

How can a millimeter-wave base station improve real-time information transmission?

Finally, the proposed metasurfaces help the millimeter-wave base station to realize real-time information transmission of multi-users with different directions in a realistic indoor scenario. The experimental results demonstrate that the new beamforming base station system can intelligently enhance or attenuate signals in specific target areas.

Can mmWave base stations improve beam selection and blockage prediction?

Therefore, we investigate the potential gains of employing cameras at the mmWave base stations and leveraging their visual data to help overcome the beam selection and blockage prediction challenges.

How many mmWave elements are in a dual band base station antenna?

**CONCLUSION** A novel embedded dual band shared-aperture base station antenna array consisting of one sub-6 GHz element and four mmWave elements is proposed. The sub-6 GHz element uses the double-layer patch structure, and the mmWave element uses the SIW slot antenna.

What does mm-wave stand for?

Provided by the Springer Nature SharedIt content-sharing initiative Millimeter wave (mm-Wave) wireless communication systems require high gain antennas to overcome path loss effects and thereby enhance system coverage.

Here, we propose a large-scale 2-bit millimeter-wave programmable metasurface to build an integrated smart base station framework for 6G communications. The meta-array is composed of ...

**Abstract--**We propose a blockage prediction and fast base station (BS) handover (BP-FBSH) scheme based on the reference signal received power (RSRP) of the mobile terminal (MT) ...

Network densification is a key technology to meet the rapid growth of 5G traffic. Millimeter wave has rich spectrum resource, short propagation distance and obvious directivity. ...

Millimeter wave (mm-Wave) wireless communication systems require high gain antennas to overcome path loss effects and thereby enhance system coverage. This paper presents the ...

Millimeter wave (mmWave) communication is a key technology to provide ultra-fast data rates and massive connectivity in wireless networks. This paper introduces a computational and cost ...

To deal with these issues, we developed millimeter-wave base station cooperation technology to enable multiple base stations to cooperate with each other while suppressing inter-mobile-station ...

**Abstract--**This paper investigates a novel research direction that leverages vision to help overcome the critical wireless communication challenges. In particular, this paper considers ...

Abstract--This paper presents a novel embedded dual-band shared-aperture base station antenna, which can work in Sub-6 GHz and millimeter wave band simultaneously. The Sub-6 GHz ...

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