



# GDO51x

Multi-channel Outdoor gateway of LoRaWAN

## Specification

# 1. Product Introduction

## 1.1. Product Description

The GD051x is a high-performance outdoor multi-channel gateway designed by ManThink for LoRaWAN systems. It is suitable for low-power network construction in cities, factories, parks, and other environments, as well as data collection and transmission in harsh environments such as deserts, grasslands, and Gobi. With strong processing capabilities and a flexible secondary development environment, it can also play an important role in emerging technologies such as edge computing, AI, and big data.

## 1.2. Main Features

- IP67 protection level
- Supports POE and Type-C power supply
- Supports 4G, WiFi, and Ethernet
- 8 frequency bands
- 16 channels
- Supports US902, AU915, AS923, EU868, EU433, and CN470 LoRaWAN standards
- External SIM card and debugging interface for easy maintenance and repair
- Seamless connection to TTN, ChirpStack, and Basicstation LoRaWAN NetServers
- Supports remote maintenance and upgrade
- Web-based visualization and user-friendly configuration

## 2. Product Parameters

### 2.1 Product Image



### 2.2. Product Specifications

SOC	· LS1012A 64-bit ARM Cortex-A53 800MHz 2W
Memory	· Support DDR3L 1066 MHz · Memory:512MB
Storage	· 8GB EMMC
LoRa	· Operating frequency bands:· CN470 470M~510MHz EU868 863M~870MHz EU433 433M~434MHz AS923 920M~928MHz US902 902M-928 MHz AU915 915M-928 MHz · Communication Rate: 292bps to 5.4kbps, supports SF7 to SF12 · Transmit Power: 22dBm (Max) · Antenna Type: Omnidirectional · Channels and Operating Mode: Supports up to 8 frequency points, 16 channels, half-duplex

	<ul style="list-style-type: none"> <li>Single Channel Bandwidth: 125KHz or higher</li> </ul>
Data backhaul	<ul style="list-style-type: none"> <li>Ethernet: 1000M/100M</li> <li>4G</li> </ul> <p><b>Note:</b> The gateway uses CAT1 module for 4G uplink by default, supporting the following frequency bands:</p> <p style="padding-left: 40px;">LTE-FDD: B1/3/5/8;</p> <p style="padding-left: 40px;">LTE-TDD: B34/38/39/40/41.</p> <p>If the operator's frequency band in the planned deployment area is not within the above, please contact ManThink technical personnel to replace the appropriate 4G module.</p>
SIM card interface	<ul style="list-style-type: none"> <li>nano SIM external interface (no need to open the cover for replacement)</li> </ul>
Timing	<ul style="list-style-type: none"> <li>GPS/BeiDou</li> </ul>
Configuration ports	<ul style="list-style-type: none"> <li>USB-TypeC</li> <li>Ethernet</li> <li>WiFi</li> </ul>
Power supply	<ul style="list-style-type: none"> <li>POE(48V)</li> </ul>
Power consumption	<ul style="list-style-type: none"> <li>5W</li> </ul>
Environmental parameters	<ul style="list-style-type: none"> <li>Operating temperature: -40°C~70°C</li> <li>Operating humidity: 0%~95%RH</li> <li>Water and dust resistance: IP67</li> </ul>
Weight	<ul style="list-style-type: none"> <li>1.2KG</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>164x124x50mm</li> </ul>
Installation method	<ul style="list-style-type: none"> <li>Pole or wall mounting</li> </ul>

### 3.Product Models

Model List	Function
GDO514-AGEU433-N	8 channels 4G, EU433 standard version

GDO514-AGCN470-N	8 channels 4G, CN470 standard version
GDO518-AGAS923-N	8 channels 4G, AS923 standard version
GDO518-AGEU868-N	8 channels 4G, EU868 standard version
GDO518-AGAU915-N	8 channels 4G, AU915 standard version
GDO518-AGUS902-N	8 channels 4G, US902 standard version

## 4.Contact Us

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