

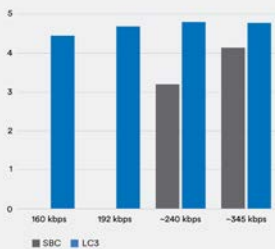
FRAUNHOFER INSTITUTE FOR  
INTEGRATED CIRCUITS IIS

## **LOW COMPLEXITY COMMUNICATION CODEC (LC3)**

**HIGHER AUDIO QUALITY AND LOWER POWER  
CONSUMPTION FOR BLUETOOTH AUDIO PRODUCTS**



## Bluetooth Codec Comparison Standard Stereo Listening Test



Source: Bluetooth SIG study based on ITU-R BS.1118-3



## FRAUNHOFER IIS AND ERICSSON JOINTLY DEVELOPED THE LC3 AUDIO CODEC TO SOLVE FUNDAMENTAL SHORTCOMINGS IN BLUETOOTH AUDIO

### Bluetooth LE Audio is LC3

LC3 is standardized in SIG Bluetooth and is the codec for Bluetooth LE Audio. It enables super-wideband speech quality in VoLTE calls via Bluetooth headsets and takes the music streaming experience on wireless accessories to the next level. This is made possible by the codec's operation modes, which range from medium bit rates for optimal voice transmission to high bit rates for music streaming services. At the same time, the codec operates at low latency, low computational complexity, and low memory footprint, thus meeting the requirements of wireless audio accessories.

### Reduced power consumption

By reducing the required bit rate by roughly 50 percent compared to legacy codecs, LC3 paves the way for low-energy services that prolong battery life and facilitate the creation of smaller products.

### Availability

LC3 software for Bluetooth is available for licensing from Fraunhofer IIS. Additionally, Fraunhofer IIS offers licenses for Advanced Packet Loss Concealment as an add-on to the Bluetooth-standardized LC3.