Unique Micro Design

Model 366
Serial to
Universal Serial Bus (USB)
HID Keyboard Interface

Document Reference : DOC-M366-UM

UMD Part Number : 9-0366-993-9

Issue : 1

11/02/02

First choice of
professional systems integrators

Revision History

Date	Issue	Comments
11/02/02	1	First Issue

1. Introduction

The Unique Micro Design Model 366 provides a Universal Serial Bus (USB) interface for serial devices and UMD terminated Bar Code readers, converting the serial data into keyboard data.

The M366 converts asynchronous serial RS-232 data to appropriate keyboard characters through the HID driver. It is totally transparent to the computer system which accepts the serial input as if it was typed from a USB keyboard.
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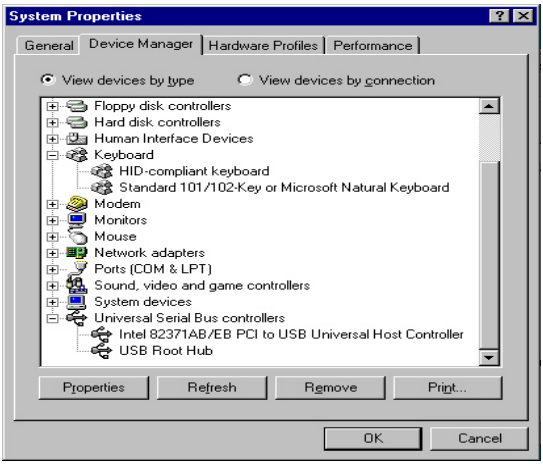
2. Setting Up Information .

Connect the Unique Micro Design Model 366 Universal Serial Bus (USB) interface to a USB connector on your PC. The Windows operating system will recognise the plug and play device and indicate that an “M366 serial to USB HID” has been found.

Windows will now look for a driver, select “search for the best driver”, let Windows do the searching.

Select next

The Windows HID driver is installed, Select “Finish”.



Checking “System Properties” under “Device Manager” - “Keyboard”, the HID complient keyboard device is installed.

3. Connector Information .

The Unique Micro Design Model 366, is available with serial port and power options, including:

- external DC power connector
- complex serial port including handshaking
- USB protocol power control
- factory set baud rates.

The standard Model M366-1 is input only serial port, with looped handshake, 5 volt supplied on pin 7, no USB power protocol used. Communications parameters are 9600 baud, 8 data bits with no parity and one stop bit.

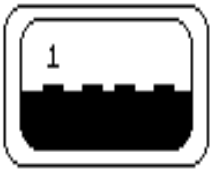
Pin	I/O	Description
1	-	no connection
2	i/p	RxD
3	-	no connection
4	-	internally connected to pin 8
5	-	Ground
6	-	no connection
7	o/p	+5V (RTS asserted)
8	-	internally connected to pin 4
9	-	no connection

M366-1 Serial interface

DB9 plug connector

Front view of DB9 Plug

USB Connector .



Pin		Description
1	-	VCC
2	-	- Data
3	-	+ Data
4	-	GND

4. Special Key Functions

The M366 can also output Extended keyboard codes, for example "F1" or "Down Arrow", this is achieved by sending data to the serial port in the form:

Note: comma is used only for readability.

Key output	Input Value hexadecimal	decimal
F1	00,3B (or) FF,3B (two bytes)	0,59 or 255,59
F2	00,3C	0,60
F3	00,3D	0,61
F4	00,3E	0,62
F5	00,3F	0,63
F6	00,40	0,64
F7	00,41	0,65
F8	00,42	0,66
F9	00,43	0,67
F10	00,44	0,68
BS	08 (one byte)	
TAB	09 (one byte)	

Key output	Input Value hexadecimal	decimal
PgUp	00,49 (or) FF,49 (two bytes)	0,73 or 255,73
CursUp	00,48	0,72
Home	00,47	0,71
Curs Right	00,4D	0,77
Curs Left	00,4B	0,75
PgDn	00,51	0,81
CursDn	00,50	0,80
End	00,4F	0,79
Ins	00,52	0,82
Ctrl-B	02 (one byte)	
Ctrl-C	03 (one byte)	

For further information regarding this extended keyboard function, contact, **techsupport@umd.com.au**

5. Specifications

Dimension	Interface Module: 80 (l) x 40 (w) x 25 (h) mm
Weight	63 grams (including cable)
Color	Beige
Computer Interface	USB V1.1 USB “A” male cable
Power	100mA (max) 500uA (Suspend mode)
Serial Input	DB9 Plug, RS232.

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