

CUBECELL-DEV-BOARD

TARJETA DE DESARROLLO CUBECELL



Description

CubeCell (TM) is a new product series made by the Heltec team, mainly for LoRa/LoRaWAN node applications. CubeCell (TM) series is based on ASR605x (ASR6501, ASR6502), those chips are already integrated with the PSoC® 4000 series MCU (ARM® Cortex® M0+ Core) and SX1262. We have done a lot of migration and development, made it perfectly support Arduino®, can run the LoRaWAN protocol stably, can easily connect lithium batteries and solar panels. HTCC-AB01 is a Dev-Board. Friendly designed for developers, easy to verify communication solutions.

Overview

Good impedance matching and long communication distance.

Perfect Arduino-Compatible!

CE and FCC certification;

Based on ASR605x (ASR6501, ASR6502), those chips are already integrated the PSoC® 4000 series MCU (ARM® Cortex® M0+ Core) and SX1262;

LoRaWAN 1.0.2 support;

Ultra low power design, 3.5uA in deep sleep;

Onboard solar energy management system, can directly connect with a 5.5~7V solar panel;

Onboard SH1.25-2 battery interface, integrated lithium battery management system (charge and discharge management, overcharge protection, battery power detection, USB / battery power automatic switching);

Micro USB interface with complete ESD protection, short circuit protection, RF shielding, and other protection measures;

Integrated CP2102 USB to serial port chip, convenient for program downloading, debugging information printing;

Resource	Parameter	
Master Chip	ASR6501 (48 MHz ARM® Cortex® M0+ MCU)	
Wireless Communication	LoRa	
	Node-to-node communication or LoRaWAN	
LoRa Chip	SX1262	
LoRaWAN Area	hardware version	Support frequency
	LF	EU433
		CN470
	HF	IN865
		EU868
		US915
		AU915

		KR920
		AS923
LoRa Maximum Output Power	22dB $\pm$ 1dB	
Hardware Resource	UART x 1; SPI x 1; I2C x 1; SWD x 1; 12-bits ADC input x 1; 8-channel DMA engine; GPIO x 8	
FLASH	128KB internal FLASH	
RAM	16KB internal SRAM	
Interface	Micro USB x 1; LoRa Antenna interface(IPEX) x 1; 11 x 2.54 pin x 2 + 2 x 2.54 pin x 1	
Maximum Size (Including protruding parts such as switch and battery compartment)	41.5 x 25 x 7.6 mm	
USB to Serial Chip	CP2102	
Battery	3.7V Lithium(SH1.25 x 2 socket)	
Solar Energy	5.5~7V solar panel	
Battery Detection Circuit	√	
External Device Power Control (Vext)	√	

Low Power	Deep Sleep 3.5 μ A
Display Size	No display
Working Temperature	-40~80°C

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			REV: JFRR
TOLERANCIA: N/A	TARJETA DE DESARROLLO CUBECCELL		
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