

TTS-EM-HD2

# TTS EM-HD2

## High definition, world-language, best-in-class Text to Speech module and interconnect system

Human sounding speech synthesis in with a serial interface. Seamless integration, simple operation.

Real-time voice announcements generated directly to speakers from text in RS-232 serial data

- **TTS-EM module with I/O interface produces realistic voices directly from ASCII text.**
- **Integrated single endpoint speaker amplifier • Line out for external audio systems.**
- **Select a international language from over 20 multi-lingual voices supported**
- **Includes TTS-EM 5V module • Use as a development system or complete solution**

The TTS-EM offers a complete Text to Speech platform with a integrated speaker amplifier. Typical deployments include signage to speech conversion, paging support and OEM industrial products. RS-232 connectivity offers simple setup, management and control using TX/RX serial streams. Text to Speech generation includes support for dictionary management, in-line control codes and dynamic language and voice switching

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| <ul style="list-style-type: none"> <li>• Text to Speech supports up to 9 concurrent TTS languages or gender voices. Choose from 26 voices.</li> <li>• Integrated amplifier supports single speakers and direct drive for paging system amplifiers</li> <li>• Highly integrated OS provides superior flexibility and support remote for upgrade capability</li> <li>• Supports seamless switching from TTS to/from user stored pre-recorded audio files</li> <li>• Integrated command and control language, provides complete user control from remote locations</li> </ul> | <ul style="list-style-type: none"> <li>• Integrated command and control language, provides complete user control from remote locations</li> <li>• Power management includes low power standby and sleep modes of 15mw @ 3.3v with TTS-EM-LP version</li> <li>• Flash based audio file transfer and dictionary management for phonetic adjustments</li> <li>• Integrated commands support inline control of volume and multi-lingual language selection, on-the-fly</li> <li>• Simple integration into EXISTING products. No special programming required</li> </ul> |
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Arabic Chinese Czech Danish Dutch English (UK) English (US) Finnish French (F) (B) (C) German Greek Japanese Korean Italian Norwegian Polish Turkish Portuguese Russian Spanish (NA) (C) Swedish ...more

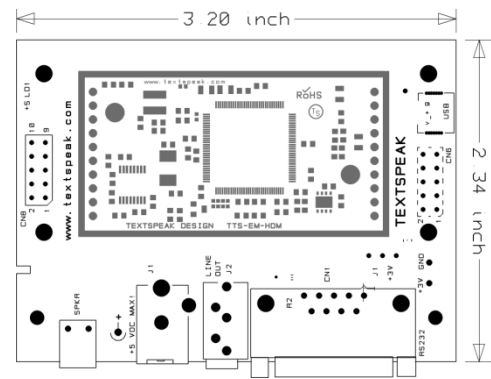
- Alarm & Security • Health Care • Signage to Audio • Machine Interfaces • Mass Notification • Industrial Status
- Transit Systems • Assistive Speech • ADA Compliance



## SPECIFICATIONS

**Core Technology** earBridge® and TextSpeak 3<sup>rd</sup> Generation TTS  
**High Definition Languages supported:** Arabic Chinese Czech Danish Dutch English (UK) English (US) Finnish French (F) (B) (C) German Greek Japanese Korean Italian Norwegian Polish Turkish Portuguese Russian Spanish (NA) (C) Swedish  
*(Contact us for latest list)*  
**Control Interface** Serial RS-232 & Non-Inverting TTL UART  
**Serial Baud rates** 115.2K – 9600 bps  
**TTL UART Serial Interface** 3.3v non-inverting for uP connections  
**Pre-recorded file support Protocol** 16bit PCM/uLaw  
**Speaker Out** .2 watt /8ohm @5v or +4dBm 600ohm floated/balanced  
**Line Out** -10dbm Typical 1v p/p  
**Manual Volume Adjustment** 10 steps 4db/step  
**Power Nominal** (No Speaker load) 5V @ 350mw idle; 1w full volume  
**Power Suspend (Mode EM-LP version)** 15mw @ 3,3 v  
**Power ( 8 ohm speaker at max volume)** 2 watts  
**Remote Diagnostics** Reporting via Serial  
**Remote Programming** Flash programmable RS-232  
**Fault Management** Short circuit speaker recovery fault detection  
**Connector I/O** Qty 2 - 1x10 Pin .100" connector pins  
**Temperature** -30~70 C (Operating), -40 C~85 C (Storage)  
**Size** 82 mm x69mm x 20mm **Weight** 43 g (1.5 oz) **Model** TTS-EM-HD2

## DIMENSIONS



Includes:  
 TextSpeak TTS-EM  
 World Language Text to  
 Speech Module

Requires:  
 5 V DC supply 1A

## Command and Control

### Operation and Sample Control Code

**Basic TTS generation is SIMPLE.... Just send ASCII data and terminate with ENTER <CR> to generate speech.** Additional inline control codes manage advanced operation (such as mixing TTS with pre-recorded wav or mp3) as well as buffer management. For basic operation, send text and add "Enter" <CR> to talk.

**Hello I can talk! <CR> and change volume, and languages on the fly! <CR>**

This sample text demonstrates both spoken and non-spoken data with pre-recorded audio files. (tone1.wav and tone2.wav are factory recorded files).

**ESC p**"tone1.wav" Express 32, arriving in 2 minutes on track 12, for all points South. **DLE EM** This text is in-line data that is not spoken by the TTS processor **DLE RS** Please expect delays **ESC p**"tone2.wav". End of test. **CR**

Refer to the ENC1 User Guide for a comprehensive list of inline codes to switch voices dynamically, control modes and modify dictionary for pronunciation changes.

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24 Voices available Select a voice  
 Currently Selected: "Antoine" French

HELP:

A	Adaptive Level Set	Adaptive Level Control (ALC),
B"text"	Boot TTS	Enter the text to be spoken at power-up
D	Display Files	Show listing of files and memory in folder
E	ignore ESC	Ignore ESC commands in the TTS stream
F	Flash Drive	Enable USB access to manage Flash memory
I	Information	Get current settings information
P#	Play Audio	Generate test tones (1=1khz,2=sweep,3=noise)
Q#	Quiet Mode	'Q?' for options
S	Change Serial	115200,n,8,1
T	TTS Mode	Go from CMD mode to TTS mode
U	Update	Update Firmware
V#	Select Voice	Select a voice (24 available)
?	Review	Review current settings and information

## TEXTSPEAK EULA Text to Speech End User License Restrictions

The end user is licensed to use the TTS-EM for speech generation for real-time Text to Speech conversation and playback in a public place. The end user may not use the TTS-EM to record and/or save audio in stored files to be used to playback or broadcast in any public place.

## TEXTSPEAK PRODUCT FAMILY

### Ethernet, WiFi, Cellular, Serial



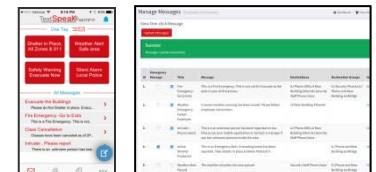
### Modules for OEM



### Flexible Add-Ins



### Mobile and Cloud Applications



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