

## Flash TAD Chips for All Digital Telephone Answering Devices with Superior Quality Triple Rate Coder™, True FULL Duplex SpeakerPhone® and Caller ID Detection

### General Description

The D6571E chips are digital speech/signal processing subsystems that implement all functions of TRUESPEECH® speech compression and voice prompts, telephone line signal processing, flash memory management, and True FULL Duplex SpeakerPhone® for an all digital answering machine. The D6571E are fully controlled by the system Host through a simple interface protocol. The Host processor provides activation and control of all system functions, such as speech recording and playback, DTMF and call progress tone detection, DTMF and tone generation, and voice prompting.

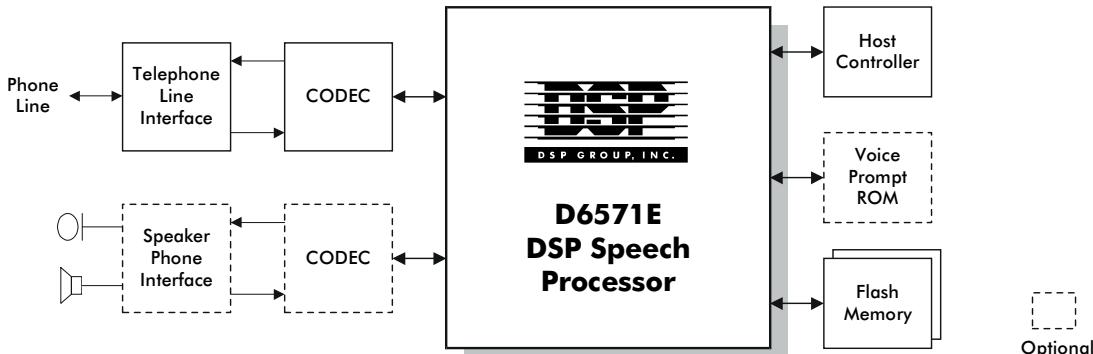


Figure 1. D6571E System Block Diagram

### Key Features

- TRUESPEECH superior quality Triple Rate Coder allowing selectable 11, 15, and 25 min. of recording time per each 4 Mbit Flash Memory
- Higher bit rate messages can be re-compressed to a lower bit rate. Compression rate can be switched during recording.
- Flexible storage of incoming messages (ICM) and outgoing messages (OGM), supporting multiple OGMs and multiple mailboxes
- TRUESPEECH natural-sound voice prompting for Day/Time stamp and voice instructions
- DTMF generation and detection with near-end echo cancellation for superior performance
- FLEXISPEECH™ variable speed, natural sound playback (50% - 200%)
- Supports "offset playback" for jumps within a message
- Supports 4 Mb or 16 Mb Flash Memory Devices
- PCM recording

- True FULL Duplex SpeakerPhone with both acoustical and near-end echo cancellation
- Automatic Gain Control
- FSK modem (V.23 HDLC framing)
- Caller ID and CID on Call Waiting (Bell 202 and V.23)
- Programmable sensitivity of the DTMF, VOX, CAS, and CPT detectors
- Digital volume control
- Selectable Slave or Master Codec mode
- $\mu$ -law and A-law codec support, 7.2 and 8 KHz sampling rate
- Supports time stamp (message tag) modification
- Allows suspend and resume recording
- General purpose (CID)/storage and non-erasable storage
- 3.3V or 5V operation



## Benefits of the D6571E

- TRUESPEECH Triple Rate Coder digital speech compression allows flexible use of the message memory thus allowing the system to dynamically configure voice quality and recording time as required.
- Flash Memory support.
  - Allows use of readily available memory.
  - Reduces the system cost by eliminating the need for battery back-up in power failure situations.
  - Allows storage of voice prompts in Flash memory eliminating the need for external ROM.
- Allows flexibility in design for features such as multiple mailboxes and multiple OGM's, enabling the design of a product that is truly a Personal Voice Mail System.

- The Host-selectable sensitivity of the DTMF, VOX, and CPT detectors makes for flexibility in design for various countries and different applications.
- FSK modem, HDLC framing.
- The Caller ID and Call Waiting CID features eliminates the need for any extra components to include these increasingly important feature in your design.
- TRUESPEECH natural sounding voice prompts and time/date stamping allow design of a high quality and professional sounding product.



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