

#### SOUND CAPABILITIES

##### 11-VOICE FM MUSIC-(ADLIB COMPATIBLE)

- Frequency Modulation sound generation for realistic sounds.
- Two modes: Nine melody sounds or six melody sounds and five rhythm sounds supported by numerous games and entertainment software.

##### 1 DIGITIZED VOICE CHANNEL (8 BIT DAC)

- Provide output of sound sampled from the real world-speech, special effects, animal sounds, thunderstorm.
- Programmable variable sampling rate 4KHz to 44.1 KHz.

#### DAC TRANSFER MODES

- Direct mode- Direct single byte transfer by CPU.
- DMA mode - No CPU intervention/overhead required.

#### COMPRESSION SCHEMES

- 8 bit data, no compression.
- 2 to 1 data compression - 4 bit ADPCM, hardware decompression.
- 3 to 1 data compression - 2.6 bit ADPCM, hardware decompression.
- 4 to 1 data compression - 2 bit ADPCM, hardware decompression.

#### BUILT-IN STEREO POWER AMPLIFIER

- Max output: Four watts per channel, four ohms stereo output.
- Stereo headset connector drives, speakers, portable speakers or headsets directly.

#### BUILT-IN MANUAL MASTER VOLUME CONTROL

#### VOICE INPUT (DIGITAL SAMPLING) CAPABILITY

##### 8-BIT A-D CONVERSION OF SOUND SIGNAL

Variable sampling rate: 4 kHz to 15 kHz.

- ADC transfer modes: Direct mode, DMA mode with no CPU intervention required.

#### ADC TRANSFER MODES

- Direct mode.
- DMA mode - No CPU intervention required.

#### BUILT-IN MICROPHONE AND LINE-IN JACKS WITH AGC (AUTOMATIC GAIN CONTROL)

-For direct input (sampling) of sound/speech through standard microphone or from other device (600 ohms impedance). Microphone input 0.004 to 0.7Vrms Line-in, 39K Ohms, with a range of 0.2 to 5Vrms.

#### PORT OUTPUT

##### JOYSTICK PORT

-Standard Game I/O port built-in (15 pin D-sub connector). Connects any standard IBM compatible joystick (analog).

##### MIDI INTERFACE

-Built-in MIDI interface, for connection to MIDI instruments or keyboards. (Requires optional MIDI Kit).

##### OPTIONAL D/MS 12-VOICE STEREO MUSIC C/MS OR GAME BLASTER COMPATIBLE CHIP KIT

-Two optional C/MS music synthesizer chips that plug into the empty sockets on the CT1350 card. (Optional kit consists of two C/MS chips and one other chip).

#### HARDWARE DATA

The CT1350 uses the I/O ports addresses 220H and 240H. These are jumper selectable. Factory default is 220H. The following table list I/O addresses and functions.

I/O ADDRESS	DESCRIPTION	ACCESS
2X0H	C/MS Music Voice 1-6 data port.	Write
2X1H	C/MS Music Voice 1-6 register port.	Write
2X2H	C/MS Music Voice 7-12 data report.	Write
2X3H	C/MS Music Voice 7-12 register port.	Write

I/O ADDRESS	DESCRIPTION	ACCESS
2X8H	FM Music - Status Port.	Read
2X8H	FM Music - Register Port.	Write
2X9H	FM Music - Data Register.	Write
2X6H	DSP Reset.	Write
2XAH	DSP (Voice I/O & MIDI Read Data.	Read

2XCH	DSP Write Data or Command.	Write
2XCH	DSP Write Buffer Status (bit 7).	Read
2XEH	DSP Data Available Status (bit 7).	Read

NOTE: The above table applies only when C/MS chips are present.

(SMC-05/03/94)