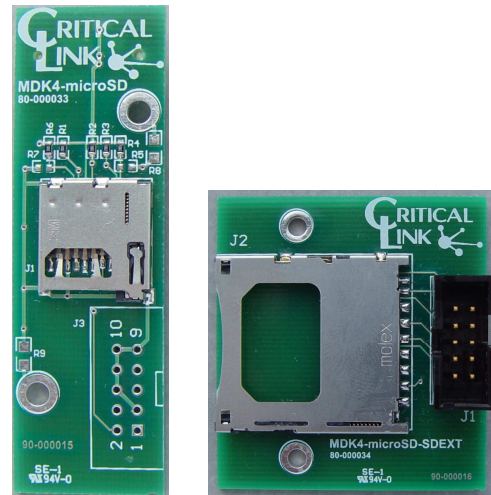


## FEATURES

- MDK-4 Interface Form Factor
- Standard microSD connector
- Cable Interface to standard SD-Flash Extender PCB
- Up to 2 GB Storage
- Supports Fast SPI Mode
  - Four wire Interface
  - 25 Mbit/s transfer rate maximum

## APPLICATIONS

- Large Non-Volatile Data Storage
- Embedded Data Recording
- Removable Data Storage
- PC / MDK-MB Data Transfer
- Embedded Web Server



(MDK4-microSD and extender)

## DESCRIPTION

The MDK4-microSD card provides an interface adaptor to allow the use of industry standard microSD (secure digital) media cards with the MityDSP Development Kit. The card complies with the MityDSP Development Kit MDK-4 form factor. The card is compatible with the SPI interface libraries available with the MityDSP hardware and software developer's kit. In addition, a cable interface is provided for connection to the MDK4-microSD-SDEXT PCB (shown above), which provides an SPI interface to standard SD media cards.

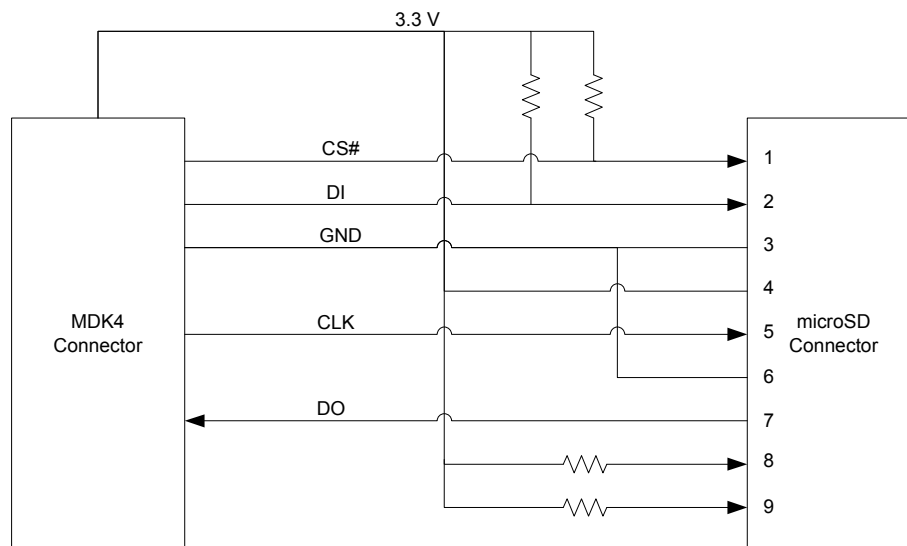


Figure 1 MDK4-microSD Block Diagram

### ABSOLUTE MAXIMUM RATINGS

If Military/Aerospace specified cards are required, please contact the Critical Link Sales Office or unit Distributors for availability and specifications.

Storage Temperature Range	-65 to 80C
Shock, Z-Axis	±10 g
Shock, X/Y-Axis	±10 g

### OPERATING CONDITIONS

Ambient Temperature Range	0 to 55C
Humidity	0 to 95% Non-condensing
Vibration, Z-Axis	TBS
Vibration, X/Y-Axis	TBS

### MDK-4 Socket Interface Description

The MDK4 Interface connector, J2, pin assignments are listed in Table 1.

**Table 1 MDK-4 Connector (Left Side viewed from Top) Pin Assignments**

Pin	Signal	I/O	Pin	Signal	I/O
A1	CS#	I	B1	Not Used	-
A2	CLK	I	B2	Not Used	-
A3	DI	I	B3	+3.3 V	-
A4	DO	O	B4	+3.3 V	-
A5	Not Used	-	B5	GND	-
A6	Not Used	-	B6	GND	-
A7	Not Used	-	B7	Not Used	-
A8	Not Used	-	B8	Not Used	-
A9	Not Used	-	B9	Not Used	-
A10	Not Used	-	B10	Not Used	-

The SD card extender header pin out is listed in Table 2.

**Table 2 Extender Header Pin Assignments**

Pin	Signal	I/O	Pin	Signal	I/O
1	CS#	O	2	DI	O
3	GND	-	4	3.3 V	-
5	CLK	O	6	GND	-
7	DO	I	8	GND	-
9	GND	-	10	GND	-

### **Software API and Supported Modes**

The MityDSP software and firmware development kit includes a core interface and C++ API for interfacing MMC/SPI based media cards. Refer to the MDK Software User's Guide for more information. Example software is included in the appendix of this specification for configuration of the card.