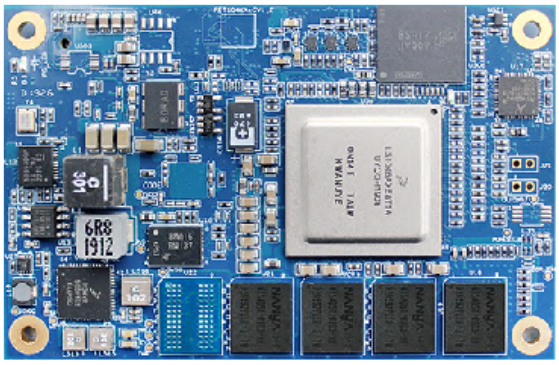
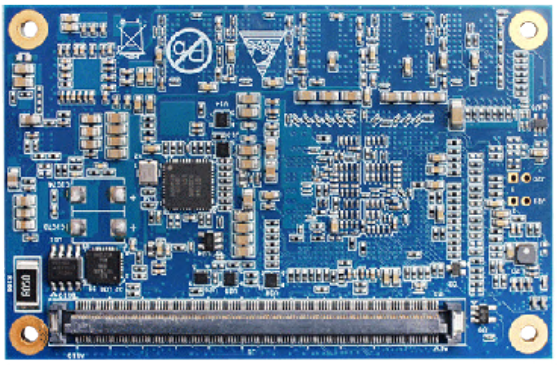
FET1046A-C SoM

DESCRIPTION

FET1046A-C system on module (SoM) is based on NXP Cortex-A72 featuring quad-core processor LS1046A with frequency up to 1.8GHz, the processor can support 8 native Gigabit Ethernet, up to 2 XFI(10GbE). PCIw3.0 (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.

SoM FET1046A-C Features			
CPU	NXP LS1046A	Dimensions	84mm x 55mm
Architecture	Cortex-A72	Ethernet	⩽ 8, CPU has 8 native MAC, 8x 1Gbps Ethernet 1x 10Gbps and 7x 1Gbps Ethernet 2x 10Gbps and 5x 1Gbps Ethernet
Frequency	⩽ 1.8GHz	PCIe3.0	⩽ 3, SerDes configurable, supports x1, x2 and x4, each up to 8GT/s
RAM	2GB/4GB DDR4	SATA3.0	⩽ 1, up to 6Gbps, SerDes configurable
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
Working Temp	-40°C ~ +75°C	eSDHC	⩽ 1, supports SD3.0 eMMC4.5, multiplexed with eMMC, can be used for card booting or OS installation, but could not used for storage xpanding
Package	COM Express (220pin, 0.5mm)	JTAG	supports CodeWarrior TAP from NXP
SerDes	8-lane SerDes: one SATA3.0 controller; 5x SGMII up to 100Mbit/s; 3x SGMII up to 2500Mbit/s; 2x XFI(10GbE); 1x QSGMII; 3x PCIe3.0 controller		





OK1046A-C2 Carrier Board Features	
SFP+	2, up to 10Gbps, can support SFP+ optical module and electrical module
1Gbps Ethernet	5, 10M/ 100M/ 1000M, 3 from SGMII and 2 from RGMII
mSATA	1, SATA3.0, up to 6Gbps
M.2 E key	1, contains PCIe x1, can be mounted with WiFi moudle
M.2 B key	1, contains PCIe x1, USB3.0 and SIM, for 5G wiress module
USB 3.0	1, up to 5Gbps
UART	3, TTL, 3-wire serial
RTC	1, CR2032
User key	1, for user's defnition

TARGET APPLICATION

Industrial IoT, TSN, SD-WAN, 5G CPE, edge computing, gateway, IP- PBX, smart factory, information securiety, intelligent transport, power management, etc.