Aux   Mic   L Earpiece R   Mesh Antenna

Input ADCs

Stereo Codec

RF Power Amp

DSP Speech Enhancement, VAD
Noise Reduction, Glitch Suppression
Compounder, EQ, AES-256 Encryption

Bluetooth® radio HFP / A2DP

Bluetooth Control

Audio Mixer

Mesh radio features:

2.4 GHz ISM band
2Mbps
GFSK modulation
Excellent Rx Sensitivity
Switchable RF Power
Ultra-Low Power

Power management

Dynamic Mesh Protocol

Fully Qualified Mesh PCBA

CLK   PIOs   Mem

Mesh networking features

- Secure dynamic mesh communication with no central control
- Auto search and connect at power up
- Self-healing network with auto-optimizing RF links
- 24 users per group with 5 simultaneous talkers
- Secure comms with AES-256 encryption
- Aux input for audio mixing of external radio comms
- Independent Left / Right receive channels
- Bluetooth® A2DP & HFP profiles supported

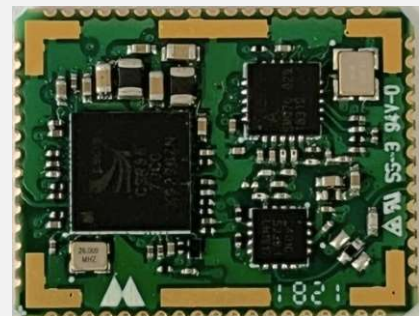## Design consultancy for rapid time to market

- Design of support PCBA based on clients' form factor
- RF tuning for prototype and pre-production units
- Release of full CAD data for the support PCBA
- Free Trial units available

SonoKlara® audio enhancement DSP algorithms

- High quality proprietary speech codec
- EQ for speech enhancement and transducer profiling
- Compounder on transmit channel
- Ambient noise-dependent volume control
- Glitch suppression to below average speech level to avoid acoustic startle
- Robust Voice Activity Detector with no false trigger in noisy environments
- Voice prompts for ease of user operation

Mesh Module

Size : 17mm x 22mm
FCC / EC Certified

SonoKlara® is ElaraTek's registered trademark for speech enhancement and hearing protection.