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 devicesand construct a temporary 5G high-altitude emergency base station.

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.

How 5G is used in a medical rescue helicopter?

The 5G airborne terminalon 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.

Why do we need a 5G emergency medical management model?

The need for emergency medicine also demonstrates a trend of sustained growth. A three-dimensional and efficiently connected emergency medical management model using fifth generation mobile communication technology (5G) was established to improve the efficiency and level of management in emergency medicine.

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In recent years, with the development of communication technology, computer technology, microelectronics technology and the huge impact of large-scale natural disasters, the demand for ...

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 high-altitude ...

The use of UAVs carrying base station (BS) to build a 5G emergency communication network [2, 3] can rapidly deploy wireless communication networks in environments without the ...

In situations where communication is crucial for saving lives, high-altitude base stations can offer emergency communications in disaster zones. As a result, drone-mounted base stations ...

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

The need for continuous coverage, as well as low-latency, and ultrareliable communication in 5G and beyond

cellular networks encouraged the deployment of high-altitude platforms and low ...

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 unmanned solutions, ...

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-altitude UAV ...

Researchers in Japan used a Cessna aircraft to simulate a high-altitude platform station (HAPS) for 5G cellular backhaul links.

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