S-CM CompactFlash Card
233X

Preliminary
Product Specification v4.1

October 2008

Document History

Version	Description	Date	Editor	Approved by
4.0	Preliminary Add capacity – 64GB	Oct 2008	Amos Chung	David Lin
4.1	Commercial Grade	Oct 2008	Amos Chung	David Lin

Contents

1. Introduction

1.1 General Description

Pretec's S-CF 233X CompactFlash Card uses NAND-Type flash memory devices, which leads to its remarkable high performance and comes with capacities from 1GB to 64GB unformatted.

The card provides extraordinary memory medium for PC or any other electric equipment and digital still camera, and, in particular, Pretec's CompactFlash Card has been approved through various compatibility tests to be used in numerous portable desktop, notebook computers and personal handheld devices such as handheld audio recorders, PDAs, Palm sized PCs, Handheld PCs and Auto PCs under commercial environment.

1.2 Features

- ✧ PC Card compliant

  Conforms to CompactFlash standard 4.1

  Compatible with PCMCIA ATA specification

  Support CIS implemented with attribute memory

  Compatible with all PC Card Services and Socket Services

- ✧ PCMCIA ATA / IDE interface

  ATA command set compatible

  Support for 8-bit or 16-bit host data transfer

  Program and auto-wait-state initiation for compatibility with any IORDY supporting host

  Compatibility with host ATA disk I/O BIOS, DOS/Windows file system, utilities, and application software

- ✧ Extremely rugged and reliable

  Advanced defect block management

  Support background erased operation

- ✧ 3.3/5 Volt power supply, very low power consumption
- ✧ Zero-power data retention, no batteries required
- ✧ Error Correcting of 4 bits random error per sector
- ✧ Automatic on-the-fly, in-buffer Error Correcting
- ✧ 3 variations access modes:
  - ● Memory card mode
  - ● I/O card mode
  - ● True IDE mode
  - - PIO up to Mode 6
  - - UDMA up to mode 5
  - - supported Multi word DMA up to Mode 4.

2. Product Specification

2.1 Operation and environment description

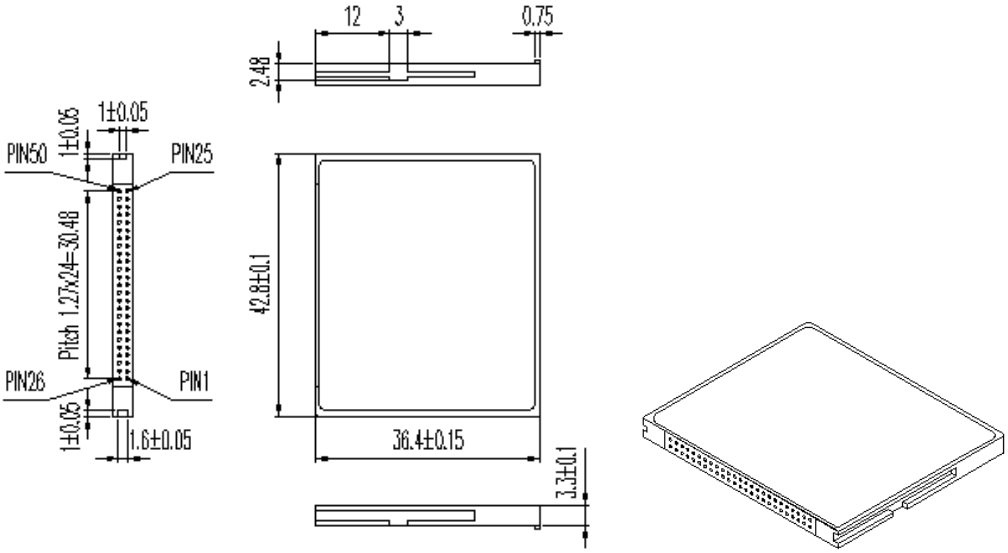
Operating Voltage	5V ± 10% or 3.3V ± 5%	
Typical Power Consumptions:	Standby	150 0uA (Max)
	Operational	40 mA (Max)
Environment conditions	Operating Temperature	-0°C to +70°C
	Storage Temperature	-40°C to +85°C

2.2 Physical description

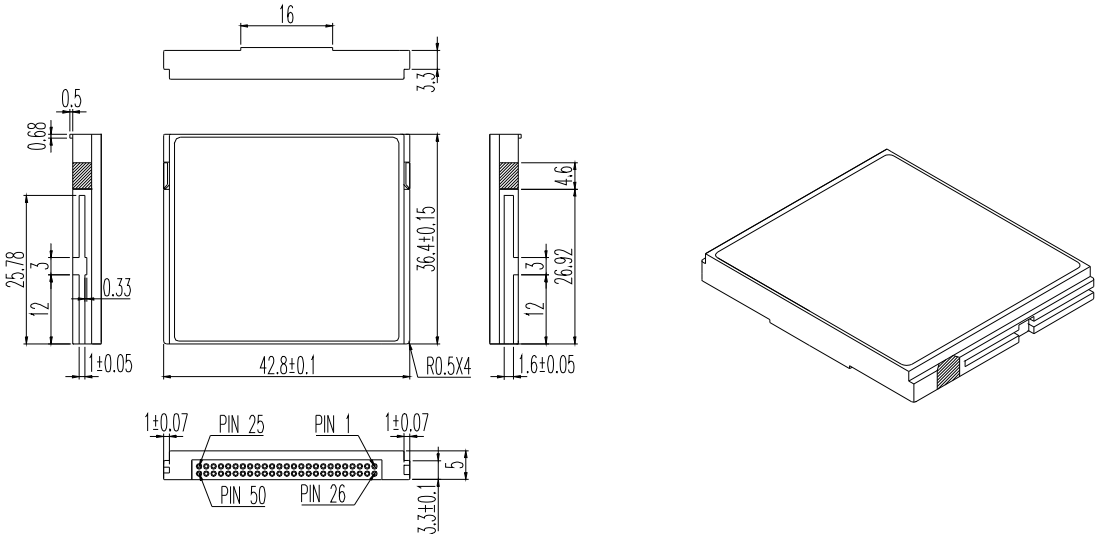
1.Weight and Measures (unit: m) USE:Plastic Housing	Type I	L x W x H 36.4 x 42.8 x 3.3 (mm)
	Type II	L x W x H 36.4 x 42.8 x 5.0 (mm)
2. Storage Capacities	Capacity	1GB – 64GB
3. Performance	Data Transfer Rates	Read speed up to 35 MB/sec (Max)
		Write speed up to 24 MB/sec (Max)

2.3 Physical Specification

2.3.1 CompactFlash CF Type I



2.3.2 CompactFlash CF Type II



3. Product Model

3.1 Commercial Part Number Definition

$X_1X_2\ X_3\ X_4X_5\ X_6\ X_7$

Code	Definition	symbol	Description
X_1X_2	Card Type	CF	CF card
X_3	Solution	S	S Series
X_4	Speed	2	233X
$X_5X_6X_7$	Capacity	01G	1GB (Type I)
		02G	2GB (Type I)
		04G	4GB (Type I)
		08G	8GB (Type I)
		16G	16GB (Type I)
		32G	32GB (Type I)
		48G	48GB (Type II)
		64G	64GB (Type II)

4. Block Diagram

4.1 Controller Archive