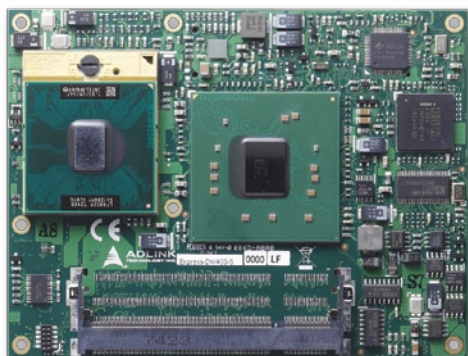


Express-DW400

Server Level COM Express™ Module with
Intel® Core™2 Duo Processor and 3100 Chipset



Features

- Intel® Core™ Duo and Core™2 Duo Processor
- Two PCI Express® x4 or one x8 with EDMA
- Two vertical or one horizontal SO-RDIMM sockets for DDR2 400 with ECC
- Intel® 82573 GbE LAN
- USB 2.0, Serial ATA and IDE support
- PICMG® COM.0 COM Express™ Module Type 2, basic form factor

Specifications

Core System

CPU	Merom Core socket type
	Intel® Core™2 Duo T7400, 2.1GHz, 4MB L2 cache, 34 W Intel® Celeron® M 530, 1.73GHz, 1MB L2 cache, 27 W
	Merom Core BGA type
	Intel® Core™2 Duo L7400, 1.5 GHz, 4MB L2 cache, 17 W Intel® Core™2 Duo U7500, 1.06 GHz, 2MB L2 cache, 10 W
	Yonah Core socket type
	Intel® Core™ Duo T2500, 2.0 GHz, 2MB L2 cache, 31 W Intel® Celeron® M 440, 1.86 GHz, 1MB L2 cache, 27 W
	Yonah Core BGA type
	Intel® Core™ Duo U2500, 1.2 GHz, 2MB L2 cache, 9 W Intel® Celeron M 423, 1.06GHz, 1MB L2 cache, 5.5 W
Memory	Single channel registered ECC DDR2 at 400MHz up to 4 GB Option 1: one horizontal SODIMM socket, max. 2 GB Option 2: two vertical SODIMM sockets, max. 4 GB
Chipset	Intel® 3100 single integrated chip (Memory Controller Hub + I/O Controller Hub)
BIOS	Phoenix® Award
Hardware Monitor	Supply voltages and CPU/system temperature
Watchdog Timer	Two stage watchdog timer
Expansion Busses	Two PCI Express® x4 lanes with EDMA support, configurable as a one x8 PCI Express® x8 lane, and three x1 lanes 32-bit PCI rev 2.3 at 33MHz LPC bus SMBus / I²C

Video

On carrier	Optional VGA support via PCI or PCIe bus on carrier
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LAN

Chipset	PCIe type Intel® 82573
Interface	10/100/1000 Mbps

Multi I/O

Chipset	Integrated on Intel® 3100
USB	Up to four USB 2.0 ports, supports legacy keyboard/mouse
SATA	Four Serial ATA 150 ports
PATA IDE	Single channel IDE for CF card support (SATA to IDE conversion)

Super I/O

Connected to LPC bus on carrier if needed

TPM

Chipset	Infineon SLB9635TT1.2
Type	TPM 1.2

Power Specifications

Input Power	AT mode (12 V) and ATX mode (12 V and 5 Vsb)
Power States	Supports S0, S1, S3, S4, S5
Power Consumption	24.5 W (with Core™2 Duo U7500 and 2 GB memory typical)

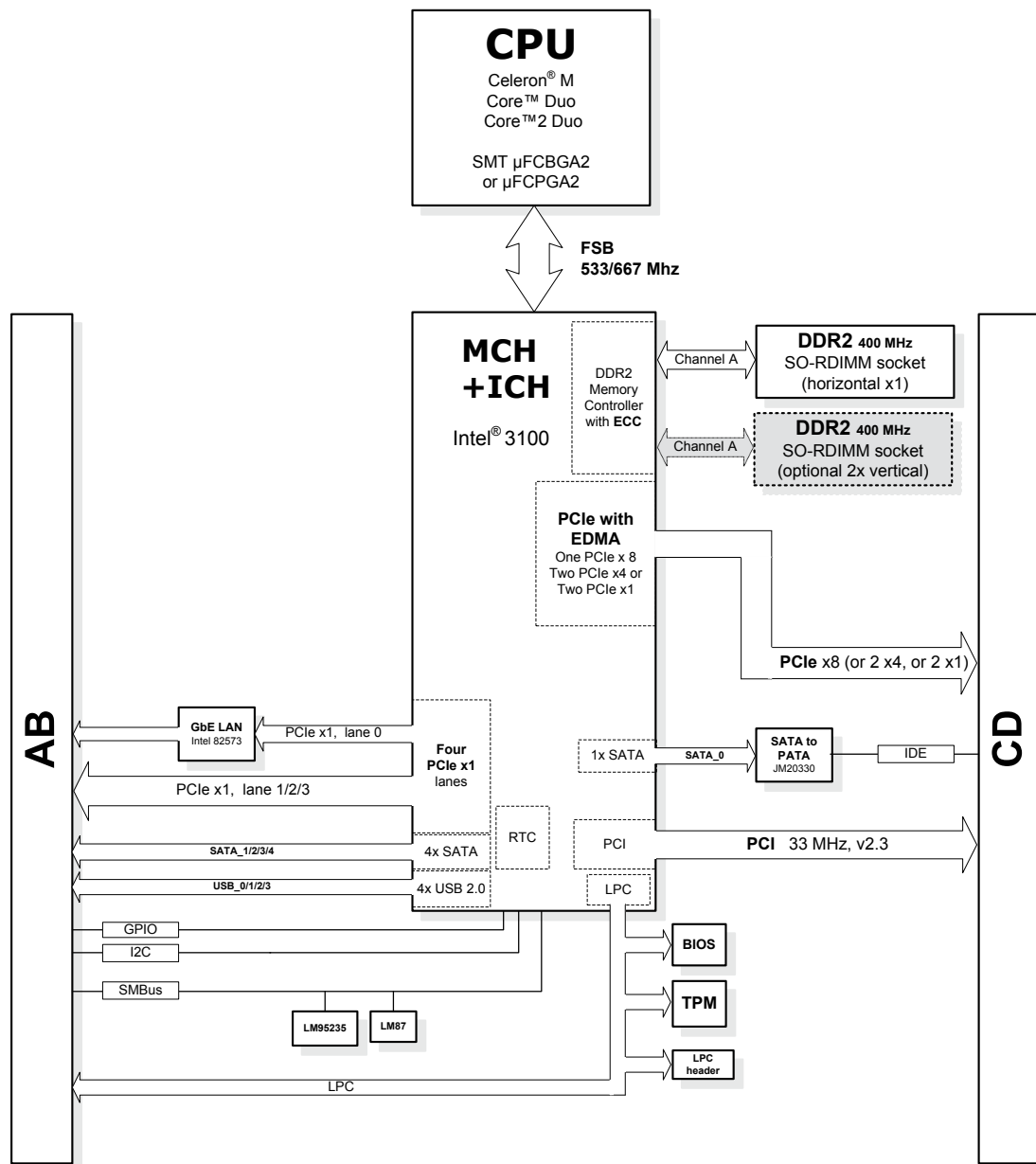
Mechanical and Environmental

Operating Temp.	0°C to 60°C
Storage Temp.	-20°C to 80°C
Humidity	Up to 90% at 60°C
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operation: 1.88 Grms, 5-500 Hz, each axis Operation: 0.5 Grms, 5-500 Hz, each axis
Form Factor	COM Express™ Type 2, basic form factor, 95 mm x 125 mm
Certifications	CE, FCC

Operating Systems

Standard Support	Windows® XP 32/64-bit Linux® 2.6.26 and up
Extended Support	Embedded XP BSP Linux® 2.6.x BSP AIDI I²C Library for Win32 and Linux®

Functional Diagram



Ordering Information

Modules

Model Number	Description/Configuration
Express-DW400-S	Server level COM Express™ module with socket for CPU
Express-DW400V-S	Server level COM Express™ module with socket for CPU and two vertical SO-RDIMM sockets
Express-DW400-423	Server level COM Express™ module with Intel® Celeron® M 423 at 1.06 GHz
Express-DW400-U2500	Server level COM Express™ module Intel® Core™ Duo U2500 at 1.20 GHz
Express-DW400- U7500	Server level COM Express™ module with Intel® Core™2 Duo U7500 at 1.06 GHz
Express-DW400-L7400	Server level COM Express™ module with Intel® Core™2 Duo L7400 at 1.5 GHz

V-type (Vertical): All modules above are with single horizontal SO-RDIMM socket, expect for DW400V type that has two vertical placed SO-RDIMM sockets

Accessories

Model Number	Description/Configuration
Heat Spreaders	
HTS-DW400-B	Heatspreader for Express-DW400 (BGA CPU, horizontal SORDIMM) with threaded standoffs
Heatsink with Active Cooling	
THSF-DW400V-S	High Performance Heatsink with Fan for Express-IW400 and DW400 (socket CPU and dual vertical SODIMMs) with threaded standoffs
THSF-DW400-S	High Performance Heatsink with Fan for Express-IW400 and DW400 (socket CPU and single horizontal SODIMM) with threaded standoffs