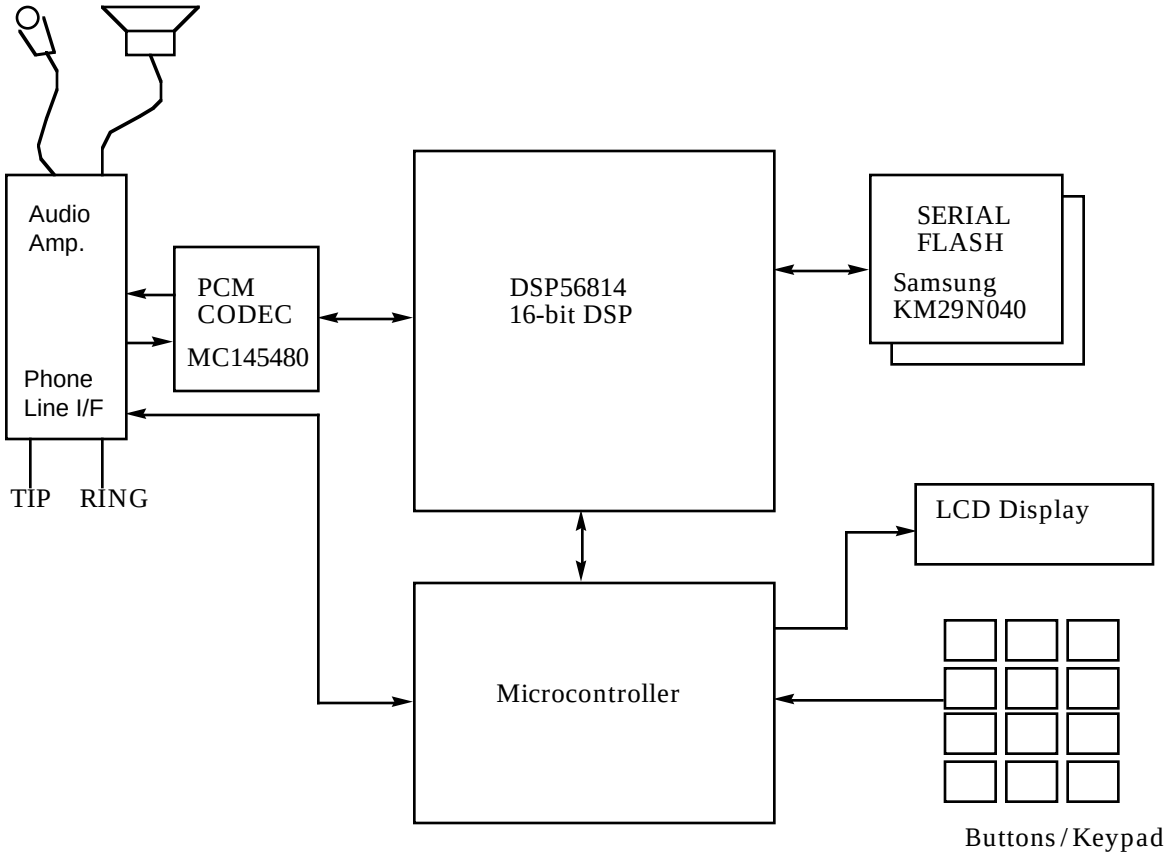
DTAD

Digital Tapeless Answering Device Application



Application Description

The Digital Tapless Answering Device (DTAD) system consists if a Digital Signal Processor (DSP) and a Microcontroller Unit (MCU), one or more codecs, and one or more flash chips. It is an all-digital replacement for audiotape answering machines, with the advanctage of not having any moving parts to wear out and being able to integrate more features. The DSP function in this application includes encoding and decoding voice for storage in memory, as well as various telephony functions. Implementing the telephony functions on the DSP allows reduction of system chip count, replacing numerous discrete circuits with software programmed functions. An MCU is commonly used for system control but may be eliminated in some applications by using some of the DSP56800 features.

Motorola DSP

DEVICE	TYPE	mA/MIPS (min)	PACKAGE	PINS	TECH. (u)
DSP56814	16-bit fx.pt	25	TQFP	100	0.65 TLM

MEMORY (words)				PERIPHERALS					
RAM		ROM		SSI	TIMER	SPI	DEBUG	CODEC	PLL
Program	Data	Program	Data						
-	3K	20K	-	1	1	1	OnCE	no	yes

- Glueless interface to one or two PCM codecs
- Glueless interface to Samsung serial flash memory
- SPI peripheral for simple MCU interface
- On-chip PLL for extremely flexible system clocking options
- 25 MIPS performance

Development tools

DSP56800 CLAS Tools
DSP56800 EVM
DTAD Applications baord
Tartan DSP56800 C/C++ Compiler