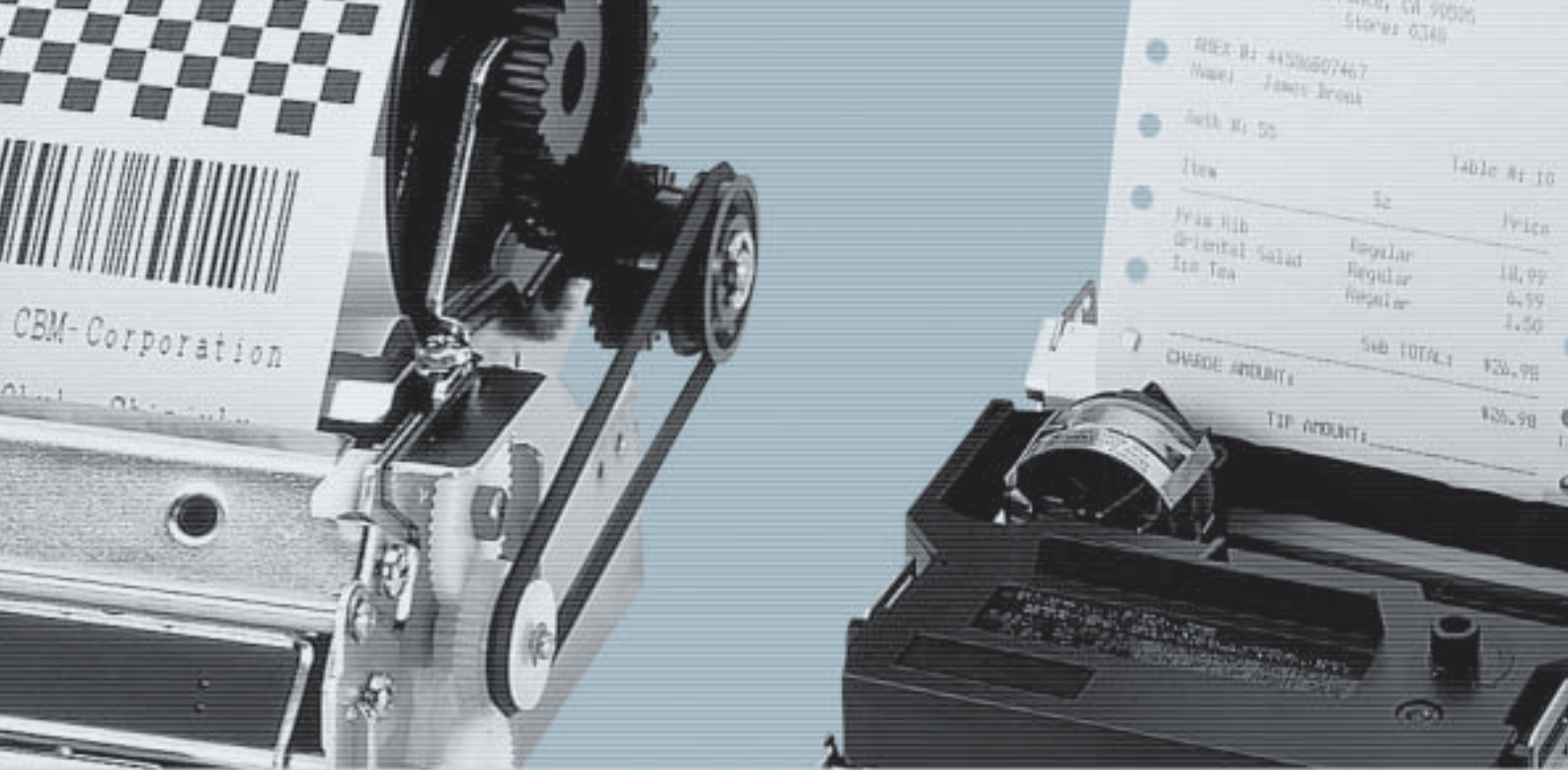


PRINTER MECHANISM

Product Guide

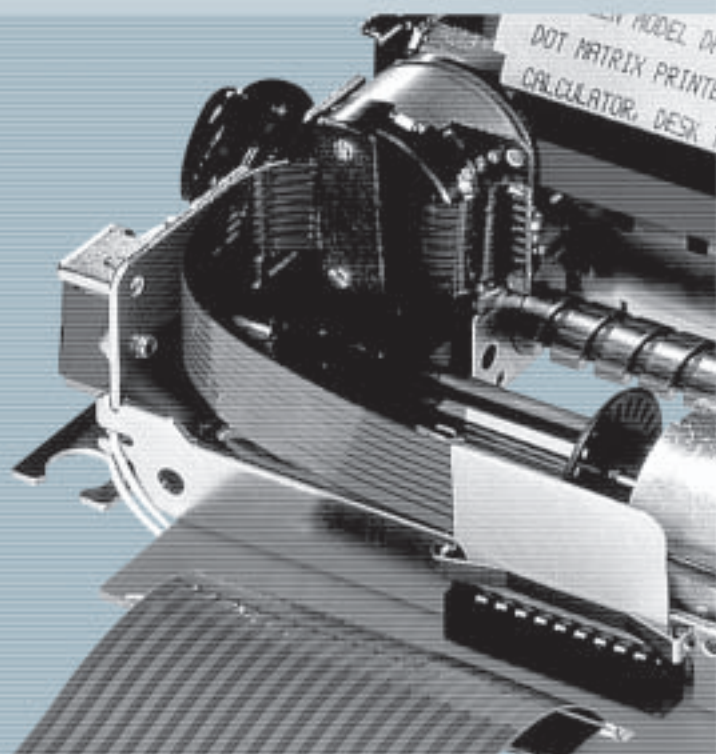
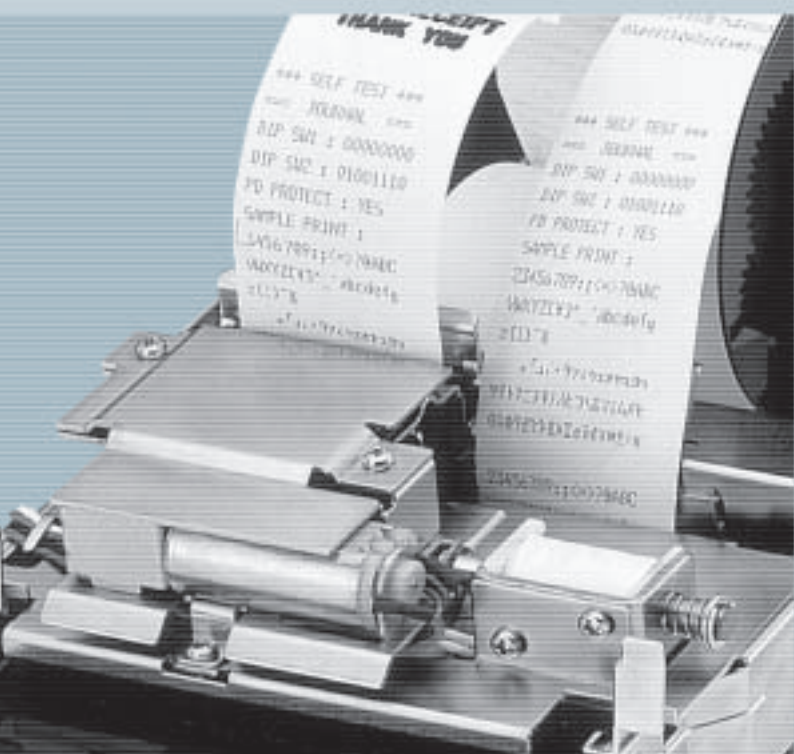




CITIZEN PRINTERS —

built with all the features and specifications required to satisfy the toughest jobs.

No matter what the application is, Citizen has a printer to meet your most demanding needs. With a complete line of POS Printers and OEM mechanisms to choose from, Citizen makes it easy for you to find the right printer for the right job. Select from one of the industry's widest varieties of dot matrix and thermal printers with standard features like semi-automatic paper loading, compact design, and high-speed performance. Not to mention a range of options that include winders, auto cutters, and multicolor ribbons. When it comes to quality, reliability and long lasting value you know you can depend on Citizen. All Citizen products are backed by the resources and reputation of a worldwide leader in POS printers and OEM mechanisms.



C O N T E N T S

Line Thermal Printer Mechanisms

3	KIOSK Unit PPU-700	7	LT1320
4	KIOSK Unit PPU-231	8	Platen removable LT1221 / 1221C
4	LT-286	8	Platen removable LT1321 / 1321C
5	MLT-288	9	LT-281
5	Platen removable MLT-289	9	LT-481H
6	MLT-388		LT-481V
6	Platen removable MLT-389	10	2 station LT-483
7	LT1220	10	2 station LT1322

Dot Impact Printer Mechanisms

11	MD-910	15	DP-654/657
12	MD-911	16	DP-62XF
12	DP-320/330		DP-62XP
13	DP-420 / 430	17	2 station DP-630
13	DP-555 / 575	17	2 station DP-730/740
14	DP-61XP		
	DP-61XH		
	DP-61XF		
	DP-61X Series		

Accessories/Options

- 18 Control Boards/Chips
- 19 Cutters
- 20 Ribbons/Winders
- 21 Accessory Reference Table

Line Thermal Printer Mechanisms



The many benefits of thermal printers include quiet operation, high-speed printing and excellent high-density barcode printing. Thermal printer demand is steadily increasing worldwide, centering on growing POS, ECR and KIOSK applications. Japan CBM Corporation (JCBM) provides a wide range of high-quality thermal printers to meet these customer needs.



Type Classification

PPU-700 P U

① ② ③

① Model
PPU-700

② Interface
P: Parallel
R: Serial
U: USB

③ Character set
K: Japan
U: US/Europe

KIOSK Unit



Paper roll 58 mm, Paper roll 67 mm, Paper roll 80 mm, Paper roll 83 mm

PPU-700/PHU-331

Features

- Selectable paper width
- 150mm/s high-speed printing
- User-installable interface card
- Easy paper handling
- Two color printing

Specifications

Printing method	Line thermal dot printing
Printing width	80mm/640 dots (paper width 83mm) 72mm/576 dots (paper width 80mm) 60mm/480 dots (paper width 67mm) 54mm/432 dots (paper width 58mm)
Dot pitch	8 × 8 dots/mm (203 dpi × 203 dpi)
Printing speed	150mm/sec. (max), 35.4 lines/sec.
Number of columns	48 columns (Font A), 64 columns (Font B), 72 columns (Font C) (Paper width 80mm)
Character size	1.25mm × 3.00mm (Font A: 12 × 24 dots) 0.88mm × 2.13mm (Font B: 9 × 17 dots) 0.88mm × 2.00mm (Font C: 8 × 16 dots)
Fonts	Alphanumeric, International characters, Codepages PC437, Katakana, PC850, PC852, PC857, PC858, PC860, PC863, PC864, PC865, PC866, WPC1252, Thai code 18
Barcode type	UPC-A/E, JAN(EAN) 13/8 columns, ITF, CODE39, CODE128 CODABAR, CODE93
Logo registration/print	Capable of registering user-defined characters and logos into flash memory.
Line spacing	4.23mm (1/6 inches); selectable by commands
Printing paper	Thermal paper roll: Paper width 58/67/80/83mm Paper roll diameter 203mm or less Paper thickness 0.065 – 0.150mm Core diameter: 12mm (paper thickness: 0.065 – 0.080mm) 25.4mm (paper thickness: 0.080 – 0.150mm) Recommended paper: TF-50KSE2D, TF-62KS-E (Nippon Paper industries)
Interface	Serial (RS-232C), Parallel (IEEE1284 compliant, Bi-directional communication)
Input buffer	4K bytes (72 bytes selectable with a DIP switch)
Sensors	Paper near end sensor (adjustable, for PHU series) (photo interrupter) Paper end sensor (mechanical switch) Black mark sensor (photo interrupter) Cover open sensor (mechanical switch) Paper out sensor (photo interrupter)
Power source voltage	24V ±7%
Power consumption	100W
Weight	PPU-700: 2.1kg (incl. control PCB) PHU-331: 0.95kg (excl. roll paper)
External dimensions (W × D × H)	PPU-700: 163.2 (incl. control PCB) × 176 × 143mm PHU-331: 114.4 ~ 138.9 × 122.6 × 137.2mm
Operating temperature/humidity	5 ~ 40°C, 35 ~ 85%RH (No condensation)
Storage temperature/humidity	-20 ~ 60°C, 10 ~ 90%RH (No condensation)
Reliability	Mechanism: 20,000,000 lines Thermal head: 100,000,000 pulses or 100km Auto cutter: 1,000,000 cuts (when using 0.065 – 0.085mm)
Safety standard	UL, C-UL, FCC class A, TUV-CE marking

*PHU-331 is optional item.

Type Classification

PPU-231 P E

① ② ③

① Model
PPU-231

② Interface
P: Parallel
R: Serial

③ Character set
K: Japan
U: US
E: Europe

LT-286

①

① Model
LT-286

KIOSK Unit

Paper roll
80 mm



PPU-231/PHU-131

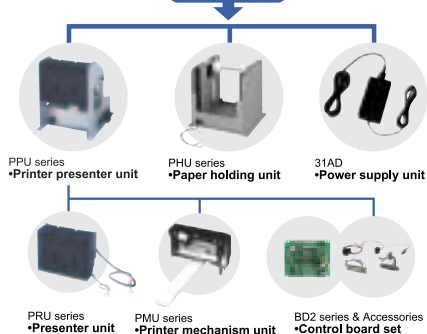
Features

- Easy paper handling
- Paper auto loading
- Paper retractable function

Specifications

Printing method	Line thermal dot printing
Printing width	72mm/576 dots
Dot pitch	8 × 8 dots/mm (203 dpi × 203 dpi)
Printing speed	62.5mm/sec. [Max.] (14.8 dot-lines/sec.)
Number of columns	48 columns (Font A), 64 columns (Font B)
Character size	1.25mm × 3.00mm (Font A: 12 × 24 dots) 0.88mm × 3.00mm (Font B: 9 × 24 dots)
Fonts	Alphanumeric, International characters
Barcode type	UPC-A, JAN (EAN) 13/8 columns, ITF, CODE39, CODE128, CODABAR
Line spacing	4.23mm (1/6") Selectable by command set (Min. 1/203 inch).
Printing paper	Thermal roll paper width: 80mm External diameter: φ203mm (with paper holder unit) Internal diameter: φ25.4mm Paper thickness: 60 to 85μm Recommended paper: TF-50KS-E, TF-62KS-E (Nippon Paper Industries)
Interface	Serial (RS-232C) or Parallel (IEEE1284 compliant, Bi-directional communication)
Input buffer	4K bytes
Sensors	Paper near end sensor (adjustable, for PHU series) Paper end sensor (for PMU series) Black mark sensor (option)
Power source voltage	24V ±7%
Power consumption	100W
Weight	PPU: 1.6kg (incl. control PCB) PHU: 0.9kg (excl. roll paper)
External dimensions (W × D × H)	PPU: 153.7 × 160 × 172mm PHU: 132.2 × 120 × 125.2mm
Operating temperature/humidity	5 ~ 40°C, 35 ~ 85%RH (No condensation)
Storage temperature/humidity	-20 ~ 60°C, 0 ~ 90%RH (No condensation)
Reliability	Head: 50,000,000 pulses or 30km Auto cutter: 300,000 cuts
Safety standard	UL, C-UL, FCC class A, TUV-CE marking

Unit breakdown



*PHU-131 is optional item.

Paper roll
58 mm



LT-286

Features

- Compact design
- Low noise printing
- High-speed printing
- 5V operation

Specifications

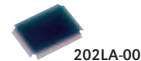
Printing method	Line thermal dot printing	
Total dots	384 dots/line	
Dot density	8 dots/mm	
Printing width	48mm	
Printing speed	Max. 400 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Mechanical switch
Voltage range	VH	DC 4.2 – 8.5V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head (VH = 5V)	Max. Approx. 2.3A
	Motor (VH = 5V)	Max. Approx. 0.5A
Recommended paper	Width	58mm
	Thickness	60 – 72μm
	Paper (Manufacturer)	KF50-HAD (Shin-Oji)
Reliability	Head pulse-resistance	50,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	75 × 56.5 × 21mm	
Weight	Approx. 82g	

Accessories

Control board ▶ **BD2-2860U** **Control chip** ▶ **202PC-04**
Gate array ▶ **202LA-00**



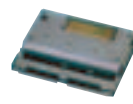
BD2-2860



202LA-00

Interface	Parallel and RS-232C
Number of columns	Font A: 32 Font B: 42
Font	Font A: 12 × 24 dots Font B: 9 × 24
Command set	ESC/POS
Barcode	Supported
Firmware location	Masked CPU
Buffer	2k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up, LF switch, Error LED, Paper out LED
Dimensions	80 × 80mm
Source voltage	5.0 ±5%
Gate array	202LA-00

Auto cutter ▶ **ACS-224**



ACS-224

Cutting method	Slide cutting
Paper width	45 – 69mm 0.06 – 0.15mm
Max. cutting frequency	20 cuts/min
Voltage	5V ±10%
Current (peak)	2.8A
Operating temperature	0 – 45°C
Size	80 × 55.7 × 15mm
Weight	140g
Reliability	500,000 cuts
Number of tab left (F) ull cut blade type (P) artical cut blade type	None None or 1 tab

Line Thermal Printer Mechanisms


Type Classification

MLT-288 V

① ②

① Model
MLT-288
MLT-289

② Paper path (MLT-288)
None: Curl
V: Straight



Paper roll 58 mm

MLT-288

Features

- Ultra compact design
- Light weight by aluminium-diecast frame
- Curl and straight paper path
- 5V operation



Paper roll 58 mm

MLT-289

Features

- Ultra compact design
- Platen removable design
- 5V operation

Specifications

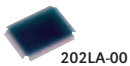
Printing method	Line thermal dot printing	
Total dots	384 dots/lines	
Dot density	8 dots/mm	
Printing width	48mm	
Printing speed	Max. 420 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Mechanical switch
Voltage range	VH	DC 4.2 – 8.5V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head (VH = 5V)	Max. Approx. 1.7A
	Motor (VH = 5V)	Max. Approx. 0.5A
Recommended paper	Width	58mm
	Thickness	60 – 72µm
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	100,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	72.7 × 38 × 15mm	
Weight	Approx. 45g	

Accessories

Control board ▶ **BD2-2880U** Gate array ▶ **202LA-00**



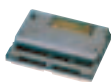
BD2-2880U



202LA-00

Interface	Parallel and RS-232C
Number of columns	Font A: 32
	Font B: 42
Font	Font A: 12 × 24 dots
	Font B: 9 × 24 dots
Command set	ESC/POS
Barcode	Supported
Firmware location	Flash memory
Buffer	2k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
Dimensions	75 × 80mm
Source voltage	5.0 ± 5%
Gate array	202LA-00

Auto cutter ▶ **ACS-228**



ACS-228

Cutting method	Slide cutting
Paper width	45 – 69mm
	thickness 0.06 – 0.15mm
Max. cutting frequency	20 cuts/min
Voltage	5V ± 10%
Current (peak)	2.8A
Operating temperature	0 – 45°C
Size	80 × 55.7 × 15mm
Weight	140g
Reliability	500,000 cuts
Number of tab left	
(F)ull cut blade type	None
(P)artial cut blade type	None or 1 tab

Specifications

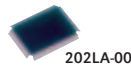
Printing method	Line thermal dot printing	
Total dots	384 dots/lines	
Dot density	8 dots/mm	
Printing width	48mm	
Printing speed	Max. 420 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Platen	Mechanical switch
Voltage range	VH	DC 4.2 – 8.5V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head (VH = 5V)	Max. Approx. 1.7A
	Motor (VH = 5V)	Max. Approx. 0.5A
Recommended paper	Width	58mm
	Thickness	65µm
	Paper (Manufacturer)	TF50KS-E2C (Nippon Paper)
Reliability	Head pulse-resistance	100,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	76.8 × 37 × 16mm	
Weight	Approx. 50g	

Accessories

Control board ▶ **BD2-2890U** Gate array ▶ **202LA-00**



BD2-2890U



202LA-00

Interface	Parallel and RS-232C
Number of columns	Font A: 32
	Font B: 42
Font	Font A: 12 × 24 dots
	Font B: 9 × 24 dots
Command set	ESC/POS
Barcode	Supported
Firmware location	Flash memory
Buffer	2k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
Dimensions	75 × 80mm
Source voltage	5.0 ± 5%
Gate array	202LA-00

Type Classification

MLT-388

①

① Model
MLT-388
MLT-389

Paper roll
80 mm



MLT-388

Features

- Ultra compact design
- 80mm paper width
- 5V operation

Specifications

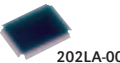
Printing method	Line thermal dot printing	
Total dots	576 dots/lines	
Dot density	8 dots/mm	
Printing width	72mm	
Printing speed	Max. 480 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Mechanical switch
Voltage range	VH	DC 4.2 – 8.5V
	Vp	DC 4.2 – 8.5V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head (Vp = 5V)	Max. Approx. 2.5A
	Motor (Vp = 5V)	Max. Approx. 0.5A
Recommended paper	Width	80 0/-1mm
	Thickness	65µm
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	10,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	99.5 × 41 × 21mm	
Weight	Approx. 95g	

Accessories

Control board ▶ **BD2-3880U** Gate array ▶ **202LA-00**



BD2-3880U



202LA-00

Interface	Parallel and RS-232C
Number of columns	Font A: 48 Font B: 64
Font	Font A: 12 × 24 dots Font B: 9 × 24 dots
Command set	ESC/POS
Barcode	Supported
Firmware location	Flash memory
Buffer	2k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
Dimensions	80 × 90mm
Source voltage	5.0 ±5%
Gate array	202LA-00

Paper roll
80 mm



MLT-389

Features

- Ultra compact design
- 80mm paper width
- Platen removable design
- 5V operation

Specifications

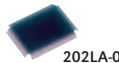
Printing method	Line thermal dot printing	
Total dots	576 dots/lines	
Dot density	8 dots/mm	
Printing width	72mm	
Printing speed	Max. 480 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Mechanical switch
Voltage range	VH	DC 4.2 – 8.5V
	Vp	DC 4.2 – 8.5V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head (Vp = 5V)	Max. Approx. 2.5A
	Motor (Vp = 5V)	Max. Approx. 0.5A
Recommended paper	Width	80 0/-1mm
	Thickness	65µm
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	10,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	99.5 × 41 × 21mm	
Weight	Approx. 95g	

Accessories

Control board ▶ **BD2-3890U** Gate array ▶ **202LA-00**



BD2-3890U



202LA-00

Interface	Parallel and RS-232C
Number of columns	Font A: 48 Font B: 64
Font	Font A: 12 × 24 dots Font B: 9 × 24 dots
Command set	ESC/POS
Barcode	Supported
Firmware location	Flash memory
Buffer	2k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
Dimensions	80 × 90mm
Source voltage	5.0 ±5%
Gate array	202LA-00

Line Thermal Printer Mechanisms

Type Classification

LT1 2 2 0 H A
① ② ③ ④ ⑤

① Size

2: 2inch class
3: 3inch class

② Voltage

2: 24V

③ Type

0: Standard

④ Paper path

H: Curl
V: Straight

⑤ Paper pressure

None: Standard (60-105μm)
A: For thick paper (110-150μm)



Paper roll
58 mm



LT1220

Features



- Simple and compact design
- High-speed printing
- Thick paper up to 0.15mm

Specifications

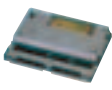
Printing method	Line thermal dot printing	
Total dots	432 dots/lines	
Dot density	8 dots/mm	
Printing width	54mm	
Printing speed	Max. 640 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-sensor
	Head-up	Photo-sensor
Voltage range	VH	DC 21.6 – 26.4V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head	Max. Approx. 5.2A
	Motor	Max. Approx. 0.41A
Recommended paper	Width	58mm
	Thickness	60 – 105μm (Standard) 110 – 150μm (A type)
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper) etc.
Reliability	Head pulse-resistance	50,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	91.5 × 58 × 20mm	
Weight	Approx. 87g	

Accessories

Control board ▶ **BD2-1220U** **Gate array** ▶ **202LA-00**

	Interface	Parallel and RS-232C
	Number of columns	36/48
	Font	Font A: 12 × 24 dots Font B: 9 × 24 dots
	Command set	ESC/POS
	Barcode	Supported
	Firmware location	Flash memory
	Buffer	4k bytes
	Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
	Dimensions	90 × 65mm
	Source voltage	5.0 ±5% and 24V ±5%
	Gate array	202LA-00

Auto cutter ▶ **ACS-225**

	Cutting method	Slide cutting
	Paper width	45 – 69mm
	thickness	0.06 – 0.15mm
	Max. cutting frequency	20 cuts/min
	Voltage	24V ±10%
	Current (peak)	0.8A
	Operating temperature	0 – 45°C
	Size	80 × 55.7 × 15mm
	Weight	140g
	Reliability	500,000 cuts
Number of tab left	None	
(F)ull cut blade type	None	
(P)artial cut blade type	None or 1 tab	



Paper roll
80 mm



LT1320

Features



- Simple and compact design
- High-speed printing
- Thick paper up to 0.15mm

Specifications


Printing method	Line thermal dot printing	
Total dots	576 dots/lines	
Dot density	8 dots/mm	
Printing width	72mm	
Printing speed	Max. 640 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-sensor
	Head-up	Photo-sensor
Voltage range	VH	DC 21.6 – 26.4V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head	Max. Approx. 5.2A
	Motor	Max. Approx. 0.41A
Recommended paper	Width	80mm
	Thickness	60 – 105μm (Standard) 110 – 150μm (A type)
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper) etc.
Reliability	Head pulse-resistance	50,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	108 × 58 × 20mm	
Weight	Approx. 99g	


Accessories

Control board ▶ **BD2-1220U** **Gate array** ▶ **202LA-00**

	Interface	Parallel and RS-232C
	Number of columns	48/64
	Font	Font A: 12 × 24 dots Font B: 9 × 24 dots
	Command set	ESC/POS
	Barcode	Supported
	Firmware location	Flash memory
	Buffer	4k bytes
	Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
	Dimensions	90 × 65mm
	Source voltage	5.0 ±5% and 24V ±5%
	Gate array	202LA-00

Auto cutter ▶ **ACS-235**

	Cutting method	Slide cutting
	Paper width	50 – 89mm
	thickness	0.06 – 0.15mm
	Max. cutting frequency	20 cuts/min
	Voltage	24V ±10%
	Current (peak)	0.8A
	Operating temperature	0 – 45°C
	Size	102 × 55.7 × 15mm
	Weight	180g
	Reliability	500,000 cuts
Number of tab left	None	
(F)ull cut blade type	None	
(P)artial cut blade type	None or 1 tab	



Example for KIOSK unit

Type Classification

LT1 2 2 1 C
① ② ③ ④

① Size
2: 2inch class
3: 3inch class

② Voltage
2: 24V

③ Type
1: Removable platen model

④ Cutter
None: Standard
C: With cutter

Paper roll
58 mm

LT1221/1221C



Features

- Platen removable design
- Simple and compact design
- High-speed printing
- Cutter model available (LT1221C)

Specifications

Printing method	Line thermal dot printing	
Total dots	432 dots/lines	
Dot density	8 dots/mm	
Printing width	54mm	
Printing speed	Max. 640 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-sensor
	Platen	Mechanical Switch
Voltage range	VH	DC 21.6 – 26.4V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head	Max. Approx. 5.2A
	Motor	Max. Approx. 0.41A
Recommended paper	Width	58mm
	Thickness	60 – 105µm (Standard) 110 – 150µm (A type)
	Paper (Manufacturer)	TF50KS-E2C (Nippon Paper) etc.
Reliability	Head pulse-resistance	50,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	91.5 × 58 × 20mm (LT1221) 101.3 × 61.5 × 37.2mm (LT1221C)	
Weight	Approx. 85g (LT1221)	
	Approx. 273g (LT1221C)	

Accessories

Control board ▶ BD2-1221U Gate array ▶ 202LA-00



BD2-1221U



202LA-00

Interface	Parallel and RS-232C
Number of columns	36/48
Font	Font A: 12 × 24 dots Font B: 9 × 24 dots
Command set	ESC/POS
Barcode	Supported
Firmware location	Flash memory
Buffer	4k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
Dimensions	90 × 65mm
Source voltage	5.0 ±5% and 24V ±5%
Gate array	202LA-00

Specifications for auto cutter (Auto cutter only for LT1221C)

Cutting method	Slide cutting
Paper width	58mm
thickness	0.06 – 0.15mm
Max. cutting frequency	20 cuts/min
Voltage	24V ±10%
Current (peak)	0.8A
Operating temperature	0 – 45°C
Size	102 × 55.7 × 15mm
Weight	180g
Reliability	300,000 cuts
Number of tab left	None
(F)ull cut blade type	None
(P)artial cut blade type	None or 1 tab

Paper roll
80 mm

LT1321/1321C



Features

- Platen removable design
- Simple and compact design
- High-speed printing
- Cutter model available (LT1321C)

Specifications

Printing method	Line thermal dot printing	
Total dots	576 dots/lines	
Dot density	8 dots/mm	
Printing width	72mm	
Printing speed	Max. 640 dot-lines/sec.	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-sensor
	Platen	Mechanical Switch
Voltage range	VH	DC 21.6 – 26.4V
	Vdd	DC 4.75 – 5.25V
Current consumption	Head	Max. Approx. 5.2A
	Motor	Max. Approx. 0.41A
Recommended paper	Width	80mm
	Thickness	60 – 105µm (Standard) 110 – 150µm (A type)
	Paper (Manufacturer)	TF50KS-E2C (Nippon Paper) etc.
Reliability	Head pulse-resistance	50,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	108 × 58 × 20mm (LT1321) 119 × 61.5 × 37.2mm (LT1321C)	
Weight	Approx. 97g (LT1321)	
	Approx. 330g (LT1321C)	

Accessories

Control board ▶ BD2-1221U Gate array ▶ 202LA-00



BD2-1221U



202LA-00

Interface	Parallel and RS-232C
Number of columns	48/64
Font	Font A: 12 × 24 dots Font B: 9 × 24 dots
Command set	ESC/POS
Barcode	Supported
Firmware location	Flash memory
Buffer	4k bytes
Supporting devices	Auto cutter, Paper sensor, Head-up sensor, LF switch, Error LED, Paper out LED
Dimensions	90 × 65mm
Source voltage	5.0 ±5% and 24V ±5%
Gate array	202LA-00

Specifications for auto cutter (Auto cutter only for LT1321C)

Cutting method	Slide cutting
Paper width	58mm
thickness	0.06 – 0.15mm
Max. cutting frequency	20 cuts/min
Voltage	24V ±10%
Current (peak)	0.8A
Operating temperature	0 – 45°C
Size	102 × 55.7 × 15mm
Weight	180g
Reliability	300,000 cuts
Number of tab left	None
(F)ull cut blade type	None
(P)artial cut blade type	None or 1 tab

Line Thermal Printer Mechanisms

Type Classification

LT-281

① Model
LT-281

①

LT-481 H

① Model
LT-481

② Paper path
H: Curl
V: Straight

① ②

Paper roll
60 mm



LT-281

Features

- Low noise printing
- High-speed printing
- High resolution
- High reliability due to heavy duty design

Specifications

Printing method	Line thermal dot printing	
Total dots	448 dots/lines	
Dot density	8 dots/mm	
Printing width	56mm	
Printing speed	Max. 101.6mm/sec. (813 dot-lines/sec.)	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Mechanical switch
Voltage range	Vp	24V DC ±5%
	Vdd	5V DC ±5%
Current consumption	Head	0.9A
	Motor	0.39A
Recommended paper	Width	59.5mm
	Paper (Manufacturer)	TF50SY-EY, TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	100,000,000 pulses or more
	Head wear-resistance	100km or more
	Mechanical life (MCBF)	23,600,000 lines
Environment	Operation	Temperature: 5 ~ 40°C Humidity: 35 ~ 80% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	111.5 × 53.5 × 40.8mm	
Weight	Approx. 300g	

Accessories

Auto cutter	▶ AC-5/5F	▶ AC-7	▶ ACS-229
Cutting method	Guillotine	Rotary	Slide cutting
Paper width thickness	59.5 ± 0.5mm 0.065mm	59.5 ± 0.5mm 0.15mm	45 - 69mm 0.06 - 0.15mm
Max. cutting frequency	6 cuts/min	10 cuts/min	20 cuts/min
Voltage	24V ± 1.0%	24V ± 10%	24V ± 10%
Current (peak)	1.3A	1.3A	0.8A
Operating temperature	5 - 40°C	5 - 40°C	0 - 45°C
Size	70 × 55 × 31.7mm	96.5 × 85.5 × 40mm	80 × 55.7 × 15mm
Weight	160g	150g	140g
Reliability	300,000 cuts	500,000 cuts	500,000 cuts
Number of tab left			
(F) Full cut blade type	None or 1 tab	None or 1 tab	None
(P) Partial cut blade type	Several tabs	Several tabs	None or 1 tab



Paper roll
112 mm



LT-481

Features

- Low noise printing
- High-speed printing
- High resolution
- High reliability due to heavy duty design



Specifications

Printing method	Line thermal dot printing	
Total dots	832 dots/lines	
Dot density	8 dots/mm	
Printing width	104mm	
Printing speed	Max. 100mm/sec. (800 dot-lines/sec.)	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Mechanical switch
Voltage range	Vp	24V DC ±5%
	Vdd	5V DC ±5%
Current consumption	Head	1.6A
	Motor	0.48A
Recommended paper	Width	111.5mm
	Paper (Manufacturer)	TF50SY-EY, TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	100,000,000 pulses or more
	Head wear-resistance	100km or more
	Mechanical life (MCBF)	8,000,000 lines
Environment	Operation	Temperature: 5 ~ 40°C Humidity: 35 ~ 80% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	161 × 60 × 41mm	
Weight	Approx. 420g	

Accessories

Auto cutter	▶ AC-6	▶ ACS-249
Cutting method	Guillotine	Slide cutting
Paper width thickness	111.5 ± 0.5mm 0.065mm	55 - 115mm 0.06 - 0.13mm
Max. cutting frequency	6 cuts/min	20 cuts/min
Voltage	24V ± 10%	24V ± 10%
Current (peak)	1A	0.8A
Operating temperature	5 - 40°C	0 - 45°C
Size	130 × 55 × 21.5mm	130 × 55.7 × 15mm
Weight	260g	220g
Reliability	300,000 cuts	300,000 cuts
Number of tab left		
(F) Full cut blade type	None or 1 tab	None
(P) Partial cut blade type	Several tabs	None or 1 tab



Type Classification

LT-483CF

①②③④⑤

① Size
4: 4 inch class
② Dot density
8: 8 dots/mm

③ Type
483: 2 station, 112mm, 24V
④ Cutter
C: With cutter
None: No Cutter

⑤ Power source
F: Full cut blade
P: Partial cut blade


LT1322

①②③

① Size
3: 3 inch class

② Voltage
2: 24V

③ Type
2: 2 station model



Paper roll 50 mm
Paper roll 50 mm
2 station

LT-483

Features

- 2 station
- Low noise printing
- High-speed printing
- 50mm for both receipt and journal



Paper roll 38 mm
Paper roll 38 mm
2 station

LT1322

Features

- 2 station
- Low noise printing
- High-speed printing

Specifications

Printing method	Line thermal dot printing	
Total dots	832 dots/lines	
Dot density	8 dots/mm	
Printing width	44mm × 2	
Printing speed	Max. 100mm/sec. (800 dot-lines/sec.)	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Machanical switch
Voltage range	Vp	24V DC ±5%
	Vdd	5V DC ±5%
Current consumption	Head	1.2A
	Motor	0.96A
Recommended paper	Width	49.5mm × 2
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	100,000,000 pulses or more
	Head wear-resistance	100km or more
Environment	Operation	Temperature: 5 ~ 40°C Humidity: 35 ~ 80% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	LT483: 155.2 × 60 × 71.5mm LT483CF: 155.2 × 67 × 98.9mm LT483CP: 155.2 × 67 × 100.2mm	
Weight	LT483: Approx. 560g LT483CF: Approx. 750g LT483CP: Approx. 760g	

Accessories

Auto cutter

▶ AC-4P/4F

Cutting method	Guillotine
Paper width	49.5 ± 0.5mm
thickness	0.063mm
Max. cutting frequency	6 cuts/min
Voltage	24V ± 10%
Current (peak)	1.3A
Operating temperature	5 ~ 40°C
Size	60 × 55 × 23mm
Weight	260g
Reliability	300,000 cuts
Number of tab left (F)ull cut blade type (P)artial cut blade type	None or 1 tab Several tabs

Paper winder

▶ AW-4H/4V

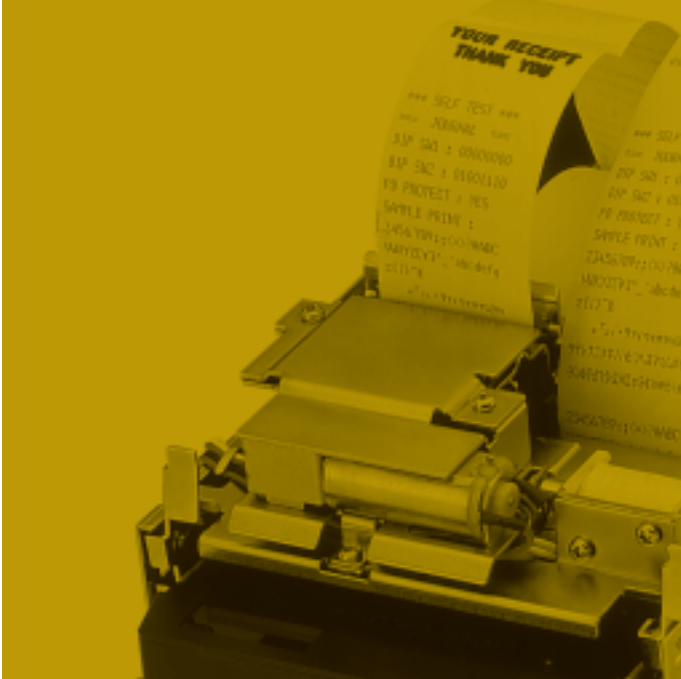
Specifications

Printing method	Line thermal dot printing	
Total dots	248 dots/lines × 2	
Dot density	8 dots/mm	
Printing width	38mm × 2	
Printing speed	Max. 80mm/sec. (640 dot-lines/sec.)	
Paper feeding pitch	0.125mm	
Sensors	Head temperature	Thermistor
	Paper presence	Photo-interrupter
	Head-up	Photo-sensor
Voltage range	Vp	24V DC ±10%
	Vdd	5V DC ±5%
Current consumption	Head	4.5A
	Motor	0.4A
Recommended paper	Width	38mm × 2
	Paper (Manufacturer)	TF50KS-E2D (Nippon Paper)
Reliability	Head pulse-resistance	50,000,000 pulses or more
	Head wear-resistance	50km or more
Environment	Operation	Temperature: 0 ~ 45°C Humidity: 35 ~ 85% RH
	Storage	Temperature: -20 ~ 60°C Humidity: 10 ~ 90% RH
External dimensions (W × D × H)	120 × 58 × 24.5mm	
Weight	Approx. 97g	

Dot Impact Printer Mechanisms



Even as demand for thermal printers is growing, dot impact printers are still required around the world, with demand continuously strong. They feature plain paper printing and high-speed printing, and are indispensable for check and validation applications. As with thermal printers, JCBM emphasizes the development of dot impact printers based on its precision equipment technology. In this way it also makes a point of offering products that meet customer needs in this printer category.



Type Classification

MD-910 - SS A
① ② ③

① Type
910: 24 columns
911: 40 columns

② Knob
SS: No knob
HS: Horizontal knob
VS: Vertical knob

Paper roll
58 mm



MD-910

Features

- Compact design
- Light weight
- 5V operation
- Number of columns: 24 columns
- Knob model (type V or type H)

Specifications

Printing method	Serial impact dot matrix
Printing direction	One-way printing
Printing speed	Approx. 2.5 lines/sec.
Number of columns	24 columns: 144 dots/line
Font	5 × 7 matrix
Number of wires	8 pins (4 pins × 2 heads)
Character size (W × H)	Approx. 1.7 × 2.4mm
Character pitch	1.98mm (Interval of columns) 3.52mm (Interval of lines)
Motor	Voltage: 5.0V DC / Peak current: Approx. 1A / Average current: 0.3A max.
Dot pulse sensor	Photo interrupter
Home pulse sensor	Leaf switch
Printing sensor	Voltage: 5.0 ^{+0.5} V DC / Resistance: 1.7 ± 0.3Ω (25°C)
Paper feeding solenoid	Voltage: 5.0 ^{+0.5} V DC / Resistance: 9 ± 2Ω (25°C)
Connecting method	Copper foil patterns at 2.54mm pitch.
Driving voltage	3.5 ~ 5.5V DC
Printing paper	57.5 ± 0.5mm
Copy	Original print + 1 copy
Ink ribbon	Special ribbon cartridge of black or purple
Paper feeding speed	Approx. 5 lines/sec.
External dimensions (W × D × H)	90 × 45.5 × 16mm
Weight	105g ± 10%
Operating temperature	0 ~ 50°C
Storage temp. range	-25 ~ 70°C
Reliability	MCBF: 1.5 million lines

Accessories

Control board ▶ CBM-909-2D



CBM-909-2D

Interface	Parallel and serial
Number of columns	24
Font	5 × 7 (including half dot)
Command set	Unique
Firmware location	Masked CPU
Buffer	1 line
Supporting devices	LF switch, On-line switch
Dimensions	80 × 55.5mm
Source voltage	4.0+0.7/-1.0V
Custom control chip	909PC-2DU

Control chip ▶ 909PC-2DU



Paper winder ▶ AW-5 (not supported by CBM-909)



Ink ribbon ▶ IR-91, IR-91L (Long life)



③ Special feature

None: Regular model

A: Cold temperature model

Type Classification

DP-320 D F P *

① ② ③ ④ ⑤

① Type
320: 58mm paper width
330: 76mm paper width
② Ribbon
D: 2 color
M: 1 color

③ Paper feed method
F: Friction feed
④ Paper end sensor
P: With paper end sensor
A: No option

⑤ Blackmark sensor*

Paper roll
58 mm

MD-911



Features

- Compact design
- Light weight
- 5V operation
- Number of columns: 40 columns
- Knob model (type V or type H)

Specifications

Printing method	Serial impact dot matrix
Printing direction	One-way printing
Printing speed	Approx. 1.8 lines/sec.
Number of columns	40 columns: 180 dots/line
Font	4 × 7 matrix
Number of wires	8 pins (4 pins × 2 heads)
Character size (W × H)	Approx. 1.1 × 2.4mm
Character pitch	1.17mm (Interval of columns) 3.52mm (Interval of lines)
Motor	Voltage: 5.0V DC / Peak current: Approx. 1A / Average current: 0.3A max.
Dot pulse sensor	Photo interrupter
Home pulse sensor	Leaf switch
Printing sensor	Voltage: 5.0 ^{+0.5} V DC / Resistance: 1.7 ± 0.3Ω (25°C)
Paper feeding solenoid	Voltage: 5.0 ^{+0.5} V DC / Resistance: 9 ± 2Ω (25°C)
Connecting method	Copper foil patterns at 2.54mm pitch.
Driving voltage	3.5 ~ 5.5V DC
Printing paper	57.5 ± 0.5mm
Copy	Original print + 1 copy
Ink ribbon	Special ribbon cartridge of black or purple
Paper feeding speed	Approx. 3.6 lines/sec.
External dimensions (W × D × H)	90 × 45.5 × 16mm
Weight	105g ± 10%
Operating temperature	0 ~ 50°C
Storage temp. range	-25 ~ 70°C
Reliability	MCBF: 1.0 million lines

Accessories

Control board ▶ CBM-909-4D



CBM-909-4D

Interface	Parallel and serial
Number of columns	40
Font	4 × 7 (including half dot)
Command set	Unique
Firmware location	Masked CPU
Buffer	1 line
Supporting devices	LF switch, On-line switch
Dimensions	80 × 55.5mm
Source voltage	4.0+0.7/-1.0V
Custom control chip	909PC-4DU

Control chip ▶ 909PC-4DU



Paper winder ▶ AW-5 (not supported by CBM-909)



Ink ribbon ▶ IR-91, IR-91L (Long life)



Paper roll
58 mm

Paper roll
76 mm

DP-320/330



Features

- Fast Printing
4.3 lines/sec./76mm paper width
8.2 lines/sec. at 15 columns printing with
logical seeking control
- 58/76mm paper width model
- Logic seeking control
- Simple mechanism and high reliability

Specifications

Model	DP-320	DP-330
Printing method	Serial impact dot matrix	
Printing direction	Bi-directional (Logic seeking control)	
Printing speed	Approx. 5.6 lines/sec. (58mm paper width)	Approx. 4.3 lines/sec. (76mm paper width)
Number of columns	Approx. 30 columns (58mm paper width)	Approx. 42 columns (76mm paper width)
Total no. of dot	210 dots (420 positions)	
Font	7 × 9 matrix	
Number of wires	9 pins	
Character size (W × H)	1.25 × 3.12mm (7 × 9 dots) 1.25 × 2.42mm (7 × 7 dots)	
Character pitch	1.59mm	
Line spacing	Minimum 0.176mm (1/144 inch)	
Home position sensor	Photo interrupter	
Paper end sensor	Photo interrupter	
Motor	Carriage	Stepping motor Voltage: 24V ± 5% V DC / Resistance: 20Ω (25°C)
	Paper feeding	Stepping motor Voltage: 24V ± 5% V DC / Resistance: 20Ω (25°C)
Printing paper	58 × 83mm	76 × 83mm
Copy capability	Original + 1 copy	
Ink ribbon	Mono color (Black or Purple) Two colors (Black/Red)	
Paper feeding speed	Approx. 34 lines/sec.	
External dimensions (W × D × H)	126.7 × 97.5 × 52.7mm	
Weight	485g (Included ribbon cassette)	
Operating temp. range	0 ~ 50°C	
Storage temp. range	-20 ~ 70°C	
Reliability	Mechanism: MCBF 5.0 million lines Head: 100 million characters	

Accessories

Auto cutter ▶ ACS-237



ACS-237

Cutting method	Slide cutting
Paper width	50 – 89mm
thickness	0.06 – 0.15mm
Max. cutting frequency	20 cuts/min
Voltage	24V ± 10%
Current (peak)	0.8A
Operating temperature	0 – 45°C
Size	102 × 55.7 × 15mm
Weight	180g
Reliability	500,000 cuts
Number of tab left	
(F) Full cut blade type	None
(P) Partial cut blade type	None or 1 tab

Paper winder ▶

Ink ribbon ▶ IR-31



*Six sensor positions are available.
Please contact dealer.

Dot Impact Printer Mechanisms

Type Classification

DP-420 D F

① ② ③

① Type
420: 7 pin head
430: 9 pin head

② Ribbon
D: 2 color

③ Paper feed method
F: Friction feed

DP-575 L 12 A

① ② ③ ④

① Type
555: 24 columns
575: 40 columns

② Printing direction
L: Left to right
R: Right to left

③ Voltage
12: 12V
17: 17V

④ Special feature
None: Regular model
A: Cassette ribbon model

Paper roll
76 mm



DP-420/430

Features

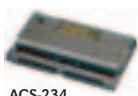
- Very compact design
- Light weight
- High-speed printing

Specifications

Model	DP-420	DP-430
Printing method	Serial impact dot matrix	
Printing direction	Bi-directional	
Printing speed	Approx. 3.0 lines/sec.	
Number of columns	42 columns, 189 dots/line	
Font	7 × 7 matrix	7 × 9 matrix
Number of wires	7 pins	9 pins
Character size (W × H)	1.31 × 2.4mm	1.31 × 3.1mm
Character pitch	1.52mm	
Line spacing	4.23 or 2.82mm (1/6 or 1/9 inch) Minimum 1.41mm (1/18 inch)	
Motor	Voltage: 24V ±5% V DC / Current: Peak Approx. 1A / Average less than 0.2A	
Reset pulse sensor	Photo interrupter	
Dot pulse sensor	Photo interrupter	
Home position sensor	Photo interrupter	
Paper out sensor	Photo interrupter	
Black mark sensor (option)	Photo interrupter	
Printing solenoid	Voltage: 24V ±5% V DC / Resistance: 17Ω (25°C)	
Printing feed solenoid	Voltage: 24V ±5% V DC / Resistance: 34Ω (25°C)	
Color change solenoid	Voltage: 24V ±5% V DC / Resistance: 34Ω (25°C)	
Connecting method	FFC or FPC cable	
Paper feeding	Friction feed or sprocket feed	
Printing paper	Friction feed: 76 ±0.5 × φ83mm	
Copy	Friction feed: original + 1 copy	
Ink ribbon	Exclusive ink ribbon cartridge 2 color (Black/red), black or purple	
Paper feeding speed	Approx. 28 lines/sec.	
External dimensions (W × D × H)	120 × 90 × 45mm	
Weight	Approx. 470g	
Operating temp. range	0 ~ 50°C	
Storage temp. range	-20 ~ 70°C	
Reliability	Mechanism: MCBF 2.5 million lines Head: 80 million characters	

Accessories

Auto cutter ▶ ACS-234

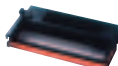


ACS-234

Cutting method	Slide cutting
Paper width	50 – 89mm
thickness	0.06 – 0.15mm
Max. cutting frequency	20 cuts/min
Voltage	24V ±10%
Current (peak)	0.8A
Operating temperature	0 – 45°C
Size	102 × 55.7 × 15mm
Weight	180g
Reliability	500,000 cuts
Number of tab left	
(F)full cut blade type	None
(P)artial cut blade type	None or 1 tab

Paper winder ▶ AW-2FA

Ink ribbon ▶ IR-41



Paper roll
58 mm

Paper roll
69 mm



DP-555/575

Features

- Compact design
- Lightweight
- 2 color printing
- 12V operation

Specifications

Model	DP-555	DP-575
Printing method	Serial dot impact method	
Printing direction	L Series Left to right (Horizontal), R Series Right to left (Horizontal)	
Printing speed	Approx. 1.9 lines/sec.	Approx. 1.2 lines/sec.
Number of columns	24 columns	40 columns
Font	5 × 7 matrix	
Character size (W × H)	1.7 × 2.75mm	1.25 × 2.75mm
Character pitch	2mm	1.5mm
Line spacing	5.5mm	
Motor	Voltage: 12V ±1V DC / Peak current: Approx. 2.5A (12V, 25°C) Average current: Approx. 0.25A	
Dot pulse sensor	Photo interrupter	
Home switch	Voltage: 5V DC ~ 20V DC / Current: 100μA ~ 3mA (Resistance load)	
Printing solenoid	Voltage: 12V ±1V DC / Resistance: 4.9 ±0.5Ω (25°C) Energized time: 2 dot pulses (700 ±50μS) / Peak current: Approx. 2A	
Main solenoid	Voltage: 12V ±1V DC / Resistance: 18.4 ±1Ω (25°C) Energized time: 16ms ±10% (Max. of 5 continuous seconds)	
Color change solenoid	Voltage: 12V ±1V DC / Resistance: 18.4 ±1Ω (25°C) Energized time: 20 ±2ms (Max. of 5 continuous seconds)	
Connecting method	Flexible cable (SMCD 18 × 91 ES10)	
Ink ribbon	Color 2 colors (Red and black), black or purple Spool diameter: 30mm or 35mm, width: 13mm	
Paper feeding speed	Approx. 8 lines/sec.	
Printing paper	57.5 ± 0.5mm	69 + 1mm
External dimensions (W × D × H)	120.5 × 114 × 44.5mm	
Weight	Approx. 450g	
Operating temp. range	0 ~ 50°C	
Paper feeding traction	More than 100g (Citizen recommended paper)	
Reliability	Printer mechanism MCBF: 1.5 million lines / Dot head 50 million characters	

Accessories

Control board ▶ CBM-505



CBM-505

PC-2A/20

Control chip ▶ 505PC-2A/20

Interface	Parallel, RS-232C, Current loop or TTL
Number of columns	DP-555: 24, DP-575: 40
Font	5 × 7 dots
Command set	CBM standard
Firmware location	Masked CPU
Buffer	1 line
Dimensions	135 × 95mm (PF), 155 × 119mm (RF)
Source voltage	5V ±5% and 13V ±1.0V
Custom control chip	PC-2A/20

Auto cutter ▶ AC-3/3F



AC-3/3F

Cutting method	Guillotine
Paper width	76 ±0.5mm
thickness	0.06 – 0.085mm
Max. cutting frequency	20 cuts/min
Voltage	12V ±10%
Current (peak)	1.2A
Operating temperature	0 – 40°C
Size	93 × 74 × 25mm
Weight	200g
Reliability	300,000 cuts
Number of tab left	
(F)ull cut blade type	None or 1 tab
(P)artial cut blade type	2 or 3 tabs

Paper winder ▶ NW-58 (DP-555)

▶ NW-69 (DP-575)



Ink ribbon ▶ IR-01



Type Classification

DP-614 D F C V

① ② ③ ④ ⑤

① Type

610: 23 columns
612: 28 columns
614: 40 columns (360dots)
617: 40 columns (400dots)

② Ribbon

D: 2 color
M: 1 color

③ Paper feeding method

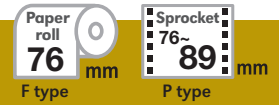
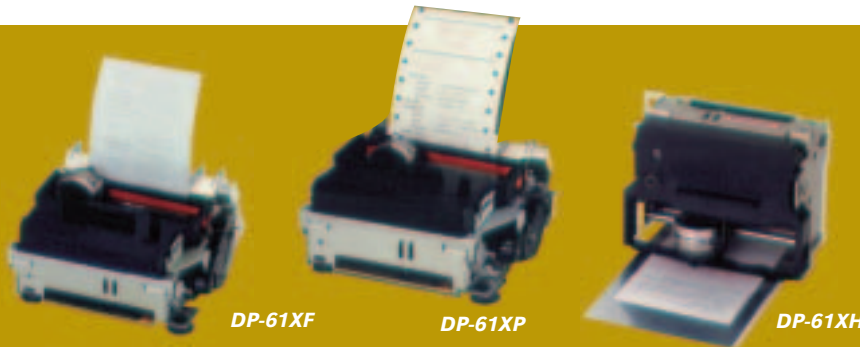
F: Friction feeding
P: Sprocket feeding

④ Character / Graphic

C: Character only
G: Graphic

⑤ Validation sensor

None: No validation
V: Equipped



DP-61X SERIES

Features

- High-speed printing
- High reliability
- 2 color printing

Specifications

Model	DP-610	DP-612	DP-614	DP-617
Printing method	Serial dot impact method			
Printing direction	Bi-directional			
Printing speed	Approx. 4.0 lines/sec.	Approx. 3.5 lines/sec.	Approx. 3.0 lines/sec.	Approx. 2.4 lines/sec.
Number of columns	23 columns, 230 dots/line	28 columns, 280 dots/line	40 columns, 360 dots/line	40 columns, 400 dots/line
Font	7 × 9 matrix			
Character size (W × H)	1.8 × 2.4mm	1.5 × 2.4mm	1.36 × 2.4mm	1.2 × 2.4mm
Line spacing	1/6 inch			
Motor	Voltage: 24V DC $\frac{1}{2}$ V DC / Peak current: Max. 21A (12V, 25°C) / Average current: Approx. 0.2A or less			
Dot pulse sensor	Photo interrupter			
Home position sensor	Photo interrupter			
Paper feeding motor	Voltage: 24V DC $\frac{1}{2}$ V DC / Resistance: 48Ω (25°C) / Driving pulse width: 30 DP, Approx. 20ms			
Printing solenoid	Voltage: 24V ±1V DC / Resistance: 17Ω (24V DC, 25°C)			
Color change solenoid	Voltage: 24V DC $\frac{1}{2}$ V DC / Resistance: 48Ω (24V DC, 25°C)			
Connector terminals	Connector 1 (S16B-PH-K-S (16P): Counterpart PHR-16 (16P) manufactured by JST) Connector 2 (S10B-PH-K-SC (10P): Counterpart PHR-10 (10P) manufactured by JST)			
Paper feeding	Friction feed or sprocket feed			
Printing paper	Friction feed: 76mm Roll paper × φ83mm / Sprocket feed: 76 ~ 89mm fanfold paper			
Copy	Friction feed: original + 1 copy / Sprocket feed: original + 2 copies			
Paper feed power	More than 100g (Citizen recommended paper)			
Ink ribbon	Two colors (Red and black) / Single color (Black or purple)			
Paper feeding speed	Approx. 25 lines/sec.	Approx. 21 lines/sec.	Approx. 18 lines/sec.	Approx. 15 lines/sec.
External dimensions (W × D × H)	Two colors: 137 × 136 × 63.5mm / Single color: 134 × 136 × 63.5mm			
Weight	Approx. 690g			
Operating temp. range	0 ~ 50°C			
Reliability	Printer: MCBF 4.0 million lines / Head: 80 million characters			

Accessories

Control board ▶ CBM-606



CBM-606

Interface	Parallel, RS-232C, Current loop or RS-422
Number of columns	DP-610: 23 DP-612: 28 DP-614: 40 DP-617: 40
Font	7 × 7 dots (including half dot)
Command set	CBM standard
Firmware location	EPROM
Buffer	7k bytes or 2 lines
Supporting devices	Auto cutter, Auto winder, Paper end sensor, LED's (Power/Error/On-line), Switches (LF/One-line)
Dimensions	114 × 152mm
Source voltage	5.0±5% and 24±1.0V

Paper winder ▶ AW-2FA

Ink ribbon ▶ IR-61



Auto cutter

▶ AC-2/2F

▶ AC-134

▶ ACS-236

Cutting method	Guillotine	Guillotine	Slide cutting
Paper width	76±0.5mm	50 – 89mm	50 – 89mm
Paper thickness	0.06 – 0.085mm	0.06 – 0.09mm	0.06 – 0.15mm
Max. cutting frequency	20 cuts/min	20 cuts/min	20 cuts/min
Voltage	24V ±10%	24V ±10%	24V ±10%
Current (peak)	0.8A	0.8A	0.8A
Operating temperature	0 – 40°C	0 – 45°C	0 – 45°C
Size	99 × 74 × 30mm	120 × 57 × 15mm	102 × 55.7 × 15mm
Weight	200g	160g	180g
Reliability	300,000 cuts	300,000 cuts	500,000 cuts
Number of tab left			
(F)ull cut blade type	None or 1 tab	None or 1 tab	None
(P)artial cut blade type	2 or 3 tabs	2 or 3 tabs	None or 1 tab



AC-2



AC-134



ACS-236

Dot Impact Printer Mechanisms

Type Classification

DP-654 D F C V

① ② ③ ④ ⑤

① Type

654: 40 columns (360dots)
657: 40 columns (400dots)

② Ribbon

D: 2 color
M: 1 color

③ Paper feeding method

F: Friction feeding
P: Sprocket feeding

④ Paper path

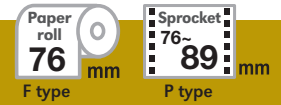
C: Character only
G: Graphic

⑤ Paper pressure

None: No validation
V: Equipped



DP-654/657



Features

- High-speed printing
- High reliability
- 2 color printing (black/red)
- Number of columns:
DP-654 40 columns (360 dots)
DP-657 40 columns (400 dots)
- 24V operation
- Sprocket feeding model (P type)
- Graphic model (G type)

Specifications

Model	DP-654	DP-657
Printing method	Serial impact dot matrix	
Printing direction	Bi-directional	
Printing speed	3.6LPS $\pm 10\%$	3.0LPS $\pm 10\%$
Number of columns	40 columns, 360 dots/line	40 columns, 400 dots/line
Font	7 × 7 or 7 × 9 (half-dot)	
Character size (W × H)	1.36 × 2.4mm	1.2 × 2.4mm
Line spacing	1/6 inch	1/9 inch (DR617DFG)
Motor	Voltage: 24V $\frac{1}{2}$ V DC / Peak current: Approx. 1.5A / Average less than 0.3A	
Reset pulse sensor	Mechanical leaf switch	
Dot pulse sensor	Photo interrupter	
Home position sensor	Photo interrupter	
Printing solenoid	Voltage: 24V ± 1 V DC / Resistance: 17 Ω (24V DC, 25°C)	
Paper feeding solenoid	Voltage: 24V $\frac{1}{2}$ DC Resistance: 33 Ω $\pm 10\%$	
Connector terminals	Connector 1 (S16B-PH-K-S (16P): Counterpart PHR-16 (16P) manufactured by JST) Connector 2 (S10B-PH-K-SC (8P): Counterpart PHR-10 (8P) manufactured by JST)	
Connecting method	Pin connector	
Paper feeding	Friction feeding or sprocket feeding	
Ink ribbon	Dedicated ink ribbon cartridge (Red/Black or single color Black)	
Paper feeding speed	18 lines/sec.	
Printing paper	Receipt and journal 37 ~ 38mm, Outer dia Max. $\phi 83$ mm	
External dimensions (W × D × H)	137 × 138 × 63.5mm	
Weight	Approx. 690g	
Operating temp. range	0 ~ 50°C	
Storage temp. range	-25 ~ 70°C	
Reliability	Mechanism: MCBF 4.0 million lines / Head: 80 million characters	

Accessories

Paper winder ▶ AW-2FA

Ink ribbon ▶ IR-61



Auto cutter ▶ AC-2/2F

▶ AC-134

▶ ACS-236

	AC-2/2F	AC-134	ACS-236
Cutting method	Guillotine	Guillotine	Slide cutting
Paper width	76 ± 0.5 mm Ma	50 – 89mm	50 – 89mm
thickness	0.06 – 0.085mm	0.06 – 0.09mm	0.06 – 0.15mm
Max. cutting frequency	20 cuts/min	20 cuts/min	20 cuts/min
Voltage	24V $\pm 10\%$	24V $\pm 10\%$	24V $\pm 10\%$
Current (peak)	0.8A	0.8A	0.8A
Operating temperature	0 – 40°C	0 – 45°C	0 – 45°C
Size	99 × 74 × 30mm	120 × 57 × 15mm	102 × 55.7 × 15mm
Weight	200g	160g	180g
Reliability	300,000 cuts	300,000 cuts	500,000 cuts
Number of tab left			
(F)ull cut blade type	None or 1 tab	None or 1 tab	None
(P)artial cut blade type	2 or 3 tabs	2 or 3 tabs	None or 1 tab



AC-2



AC-134



ACS-236

Type Classification

DP-624 M P C S

① ② ③ ④ ⑤

① Type

622: 28 columns
624: 40 columns (360 dots)
627: 40 columns (400 dots)

② Ribbon

M: 1 color

③ Paper feeding method

F: Friction feeding
P: Sprocket feeding

④ Copy capability

None: standard
C: 4 copies

⑤ Auto loading sensor

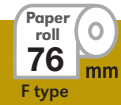
None: No sensor
S: with sensor



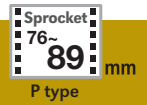
DP-62XF



DP-62XP



F type



P type

DP-62X SERIES

Features

- High-speed printing
- High reliability
- Graphic printing

Specification

Model	DP-622	DP-624	DP-627
Printing method	Serial dot impact method		
Printing direction	Bi-directional		
Printing speed	Approx. 4.2 lines/sec.	Approx. 3.6 lines/sec.	Approx. 3.0 lines/sec.
Number of columns	28 columns, 280 dots/line	40 columns, 360 dots/line	40 columns, 400 dots/line
Font	7 × 9 matrix		
Character size (W × H)	1.5 × 2.4mm	1.36 × 2.4mm	1.2 × 2.4mm
Line spacing	Min. 1/144 inch		
Motor	Voltage: 24V DC \pm 1% / Peak current: Max. 1.5A Average current: Approx. 0.3A or less		
Dot pulse sensor	Photo interrupter		
Home position sensor	Photo interrupter		
Paper feeding motor	4 phase 48 poles permanent magnet type stepping motor 24V DC \pm 10% (Drive voltage) / 5V DC \pm 15% (Hold voltage) Mean current: Approx. 300mA / Hold current: Approx. 150mA		
Printing solenoid	Voltage: 24 \pm 1V DC / Resistance: 17 Ω (24V DC, 25°C)		
Connector terminals	Connector 1 (53156-1710 (17P): Counter part 51049-1700 (17P) manufactured by Molex) Connector 2 (53015-0610 (6P): Counter part 51004-0600 (6P) manufactured by Molex) Connector 3 (51004-0600 (6P): Counter part 57014-0610 (6P) manufactured by Molex)		
Paper feeding	Friction feeding or sprocket feeding		
Printing paper	Friction feeding: 76mm roll paper × ϕ 83mm / Sprocket feeding: 76 ~ 89mm fanfold paper		
Copy	Friction feeding: original + 1 copy / Sprocket feeding: original + 2 copies		
Paper feeding power	More than 100g (Citizen recommended paper)		
Ink ribbon	Single color (Black or purple)		
Paper feeding speed	Approx. 25 lines/sec.		
External dimensions (W × D × H)	140.9 × 153.2 × 63.5mm		
Weight	Approx. 730g		
Operating temp. range	0 ~ 50°C		
Reliability	Printer: MCBF 5.0 million lines / Head: 80 million characters		

Accessories

Control board ▶ CBM-626PF (Parallel interface)/RF (Serial interface)

Interface	Parallel, RS-232C, Current loop
Number of columns	DP-622: 28 DP-624: 40 DP-627: 40
Font	7 × 7 dots (including half dot)
Command set	PC-PR
Firmware location	EPROM
Buffer	3k bytes or 2 lines
Supporting devices	Auto cutter, Auto winder, Paper end sensor, LED's (Power/Error/On-line), Switches (LF/One-line)
Dimensions	114 × 152mm
Source voltage	5.0 \pm 5% and 24 \pm 1.0V



CBM-626

Paper winder ▶ AW-2FA

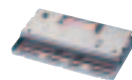
Ink Ribbon ▶ IR-61



IR-61

Auto cutter ▶ AC-134/134F

Cutting method	Guillotine
Paper width	50 ~ 89mm
thickness	0.06 ~ 0.09mm
Max. cutting frequency	20 cuts/min
Voltage	24V \pm 10%
Current (peak)	0.8A
Operating temperature	0 ~ 40°C
Size	102 × 57 × 15mm
Weight	160g
Reliability	300,000 cuts
Number of tab left	
(F)ull cut blade type	None or 1 tab
(P)artial cut blade type	2 or 3 tabs



AC-134/134F

Dot Impact Printer Mechanisms

Type Classification

DP-630 V-S C

① ② ③

① Validation sensor
V: Equipped
None: No validation sensor

② Stamp
S: Equipped
None: No stamp

③ Cutter
C: Equipped
None: No cutter

DP-730F R C B

① ② ③

① Validation sensor
R: No validation sensor
M: Multi-line validation sensor
P: 1 line L/R sensor
None: 1 line right sensor

② Cutter
C: Equipped
None: No cutter

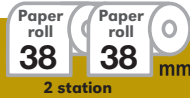
③ Winder
W: Equipped
None: No winder



DP-630

Features

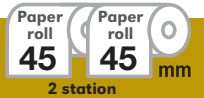
- Ultra compact design
- 2 station printer mechanism (Receipt and Journal)
- Validation printing (option)



DP-730/740

Features

- Ultra compact design
- 2 station printer mechanism (Receipt and Journal)
- Validation printing (option)



Specification

Model	DP-630
Printing method	Serial impact dot matrix
Printing direction	Bi-directional
Font	7 × 9 matrix
Number of columns (validation)	18 columns × 2 (40 columns)
Number of total dot/line (half dot)	180 (360) dots
Number of wires	9 pins (dot pitch 0.353mm)
Printing speed	Approx. 3.0 lines/sec.
Character size (W × H)	1.36 × 2.4mm
Line spacing	5.08mm
Character pitch	Character = 1.59mm
Ink ribbon	Exclusive ink ribbon cartridge (single color, black or purple) IR-61
Motor	Voltage: 24V +1/-2V DC Current: Peak Approx. 1A Average less than 0.2A
Reset pulse sensor	Mechanical leaf switch
Dot pulse sensor	Photo interrupter
Home position sensor	Photo interrupter
Printing solenoid	Voltage: 24V ±1V DC Resistance: 17Ω
Paper feeding solenoid	Voltage: 24V +1/-2V DC Resistance: 32Ω ±10%
Connecting method	Pin connector
Paper feeding	Friction feed
Printing paper	Receipt and journal
	37 – 38mm Outer dia Max. φ83mm
Paper feeding speed	18 lines/sec.
External dimensions (W × D × H)	134 × 136 × 63.5mm
Weight	Approx. 690g
Operating temp. range	0 ~ 50°C
Storage temp. range	-25 ~ 70°C
Reliability	Mechanism MCBF 2.5 million lines Head 50 million characters

Options

- Validation sensor
- Auto cutter
- Paper winder
- Paper near end sensor
- Mark sensor
- Stamp

Accessories

Paper winder ▶ PW-2

Ink Ribbon ▶ IR-61



Specification

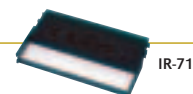
Model	DP-730	DP-740
Printing method	Serial impact dot matrix	
Printing direction	Bi-directional	
Font	7 × 9 matrix	24 × 24 (half dot)
Number of columns (validation)	24 columns × 2 (55 columns)	10 columns × 2 (23 columns)
Number of total dot/line (half dot)	248 (495) dots	310 (620) dots
Number of wires	9 pins (dot pitch 0.353mm)	24 pins
Printing speed	Approx. 3.0 lines/sec.	
Character size (W × H)	1.36 × 2.4mm or 1.36 × 3.1mm	3.44 × 3.44mm
Line spacing	4.23mm (1/6 inch)	
Character pitch	Character = 1.59mm	3.67mm
Ink ribbon	Exclusive ink ribbon cartridge (single color, black or purple) IR-71	
Motor	Voltage: 24V ±10% / Current: Peak Approx. 2.5A Average less than 0.45A	
Reset pulse sensor	Mechanical leaf switch	
Dot pulse sensor	Photo interrupter	
Home position sensor	Photo interrupter	
Printing solenoid	Voltage: 24V ±10% / Resistance: 10.5Ω ±10%	
Paper feeding solenoid	Voltage: 24V ±10% Resistance: 34Ω ±10%	
Connecting method	Pin connector	
Paper feeding	Friction feed	
Printing paper	Receipt and journal	
	44.5 ±0.5mm Outer dia Max. φ83mm	
	Validation 135 – 210 (W) × 70 (H) mm	
Paper feeding speed	30 lines/sec.	
External dimensions (W × D × H)	151 × 234.6 × 123.7mm	
Weight	Approx. 1,250g	
Operating temp. range	0 ~ 50°C	
Storage temp. range	-25 ~ 70°C	
Reliability	Mechanism	MCBF 4 million lines
	Head	100 million characters

Options

- Validation sensor
- Auto cutter
- Paper winder
- Paper near end sensor
- Mark sensor
- Stamp









Accessories

Ink Ribbon ▶ IR-71



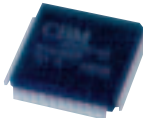
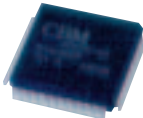
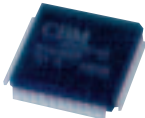
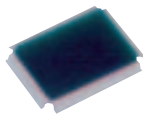
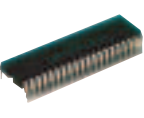


Accessories / Options

► Control Boards

Model	BD2-1220/1221	BD2-2860	BD2-2880/2890	BD2-3880/3890	CBM-505	CBM-606	CBM-626	CBM-909
								
Printer mechanism	LT1220/1320/1221/1321	LT-286	MLT-288/289	MLT-388/389	DP-555/575	DP-610/612/614/617	DP-622/624/627	MD-910/911
Interface	Parallel and RS-232C	Parallel and RS-232C	Parallel and RS-232C	Parallel and RS-232C	Parallel, RS-232C, Current loop or TTL	Parallel, RS-232C, Current loop or RS-422	Parallel, RS-232C, Current loop	Parallel and serial
Number of columns	LT1220/1221: 32/42 LT1320/1321: 48/64	Font A: 32 Font B: 42	Font A: 32 Font B: 42	Font A: 48 Font B: 64	DP-555: 24 DP-575: 40	DP-610: 23 DP-612: 28 DP-614: 40 DP-617: 40	DP-622: 28 DP-624: 40 DP-627: 40	MD-910: 24 MD-911: 40
Font	Font A: 12 × 24 dots Font B: 9 × 24 dots	Font A: 12 × 24 dots Font B: 9 × 24 dots	Font A: 12 × 24 dots Font B: 9 × 24 dots	Font A: 12 × 24 dots Font B: 9 × 24 dots	5 × 7 dots	7 × 7 dots (including half dot)	7 × 7 dots (including half dot)	MD-910: 5 × 7 MD-911: 4 × 7 (including half dot)
Command set	ESC/POS	ESC/POS	ESC/POS	ESC/POS	CBM standard	CBM standard	CBM standard	Unique
Bar-code	Supported	Supported	Supported	Supported	—	—	—	—
Firmware location	Flash memory	Masked CPU	Flash memory	Flash memory	Masked CPU	EPROM	EPROM	Masked CPU
Buffer	4K bytes	2K bytes	2K bytes	2K bytes	1 line	7K bytes or 2 lines	3K bytes or 2 lines	1 line
Supporting devices	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	—	Auto cutter Auto cutter Paper end sensor LED's (Power/Error/ On-line) Switches (LF/On-line)	Auto cutter Auto cutter Paper end sensor LED's (Power/Error/ On-line) Switches (LF/On-line)	LF switch On-line switch
Dimensions (W×D)	90 × 65mm	80 × 80mm	80 × 75mm	90 × 80mm	135 × 95mm (PF) 155 × 119mm (RF)	152 × 114mm	152 × 114mm	80 × 55.5mm
Source voltage	5V ±5% and 24V ±5%	5V ±5%	5V ±5%	5V ±5%	5V ±5% and 13 ±1.0V	5V ±5% and 24 ±1.0V	5V ±5% and 24 ±1.0V	4V +0.7/-1.0V
Custom control chip	—	202PC-04	—	—	PC-2A/2O	—	—	909PC-2D/4D
Gate array	202LA-00	202LA-00	202LA-00	202LA-00	—	—	—	—



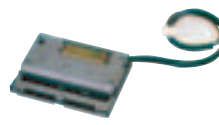
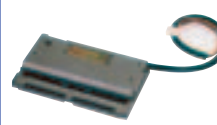

*ESC/POS is a trademark of Seiko Epson Corporation.







► Control Chips/Gate Array

Type	Control chip	Control chip	Control chip	Gate array	Control chip	Control chip	Control chip
Model	202PC-01	202PC-03	202PC-04	202LA-00	PC-2O PC-2A	909PC-2DU 909PC-4DU	909PC-2F
							
Printer mechanism	LT-380	LT-282/283	LT-286	LT-series	DP-555/575	MD-910/911	MD-910/911


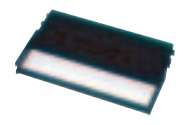

Accessories / Options

► Cutters

	AC-120	AC-130	ACS-220	ACS-230	ACS-240
					
Cutting method	Guillotine	Guillotine	Slide cutting	Slide cutting	Slide cutting
Paper width thickness	38 – 69mm 0.06 – 0.09mm	50 – 89mm 0.06 – 0.09mm	45 – 69mm 0.06 – 0.15mm	50 – 89mm 0.06 – 0.15mm	55 – 115mm 0.06 – 0.13mm
Max. cutting frequency	20 cuts/min	20 cuts/min	20 cuts/min	20 cuts/min	20 cuts/min
Voltage	24V ±10%	24V ±10%	24V ±10%	24V ±10%	24V ±10%
Current (peak)	0.8A	0.8A	0.8A	0.8A	0.8A
Operating temperature	0 – 45°C	0 – 45°C	0 – 45°C	0 – 45°C	0 – 45°C
Size	80 × 57 × 15mm	102 × 57 × 15mm	80 × 55.7 × 15mm	102 × 55.7 × 15mm	130 × 55.7 × 15mm
Weight	130g	160g	140g	180g	220g
Reliability	300,000 cuts	300,000 cuts	500,000 cuts	500,000 cuts	300,000 cuts
Number of tab left (F)ull cut blade type (P)artial cut blade type	None or 1 tab 2 or 3 tabs	None or 1 tab 2 or 3 tabs	None None or 1 tab	None None or 1 tab	None None or 1 tab
Applicable mechanism (Cutter model name with mounting bracket and paper guide)	LT1220 (AC-125)	DP-6XX (AC-134) LT1320 (AC-135)	LT-286 (ACS-224) 5V LT1220 (ACS-225) MLT-288 (ACS-228) 5V LT-281 (ACS-229)	DP-400 (ACS-234) DP-410 (ACS-234) LT1320 (ACS-235) DP-6XX (ACS-236) MLT-388 (ACS-238) 5V DP-320/330 (ACS-231)	LT481 (ACS-249)

	AC-2	AC-3	AC-4	AC-5	AC-6	AC-7
						
Cutting method	Guillotine	Guillotine	Guillotine	Guillotine	Guillotine	Rotary
Paper width thickness	76 ±0.5mm 0.06 – 0.085mm	76 ±0.5mm 0.06 – 0.085mm	49.5 ±0.5mm 0.063mm	59.5 ±0.5mm 0.065mm	111.5 ±0.5mm 0.065mm	59.5 ±0.5mm 0.15mm
Max. cutting frequency	20 cuts/min	20 cuts/min	6 cuts/min	6 cuts/min	6 cuts/min	10 cuts/min
Voltage	24V ±10%	12V ±10%	24V ±10%	24V ±10%	24V ±10%	24V ±10%
Current (peak)	0.8A	1.2A	1.3A	1.3A	1A	1.3A
Operating temperature	0 – 40°C	0 – 40°C	5 – 40°C	5 – 40°C	5 – 40°C	5 – 40°C
Size	99 × 74 × 30mm	93 × 74 × 25mm	60 × 55 × 23mm	70 × 55 × 31.7mm	130 × 55 × 21.5mm	96.5 × 85.5 × 40mm
Weight	200g	200g	260g	160g	260g	150g
Reliability	300,000 cuts	300,000 cuts	300,000 cuts	300,000 cuts	300,000 cuts	500,000 cuts
Number of tab left (F)ull cut blade type (P)artial cut blade type	None or 1 tab 2 or 3 tabs	None or 1 tab 2 or 3 tabs	None or 1 tab Several tabs	None or 1 tab Several tabs	None or 1 tab Several tabs	None or 1 tab Several tabs
Applicable mechanism (Cutter model name with mounting bracket and paper guide)	DP-6XX (AC-2)	DP-5XX (AC-3)	LT-483 (AC-4)	LT-281 (AC-5)	LT-481 (AC-6)	LT-281 (AC-7)

► Ribbons

					
IR-01 RB/BL/P For DP-505	IR-31 RB/B/P For DP-300	IR-41 RB/B/P For DP-400	IR-61 RB/B/P For DP-6XX	IR-71 P For DP-730 DP-740	IR-91 P/B IR-91 L (long life) For MD-910/911

► Winders

	
NW-58 for DP-555 NW-69 for DP-575	AW-5 for MD-910

Accessories / Options

► Accessory Reference Table

Line Thermal Printer Mechanisms									
Model		LT-286	MLT-288	MLT-388	LT1220	LT1320	LT-281	LT-481	LT-483
Ribbon	IR-01RB/B/P								
	IR-31RB/B/P								
	IR-41RB/B/P								
	IR-61RB/B/P								
	IR61B/P								
	IR-71P								
	IR-82P								
	IR-91B/P								
Cutter	AC-12X								
	AC-13X								
	ACS-22X				ACS-225		ACS-229		
	ACS-22X (5V)	ACS-224	ACS-228						
	ACS-23X					ACS-235			
	ACS-23X (5V)								
	ACS-24X							ACS-249	
	AC-2								
	AC-3								
	AC-4								●
	AC-5						●		
	AC-6							●	
AC-7						●			
Winder	NW-58								
	NW-69								
	PW-2								
	AW-2								
	AW-2FA								
	AW-3								
	AW-4								●
	AW-5								

Dot Impact Printer Mechanisms										
Model		MD-910 MD-911	DP-320 DP-330	DP-420 DP-430	DP-555 DP-575	DP-61X	DP-65X	DP-62X	DP-630	DP-730 DP-740
Ribbon	IR-01RB/B/P				●					
	IR-31RB/B/P		●							
	IR-41RB/B/P			●						
	IR-61RB/B/P					●	●			
	IR61B/P							●	●	
	IR-71P									●
	IR-82P									
	IR-91B/P	●								
Cutter	AC-12X									
	AC-13X					AC-134	AC-134	AC-134		
	ACS-22X									
	ACS-22X (5V)									
	ACS-23X		ACS-237	ACS-234		ACS-236	ACS-236			
	ACS-23X (5V)									
	ACS-24X									
	AC-2					●	●			
	AC-3				●					
	AC-4									
	AC-5									
	AC-6									
AC-7										
Winder	NW-58				●					
	NW-69				●					
	PW-2									
	AW-2								●	
	AW-2FA			●		●	●	●		
	AW-3									
	AW-4									
	AW-5	●								



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