

1.Specifications:

| | |
|---------------------------------|--|
| Model | MM1070B5-8G V2(85W) |
| GPU Architecture | NVIDIA Pascal |
| Graphics Processing Unit | NVIDIA GeForce GTX1070m |
| NVIDIA CUDA Core | 2048 |
| Bus Type | MXM3 .1 / up to PCI Express 3.0 |
| Graphics Clock | 1443MHz / 1645MHz (Boost) |
| Single Precision FLOPS | 6552GFLOPS |
| Double Precision FLOPS | 230.6GFLOPS |
| Memory Size | 8G 256bit GDDR5 |
| Memory Clock | 2002MHz (8.0Gbps) |
| Memory Bandwidth | 256.3 GB/s |
| Display Features | DP_A: Display Port1.4++ DP_B: Display Port1.4++ DP_C: HDMI2.0 DP_D: Display Port1.4 |
| Max Resolution | DP:7680x4320@120Hz HDMI:3840x2160@60Hz |
| Board Power | 85W |
| Board Dimensions | MXM Graphics Module Version 3.1 Type B (105x82mm) |
| Number of output Channel | 4 |
| Operation System | Windows 7/8/8.1/10 32/64bit · Linux 32/64bit |
| VIN Range | DC 12~19V, 3.3V & 5V; +/-5% |

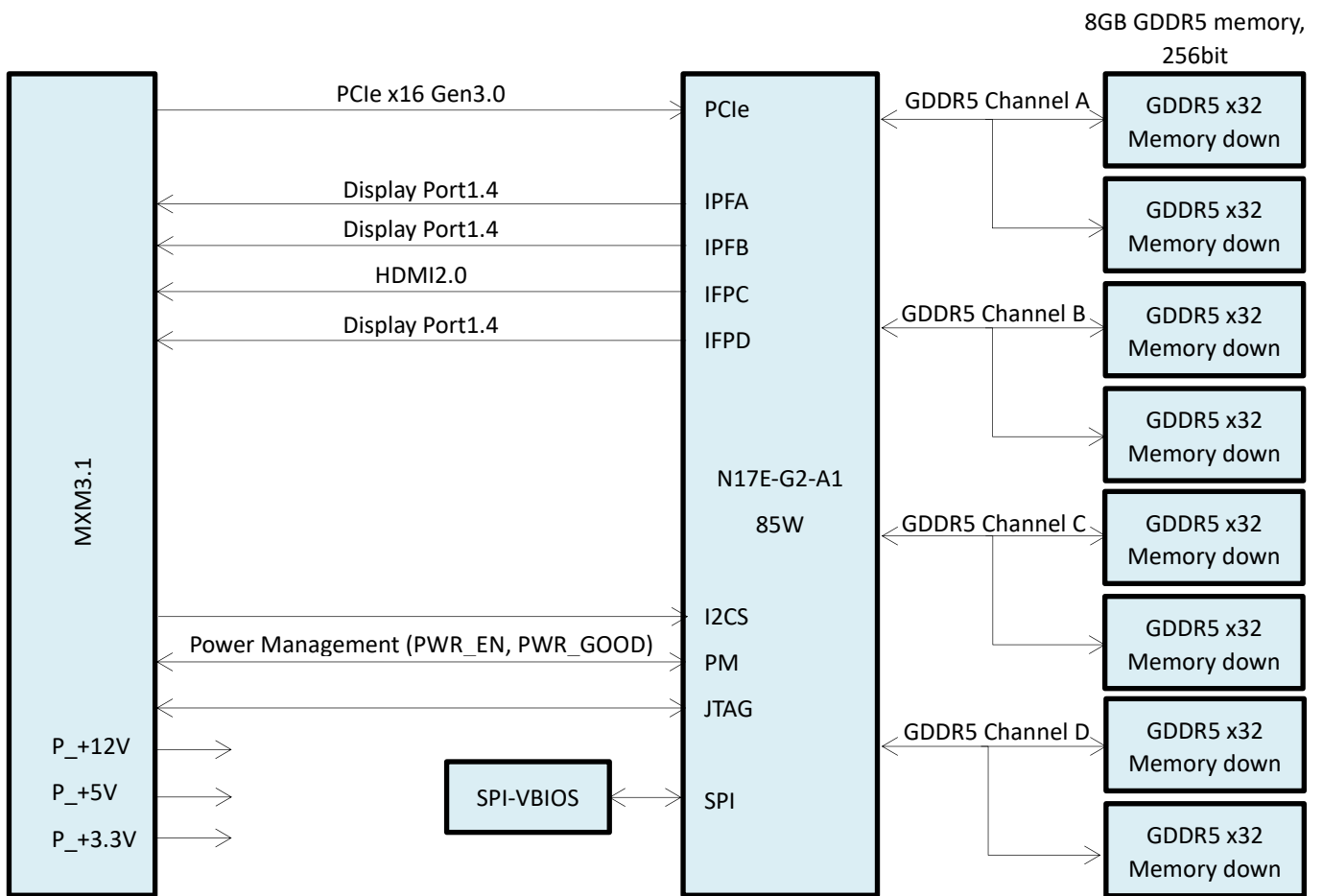
| | |
|-----------------------|-------------------------|
| OpenGL | 4.5 |
| OpenCL | 1.2 |
| DirectX | 12 |
| Video Playback | H.265, VC1, MPEG2 1080P |

| | |
|------------------------------|------------------------|
| Operating Temperature | 0~45°C |
| Storage Temperature | -20~75°C |
| Operating Humidity | 0~95% (non-condensing) |
| Storage Humidity | 10~90% |

| Surround (Landscape) | Surround (Portrait) |
|-----------------------------|----------------------------|
| 2x1(3840x1080@60Hz) | 2x1(2160x1920@60Hz) |
| 1x2(1920x2160@60Hz) | 1x2(1080x3840@60Hz) |
| 3x1(5760x1080@60Hz) | 3x1(3240x1920@60Hz) |
| 1x3(1920x3240@60Hz) | 1x3(1080x5760@60Hz) |
| 4x1(7680x1080@60Hz) | 4x1(1080x7680@60Hz) |
| 1x4(7680x1080@60Hz) | 1x4(1080x7680@60Hz) |
| 2x2(3840x2160@60Hz) | 2x2(2160x3840@60Hz) |

**Total resolution based on every display resolution is 1920*1080@60Hz.*

2.Block Diagram:



3.MXM Board Outlines:

Figure 3.1 shows the board outlines (top side view) for Type B MXM modules. An additional system keep-out of 0.5mm [0.020] per side is allowed on the PCB to accommodate whatever means of production panelization is required. This additional clearance is above and beyond the dimensional limits presented here. The location of these features is not specified or controlled.

Figure 3.1: Board Outlines

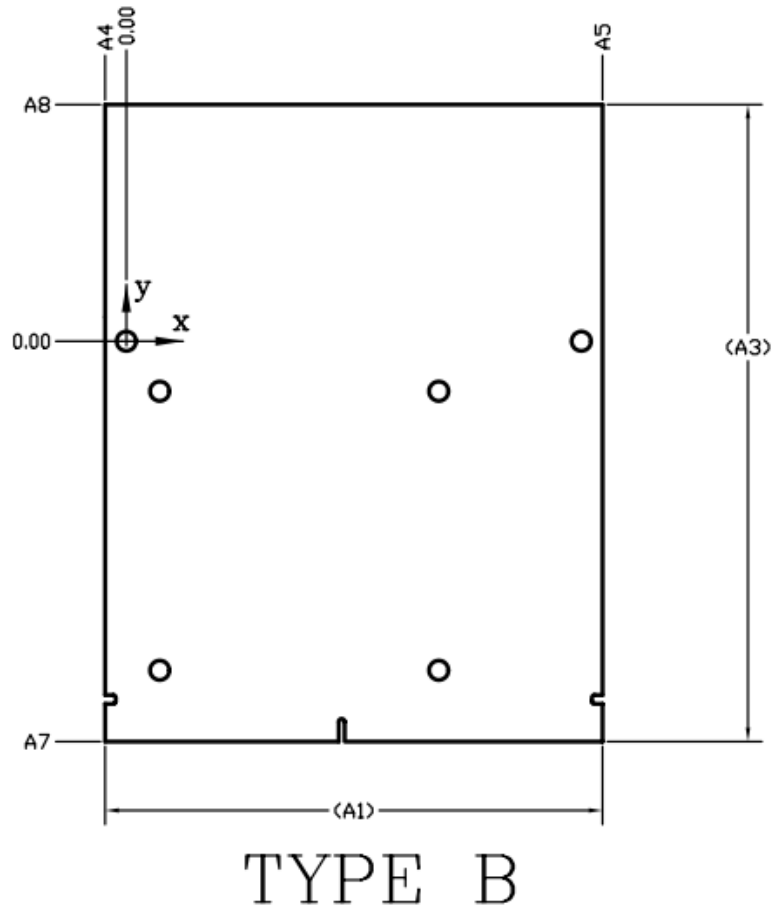


Table 3.1: Board Outline Dimensions

| Symbol | [mm] | | | [in] | | |
|--------|-------|--------|-------|-------|-------|-------|
| | min | nom | max | min | nom | max |
| A1 | | 82.00 | | | 3.228 | |
| A3 | | 105.00 | | | 4.134 | |
| A4 | 3.37 | 3.50 | 3.63 | 0.133 | 0.138 | 0.143 |
| A5 | 78.37 | 78.50 | 78.63 | 3.085 | 3.091 | 3.096 |
| A7 | 65.87 | 66.00 | 66.13 | 2.593 | 2.598 | 2.604 |
| A8 | 38.87 | 39.00 | 39.13 | 1.530 | 1.535 | 1.541 |

Figure 3.2: Board Slots Detail

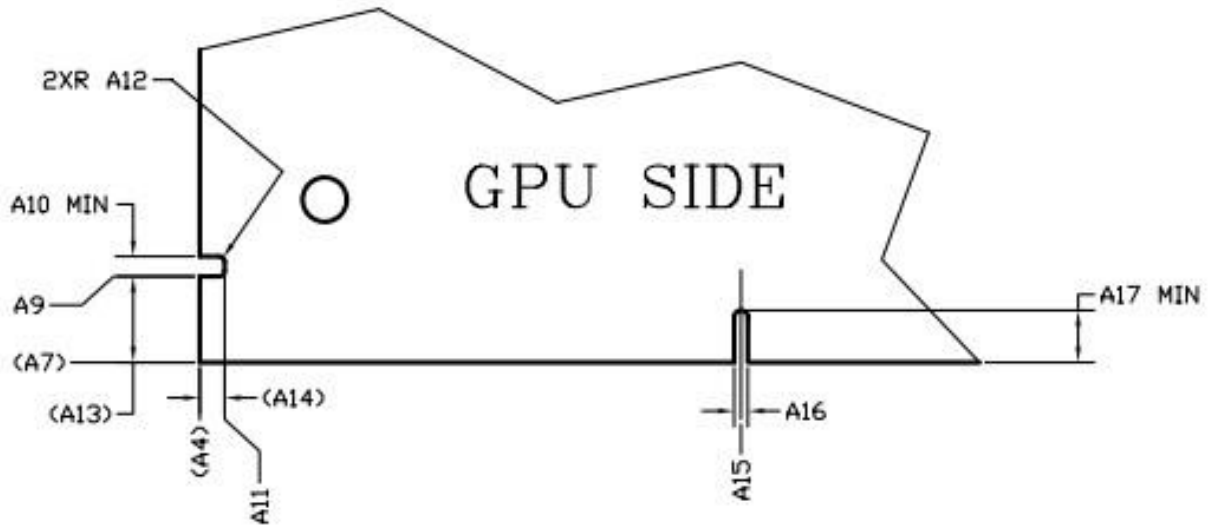


Table 3.2: Board Slots Dimensions

| Symbol | [mm] | | | [in] | | |
|--------|-------|-------|-------|-------|-------|-------|
| | min | nom | max | min | nom | max |
| A4 | | 3.50 | | | 0.138 | |
| A7 | | 66.00 | | | 2.598 | |
| A9 | 59.67 | 59.80 | 59.93 | 2.349 | 2.354 | 2.359 |
| A10 | 1.45 | | | 0.057 | | |
| A11 | 1.57 | 1.70 | 1.83 | 0.062 | 0.067 | 0.072 |
| A12 | 0.32 | 0.50 | 0.58 | 0.013 | 0.020 | 0.023 |
| A13 | | 6.20 | | | 0.244 | |
| A14 | | 1.80 | | | 0.071 | |
| A15 | 35.37 | 35.50 | 35.63 | 1.393 | 1.398 | 1.403 |
| A16 | 0.95 | 1.00 | 1.05 | 0.037 | 0.039 | 0.041 |
| A17 | 3.75 | | | 0.148 | | |

4.MXM PCB Mounting Holes:

All MXM version 3.1 modules have 6 holes. Two are used to secure the board to the system and the other four to fasten the thermal solution to the module.

Figure 4.1: Mounting Holes

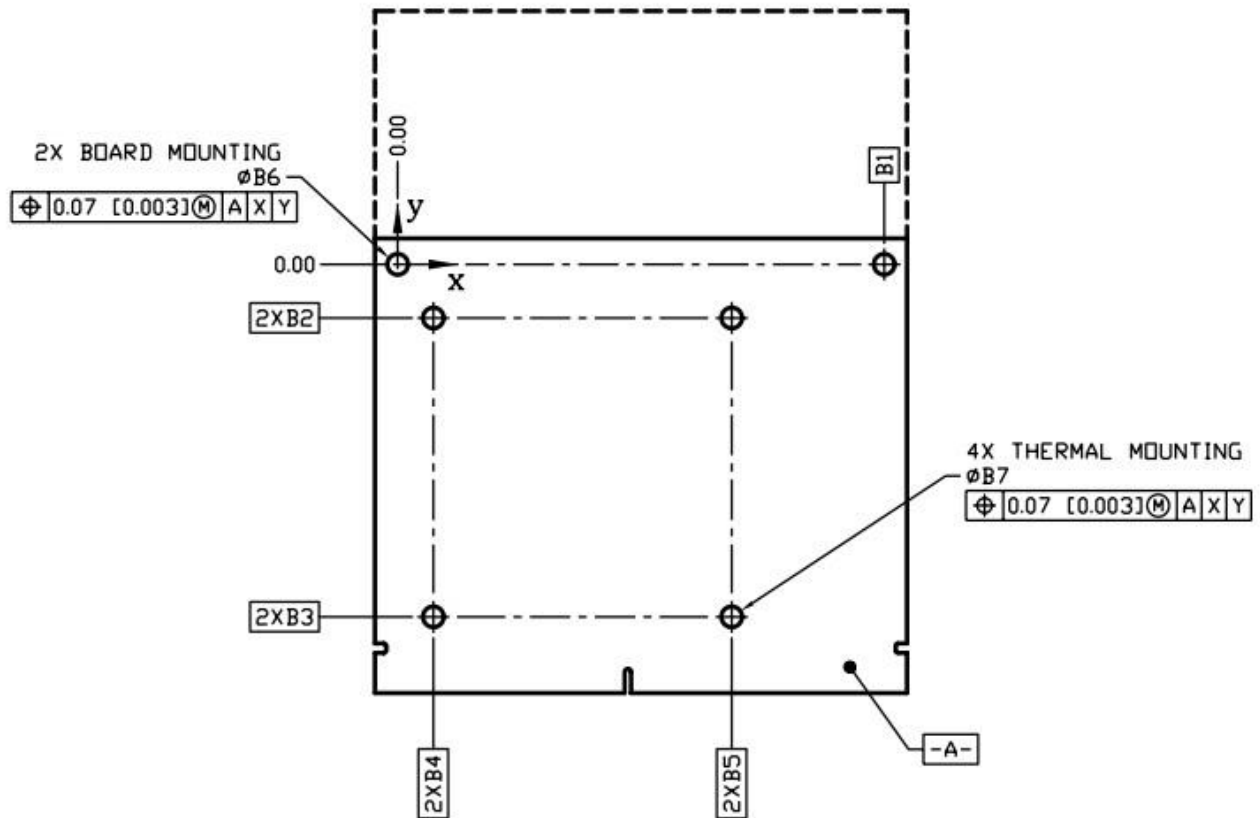


Table 4.1: Mounting Holes Dimensions

| Symbol | [mm] | | | [in] | | |
|--------|------|-------|------|-------|-------|-------|
| | min | nom | max | min | nom | max |
| B1 | | 75.00 | | | 2.953 | |
| B2 | | 8.25 | | | 0.325 | |
| B3 | | 54.25 | | | 2.136 | |
| B4 | | 5.50 | | | 0.217 | |
| B5 | | 51.50 | | | 2.028 | |
| B6 | 3.07 | 3.20 | 3.33 | 0.121 | 0.126 | 0.131 |
| B7 | 3.07 | 3.20 | 3.33 | 0.121 | 0.126 | 0.131 |

5.Connector Pinout:

Table 5.1, Table 5.2 and Table 5.3 list the connector pinout.

Table 5.1: Connector Pinout

| Pin | Signal Name | Pin | Signal Name | Pin | Signal Name | Pin | Signal Name |
|-----|------------------------|-----|------------------------|-----|-------------|-----|-------------|
| E1 | PWR_SRC | E2 | PWR_SRC | 51 | PEX_RX15 | 52 | GND |
| E3 | GND | E4 | GND | 53 | GND | 54 | PEX_TX14# |
| 1 | 5V | 2 | PRSNT_R | 55 | PEX_RX14# | 56 | PEX_TX14 |
| 3 | 5V | 4 | WAKE | 57 | PEX_RX14 | 58 | GND |
| 5 | 5V | 6 | PWR_GOOD | 59 | GND | 60 | PEX_TX13# |
| 7 | 5V | 8 | PWR_EN | 61 | PEX_RX13# | 62 | PEX_TX13 |
| 9 | 5V | 10 | 27MHZ_REF | 63 | PEX_RX13 | 64 | GND |
| 11 | GND | 12 | GND | 65 | GND | 66 | PEX_TX12# |
| 13 | GND | 14 | LVDS_U_HPD DP_F_HPD | 67 | PEX_RX12# | 68 | PEX_TX12 |
| 15 | GND | 16 | RSVD | 69 | PEX_RX12 | 70 | GND |
| 17 | GND | 18 | PWR_LEVEL | 71 | GND | 72 | PEX_TX11# |
| 19 | PEX_STD_SW# | 20 | TH_OVERT# | 73 | PEX_RX11# | 74 | PEX_TX11 |
| 21 | VGA_DISABLE# | 22 | TH_ALERT# | 75 | PEX_RX11 | 76 | GND |
| 23 | PNL_PWR_EN | 24 | TH_PWM | 77 | GND | 78 | PEX_TX10# |
| 25 | PNL_BL_EN | 26 | GPIO0 | 79 | PEX_RX10# | 80 | PEX_TX10 |
| 27 | PNL_BL_PWM | 28 | GPIO1 | 81 | PEX_RX10 | 82 | GND |
| 29 | HDMI_CEC | 30 | GPIO2 | 83 | GND | 84 | PEX_TX9# |
| 31 | LVDS_L_HPD DP_E_HPD | 32 | SMB_DAT | 85 | PEX_RX9# | 86 | PEX_TX9 |
| 33 | LVDS_DDC_DAT NC | 34 | SMB_CLK | 87 | PEX_RX9 | 88 | GND |
| 35 | LVDS_DDC_CLK NC | 36 | GND | 89 | GND | 90 | PEX_TX8# |
| 37 | GND | 38 | OEM0 | 91 | PEX_RX8# | 92 | PEX_TX8 |
| 39 | OEM1 | 40 | OEM2 | 93 | PEX_RX8 | 94 | GND |
| 41 | OEM3 | 42 | OEM4 | 95 | GND | 96 | PEX_TX7# |
| 43 | OEM5 | 44 | OEM6 | 97 | PEX_RX7# | 98 | PEX_TX7 |
| 45 | OEM7 | 46 | GND | 99 | PEX_RX7 | 100 | GND |
| 47 | GND | 48 | PEX_TX15# | 101 | GND | 102 | PEX_TX6# |
| 49 | PEX_RX15# | 50 | PEX_TX15 | 103 | PEX_RX6# | 104 | PEX_TX6 |

Table 5.2: Connector Pinout(continued)

| Pin | Signal Name | Pin | Signal Name | Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|-----|------------------------|-----|------------------------|
| 105 | PEX_RX6 | 106 | GND | 153 | PEX_REFCLK# | 154 | PEX_CLK_REQ# |
| 107 | GND | 108 | PEX_TX5# | 155 | PEX_REFCLK | 156 | PEX_RST# |
| 109 | PEX_RX5# | 110 | PEX_TX5 | 157 | GND | 158 | N/A |
| 111 | PEX_RX5 | 112 | GND | 159 | JTAG_TDO | 160 | N/A |
| 113 | GND | 114 | PEX_TX4# | 161 | JTAG_TDI | 162 | N/A |
| 115 | PEX_RX4# | 116 | PEX_TX4 | 163 | JTAG_TCLK | 164 | N/A |
| 117 | PEX_RX4 | 118 | GND | 165 | JTAG_TMS | 166 | GND |
| 119 | GND | 120 | PEX_TX3# | 167 | JTAG_TRST# | 168 | N/A |
| 121 | PEX_RX3# | 122 | PEX_TX3 | 169 | DP_F_L3 LVDS_UCLK# | 170 | N/A |
| 123 | PEX_RX3 | 124 | GND | 171 | DP_F_L3 LVDS_UCLK | 172 | N/A |
| 125 | GND | 126 | KEY | 173 | GND | 174 | GND |
| 127 | KEY | 128 | KEY | 175 | DP_F_AUX LVDS_UTX3# | 176 | DP_E_L3 LVDS_LCLK# |
| 129 | KEY | 130 | KEY | 177 | DP_F_AUX LVDS_UTX3 | 178 | DP_E_L3 LVDS_LCLK |
| 131 | KEY | 132 | KEY | 179 | GND | 180 | GND |
| 133 | GND | 134 | GND | 181 | DP_F_L0 LVDS_UTX2# | 182 | DP_E_AUX LVDS_LTX3# |
| 135 | PEX_RX2# | 136 | PEX_TX2# | 183 | DP_F_L0 LVDS_UTX2 | 184 | DP_E_AUX LVDS_LTX3 |
| 137 | PEX_RX2 | 138 | PEX_TX2 | 185 | GND | 186 | GND |
| 139 | GND | 140 | GND | 187 | DP_F_L1 LVDS_UTX1# | 188 | DP_E_L0 LVDS_LTX2# |
| 141 | PEX_RX1# | 142 | PEX_TX1# | 189 | DP_F_L1 LVDS_UTX1 | 190 | DP_E_L0 LVDS_LTX2 |
| 143 | PEX_RX1 | 144 | PEX_TX1 | 191 | GND | 192 | GND |
| 145 | GND | 146 | GND | 193 | DP_F_L2 LVDS_UTX0# | 194 | DP_E_L1 LVDS_LTX1# |
| 147 | PEX_RX0# | 148 | PEX_TX0# | 195 | DP_F_L2 LVDS_UTX0 | 196 | DP_E_L1 LVDS_LTX1 |
| 149 | REX_RX0 | 150 | PEX_TX0 | 197 | GND | 198 | GND |
| 151 | GND | 152 | GND | 199 | DP_C_L0# | 200 | DP_E_L2 LVDS_LTX0# |

Table 5.3: Connector Pinout(continued)

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|----------------------|
| 201 | DP_C_L0 | 202 | DP_3_L2 LVDS_LTX0 |
| 203 | GND | 204 | GND |
| 205 | DP_C_L1# | 206 | DP_D_L0# |
| 207 | DP_C_L1 | 208 | DP_D_L0 |
| 209 | GND | 210 | GND |
| 211 | DP_C_L2# | 212 | DP_D_L1# |
| 213 | DP_C_L2 | 214 | DP_D_L1 |
| 215 | GND | 216 | GND |
| 217 | DP_C_L3# | 218 | DP_D_L2# |
| 219 | DP_C_L3 | 220 | DP_D_L2 |
| 221 | GND | 222 | GND |
| 223 | DP_C_AUX# | 224 | DP_D_L3# |
| 225 | DP_C_AUX | 226 | DP_D_L3 |
| 227 | RSVD | 228 | GND |
| 229 | RSVD | 230 | DP_D_AUX# |
| 231 | RSVD | 232 | DP_D_AUX |
| 233 | RSVD | 234 | DP_C_HPDP |
| 235 | RSVD | 236 | DP_D_HPDP |
| 237 | RSVD | 238 | RSVD |
| 239 | RSVD | 240 | 3V3 |
| 241 | RSVD | 242 | 3V3 |

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|
| 243 | RSVD | 244 | GND |
| 245 | RSVD | 246 | DP_B_L0# |
| 247 | RSVD | 248 | DP_B_L0 |
| 249 | RSVD | 250 | GND |
| 251 | GND | 252 | DP_B_L1# |
| 253 | DP_A_L0# | 254 | DP_B_L1 |
| 255 | DP_A_L0 | 256 | GND |
| 257 | GND | 258 | DP_B_L2# |
| 259 | DP_A_L1# | 260 | DP_B_L2 |
| 261 | DP_A_L1 | 262 | GND |
| 263 | GND | 264 | DP_B_L3# |
| 265 | DP_A_L2# | 266 | DP_B_L3 |
| 267 | DP_A_L2 | 268 | GND |
| 269 | GND | 270 | DP_B_AUX# |
| 271 | DP_A_L3# | 272 | DP_B_AUX |
| 273 | DP_A_L3 | 274 | DP_B_HPDP |
| 275 | GND | 276 | DP_A_HPDP |
| 277 | DP_A_AUX# | 278 | 3V3 |
| 279 | DP_A_AUX | 280 | 3V3 |
| 281 | PRSNT_L | - | |

6.MXM Connector:

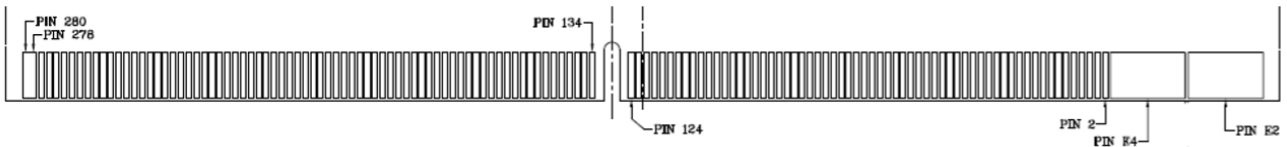


Figure 6.1 MXM Connector (Card Top)

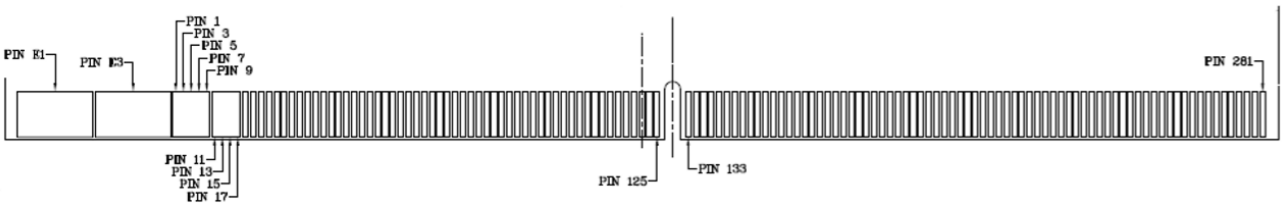


Figure 6.2 MXM Connector (Card Bottom)

7. DisplayPort Interface:

DC blocking capacitors of DisplayPort must be placed on the system board. In addition to the MXM implementation of Dual-mode DisplayPort requires the circuit in Figure 7.1 on the AUX lines for proper dongle detection. The HPD signal conditioning must also be placed on the system board.

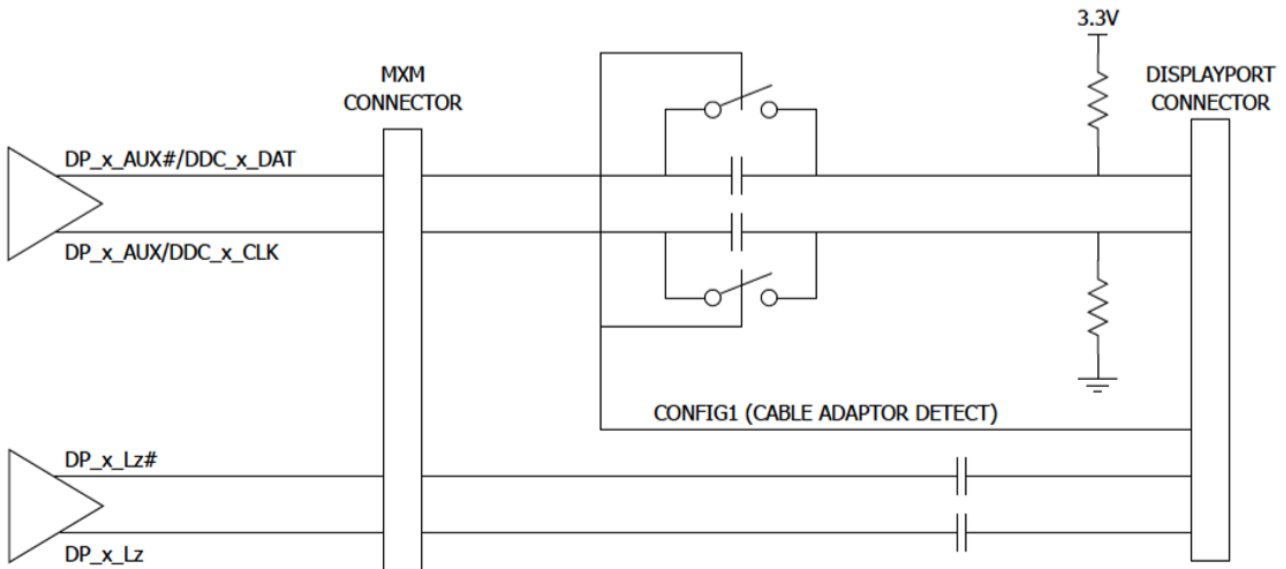


Figure 7.1 Dual-mode DisplayPort Implementation

8. Power Group:

Table 8.1 shows the MXM module power requirements. The voltage tolerances in the table are specified as measured on module edge finger. The system must be able to supply the full specified current on rails (except PWR_SRC) at all times. The current capability of the PWR_SRC rail must be defined by the system in the MXM system information structure.

Table 8.1: MXM Power Rails

| Signal Name | I/O | Type | Impedance | Voltage | Current |
|-------------|-----|-------|-----------|-----------|-----------|
| PWR_SRC | I | Power | N/A | 12-19V | up to 10A |
| 5V | I | Power | N/A | 5.0V ± 6% | 2.5A |
| 3.3V | I | Power | N/A | 3.3V ± 6% | 2.0A |

Note: PWR_SRC voltage range is assumed to be DC or RMS. However under any circumstances the maximum peak voltage shall not exceed 22V and minimum voltage shall not fall below 6.5V.

9.DVI/HDMI on DP Interface:

Native DVI or HDMI connector support can be implemented using a DisplayPort interface. Additional circuitry is required on the system and the proper signal mapping must be observed. As Figure 9.1 shows, 499Ω 1% pull-down resistors to ground on the DP lane signals must be placed on the connector side of AC coupling capacitors gated by a FET to limit the leakage. Additionally level shifting circuits must also be implemented on DDC Data and Clock.

Table 9.1 shows the mapping to connect the signals from the MXM connector to the HDMI/DVI connector.

Table 9.1: DisplayPort Multiplexed Signal Definition

| Pin Name | DVI/HDMI |
|-----------------------|------------------------|
| DP_xL0 DP_xL0# | TX_x_D2 TX_x_D2# |
| DP_x_L1 DP_x_L1# | TX_x_D1 TX_x_D1# |
| DP_x_L2 DP_x_L2# | TX_x_D0 TX_x_D0# |
| DP_x_L3 DP_x_L3# | TX_x_CLK TX_x_CLK# |
| DP_x_AUX DP_x_AUX# | DDC_x_CLK DDC_x_DAT |

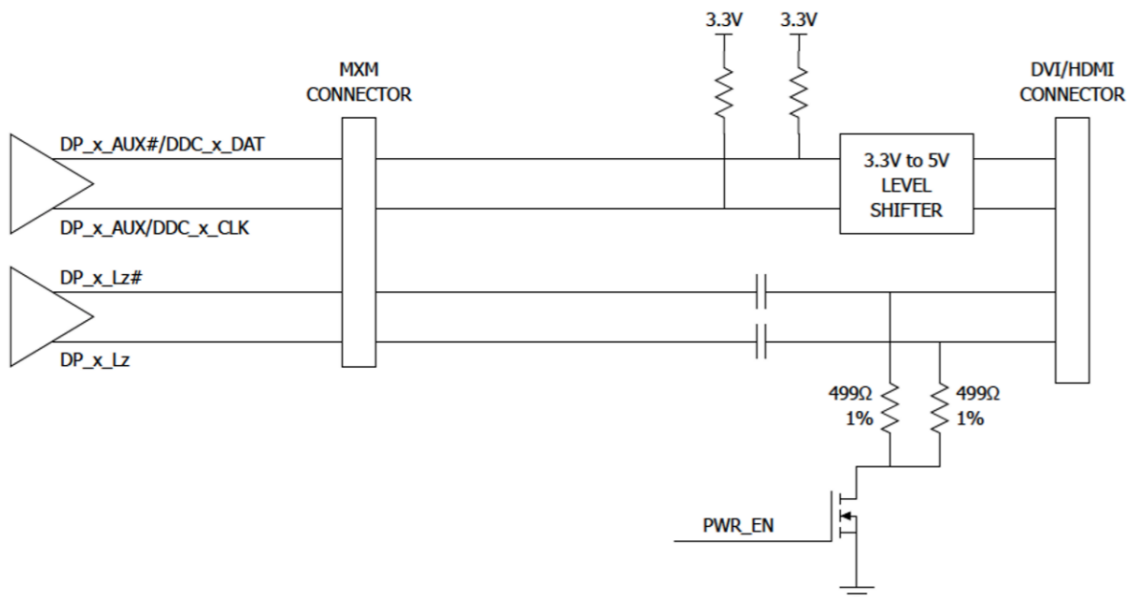
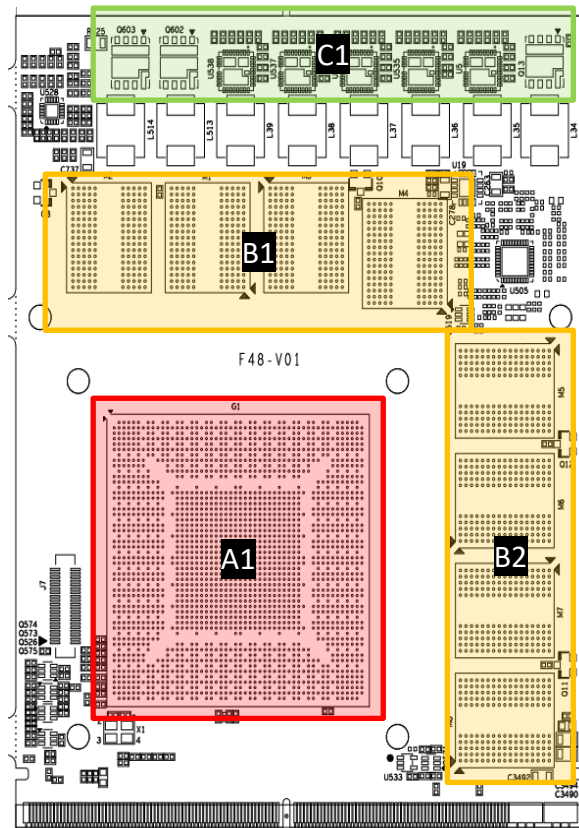


Figure 9.1 DVI/HDMI Implementation Using DP Interface

10.Thermal:



| Components | Area | TDP | Height |
|------------|------|--------|--------|
| GPU | A1 | 57W | 2.4mm |
| Memory | B1 | 1.5W*4 | 0.9mm |
| Memory | B2 | 1.5W*4 | 0.9mm |
| Mosfet | C1 | 2W*8 | 0.75mm |

Cooling Suggestion:

- 1、显卡建议先固定在散热器上，散热器外径为 4mm，M2 的螺柱。
- 2、散热器的重量要用箱体来支撑固定。
- 3、显存和 MOS 要加导热垫。

| Components | 壳温满载限温（环温 45℃） |
|------------|----------------|
| GPU | 95℃ |
| Memory | 85℃ |
| Mosfet | 105℃ |

*显存和 MOS 由“探针”监测；GPU 由“Furmark (1920*1080)”监测。

11.Performance:

| | | | |
|----------------|----------------------------------|-------------------|-------------------|
| glmark2 | 14029 | Cuda | |
| 3Dmark13 | FS:13983 FSE:6780 FSU:3374 | single kernels | 4863.91 /206.785 |
| 3Dmark11 | E21413 P16244 X6550 | N=10 w/o streams | 4165.15 / 217.802 |
| 3Dmark Vantage | 60937 | N=10 with streams | 4334.85 / 218.134 |
| Heaven | 2210 | N=10 batched | 4088.36 / 217.214 |
| 鲁大师 | 181418 | | |

12.Driver:

Windows 10 64bit: <https://pan.baidu.com/s/1AQi51gxHAIdZepfVhVyTQ?pwd=d05m>

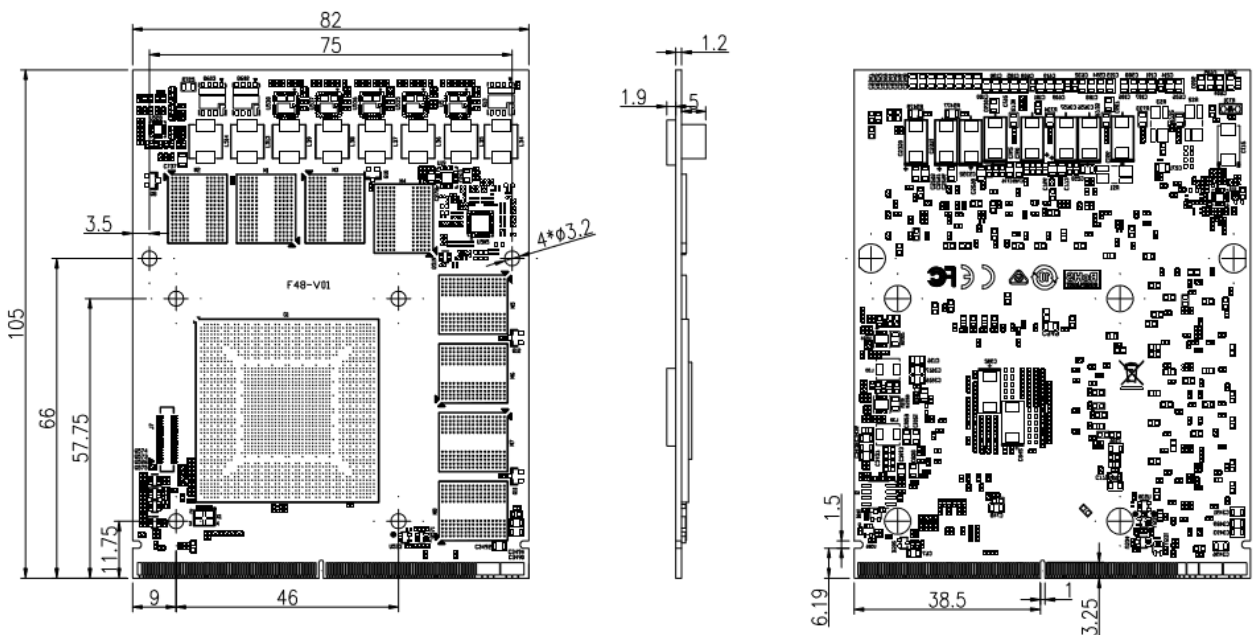
Windows 7 64bit: https://pan.baidu.com/s/1q5pQ84Tbv36_YxTEJDjAUQ?pwd=ea6j

Linux 64bit: https://cn.download.nvidia.com/XFree86/Linux-x86_64/460.84/NVIDIA-Linux-x86_64-460.84.run

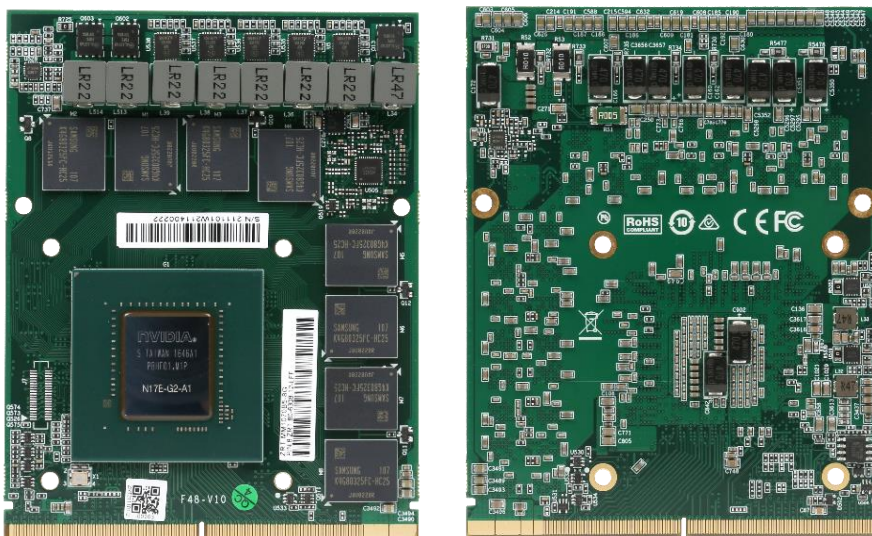
Uninstall Driver Video:

https://www.douyin.com/user/MS4wLjABAAAfV567McP9KjHrjFWngJgFG8h7XMSWsqH55hBlryutm?modal_id=7321980490926279951

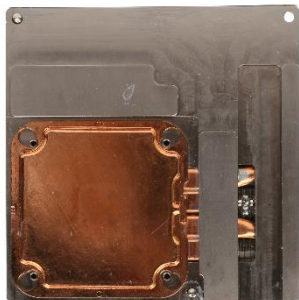
13. Dimensions:



14.Photo:

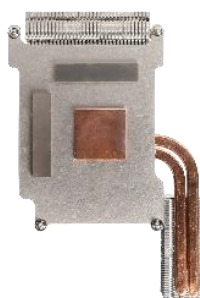


15.Cooling Option:



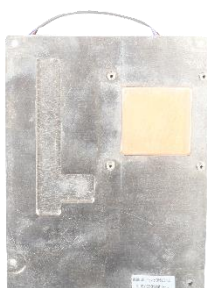
| 1.ZRT.48-6217-00-A00 | |
|-----------------------------|------------------|
| Dimension | 108.12*99.1*58mm |
| Rated Speed | N/A |
| Out of Frame Lead Wires | N/A |
| Connector | N/A |

*需搭配风扇辅助散热。



| 1.ZRT.48-6206-00-A00 | |
|-----------------------------|-----------------|
| Dimension | 190*124.5*37.5m |
| Rated Speed | 20000 |
| Out of Frame Lead Wires | 280mm |
| Connector | 4Pin 2.54 |

*需搭配风扇辅助散热。



| 1.ZRT.48-6140-00-A00 | |
|-----------------------------|----------------|
| Dimension | 133*103*26.5mm |
| Rated Speed | 3800 |
| Out of Frame Lead Wires | 100mm |
| Connector | 4Pin 2.54 |

16.Certificate:

Certificate · 認證證書 · 인증증서 · diplomes · certificado



CERTIFICATE OF COMPLIANCE

2015/863/EU Restriction of Hazardous Substance
Ref. No.: 23/TC0821097

Applicant: Shenzhen ZRT Technology,CO.,LTD
Address: 2105-2106, Building A, Fenghuang Zhigu, No. 50, Tiezai Road, Xixiang Street, Bao'an District, Shenzhen,China

Manufacturer: Shenzhen ZRT Technology,CO.,LTD
Address: 2105-2106, Building A, Fenghuang Zhigu, No. 50, Tiezai Road, Xixiang Street, Bao'an District, Shenzhen,China

Product: Graphics card
Brand Name: N/A
Model NO.: MM1070B5-8G V2, MM1060B5-6G V2

Standard(s): IEC 62321-4-2013+A1:2017; IEC 62321-5-2013;IEC 62321-7-2-2017; IEC 62321-6-2015;IEC 62321-8-2017
Test report(s) No.: 23/TC0821097R

The test sample of product has been passed, the test according to requirements of the following standards:

The Certificate of compliance is based on a test procedure or an evaluation of the above-mentioned product. This is to certify that the above-mentioned product is in compliance with the EU RoHS Directive 2011/65/EU and its amendment directives 2015/863/EU (RoHS 2.0) of the European parliament.

ROHS


 Approved by/Date: Jianyi Aug. 23, 2023
 Department Manager(s)

Shenzhen ITC Product Testing Co., Ltd.
Room 204, No.10, Phase I, Xixiang Xinxing Third Industrial Area, Fuhai Road, Fuyong Street, Bao'an District, Shenzhen Guangdong, China Tel: (86)-0755-33138890 Fax: (86)-0755-23071003 http://www.itclab.cn

Certificate · 認證證書 · 인증증서 · diplomes · certificado

17.Question:

| 故障 | 排除 |
|---------------|---|
| 不开机 | 1、更改 pgood 信号。(部份主板) 2、确认 PCIE 复位信号。 3、主板 BIOS 更改为 UEFI BIOS。 |
| 不显示 | Windows 10 : (需 1809 版本之后) 在主板 BIOS 下，将 CSM 中 CSM Support 设置由 Enabled 更改为 Disabled。 Windows7 : 在主板 BIOS 下，将 CSM 中 CSM Support 设置由 Enabled 更改为 Disabled，并将 Video 设置由 legacy 更改为 UEFI。 |
| 不显示 (HDMI 输出) | 1、4K 60Hz 显示屏，确认 HDMI 线材是否为 HDMI2.0。 2、将显示器分辨率降为 2K 60Hz。 |

| | |
|------------------------------------|---|
| 设备管理员出现惊叹号 | <p>1、原系统显卡驱动删除干净。(请使用 Display Driver Uninstaller 删除，https://www.wagnardsoft.com/)</p> <p>2、Windows 10 版本 16299 不支持，需更新至最新版 (17763、17134 均可)。</p> <p>3、Windows 7 打补丁 KB2685811。</p> <p>4、确认核显驱动是否已安装。(不需独立显卡显示)</p> |
| 显卡不工作 | 量下 3V3/5V/2V/Reset 信号是否有电/短路？若有电，显卡就会工作。 |
| 显卡无法辨视 | 检查 PCIE LANE Numbering Reversal 设置。 |
| 安装 Linux 系统，图形界面异常/无限循环登陆界面，无法登录系统 | 装驱动的时，加上--no-opengl-files。 (禁用 opengl，若系统上有用到这套组件，将无法使用) |
| 控制面板无法正常开启 | 仅可在独显显示时，才能正常开启；若使用集显显示，将无法正常开启。 |
| 集显及独显在 Win7 下，无法同时开启 3D 启动 | 打系统补丁 (KB2685811)，解压后，把所有文件 COPY 到 C 盘 根目录下运行 BAT 文件。 |
| X86 在中标麒麟系统下，显卡驱动后集显输出不能进系统 | 将 xorg.conf 文件内容清空。 |

17.Part Number:

| Model | Part Number | Specification |
|------------------------|----------------------|--|
| MM1070B5-8G V2(85W) | 8.ZRT.80-6308-12-LFF | F48 GTX1070m 8G 256bit GDDR5 256*32 2DP+HDMI+DP MXM Type B 14L 85W-白盒三十入 |
| | 8.ZRT.80-6308-15-LFF | F48 GTX1070m 8G 256bit GDDR5 256*32 2DP+HDMI+DP MXM Type B 14L 85W-ZRT 彩包二十入 |