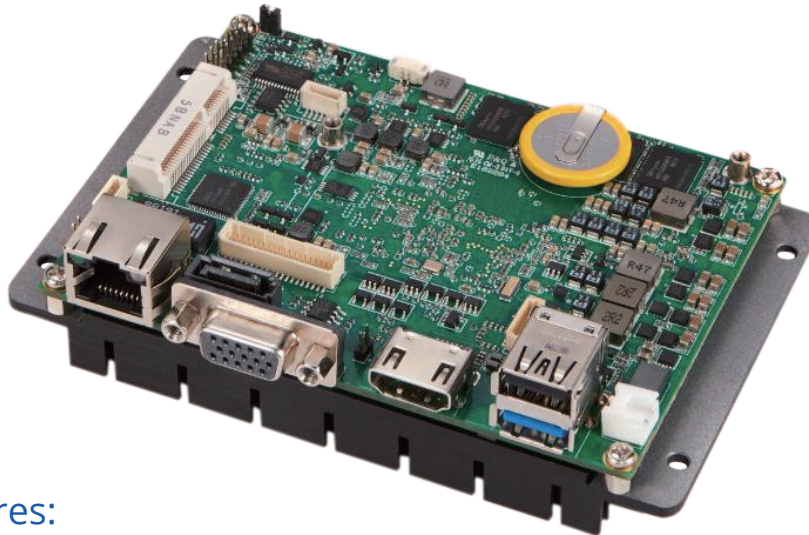**POLYHEX**

Embedded Motherboard Based on Intel Atom J1900 Quad Core CPU
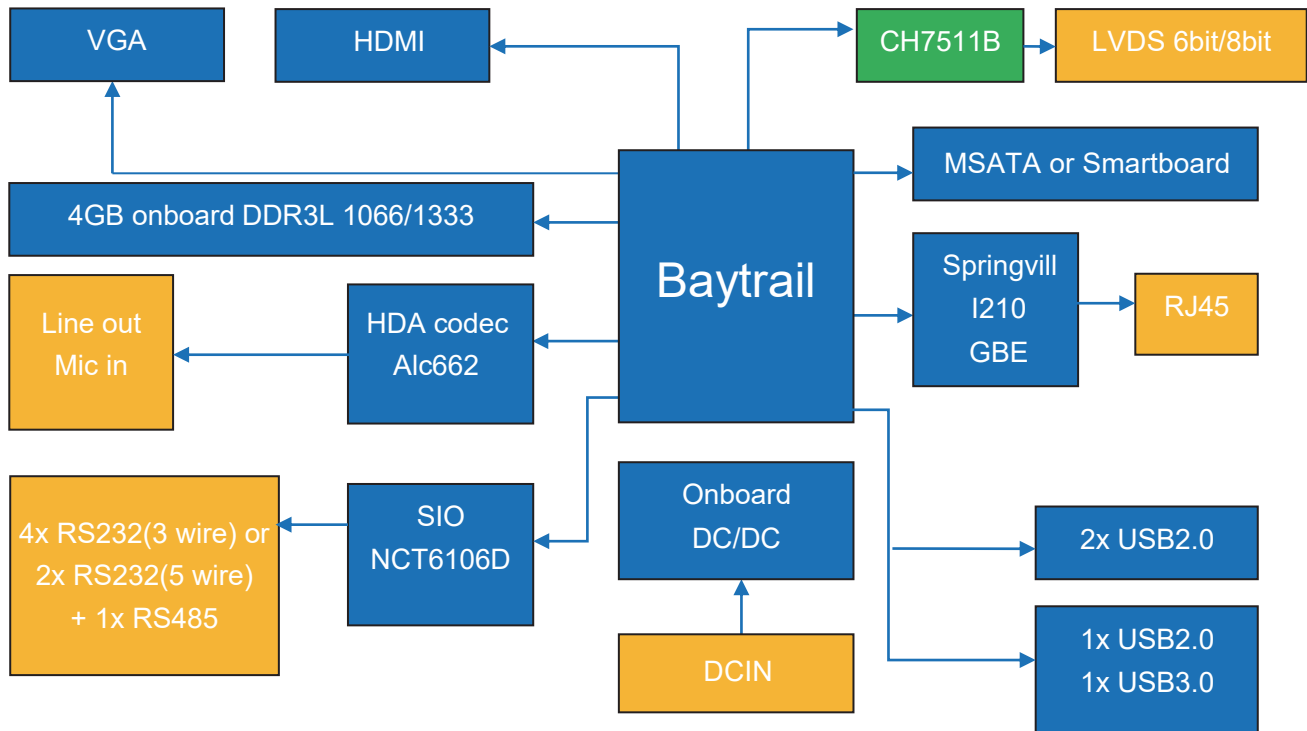

Main Features:

· Intel Atom J1900 Quad Core, 2.0GHz, 10W

· Onboard 4GB DDR3L Max. 1066MHz/1333MHz

· 7th Gen. Intel Graphics, supports OpenGL 3.0, OpenCL 1.2, DX11, H.264, MPEG2, MCV, VC-1, VP8

· Support VGA, HDMI1.4a, LVDS(6bit and 8bit optional)

· Support 10Mbps/100Mbps/1000Mbps Ethernet(Intel I210-AT Ethernet), SATA, mSATA(half-height) or smartboard through mPCIe

· With USB 2.0, USB 3.0, serial ports and GPIO(smartboard expansion)

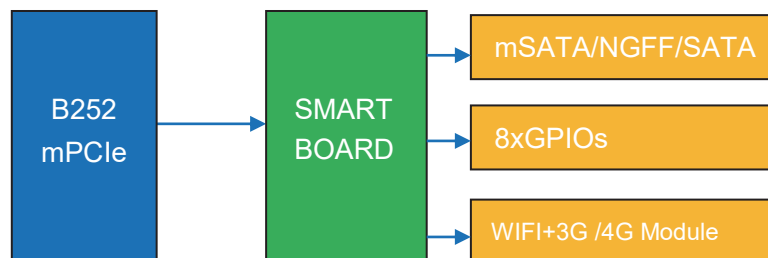· -20℃ to +75℃ operating temperature(-40℃ to +85℃ optional)

Specification:

Form Factor	2.5" motherboard
CPU	Intel Atom J1900 Quad Core, 2.0GHz, 10W
Memory	Onboard 4GB DDR3L Max. 1066MHz/1333MHz, voltage 1.35V
SATA	Support 1 x mSATA or 1 x Expansion Smartboard(support 1 x mSATA, 1 x NGFF and 1 x SATA)
Network	Integrated Intel I210-AT Ethernet, support 1 x 10Mbps/100Mbps/1000Mbps RJ45 port
Video	1 x LVDS(Max. resolution 1900 x 1200), 1 x HDMI 1.4a(front interface, Max. resolution 1920 x 1200), 1 x VGA(front interface, Max. resolution 2560 x 1600). Support 2lane asynchronous display.
Audio	ALC662 HD Audio Controller with Line OUT and Mic IN
USB	2 x USB 2.0(built-in), 1 x USB 3.0(front), 1 x USB 2.0(front)
Serial Ports	4 x RS232(3-wire) or 2 x RS232(5-wire), 1 x RS485
Power Supply	DC +9V~+21V, recommend DC +12V 5A
Operating Temp.	-20℃ to +75℃(-40℃ to +85℃ optional)
Cooling	Fanless
Dimension	110mm x 82mm
OS	Windows 7/8/10, WES7, WES8, Linux, VxWorks

Motherboard:

```
VGA        HDMI                          CH7511B    LVDS 6bit/8bit

                                         MSATA or Smartboard

4GB onboard DDR3L 1066/1333    Baytrail

                                         Springvill
                                         I210        RJ45
Line out        HDA codec                GBE
Mic in          Alc662

4x RS232(3 wire) or   SIO        Onboard                2x USB2.0
2x RS232(5 wire)      NCT6106D   DC/DC
+ 1x RS485                                              1x USB2.0
                                 DCIN                   1x USB3.0
```

Smartboard:

```
B252       SMART       mSATA/NGFF/SATA
mPCIe      BOARD
                       8xGPIOs

                       WIFI+3G /4G Module
```

POLYHEX
Beyond the Embedded Deployment