# Article information:

Wireless communications sensing and security above 100 GHz | Nature Communications  
<https://www.nature.com/articles/s41467-023-36621-x>

# Article summary:

1. Wireless communications have become a ubiquitous feature of modern life, and the rollout of 5G systems has increased demand for wireless services.

2. To meet this demand, researchers are now considering using higher frequencies in the millimeter-wave range above 10 GHz and even higher frequencies above 100 GHz.

3. These higher frequencies present new challenges to system designers, such as increased free-space path loss and the need for high-gain antennas to offset it.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, providing an overview of the current state of research into wireless communications at frequencies above 100 GHz. The article is well-researched and provides a comprehensive overview of the challenges associated with these higher frequencies, including increased free-space path loss and the need for high-gain antennas to offset it. The article also provides references to relevant standards documents and other sources of information on this topic.

The only potential bias in the article is that it does not explore any counterarguments or alternative points of view on this topic. It presents only one side of the argument – that higher frequency wireless communications are necessary to meet increasing demand – without exploring any potential drawbacks or risks associated with this approach. Additionally, while the article does provide references to relevant standards documents, it does not provide any evidence or data to support its claims about the benefits of using these higher frequencies for wireless communications.

# Topics for further research:

* Wireless communications risks
* High-frequency wireless communications drawbacks
* Impact of high-frequency wireless communications on signal quality
* High-frequency wireless communications antenna design
* High-frequency wireless communications standards
* High-frequency wireless communications spectrum allocation

# Report location:

<https://www.fullpicture.app/item/795a5fb4a86a077627eb38dcf748c33d>