TTS-EN-M

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High definition, best in class Text to Speech onboard passenger announcement system for vehicles

Human sounding speech synthesis in an industrialized enclosure. Seamless integration, simple operation.

Real-time voice announcements generated directly to speakers from files or text in RS-232 & Ethernet data

- **Create passenger announcements from visual display data, audio files or streaming text**
- **Deliver audio directly to independent speakers both inside and outside of vehicle**
- **Ambient noise level control, 2 independent 25 &10 watt amplifiers, 9v-36v powering**
- **Supports Ethernet, serial, USB, keypads, pushbuttons & audible locator sounders**

The TTS-EM-ENM offers a complete Text to Speech platform with dual high definition 25 W audio speaker amplifier. Integrated ambient noise detection optionally allows a 12-20 db SPL ALC (Automatic Level Control) meeting customer demands for clarity in environments with dynamic noise activity. Typical deployments include transportation centers and industrial installations. Ethernet connectivity offers simple setup, management and control via UDP and TCP/IP packet data. Text to Speech generation includes support for dictionary management, in-line control codes and dynamic language and voice switching.

- Text to Speech supports up to 9 concurrent TTS languages or gender voices. Choose from over 24 voices.
- High Definition amplifier offers unparalleled intelligibility and direct drive for paging system speakers.
- Highly integrated OS provides superior flexibility and support for remote upgrade and file transfers.
- Seamless switching from TTS to/from user stored pre-recorded audio files using inline control codes.
- Digital Interfaces support pushbutton activations, keypads, piezo location sounders for disability and radio key signals.
- Flexible power options permits powering from a wide voltage range of 9 to 36 volts.
- Ambient noise sensing uses speakers to simplify installs. LEDs and terminal report real-time noise levels and volume.
- User definable power regulation permits 3, 8 and 25-watt operation to protect downstream speakers from overload.
- Flash based, with upgradeable file transfer support and dictionary management.
- Simple integration into EXISTING products. No special programming required.

Arabic Australian 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

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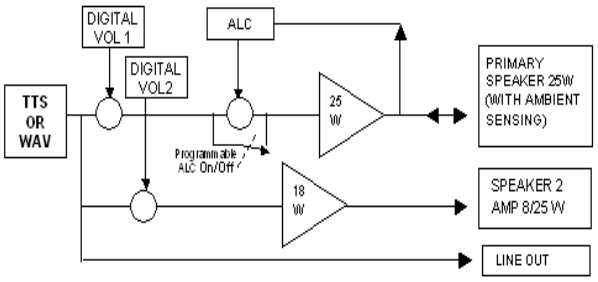
Bus • Rail • Signage to Audio • Station Announcements • Mass Notification • Industrial Status Transit Systems • Assistive Speech • Disability Compliance • Passenger Assistance • Ticketing

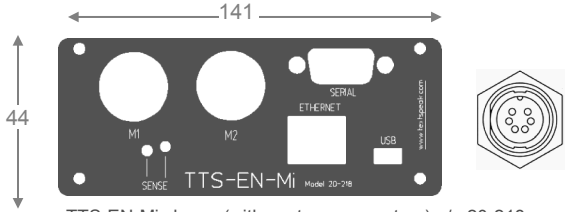
TextSpeak

SPECIFICATIONS

Core Technology TTS-EM-HD
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)*
Network Interface 10/100 Base-T Ethernet, Auto-MDIX
Serial Interface RS-232 9600 to 115KBS , RS-485 Option
Control Network Protocols TCP/IP Broadcast , FTP File transfer, Web interface
IP Address Assignment Static, DHCP
Prerecorded file support Protocol 16bit PCM/uLaw
Speaker Out Dual Amplifiers, Spkr1 25 watt/8 ohms Spkr2 8-25 watt/8 ohms
Line Out –10dbm Typical 1v p/p
Manual Volume Adjustment 10 4db/steps, Digital (Spkr1/2) and trimpot (Sprk2)
Ambient Noise Detection Spkr1 60-90db SPL Spkr2 : N/A
Automatic Level Control 12db/20 db selectable over 30db of Ambient noise
Expansion Interfaces Activation Switch with location sounder, 12 key keypad
Power (Nominal) 9-36V (12v/8 watt power out) (24v/25w power out)
Remote Diagnostics Reporting Ethernet
Remote Programming Flash programmable via USB, Ethernet, Serial
Fault Management Short circuit speaker recovery fault detection
Connector I/O 3.81 MM DIN Plugables, RJ45, USB-B, 2.1MM power
Temperature -30~70 C (Operating), -40 C~85 C (Storage)
Size 141mm x84mm x 44mm **Weight** 312 g (11oz)



Audio Signal Flow



TTS-EN-Mi shown (with custom connectors) p/n 20-218

Command and Control Sample

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 & language 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". CR

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

Customization and OEM Options

The TTS-EN-M is a semi-custom product and can be tailored to meet specific and demanding requirements for OEMs and integrators. Contact sales for features and details.

Features and customization can include

- Concurrent (mirrored) Ethernet and RS-232 signalling.
- Second channel audio power specified from 8 to 25 watt amps,
- Mobile Powering range of 9-36v (up to 40v)
- Microphone support with store and forward announcements
- Private Labelling, custom connectors & enclosure markings
- USB I/O to allow drivers to use a flash drive for route mapping.
- Ethernet Circular M connectors, USB Type A/B/AB
- Concurrent playback of audio and TTS on dual audio channels.
- GPS I/O connections to provide positioning data.

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.

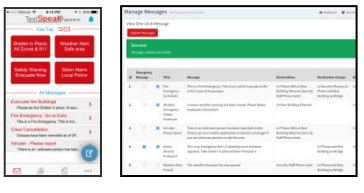
TEXTSPEAK ® PRODUCT FAMILY

Ethernet. WiFi ,Cellular, Serial

Modules for OEM

Flexible Add-Ins

Mobile and Cloud Applications



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Westport, CT USA **T +1 203-803-1069** **sales@ textspeak.com** **www.textspeak.com**