

COBALT™ 902 SITUATIONAL AWARENESS



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- ▶ small form factor 8.5" (216mm) x 5.5" (140mm) x 3.9" (99mm)
- ▶ Quad Channel H.264 Encoder with Intel® Core™ i7 processor
- ▶ rugged, IP67 sealed system
- ▶ configurable front panel for modular I/O profile options
- ▶ supports XMC and mPCIe modules

POSSIBILITIES START HERE



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The highly scalable COBALT product family is based on the COME module Basic & Compact form factor module (Type 6) with a specialized carrier board assembly. It is available with a wide selection of power, interface options, thermal solutions, and mounting kits. The compact footprint and power-to-performance optimization make it the ideal solution for applications requiring high performance, reduced size-weight-power in an environmentally ruggedized platform. The design flexibility ensures fast time-to-market for many applications in the following segments: military, avionics, commercial avionics, mining, smart grid, homeland security, transportation (rail), and oil & gas.

SITUATIONAL AWARENESS

The H.264 video encoder integrated into the COBALT system provides an interface for real-time, full-size (704 x 480), full frame rate Quad (4) Channels of PAL/NTSC/RS-170 video sources (auto sensing). Other features and options include four (4) audio inputs,

RS-485 PTZ camera control, Motion-JPEG encoding and graphics overlay (on analog preview output). The COBALT 902 system is ideal for applications requiring Solid-state Video Recording, Remote Video Surveillance, Multi-Camera Security and Recording, Video Acquisition and Archiving. The system has the option of removable or fixed SSDs and/or fixed mSATA storage onboard. Windows or Linux operating system and software support packages are also available. The COBALT is a fanless, fully enclosed system that provides efficient thermal management in a small 5.5 x 8.5 x 3.9-inch (139.7 x 215.9 x 99.1 mm) form factor weighing less than 6 pounds (2.7 kg) depending on configuration options.

LONG-TERM AVAILABILITY

Based on chosen components from embedded roadmaps, COBALT ensures long-term availability and therefore eliminates the risk of unplanned design changes and unexpected application modification.

▶ TECHNICAL INFORMATION

PROCESSOR OPTIONS & CHIPSETS	Intel® Dual Core™ i7 COM Express® Type 6	
MEMORY	Up to 16GB DDR3 1333 ECC memory	
STORAGE	Up to two (2) 1.8" SSD fixed or removable	
AUDIO	Intel® High Def Audio, 2x Differential Out; 1x Single End (SE) Out, 4x Single End (SE) In	
ETHERNET PORTS	2x GbE (10/100/1000 BaseT)	
SERIAL PORTS	4x Serial Ports configurable for RS422 and/or RS485 (user configurable), 2x Standard RS232 interface Data Only (Tx/Rx)	
USB	3x USB 2.0 standard interface	
DISCRETES I/O	Reset, Power Enable, 4x GPI (In) and 4x GPO (Out), single ended LVTTTL, 16x General Purpose I/O Single Ended (SE) LVTTTL, Rapid Shutdown, 4x pins for remote battery (RTC) option	
VIDEO	Video Compression	H.264 (MPEG-4) Part 10
	Video Inputs	4x HD-BNC (75 ohm)
	Video Encoding	ITV-T H.264 (ISO/ITEC 14496-10, baseline profile, Level 3), M-JPEG Video Encoding (optional), 4x CH NTSC 4CIF (704 x 480) @ 30 fps, 4x CH PAL 4CIF (704 x 576) @ 25 fps, Supports I, P frame compression, Supports Variable BIT Rate (VBR), Supports Constant BIT Rate (CBR)
	Video Out	1x VGA, 1x HDMI (via Intel HD Graphics DP++)
POWER INPUT	Integrated +28VDC input (+18VDC to +36VDC) power supply and EMI filtering supports MIL-STD-704, MIL-STD-461 and DO160, Optional External wide range AC power supply available for development	
POWER CONSUMPTION	28W Max for base configuration; Power consumption configuration dependent	
CONNECTORS	Military circular IP67 locking connectors, Optional Profile connector application specific	
TEMPERATURE / SHOCK	Operating: -40°C to +71°C (dependent on configuration and thermal solution) / 40g, 11ms sawtooth	
VIBRATION	5 Hz to 2000 Hz, Random, 1hr each axis, 8.21 GRMS Power Spectrum Density	
EMI/RFI	MIL-STD-461E, MIL-STD-1275D, MIL-STD-704, RTCA/DO-160F, Section 20-21	
HUMIDITY	0%-95% relative humidity	
SIZE / WEIGHT	8.5" (216mm) x 5.5" (140mm) x 3.9" (99mm) / Less than 6 lbs (2.7 kg) depending on configuration options	
SOFTWARE SUPPORT	Windows, Linux, Optional Power Built-in-Test (PBIT), For other requirements, contact factory	
ACCESSORIES	External Cable Kit; Circular to Commercial Connector for lab use	
PROFILE OPTIONS	1x XMC slot, 2x mPCIe full slot or 1x mPCI e full and 2x mPCIe half, Support for different profile options such as ARINC 429, MIL-STD-1553, GbE, CANbus, WiFi, 3G/4G modem, GPS, additional Serial Ports, FPGA, A/D, etc via these profile slots and connection to front I/O Panel	
THERMAL MANAGEMENT	Natural Convection/Radiation and Conduction via cold plate, Optional Air Assist Enhanced Thermal Kit	

▶ CORPORATE OFFICES

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