



Key Features

- Global 5G NR, 4G LTE to choose¹
- 2-SFP, 8-RJ45(GbE, 4-PoE, option), 1-RS232(Debug)
- 2-RS485, 3-DI, WIFI(Option), 2-DC power output(12V or 24V)
- OpenWRT based Linux OS, Python, C/C++ programmable²
- Wide operating temperature: -35~+75 ° C
- Modbus RTU/TCP, MQTT, JSON, IEC101/104/61850, DNP3 OPC UA, and customized industrial protocols³
- VPN, SNMP, BGP, HTTP, Telnet, SSH, CLI, SPI firewall
- 85-264V AC power input



Introduction

The Bivocom 5G/4G SFP Gateway TG473 Lite is a compact design, cost-effective, high-performance solution designed for smart pole applications, maximizing the potential of urban infrastructure. This advanced gateway combines robust connectivity with reliable communication protocols to meet the demands of modern smart city initiatives.

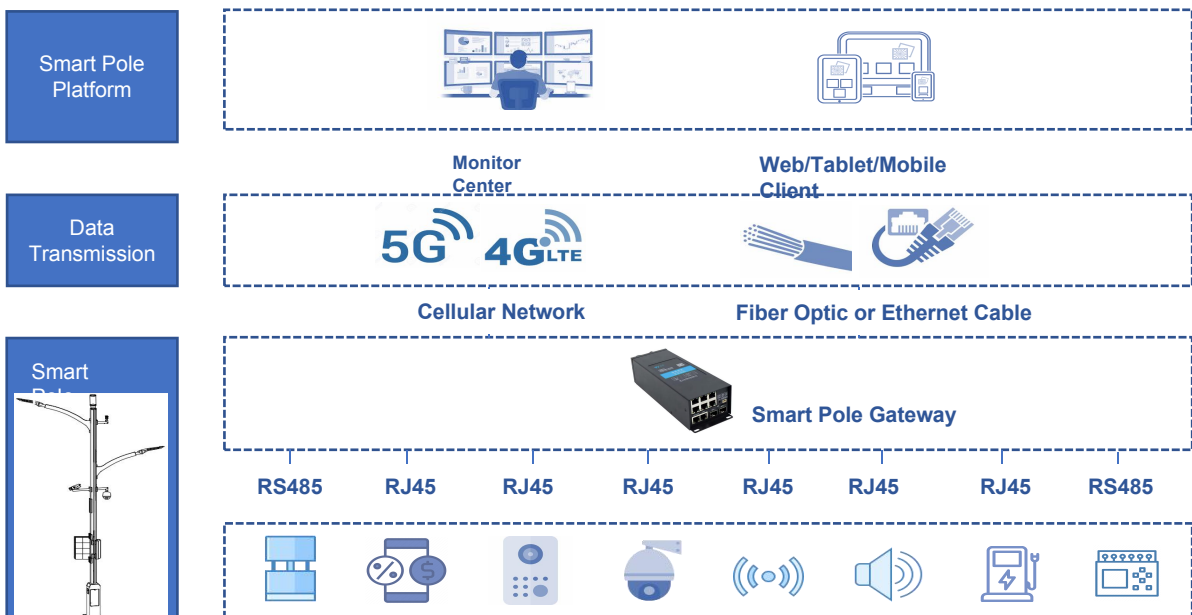
Equipped with 2 SFP ports for high-speed fiber optics and 8 Gigabit Ethernet ports, including 4 PoE, the TG473 Lite ensures seamless data transfer and versatile networking options. It also features 1 RS232 port for debugging purposes, 2 RS485 ports for expanded communication capabilities, and 3 digital inputs, enabling integration with various sensors and devices. The optional WiFi enhances connectivity, offering additional flexibility for wireless communications.

The device operates on an OpenWRT-based Linux OS, allowing for programming in Python and C/C++, which empowers the IoT developers to create tailored applications to suit specific operational needs.

With input power options of 85-264V AC, the gateway is equipped for broad applications while maintaining energy efficiency. It supports multiple industrial communication protocols, including Modbus RTU/TCP, MQTT, JSON, IEC 101/104/61850, DNP3, and OPC UA, and the ability to implement customized protocols.

The Bivocom TG473 Lite is a versatile and robust gateway solution for smart pole applications, enabling cities to foster innovative technologies and enhance everyday urban experiences.

Diagram



Specifications

System

- CPU 32-bit, dual core
- Flash 32MB
- RAM 256MB

Cellular Interfaces

- Antenna Connector 4 × 50 Ω SMA Female(5G Version TG473L-NR)
- SIM Slot 2 × 50 Ω SMA Female(4G Version TG473L-LF)
- ESD Protection 1, Micro SIM
- ESD Protection 15KV

Fiber Port

- Ports 2*100/1000Base-X SFP

Ethernet Interface(4-PoE, Option)

- Ports 8-RJ45 (1-WAN, 7-LAN, 4-PoE, option)
- Data Rates 10/100/1000 Mbps (Auto-Sensing), Auto MDI/MDIX
- ESD Protection 1.5KV

Serial Interfaces

- Ports 1-RS232(Debug), 2-RS485
- Baud Rate 300bps to 230400bps
- ESD protection 15KV

I/O

- Digital Input 3-DI (0-30V Input)
Status "0": 0-3V, status "1": 5-30V
- Power Output 12VDC x 2 (24VDC, option)

Wi-Fi(Optional)

- Antenna Connector 1 × 50 Ω RP-SMA Female
- Standard IEEE 802.11b/g/n, AP and Client modes
- Security Open, WPA, WPA2, WPA/WPA2 Enterprise, Radius

Power Input(AC)

- Standard Power 1x 220VAC
- Input Voltage 85VAC - 264VAC



Software

- Network Protocols PPP, PPPoE, SNMP v1/v2c/v3, TCP/UDP, DHCP, RIPv1/v2, OSPF, BGP, DNS, DDNS, HTTP, ARP, QoS, SNTP, Telnet, SSH
- Industrial Protocols IEC101, 104, 61850, DNP3, OPC UA, etc.
- Serial Port MQTT broker/client, Transparent (TCP/UDP Client/Server), Modbus RTU/Modbus TCP IPsec/PPTP/L2TP/GRE/OpenVPN
- VPN Tunnel ACL/DMZ/Port Mapping/MAC Binding
- Firewall Web, CLI, SMS, Cloud DMP (Device Management Platform)⁴
- Management WWAN and WAN Failover, Hardware & Software Watchdog
- Reliability OpenWrt based Linux OS, C/C++, Python SDK
- Secondary Development

Physical Characteristics

- Ingress Protection IP30
- Housing&Weight Metal, 1174g(2.59lb)
- Dimensions 250*83.4*58.2mm (9.84 x 3.28 x 2.29in)
- Mounting Wall mount

Environmental

- Operating Temperature -35° C to +75° C (-31°F to +167°F)
- Storage Temperature -40° C to +80° C (-40°F to +176°F)
- Relative Humidity 5% to 95% (non-condensing)

Others

- Reset Button 1
- LED Indicators 8, 2xSFP, System, Power, GPS, WIFI, 5G/4G, Alarm
- Built-in Watchdog, RTC, Timer
- Warranty Period⁵ Standard: 12 Months; Extended: 2-5 Years

Standard Package Content

- | | |
|---|--|
| 1. TG473 Lite Gateway | 1 PCS |
| 2. Mag-mount Cellular Antenna (SMA Male, 1 meter, 5dBi) | 5G Version: 4 PCS
4G Version: 2 PCS |

Order Information

Model	Part Number	Description	Frequency Band ⁶
TG473L-NR	TG473L - N<1> - <2>	5G SFP Gateway, 8-GbE, 2-RS485, 3-DI, 2-DC output	5G NR Sub-6 <ul style="list-style-type: none"> • n1/n2/n3/n5/n7/n8/n12/n20/n28/n41/n66/n71/n77/n78/n79 • LTE FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21(TBD)/B25/B26/B28/B29/B30/B32/B66/B71 • LTE TDD: B34/B38/39/B40/B41/B42/B43/B48
TG473L-LF	TG473L - L<1> - <2>	4G SFP Gateway, 8-GbE, 2-RS485, 3-DI, 2-DC output	4G LTE CAT 4 <ul style="list-style-type: none"> • EMEA/Asia: B1/B3/B5/B7/B8/B20/B38/B40/B41 • ANZ/LATAM: B1/B3/B5/B7/B8/B28 • NA: B2/B4/B5/B12/B13/B14
<1>: 5G or 4G module for different countries and regions <2>: W=2.4G Single band WIFI			

Interfaces



Note:

1. There are different modules for different regions to choose.
2. Bivocom provides compiler and SDK for customers to do their second development, and Python, LUA is a customized firmware.
3. Some features may require customized firmware.
4. There has a license fee for DMP.
5. Price of the extended warranty will be different.
6. If you couldn't find the frequency band for your regions or have any questions, please contact Bivocom sales representatives for more information.
7. To save the earth, Bivocom doesn't print the user guide, if you need it, please go to Bivocom website to [download](#).