APPLICATIONS

- Factory automation
- Unmanned systems
- Drone payload computing
- Traffic technology
- Rugged surveillance cameras
- Cloud-based IoT solutions

FEATURES

- Intel® AtomTM
- 1.1GHz - 1.60GHz
- Intel® SCH US15W Chipset
- Power Management
- Up to 2GB DDR2-DRAM
- CRT / LVDS Interface Onboard
- 10/100/1000 Base-T Ethernet
- 8x USB2.0 Ports
- PATA Storage Interface
- COM1, COM2, LPT1
- SM Bus Interface
- RTC and Watchdog Timer
- Windows 7, Windows 8, Linux Compatible
- High Definition Audio
- Up To 8GB Onboard SSD
- PC/104-**Plus** embedded form factor
- +5V Single Rail Power Supply
- Active and passive thermal solutions available - call for information

WIND RIVER

DESCRIPTION

The ADLS15PC PC/104-Plus is based on the Intel® Atom™ and the Intel® US15W (Poulsbo™) chipset. The Intel® Atom™ is a single core processor built on a 45nm process that boasts an impressive 2.64 watts TDP. The Intel® Atom™ delivers the benefits of genuine Intel® architecture to small form factor and thermally constrained markets. The Intel® US15W System Controller Hub (SCH) incorporates all functions of legacy GMCH and ICH architectures into a single die.

The ADLS15PC takes advantage of these features by delivering high performance and low thermals in a compact PC/104-Plus form factor. The Intel® graphics controller drives a CRT to 1600x1200@60Hz and/or 18/24 bit LVDS LCD.

Memory is added via an SODIMM200 socket that will accept up to 2GB of DDR2-400/533 DRAM. In addition to ACPI/

APM functions, EIDE, 8xUSB 2.0, 2xRS232 COM ports, PS/2 Keyboard and Mouse, LPT, AC97 Sound, 10/100/1000MBit LAN and more, the ADLS15PC also comes equipped with up to 8GB onboard SSD. Driver sets for Windows operating systems, as well as BSP's for Windows® CE6 and VxWorks® are available.

ADLSST System Sensor Technology Utility

The ADLSST System Sensor Technology v2.0 utility brings to the Linux environment the same type of CPU health monitor functions that have previously been readily available only in the Windows environment. Click here to download the drivers.

ADL Embedded Solutions, Inc. offers highly effective active and passive thermal solutions designed for this product. Contact your sales representative for more information.

Data subject to change without notice.

TECHNICAL SPECIFICATIONS - ADLS15PC

FEATURE	FUNCTION	REMARKS	OPTIONS
Processor/CPU	512KB		
L2-Cache	Atom D525 / 1.8GHz / 1MB		
Front Side Bus	400/533 MHz	CPU dependent	
CPU-Clock	1.1GHz — 1.60GHz		
Memory 200pin DDR2 SODIMM	512MB – 2GB	256MB on request	
Video Controller	Intel® US15W SCH integrated	Intel® GMA 500	
Video Memory	Max 8MB UMA / Max 256MB DVMT		
Video Interfaces	VGA-Analog CRT, LVDS	Dual Independent display	
Video Channel 1	1600 x 1200@60Hz		
Video Channel 2	1600 x 1200@60Hz		
Real Time Clock	Yes	External Battery Required for RTC	
LAN-Controller	Intel® 82574L	10/100/1000Mb	
AC97-Controller	Intel® US15W SCH	ALC885 Codec - Intel® HDA	
SMBus-Controller	Intel® US15W SCH		
USB2-Controller	8x USB 2.0 compliant	6 of 8 ports also USB 1.1 Compliant. 1 port may be configured as a "device"	
Flash BIOS	1MB FW Hub		
BIOS	Award		
Power Management Control	ACPI 3.0 / APM 1.2	Suspend To Disc supported	
EIDE-Controller	PIO 0-4, UDMA 100*/66*/33, Multi-word DMA (ATA-5)	Primary Master/Slave	*requires 80 conductor cable
Onboard Flash SSD	Up to 8GB		2GB / 4GB / 8GB
HW-Monitor	Winbond W83627HF		
Audio Output	Line Out, SPDIF Out	5.1 Support	
Audio Input	Line In, SPDIF In, MIC		
Keyboard	PS/2-USB		
Mouse	PS/2-USB		
COM1	RS232		Optional RS–422/485
COM2	RS232		Optional RS–422/485
LPT1	Uni/EPP/BI		
Floppy Disk	No floppy disk support		
ISA-Bus	Fintek F85226F	LPC-ISA-Bridge, full 16-bit, No DMA	
PCI-Bus	V3.0	Support For 4 Masters	
Power Supply	+5V ±5%	ADL PS104CF possible	
Power consumption	Z510 / 2GB / Active: 1.54A @ +5VDC, typical* Z510 / 2GB / Passive: 1.56A @ +5VDC, typical* Z530 / 2GB / Active: 1.78A @ +5VDC, typical* Z530 / 2GB / Passive: 1.80A @ +5VDC, typical*	[processor] / [memory] / [cooling type] *Typical numbers are based on a standard configuration are for reference only. Actual vaules may vary	

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ADL Corporate: 4411 Morena Blvd. Suite 101 | San Diego, CA 92117-4345

T: 858.490.0597 **F:** 858.490.0599
sales@adl-usa.com **www.adl-usa.com**

ADL Germany: Eiserfelder Straße 316 | D-57080 Siegen, Germany

T: +49 (0) 271.250.810.0 **F:** +49 (0) 271.250.810.20
sales@adl-europe.com **www.adl-europe.com**

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Operating Temperature (typ. ambient)	-25ºC - +70ºC *Extended Temp -optional		Provided CPU is kept below 90°C at all times and the installation has sufficient thermal path to dissipate
MTBF	219,000 Hours	Calculation method: MIL-HDBK-217F	
Dimensions	3.6" x 3.8" (90mm x 96mm)	Same features as LAN1	
Weight (gr)	86 g		

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ORDERING INFORMATION

ITEM CODE	PART #	DESCRIPTION
PCI/104-Plus Board		
ADLS15PC-110	292310	PC104/Plus Atom 1.1GHz 0GB SSD
ADLS15PC-112	292312	PC104/Plus Atom 1.1GHz 2GB SSD
ADLS15PC-114	292314	PC104/Plus Atom 1.1GHz 4GB SSD
ADLS15PC-118	292318	PC104/Plus Atom 1.1GHz 8GB SSD
ADLS15PC-160	292360	PC104/Plus Atom 1.60GHz 0GB SSD
ADLS15PC-162	292362	PC104/Plus Atom 1.60GHz 2GB SSD
ADLS15PC-164	292364	PC104/Plus Atom 1.60GHz 4GB SSD
ADLS15PC-168	292368	PC104/Plus Atom 1.60GHz 8GB SSD
Thermal Solutions		
ADLS15PC-SPREADER	292061	.6" Heat Spreader for chassis mounting
ADLS15PC-FANSINK	292063	Active Heat Sink Set ADLS15PC
ADLS15PC-PASSIVELP	292062	Passive low profile heatsink
ADLS15PC-1"	292064	1" Heat Spreader for chassis mounting
Standard DDR2-RAM		
DDR2-DRAM512	TBD	DDR2-667MHz 512MB Standard Temperature
DDR2-DRAM1024	996050	DDR2-667MHZ 1GB Standard Temperature
DDR2-DRAM2048	996150	DDR2-667MHz 2GB Standard Temperature
DDR2-RAM Extended Temperature		
DDR2-DRAM512-EX	TBD	DDR2-667MHz 512MB Extended Temperature
DDR2-DRAM1024-EX	996051	DDR2-667MHz 1GB Extended Temperature
DDR2-DRAM2048-EX	996151	DDR2-667MHz 2GB Extended Temperature

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