

USB TO SERIAL ADAPTER
(Model: U232-P9V2)
SPECIFICATIONS

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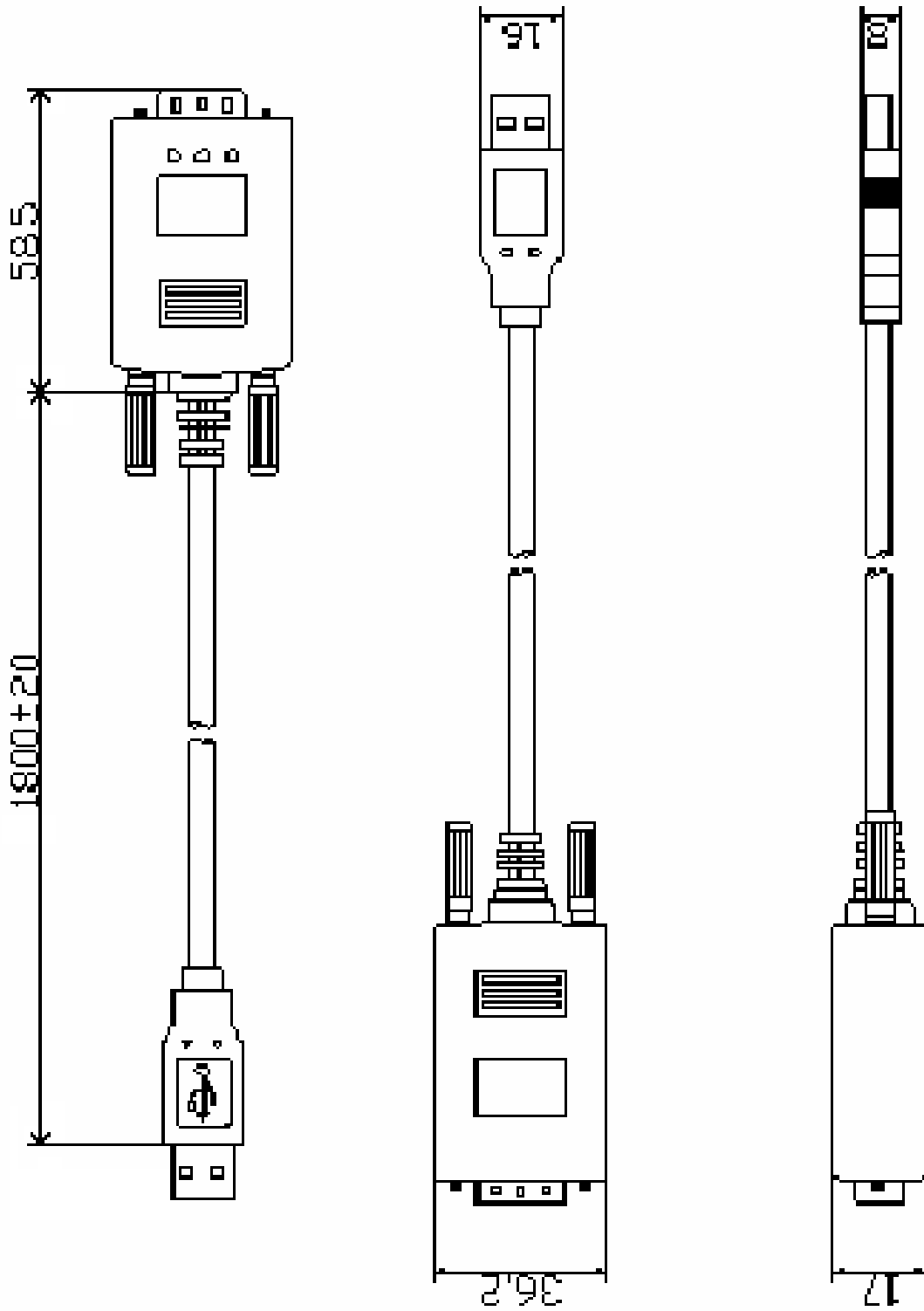
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1. GENERAL SPECIFICATIONS

1.1 PRODUCT SURFACE



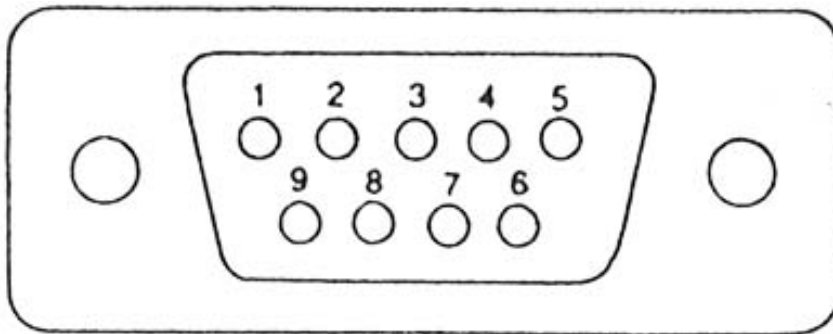
1.2 PRODUCT DIMENSION



1.3 PRODUCT FEATURES

- Full compliance with the USB Spec. Rev 1.1.
- Plug & Play.
- Draws its power from USB connection – no extra power adapter required
- Compliant with UHCI & OHCI spec
- Windows 2000 SP4 / XP / Vista / 7 / 8 compatible.
- Mac OS 10.1 ~ 10.8.x compatible.
- Pin signal description

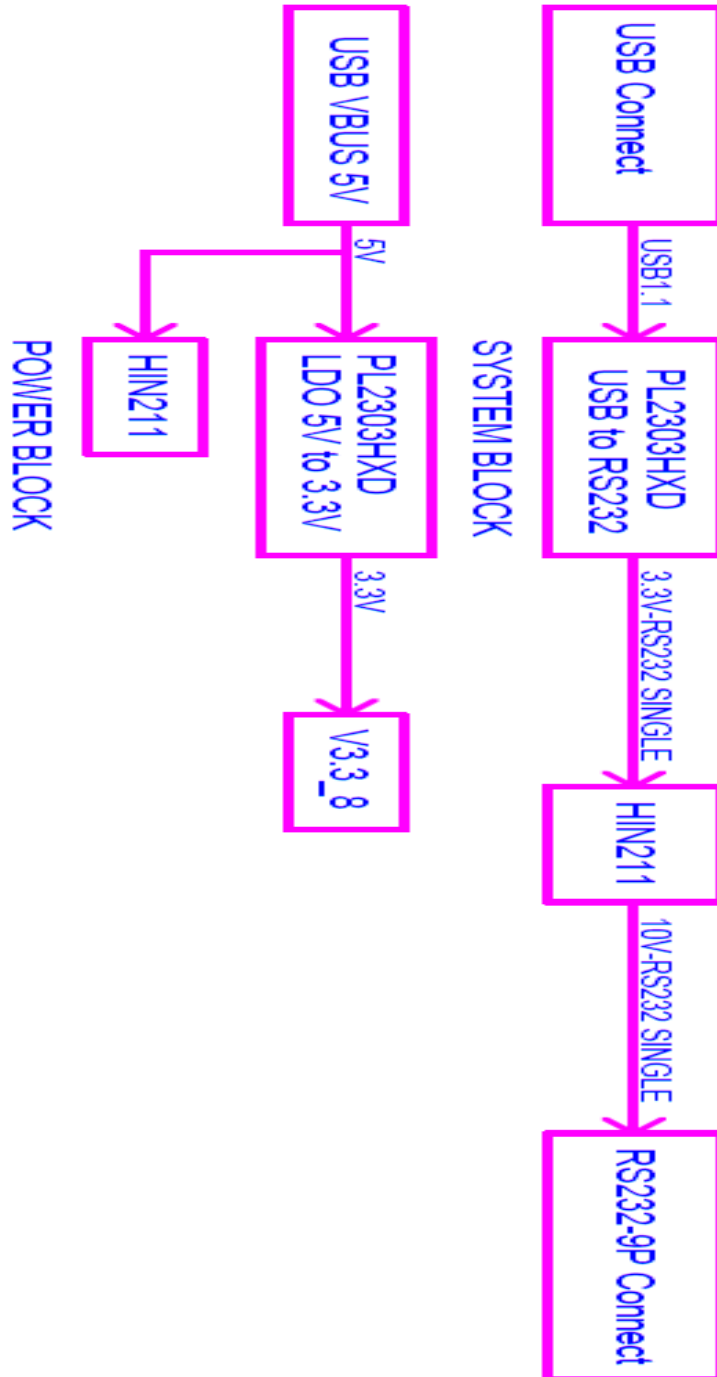
DB9 Pin number	Name	Define
1	DCD	Data Carrier Detected
2	RXD	Received Data
3	TXD	Transmitted Data
4	DTR	Data Terminal Ready
5	SGND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	RI	Ring Indicator



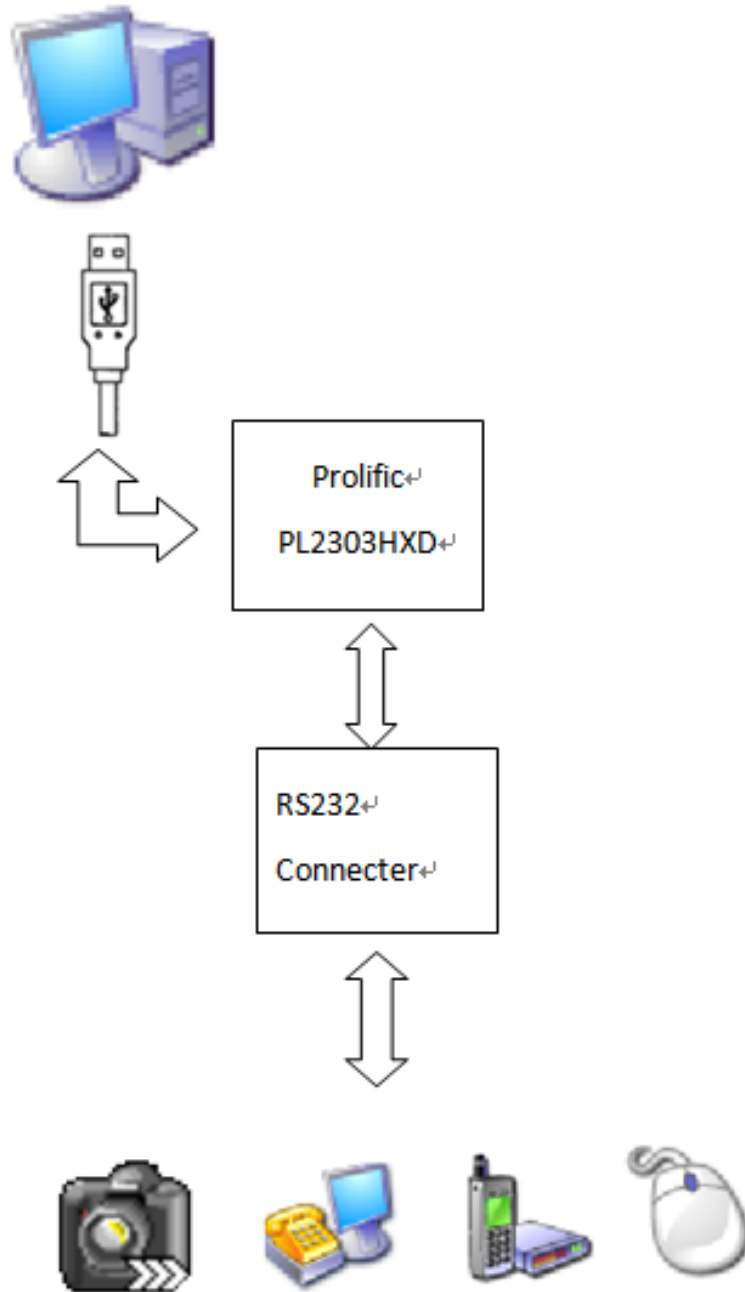
1.4 PRODUCT SPECIFICATIONS

Item	Specification	
OS support	Windows	Mac
	Windows 2000 SP4	Mac OS X 10.8 Mountain Lion (64-bit)
	Windows XP SP2 & above (32 & 64 bit)	Mac OS X 10.7 Lion (32-bit and 64-bit kernel)
	Windows Vista (32 & 64 bit)	Mac OS X 10.6 Snow Leopard (32-bit and 64-bit kernel)
	Windows 7 (32 & 64 bit)	Mac OS X 10.4.x and 10.5.x for PowerPC and Intel based Mac
	Windows 8 (32 & 64 bit)	Mac OS 10.1 and above for PowerPC based Mac
Chipset	PL-2303HXD	
PCB Version	USB232-P9V2 V1.0	
Cable Dimension	USB Cable: L=1800±20, Ø4.7 (mm)	
Case Dimension	L=58.5; W=36.2; H=17 (mm)	
Cable Material	PVC Molding	
Case Material	ABS	
Power Supply	Bus Power	
Working Current	41.8 mA	
Suspend Current	21.9 mA	

1.5 CIRCUIT BLOCK DIAGRAM



1.6 FUNCTION DIAGRAM



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2. CHIPSET SPECIFICATIONS

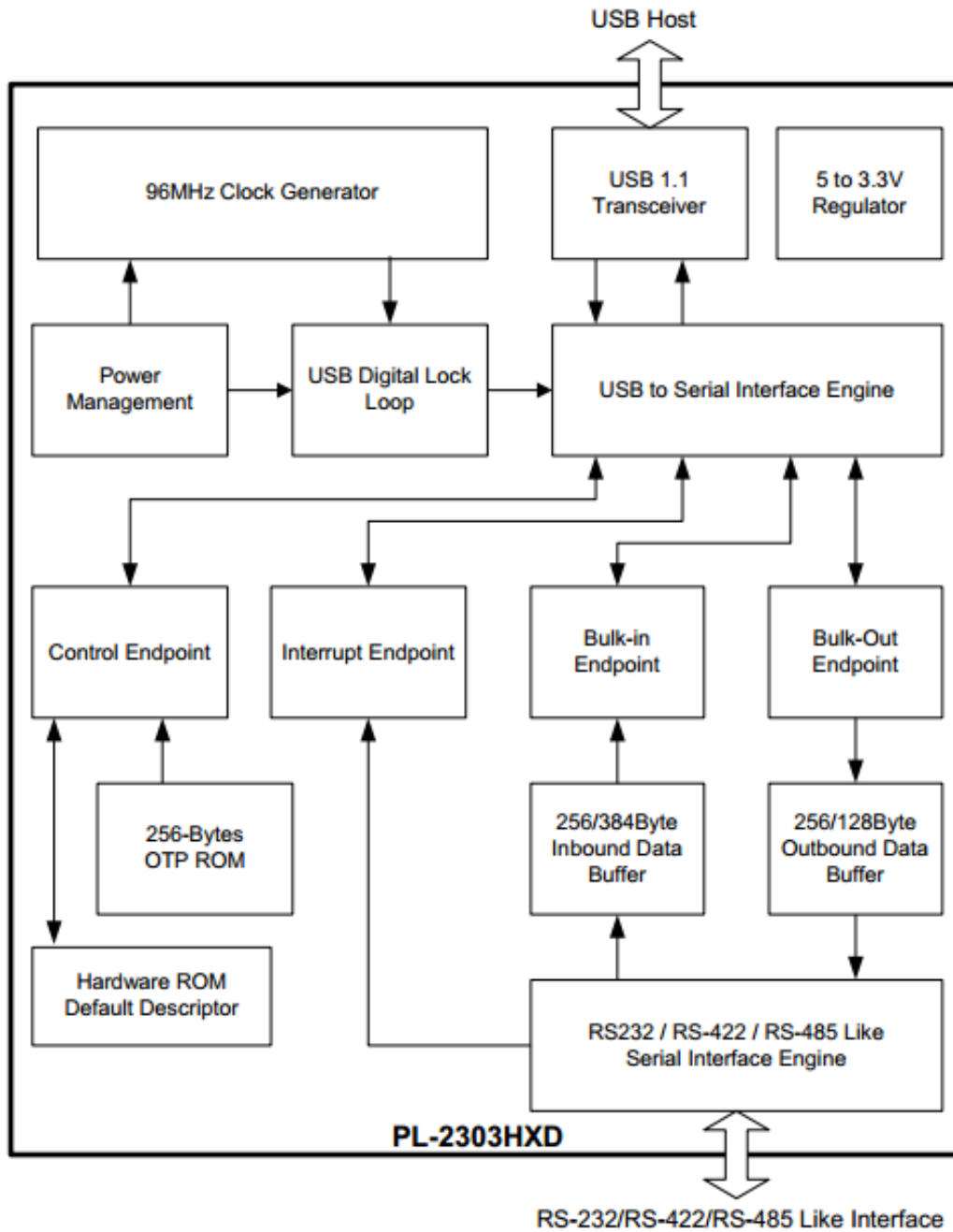
2.1 CHIPSET FEATURES:

- Single-chip USB to Serial (RS232/RS422/RS485) asynchronous serial data transfer interface
- Fully Compliant with USB Specification v2.0 (Full-Speed)
- UHCI/OHCI (USB1.1), EHCI (USB 2.0), xHCI (USB 3.0) Host Controller Compatible
- Integrated USB 1.1 transceiver and 5V to 3.3V Regulator
- Integrated 96MHz clock generator
- Integrated OTPROM (One-Time Programming ROM) – no external EEPROM required.
 - For writing and storing customer USB VID/PID, Serial Number, Product String, and other device startup configurations. (uses default settings if OTPROM is empty)
- Supports USB to RS232 Serial UART Interface
 - Full-duplex transmitter and receiver (TXD and RXD)
 - Six MODEM control pins (RTS, CTS, DTR, DSR, DCD, and RI)
 - 5, 6, 7 or 8 data bits
 - Odd, Even, Mark, Space, or None parity mode
 - One, one and a half, or two stop bits
 - Parity error, frame error, and serial break detection
 - Programmable baud rate from 75 bps to 12M bps
 - External RS232 driver power down control
 - Independent power source for serial interface
- Supports RS-422/RS-485 like serial interface (TXD, DTR_N, and RTS_N pins should be externally pulled-up to 5V)

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- Extensive Flow Control Mechanism
 - Adjustable high/low watermark level
 - Automatic hardware flow control with CTS/RTS or DSR/DTR
 - Automatic software flow control with XON/XOFF
 - Inbound data buffer overflow detection
- Configurable 512-byte bi-directional data buffer
 - 256-byte outbound buffer and 256-byte inbound buffer; or
 - 128-byte outbound buffer and 384-byte inbound buffer
- Supports remote wake-up from RS232 input pin signals (RI, RXD, DSR, DCD, CTS)
- Four (4) General Purpose I/O (GP0, GP1, GP2, & GP3) pins and Four (4) Auxiliary General Purpose I/O (RI_N, DSR_N, DCD_N, & CTS_N) pins.
- Supports Windows Selective Suspend by OTPROM configuration (Enable Remote Wakeup)
 - Suspends power of chip when idle (COM port is closed)
- Provides royalty-free USB to Virtual COM Port drivers for Windows, Mac, Linux, Android
- -40°C to 85°C Operating Temperature
- Small footprint 28-pin SSOP or 32-pin QFN IC packages (RoHS compliant and Pb-free Green Compound)

2.2 PL-2303HXD BLOCK DIAGRAM



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3. PCB SPECIFICATIONS

3.1 PCB LAYOUT

- PCB size (L × W × H): 45 mm × 30.92 mm × 1.65 mm
- PCB material: Fiberglass (FR-4).
- PCB layer: 2 Layers
- PCB version: USB232-P9V2 V1.0

3.2 PCB DIAGRAM

3.2.1 PCB UP DIAGRAM



3.2.2 PCB DOWN DIAGRAM



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3.3 LED INDICATOR

- **Green LED lights up (LINK):**

The USB TO RS232 plugs-into the host controller.

- **Red LED Blink (TX, RX):**

The USB TO RS232 downstream ports receive the RS232 devices data signal to the PC.

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4. CABLE SPECIFICATIONS

4.1 CABLE FEATURES

NOTE:

- 1.4P USB “A” MALE CONNECTOR
- 2.PVC MOLDING (CTN-P-002)
- 3.UL2725 28#1P+24#2C+AEB Ø4.7mm L=1800 ±20 mm
(CTN-P-002)
- 4.SR MOLDING (CTN-P-002)
- 5.Ø1.0*23mm HEAT SHRINK TUBE (THIN)
- 6.2.5 PINCH 5P HOUSING
- 7.2.5 PINCH TERMINAL

PIN ASSIGNMENT:

- 1-----RED-----1
- 2----WHITE-----2
- 3----GREEN-----3
- 4----BLACK-----4
- SHELL-----5

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5. CERTIFICATE

5.1 CERTIFICATE (CE)

ATTESTATION OF CONFORMITY



Date of Issue: 2012/09/19
 Attestation Number: 1209076

Model Name: USB to Serial Adapter
 Model No.: U232-P9V2
 Applicant: Magic Control Technology Corp.
 Address: 10F., No.123, Zhongcheng Rd., Tucheng Dist.,
 New Taipei City 236, Taiwan R.O.C.

And, in accordance to the following Applicable Directives
Applicable to EUROPEAN COUNCIL DIRECTIVE 2004/108/EC
(The Information Technology Equipment)

That this product has been assessed against the following Applicable Standards

- | | |
|-----------------------------------|---------------------|
| EN 55022:2010/AC:2011 (Class B) | EN 55024:2010 |
| AS/NZS CISPR 22:2009 (Class B) | IEC 61000-4-2:2008 |
| EN 61000-3-2:2006/A1:2009/A2:2009 | IEC 61000-4-3:2010 |
| EN 61000-3-3:2008 | IEC 61000-4-4:2010 |
| | IEC 61000-4-5:2005 |
| | IEC 61000-4-6:2008 |
| | IEC 61000-4-8:2009 |
| | IEC 61000-4-11:2004 |

CERPASS hereby acknowledges that:

The measurements shown in this test report may issue a DECLARATION of CONFORMITY and apply the CE mark in accordance to European Union Rules.

Attestation by: Hill Chen 2012/09/19
 Hill Chen Date

EMC/REPEL Assitant Magic Corp.
 2F-11, No. 3, Yuan Qu St. (Nankang Software Park), Taipei 11560, Taiwan
 TEL: +886-2-26558100 FAX: +886-2-26558200
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5.2 CERTIFICATE (FCC)

ATTESTATION OF CONFORMITY



Date of Issue: 2012/09/19
Attestation Number: 1209076

Model Name: USB to Serial Adapter

Model No.: U232-P9V2

Applicant: Magic Control Technology Corp.

Address: 10F., No.123, Zhongcheng Rd., Tucheng Dist.,
New Taipei City 236, Taiwan R.O.C.

And, in accordance to the following Applicable Directives

Applicable to ANSI C63.4 – 2009

(The Information Technology Equipment)

That this product has been assessed against the following Applicable Procedures

CISPR PUB. 22, FCC Part 15 Subpart B

CERPASS hereby acknowledges that:

The measurements shown in this test report may issue a DECLARATION of CONFORMITY and apply the FCC mark in accordance to U. S. A. Rules.

Attestation by:

Hill Chen

EMC/RF B.U. Assistant Manager

2012/09/19

Date

Cerpass Technology Corp.

2F-11, No. 3, Yuan Qu St. (Nankang Software Park), Taipei 11560, Taiwan
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5.3 CERTIFICATE (C-Tick)

ATTESTATION OF CONFORMITY



Date of Issue: 2012/09/19

Attestation Number: 1209076

Model Name: USB to Serial Adapter

Model No.: U232-P9V2

Applicant: Magic Control Technology Corp.

Address: 10F., No.123, Zhongcheng Rd., Tucheng Dist.,
New Taipei City 236, Taiwan R.O.C.

And, in accordance to the following Applicable Directives

Applicable to Australian/New Zealand Standard

(The Information Technology Equipment)

That this product has been assessed against the following Applicable Standards

AS/NZS CISPR 22:2009 Class B

CERPASS hereby acknowledges that:

The measurements shown in this test report may issue a DECLARATION of CONFORMITY and apply the C-tick mark in accordance to Australian/New Zealand Rules.

Attestation by:


Hill Chen

EMC/RF B.U. Assistant Manager

2012/09/19

Date

Cerpass Technology Corp.

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5.4 CERTIFICATE (VCCI)

Acceptance certificate

Company name: Magic Control Technology Corporation
 Address: 10F, No. 123, Zhongcheng Rd., Tucheng Dist., New Taipei City 236, Taiwan R.O.C.
 Responsible person: Mr. James Liu Member number: 1133
 Department: Sales Report No.: 2012026372
 E-mail: james@mct.com.tw Reporting date: 2012/10/23
 Contact person: Mason Chen Reporting media: online
 Address: 10F, No.123, Zhongcheng Rd., Tucheng Dist.,New Taipei City 236, Taiwan.R.O.C
 Department: R&D Status: accepted
 Phone: +886-2-2268-9300 Last report No.:
 FAX: +886-2-2267-2988 Acceptance No.: 2012018954
 E-mail: mason@mct.com.tw Sub No.: 1
 Recipient of certificate of reporting Acceptance date: 2012/10/23
 Department: R&D
 E-mail: mason@mct.com.tw

Reporting type:	new		
Classification of ITE and classification code:	ClassB / Classification code r1		
Name of ITE:	Personal computers peripherals		
Product type (Model No.):	Product description: USB to Serial Adapter Model no: U232-P9V2		
Name of the testing laboratory:	Cerpas Technology Corp.		
Measurement facility registration number:	Done		Measurement distance
	1) Radiated EMI measurement below 1GHz facility	R-3428	10 m
	2) Radiated EMI measurement above 1GHz facility	G-97	3 m
	3) Mains port conducted EMI measurement facility	C-4139	
	4) Telecommunication ports conducted EMI measurement facility	T-1173	
	5) Article 15 registered laboratory	A-	
Date of testing:	2012/09/19		
Serial No. of the test report:	TEJV1209076		
Reason for addition/modification:			
VCCI comment:			