



SDR & FPGA
Solution Provider

Puzhi Product Guide

Software Defined Radio



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| Puzhi Electronic Technology (Shanghai) Co.Ltd

About Us

Puzhi Electronic Technology (Shanghai) Co. was Founded in 2017, Located in Shanghai, China.

Puzhi Offers an Extensive Portfolio of FPGA/SoC Focused Standard System-on Modules (SOMs), FPGA Development Boards and FMC Cards, Covered the Full Range of Xilinx and China FPGA Chips, Wide Range of Technical Support, Solutions on Industrial Control, Medical, Intelligent AI, and Image Processing.

Puzhi has Another Brand PZSDR Focus on Software Defined Radio Products and Solution, Apply on Drones, Spectrum Monitoring, Radar, GPS/GNSS, Testing Measurement, Network Security, LOT/M2M.

Brand



**Specialized in FPGA Product
Solution Design**



**Specialized in SDR Product
Solution Design**

Certification



ISO9001

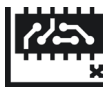


RoHS

Product Customisation

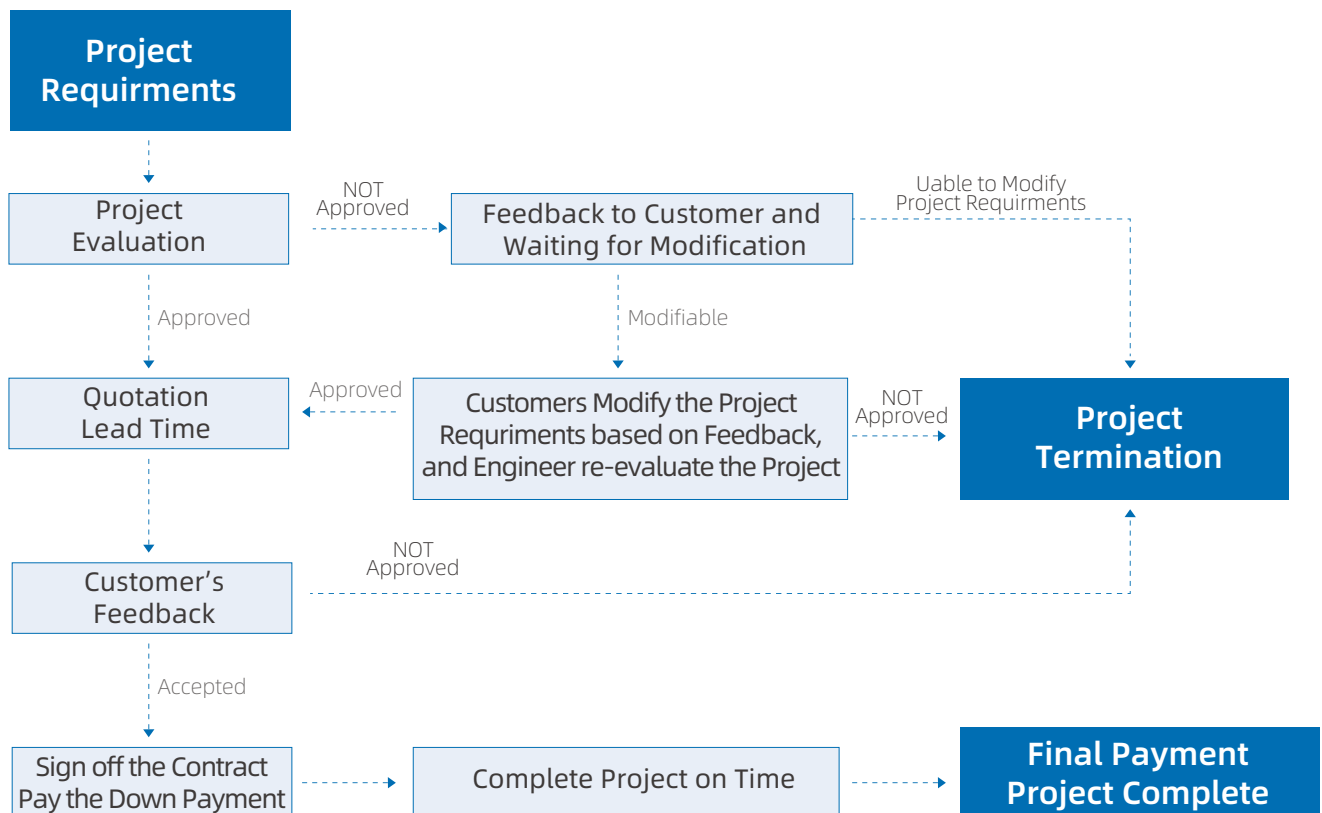
Provide customised services for enterprises and research institutes, designing hardware and software according to customers' needs.

Scope of Customised Services



Hardware Circuit | Logical Design | Linux Underlying Driver | Embedded Software | AI Algorithm

Product Customization Process



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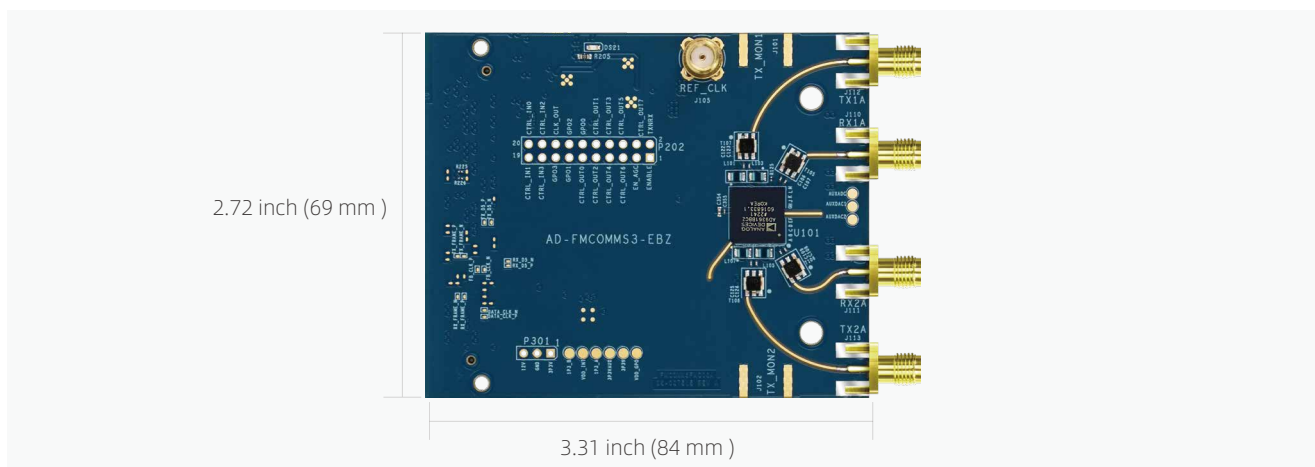
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SDR

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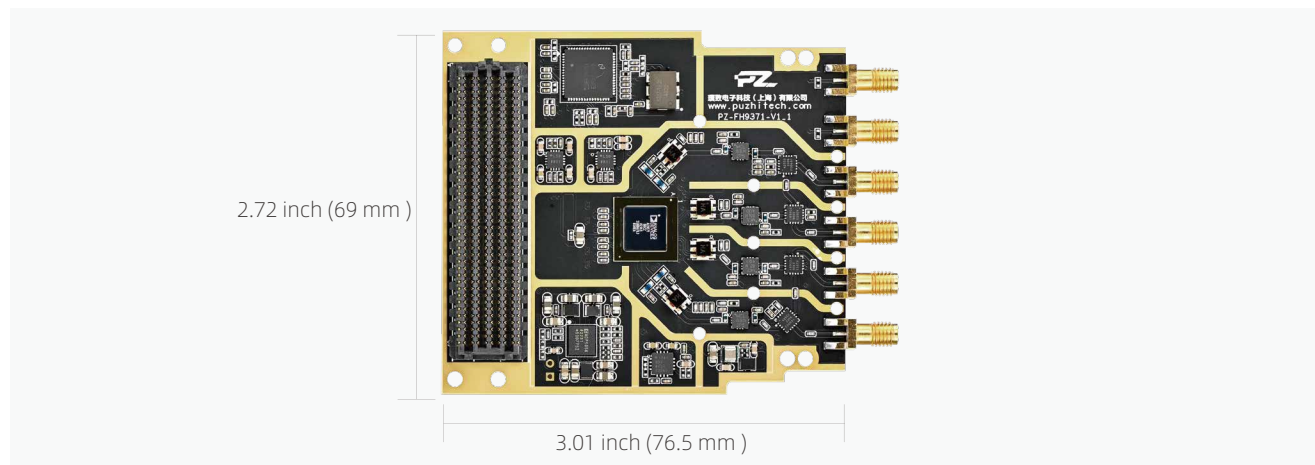
PZ-FL9361

Specification			
Module	PZ-FL9361	FMC Interface	FMC LPC
RF Chip	AD9361	Chip Level	Industrial Grade (-40°C ~ +85°C)
RF Frequency Range	70M-6Ghz	Power Supply	Powered from FMC Interface (12V)
Signal Bandwidth	200K-56Mhz		



PZ-FH9371

SPECIFICATION			
RF Chip	AD9371BBCZ	Number of Channels	2TRX, 2RX
Bits	16bit ADC & 14bit DAC	RF impedance	Matching 50Ω
Antenna Switch	Half-duplex, Full-duplex, TDD/FDD mode	Digital Interface	JESD204B
RF Frequency Range	300MHz-6GHz	Clock	Supports Internal or External Reference Clock
Gain	Full Bandwidth high linear gain 22dbm	FMC Interface	FMC HPC

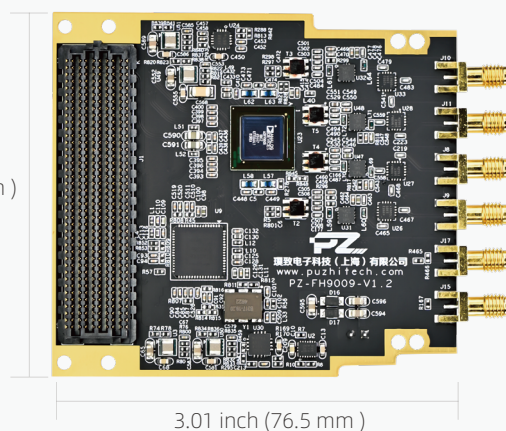


PZ-FH9009

SPECIFICATION

Module	PZ-FH9009	Antenna Switch	Half-duplex, Full-duplex, TDD/FDD mode
RF Chip	ADRV9009	Bandwidth	Transmit up to 450MHz, Receive up to 200MHz
RF Frequency Range	75MHz-6GHz	Power Amplifier	Passband Linear Amplification 22dbm
Bits	16bit ADC & 14bit DAC	RF impedance	Matching 50Ω
Digital Interface	JE5D204B	FMC Interface	FMC HPC
Clock	On-board clock or external input clock		

2.72 inch (69 mm)



3.01 inch (76.5 mm)

PZ-FH9029

SPECIFICATION

Module	PZ-FH9029	Digital Interface	JE5D204B
RF Chip	ADRV9009	Clock	On-board clock or external input clock
RF Frequency Range	75MHz-6GHz	Bandwidth	Transmit up to 450MHz, Receive up to 200MHz
Bits	16bit ADC & 14bit DAC	RF impedance	Matching 50Ω
Number of Channels	4TX, 4RX	FMC Interface	FMC HPC

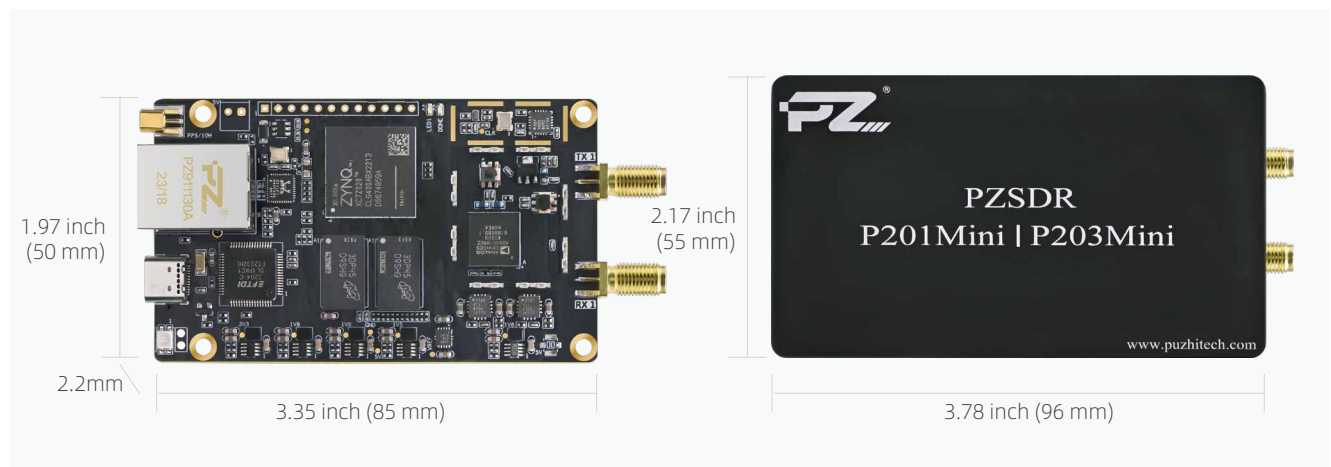
2.72 inch (69 mm)



3.01 inch (76.5 mm)

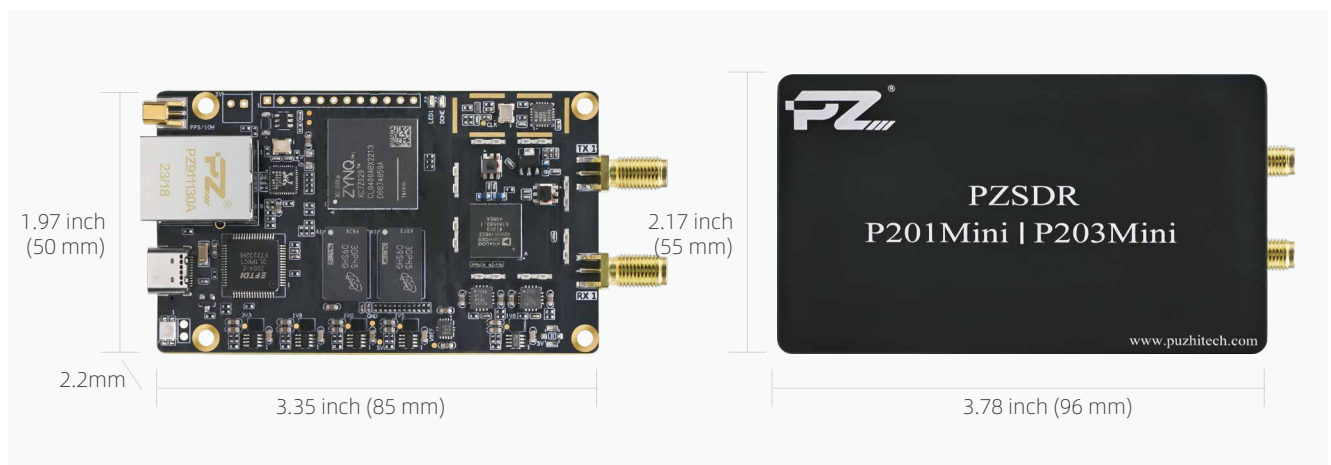
P201Mini

SPECIFICATION			
RF Chip	AD9361	DDR3/QSPI FLASH	1GB / 256Mb
Frequency Range	70M-6Ghz	Gigabit Ethernet	1
Signal Bandwidths	200K-56Mhz	Power Supply	TypeC/XH2.54 Power Supply Options
Power Amplifier	10-15dbm	UART/JTAG/SD	1/ 1/1
FPGA Chip	XC7Z020-2CLG400I	10M/PPS	1 Input
Processor Core	Dual Cortex-A9, 766Mhz	Expansion Port IOs	8 x 3.3V IOs, 2 x 1.8V IOs
Logic Cells	85K	Form Factors	3.78 inch x 2.17 inch x 0.91 inch (256mm x 140mm x 23mm)



P203Mini

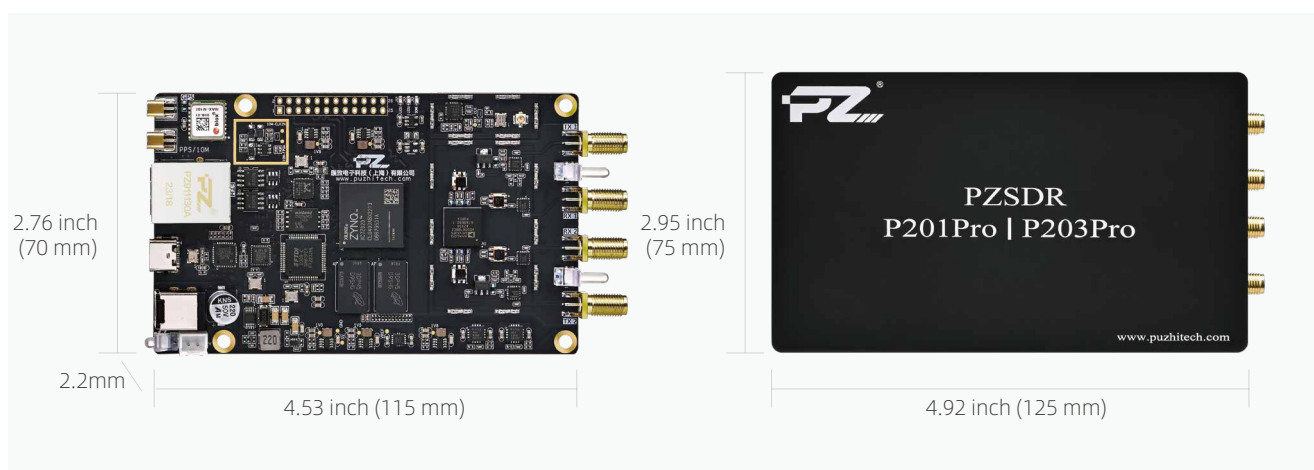
SPECIFICATION			
RF Chip	AD9363	DDR3/QSPI FLASH	1GB / 256Mb
Frequency Range	325M-3.8Ghz	Gigabit Ethernet	1
Signal Bandwidths	200K-20Mhz	Power Supply	TypeC/XH2.54 Power Supply Options
Power Amplifier	10-15dbm	UART/JTAG/SD	1/ 1/1
FPGA Chip	XC7Z020-2CLG400I	10M/PPS	1 Input
Processor Core	Dual Cortex-A9, 766Mhz	Expansion Port IOs	8 x 3.3V IOs, 2 x 1.8V IOs
Logic Cells	85K	Form Factors	.78 inch x 2.17 inch x 0.91 inch (256mm x 140mm x 23mm)



P201Pro

SPECIFICATION

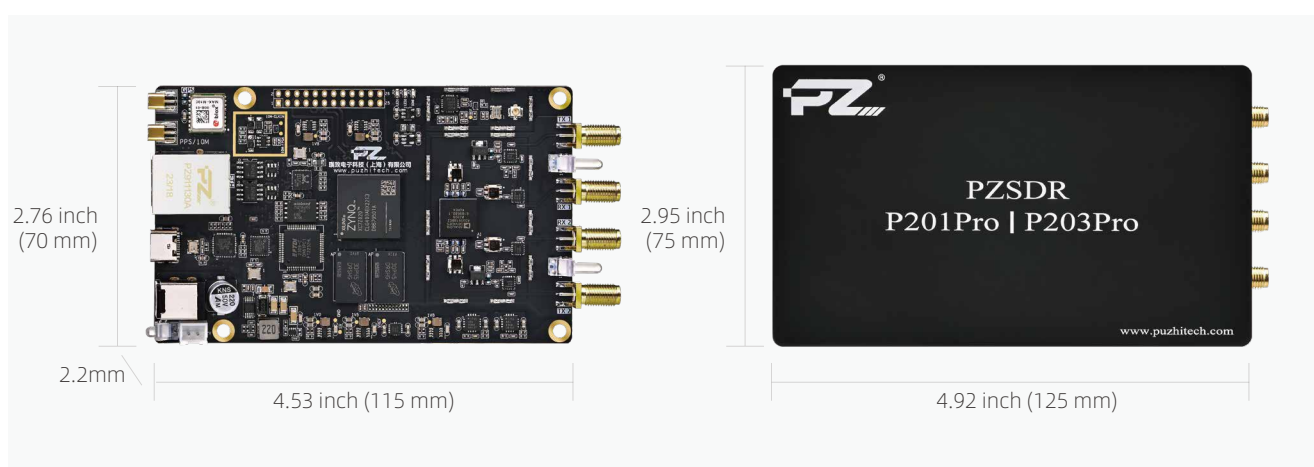
RF Chip	AD9361	RF Clock	40M VCTCXO(0.5PPM)/ipex Input External Input(Default is 40M VCTCXO)
Frequency Range	70M-6Ghz	Clock Input /Output	1 Input/ 1 Output
Signal Bandwidths	200K-56Mhz	JTAG/UART/USB OTG/SD	1/ 1/1/ 1
Power Amplifier	2TX	Gigabit Ethernet/ GPS	1/ 1
FPGA Chip	XC7Z020-2CLG400I	Expansion Port I/Os	16 x3.3V I/Os, 4 x 1.8V I/Os
Processor Core	Dual Core Cortex-A9, 766Mhz	Power Supply	8-36V Ultra-wide Voltage Supply (Limit 50V)
DDR3/QSPI FLASH/E2PROM	1GB / 256Mb / 256Kb		



P203Pro

SPECIFICATION

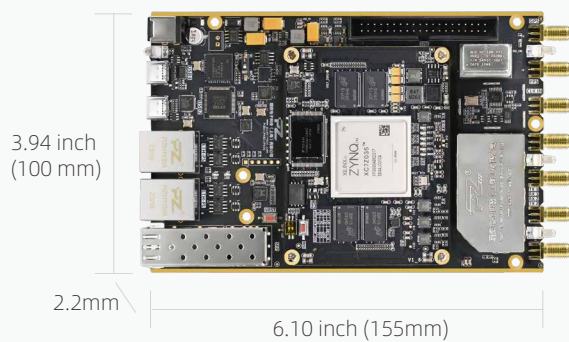
RF Chip	AD9363	RF Clock	40M VCTCXO(0.5PPM)/ipex Input External Input(Default is 40M VCTCXO)
Frequency Range	325M-3.8Ghz	Clock Input /Output	1 Input/ 1 Output
Signal Bandwidths	200K-20Mhz	JTAG/UART/USB/SD	1/ 1/1/ 1
Power Amplifier	2TX	Gigabit Ethernet	1
FPGA Chip	XC7Z020-2CLG400I	GPS	1
Processor Core	Dual Core Cortex-A9,766Mhz	Power Supply	8-36V Ultra-wide Voltage Supply (Limit 50V)
DDR3/QSPI FLASH/E2PROM	1GB / 256Mb / 256Kb		



P351

SPECIFICATION

FPGA Chip	XC7Z035-2FFG900I	EMMC	8GB
Processor Core	Dual Core ARM Cortex-A9, Main Frequency 800Mhz	RF Clock	40M VCTCXO(0.5PPM)/ ipex Input/ External Input (Default 40M VCTCXO, OCXO available as an option)
RF Chip	AD9361	Clock Input/ Gigabit Ethernet	1 Clock on PS Side/ 1 Ethernet on PL Side
Frequency/ Signal	70M-6Ghz / 200K-56Mhz	USB 3.0/ USB 2.0 OTG	1 / 1
Power Amplifier	10-15dbm	UART/JTAG/SD Cart Slot/GPS	1/ 1/1/ 1
DDR3/DD3L	1GB on PS Side, 1GB on PL Side GB	Power Supply	12-36V
QSPI FLASH	256Mb		



P451

SPECIFICATION

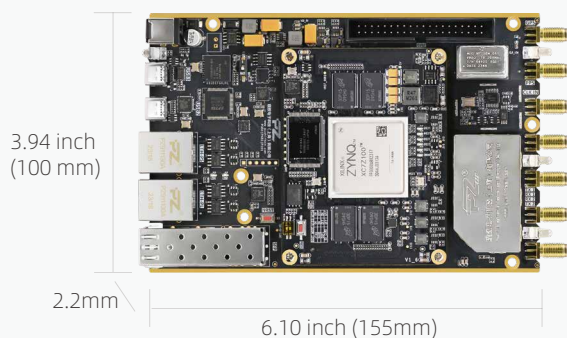
FPGA Chip	XC7Z045-2FFG900I	EMMC	8GB
Processor Core	Dual Core ARM Cortex-A9, Main Frequency 800Mhz	RF Clock	40M VCTCXO(0.5PPM)/ ipex Input/ External Input (Default 40M VCTCXO, OCXO available as an option)
RF Chip	AD9361	Clock Input/ Gigabit Ethernet	1 Clock on PS Side/ 1 Ethernet on PL Side
Frequency/ Signal	70M-6Ghz / 200K-56Mhz	USB 3.0/ USB 2.0 OTG	1 / 1
Power Amplifier	10-15dbm	UART/JTAG/SD Cart Slot/GPS	1/ 1/1/ 1
DDR3/DD3L	1GB on PS Side, 1GB on PL Side GB	Power Supply	12-36V
QSPI FLASH	256Mb		



P101

SPECIFICATION

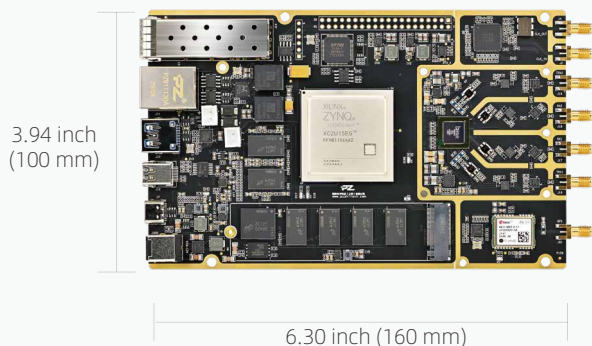
FPGA Chip	XC7Z100-2FFG900I	EMMC	8GB
Processor Core	Dual Core ARM Cortex-A9, Main Frequency 800Mhz	RF Clock	40M VCTCXO(0.5PPM)/ ipex Input/ External Input (Default 40M VCTCXO, OCXO available as an option)
RF Chip	AD9361	Clock Input/ Gigabit Ethernet	1 Clock on PS Side/ 1 Ethernet on PL Side
Frequency/ Signal	70M-6GHz / 200K-56Mhz	USB 3.0/ USB 2.0 OTG	1 / 1
Power Amplifier	10-15dbm	UART/JTAG/SD Cart Slot/GPS	1/ 1/ 1/ 1
DDR3/DD3L	1GB on PS Side, 1GB on PL Side GB	Power Supply	12-36V
QSPI FLASH	256Mb		



P159

SPECIFICATION

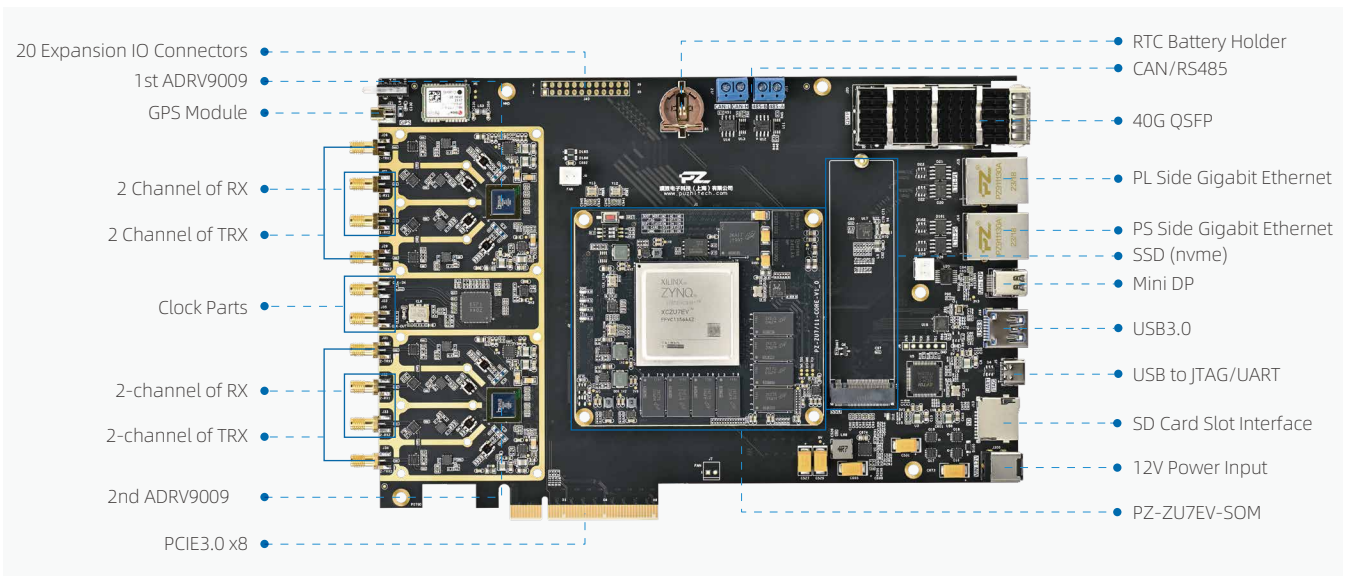
FPGA Chip	XCZU15EG-2FFVB1156I	EMMC	32GB
Processor Core	Four Core ARM Cortex-A53 (1.333Ghz) Dual Core ARM Cortex-R5F (533Mhz)	RF Clock	1 Input, 1 Output
RF Chip	ADRV9009	USB3.0 / Gigabit Ethernet	1/1
Frequency Range	75MHz-6GHz	Mini DP/SSD (Nvme)	1/1
Power Amplifier	Full Bandwidth High Linearity 22dbm	UART/JTAG/SD Cart Slot/GPS	1/1/ 1/ 1
DDR4	4GB on PS Side, 4GB on PL Side GB	Voltage/ Current	12V/ 3A
QSPI FLASH	256Mb + 256Mb	Number of IO	32 IOs



P079D

SPECIFICATION

FPGA Chip	XCZU7EV -2FFVC1156I	QSPI FLASH	256Mb+ 256Mb
Processor Core	ARM: 4 x Cortex-A53 (1.3Ghz) RPU: 2 x Cortex-R5 (533Mhz) CPU: Mali-400MP2 (667Mhz)	EMMC	8GB
RF Chip	ADRV9009	USB3.0 / Gigabit Ethernet	1/1
Frequency Range	75MHz-6GHz	Clock Input/Gigabit Ethernet	1/1
Bandwidth	Transmit up to 450MHz, Receive up to 200MHz	USB3.0/USB 2.0 OTG	1/1
Power Amplifier	Full Bandwidth High Linearity 22dbm	UART/JTAG/SD Cart Slot/GPS	1/1/ 1/ 1
DDR4/DDR4L	4GB on PS Side, 4GB on PL Side GB	Voltage/ Current	12V/ 3A
		Form Factors	8.66 inch x 5.63 inch (220 mm x 143mm)



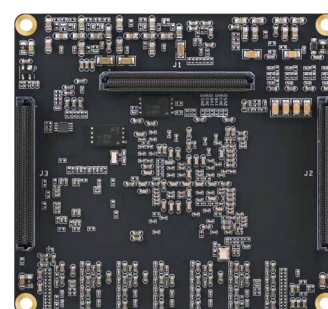
PZ-ZU47DR-SOM

SPECIFICATION	
FPGA Chip	XCZU47DR-2FFVE1156I
Processor Core	4 x Cortex-A53 1.333Ghz, 2 x Cortex-R5F 533Mhz
14bit ADC/14bit DAC	8 Ways of 5Gsp/s ADC, 8 Ways of 9.85Gsp/s DAC
Logic Cells	930K
Look up Tables	425K
DSP Slices	4272
Max.DistributedRAM	13Mb
Block RAM	38Mb
Ultra RAM (Mb)	22.5Mb
DDR4	8GB on PS Side/4GB on PL Side
EMMC	32GB
QSPI FLASH	512Mb QSP0 + 512Mb QSP1
Start-up Mode	JTAG/QSPI/SD/EMMC, On-board DIP Switch Selection
Gigabit Ethernet Chip	1
Number of IO	38 IOs on PS Side (Fixed 1.8V) 44 IOs on PL Side (1.8/2.5/3.3V Adjustable, Default 3.3V)
GTY	8 Pairs of TX/RX (32.75G)
Voltage/ Current	8-12V / 5A
Form Factors	3.54 inch x 3.35 inch (90 mm x 85mm)



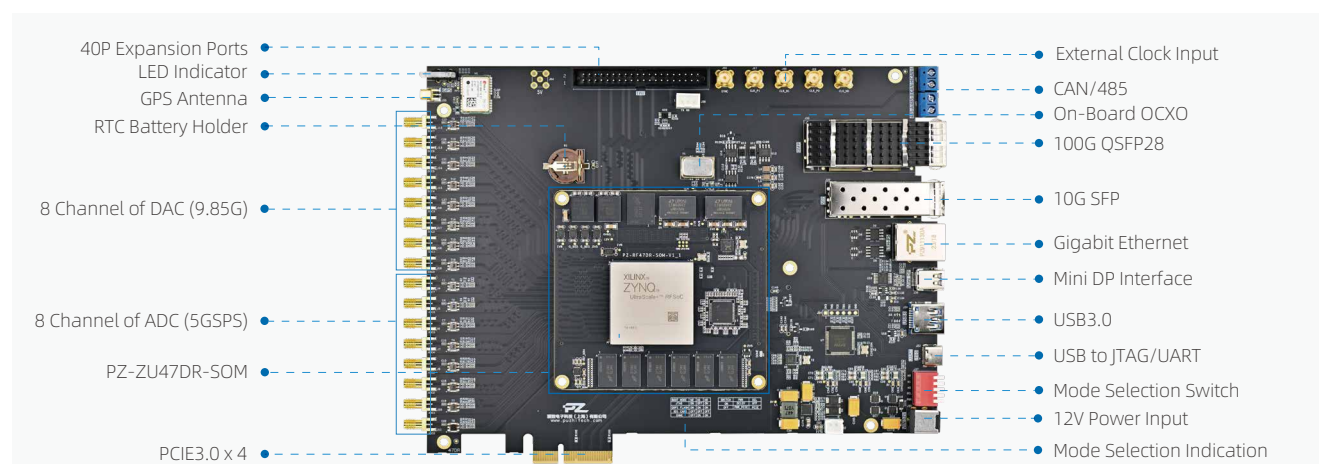
3.54 inch (90 mm)

3.35 inch (85 mm)



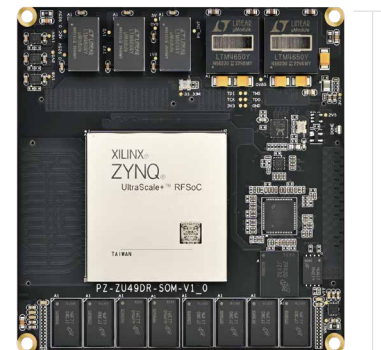
PZ-ZU47DR-KFB

SPECIFICATION			
FPGA Chip	XCZU47DR-2FFVE1156I	Mini DP Interface	1
DDR4	8GB on PS Side (with ECC), 4GB on PL Side	SSD Interface (NVME)	1
EMMC/ E2PROM	32GB	QSFP28 /SFP	QSFP28 (100G) x 1/ SFP x 1
QSPI FLASH	512Mb QSPI 0 + 512Mb QSPI 1	40P Expansion Ports	1
Start-up Mode	JTAG/SD/QSPI/EMMC	TX/RX	8 Channels Each
JTAG/UART/RS485/CAN	1/ 1/ 1/ 1	Form Factors	8.58 inch x 6.22 inch (218 mm x 158mm)
Gigabit Ethernet/USB 3.0	1/ 1	Voltage/ Current	12V/3A

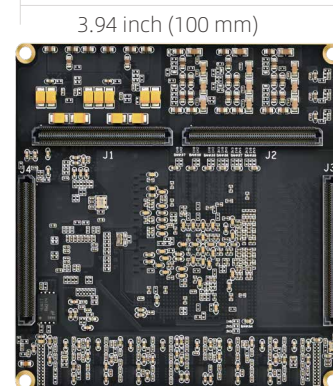


PZ-ZU49DR-SOM

SPECIFICATION	
FPGA Chip	XCZU49DR-2FFVF1760I
Processor Core	4 x Cortex-A53 1.333Ghz, RPU2 x Cortex-R5F 533Mhz
16bit ADC/16bit DAC	16 Ways of 2.5Gsps ADC, 16 Ways of 9.85Gsps DAC
Logic Cells	930K
Look up Tables	425K
DSP Slices	4272
Max.DistributedRAM	13Mb
Block RAM	38Mb
Ultra RAM (Mb)	22.5Mb
DDR4	8GB on PS Side/8GB on PL Side
EMMC	32GB
QSPI FLASH	512Mb QSP0 + 512Mb QSPI1
Start-up Mode	JTAG/QSPI/SD/EMMC, On-board DIP Switch Selection
Gigabit Ethernet Chip	1
Number of IO	MIO: 38 IOs (Fixed 1.8V) HP: 144 IOs (1.2/1.8V Adjustable, Default 1.8V) HD: 96 IOs (1.8/2.5/3.3V Adjustable, Default 3.3V)
GTY	16 Pairs of TX/RX
Voltage/ Current	8-12V / 5A
Form Factors	3.94 inch x 3.94 inch (100 mm x 100mm)



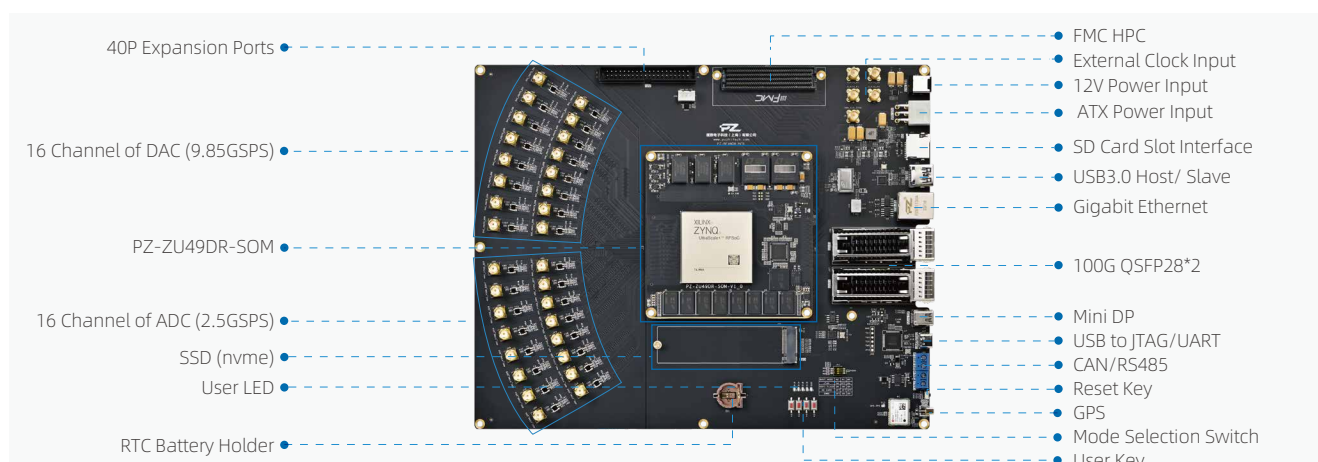
3.94 inch (100 mm)

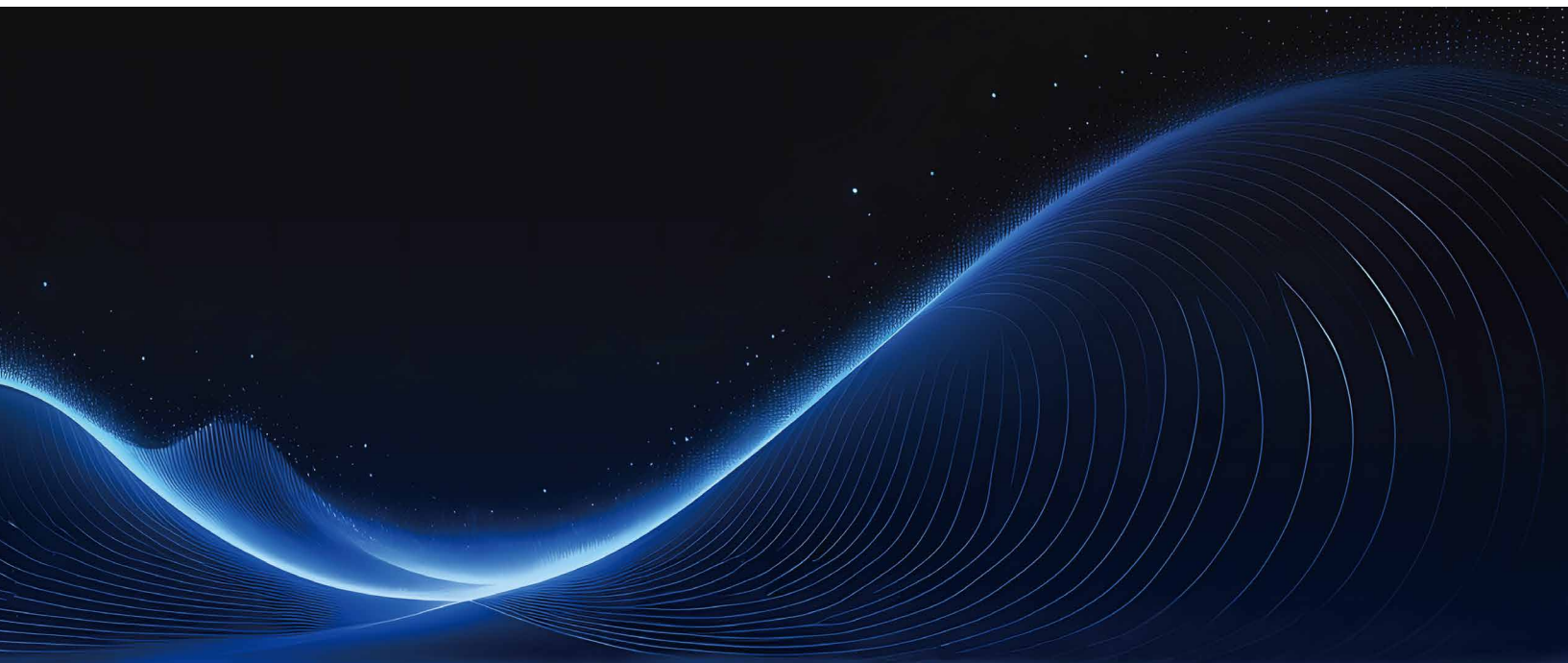


3.94 inch (100 mm)

PZ-ZU49DR-KFB

SPECIFICATION			
FPGA Chip	XCZU49DR-2FFVE1760I	Mini DP / SSD	1 / 1
DDR4	8GB on PS Side/8GB on PL Side	Gigabit Ethernet/ USB3.0	1 / 1
EMMC	32GB	QSF28	1
QSPI FLASH	512Mb QSPI 0 + 512Mb QSPI 1	40P Expansion Ports	1
Start-up Mode	JTAG/SD/QSPI/EMMC	FMC Interface	FMC HPC (Signal Full Connection)
JTAG/UART/RS485/CAN	1 / 1 / 1 / 1	GPS	1
16bit ADC/16bit DAC	16 Ways of 2.5Gsps ADC, 16 Ways of 9.85Gsps DAC	Voltage/ Current	12V/3A





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