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EPSON

Universal Serial Bus Interface Board

UB-U05

Specification

STANDARD	
Rev. No.	B
Notes	

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REVISION SHEET

Sheet 1 of 2

The table below indicates which pages in this specification have been revised. Before reading this specification, be sure you have the correct version of each page.

Revisions		Design Section			Sheet Rev. No.						
Rev.	Document	WRT	CHK	APL	Sheet	Rev.	Sheet	Rev.	Sheet	Rev.	
A	Enactment	Watanabe	--	Ogasawara	I	A					
B	Change	Aruga	--	Yamaji	II	B					
					III	A					
					IV	A					
					1	B					
					2	A					
					3	A					
					4	A					
TITLE UB-U05 Specification (STANDARD)				Front Part					Contents	Appendix	Total
				Cover	Rev. Sheet	Scope	General Description	Table of Contents			
				1	2	--	3	1			

REVISION SHEET

Sheet 2 of 2

REV.	SHEET	CHANGED CONTENTS
A	All	Newly enacted.
B	II	Cautions Added 8. (Notes on use of the product).
	1	1.2 Printers that Can Use the UB-U05 Changed "The UB-U05 can be installed in the TM printers listed below: • TM-H6000II with Image Scanner (Gray Scale Model)" to "The UB-U05 can be used for the TM series printers from which an interface board can be removed. Since some TM printers cannot use the UB-U05, see the TM-UIB Combination Specification for the latest restrictions on TM printers – UB-U05 combination."
TITLE		
UB-U05 Specification (STANDARD)		

Points That Must be Observed To Assure Product Safety

To assure the safe operation of this product, carefully observe the specifications as well as the notes provided below.

Seiko Epson Corporation will not bear any responsibility for any damage or injuries arising from use of this product that is not in accordance with the specifications and the notes provided below.

- 1) Do not drop conductive materials, such as a paper clip or push pin, onto the circuit board.
Short circuiting pins on the board may cause heat damage due to excess current or may melt the bonding wire.
- 2) Be sure to connect the devices with the specified cables.
Improper connection may cause fire or shock.
- 3) Never disassemble or modify this product.
Tampering with this product may result in injury, fire, or electric shock.
- 4) Be sure to set this equipment on a firm, stable, horizontal surface.
Product may break or cause injury if it falls.
- 5) Do not use in locations subject to high humidity or dust levels.
Excessive humidity and dust may cause equipment damage, fire, or shock.
- 6) Do not place heavy objects on top of this product. Never stand or lean on this product.
Equipment may fall or collapse, causing breakage and possible injury.
- 7) To ensure safety, please turn the power of this product off prior to leaving it unused for an extended period.

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION A	NO	
			NEXT II	SHEET I

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EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION B	NO	
			NEXT III	SHEET II

OVERVIEW

1. Application

This specification applies to the UB-U05.

2. Features

- 1) High speed communication at 12M bps. (bps: bits per second)
- 2) Supports Plug & Play, Hot Insertion & Removal

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION A	NO	
			NEXT IV	SHEET III

TABLE OF CONTENTS

1. OVERVIEW	1
1.1 Structure.....	1
1.2 Printers that Can Use the UB-U05	1
2. MECHANICAL SPECIFICATIONS	2
2.1 Connector.....	2
2.2 Cable Hook.....	2
3. ENVIRONMENTAL CONDITIONS	3
4. EMI AND SAFETY STANDARDS APPLIED.....	3
5. SETTING UP	3
5.1 Setting up the TM	3
6. DRIVERS.....	4
6.1 Operation Environment.....	4
6.2 Driver Structure	4

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION A	NO	
			NEXT 1	SHEET IV

1. OVERVIEW

1.1 Structure

The USB interface board UB-U05 is installed in an EPSON TM series printer to provide the USB interface function.

1.2 Printers that Can Use the UB-U05

The UB-U05 can be used for the TM series printers from which an interface board can be removed. Since some TM printers cannot use the UB-U05, see the TM-UIB Combination Specification for the latest restrictions on TM printers – UB-U05 combination.

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION B	NO	
			NEXT 2	SHEET 1

2. MECHANICAL SPECIFICATIONS

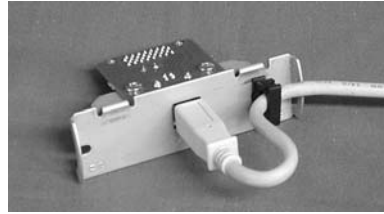


Figure 2.1 External View of UB-U05

2.1 Connector

UB-U05 has a following type of connector:

- USB upstream port connector (USB Type-B connector)

2.2 Cable Hook

The USB cable can be hung on a hook to prevent it from falling out (refer to Figure 2.1).

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION A	NO	
			NEXT 3	SHEET 2

3. ENVIRONMENTAL CONDITIONS

1) Temperature	Operating:	0 to 50°C {32 to 122°F}
	Storage:	-10 to 50°C {14 to 122°F}
2) Humidity	Operating	10 to 90% RH (no condensation)
	Storage	10 to 90% RH (no condensation)

4. EMI AND SAFETY STANDARDS APPLIED

1) Europe:	CE Marking Directive 89/336/EEC EN55022 Class A EN55024 IEC61000-4-2 IEC61000-4-3 IEC61000-4-4 IEC61000-4-5 IEC61000-4-6 IEC61000-4-11
	Note that the printers in which this board is installed do not conform to the following CE Marking: Directive 90/384/EEC • EN45501
2) North America	EMI FCC/ICES-003 Class A
3) Japan	EMI VCCI Class A
4) Oceania	EMC AS/NZS 3548 Class A

5. SETTING UP

5.1 Setting up the TM

When using this interface board, refer to the specification for each TM printer for these settings for details.

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION A	NO	
			NEXT 4	SHEET 3

6. DRIVERS

The UB-U05 can be used with the driver in the host PC.

6.1 Operation Environment

Refer to each driver's manual.

6.2 Driver Structure

EPSON provides the following drivers.

- WDM USB device driver (class driver)
- Printer driver and USB port monitor
- OPOS driver for USB

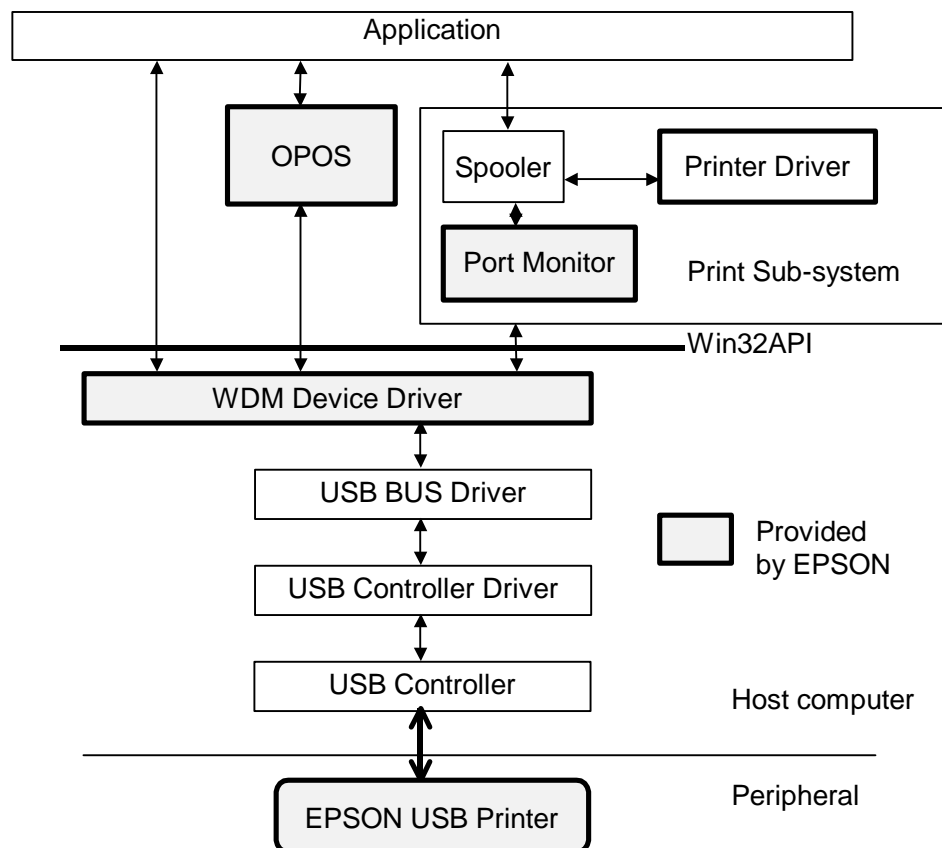


Figure 6.1 Driver Structure

EPSON	TITLE UB-U05 Specification (STANDARD)	SHEET REVISION A	NO	
			NEXT END	SHEET 4