

z3975

Embedded Controller

PXI Express



Port Descriptions



Trigger: bi-directional external trigger port (SMB)

Dual GbE ports

Four USB 2.0 ports

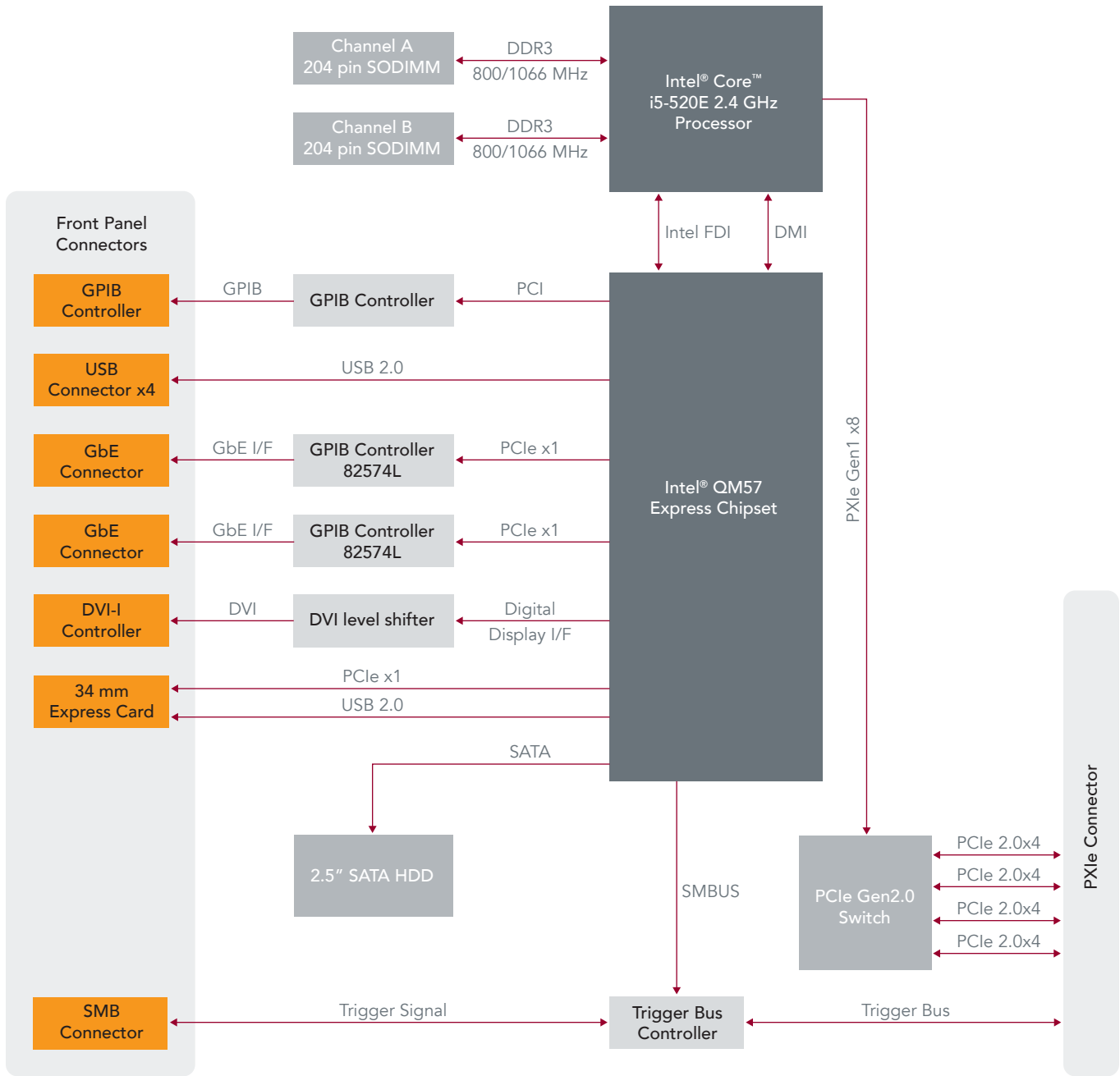
DVI display connector

ExpressCard/34 expansion slot

Micro-D GPIB connector

LED	Description
HD	Flashes YELLOW for disk access
WD	Watchdog timer: lighted RED when timer expired
HS	STATUS: blinks BLUE once during boot if OK; continuous blinking or ON if fault found
PW	System power. GREEN when normal operation.

Block Diagram



Specifications

Specification	Value
CPU	Intel® Core™ i5-520E 2.4 GHz
Memory	Dual channel DDR3 SODIMM 4 GB 1066 MHz
Maximum throughput	2 GB/s
PXI Express Link	4 links: x4 x4 x x4 2 links: x8 x8
Integrated SATA storage	320 GB HDD or 160 GB SSD
Integrated I/O	Dual Gigabit Ethernet ports 4 USB 2.0 ports Built-in GPIB (IEEE-488) controller DVI-I video connector ExpressCard/34 expansion slot Trigger I/O for advanced PXI™ functions
Watchdog timer	Programmable
Operating system	Windows® 7 x32
Power requirements	
Maximum	0.12 A @ 5V standby, 0.75 A @ 3.3 V 0.76 A @ 5 V 2.81 A @ 12 V
Typical	0.11 A @ 5V standby, 0.72 A @ 3.3 V 0.54 A @ 5 V 0.9 A @ 12 V

Physical & Environmental

Size & Weight

Specification	Value
Physical size z3975 Embedded Controller	1 system slot plus two controller expansion slots
Dimensions (L x W x H)	21.32 cm x 6.05 cm x 12.87 cm (8.3 in. x 2.35 in. x 5 in.)
Weight	0.9 kg (1.98 lbs.)

Temperature Range

Specification	Value
Operating	0° C to +50° C ambient
Storage	-20° C to +70° C ambient

Relative Humidity

Specification	Value
Operating	5 to 95%, non-condensing

Shock and Vibration

Specification	Value
Shock	30 G, half sine, 11 ms pulse duration
Vibration	Operating: 5 to 500 Hz, 0.21 Grms, 3 axes Storage: 5 to 500 Hz, 2.46 Grms, 3 axes

Terminology

Numeric Prefixes

When referring to numeric values, this document will use SI (International System of Units) and IEC (International Electrotechnical Commission) standard prefixes. Prefix definitions are in the following table.

Prefix	Multiplier
n (nano)	1/(1000x1000x1000)
μ (micro)	1/(1000x1000)
m (milli)	1/1000
k/K (kilo)	1000
M (Mega)	1000x1000
G (Giga)	1000x1000x1000
Ki (Kibi)	1024
Mi (Mebi)	1024x1024
Gi (Gibi)	1024x1024x1024

Differential Outputs

Single-Ended is used to refer to the output on either the + or – output pin

Differential is used to refer to the output between the + and- output pins

Vd indicates Volts differential

Vppd indicates Volts peak-to-peak differential

Safety

This product is designed to meet the requirements of the following standard of safety for electrical equipment for measurement, control and laboratory use: EN 61010-1

Electromagnetic Compatibility

CE Marking EN 61326-1:1997

FCC Part 15 (Class A) Compliant

CE Compliance

Immunity: EN61326-1

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