
5g high altitude base station emergency communication

Can a UAV carry a 5G portable base station?

Emergency communication is difficult to be arranged and resume quickly, which severely hinders disaster rescue operations. Based on the above disaster scenarios, we used UAV to carry 5G portable base station devices and construct a temporary 5G high-altitude emergency base station.

What is a high altitude platform station?

Abstract--The high altitude platform station (HAPS) concept has recently received notable attention from both industry and academia to support future wireless networks. A HAPS can be equipped with 5th generation (5G) and beyond technologies such as massive multiple-input multiple-output (MIMO) and reconfigurable intelligent surface (RIS).

How 5G is used in a medical rescue helicopter?

The 5G airborne terminal on the medical rescue helicopter is connected to a low-altitude 5G private base station with a private network frequency band. The 5G private station adopts Multiple-Input-Multiple-Output (Massive MIMO) and Beamforming in reducing the downlink interferences.

Does 5G support emergency medical rescue?

The three-dimensional rescue system supported by 5G showed that the radius of the emergency medical rescue services expanded from 5 to 60 km, and the cross-district emergency reaction time reduced from 1 h to <20 min. Thus, it was feasible to construct a communication network expeditiously with devices carried by UAV under disastrous scenarios.

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This test is the first case in the world to cover the drone with a 5G communication system, verifying the feasibility and implementation of ...

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The aerial unmanned aerial vehicle (UAV) base station provides data services for the ground users. The heterogeneous network (HetNet) formed by the ground 5G base

station and high ...

In recent years, with the development of communication technology, computer technology, microelectronics technology and the huge impact of ...

High Altitude Platform Stations as IMT Base Stations (HIBS) are aerial platforms that will function as flying base stations. There are clear advantages to using these types of ...

Abstract Thanks to their inherent advantages including large radio coverage and less dependence on terrestrial infrastructures, space and aerial networks can play an ...

As early as 2014, Baicaibang creatively proposed a tethered drone high-altitude base station emergency communication solution. In recent years, relying on unmanned equipment and ...

The need for continuous coverage, as well as low-latency, and ultrareliable communication in 5G and beyond cellular networks encouraged the deployment of high ...

The use of UAVs carrying base station (BS) to build a 5G emergency communication network [2, 3] can rapidly deploy wireless communication networks in ...

Amitabha Ghosh, Frank Hsieh High-altitude platform stations (HAPS) are used to supplement terrestrial networks and extend coverage to remote areas. Technology advances ...

At the World Mobile Conference in February 2018, China Mobile exhibited the UAV high-altitude base station independently developed for emergency communication, which ...

This test is the first case in the world to verify the coverage capability of a drone plus a 5G communication system, further verify the feasibility and implementation of the 5G ...

The quality of low-altitude 5G network communication was high, and the domestic Beidou satellite high-precision positioning technology supported ...

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