

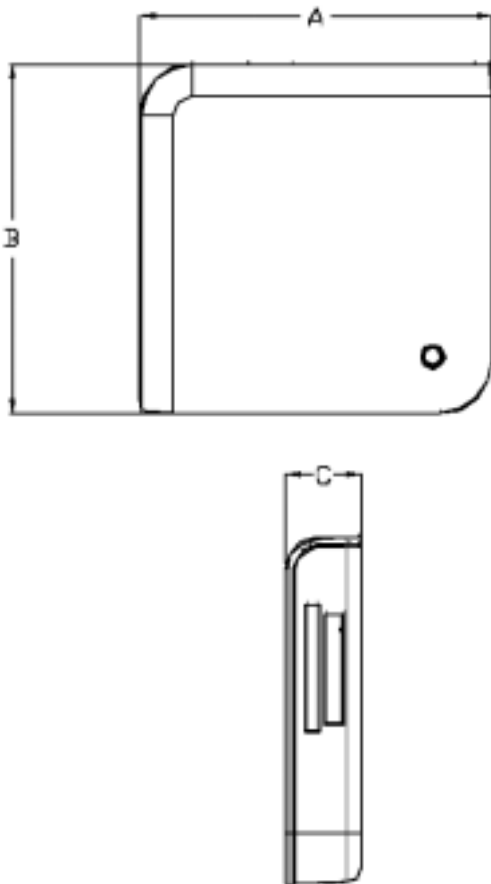
TS-RD13B/R/S

USB2.0 Portable Multi-Card Reader

Description

TS-RD13B/R/S is a USB2.0 Portable Multi-Card Reader. With 5 slots, it is a small device specifically designed for fast, easy data transfer and exchange using multiple types of Memory Cards: CompactFlash™ (CF) Type I/II, Microdrive™, Secure Digital (SD), miniSD™, Micro SD (with adapter), MultiMediaCard (MMC), RS-MMC (with adapter), MMC*plus*™, MMC*mobile*™ (with adapter), MMC Micro (with adapter), Memory Stick®, Memory Stick PRO®, Memory Stick Duo®, Memory Stick PRO Duo® and xD Memory Cards.

Placement



System Requirements

- Desktop or notebook computer with USB port
- One of following operating systems:
Win® 98SE, Win® Me, Win® 2000, Win® XP, Mac™ OS, and Linux.

Features

- 100% Compatible with USB Interface in Windows or Mac
- Single Power Supply: 3.3V / 5V ± 10%
- Durability of Connector: 10000 times
- Recommended Operating Temperature : 0 – 70
- Recommended Storage Temperature: -40 – 90
- Compliant with USB specification version 2.0
- High-speed with transfer rate up to 480Mbit/sec
- Support CompactFlash™ (CF) Type I/II, Microdrive™, Secure Digital (SD), miniSD™, Micro SD (with adapter), MultiMediaCard (MMC), RS-MMC (with adapter), MMC*plus*™, MMC*mobile*™ (with adapter), MMC Micro (with adapter), Memory Stick®, Memory Stick PRO®, Memory Stick Duo®, Memory Stick PRO Duo® and xD Memory Card
- No external power needed
- LED indicates card insertion and data traffic

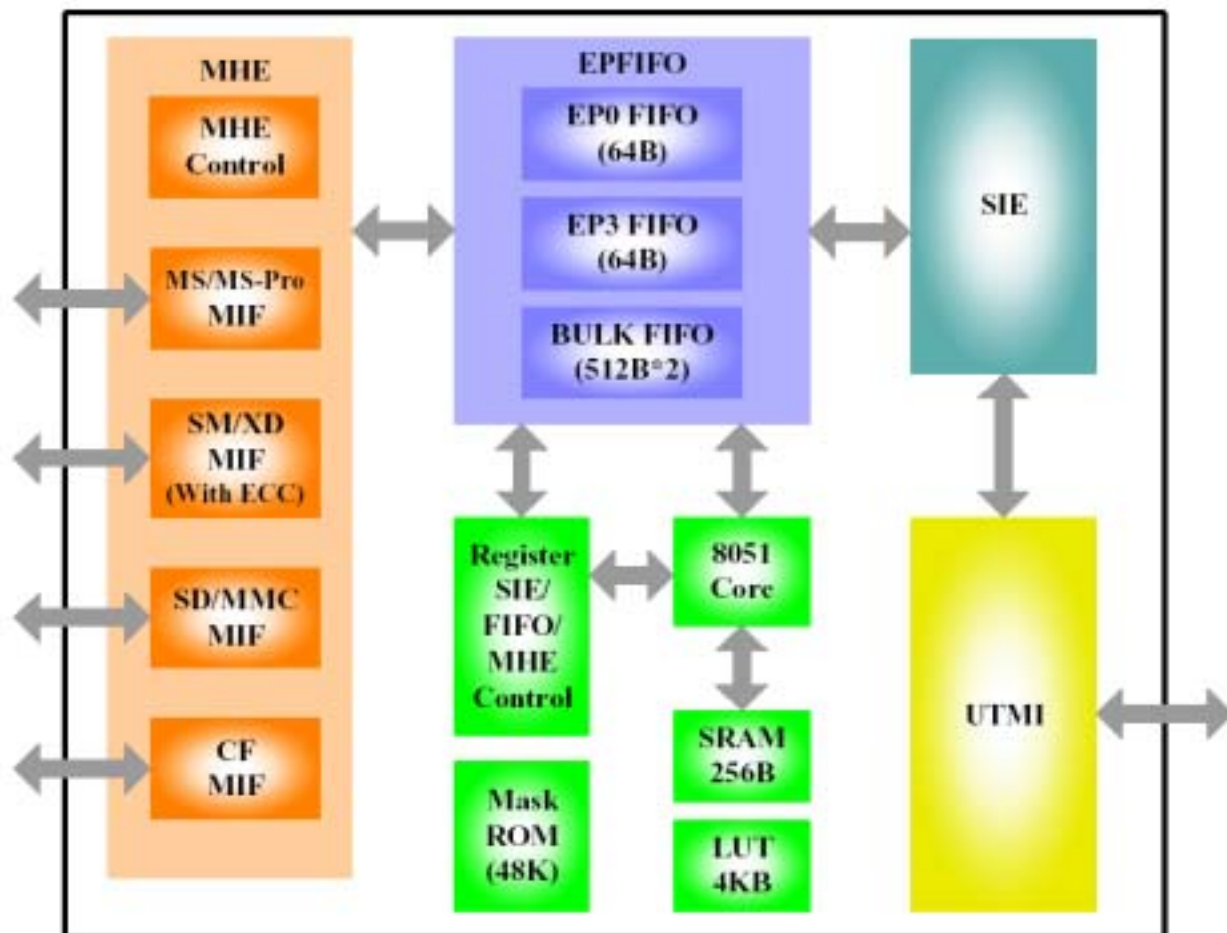
Dimensions

Side	Millimeters	Inches
A	71.00 ± 0.20	2.80 ± 0.01
B	71.00 ± 0.20	2.80 ± 0.01
C	15.00 ± 0.20	0.59 ± 0.01

TS-RD13B/R/S

USB2.0 Portable Multi-Card Reader

Block Diagram



Pinouts

Pin No.	Pin Name
01	VCC
02	USB-
03	USB+
04	NC
05	VSS

Pin Identification

Symbol	Function
USB- USB+	USB differential signal: The pairs are used to transmit Data/Address/Command
VSS	Ground
VCC	USB Power Input
NC	Not Connect

Absolute Maximum Ratings

Parameter	Value
Storage Temperature	-65°C to +150 °C
Ambient Temperature	-40°C to +80 °C
Supply Voltage to Ground Potential	-0.5V to +4.0V
DC Input Voltage to Any Pin	-0.5V to +5.8V

Recommended Operating Conditions

Parameter	Value
T _a (Ambient Temperature Under Bias)	0°C to 70°C
Supply Voltage	+3.0V to +3.6V
Ground Voltage	0V
F _{osc} (Oscillator or Crystal Frequency)	12 MHz ± 0.005%

DC Characteristics

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V _{CC}	Supply Voltage		3.0	-	3.6	V
V _{IH}	Input High Voltage		2.6	-	5	V
V _{IL}	Input Low Voltage		0	-	0.7	V
I _I	Input Leakage current	0 < V _{IN} < V _{CC}	-5	-	5	μA
V _{OH}	Output High Voltage		3.0	-	-	V
V _{OL}	Output Low Voltage		-	-	0.2	V
I _{OH}	Output Current High	VDD=3.3V V _{OH} =2.6V	-	8	-	mA
I _{OL}	Output Current Low	VDD=3.3V V _{OL} =0.8V	-	8	-	mA
C _{IN}	Input Pin Capacitance		-	5	-	pF
I _{SUSP}	Suspend current	1.5K external pull-up included	-	-	500	μA
I _{CC}	Supply current	Connect to USB with 8051 operating	-	-	100	mA

Above technical information is based on industry standard data and tested to be reliable. However, Transcend makes no warranty, either expressed or implied, as to its accuracy and assumes no liability in connection with the use of this product. Transcend reserves the right to make changes in specifications at any time without prior notice.