



- Read and Write files to USB memory stick
- Powered from attached host module
- Asynchronous serial interface @ 500K/250K Baud
- Bi-directional interface with Handshaking
- 3.3V Signal Level Interface

This compact USB interface controller has been designed to interface to itron SMART TFT modules. It can be used to read files from / write files to a standard USB memory sticks with FAT16 and FAT32 disk formats. The controller connects to the AS1 interface of the TFT module (CN3) .

ELECTRICAL SPECIFICATION

Parameter	Symbol	Value	Condition	CON1		CON2 USB	
				Pin	Signal	Pin	Signal
Power Supply Voltage	VCC	5.0VDC +/- 5%	GND=0V	1	VCC	1	VCC
Power Supply Current	ICC	20 mADC (typ)	VCC=5VDC	2	NC	2	D-
Logic High Input	VIH	2.0VDC min. / 3.3VDC max.	VCC=5VDC	3	SIN	3	D+
Logic Low Input	VIL	0VDC min. / 1.0 VDC max.	VCC=5VDC	4	NC	4	NC
Logic High Output	VOH	2.45VDC min. / 3.3VDC max.	IOH=-10mA	5	GND	5	GND
Logic Low Output	VOL	0VDC min. / 0.6VDC max.	IOL= 5mA	6	NC		
				7	SOUT		CON3 USB (opt)
ENVIRONMENTAL SPECIFICATION				8	NC	Pin	Signal
Parameter	Value			9	MBusy	1	VCC
Operating Temperature	-20°C to +70°C			10	HBusy	2	D-
Storage Temperature	-40°C to +85°C					3	D+
Operating Humidity	20 to 85% RH @ 25°C non condensing					4	GND
				Do not connect NC pins except on TFT module			

COMMANDS

Command	Format	Detail
Write Data	01H DDH CCH BBH AAH XXH data	DDCCBBAA is 32bit start sector, XX is number of sectors – returns 01H=OK, FFH=Fail
Read Data	02H DDH CCH BBH AAH XXH	DDCCBBAA is 32bit start sector, XX is number of sectors – returns sector data
Read Size	03H	Returns a 32bit value representing the total number of sectors on disk
USB Attach	04H	Command sent from MCBK37A3 to host to indicate a memory stick was attached
USB Detach	05H	Command sent from MCBK37A3 to host to indicate a memory stick was attached

Note: MSB (DD) first for 32 bit sector address. Data is number of sectors x 512.

JUMPER SETTINGS

Jumper	Connect	Function
J1	Open	500K baud (default)
	Link	250K baud

OPERATION

The host system sends low level I/O commands to read and write 512 byte sectors.