

CPT320

GPU CPU AI FUSION COMPUTER



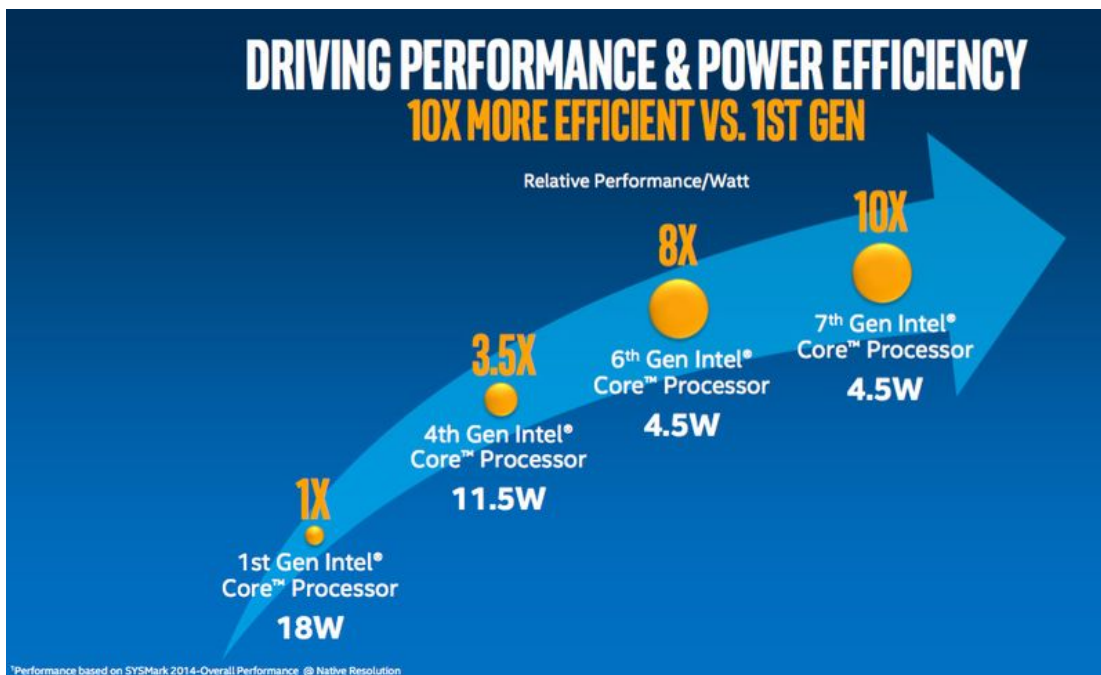
- DESIGN FOR RELIABILITY UNDER DEMANDING MIL-STD-810G THERMAL, SHOCK, VIBRATION, HUMIDITY/EMI/EMC CONDITIONS
- INTEL® 7TH GEN. CORE I7-7700T PROCESSOR (3.8GHZ, 4 CORES, 8 THREADS)
- 2 x DDR4 SO-DIMM UP TO 32GB
- NVIDIA GTX1060MXM GRAPHIC CARD
- 2 x RJ45 LAN, 4 x USB, 2 x COM
- 2 x 2.5" SSD/HDD
- EXTENDED TEMPERATURE -20~+60°C



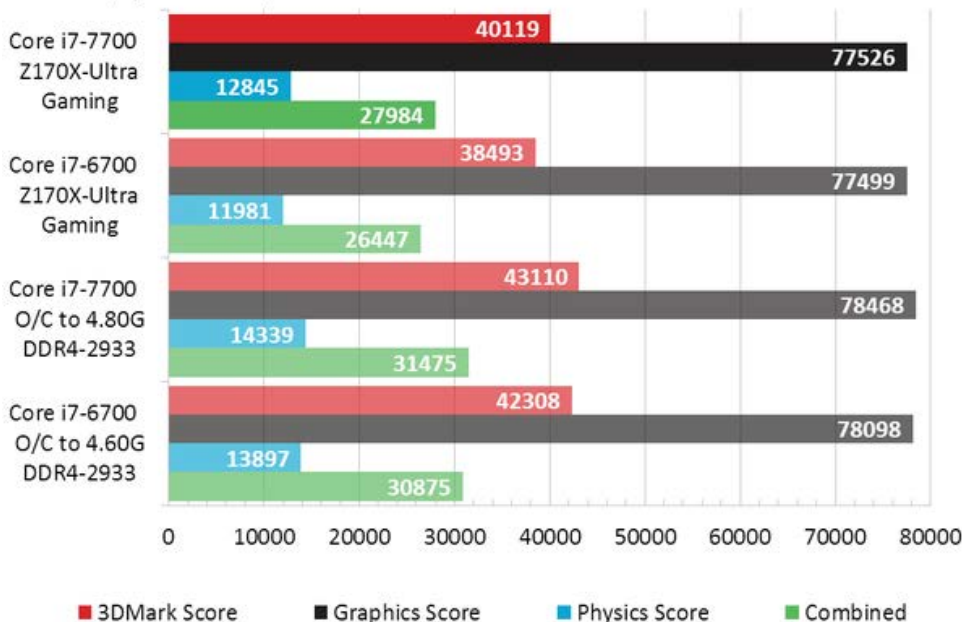
FEATURES ▶

• **7th-Gen Intel Core i7 CPUs Are Quite a Bit Faster**

7th generation Intel® Core™ and Celeron® families processors are manufactured on Intel's most up-to-date and optimized 14 nm technology. When paired with an Intel® 100 series chipset, these processors offer even greater CPU and graphics performance as compared to the previous generation. The S-series of processors enables more manufacturing flexibility to match performance, features, and price to IoT applications. These processors offer thermal design power (TDP) options of 65W and 35W to fit specific designs configurations with performance and low-power requirements. The S-series processors are ideally suited for transactional retail terminals, industrial rack PCs, and general embedded use conditions.



3DMark 13 Sky Diver
Default Presets
3DMarks (higher is better)

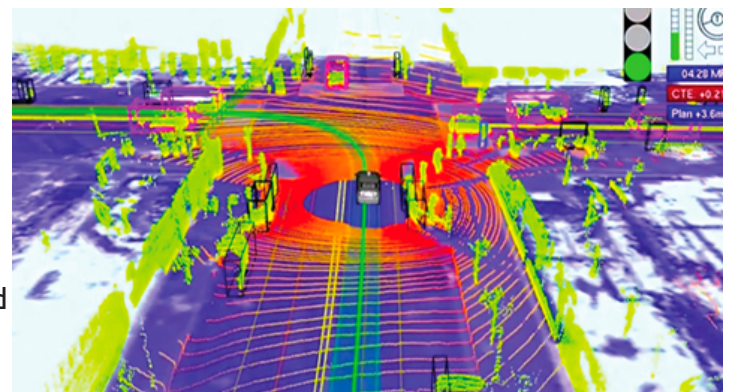
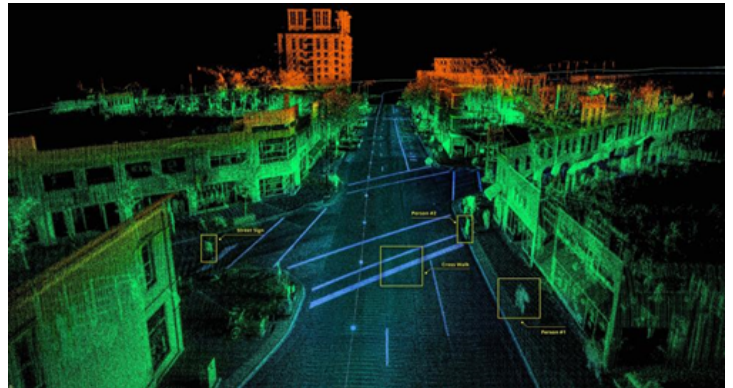


• **Advances in unmanned vehicles technologies**

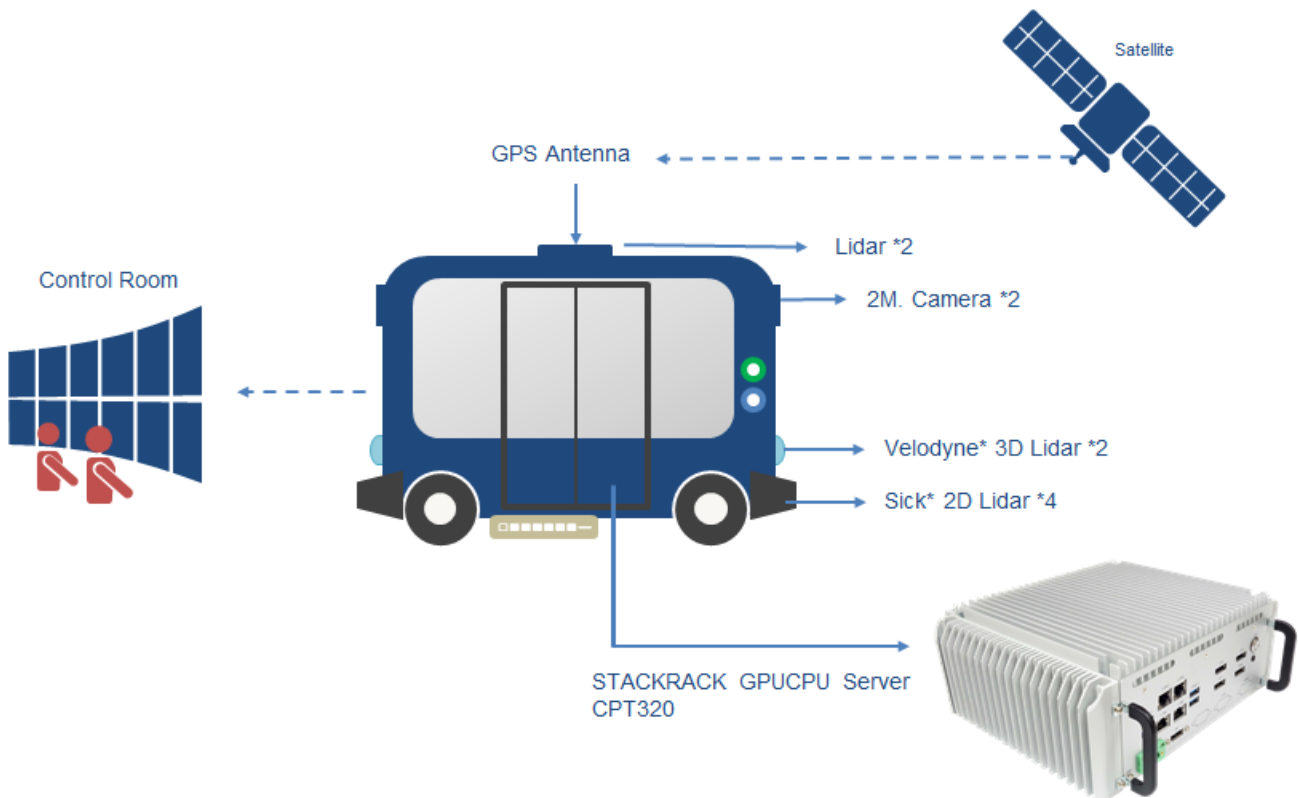
Unmanned Vehicle Technology integrates high-power processing computers, intelligence, drive-by-wire technology and perception sensing technologies. The trucks are equipped with LiDAR, RADAR, GPS, Vision, Advanced Algorithms, and, of course, very powerful computing capabilities. Generally a certain level of autonomous flight capability is required for the vehicle to achieve its mission.

The basic autonomy level is to maintain its stability following a desired path under embedded guidance, navigation and control algorithm.

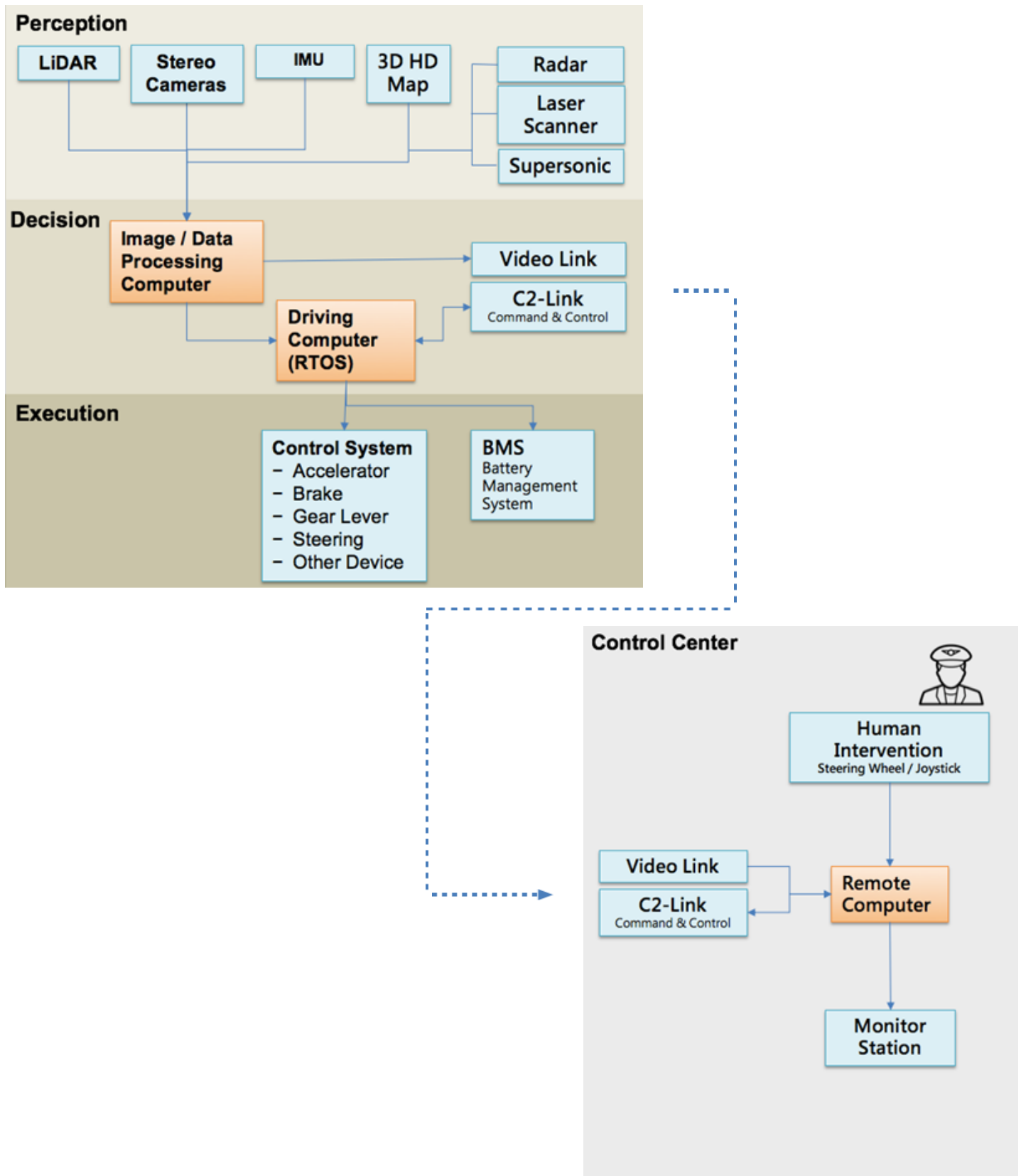
The UGV technology trends indicate that to cope with the more stringent operation requirements, the UGVs should rely less and less on the skill of the ground pilot and progressively more on the autonomous capabilities dictated by a reliable onboard computer system.



• **Advances in unmanned vehicles technologies**



• Architecture of UGV IT Diagram



SPECIFICATIONS

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High Performance Processor	Intel® 7th Gen Core™ i7-7700T (Frequency 2.9GHz, Turbo Boost Frequency up to 3.8GHz), Quad-Core, 8 Thread Support, 8MB SmartCache. Build-in HD Graphics 530 for excellent 3D, Turbo Boost Technology 2.0, VPro and Hyper-Threading support
Memory	Up to 32GB DDR4 RAM
Chipset	Intel® H110 Chipset providing integrated USB 3.0 and supporting 6th /7th generation Intel® Core™ processor families
Expansion Slot	1 x M.2 (KEY E, 2230) with PCIe x1 and USB 2.0 for Wireless 1 x M.2 (KEY M, 2242/2260/2280) with PCIe x4 and SATA3 for SSD
DISPLAY	
GPU	NVIDIA GTX1060M
Display Port	Resolution up to 3840 x 2160@60Hz
STORAGE	
M.2	M.2 Solid State Disk (SSD) - up to 1TB Capacity. Rugged Industrial NAND Flash mSATA Storage w/ Rugged -40/+85C High Capacity, optional Pre-loaded with Linux or Windows OS. 128 / 256 / 512GB /1TB Innodisk 3MV2-P Series MLC SATA III 6Gb/s Flash SSD, Rated for 520 MB/sec Sequential Read ; 350 MB/sec Write Max.
SSD/HDD	2 x 2.5" Drive Bay
ETHERNET	
Ethernet	2 x Intel Gigabit Ethernet LAN Interfaces (10/100/1000Mbps)
REAR I/O	
DisplayPort	4 x 20Pin DisplayPort connectors (Female)
Ethernet	2 x RJ45 Gigabit Ethernet LAN Interfaces 4 x RJ45 Gigabit Ethernet LAN Interfaces (option)
Serial Port	2 x DB9 connector (RS-232)
Button	1 x Power Button with LED
DC-IN	4P Rugged Terminal connector, DC 19V
Indicator LED	HDD Active LED

APPLICATIONS, OPERATING SYSTEM

Applications	Commercial and Military Platforms Requiring Compliance to MIL-STD-810G Embedded Computing, Process Control, Intelligent Automation and manufacturing applications where Harsh Temperature, Shock, Vibration, Altitude, Dust and EMI Conditions. Used in all aspects of the military
Operating System	Windows 10 Ubuntu13.04, Ubuntu13.10, Ubuntu14.04, Fedora 20

PHYSICAL

Dimension (W x D x H)	250 x 225 x 98mm
Weight	5.5Kg
Chassis	SECC + Aluminum Alloy, Corrosion Resistant.
Finish	Anodic aluminum oxide (Color silver)
Cooling	Natural Passive Convection/Conduction. No Moving Parts
Ingress Protection	Dust Proof (Similar to IP50)

ENVIRONMENTAL

MIL-STD-810G Test	Method 507.5, Procedure II (Temperature & Humidity) Method 516.6 Shock-Procedure V Non-Operating (Mechanical Shock) Method 516.6 Shock-Procedure I Operating (Mechanical Shock) Method 514.6 Vibration Category 24/Non-Operating (Category 20 & 24, Vibration) Method 514.6 Vibration Category 20/Operating (Category 20 & 24, Vibration) Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 502.5, Procedure I (Storage/Low Temperature) Method 502.5, Procedure II (Operation/Low Temperature) Method 503.5, Procedure I (Temperature shock)
Operating Temperature	-20 to 60°C (ambient with air flow)
Storage Temperature	-40 to 85°C
EMC	CE and FCC compliance

ORDERING INFORMATION

CPT320

FANLESS RUGGED SERVER WITH INTEL® 7TH GEN CORE I7-7700T, NVIDIA GTX1060M, DUAL LAN, OPERATING TEMPERATURE -20~+60°C

CPT320L

FANLESS RUGGED SERVER WITH INTEL® 7TH GEN CORE I7-7700T, NVIDIA GTX1060M, QUAD LAN, OPERATING TEMPERATURE -20~+60°C

DRAWING

