

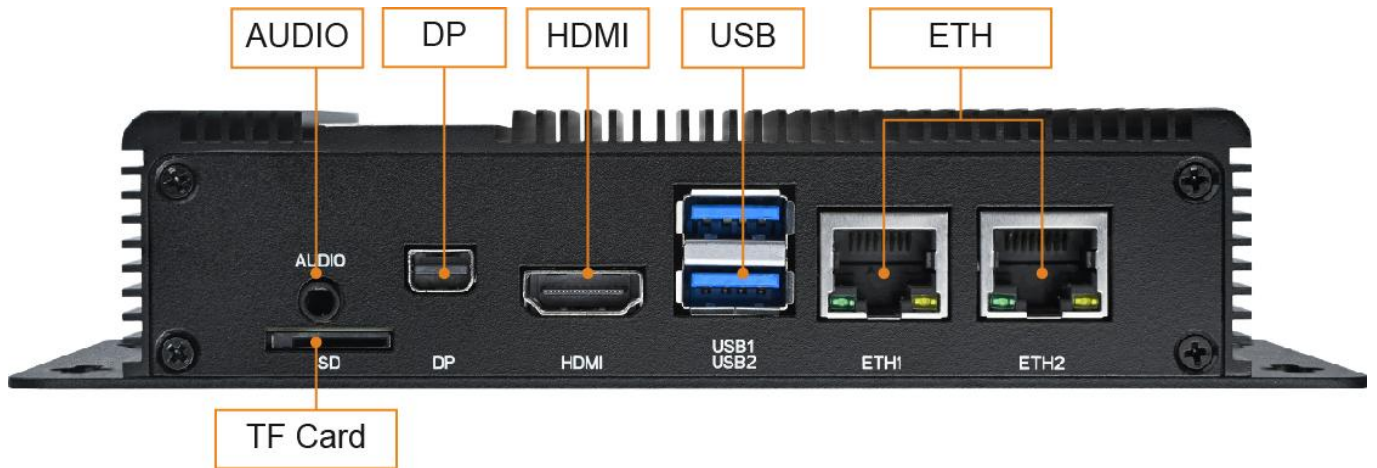
# MYD-LR3576-B IPC Box Overview



- ✓ Rockchip RK3576 Octa-core Arm Processor with Quad Cortex-A72 Cores at 2.2 GHz and Quad Cortex-A53 Cores at 1.8 GHz
- ✓ Up to 6 TOPs NPU, 3D GPU, 4K Video Codec
- ✓ 8GB LPDDR4X, 64GB eMMC, 32Kbit EEPROM
- ✓ 2x USB 3.0, 2x Gigabit Ethernet, WiFi/BT, Debug (USB-UART), Micro SD Card Slot
- ✓ Supports Mini-DP and HDMI for High-resolution Displays, along with Audio Input/Output Interface
- ✓ Supports Linux, Debian and Android OS
- ✓ Rugged and Fanless Enclosure Design



The MYD-LR3576-B Industrial Personal Computer (IPC) Box integrates the MYD-LR3576 development board within a rugged, fanless enclosure, offering a versatile solution tailored for edge computing applications. Leveraging the Rockchip RK3576 platform, this device features dual Gigabit Ethernet ports, dual USB 3.0 interfaces, and integrated WiFi/Bluetooth connectivity for wireless communication, along with Debug and SD card storage options. It also boasts robust multimedia capabilities, supporting HDMI and Mini DisplayPort (Mini DP) for display output and audio functionalities. MYiR provides SDKs for Linux, Debian, and Android operating systems, including u-boot, kernel, driver source code, and associated development tools. Additionally, comprehensive documentation is provided to aid customers in their secondary development efforts and to assist in the creation of custom applications.



*MYD-LR3576-B Front View*



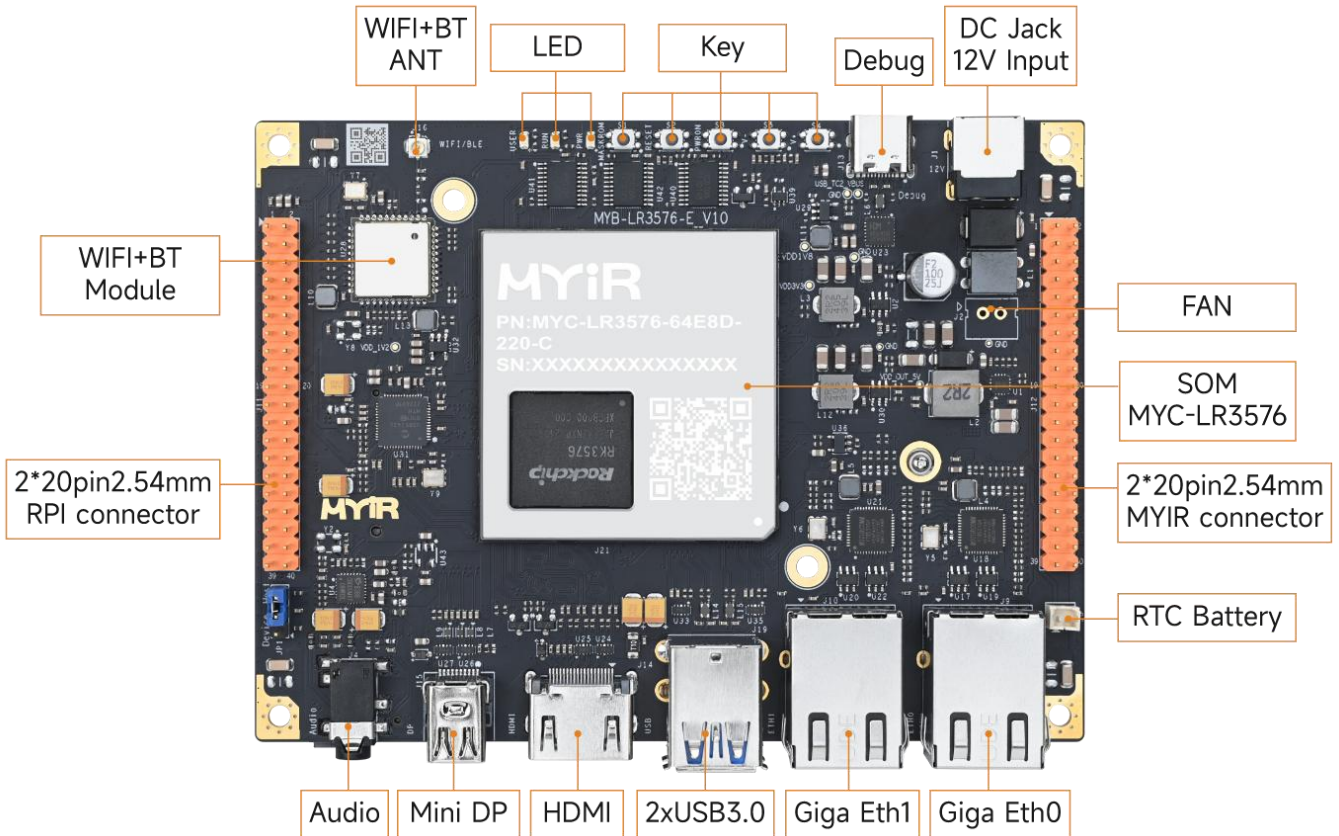
*MYD-LR3576-B Rear View*



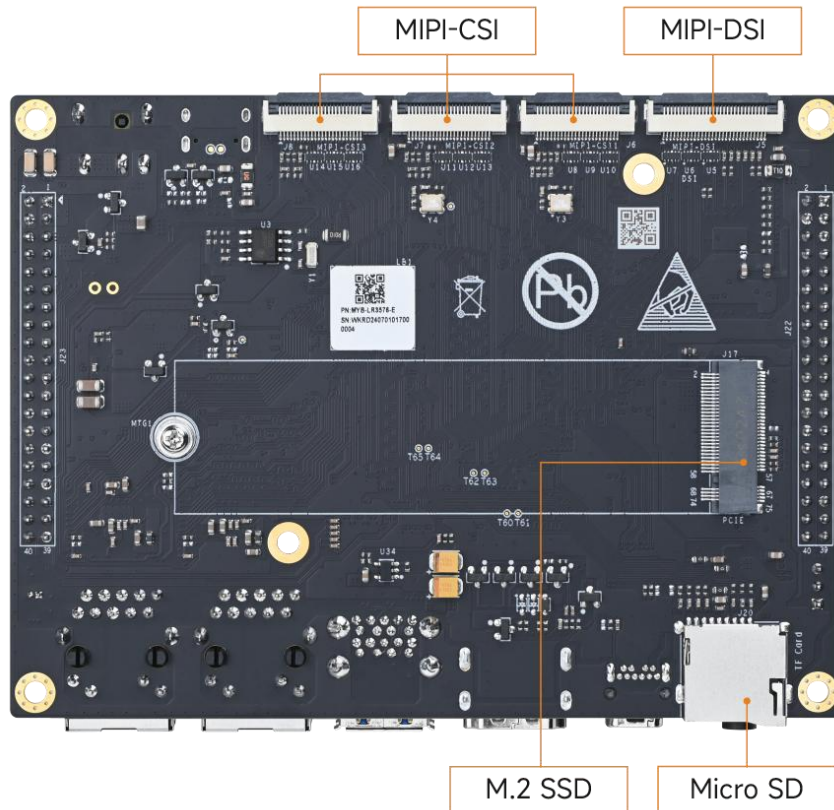
*MYD-LR3576-B Top View*



*MYD-LR3576-B Bottom View*



*MYD-LR3576 Development Board (RK3576 Version) Top-view*



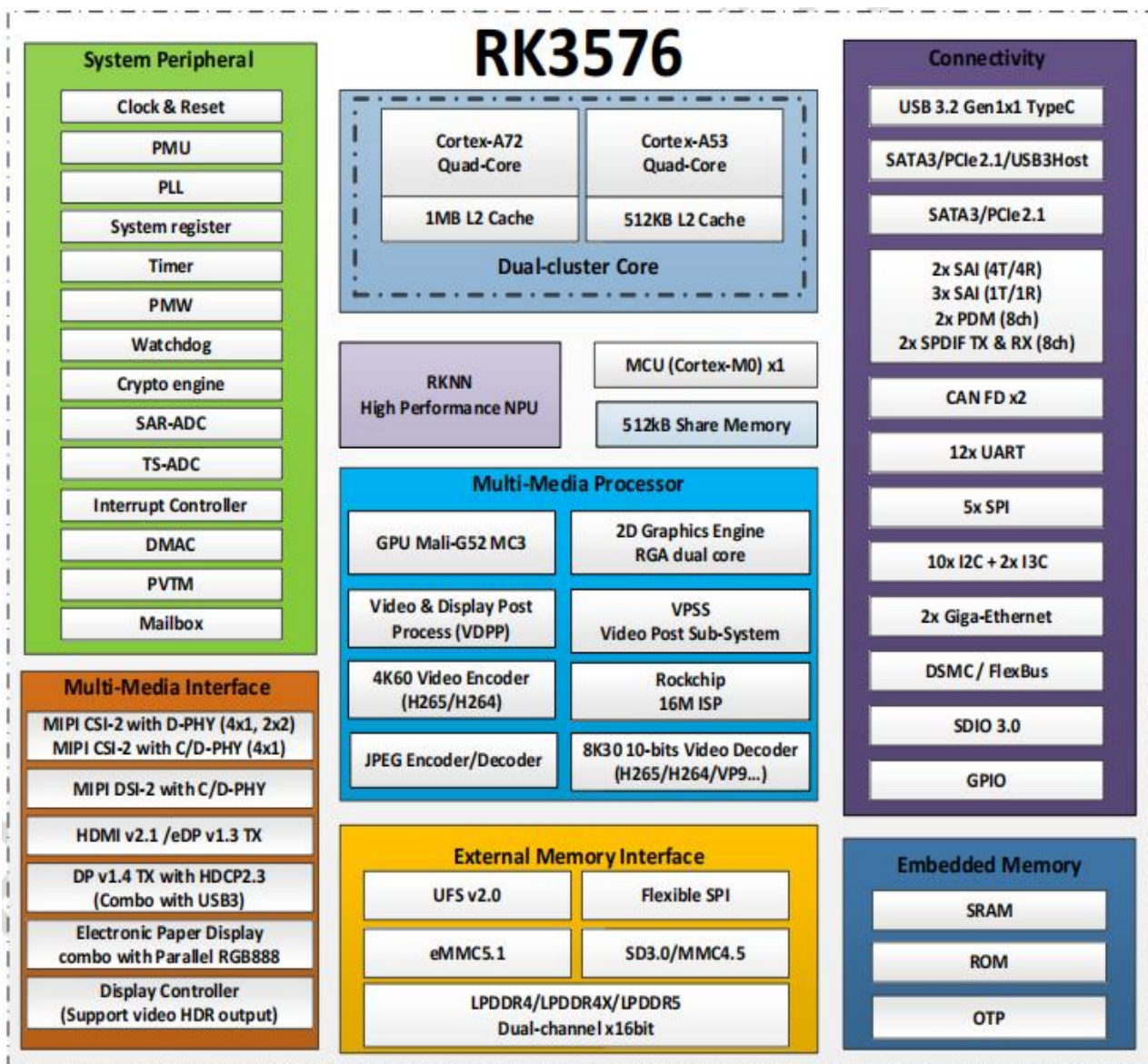
*MYD-LR3576 Development Board (RK3576 version) Bottom-view*





## Hardware Specification

The RK3576 is designed as a low-power, high-performance processor for ARM-based PCs and edge computing devices, personal mobile Internet devices, and a range of digital multimedia applications. It features an integrated quad-core Cortex-A72 and quad-core Cortex-A53 architecture. The RK3576's video decoder is capable of supporting H.264, H.265, VP9, AV1, and AVS2 at up to 8K@30fps or 4K@120fps, while its video encoder can handle H.264 and H.265 formats at up to 4K@60fps. The embedded 3D GPU ensures compatibility with a range of graphics standards, including OpenGL ES 1.1, 2.0, and 3.2, OpenCL 2.0, and Vulkan 1.1. A dedicated 2D hardware engine, equipped with an MMU, optimizes display performance and ensures exceptionally smooth operation. In addition, this processor offers extensive peripheral extension support, such as dual Gigabit Ethernet interfaces, PCIe2.1, USB3.2, SATA3, DSMC/Flexbus, CANFD, UART, and more.



RK3576 Processor Block Diagram



The MYD-LR3576-B IPC Box takes full advantages of the Rockchip RK3576 processor. The main features are listed in the following table.

Item	Features
SoC	Rockchip RK3576 processor - Octa-core Arm processor with 4x Cortex-A72 cores at 2.2 GHz, 4x Cortex-A53 cores at 1.8 GHz - Arm Cortex-M0 MCU at 400MHz for user application - Arm Mali-G52 MC3 GPU - 6 TOPS NPU supports INT4/8/16/FP16/BF16/TF32 - Supports up to 8K@30fps or 4K@120fps video decoding (H.265/HEVC, VP9, AVS2, and AV1) and video encoder up to 4K@60fps video encoding (H.265 and H.264)
Memory	8GB LPDDR4X
Storage	64GB eMMC 32Kbit EEPROM 1x Micro SD card slot
Communication Interfaces	1x USB-UART Debug Interface 2x USB 3.0 Host Ports 2x 10/100/1000Mbps Ethernet Interfaces WiFi/BT Module (complies with IEEE 802.11a/b/g/n/ac standard and supports BT 5.2) 1x WiFi/BT antenna interface
Multimedia Interfaces	1x HDMI 2.0 Interface (Supports 4K@120Hz by default) 1x Mini DisplayPort (DP) Output Interface (Supports 4K@60Hz by default) 1x 3.5mm Headphone/Mic Audio Jack
Power supply	12VDC ± 3A
Dimensions	170mm x 93.5mm x 34.5mm (with mounting bracket)
Working Temp.	0° C ~+70° C

*Features of MYD-LR3576-B IPC Box*



## Software Features

The MYD-LR3576-B offers supports for Linux, Debian and Android operating systems and is equipped with comprehensive software packages. To assist clients in speeding up their projects, the kernel and numerous peripheral drivers are provided in source code format. Below is a brief overview of the key software feature:

Item	Features	Description	Source Code
Bootloader	TFA	First bootloader 2.8.15	YES
	U-boot	Second bootloader uboot_2017.09	YES
Kernel	Linux kernel	Customized base on official kernel_6.1.75 version	YES
Drivers	EEPROM	BL24C32F driver	YES
	USB OTG	USB OTG driver	YES
	I2C	I2C bus driver	YES
	SPI	SPI bus driver	YES
	Ethernet	YT8531SH-CA driver	YES
	HDMI	HD119F driver	YES
	DP	A512001 driver	YES
	MIPI DSI	MIPI DSI driver	YES
	Audio	ES8388 driver	YES
	MIPI CSI	MIPI CSI driver	YES
	RTC	LK8563T driver	YES
	GPIO	Generic GPIO driver	YES
	WiFi	AP6256 driver	YES
BT	AP6256 driver	YES	
File system	myir-image-linux-full	Full-featured image built as buildroot, weston desktop environment	YES
	myir-image-lr3576-debian	Images built on debian system	YES
	myir-image-android	Images built on android system	YES

*MYD-LR3576-B Software Features*



**Order Information**

Item	Part No.	Packing List
MYD-LR3576-B IPC Box	MYD-LR3576-64E8D-220-C-B	<ul style="list-style-type: none"> <li>✓ One MYD-LR3576-B IPC Box (8GB LPDDR4X+64GB eMMC)</li> <li>✓ One Quick Start Guide</li> <li>✓ One WiFi/BT antenna</li> <li>✓ One 12V/3A Power adapter</li> </ul>
MYD-LR3576 Development Board	MYD-LR3576-32E4D-220-C	<ul style="list-style-type: none"> <li>✓ One MYD-LR3576 Board</li> <li>✓ One USB TYPE-C cable</li> <li>✓ One WiFi/BT PCB Antenna (with ipex connector)</li> <li>✓ One 12V/3A Power adapter</li> <li>✓ One Quick Start Guide</li> </ul>
	MYD-LR3576-64E8D-220-C	



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