- Consumer Infrared Communications Controller (CIRCC2.0)
  - 96 Base I/O Address, 15 IRQ Options and 3 DMA Options
  - CIR supports NEC and RC5 framing
  - CIR supports RC6 framing under Philips license (p/n KBC1122P only)
  - 8051 access to RC6, RC5, and NEC received data
  - 8051/Host wakeup from specific RC5 and NEC received data
- Battery Backed Resources
  - 32KHz clock generator
  - 1 Week Wakeup timer
- Two 8584-Style SMBus Controllers
  - 8051 Host Interface Logic Allows Master or Slave Operation
  - Controllers are Fully Operational on Standby Power
  - One Controller with one Port
- Three independent Hardware Driven PS/2 Ports
  - Fully functional on Main and/or Suspend Power
  - PS/2 edge Wake Capable
  - Wake on specific mouse protocol
  - Wake on specific keyboard protocol
- 92 General Purpose I/O Pins
- Four Programmable Pulse-Width Modulator Outputs
  - Multiple clock Sources and Independent Clock Rates
  - 8 Bit Duty Cycle Granularity
- Three Fan Tachometer Inputs
- Four Programmable 16-bit Counter/Timers
- Serial Port
  - Host-Driven High-Speed 16C550A-Compatible UART with 16-Byte Send/Receive FIFOs
  - Programmable Baud Rate Generator
  - Modem Control Circuitry
  - Relocatable to 480 Different Base I/O Addresses
  - 15 IRQ Options
- Direct Battery Management with SMSC SentinelAlert!
  - Analog to Digital Converter with
    - 8 channels, 8b/10b conversion
    - 20ms conversion time for 8 channels
  - Digital to Analog Converter with SMSC SentinelAlert!
    - 3 channels, 8b conversion
    - 1.5ms conversion time for 3 channels
  - 2-GPIO's with SMSC SentinelAlert!
  - 2-Single pin SMSC BudgetBus Sensor Interface Ports
  - HW_PROTECT# output thermal event indication
- MCU Serial Debug Port
- Integrated Standby Power Reset Generator
- 156 Pin DQFN Lead-Free RoHS Compliant Package

PRODUCT PREVIEW

ORDER NUMBERS:

KBC1122-AJZS FOR 156 PIN, DQFN LEAD-FREE ROHS COMPLIANT PACKAGE; KBC1122P-AJZS FOR 156 PIN, DQFN LEAD-FREE ROHS COMPLIANT

80 ARKAY DRIVE, HAUPPAUGE, NY 11788 (631) 435-6000, FAX (631) 273-3123

General Description

The KBC1122 is an integrated Keyboard/System Management Controller which incorporates a high-performance 8051 Micro-Controller, an LPC Bus Interface which provides a Firmware Hub Interface and integrated Super I/O/LPC Resources. The KBC1122 is powered by two separate supply planes (VCC1, VCC0) to provide “instant on” and sophisticated system power management functions. The KBC1122 power control circuitry supports multiple low power-down modes.

The KBC1122 incorporates a Direct Battery Management (DBM) with SMSC SentinelAlert! accessible by the 8051. Together with external remote temperature sensor(s) can provide complete Analog Monitoring & Control System. The KBC1122 DBM includes an 8 channel ADC, a 3 channel DAC with SMSC SentinelAlert! and up to 2 SMSC SentinelAlert! GPIO's, two channel one-pin Temperature Sensor Communication Links, and a hardware protect output that requires no programming or 8051 intervention to operate.

The KBC1122 incorporates a Standby Power Reset Generator (RESGEN) which monitors the VCC1 power input and generates the internal VCC1 power on reset for the KBC1122. The KBC1122 also outputs VCC1RST# which can be used to reset the Flash memory on the Shared Flash Interface (SFI).

Package Outline

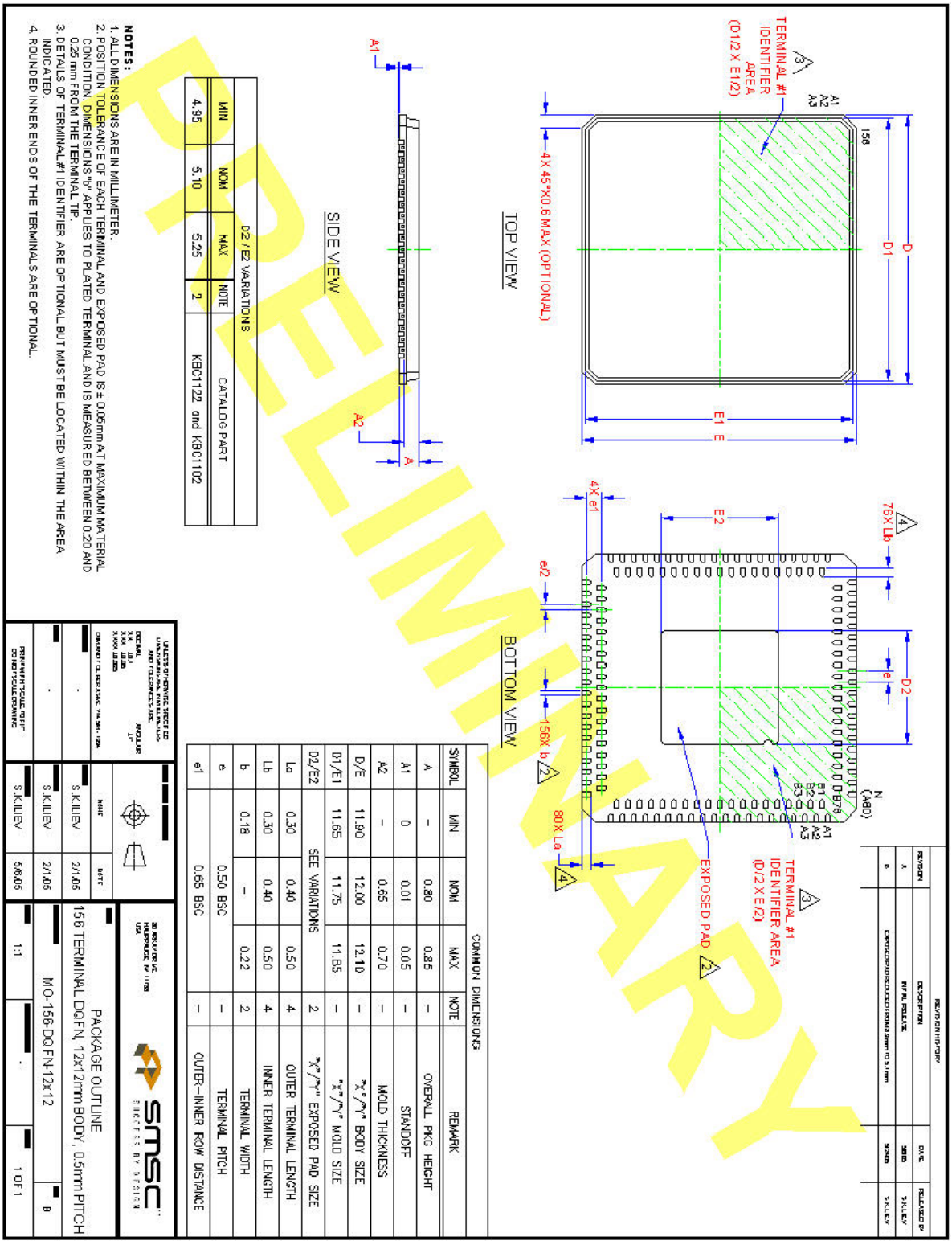

Figure 1 156 Pin DQFN Package Outline