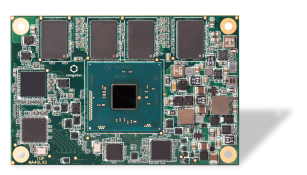
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congatec‘s new credit card sized computer modules offer enhanced computing and graphics performance

Text and photograph available at: [http://www.congatec.com/press](http://www.congatec.com/presse)

Press release

**congatec integrates the new 14 nm Intel® Pentium® and Celeron® processors on COM Express Mini**

**Enhanced computing and graphics performance for credit card sized computer modules**

**Deggendorf, Germany, October 6th, 2015 \* \* \*** congatec AG, a leading technology company for embedded computer modules, single board computers (SBCs) and embedded design and manufacturing (EDM) services, extends its portfolio of credit card-sized computer modules by integrating the new 14 nm Intel® Pentium® and Celeron® processors (codenamed Braswell) on COM Express Mini modules. The new conga-MA4 module further enhances the computing and graphics performance of their predecessors and offers a new class of performance density. Despite the increase in performance, heat dissipation has been lowered to a SDP (Scenario Design Power) of 4 Watts, enabling very compact, passively cooled system designs.

Comprehensive Microsoft Windows 10 support makes the new COM Express Mini modules ideal for system designs with state-of-the-art operating systems. The modules also make it easy to connect two 4k screens thanks to the powerful new Intel Gen 8 graphics with up to 16 execution units. The high level of computing and graphics performance is complemented by a full set of COM Express Type 10-compliant interfaces. This makes the new COM Express Mini modules the ideal choice for graphics-intense low-power applications requiring a small footprint. Typical applications can be found in high-performance banking, vending and POS terminals. Additional uses could include medical imaging, compact diagnostic workstations as well as IoT-connected industrial controls and in extremely compact and robust box PCs and thin clients.

Users of the new computer modules benefit from the high level of standardization and scalability of the COM Express modules combined with congatec’s extensive documentation, industry-grade driver implementations and customary personal integration support, which further simplifies the design-in effort. congatec supports its products with long-term availability of at least seven years including software support for security updates of UEFI and BSPs.

**The feature set in detail**

The conga-MA4 COM Express Mini Type 10 modules are equipped with 14 nm Intel® Pentium® and Celeron® processors with a 4 Watt SDP (Scenario Design Power) or 6 Watt TDP (Thermal Design Power), as well as up to 8 GB of fast dual channel DDR3L 1600 RAM. The integrated Intel Gen 8 graphics enable applications with high quality visuals at resolutions of up to 4k with the latest 3D features i.e. DirectX 11.1 and OpenGL 4.2 on two screens. The video engine provides judder-free decoding of H.265/HEVC compressed videos while offering maximum CPU offload and real time encoding of two 1080p H.264 video streams at 60 Hz. Innovative, interactive applications with facial recognition and/or gesture control can also be supported through the optional feature connector, which allows direct connection of two CSI2 cameras.

The new congatec computer modules support COM Express Type 10 pin-out with 3x PCI Express Gen 2.0 Lanes, 1x Gigabit Ethernet, 2x SATA 3.0, 2x USB 3.0, 8x USB 2.0, 2x UART along with I²C, SPI, LPC and HD Audio. congatec’s operating system support covers Linux distributions and Microsoft Windows variants - including Microsoft Windows 10. An extensive range of accessories that simplify design-in, such as heatsinks, carrier boards and starter kits as well as SMART battery management modules, round off congatec’s offering. The following CPU versions are currently available:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Processor** |  | **Cores** |  | **Smart Cache [MB]** |  | **Clock/ Burst**  **[GHz]** |  | **TDP/SDP [W]** |  | **Graphic Execution Units** |
| **Intel® Pentium®  N3700** |  | **4** |  | **2** |  | **1.6 – 2.4** |  | **6 / 4** |  | **16** |
| **Intel® Celeron® N3150** |  | **4** |  | **2** |  | **1.6 – 2.08** |  | **6 / 4** |  | **12** |
| **Intel® Celeron® N3050** |  | **2** |  | **2** |  | **1.6 – 2.16** |  | **6 / 4** |  | **12** |
| **Intel® Celeron® N3000** |  | **2** |  | **2** |  | **1.04-2.08** |  | **4 / 3** |  | **12** |

Further information about the new conga-MA4 is available at: <http://www.congatec.com/en/products/com-express-type10/conga-ma4.html>

**About congatec AG**Headquartered in Deggendorf, Germany, congatec AG is a leading supplier of industrial computer modules using the standard form factors Qseven, COM Express, XTX and ETX, as well as single board computers and EDM services. congatec’s products can be used in a variety of industries and applications, such as industrial automation, medical, entertainment, transportation, telecommunication, test & measurement and point-of-sale. Core knowledge and technical know-how includes unique extended BIOS features as well as comprehensive driver and board support packages. Following the design-in phase, customers are given support via extensive product lifecycle management. The company’s products are manufactured by specialist service providers in accordance with modern quality standards. Currently congatec has entities in Taiwan, Japan, China, USA, Australia and the Czech Republic. More information is available on our website at [www.congatec.com](http://www.congatec.com) or via [Facebook](http://www.facebook.com/Congatec), [Twitter](https://mobile.twitter.com/congatecAG) and [YouTube](http://www.youtube.com/congatecAE).

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