**KINO-DBT**

*Mini-ITX SBC supports 22nm Intel® Atom™ or Celeron® on-board SoC, VGA/DVI/iDP, dual Realtek PCIe GbE, USB 3.0, SATA, HD Audio, RoHS*

### Specifications
- **SoC**
  - Intel® Atom™ E3845 on-board SoC (1.91GHz, quad-core, 2MB cache, TDP=10W)
  - Intel® Atom™ E3827 on-board SoC (1.75GHz, dual-core, 1MB cache, TDP=8W)
  - Intel® Atom™ E3826 on-board SoC (1.4GHz, dual-core, 1MB cache, TDP=7W)
  - Intel® Atom™ E3825 on-board SoC (1.33GHz, dual-core, 1MB cache, TDP=6W)
  - Intel® Atom™ E3815 on-board SoC (1.4GHz, single-core, 1MB cache, TDP=5W)
  - Intel® Celeron® J1900 on-board SoC (2GHz, quad-core, 2MB cache, TDP=10W)
  - Intel® Celeron® N3350 on-board SoC (1.1GHz, dual-core, 2MB cache, TDP=7W)
  - Intel® Celeron® N3350 on-board SoC (1.1GHz, dual-core, 2MB cache, TDP=10W)
- **BIOS**
  - AMI UEFI BIOS
- **Memory**
  - Two 204-pin 1066/1333 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM support up to 8 GB (N2807, E3845, E3835, E3834, E3837, E3832, E3832)
  - One 204-pin 1066/1333 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM support up to 4 GB (N2807, E3828, E3815)
- **Graphics Engine**
  - Intel® HD Graphics Gen 7 engine with 4 execution units, supporting DX11.1, OpenGL 4.2 and OpenCL1.2
- **Display Output**
  - Dual independent display
  - VGA (up to 2560x1920@60 Hz)
  - DVI-D (up to 1920x1080@60 Hz)
- **iDP (IEI Internal DisplayPort)**
  - iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 2560x1920@60 Hz)
  - iDP converter cards with brackets
- **Audio**
  - Realtek ALC662 HD Audio codec supports 5.1-channel
- **Ethernet**
  - Dual Realtek RTL8111E PCIe GbE controller
  - Dual Intel® PCIe x1 slot (with PCIe x1 signal)
- **TPM**
  - 1 x TPM connector (2x10 pin)
- **Front Panel**
  - 2 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
  - 1 x LAN LED: 2 x LAN LED (1x2 pin)
- **Expansion**
  - 1 x Full-size PCIe Mini card slot
  - 1 x PCIe x4 slot (with PCIe x1 signal)
  - 1 x mSATA share with SATA port 2
- **Digital I/O**
  - 2GB 1.35V DDR3L 1.2V power
- **AC-DC Input**
  - 1 x Front audio (line-out, line-in, mic-in) on rear I/O
- **Power Supply**
  - 1 x Power Supply 12V DC input
  - 1 x External 4-pin DIN DC jack
  - 1 x Internal 4-pin (2x2) power connector
  - Power Consumption: 12V@1.64A (Intel® Celeron® J1900 CPU with 4 GB 1333 MHz DDR3L memory)
  - Operating Temperature: -20°C – 50°C
  - Storage Temperature: -30°C – 70°C
  - Operating Humidity: 5% – 95%, non-condensing
  - Dimensions: 170mm x 170mm
  - Weight: 1900g

### Features
- **Mini-ITX SBC with 22mm Intel® Atom™ on-board SoC**
  - 1.35V DDR3L 1066/1333 MHz SDRAM supporting up to 8 GB of memory
- **Dual independent display support**
  - COM, USB 3.0, SATA Gb/s, PCIe Mini, mSATA and HD Audio support
  - Support Intel® VT-x technology

### Ordering Information

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>KINO-DBT-J19001-R10</td>
<td>Mini-ITX SBC supports Intel® Celeron® dual-core processor J1900 (10W), VGA/DVI/iDP, Dual Intel® PCIe GbE, USB 3.0, SATA, HD Audio and RoHS</td>
</tr>
<tr>
<td>KINO-DBT-N29301-R10</td>
<td>Mini-ITX SBC supports Intel® Celeron® quad-core processor N2930 (7.5W), VGA/DVI/iDP, Dual Intel® PCIe GbE, USB 3.0, SATA, HD Audio and RoHS</td>
</tr>
<tr>
<td>KINO-DBT-N28071-R10</td>
<td>Mini-ITX SBC supports Intel® Celeron® quad-core processor N2837 (4.5W), VGA/DVI/iDP, Dual Intel® PCIe GbE, USB 3.0, SATA, HD Audio and RoHS</td>
</tr>
<tr>
<td>KINO-DBT-E38XX1-R10**</td>
<td>Mini-ITX SBC supports Intel® Atom™ processor E38XX, VGA/DVI/iDP, Dual Intel® PCIe GbE, USB 3.0, SATA, HD Audio and RoHS</td>
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<tr>
<td>32005-000300-100-RS</td>
<td>PS/2 KB/MS-Y cable without bracket, 140mm/120mm</td>
</tr>
<tr>
<td>32005-002000-100-RS</td>
<td>RS-232 cable, 200mm, P=2.0</td>
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<tr>
<td>32005-003800-300-RS</td>
<td>RS-422/485 cable, 200mm, P=2.0</td>
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<tr>
<td>DP-DVI-R10</td>
<td>DisplayPort to DisplayPort converter board (for IEI iDP connector)</td>
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<tr>
<td>DP-HDMI-R10</td>
<td>DisplayPort to HDMI converter board (for IEI iDP connector)</td>
</tr>
<tr>
<td>DP-LVDS-R10</td>
<td>DisplayPort to 24-bit dual-channel LVDS converter board (for IEI iDP connector)</td>
</tr>
<tr>
<td>DP-VGA-R10</td>
<td>DisplayPort to VGA converter board (for IEI iDP connector)</td>
</tr>
<tr>
<td>TPM-IN01-R11</td>
<td>20-pin Infineon TPM module, software management tool, firmware v3.17</td>
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**By order production, MOQ: 100**