

QuecPython PH-7(C4-P02) 核心板规格说明及使用指导 手册

LPWA<E Standard

1.0.0

2024-04-30



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1.0.0 2024-04-30 Bruce

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1 核心板简介

PH-7 2.54mm 38PIN

设计理念: PH-7

Be water , My friend.

	Python	Open	Python
Python		https://python.quectel.com/download	
Python	API	https://python.quectel.com/doc/API_reference/zh/index.html	

1.1.

1

QuecPython BG&EG

2

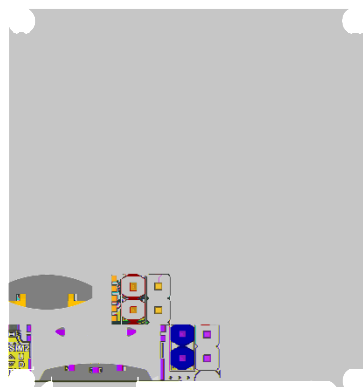
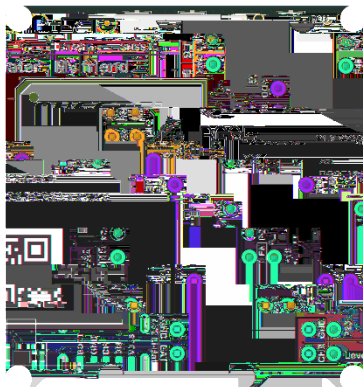
	BG95	BG96	EG915UEUAB	EG915ULAAB
QuecPython BG&EG	EG912UGLAA	EG		
	Python	API		QuecPython

1.2.

GPIO/UART/IIC/SPI/USB

EG		
Python		Open C

2 核心板渲染图



1 PH-7(C4-P02)

3 规格参数

PH-7

3

		-35 ~ 75	1
		-40 ~ 85	2
	2.54mm	Type-C (USB2.0/USB3.0)	
	USB	5.1V: 3A	5V: 2A
		16V: 3A	5V: 2A
	BAT	3.7V	
UART			(2.54mm)
SPI			(2.54mm)
IIC			(2.54mm)
USB*1	USB	Type-C	Python
	PWR		
	NET	P21	
LED*7	SK1	SIM1	SIM 1
		SIM 1	
	SK2	SIM2	SIM 2
		SIM 2	EG
	PSM	PSM	PSM

	CHR			
	STD			
ADC		ADC0	VBAT	VBAT:ADC0=4:1
GPIO		GPIO		2.54mm
Level_Line		2.3V-5.5V 3.3V		IC host
PWM			2.54mm	
LT_EN				
PON	PSM	PSM_EINT	PSM	
MIC&SPK				
PA	PA		SPK PA	
4	BOOT			
	EG	EG		
	BG	BG		
BOOT	USB_BOOT			

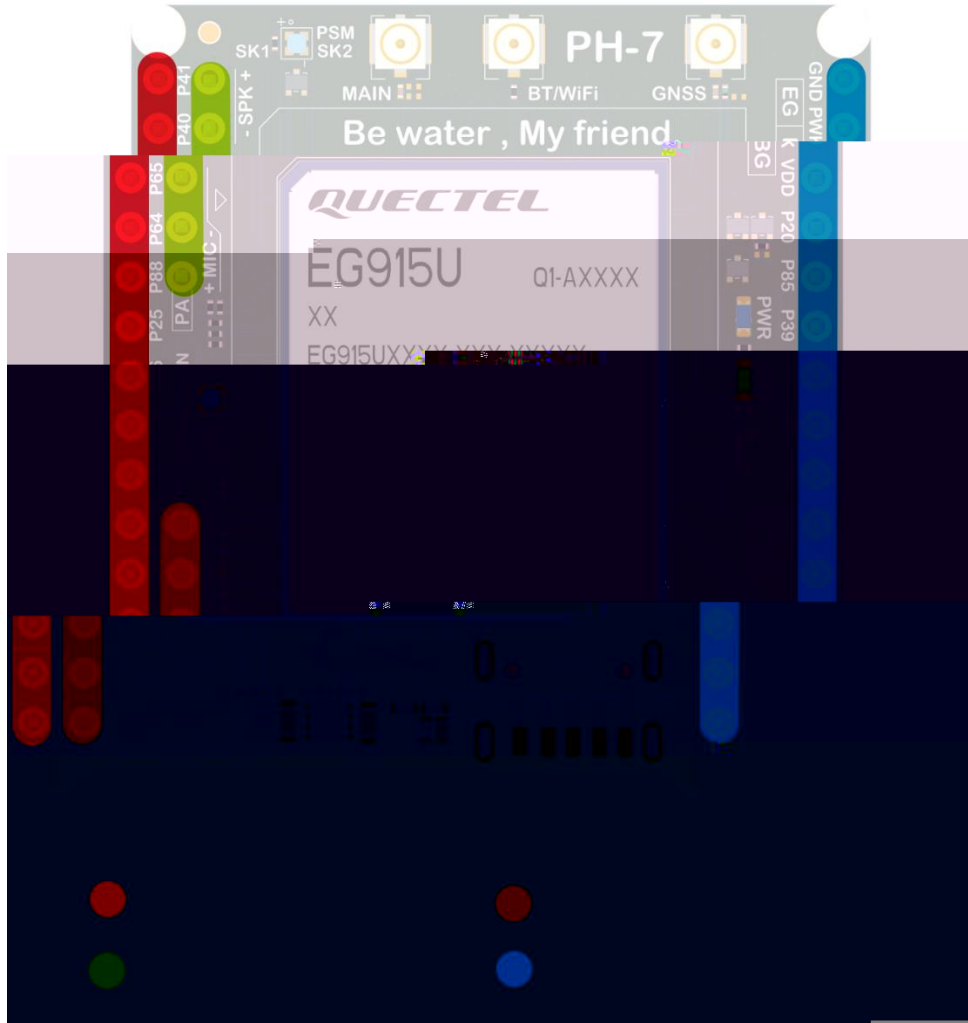
1.		3GPP		
2.			3GPP	
	3GPP			

4 插针引脚描述

PH-7

4.1.

EG915U



5

GPIO14		BG_CS1		BG&EG_SDA1	P41	X1	S1	SPK_N	Y1	GND					
GPIO13		BG_CLK1		BG&EG_SCL1	P40	X2	S2	SPK_P	Y2	POWERKEY					
BG_GPIO16	BG_RX2	BG_MISO1			P65	X3	S3	MIC_N	Y3	VDD_EXT					
GPIO15	BG_TX2	BG_MOSI1		EG_MOSI0	P64	X4	S4	MIC_P	Y4	P20			EG_PWM0	BG_GPIO22	EG_GPIO16
GPIO21				EG_MISO0	P88	X5	S5	PA	Y5	P85		BG_PWM1		BG_GPIO18	EG_GPIO18
GPIO9		BG_SDA2	BG_CS0	EG_CS0	P25	X6									

4.2.

4.2.1. USB

Type-C	USB				
		5V-16V	X13 X14		Y13 Y14
		4.2V			
USB	CHRG	X14			

4.2.2.

1	VIN				
2	EN	Y12	DOBYSA6FIWQDA	1	

4.2.3.

	3.3V	IC			
LT_EN	Y10		LT_EN	Y10	1V8 Y11

4.2.4. GNSS

GNSS		BG95			
1	AT	AT+QPGS=1	GNSS		
2				GNSS	P37
	P37	GNSS			

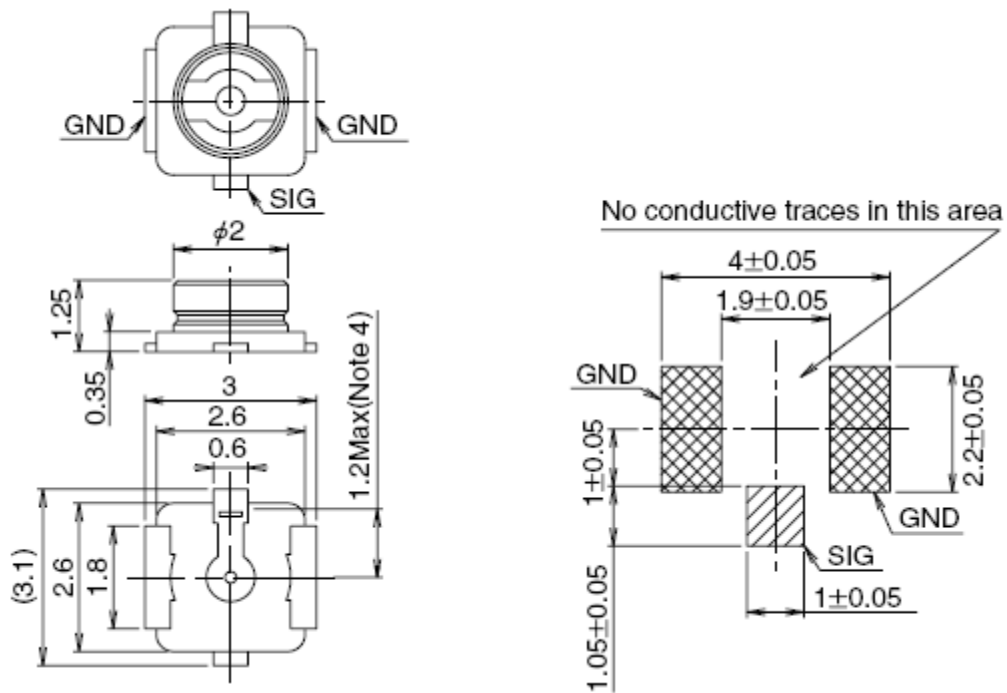
4.2.5. SD SIM

EG912UGLAA		SD		SD	P36	SD
	SD	SIM2	SD		SIM2	SIM2
SD						

4.2.6. Flash

Flash		Flash		\$	
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5 天线接口

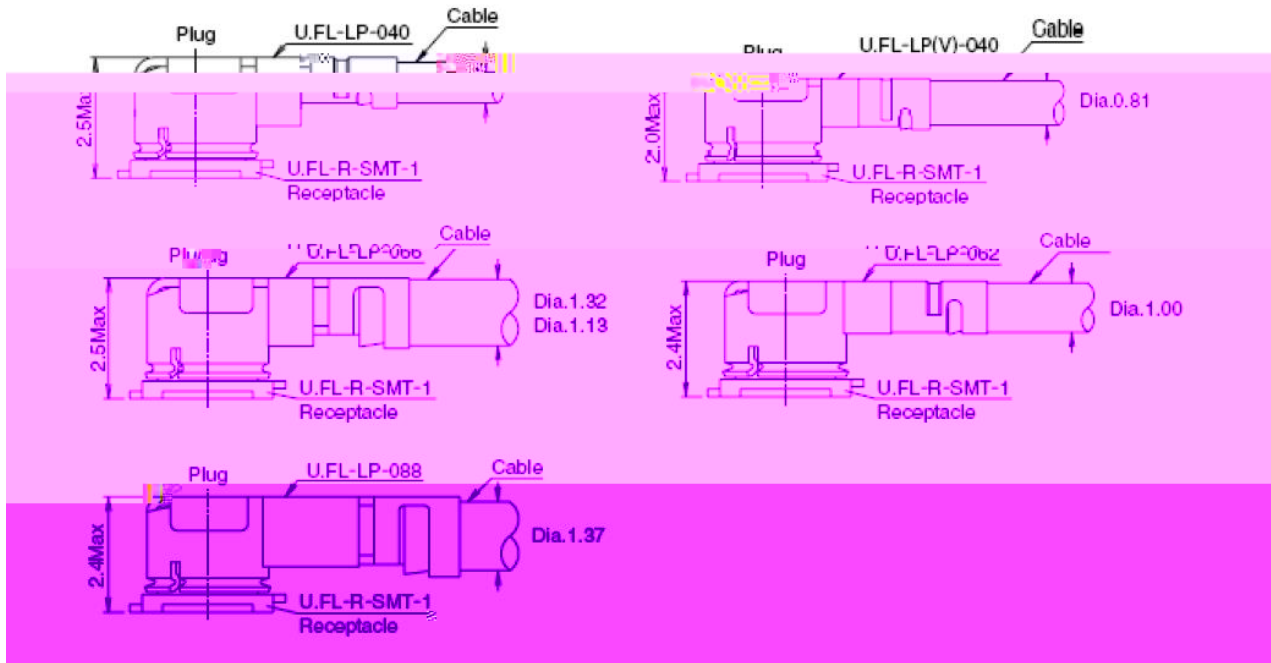


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U.FL-LP

	U.FL-LP-040	U.FL-LP-066	U.FL-LP(V)-040	U.FL-LP-062	U.FL-LP-088
Part No.					
Mated Height	2.5mm Max. (2.4mm Nom.)	2.5mm Max. (2.4mm Nom.)	2.0mm Max. (1.9mm Nom.)	2.4mm Max. (2.3mm Nom.)	2.4mm Max. (2.3mm Nom.)
Coaxial cable	Coaxial cable	Coaxial cable	Coaxial cable	Coaxial cable	Coaxial cable
Weight (mg)	34.6	45.5	71.7	56.7	59.1
RoHS	YES			RoHS	

4 U.FL-LP



6 可靠性、电气性能

6.1.

USB 5.0~5.1 V 5V-16V DCDC 3.8V

6

数

5	5.0	6	V
5	5.0	16	V

7 I/O

VIH	$0.7 \times VCC$	$VCC + 0.3$	V
VIL	-0.3	$0.3 \times VCC$	V
VOH	$VCC - 0.5$	VCC	V
VOL	0	0.4	V

* VCC 3.3V

6.2.

ESD

8

±4000	±8000	V
±4000	±8000	V
±500	±1000	V

8 附录

8.1.

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[1] [QuecPython-PH-7C4-P02 Core Board Specification and User Guide V1.0.0](#)

[2] [QuecPython-PH-7C4-P02 Schematic Diagram](#)

[3] [QuecPython-PH-7C4-P02 Silkscreen](#)