

**Caltta** 

# ZXIMCU sMesh390

## Broadband Mesh Radio

Portable Design, Connectable Anytime & Anywhere



The sMesh ("s" is smart, means highly flexible) broadband ad hoc network system adopts centerless and co-frequency ad hoc networking technology and a distributed network architecture. It supports arbitrary network topologies and multi-hop relaying, and can provide users with reliable, timely, efficient, and secure all-IP integrated multimedia services such as clear voice and broadband data under non-line-of-sight and high-speed movement conditions.



ZXIMCU sMesh390 broadband mesh radio features small size and light weight. It can be used independently, or in mixed networking with sMesh series ad hoc network systems such as sMesh100 and sMesh750 to achieve network expansion. It can fully meet the need of going deep into the emergency site, dense crowds or buildings due to the great improvement of its deep communication capability.

## Functions



## Features

### Quick Startup

- No configuration required, one-click startup, connect to the internet in no time.

### Simple Operation

- With built-in Wi-Fi module, it can be connected with mobile devices, laptops or PADs through Wi-Fi, easy and convenient.

### Diversified Services

- Support services including voice, video, data, positioning, etc. Able to be connected to satellite network, public network, LTE base stations, etc.

### Easy Mangement

- Support monitor the working status of each node device, wireless link quality in real-time, and view GIS positioning information, etc.

### High Resistance

- When a node in the network fails or the connection is interrupted, the system will re-select the best path for transmission to achieve network self-healing.

### Flexible Networking

- With centerless and co-frequency ad hoc network, and flexible and configurable carrier bandwidth, it supports flexible and dynamic networking modes including: chain, star, tree, hybrid, etc.

# Industry Applications



Forest Fire Fighting



Fire Fighting and Rescue



On-site Rescue for Natural Disasters



Chemical Park



Security for Major Events



Maritime Communication



Coverage along the Power Grid



Public Safety

## Accessories

### Standard



Li-ion Battery



Power Adapter



Desktop  
Charger



Aviation Plug  
Network Cable



Gooseneck  
Antenna



Rubber Rod  
Antenna



Belt Clip



Aviation Case



Hanging  
String



Accessory  
Lanyard

### Optional



USB HD  
Camera



HDMI Encoder



HDMI Module



Air Tube Earphone



3.5mm Audio  
Adapter Cable



PAD Dispatch  
Console



Laptop Dispatch  
Console

# Specifications

## General

Frequency	1.4GHz, Other bands customizable
Protocol	TDD
Transmission	COFDM
Bandwidth	1.25MHz/2.5MHz/5MHz/10MHz/20MHz
Transmitting Power	Typical 500mW, Max 1W
Receiving Sensitivity	≤-103dBm
Rate	≥25Mbps
Networking	Ad hoc network
Ad Hoc Network Maximum Nodes	More than 64 nodes
Hop	Suggest≤9 hops
Encryption	DES/AES256
Wi-Fi	2.4GHz/5.8GHz
Bluetooth	Support
Voice	Built-in 2W speaker, MIC

## Basic Functions

Data	Support both wired and wireless IP data transmission.
Voice	Support voice calls
Image	Realize image transmission via external camera or HDMI module
Position	GPS

## Environmental Conditions

Operating Temperature	-30°C~+60°C
Storage Temperature	-50°C~+70°C
Air Pressure Range	70~106 kPa
Dust and Water Resistance	IP67

## Physical

Dimensions	About 158mm×75mm×33mm (With battery, without antenna and belt clip)
Weight	About 450g (With battery, without antenna and belt clip)
Screen	1.7-inch, TFT LCD
Port	Antenna port: RF antenna Network port: data transmission and network management, aviation plug structure USB port: connect external devices Earphone port: connect earphones
Buttons	Front Buttons: Enter button, Back button, Navigation button, Full-function numeric keypad. Side Buttons: PTT button, Power on button (can also adjust the volume).

## System Management

Unified Network Management	All nodes management , supports structures such as point-to-point, point-to-multipoint, chain, mesh, and hybrid topologies.
	Support check the communication quality between nodes in real time.
	Support the frequency scanning and allow real-time monitoring of interference in the frequency.
	Support GIS map positioning, allowing real-time viewing of the location of each node.

## Electrical

Power Supply	A detachable battery, 7.6V, 4000mAh
Working Time	Up to 6 hours

General Disclaimer:  
The specifications in this document are in accordance with the applicable standard test.  
Due to the continuous technology development, Caltta may change the specifications without prior notice.

