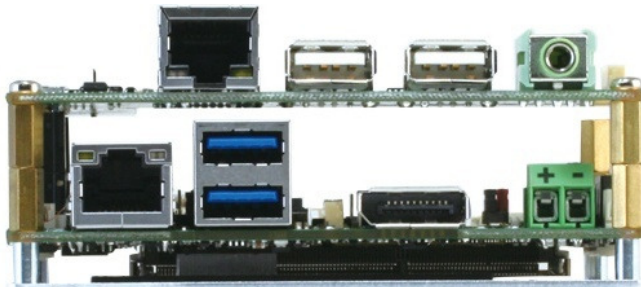
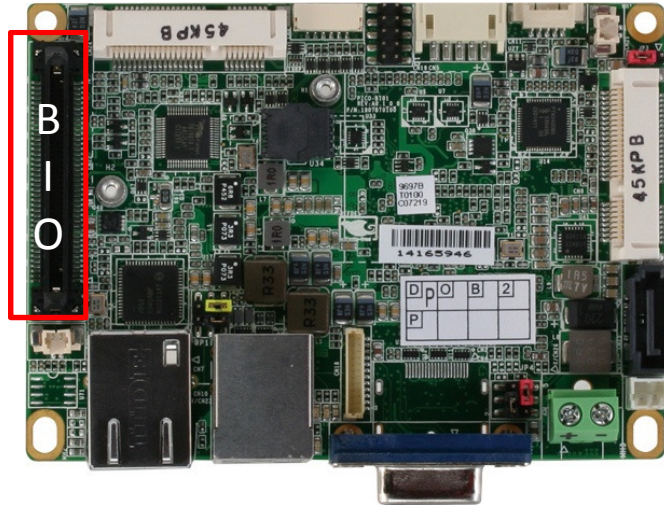




BIO introduce

Presenter : Ben Hsu/Edwin Luo
Division : ECD
Date : 2015.09.09

BIO Connector on PICO-BT01



Selling points

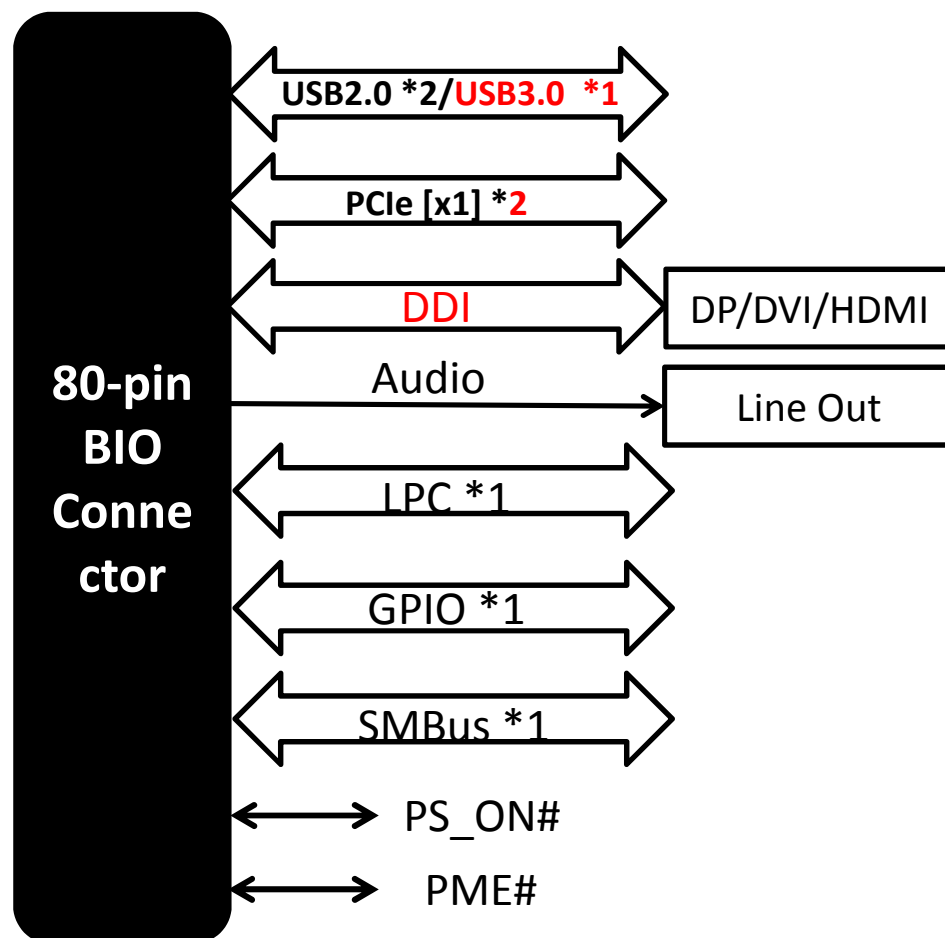
- Easy to extend customize I/O
- Quickly design and implement
- Flexible PCBA design
- Cable-less design concept
- Free NRE before end of 2015

Target Market

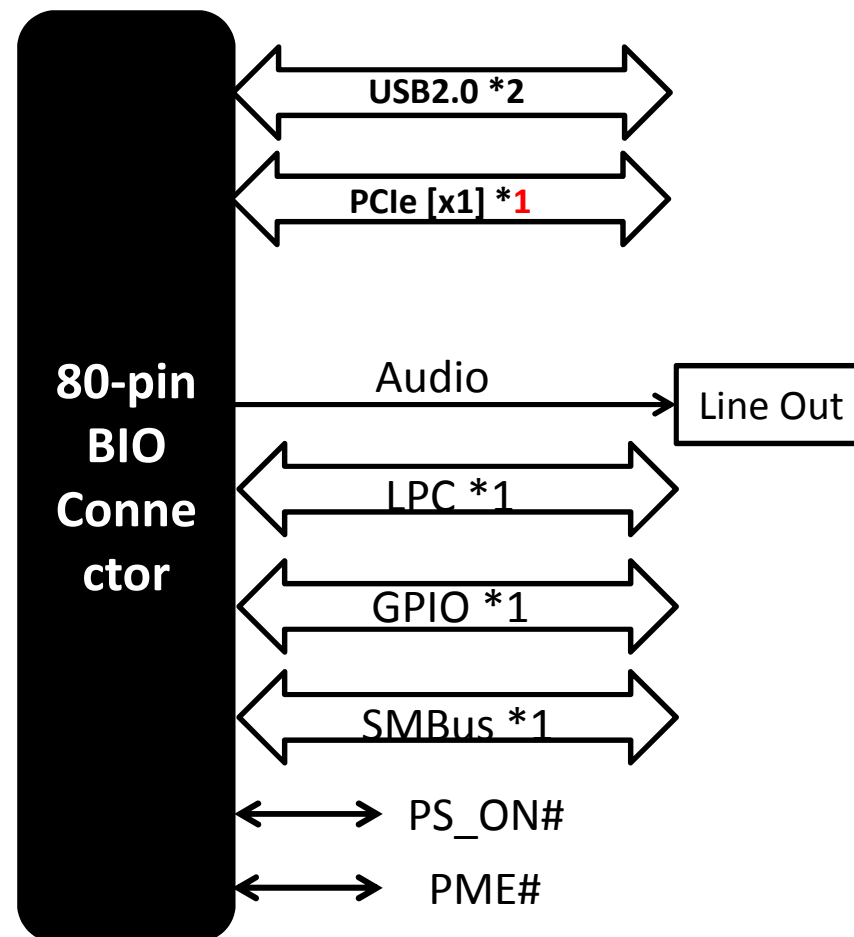
- KIOSK
- ATM
- Medical
- Transportation
- Industrial automation
-

BIO Block Diagram:

BIO Full features IOs

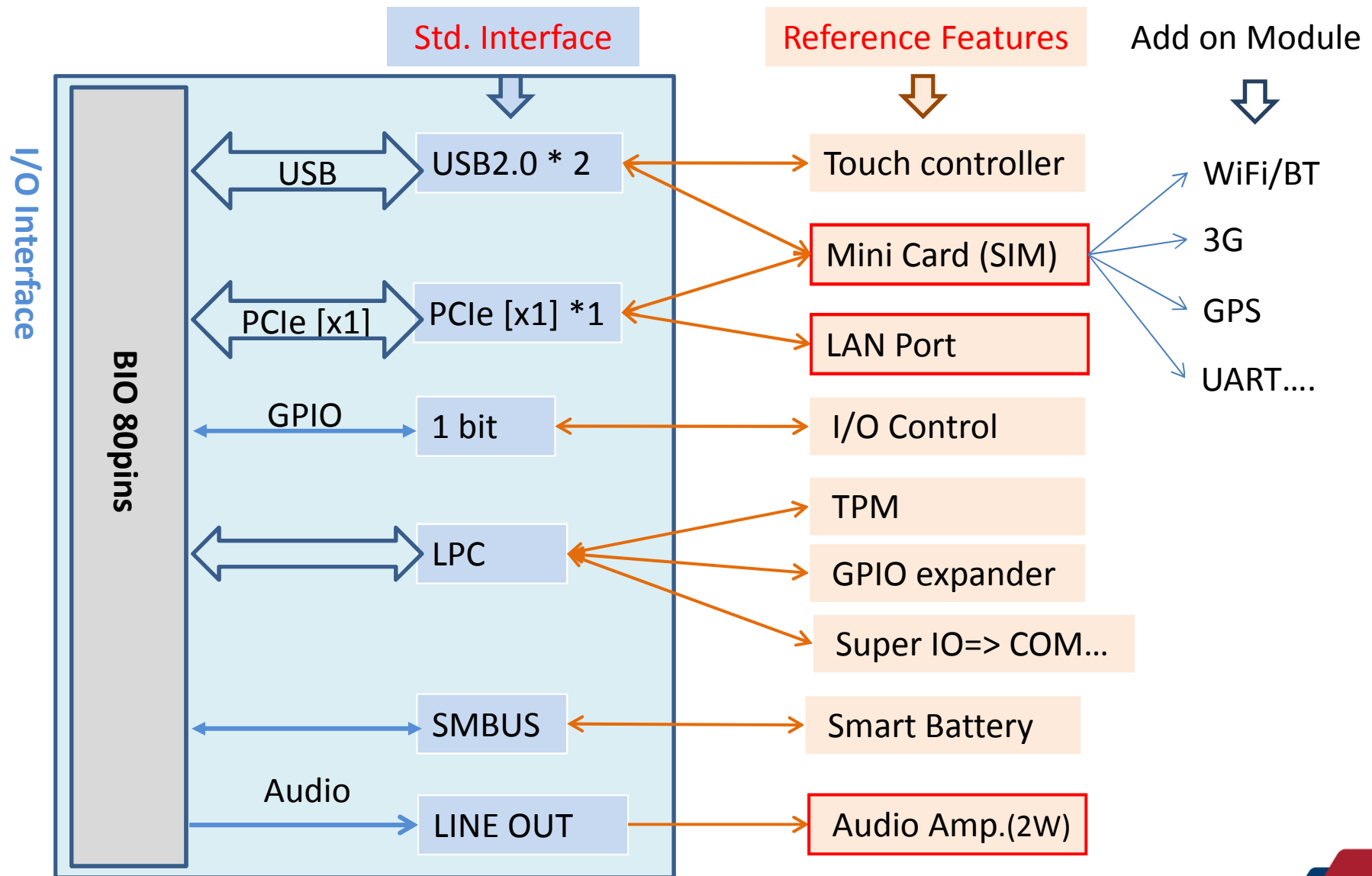


BIO for PICO-BT01 only



Remark: The final I/O design must depend on MB spec.

BIO (Board I/O) design by Block Diagram



BIO Pin Assignment:

Function	Signal Name	Pin Count
PCIe	PCIE_RXN0	10
	PCIE_RXP0	
	PCIE_RXN1	
	PCIE_RXP1	
	PCIE_TXN0	
	PCIE_TXP0	
	PCIE_TXN1	
	PCIE_TXP1	
	PCIE_REF_CLKN	
	PCIE_REF_CLKP	
USB2.0/ USB3.0	USBN0	8
	USBP0	
	USBN1/USB_RXN	
	USBP1/USB_RXP	
	USB_TXN	
	USB_TXP	
	USB_OC0#	
	USB_OC1#	

Function	Signal Name	Pin Count
Audio	AUD_LINEOUT_R	3
	AUD_LINEOUT_L	
	AGND	
System Control	PME#	4
	WAKE#	
	PS_ON#	
	RESET#	
SMBus	SMB_CLK	2
	SMB_DATA	
GPIO	GPIO0	1
Power	+12VSB	1
	+5VSB	4
	+5V	5
	GND	21

BIO Pin Assignment:(cont.)

Function	Signal Name	Pin Count
Display	DP_TXP0	13
	DP_TXN0	
	DP_TXP1	
	DP_TXN1	
	DP_TXP2	
	DP_TXN2	
	DP_TXP3	
	DP_TXN3	
	DP_AUXN	
	DP_AUXP	
	DP_DDC_SDA	
	DP_DDC_SCL	
	DP_HPLG_DET	

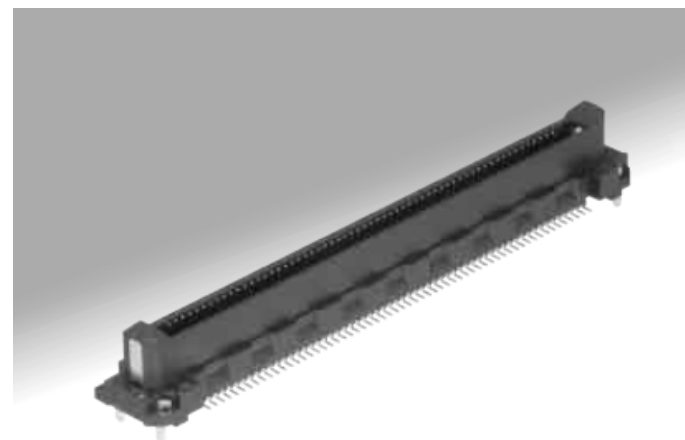
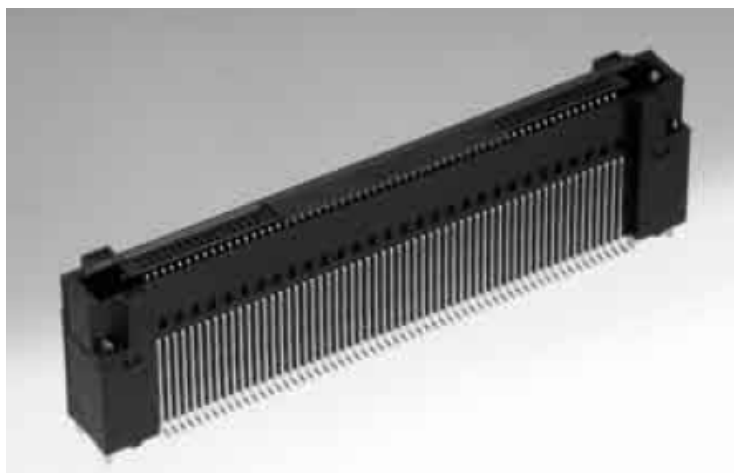
Function	Signal Name	Pin Count
LPC	LPC_AD0	8
	LPC_AD1	
	LPC_AD2	
	LPC_AD3	
	LPC_FRAME#	
	SERIRQ	
	LPC_DRQ#	
	LPC_CLK	

BIO Connector:

10+Gbps Hirose (High Speed Connectors)

BIO board side: FX18-80P-0.8SV20

Main board side: FX18-80P-0.8SV



Connector Specification:

Parameter	Specification
Current Rating	0.5A
Voltage Rating	AC 100V
Operating Temperature Range	-55° C ~ 80° C

Ref. Design 1 : BIO-ST01-L1U2

- Gigabit LANx1, USB x2, Audio Amp.



Ref. Design 2 : BIO-ST01-M1U1

- MiniCard x1 with SIM, USB x1, Audio Amp.



Ref. Design 3 : BIO-ST02-C4M1

- RS-232 x4, MiniCard x1 with SIM, USB x1



