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Vision >>

To be a best smart device critical parts designer and provider



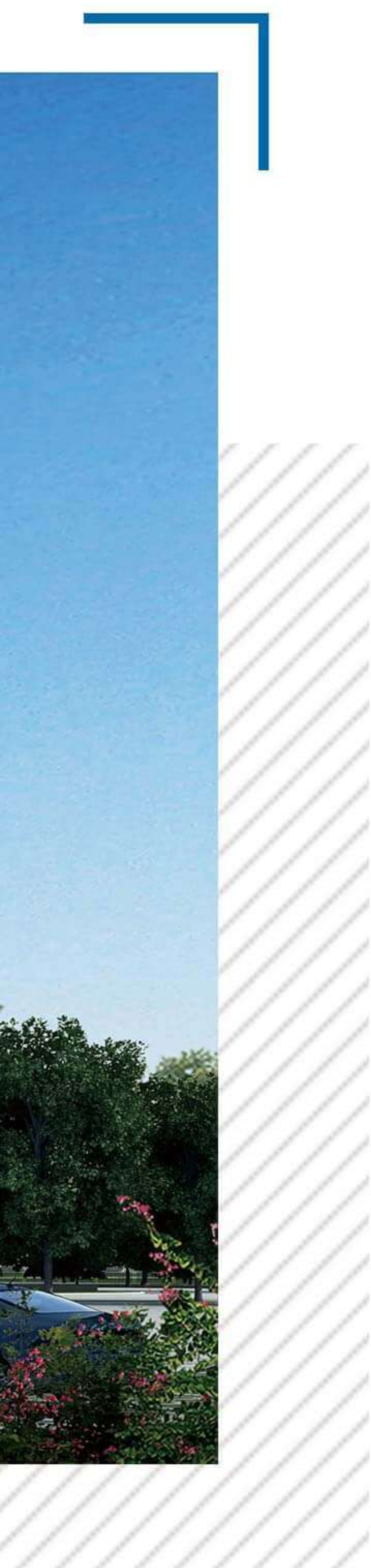
超新竞远

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Founded in 2007, Forlinx Embedded Tech. Co., Ltd. is a leading manufacturer and supplier aiming at designing and providing customers with trusted, ready-to-use and easy-going ARM single board computer / development board / CPU module / system on module and expand modules and related solutions which have been widely used in IoT, industrial control, power industry, medical, smart home, rail transportation, electronics, security, robot, environment monitoring and other applications to help clients and users to shorten products time-to-market. Offering comprehensive hardware designing, system integration and product selling with global logistics support.

## HONOR



## ABOUT US



Founded in 2007, Forlinx Embedded Technology Co., Ltd. is a leading provider of trusted ARM technology based embedded products and solutions. Forlinx offers comprehensive hardware design, system integration and product selling with global logistics support. Aiming at providing customers with good-quality, high-performance products and service, Forlinx set up an R&D center in Beijing except in its headquarter city and got IDH authority of TI and NXP in China mainland. With an excellent and experienced R&D team, stable supplying chain and powerful sales force, Forlinx has launched various single board computers and system on modules based on SoC such as i.MX6, i.MX RT1050 from NXP, AM571X, AM335x from TI Texas and classic S5Pxx18, S5PV210, S3C6410 from Samsung, taking users excellent ready-to-use and easy-going development platforms to help clients to shorten their product time-to-market. In the future, we will continue to spare no efforts to continue to take customers' demand as the guidance and in a spirit of innovation and enterprising to take customers more professional and efficient products and service.







<< PARTNER







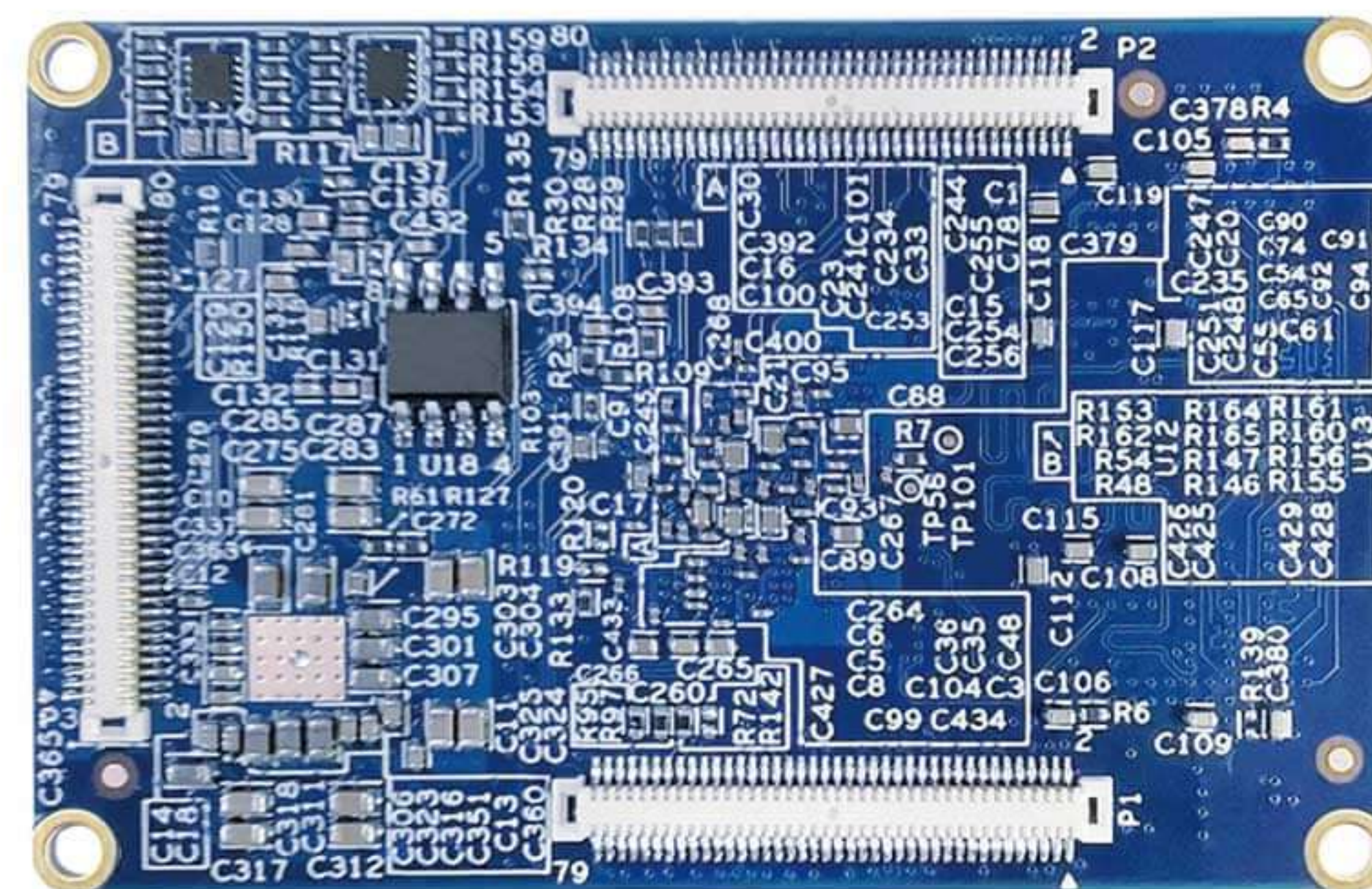
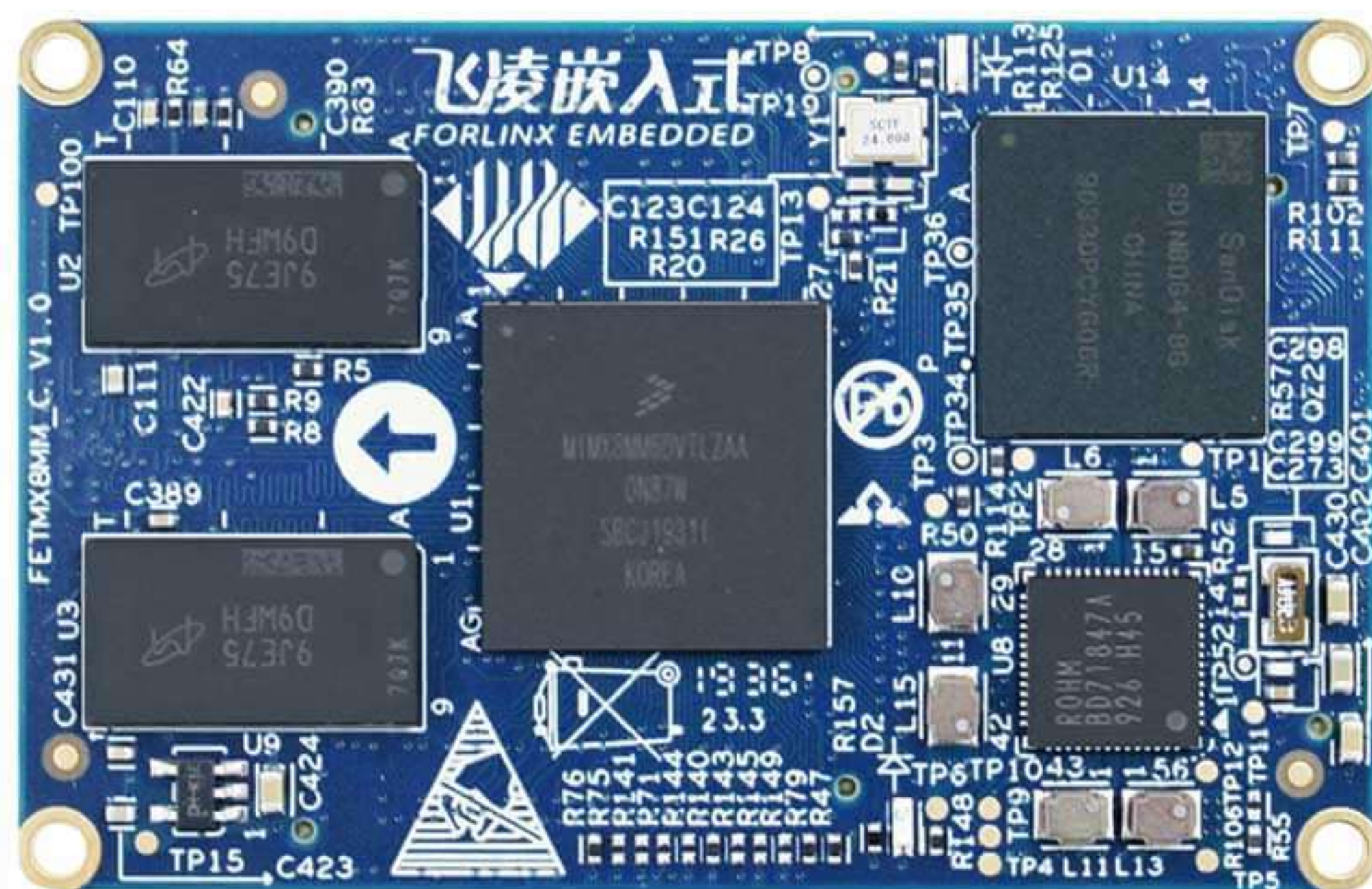
# FETMX8MM-C

Cortex-A53 + Cortex-M4 i.MX8M Mini

## DESCRIPTION

FETMX8MM-C is a system on module designed based on NXP Cortex-A53 featuring quad-core 64-bit processor i.MX8M Mini with frequency up to 1.8GHz, and it can support a Cortex-M4 core@400MHz. It carries 2GB DDR4 and 8GB eMMC on-board. A wide range of audio interfaces are available, including I2S, AC97, TDM, and S/PDIF. There are a number of other interfaces for connecting peripherals, such as USB, PCIe, and Ethernet.

FETMX8MM-C System on Module			
CPU	NXP i.MX 8M Mini	Display	4-lane MIPI-DSI
Architecture	Quad-core Cortex-A53+ Cortex-M4	SAI	5
Frequency	≤1.8GHz	UART	4
RAM	2GB DDR4	IIC	4
ROM	8GB eMMC	eCSPI	3
OS	Linux4.14.78+Qt5.10.1, Android9.0	FlexSPI	1
Voltage input	5V	Camera	1 x MIPI-CSI
Working Temp	0°C ~ +70°C / - 40°C ~ +85°C	SD/SDIO	2
Package	Board-to-board connector	USB	2 x USB 2.0 OTG
Dimensions	56mm x 36mm	PCIe	1
PMU	BD71847AMWV-E2	PWM	4
GPU	3D:GC NanoUltra 2D:GC320	JTAG	1
Video Coder	1080p60 H.265, VP9, H.264, VP8 Decode 1080P60 AVC/H.264, VP8 encoder	PDM	1
Ethernet	1 x 10/100/1000Mbps auto-negotiation		



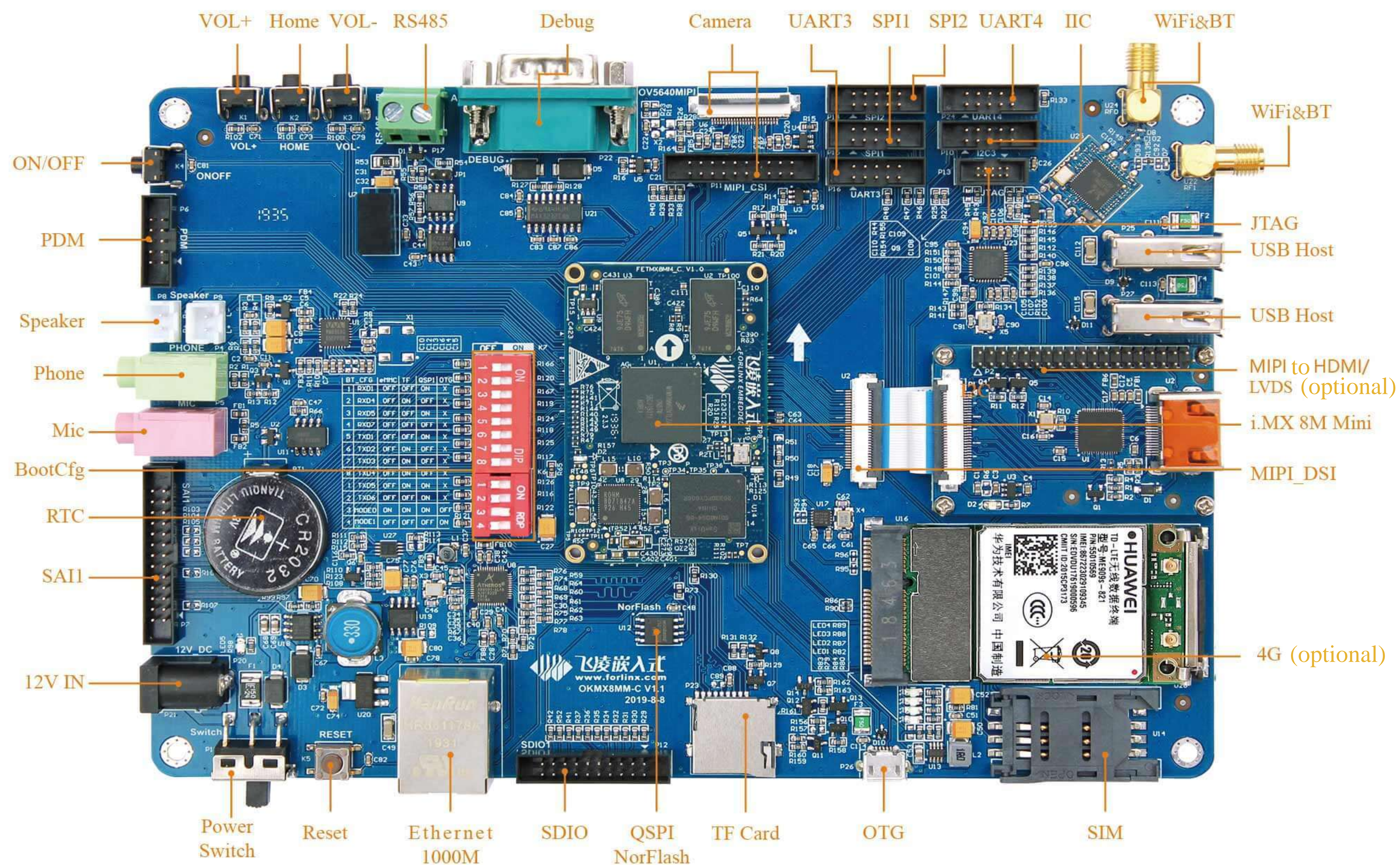


## OKMX8MM-C Single Board Computer

Display	1 x MIPI-DSI	SD/MMC	1 x TF Card
Audio	1 x Phone, 1 x Mic, 2 x Speaker	SDIO	1
Ethernet	1 x 10/100/1000Mbps	USB Host	2, USB2.0
UART	1	USB OTG	1, USB2.0
Debug	1 x A53 debug (RS232) 1 x M4 debug (UART)	WiFi& BT	WiFi: IEEE802.11b/g/n; BT: BT V2.1/BT V3.0/BT V4.0
RS485	1	Mini PCIe	1
IIC	1	PWM	1
SPI	2	JTAG Debug	1
QSPI	1, on-board QSPI NOR FLASH	PDM	1
Camera	1 x MIPI-CSI	SAI	1

## TARGET APPLICATION

HMI, edge computing, streaming media, printer, medical, machine vision, machine learning, car entertainment



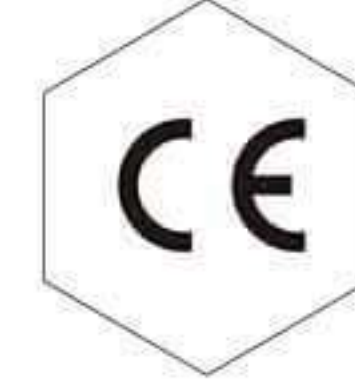




# FETMX6Q-C / FETMX6DL-C

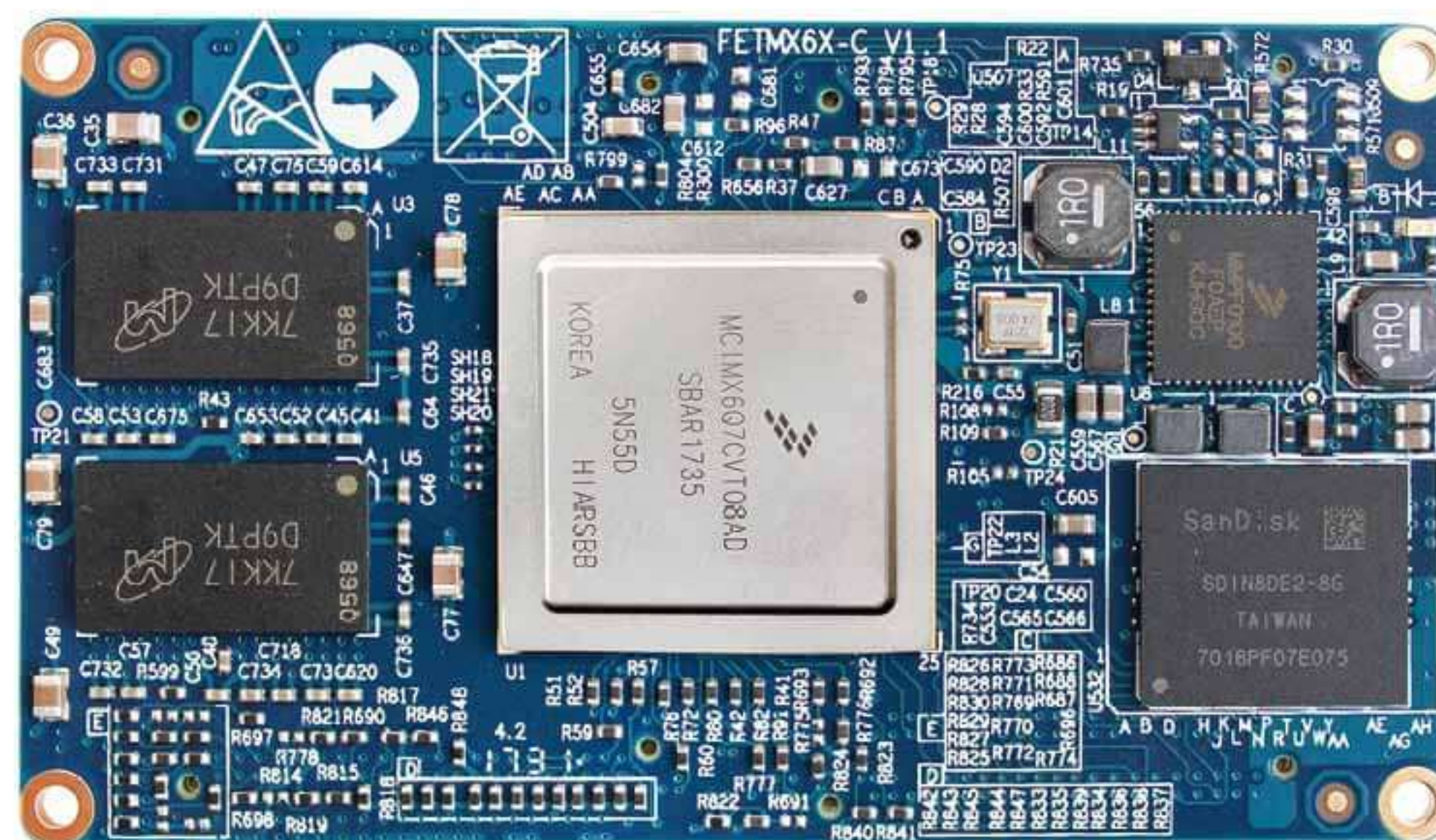
Cortex-A9 i.MX6

## DESCRIPTION



FETMX6Q-C and FETMX6DL-C are system on modules designed based on NXP/Freescale Cortex-A9 i.MX6Quad and i.MX6DualLite processors with main frequency up to 1.2GHz, this SoM is with 320 pins and it is designed with 12-layer ENIG PCB and ultra thin board-to-board connectors. The SoM is designed with ultra compact size and thin connectors to make designing free couples of ultrathin connectors 80 pins in total are available on SoM. with height only 2mm and golden ratio dimensions of 40\*70mm, all of these to make it to be applied more widely.

FETMX6Q-C/ FETMX6DL-C System on Module			
CPU	NXP i.MX6Quad / i.MX6Dual Lite	UART	5
Architecture	Cortex-A9	CAN	2
Frequency	1GHz	IIC	3
RAM	1GB DDR3 (2GB optional)	SPI	5
ROM	8GB eMMC	EIM	32-bit data bus, 27-bit address bus
OS	Android4.4.2、 Android6.0、 Linux3.0.35+QT4.8.5、 Linux4.1.15+QT5.6	Camera	1 x DVP, 1 x MIPI CSI
Voltage in	4.2V	SD/MMC/SDIO	3
Work temp	-40°C~+85°C/ 0°C~+70°C	USB	1 x USB 2.0 Host, 1 x USB 2.0 OTG
Packaging	Board-to-board connector(4x 80-pin)	SATA	1, only available for i.MX6Q
Dimensions	40mm x 70mm	PCIe	1
PMU	MMPF0100NPEP	PWM	3
GPU	Vivante GC355 / Vivante GC320	MLB	1, Media Local Bus
Video Coder		SPDIF	1
Display	1 x RGB 24-bit, 2x 8-bit LVDS 1 x HDMI, 1 x MIPI	JTAG	1
IIS	4	EINT/GPIO	supported
Ethernet	1 x 10/100/1000Mbps auto-negotiable		



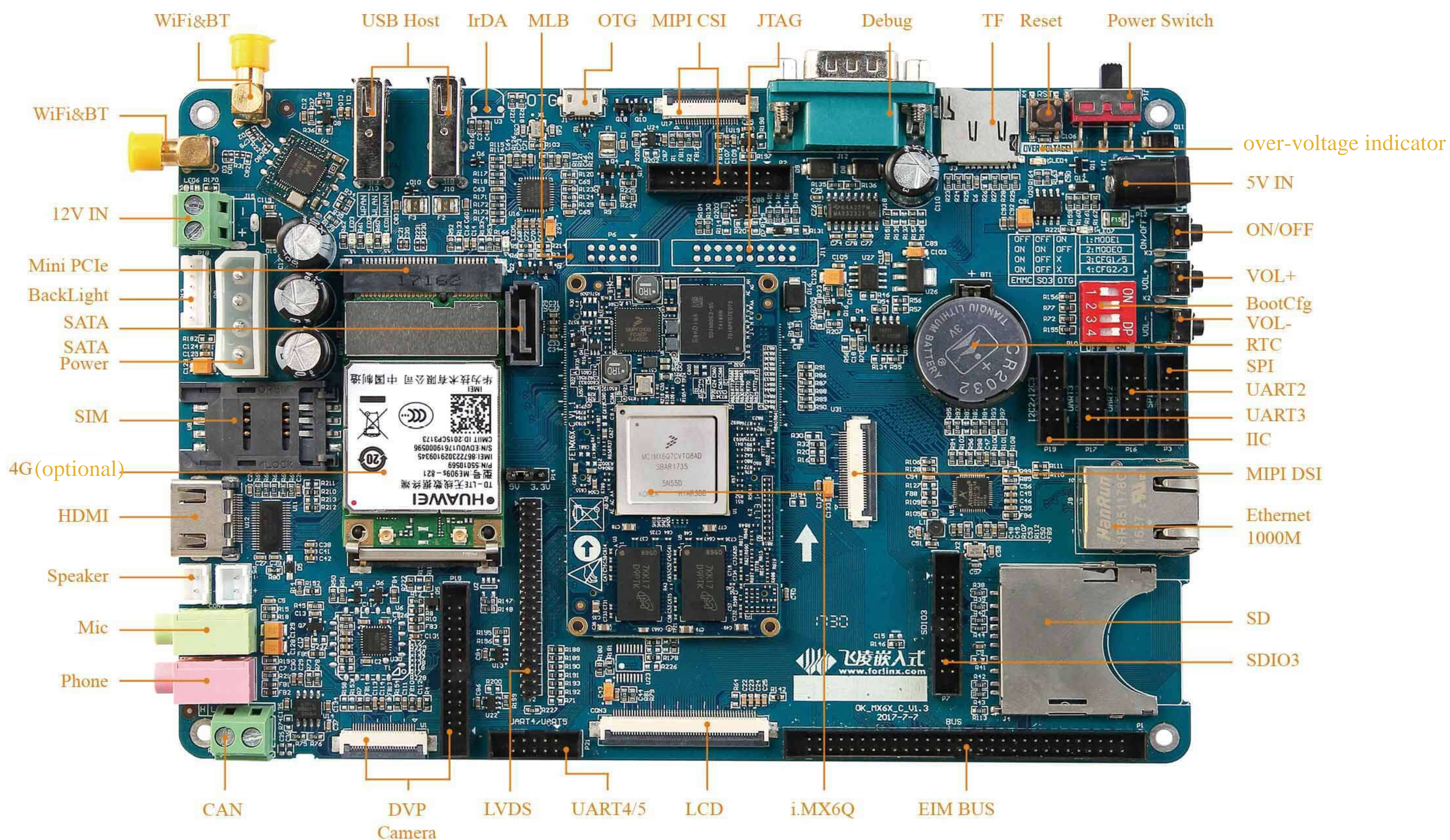


## OKMX6Q-C/ OKMX6DL-C Single Board Computer

Display	1x RGB, 2x LVDS, 1x HDMI, 1x MIPI	USB OTG	1, USB 2.0
Audio	1 x Phone, 1 x Mic, 2 X Speaker	SATA	1, only for i.MX6Q
Ethernet	1 x 10/100/1000Mbps	Mini PCIe	1, for 3G/4G
UART	4 (3x 3-wire, 1x 5-wire)	WiFi& BT	1
RS232	1	MLB	1x Media Local Bus
CAN	1	IrDA	1 (empty soldering)
IIC	3	RTC	on-board RTC
SPI	1	JTAG	supported (empty soldering)
EIM	supported	EINT/GPIO	supported
Camera	2	Key	4
SD/MMC/SDIO	2 (1 x DVP, 1 x MIPI CSI)	DIP switch	booting mode selection
USB Host	2, USB 2.0	Power In	5V

### TARGET APPLICATION

Car electronics, digital signage, financial device, HMI, in-flight entertainment, industrial control, medical, instrument, smart city, commerce electronics



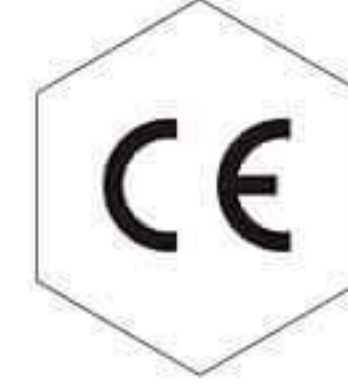




# FETMX6Q-S / FETMX6DL-S

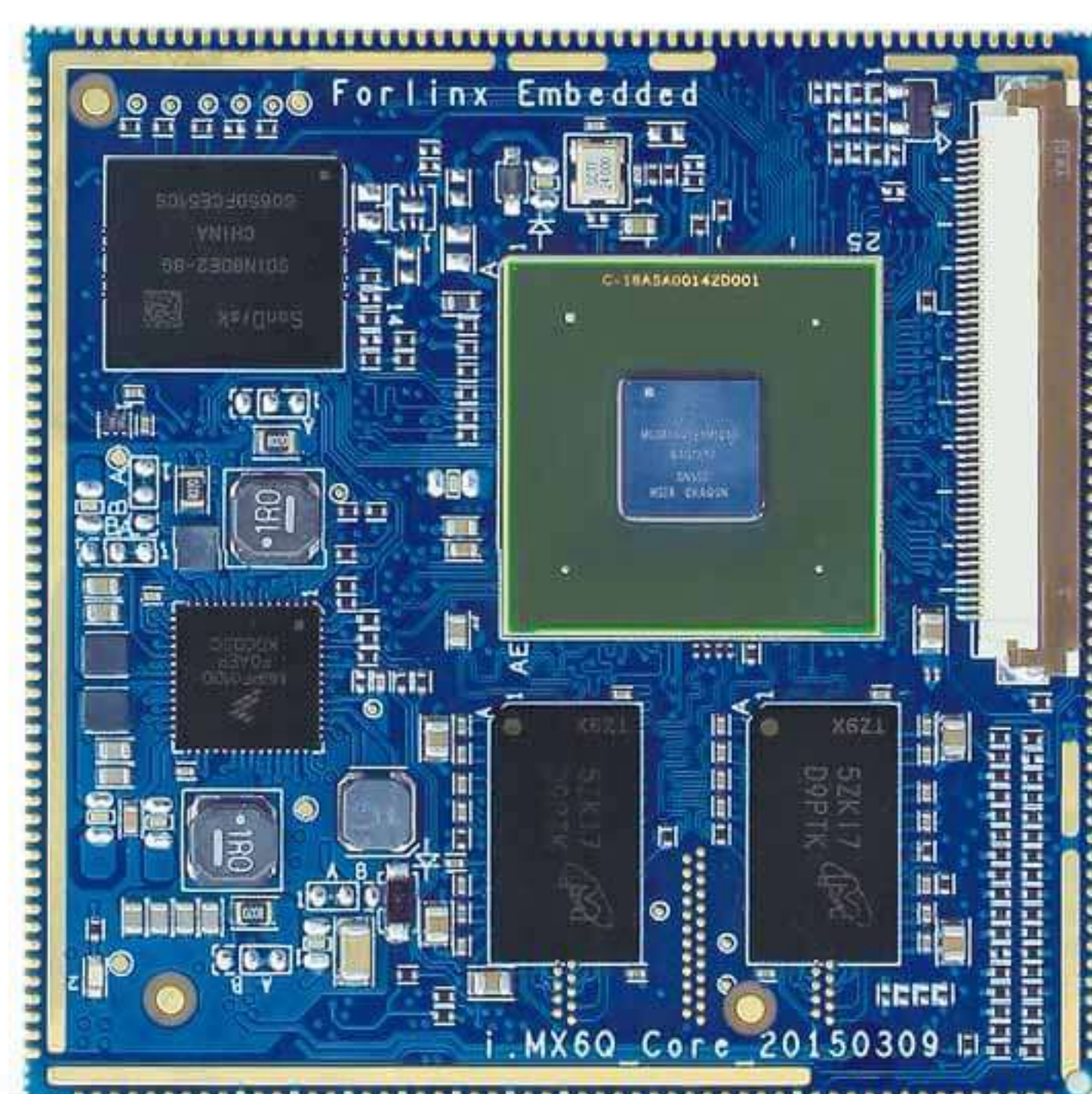
Cortex-A9 i.MX6

## DESCRIPTION



OKMX6Q and OKMX6DL are single board computers designed based on NXP Cortex-A9 featuring processors i.MX6Quad and i.MX6DualLite with frequency up to 1GHz. abundant hardware sources ready-to-use on-board, such as 5M digital camera, standard dual-channel 8-bit LVDS and HDMI-1.4 are preferable for media performance; the SDXC standard SD card interface and SATA hard disk interface make it easier for large volume TB storage; improved Li-battery IC, supporting of irDA, stereo audio amplifier, on-board 3-axis acceleration sensor which are preferable for portable devices. Both carrier board and CPU module are with industrial and commercial grade operational to users.

FETMX6Q-S/ FETMX6DL-S System on Module			
CPU	NXP i.MX6Quad / i.MX6Dual Lite	Display	1x RGB, 2x 80-bit LVDS, 1x HDMI
Architecture	Cortex-A9	IIS	1
Frequency	1GHz	Ethernet	1 X 10/100/1000Mbps auto-negotiable
RAM	1GB DDR3 (2GB optional)	UART	4
ROM	8GB eMMC	CAN	2
OS	Android4.4 Android6.0 Linux3.0.35+QT4.8.5 Linux4.1.15+QT5.6	IIC	3
Voltage in	4.2V	SPI	2
Work temp	- 40°C~ +85°C/ 0°C~ +70°C	Camera	1 x DVP
Packaging	edge-soldering(220 pins, pitch of 1mm)	SD/MMC/SDIO	2
Dimensions	60mm x 60mm	USB	1 X USB 2.0 Host, 1 X USB 2.0 OTG
PMU	MMPF0100NPEP	SATA	1, only for i.MX6Q
GPU	Vivante GC355/Vivante GC320	PCIe	1
Video Coder	hardware codec	EINT/GPIO	supported

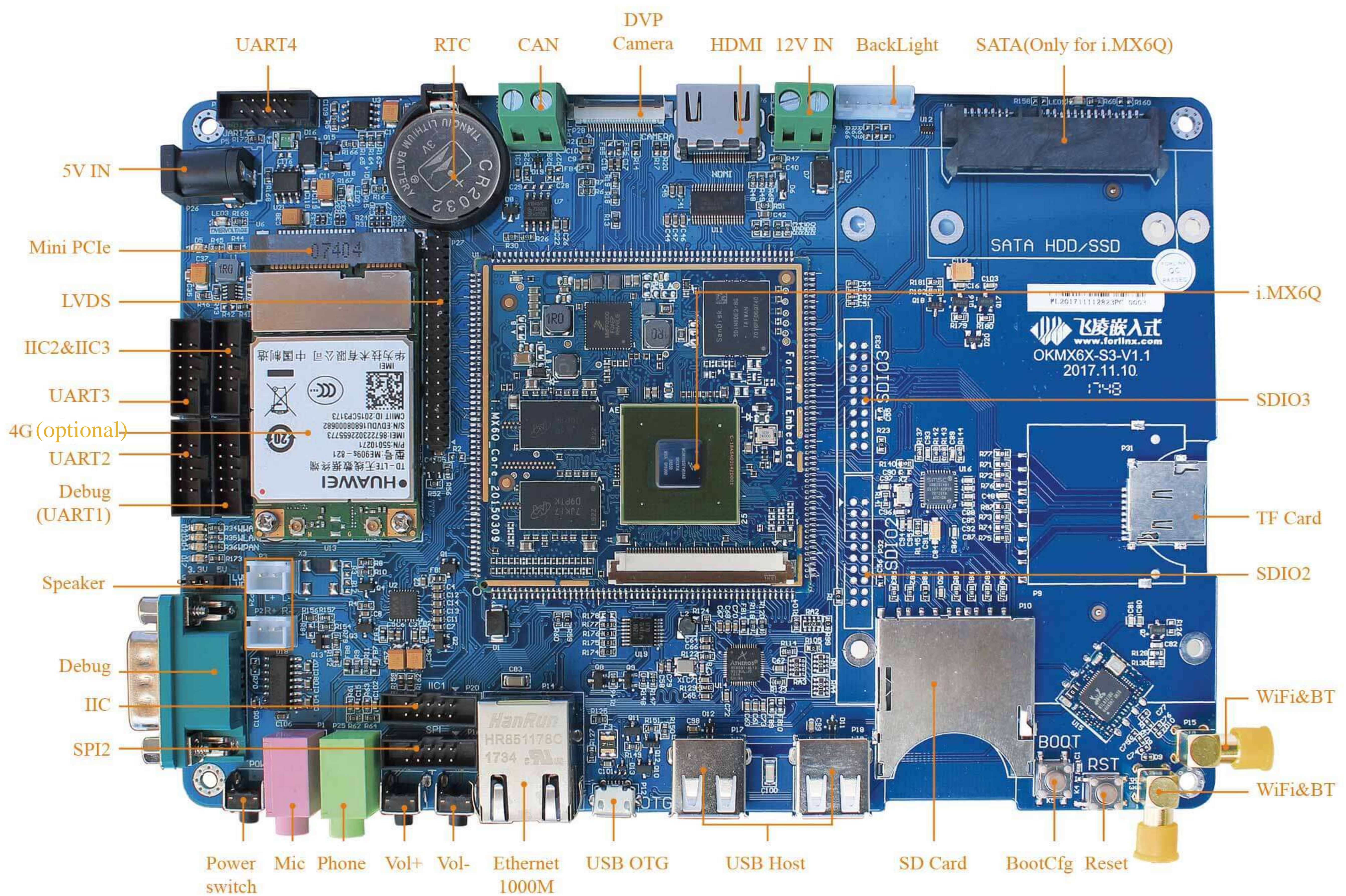




OKMX6Q/OKMX6DL Single Board Computer			
Display	1x RGB, 2x 80-bit LVDS, 1x HDMI	USB Host	2, USB 2.0
Audio	1 x Phone, 1 x Mic, 2 x Speaker	USB OTG	1, USB 2.0
Ethernet	1 x 10/100/1000Mbps auto-negotiable	SATA	1, only for i.MX6Q
UART	3 (2x 3-wire, 1x 5-wire)	Mini PCIe	1, for 4G
RS232	1	WiFi& BT	1
CAN	1	RTC	supported
IIC	3	EINT/GPIO	supported
SPI	1	Key	4
Camera	1 x DVP	DIP switch	booting mode selection
SD/MMC/SDIO	2	Power In	5V

## TARGET APPLICATION

Car electronics, digital signage, financial device, HMI, in-flight entertainment, industrial control, medical, instrument, smart city, commerce electronics







# FETMX6UL-C

Cortex-A7 i.MX6UL

## DESCRIPTION

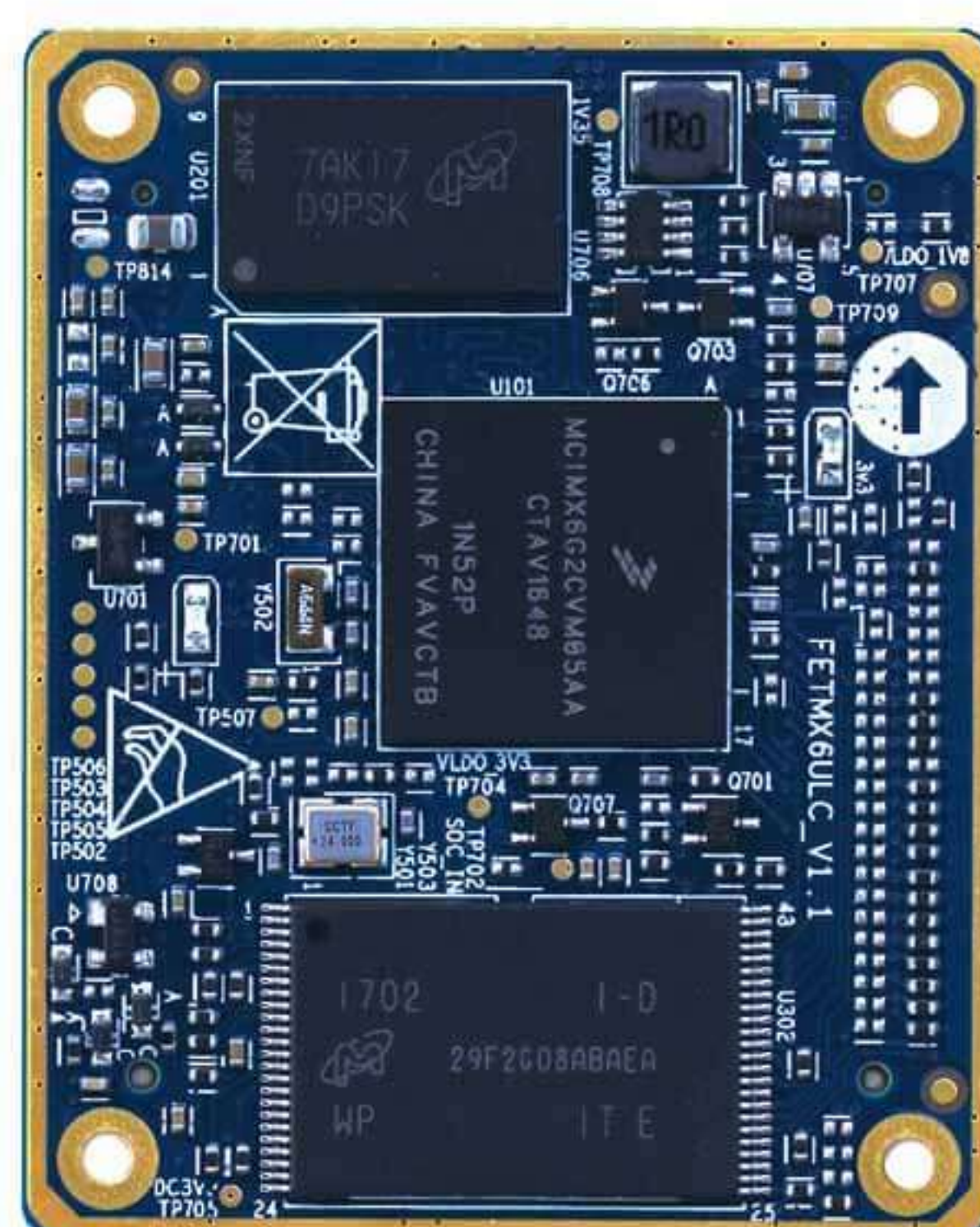


FETMX6UL-C is a system on module designed based on NXP Cortex-A7 featuring CPU i.MX6UltraLite with frequency of 528MHz. The SoM has two 80-pin connectors for connection with carrier board and unique PMU make it even lower power than ARM9. It has a variety of hardware sources can support up to 8 UART, 2 Ethernet ports, 2 CAN and other interface. Both commercial grade and industrial grade are optional. 512MB RAM and 4GB eMMC for the commercial grade one, and 256M RAM 256M NAND Flash for the industrial grade one.

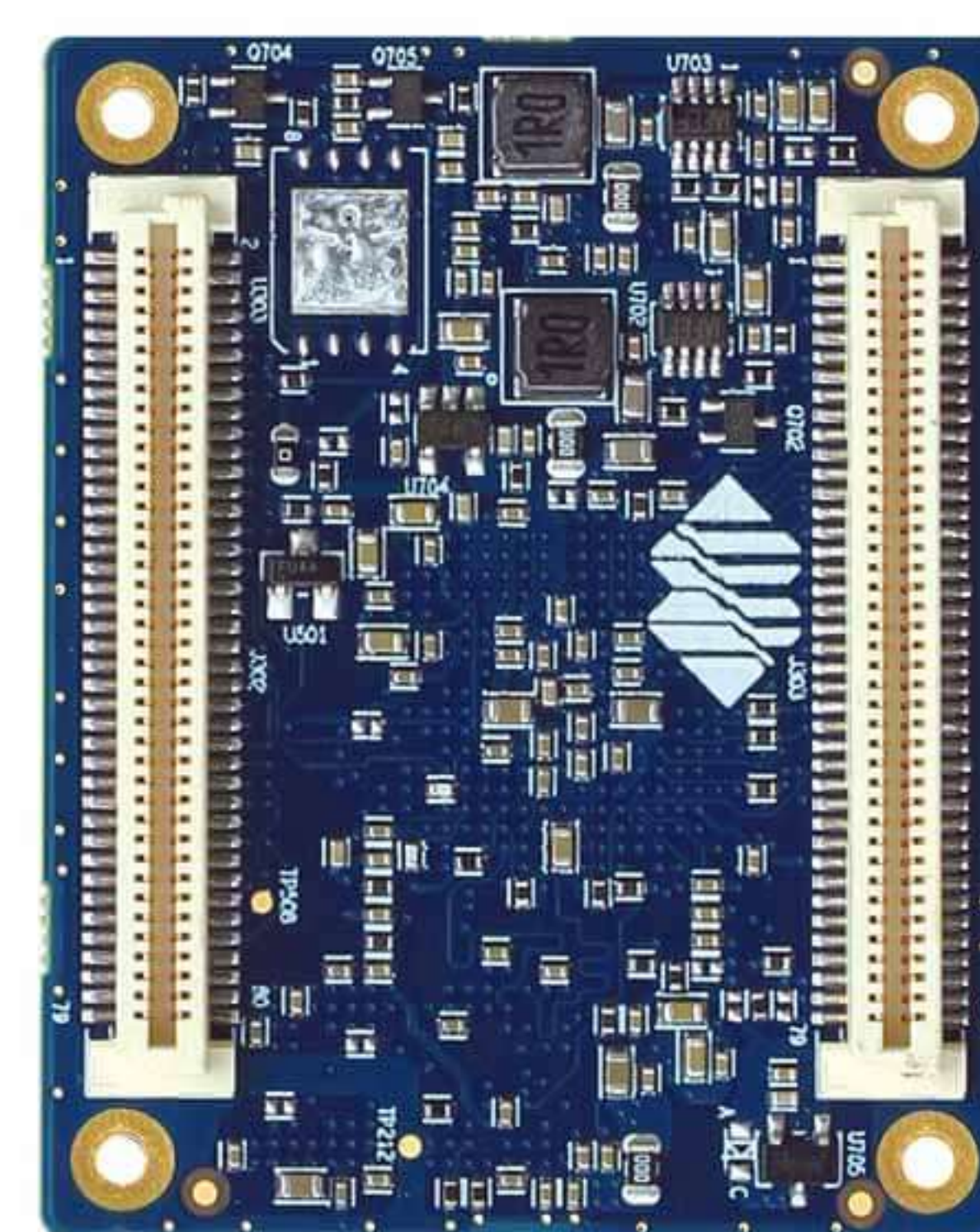
FETMX6UL-C System on Module			
CPU	NXP i.MX6UltraLite	CAN	2
Architecture	Cortex-A7	IIC	4
Frequency	528MHz	SPI	4
RAM	256MB DDR3 / 512MB DDR3L	EIM	16-bit data bus, 16-bit address bus
ROM	256MB / 1GB NAND FLASH , 4GB eMMC	Camera	1 X DVP
OS	Linux4.1.15+QT5.6 , Linux3.14.38+QT4.8.5	SD/MMC/SDIO	2
Voltage input	5V	USB	2 X USB2.0 OTG
Work temp	- 40°C ~ +85°C / 0°C ~ +70°C	PWM	8
Packaging	board-to-board connector(2x 80-pin, 0.8mm pitch)	SPDIF	1
Dimensions	40mm x 50mm	JTAG	1
Video Coder	software codec	EINT/GPIO	supported
Display	1 X RGB 24	Keypad port	1, 8x 8 keypad
IIS	3	ADC	10
Ethernet	2 X 10/100Mbps auto-negotiable	QSPI	1
UART	8	ISO7816-3	2



eMMC version



NandFlash version



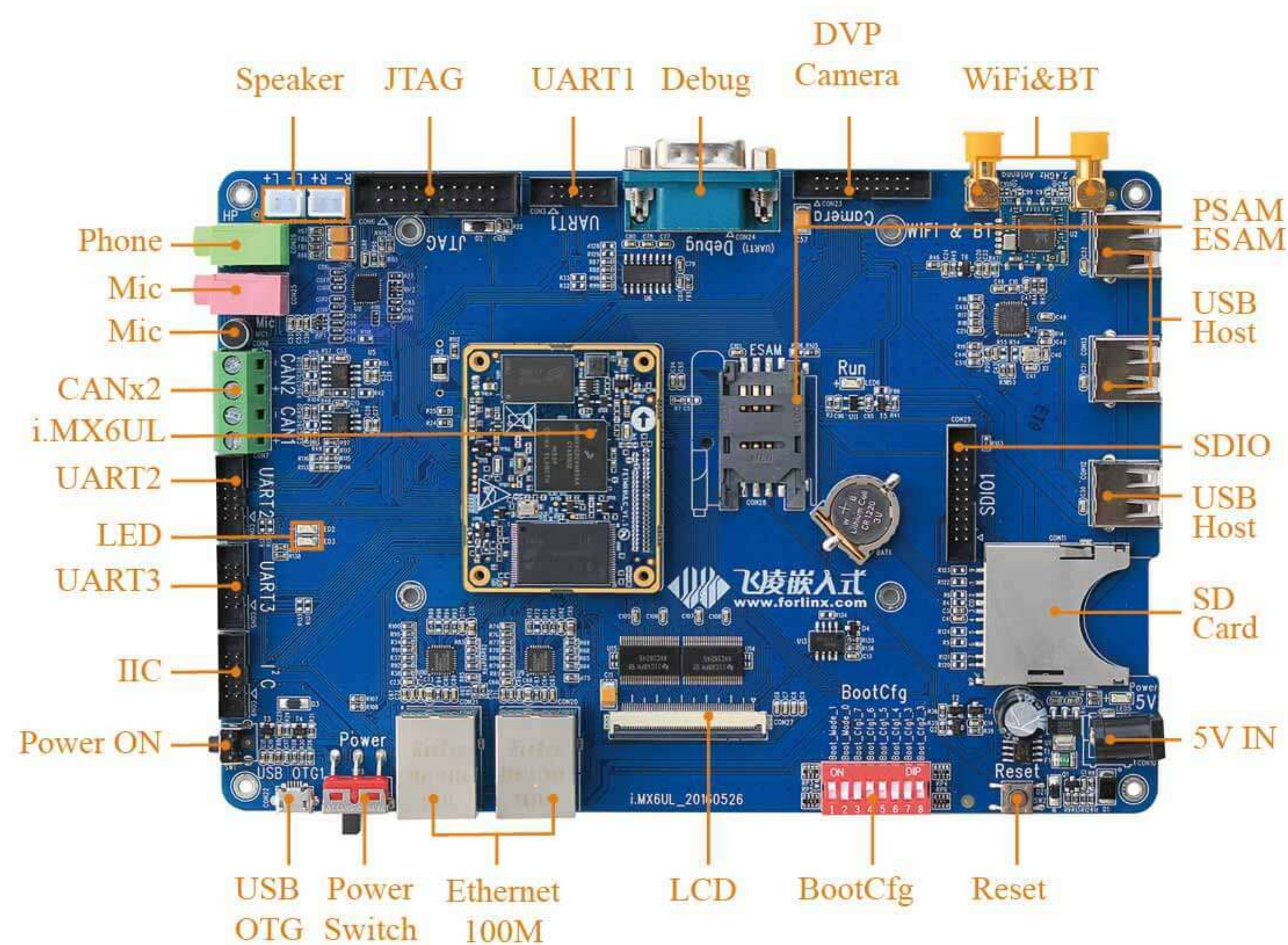


## OKMX6UL-C1 Single Board Computer

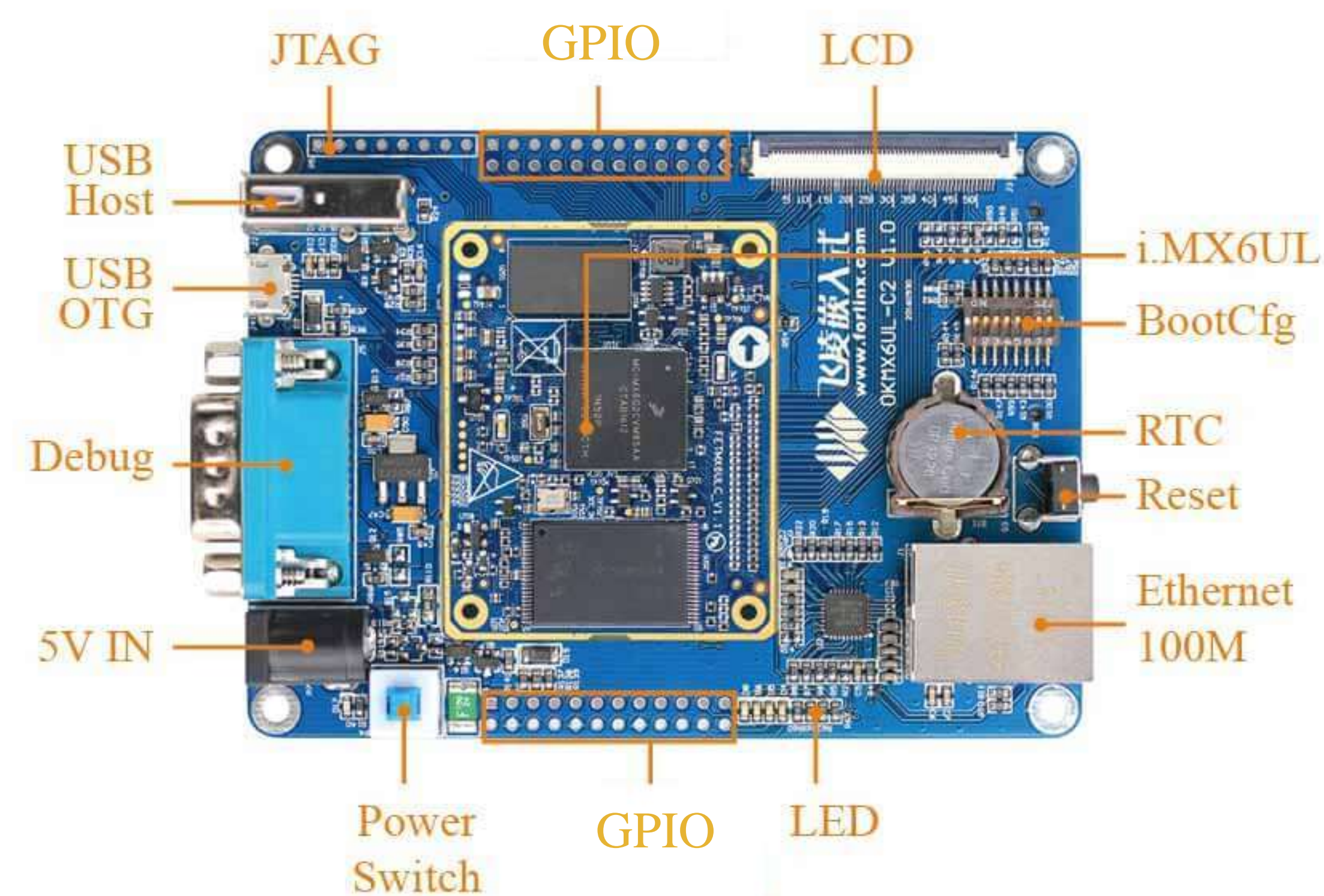
Display	1 x RGB	WiFi& BT	1
Audio	1 x Phone, 1 x Mic, 2 x Speaker	ADC	4-wire resistive touch
Ethernet	2 x 10/100Mbps auto-negotiable	ESAM/PSAM	1, multiplexed with camera
UART	2x5-wire UART	RTC	supported
RS232	1x debug	JTAG	1
CAN	2	EINT/GPIO	supported
IIC	2	Key	1
Camera	1 x DVP	DIP switch	booting mode selection
SD/MMC/SDIO	1,SDIO multiplexed with storage card	LED	2
USB Host	3 x USB2.0	Power In	5V
USB OTG	1 x USB2.0		

## OKMX6UL-C2 Single Board Computer

Display	1 x RGB	RTC	supported
Ethernet	1 x 10/100Mbps auto-negotiable	JTAG	1
RS232	1x debug	EINT/GPIO	39
SD/MMC/SDIO	1, compatible with SD, SDHC& SDXC(UHS-I)	Key	1
USB Host	1 x USB2.0	DIP switch	booting mode selection
USB OTG	1 x USB2.0	LED	4
ADC	4-wire resistive touch	Power In	5V
PWM	1, backlight		



OKMX6UL-C1



OKMX6UL-C2







# FETMX6ULx-S

Cortex-A7 i.MX6UL / i.MX6ULL

## DESCRIPTION

FETMX6ULx-S is a system on module designed based on NXP Cortex-A7 featuring CPU i.MX6ULL processor.

It runs at 800MHz, and SoM can be soldered on carrier board. It can support 8x UART, 2x Ethernet, 2x CAN and other peripheral sources.

FETMX6ULx-S System on Module			
CPU	i.MX6UL / i.MX6ULL	UART	≤8, each up to 5.0Mbps
Architecture	Cortex-A7	eCSPI	≤4, host/ slave mode
Frequency	528MHz / 800MHz	I2C	≤4
RAM	128MB / 256MB / 512MB DDR3L	Camera	1, 8-bit DVP
ROM	256MB NandFlash / 4GB eMMC	SD/MMC/SDIO	≤2, 1-bit or 4-bit mode
OS	Linux4.1.15+QT5.6、Linux3.14.38+QT4.8.5	USB	2, USB 2.0
Voltage input	5V	CAN	≤2, CAN 2.0B
Work temp	0~+70°C / -40~+85°C	Ethernet	≤2, 10/100Mbps auto-negotiable
Packaging	edge soldering	PWM	≤8, 16-bit
Dimensions	44mm x 35mm	KeyPad Port	8x 8 keypad
LCD	up to RGB888, 1366*768@60Hz	ADC	≤10, 12-bit ADC
SAI	≤3, up to 3x I2S Audio	SPDIF	1



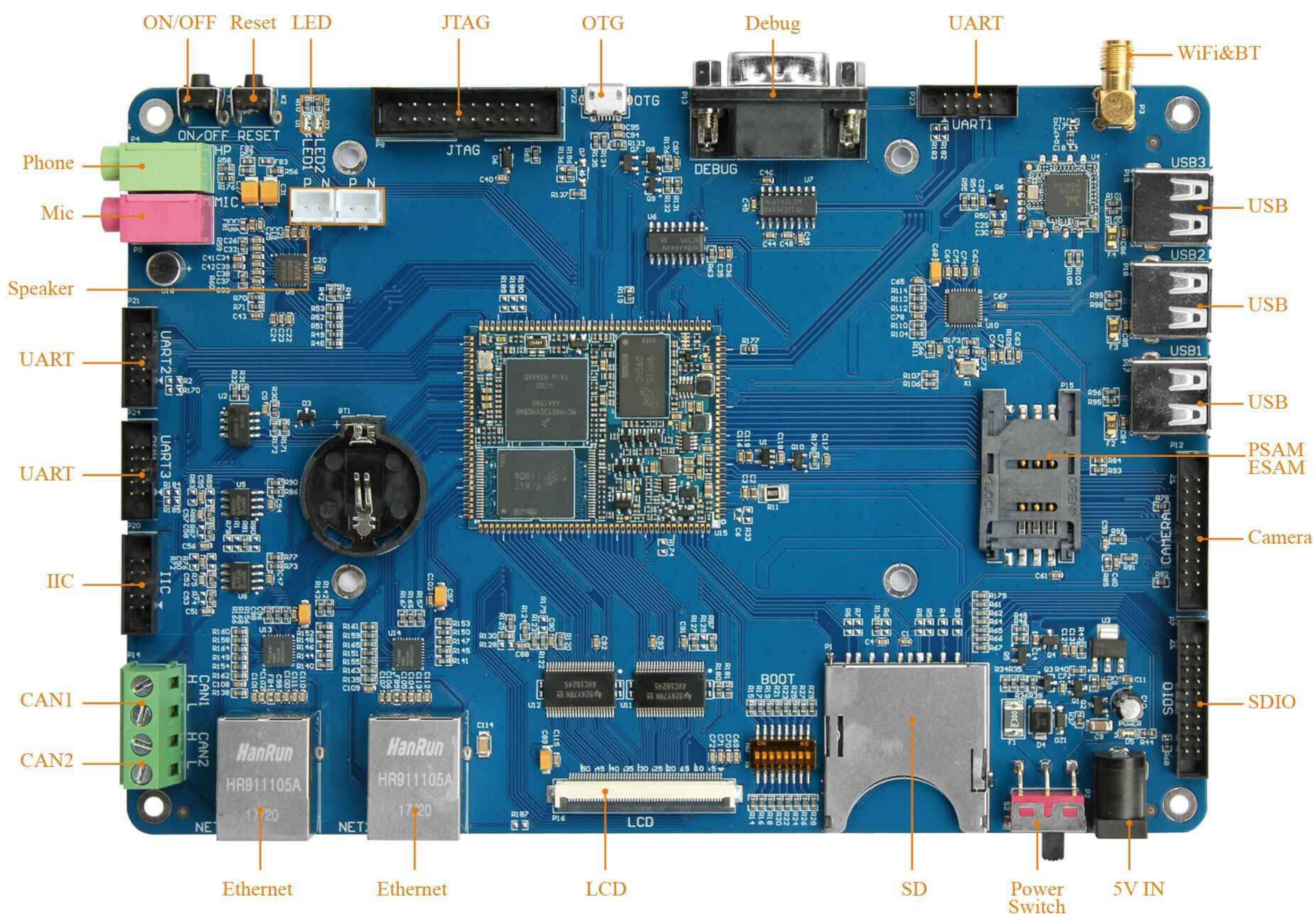


## OKMX6ULx-S Single Board Computer

UART	4, 3x TTL, 1x debug	SDIO	1
CAN	2x VSN2.0B	SD	1
Ethernet	2, 10/100Mbps auto-negotiable	Audio	2 x Speaker, 1x MIC, 1x Phone
LCD	1, RGB888	LED	2
USB Host	3, expanded by USB HUB	I2C	2
USB OTG	1	CSI	1x 8-bit DVP
WiFi& BT	WiFi: IEEE802.11b/g/n; BT : BTV2.1/BT V3.0/BT V4.0	RTC	RX8010SJ

### ◆ TARGET APPLICATION

IoT, power industry, medical, environment monitoring, smart city, smart agriculture, industrial control, HMI, financial, EV charger, etc.



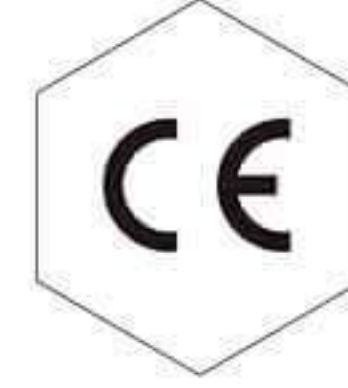




# FET1052-C

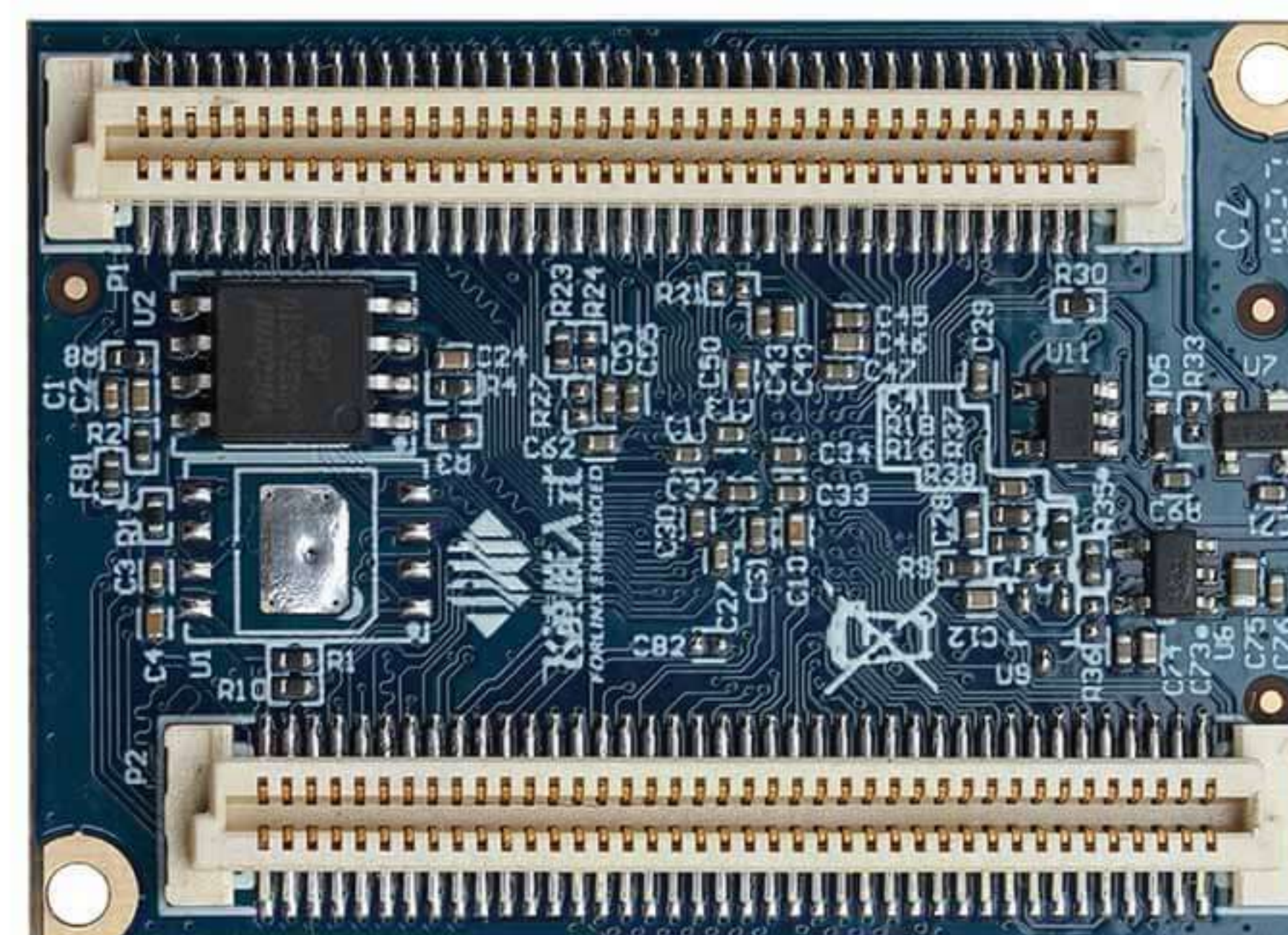
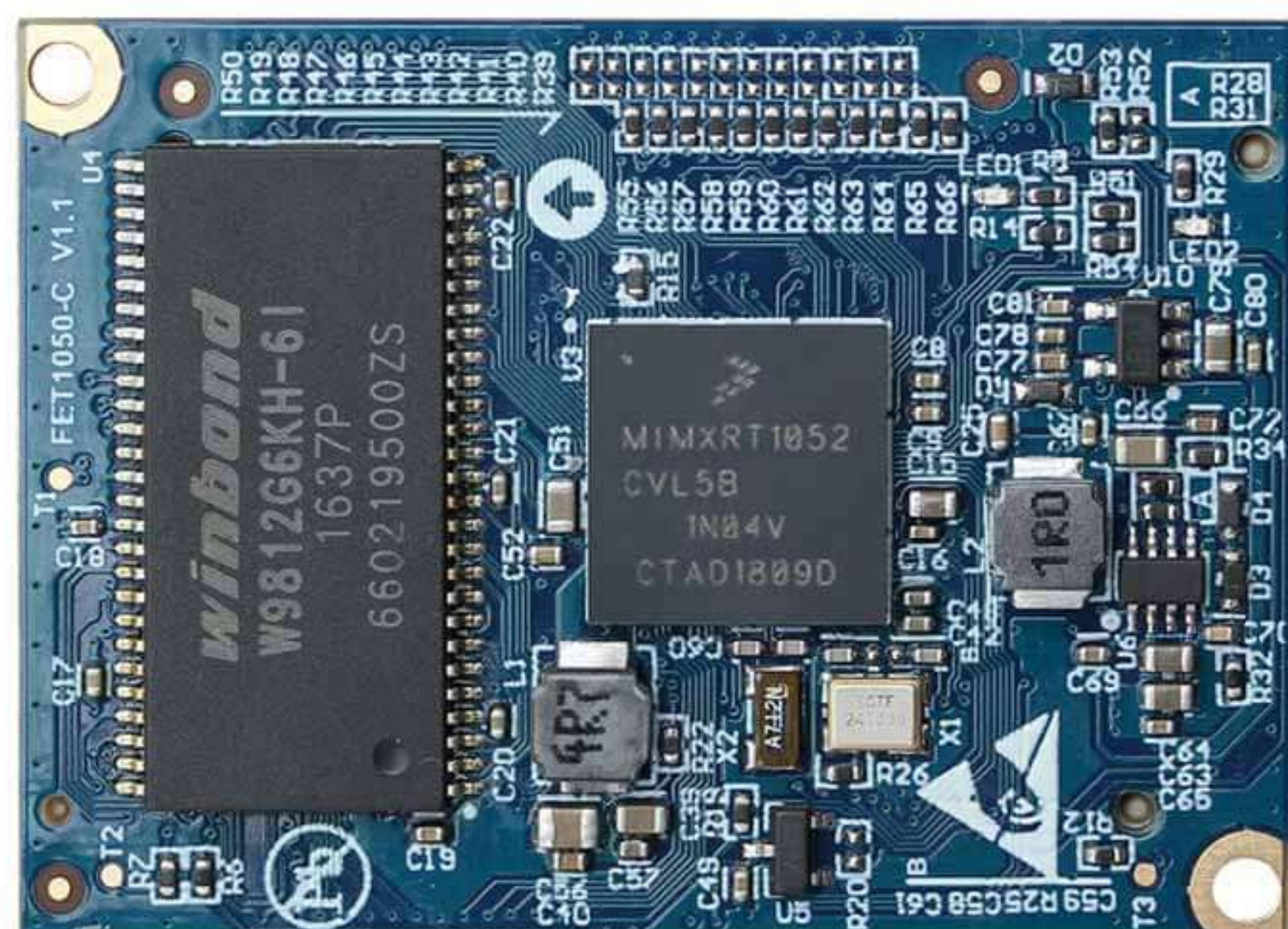
Cortex-M7 i.MX RT

## DESCRIPTION



FET1052-C is a system on module designed based on NXP Cortex-M7 i.MX RT1050 series processor, the one we use is i.MX RT1052. It operates at speeds up to 528MHz to provide high CPU performance and best real-time response. The i.MX RT1052 processor has 512 KB on-chip RAM, which can be flexibly configured as TCM or general-purpose on-chip RAM. 16MB/ 32MB SDRAM, 4MB/ 16MB QSPI-NorFlash are optional. The SoM can work stable in environment ranges from -40 to +85 celsius degree and it has a compact appearance that dimensions only 31mm \* 43mm, the SoM is designed with a couple of 80-pin connectors with pitch of 0.8mm, all 160pins of the processor are drawn out with GPIO up to 124 pins. Other peripheral pins like UART, Ethernet, USB, CAN, PWM, ADC, LCD and CAMERA are all available. What's more, OS uClinux is supported very well.

FET1052-C System on Module			
CPU	NXP i.MX RT1052	UART	8
Architecture	Cortex-M7	CAN	2
Frequency	528MHz	IIC	4
RAM	SRAM 512KB; SDRAM 16MB/32MB	SPI	4
ROM	QSPI Nor Flash 4MB/16MB	Camera	1 x DVP
OS	uClinux, FreeRTOS, RT-Thread, Bare metal	SD/SDIO	2
Voltage input	5V	USB	2
Work temp	- 40℃ ~ +85℃	PWM	32
Packaging	board to board connector(2x 80-pin, 0.8mm)	SPDIF	1
Dimensions	31mm x 43mm	SWD	1
Display	1 x RGB	Keypad port	1, 8 x 8 keypad
SAI	3	ADC	20
Ethernet	1, 10/100Mbps auto-negotiable	QSPI	2



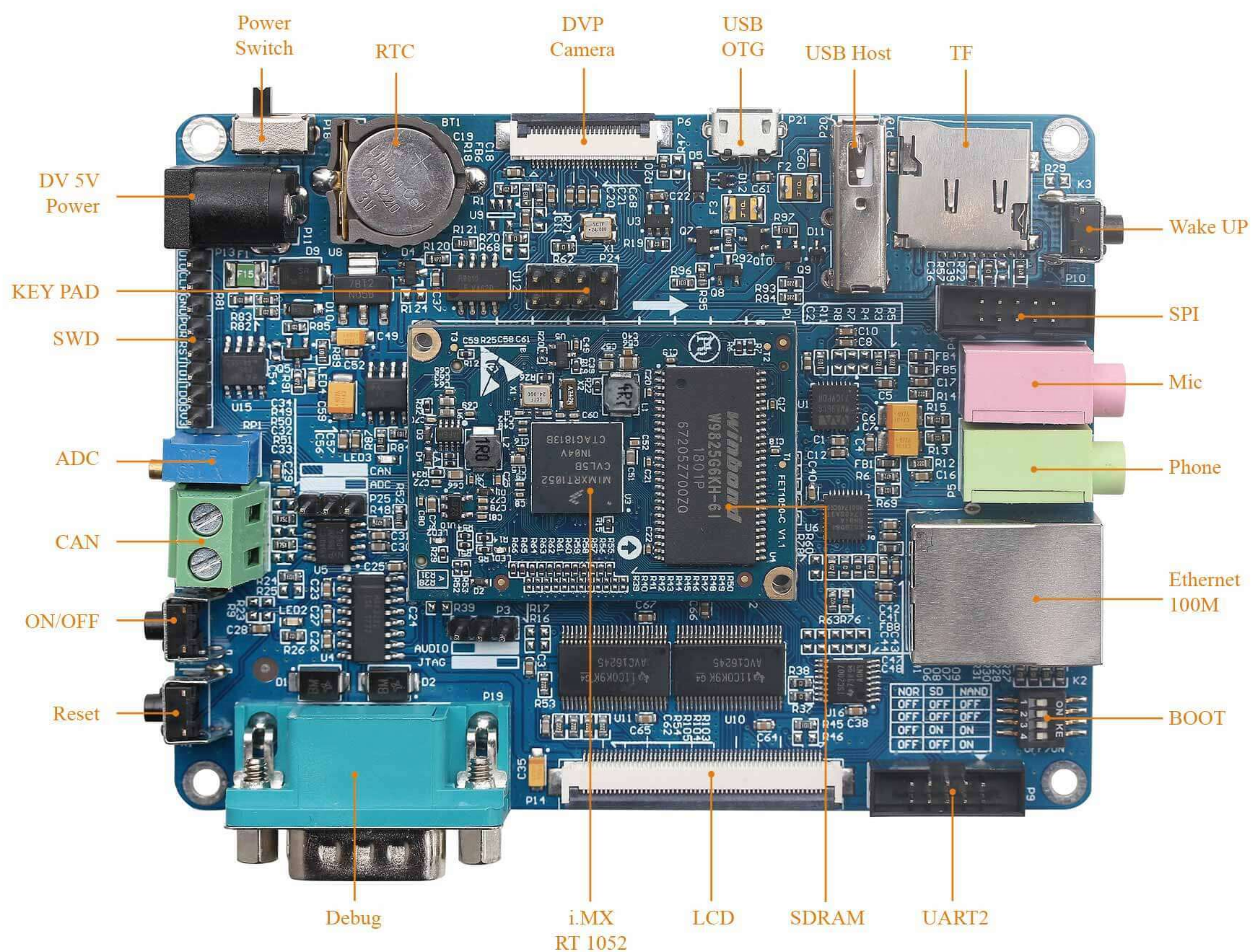


## OK1052-C Single Board Computer

Display	1 X RGB	USB OTG	1 X USB2.0 OTG
Audio	1 X Phone, 1 X Mic	ADC	5(1x 4-wire resistive touch, 1x adjustable resistor)
Ethernet	1, 10/100Mbps auto-negotiable	PWM	1x backlight
UART	1x 3-wire serial	RTC	RX8010+CR1220
RS232	1x debug	SWD	1
CAN	1	Key	reset, sleeping waken up, power key
IIC	1	DIP switch	1
SPI	1	LED	1
Camera	1 X DVP	Keypad port	1, 4 x 4 keypad
TF Card	1	EEPROM	1, 265 bytes
USB Host	1 X USB 2.0	Power In	5V

### ◆ TARGET APPLICATION

UAV, HMI, PLC, motor control, motion control, robotic, smart lighting, solar converter, power system control, conditioner, concentrator







# FET1061-S

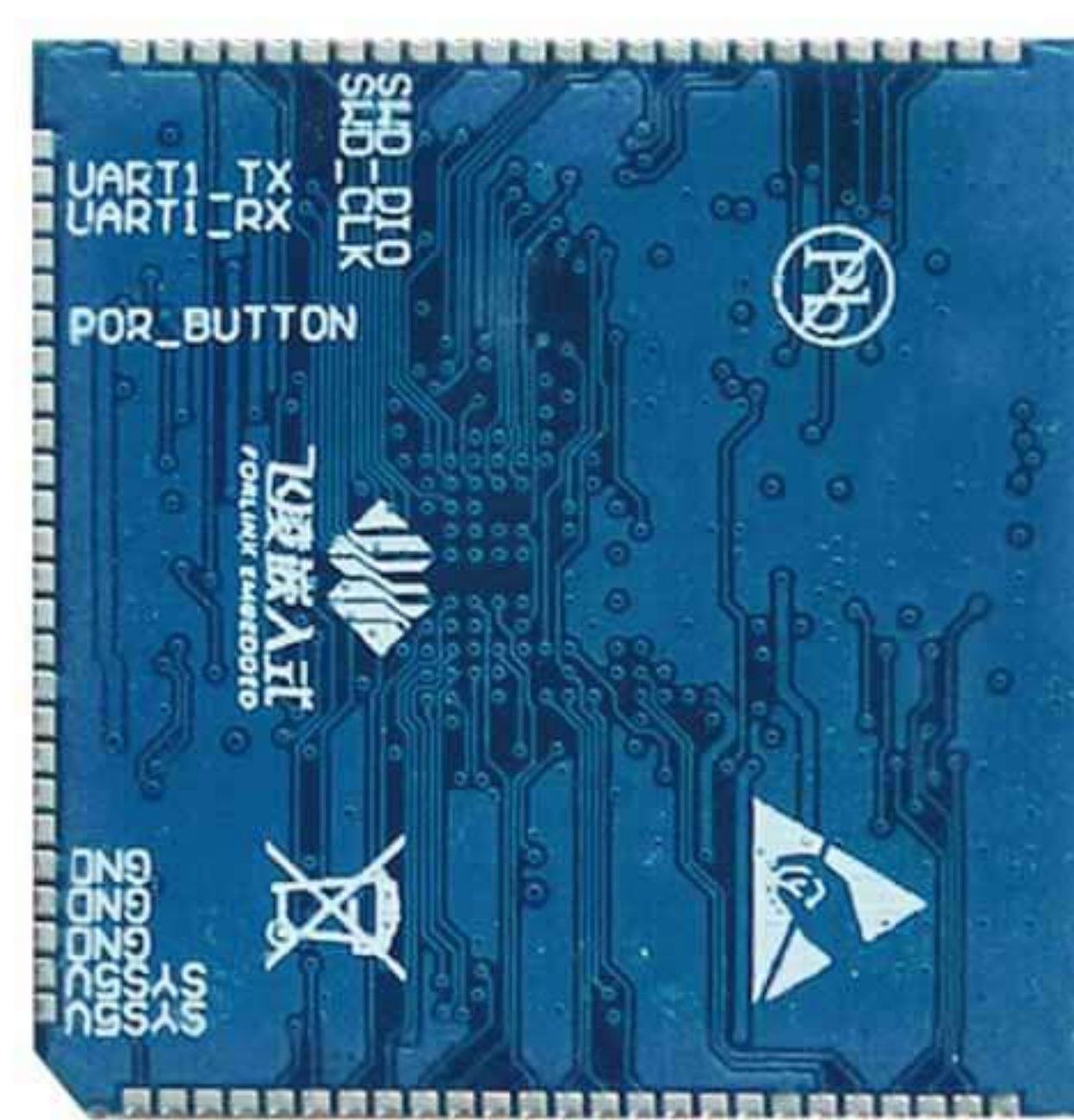
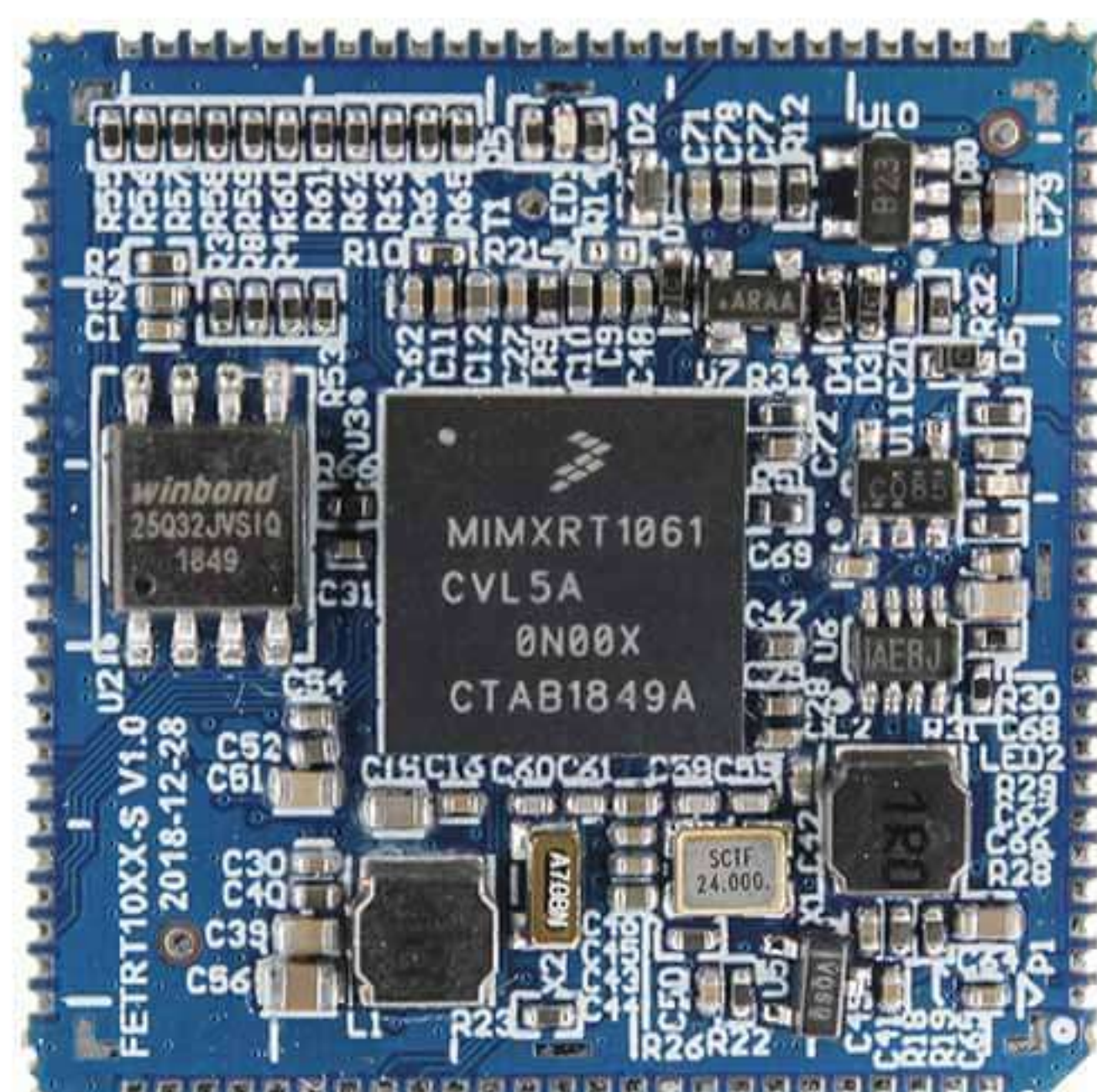
Cortex-M7 i.MX RT

## DESCRIPTION



FET1061-S system on module is based on NXP Cortex-M7 MCU i.MX RT1061 @ 528MHz, it has on-chip SRAM up to 1MB, 512KB can be flexibly configured as TCM or general purposes on-chip RAM, and it can support QSPI-NOR Flash of 4MB. It has a compact volume of 30x 30x 3mm, 100 pins are available with pitch of 1.0mm. It integrates HS\_GPIO, CAN-FD and NAND/ NOR/ PSRAM controllers. The SoM temp width ranges from -40 to +85 degree. Meanwhile, various peripheral interface such as UART, 2x Ethernet, USB, CAN, CAN-FD, HS\_GPIO and PWM, ADC are available. Bare metal and FreeRTOS are both supported.

FET1061-S System on Module			
CPU	NXP i.MX RT1061	CAN	2
Architecture	Cortex-M7	IIC	4
Frequency	528MHz	SPI	3
RAM	1MB On Chip SRAM	SD/SDIO	2
ROM	4MB (16MB optional)	USB	2
OS	FreeRTOS, RT-Thread, Bare metal	PWM	26
Voltage input	5V	SPDIF	1
Work temp	-40°C ~ +85°C	SWD	1
Packaging	edge soldering(4x 25-pin, 1.0mm pitch)	Keypad port	1, 8 x 8 keypad
Dimensions	30mm x 30mm	ADC	10
SAI	2	QSPI	1
Ethernet	2, 10/100Mbps auto-negotiable	CAN FD	1
UART	7	HS-GPIO	32



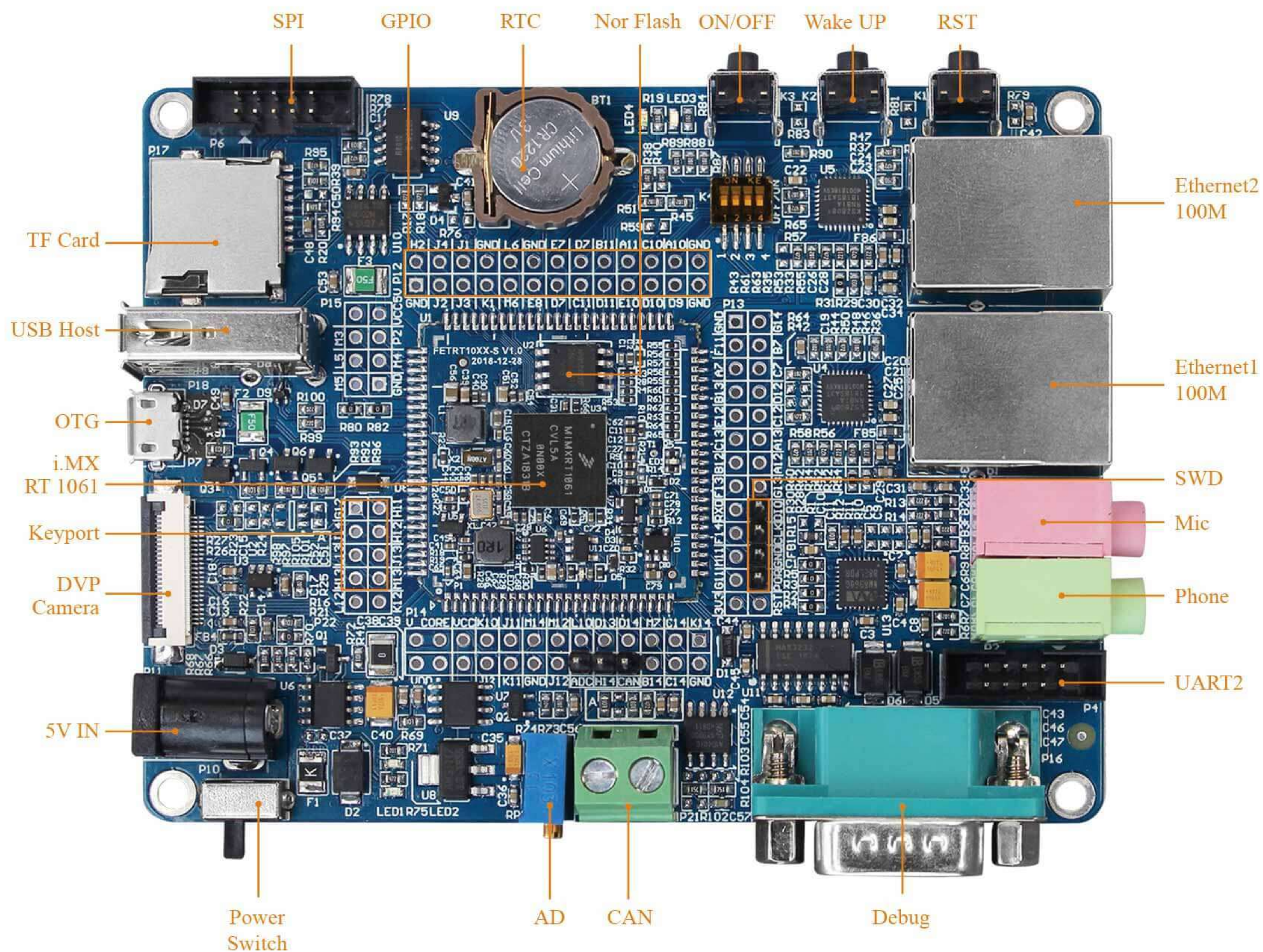


## OK1061-S Single Board Computer

Audio	1 X Phone, 1 X Mic	ADC	5(1x 4-wire resistive touch, 1x adjustable resesor)
Ethernet	2, 10/100Mbps auto-negotiable	PWM	1, backlight
UART	1, 3-wire	RTC	RX8010+CR1220
RS232	1, debug	SWD	1
CAN	1	Key	reset, sleeping waken up, power key
IIC	1	DIP switch	1
SPI	1	LED	1
Camera	1 X DVP, for i.MX RT1052/1062	Keypad port	1, 4 x 4 keypad
TF Card	1	EEPROM	1, 265 bytes
USB Host	1 X USB 2.0	Power In	5V
USB OTG	1 X USB2.0 OTG		

### ◆ TARGET APPLICATION

UAV, HMI, PLC, motor control, motion control, robotic, smart lighting, solar converter, power system control, conditioner, concentrator







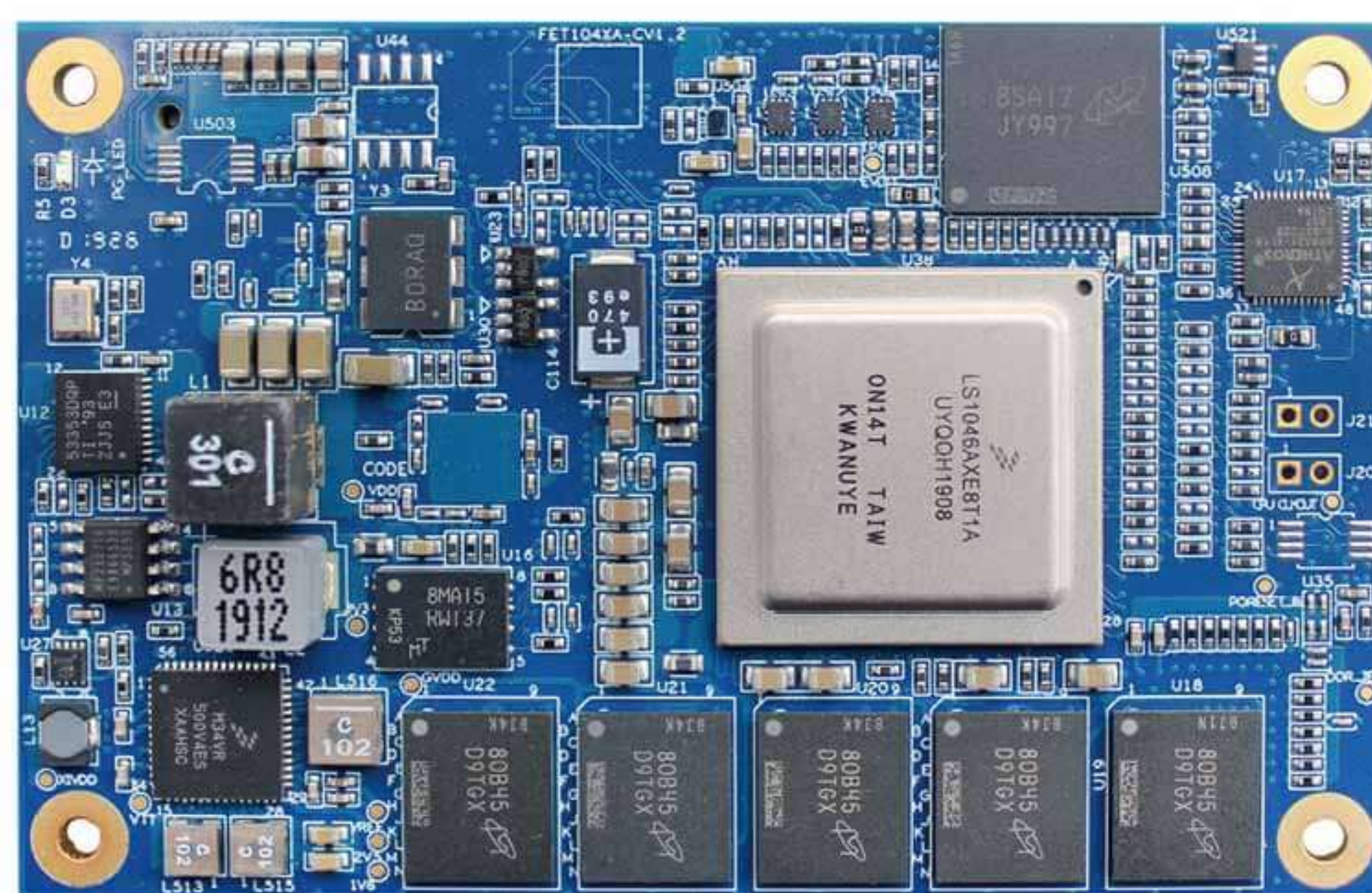
# FET1046A-C

Cortex-A72 LS1046A

## DESCRIPTION

FET1046A-C is a system on module (SoM) designed based on NXP Cortex-A72 featuring quad-core LS1046A processor with frequency up to 1.8GHz, can support 8 native Giga-bit Ethernet, up to 2 XFI, PCIe3.0 (x4), SATA3.0, USB3.0, UART, IIC peripheral interfaces are available, in software view, Ubuntu and OpenWRT are both well supported. Target applications are industrial router, edge computing gateway, IP-PBX, energy management, automation, etc.

FET1046A-C System on Module			
CPU	NXP LS1046A quad-core	Dimensions	84mm x 55mm
Architecture	Cortex-A72	Ethernet	≤8, CPU has 8 native MAC, available for below combination: <ul style="list-style-type: none"> <li>• 8 X 1Gbps Ethernet</li> <li>• 1 X 10Gbps + 7 X 1Gbps Ethernet</li> <li>• 2 X 10Gbps + 5 X 1Gbps Ethernet</li> </ul>
Frequency	≤1.8GHz	PCIe3.0	≤3, configured by SerDes, can support x1, x2, x4, each channel up to 8GT/s
RAM	2GB DDR4	SATA3.0	≤1, configured by SerDes, can support up to 6Gbps
ROM	8GB eMMC, 16MB QSPI NorFlash	USB3.0	≤3, up to 5Gbps
OS	Ubuntu-18.04.1/OpenWrt v18.06.0-rc2	UART	≤4, contains one debug port
Voltage input	12V	IIC	≤2
Work temp	-40°C ~ +75°C	eSDHC	≤1, can support SD3.0 eMMC4.5 and eMMC can be used for card booting or system flashing, but can not be used for storage expanding in eMMC booting mode
Packaging	COMe (220pin, 0.5mm)	JTAG	NXP CodeWarrior TAP
SerDes	8 x SerDes <ul style="list-style-type: none"> <li>• 1x SATA3.0</li> <li>• can support up to 3x SGMII(2500Mbits/s)</li> <li>• up to 1x QSGMII</li> </ul>		<ul style="list-style-type: none"> <li>• can support up to 5x SGMII 1000Mbits</li> <li>• can support up to 2x XFI(10GbE)</li> <li>• 3x PCI Express3.0</li> </ul>





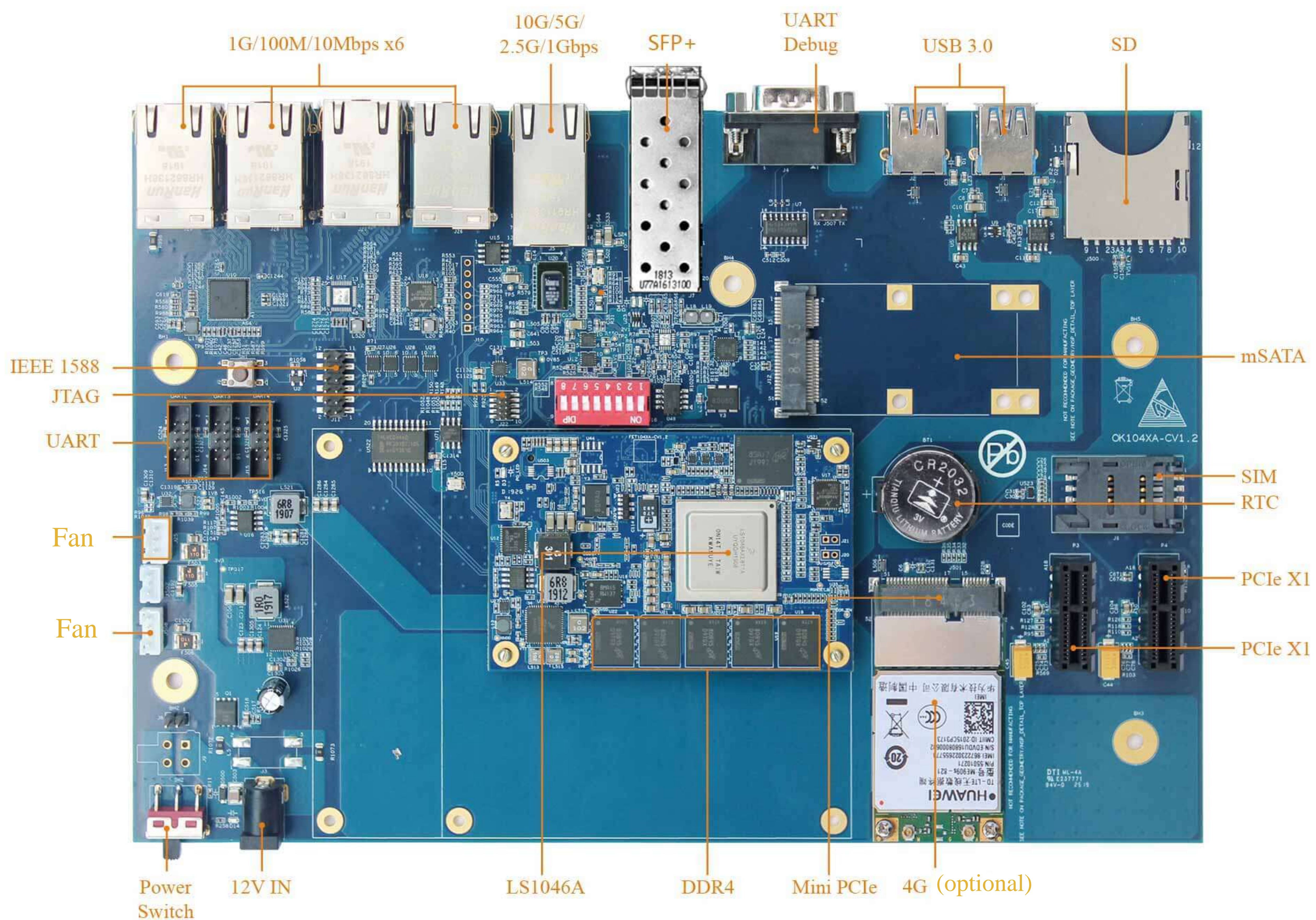
## OK1046A-C Single Board Computer

1Gbps Ethernet	6, 1G/ 100M/ 10Mbps auto-negotiation, 4 from QSGMII and 2 from RGMII
10Gbps Ethernet	1, up to 10Gbps, can support 10G/ 5G/ 2.5G/ 1G/ 100Mbps auto-negotiation.
SFP+*	1, up to 10Gbps, for SFP+ optical module or electrical module
mSATA	1, SATA3.0, up to 6Gbps, can be configured to mini PCIe by RCW
Mini PCIe	1, PCIe2.0, up to 5GT/s, can be configured to mSATA by RCW, rate up to 6Gbps, can support RTL8111 to expand Gigabit Ethernet and WLE900VX to expand dual-band WiFi.
PCIe x1	2, PCIe2.0, up to 5GT/s
USB 3.0	2, up to 5Gbps
4G	1, Mini PCIe preserved with USB signal and SIM card
UART	3, TTL, 3-wire
Debug	1, RS232
SD Card	1, SD/ SDHC/ SDXC(UHS-I), multiplexed with eMMC, can be used for card booting, but can't fdoor storage expanding
RTC	1, RS232

Note\*: SFP+ and QSGMII are conflict in SerDes, when working with SFP+, it can only support Gigabit Ethernet up to 4, details please refer to CPU SerDes configuration sheet.

## TARGET APPLICATION

Industrial router, 5G CPE, TSN, SD-WAN, edge computing, IP-PBX, smart city, smart transportation, energy management, industrial automation, security, etc.







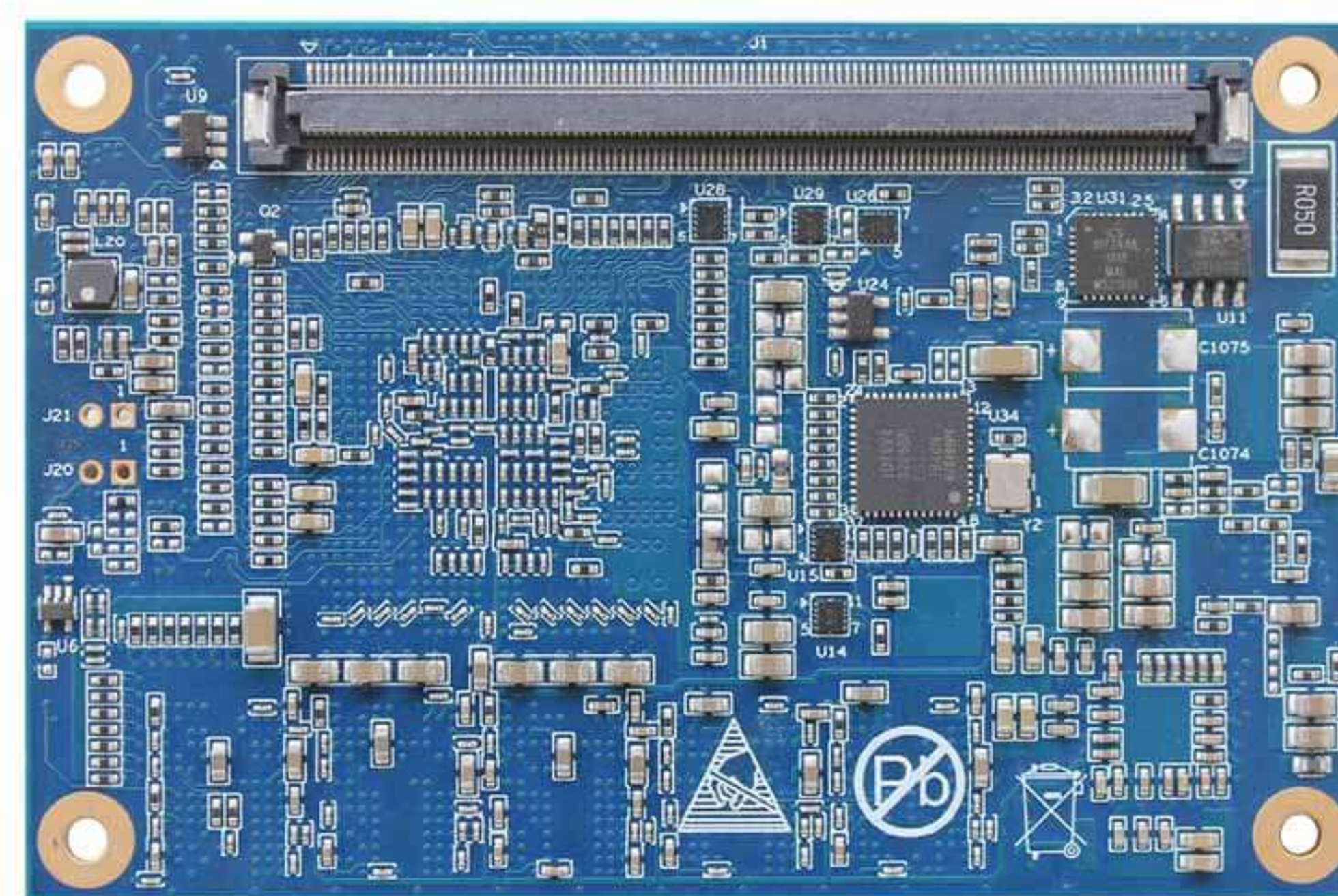
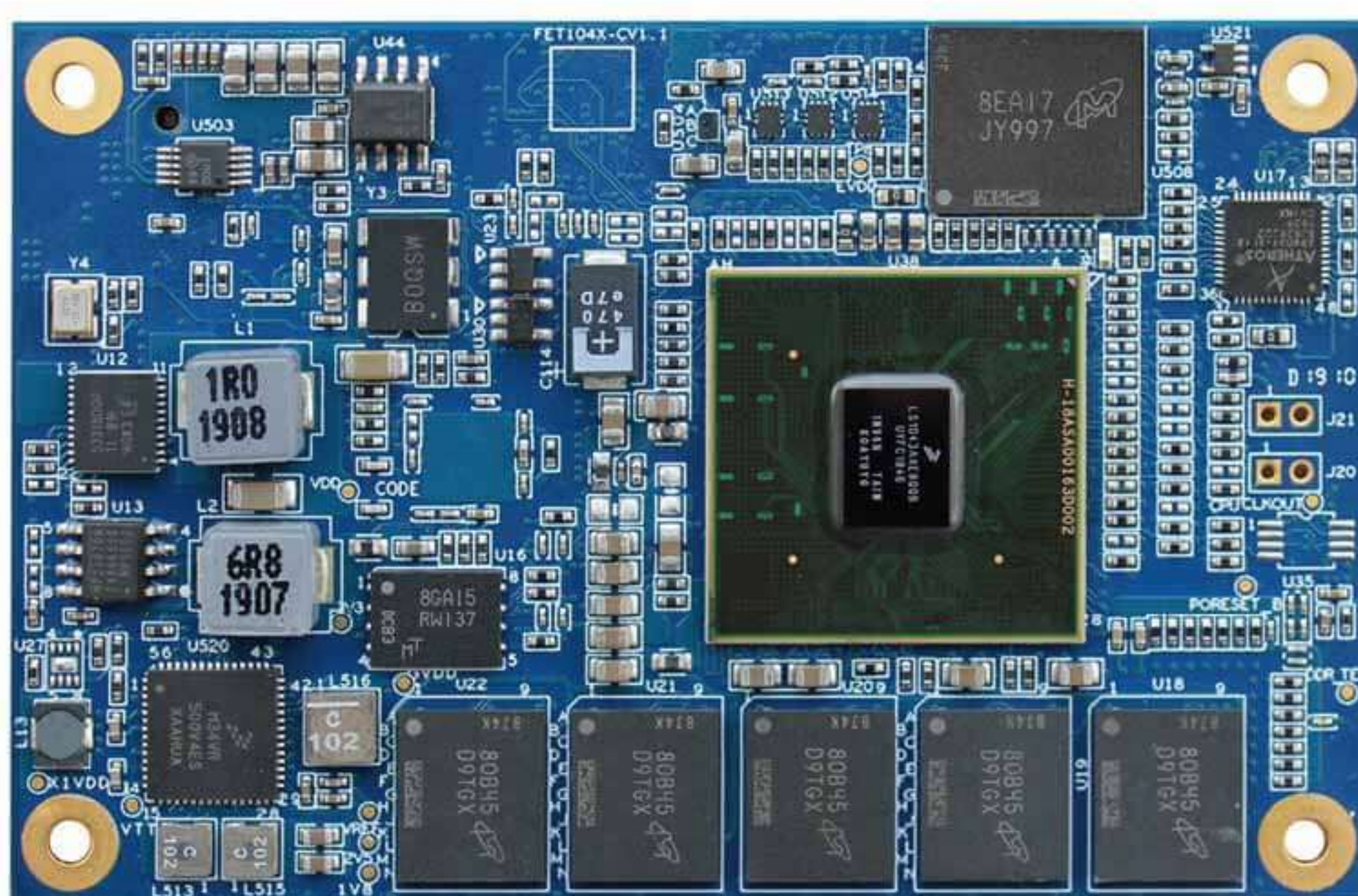
# FET1043A-C

Cortex-A53 LS1043A

## DESCRIPTION

FET1046A-C is a system on module (SoM) designed based on NXP Cortex-A53 featuring quad-core LS1043A processor with frequency up to 1.6GHz, can support 7 native Ethernet one 10Gbps and six 1000Mbps. PCIe2.0, SATA3.0, USB3.0, UART, IIC peripheral interfaces are also available, in software, Ubuntu and OpenWRT are both well supported. Target applications are industrial router, edge computing gateway, IP-PBX, energy management, automation, etc.

FET1043A-C System on Module			
CPU	NXP LS1043A	Dimensions	84mm x 55mm
Architecture	Cortex-A53	Ethernet	≤7, CPU has 7 native MAC, can support up to 1x 10Gbps and 6x 1000Mbps Ethernet
Frequency	≤1.6GHz	PCIe2.0	≤3, configured by SerDes, up to 5Gbps
RAM	2GB DDR4	SATA3.0	≤1, configured by SerDes, up to 6Gbps
ROM	8GB eMMC, 16MB QSPI NorFlash	USB3.0	≤3, up to 5Gbps
OS	Ubuntu-18.04.1/OpenWrt v18.06.0-rc2	UART	≤4, contains one debug port
Voltage	12V	IIC	≤2
Work temp	-40°C ~ +80°C	eSDHC	≤1, can support SD3.0 eMMC4.5 and eMMC can be used for card booting or system flashing, but can not be used for storage expanding in eMMC booting mode
Packaging	COMe (220pin, 0.5mm)	JTAG	NXP CodeWarrior TAP
SerDes	4 x SerDes • 1x SATA3.0 • can support up to 2x SGMII(2500Mbps/s) • up to 1x QSGMII	• can support up to 4x SGMII 1000Mbps • can support up to 1x XFI(10GbE) • 3x PCI Express2.0	



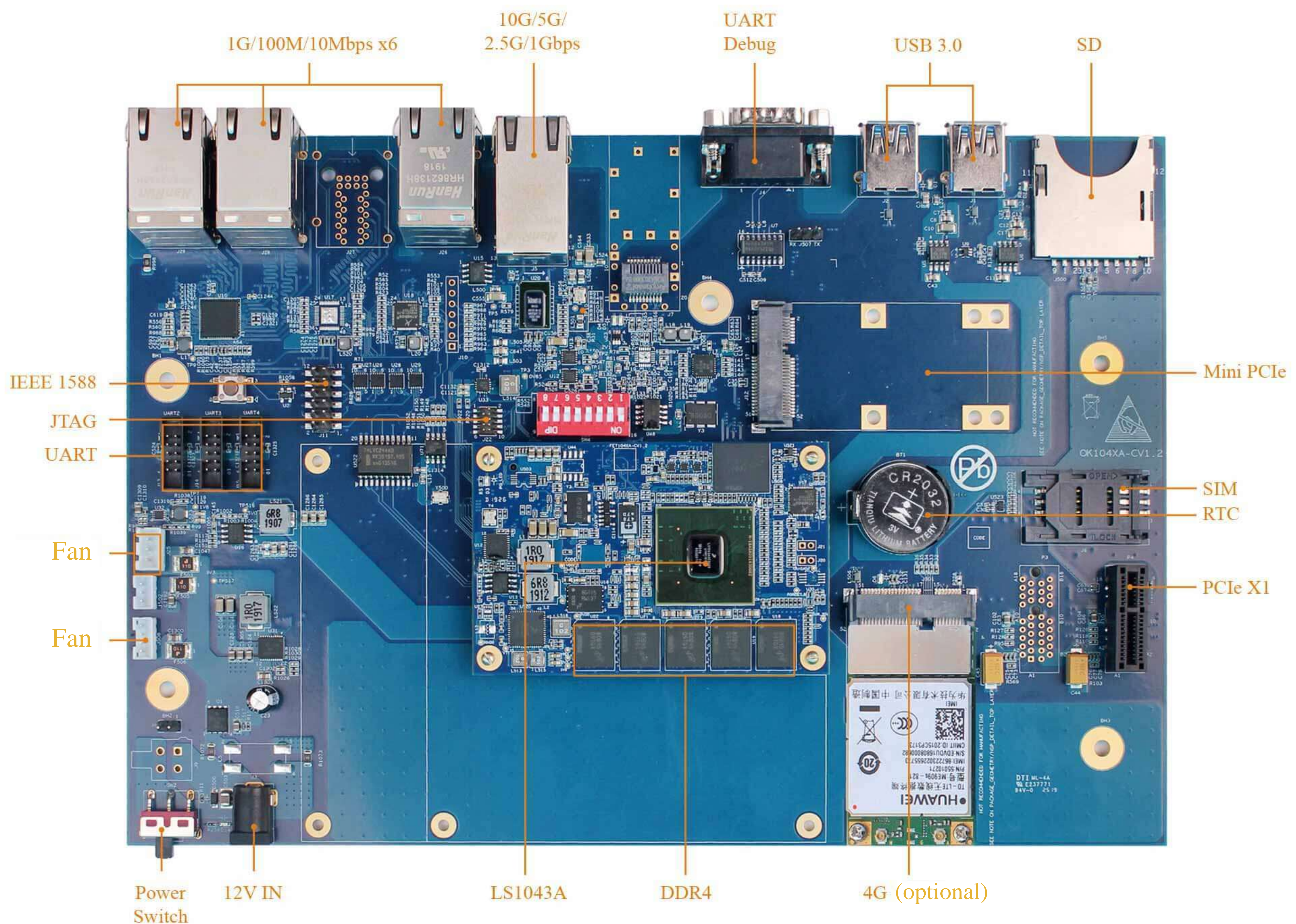


## OK1043A-C Single Board Computer

Ethernet 1Gbps	6, 1G/ 100M/ 10Mbps auto-negotiation, 4 from QSGMII and 2 from RGMII
Ethernet 10Gbps	1, up to 10Gbps, can support 10G/ 5G/ 2.5G/ 1G/ 100Mbps auto-negotiation.
Mini PCIe	1, PCIe2.0, up to 5GT/s, can be configured to mSATA by RCW, rate up to 6Gbps, can support RTL8111 to expand Gigabit Ethernet and WLE900VX to expand dual-band WiFi.
PCIe X1	1, PCIe2.0, up to 5GT/s
USB3.0	2, up to 5Gbps
4G	1, Mini PCIe preserved with USB signal and SIM card
UART	3, TTL, 3-wire
Debug	1, RS232
SD Card	1, SD/ SDHC/ SDXC(UHS-I), multiplexed with eMMC, can be used for card booting, but can't for storage expanding
RTC	1, RS232

### TARGET APPLICATION

Industrial router, 5G CPE, TSN, SD-WAN, edge computing, IP-PBX, smart city, smart transportation, energy management, industrial automation, security, etc.







# FET1012A-C

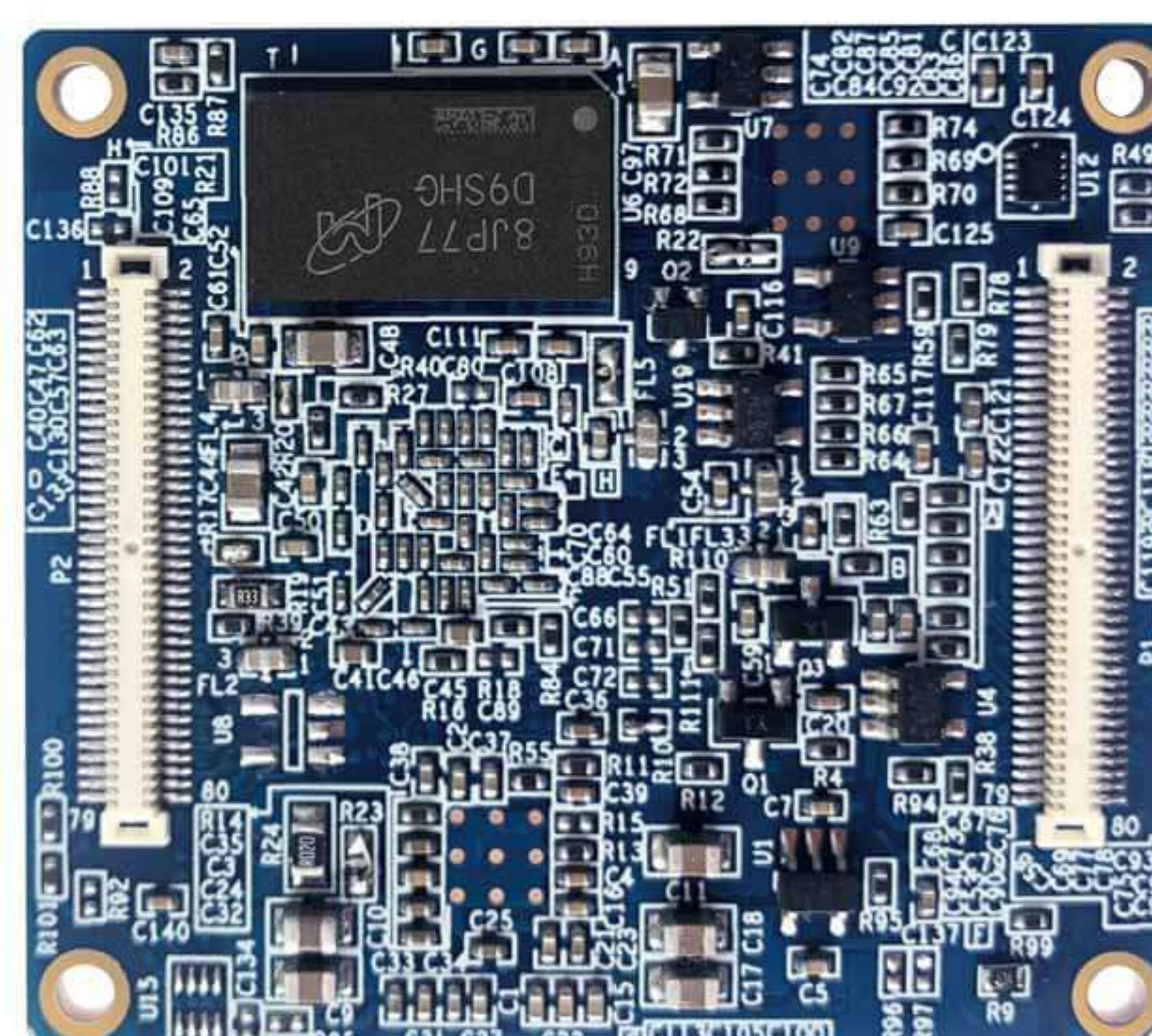
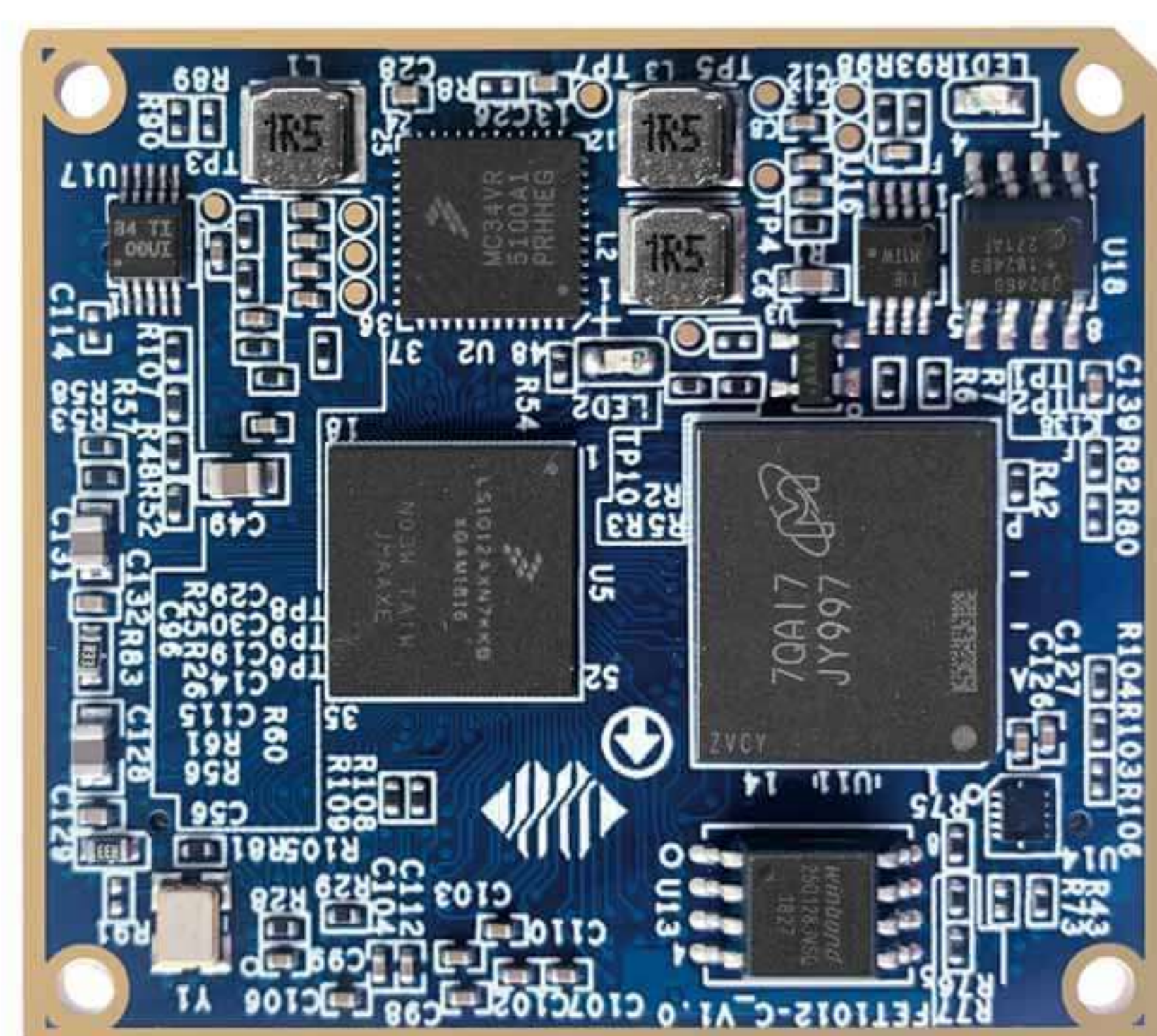
Cortex-A53 LS1012A

## DESCRIPTION



FET1012A-C is a system on module (SoM) designed based on NXP Cortex-A53 featuring processor LS1012A with frequency up to 1.0GHz, it can support up to two 2.5Gbps Ethernet controllers with PFE. Also can support SATA3.0, USB3.0, PCIe2.0, UART, SD and other peripherals, in software, Ubuntu and OpenWRT are supported. Applicable for industrial router, edge computing gateway, IP-PBX, energy management, automation, etc.

FET1012A-C System on Module			
CPU	NXP LS1012A	Ethernet	≤2,
Architecture	Cortex-A53	PCIe2.0	≤1, up to 5Gbps, can be used for expanding Gigabit Ethernet or dual-band WiFi.
Frequency	≤1GHz	SATA3.0	≤1, up to 6Gbps.
RAM	512MB DDR3L	USB3.0	1, up to 5Gbps.
ROM	8GB eMMC, 16MB QSPI NorFlash	QSPI	1, for QSPI NOR Flash
OS	Ubuntu-18.04.1/OpenWrt v18.06.0-rc2	SAI	≤5
Voltage input	4.2V	UART	≤2, contains one debug port.
Work temp	-40°C ~ +80°C	IIC	≤1
Packaging	board-to-board connector	SDHC	1, can support SD card storage
	45mm x 40mm	JTAG	1



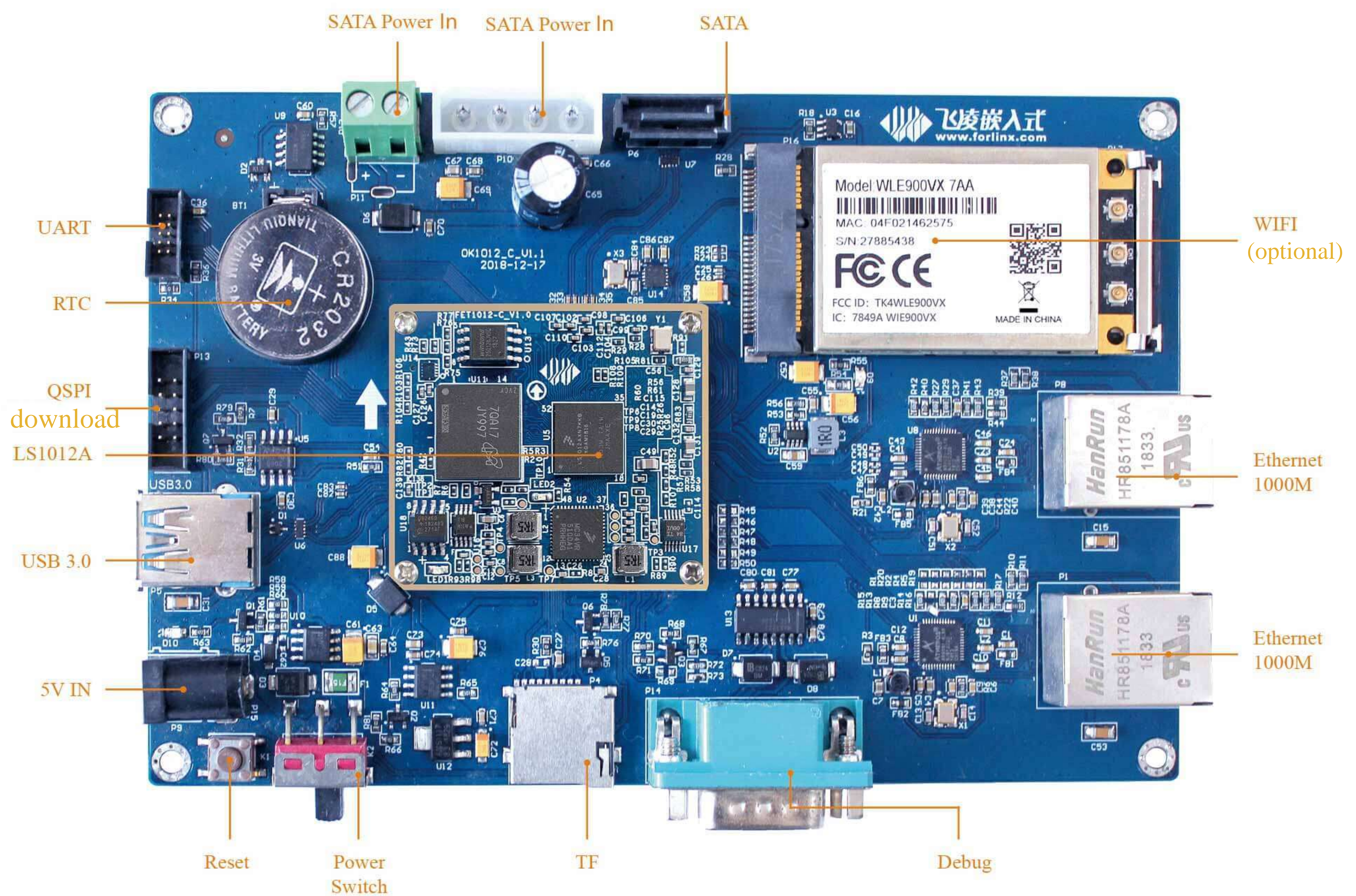


## OK1012A-C Single Board Computer

Ethernet	≥2, 10M/ 100M/ 1000Mbps auto-negotiable
PCIe2.0	≥1, up to 5Gbps, can be used for expanding Gigabit Ethernet or dual-band WiFi.
SATA3.0	≥1, up to 6Gbps.
USB3.0	1, up to 5Gbps.
QSPI	1, for QSPI NOR Flash
UART	≥2
RTC	supported
TF Card	1, TF card storage
JTAG	1, NXP Code Warrior TAP

### ◆ TARGET APPLICATION

Industrial router, 5G CPE, TSN, SD-WAN, edge computing, IP-PBX, smart city, smart transportation, energy management, industrial automation, security, etc.

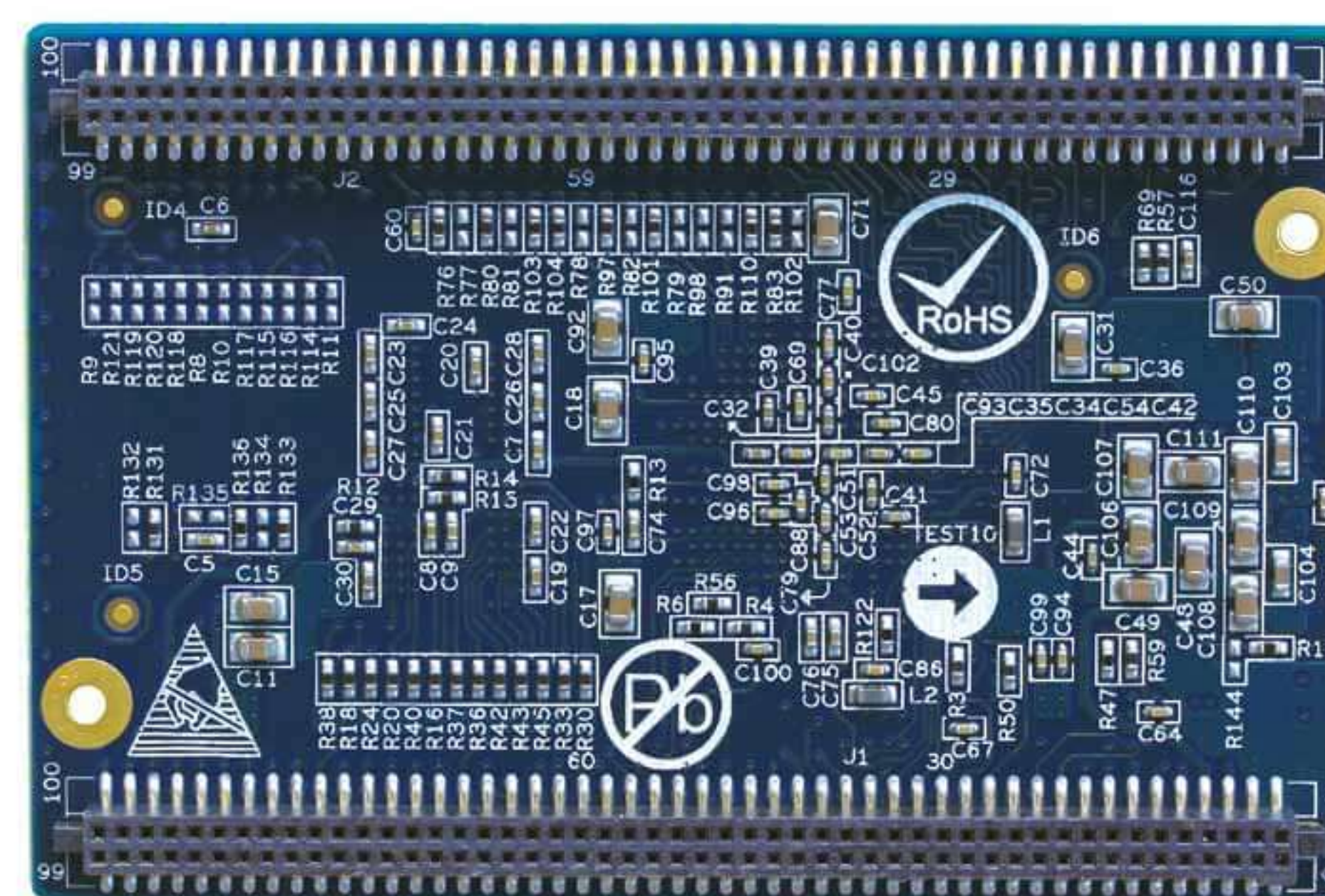
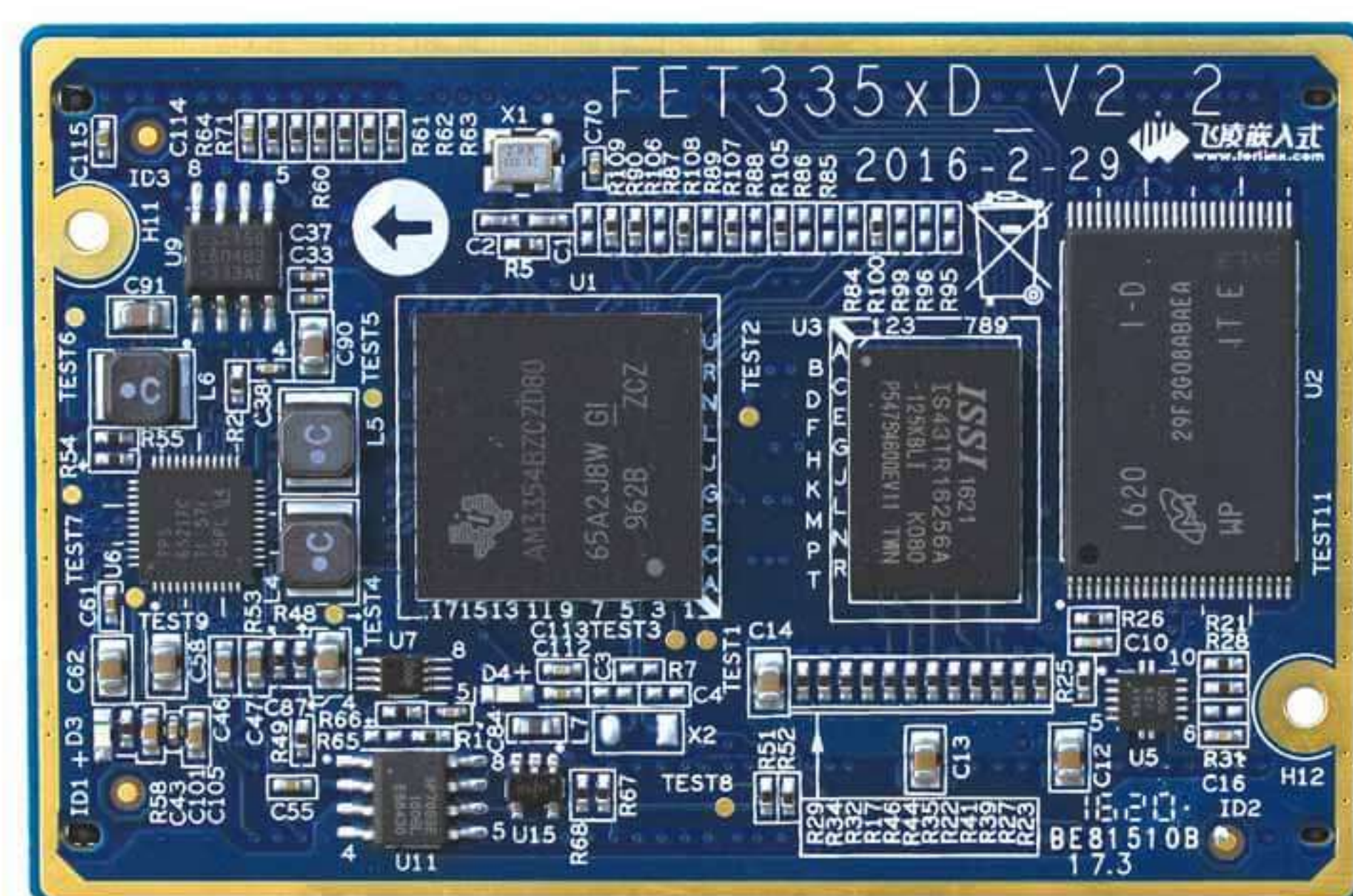





**DESCRIPTION**


FET335xD is based on TI Sitara Cortex-A8 featuring processor AM3354 up to 800MHz, working temp ranges from -40 to +85 celsius degree, can support CAN, SPI, RS485 and dual Gigabit Ethernet.

FET335xD System on Module			
CPU	TIAM3354	Ethernet	2 X 10/100/1000Mbps auto-negotiable
Architecture	Cortex-A8	UART	6
Frequency	800MHz	CAN	2
RAM	512MB DDR3	IIC	3
ROM	256MB NandFlash(1GB optional)	SPI	2
OS	Android2.3/4.2 , Win CE7.0/6.0, Linux3.2+QT4.8 , LinuxRT	GPMC	16-bit data bus, 12-bit address bus
Voltage input	5V	SD/MMC/SDIO	3
Work temp	-40℃ ~ +85℃	USB	2 x USB 2.0 OTG
Packaging	pin connectors(2x 100-pin, pitch 1.27mm)	PWM	3
Dimensions	47mm X 71mm	JTAG	1
PMU	TPS65217C	EINT/GPIO	supported
GPU	PowerVR SGX530	ADC	8
Display	1 X RGB24-bit	WatchDog	SP706SEN
IIS	1		



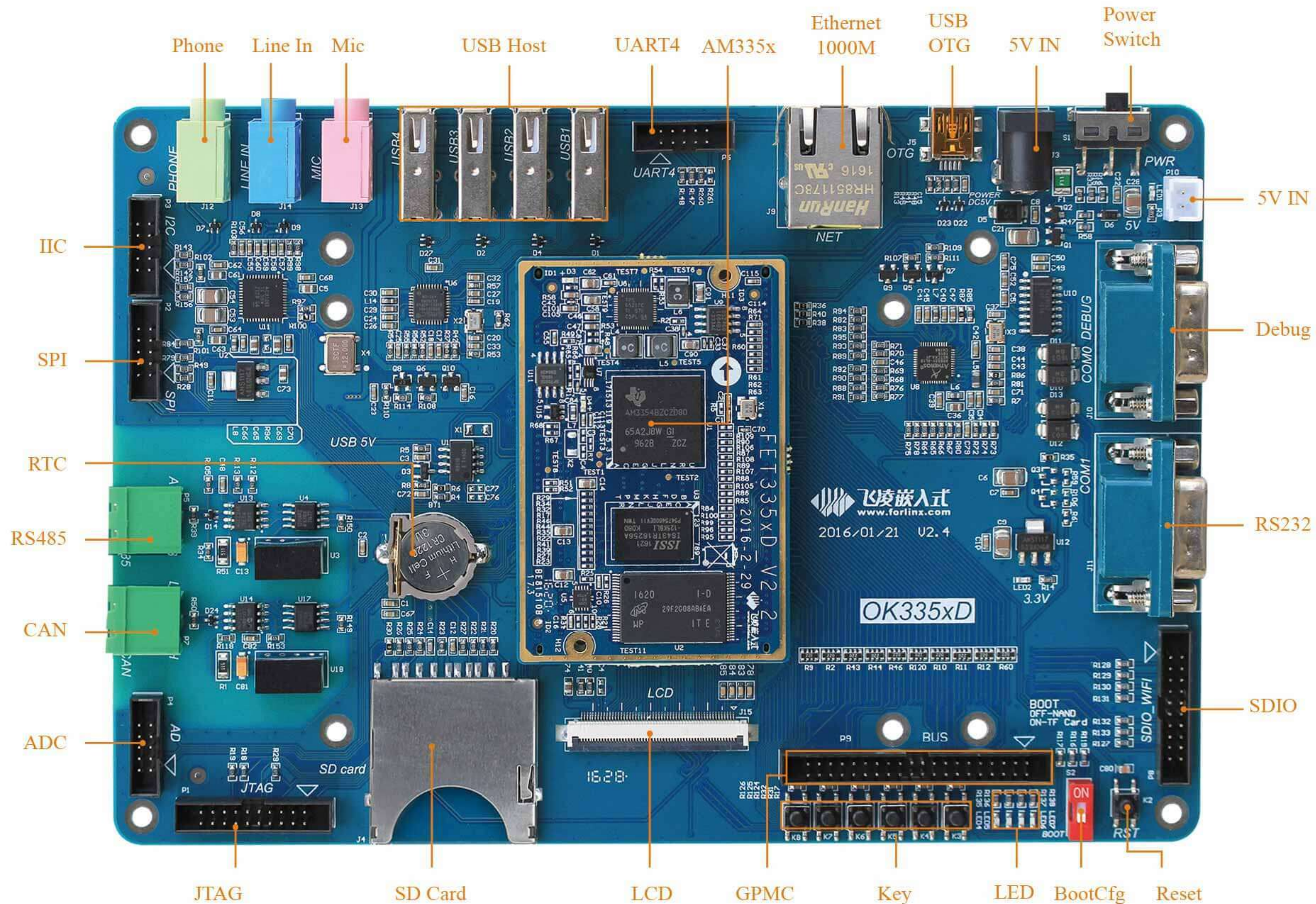


## OK335xD Single Board Computer

Display	1 x RGB	USB Host	4, USB 2.0
Audio	1 x Phone, 1 x Mic, 1 x Line In	USB OTG	1, USB 2.0
Ethernet	1 x 10/100/1000Mbps auto-negotiable	ADC	8 (4 for resistive touch and 4 for users)
UART	1 (LVCMOS)	PWM	1(for backlight)
RS232	2 (1x 3-wire, 1x debug)	RTC	supported
RS485	1 (isolated)	JTAG	1
CAN	1 (isolated)	EINT/GPIO	supported
IIC	2	Key	7
SPI	1	DIP switch	booting mode selection
GPMC	16-bit data bus, 12-bit address bus	LED	4
SD/MMC/SDIO	2 (1 x SD, 1 x SDIO)	Power In	5V

### ◆ TARGET APPLICATION

Industrial automation, power system, medical, environment monitoring, instrument, transportation, HMI, security, robotic, IoT, etc.



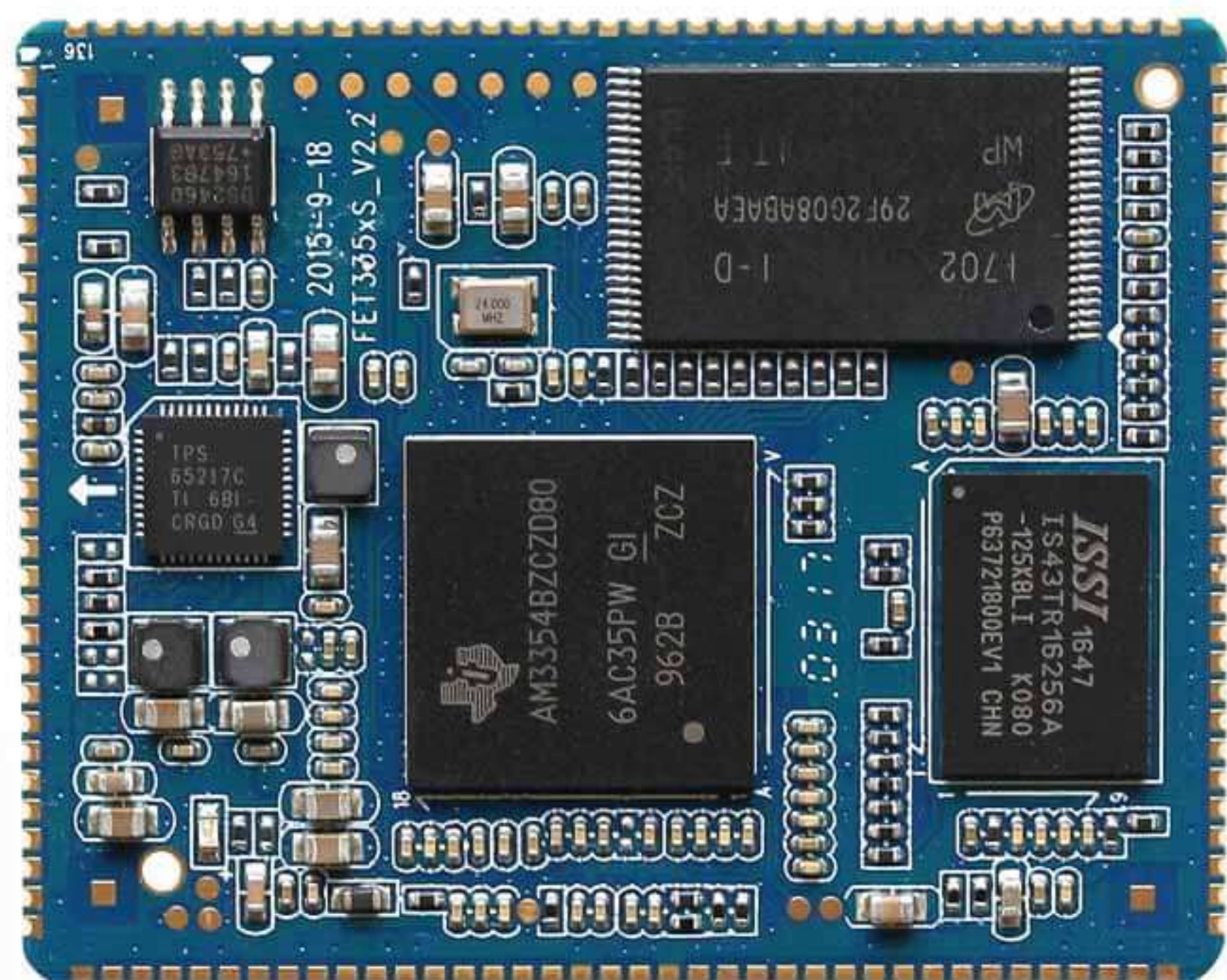


## DESCRIPTION

FET335xS is based on TI Sitara Cortex-A8 featuring processor AM3354 up to 800MHz, working temp ranges from -40 to +85 celsius degree, can support CAN, SPI, RS485 and dual Gigabit Ethernet.

FET335xS System on Module

CPU	TI AM3354	IIS	1
Architecture	Cortex-A8	Ethernet	2 x 10/100/1000Mbps auto-negotiable
Frequency	800MHz	UART	6
RAM	512MB DDR3	CAN	2
ROM	256MB NandFlash(1GB optional)	IIC	3
OS	Android2.3/4.2 , Linux3.2+QT4.8, WinCE7.0/6.0	SPI	2
Voltage input	5V	SD/MMC/SDIO	3
Work temp	- 40 °C ~ +85 °C	USB	1 x USB 2.0 Device, 1 x USB 2.0 OTG
Packaging	edge soldering(136-pin, pitch 1.27mm)	PWM	3
Dimensions	52mm x 42mm	JTAG	1
PMU	TPS65217C	EINT/GPIO	supported
GPU	PowerVR SGX530	ADC	7
Display	1 x RGB 24-bit		



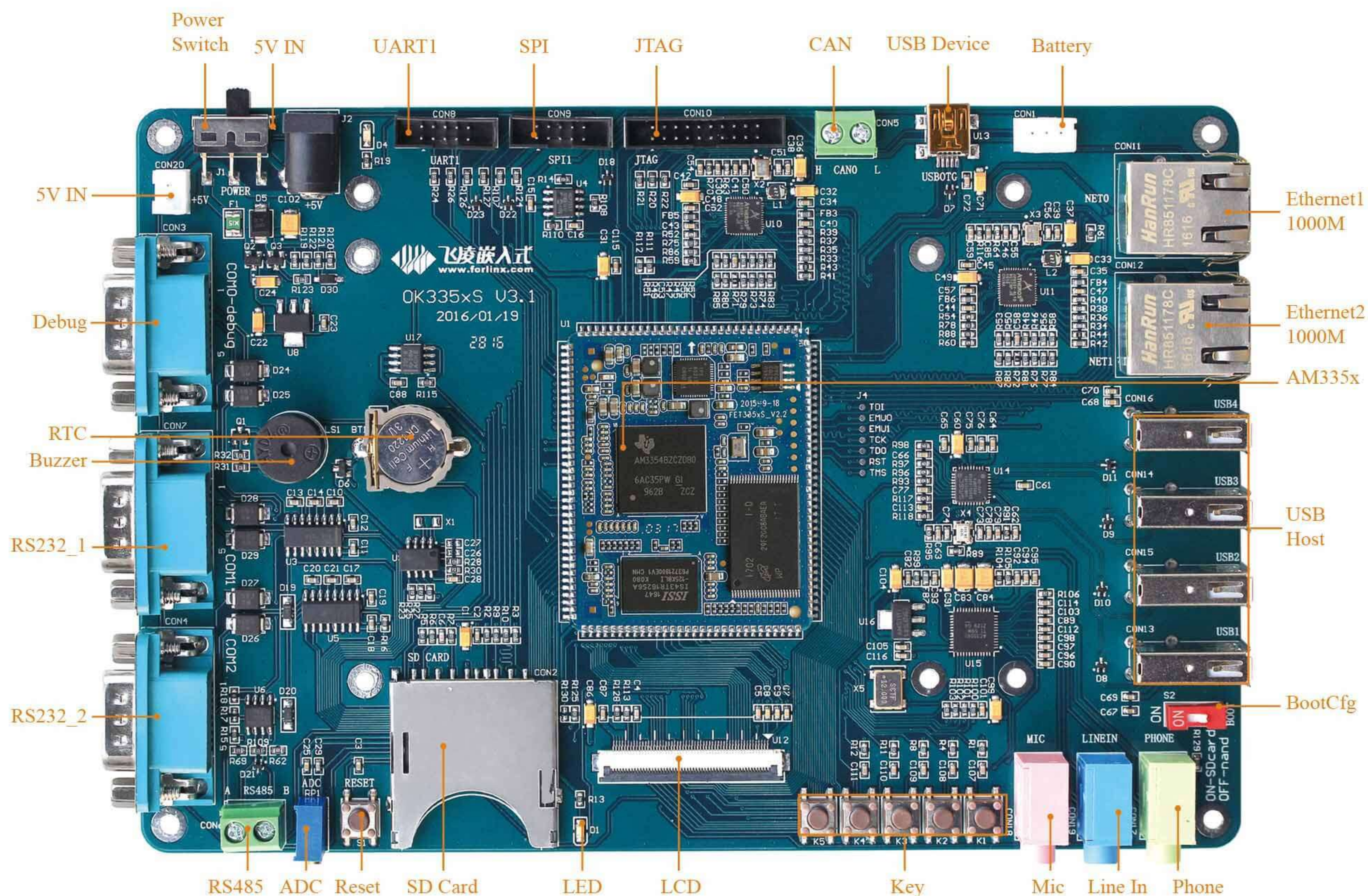


## OK335xS Single Board Computer

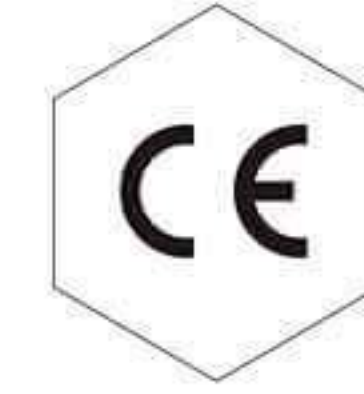
Display	1 x RGB	USB OTG	1, USB 2.0
Audio	1 x Phone, 1 x Mic, 1 x Line in	ADC	5 (4 for resistive touch and 1 adjustable resistor)
Ethernet	2 x 1000Mbps auto-negotiable	PWM	2 (1 for backlight and 1 for buzzer)
UART	1 (LVCMOS)	RTC	supported
RS232	3 (1x 3-wire, 1x debug)	JTAG	1
RS485	1, multiplexed with COM1	EINT/GPIO	supported
CAN	1	Key	6
IIC	2, suspended	DIP switch	booting mode selection
SPI	1	LED	1
SD/MMC/SDIO	1 x SD	Power In	5V
USB Host	4, USB 2.0		

### ◆ TARGET APPLICATION

Industrial automation, power system, medical, environment monitoring, instrument, transportation, HMI, security, robotic, IoT, etc.



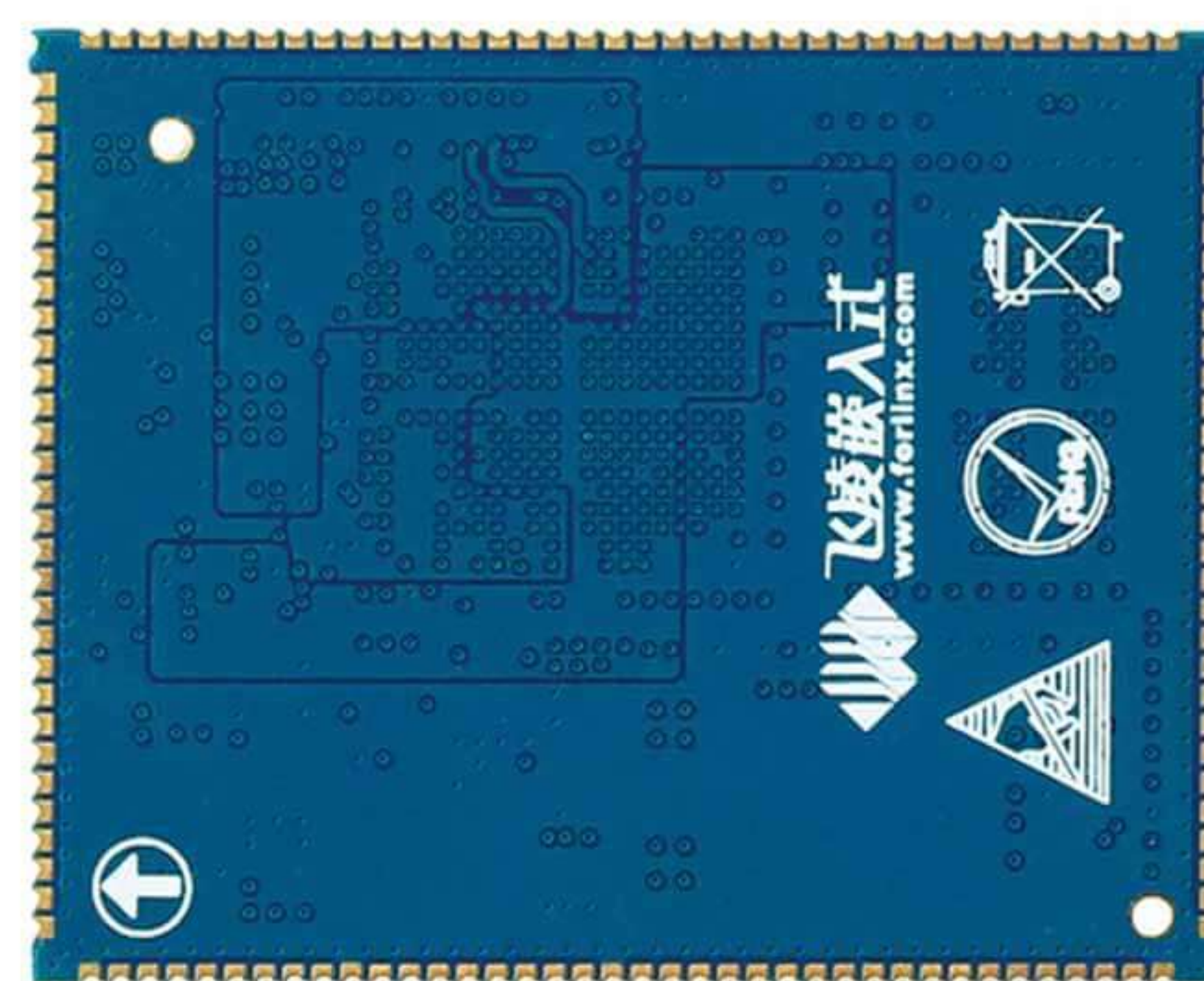
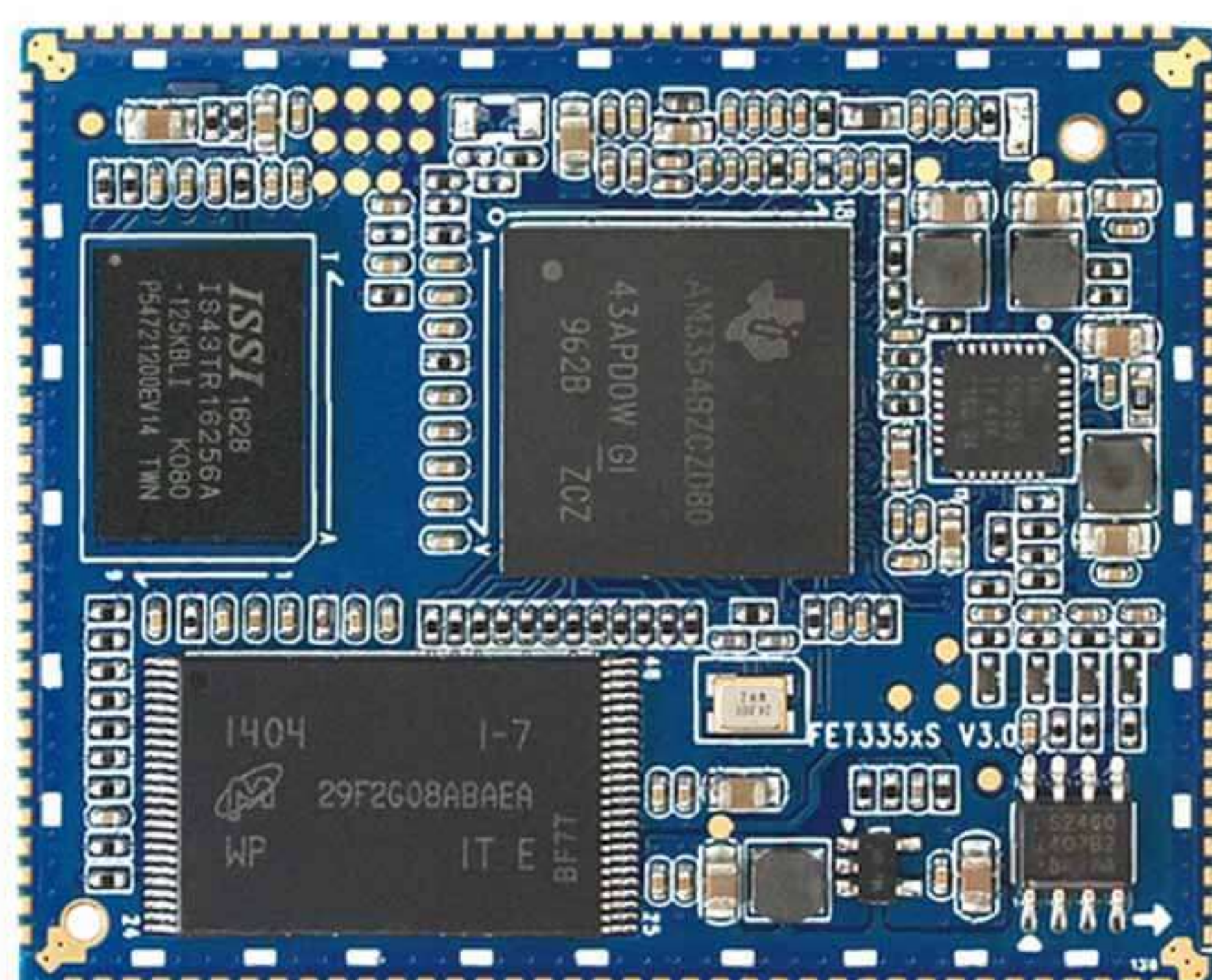



**DESCRIPTION**


FET335xS-II is also based on TI Sitara Cortex-A8 featuring processor AM3354 up to 600MHz, working temp ranges from -40 to +85 celsius degree, can support CAN, SPI, RS485 and dual Gigabit Ethernet.

FET335xS-II System on Module

CPU	TI AM3354	IIS	1
Architecture	Cortex-A8	Ethernet	2 x 10/100/1000Mbps auto-negotiable
Frequency	600MHz	UART	6
RAM	128MB DDR3	CAN	2
ROM	256MB NandFlash (1GB optional)	IIC	3
OS	Linux3.2+QT4.8 WinCE6.0	SPI	2
Voltage input	5V	SD/MMC/SDIO	3
Work temp	-40°C ~ +85°C	USB	1 x USB2.0 Device, 1 x USB2.0 OTG
Packaging	edge soldering(136-pin, pitch 1.27mm)	PWM	3
Dimensions	52mm X 42mm	JTAG	1
PMU	TPS650250	EINT/GPIO	supported
GPU	PowerVR SGX530	ADC	7
Display	1 x RGB24-bit		



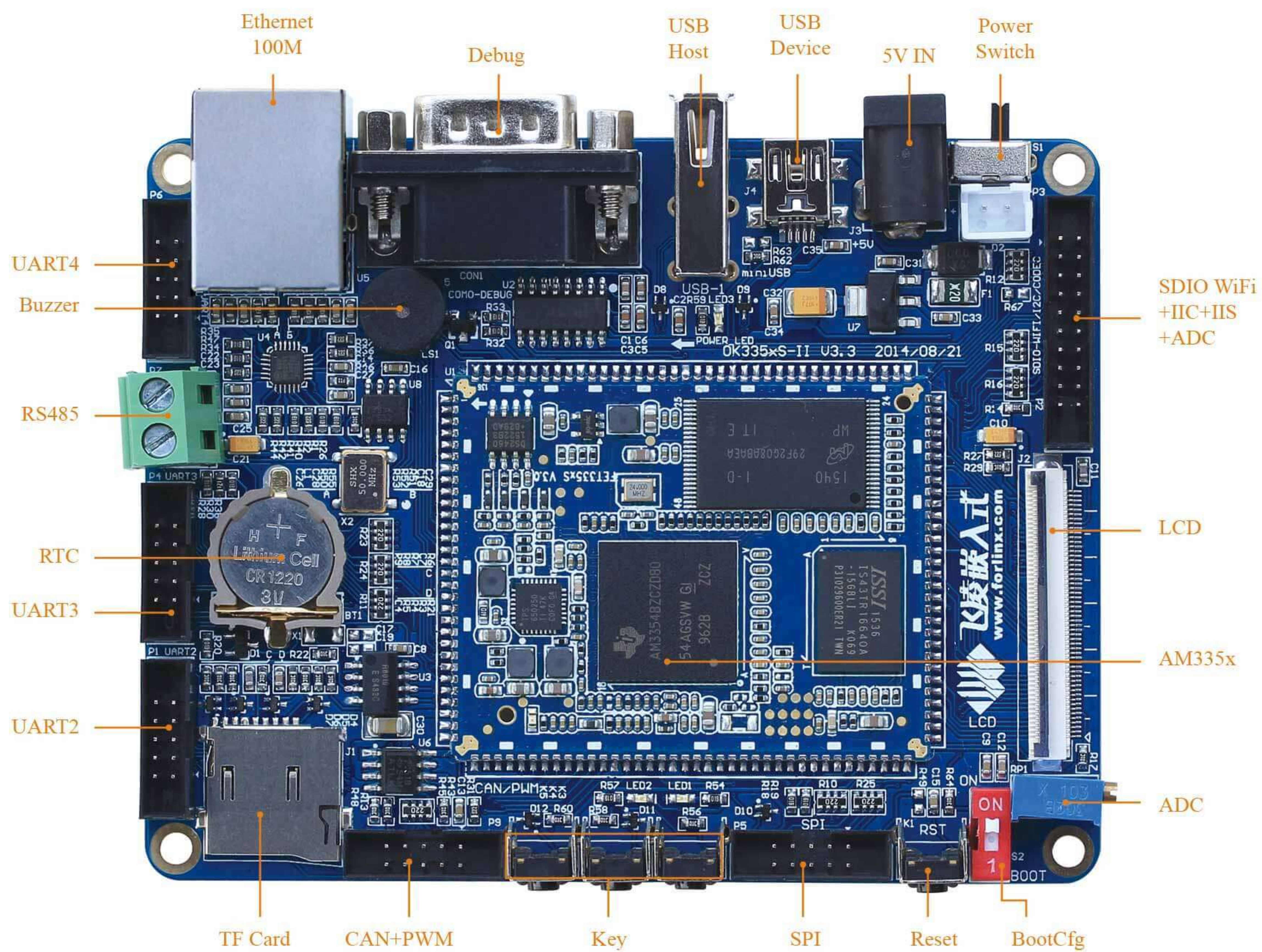


## OK335xS-II Single Board Computer

Display	1 X RGB	USB Host	1, USB2.0
Audio	1 x IIS	USB OTG	1, USB2.0
Ethernet	1 X 10/100M auto-negotiable	ADC	6(1 for user, 1 slid rheostat, 4 for resistive touch)
UART	3(LVCMOS)	PWM	1
RS232	1 x debug	RTC	supported
RS485	1 x	EINT/GPIO	4
CAN	2 (no transceiver)	Key	4
IIC	1	DIP switch	booting mode selection
SPI	1	LED	2
SD/MMC/SDIO	2 (1 x SD, 1 x SDIO )	Power In	5V

### ◆ TARGET APPLICATION

Industrial automation, power system, medical, environment monitoring, instrument, transportation, HMI, security, robotic, IoT, etc.

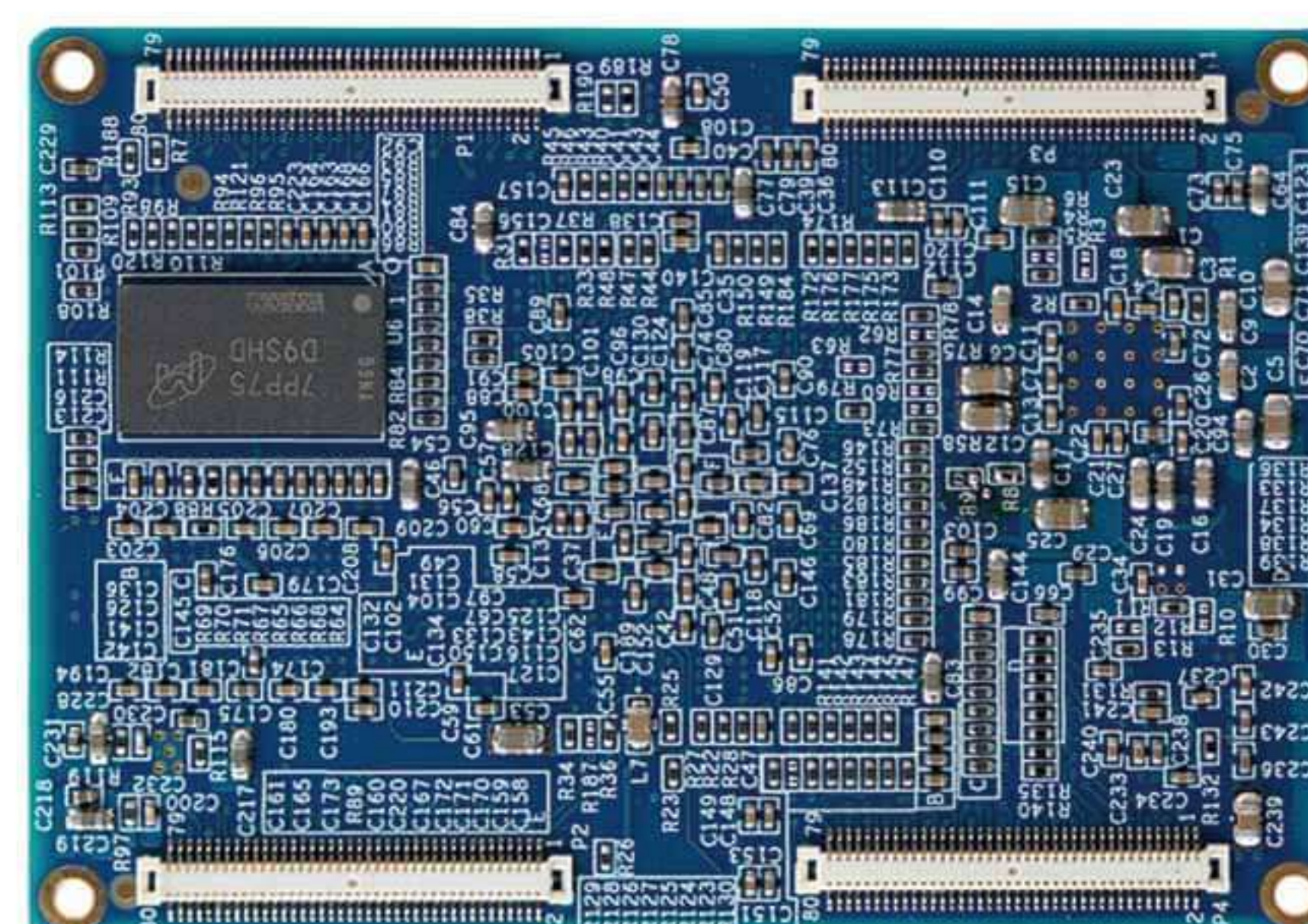




## DESCRIPTION

FET5718-C system on module is based on TI Sitara AM5718 processor consists of Cortex-A15, two dual-core Cortex-M4 two dual-core PRU and DSP C66x VLIW .

FET5718-C System on Module			
CPU	TI Sitara AM5718	CAN	2
Architecture	Cortex-A15-1.5GHz DSP-C66X-750MHz 2xDual Cortex-M4-213MHz 2xDual-Core PRU- 200MHz	IIC	5
RAM	1GB DDR3L + ECC	SPI	4
ROM	8GB eMMC	GPMC	16-bit data bus, 28-bit address bus
OS	Linux4.9.41 + QT5.6	Camera	4 x DVP, 2 x MIPI CSI
Voltage input	5V	SD/MMC/SDIO	4
Work temp	- 40 °C ~ +85 °C	USB	1 x USB 3.0 Host, 1 x USB 2.0 OTG
Packaging	board-to-board connector(4x 80, 0.5mm)	SATA	1
Dimensions	50mm x 70mm	PCIe	1 x 2-lane OR 2 x 1-lane
PMU	TPS65916	PWM	3
GPU	Vivante GC320/PowerVR SGX544	EINT/GPIO	supported
Video Coder	hardware codec	Keypad port	1, 9 x 9
Display	3 x RGB, 1 x HDMI	QSPI	1
IIS	8	eCAP	3
Ethernet	2 x RGMII	HDQ/1-Wire	1
UART	10	Temp sensor	digital temp sensor



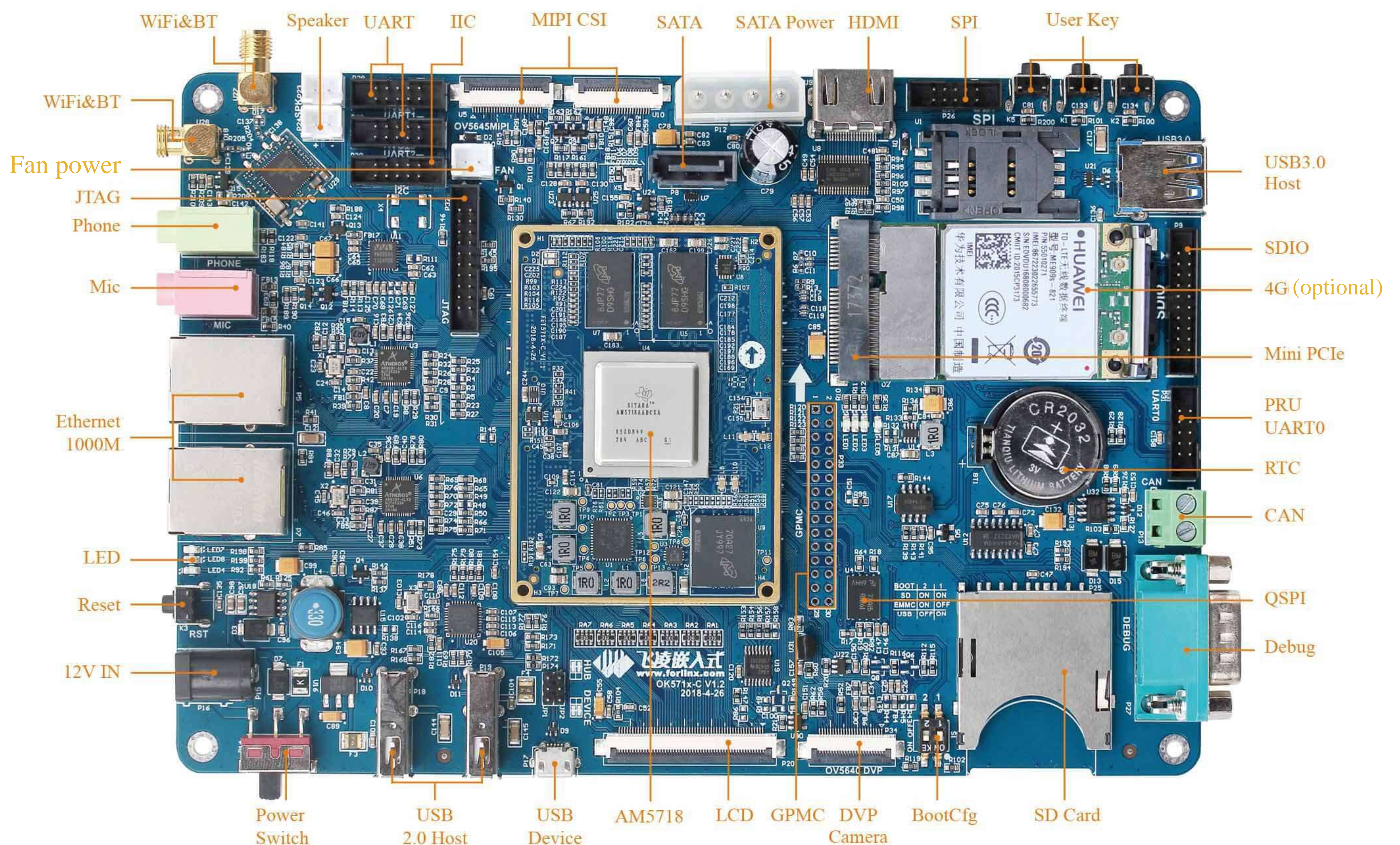


## OK5718-C Single Board Computer

Display	1 x RGB, 1 x HDMI	SATA	1
Audio	1 X Phone, 1 X Mic, 2 x Speaker	Mini PCIe	1
Ethernet	2 , 10/100/1000Mbps auto-negotiable	WiFi& BT	1
UART	3(2x 5-wire, 1x 3-wire)	PWM	1
RS232	2 (1 x RS232, 1 x debug)	RTC	RX8010
IIC	2	JTAG	1
SPI	2(1 x SPI, 1 x QSPI)	EINT/GPIO	supported, up to 54
GPMC	16-bit, data bus& address bus multiplexed	Key	5 (reset, sleeping waken up, 3 user keys)
Camera	3(1 x DVP, 2 x MIPI CSI)	DIP switch	2
SD/MMC/SDIO	2(1 x SD, 1 x SDIO)	LED	4 (power indicator, over-voltage indicator and 2x LED)
USB Host	3(1 x USB 3.0, 2 X USB 2.0)	Power In	DC12V, over-voltage and over-current protection
USB OTG	1 x USB 2.0 OTG(multiplexed with USB2.0 host)		

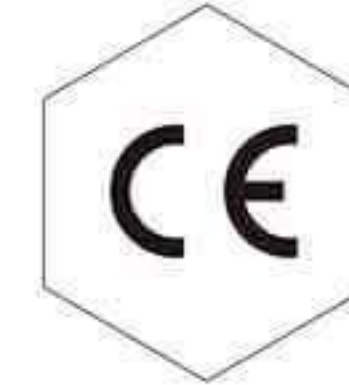
### ◆ TARGET APPLICATION

Industrial automation, HMI, industrial communication, intelligent building, machine vision, medical image, car media, etc.





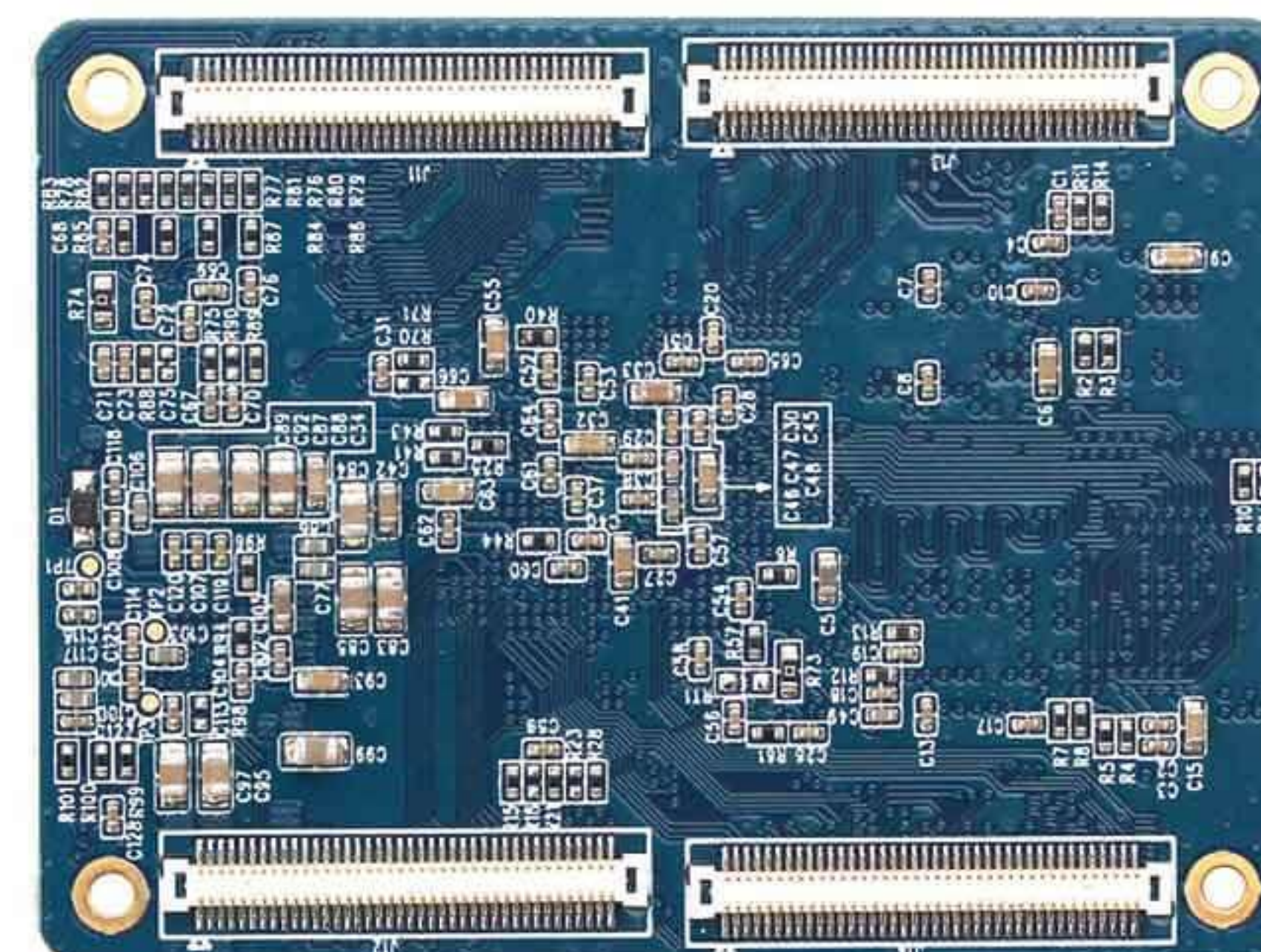
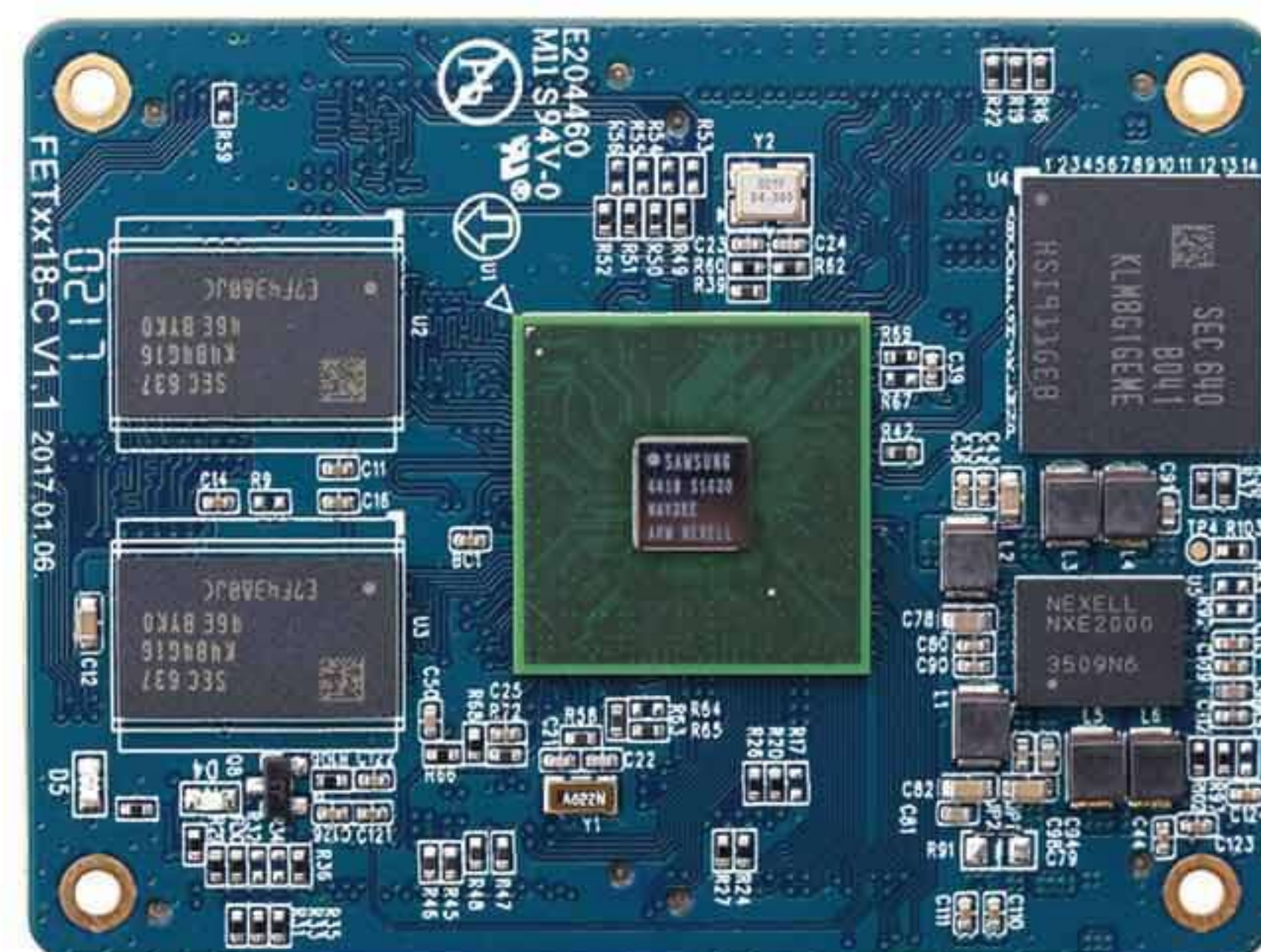
## DESCRIPTION



FET4418 is a cost efficient low power embedded system on module. It is an RISC(32-bit) SoC-based starter kit featuring Samsung S5P4418 belongs to Cortex-A9 with 28NMHKMG low power item. Its CPU is with main frequency of 1.4GHz. It has a powerful multi-media performance supporting 1080P hardware video codec and 3D graphical accelerator. RGB, HDMI, MIPI and LVDS display types are all available, also, DVP and MIPI cameras are both well supported. The CPU module is with 1GB DDR3, 8GB eMMC, dimensions of 60\*45mm, it's connected to the carrier board by 4 ultra thin connectors with height only 1.5mm to draw out mostly pins (320). OS Android5.1, Linux 3.4.39 and QT4.8.6 are well supported.

FET4418-C System on Module

CPU	Samsung S5P4418	IIS	3
Architecture	Cortex-A9	Ethernet	1 X 10/100/1000Mbps auto-negotiable
Frequency	1.4GHz	UART	6
RAM	1GB DDR3 (2GB optional)	IIC	3
ROM	8GB eMMC	SPI	3
OS	Android5.1.1, Linux3.4.39+QT4.8.6 Linux4.4.83+QT5.6	MCU-S	16-bit data bus, 17-bit address bus
Voltage input	4.2V	Camera	3(2 x DVP, 1 x MIPI CSI)
Work temp	0°C ~ +70°C	SD/MMC/SDIO	2
Packaging	board-to-board connector(4x 80-pin, 0.5mm)	USB	1 X USB 2.0 Host, 1 X USB 2.0 OTG
Dimensions	60 x 45mm	PWM	4
PMU	NXE2000	SPDIF	1
GPU	Mali-400	JTAG	1
Video Coder	hardware codec	EINT/GPIO	supported
Display	1 X RGB888 , 1 x LVDS, 1 X HDMI, 1 X MIPI	ADC	7





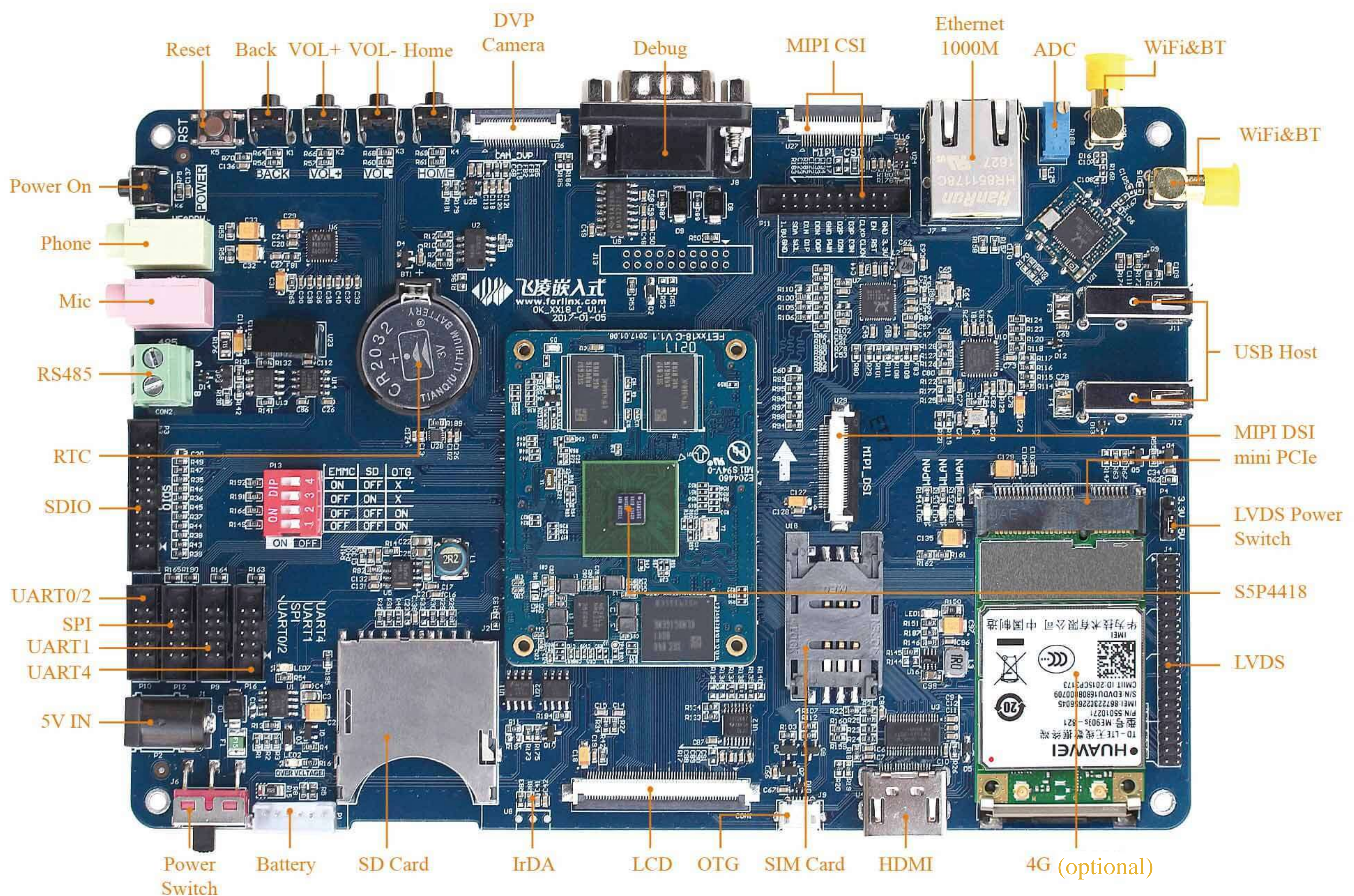
## OK4418-C Single Board Computer

Display	1 X RGB, 1 X MIPI, 1 X LVDS, 1 x HDMI	USB OTG	1, USB 2.0
Audio	1 X Phone, 1 X Mic	Mini PCIe	1, for 3G/ 4G
Ethernet	1, 10/100/1000Mbps auto-negotiable	WiFi& BT	1
UART	4 (3x 3-wire, 1x 5-wire)	ADC	1
RS232	1 x debug	IrDA	1 (suspended)
RS485	1 (isolated)	RTC	1
IIC	3	Key	6
SPI	1	DIP switch	booting mode selection
Camera	2(1 x DVP, 1 x MIPI CSI)	Li-battery	1
SD/MMC/SDIO	2(1 x SD, 1 x SDIO)	Power In	5V
USB Host	2, USB 2.0		

Note: the carrier board is also available for SoM FET6818-C

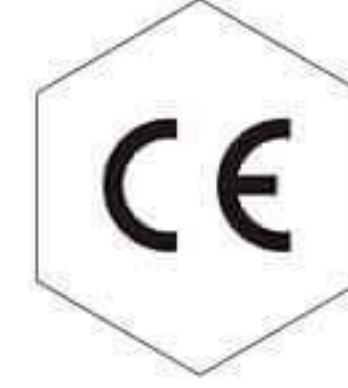
## ◆ TARGET APPLICATION

HMI, automation, smart building, machine vision, medical image, etc.



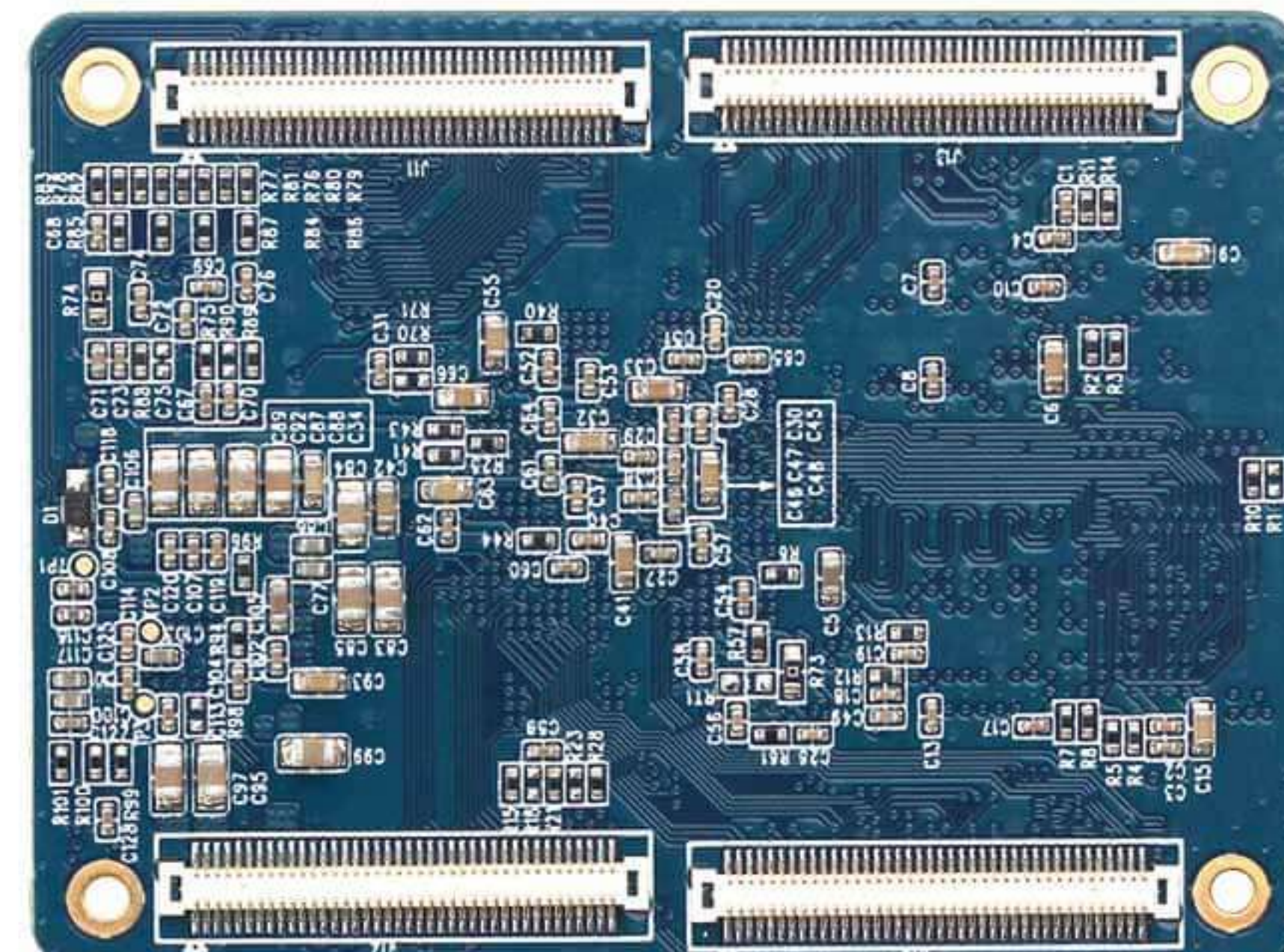
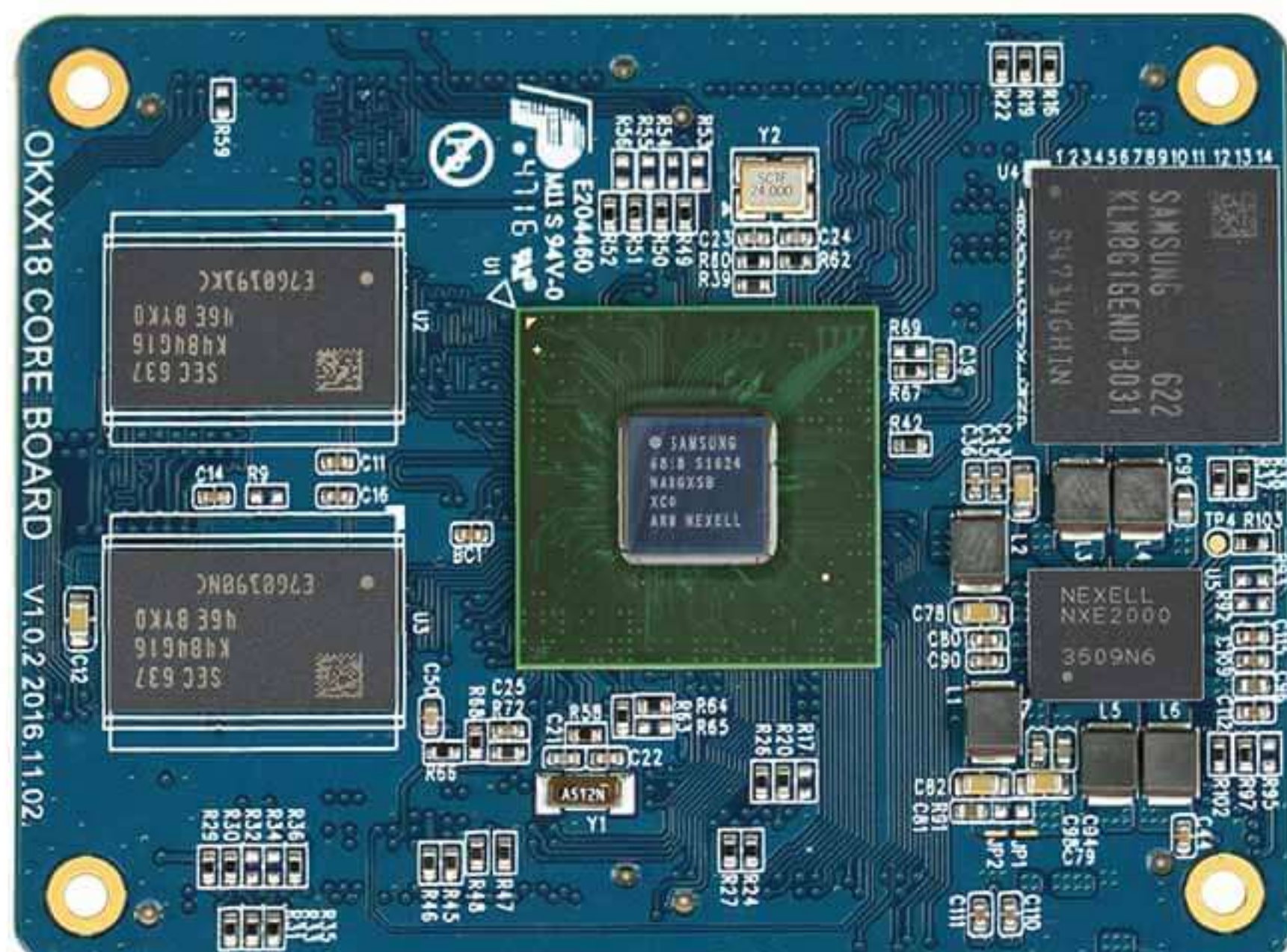


## DESCRIPTION



FET6818 is based on Samsung Cortex-A53 Octa-core processor S5P6818 and it's compatible with S5P4418. It integrates with HDMIv1.4, LVDS and MIPI display interfaces on-board and also MIPI CSI. Carries 1GB DDR3 and 8GB eMMC.

FET6818-C System on Module			
CPU	Samsung S5P6818	IIS	3
Architecture	Cortex-A53 Octa-core	Ethernet	1 x 10/100/1000Mbps auto-negotiable
Frequency	1.4GHz	UART	6
RAM	1GB DDR3 (2GB optional)	IIC	3
ROM	8GB eMMC	SPI	3
OS	Android5.1.1, Linux3.4.39+QT4.8.6, Linux4.4.83+QT5.6	MCU-S	16-bit data bus, 17-bit address bus
Voltage input	4.2V	Camera	2 x DVP, 1 x MIPI CSI
Work temp	0°C ~ +70°C	SD/MMC/SDIO	2
Packaging	board-to-board connector(4x 80-pin, 0.5mm)	USB	1 x USB 2.0 Host, 1 x USB 2.0 OTG
Dimensions	60 x 45mm	PWM	4
PMU	NXE2000	SPDIF	1
GPU	Mali-400	JTAG	1
Video Coder	hardware codec	EINT/GPIO	supported
Display	1 x RGB888, 1 x LVDS, 1 x HDMI, 1 x MIPI	ADC	7





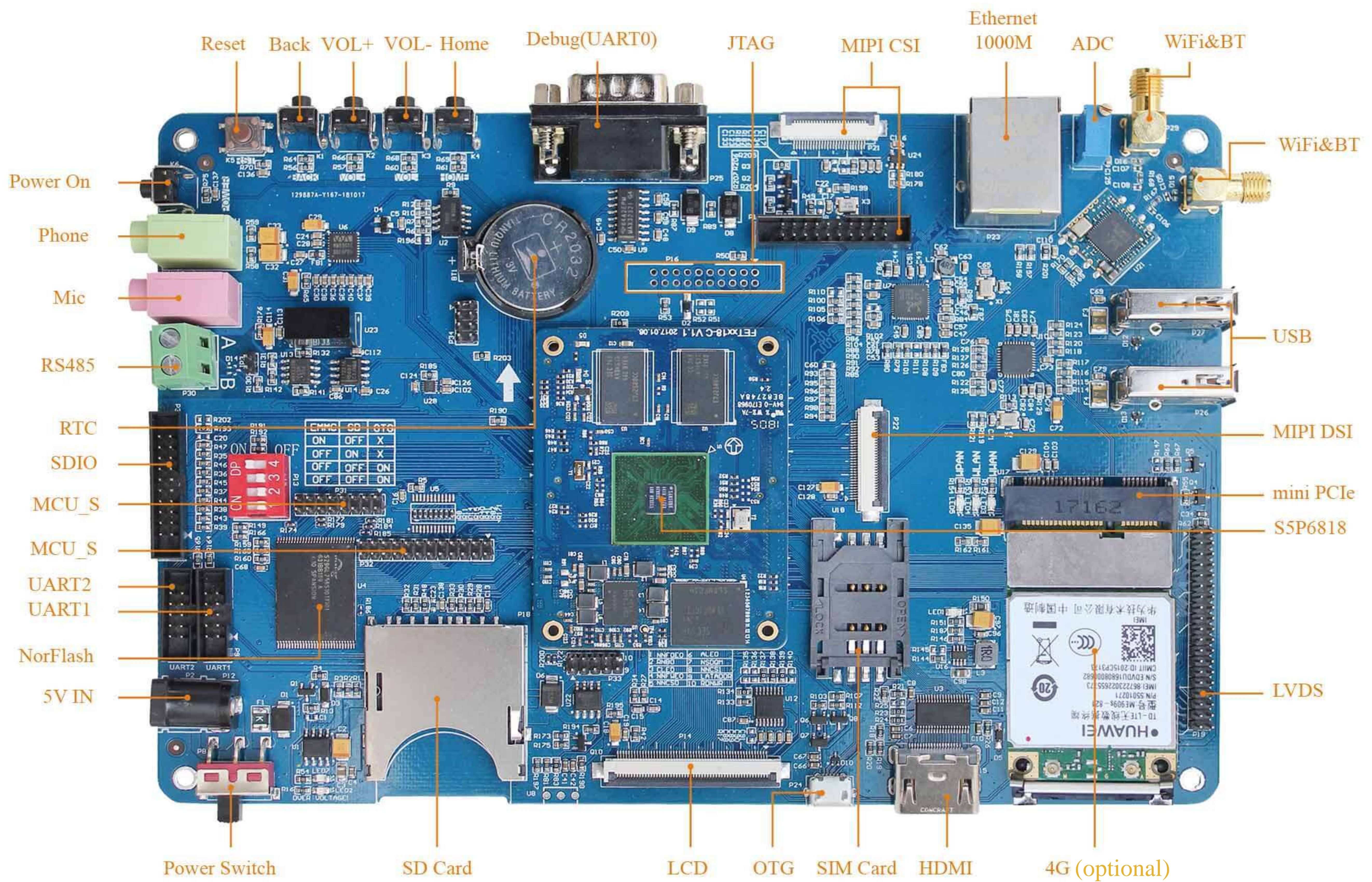
## OK6818-C2 Single Board Computer

Display	1 x RGB, 1 x MIPI, 1 x LVDS, 1 x HDMI	USB OTG	1, USB 2.0
Audio	1 x Phone, 1x Mic	Mini PCIe	1, for 3G/ 4G
Ethernet	1 x 10/100/1000Mbps auto-negotiable	WiFi&	1
UART	2 (3x 3-wire, 1x 5-wire)	ADC	1
RS232	1x debug	IrDA	1 (suspended)
RS485	1 (isolated)	RTC	1
IIC	2	Key	6 (reset, power key, 4x user key)
Camera	1 x MIPI CSI	DIP switch	booting mode selection
Parallel	16-bit data bus, 16-bit address bus	NorFlash	1, 32MB or 256Mb NorFlash
SD/MMC/SDIO	1	Li-battery	1
USB Host	2, USB 2.0	Power In	5V

Note: OK6818-C2 carrier board is also available for FET4418-C SoM)

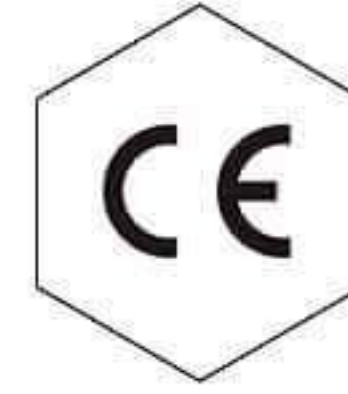
### TARGET APPLICATION

HMI, digital signage, medical, tablet, portable device, smart home, IoT, robotic, advertising machine, etc.





## DESCRIPTION



FETA40i-C system on module is based on Allwinner Cortex-A7 featuring quad-core processor A40i @1.2GHz, it integrates with GPU MALI400MP2, RAM 1GB/ 2GB DDR3L and 8GB eMMC. Mostly popular video and image encode forms are perfectly supported. It is a superior item with advantages of excellent performance in industrial grade stability but low power and cost efficient performance. Supported with OS Linux and Android systems, applicable for industrial control vision interactive products, such as smart terminals, industrial control, data collection, machine vision, industrial IoT, portable devices, digital signage, etc.

FETA40i-C System on Module			
CPU	Allwinner A40i	UART	8
Architecture	Cortex-A7	IIC	5
Frequency	1.2GHz	SPI	4
RAM	1GB DDR3 (2GB optional)	Camera	2 x DVP, 4 x TVIN
ROM	8GB eMMC	SD/MMC/SDIO	4
OS	Linux3.10+QT5.9, Android7.1	USB	2 x USB 2.0 HOST, 1 x USB2.0 OTG
Voltage input	5V	SATA	1
Work temp	-20℃ ~ +85℃ / -40℃ ~ +85℃	PWM	8
Packaging	board-to-board connector(4x 80-pin, 0.5mm)	AUDIO CODEC	1
Dimensions	45 x 68mm	JTAG	1
PMU	AXP221S	KeyPad Port	1
GPU	Mali400MP2	KEYADC	2
Video Coder	hardware codec	SMC	2
Display	2 x RGB888 , 2x 8-bit LVDS, 1 x HDMI, 1 x MIPI, 4 x TVOUT	PS2	2
IIS/PCM	2	CIR	2
Ethernet	1 x 10/100Mbps auto-negotiable 1 x 10/100/1000Mbps auto-negotiable	AC97	1



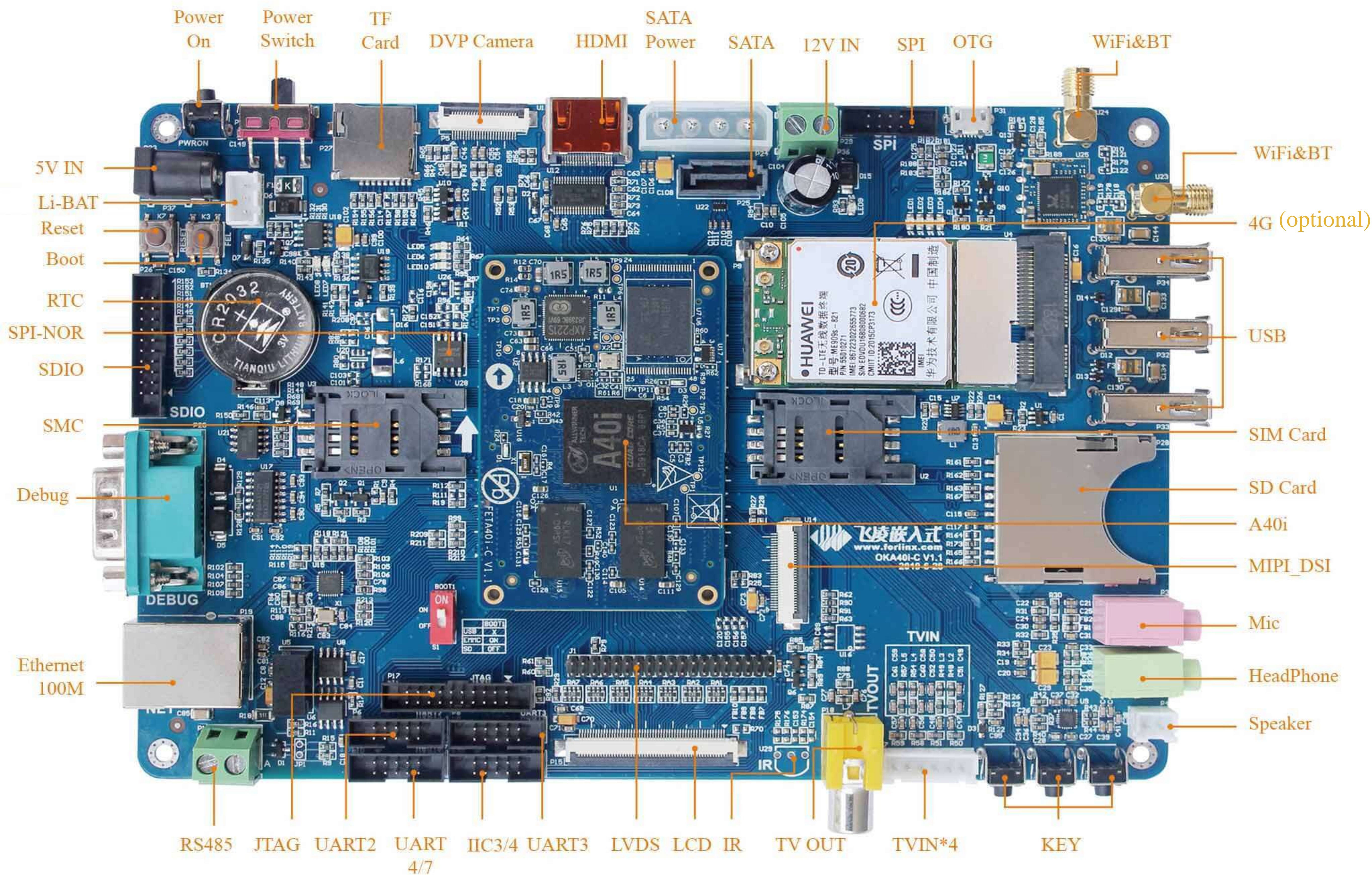


## OKA40i-C Single Board Computer

Display	1 x RGB 888 , 1x8-bit LVDS, 1 x HDMI, 1 x MIPI, 1 x TVOUT	SATA	1
Audio	1 X Mic, 1 X Phone, 1 X Speaker	WiFi& BT	1
Ethernet	1 x 10/100Mbps auto-negotiable	JTAG	1
UART	4 (2x 5-wire, 2x 3-wire)	RS485	1, isolated
RS232	1x debug	4G	1
IIC	4	LED	2
SPI	2	PWM	1
Camera	1 X DVP, 4 X TVIN,	RTP	4
SD/MMC/SDIO	2 X SD Card , 1 X SDIO	SMART_CARD	1
USB Host	3, USB2.0	KEY	3
USB OTG	1, USB2.0	RTC	1

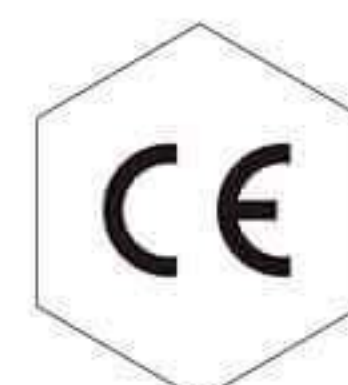
## ◆ TARGET APPLICATION

Advertising machine, digital signage, kiosk, O2O, industrial control, robotic, car monitor, medical.





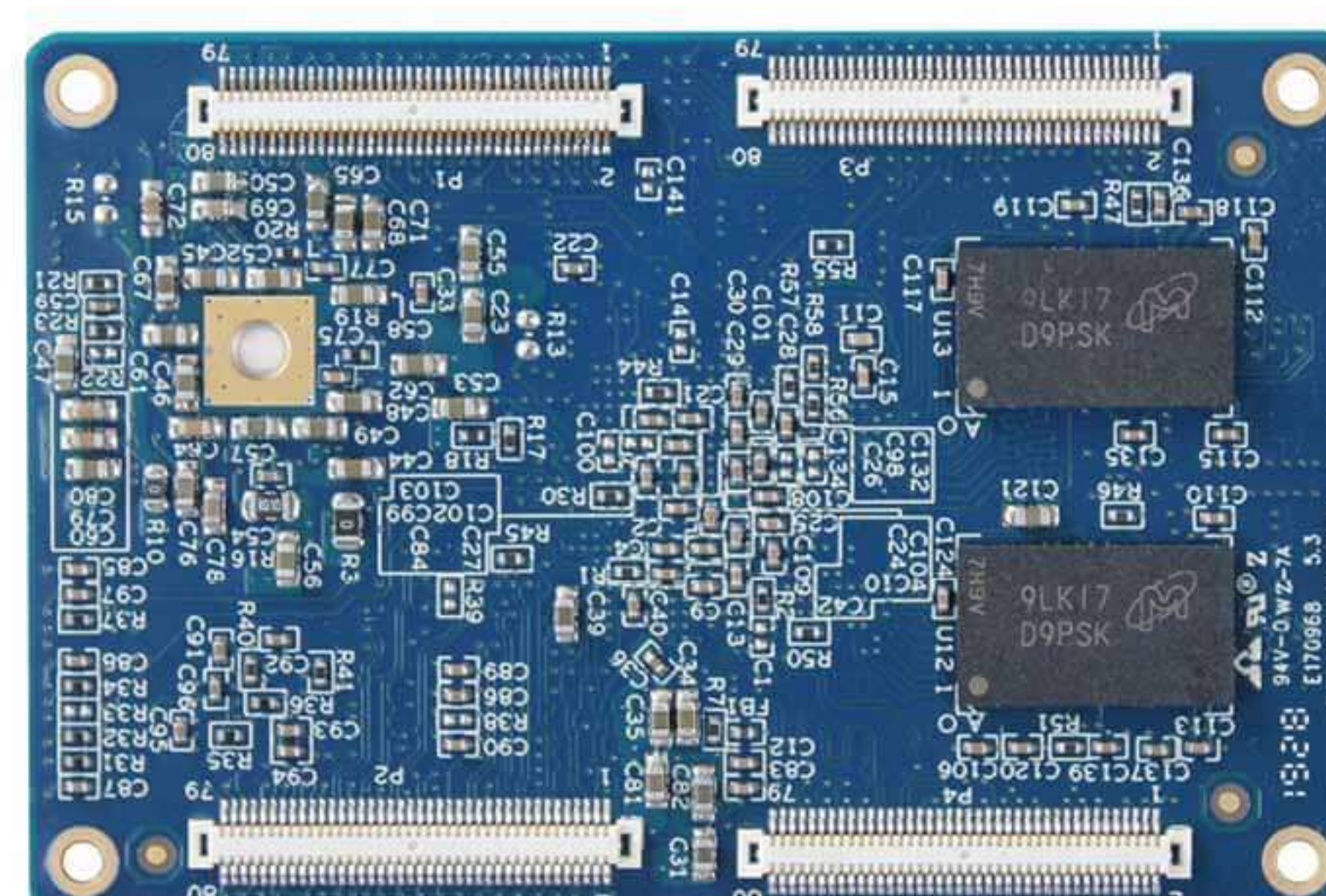
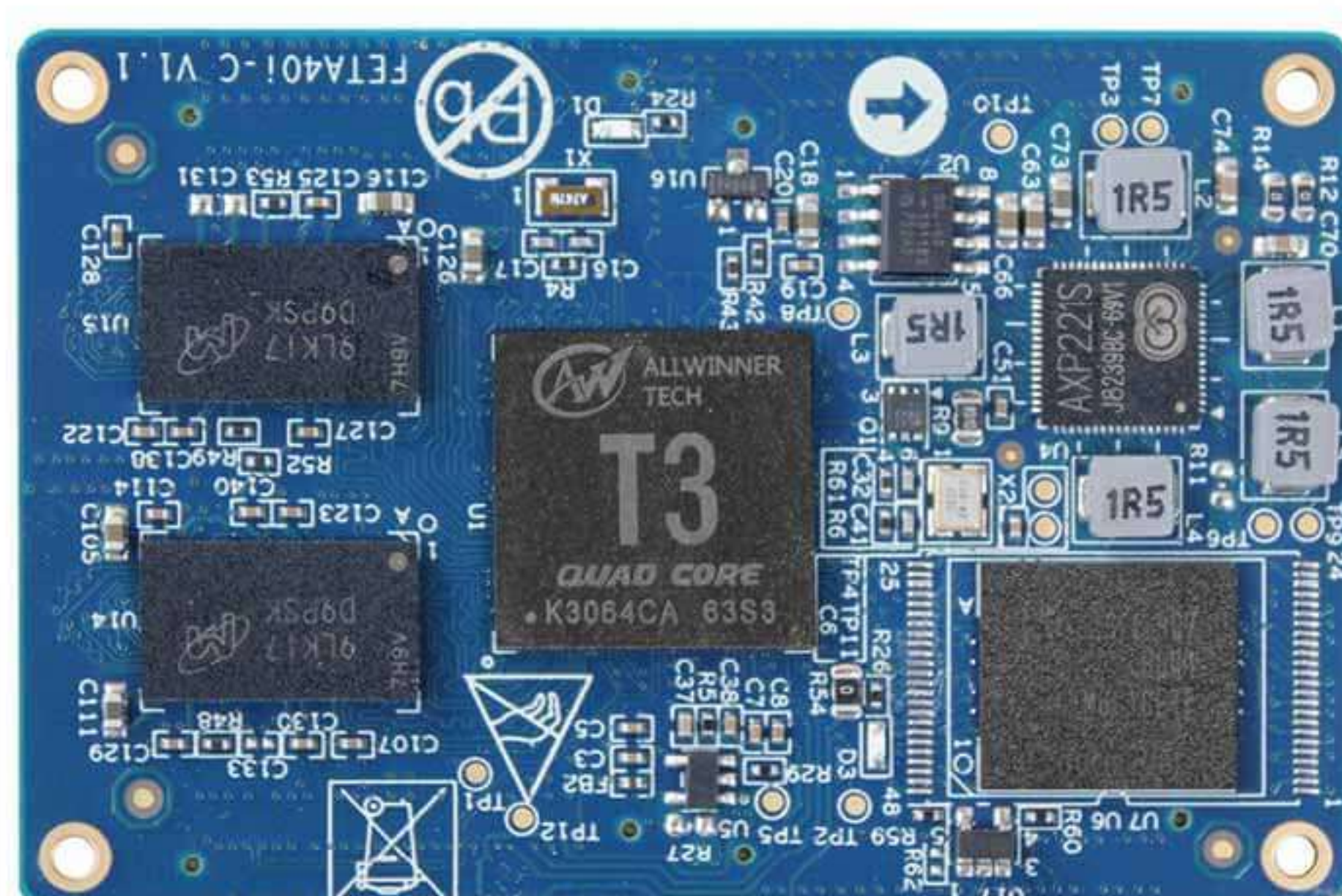
## DESCRIPTION



FETT3-C system on module is based on Allwinner Cortex-A7 quad-core automotive processor T3@1.2GHz, it integrates with GPU MALI400MP2, RAM 1GB and 8GB eMMC. Mostly popular video and image encode forms are perfectly supported. It is a superior item with advantages of excellent performance in industrial grade stability but low power and cost efficient performance. Supported with OS Linux system, applicable for car electronics, power industry, medical, industrial control, IoT, etc.

FETT3-C System on Module

CPU	Allwinner T3	UART	8
Architecture	Cortex-A7	IIC	5
Frequency	1.2GHz	SPI	4
RAM	1GB DDR3L	Camera	2 x DVP, 4 x TVIN
ROM	8GB eMMC	SD/MMC/SDIO	4
OS	Linux3.10+QT5.9	USB	2 x USB 2.0 HOST, 1 x USB2.0 OTG
Voltage input	5V	SATA	1
Work temp	-40℃ ~ +85℃	PWM	8
Packaging	board-to-board connector(4x 80-pin, 0.5mm)	AUDIO CODEC	1
Dimensions	45 x 68mm	JTAG	1
PMU	AXP221S	KeyPad Port	1
GPU	Mali400MP2	KEYADC	2
Video Coder	hardware codec	SMC	2
Display	2 x RGB 888, 2x8-bit LVDS, 1 x HDMI, 1 x MIPI, 4 x TVOUT	PS2	2
IIS/PCM	2	CIR	2
Ethernet	1 x 10/100Mbps auto-negotiable 1 x 10/100/1000Mbps auto-negotiable	AC97	1



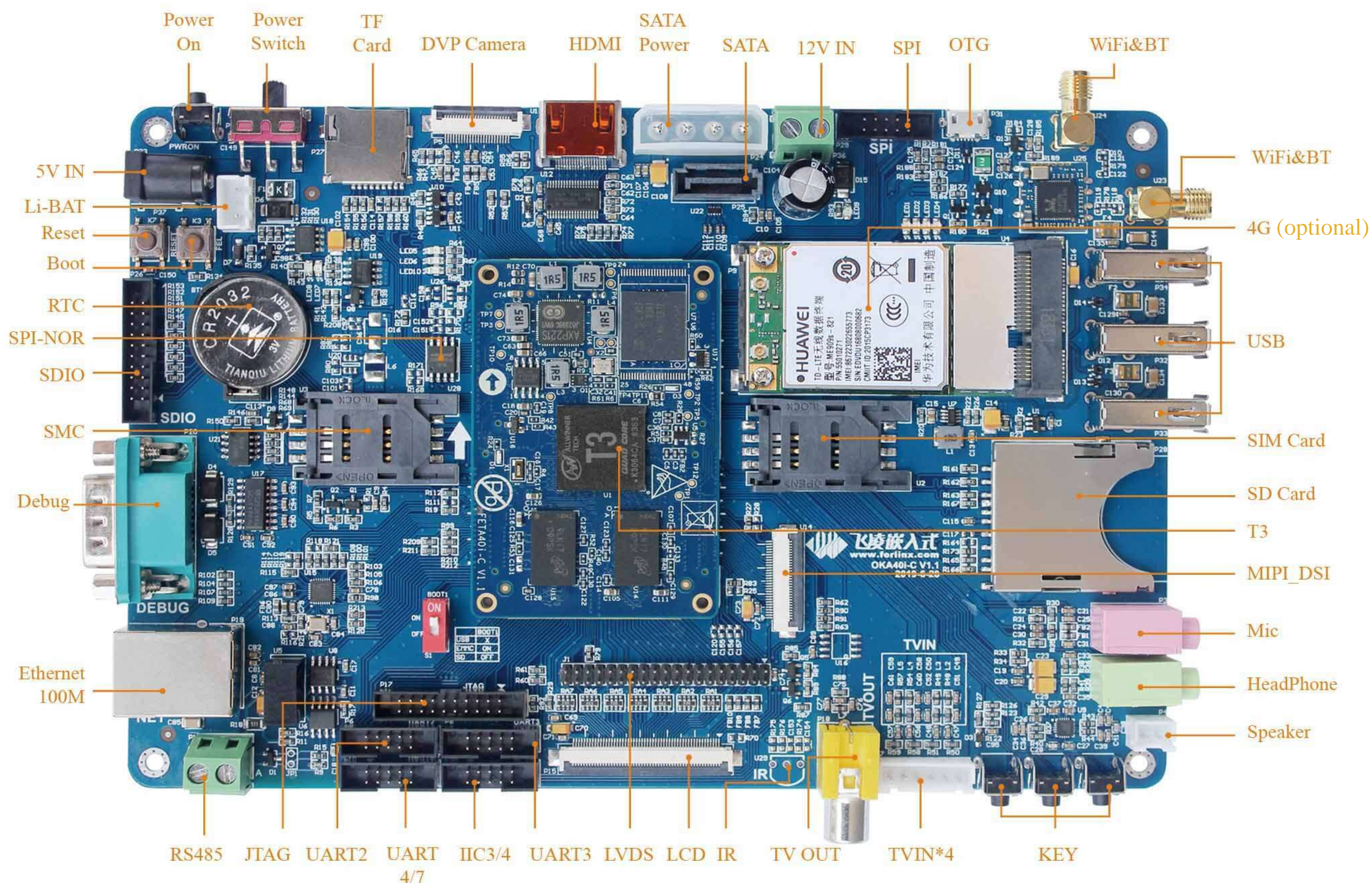


## OKT3-C Single Board Computer

Display	1 x RGB888 , 1x8-bit LVDS, 1 x HDMI, 1 x MIPI, 1 x TVOUT	SATA	1
Audio	1 x Mic, 1 x Phone, 1 x Speaker	WiFi& BT	1
Ethernet	1 x 10/100Mbps auto-negotiable	JTAG	1
UART	4 (2x 5-wire, 2x 3-wire)	RS485	1, isolated
RS232	1 x debug	3G/4G	1
IIC	4	LED	2
SPI	2	PWM	1
Camera	1 x DVP, 4 x TVIN	RTP	4
SD/MMC/SDIO	2 x SD Card , 1 x SDIO	SMART_CARD	1
USB Host	3, USB2.0	KEY	3
USB OTG	1, USB2.0	RTC	1

## ◆ TARGET APPLICATION

Advertising machine, digital signage, kiosk, O2O, industrial control, robotic, car monitor, medical.

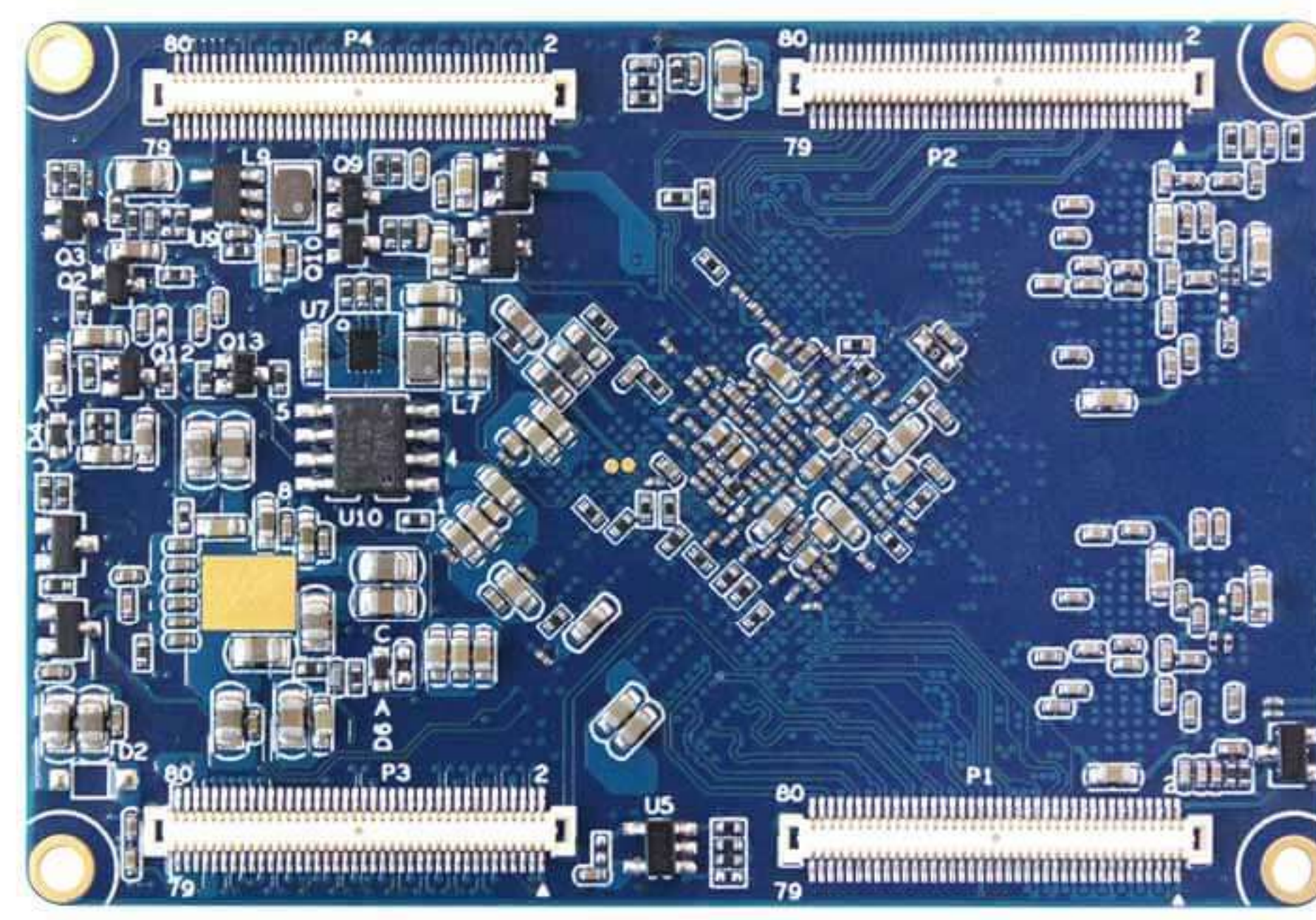




## DESCRIPTION

FET3399-C is a system on module designed based on Rockchip RK3399 processor which consists of two Cortex-A72 featuring cores with frequency up to 1.8GHz and four Cortex-A53 featuring cores at frequency up to 1.4GHz. It's integrated with GPU Mali-T864, can support OpenGL ES1.1/ 2.0/ 3.0/ 3.1, OpenVG1.1, OpenCL and DX11. It has on-board 2GB LPDDR3 RAM and 16GB eMMC. A variety of display interfaces such as HDMI2.0, MIPI-DSI, eDP1.3 and DP1.2 are all available and resolution up to 4K. Dual-screen both synchronous and asynchronous playing are well supported. Besides, it carries PCIe, USB3.0 Host, Type-C, MIPI-CSI, SPDIF, IIC, SPI, UART, ADC, PWM, GPIO, IIS(8 digital MIC array input) and LAN on board.

FET3399-C System on Module			
CPU	RK3399	IIS/PCM	3
Architecture	2x Cortex-A72@1.8GHz 4x Cortex-A53@1.4GHz	SD/MMC	2, SD/MMC/SDIO3.0
RAM	2GB / 4GB LPDDR3 (optional)	PCIe	1, PCIe2.0 x4
ROM	16GB / 32GB eMMC (optional)	USB 2.0	2, USB Host 2.0
OS	Linux 4.4+QT5.12, Android7.1, ForlinxDesktop 18.04	USB Type-C	2, USB 3.0/2.0, DP1.3
Voltage input	12V	Ethernet	1, RGMII/MII
Work temp	0°C ~ +80°C	SPI	5
Packaging	board-to-board connector(4x 80, 0.5mm)	UART	5
Dimensions	46mm x 70mm	IIC	7
GPU	Mali-T860MP4	PWM	3, 32-bit
Camera	≤2, MIPI-CSI, one 13.0MP camera or two 8.0MP camera	ADC	5, 10-bit
VPU	Decode: • H.265/HEVC, up to 4Kx2K @ 60fps • VP9, up to 4Kx2K @ 60fps • H.264/AVC, up to 4Kx2K @ 30fps Encode: • 1080p30 AVC/H.264 • 1080p30 VP8	Display	Two display engines up to 4096x 2160 and 2560x 1600  • ≤2 X MIPI-DSI, up to 2560x1600@60fps output • 1 X eDP 1.3, 4-lane • 1 X DP 1.2, up to 4Kx2K@60Hz output • 1 X HDMI 2.0, up to 4Kx2K@60Hz output



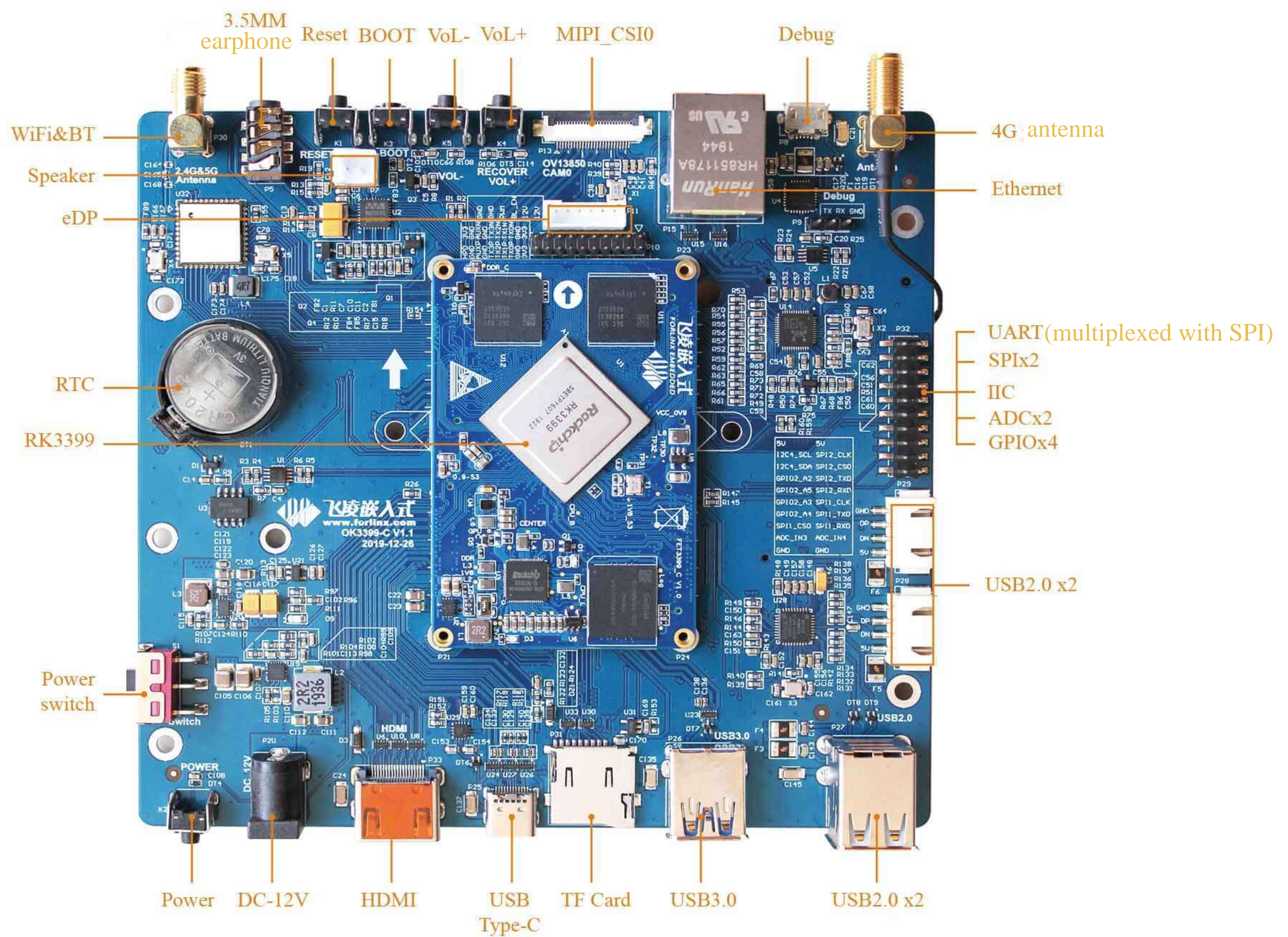


## OK3399-C Single Board Computer

HDMI	1, 4K@60Hz	TF Card	1
MIPI-DSI	1, 4-lane	Ethernet	10/100/1000Mbps auto-negotiable
eDP	1, 4-wire, 10.8Gbps	Camera	≤2, MIPI-CSI, one 13.0MP camera or two 8.0MP camera
USB Type-C	1, USB 3.0/ DP1.2	Audio	MIC, Headphone/Speaker
USB 3.0	1	WiFi	IEEE 802.11a/b/g/n/ac
USB 2.0	4	BT	BT5.0
SPI	2	M.2	PCIe x4
UART	1 (multiplexed with SPI)	4G	Mini PCIe
IIC	1	GPIO	4
ADC	2	Debug	on-board USB to serial

### ◆ TARGET APPLICATION

Edge computing, facial recognition, 5G, 3D printer, POS terminal, 4K tablet, game box, TV box, NAS, VOIP, IoT, security, etc.





# FCU1101

## DESCRIPTION

FCU1101 is an embedded computer designed based on NXP i.MX6UL processor with frequency of 528MHz, it has 256MB RAM and 256MB NAND Flash which could be upgraded to 1GB. Linux 3.14 is well supported with hardware float pointing. Prepherial interfaces such as RS485, Ethernet, WIFI, 4G, ZigBee/ LoRa are all available. It has stable performance under rough environment(-35 to +70 celsius degree).

FEXU1101 Embedded Computer			
CPU	NXP i.MX6UltraLite Cortex-A7 528MHz	RTC	CR2032, NTP is supported
RAM	256MB LvDDR3	Encryption	IIC interface, suspended
FLASH	256MB/1GB NandFlash	Watchdog	set reset time
Storage	standard TF card slot	LED	power indicator and status indicator
Wireless	Quectel_EC20_R2.1	Zigbee/LoRa	LoRa: E32-TTL-100, 433MHz ZigBee: WLT2408NZ LoRa and ZigBee are alternative and optional
Network	1 x 10/100M auto-negotiable TCP/IP, UDP, DHCP, TFTP, FTP, Telnet, SSH, Web, HTTP, MQTT	RS485	4-ch signal isolation, power isolation 1.5KV ESD4 protocol: Modbus(RTU)
WIFI	Model: RL-UM02WBS-8723BU STA and AP are both supported	Power In	rated voltage: DC 12V range: DC9V-36V, anti-reversed and over-current protection
Reset	1	Dimensions	105mm x 100mm x 33mm
BOOT	booting mode selection	Mounting	by screws
Environment	RH: 5%~ 95%, non-condensing working: -35℃ ~ +70℃ storage: -40℃ ~ +85℃	Software	OS: Linux3.14 file system: Yaffs2 compiler: arm-fsl-linux-gnueabi-gcc-4.6.2





# FCU1103

## DESCRIPTION

FCU1103 is an embedded computer designed also based on NXP i.MX6UL processor, it has various on-board hardware sources including 4x DI, 4x DO, 2x RS485, 2x CAN, 1x Ethernet, all are isolation designing. It can support WIFI, BT, 4G or GPRS wireless network. Compact outlines only 147mmx 100mmx 12mm easy for installation.

FCU1103 Embedded Computer			
CPU	NXP i.MX6UltraLite Cortex-A7 528MHz	Audio	1x headphone, 1x MIC(3.5mm jack), preserved with 2x speaker
RAM	256MB LvDDR3 512MB LvDDR3	CAN BUS	2, electrical isolation
ROM	256MB NAND FLASH 4GB eMMC	WiFi& BT	RL-UM02WBS-8723BU-V1.2
Ethernet	1(can expand to 2), 10/100M	UART	UART 5
Storage	SD card, 64GB SDXC tested	RTC	CR2032
Wireless	GPRS/ 4G optional. one standard mini SIM card slot	USB	1x USB OTG, 1x USB host
ESAM	ESAM, ISO7816	PSAM	PSAM, mini SIM card slot
DO	4, EMR isolation	DI	4, optocoupler isolation
Display	LVDS interface(DVI-I connector)	Logo	custmizable for mass production order
Power In	Rated voltage: DC 12V, input range: DC 9V~15V, anti-reverse	Power failure	super capacitor can maintains system running 15s
Dimensions	147mm x 103mm x 42mm	Mounting	by screws
Software	Linux3.14+QT4.8.5 , Linux4.1.15+QT5.6 GCC: gcc-4.6.2-glibc-2.13-linaro-multilib-2011.12		





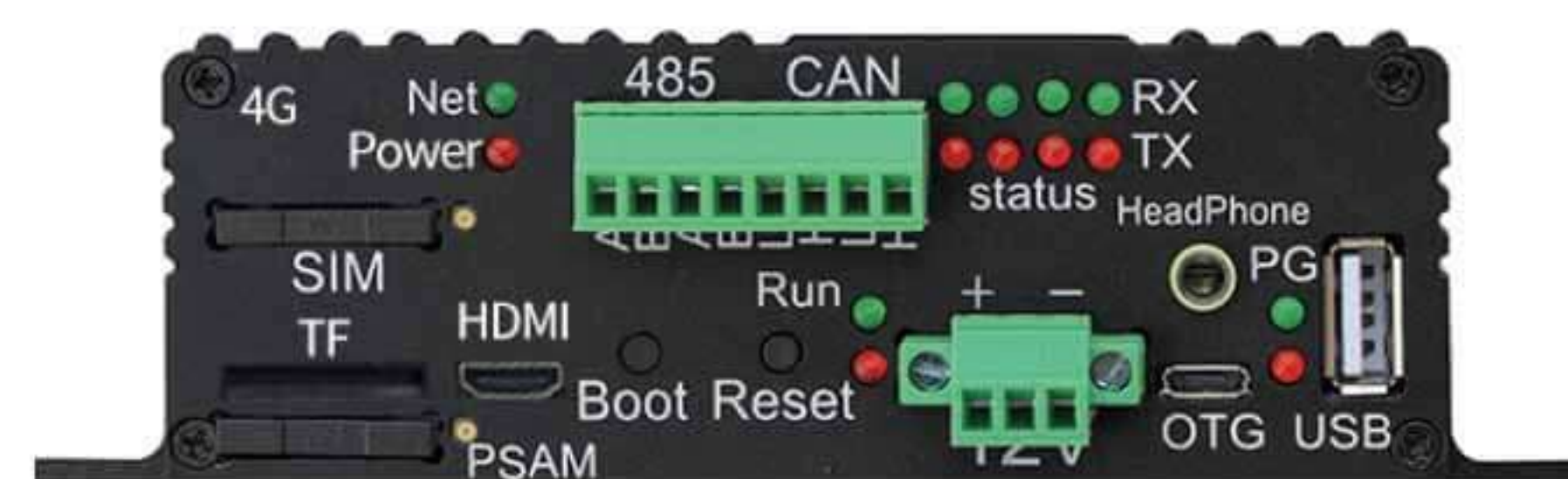
# FCU1201

## DESCRIPTION

FCU1201 embedded computer is based on NXP i.MX6DL processor with main frequency up to 1GHz, it has 1GB RAM and 8GB eMMC, integrates with RS485, CAN, ESAM, PSAM, USB, Ethernet, 4G, WIFI, LVDS, HDMI, DI, DO, audio and other peripherals, which make it's widely used in EV charger, advertising machine, vending machine, security, car electronics, industrial control, power communication applications.

FCU1201 Embedded Computer

CPU	NXP i.MX6Q / NXP i.MX6Dual Lite ARM Cortex-A9 1GHz	HDMI	mini HDMI connector, HDMI v1.4
RAM	1GB DDR3	Power failure	super capacitor can maintains system running 15s
ROM	8GB eMMC	UART	2(1x 3-wire debug, 1x 3-wire card reader)
Storage	TF card, 64GB tested	RS485	2, electrical isolation
Wireless	Huawei ME909S wireless module mini SIM card slot	USB	1x USB OTG, 1x USB host
ESAM	ESAM, analog IO ISO7816	CAN BUS	2, electrical isolation
PSAM	PSAM card, mini SIM card slot	Ethernet	1x 10M/ 100M/ 1000M, auto-negotiation
DO	4, EMR isolation	WiFi& BT	IEEE 802.11b/g/n 1T1R WLAN and Bluetooth 2.1/3.0/4.0
DI	4, optocoupler isolation	RTC	CR2032
Audio	1x headphone, 1x MIC(built in), preserved with 2x speaker	Voltage input	Rated voltage: DC 12V, input range: DC 9V~36V, anti-reverse
LVDS	LVDS interface(DVI-I connector)	RTC	CR2032
Dimensions	147mm x 103mm x 42mm	Mounting	4 x Φ4mm screws
Software	Linux3.0.35+QT4.8.5, Android6.0		





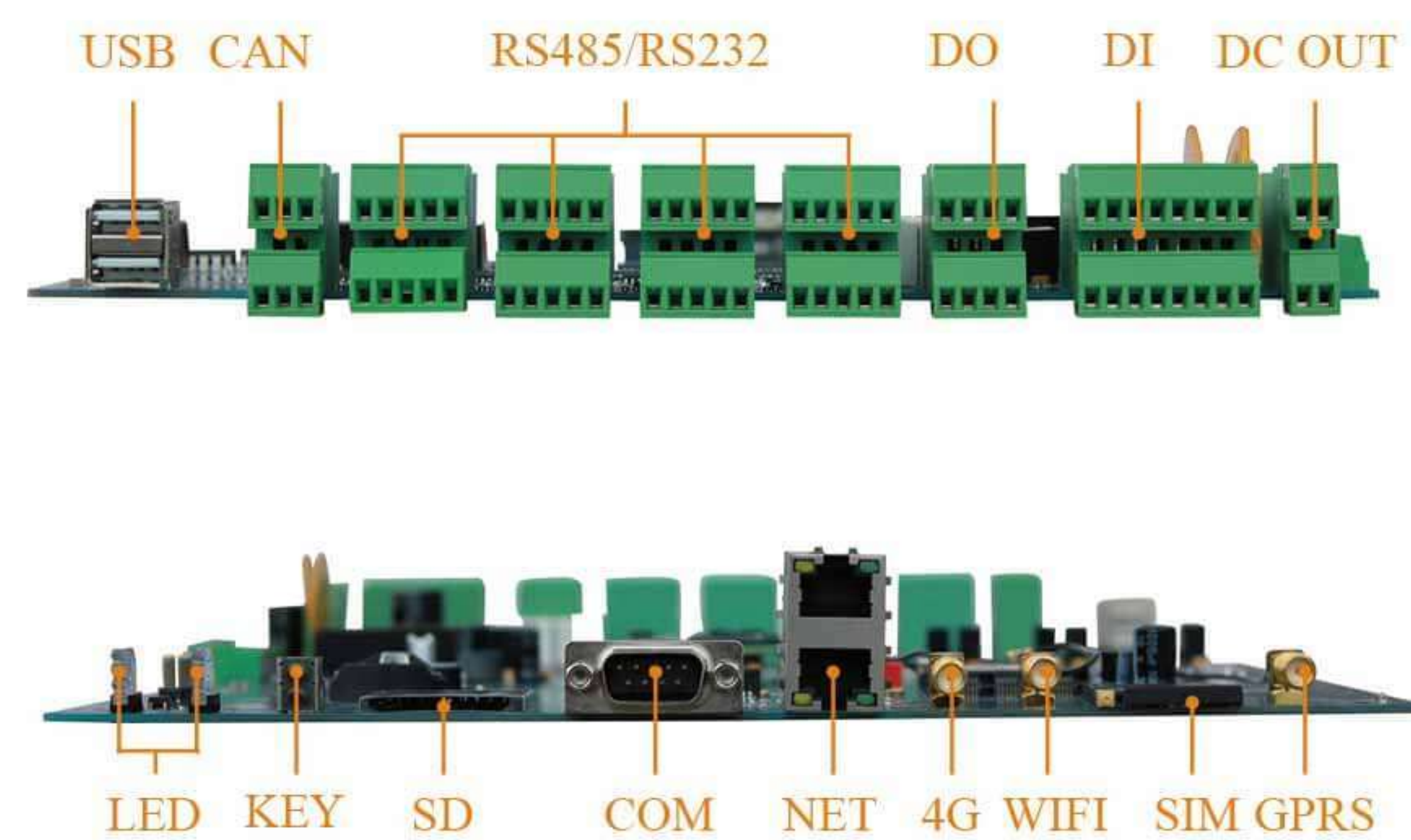
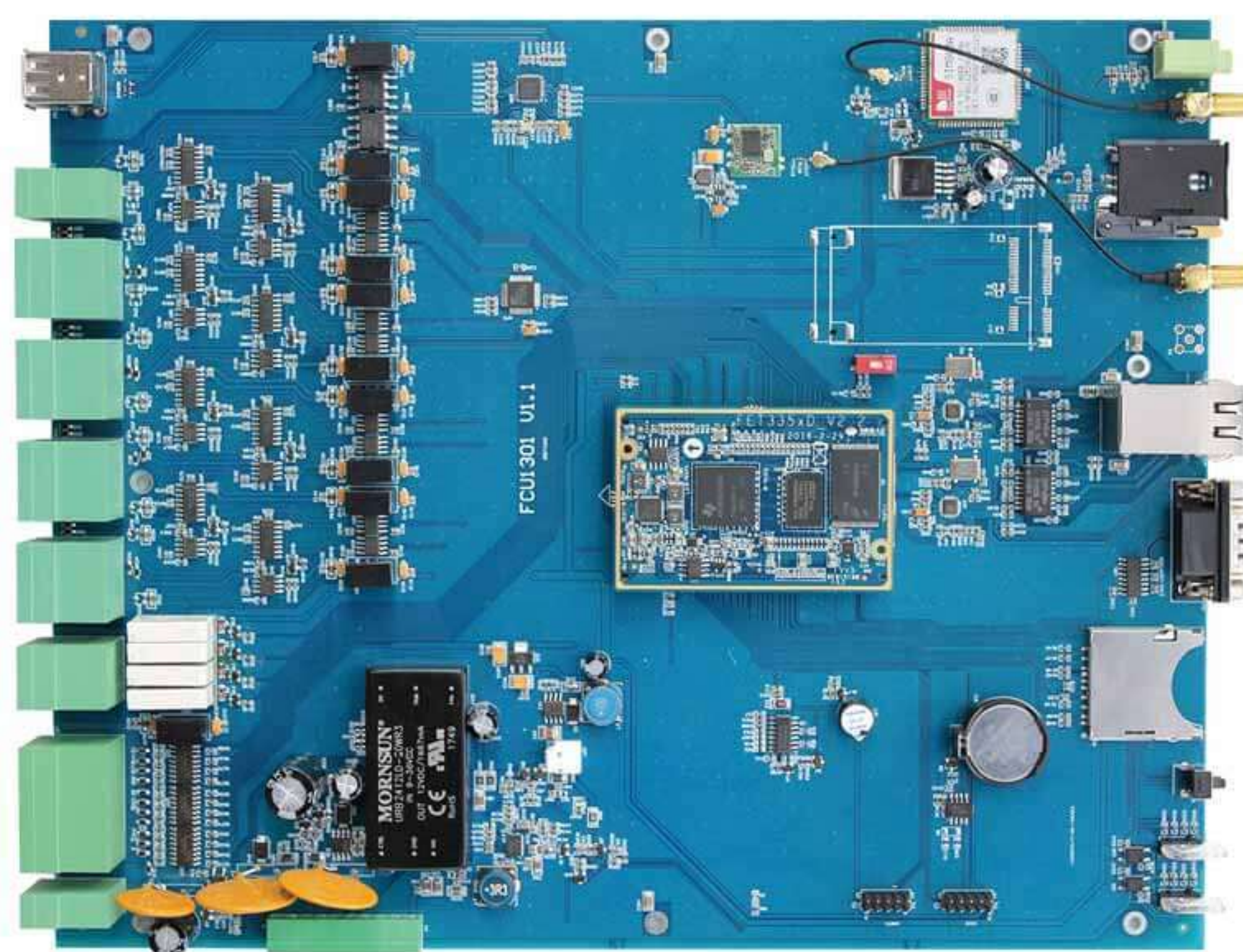
# FCU1301

## DESCRIPTION

FCU1301 is an embedded computer designed specially for dynamic environment monitoring system, IoT for data collecting. It consists of SoM and carrier board, it's designed based on SoM FET335xD which has been widely used in medical, electronical, rail transit, industrial control, etc. also it can support WIFI, GPRS and 4G wireless network solutions. Optimized connector layout makes it's convenient to be embedded into 1U,

FCU1301 Embedded Computer			
CPU	800MHz ARM Cortex-A8	DO	4, relay output contact:
RAM	512MB DDR3	UART	8, RS485/ RS232 multiplexed
ROM	1GB NandFlash	CAN BUS	2x CAN2.0B
OS	Linux3.2	USB Host	4x USB host 2.0
Ethernet	2x 10M/ 100M/ 1000M	SD Card	up to 16GB SD card
GPRS	SMS, GPRS, China Mobile and China Union	RTC	CR2032, can support NTP
4G	SMS, 4G, China Mobile/ China Union 4G/ 3G/ 2G China Telecom 4G	Power In	main, backup power input DC 12V, input range: 9~36V
WIFI	STA, AP	Battery	8.4V Li-battrey input, on-board charging circuit
DI	12, dry contact input	Temperature	working: -40°C ~ +70°C

note: GPRS and 4G are alternative





# FCU1401

## DESCRIPTION

FCU 1401 is based on S5P4418 specially for self-service terminal, vending machine, advertising machine, HMI terminals, etc. It's a high integrated embedded computer with display, communication, controlling functions all-in-one. This item is with frequency of 1.4GHz that makes it excellent Android performance and available for display with resolution of 1080P that takes users ultimate HMI experience. What's more, 4G, WIFI, Ethernet, UART, USB and audio sources are ready-to-use, will help shorten product R& D time.

FCU1401 Embedded Computer			
CPU	1.4GHz ARM Cortex-A9 quad-core	USB Host	4x USB TypeA, USB2.0
RAM	1GB DDR3	USB OTG	Micro USB, USB2.0
ROM	8GB eMMC	Audio	1x headphone, 1x MIC
OS	Android5.1	TF	for storage expanding
HDMI	1 x HDMI 1.4, up to 1920 x 1080	Key	1, defined by program
LVDS	1 x LVDS(1ch, 8bit), in enclosure	Power key	
Touch	USB touch	RTC	CR2032, can support NTP
UART	8x RS232, one is multiplexed with RS485 one is multiplexed with RS232	Buzzer	power booting indicator
Ethernet	1x 10M/ 100M/ 1000Mbps, auto-negotiation	Watchdog	separate hardware watchdog chipset
WIFI	802.11b/g/n, STA& AP are both supported	Power In	DC 9V~36V input, over-current, anti-reverse
Wireless	China Union/ China Mobile 4G/ 3G/ 2G, China Telecom 4G		





# FCU2301

## DESCRIPTION

FCU2301 is a 5G industrial gateway with advanced performance, various high-speed communication interface, super fast and low latency. Available for 4G/ 5G network, has 6 Gigabit Ethernet ports, RS485, DI, DO and other general purpose interface. Integrated with 64-bit quad-core ARM processor LS1046A\* with frequency up to 1.8GHz and CoreMark up to 45000 and carries a Huawei Brand industrial 5G module MH5000, which will help users to get super fast connection and safe data transmission. Open software supporting of Ubuntu 18.04 integrated with third party clusters make it easy-to-go for smart factory, smart city, smart medical, autopilot, VR and other related applications development.

FCU2301 Embedded Computer		
Model	FCU2301+1046A-C	FCU2301+1043A-C
CPU	NXP LS1046A ARM Cortex-A72 , 1.8GHz quad-core	NXP LS1043A ARM Cortex-A53 , 1.6GHz quad-core
RAM	2GB DDR4	
ROM	8GB eMMC	
Wireless	MH5000-31 5G NR: n78, n79, n41 3G UMTS/WCDMA: B1, B8 4G LTE: B1, B3, B5, B8, B34, B38, B39, B40, B41 2G: 1800MHz/900MHz	
SFP+	1x SFP+, up to 10Gbps, for SFP+ optical module or electrical module	
Ethernet	6x Gigabit Ethernet, standard RJ45 connector, 10M/ 100M/ 1000Mbps auto-negotiation	
WiFi	can support 2.4GHz, 5GHz dual-band WiFi, 802.11a/b/g/n/ac	
DO	2x DO, EMR output, contact 5A 30VDC/ 5A 250VAC	
DI	2x DI, optocoupler isolation	
RS485	2x RS485	
USB3.0	1z USB host 3.0, USB-A connector	
Power	rated voltage 12V 5A, anti-reverse protection	
Dimension	210x154x43mm	
OS	Ubuntu 18.04	
Environment	working: -40°C ~ +75°C storage: -40°C ~ +125°C	working: -40°C ~ +80°C storage: -40°C ~ +125°C

\* LS1043A optional, quad -core processor@ 1.6GHz, CoreMark 26000





# FCU2401

## DESCRIPTION

FCU2401 embedded computer is designed based on Allwinner Cortex -A7 featuring quad-core processor A40i running at 1.2GHZ, it integrates with MAli400MP2 GPU, RAM 1GB(2GB upgradable) and 8GB eMMC. It has a variety of peripheral sources, such as RS485, CAN, ESAM, USB, Ethernet, 4G, WiFi, GPS, LVDS, HDMI , DI , DO , audio and SATA. All communication interfaces are designed with isolation protection solution and tested by ESD4. It can support dual-screen playing. Applicable for edge computing, EV charger,

express cabinet, advertising machine, vending machine and other self-service devices.

FCU2401 Embedded Computer			
CPU	A40i ARM Cortex-A7 1.2GHz	4G	Quectel EC20, China Mobile/ China Union 4G/ 3G/ 2G, China Telecom 4G two SIM card slots
RAM	DDR3L 1GB(2GB optional)	Wi-Fi	both STA and AP are supported
ROM	eMMC 8GB	USB HOST	2x host, USB2.0, ESD4
Ethernet	2, 1x 10M/ 100M, 1x 10M/ 100M/ 1000M ESD4, FET3	USB OTG	for system flashing and debugging, no power supplying
RS485	2, 3KV isolation, ESD4, FET3	RTC	CR2032
RS232	2, 3KV isolation, ESD4, FET3 1x debug, 1x isolated 5V output, 1W	ESAM	ISO7816
DO	4, relay output	Hard disk	can support 2.5" SATA disk
DI	4, dry contact input	DIP switch	RS485, CAN selection
CAN	2, 2.5KV signal isolation, 3KV power isolation, ESD4, FET3	Power IN	DC 12V, anti-reverse& over-current protection
GPS	Beidou& GPS	Power failure	super capacitor can maintains system running 15s
HDMI	1x HDMI1.4, 1080P@ 60FPS	Reset Key	for system reset
LVDS	DVI-I connector	Boot Key	pressed together with reset key for firmware updating
TV IN	2x analog camera input, NTSC and PAL	LED	2, power supplying indicator, external power or super capacitor power
Audio	1 x speaker, 4Ω 1W	Environment	RH: 5% ~ 95%, non-condensing working: -40°C ~ +80°C storage: -40°C ~ +85°C
OS	Linux3.10+QT5.9, Android Q7.1	Compiler	arm-linux-gnueabi-gcc 5.3.1





# FIT-5G+A 5G

## DESCRIPTION

FIT-5G+A is an item to be used for develop and debug 5G module which is convenient for users to use it on on development board or PC. The hardware designing is compatible with Huawei MH5000-31 M.2, Quectel RM500Q and Fibocom FM150. The module is designed with separate power supplying interface to have the module to get sufficient power



Model	Spec.
FIT-5G-MH5000+A	Huawei 5G module MH5000-31
FIT-5G-RM500Q+A	Quectel 5G module RM500Q





# FDU070S-R01

## DESCRIPTION

FDU070S-R01 is an all-in-one tablet or mini PC designed by Forlinx based on SoM FET1052-C which is based on NXP Cortex-M7 featuring processor i.MX RT1052. It operates at speeds up to 528MHz to provide high CPU performance and best real-time response. The i.MX RT1052 processor has 512 KB on-chip RAM, which can be flexibly configured as TCM or general-purpose on-chip RAM. 16MB/ 32MB SDRAM, 4MB/ 16MB QSPI-NorFlash are optional. It's integrated with peripherals such as RS485, RS422, RS232, CAN, USB, Ethernet, TF card, 2Kbit eeprom, 64Mbit QSPI NOR Flash, RTC, speaker and buzzer which are all ready-to-use. The display is a 7" LCD with resolution of 1024x 600.

FDU070S-R01 Embedded Computer			
CPU	NXP i.MXRT1052 ARM Cortex-M7 600MHz(industrial grade 528MHz)	RTC	support power failure clock
RAM	SDRAM 16MB, 32MB optional	EEPROM	2Kbit
ROM	QSPI NorFlash 4MB, 16MB optional	QSPI NorFlash	64Mbit
Ethernet	1, 10/ 100Mbps	SPEAKER	1, 1W8Ω
RS485/ RS422	1, 1.5KV isolation, ESD4	BUZZER	1
RS232	1, ESD4	Reset	1
CAN	1, 1.5KV isolation, ESD4	Boot	1, pressed together with reset key for firmware updating, can be also used as a user key
USB	1, ESD4	Power IN	main power input DC 12V anti-reverse, over-current protection
TF Card	up to 50Mbps	Environment	RH: 5% ~ 95%, non-condensing working: -20°C ~ +70°C storage: -20°C ~ +85°C





## QUALITY ASSURANCE >>

We fully understand the importance of the system on module as a critical part in users' products. Forlinx strictly fulfill ISO9001 standard system from components selection IQC to IPQC and OQC, we promise all products OQC pass rate 100%.



### PQC

- ✓ ISO9001
- ✓ Stable supplying chain
- ✓ Simulation lab
- ✓ Professional designing



## Production Line

Production processing complies with 6S standard.



IQC



SMT



AOI



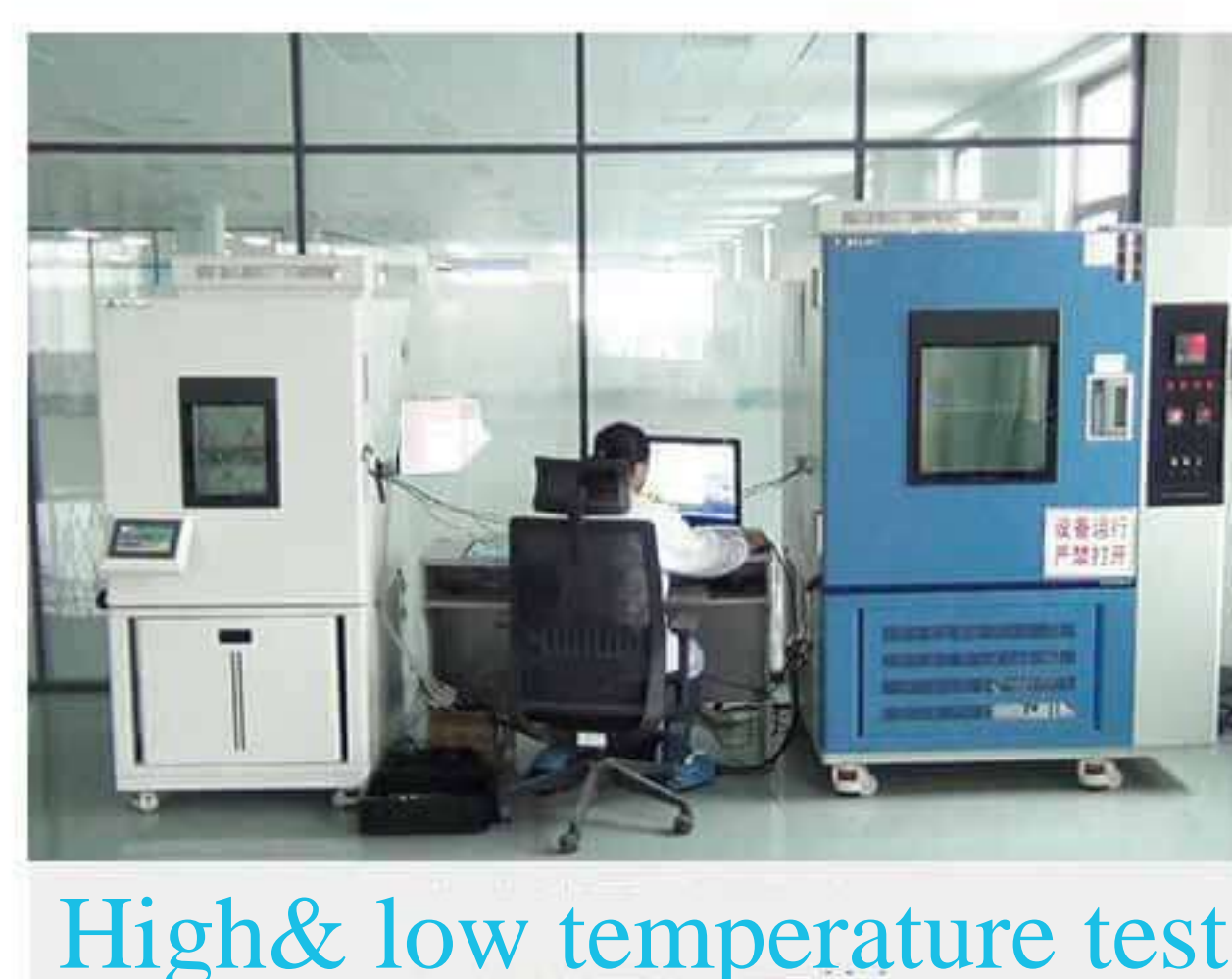
Debugging



Aging



Constant temperature room



High& low temperature test



EMC



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