

BEST  
PRINTING  
SOLUTION  
FOR  
YOUR NEEDS

## **HWASUNG SYSTEM**

**HWASUNG SYSTEM CO., LTD.**

(14057) Room 604, Digital Empire B-dong, 383, Shimin-daero,  
Dongan-gu, Anyang-si, Gyeonggi-do, S.Korea

Tel. +82 31 8086 7550~3

Fax. +82 31 8086 7555

Email. [hwasung@hwasung.co.kr](mailto:hwasung@hwasung.co.kr)

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**HWASUNG SYSTEM**

We, **HWASUNG SYSTEM**, have been providing direct thermal printing solutions for customers. We started key components of direct thermal printer in 2002 and now we try to broaden the products line up and the market.

To meet the demands of our clients in the fast changing economy, we have expanded the development team to reinforce our technical skills, and established a factory to improve our production system and the quality of each individual printer manufactured from the company. We listen to our clients and try to improve our services and quality of the printers each time.

We have further stepped into the business relationship boundaries, so that we can become the great partner, friend, and an associate that your company can trust.

We aim to push our technical expertise and improve the product qualities to cultivate the company into a partner and a trustworthy company that's acknowledged in the worldwide market. We will compensate with a transparent management that takes the view of the talented staffs and shares the co-operate's profits and developments.

We always try to satisfy customers and do the best to provide the best solution.

Thanks

B. G. JANG / President  
of HWASUNH SYSTEM Co., Ltd.

B. G. Jang

HWASUNG  
SYSTEM



# PRODUCT LINE UP

## KIOSK

● : Standard  
▲ : Extra option

	Speed (mm/s) & Thickness (μm)	Interface	Option
3-inch			
830	<div><div></div><div>50300</div><div>200</div></div>	USB ● Serial ● Ethernet ●	Presenter, Fanfolder Holder, Adjustable Width, 300dpi
072	<div><div></div><div>50200</div><div>150</div></div>	USB ● Serial ● Ethernet -	Presenter
081	<div><div></div><div>50200</div><div>150</div></div>	USB ● Serial ● Ethernet ▲	Presenter
825	<div><div></div><div>50120</div><div>250</div></div>	USB ● Serial ● Ethernet ▲	

	Speed (mm/s) & Thickness (μm)	Interface	Option
2-inch			
056	<div><div></div><div>50200</div><div>120</div></div>	USB ● Serial ● Ethernet -	Switch Sensor
060	<div><div></div><div>50150</div><div>150</div></div>	USB ● Serial ● Ethernet -	Gap Sensor
054	<div><div></div><div>50150</div><div>100</div></div>	USB ● Serial ● Ethernet -	

## POS

● : Standard  
▲ : Extra option

	Speed (mm/s) & Thickness (μm)	Interface
HP-283	<div><div></div><div>50250</div><div>90</div></div>	USB ● Serial ● Ethernet ▲ Wifi ▲ Bluetooth ▲ Parallel ▲ RJ45 ▲
HP-083E	<div><div></div><div>50200</div><div>90</div></div>	USB ● Serial ● Ethernet - Wifi - Bluetooth - Parallel - RJ45 ●
HP-058	<div><div></div><div>50150</div><div>90</div></div>	USB ● Serial ● Ethernet - Wifi - Bluetooth - Parallel - RJ45 -


## PANEL

● : Standard  
▲ : Extra option


	Speed (mm/s) & Thickness (μm)	Interface
380	<div><div></div><div>60200</div><div>80</div></div>	USB ● Serial ● Ethernet - Wifi - Bluetooth - Parallel - RJ45 -
250	<div><div></div><div>6090</div><div>80</div></div>	USB ● Serial ● Ethernet - Wifi - Bluetooth - Parallel - RJ45 -
240	<div><div></div><div>6090</div><div>80</div></div>	USB ● Serial ● Ethernet - Wifi - Bluetooth - Parallel - RJ45 -

# 830 SERIES


Reciept | Ticket | Label **3-inch KIOSK PRINTER**



- Fast Print Speed up to 300 mm/s (MAX)
- Powerful cutting up to 200 μm thick paper
- Jam-Free



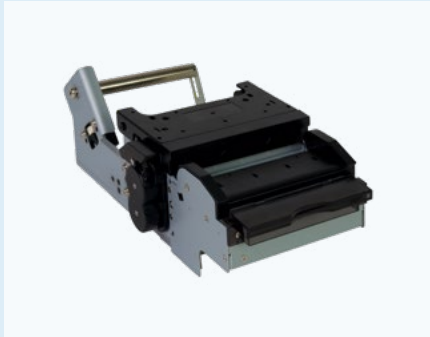
- High Quality Performances
  - 16 greyscale supported
  - Resolution Upgrade (Option) : 300 DPI
  - Gap Sensor : Label and Linerless Label available
  - Presenter : 4 kinds of Functions



- User Centered Design
  - Paper width 25 ~ 82.5 mm (Adjustabel Type)
- Customized Service
  - Paper Holder Direction : Left / Right (Selectable)
  - Paper Roll diameter : Φ300 (MAX)



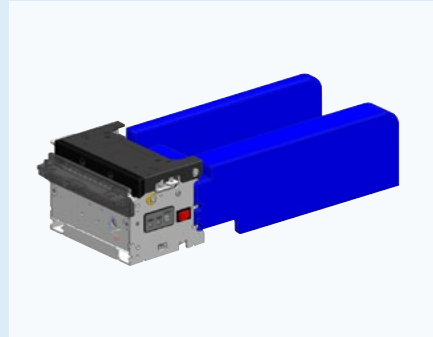
## SERIES LINE UP



Presenter (Option)



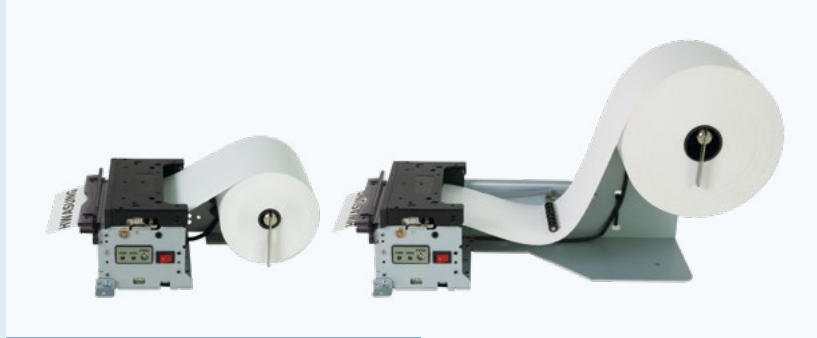
Adjustable Type (Option)



Fanfolder (Ticket)



Selectable Paper Holder Direction



Paper Roll Diameter Extended (Option)

### PRINT

Printing method	Thermal dot line printing					
Cutter	Guillotine Type (Full, Partial)					
Resolution	203 DPI, 300 DPI (option)					
Printing speed	Max 300 mm/s					

### PAPER

Dots per line	640 dots					
Paper thickness	50 μm - 200 μm					
Paper width (mm)	82.5	80	80	72	60	58
Printing width (mm)	80	77	72	64	54	48
Adjustable type width	25 mm - 82.5 mm					
Paper outside diameter (mm)	Φ100 (standard) up to Φ300 (max)					

### PERFORMANCE

Interface	Serial : RS232C	USB : USB2.0 Full Speed	Ethernet : IEEE 802.3i 10Base-T (10 Mbps)
Receiving Buffer	4 Kbyte		
SRAM	256 Kbyte (optional SDRAM 64 MB expandable)		
Flash ROM	2 Mbyte (optional 128 MB expandable)		

### ENVIRONMENT

Temperature	Operating : -20 °C ~ 45 °C	Storage : -25 °C ~ 60 °C
	It is recommended to use the goods between 0 to 45 degrees, otherwise life may be shortened.	
Humidity	Operating : 40 ~ 85% RH (non-condensing)	Storage : 40 ~ 95% RH (non-condensing)

### RELIABILITY (25°C, standard condition)

TPH(Thermal Printer Head)	100 km (100,000,000 Pulses)
Cutter	2,000,000 times

### SOFTWARE

Emulation	ESC POS Available
Driver	Window Driver, OPOS Driver, Linux/Mac CUPS Driver
SDK	Android SDK, Windows SDK, Linux SDK

### FONTS & GRAPHICS

Font Size	Font A	(12 x 24) 1.50 x 3.00 (mm)		Font B	(9 x 16) 1.13 x 2.00 (mm)		
	Kor A	(24 x 24) 3.00 x 3.00 (mm)		Kor B	(16 x 16) 2.00 x 2.00 (mm)		
Characters per Line	Printing Width	80 mm	77 mm	72 mm	64 mm	54 mm	48 mm
	Font A	53	51	48	42	36	32
	Font B	71	68	64	56	48	42
	Kor A	26	25	24	21	18	16
	Kor B	40	38	36	32	27	24
Number of characters	English 95			Extended characters (Code page) : 128 x 10			
Barcode	1D	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39, CODE93, CODE128					
	2D	PDF417, QR CODE					

### SMPS rating

Input voltage	100V ~ 240V (AC)
Output voltage	24V (DC)
Output current	2.5A 60W

# 072 SERIES

SLIM & COMPACT

Reciept | Ticket **3-inch KIOSK PRINTER**



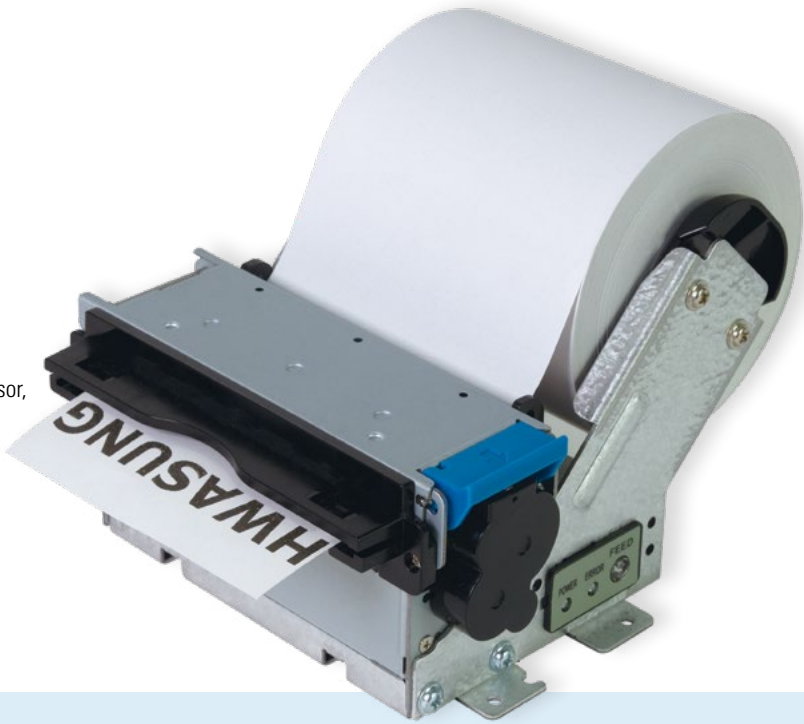
- Fast Print Speed up to 200 mm/s (MAX)
- Ultra Slim and Compact Design
- 118x132x89 (mm) (standard)
- Only 559 g (standard)
- Jam-Free



- High Quality Performances
  - 16 greyscale supported
  - Presenter : 4 kinds of Functions
  - Sensor Function :  
Cover Open Sensor, Paper Detect Sensor, Black Mark Sensor, Cutter Home Sensor, Near End (Paper Low) Sensor



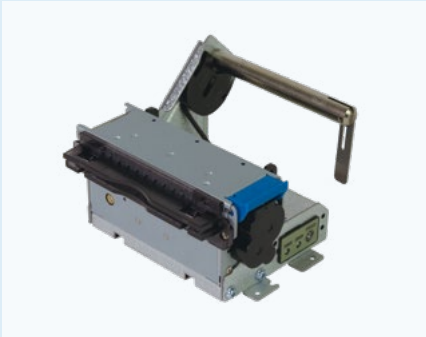
- User Centered Design
  - Paper width : 80, 72, 60, 58 (mm)
- Customized Service
  - Various Paper Holder :  
Ultra (No Arm), Lever (Standard), Shaft, Fanfolder
  - Paper Roll Diameter :  $\Phi$ 200 mm (MAX)



## SERIES LINE UP



Standard (Horizontal / Lever)



Shaft Arm



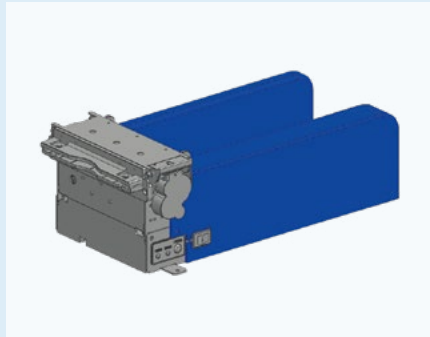
Ultra (No Arm)



Vertical Type



Presenter (Option)



Fanfolder (Ticket)

### PRINT

Printing method	Thermal dot line printing				
Cutter	Guillotine Type (Full, Partial)				
Resolution	203 DPI				
Printing speed	Max 200 mm/s				

### PAPER

Dots per line	640 dots				
Paper thickness	50 $\mu$ m - 150 $\mu$ m				
Paper width (mm)	80	80	72	60	58
Printing width (mm)	77	72	64	54	48
Paper outside diameter (mm)	$\Phi$ 80 (standard) up to $\Phi$ 250 (max)				

### PERFORMANCE

Interface	Serial : RS232C	USB : USB2.0 Full Speed
Receiving Buffer	4 Kbyte	
SRAM	256 Kbyte (optional SDRAM 64 MB expandable)	
Flash ROM	2 Mbyte (optional 128 MB expandable)	

### ENVIRONMENT

Temperature	Operating : -20 $^{\circ}$ C ~ 45 $^{\circ}$ C	Storage : -25 $^{\circ}$ C ~ 60 $^{\circ}$ C
	It is recommended to use the goods between 0 to 45 degrees, otherwise life may be shortened.	
Humidity	Operating : 40 ~ 85% RH (non-condensing)	Storage : 40 ~ 95% RH (non-condensing)

### RELIABILITY (25 $^{\circ}$ C, standard condition)

TPH(Thermal Printer Head)	100 km (100,000,000 Pulses)
Cutter	2,000,000 times

### SOFTWARE

Emulation	ESC POS Available
Driver	Window Driver, OPOS Driver, Linux/Mac CUPS Driver
SDK	Android SDK, Windows SDK, Linux SDK

### FONTS & GRAPHICS

Font Size	Font A	(12 x 24) 1.50 x 3.00 (mm)		Font B	(9 x 16) 1.13 x 2.00 (mm)		
	Kor A	(24 x 24) 3.00 x 3.00 (mm)		Kor B	(16 x 16) 2.00 x 2.00 (mm)		
Characters per Line	Printing Width	80 mm	77 mm	72 mm	64 mm	54 mm	48 mm
	Font A	53	51	48	42	36	32
	Font B	71	68	64	56	48	42
	Kor A	26	25	24	21	18	16
	Kor B	40	38	36	32	27	24
Number of characters	English 95			Extended characters (Code page) : 128 x 10			
Barcode	1D	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39, CODE93, CODE128					
	2D	PDF417, QR CODE					

### SMPS rating

Input voltage	100V ~ 240V (AC)
Output voltage	24V (DC)
Output current	2.5A 60W



HMK-060



- Ticket Printing available - Blacmark / Thick paper (~0.15 mm)
- Gap Sensor (Option) - Label Printing available
- Paper Roll Diameter Extended (Option) - Up to 120 mm

PRINT

Printing method	Direct Thermal
Cutter	Guillotine Type (Full, Partial)
Resolution	203 DPI
Printing speed	160 mm/s

PAPER

Dots per line	432 dots
Paper thickness	50 μm - 150 μm
Paper width (mm)	59.5 mm ± 0.5 mm
Paper outside diameter (mm)	Φ80 mm / Φ120 mm (Option)

PERFORMANCE

Interface	Serial : RS-232C	USB : USB2.0 Full Speed
Receiving Buffer	4 Kbyte	
SRAM	256 Kbyte (optional SDRAM 64 MB expandable)	
Flash ROM	2 Mbyte (optional 128 MB expandable)	

ENVIRONMENT

Temperature	Operating : -20 °C ~ 45 °C	Storage : -25 °C ~ 60 °C
	It is recommended to use the goods between 0 to 45	
Humidity	Operating : 40 ~ 85% RH (non-condensing)	Storage : 40 ~ 95% RH (non-condensing)

RELIABILITY

TPH(Thermal Printr Head)	100 km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)

SOFTWARE

Emulation	ESC POS Available
Driver	Window Driver, OPOS Driver, Linux/Mac CUPS Driver
SDK	Android SDK, Windows SDK, Linux SDK

FONTS & GRAPHICS

Font Size	Font A	(12 x 24) 1.50 x 3.00 (mm)	Font B	(9 x 16) 1.13 x 2.00 (mm)
	Kor A	(24 x 24) 3.00 x 3.00 (mm)	Kor B	(16 x 16) 2.00 x 2.00 (mm)
Characters per Line	Font A	37	Font B	49
	Kor A	18	Kor B	28
Number of characters	English 95		Extended characters (Code page) : 128 x 10	
Barcode	1D	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39, CODE93, CODE128		
	2D	PDF417, QR CODE		

SMPS rating

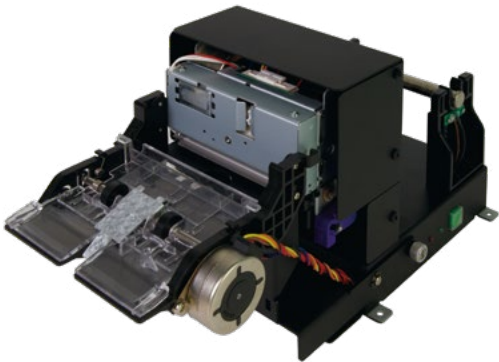
Input voltage	100V ~ 240V (AC)
Output voltage	24V (DC)
Output current	2.5A 60W

HMK-081



Printing method	Direct Thermal
Resolution	203 DPI (640 dots/line)
Printing speed	200 mm/s
Paper thickness	50 μm - 120 μm
Paper width	60 ~ 80 mm
Paper outside diameter	Φ100 (mm) / Φ150 (mm) - Option
Interface	Serial : RS-232C    USB : USB2.0 Full Speed Ethernet (Option)
TPH	100 Km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)
Accessories	LED BEZEL LIGHT

HMKP-081



Printing method	Direct Thermal
Resolution	203 DPI (640 dots/line)
Printing speed	200 mm/s
Paper thickness	50 μm - 120 μm
Paper width	79.5 mm ± 0.5 mm
Paper outside diameter	Φ100 (mm) / Φ150 (mm) - Option
Interface	Serial : RS-232C    USB : USB2.0 Full Speed Ethernet (Option)
TPH	100 Km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)

HMK-825

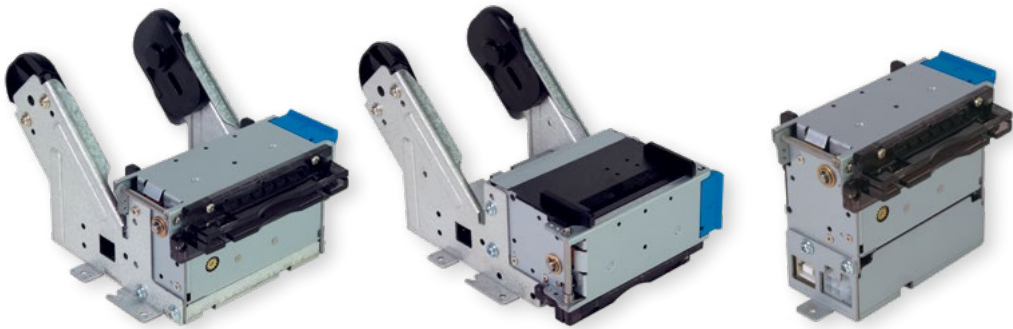


Printing method	Direct Thermal
Resolution	203 DPI (640 dots/line)
Printing speed	250 mm/s
Paper thickness	50 μm - 120 μm
Paper width	60 ~ 82.5 mm
Paper outside diameter	Φ100 (mm) / Φ150 (mm) - Option
Interface	USB : USB2.0 Full Speed Serial : RS-232C
TPH	100 Km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)

# 056 SERIES

SLIM & COMPACT

Reciept | Ticket 2-inch KIOSK PRINTER



- Fast Print Speed up to 200 mm/s (MAX)

· Powerful Cutting : Upto 120 μm thick paper
- Ultra Slim and Compact 98 x 136 x 92 (mm) (standard)

· Very Light, Only 430g (standard)
- Jam-Free

PRINT		PAPER	
Printing method	Direct Thermal	Dots per line	448 dots
Cutter	Guillotine Type (Full, Partial)	Paper thickness	50 μm - 120 μm
Resolution	203 DPI	Paper width (mm)	60
Printing speed	Max 200 mm/s	Printing width (mm)	56
		Paper outside diameter (mm)	100 (standard) up to 120 (max)

PERFORMANCE		
Interface	Serial : RS232C	USB : USB2.0 Full Speed
Receiving Buffer	4 Kbyte	
SRAM	256 Kbyte (optional SDRAM 64 MB expandable)	
Flash ROM	2 Mbyte (optional 128 MB expandable)	

ENVIRONMENT		
Temperature	Operating : -20 °C ~ 45 °C	Storage : -25 °C ~ 60 °C
	It is recommended to use the goods between 0 to 45 degrees, otherwise life may be shortened.	
Humidity	Operating : 40 ~ 85% RH (non-condensing)	Storage : 40 ~ 95% RH (non-condensing)

RELIABILITY (25°C, standard condition)		SOFTWARE	
TPH (Thermal Printer Head)	100 km (100,000,000 Pulses)	Emulation	ESC POS Available
Cutter	2,000,000 times	Driver	Window Driver, OPOS Driver, Linux/Mac CUPS Driver
		SDK	Android SDK, Windows SDK, Linux SDK

FONTS & GRAPHICS

Font Size	Font A	(12 x 24) 1.50 x 3.00 (mm)	Font B	(9 x 16) 1.13 x 2.00 (mm)
	Kor A	(24 x 24) 3.00 x 3.00 (mm)	Kor B	(16 x 16) 2.00 x 2.00 (mm)
Characters per Line	Font A	37	Font B	49
	Kor A	18	Kor B	28
Number of characters	English 95		Extended characters (Code page) : 128 x 10	
Barcode	1D	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39, CODE93, CODE128		
	2D	PDF417, QR CODE		

SMPS rating	
Input voltage	100V ~ 240V (AC)
Output voltage	24V (DC)
Output current	2.5A 60W

# 054 SERIES



PRINT		PAPER	
Printing method	Direct Thermal	Dots per line	432 dots
Cutter	Guillotine Type (Full, Partial)	Paper thickness	50 μm - 100 μm
Resolution	203 DPI	Paper width (mm)	59.5 mm ± 0.5 mm
Printing speed	150 mm/s	Paper outside diameter (mm)	φ100 mm / φ120 mm (Option)

PERFORMANCE		
Interface	Serial : RS-232C	USB : USB2.0 Full Speed
Receiving Buffer	4 Kbyte	
SRAM	256 Kbyte (optional SDRAM 64 MB expandable)	
Flash ROM	2 Mbyte (optional 128 MB expandable)	

ENVIRONMENT		
Temperature	Operating : -20 °C ~ 45 °C	Storage : -25 °C ~ 60 °C
	It is recommended to use the product between 0 to 45	
Humidity	Operating : 40 ~ 85% RH (non-condensing)	Storage : 40 ~ 95% RH (non-condensing)

RELIABILITY	
TPH(Thermal Printr Head)	100 km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)

SOFTWARE	
Emulation	ESC POS Available
Driver	Window Driver, OPOS Driver, Linux/Mac CUPS Driver
SDK	Android SDK, Windows SDK, Linux SDK

FONTS & GRAPHICS				
Font Size	Font A	(12 x 24) 1.50 x 3.00 (mm)	Font B	(9 x 16) 1.13 x 2.00 (mm)
	Kor A	(24 x 24) 3.00 x 3.00 (mm)	Kor B	(16 x 16) 2.00 x 2.00 (mm)
Characters per Line	Font A	37	Font B	49
	Kor A	18	Kor B	28
Number of characters	English 95		Extended characters (Code page) : 128 x 10	
Barcode	1D	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39, CODE93, CODE128		
	2D	PDF417, QR CODE		

SMPS rating	
Input voltage	100V ~ 240V (AC)
Output voltage	24V (DC)
Output current	2.5A 60W

# POS PRINTER

HP-283 | HP-083E | HP-058



HP-283

Printing method	Direct Thermal
Resolution	180 DPI (512 dots/line)
Printing speed	250 mm/s
Paper thickness	50 μm - 90 μm
Paper width	79.5 mm ± 0.5 mm
Paper outside diameter	Φ83 (mm)
Interface	Serial : RS-232C    USB : USB2.0 Full Speed Ethernet, Wifi, Bluetooth, Parallel, RJ45
TPH	130 Km
Cutter	1,700,000 times / Guillotine Type (Full, Partial)



HP-083E

Printing method	Direct Thermal
Resolution	180 DPI (512 dots/line)
Printing speed	200 mm/s
Paper thickness	50 μm - 90 μm
Paper width	79.5 mm ± 0.5 mm
Paper outside diameter	Φ82.5 (mm)
Interface	Serial : RS-232C USB : USB2.0 Full Speed, +RJ45
TPH	130 Km
Cutter	1,700,000 times / Guillotine Type (Full, Partial)



HP-058

Printing method	Direct Thermal
Resolution	203 DPI (402 dots/line)
Printing speed	150 mm/s
Paper thickness	50 μm - 90 μm
Paper width	57.5 mm ± 0.5 mm
Paper outside diameter	Φ50 (mm)
Interface	Serial : RS-232C USB : USB2.0 Full Speed
TPH	100 Km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)

# TICKET PRINTER

HP-825 | HP-830



HP-830

Printing method	Direct Thermal
Resolution	203 DPI (640 dots/line)
Printing speed	300 mm/s
Paper thickness	50 μm - 200 μm
Paper width	82.5 mm
Paper outside diameter	MAX Φ200 (mm)
Interface	Serial : RS-232C USB : USB2.0 Full Speed, Ethernet
TPH	100 Km
Cutter	2,000,000 times / Guillotine Type (Full, Partial)



HP-825

Printing method	Direct Thermal
Resolution	203 DPI (640 dots/line)
Printing speed	200 mm/s
Paper thickness	50 μm - 120 μm
Paper width	82.5 mm
Paper outside diameter	Φ80 (mm)
Interface	Serial : RS-232C USB : USB2.0 Full Speed
TPH	100 Km
Cutter	1,000,000 times / Guillotine Type (Full, Partial)

MOBILE PRINTER

HP-500



PRINT

PAPER

Printing method	Direct Thermal
Resolution	203 DPI
Printing speed	90 mm/s

Dots per line	640 dots
Paper thickness	60 μm - 160 μm
Paper width (mm)	58 mm

PERFORMANCE

Interface	USB : USB2.0 Full Speed	Bluetooth
	Wifi (Option)	Serial : RS232C
Receiving Buffer	4 Kbyte	
SRAM	256 Kbyte (optional SDRAM 64 MB expandable)	
Flash ROM	2 Mbyte (optional 128 MB expandable)	

ENVIRONMENT

Temperature	Operating : -20 °C ~ 45 °C	Storage : -2 0°C ~ 60 °C
	It is recommended to use the goods between 0 to 45	
Humidity	Operating : 40 ~ 85% RH (non-condensing)	Storage : 40 ~ 95% RH (non-condensing)

RELIABILITY

TPH(Thermal Printr Head)	50 km
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SOFTWARE

Emulation	ESC POS Available
Driver	Window Driver, Linux/Mac CUPS Driver
SDK	Android SDK, Windows SDK, Linux SDK

FONTS & GRAPHICS

Font Size	Font A	(12 x 24) 1.50 x 3.00 (mm)	Font B	(9 x 16) 1.13 x 2.00 (mm)
	Kor A	(24 x 24) 3.00 x 3.00 (mm)	Kor B	(16 x 16) 2.00 x 2.00 (mm)
Characters per Line	Font A	37	Font B	49
	Kor A	18	Kor B	28
Number of characters	English 95		Extended characters (Code page) : 128 x 10	
Barcode	1D	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39		
	2D	PDF417, QR CODE		

SMPS rating

Input voltage	5~8.5 V or 9~24 V
Current consumption	1.5A(average)

PANEL PRINTER

HP-380 | HPP-250 II | HPP-240



HP-380

Printing method	Direct Thermal
Resolution	203 DPI
Printing speed	200 mm/s
Paper thickness	50 μm - 80 μm
Paper width	80 mm
Paper outside diameter	Φ80 (mm)
Interface	Serial : RS-232C
	USB : USB2.0 Full Speed
TPH	100 Km



HPP-250 II

Printing method	Direct Thermal
Resolution	203 DPI
Printing speed	90 mm/s
Paper thickness	60 μm - 80 μm
Paper width	58 mm
Paper outside diameter	50 mm
Interface	Serial : RS-232C
	USB : USB2.0 Full Speed, +RJ45
TPH	50 Km



HPP-240

Printing method	Direct Thermal
Resolution	203 DPI (402 dots/line)
Printing speed	90 mm/s
Paper thickness	60 μm - 80 μm
Paper width	58 mm
Paper outside diameter	40 mm
Interface	Serial : RS-232C
	USB : USB2.0 Full Speed
TPH	50 Km