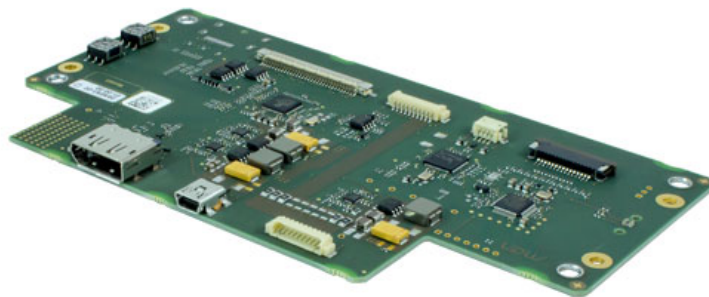


# AE63 – Display Control Board

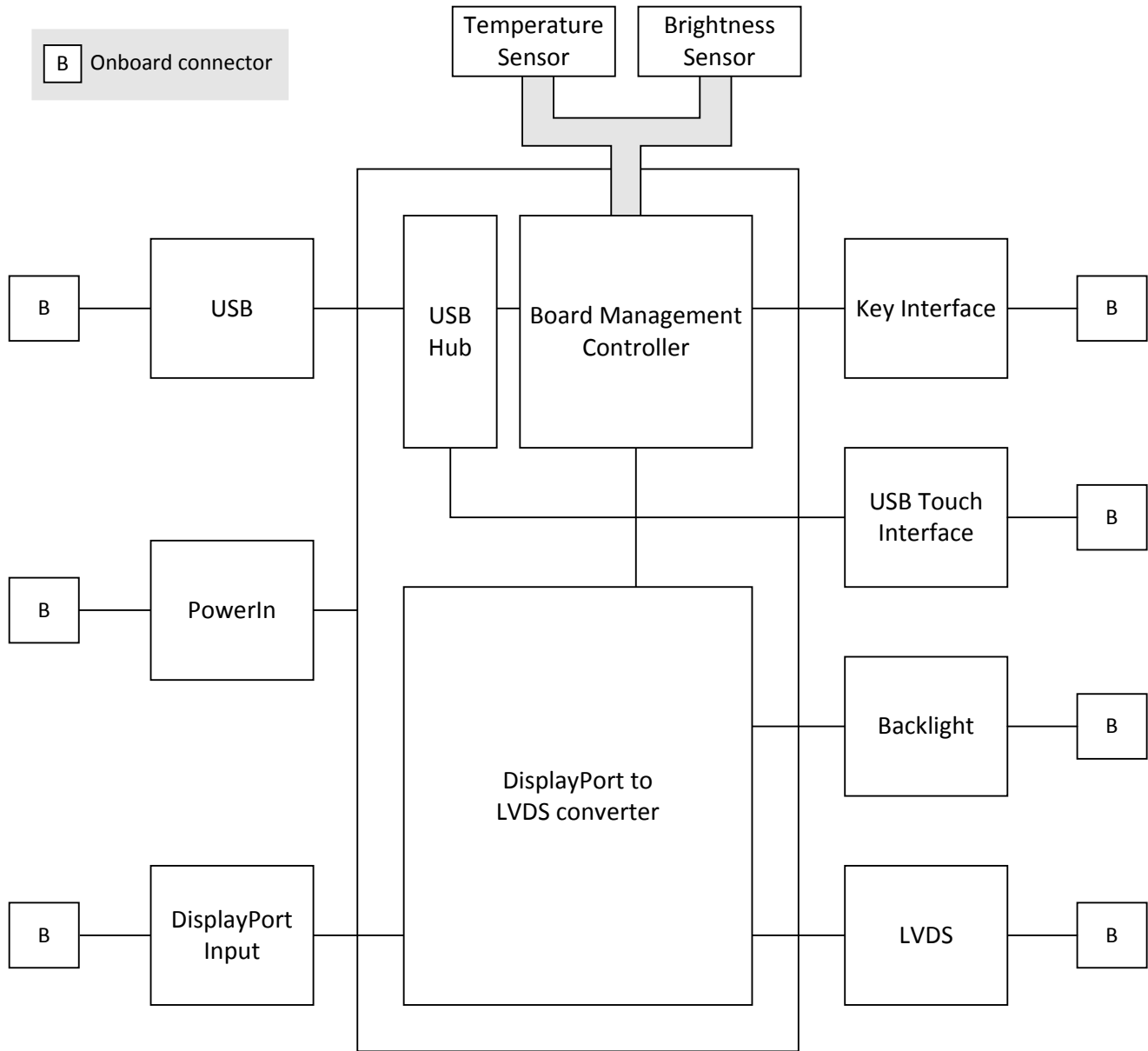
- **DisplayPort® to LVDS adapter**
- **Temperature monitoring**
- **Backlight control**
- **Touch interface**
- **Key interface**
- **12 to 24 V power supply**
- **-40 to +85°C operating temperature (screened)**



The AE63 is a display controller board providing a graphics interface which converts DisplayPort® signals into LVDS signals. As DisplayPort® is commonly used in modern computers, the AE63 allows for any kind of display to be connected to box computers like MEN's [BC50M](#).

The adapter board also includes a temperature sensor and a brightness sensor to control the display and its backlight. Additionally a touch controller can be connected via USB. A key interface for connecting the display's external keys is also available on the AE63. The board operates within an input voltage range of 12 V to 24 V and is suitable for operating temperatures of -40 to 85°C.

# Diagram



## Technical Data

<b>Onboard Connectors</b>	<ul style="list-style-type: none"> <li>■ DisplayPort® input interface             <ul style="list-style-type: none"> <li>□ 20-pin connector</li> </ul> </li> <li>■ Dual channel LVDS interface             <ul style="list-style-type: none"> <li>□ 30-pin connector</li> </ul> </li> <li>■ USB type B client interface             <ul style="list-style-type: none"> <li>□ 5-pin connector</li> </ul> </li> <li>■ Power input interface             <ul style="list-style-type: none"> <li>□ 10-pin connector</li> </ul> </li> <li>■ Backlight interface             <ul style="list-style-type: none"> <li>□ 10-pin connector</li> </ul> </li> <li>■ Key input interface             <ul style="list-style-type: none"> <li>□ 15-pin ZIF connector</li> <li>□ For connection of external keys</li> </ul> </li> <li>■ Touch interface             <ul style="list-style-type: none"> <li>□ 4-pin connector with lock mechanism</li> <li>□ USB connector for connection of external touch controller</li> </ul> </li> </ul>
<b>Miscellaneous</b>	<ul style="list-style-type: none"> <li>■ Temperature sensor</li> <li>■ Brightness sensor for backlight control</li> </ul>
<b>Electrical Specifications</b>	<ul style="list-style-type: none"> <li>■ Supply voltage/power consumption:             <ul style="list-style-type: none"> <li>□ +12..24 V (-10%/+10%), tbd A typ/max.</li> </ul> </li> </ul>
<b>Mechanical Specifications</b>	<ul style="list-style-type: none"> <li>■ Dimensions: approx. 170 mm x 90 mm</li> <li>■ Weight: 52 g</li> </ul>
<b>Environmental Specifications</b>	<ul style="list-style-type: none"> <li>■ Temperature range (operation): -40..+85°C (screened)</li> <li>■ Temperature range (storage): -40..+85°C</li> <li>■ Relative humidity (operation): max. 95% non-condensing</li> <li>■ Relative humidity (storage): max. 95% non-condensing</li> <li>■ Altitude: -300 m to +3000 m</li> <li>■ Shock: 50 m/s<sup>2</sup>, 30 ms (EN 61373)</li> <li>■ Vibration (function): 1 m/s<sup>2</sup>, 5 Hz - 150 Hz (EN 61373)</li> <li>■ Vibration (lifetime): 7.9 m/s<sup>2</sup>, 5 Hz - 150 Hz (EN 61373)</li> <li>■ Conformal coating on request</li> </ul>
<b>MTBF</b>	<ul style="list-style-type: none"> <li>■ tbd h @ 40°C according to IEC/TR 62380 (RDF 2000)</li> </ul>
<b>EMC Conformity</b>	<ul style="list-style-type: none"> <li>■ When integrated into an EMC-protected housing:             <ul style="list-style-type: none"> <li>■ EN 50121-3-2 (tables 5 and 6) / EN 55011 (radio disturbance)</li> <li>■ EN 50121-3-2 (table 9) / EN 61000-4-2 / ISO 10605 (ESD)</li> <li>■ EN 50121-3-2 (table 9) / EN 61000-4-3 (electromagnetic field immunity)</li> <li>■ EN 50121-3-2 (table 8) / EN 61000-4-4 (burst)</li> <li>■ EN 50121-3-2 (table 7/8) / EN 55011 / 2004/104/EC; 2005/83/EC; ISO7637-2 (conducted emission, power line)</li> <li>■ EN 50155 / EN 61000-4-5 (surge)</li> <li>■ ISO 11452-5 (radiation immunity)</li> </ul> </li> </ul>

## Ordering Information

<b>Standard AE63 Models</b>	<b>08AE63-00</b>	DisplayPort® to LVDS converter, temperature sensor, ambient light, touch input, key control, input voltage 12V..24V, -40°..+85°C screened
<b>Related Hardware</b>	<b>02G020-02</b>	Intel® Core™ i7-620UE, 1.06 GHz, 2 GB DDR3 DRAM with ECC, mSATA and uSD socket, -40..+85°C Tx screened (-40..+70°C, with up to +85°C for 10 minutes)
	<b>02G020-03</b>	Intel® Core™ i7-610E, 2.53 GHz, 4 GB DDR3 DRAM with ECC, mSATA and uSD socket, 0..+60°C
	<b>02G214-00</b>	4HP multi-display controller, 4 DisplayPort® 1.2 graphics outputs, 0..+60°C
	<b>09BC50M00</b>	Box computer with dual graphics connection, 24 VDC PSU, AMD T48N, 1.4 GHz, 2 GB RAM, SD card slot, mSATA slot, 2x DisplayPort®, 2x Gb Ethernet, 1x USB, 2x SA-Adapter™ slot (UARTs, fieldbuses), 2x PCI Express® Mini card slot, 2x SIM card slot, -40..+70(+85)°C screened, IP40, EN 50155, prepared for E1

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