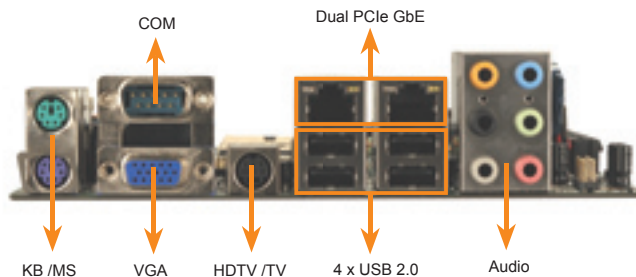
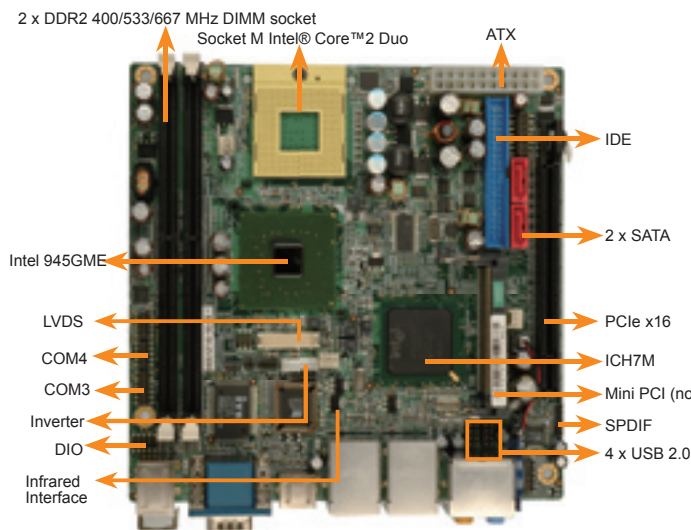


# KINO-9451

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



KINO-9451 I/O side is the same as KINO-9452

FSB 667    DDR2 667



## Specifications

- ◆ CPU  
Socket M Intel® Core™2 Duo, Core™ Duo/Solo with a 533/667 MHz FSB, Intel® Celeron® 533 MHz FSB
- ◆ System Chipsets  
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
- ◆ Expansion  
1 x Mini PCI  
1 x PCIe x16
- ◆ Digital I/O  
8-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  
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

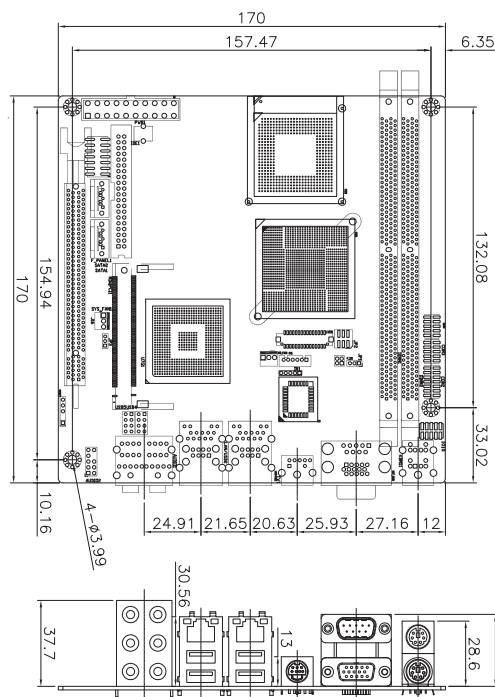
## Packing List

|   |
|---|
| 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: 32200-028401-RS)            |
| 1 x I/O Shielding (P/N: 45002-4520C00-0-RS)             |
| 1 x Utility CD, 1 x HDTV out cable (P/N32000-083100-RS) |
| 1 x QIG   |

## 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, 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

## Dimensions (mm)



## 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 |
| 32200-000077-RS | RS-232/422/485 Cable  |
| CB-USB02-RS     | USB Cable   |
| CF-479B-RS      | CPU Cooler  |

1  
Application  
Server  
Platform

2  
Single  
Board  
Computer

3  
IBX Series  
POS PC

4  
AFOLUX  
POS  
Panel PC

5  
Video  
Capture  
Card

6  
KAMIO  
RISC

7  
IOVU  
Open HMI

8  
VITO  
Universal  
Controller

9  
DINO  
BLADE

10  
LCD  
Product  
Series

11  
Embedded  
System

12  
Industrial  
Computer  
Chassis

13  
Power  
Supply

14  
Peripherals