

Title: Air-to-ground base station communication

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What is the role of ground stations in A2G?

The ground stations play a role similar to cellular towers, but their antennas are up-tilted towards the sky. The inter-site distances (ISD) of the ground stations for direct A2G communications are also much greater than their counterparts deployed for terrestrial communications.

Can antennas be used for direct air-to-ground communications?

This paper proposes an antenna solution for direct air-to-ground (ATG) communications, particularly focusing on the challenges and potential of the digital airspace vision. The intra- and inter-cell interference caused by sidelobes of ground base station (BS) antennas and the bandwidth constraints at sub-6 GHz bands are important limitations.

What is voice-based air-to-ground communication?

VOICE-BASED air-to-ground communication technologies Air traffic services are delivered to aircraft via voice communication networks based on very high frequency (VHF) is used for radiotelephony services in aviation. A radio band (also known as the aircraft band) of frequency range 118MHz-137 MHz has been reserved for aeronautical communication.

What is air-to-ground communication?

This survey examines air-to-ground communication, which refers to technologies that communicate both voice and data and exchange information between aircraft and air traffic control centers, command centers, maintenance centers, or other stakeholders during flight. We focus on technologies that rely on the internet protocol suite (IPS).

In this survey, we provide a comprehensive review and vision for enabling the connectivity applications of aerial vehicles utilizing current and future communication technologies. ...

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Air-to-ground (A2G) networks, using unmanned aerial vehicles (UAVs) as base stations to serve terrestrial user equipments (UEs), are promising for extending the spatial coverage ...

UE Hight over NR (opt, meas. Report.) a purpose built OBE (on-board equipment for the aircraft, incl. antenna) designed for this band.

IFC services can be provided using satellites or direct air-to-ground (A2G) communications. Satellites have the advantage of a global coverage spanning both land and sea, which ...

Due to the increasing demand for Internet access on aircraft, air-to-ground (ATG) communications have recently received extensive attention. Determining the locations of ATG base ...

We define characteristics and limitations of existing and emerging candidate technologies to meet the data communications requirements suitable for air-to-ground communications over ...

we are bringing that same capability for on-board Wi-Fi to the airlines. How does (DA2GC) work? It's called Broadband Direct Air to Ground Communications (DA2GC) and it's pretty simple: ...

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