



MYC-LT527M Product Manual



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MYIR Electronics Limited



History

| Version | Author | Participants | Date | Description |
|---------|--------|--------------|----------|------------------|
| V1.0 | Sender | | 20240125 | Official release |



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1. Overview

The T527M series high-performance processor is based on eight core Cortex-A55 + HiFi4 DSP+RISC-V multi-core heterogeneous industrial processor, optional support AI 2 Tops model; LPDDR4/LPDDR4x Max. 4GB 32bits; Support H.265 4K@60fps and H.264 4K@30fps video decoding, H.264 1080P@60fps video coding, with rich multimedia interface HDMI、eDP、MIPI-DSI、RGB、LVDS、MIPI CSI、Parallel CSI, Support 4K@60Hz display, support three screen display; The processor also supports dual gigabit Ethernet interfaces, PCIE2.1 and USB3.1 high-speed interfaces, 2 CAN interfaces, 2 USB2.0 interfaces, and 10 UART functional interfaces. Suitable for industrial, automotive, power, medical, education and other application scenarios.

The T527M supports H.265, H.264, MJPEG-1/2/4, JPEG and other full-format decoding, MJPEG encoder up to 4K@15fps, JPEG encoder up to 8K x 8K resolution. The T527M processor has rich interfaces RGB*2, LVDS *2, MIPI DSI*2, Parallel CSI*2, DAC*2, ADC*3, I2S/PCM*4, USB*3, SDIO*3, Ethernet*2, TWI*6, UART*10, SPI*3, PWM*20, LRADC*2, GPADC*10, CAN*2, etc. Chip package HS-FCBGA664, 17mmx17mm.

Based on the T527 chip as the main processor, Mill Electronics has launched a new core board series: MYC-LT527M-I. MYC-LT527M-I has a good software development environment, the kernel supports the open source operating system Linux. The processor is a high-performance octa-core Cortex-A55CPU designed for intelligent control and human-machine interface in areas such as automotive and industrial applications, with a high price/performance ratio for entry-level Linux embedded ARM applications. Simplify hardware design and shorten development cycle.

Product introduction link: <https://www.myir.cn/shows/134/70.html>

Download link: <http://down.myir-tech.com/MYD-LT527/>

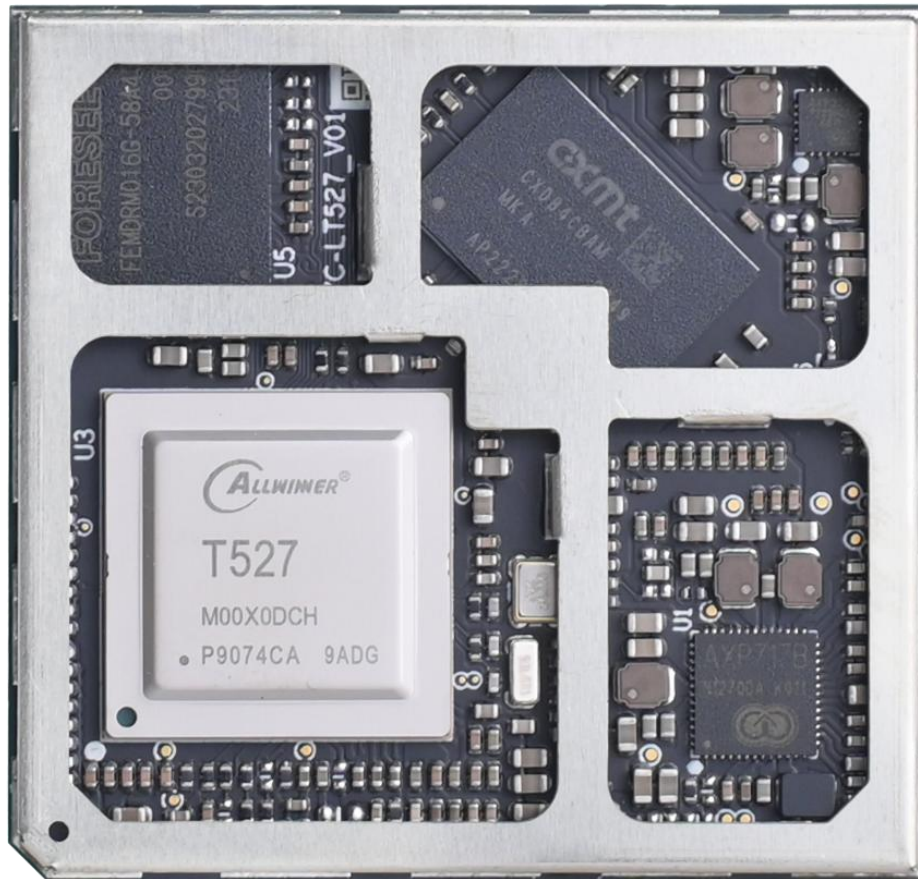


Figure 1-1 MYC-LT527M Core board

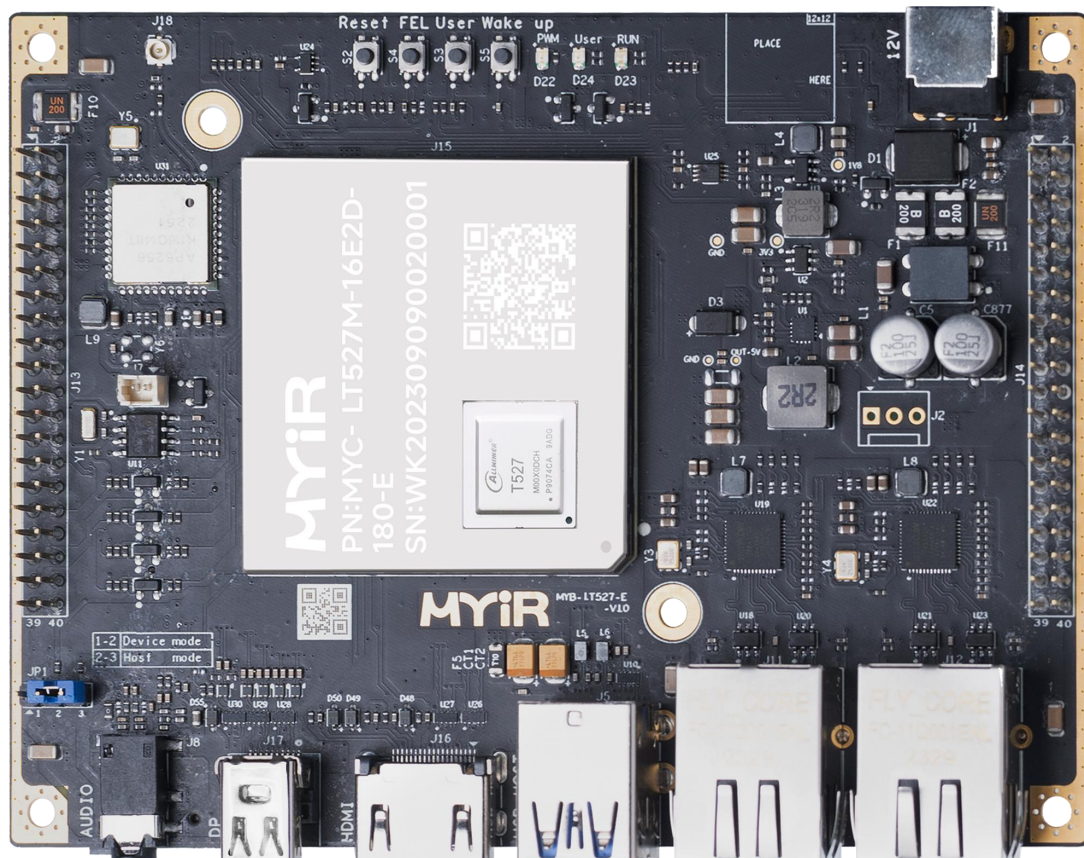


Figure 1-2 MYD-LT527M Kit

2. Product introduction

MYC-LT527M core board adopts high-density high-speed circuit board design, and integrates T527, DDR, eMMC, E2PROM, PMIC power supply and other circuits on the 45mm*43mm board.

The MYC-LT527M series core board includes 4 standard product models: they have some differences in storage configuration, and customers can choose the right model according to their needs. For the differences between product models, see Section 2.4.

2.1. CPU Introduction

The T527M is an eight-core 64-bit AI platform processor that delivers efficient computing power and is designed for intelligent control and human-machine interfaces in areas such as automotive and industrial applications.

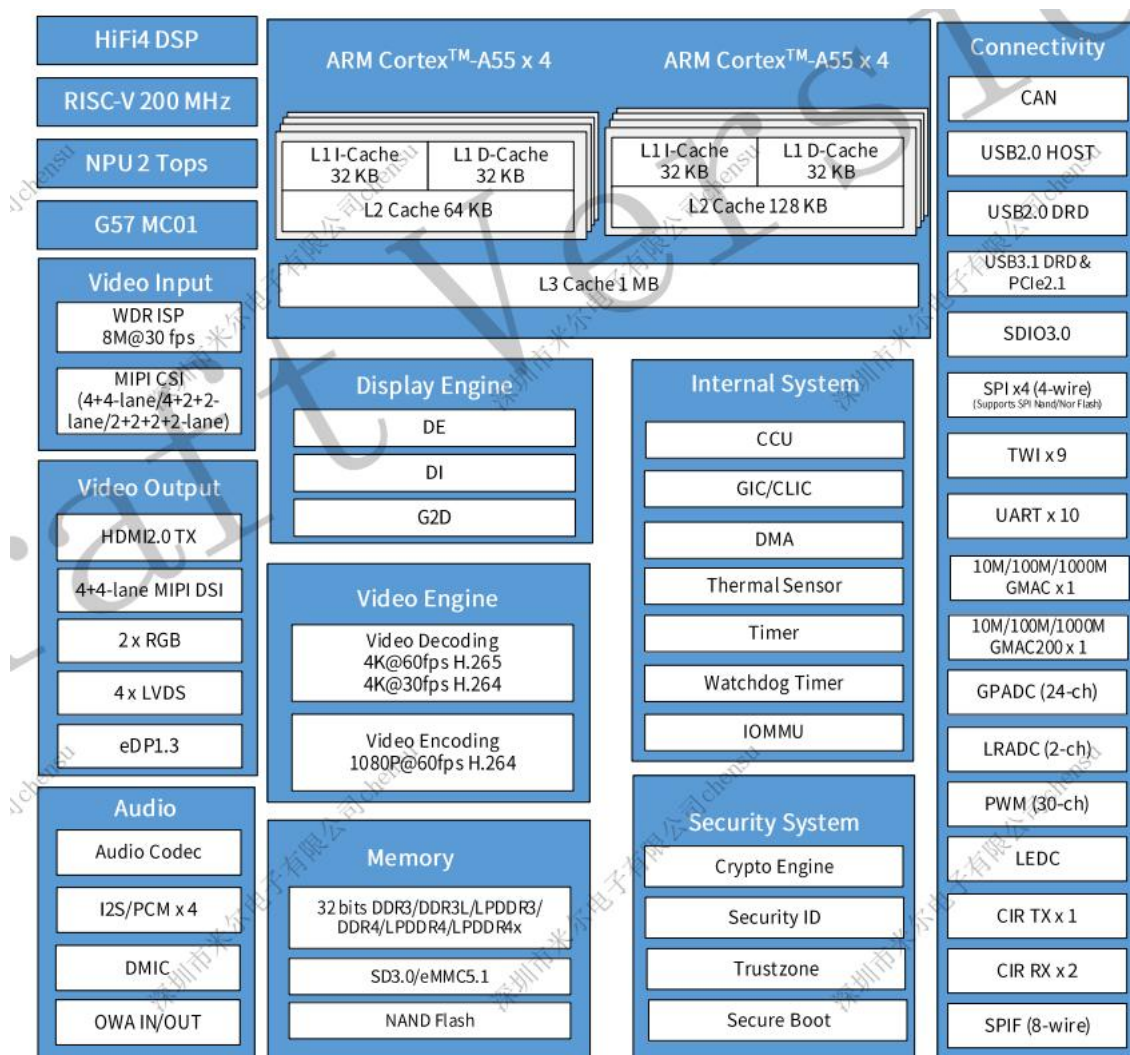


Figure 2-1 LT527M Resource block diagram



| Resource | Parameter description |
|------------------|---|
| CPU | <ul style="list-style-type: none"> 8 ARM CortexTM-A55x4, Up to 1.8 GHz 32 KB L1 cache + 32 KB L1 D-cache per core, and 128 KB L2 cache + 1MB L3cache |
| DSP | <ul style="list-style-type: none"> HiFi4 |
| External storage | Three SD/MMC host controller (SMHC) interfaces <ul style="list-style-type: none"> The SMHCO controls the devices that comply with the protocol Secure Digital Memory (SD mem-version3.0) The SMHC1 controls the device that complies with the protocol Secure Digital I/O (SDIO-version 3.0) The SMHC2 controls the device that complies with the protocol Multimedia Card (eMMC-version 5.1) |
| Video engine | Video Encoder / Decoder support <ul style="list-style-type: none"> H.265 ITU-T.H@L6.1 up to 3840p@2160fps H.264 BP/MP/HP@L4.2 up to 1080p@60fps MPEG up to 4kp@15fps JPEG/MJPEG up to 8kp@8kfps |
| Video input | Parallel CSI <ul style="list-style-type: none"> Supports 16-bit digital camera interface Supports 8/10/12/16-bit width Supports BT656,BT601,BT.1120 interface Dual Data Rate(DDR) sample mode with pixel clock up to 148.5 MHz Supports ITU-R BT.656 up to 4*720p@30fps Supports ITU-R BT.1120 up to 4*1080p@30fps MIPI CSI <ul style="list-style-type: none"> 8M@30fps RAW12 2F-WDR,size up to 3264(H)x2448(V) 4+4-lane 4+2+2-lane,or2+2+2+2-lane MIPI Interface MIPI CSI2 V1.1 MIPI DPHY V1.1 1.5Gbit/S per lane Crop function Frame-rate decreasing via software 6 DMA controllers for 6 video stream storage Data conversion supports:YUV422 to YUV420,YUV422 to YUV400,YUV420 to YUV400, VIPP <ul style="list-style-type: none"> Four VIPP YUV422 or YUV420 outputs Maximum resolution of 3264x4224 Each VIPP has one sub-VIPP in online mode |



| | |
|----------------|--|
| | <p>ISP</p> <ul style="list-style-type: none"> ● Maximum frame rate of 8M@30fps 2F-WDR ● Supports off-line mode |
| Audio | <ul style="list-style-type: none"> ● Two audio digital-to-analog converter (DAC) channels ● One audio output: One stereo headphone output: HPOUTL/R ● Three audio analog-to-digital converter (ADC) channels ● Three audio inputs: <ul style="list-style-type: none"> - Three differential microphone input: MICIN1P/1N, MICIN2P/2N, MICIN3P/3N (for echo reduction) - One differential lineout output: LINEOUTLP/N、LINEOUTRP/N |
| Display output | <p>HDMI</p> <ul style="list-style-type: none"> ● One HDMI2.0 TX interface, supporting HDCP1.4 ● Supports several data formats including RGB888, YUV444, YUV422, and YUV200 ● Supports I2S, 192KHz sampling rate, 8 sound channels ● Supports up to 3840x2160@60 10bit input, 3 Data lanes, 6Gbit/s per lane for YUV422 ● Supports DDC/CEC, 5V tolerant voltage ● Supports 3840x2160, 1920x1080, and 1280x720 resolution <p>MIPI DSI</p> <ul style="list-style-type: none"> ● Compliance with MIPI DSI V1.02 ● Up to 1.5Gbit/s for each lane ● Supports 4-lane MIPI DSI, up to 1280 x 720@60fps and 1920 x 1200@60fps ● Supports non-burst mode with sync pulse/sync event and burst、command mode ● Supports pixel format: RGB888, RGB666, RGB666 loosely packed and RGB565 ● Supports continuous and non-continuous lane clock modes ● Supports bidirectional communication of all generic commands in LP through data lane 0 ● Supports low power data transmission ● Supports ULPS and escape modes ● Supports hardware checksum |
| Safety Engine | <p>Crypto Engine (CE)</p> <ul style="list-style-type: none"> ● Supports Symmetrical algorithm for encryption and decryption: AES, DES, 3TDES, and SM4 ● Supports Hash algorithm for tamper proofing: MD5, SHA, HMAC ● Supports Asymmetrical algorithm for signature verification: RSA, ECC |



| | |
|------------|---|
| connection | <ul style="list-style-type: none"> ● 3 x USB (USB2.0 OTG+USB2.0 HOST+USB3.1DRD&PCIe2.1 Combo) ● 2x Gigabit Ethernet Interface -10/100/1000 Mbit/s Ethernet port with RGMII and RMII interfaces ● 2 x CAN Interface ● 9 x TWI ● 10 x UART ● 4 x SPI ● 3 x SD/MMC ● 20 x PWM ● 24 x GPADC ● 2 x TPADC |
| package | <ul style="list-style-type: none"> ● HS-FCBGA664, package ● 17 mm x 17 mm size |

Table 2-1 LT527M resources

Refer to the chip manual for details.



2.2. Core Board Features

| Item | features |
|--------------------------|--|
| CPU series | T527M |
| CPU Chip type | LT527M/MN |
| DDR storage | 1/2/4GB LPDDR4 |
| eMMC | 8/16/32GB eMMC |
| CPU Processor | 4xCortex-A55@1.8GHz+4xCortex-A55@1.4GHz |
| Core board size | 45mm x 43mm |
| interface type | Stamp hole LGA: 381PIN |
| PCB board specifications | 12 layer plate design, gold sinking process production |

Table 2-2 Core board features

2.3. Block Diagram

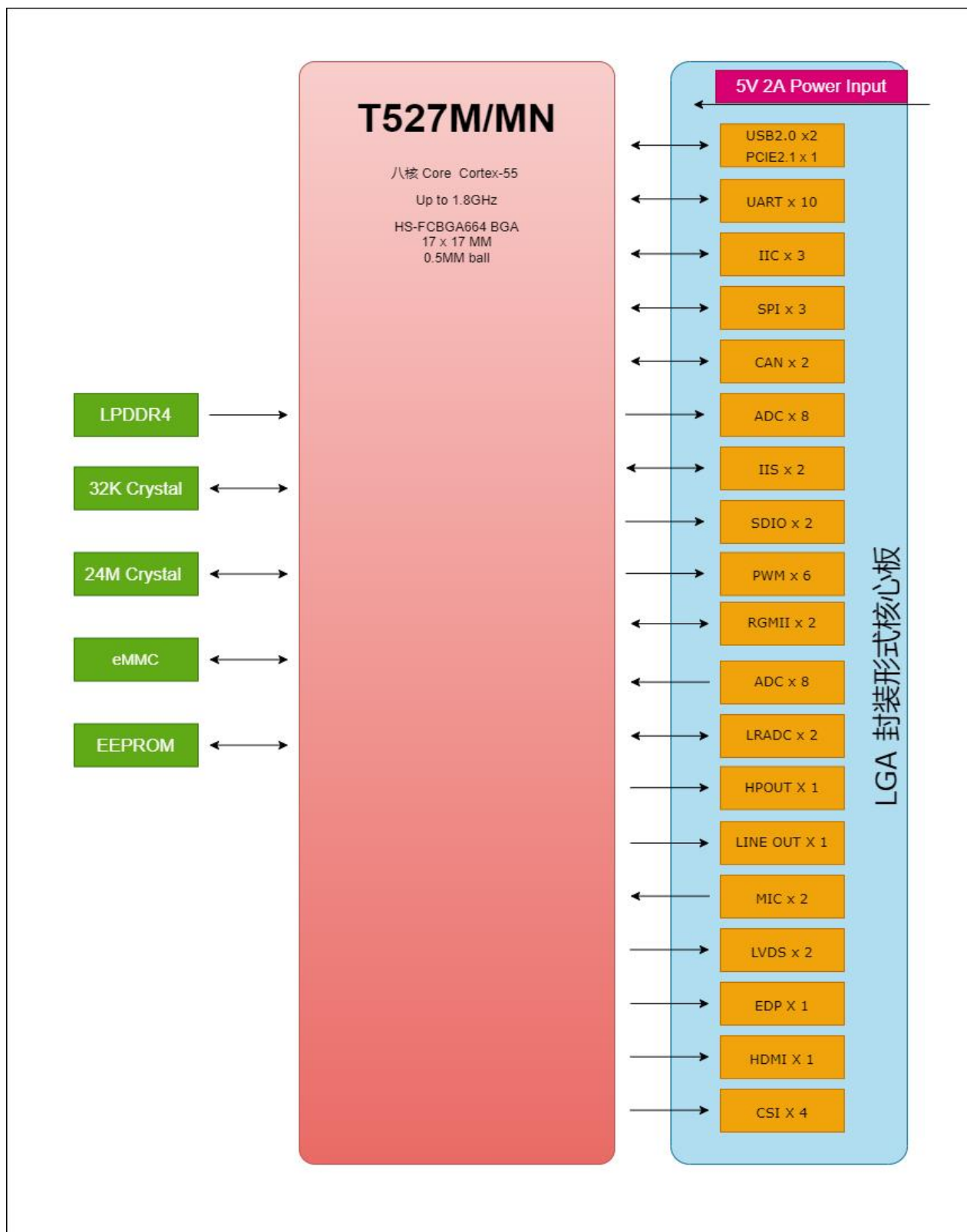


Figure 2-2 Core board block diagram



2.4. Core Board Ordering Information

The MYC-LT527M series core board consists of 4 standard product models: they have some differences in operating temperature parameters, and customers can choose the appropriate model according to their needs. For batch requirements, MIL provides customized services with optional core board parameters. Low configuration model:MYC-LT527M/MN-8E1/2D-180-I-G, Frequency: 4*Cortex-A55@1.8GHz + 4*Cortex-A55@1.4GHz。

| Part No. Item | MYC-LT527M/MN-16E2D-200-I-G | MYC-LT527M/MN-32E4D-200-I-G |
|---------------------|---|---|
| CPU | T527M/MN | T527M/MN |
| CPU series | T527 | T527 |
| DDR | 2GB DDR4 | 4GB DDR4 |
| eMMC | 16GB EMMC | 32GB EMMC |
| Core | 8 Cortex™-A55x4 | 8 Cortex™-A55x4 |
| Frequency | 1.8GHz | 1.8GHz |
| Video output | LVDS x 1 HDMI x1 MIPI DSI x1 EDP x1 | LVDS x 1 HDMI x1 MIPI DSI x1 EDP x1 |
| Audio | HPOUTL/R x1 MICIN/P x2 LINEINL/R x1 | HPOUTL/R x1 MICIN/P x2 LINEINL/R x1 |
| Parallel CSI | 2 | 2 |
| uSDHC | 2 | 2 |
| USB | USB2.0 OTG x 1 USB2.0 Host x 1 USB3.0 OTG x 1 | USB2.0 OTG x 1 USB2.0 Host x 1 USB3.0 OTG x 1 |
| Ethernet | RGMII x 2 | RGMII x 2 |
| UART | 10 | 10 |
| TWI | 3 | 3 |
| CAN | 2 | 2 |
| SPI | 3 | 3 |
| ADC | LRADC x1 GPADC x10 | LRADC x1 GPADC x10 |
| PWM | 6 | 6 |



| GPIO | 203 | 203 |
|------------------------------|-----------------------------|-----------------------------|
| System | Linux 5.4.61 | Linux 5.4.61 |
| Power Supply | +5V | +5V |
| Mechanical size | 45mm x 43mm | 45mm x 43mm |
| Operating temperature | -40℃ - +85℃ | -40℃ - +85℃ |
| Connector | Stamp Hole (total 381 pins) | Stamp Hole (total 381 pins) |
| Certification | CE ROHS | CE ROHS |

Table 2-3 MYC-LT527M core board ordering information

***Note:** The blue background represents the interface type supported by the core board module; The gray background represents the others. The selection table is the maximum resource extracted from the core board, and there may be a reuse relationship.*

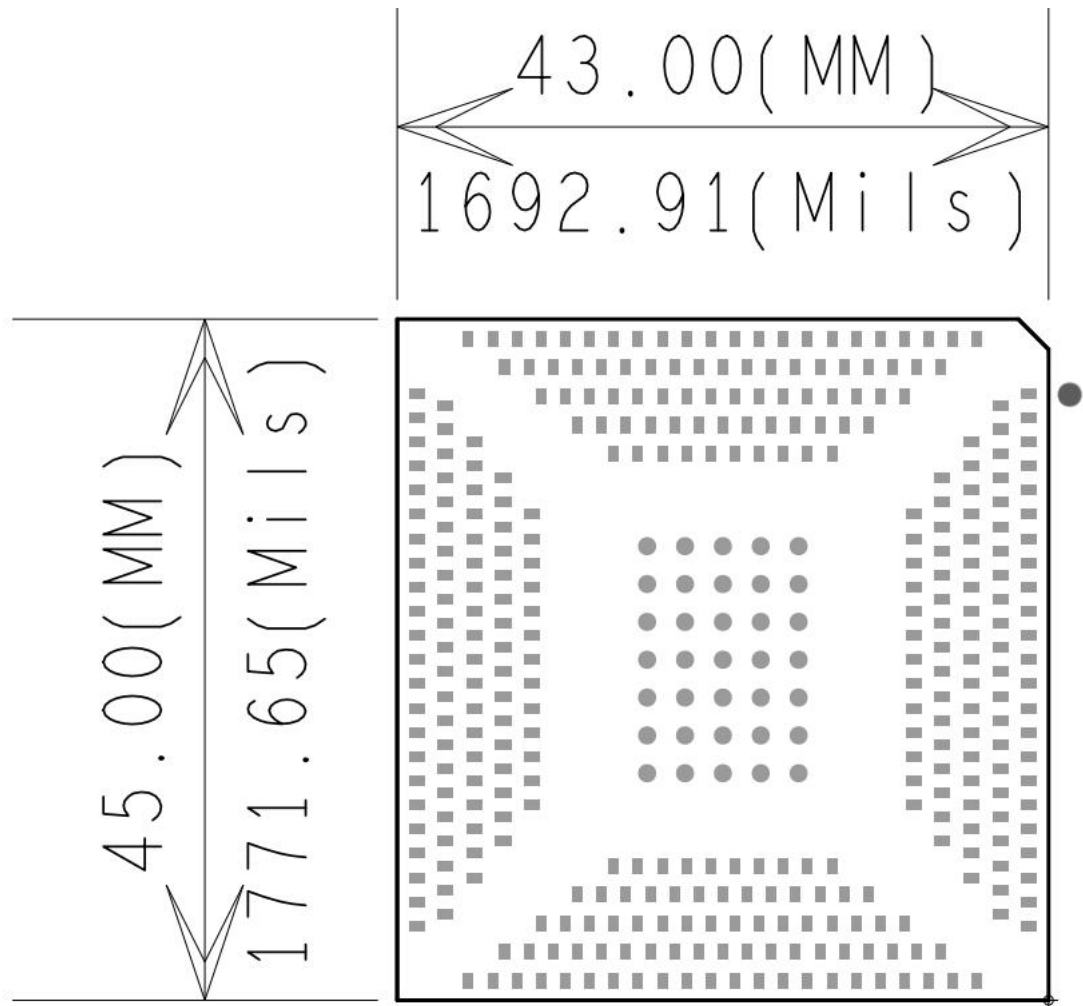


Figure 3-2 Module pin map (Bottom side)



3.2. Pin List

The following table shows the definition of the interface pins of the MYC-LT527M core board. The pin functions of the BSP development kit are configured according to "Default functions" in the following table. If you need to change the default pin functions, please modify the related driver configuration code.

| - | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------------|------------------|-----------------------------|---------|-----|----------|
| | A1 | MCSIC-D0P | CSI | CSI differential signal | 1.8V | I/O | |
| | A2 | MCSIC-D0N | CSI | CSI differential signal | 1.8V | I/O | |
| | A24 | MCSIC-D1P | CSI | CSI differential signal | 1.8V | I/O | |
| | A25 | MCSIC-D1N | CSI | CSI differential signal | 1.8V | I/O | |
| | A46 | MCSIC-CKP | CSI | CSI differential CLK signal | 1.8V | I/O | |
| | A47 | MCSIC-CKN | CSI | CSI differential CLK signal | 1.8V | I/O | |
| | A4 | MCSID-D0P | CSI | CSI differential signal | 1.8V | I/O | |
| | A5 | MCSID-D0P | CSI | CSI differential signal | 1.8V | I/O | |
| | A27 | MCSID-D1P | CSI | CSI differential signal | 1.8V | I/O | |
| | A28 | MCSID-D1N | CSI | CSI differential signal | 1.8V | I/O | |
| | A65 | MCSID-CKP | CSI | CSI differential CLK signal | 1.8V | I/O | |
| | A66 | MCSID-CKN | CSI | CSI differential CLK signal | 1.8V | I/O | |
| | A49 | RGMII1-MDC | PHY | RGMII1-MDC | 3.3V | I/O | |
| | A50 | RGMII1-MDIO | PHY | RGMII1-MDIO | 3.3V | I/O | |
| | A81 | RGMII1-TXCK | PHY | RGMII1-TXCK | 3.3V | I/O | |
| | A82 | RGMII1-TXCTL | PHY | RGMII1-TXCTL | 3.3V | I/O | |
| | A83 | RGMII1-TXD0 | PHY | RGMII1-TXD0 | 3.3V | I/O | |
| | A84 | RGMII1-TXD1 | PHY | RGMII1-TXD1 | 3.3V | I/O | |
| | A67 | RGMII1-TXD2 | PHY | RGMII1-TXD2 | 3.3V | I/O | |
| | A68 | RGMII1-TXD3 | PHY | RGMII1-TXD3 | 3.3V | I/O | |
| | A69 | RGMII1-EPHY-25M | PHY | RGMII1-EPHY-25M | 3.3V | I/O | |
| | A51 | RGMII1-CLKIN | PHY | RGMII1-CLKIN | 3.3V | I/O | |
| | A52 | RGMII1-RXCTL | PHY | RGMII1-RXCTL | 3.3V | I/O | |
| | A29 | RGMII1-RXCK | PHY | RGMII1-RXCK | 3.3V | I/O | |
| | A30 | RGMII1-RXD0 | PHY | RGMII1-RXD0 | 3.3V | I/O | |
| | A31 | RGMII1-RXD1 | PHY | RGMII1-RXD1 | 3.3V | I/O | |
| | A7 | RGMII1-RXD2 | PHY | RGMII1-RXD2 | 3.3V | I/O | |
| | A8 | RGMII1-RXD3 | PHY | RGMII1-RXD3 | 3.3V | I/O | |



| | | | | | | |
|-----|------------|---------|------------------|------|-----|--|
| A53 | SDC1-CLK | SDIO | SDC1-CLK | 1.8V | I/O | |
| A54 | SDC1-CMD | SDIO | SDC1-CMD | 1.8V | I/O | |
| A71 | SDC1-D0 | SDIO | SDIO data signal | 1.8V | I/O | |
| A72 | SDC1-D1 | SDIO | SDIO data signal | 1.8V | I/O | |
| A85 | SDC1-D2 | SDIO | SDIO data signal | 1.8V | I/O | |
| A86 | SDC1-D3 | SDIO | SDIO data signal | 1.8V | I/O | |
| A10 | I2S1-MCLK | I2S1 | I2S1-MCLK | 1.8V | I/O | |
| A11 | I2S1-BCLK | I2S1 | I2S1-BCLK | 1.8V | I/O | |
| A12 | I2S1-LRCK | I2S1 | I2S1-LRCK | 1.8V | I/O | |
| A33 | I2S1-DIN1 | I2S1 | I2S1-DIN1 | 1.8V | I/O | |
| A34 | I2S1-DOUT1 | I2S1 | I2S1-DOUT1 | 1.8V | I/O | |
| A13 | MICIN1N | MIC | MICIN1N | 1.8V | AI | |
| A14 | MICIN1P | MIC | MICIN1P | 1.8V | AI | |
| A35 | MICIN2N | MIC | MICIN2N | 1.8V | AI | |
| A36 | MICIN2P | MIC | MICIN2P | 1.8V | AI | |
| A37 | MBIAS | MIC | MBIAS | 1.8V | AO | |
| A55 | HPOUTFB | HPOUTFB | HPOUTFB | / | AI | |
| A56 | HPOUTL | HPOUTL | HPOUTL | 1.8V | AO | |
| A57 | HPOUTR | HPOUTR | HPOUTR | 1.8V | AO | |
| A73 | HP-DET | JACK | HP-DET | 1.8V | AI | |
| A74 | LINEOUTLP | LINE | LINEOUTLP | 1.8V | AO | |
| A75 | LINEOUTLN | LINE | LINEOUTLN | 1.8V | AO | |
| A88 | LINEOUTRP | LINE | LINEOUTRP | 1.8V | AO | |
| A89 | LINEOUTRN | LINE | LINEOUTRN | 1.8V | AO | |
| A16 | GPADC3 | GPADC | GPADC3 | 1.8V | AI | |
| A59 | GPADC4 | GPADC | GPADC4 | 1.8V | AI | |
| A91 | GPADC5 | GPADC | GPADC5 | 1.8V | AI | |
| A39 | GPADC6 | GPADC | GPADC6 | 1.8V | AI | |
| A77 | GPADC7 | GPADC | GPADC7 | 1.8V | AI | |
| A17 | GPADC8 | GPADC | GPADC8 | 1.8V | AI | |
| A60 | GPADC9 | GPADC | GPADC9 | 1.8V | AI | |
| A92 | GPADC10 | GPADC | GPADC10 | 1.8V | AI | |
| A40 | LRADC0 | LRADC | LRADC0 | 1.8V | AI | |
| A78 | LRADC1 | LRADC | LRADC1 | 1.8V | AI | |



| | | | | | | |
|-----|------------|------|------------|------|-----|--|
| A19 | I2S2-MCLK | I2S2 | I2S2-MCLK | 3.3V | I/O | |
| A20 | I2S2-BCLK | I2S2 | I2S2-BCLK | 3.3V | I/O | |
| A21 | I2S2-LRCK | I2S2 | I2S2-LRCK | 3.3V | I/O | |
| A42 | I2S2-DOUT0 | I2S2 | I2S2-DOUT0 | 3.3V | I/O | |
| A43 | I2S2-DIN0 | I2S2 | I2S2-DIN0 | 3.3V | I/O | |
| A41 | PE0 | IO | GPIO | 3.3V | I/O | |
| A79 | PE10 | IO | GPIO | 3.3V | I/O | |
| A62 | NC | / | / | / | / | |
| A80 | PL6 | IO | GPIO | 3.3V | I/O | |
| A64 | PL7 | IO | GPIO | 3.3V | I/O | |
| A22 | PL10 | IO | GPIO | 3.3V | I/O | |
| A23 | PL11 | IO | GPIO | 3.3V | I/O | |
| B1 | UART4-TX | UART | UART4-TX | 3.3V | I/O | |
| B2 | UART4-RX | UART | UART4-RX | 3.3V | I/O | |
| B23 | UART4-RTS | UART | UART4-RTS | 3.3V | I/O | |
| B3 | UART4-CTS | UART | UART4-CTS | 3.3V | I/O | |
| B24 | UART6-TX | UART | UART6-TX | 3.3V | I/O | |
| B4 | UART6-RX | UART | UART6-RX | 3.3V | I/O | |
| B25 | UART5-TX | UART | UART5-TX | 3.3V | I/O | |
| B5 | UART5-RX | UART | UART5-RX | 3.3V | I/O | |
| B43 | UART3-RTS | UART | UART3-RTS | 3.3V | I/O | |
| B26 | UART3-CTS | UART | UART3-CTS | 3.3V | I/O | |
| B58 | UART3-TX | UART | UART3-TX | 3.3V | I/O | |
| B6 | UART3-RX | UART | UART3-RX | 3.3V | I/O | |
| B44 | S-UART0-TX | UART | S-UART0-TX | 3.3V | I/O | |
| B26 | S-UART0-RX | UART | S-UART0-RX | 3.3V | I/O | |
| B59 | S-UART1-TX | UART | S-UART1-TX | 3.3V | I/O | |
| B45 | S-UART1-RX | UART | S-UART1-RX | 3.3V | I/O | |
| B45 | UART1-TX | UART | UART1-TX | 1.8V | I/O | |
| B71 | UART1-RX | UART | UART1-RX | 1.8V | I/O | |
| B7 | UART1RTS | UART | UART1RTS | 1.8V | I/O | |
| B60 | UART1-CTS | UART | UART1-CTS | 1.8V | I/O | |
| B29 | SPI1-CS0 | SPI1 | SPI1-CS0 | 3.3V | I/O | |
| B30 | SPI1-CLK | SPI1 | SPI1-CLK | 3.3V | I/O | |



| | | | | | | |
|-----|------------|--------|-------------------------------|------|-----|--|
| B47 | SPI1-MOSI | SPI1 | SPI1-MOSI | 3.3V | I/O | |
| B48 | SPI1-MISO | SPI1 | SPI1-MISO | 3.3V | I/O | |
| B61 | PJ18 | IO | GPIO | 3.3V | I/O | |
| B9 | PJ16 | IO | GPIO | 3.3V | I/O | |
| B73 | PJ17 | IO | GPIO | 3.3V | I/O | |
| B62 | PJ19 | IO | GPIO | 3.3V | I/O | |
| B46 | PL24 | IO | GPIO | 3.3V | I/O | |
| B72 | PJ25 | IO | GPIO | 3.3V | I/O | |
| B10 | SPI2-CS0 | SPI2 | SPI2-CS0 | 3.3V | I/O | |
| B11 | SPI2-CLK | SPI2 | SPI2-CLK | 3.3V | I/O | |
| B31 | SPI2-MOSI | SPI2 | SPI2-MOSI | 3.3V | I/O | |
| B32 | SPI2-MISO | SPI2 | SPI2-MISO | 3.3V | I/O | |
| B75 | CK32K-OUT | CLK | CK32K-OUT | 3.3V | I/O | |
| B76 | CK24M-OUT | CLK | CK24M-OUT | 3.3V | I/O | |
| B12 | TWI4-SCK | TWI4 | TWI4-SCK | 3.3V | I/O | |
| B13 | TWI4-SDA | TWI4 | TWI4-SDA | 3.3V | I/O | |
| B50 | TWI5-SCK | TWI5 | TWI5-SCK | 3.3V | I/O | |
| B51 | TWI5-SDA | TWI5 | TWI5-SDA | 3.3V | I/O | |
| B64 | S-TWI1-SCK | S-TWI1 | S-TWI1-SCK | 3.3V | I/O | |
| B65 | S-TWI1-SCK | S-TWI1 | S-TWI1-SCK | 3.3V | I/O | |
| B77 | PWM-2 | PWM | PWM-2 | 3.3V | I/O | |
| B34 | PWM-10 | PWM | PWM-10 | 3.3V | I/O | |
| B66 | PWM-11 | PWM | PWM-11 | 3.3V | I/O | |
| B14 | PWM-12 | PWM | PWM-12 | 3.3V | I/O | |
| B52 | PWM-15 | PWM | PWM-15 | 3.3V | I/O | |
| B78 | PWM-14 | PWM | PWM-14 | 3.3V | I/O | |
| B35 | PM-0 | IO | GPIO | 1.8V | I/O | |
| B67 | PM-1 | IO | GPIO | 1.8V | I/O | |
| B15 | PM-2 | IO | GPIO | 1.8V | I/O | |
| B53 | PM-3 | IO | GPIO | 1.8V | I/O | |
| B63 | PM-4 | IO | GPIO | 1.8V | I/O | |
| B49 | PM-5 | IO | GPIO | 1.8V | I/O | |
| B79 | VCC-CARD | 3V3 | The core board outputs 3V3 | 3.3V | P | |



| | | | | | | |
|-----|-------------|-------|-------------------------------|------|---------|--|
| B80 | VCC-CARD | 3V3 | The core board outputs 3V3 | 3.3V | P | |
| B56 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B39 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B19 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B57 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B40 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B20 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B41 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B21 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B22 | VDD_CORE_5V | 5V | POWER IN 5V | 5V | P | |
| B36 | GND | / | / | 0V | G | |
| B68 | GND | / | / | 0V | G | |
| B69 | GND | / | / | 0V | G | |
| B54 | GND | / | / | 0V | G | |
| B37 | GND | / | / | 0V | G | |
| B16 | GND | / | / | 0V | G | |
| B17 | GND | / | / | 0V | G | |
| B55 | GND | / | / | 0V | G | |
| B38 | GND | / | / | 0V | G | |
| B70 | GND | / | / | 0V | G | |
| B18 | GND | / | / | 0V | G | |
| C1 | UART0-TX | UART | UART0-TX | 3.3V | I/O | |
| C24 | UART0-RX | UART | UART0-RX | 3.3V | I/O | |
| C2 | UART7-RTS | UART | UART7-RTS | 3.3V | I/O | |
| C25 | UART7-CTS | UART | UART7-CTS | 3.3V | I/O | |
| C3 | UART7-TX | UART | UART7-TX | 3.3V | I/O | |
| C46 | UART7-RX | UART | UART7-RX | 3.3V | I/O | |
| C26 | UART2-TX | UART | UART2-TX | 3.3V | I/O | |
| C4 | UART2-RX | UART | UART2-RX | 3.3V | I/O | |
| C47 | UART2-RTS | UART | UART2-RTS | 3.3V | I/O | |
| C27 | UART2-CTS | UART | UART2-CTS | 3.3V | I/O | |
| C65 | RESET | RESET | RESET | 1.8V | I/O, OD | |
| C48 | PD22 | IO | GPIO | 3.3V | I/O | |



| | | | | | | |
|-----|--------------|--------|---------------------------|------|--------|--|
| C28 | PD23 | IO | GPIO | 3.3V | I/O | |
| C66 | PD20 | IO | GPIO | 3.3V | I/O | |
| C6 | PD21 | IO | GPIO | 3.3V | I/O | |
| C49 | CAN-TX | CAN | CAN-TX | 3.3V | I/O | |
| C50 | CAN-RX | CAN | CAN-RX | 3.3V | I/O | |
| C30 | NC | / | / | / | / | |
| C51 | WREQIN | DCXO | WREQIN signal from DCXO | 3.3V | AI | |
| C9 | PB8 | IO | GPIO | 3.3V | I/O | |
| C52 | PB6 | IO | GPIO | 3.3V | I/O | |
| C84 | PB7 | IO | GPIO | 3.3V | I/O | |
| C70 | CAN0-CPUS-TX | CAN | CAN0-CPUS-TX | 3.3V | I/O | |
| C71 | CAN0-CPUS-RX | CAN | CAN0-CPUS-RX | 3.3V | I/O | |
| C11 | PWRON | POWER | Power start enable signal | 3.3V | I/O | |
| C86 | FEL | System | Force burn pin | 3.3V | I/O | |
| C55 | AP-NMI | System | AP-NMI | 3.3V | I/O OD | |
| C87 | PH19 | IO | GPIO | 3.3V | I/O | |
| C73 | PH8 | IO | GPIO | 3.3V | I/O | |
| C56 | PH11 | IO | GPIO | 3.3V | I/O | |
| C88 | PH12 | IO | GPIO | 3.3V | I/O | |
| C42 | LVDS0-D0P | LVDS0 | LVDS0-D0P | 1.8V | I/O | |
| C41 | LVDS0-D0N | LVDS0 | LVDS0-D0N | 1.8V | I/O | |
| C61 | LVDS0-D1P | LVDS0 | LVDS0-D1P | 1.8V | I/O | |
| C60 | LVDS0-D1N | LVDS0 | LVDS0-D1N | 1.8V | I/O | |
| C93 | LVDS0-D2P | LVDS0 | LVDS0-D2P | 1.8V | I/O | |
| C92 | LVDS0-D2N | LVDS0 | LVDS0-D2N | 1.8V | I/O | |
| C17 | LVDS0-CKP | LVDS0 | LVDS0-CKP | 1.8V | I/O | |
| C16 | LVDS0-CKN | LVDS0 | LVDS0-CKN | 1.8V | I/O | |
| C39 | LVDS0-D3P | LVDS0 | LVDS0-D3P | 1.8V | I/O | |
| C38 | LVDS0-D3N | LVDS0 | LVDS0-D3N | 1.8V | I/O | |
| C77 | LVDS1-D0P | LVDS0 | LVDS1-D0P | 1.8V | I/O | |
| C76 | LVDS1-D0N | LVDS0 | LVDS1-D0N | 1.8V | I/O | |
| C90 | LVDS1-D1P | LVDS0 | LVDS1-D1P | 1.8V | I/O | |
| C89 | LVDS1-D1N | LVDS0 | LVDS1-D1N | 1.8V | I/O | |
| C58 | LVDS1-D2P | LVDS0 | LVDS1-D2P | 1.8V | I/O | |



| | | | | | | |
|-----|-----------|-------|-----------|------|------|--|
| C57 | LVDS1-D2N | LVDS0 | LVDS1-D2N | 1.8V | I/O | |
| C14 | LVDS1-CKP | LVDS0 | LVDS1-CKP | 1.8V | I/O | |
| C13 | LVDS1-CKN | LVDS0 | LVDS1-CKN | 1.8V | I/O | |
| C36 | LVDS1-D3P | LVDS0 | LVDS1-D3P | 1.8V | I/O | |
| C35 | LVDS1-D3N | LVDS0 | LVDS1-D3N | 1.8V | I/O | |
| C20 | EDP-AUXP | EDP | EDP-AUXP | 1.8V | I/O | |
| C19 | EDP-AUXN | EDP | EDP-AUXN | 1.8V | I/O | |
| C80 | EDP-TX0P | EDP | EDP-TX0P | 1.8V | I/O | |
| C79 | EDP-TX0N | EDP | EDP-TX0N | 1.8V | I/O | |
| C21 | EDP-HPD | EDP | EDP-HPD | 1.8V | I/O | |
| C64 | EDP-TX1P | EDP | EDP-TX1P | 1.8V | I/O | |
| C63 | EDP-TX1N | EDP | EDP-TX1N | 1.8V | I/O | |
| C45 | EDP-TX2P | EDP | EDP-TX2P | 1.8V | I/O | |
| C44 | EDP-TX2N | EDP | EDP-TX2N | 1.8V | I/O | |
| C23 | EDP-TX3P | EDP | EDP-TX3P | 1.8V | I/O | |
| C22 | EDP-TX3N | EDP | EDP-TX3N | 1.8V | I/O | |
| C32 | SPI0-CS0 | SPI2 | SPI0-CS0 | 1.8V | I/O | |
| C33 | SPI0-CS1 | SPI2 | SPI0-CS1 | 1.8V | I/O | |
| C34 | SPI0-CLK | SPI2 | SPI0-CLK | 1.8V | I/O | |
| C53 | SPI0-MOSI | SPI2 | SPI0-MOSI | 1.8V | I/O | |
| C54 | SPI0-MISO | SPI2 | SPI0-MISO | 1.8V | I/O | |
| D1 | HTX0P | HDMI | HTX0P | 1.8V | AO | |
| D2 | HTX0N | HDMI | HTX0N | 1.8V | AO | |
| D23 | HTX1P | HDMI | HTX1P | 1.8V | AO | |
| D24 | HTX1N | HDMI | HTX1N | 1.8V | AO | |
| D4 | HTX2P | HDMI | HTX2P | 1.8V | AO | |
| D5 | HTX2N | HDMI | HTX2N | 1.8V | AO | |
| D43 | HTXCP | HDMI | HTXCP | 1.8V | AO | |
| D44 | HTXCN | HDMI | HTXCN | 1.8V | AO | |
| D27 | HSCL | HDMI | HSCL | 1.8V | O | |
| D26 | HSDA | HDMI | HSDA | 1.8V | I/O | |
| D58 | HCEC | HDMI | HCEC | 1.8V | I/O | |
| D6 | HHPD | HDMI | HHPD | 1.8V | I/O | |
| D8 | USB0-DP | USB | USB0-DP | 3.3V | AI/O | |



| | | | | | | |
|-----|-------------------|----------|-------------------|------|------|--|
| D9 | USB0-DM | USB | USB0-DM | 3.3V | AI/O | |
| D46 | USB2-DP | USB | USB2-DP | 3.3V | AI/O | |
| D47 | USB2-DM | USB | USB2-DM | 3.3V | AI/O | |
| D29 | USB1-DP | USB | USB1-DP | 3.3V | AI/O | |
| D30 | USB1-DM | USB | USB1-DM | 3.3V | AI/O | |
| D73 | PCIE-CLKP | PCIE | PCIE-CLKP | 1.8V | AI/O | |
| D74 | PCIE-CLKN | PCIE | PCIE-CLKN | 1.8V | AI/O | |
| D59 | PCIE-TX0-DP | PCIE | PCIE-TX0-DP | 1.8V | AO | |
| D60 | PCIE-TX0-DN | PCIE | PCIE-TX0-DN | 1.8V | AO | |
| D62 | PCIE-RX0-DP | PCIE | PCIE-RX0-DP | 1.8V | AI | |
| D63 | PCIE-RX0-DN | PCIE | PCIE-RX0-DN | 1.8V | AI | |
| D11 | SDC0-CLK | SDC0-CLK | SDC0-CLK | 3.3V | O | |
| D12 | SDC0-CMD | SDC0-CMD | SDC0-CMD | 3.3V | O | |
| D13 | SDC0-D0 | SDC0-D0 | SDC0-D0 | 3.3V | I/O | |
| D32 | SDC0-D1 | SDC0-D1 | SDC0-D1 | 3.3V | I/O | |
| D33 | SDC0-D2 | SDC0-D2 | SDC0-D2 | 3.3V | I/O | |
| D49 | SDC0-D3 | SDC0-D3 | SDC0-D3 | 3.3V | I/O | |
| D50 | SDC0-DET | SDC0-DET | SDC0-DET | 3.3V | O | |
| D34 | RGMII0-MDC | RGMII0 | RGMII0-MDC | 3.3V | I/O | |
| D35 | RGMII0-MDIO | RGMII0 | RGMII0-MDIO | 3.3V | I/O | |
| D52 | RGMII0-TXD0 | RGMII0 | RGMII0-TXD0 | 3.3V | I/O | |
| D53 | RGMII0-TXD1 | RGMII0 | RGMII0-TXD1 | 3.3V | I/O | |
| D54 | RGMII0-TXD2 | RGMII0 | RGMII0-TXD2 | 3.3V | I/O | |
| D69 | RGMII0-TXD3 | RGMII0 | RGMII0-TXD3 | 3.3V | I/O | |
| D70 | RGMII0-TXCK | RGMII0 | RGMII0-TXCK | 3.3V | I/O | |
| D68 | RGMII0-TXCTL | RGMII0 | RGMII0-TXCTL | 3.3V | I/O | |
| D67 | RGMII0-RXCTL | RGMII0 | RGMII0-RXCTL | 3.3V | I/O | |
| D65 | RGMII0-RXCK | RGMII0 | RGMII0-RXCK | 3.3V | I/O | |
| D66 | RGMII0-RXD0 | RGMII0 | RGMII0-RXD0 | 3.3V | I/O | |
| D76 | RGMII0-RXD1 | RGMII0 | RGMII0-RXD1 | 3.3V | I/O | |
| D77 | RGMII0-RXD2 | RGMII0 | RGMII0-RXD2 | 3.3V | I/O | |
| D78 | RGMII0-RXD3 | RGMII0 | RGMII0-RXD3 | 3.3V | I/O | |
| D79 | EPHY-CLK-25M | RGMII0 | EPHY-CLK-25M | 3.3V | I/O | |
| D80 | RGMII0-CLKIN-125M | RGMII0 | RGMII0-CLKIN-125M | 3.3V | I/O | |



| | | | | | | |
|-----|-----------|-----|-----------|------|-----|--|
| D15 | MCSIA-D0N | CSI | MCSIA-D0N | 1.8V | I/O | |
| D16 | MCSIA-D0P | CSI | MCSIA-D0P | 1.8V | I/O | |
| D37 | MCSIA-D1N | CSI | MCSIA-D1N | 1.8V | I/O | |
| D38 | MCSIA-D1P | CSI | MCSIA-D1P | 1.8V | I/O | |
| D18 | MCSIA-CKN | CSI | MCSIA-CKN | 1.8V | I/O | |
| D19 | MCSIA-CKP | CSI | MCSIA-CKP | 1.8V | I/O | |
| D56 | MCSIB-D0N | CSI | MCSIB-D0N | 1.8V | I/O | |
| D57 | MCSIB-D0P | CSI | MCSIB-D0P | 1.8V | I/O | |
| D40 | MCSIB-D1N | CSI | MCSIB-D1N | 1.8V | I/O | |
| D41 | MCSIB-D1P | CSI | MCSIB-D1P | 1.8V | I/O | |
| D21 | MCSIB-CKN | CSI | MCSIB-CKN | 1.8V | I/O | |
| D22 | MCSIB-CKP | CSI | MCSIB-CKP | 1.8V | I/O | |

Table 3-1 MYC-LT527M Core board Pin List



4. Electrical Characteristics

4.1. Primary System Power (VDD_5V)

The main power supply of the MYC-LT527M core board is VDD_5V, which corresponds to 9 pins such as B56, B39, B19 of the stamp hole SMD pad. In order to ensure normal operation, the base plate must provide a voltage of $5V \pm 5\%$, a current of about 2-3A, and ensure that the output capacity of the power supply circuit can meet the power consumption of the core board. This section lists the power consumption and current of the core board under various conditions. Please reserve an appropriate margin when designing the power supply circuit.

| Name | Description | Recommended Voltage |
|-------------|-----------------------------------|---------------------|
| VDD_CORE_5V | Main supply voltage, 5V input, 2A | 5V |
| VCC-CARD | 3.3V output, 500mA | 3.3V |

Table 4-1 External input / output voltage

4.2. Power Consumption

| Conditon | Voltage(V) | Average Current(A) | Power Consumption (W) |
|---|------------|--------------------|-----------------------|
| no-load | 4.96 | 0.4 | 1.984 |
| Full-load (ENET*1+USB*2+Type-C*1+SD Card*1+aging) | 4.96 | 1.1 | 5.456 |
| mem (echo mem) | 4.96 | 0.01 | 0.0496 |
| freeze (echo freeze) | 4.96 | 0.14 | 0.6944 |

Table 4-2 Power consumption parameters



4.3. GPIO DC Parameters

| Parameter | Symbol | Min | Typical | Max | Units | description |
|---------------------------------|----------|-------------------------|---------|-------------------------|-------|-------------|
| High-lever DC input voltage | V_{IH} | $0.7 \cdot V_{CC_{IO}}$ | — | $V_{CC_{IO}} + 0.3$ | V | — |
| Low-lever DC input voltage | V_{IL} | -0.3 | — | $0.3 \cdot V_{CC_{IO}}$ | V | — |
| High-lever DC output voltage | V_{OH} | $V_{CC_{IO}} - 0.3$ | — | $V_{CC_{IO}}$ | V | — |
| Low-lever DC output voltage | V_{OL} | 0 | — | 0.2 | V | — |

Table 4-3 GPIO DC Parameters



5. System necessary circuit design

5.1. Boot

With the MYC-LT527M core board, you do not need to pay attention to the boot bit configuration when designing the baseboard. SD card is inserted and the card surface has been burned mirror, the development board will boot from SD card preferentially. After removing the MicroSD card, the development board can be booted from eMMC .

5.2. Burning firmware

Micro SD card circuit is recommended for the core board of MYC-LT527M to burn and update the firmware of the core board, and SMHC0 is recommended for signal interface. Please refer to Section 6.1.

5.3. Debug

It is recommended that the core board of MYC-LT527M use UART interface circuit to debug the software program of the core board. It is recommended that the signal interface use UART0. For details, please refer to Section 6.3.

5.4. Reset

With the MYC-LT527M core board, the RESET signal is led out by the PIN C65 pin of the core board, which is used for the hardware system of the core board to reset the input signal, 3.3V level logic, and the logic chip is used to open the leakage output of the core board to isolate external interference. Please refer to Section 4 for details.



6. Interfaces

6.1. SD

The MYC-LT527M core board is equipped with three SD/MMC interfaces, SMHC0, SMHC1 and SMHC2. SMHC0 is commonly used to design MicroSD card signals; SMHC2 has been used to connect EMMC signals on the core board. SMHC1 is 1V8 level, and the chip supports SD3.0 protocol.

6.1.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|----------|------------------|-------------|---------|-----|---|
| - | D11 | SDC0-CLK | SDC0-CLK | SDC0-CLK | 3.3V | O | |
| | D12 | SDC0-CMD | SDC0-CMD | SDC0-CMD | 3.3V | O | Pull up inside the chip |
| | D13 | SDC0-D0 | SDC0-D0 | SDC0-D0 | 3.3V | I/O | |
| | D32 | SDC0-D1 | SDC0-D1 | SDC0-D1 | 3.3V | I/O | |
| | D33 | SDC0-D2 | SDC0-D2 | SDC0-D2 | 3.3V | I/O | |
| | D49 | SDC0-D3 | SDC0-D3 | SDC0-D3 | 3.3V | I/O | |
| | D50 | SDC0-DET | SDC0-DET | SDC0-DET | 3.3V | O | Pull up inside the chip, A series 1K resistor is required |

Table 6-1 SD/MMC PIN description



6.2. UART

The MYC-LT527M core board processor has up to 10 serial ports. UART1 is at 1V8 level, where UART1-4 and UART7 are 4-wire with flow control (RTS and CTS signals) functions.

6.2.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|--|-----|------------|------------------|-------------|---------|-----|----------|
| | B1 | UART4-TX | UART | UART4-TX | 3.3V | I/O | |
| | B2 | UART4-RX | UART | UART4-RX | 3.3V | I/O | |
| | B23 | UART4-RTS | UART | UART4-RTS | 3.3V | I/O | |
| | B3 | UART4-CTS | UART | UART4-CTS | 3.3V | I/O | |
| | B24 | UART6-TX | UART | UART6-TX | 3.3V | I/O | |
| | B4 | UART6-RX | UART | UART6-RX | 3.3V | I/O | |
| | B25 | UART5-TX | UART | UART5-TX | 3.3V | I/O | |
| | B5 | UART5-RX | UART | UART5-RX | 3.3V | I/O | |
| | B43 | UART3-RTS | UART | UART3-RTS | 3.3V | I/O | |
| | B26 | UART3-CTS | UART | UART3-CTS | 3.3V | I/O | |
| | B58 | UART3-TX | UART | UART3-TX | 3.3V | I/O | |
| | B6 | UART3-RX | UART | UART3-RX | 3.3V | I/O | |
| | B44 | S-UART0-TX | UART | S-UART0-TX | 3.3V | I/O | |
| | B26 | S-UART0-RX | UART | S-UART0-RX | 3.3V | I/O | |
| | B59 | S-UART1-TX | UART | S-UART1-TX | 3.3V | I/O | |
| | B45 | S-UART1-RX | UART | S-UART1-RX | 3.3V | I/O | |
| | B45 | UART1-TX | UART | UART1-TX | 1.8V | I/O | |
| | B71 | UART1-RX | UART | UART1-RX | 1.8V | I/O | |
| | B7 | UART1RTS | UART | UART1RTS | 1.8V | I/O | |
| | B60 | UART1-CTS | UART | UART1-CTS | 1.8V | I/O | |
| | C1 | UART0-TX | UART | UART0-TX | 3.3V | I/O | |
| | C24 | UART0-RX | UART | UART0-RX | 3.3V | I/O | |
| | C2 | UART7-RTS | UART | UART7-RTS | 3.3V | I/O | |
| | C25 | UART7-CTS | UART | UART7-CTS | 3.3V | I/O | |
| | C3 | UART7-TX | UART | UART7-TX | 3.3V | I/O | |
| | C46 | UART7-RX | UART | UART7-RX | 3.3V | I/O | |
| | C26 | UART2-TX | UART | UART2-TX | 3.3V | I/O | |
| | C4 | UART2-RX | UART | UART2-RX | 3.3V | I/O | |



| | | | | | | | |
|--|-----|-----------|------|-----------|------|-----|--|
| | C47 | UART2-RTS | UART | UART2-RTS | 3.3V | I/O | |
| | C27 | UART2-CTS | UART | UART2-CTS | 3.3V | I/O | |

Table 6-2 UART PIN description

6.3. USB

The MYC-LT527M core board provides two USB2.0 channels and one USB3.1 DRD. USB0 supports HOST and Device modes, and the burning program can only use the USB0 port. The USB1 only supports HOST mode, and the USB0-1 has a maximum speed of 480Mbps. The USB2 supports HOST and Device modes, and the USB3.1 rate can reach 5Gbps.

6.3.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-------------|------------------|-------------|---------|------|----------|
| - | D8 | USB0-DP | USB | USB0-DP | 3.3V | AI/O | |
| | D9 | USB0-DM | USB | USB0-DM | 3.3V | AI/O | |
| | D46 | USB2-DP | USB | USB2-DP | 3.3V | AI/O | |
| | D47 | USB2-DM | USB | USB2-DM | 3.3V | AI/O | |
| | D29 | USB1-DP | USB | USB1-DP | 3.3V | AI/O | |
| | D30 | USB1-DM | USB | USB1-DM | 3.3V | AI/O | |
| | D73 | PCIE-CLKP | PCIE | PCIE-CLKP | 3.3V | AI/O | |
| | D74 | PCIE-CLKN | PCIE | PCIE-CLKN | 3.3V | AI/O | |
| | D59 | PCIE-TX0-DP | PCIE | PCIE-TX0-DP | 3.3V | AO | |
| | D60 | PCIE-TX0-DN | PCIE | PCIE-TX0-DN | 3.3V | AO | |
| | D62 | PCIE-RX0-DP | PCIE | PCIE-RX0-DP | 3.3V | AI | |
| | D63 | PCIE-RX0-DN | PCIE | PCIE-RX0-DN | 3.3V | AI | |

Table 6-3 USB PIN description



6.4. Ethernet

Two RGMII signals are extracted from the MYC-LT527M core board. CPU Ethernet interfaces support only RGMII and RMII. Support 10/100/1000M transmission speed. The core board can output 25MHz clock signal to the external PHY chip for use, which can save the external 25MHz crystal oscillator. RGMII-TXCK is recommended to reserve RC for EMI suppression debugging and place it on the SOC end.

6.4.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------------|------------------|-----------------|---------|-----|----------|
| - | A49 | RGMII1-MDC | PHY | RGMII1-MDC | 3.3V | I/O | |
| | A50 | RGMII1-MDIO | PHY | RGMII1-MDIO | 3.3V | I/O | |
| | A81 | RGMII1-TXCK | PHY | RGMII1-TXCK | 3.3V | I/O | |
| | A82 | RGMII1-TXCTL | PHY | RGMII1-TXCTL | 3.3V | I/O | |
| | A83 | RGMII1-TXD0 | PHY | RGMII1-TXD0 | 3.3V | I/O | |
| | A84 | RGMII1-TXD1 | PHY | RGMII1-TXD1 | 3.3V | I/O | |
| | A67 | RGMII1-TXD2 | PHY | RGMII1-TXD2 | 3.3V | I/O | |
| | A68 | RGMII1-TXD3 | PHY | RGMII1-TXD3 | 3.3V | I/O | |
| | A69 | RGMII1-EPHY-25M | PHY | RGMII1-EPHY-25M | 3.3V | I/O | |
| | A51 | RGMII1-CLKIN | PHY | RGMII1-CLKIN | 3.3V | I/O | |
| | A52 | RGMII1-RXCTL | PHY | RGMII1-RXCTL | 3.3V | I/O | |
| | A29 | RGMII1-RXCK | PHY | RGMII1-RXCK | 3.3V | I/O | |
| | A30 | RGMII1-RXD0 | PHY | RGMII1-RXD0 | 3.3V | I/O | |
| | A31 | RGMII1-RXD1 | PHY | RGMII1-RXD1 | 3.3V | I/O | |
| | A7 | RGMII1-RXD2 | PHY | RGMII1-RXD2 | 3.3V | I/O | |
| | A8 | RGMII1-RXD3 | PHY | RGMII1-RXD3 | 3.3V | I/O | |
| | | | | | | | |
| | D34 | RGMII0-MDC | RGMII0 | RGMII0-MDC | 3.3V | I/O | |
| | D35 | RGMII0-MDIO | RGMII0 | RGMII0-MDIO | 3.3V | I/O | |
| | D52 | RGMII0-TXD0 | RGMII0 | RGMII0-TXD0 | 3.3V | I/O | |
| | D53 | RGMII0-TXD1 | RGMII0 | RGMII0-TXD1 | 3.3V | I/O | |
| | D54 | RGMII0-TXD2 | RGMII0 | RGMII0-TXD2 | 3.3V | I/O | |
| | D69 | RGMII0-TXD3 | RGMII0 | RGMII0-TXD3 | 3.3V | I/O | |
| | D70 | RGMII0-TXCK | RGMII0 | RGMII0-TXCK | 3.3V | I/O | |
| | D68 | RGMII0-TXCTL | RGMII0 | RGMII0-TXCTL | 3.3V | I/O | |
| | D67 | RGMII0-RXCTL | RGMII0 | RGMII0-RXCTL | 3.3V | I/O | |



| | | | | | | | |
|--|-----|-------------------|--------|-------------------|------|-----|--|
| | D65 | RGMII0-RXCK | RGMII0 | RGMII0-RXCK | 3.3V | I/O | |
| | D66 | RGMII0-RXD0 | RGMII0 | RGMII0-RXD0 | 3.3V | I/O | |
| | D76 | RGMII0-RXD1 | RGMII0 | RGMII0-RXD1 | 3.3V | I/O | |
| | D77 | RGMII0-RXD2 | RGMII0 | RGMII0-RXD2 | 3.3V | I/O | |
| | D78 | RGMII0-RXD3 | RGMII0 | RGMII0-RXD3 | 3.3V | I/O | |
| | D79 | EPHY-CLK-25M | RGMII0 | EPHY-CLK-25M | 3.3V | I/O | |
| | D80 | RGMII0-CLKIN-125M | RGMII0 | RGMII0-CLKIN-125M | 3.3V | I/O | |

Table 6-4 PHY PIN description



6.5. I2C

The MYC-LT527M core board processor supports four I2C (TWI) buses, among which I2C1 is used for E2PROM chip in the core board, and three I2C interfaces are led out to the core board for use.

If you want to use more I2C bus interfaces, consult the chip manual or Pin List and modify the pin configuration in the driver

6.5.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|------------|------------------|-------------|---------|-----|----------|
| - | B12 | TWI4-SCK | TWI4 | TWI4-SCK | 3.3V | I/O | |
| | B13 | TWI4-SDA | TWI4 | TWI4-SDA | 3.3V | I/O | |
| | B50 | TWI5-SCK | TWI5 | TWI5-SCK | 3.3V | I/O | |
| | B51 | TWI5-SDA | TWI5 | TWI5-SDA | 3.3V | I/O | |
| | B64 | S-TWI1-SCK | S-TWI1 | S-TWI1-SCK | 3.3V | I/O | |
| | B65 | S-TWI1-SCK | S-TWI1 | S-TWI1-SCK | 3.3V | I/O | |

Table 6-5 I2C PIN description

6.6. PWM

The MYC-LT527M core board leads to six PWM interfaces, which can also be used as a general I/O port. Up to 16 independent PWM channels for the PWM controller, supporting PWM continuous mode output; Support PWM pulse mode output, pulse number can be configured. Up to 8 pairs of complementary output PWM controllers.

6.6.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|--------|------------------|-------------|---------|-----|----------|
| - | B77 | PWM-2 | PWM | PWM Signal | 3.3V | I/O | |
| | B34 | PWM-10 | PWM | PWM Signal | 3.3V | I/O | |
| | B66 | PWM-11 | PWM | PWM Signal | 3.3V | I/O | |
| | B14 | PWM-12 | PWM | PWM Signal | 3.3V | I/O | |
| | B52 | PWM-15 | PWM | PWM Signal | 3.3V | I/O | |
| | B78 | PWM-14 | PWM | PWM Signal | 3.3V | I/O | |

Table 6-6 Audio PIN description



6.7. LVDS

The MYC-LT527M core board has two LVDS display and output interfaces. Supports dual LVDS0+LVDS1 display interfaces. Support dual screen display, resolution 1920x1080@60Hz. Where, when LVDS1 serves as MIPI DSI, the resolution is 1920x1080@60Hz; LVDS0 supports the display of a single LVDS interface. The resolution is 1366x768@60Hz. It is 3V3 level for normal IO and 1V8 level for LVDS

6.7.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------|------------------|-------------|---------|-----|----------|
| - | C42 | LVDS0-D0P | LVDS0 | LVDS0-D0P | 1.8V | I/O | |
| | C41 | LVDS0-D0N | LVDS0 | LVDS0-D0N | 1.8V | I/O | |
| | C61 | LVDS0-D1P | LVDS0 | LVDS0-D1P | 1.8V | I/O | |
| | C60 | LVDS0-D1N | LVDS0 | LVDS0-D1N | 1.8V | I/O | |
| | C93 | LVDS0-D2P | LVDS0 | LVDS0-D2P | 1.8V | I/O | |
| | C92 | LVDS0-D2N | LVDS0 | LVDS0-D2N | 1.8V | I/O | |
| | C17 | LVDS0-CKP | LVDS0 | LVDS0-CKP | 1.8V | I/O | |
| | C16 | LVDS0-CKN | LVDS0 | LVDS0-CKN | 1.8V | I/O | |
| | C39 | LVDS0-D3P | LVDS0 | LVDS0-D3P | 1.8V | I/O | |
| | C38 | LVDS0-D3N | LVDS0 | LVDS0-D3N | 1.8V | I/O | |
| | | | | | | | |
| | C77 | LVDS1-D0P | LVDS0 | LVDS1-D0P | 1.8V | I/O | |
| | C76 | LVDS1-D0N | LVDS0 | LVDS1-D0N | 1.8V | I/O | |
| | C90 | LVDS1-D1P | LVDS0 | LVDS1-D1P | 1.8V | I/O | |
| | C89 | LVDS1-D1N | LVDS0 | LVDS1-D1N | 1.8V | I/O | |
| | C58 | LVDS1-D2P | LVDS0 | LVDS1-D2P | 1.8V | I/O | |
| | C57 | LVDS1-D2N | LVDS0 | LVDS1-D2N | 1.8V | I/O | |
| | C14 | LVDS1-CKP | LVDS0 | LVDS1-CKP | 1.8V | I/O | |
| | C13 | LVDS1-CKN | LVDS0 | LVDS1-CKN | 1.8V | I/O | |
| | C36 | LVDS1-D3P | LVDS0 | LVDS1-D3P | 1.8V | I/O | |
| | C35 | LVDS1-D3N | LVDS0 | LVDS1-D3N | 1.8V | I/O | |

Table 6-7 LVDS PIN description



6.8. AUDIO

The MYC-LT527M core board contains an analog audio CODE-C interface, which can provide 1 HPOUT L/R interface, 1 LINEOUT L/R, and 2 MICIN1/2 P/N.

6.8.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------|------------------|-------------|---------|----|----------|
| - | A13 | MICIN1N | MIC | MICIN1N | 1.8V | AI | |
| | A14 | MICIN1P | MIC | MICIN1P | 1.8V | AI | |
| | A35 | MICIN2N | MIC | MICIN2N | 1.8V | AI | |
| | A36 | MICIN2P | MIC | MICIN2P | 1.8V | AI | |
| | A37 | MBIAS | MIC | MBIAS | 1.8V | AO | |
| | A55 | HPOUTFB | HPOUTFB | HPOUTFB | 3.3V | AI | |
| | A56 | HPOUTL | HPOUTL | HPOUTL | 3.3V | AO | |
| | A57 | HPOUTR | HPOUTR | HPOUTR | 3.3V | AO | |
| | A73 | HP-DET | JACK | HP-DET | 1.8V | AI | |
| | A74 | LINEOUTLP | LINE | LINEOUTLP | 1.8V | AO | |
| | A75 | LINEOUTLN | LINE | LINEOUTLN | 1.8V | AO | |
| | A88 | LINEOUTRP | LINE | LINEOUTRP | 1.8V | AO | |
| | A89 | LINEOUTRN | LINE | LINEOUTRN | 1.8V | AO | |

Table 6-8 Audio PIN description



6.9. ADC

The MYC-LT527M core board supports 8 GPADC and 2 LRADC. GPADC has a 12/10-bit resolution, a maximum 1Mhz sampling rate, and supports signal input ranges from 0 to 1.8V. LRADC has a 6-bit resolution, a maximum 2Khz sampling rate, and supports signal input ranges from 0 to 1.35V.

6.9.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|---------|------------------|-------------|---------|----|----------|
| - | A16 | GPADC3 | GPADC | GPADC3 | 1.8V | AI | |
| | A59 | GPADC4 | GPADC | GPADC4 | 1.8V | AI | |
| | A91 | GPADC5 | GPADC | GPADC5 | 1.8V | AI | |
| | A39 | GPADC6 | GPADC | GPADC6 | 1.8V | AI | |
| | A77 | GPADC7 | GPADC | GPADC7 | 1.8V | AI | |
| | A17 | GPADC8 | GPADC | GPADC8 | 1.8V | AI | |
| | A60 | GPADC9 | GPADC | GPADC9 | 1.8V | AI | |
| | A92 | GPADC10 | GPADC | GPADC10 | 1.8V | AI | |
| | A40 | LRADC0 | LRADC | LRADC0 | 1.8V | AI | |
| | A78 | LRADC1 | LRADC | LRADC1 | 1.8V | AI | |

Table 6-9 ADC PIN description



6.10. MIPI CSI

The MYC-LT527M core board supports two MIPI CSI interfaces with a level of 1V8. The maximum input for CSI is 8M@30fps, the maximum pixel clock for parallel CSI interface is 148.5MHz, and the maximum input for BT656 interface is 4*720P@30fps in clock dual-edge sampling mode.

6.10.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------|------------------|-------------|---------|-----|----------|
| - | A1 | MCSIC-D0P | CSI | MCSIC-D0P | 1.8V | I/O | |
| | A2 | MCSIC-D0N | CSI | MCSIC-D0N | 1.8V | I/O | |
| | A24 | MCSIC-D1P | CSI | MCSIC-D1P | 1.8V | I/O | |
| | A25 | MCSIC-D1N | CSI | MCSIC-D1N | 1.8V | I/O | |
| | A46 | MCSIC-CKP | CSI | MCSIC-CKP | 1.8V | I/O | |
| | A47 | MCSIC-CKN | CSI | MCSIC-CKN | 1.8V | I/O | |
| | A4 | MCSID-D0P | CSI | MCSID-D0P | 1.8V | I/O | |
| | A5 | MCSID-D0P | CSI | MCSID-D0P | 1.8V | I/O | |
| | A27 | MCSID-D1P | CSI | MCSID-D1P | 1.8V | I/O | |
| | A28 | MCSID-D1N | CSI | MCSID-D1N | 1.8V | I/O | |
| | A65 | MCSID-CKP | CSI | MCSID-CKP | 1.8V | I/O | |
| | A66 | MCSID-CKN | CSI | MCSID-CKN | 1.8V | I/O | |
| | | | | | | | |
| | D15 | MCSIA-D0N | CSI | MCSIA-D0N | 1.8V | I/O | |
| | D16 | MCSIA-D0P | CSI | MCSIA-D0P | 1.8V | I/O | |
| | D37 | MCSIA-D1N | CSI | MCSIA-D1N | 1.8V | I/O | |
| | D38 | MCSIA-D1P | CSI | MCSIA-D1P | 1.8V | I/O | |
| | D18 | MCSIA-CKN | CSI | MCSIA-CKN | 1.8V | I/O | |
| | D19 | MCSIA-CKP | CSI | MCSIA-CKP | 1.8V | I/O | |
| | D56 | MCSIB-D0N | CSI | MCSIB-D0N | 1.8V | I/O | |
| | D57 | MCSIB-D0P | CSI | MCSIB-D0P | 1.8V | I/O | |
| | D40 | MCSIB-D1N | CSI | MCSIB-D1N | 1.8V | I/O | |
| | D41 | MCSIB-D1P | CSI | MCSIB-D1P | 1.8V | I/O | |
| | D21 | MCSIB-CKN | CSI | MCSIB-CKN | 1.8V | I/O | |
| | D22 | MCSIB-CKP | CSI | MCSIB-CKP | 1.8V | I/O | |

Table 6-10 CSI PIN description



6.11. I2S

Signal MYC-LT527M core board leads to two I2S interface, I2S1 is 1V8, I2S interface supports a variety of clocks, 24.576MHz/12.288MHz. Has adjustable widths from 8 bit to 32 bit sampling rates from 8-384 KHZ.

6.11.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------|------------------|-------------|---------|-----|----------|
| - | A10 | I2S1-MCLK | I2S1 | I2S1-MCLK | 1.8V | I/O | |
| | A11 | I2S1-BCLK | I2S1 | I2S1-BCLK | 1.8V | I/O | |
| | A12 | I2S1-LRCK | I2S1 | I2S1-LRCK | 1.8V | I/O | |
| | A33 | I2S1-DIN1 | I2S1 | I2S1-DIN1 | 1.8V | I/O | |
| | A34 | I2S1-DOU1 | I2S1 | I2S1-DOU1 | 1.8V | I/O | |
| | A19 | I2S2-MCLK | I2S2 | I2S2-MCLK | 3.3V | I/O | |
| | A20 | I2S2-BCLK | I2S2 | I2S2-BCLK | 3.3V | I/O | |
| | A21 | I2S2-LRCK | I2S2 | I2S2-LRCK | 3.3V | I/O | |
| | A42 | I2S2-DOU0 | I2S2 | I2S2-DOU0 | 3.3V | I/O | |
| | A43 | I2S2-DIN0 | I2S2 | I2S2-DIN0 | 3.3V | I/O | |

Table 6-11 I2S PIN description

6.12. SPI

MYC-LT527M core board leads to 3 SPI interfaces, SPI0 is 1V8 level. SPI1-2 is 3V3 level, the main mode is 3-wire SPI, and has programmable serial data frame lengths from 1 to 32 bits. The maximum clock is 100MHz.

6.12.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|-----------|------------------|-------------|---------|-----|----------|
| - | B29 | SPI1-CS0 | SPI1 | SPI1-CS0 | 3.3V | I/O | |
| | B30 | SPI1-CLK | SPI1 | SPI1-CLK | 3.3V | I/O | |
| | B47 | SPI1-MOSI | SPI1 | SPI1-MOSI | 3.3V | I/O | |
| | B48 | SPI1-MISO | SPI1 | SPI1-MISO | 3.3V | I/O | |
| | B10 | SPI2-CS0 | SPI2 | SPI2-CS0 | 3.3V | I/O | |
| | B11 | SPI2-CLK | SPI2 | SPI2-CLK | 3.3V | I/O | |
| | B31 | SPI2-MOSI | SPI2 | SPI2-MOSI | 3.3V | I/O | |
| | B32 | SPI2-MISO | SPI2 | SPI2-MISO | 3.3V | I/O | |

Table 6-12 SPI PIN description



6.13. eDP

The MYC-LT527M core board leads to one EDP interface, resolution 2.5k@60Hz. 1, 2, and 4 lane transfers with a maximum transfer rate of 2.7 Gbit/s. Color depth: 8bit and 10bit per channel.

6.13.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|----------|------------------|-------------|---------|-----|----------|
| - | C20 | EDP-AUXP | EDP | EDP-AUXP | 1.8V | I/O | |
| | C19 | EDP-AUXN | EDP | EDP-AUXN | 1.8V | I/O | |
| | C80 | EDP-TX0P | EDP | EDP-TX0P | 1.8V | I/O | |
| | C79 | EDP-TX0N | EDP | EDP-TX0N | 1.8V | I/O | |
| | C21 | EDP-HPD | EDP | EDP-HPD | 1.8V | I/O | |
| | C64 | EDP-TX1P | EDP | EDP-TX1P | 1.8V | I/O | |
| | C63 | EDP-TX1N | EDP | EDP-TX1N | 1.8V | I/O | |
| | C45 | EDP-TX2P | EDP | EDP-TX2P | 1.8V | I/O | |
| | C44 | EDP-TX2N | EDP | EDP-TX2N | 1.8V | I/O | |
| | C23 | EDP-TX3P | EDP | EDP-TX3P | 1.8V | I/O | |
| | C22 | EDP-TX3N | EDP | EDP-TX3N | 1.8V | I/O | |

Table 6-13 eDP PIN description



6.14. HDMI

The MYC-LT527M core board leads to 1 HDMI interface. The 5V power supply of HDMI must be connected with a Schottky diode in series to prevent leakage at the end of the device after shutdown. Please choose a Schottky diode with reduced on-voltage. Support 3840x2160, 1920x1080, 1280x720 resolution.

6.14.1. Pin Description

| | Pin | Signal | Default Function | Description | Voltage | IO | Comments |
|---|-----|--------|------------------|-------------|---------|-----|----------|
| - | D1 | HTX0P | HDMI | HTX0P | 1.8V | AO | |
| | D2 | HTX0N | HDMI | HTX0N | 1.8V | AO | |
| | D23 | HTX1P | HDMI | HTX1P | 1.8V | AO | |
| | D24 | HTX1N | HDMI | HTX1N | 1.8V | AO | |
| | D4 | HTX2P | HDMI | HTX2P | 1.8V | AO | |
| | D5 | HTX2N | HDMI | HTX2N | 1.8V | AO | |
| | D43 | HTXCP | HDMI | HTXCP | 1.8V | AO | |
| | D44 | HTXCN | HDMI | HTXCN | 1.8V | AO | |
| | D27 | HSCL | HDMI | HSCL | 1.8V | O | |
| | D26 | HSDA | HDMI | HSDA | 1.8V | I/O | |
| | D58 | HCEC | HDMI | HCEC | 1.8V | I/O | |
| | D6 | HHPD | HDMI | HHPD | 1.8V | I/O | |

Table 6-14 HDMI PIN description



7. Package Information

7.1. Package Dimensions

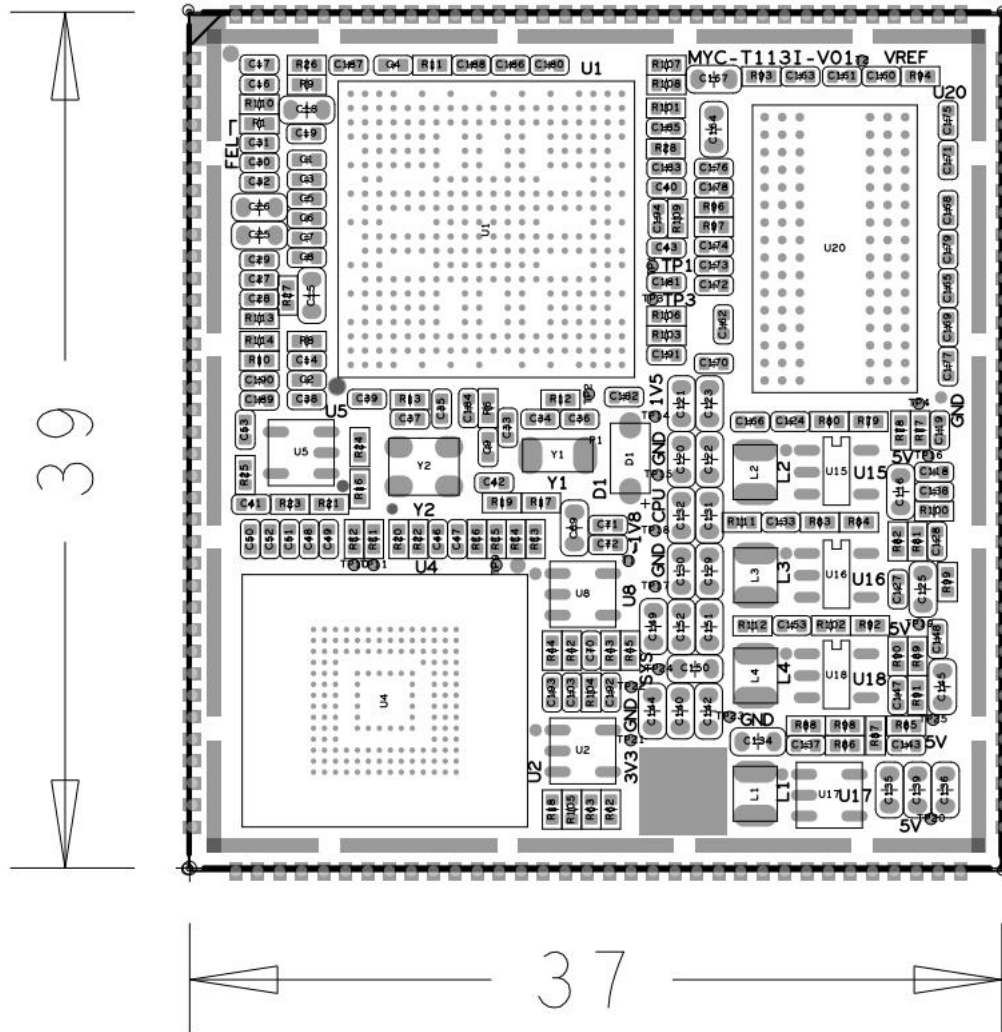


Figure 7-1 MYC-LT527M Top View

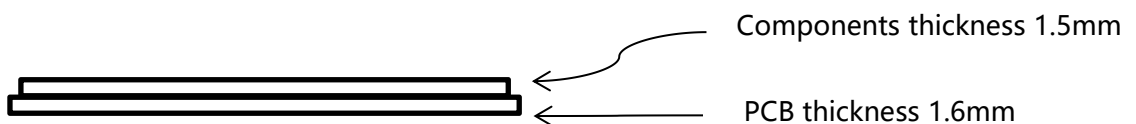


Figure 7-2 MYC-LT527M Side View



7.2. Carrier Board PCB Design

- a. PCB thickness is recommended to be at least 1.6mm. Pay attention to the balance of copper coating. If PCB deformation occurs in the over furnace, it is recommended to use a carrier to fix the over furnace.
- b. To ensure the quality of mounting and tinning, ensure that the PCB module is at least 3mm away from other components.
- c. PCB packaging provided by MYIR Electronics is recommended.



8. Mount and storage requirements

8.1. Steel mesh design

- 1) It is recommended to open holes at a ratio of 1:1 for the circular pad with a thickness of 0.15mm tin; With a thickness of 0.18mm, the opening ratio is 1:0.8.

8.2. Storage requirement

Modules are shipped in vacuum sealed form, and the following conditions are required for storage:

- 1) The vacuum-sealed bag can be stored for 12 months when the ambient temperature is lower than 40°C and the air humidity is less than 90%.
- 2) After opening the vacuum sealing bag, reflow welding can be carried out directly within 72 hours when the ambient temperature is lower than 30°C and the air humidity is less than 10%.

Note: If the above conditions are not met, baking should be carried out before applying.

8.3. Baking method

Because the module packaging material cannot withstand high temperature, if necessary, please choose one of the following two methods to bake, to avoid affecting the welding quality of the module.

- 1) Baking in the original package: baking temperature is 40 ~ 60°C and time is 5 ~ 7 days.
- 2) Transfer to high temperature resistant dish baking: baking temperature is 100 ~ 120, baking time is more than 48 hours.

8.4. Welding technology

- 1) If the plate to be mounted is double-sided device layout, it is recommended to put the core plate mounting process in the last stage.
- 2) It is recommended to set the preheating time of 160 ~ 200°C to 60 ~ 120 seconds.
- 3) It is recommended that the temperature of reflow welding should be 235 ~ 245°C, and the maximum temperature should not exceed 250°C, and the reflow time should be controlled within 40 ~ 60 seconds.
- 4) The recommended temperature rise rate is 1-3 °C/ s, and the temperature drop rate is 2-4 °C/ s.



Appendix A

Warranty & Technical Support Services

MYIR Electronics Limited is a global provider of ARM hardware and software tools, design solutions for embedded applications. We support our customers in a wide range of services to accelerate your time to market.

MYIR is an ARM Connected Community Member and work closely with ARM and many semiconductor vendors. We sell products ranging from board level products such as development boards, single board computers and CPU modules to help with your evaluation, prototype, and system integration or creating your own applications. Our products are used widely in industrial control, medical devices, consumer electronic, telecommunication systems, Human Machine Interface (HMI) and more other embedded applications. MYIR has an experienced team and provides custom design services based on ARM processors to help customers make your idea a reality.

The contents below introduce to customers the warranty and technical support services provided by MYIR as well as the matters needing attention in using MYIR' s products.

Service Guarantee

MYIR regards the product quality as the life of an enterprise. We strictly check and control the core board design, the procurement of components, production control, product testing, packaging, shipping and other aspects and strive to provide products with best quality to customers. We believe that only quality products and excellent services can ensure the long-term cooperation and mutual benefit.

Price

MYIR insists on providing customers with the most valuable products. We do not pursue excess profits which we think only for short-time cooperation. Instead, we hope to establish long-term cooperation and win-win business with customers. So we will offer reasonable prices in the hope of making the business greater with the customers together hand in hand.

Delivery Time

MYIR will always keep a certain stock for its regular products. If your order quantity is less than the amount of inventory, the delivery time would be within three days; if your order quantity is greater than the number of inventory, the delivery time would be always four to six weeks. If for any urgent delivery, we can negotiate with customer and try to supply the goods in advance.

Technical Support

MYIR has a professional technical support team. Customer can contact us by email (support@myirtech.com), we will try to reply you within 48 hours. For mass production and customized products, we will specify person to follow the case and ensure the smooth production.

After-sale Service



MYIR offers one year free technical support and after-sales maintenance service from the purchase date. The service covers:

Technical support service

MYIR offers technical support for the hardware and software materials which have provided to customers;

- To help customers compile and run the source code we offer;
- To help customers solve problems occurred during operations if users follow the user manual documents;
- To judge whether the failure exists;
- To provide free software upgrading service.
- However, the following situations are not included in the scope of our free technical support service:
- Hardware or software problems occurred during customers' own development;
- Problems occurred when customers compile or run the OS which is tailored by themselves;
- Problems occurred during customers' own applications development;
- Problems occurred during the modification of MYIR's software source code.

After-sales maintenance service

The products except LCD, which are not used properly, will take the twelve months free maintenance service since the purchase date. But following situations are not included in the scope of our free maintenance service:

- The warranty period is expired;
- The customer cannot provide proof-of-purchase or the product has no serial number;
- The customer has not followed the instruction of the manual which has caused the damage the product;
- Due to the natural disasters (unexpected matters), or natural attrition of the components, or unexpected matters leads the defects of appearance/function;
- Due to the power supply, bump, leaking of the roof, pets, moist, impurities into the boards, all those reasons which have caused the damage of the products or defects of appearance;
- Due to unauthorized weld or dismantle parts or repair the products which has caused the damage of the products or defects of appearance;
- Due to unauthorized installation of the software, system or incorrect configuration or computer virus which has caused the damage of products.

Warm tips:

- MYIR does not supply maintenance service to LCD. We suggest the customer first check the LCD when receiving the goods. In case the LCD cannot run or no display, customer should contact MYIR within 7 business days from the moment get the goods.
- Please do not use finger nails or hard sharp object to touch the surface of the LCD.



- MYIR suggests user purchasing a piece of special wiper to wipe the LCD after long time use, please avoid clean the surface with fingers or hands to leave fingerprint.
- Do not clean the surface of the screen with chemicals.
- Please read through the product user manual before you using MYIR ' s products.
- For any maintenance service, customers should communicate with MYIR to confirm the issue first. MYIR ' s support team will judge the failure to see if the goods need to be returned for repair service, we will issue you RMA number for return maintenance service after confirmation.

Maintenance period and charges

MYIR will test the products within three days after receipt of the returned goods and inform customer the testing result. Then we will arrange shipment within one week for the repaired goods to the customer. For any special failure, we will negotiate with customers to confirm the maintenance period.

For products within warranty period and caused by quality problem, MYIR offers free maintenance service; for products within warranty period but out of free maintenance service scope, MYIR provides maintenance service but shall charge some basic material cost; for products out of warranty period, MYIR provides maintenance service but shall charge some basic material cost and handling fee.

Shipping cost

During the warranty period, the shipping cost which delivered to MYIR should be responsible by user; MYIR will pay for the return shipping cost to users when the product is repaired. If the warranty period is expired, all the shipping cost will be responsible by users.

Products Life Cycle

MYIR will always select mainstream chips for our design, thus to ensure at least ten years continuous supply; if meeting some main chip stopping production, we will inform customers in time and assist customers with products updating and upgrading.

Value-added Services

- MYIR provides services of driver development base on MYIR ' s products, like serial port, USB, Ethernet, LCD, etc.
- MYIR provides the services of OS porting, BSP drivers ' development, API software development, etc.
- MYIR provides other products supporting services like power adapter, LCD panel, etc.
- ODM/OEM services.



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