



Product Family

Codecs/Transcoders

MT8950	Data Codec
MT8960/61/62/ 63/64/65/66/67	Integrated PCM Filter/Codec
MT9125	Dual ADPCM Transcoder

Digital Phones

MT9092	Digital Telephone with HDLC (HPhone-II)
MT9094	Digital Telephone (DPhone-II)
MT9196	Digital Telephone (C-Phone)
MT8992/3B	Digital Telephone with HDLC (H-Phone)
MT8994/5B	Digital Telephone (D-Phone)

Applications

- Basic to fully featured telephone sets
- Integrated Voice/Data terminals
- Cellular radio/phone sets
- Digital PBX/KTS
- Channel banks/multiplexers
- Wireless base stations (MT9125)
- Pair gain (MT896x, MT9125)

Key Features

- ST-BUS compatible
- Low power CMOS
- Loopback and test modes

MT8950

- Transparent coding and decoding of 0 to 8, 9.6 and 19.2kbps data
- Rate adapts to 56kbps or 64kbps basic rate channel

MT896X

- Integrated single chip transmit/receive filters and PCM Codec
- Meets AT&T D3/D4 and CCITT G.711 and G.712 specifications
- Versions support μ -Law or A-Law companding and CCITT or alternative digital coding
- Programmable filter gains

MT9125

- Dual channel full duplex transcoder
- 32kbps and 24kbps ADPCM coding, compatible to G.721 and G.723 (1988) and ANSI T1.303-1989.
- Low power operation, total 50mW typical
- Asynchronous 4.096MHz master clock operation
- Transparent ADPCM bypass capability
- Pin selected μ -Law or A-Law operation

MT9092/94

- Full-featured digital telephone circuit
- Programmable μ -Law/A-Law codec and filters
- Programmable CCITT (G.711)/sign-magnitude coding
- Programmable transmit, receive, and side-tone gains
- DSP-based speaker phone, DTMF/tone generator, and tone ringer
- Differential audio paths and transducer interfaces
- X.25 Level 2 HDLC data formatting (MT9092 only)

MT9196

- Integrated digital telephone circuit
- Programmable μ -Law and A-Law codec & filters
- Programmable CCITT (G.711)/sign magnitude coding
- Programmable transmit, receive & sidetone gains
- Auxiliary analog interface
- Anti-howl circuit for group listening
- Digital DTMF & single tone generation

MT899X

- Integrated single chip digital telephone circuit
- μ -Law and A-Law versions
- Programmable receive gain
- Speakerphone operation

The MT896X family consists of A-Law and μ -Law integrated single chip filter/codecs. All are fully compliant with D3/D4 and G.711/712 specifications and offer independently accessible filters with programmable gain adjustments. Up to six uncommitted scan/drive ports are available to simplify system design.

Description

The MT8950 Data Codec uses the transition encoded modulation technique to transparently encode/decode low speed data to and from a 56kbps or 64kbps channel. It can accept either asynchronous or synchronous data up to 8, 9.6 and 19.2kbps. The MT8950 is a low cost solution to interface RS-232 type terminals to basic rate channel in, for example, digital PABX applications.

The MT9125 dual-channel ADPCM transcoder is a low power, CMOS device capable of two encoder functions and two decoder functions. Two 64kbps PCM channels are compressed into two 32kbps ADPCM channels, and two 32kbps ADPCM channels are expanded into two 64kbps PCM channels. The 32kbps ADPCM transcoding algorithm utilized conforms to CCITT Recommendation G.721 and ASNI T1.303-1989. The device also supports a 24kbps (three bit word) algorithm (CCITT/G.723).

The MT9092/94 are fully featured integrated digital telephone circuits, with the MT9092 also providing an HDLC data formatter. The switched capacitor Filter/Codec uses an ingenious differential architecture to achieve low noise operation over a wide dynamic range. A DSP provides handsfree speaker-phone operation in addition to generating tones (DTMF, Ringer, and Call Progress) and controlling audio gains. The MT9092/94 easily interfaces to Mitel's basic rate transceivers (MT8910-1, MT8930, MT8971/2) through the ST-BUS to offer 2B+D connectivity.

The MT9196 digital telephone circuit provides many of the same programmable features as the MT9092/94 in a lower cost version without the speaker-phone and HDLC controller.

The MT8992/3/4/5B first generation of integrated digital phone circuits provide the basic functions required to design a cost-effective full featured digital telephone. Several different versions are available, each supporting various coding and companding standards.

Package Options

MT8950	C	24-pin
MT8960/1	E	18-pin
MT8964/5	C, E	18-pin
MT8962/3	E	20-pin
MT8962/3/6/7	S	20-Pin
MT8992/3/4/5B	C	40-pin
MT9092/4	P	44-pin
MT9125	E	24-pin
	P	28-pin
MT9196	C, E, P	28-pin

Note: C=CerDIP, E=PDIP, P=PLCC, S=SOIC