

| BLOCK DIAGRAM | <table border="1"> <tr><td>ISA Bus I/F</td></tr> <tr><td>DMA Interface Logic</td></tr> <tr><td>Interrupt Control Logic</td></tr> <tr><td>Registers</td></tr> </table> | ISA Bus I/F | DMA Interface Logic | Interrupt Control Logic | Registers | <table border="1"> <tr><td>Host I/F</td></tr> <tr><td>SRAM Control</td></tr> <tr><td>Zero Crossing Detector</td></tr> <tr><td>Amplitude Processing</td></tr> <tr><td>Data Transfer Control</td></tr> </table> | Host I/F | SRAM Control | Zero Crossing Detector | Amplitude Processing | Data Transfer Control | <table border="1"> <tr><td>Command Control</td></tr> <tr><td>Parameter Acquisition Bank</td></tr> <tr><td>ROM I/F</td></tr> <tr><td>Waveform Data Input</td></tr> <tr><td>MCA</td></tr> </table> | Command Control | Parameter Acquisition Bank | ROM I/F | Waveform Data Input | MCA | <table border="1"> <tr><td>Modulator</td></tr> <tr><td>DW PN Encoder</td></tr> <tr><td>DWI</td></tr> <tr><td>Demodulator</td></tr> <tr><td>Matched Filter</td></tr> <tr><td>Down Converter</td></tr> </table> | Modulator | DW PN Encoder | DWI | Demodulator | Matched Filter | Down Converter | <table border="1"> <tr><td>FSK Modulator</td></tr> <tr><td>Transmit & Receive Buffer</td></tr> <tr><td>FSK Demodulator</td></tr> <tr><td>Transceiver Control Logic</td></tr> <tr><td>ADC's</td></tr> <tr><td>DAC's</td></tr> <tr><td>CD</td></tr> <tr><td>ROM</td></tr> <tr><td>EEPROM</td></tr> </table> | FSK Modulator | Transmit & Receive Buffer | FSK Demodulator | Transceiver Control Logic | ADC's | DAC's | CD | ROM | EEPROM |
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| ISA Bus I/F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DMA Interface Logic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interrupt Control Logic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Registers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Host I/F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SRAM Control | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zero Crossing Detector | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Amplitude Processing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data Transfer Control | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Command Control | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parameter Acquisition Bank | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROM I/F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waveform Data Input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MCA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Modulator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DW PN Encoder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DWI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Demodulator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Matched Filter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Down Converter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FSK Modulator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transmit & Receive Buffer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FSK Demodulator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transceiver Control Logic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADC's | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DAC's | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EEPROM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PART NUMBER | Z53C80 | Z89341/Z89342 | Z2000* | Z87000 | Z87000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DESCRIPTION | SCSI Adaptor | Wave Synthesis Chip Set | Spread Spectrum Burst Processor | Cordless Phone Transceiver/Controller | Cordless Phone Transceiver/Controller | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPEED MHz | Clock: 3 Mb/s | CMOS: 36 MHz | CMOS: 45 MHz Clock: 2.048 Mb/s | CMOS: 16.384 MHz | CMOS: 16.384 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FEATURES | <ul style="list-style-type: none"> ■ ANSI X3, 131-1986 Standard ■ DMA or Programmed I/O Data Transfers ■ Asynchronous Interface Support ■ 3 Mb/s ■ ISA Bus I/F ■ Glitch Eater | <ul style="list-style-type: none"> ■ 4-Channel ■ 16-Bit Linear ■ PCM Sound Generator ■ Sampling Rates 20 kHz to 44.1 kHz ■ Support 16-, 18-, and 20-Bit DAC ■ Audio Bandwidth 0 Hz to 20,000 Hz ■ Direct Interface with PC ISA Bus ■ Direct Support 4Mx16 ROM | <ul style="list-style-type: none"> ■ Operates up to 11.1264 Mcchips Second in Transmit and Receive Modes ■ Maximum Data Rate of 2.048 Mbps in Conformance with FCC Regulations ■ Supports Differentially Encoded BPSK or QPSK Modulation ■ Full- or Half-Duplex Operation for FDD or TDD Implementations ■ Two Independent PN Sequences ■ Power Management Features | <ul style="list-style-type: none"> ■ Supports 900 MHz Spread Spectrum Cordless Phone Design ■ Adaptive Frequency Hopping ■ Transmit Power Control ■ Bus Interface to ADPCM Processor ■ 12K Words of RAM for Transceiver and Phone Control Software ■ 32 Pins of Program I/O ■ ROM Code, OTP and ICEBOX™ Version to be Available Q3/94 | <ul style="list-style-type: none"> ■ Supports 900 MHz Spread Spectrum Cordless Phone Design ■ Adaptive Frequency Hopping ■ Transmit Power Control ■ Bus Interface to ADPCM Processor ■ 12K Words of RAM for Transceiver and Phone Control Software ■ 32 Pins of Program I/O ■ ROM Code, OTP and ICEBOX™ Version to be Available Q3/94 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PACKAGE | 40-Pin DIP 44-Pin PLCC | 84-Pin PLCC | 100-Pin VQFP | 84-Pin PLCC | 84-Pin PLCC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUPPORT PRODUCTS | Support Documentation Provided with Device | Support Documentation Provided with Device | Z020000ZC0 - Evaluation Board | Z870000ZEM - Emulator | Z870000ZEM - Emulator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |