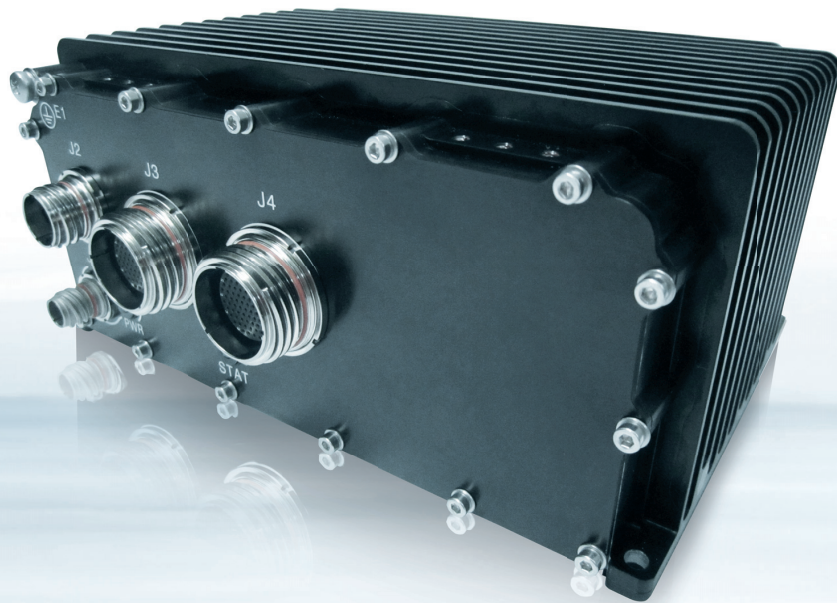# COBALT™ 901

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COBALT™ 901

▶ rugged extended temperature, IP67 sealed system, with no ITAR restrictions

▶ small form factor 8.5" (216mm) x 5.5" (140mm) x 3.9" (99mm)

▶ Intel® Core™ i7 processor options via COM Express® Type 6

▶ configurable front panel for modular I/O profile options

▶ supports XMC and mPCIe modules

POSSIBILITIES START HERE **kontron**

COBALT™ 901

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.

UNIQUE VERSATILITY

To meet the severe environment operational demands found in these industries, the COBALT platform is IP67 rated and operates reliably in a multitude of conditions including extreme temperatures, shock, vibration and EMI. At the heart of the COBALT system is a Intel® Core™ i7 COM Express® Type 6 module that features ECC, Intel® Trusted Execution Technology (TXT), Intel® Virtualization Technology (VT), Intel® Active Management Technology (AMT), TPM, Kontron Rapid Shutdown design, and 100% extended temp screening at the module level.

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) 512GB 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 LVTTL, 16x General Purpose I/O Single Ended (SE) LVTTL, Rapid Shutdown, 4x pins for remote battery (RTC) option
VIDEO OUTPUT	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
TEMPERATURES	Operating: -40°C to +71°C (dependent on configuration and thermal solution)
SHOCK	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	8.5" (216mm) x 5.5" (140mm) x 3.9" (99mm)
WEIGHT	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

▶ ORDERING INFORMATION

ARTICLE	PART NO.	DESCRIPTION
COBALT™ 901	78500901-001	LRU, COBALT 901 w/ i7 dual core processor, 16GB DRAM, 28VDC power and 128GB SSD (fixed)
	TK-0117	Cable Assy, EXT P1, 28VDC Input & AC adapter (lab development)
	TK-0123	Cable Assy, P2, P3, P4 to Commercial I/O (lab development)

Note: For other standard configurations consult factory.

▶ CORPORATE OFFICES

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