

TUFF PC

Rugged Fanless PC



TUFF PC by Motium is a fanless PC range boasting features including water and dust resistance, a wide operating temperature range, high performance, low power consumption and extensive connectivity.

Motium's TUFF PC is exclusively designed to deliver superior rugged performance in the harshest of environments.

Key Features

Wide-Ranging Expansion Options

Two Mini PCI Express Card slots, including one SIM connector, allow for several expansion options including wireless LAN and cellular phone / modem cards.

Extensive I/O Connector Options

With four switchable analogue or digital I/O connector options, choose from USB, RS-232, CAN, Ethernet, COM, and more.

Designed for Rugged Environments

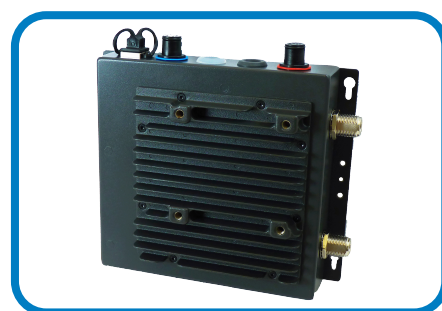
A wide voltage input range with transient and surge protection to ISO7637. UPS battery backup to ensure power in harsh environments.

Diverse Wireless Connectivity

Including WiFi, 3G/4G, GPS, Bluetooth, LAN and more. Other Mini PCIe-compliant cards available on request.

Powerful Operation

Efficient fanless operation and optional quad-core processing power available with up to 8GB RAM.



Customised Solutions

Designing and manufacturing our own technology means we can tailor our products to your specific needs. From white label customisation through to custom hardware and beyond, contact us for a truly bespoke TUFF solution.

Ongoing Support

We create strong, long-lasting partnerships with our customers. We offer comprehensive and ongoing support and guidance for effective installation and efficient use of all products.

Contact Us

For product enquiries or further information about the entire TUFF product range, contact us at sales@motium.com.

Key Markets



MOTIUM

YOUR RUGGED TECHNOLOGY PARTNER

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SPECIFICATIONS

PC	
Processor	Intel® Atom™ X E3950 Quad-Core 2.00Ghz. Intel® Atom™ E E3845 Quad-Core 1.91Ghz. Intel® Atom™ E E3825 Dual-Core 1.33Ghz.
Instruction Set	64-bit.
Memory	8GB DDR3L RAM with E3950 CPU. 4GB DDR3L RAM with E3845 CPU. 2GB DDR3L RAM with E3825 CPU.
System Chipset	Intel® Apollo Lake E3900 Series. Intel® Bay Trail E3800 Series.
BIOS	AMI Aptio UEFI. Multi Stage Watchdog.
Operating System	Windows 10, Windows 10 IoT Enterprise, Windows 7 Embedded Standard. Linux and Android Available.
MASS STORAGE AND MEDIA	
SSD	32GB to 1TB.
External Device	USB Optical Drive: CD-ROM, DVD, Blu-Ray, USB Floppy Drive, USB Flash Drive.
Boot Source	Internal SSD. Internal MicroSD. External USB flash drive. External USB floppy drive. External optical drive.
VIDEO AND AUDIO	
Video	Intel® Graphics Core with 2D and 3D hardware accelerator. Support for high-performance hardware MPEG-2 decoding, WMV9 (VC-1) and H.264 (AVC) support, Blu-ray support @ 40MB/s, hardware motion compensation.
Sound	High-Definition audio interface with dual integrated stereo speakers.
WIRELESS CONNECTIVITY	
GPS	92-channel u-blox M9 engine GPS L1 C/A, QZSS L1 C/A/S, GLONASS L10F BeiDou B1I, Galileo E1B/C SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN. External SMA connector with Active Antenna support for enhanced GPS reception.
Bluetooth	Optional Class 2 Bluetooth V2.0 support with suitable Wi-Fi combo card.
Cellular	Optional 3G/4G/LTE Cellular Data Module. Nano SIM and external SMA antenna support.
Wireless LAN	Optional IEEE 802.11 AC/a/b/g/n module with dual external SMA antennas.
Other	Other Mini PCIe compliant cards can be fitted at time of manufacture.
INTERFACES	
COM	Three RS-232 ports available with QC2 cable.

USB	Three full-function USB 2.0 ports. One USB 2.0 port available with QC4 cable. Two USB 2.0 ports available on enclosure body.
LAN	One 10/100 LAN port available with QC4 cable.
I/O	Four independent configurable analogue or digital inputs/outputs available with QC4 cable.
CAN	Two CAN Bus2.0b with J1939 protocol support with QC3 cable. Two optional 24v DC internally fused inputs to power CAN sensors (12W shared). Other CAN Bus protocols available.
Composite Video Input	One optional Composite Video Capture with PAL/NTSC support with QC1 cable. Four or eight Composite Video Capture with PAL/NTSC support with QC3 cable.
Video Output	One VGA video output with QC6 cable. Other output options available upon request.
PHYSICAL CHARACTERISTICS	
Mounting	With supplied mounting feet or directly to unit with M6 bolts.
Dimensions	172mm x 185mm x 63mm.
Weight	Up to 1.6kg.
Shipping	Up to 1.75kg.
Environmental	Operating: -40°C to +75°C. Storage: -40°C to +85°C. 10% to 90% RH, non-condensing.
Certification	RCM, CE, FCC. Other certifications available upon request.
Protection	IP65 front and rear.
POWER	
Power Supply	Input voltage range 8 VDC to 39 VDC.
Power Consumption	33W max. 20W nominal.
Accessory Control	Accessory input for power on/off control through QC1 cable.
UPS	Internal 7.2Wh Uninterruptible Power Supply (UPS) providing up to 30 minutes of run time.
Transient Protection	Load dump and other transients specified in ISO 7637 for 12v and 24v vehicles.
SUPPORT	
Warranty	Motium displays carry a 24-month return-to-base, limited hardware warranty. Additional 12- and 36-month warranties available.

ORDERING OPTIONS

The TUFF PC is available in standard models and can also be customised with a variety of options. White label branding options are also available. Minimum order quantities may apply.

QuickConnect (QC) cable assemblies must be ordered separately. Standard and custom options are available.

Contact Motium for order codes. Specifications subject to change without notice.