

Rugged Compact Embedded Computers Featuring Robust I/O and Broad Choice of Intel[®] Processors

Leverage the configurability of the WINSYSTEMS' SBC-477 family of rugged embedded computers to meet the requirements of your industrial application.

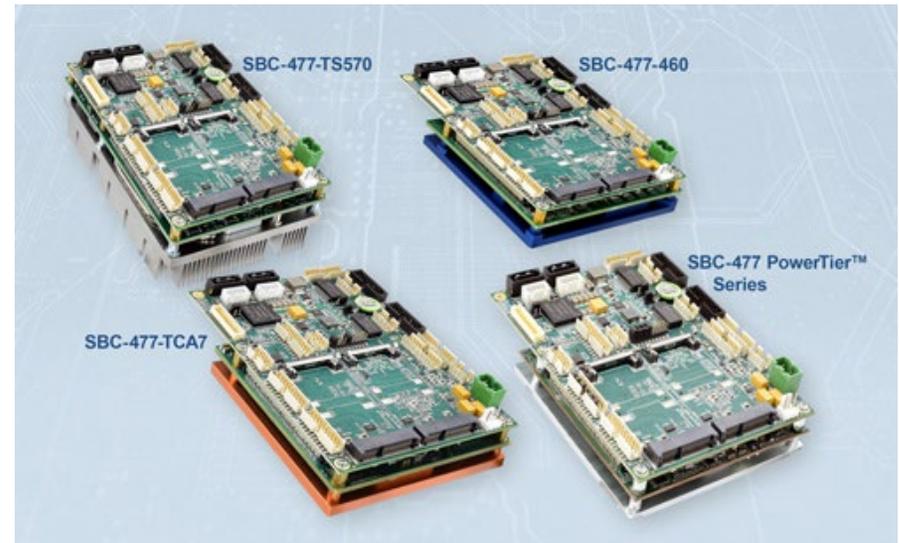
The first three of these industrial SBCs offer a choice of Intel Atom[®] (Elkhart Lake), 11th Gen Intel[®] Core™, and Intel[®] Xeon[®] (Tiger Lake) processors, to meet a range of energy-efficient processing needs.

The next four models comprise the SBC-477 PowerTier Series of industrial SBCs. These offer a choice of hybrid 13th Gen Intel[®] Core™ i7, i5 i3 processors and the Intel[®] Processor U300E, to meet the balance of performance and power efficiency that meets your application's needs. These models can be customized to run in high-power and low-power modes, which enables an OEM or system integrator to gain the advantages of deploying a single embedded computer in support of various applications.

All SBC-477 models support Windows 10/11, Ubuntu Linux, and other x86 real-time operating systems and enable a broad spectrum of use cases across multiple industry sectors including transportation and energy management, industrial automation, Mil-COTS, and more.

SBC-477 family models are engineered for operating in harsh conditions, with extended operating temperature ranges, vibration and shock resistance, and TPM 2.0 hardware-level security. In addition to the standard I/O, they offer Mini PCIe expansion and storage up to 2 TB depending on model.

These models pair a processor module with a COM Express Type 6 Basic carrier board, making the SBC-477 an ideal solution for space-constrained applications.



Key Features

- Up to 13th Gen Intel Core Processors for a wide range of processing and power choices
- -40 C to +85 C extended temp range, with appropriate thermal
- Support for Windows 10/11, Ubuntu Linux, and other x86 real-time OS
- Ruggedized locking pin header connectors
- Robust standard I/O and options
- Extended product life cycle of 10+ years
- COTS and custom configurations

SBC-477 Family Specifications Table

Features	11 Gen Intel Core (Xeon Series)	Intel Atom x6000 Series	11 Gen Intel Core (UP3 Series)	13 Gen Intel Core (U Series)			
	SBC-477-TS570	SBC-477-TCA7	SBC-477-460	SBC-477-U300	USB-477-1315UE	USB-477-1335UE	USB-477-1365UE
PROCESSOR	Intel® Xeon® W-11865MRE Cores: 8 16 Threads Speed: 2.6 (4.7) GHz Cache: 24 MB Base Power: 45W	Intel Atom® x6425RE Cores: 4 Speed: 1.9 GHz Cache: 1.5 MB L2 Base Power: 12W	Intel® Core™ i7-1185GRE Cores: 4 8 Threads Speed: 1.8 (4.4) GHz Cache: 12 MB Base Power: 28W	Intel® Processor U300E Cores: 5 Speed: 1.1 (4.3) GHz Cache: 8 MB Base Power: 15W	Intel® Core™ i3-1315UE Cores: 6 Speed: 1.2 (4.5) GHz Cache: 10 MB Base Power: 15W	Intel® Core™ i5-1335UE Cores: 10 Speed: 1.3 (4.5) GHz Cache: 12 MB Base Power: 15W	Intel® Core™ i7-1365UE Cores: 10 Speed: 1.7 (4.9) GHz Cache: 12 MB Base Power: 15W
OPERATING SYSTEM	Ubuntu Linux, Windows 10/11 IoT, and other x86 real-time OS						
SOFTWARE	Custom configurable UEFI-based AMI BIOS						
SECURITY	On-board discrete TPM 2.0 hardware security						
MEMORY	Up to 96GB DDR4 SODIMM, in 3 sockets	16GB or 32GB DDR4 SODIMM, in 2 sockets	32GB LPDDR4	Up to 64 GB DDR5 5200 MT/s, in 2 sockets			
STORAGE	2x mini PCIe slots that can be used for mSATA	NA					
	2x SATA ports with External Vertical Locking Connector						
DISPLAY	<ul style="list-style-type: none"> UltraHD, Triple display 2x DisplayPort++ 						
	1x VGA (Analog/CRT)	NA	1x VGA (Analog/CRT)				
	1x LVDS interface (single ch 24-bit, dual ch 48-bit)						
AUDIO	HD Audio (Cirrus Logic CS4207 codec)						
NETWORK / ETHERNET	<ul style="list-style-type: none"> 1Port 0, Intel I226, 2.5Gb Ethernet Port 1, Intel 82574L, 1Gb Ethernet 						
EXPANSION	<ul style="list-style-type: none"> Mini PCIe Expansion: 2x full-length cards (Both sockets have PCIe, USB, and SATA signaling for mSATA operation) 	Mini PCIe Expansion: 2x full-length cards (Both sockets have PCIe, and USB)					
	1x SIM Card Expansion option						
I/O	8-bit GPIO						
	<ul style="list-style-type: none"> 4x USB 3.0 4x USB 2.0 (2 used for Mini PCIe) 	<ul style="list-style-type: none"> 2x USB 3.0 6x USB 2.0 (2 used for Mini PCIe) 	<ul style="list-style-type: none"> 4x USB 3.0 4x USB 2.0 (2 used for Mini PCIe) 				
	<ul style="list-style-type: none"> 1x Console RS-232 (TX/RX) 2x RS-232 (w/ full modem signals) 2x RS-422/485 I2C 						
POWER	Input: Single +12V input +/- 5% (5mm pitch terminal connector)						
	Typical Power Use: 60 W* TDP: 55W - 73W*	Typical Power Use: 13 W* TDP: 15W - 21W*	Power info TBA	Typical Power Use: 31 W* TDP: 33W - 38W*	Typical Power Use: 30 W* TDP: 31W - 37W*	Typical Power Use: 32 W* TDP: 33W - 37W*	Typical Power Use: 30 W* TDP: 32W - 37W*
THERMAL SOLUTIONS							
SBC + Heat Spreader	N/A	125 x 95 x 35 mm 355g	125 x 95 x 35 mm 320g	125 x 95 x 35mm 290 g			
SBC + Heatsink	125 x 95 x 53 mm 590g	125 x 95 x 52 mm 425g	125 x 95 x 74 mm 690g	N/A			
SBC + Heatsink & Fan	125 x 97 x 53 mm 590g	N/A	125 x 95 x 99 mm 790g	125 x 95 x 99 mm 490 g			
ENVIRONMENTAL	-40°C to +70°C ¹	-40°C to +85°C ²	-40°C to +85°C ¹				
	Humidity: 5% to 95% non-condensing CE & RoHS Compliant						

¹ With Heatsink and Fan or other adequate thermal solution; ² With Heatsink or other adequate thermal solution; * See product manuals for Passmark® details. Instantaneous power draw can be higher.



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WINSYSTEMS, INC. | 2890 112th Street, Grand Prairie, Texas 75050 | 817-274-7553 | sales@winsystems.com | www.winsystems.com

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