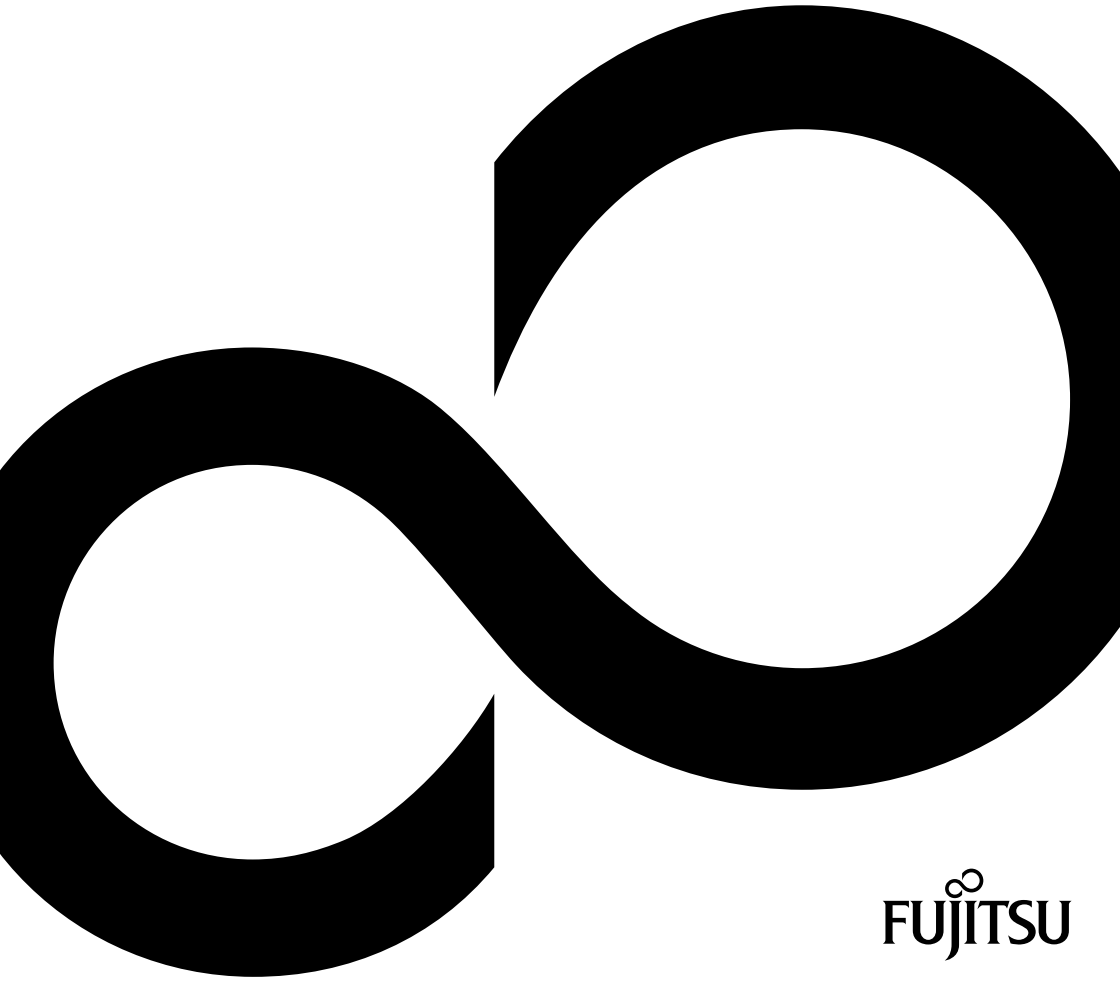
Mainboard D3313



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Publication Date

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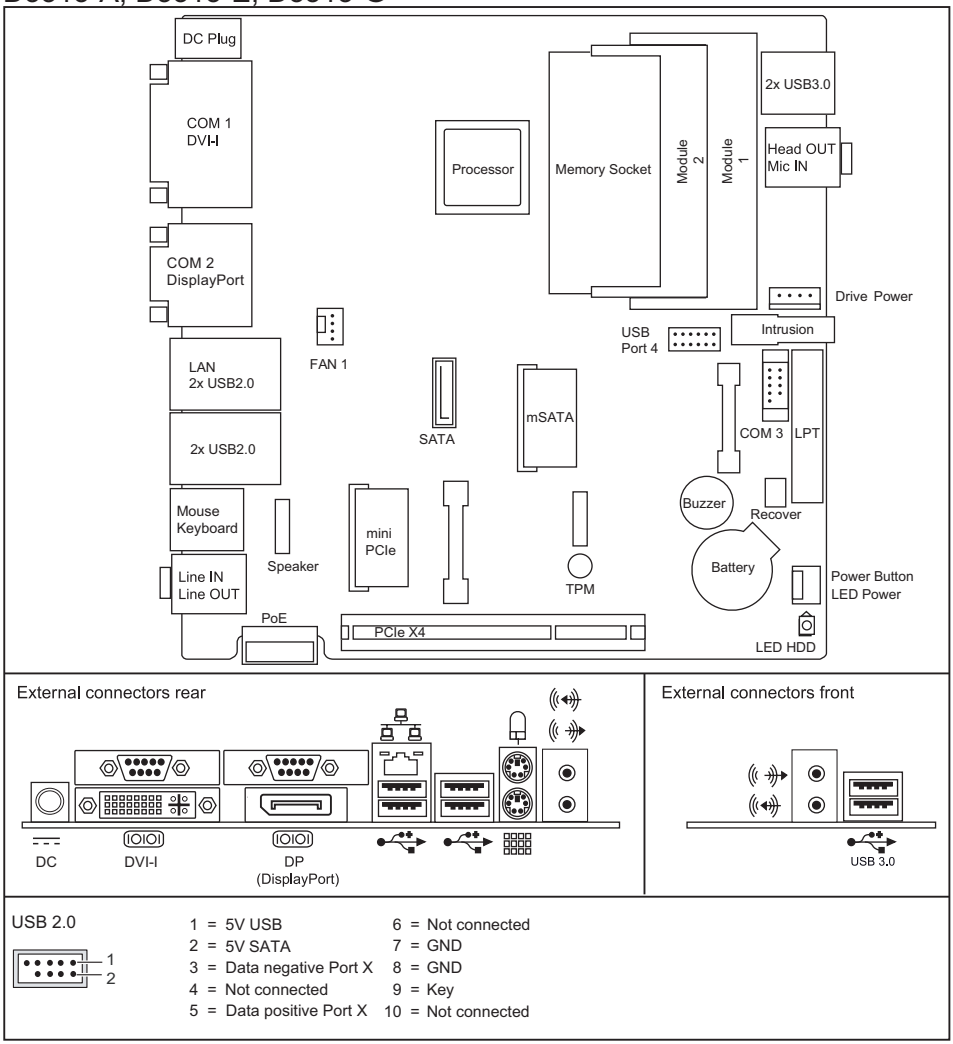
Order No.: A26361-D3313-Z321-1-7419, edition 2

D3313-A, D3313-E, D3313-G



USB 2.0

1 =	5V USB	6 =	Not connected
2 =	5V SATA	7 =	GND
3 =	Data negative Port X	8 =	GND
4 =	Not connected	9 =	Key
5 =	Data positive Port X	10 =	Not connected

List of onboard Features	**D3313-A**
CPU AMD	GX-415GA
Graphics	HD8330E
Board size	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -
LVDS	-
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / -
Buzzer / int. Speaker Support	✓ / ✓
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	- / - / -
LAN 2: ASF / WoL / Remote Boot	- / - / -
LAN 2: iAMT (Version) / DASH	- / -
SATA[1)]: 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (1) / -
eSATA[1)]-support: 3 Gb/s (Ports) / 1,5 Gb/s (Ports)	- / -
RAID on Motherboard	-
Supported RAID Levels: 0 / 1 / 5 / 10	- / - / - / -
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
FAN monitored: PSU[2)] / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / - / -
FAN controlled: PSU[2)] / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / - / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 3 / Chipset / Super IO	✓ / ✓ / ✓ / ✓ / ✓ / ✓
Special Features	
Green Edition (Halogen-free product)	-
Desk Update (Simple driver update with DU DVD)	✓
Recovery BIOS (Restores a corrupted BIOS)	✓
HDD Password (Access protection for disk drives)	✓
Multi Boot (Comfortable boot from any boot device)	✓
Silent Fan (OS independent, temperature related full featured silent fan control)	✓
Silent Fan LT (OS independent, temperature related silent fan control)	✓
Silent Drives (Noise reduction for optical and hard disk drives)	✓
System Guard (View and adjust Silent Fan / Silent Fan LT)	✓
SmartCard SystemLock (USB / serial)	✓ / -
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓
0-Watt	-
Low Power Soft OFF	✓
Internal Connectors	
DIMM Sockets (DDR3 1066/1333/1600, SO-DIMM)	2

List of onboard Features	D3313-A
PCI Express x16 Slot	✓
PCI Express x1 Slot	-
PCI Slot (32 bit, 33 MHz, Rev. 2.3)	-
Frontpanel Audio (9-pin, Intel standard header)	-
Specific socket for internal USB Stick	-
Serial (FIFO, 16550 compatible)	1
Intrusion (Case Open)	onboard switch
Feature Connector (General Purpose I/O)	-
USB 2.0 (~480 Mbit/s, USB 3.0 (4000 Mb/s)	1 / 0
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	-
Dual channel LVDS / Backlight Control	- / -
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	-
Onboard (internal input) DC-IN 19-24 V / 3 A	-
Power over Ethernet module (PoE) DC-IN 15 V (optional)	✓
External Connectors	
Audio In / Line Out (or driver configuration) / Microphone In	- / 2 / 2
PS/2 Mouse / Keyboard	✓ / ✓
USB 2.0 (~480 Mbit/s, USB 3.0 (4000 Mbit/s)	4 / 2
Serial (RS232, FIFO, 16550 compatible)	2
DC-IN (external input) 19 V / 2 A (dependent on system components 20 V / 3.25 A power supply necessary)	✓
DC-IN (external input) 19V: max. 4A	✓

1) Maximum supported Transfer Rate per Port

2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	**Voltage**	**Maximal variation**	**Mainboard current typical**
D3313-A			
Main Power Supply	19 V	+/-10 %	1 A

List of onboard Features	D3313-E	D3313-G
CPU AMD	GX-424CC	GX-222GC
Platform	SteppeEagle	SteppeEagle
Board size	Mini-ITX	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -	- / ✓ / - / ✓ / -
LVDS	-	-
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / -	✓ / - / -
Buzzer / int. Speaker Support	✓ / ✓	✓ / ✓
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	- / - / -	- / - / -
LAN 2: ASF / WoL / Remote Boot	- / - / -	- / - / -
LAN 2: iAMT (Version) / DASH	- / -	- / -
SATA[1]: 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (1) / -	✓ (1) / -
eSATA[1]-support: 3 Gb/s (Ports) / 1,5 Gb/s (Ports)	- / -	- / -
RAID on Motherboard	-	-
Supported RAID Levels: 0 / 1 / 5 / 10	- / - / - / -	- / - / - / -
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓	- / ✓ / ✓
FAN monitored: PSU[2] / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / - / -	- / ✓ 4pin PWM / - / -
FAN controlled: PSU[2] / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / - / -	- / ✓ 4pin PWM / - / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 3 / Chipset / Super IO	✓ / ✓ / ✓ / ✓ / - / ✓	✓ / ✓ / ✓ / ✓ / - / ✓
Special Features		
Green Edition (Halogen-free product)	-	-
Desk Update (Simple driver update with DU DVD)	✓	✓
Recovery BIOS (Restores a corrupted BIOS)	✓	✓
HDD Password (Access protection for disk drives)	✓	✓
Multi Boot (Comfortable boot from any boot device)	✓	✓
Silent Fan (OS independent, temperature related full featured silent fan control)	✓	✓
Silent Fan LT (OS independent, temperature related silent fan control)	✓	✓
Silent Drives (Noise reduction for optical and hard disk drives)	✓	✓
System Guard (View and adjust Silent Fan / Silent Fan LT)	✓	✓
SmartCard SystemLock (USB / serial)	- / -	- / -
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓	✓
0-Watt	-	-

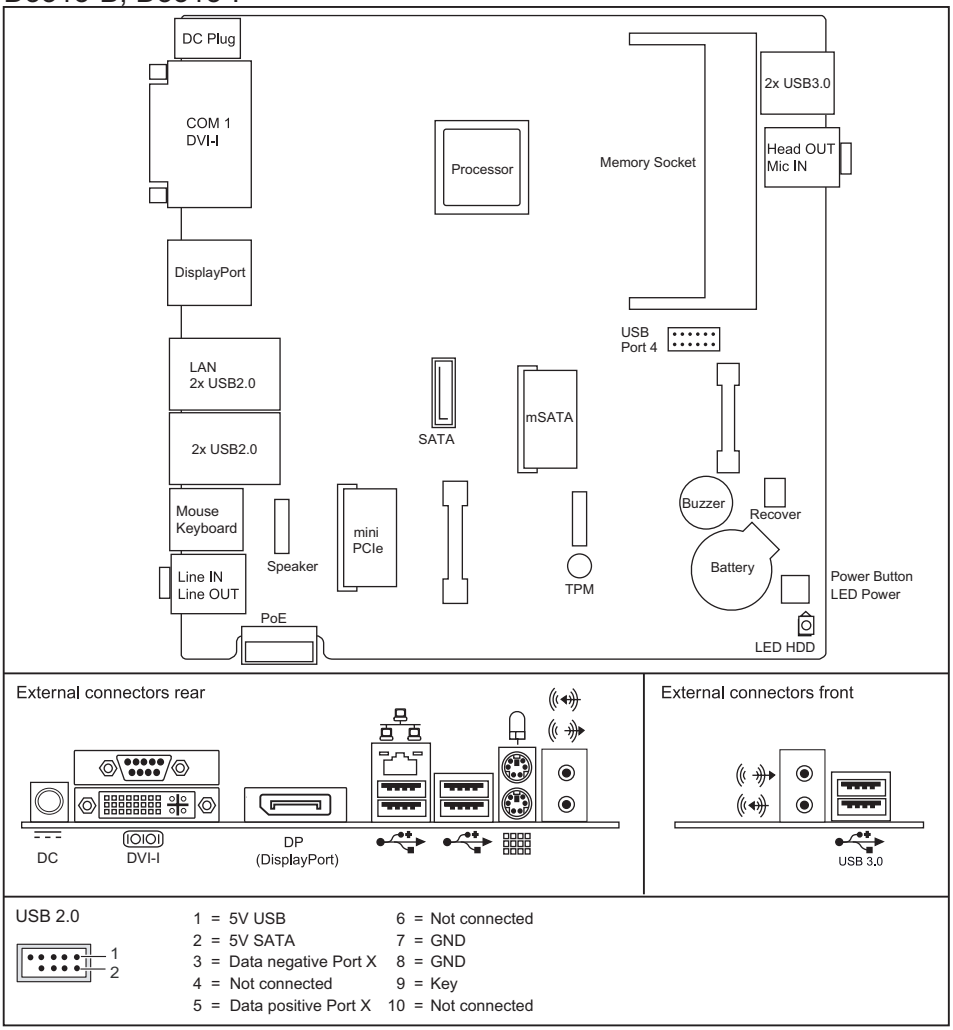
List of onboard Features	D3313-E	D3313-G
Low Power Soft OFF	✓	✓
Internal Connectors		
DIMM Sockets (DDR3 1066/1333/1600/1866, SO-DIMM)	2	2
1066/1333/1600/1866 MT/s modules	✓ / ✓ / ✓ / ✓	✓ / ✓ / ✓ / -
PCI Express x16 Slot	✓	✓
PCI Express x1 Slot	-	-
PCI Slot (32 bit, 33 MHz, Rev. 2.3)	-	-
Frontpanel Audio (9-pin, Intel standard header)	-	-
Specific socket for internal USB Stick	-	-
Serial (FIFO, 16550 compatible)	1	1
Intrusion (Case Open)	onboard switch	onboard switch
Feature Connector (General Purpose I/O)	-	-
USB 2.0 (~480 Mbit/s, USB 3.0 (4000 Mb/s)	1 / 0	1 / 0
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	-	-
Dual channel LVDS / Backlight Control	- / -	- / -
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	-	-
Onboard (internal input) DC-IN 19-24 V / 3 A	-	-
Power over Ethernet module (PoE) DC-IN 15 V (optional)	✓	✓
External Connectors		
Audio In / Line Out (or driver configuration) / Microphone In / ##Head Phone Out (or driver configuration)##	1 / 1 / 1 / 1	1 / 1 / 1 / 1
PS/2 Mouse / Keyboard	✓ / ✓	✓ / ✓
USB 2.0 (~480 Mbit/s, USB 3.0 (4000 Mbit/s)	4 / 2	4 / 2
Serial (RS232, FIFO, 16550 compatible)	2	2
DC-IN (external input) 19 V / 2 A (dependent on system components 20 V / 3.25 A power supply necessary)	✓	✓
DC-IN (external input) 19V: max. 4A	✓	-

1) Maximum supported Transfer Rate per Port

2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	**Voltage**	**Maximal variation**	**Mainboard current typical**
D3313-E, D3313-G			
Main Power Supply	19 V	+/-10 %	1 A

D3313-B, D3313-F



List of onboard Features	D3313-B
CPU AMD	GX-217GA
Graphics	HD8280E
Board size	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -
LVDS	-
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / -
Buzzer / int. Speaker Support	✓ / ✓
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	- / - / -
LAN 2: ASF / WoL / Remote Boot	- / - / -
LAN 2: iAMT (Version) / DASH	- / -
SATA[1)]: 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (1) / -
eSATA[1)]-support: 3 Gb/s (Ports) / 1,5 Gb/s (Ports)	- / -
RAID on Motherboard	-
Supported RAID Levels: 0 / 1 / 5 / 10	- / - / - / -
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
FAN monitored: PSU / FAN1 / FAN2 / FAN3	- / - / - / -
FAN controlled: PSU / FAN1 / FAN2 / FAN3	- / - / - / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 2 / Chipset / Super IO	✓ / ✓ / - / - / - / ✓
Special Features	
Green Edition (Halogen-free product)	-
Desk Update (Simple driver update with DU DVD)	✓
Recovery BIOS (Restores a corrupted BIOS)	✓
HDD Password (Access protection for disk drives)	✓
Multi Boot (Comfortable boot from any boot device)	✓
Silent Fan (OS independent, temperature related fan control and supervision)	-
Silent Fan LT (OS independent, temperature related fan control)	-
Silent Drives (Noise reduction for optical and hard disk drives)	✓
System Guard (View Silent Fan)	-
SmartCard SystemLock (USB / serial)	✓ / -
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓
0-Watt	-
Low Power Soft OFF	✓
Internal Connectors	
DIMM Sockets (DDR3 1066/1333, SO-DIMM)	1

List of onboard Features	D3313-B
PCI Express x16 Slot	-
PCI Express x1 Slot	-
PCI Slot (32bit, 33 MHz, Rev. 2.3)	-
Frontpanel Audio (9-pin, Intel standard header)	-
Specific socket for internal USB Stick	-
Serial (FIFO, 16550 compatible)	-
Intrusion (Case Open)	-
Feature Connector (General Purpose I/O)	-
USB 2.0 (~480 Mbit/s), USB 3.0 (4000 Mbit/s)	1 / 0
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	-
Dual channel LVDS / Backlight Control	- / -
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	-
Onboard (internal input) DC-IN 19-24 V / 3 A	-
Power over Ethernet module (PoE) DC-IN 15 V (optional)	✓
External Connectors	
Audio In / Line Out (or driver configuration) / Microphone In	- / 2 / 2
PS/2 Mouse / Keyboard	✓ / ✓
USB 2.0 (~480 Mbit/s), USB 3.0 (4000 Mbit/s)	4 / 2
Serial (RS232, FIFO, 16550 compatible)	1
DC-IN (external input) 19 V / 2 A (dependent on system components 20 V / 3.25 A power supply necessary)	✓
DC-IN (external input) 19V: max. 4A	✓

1) Maximum supported Transfer Rate per Port

2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	**Voltage**	**Maximal variation**	**Mainboard current typical**
D3313-B			
Main Power Supply	19 V	+/-10 %	1 A

List of onboard Features	D3313-F
CPU AMD	GX-222GC
Platform	SteppeEagle
Board size	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -
LVDS	-
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / -
Buzzer / int. Speaker Support	✓ / ✓
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	- / - / -
LAN 2: ASF / WoL / Remote Boot	- / - / -
LAN 2: iAMT (Version) / DASH	- / -
SATA[1)]: 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (1) / -
eSATA[1)]-support: 3 Gb/s (Ports) / 1,5 Gb/s (Ports)	- / -
RAID on Motherboard	-
Supported RAID Levels: 0 / 1 / 5 / 10	- / - / - / -
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
FAN monitored: PSU[2)] / FAN1 / FAN2 / FAN3	- / - / - / -
FAN controlled: PSU[2)] / FAN1 / FAN2 / FAN3	- / - / - / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 3 / Chipset / Super IO	✓ / ✓ / - / - / - / -
Special Features	
Green Edition (Halogen-free product)	-
Desk Update (Simple driver update with DU DVD)	✓
Recovery BIOS (Restores a corrupted BIOS)	✓
HDD Password (Access protection for disk drives)	✓
Multi Boot (Comfortable boot from any boot device)	✓
Silent Fan (OS independent, temperature related full featured silent fan control)	-
Silent Fan LT (OS independent, temperature related silent fan control)	-
Silent Drives (Noise reduction for optical and hard disk drives)	✓
System Guard (View and adjust Silent Fan / Silent Fan LT)	-
SmartCard SystemLock (USB / serial)	- / -
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓
0-Watt	-
Low Power Soft OFF	✓
Internal Connectors	
DIMM Sockets (DDR3 1066/1333/1600/1866, SO-DIMM)	1

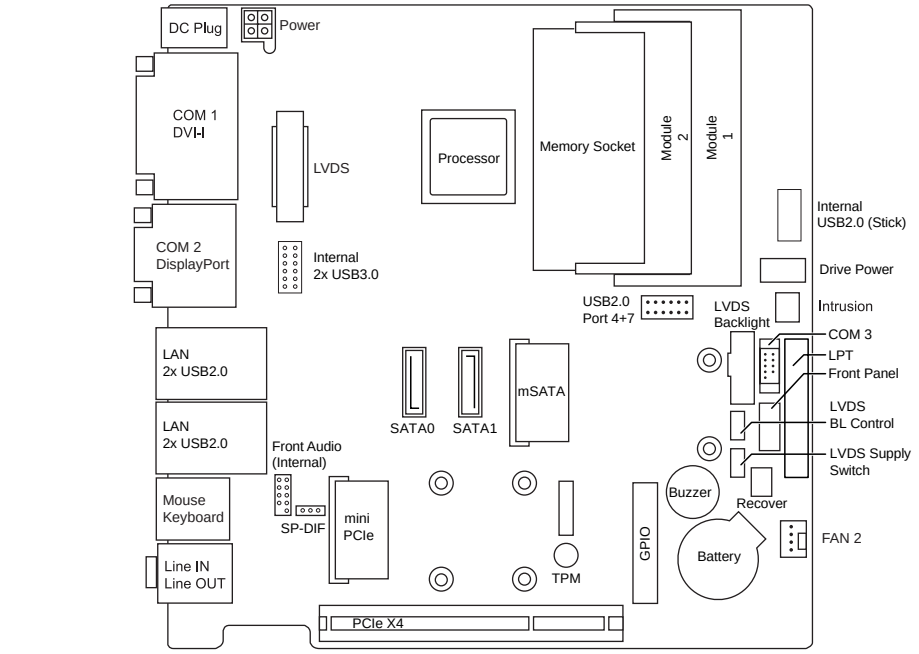
List of onboard Features	D3313-F
1066/1333/1600/1866 MT/s modules	✓ / ✓ / ✓ / -
PCI Express x16 Slot	-
PCI Express x1 Slot	-
PCI Slot (32 bit, 33 MHz, Rev. 2.3)	-
Frontpanel Audio (9-pin, Intel standard header)	-
Specific socket for internal USB Stick	-
Serial (FIFO, 16550 compatible)	-
Intrusion (Case Open)	-
Feature Connector (General Purpose I/O)	-
USB 2.0 (~480 Mbit/s, USB 3.0 (4000 Mb/s)	1 / 0
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	-
Dual channel LVDS / Backlight Control	- / -
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	-
Onboard (internal input) DC-IN 19-24 V / 3 A	-
Power over Ethernet module (PoE) DC-IN 15 V (optional)	✓
External Connectors	
Audio In / Line Out (or driver configuration) / Microphone In / ##Head Phone Out (or driver configuration)###	1 / 1 / 1 / 1
PS/2 Mouse / Keyboard	✓ / ✓
USB 2.0 (~480 Mbit/s, USB 3.0 (4000 Mbit/s)	4 / 2
Serial (RS232, FIFO, 16550 compatible)	1
DC-IN (external input) 19 V / 2 A (dependent on system components 20 V / 3.25 A power supply necessary)	✓
DC-IN (external input) 19V: max. 4A	-

1) Maximum supported Transfer Rate per Port

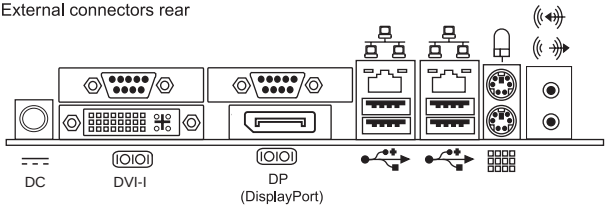
2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	**Voltage**	**Maximal variation**	**Mainboard current typical**
D3313-F			
Main Power Supply	19 V	+/-10 %	1 A

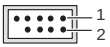
D3313-S



External connectors rear

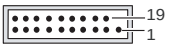


USB 2.0



1 =	5V USB	6 =	Data positive Port Y
2 =	5V USB	7 =	GND
3 =	Data negative Port X	8 =	GND
4 =	Data negative Port Y	9 =	Key
5 =	Data positive Port X	10 =	Not connected

USB 3.0



1 =	5V USB	8 =	Data negative (P2)	15 =	USB3_TX negative (P3)
2 =	USB3_RX negative (P2)	9 =	Data positive (P2)	16 =	GND
3 =	USB3_RX positive (P2)	10 =	FP Detect	17 =	USB3_RX positive (P3)
4 =	GND	11 =	Data positive (P3)	18 =	USB3_RX negative (P3)
5 =	USB3_TX negative (P2)	12 =	Data negative (P3)	19 =	5V USB
6 =	USB3_TX positive (P2)	13 =	GND	20 =	Not connected
7 =	GND	14 =	USB3_TX positive (P3)		

List of onboard Features	**D3313-S1**	**D3313-S2**	**D3313-S3**
CPU AMD	GX-210HA	GX-217GA	GX-420CA
Graphics	HD8210E	HD8280E	HD8400E
Board size	Mini-ITX	Mini-ITX	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -	- / ✓ / - / ✓ / -	- / ✓ / - / ✓ / -
LVDS	✓	✓	✓
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / ✓	✓ / - / ✓	✓ / - / ✓
Buzzer / int. Speaker Support	✓ / -	✓ / -	✓ / -
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -	- / -	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 2: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓	- / ✓ / ✓
LAN 2: iAMT (Version) / DASH	- / -	- / -	- / -
SATA[1)]: 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (2) / -	✓ (2) / -	✓ (2) / -
eSATA[1)]-support: 3 Gb/s	✓	✓	✓
RAID on Motherboard	-	-	-
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓	- / ✓ / ✓	- / ✓ / ✓
FAN monitored: PSU / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -
FAN controlled: PSU / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 3 / Super IO	✓ / ✓ / ✓ / ✓ / ✓	✓ / ✓ / ✓ / ✓ / ✓	✓ / ✓ / ✓ / ✓ / ✓
Special Features			
Green Edition (Halogen-free product)	-	-	-
Desk Update (Simple driver update with DU DVD)	✓	✓	✓
Recovery BIOS (Restores a corrupted BIOS)	✓	✓	✓
HDD Password (Access protection for disk drives)	✓	✓	✓
Multi Boot (Comfortable boot from any boot device)	✓	✓	✓
Silent Fan (OS independent, temperature related fan control and supervision)	✓	✓	✓
Silent Drives (Noise reduction for optical and hard disk drives)	✓	✓	✓
System Guard (View Silent Fan)	✓	✓	✓

List of onboard Features	D3313-S1	D3313-S2	D3313-S3
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓	✓	✓
Low Power Soft OFF	✓	✓	✓
Internal Connectors			
DIMM Sockets (DDR3 1333/1600, SO-DIMM)	2	2	2
PCI Express x4 Slot	✓	✓	✓
PCI Slot (32bit, 33 MHz, Rev. 2.3)	-	-	-
Frontpanel Audio (9-pin, Intel standard header)	✓	✓	✓
Specific socket for internal USB Stick	✓	✓	✓
Serial (FIFO, 16550 compatible)	1	1	1
Intrusion (Case Open)	✓	✓	✓
Feature Connector (General Purpose I/O)	✓	✓	✓
USB 2.0 (~480 Mbit/s), USB 3.0 (4000 Mbit/s)	2 / 2	2 / 2	2 / 2
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	✓	✓	✓
Dual channel LVDS / Backlight Control	✓ / ✓	✓ / ✓	✓ / ✓
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	✓	✓	✓
Onboard (internal input) DC-IN 12 V / 19–24 V max. 10 A	✓	✓	✓
External Connectors			
Audio In / Line Out (or driver configuration) / Microphone In	- / 2 / 2	- / 2 / 2	- / 2 / 2
PS/2 Mouse / Keyboard	✓ / ✓	✓ / ✓	✓ / ✓
USB 2.0 (~480 Mbit/s), USB 3.0 (4000 Mbit/s)	4 / 0	4 / 0	4 / 0
Serial (RS232, FIFO, 16550 compatible)	2	2	2
DC-IN (external input) 12 V / 19–24 V max. 5 A	✓	✓	✓

1) Maximum supported Transfer Rate per Port

2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	**Voltage**	**Maximal variation**	**Mainboard current**
D3313-Sx			
DC-IN (autorange)	19-24V	+10% / -15%	max. 5A (external)
	12V	+10% / -10%	max. 8A (internal)

List of onboard Features	**D3313-S4**	**D3313-S5**
CPU AMD	GX-222GC	GX-412HC
Platform	SteppeEagle	SteppeEagle
Board size	Mini-ITX	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -	- / ✓ / - / ✓ / -
LVDS	✓	✓
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / ✓	✓ / - / ✓
Buzzer / int. Speaker Support	✓ / -	✓ / -
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 2: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓
LAN 2: iAMT (Version) / DASH	- / -	- / -
SATA[1)]: 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (2) / -	✓ (2) / -
eSATA[1)]-support: 3 Gb/s	-	-
RAID on Motherboard	-	-
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓	- / ✓ / ✓
FAN monitored: PSU / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -
FAN controlled: PSU / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 3 / Super IO	✓ / ✓ / ✓ / ✓ / ✓	✓ / ✓ / ✓ / ✓ / ✓
Special Features		
Green Edition (Halogen-free product)	-	-
Desk Update (Simple driver update with DU DVD)	✓	✓
Recovery BIOS (Restores a corrupted BIOS)	✓	✓
HDD Password (Access protection for disk drives)	✓	✓
Multi Boot (Comfortable boot from any boot device)	✓	✓
Silent Fan (OS independent, temperature related fan control and supervision)	✓	✓
Silent Drives (Noise reduction for optical and hard disk drives)	✓	✓
System Guard (View Silent Fan)	✓	✓
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓	✓
Low Power Soft OFF	✓	✓
Internal Connectors		
DIMM Sockets (DDR3 1333/1600, SO-DIMM)	2	2

List of onboard Features	D3313-S4	D3313-S5
PCI Express x4 Slot	✓	✓
PCI Slot (32bit, 33 MHz, Rev. 2.3)	-	-
Frontpanel Audio (9-pin, Intel standard header)	✓	✓
Specific socket for internal USB Stick	✓	✓
Serial (FIFO, 16550 compatible)	1	1
Intrusion (Case Open)	✓	✓
Feature Connector (General Purpose I/O)	✓	✓
USB 2.0 (~480 Mbit/s), USB 3.0 (4000 Mbit/s)	2 / 2	2 / 2
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	✓	✓
Dual channel LVDS / Backlight Control	✓ / ✓	✓ / ✓
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	✓	✓
Onboard (internal input) DC-IN 12 V / 19–24 V max. 10 A	✓	✓
External Connectors		
Audio In / Line Out (or driver configuration) / Microphone In /##Phone Out (or driver configuration)##	1 / 1 / 0 / 0	1 / 1 / 0 / 0
PS/2 Mouse / Keyboard	✓ / ✓	✓ / ✓
USB 2.0 (~480 Mbit/s), USB 3.0 (4000 Mbit/s)	4 / 0	4 / 0
Serial (RS232, FIFO, 16550 compatible)	2	2
DC-IN (external input) 12 V / 19–24 V max. 5 A	✓	✓

1) Maximum supported Transfer Rate per Port

2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	**Voltage**	**Maximal variation**	**Mainboard current**
D3313-Sx			
DC-IN (autorange)	19-24V	+10% / -15%	max. 5A (external)
	12V	+10% / -10%	max. 8A (internal)

Mainboard D3313

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Bemerkung

Hinweise zur Produktbeschreibung entsprechen den Designvorgaben von Fujitsu und werden zu Vergleichszwecken zur Verfügung gestellt. Die tatsächlichen Ergebnisse können aufgrund mehrerer Faktoren abweichen. Änderungen an technischen Daten ohne Ankündigung vorbehalten. Fujitsu weist jegliche Verantwortung bezüglich technischer oder redaktioneller Fehler bzw. Auslassungen von sich.

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Kurzbeschreibung des Mainboards

Hinweise zu den Baugruppen

Beachten Sie bei Baugruppen mit EGB unbedingt Folgendes:

- Sie müssen sich statisch entladen (z. B. durch Berühren eines geerdeten Gegenstands), bevor Sie mit Baugruppen arbeiten.
- Verwendete Geräte und Werkzeuge müssen frei von statischer Aufladung sein.
- Ziehen Sie den Netzstecker, bevor Sie Baugruppen stecken oder ziehen.
- Fassen Sie die Baugruppen nur am Rand an.
- Berühren Sie keine Anschluss-Stifte oder Leiterbahnen auf der Baugruppe.

Eine Übersicht der Leistungsmerkmale finden Sie im Datenblatt.

Besondere Merkmale

Ihr Mainboard ist in verschiedenen Ausbaustufen erhältlich. Abhängig von der Konfiguration Ihres Mainboards besitzt oder unterstützt das Mainboard bestimmte Merkmale.

In diesem Handbuch finden Sie die wichtigsten Eigenschaften dieses Mainboards beschrieben.

Weitere Informationen zu Mainboards finden Sie im Handbuch "Basisinformationen Mainboard" auf der DVD "User Documentation" oder "OEM Mainboard" bzw. im Internet.

Anschlüsse und Steckverbinder

Die Position der Anschlüsse und Steckverbinder Ihres Mainboards finden Sie am Anfang des Handbuches.

Die markierten Komponenten und Steckverbinder müssen nicht auf dem Mainboard vorhanden sein.

Externe Anschlüsse

Die Position der externen Anschlüsse Ihres Mainboards finden Sie am Anfang des Handbuches.

	PS/2-Tastaturanschluss, violett		PS/2-Mausanschluss, grün
LAN	LAN-Anschluss (RJ-45)		Mikrofonanschluss, rosa
	Audioeingang (Line in), hellblau oder schwarz		USB 2.0 – Universal Serial Bus, schwarz
	Audioausgang (Line out), hellgrün oder schwarz		USB 3.0 – Universal Serial Bus, blau
	Serielle Schnittstelle, türkis		DVI – I
		DP	DisplayPort

Die externen USB-Anschlüsse dürfen laut USB 2.0 Spezifikation maximal mit 500 mA pro USB-Anschluss belastet werden.

Durch den Einsatz einer neuen Chipsatz-Technology kann sich ein verändertes Verhalten beim Anschluss älterer USB-Geräte (Fullspeed, USB 1.1) ergeben. Das betrifft zum Beispiel ältere Digitalkameras, von denen immer nur eine (nicht zwei oder mehr gleichzeitig) betrieben werden kann. Neuere Geräte der Spezifikation USB 2.0 sind davon nicht betroffen.

Technische Daten Prozessor

SoC Type (Package / Platform), Host Interface (CPU)

- **D3313-A:**
  AMD FT3 / GX-415GA eKabini 1,5 GHz quad core (15W) 4cM
- **D3313-B:**
  AMD FT3 / GX-217GA eKabini 1,65 GHz dual core (15W) 2cM
- **D3313-E:**
  AMD FT3b / GX-424CC SteppeEagle 2,4 GHz quad core (15W) 2CU GPU*
- **D3313-F:**
  AMD FT3b / GX-222GC SteppeEagle 2,2 / 2,4** GHz dual core (15W) 2CU GPU*
- **D3313-G:**
  AMD FT3b / GX-222GC SteppeEagle 2,2 / 2,4** GHz dual core (15W) 2CU GPU*
- **D3313-S1:**
  AMD FT3 / GX-210HA eKabini 1,0 GHz dual core (9W) 2cL
- **D3313-S2:**
  AMD FT3 / GX-217GA eKabini 1,65 GHz dual core (15W) 2cM
- **D3313-S3:**
  AMD FT3 / GX-420CA eKabini 2,0 GHz quad core (25W) 4cH
- **D3313-S4:**
  AMD FT3b / GX-222GC SteppeEagle 2,2 / 2,4** GHz dual core (15W) 2CU GPU*
- **D3313-S5:**
  AMD FT3b / GX-412HC SteppeEagle 1,2 / 1,6** GHz quad core (7W) 2CU GPU*

*CU = Computing Unit

**Boost Frequenz

Hauptspeicher ein-/ausbauen

Technische Daten

Technologie	DDR3–1333 / DDR3–1600 / DDR3–1866
Gesamtgröße	1, 2, 4, 8 und 16 GByte (D3313-A / D3313-E / D3313-G) 1, 2, 4 und 8 GByte (D3313-B / D3313-F) 1, 2, 4, 8 und 16 GByte (D3313-S)
Modulgröße	1, 2, 4 oder 8 GByte pro Modul

Es dürfen nur ungepufferte 1,25V / 1,35V / 1,5V-Speichermodule ohne ECC verwendet werden.

DDR3-Speichermodule müssen der PC3-10600-, PC3-12800- oder PC3-14900-Spezifikation entsprechen.

Modul 1 muss unbedingt als erstes bestückt werden!

Die Mainboards verfügen über bis zu zwei Modul-Steckplätze.

Abhängig von der Systemkonfiguration kann sich der sichtbare Hauptspeicher reduzieren.

Der Ein-/Ausbau ist im Handbuch "Basisinformationen Mainboard" beschrieben.

BIOS Update

Wann sollte ein BIOS-Update durchgeführt werden?

Fujitsu Technology Solutions stellt neue BIOS-Versionen zur Verfügung, um die Kompatibilität zu neuen Betriebssystemen, zu neuer Software oder zu neuer Hardware zu gewährleisten. Außerdem können neue BIOS-Funktionen integriert werden.

Ein BIOS-Update sollte auch immer dann durchgeführt werden, wenn ein Problem besteht, das sich durch neue Treiber oder neue Software nicht beheben lässt.

Wo gibt es BIOS-Updates?

Im Internet unter "http://support.ts.fujitsu.com/" finden Sie die BIOS-Updates.

BIOS-Update unter Windows mit dem Programm DeskFlash

Ein BIOS-Update kann unter Windows auch mit dem Programm *DeskFlash* durchgeführt werden. Das Programm *DeskFlash* finden Sie auf dem Datenträger "Drivers & Utilities" (unter *Flash BIOS*).

oder

- ► Laden Sie die Update-Datei für "Flash BIOS Update – Desk Flash Instant" von unserer Internet-Seite auf Ihren PC.
- ► Führen Sie die Update-Datei aus.
- ► Folgen Sie den Bildschirmanweisungen.

BIOS-Update mit einem USB-Stick

- ► Halten Sie einen bootfähigen USB-Stick bereit.
- ► Laden Sie die "Admin package - Compressed Flash Files" für bootfähige USB-Sticks von unserer Internet-Seite auf Ihren PC.
- ► Entpacken Sie die *ZIP-Datei* und kopieren Sie die Dateien auf Ihren bootfähigen USB-Stick.
- ► Starten Sie den PC neu.
- ► Wählen Sie den USB-Stick als Boot Device.
- ► Booten Sie von dem USB-Stick und starten sie *DosFlash.BAT*.
- ► Folgen Sie den Bildschirmanweisungen.

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Remarks

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Brief description of mainboard

Information about boards

Be sure to observe the following for boards with ESD:

- You must always discharge static build up (e.g. by touching a grounded object) before working with the board.
- The equipment and tools you use must be free of static charge.
- Remove the power plug from the mains supply before inserting or removing boards.
- Always hold boards by their edges.
- Never touch connector pins or conductors on the board.

An overview of the features is provided in the data sheet.

Special features

Your mainboard is available in different configuration levels. Depending on the configuration, your mainboard will be equipped with or provide support for certain features.

This manual describes the most important properties of this mainboard.

Additional information on mainboards is provided in the "Basic information on mainboard" manual on the "User Documentation" or "OEM Mainboard" DVD, or on the Internet.

Interfaces and connectors

The location of the interfaces and connectors of your mainboard is specified at the beginning of the manual.

The components and connectors marked are not necessarily present on the mainboard.

External ports

The location of the external connections of your mainboard is specified at the beginning of the manual.

	PS/2 keyboard port, purple		PS/2 mouse port, green
	LAN port (RJ-45)		Microphone jack (mono), pink
	Audio input (line in), light blue or black		USB 2.0 - Universal Serial Bus, black
	Audio output (line out), light green or black		USB 3.0 – Universal Serial Bus, blue
	Serial interface, turquoise		DVI – I
		DP	DisplayPort

According to the USB 2.0 specifications, no more than 500 mA must be connected to the external USB ports.

The use of a new chip set technology can mean that the procedure is different when connecting older USB devices (Fullspeed, USB 1.1). This relates, for example, to older digital cameras of which only one (not two or more at the same time) can be operated at any one time. Newer devices with specification USB 2.0 are not affected by this.

Processor technical data

SoC Type (Package / Platform), Host Interface (CPU)

- **D3313-A:**
  AMD FT3 / GX-415GA eKabini 1.5 GHz quad core (15W) 4cM
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- **D3313-F:**
  AMD FT3b / GX-222GC SteppeEagle 2.2 / 2.4** GHz dual core (15W) 2CU GPU*
- **D3313-G:**
  AMD FT3b / GX-222GC SteppeEagle 2.2 / 2.4** GHz dual core (15W) 2CU GPU*
- **D3313-S1:**
  AMD FT3 / GX-210HA eKabini 1.0 GHz dual core (9W) 2cL
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  AMD FT3 / GX-420CA eKabini 2.0 GHz quad core (25W) 4cH
- **D3313-S4:**
  AMD FT3b / GX-222GC SteppeEagle 2.2 / 2.4** GHz dual core (15W) 2CU GPU*
- **D3313-S5:**
  AMD FT3b / GX-412HC SteppeEagle 1.2 / 1.6** GHz quad core (7W) 2CU GPU*

*CU = Computing Unit

**Boost Frequency

Installing/removing main memory

Technical data

Technology	DDR3–1333 / DDR3–1600 / DDR3–1866
Total size	1, 2, 4, 8 and 16 GByte (D3313-A / D3313-E / D3313-G) 1, 2, 4 and 8 GByte (D3313-B / D3313-F) 1, 2, 4, 8 and 16 Gbyte (D3313-S)
Module size	1, 2, 4 or 8 Gbyte per module

Only unbuffered 1.25V / 1.35V / 1.5V memory modules without ECC are permitted to be used.

DDR3 memory modules must comply with the PC3-10600, PC3-12800 or PC3-14900 specification.

Module 1 must be equipped first!

The mainboards have up to two module slots.

Depending on how the system is configured, the visible main memory may be reduced.

The installation/removal is described in the "Basic information on mainboard" manual.

BIOS Update

When should a BIOS update be performed?

Fujitsu Technology Solutions makes new BIOS versions available to ensure compatibility with new operating systems, new software or new hardware. In addition, new BIOS functions can be integrated.

A BIOS update should also always be performed if there is a problem that cannot be solved using new drivers or new software.

Where can I obtain BIOS updates?

You can find the BIOS updates on the Internet at "http://support.ts.fujitsu.com/".

BIOS update under Windows with DeskFlash program

A BIOS update can also be carried out under Windows with the *DeskFlash* program. The *DeskFlash* program is located on the "Drivers & Utilities" data carrier (under *Flash BIOS*).

or

- ► Download the "Flash BIOS Update – Desk Flash Instant" update file from our website to your PC.
- ► Run the update file.
- ► Follow the on-screen instructions.

BIOS update using a USB stick

- ► Make sure you have a bootable USB stick available.
- ► Download the "Admin package – Compressed Flash Files" for bootable USB sticks from our website to your PC.
- ► Unzip the *ZIP file* and copy the files onto your bootable USB stick.
- ► Reboot the PC.
- ► Select the USB stick as the boot device.
- ► Boot from the USB stick and start *DosFlash.BAT*.
- ► Follow the on-screen instructions.