

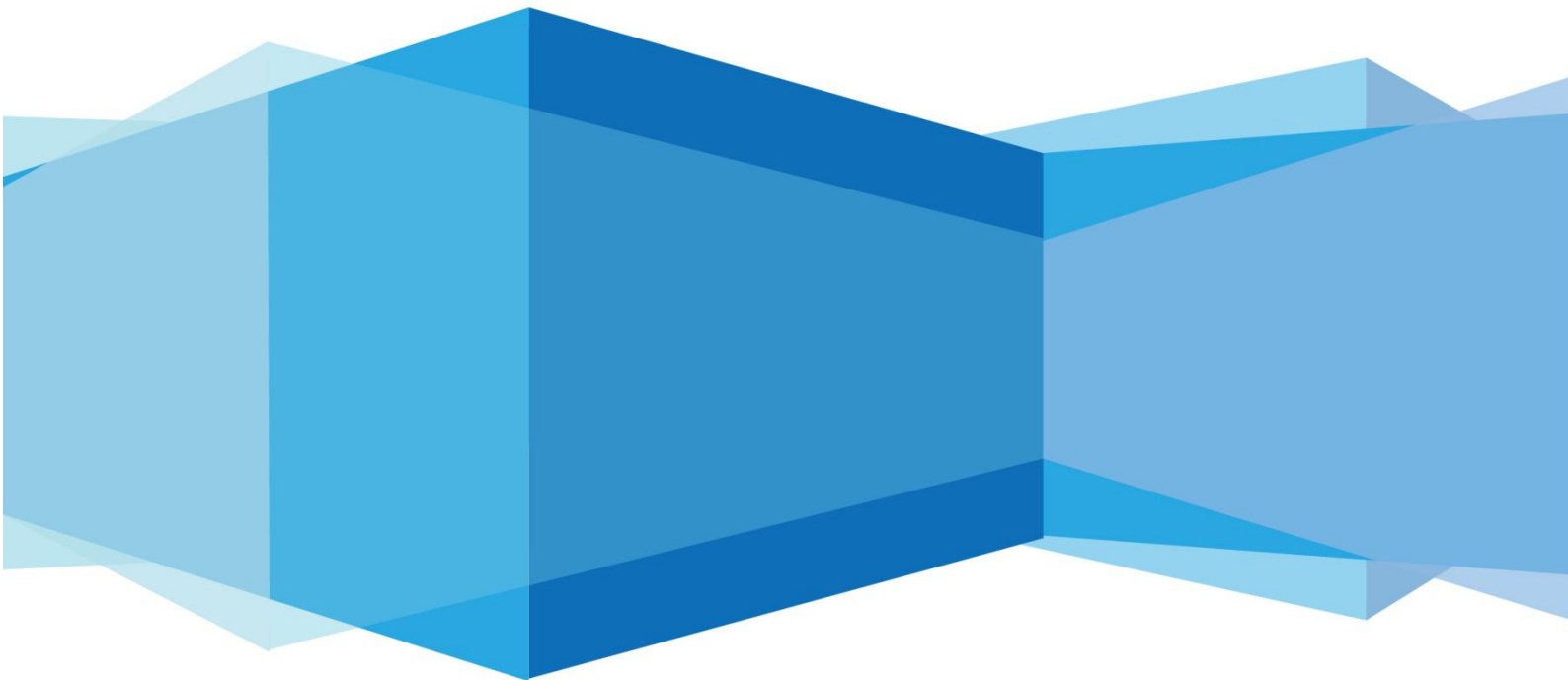
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LSDHSCC-TN01000000 Product Specification

Project Name: NB-IoT Temperature and Humidity Collector

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File Revision History

Product Name	NB-IoT Temperature and Humidity Collector	Model		LSDHSCC-TN01000000	
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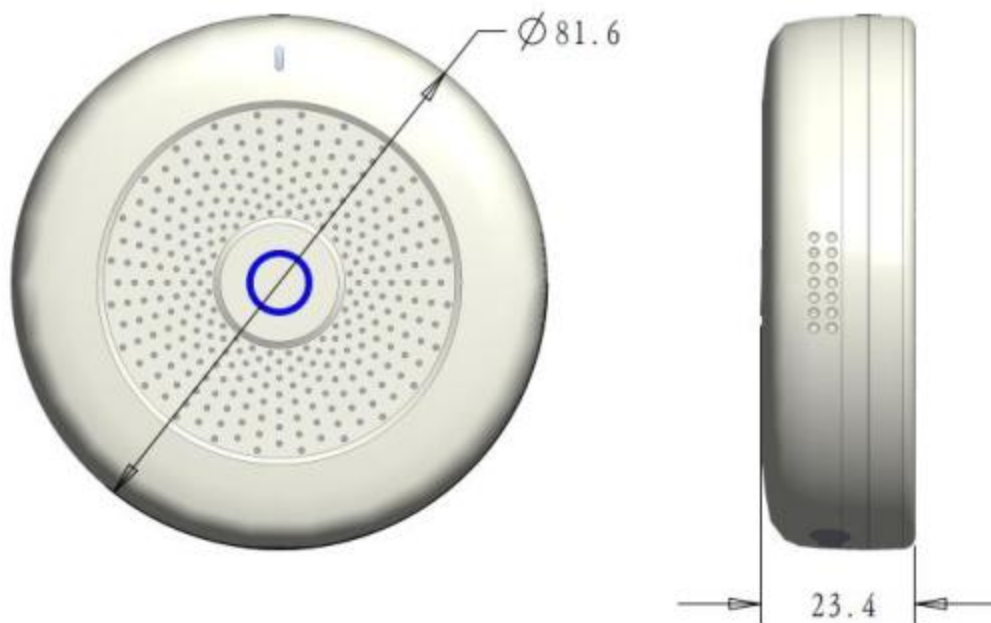
Chapter I Product Introduction

LSDHSCC-TN01000000r adopts NB-IoT wireless communication technology to upload the equipment's environment temperature and humidity data to the cloud platform in a unified manner, so that users can monitor the temperature and humidity abnormality/out of limit alarming of the equipment via the platform.

This product is widely used in cold chain storage, logistics, catering and other scenes where the temperature and humidity supervision is required.

Chapter II External Dimension and Hardware Block Diagram

2.1 Outline and Dimension



Dimension: $\varnothing 81.6 \times 23.5$

Figure 2-1: Outline diagram

2.2 Hardware Block Diagram

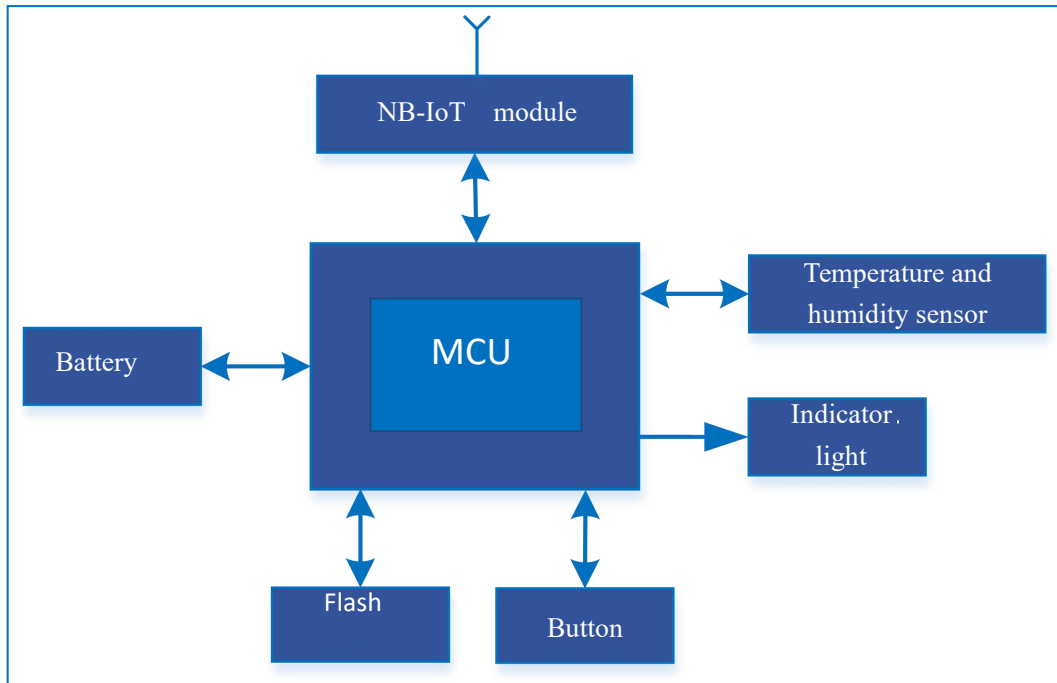


Figure 2-2: Hardware block diagram

Chapter III Product Features

3.1 Parameter Index

NB-IoT Module

Items	Parameters
Bands	Band 5 (850MHz) Band 8 (900MHz)
Transmitted power	23dBm ±2dB
Sensitivity	-129dBm
Power supply	Range : 3.1V~4.2V; typical:3.6V

Hardware system

Items	Parameters
CPU	Industrial grade 8-bit microprocessor
Flash	32KB
RAM	2KB
Extended flash	2MB (based on customer requirement)

Interface types

Items	Parameters
Indicator light	Work status indicator light
SIM interface	Standard flip type , support 1.8/3V SIM card
External temperature and humidity interface	Standard audio interface

Power supply

Items	Parameters
Battery-powered	Supply voltage: 3V
Type	CR17450
Battery capacity	2400mAh

Physical parameters

Items	Parameters
Shell	Material: ABS
Dimension	Φ 81.6*23.4mm
Working temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +80℃
Humidity range	0~95%

3.2 Functional Characteristics

Figure 3-1 Function List

No.	Type	Function	Description	Remark
1	Temperature and humidity collection	Temperature and humidity information collection	Collect the temperature and humidity data at interval of 1min, and store the current temperature and humidity data in the internal storage.	
2	NB-IoT communication	Temperature and humidity information uploading	The stored temperature and humidity data is sent to platform every 30 minutes by default. In case of fail due to signal or other reasons, the temperature (humidity) information is accumulated and sent to the platform in sequence after the communication is resumed.	
		Temperature and	The users may remotely set the uploading	

		humidity uploading frequency setting	frequency via the platform.	
3	Battery diagnosis	Low battery automatic power off	The equipment automatically enters the lower power consumption mode and sends the equipment data such as temperature and humidity at the current time when the battery power is lower than 20%. The equipment automatically restarts the operation after the battery is replaced.	
4	Alarm	Abnormal/over-limit alarm	1. When the device detects abnormal communication of temperature and humidity sensors, it will automatically report sensor breakdown. 2. When the device detects temperature and humidity are out of threshold values, it will automatically report abnormal situations.	
5	Display	Indicator light	Working status indicator light: in the process of internet connection, the red light will flash at frequency of 1HZ ; after power on and successful distribution network, the green light is on for 3s. The green light flashes for one time during temperature collection, holding time depends on the lasting time of temperature collection.	
6	Button	Reset	Long press $\geq 5s$ to soft reset the equipment to factory defaults.	
7	Reconnect mechanism	Off-line reconnect mechanism	If the device is off-line or fail to connect to internet at first time, if it is fail to connect to internet after fifth re-connection, it shall reconnect till the next report interval.	

Chapter IV Installation

Installation method: the product can be glued inside the equipment by double-sided adhesive or magnet attached to the iron wall of the equipment to be monitored.

Notes to Users

Thank you for using this products provided by Lierda Science and Technology Group Co. Ltd. Please carefully read this data manual before the use, and the company assumes no liability for property damage or personal injury caused by improper operation of users. The users shall design and develop

corresponding products in accordance with the technical specifications and references in the manual. The company reserves the right to make changes to the manual contents due to technical development requirements.

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