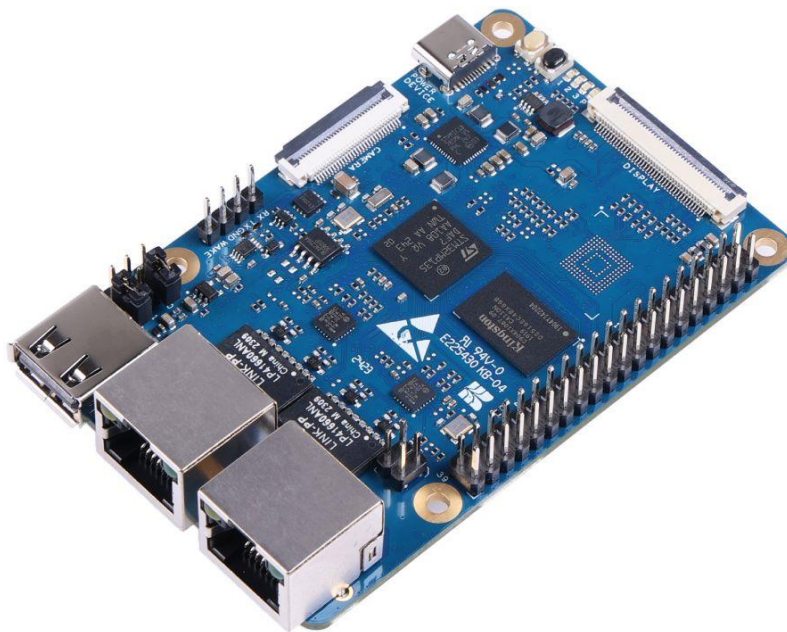# DYSSEY- STM32MP135D, Cortex-A7 STM32, Yocto/Buildroot OS, Ethernet ports with WoL, USB Type-A, CSI, LCD, 4Gb DRAM, TF card holder, PoE

SKU

102110701

This is a compact STM32 single-board computer that supports multiple operating systems and offers multiple connections, with efficient data transfer and flexible power supply, scalable storage capacity.

Description

This is a compact STM32 single-board computer that supports multiple operating systems and offers multiple connections, with efficient data transfer and flexible power supply, scalable storage capacity.

Feature

- **Compact STM32 Single Board Computer:** Equip a powerful 32-bit Arm Cortex-A7 STM32 MPU in a 8.5cm x 5.6cm board, supporting Yocto and Buildroot Operating System

- **Versatile Connectivity:** Offer two 10/100M Ethernet ports, ETH0 supports WoL function, 1x USB Type-A, 1x CSI 30p FPC Connector, 1x LCD 40p FPC Connector, and 40-pin GPIO for fast data transfer

- **Expandable Storage:** Provide Kingston 4Gb DRAM and an additional TF card holder for up to 32GB

- **Flexible Power Supply:** Support PoE through Ethernet and power supply through Type-C

- **Line redundancy in the field of industrial field control:** Offer 2 network ports input backup, 2 lines connected to different operators, ensure data stability and security

Description

This compact STM32 single-board computer is an impressive piece of technology that packs a powerful punch. It features a 32-bit Arm Cortex-A7 STM32 MPU that is housed in an 8.5cm x 5.6cm board, making it a convenient and space-saving option for users. Additionally, it supports Yocto and Buildroot operating systems, offering flexibility to users who require different software options.

This board is designed for industrial control applications which can provide line redundancy by allowing for a backup input on two network ports, each connected to a different network operator. This ensures data stability and security in the event of a network failure or outage.

With its versatile connectivity options, this single-board computer is an excellent choice for users who require multiple connections. It offers two 10/100M Ethernet ports, ETH0 supports WoL function, a USB Type-A port, a CSI 30p FPC Connector, and an LCD 40p FPC Connector. Additionally, it features a 40-pin GPIO that provides fast data transfer, making it ideal for users who require efficient data transfer.

In addition to its impressive connectivity options, the board offers expandable storage capacity to users. It features Kingston 4Gb DRAM and an additional TF card holder that can hold up to 32GB, providing users with ample storage space for their needs. This feature makes it an excellent choice for users who require a scalable storage option.
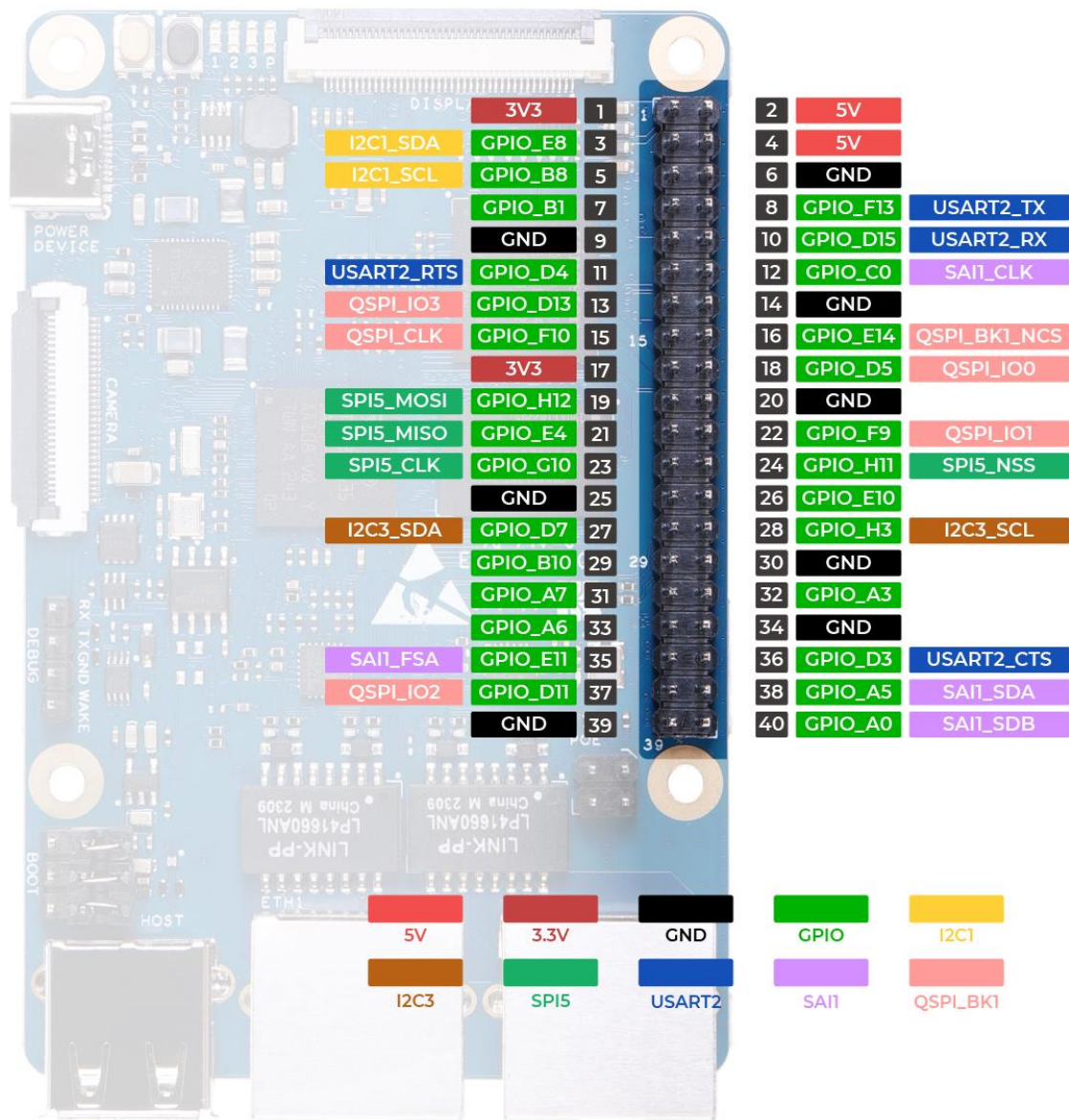
It also features flexible power supply options, which makes it an ideal choice for users who require adaptability in their computing needs. It supports PoE through Ethernet and power supply through Type-C, allowing users to choose the power supply option that

best suits their needs. Overall, this compact STM32 single-board computer is an excellent choice for users who require a powerful, efficient, and flexible computing option.
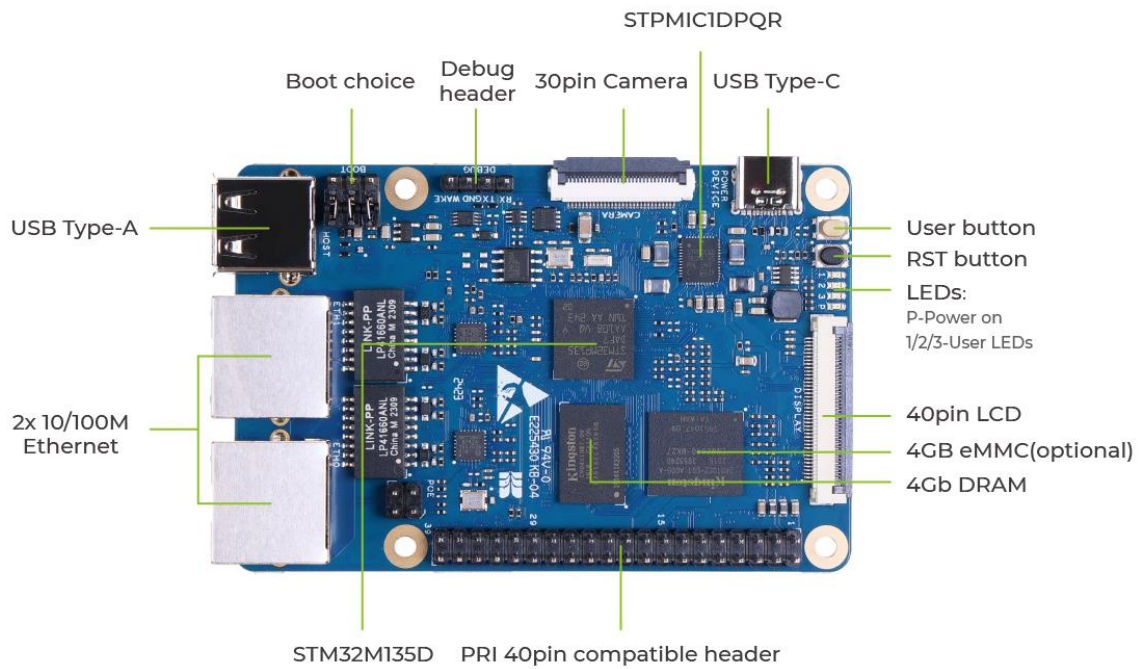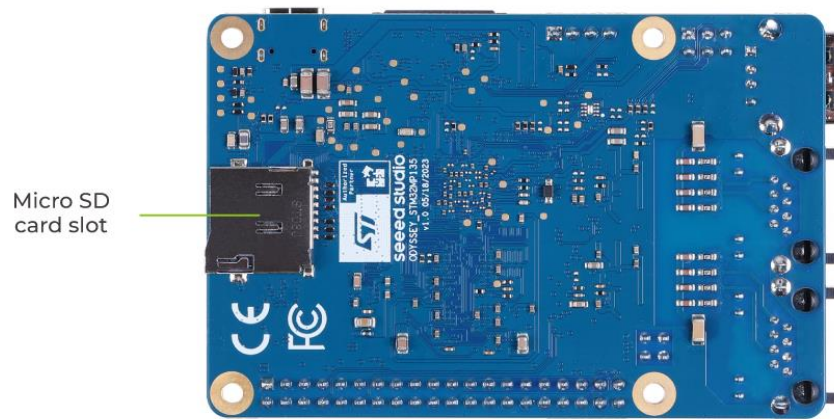
Application

- Networked Monitoring Device
- Home Security System
- Portable Media Player
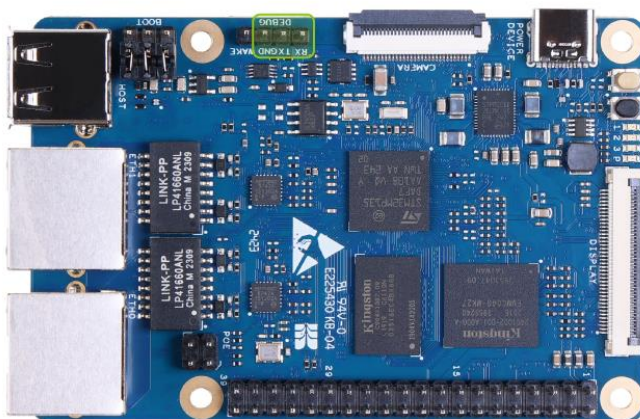- Smart Vending Machine

Pinout Diagram

	3V3	1			2	5V	
I2C1_SDA	GPIO_E8	3			4	5V	
I2C1_SCL	GPIO_B8	5			6	GND	
	GPIO_B1	7			8	GPIO_F13	USART2_TX
	GND	9			10	GPIO_D15	USART2_RX
USART2_RTS	GPIO_D4	11			12	GPIO_C0	SAI1_CLK
QSPI_IO3	GPIO_D13	13			14	GND	
QSPI_CLK	GPIO_F10	15			16	GPIO_E14	QSPI_BK1_NCS
	3V3	17			18	GPIO_D5	QSPI_IO0
SPI5_MOSI	GPIO_H12	19			20	GND	
SPI5_MISO	GPIO_E4	21			22	GPIO_F9	QSPI_IO1
SPI5_CLK	GPIO_G10	23			24	GPIO_H11	SPI5_NSS
	GND	25			26	GPIO_E10	
I2C3_SDA	GPIO_D7	27			28	GPIO_H3	I2C3_SCL
	GPIO_B10	29			30	GND	
	GPIO_A7	31			32	GPIO_A3	
	GPIO_A6	33			34	GND	
SAI1_FSA	GPIO_E11	35			36	GPIO_D3	USART2_CTS
QSPI_IO2	GPIO_D11	37			38	GPIO_A5	SAI1_SDA
	GND	39			40	GPIO_A0	SAI1_SDB

5V	3.3V	GND	GPIO	I2C1
I2C3	SPI5	USART2	SAI1	QSPI_BK1

Module Description

STPMIC1DPQR

Boot choice

Debug header

30pin Camera

USB Type-C

USB Type-A

User button

RST button

LEDs:
P-Power on
1/2/3-User LEDs

2x 10/100M Ethernet

40pin LCD

4GB eMMC(optional)

4Gb DRAM

STM32M135D

PRI 40pin compatible header
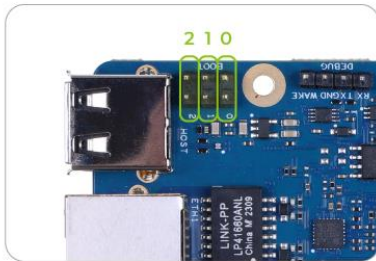
Micro SD
card slot

Debug Pin Connection

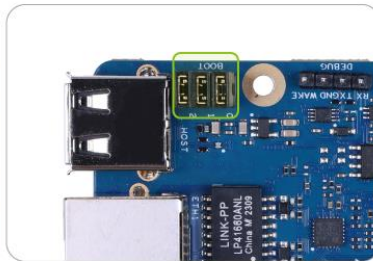# Debug pin connection

Boot choice

SD card boot:
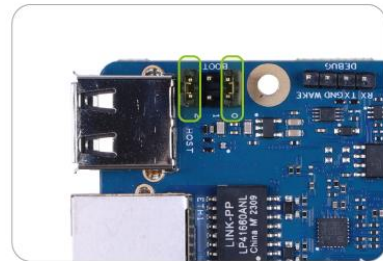No jump caps used on 0/1/2, as below shows.

eMMC boot:
Short circuit with jump caps on 0/1/2, as below shows.

USB boot:
Short circuit with jump caps on 0 and 2, as below shows.

Specification

Specification	Details
Processor	32-bit Arm Cortex-A7 STM32 MPU
Operating System	Yocto, Buildroot
Connectivity	2x 10/100M Ethernet ports, ETH0 supports WoL function 1x USB Type-A, 1x CSI 30p FPC Connector, 1x LCD 40p FPC Connector, 40-pin RPI compatible GPIO
Storage	Kingston 4Gb DRAM, additional TF card holder for up to 32GB

Power Supply	PoE through Ethernet, power supply through Type-C
Bare Board Dimension	85x56x17mm
Board Weight	G.W 36g