

## 5G and wireless microphones (= Programme Making and Special Events, PMSE)

5G is not currently suitable for wireless microphones. Even with 5G, UHF spectrum will still be required for cultural and media purposes.

### What is 5G?

primarily a transmission standard, not a frequency band



developed by [and primarily for] the mobile phone industry

not a miracle weapon, which can solve all problems

### Can wireless microphones use 5G?

No, at present, wireless microphones can't use this new transmission standard.



**Will 5G offer a technical solution for wireless microphones (PMSE) in the future?**  
This is currently being explored. As yet, no firm conclusions.

**Will culture and media with 5G still need 'dedicated' frequencies?** Yes, because some PMSE use cases would be only conceivable across a 'private network'. Only with 'dedicated' frequencies would PMSE equipment operators have sovereignty over the necessary network optimization, e. g. for latency (delay).

### Problem 1: poor latency

< 4 Ms



Wireless live performance systems require a latency of less than 4 Ms (round trip – microphone capsule to in-ear monitor system earpieces)

5G

5G currently only manages 75 ms (one way) or according to mobile phone providers 5 to 8 ms

### Problem 2: great energy requirements



Batteries for radio microphones have to fit inside the devices used by actors or musicians; once in place, they often need to work for many continuous hours.

5G

With 5G not (yet) possible