

# SingleBTS Product Portfolio

## Highlights

Huawei's 3900 series multi-mode base stations offer a future-oriented network solution integrating radio resources and multiple technologies. The design of the 3900 series multi-mode base stations are based on originality that encompasses the latest chip design, system architecture, Power Amplifier (PA) technology, and power consumption management.

The innovative design and flexible combinations of the function modules and auxiliary devices encourage Huawei to diversify multi-mode base station products. Furthermore, operators can install modules of different modes in one cabinet to form multiple base station products adapting to different scenarios. This accelerates introduction of new frequency bands and radio technologies and effectively addresses the requirements for a multi-mode mobile network.

The 3900 series multi-mode base stations, based on IP switch and multi-carrier technologies, support bandwidth of over 100 Mbps at transmission ports. This ensures the compatibility with the growing mobile data services and ensures higher data transmission rates for users.

The optimized hardware and system architecture of the 3900 series multi-mode base stations, in addition to the innovative technologies for the PA and power consumption management, enable operators to implement energy saving and emission reduction and to construct a green communication network through temperature control and green energy utilization.

## Application Scenarios

Flexible combinations of the basic components and auxiliary devices can provide comprehensive solutions that are applicable to specific scenarios of operators, such as

indoor centralized installation, outdoor centralized installation, outdoor distributed installation, or co-siting of base stations in different modes.

- Macro base station in one or more cabinets
  - Indoor model: BTS3900, BTS3900L
  - Outdoor model: BTS3900A
- Distributed base station: DBS3900

## BTS3900

BTS3900, the indoor macro base station, is applicable to the indoor centralized installation scenario (Figure 1).

The BTS3900 cabinet houses the BBU3900 and the RF module. In addition, the BTS3900 cabinet provides the functions such as power distribution and surge protection. A BTS3900 cabinet accommodates a maximum of six RF modules, thus meeting the requirements for indoor centralized installation and fast network construction, saving installation space, and facilitating smooth evolution.

The BTS3900, as one of the most compact indoor macro base stations in the industry, features large and scalable capacity. It has a small footprint and supports the multi-mode application.

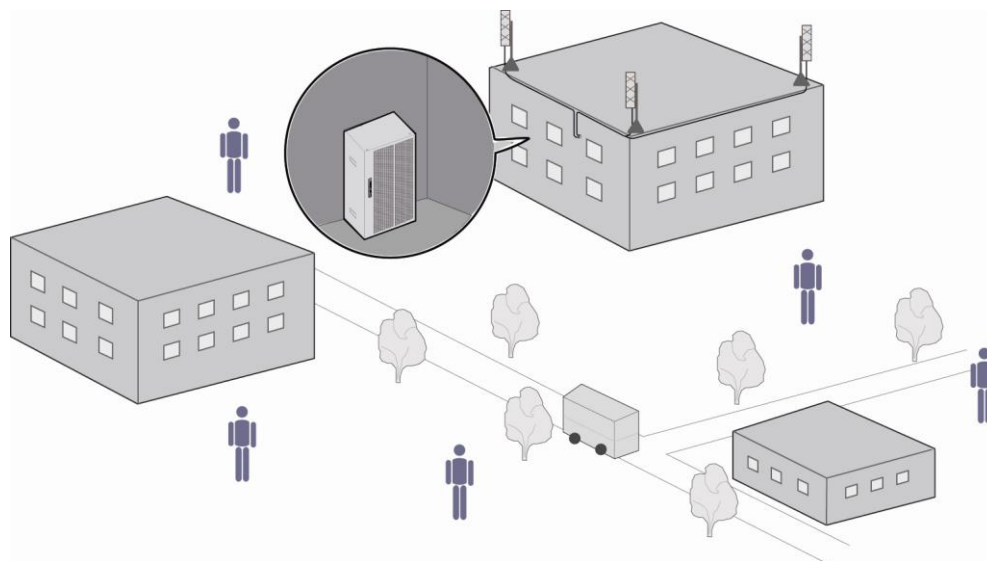


Figure 1 Typical application scenarios of the BTS3900



## BTS3900A

The BTS3900A, the outdoor macro base station, is applicable to the outdoor centralized installation scenario (Figure 2).

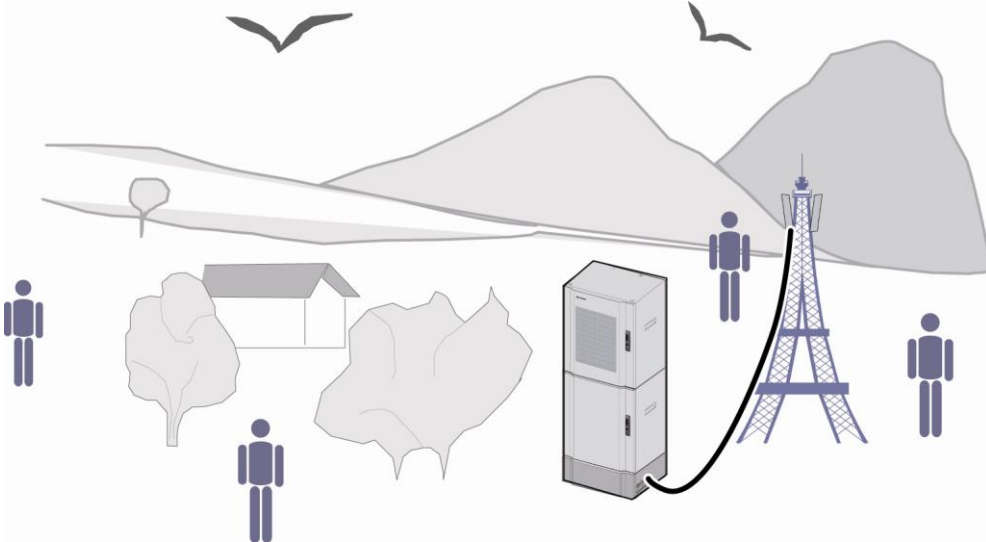


Figure 2 Typical application scenarios of the BTS3900A

## BTS3900L

The BTS3900L, the indoor base station features large capacity and easy capacity expansion. In addition, it supports smooth evolution and allows RF modules of different modes (GSM, UMTS, or LTE, etc) to be installed in one cabinet. The BTS3900L cabinet houses the BBU3900 and RF modules. In addition, the BTS3900L cabinet provides the functions such as power distribution and surge protection. A single BTS3900L can be installed with a maximum of 12 RF modules and two BBU3900s. This improves the integration of indoor site solutions, saves installation space, and facilitates smooth evolution.

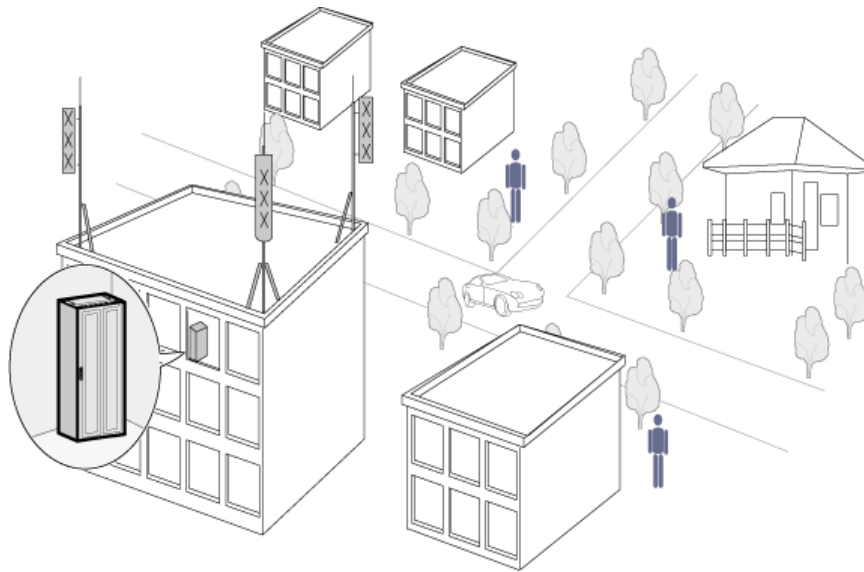


Figure 3 Typical application scenario of the BTS3900L

## DBS3900

As environmental concern and lease cost increase, site acquisition for base stations has become a bottleneck during network construction, rendering it increasingly difficult to construct new sites. The distributed base station, DBS3900, developed by Huawei features high integration, easy installation, and low environment requirements. All these features can facilitate site acquisition and 2G/3G co-siting.

With these features, the DBS3900 fully addresses operators' concern over site acquisition, facilitates network planning and optimization, and reduces network construction time. Thus, the DBS3900 enables operators to efficiently deploy a high-performance GSM/UMTS/LTE network with a low Total Cost of Ownership (TCO) by minimizing the investment in electricity, space, and manpower.

THE DBS consists of the BBU3900 and the RRU. The child card in BBU for GSM only is GTMU, UMTS only WMPT & WBBP, LTE only is LMPT & LBBP & for Multi-Mode it is UMPT & UBBP. RRU are of different types (1T2R, 2T2R, 2T4R and 4T4R) and are Band specific (700/800/900/1800/2100 and so on). For GSM & UMTS 1T2R RRU are deployed and for LTE 2T2R RRU are required.

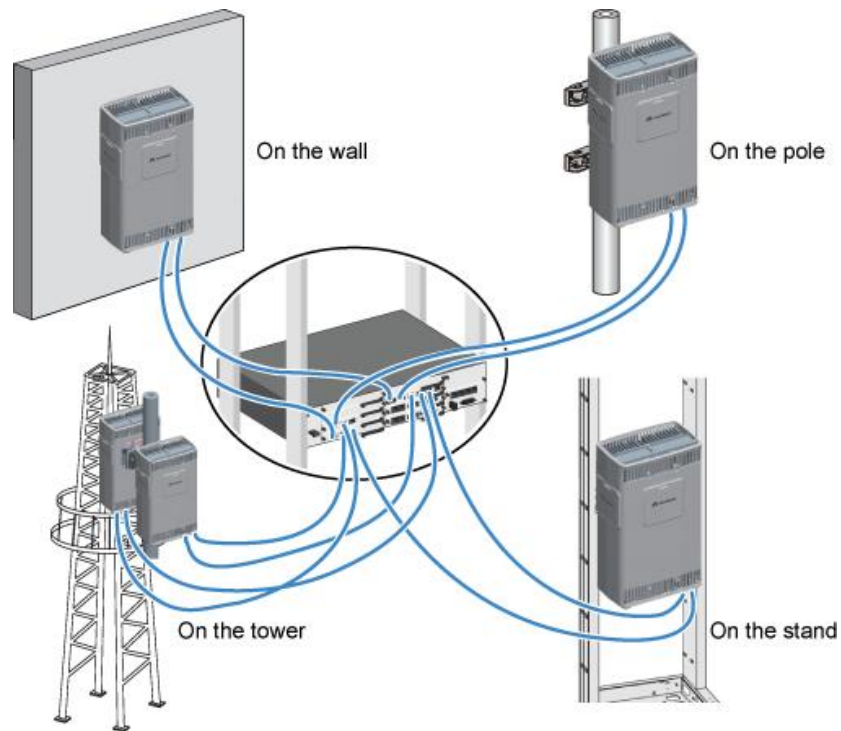


Figure 4 Typical installation scenarios of the DBS3900

Because of features such as flexible installation, natural heat dissipation, mute working mode, and fast network construction, the DBS3900 is applicable to various scenarios. The scenarios include the urban coverage, rural coverage, coverage inside buildings, and coverage along the highways and railways.

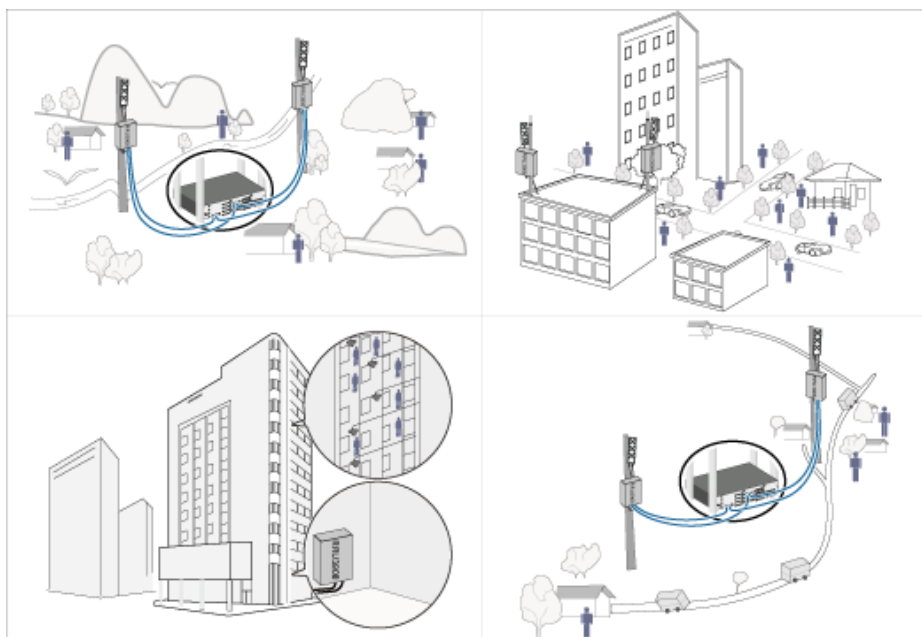


Figure 5 Typical application scenarios of the DBS3900