## **Outdoor Macro Gateway**



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## **Features**

- Compliance to LoRaWAN 1.0.2
- 157dB link budget
- Long range over 15 kilometers radius
- Up to 64 concurrent channels for LoRa transmission
- 1 LAN port (10/100Mbps) with PoE
- Patented repeater mode for last mile coverage
- Cloud service to support easy deployment
  - Thousands to millions devices depending on data model
- Cost effective for providing full redundancy coverage
- IP67 waterproof

Gemtek has been instrumental in the development of LPWAN system solutions, and is an early provider of LoRaWAN protocol-based, end-to-end LPWAN solutions. The LoRaWAN technology is designed to connect low-cost, battery-operated sensors over long distances in harsh environments that were previously too challenging or cost-prohibitive to connect. Because of its long range, high penetration and high sensitivity capabilities, it is a much more cost effective way for service providers to deploy LoRaWAN network for sensor applications in vertical market domain.

The Macro Gateway is specifically designed for wide area smart city applications. Applications include, but not limited to automatic meter reading, monitoring fault indicators, monitoring street lights, etc. Typical deployment is using star network configuration similar to mobile network base station. This product can be configured as last mile repeater to solve sensor connectivity issue when sensor is located at edge of the coverage or out of coverage. It's a cost effective way to provide full redundancy coverage for the entire service area.

Specification				
Model Name	WSMS-123			
Frequency Band	US 902~928 MHz			
Number of Channels	Up to 64 concurrent channels			
WAN Protocol	LoRaWAN			
Modulation	Based on LoRaWAN			
RF Transceiver	SX1301 with SX1257			
Transmit RF Power	0.5W (up to 27 dBm)			
Receive Sensitivity	Down to -142 dBm			
Operating Temperature	-20°C ~ 60°C			
Storage Temperature	-30°C ~ 90°C			
Power Voltage	56V/1.1A via PoE adapter			
Antenna Type	Two (2) external N-Type antennas			
Ingress Protection	IP67			



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Interfaces	1 LAN port, 1 LoRa antenna connector, 1 GPS antenna connector		
Dimensions	L:296 x W:226 x H:137 mm		
Weight	3.8 kg		
Security	AES 128		

SKU Detail					
SKU	Country	Channels	Frequency Band (MHz)		
US-64	USA	64	US915 (902~928)		

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