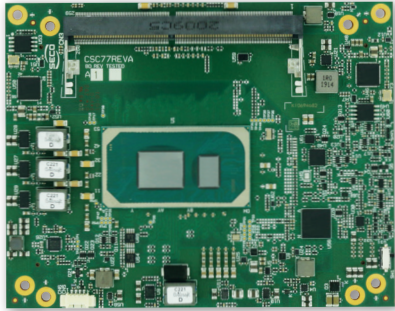




## CHPC-C77-CSA COM-HPC® Client module Size A, with the 11th Gen Intel® Core™ processors and Intel® Celeron® processors (formerly Tiger Lake-UP3)

### 11th Generation Intel® Core™ and Celeron® Processors in brand-new COM-HPC® format



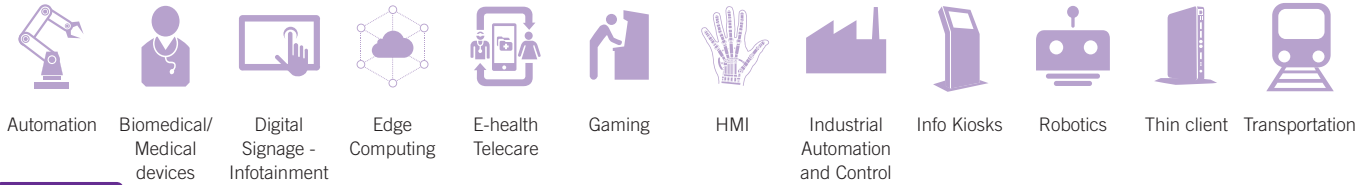
#### HIGHLIGHTS

<b>CPU</b> 11th Gen Intel® Core™ processors and Intel® Celeron® processors	<b>CONNECTIVITY</b> 4x USB 4.0 / USB 3.2; 4x USB 2.0; 8x PCI-e x1 Gen3 ; 1x PCI-e x4 Gen4; up to 2x 2.5GbE
<b>GRAPHICS</b> Intel® Iris X® Graphics Core Gen12 GPU with up to 96 EU, up to 4 independent displays	<b>MEMORY</b> Two DDR4 SO-DIMM Slots supporting DDR4-3200 ECC Memory

Available in Industrial Temperature Range



#### MAIN FIELDS OF APPLICATION






#### FEATURES

<b>Processor</b>	11th Generation Intel® Core™ and Celeron® Processors, also available in industrial temperature range <ul style="list-style-type: none"> <li>Intel® Core™ <b>i7-1185G7E</b>, Quad Core @ 2.8GHz (4.4GHz in Turbo Boost) with HT, 12MB Cache, 28/15/12W cTDP</li> <li>Intel® Core™ <b>i5-1145G7E</b>, Quad Core @ 2.6GHz (4.1GHz in Turbo Boost) with HT, 8MB Cache, 28/15/12W cTDP</li> <li>Intel® Core™ <b>i3-1115G4E</b>, Dual Core @ 3.0GHz (3.9GHz in Turbo Boost) with HT, 6MB Cache, 28/15/12W cTDP</li> <li>Intel® Celeron® <b>6305E</b>, Dual Core @1.8GHz, 4MB Cache, 15W TDP</li> <li>Intel® Core™ <b>i7-1185GRE</b>, Quad Core @ 2.8GHz (4.4GHz in Turbo Boost) with HT, 12MB Cache, with IBECC and Functional Safety Essential Design package, 28/15/12W cTDP - Industrial (w/ Turbo OFF)</li> <li>Intel® Core™ <b>i5-1145GRE</b>, Quad Core @ 2.6GHz (4.1GHz in Turbo Boost) with HT, 8MB Cache, with IBECC and Functional Safety Essential Design package, 28/15/12W cTDP - Industrial (w/ Turbo OFF)</li> <li>Intel® Core™ <b>i3-1115GRE</b>, Dual Core @ 3.0GHz (3.9GHz in Turbo Boost) with HT, 6MB Cache, 28/15/12W cTDP - Industrial (w/ Turbo OFF)</li> </ul>	<b>Video Resolution</b>	DP, eDP: Up to 5120x3200 @60Hz 24bpp / 7680x4320@60Hz 30bpp with DSC MIPI-DSI: Up to 3200x2000 @60Hz 24 bpp, 5120x3200 @60Hz 24bpp with DSC HDMI 1.4: Up to 4Kx2K 24-30Hz 24bpp HDMI 2.0b: Up to 4Kx2K 48-60Hz 24bpp / 4Kx2K 48-60Hz 12bpc (need dedicated redriver on carrier board)
<b>Max Cores</b>	4	<b>Mass Storage</b>	2 x S-ATA Gen3 Channels PCI-e x4 port can be used to connect, on the carrier board, M.2 NVMe drives
<b>Memory</b>	2x DDR4-3200 SODIMM Slots with IBECC (In-Band Error Correction Code), up to 64GB supported	<b>Networking</b>	Up to 2x NBase-T Ethernet interfaces, supporting 2.5Gb Ethernet connection, managed by as many Intel® i225 2.5GbE Controllers M.2 1216 SD Module supporting WiFi 802.11abgn+ac R2 MIMO 2x2 + MU-MIMO and Bluetooth 5.0
<b>Graphics</b>	Integrated Iris X® Graphics Core Gen12 architecture, with up to 96 Execution Units MPEG2, WMV9, AVC/H.264, JPEG/MJPEG, HEVC/H.265, VP9, AV1 HW decoding, up to 8k @60. AVC/H.264, HEVC/H.265, JPEG, VP9 HW encoding Support up to 4 independent displays.	<b>USB</b>	Up to 4 x USB 4.0 / USB 3.2 Host ports 4 x USB 2.0 Host port
<b>Video Interfaces</b>	1x eDP 1.4b or MIPI_DSI 1.3 Up to 3x DP++ interface, supporting Display Port 1.4a and HDMI 2.0b Up to 4x Display Port over Type-C (Alternate mode)	<b>PCI-e</b>	1x PCI-e x4 Gen 4 port Up to 8x PCI-e Gen 3 lanes, groupable to support up to 4 root ports (5 root ports without the second 2.5GbE controller)
		<b>Audio</b>	SoundWire and I2S Audio Interface
		<b>Serial Ports</b>	2 x UARTs
		<b>Other Interfaces</b>	2x 4-lane CSI-2 interfaces, optional SPI, SM Bus, 2x I2C, Watchdog timer, Carrier board FAN Control Management signals, ACPI signals, Safety Status signals Deep Sleep / Battery support Optional TPM 2.0 module on-board 12x GPIOs
		<b>Power Supply</b>	+8V <sub>DC</sub> .. +20V <sub>DC</sub> Main power supply +5V stand-by

# CHPC-C77-CSA

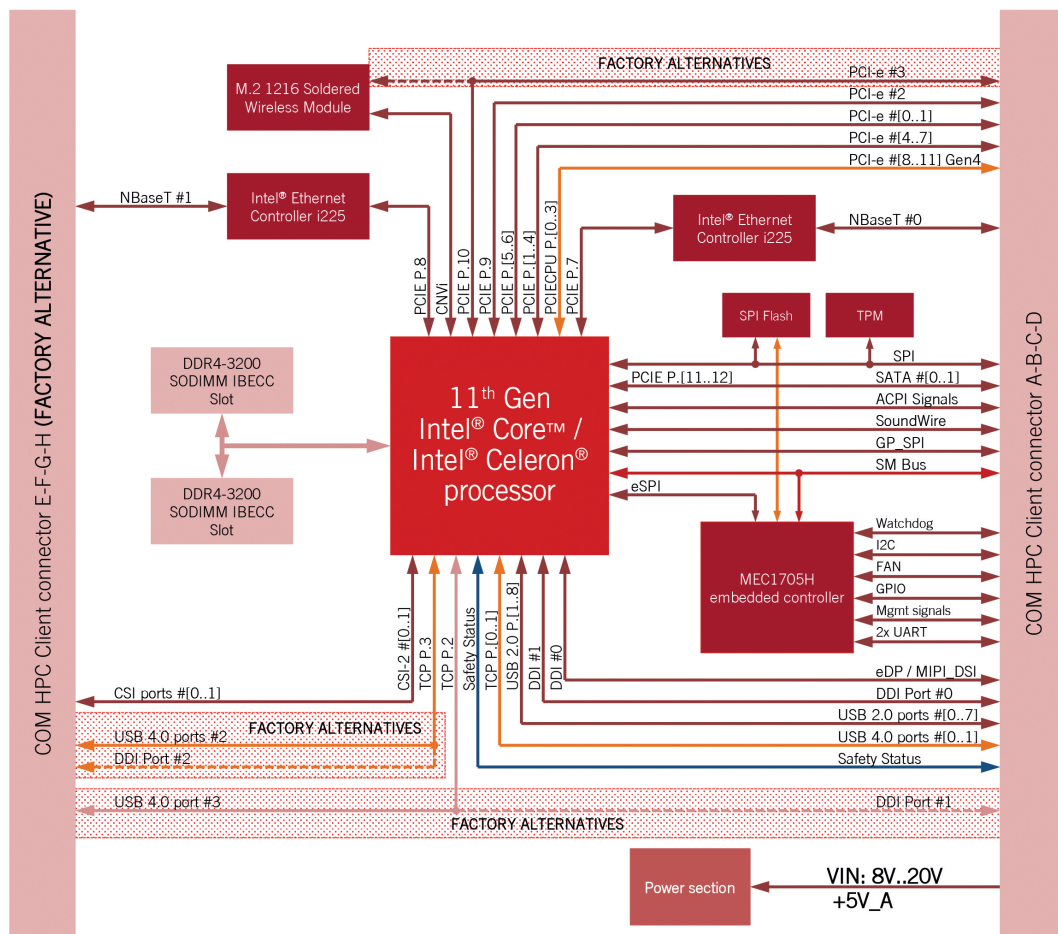
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## FEATURES

 Operating System	Windows 10 IoT Enterprise LTSC Linux Kernel LTS Yocto VxWorks 7.0 Android
 Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
 Dimensions	120 x 95 mm (COM-HPC® Size A Form factor, Client pinout)

\*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

## BLOCK DIAGRAM



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