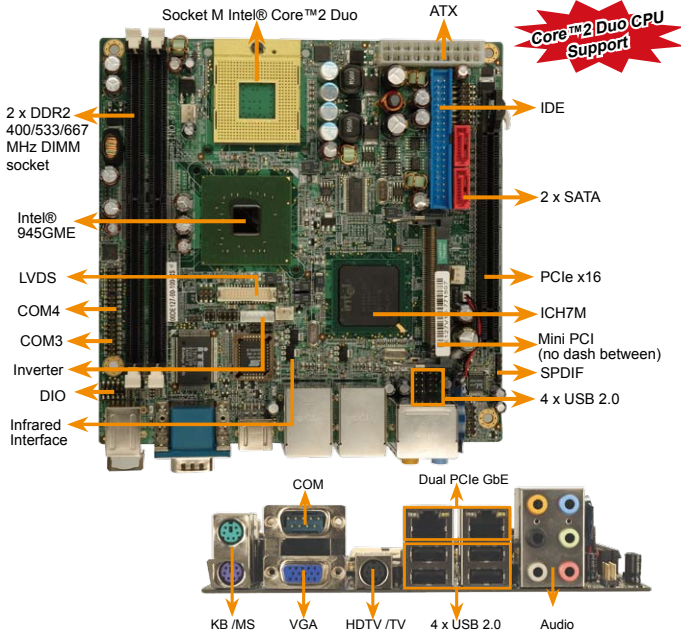


KINO-9451-R20

Intel® Core™2 Duo Mini-ITX motherboard with VGA/ HDTV, dual PCIe GbE, USB 2.0, SATA, Audio and PCIe x16 expansion



Features

1. Mini-ITX form factor and RoHS compliant
2. Intel® Core™2 Duo CPU that supports 667 MHz FSB
3. Dual-channel DDR2 400/533/667 MHz up to 4GB
4. Supports VGA, HDTV, 18/24-bit dual-channel LVDS with dual display support
5. Three RS-232, one RS-232/422/485, eight USB 2.0 and two SATA

Specifications

- ◆ CPU
Socket M Intel® Core™2 Duo, Core™ Duo/Solo with 533/667 MHz FSB, Intel® Celeron® M 533 MHz FSB
- ◆ System Chipset
Intel® 945GME + ICH7M
- ◆ BIOS
AMI Flash BIOS
- ◆ System Memory
2 x 240-pin dual-channel DDR2 400/533/667MHz up to 4GB
- ◆ Ethernet
Dual Broadcom BCM5787M PCIe GbE controllers
- ◆ IO Interface
3 x RS-232 1 x RS-232/422/485
8 x USB 2.0 2 x SATA
1 x IDE 2 x PS/2 KB/MS
- ◆ Expansions
1 x Mini PCI
1 x PCIe x16
- ◆ Digital I/O
18/24-bit digital I/O, 4-bit input / 4-bit output
- ◆ Infrared Interface
By pin header
- ◆ Super I/O
ITE IT8712F
- ◆ Display Interface
VGA Integrated in the Intel® 945GME 24-bit dual-channel LVDS
- ◆ Audio
Realtek ALC883 HD Audio codec with 2 streams audio support
- ◆ SSD
N/A
- ◆ Watchdog Timer
Software programmable supports 1 ~255 sec. system reset
- ◆ Power Supply
AT/ATX Power
- ◆ Power Consumption
5V@2.51A, 12V@2.15A, 3.3V@1.27A, 5Vsb@0.3A
(2.33 GHz Intel® Core™2 Duo T7600 with a 667 MHz FSB and a 533 MHz 2.0 GB DDR2 DIMM)
- ◆ Temperature
Operating: 0°C ~ 60°C (32°F ~ 140°F)
- ◆ Humidity
Operating Ambient: 5% ~ 95% non-condensing
- ◆ Dimensions
170 mm x 170 mm
- ◆ Weight: GW: 1100 g / NW: 400 g

Packing List

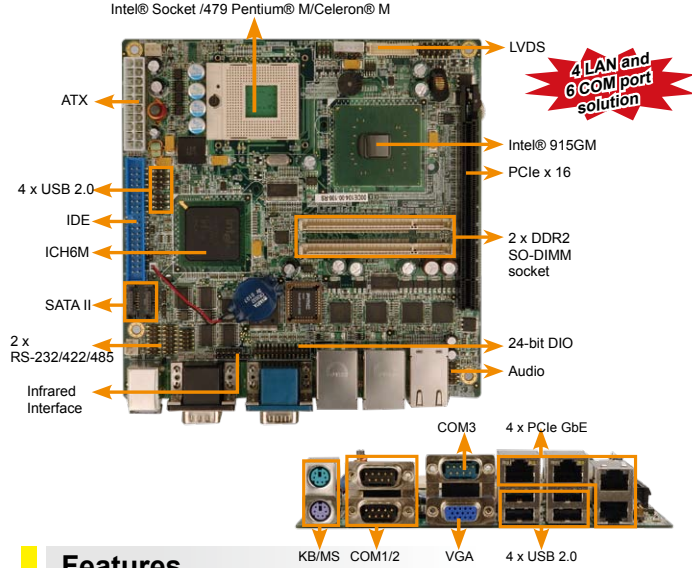
1 x KINO-9451 Single board computer	
1 x Mini Jumper Pack	
1 x ATA/66 Flat Cable (P/N: 32200-000052-RS)	
2 x SATA cable (P/N: 32000-0628000-RS)	
1 x SATA power cable (P/N: 32100-088600-RS)	
1 x Dual RS-232 Cable (P/N: 19800-000112-RS)	
1 x I/O Shielding (P/N: 45002-4520C0-00-RS)	
1 x Utility CD	1 x QIG

Ordering Information

Part No.	Description
KINO-9451-R20	Intel® Core™2 Duo CPU Mini-ITX Motherboard with VGA/LVDS with VGA/HDTV, Dual PCIe GbE, USB 2.0, SATA, audio and PCIe x16 expansion
19800-000110-RS	RS-232/422/485 cable
CB-USB02-RS	USB cable
CF-479B-RS	CPU cooler

KINO-9152-R20/9152G4-R20

Mini-ITX Motherboard, Intel® Pentium® M/Celeron® M CPU with Four PCIe GbE, VGA/LVDS, SATA, USB 2.0 and audio



Features

1. Intel® Pentium® M, Celeron® M processor with 400/533 MHz FSB
2. Dual-channel DDR2 400/533 MHz support up to 2GB
3. Four high performance Broadcom PCI Express Gigabit Ethernet controller
4. Support 18-bit Digital Input/Output function
4. 4 x RS-232, 2 x RS-232/422/485
5. 2 x SATA, 8 x USB 2.0

Specifications

- ◆ CPU
Socket 479 Intel® Pentium® M, Celeron® M with 400/533 MHz FSB
Intel® Celeron® M 1GHz zero cache processor
- ◆ System Chipset
Intel® 915GME + ICH6M
- ◆ BIOS
AMI Flash BIOS
- ◆ System Memory
2 x 200-pin dual-channel DDR2 400/533 MHz SO-DIMM up to 2GB
- ◆ Ethernet
Four Broadcom BCM5787M PCIe GbE chipset for KINO-9152G4
One Broadcom BCM5787M PCIe GbE chipset for KINO-9152/KINO-9152-1GZ
- ◆ I/O Interface
4 x RS-232 2 x RS-232/422/485 for KINO-9152G4
1 x RS-232 1 x RS-232/422/485 for KINO-9152/ KINO-9152-1GZ
8 x USB 2.0 2 x SATA
1 x IDE 2 x PS2 for KB/MS
- ◆ Expansions
1 x PCIe x16
- ◆ Digital I/O
24-bit digital I/O, 12-bit input/ 12-bit output
- ◆ Infrared Interface
1 x Infrared Interface by pin header
- ◆ Super I/O: ITE IT8712F
- ◆ Display Interface
VGA Integrated in Intel® 915GM
24-bit dual-channels LVDS by Intel® 915GME
- ◆ Audio
AC'97 codec with Realtek ALC655
- ◆ Watchdog Timer
Software programmable supports 1 ~255 sec. system reset
- ◆ Power Supply: AT/ATX Power
- ◆ Power Consumption
5V@5.18A, 12V@2.6A, 5Vsb@0.52A (Intel® Pentium® M 2.13GHz/533 MHz with 1GB DDR2, 3D MARK2001)
- ◆ Temperature
Operating: 0°C ~ 60°C (32°F ~ 140°F)
- ◆ Humidity: Operating: 5% ~ 95% non-condensing
- ◆ Dimension: 170 mm x 170 mm
- ◆ Weight: GW: 1000 g / NW: 370 g

Packing List

1 x KINO-9152G4/ KINO-9152 Single board computer	
1 x Mini Jumper Pack	
1 x ATA66 Flat Cable (P/N: 32200-000052-RS)	
2 x SATA cable (P/N: 32000-0628000-RS)	
1 x SATA power cable (P/N: 32100-088600-RS)	
1 x Audio cable (P/N: 32000-072100-RS)	
1 x I/O Shielding (P/N: 45014-0009C0-00-RS : KINO-9152G4) (P/N: 45014-0010C0-00-RS : KINO-9152/ KINO-9152-1GZ)	
1 x Utility CD	1 x QIG

Ordering Information

Part No.	Description
KINO-9152-R20	Mini-ITX Motherboard, Intel® Pentium® M/Celeron® M CPU with VGA/ LVDS, single PCIe GbE, SATA, USB 2.0 and audio
KINO-9152-1GZ-R20	Mini-ITX Motherboard with ULV Intel® Celeron® M 1GHz zero cache CPU with VGA/LVDS, single PCIe GbE, SATA, USB 2.0 and audio
KINO-9152G4-R20	Mini-ITX Motherboard, Intel® Pentium® M/Celeron® M CPU with VGA/ LVDS, Four PCIe GbE, SATA, USB 2.0 and audio
CB-USB02-RS	USB Cable
CF-479B-RS	CPU cooler (50 mm x 50 mm x 26 mm, 50W)
32200-000049-RS	Single RS-232 cable
32200-833600-RS	RS-422/485 cable

1 Industrial Computing Solutions

2 Embedded Computing Solutions

3 RISC-Based Embedded Solutions

4 Industrial Data Collector/ Server Solutions

5 Video Capture Solutions

6 I/O Communication Solutions

7 Panel Solutions

8 Power Supply/ Network Communication/ Peripherals