MIC

Serial Access EEPROM Module
Compatible with the DV (Digital Video) Standard

PRELIMINARY DATA

- Compatible with the DV (Digital Video) standard
- Enhanced ESD and Latchup tolerance
- Two-wire serial interface, supporting the 400 kHz protocol
- 1 million Erase/Write cycles (typical)
- 40 year data retention
- 2.7 to 5.5 V single supply voltage
- Byte, Random and Sequential read modes
- Self-timed programming cycle
- -10 °C to 85 °C operating temperature range

DESCRIPTION

The MIC module is supplied on a dedicated printed circuit board. It contains a serial EEPROM that is accessed through four contacts on the PCB, using the I^2C protocol. The contact names are listed in Table 1. The contact dimensions and positions are shown in Figure 1, and are compliant with the DV standard.

The members of the MIC range are available in two forms:

- The MIC-R family
- The MIC-S family

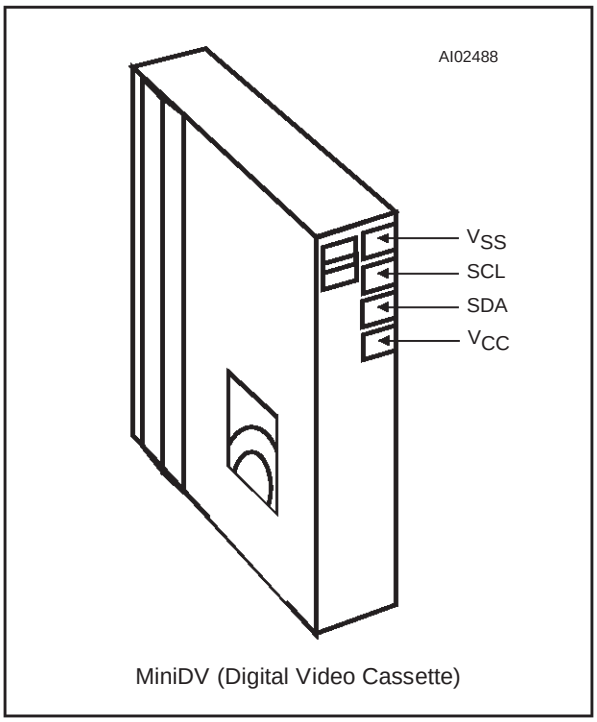
The MIC-R family works with serial EEPROM capacities between 1 Kbit and 8 Kbit (the I^2C-compatible EEPROM devices: M24C01, M24C02, M24C04 and M24C08).

The MIC-S family works with serial EEPROM capacities greater or equal to 16 Kbit (the XI^2C-compatible EEPROM devices: M24C16, M24C32 and M24C64).

Both families are compliant with the DV standard.

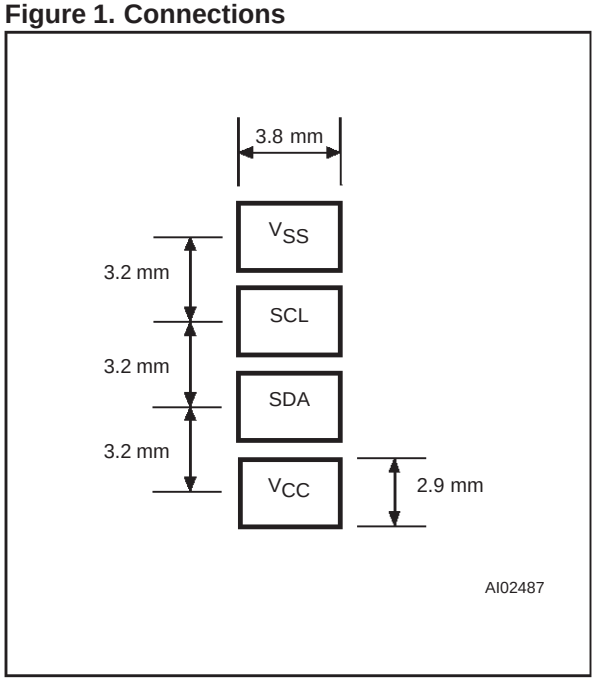
Table 1. Signal Names

SDA	Serial Data Input / Output
SCL	Serial Clock
V_{CC}	Supply Voltage
V_{SS}	Ground



MiniDV (Digital Video Cassette)

Figure 1. Connections



The electrical and functional parameters of each MIC module can be found in the appropriate *M24Cxx* data sheet (where 'xx' is the memory capacity in Kbit). It should be noted, though, that the guaranteed operating temperature range of the MIC modules is -10 °C to 85 °C.

Each MIC module is addressed using a specific Device Select byte that is fully compliant with the DV standard.

Table 2. Ordering Information Scheme

Example: MIC -S 04

Type of I^2C Protocol	
-R	I^2C protocol
-S	Extended I^2C protocol

Memory Capacity	
01	1 Kbit
02	2 Kbit
04	4 Kbit
08	8 Kbit
16	16 Kbit
32	32 Kbit
64	64 Kbit

For a list of available options (Speed, Package, etc...) or for further information on any aspect of this device, please contact the ST Sales Office nearest to you.