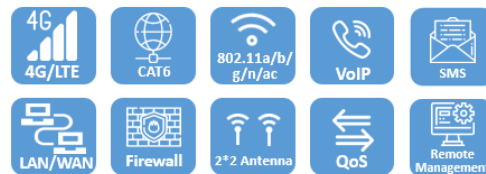


# BRAX FA225A/228A

## 4G/LTE CPE



FA225A



FA228A

### Overview

BRAX FA225A/228A is an LTE wireless gateway CPE that implements the conversion between 4G/LTE data and wired Ethernet data. It supports data backhaul function, and can be used independently. The FA225A/228A is suited for indoors deploy.

BRAX FA225A/228A supports the LTE R11 standards, and CAT6 UE category, which provides the stable data, voice, Wi-Fi, maintenance and management services to home and SOHO users.

### Highlights

#### Novel Appearance

BRAX FA225A/228A has concise appearance. The LED indicators and ports are distributed on the both sides, which are convenient for operating and checking. It applies the vertical rectangular design, that reduce the occupied area, and convenient for using and carrying.

#### Versatility

Besides the basic LTE and WLAN functions, BRAX FA225A/228A also support voice, SMS, firewall, VPN, QoS and etc. It satisfies the multi-directional requirements of users. Multiple management and maintenance methods (TR069/Telnet/APP) are convenient for checking and operating. The software online update tool will also constantly provide the upgrade of these functions.

#### LAN/WAN Transform

The first ethernet port of BRAX FA225A/228A supports the LAN/WAN transform, user can configure the mode manually. When the fixed broadband is enabled, the device can work as a Wi-Fi router through LAN/WAN port access. It protects user investment.

#### Dual Connection\*

BRAX FA225A/228A supports the dual connection between LTE and Ethernet uplink. These two kinds of uplink connections could be the backup of each other. When the default uplink connection is broke, the connection will switch to the backup line automatically. This function safeguards the data transfer of users, which also improve the stability of data service.

#### SIM Hot Swap\*

BRAX FA225A/228A supports the hot swapping of SIM card, which allows user to replace or add SIM card without stopping or shutting down the device. After replacing, the device can work normally without restart.

### Key Features

#### Support Global Mainstream Frequency Bands

- LTE complies with 3GPP release 11 standards
- Series of configure models support different areas
- FA225A-04: EU/ME/AF/AUS/BRA
- FA228A-04: EU/ME/AF/AUS/BRA

#### Dual Frequency Band WLAN

- Simultaneous dual band Wi-Fi
- Support 8 MSSID and guest networks
- Support WMM wireless QoS
- WEP/WPA/WPA2-PSK security
- High power and wide coverage area

#### High Performance Antennas

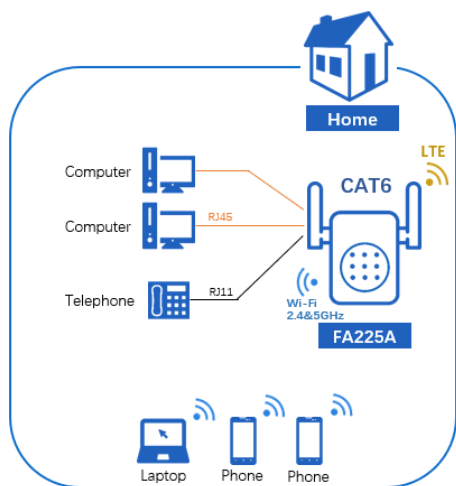
- External 2\*2 LTE antennas
- Multi-frequency coverage
- Good directionality
- Internal dual band Wi-Fi antennas

#### Security assurance

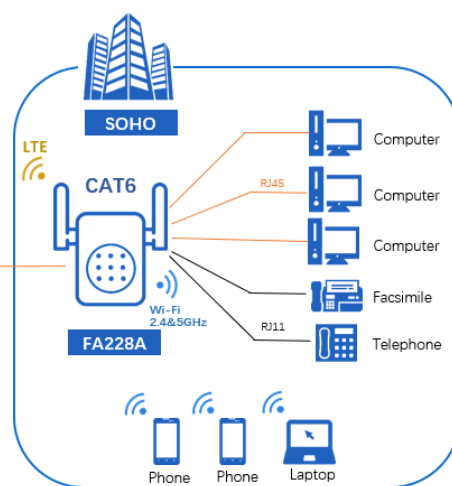
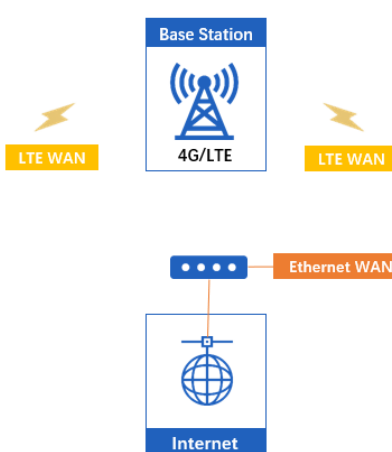
- Stable firewall
- Support multiple filtering rules
- Multiple security protocols
- Support backup of configuration files
- Online update and maintenance

#### Ideal Use Case

- Home
- SOHO
- Shop, Store



Scenario1-Home  
FA225A



Scenario2-SOHO  
FA228A

## Features & Specification

### Supported Frequency Bands

- Supported standards: (3GPP Release 11)  
LTE, DC-HSPA, HSPA+, HSPA, HSUPA, WCDMA, etc.
- Support global mainstream frequency bands: (depends on configured sub-models)  
LTE FDD: B1/B3/B5/B7/B8/B20/B28/B32  
LTE TDD: B38/B40/B41  
2×CA: B1+B1/B5/B8/B20/B28;  
B3+B3/B5/B7/B8/B20/B28;  
B7+B5/B7/B8/B20/B28;  
B20+B32; B38+B38;  
B40+B40; B41+B41  
WCDMA: B2/B4/B5
- CAT6:  
DL data rate 300Mbps/s  
UL data rate 50Mbps/s

### LTE Antennas

- External 2\*2 LTE antennas
- Gain: ≥3dBi
- VSWR: < 3.5
- Efficiency: ≥-4 dB@700 MHz~960 MHz  
≥-3.5dB@1710 MHz~2690 MHz

### Wi-Fi Antennas

- Internal 2.4GHz/5GHz dual bands antennas
- 2.4GHz gain: ≥3dBi
- 2.4GHz VSWR: < 2
- 2.4GHz efficiency: ≥-3 dB
- 5GHz gain: ≥3dBi
- 5GHz VSWR: < 2
- 5GHz efficiency: ≥-3 dB

### Network Protocols and Features

- Connection modes: PPPoE/DHCP/Static
- IPv4, IPv6, IPv4/IPv6
- DHCP v4/v6 server
- Static (v4/v6) routing and RIP-1/2
- NAT/ALG/DMZ/virtual server
- ARP/ICMP/DNS proxy
- Dynamic Domain Name System (DDNS)
- IGMP snooping and IGMP proxy
- MLD snooping and MLD proxy
- RIPng
- SNTp
- VLAN

### Operation Modes

- Bridge or Routed
- Mixed mode

### Firewall

- Built-in NAT firewall
- Firewall level setting
- Defense of DoS、ARP attacks/Port scan
- DHCP/ARP/IGMP message suppression
- MAC/URL filtering
- Inflow/outflow filtering of IP/Protocol/Port

### Quality of Service Control

- 802.11e WMM
- Classification of service flow
- DSCP/802.1 p
- SP and WRR mode
- 8 priority queues
- Port/VLAN/ IP rate limitation

### Wireless LAN

- Support 802.11 a/b/g/n/ac standards
- 2.4 & 5 GHz frequency range
- 20/40/80MHz bandwidth
- Channel adaption
- MSSID (8) +Guest network
- Wireless power saving: adaptable power control
- WPS: PBC/PIN modes
- WEP/WPA-PSK/WPA2-PSK security
- AP/SSID Isolation
- SSID and WAN binding
- MSSID online list

### VoIP

- SIP/IMS SIP protocol
- Call forwarding
- Number hiding
- Conference
- Call waiting and call holding
- Digital map

### SMS

- Short message sending and receiving
- Support extra-long message
- 100 message storage

### Management

- WebUI local management
- TR069 remote management
- Universal Plug and Play (UPnP)
- Online and local software update/rollback
- Configuration data upload and download
- Syslog monitoring
- Local and remote diagnostic

### Hardware Specification

#### Physical Interface

- WAN/LAN ports-RJ45  
FA225A 2\*GE/FA228A 4\*GE
- Phone ports-RJ11  
FA225A 1\*FXS/FA228A 2\*FXS
- SIM slot
- Power port
- USB2.0

#### Button

- Wi-Fi Button
- WPS Button
- Reset Button

#### LED indicators

- Phone indicator
- WPS indicator
- 2.4GHz Wi-Fi indicator
- 5GHz Wi-Fi indicator
- LAN indicator
- Internet indicator
- System indicator
- LTE indicator
- Power indicator

#### Physical specification (without antennas)

- FA225A Dimension: L112mm\*H172mm\*W45mm
- FA228A Dimension: L145mm\*H220mm\*W58mm
- FA225A Weight: 257.9g
- FA228A Weight: 433.8g

#### Temperature Requirements

- Operating: -10°C~55°C
- Storage: -40°C~70°C
- Humidity: 0%~95%