![LINGUWERK logo](signals • technology • media)

RE Partner Solution

LINGUWERK alphaspeech *µ*
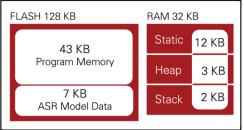
Solution Summary

alphaspeech *µ* (pronounced alphaspeech micro) is the world's smallest speech recognition system. It includes state of the art speech recognition and AI technologies (Deep Neural Networks), which are highly optimized to be able to run on platforms with very low resources. A low-power voice solution is easily developed with the use of RE01.

Features/Benefits

- Unlimited vocabulary, up to 64 words or phrases at the same time
- Available Languages: English, German, Japanese (other Languages additional costs)
- CPU clock: **32 MHz,** FLASH: **50 kB** (43 kB program, 7 kB ASR model),
  RAM: **17 kB** (12 kB statics, 3 kB heap, 2 kB stack)
- Energy Harvesting Platform: **< 0.6 mA** using the Renesas RE01

Diagrams/Graphics

FLASH 128 KB | RAM 32 KB
43 KB Program Memory
7 KB ASR Model Data
Static 12 KB
Heap 3 KB
Stack 2 KB

Target Markets and Applications

- Household Appliances
- Wearables, Smart Watch etc.
- Toys
- Smart Home

www.emb-ai.de

2021.06

About Our Company

We are a technology company with currently 30 employees. Since 2009, we have been at our customers' side as an experienced partner, manufacturer and service provider. Our focus is in the areas of digital signal processing, speech technology and intelligent algorithms, machine learning and AI. With more than 45 network partners, it is possible for us to fall back on a rich fund of knowledge in order to support our customers in their projects as best as possible.

Our Branches and Keywords

EMBEDDED AI

- Automotive Technology
- Gesture Control
- Medical Technology
- Connectivity (e.g. UWB, BLE, Wifi)
- Sensor Technologies (e.g. ToF, Ultrasonic, µRadar, IMU)

ALPHASPEECH

- State-of-the-Art Speech Recognition
- Medical speech recognition
- Human Machine Interfaces
- Algorithm Engineering

LINGUFINO

- Educational Toy
- Embedded Speech Recognition and speech dialog system
- Runs completely offline
- Product group with additional expansion sets

Our Partner

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