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SAM4S

PRODUCT CATALOG



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SHIN HEUNG GROUP

2014 Turnover
1.5 Billions USD

50 years old
Korean Contract Manufacture

- Founded in 1968
- Over 13,000 Employees
- 11 Countries, 16 Affiliates
- Worldwide manufacturing facility (25 Factories)
- Premium manufacturing partner of SAMSUNG Electronics (For 50 years)



About SAM4S

As a store automation products manufacturer, SAM4S aims to achieve the best quality products and make the most flexible and reliable products at all times.

We have human resources with knowledge of more than **30 years** of experience in the store automation field.

We now produce the most sophisticated and diverse products to the world-wide market.

Our store automation products are extensively used in over **70 countries**.

We are committed to developing future models that provide innovation and solutions to meet the demands of fast moving markets.

- Formed as a ECR division of SAMSUNG in 1983
- Took over ECR business from SAMSUNG in 2001
- Launched SAM4S brand in 2003
- Acquired Mobile business from Woongjin Group in 2013

SAM4S is the

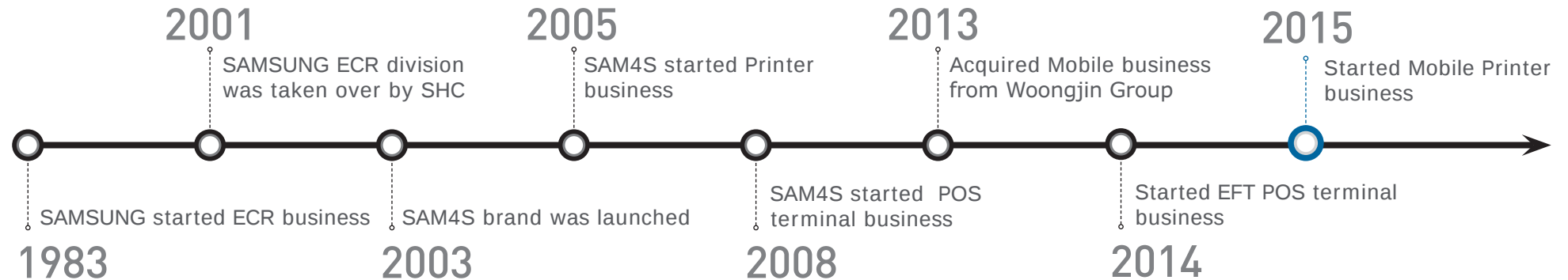
Total Solution Brand

for Store Automation Industry

of Shin Heung Group



History



Why SAM4S

Full Range of Products for the Retail Sector

POS Terminal, ECR, Printer, Industrial PDA, EFT POS Terminal, Peripherals



Experienced R&D Team

Over 30 Years of Experience for Retail Store Automation



In House Production Capability

From Mold Making to Assembling



Good Quality and Service

Comprehensive Reliability Testing



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Industrial PDA



SHM-1000

The Next Generation Payment Solution

- Integrated 2" Thermal Printer
- EMV Level 1&2
NFC(ISO18092)
RFID(ISO14443)
- Contactless Payment Terminal
(Europay, Master and Visa Card
Certified)
- Windows Mobile 5.0
Windows CE 5.0



SHM-200

Android All-in-One Mobile Computer

- Qualcomm Snapdragon Quad
Core 1.2GHz
- Android 4.1.2 Jelly Bean
- Integrated 2" Thermal Printer
- 4" IPS LCD, Super Sensitive
Touch Screen
- Biometric support
(Finger Print Reader)



SHR-1000

Fully Rugged Handheld Computer

- IP67 sealing
2m drop tolerance
MIL-STD 810G
- Cortex A8 1GHz CPU
- Powerful Battery Capacity
(6,600mAh incl. 2,200mAh Gun
Battery)
- Numeric and QWERTY Keypad



SHR-200

Android Multi-purpose Handheld Computer

- Qualcomm Snapdragon Quad
Core 1.2GHz
- Light and Compact Design
- Android 4.1.2 Jelly Bean
- IP65 sealing
1.2m drop tolerance
- 3.7" IPS LCD with Corning
Gorilla Glass

POS Terminal



TITAN Series

High Performance POS Terminal

- Powerful Engine-Intel with Ivy-bridge
- Solid AL Die casting Frame Construction
- Slim MSR and Built-in Power Adaptor
- Upper I/O Panel for Easier Control
- Easy to Access Components
- 15" LED LCD Display with PCAP Touch



SPT-4800 Series

Reliable and Fanless POS Terminal

- Selectable CPU Options : Intel Celeron Mobile 1037U and Atom D2550
- 15" LED LCD Display with PCAP Touch
- High Gloss in Black or White Finish
- Tool-less Design for Easy Maintenance
- Clean, Quiet Fan Free Design



SPT-7000 Series

Stylish All-in-One POS Terminal

- Selectable CPU Options : Intel Celeron Mobile 1037U and Atom D2550
- Minimal use of space with Built-in Device (Receipt Printer, Scanner, Power Adaptor)
- Stylish Curved Cabinet Design
- Tool-less Design for Easy Maintenance
- 15" LED LCD Display with PCAP Touch



SAP-500 Series

ECR-style Android POS Terminal

- Android 4.3 Jelly Bean
- Large Keyboard for PLU Shortcut Keys
- Ports to Connect Scanner or Remote Printer
- Cost Saving POS Bundle
- Built-in 3" Printer and Cash drawer

Printer



GIANT Series

Smart and Compact POS Printer

- Compact Size and Smaller Footprint
- Conveniently Provides NFC Tag
- Faster Speed 250mm/sec
- Jam Free Auto Cutter
- Tool-less Design
- Various Interfaces



ELLIX Series

Powerful and Reliable POS Printer

- Faster Speed 270mm/sec
- Comprehensive Barcode Formats
- Low Power Consumption and Paper saving
- Jam Free Auto Cutter
- Tool-less Design
- Various Interfaces



SHMP Series

Direct Thermal Mobile Printer

- 2"/3" Bluetooth Portable Printer
- Compact and Lightweight Design
- Faster Speed 100mm/sec
- Long Lasting Battery Life
- Integrated Card Reader (MSR)



Mechanism

High performance and Compact Printer Mechanism

SAM4S has produced ECR printer mechanisms since 1994 and receipt printer mechanisms since 1998. SAM4S' know-how and expertise has been featured in SAM4S's ECRs and printers for over 20 years. SAM4S guarantees satisfaction to all its printer mechanism customers.

ECR



NR-500 Series

Easy and Intuitive ECR

- Available in both Retail and Hospitality Versions
- Wide Multi Line Graphic Display
- 16 Char. x 2 Line LCD Rear Display
- Electronic Journal Data keeping using SD Card
- Easy Data Back up, Restore and Report polling using SD, USB, PC
- Data Management and Programming by Ethernet Based PC Utility (Back office)



NR-400/300

Compact and Portable ECR

- Built-in Power Battery
- Space saving design for Small business
- Electronic Journal Data keeping using SD Card
- Easy Data Back up, Restore and Report polling using SD, USB, PC
- Data Management and Programming by Ethernet Based PC Utility (Back office)



ER-260EJ

Affordable and Functional ECR

- Available in both Retail and Hospitality Versions
- Supports Various Communications Interfaces
- Electronic Journal Data keeping using SD Card
- Easy Data Back up, Restore and Report polling using SD, USB, PC
- Data Management and Programming by Ethernet Based PC Utility (Back office)



ER-900 Series

Smart Cash Register

- Reliable Hardware and Proven Software
- Various Keyboard types suitable for any business environments
- Electronic Journal Data keeping using SD Card
- Easy Data Back up, Restore and Report polling using SD, USB, PC
- Data Management and Programming by Ethernet Based PC Utility (Back office)

EFT POS Terminal



SHC-350

Color EFT POS Terminal

- Integrated 3" Thermal Printer with 4.3" Touch screen
- User-Friendly interface with Full color display
- Faster Speed 200mm/sec
- Large Internal Memory Size(128MByte)
- Jam Free Auto Cutter
- MSR and Smart Card Reader (EMV Level 1&2)
- Various Interfaces



SHC-320/210

Simple EFT POS Terminal

- Simple Design with Compact Size
- Integrated 2"/3" Thermal Printer
- Faster Speed 200mm/sec (SHC-320)
- Jam Free Auto Cutter
- MSR and Smart Card Reader(EMV Level 1&2)
- Various Interfaces



SSP-1100

Signature Pad

- Sophisticated slim cover with a sheen
- Graphic LCD touch screen, 128 x 64
- Provides smooth drawing

Peripherals



QCD-P15/N15

15" Rear Display



SCD-100

9.7" Rear Display / 9.7" Pole Display



QCD-L7

7" Rear Display



QCD-V202

VFD Rear Display



SPM-T15

15" Touch Monitor



QPD-ML700

7" Pole Display

Peripherals



QPD-ML162S

2Line Character LCD



QPD-LV202

VFD Pole Display



ELLIXBLUE

Bluetooth Dongle



H-Drawer

POS Drawer



G-Drawer

Large Size Drawer



Bplus-Drawer

Small Size Drawer

Specification - Industrial PDA

Model	SHM-1000	STM-7700	SHM-200
Picture			
CPU	ARM11 800MHz	ARM11 800MHz	Qualcomm Quad Core 1.2GHz
OS	Windows Embedded Handheld 6.5 Professional Windows CE .NET 5.0	Windows Embedded Handheld 6.5 Professional Windows CE .NET 5.0	Android 4.1.2
Memory	1GB Flash ROM 256MB RAM	512MB/1GB Flash ROM 128MB/256MB RAM	4GB Flash ROM 1GB RAM
Display	3.5" QVGA (320 x 240) TFT Touch Screen with Resistive	3.5" QVGA (320 x 240) TFT Touch Screen with Resistive	4.0" WVGA (800 x 480) IPS 5-Point Capacitive Multi Touch Screen
Keypad	Numeric	Numeric	Numeric
Communications	IEEE 802.11a/b/g/n	IEEE802.11a/b/g	IEEE 802.11a/b/g/n
	GSM/GPRS/EDGE/WCDMA/HSDPA	GSM/GPRS/EDGE/WCDMA/HSDPA	GSM/GPRS/EDGE/WCDMA/HSPA CDMA2000/CDMA 1X
	-	Bluetooth 2.0 Class 2	Bluetooth 4.0+EDR
	GPS(Integrated SiRF Star 4)	GPS(Integrated SiRF Star 3)	GPS(Integrated A-GPS)
Printer	2" Thermal Printer	2" Thermal Printer	2" Thermal Printer
MSR	Triple Track (Bi-directional)	Triple Track (Bi-directional)	Triple Track (Bi-directional)
IC Card	IC Card reader with 4 SAM, EMV Level I & II Certified, ISO7816	IC Card reader with 4 SAM, EMV Level I & II Certified, ISO7816	IC Card reader with 4 SAM, ISO7816
RFID	ISO18092(NFC), ISO14443 A/B	ISO14443 A/B	ISO14443 A/B
Scanner	1D Laser Class II or 2D CMOS Imager (Optional: HD)	1D Laser Class II or 2D CMOS Imager (Optional: HD)	1D Laser Class II or 2D CMOS Imager
Camera	5.0M Pixels Auto Focus with Flash LED	5.0M Pixels Auto Focus with Flash LED	5.0M Pixels Auto Focus with Flash LED
Audio	Speaker	Speaker, Ear microphone Jack, Microphone	Speaker, Receiver, Microphone, Vibrator, Mini USB Headphone
Expansion	Micro SD Card slot	Micro SD Card slot	Micro SD Card slot
Battery	7.4V/2,600mAh Rechargeable Li-ion	7.4V/2,000mAh Rechargeable Li-ion	7.4V/3,000mAh Li-Polymer
Cradle	USB Host(A type) or Ethernet(RJ45), Client(Mini B) RS-232C 9Pin, DC Jack, Battery Charging Slot	USB Host/Client (Mini B/Standard B) RS-232C 9Pin, DC Jack, Battery Charging Slot	None
Operation Temperature	-10°C ~ 50°C	-10°C ~ 50°C	-20°C ~ 60°C
Storage Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-40°C ~ 80°C
Humidity	95%	95%	90%
Drop Spec	Stands 1.2 meter drop to steel	Stands 1.2 meter drop to steel	Stand 1.2 meter drop test
Dimensions	112(W) x 244(H) x 64.2(D) mm	82.24(W) x 216.2(H) x 59.2(D) mm	89(min.73)(W) x 226(H) x 54(min.31)(D) mm
Weight (including battery)	636g	534g	620g
Payment	Contact(EMV L1 & L2)	Contact(EMV L1 & L2)	-
	Contactless(EMV L1 & L2, Master PayPass & Visa Wave)	-	-
Additional Feature	-	Security: PCI-PTS 2.x	Finger Print Reader (508dpi, 14.4 x 10.4 mm)

Specification - Industrial PDA

Model	SHR-1000	SHR-200	STM-8800
Picture			
CPU	Cortex-A8 1GHz	Qualcomm Quad Core 1.2GHz	ARM11 800MHz
OS	Windows Embedded Handheld 6.5 Professional	Android 4.1.2	Windows Embedded Handheld 6.5 Professional Windows CE .NET 5.0
Memory	1GB Flash ROM	4GB Flash ROM	1GB Flash ROM
	256MB/512MB RAM (Optional)	1GB RAM	256MB RAM
Display	3.5" VGA (640 x 480) TFT / 3.5" QVGA (320 x 240) TFT Touch Screen with Resistive Window Touch	3.7" WVGA (800 x 480) IPS 5-Point Capacitive Multi Touch Screen Corning Gorilla Glass	3.5" QVGA (320 x 240) TFT Touch Screen with Resistive
Keypad	Numeric, Qwerty	Numeric	Numeric
Communications	IEEE 802.11a/b/g/n	IEEE 802.11a/b/g/n	IEEE 802.11b/g
	GSM/GPRS/EDGE/UMTS/HSPA+	GSM/GPRS/EDGE/WCDMA/HSPA CDMA2000/CDMA 1X	GSM/GPRS/EDGE
	Bluetooth 2.1 + EDR	Bluetooth 4.0 + EDR	Bluetooth 2.0 Class 2
	GNSS(S-GPS: GPS+Glonass / A-GPS)	GPS(Integrated A-GPS)	GPS(Integrated SiRF Star 3)
RFID	ISO14443 A/B, ISO15693	ISO14443 A/B, ISO15693	-
Scanner	1D Laser Class II or 2D CMOS Imager	1D Laser Class II or 2D CMOS Imager	1D Laser Class II or 2D CMOS Imager
Camera	5.0M Pixels Auto Focus with Flash LED	5.0M Pixels Auto Focus	2.0M pixels with Flash LED
Audio	Speaker, Receiver, Microphone, Vibrator	Mono speaker, Receiver, Microphone, Vibrator	Speaker, Headset Jack, Microphone, Vibrator
Expansion	Micro SD Card slot	Micro SD Card slot	SD Card slot
Battery	3.7V/4,400mAh Rechargeable Li-ion (Gun : 3.7V/2,200mAh Rechargeable Li-ion)	3.7V/3,600mAh Rechargeable Li-Polymer (Backup: 3.7V/150mAh Rechargeable Li-Polymer)	3.7V/2,100mAh Rechargeable Li-ion Polymer
Cradle	USB Host/Client (Mini B/Standard B) RS-232C 9Pin, DC Jack Battery Charging Slot	USB/OTG port(Micro USB) DC Jack Battery Charging Slot	USB Host/Client (Mini B/Standard B) DC Jack Battery Charging Slot
Operation Temperature	-20℃ ~ 50℃	-20℃ ~ 60℃	-10℃ ~ 50℃
Storage Temperature	-40℃ ~ 70℃	-40℃ ~ 80℃	-20℃ ~ 60℃
Humidity	95%	95%	95%
Drop Spec	Stands 2.0m drop to steel MIL-STD-810G, Method 516.6	Stand 1.2 meter drop test	Stands 1.5 meter drop to steel
Sealing	IP67 (IEC 60529: 2001) MIL-STD-810G, Method 512.5	IP65	IP54
Dimensions	84(W) x 169(H) x 36.4(D) mm	73(W) x 165(H) x 34(D) mm	77.4(W) x 160.5(H) x 26.9(D) mm
Weight (including battery)	398g	275g	292g

Specification - PC POS Terminal

Model		TITAN Series		SPT-4800 Series		SPT-4700 Series		SPT-7000 Series	
Picture									
Submodel		TITAN-100	TITAN-500	SPT-4800	SPT-4840	SPT-4700	SPT-4740	SPT-7000	SPT-7040
System	CPU	Intel Celeron Mobile 1037U (Dual Core 1.8GHz)		Intel Atom D2550 (Dual Core 1.86GHz)		Intel Atom D2550 (Dual Core 1.86GHz)		Intel Atom D2550 (Dual Core 1.86GHz)	
	Storage	HDD: 320GB SSD: 256GB/128GB/64GB mSATA: 256GB/128GB/64GB		HDD: 320GB SSD: 256GB/128GB/64GB		HDD: 320GB SSD: 364GB/256GB/128GB		HDD: 320GB SSD: 256GB/128GB/64GB mSATA: 256GB/128GB/64GB Support 2 Storage Bay Slots	
	RAM	DDR III 2Slots (Up to 16GB)		DDR III 2Slots (Up to 4GB)		DDR III 2Slots (Up to 4GB)		DDR III 2Slots (Up to 4GB)	
Display	Size	15" LED LCD (1024 x 768)		15" LED LCD (1024 x 768)		15" LED LCD (1024 x 768)		15" LED LCD (1024 x 768)	
	Input	5W Resistive Touch PCAP Touch (Optional)		5W Resistive Touch PCAP Touch (Optional)		5W Resistive Touch		5W Resistive Touch PCAP Touch (Optional)	
I/O	Serial	4 Ports (RI/5V/12V BIOS Selectable)		4 Ports (RI/5V/12V BIOS Selectable)		4 Ports (RI/5V/12V BIOS Selectable)		4 Ports (RI/5V/12V BIOS Selectable)	
	Parallel	1 Port		1 Port		1 Port		1 Port	
	USB	6 Ports		6 Ports		6 Ports		6 Ports	
	PS/2	-		-		-		-	
	Ethernet	1 Port		1 Port		1 Port		1 Port	
	VGA	1 Port		1 Port		1 Port		1 Port	
	Drawer	1 Port / 2 CH (12V/24V Selectable)		1 Port / 2 CH (12V/24V Selectable)		1 Port / 2 CH (12V/24V Selectable)		1 Port / 2 CH (12V/24V Selectable)	
	Audio	3 Ports (Line in & out/Mic. in)	1 Port (Line out)	3 Ports (Line in & out/Mic. in)		3 Ports (Line in & out/Mic. in)		3 Ports (Line in & out/Mic. in)	
Peripherals	Internal Printer	-		-		-		2"/3" Thermal (270 mm/sec)	
	MSR	1/2/3 Track Support (USB)		1/2/3 Track Support (USB)		1/2/3 Track Support (USB)		1/2/3 Track Support (USB)	
	Scanner	-		-		-		1D Available	2D Available
	Fingerprint Reader	Optical USB Type		Optical USB Type		Optical USB Type		Optical USB Type	
	Dallas Key	Magnetic USB Type		Magnetic USB Type		Magnetic USB Type		Magnetic USB Type	
	Customer Display	15" LED LCD (1024 x 768) Normal/Flat		15" LED LCD (1024 x 768) Normal/Flat		15" LED LCD (1024 x 768) Normal/Flat		15" LED LCD (1024 x 768) Normal/Flat	
		9.7" LED LCD (1024 x 768) Flat		9.7" LED LCD (1024 x 768) Flat		9.7" LED LCD (1024 x 768) Flat		9.7" LED LCD (1024 x 768) Flat	
		7" LED LCD (800 x 480) Wide		7" LED LCD (800 x 480) Wide		7" LED LCD (800 x 480) Wide		7" LED LCD (800 x 480) Wide	
		VFD (20CH x 2Line) VFD (256 x 32 Graphic)		VFD (20CH x 2Line) VFD (256 x 32 Graphic)		VFD (20CH x 2Line) VFD (256 x 32 Graphic)		VFD (20CH x 2Line) VFD (256 x 32 Graphic)	
	Expansion Slot	PCIe 1x Slot x 1 mini PCIe Slot x 1	mini PCIe Slot x 1	PCI Slot x 1	PCIe 1x Slot x 1 mini PCIe Slot x 1	PCI Slot x 1	PCIe 1x Slot x 1 mini PCIe Slot x 1	PCI Slot x 1	PCIe 1x Slot x 1 mini PCIe Slot x 1
	Specific Option	VESA Wall Mount		VESA Wall Mount Support CFast Card		VESA Wall Mount Support CFast Card		USB Dongle Wi-Fi Support CFast Card	
Software	OS	POSReady 2009&7, Win 8.1 Industry (Retail), Win 10 IoT Enterprise (Retail)		POSReady 2009&7	POSReady 2009&7, Win 8.1 Industry (Retail), Win 10 IoT Enterprise (Retail)	POSReady 2009&7	POSReady 2009&7, Win 8.1 Industry (Retail), Win 10 IoT Enterprise (Retail)	POSReady 2009&7	POSReady 2009&7, Win 8.1 Industry (Retail), Win 10 IoT Enterprise (Retail)
Power Supply		DC 12V/5A	DC 19V/7.89A	DC 12V/5A		DC 12V/5A		DC 12V/5A (Printer : DC 24V/2.5A)	

Specification - PC POS Terminal & Android POS Terminal

Model		SPT-3700	SAP-4800	SAP-500
Picture				
Submodel		SPT-3700	SAP-4800II	SAP-530
System	CPU	Intel Atom D2550(Dual Core 1.86GHz)	ARM Cortex-A9 Quad Core 1.0Ghz	ARM Cortex-A9 Quad Core 1.0Ghz
	Storage	HDD: 320GB SSD: 256GB/128GB/64GB	NAND Flash 8GB	NAND Flash 8GB
	RAM	DDR III 2Slots (Up to 4GB)	DDR III 1GB	DDR III 1GB
Display	Size	15" LED LCD (1024 x 768)	15" LED LCD (1024 x 768)	9.7" LED LCD (1024 x 768)
	Input	5W Resistive Touch	5W Resistive Touch, PCAP Touch (Optional)	5W Resistive Touch
Keyboard	Flat	-	-	160 Keys (Optional)
	Raised	-	-	90 Keys
I/O	Serial	4 Ports (RI/5V/12V BIOS Selectable)	4 Ports (D/SUB 2 Ports, RJ45 2 Ports)	4 Ports (D/SUB 2 Ports, RJ45 2 Ports)
	Parallel	1 Port	-	-
	USB	6 Ports	4 Ports	2 Ports
	PS/2	-	-	-
	Ethernet	1 Port	1 Port	1 Port
	VGA	1 Port	1 Port	-
	HDMI	-	1 Port	-
	Drawer	1 Port / 2 CH (12V/24V Selectable)	External 2Ports/2CH (12V/24V Selectable)	Internal 1Ports/1CH External 2Ports/2CH (24V Only)
	Audio	3 Ports (Line in & out/Mic. in)	Internal Speaker(L/R: 1.5W), 1 Audio Out Port	-
	Internal Printer	-	-	3" Thermal (100mm/sec)
Peripherals	MSR	1/2/3 Track Support (USB)	1/2/3 Track Support (USB)	1/2/3 Track Support
	Scanner	-	-	-
	Fingerprint Reader	Optical USB Type	-	-
	Dallas Key	Magnetic USB Type	USB Type	Yes
	Customer Display	15" LED LCD (1024 x 768) Normal/Flat	15" LED LCD (1024 x 768) Normal/Flat	-
		9.7" LED LCD (1024 x 768) Flat	9.7" LED LCD (1024 x 768) Flat	-
		7" LED LCD (800 x 480) Wide	-	-
		VFD (20CH x 2Line), VFD (256 x 32 Graphic)	VFD (20CH x 2Line)	16CH x 2Line LCD
	Expansion Slot	PCI Slot x 1	-	-
	Specific Option	VESA Wall Mount Support CFast Card	VESA Wall Mount Built in Wi-Fi/Bluetooth SD Card Slot	Built in Wi-Fi SD Card Slot
Software	OS	POSReady 2009&7	Android 4.3 (JellyBean)	Android 4.3 (JellyBean)
	Data Base	-	SQLite	SQLite
	TAX	-	VAT, ADD ON, TAX TABLE	VAT, ADD ON, TAX TABLE
	Revenue Center	-	Yes	Yes
	Check Tracking	-	Table Management Add/Split/Merge Reservation	Table Management Add/Split/Merge Reservation
	Promotion	-	Promotion Sweet Deal Combo Discount	Promotion Sweet Deal Combo Discount
	User Interface	-	Support Right/Left Hand UI	Support Right/Left Hand UI
Power Supply		DC 12V/5A	DC 12V/5A	AC 100~240V/50~60Hz

Specification - Printer

Model		GIANT Series		ELLIX Series
Picture				
Submodel		GIANT-100	GIANT PRO (NFC Tag)	ELLIX45II
Printing Method		Thermal Line Printing	Thermal Line Printing	Thermal Line Printing
Resolution		180dpi	180dpi	180dpi
Printing Speed	Mono Paper 80mm	Max. 250mm/sec (59lines/sec)	Max. 250mm/sec (59lines/sec)	Max. 270mm/sec (63lines/sec)
	Mono Paper 58mm	150mm/sec	150mm/sec	150mm/sec
	Two Color Paper	100mm/sec	100mm/sec	100mm/sec
Paper	Loading	Drop-In Type	Drop-In Type	Drop-In Type
	Width	Max. 80.0mm / 58.0mm	Max. 80.0mm / 58.0mm	Max. 80.0mm / 58.0mm
	Diameter	Max. Ø 83.0mm	Max. Ø 83.0mm	Max. Ø 83.0mm
Memory	PGM Memory	2MByte	2MByte	10MByte
	DATA Memory	8MByte	8MByte	8MByte
	DATA Buffer	64KByte	64KByte	64KByte
Reliability	Mechanism (MCBF)	70,000,000 Lines	70,000,000 Lines	70,000,000 Lines
	TPH	1×10 ⁸ Pulses, 150Km	1×10 ⁸ Pulses, 150Km	1×10 ⁸ Pulses, 150Km
	Auto Cutter	1,500,000 Cuts	1,500,000 Cuts	1,500,000 Cuts
Drawer Port		2 Ports (+24V)	2 Ports (+24V)	2 Ports (+24V)
Barcode		UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93
		Code 128, ITF, CODABAR, PDF417, QRCode	Code 128, ITF, CODABAR, PDF417, QRCode	Code 128, ITF, CODABAR, PDF417, QRCode
Driver/Utility		Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program	Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program	Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program
SDK		iOS SDK, Android SDK	iOS SDK, Android SDK	iOS SDK, Android SDK
Interface		USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)	USB + Serial + Ethernet (3-Combo)	USB Only, USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Parallel, USB + Bluetooth, USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)
Dimensions (with Foot Rubber)		131(W) x 155(D) x 133(H) mm	131(W) x 155(D) x 133(H) mm	144(W) x 199(D) x 138(H) mm
Weight		0.9Kg	0.9Kg	2.0Kg
Color		Black(Matt/High-glossy), White	Black(Matt/High-glossy), White	Black, White
Emulation		EPSON, STAR	EPSON, STAR	EPSON, STAR
Options	LCD Display	-	-	Yes
	Paper Near End Sensor	Yes (Only Horizontal)	Yes (Only Horizontal)	Default
	Kitchen Bell	Yes	Yes	Yes
	Wall Mount Kit	Default	Default	Yes
	Splash Cover	Yes	Yes	Yes
	Paper Separator (58mm)	Default	Default	Yes
Power Supply		DC 24V/2.5A	DC 24V/2.5A	DC 24V/2.5A

Specification - Printer

Model		ELLIX Series		
Picture				
Submodel		ELLIX40II	ELLIX42	ELLIX35II
Printing Method		Thermal Line Printing	Thermal Line Printing	Thermal Line Printing
Resolution		180dpi	203dpi	180dpi
Printing Speed	Mono Paper 80mm	Max. 270mm/sec (63lines/sec)	Max. 220mm/sec (58lines/sec)	Max. 220mm/sec (52lines/sec)
	Mono Paper 58mm	150mm/sec	150mm/sec	150mm/sec
	Two Color Paper	100mm/sec	100mm/sec	100mm/sec
Paper	Loading	Drop-In Type	Drop-In Type	Drop-In Type
	Width	Max. 80.0mm / 58.0mm	Max. 80.0mm / 58.0mm	Max. 80.0mm / 58.0mm
	Diameter	Max. Ø 83.0mm	Max. Ø 83.0mm	Max. Ø 83.0mm
Memory	PGM Memory	10MByte	10MByte	2MByte
	DATA Memory	8MByte	8MByte	8MByte
	DATA Buffer	64KByte	64KByte	64KByte
Reliability	Mechanism (MCBF)	70,000,000 Lines	70,000,000 Lines	70,000,000 Lines
	TPH	1×10 ⁸ Pulses, 150Km	1×10 ⁸ Pulses, 150Km	1×10 ⁸ Pulses, 150Km
	Auto Cutter	1,500,000 Cuts	1,500,000 Cuts	1,500,000 Cuts
Drawer Port		2 Ports (+24V)	2 Ports (+24V)	2 Ports (+24V)
Barcode		UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93
		Code 128, ITF, CODABAR, PDF417, QRCode	Code 128, ITF, CODABAR, PDF417, QRCode	Code 128, ITF, CODABAR, PDF417, QRCode
Driver/Utility		Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program	Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program	Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program
SDK		iOS SDK, Android SDK	iOS SDK, Android SDK	iOS SDK, Android SDK
Interface		USB Only, USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Parallel, USB + Bluetooth, USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)	USB Only, USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Parallel, USB + Bluetooth, USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)	USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Parallel, USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)
Dimensions (with Foot Rubber)		144(W) x 199(D) x 138(H) mm	144(W) x 195(D) x 137(H) mm	144(W) x 199(D) x 138(H) mm
Weight		2.0Kg	2.0Kg	2.0Kg
Color		Black, White	Black, White	Black, White
Emulation		EPSON, STAR	EPSON, STAR	EPSON, STAR
Options	LCD Display	Yes	Yes	-
	Paper Near End Sensor	Default	Default	Yes
	Kitchen Bell	Yes	Yes	Yes
	Wall Mount Kit	Yes	Yes	Yes
	Splash Cover	Yes	Yes	Yes
	Paper Separator (58mm)	Yes	Yes	Yes
Power Supply		DC 24V/2.5A	DC 24V/2.5A	DC 24V/2.5A

Specification - Printer

Model		ELLIX Series		
Picture				
Submodel		ELLIX30II	ELLIX32	ELLIX40F
Printing Method		Thermal Line Printing	Thermal Line Printing	Thermal Line Printing
Resolution		180dpi	203dpi	180dpi
Printing Speed	Mono Paper 80mm	Max. 220mm/sec (52lines/sec)	Max. 180mm/sec (48lines/sec)	Max. 270mm/sec (63lines/sec)
	Mono Paper 58mm	150mm/sec	150mm/sec	150mm/sec
	Two Color Paper	100mm/sec	100mm/sec	100mm/sec
Paper	Loading	Drop-In Type	Drop-In Type	Drop-In Type
	Width	Max. 80.0mm / 58.0mm	Max. 80.0mm / 58.0mm	Max. 80.0mm / 58.0mm
	Diameter	Max. Ø 83.0mm	Max. Ø 83.0mm	Max. Ø 83.0mm
Memory	PGM Memory	2MByte	2MByte	10MByte
	DATA Memory	8MByte	8MByte	8MByte
	DATA Buffer	64KByte	64KByte	64KByte
Reliability	Mechanism (MCBF)	70,000,000 Lines	70,000,000 Lines	70,000,000 Lines
	TPH	1×10 ⁸ Pulses, 150Km	1×10 ⁸ Pulses, 150Km	1×10 ⁸ Pulses, 150Km
	Auto Cutter	1,500,000 Cuts	1,500,000 Cuts	1,500,000 Cuts
Drawer Port		2 Ports (+24V)	2 Ports (+24V)	2 Ports (+24V)
Barcode		UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93
		Code 128, ITF, CODABAR, PDF417, QRCode	Code 128, ITF, CODABAR, PDF417, QRCode	Code 128, ITF, CODABAR, PDF417, QRCode
Driver/Utility		Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program	Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program	Windows Driver, OPOS Driver, JPOS Driver(Linux&Mac), Cups Driver(Linux&Mac), Utility Program
SDK		iOS SDK, Android SDK	iOS SDK, Android SDK	iOS SDK, Android SDK
Interface		USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Parallel, USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)	USB + Serial(25Pin), USB + Serial(9Pin + RJ45), USB + Parallel, USB + Wi-Fi, USB + Serial + Ethernet (3-Combo)	USB(B type) + Serial(RJ45) + Ethernet
Dimensions (with Foot Rubber)		144(W) x 195(D) x 137(H) mm	144(W) x 195(D) x 137(H) mm	144(W) x 224(D) x 182(H) mm
Weight		2.0Kg	2.0Kg	2.4Kg
Color		Black, White	Black, White	Black, White
Emulation		EPSON, STAR	EPSON, STAR	EPSON, STAR
Options	LCD Display	-	-	Yes
	Paper Near End Sensor	Yes	Yes	Default
	Kitchen Bell	Yes	Yes	Yes
	Wall Mount Kit	Yes	Yes	-
	Splash Cover	Yes	Yes	Yes
	Paper Separator (58mm)	Yes	Yes	Yes
Power Supply		DC 24V/2.5A	DC 24V/2.5A	DC 24V/2.5A

Specification - Printer Mechanism

Model		STM-280 Series	STM-281 Series
Picture			
Submodel		STM-280H/280HN	STM-280V/280VN
Printing Format	Dot Pitch	Vertical Direction 0.125mm Horizontal Direction 0.125mm	Vertical Direction 0.125mm Horizontal Direction 0.125mm
	Character Structure	12(W) x 24(H) mm	12(W) x 24(H) mm
	Character Size	1.5(W) x 3.0(H) mm	1.5(W) x 3.0(H) mm
	Number of Columns	32	32
	Available Printing Width	48.0mm	48.0mm
Printing Speed		Max. 100mm/sec	Max. 100mm/sec
Printing Direction		Unidirection with Friction Feed	Unidirection with Friction Feed
Paper Feeding	Feeding Method	Friction Feed (Drop In Type)	Friction Feed (Drop In Type)
	Minimum Feed Pitch	0.0625mm	0.0625mm
P/Supply Voltage	Power Supply Voltage	6V ~ 9.5V	6V ~ 9.5V
	Circuit Input Voltage	3.3V, 5V DC±5%	3.3V, 5V DC±5%
TPH	Heat Element Density	8 dots/mm (0.125mm/dot)	8 dots/mm (0.125mm/dot)
	Total Number of Head Elements	384 dots/line	384 dots/line
	Heat Element Typical Resistance Value	176Ω ± 4%	176Ω ± 4%
	Available Printing Width	48mm	48mm
Line Feed Motor		PM Type Stepping Motor	PM Type Stepping Motor
Sensors	Head Temperature	Thermistor	Thermistor
	Paper End Sensor	Reflection Photo Sensor	Reflection Photo Sensor
	Printer Cover Open Sensor	STM-280H: Micro Switch STM-280HN: None	STM-280V: Micro Switch STM-280VN: None
Paper Feeding	Paper Type	Single-Ply Thermal Paper Roll	Single-Ply Thermal Paper Roll
	Paper Size	57.5mm ± 0.5mm(W) x Max Ø70mm or Less	57.5mm ± 0.5mm(W) x Max Ø70mm or Less
Reliability	Life	15,000,000 lines	15,000,000 lines
	MCBF	37,000,000 lines	37,000,000 lines
	TPH	1×10 ⁸ Pulses, 50Km	1×10 ⁸ Pulses, 50Km
Dimensions		30(W) x 15(H) x 69.5(L) mm	15(W) x 30(H) x 69.5(L) mm

Specification - Mobile Printer

Model		SHMP Series	
Picture			
Submodel		SHMP-200	SHMP-300
Printing Method		Thermal Line Printing	Thermal Line Printing
Resolution		203dpi	203dpi
Printing Speed		100mm/sec(Max)	100mm/sec(Max)
Paper	Loading	Drop-In Type	Drop-In Type
	Width	Max. 58.0mm	Max. 80mm
	Diameter	Max. Ø 30.0mm	Max. Ø 40.0mm
Memory	Flash	8Mbytes	8Mbytes
	SDRAM	16Mbytes	16Mbytes
Character	Size	Font A	12 x 24
		Font B	9 x 24
	Column Capacity	Font A	32
		Font B	42
	Character Set	Alphanumeric Characters: 95 Extended Characters: 128 x 30 Page International Characters: 32	
Barcode		UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93 Code 128, ITF, CODABAR, PDF417, QRCode, DATAMATRIX	UPC-A, UPC-E, EAN8, EAN13, Code 39, Code 93 Code 128, ITF, CODABAR, PDF417, QRCode, DATAMATRIX
SDK		iOS SDK, Android SDK, Windows CE SDK	iOS SDK, Android SDK, Windows CE SDK
Driver		Windows XP/VISTA/7/CE, Linux, Android OS driver compatible	Windows XP/VISTA/7/CE, Linux, Android OS driver compatible
Interface		USB, Bluetooth	USB, Bluetooth
Power	Charger	External Charger	External Charger
	Input	AC 100~240V/50~60Hz	AC 100~240V/50~60Hz
	Output	DC 8.4V/0.8A	DC 8.4V/0.8A
Sensor	Cover Open	Micro S/W Type	Micro S/W Type
	Paper End	Photo Interrupter	Photo Interrupter
Dimensions		79.5(W) x 104.4(D) x 37.3(H) mm	104.5(W) x 126.8(D) x 45.4(H) mm
Battery		7.4V/1,100mAh Rechargeable Li-ion	7.4V/1,800mAh Rechargeable Li-ion
Weight (including battery)		193.5g / 197.5g (with MSR)	299g / 303.7g (with MSR)
Emulation		EPSON	EPSON
Reliability	TPH	1×10 ⁸ Pulses / 100Km	1×10 ⁸ Pulses / 100Km
Operating Condition	Temperature	-10℃ ~ 40℃	-10℃ ~ 40℃
	Humidity	30% ~ 80%	30% ~ 80%
Options	MSR	Triple Track (Bi-directional)	Triple Track (Bi-directional)
	MFI	Yes	Yes
	USB Cable	Yes	Yes
	Belt Clip	Yes	Yes
	Car Charger	Yes	Yes
	Quad Battery Charger	Yes	No
External Battery Cradle		Yes	No

Specification - ECR

Model		NR-500 Series	NR-400	NR-300	ER-260EJ
Picture					
Submodel		NR-510/520	NR-400	NR-300	ER-260EJ
Printer	Type	NR-510: 1 Station Thermal NR-520: 2 Station Thermal	1 Station Thermal	1 Station Thermal	1 Station Thermal
	Speed	70mm/sec (18lines/sec)	70mm/sec (18lines/sec)	70mm/sec (18lines/sec)	70mm/sec (18lines/sec)
	Paper Width	57.5mm	57.5mm / 80mm	57.5mm / 80mm	57.5mm
	Paper End Sensor	Yes	Yes	Yes	Yes
Display	Operator	192 x 64 Graphic LCD with Blue B/L 16Char x 2Lines LCD with Blue B/L (Optional)	192 x 64 Graphic LCD with Blue B/L	16Char x 2Lines LCD with Blue B/L	16Char x 2Lines LCD with Blue B/L
	Customer	16Char x 2Lines LCD with Blue B/L	16Char x 2Lines LCD with Blue B/L	16Char x 2Lines LCD with Blue B/L	16Char x 2Lines LCD
Keyboard	Flat	90 Keys (Optional)	-	-	49 Keys (Optional)
	Raised	48 Keys	35 Keys	35 Keys	49 Keys
System	CPU	32bit(Rx-631, Renesas)	32bit(Rx-631, Renesas)	32bit(Rx-631, Renesas)	32bit(Rx-631, Renesas)
Memory	Program	2MByte Flash (CPU Internal)	2MByte Flash (CPU Internal)	2MByte Flash (CPU Internal)	2MByte Flash (CPU Internal)
	Data	4Mbit SRAM	4Mbit SRAM	4Mbit SRAM	4Mbit SRAM
	Ext. (Opt.)	4Mbit SRAM (Total 8Mbit)	4Mbit SRAM (Total 8Mbit)	4Mbit SRAM (Total 8Mbit)	4Mbit SRAM (Total 8Mbit)
	Data Storage	60 Days	60 Days	60 Days	60 Days
Fiscal Memory	EPROM	4Mbit OTPROM	4Mbit OTPROM	4Mbit OTPROM	4Mbit OTPROM
	RS-232C	3 Ports (RJ45 x 2, D-SUB 9Pin x 1)	2 Ports (RJ45 x 2)	2 Ports (RJ45 x 2)	3 Ports (RJ45 x 3)
Interface	USB	Host: Mass Storage/Scanner Device: PC (Host / Device Selectable)	Host: 1 Port (Mass Storage/Scanner) Device: 1 Port (PC) (Host / Device Selectable)	Host: 1 Port (Mass Storage/Scanner) Device: 1 Port (PC) (Host / Device Selectable)	Host: Mass Storage/Scanner Device: PC (Host / Device Selectable)
	Network	Ethernet (10/100 Mbps)	Ethernet (10/100 Mbps)	Ethernet (10/100 Mbps)	Ethernet (10/100 Mbps)
	GPRS Modem	Built-in (Optional)	Built-in (Optional)	Built-in (Optional)	Built-in (Optional)
	Type	Small/Large Available	-	-	Small/Large Available
Drawer	Port	1 Port	1 Port, RJ11(24V)	1 Port, RJ11(24V)	1 Port
Peripherals		Operator Key, Scanner(Serial/USB), Remote Printer, Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, SD Card(2 Slots: 1-Internal, 1-External)(SDHC Compatible)	Scanner(Serial/USB), Remote Printer, Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, SD Card(2 Slots: 1-Internal, 1-External)(SDHC Compatible)	Scanner(Serial/USB), Remote Printer, Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, SD Card(2 Slots: 1-Internal, 1-External)(SDHC Compatible)	Operator Key, Scanner(Serial/USB), Remote Printer Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, SD Card (2 Slots: 1-Internal, 1-External)(SDHC Compatible)
Software	Keyboard Departments	Raised: 12 / Flat: 60	4(Max. 8 DEPT with SHIFT keys)	4(Max. 8 DEPT with SHIFT keys)	15
	PLU's	1000(Max.8000)	1000(Max.8000)	1000(Max.8000)	1000(Max.8000)
	Group	20(Max.99)	20(Max.99)	20(Max.99)	20(Max.99)
	Clerk	10(Max.99)	10(Max.99)	10(Max.99)	10(Max.99)
	Tax	VAT, ADD ON, TAX TABLE	VAT, ADD ON, TAX TABLE	VAT, ADD ON, TAX TABLE	VAT, ADD ON, TAX TABLE
	Electronic Journal	Yes (SD Card)	Yes (SD Card)	Yes (SD Card)	Yes (SD Card)
	Euro Currency Conversion	Yes	Yes	Yes	Yes
	Graphics Logo	Yes	Yes	Yes	Yes
	Daily and Periodic Reporting	Yes	Yes	Yes	Yes
	Table Management	Yes	-	-	Yes
	PLU Descriptors size	24	24	24	24
	F/W Update	PC/SD Card	PC/SD Card	PC/SD Card	PC/SD Card
	PC Utility	Ethernet/Serial/USB	Ethernet/Serial/USB	Ethernet/Serial/USB	Ethernet/Serial/USB

Specification - ECR

Model		ER-230EJ	ER-180U	SPS-300 Series	ER-900 Series
Picture					
Submodel		ER-230EJ	ER-180U	SPS-320/325/340/345	ER-920/925/940/945
Printer	Type	1 Station Thermal	1 Station Thermal	SPS-320/325: 1 Station Thermal SPS-340/345: 2 Station Thermal	ER-920/925: 1 Station Thermal ER-940/945: 2 Station Thermal
	Speed	70mm/sec (18lines/sec)	65mm/sec (17.3lines/sec)	85mm/sec (22lines/sec)	22 lines/sec
	Paper Width	57.5mm	57.5mm	57.5mm	57.5mm
	Paper End Sensor	Yes	Yes	Yes	Yes
Display	Operator	16Char x 2Lines LCD with Blue B/L	8 Digits LED	192 x 64 Graphic LCD with Blue B/L	16Char x 2Lines LCD with Blue B/L
	Customer	16Char x 2Lines LCD	8 Digits LED (Optional)	16Char x 2Lines LCD with Blue B/L	16Char x 2Lines LCD with Blue B/L
Keyboard	Flat	-	-	SPS-320/340: 150 Keys	ER-920/940: 150 Keys
	Raised	40 Keys with Cap	48 Keys	SPS-325/345: 63 or 91 Keys	ER-925/945: 63 or 91 Keys
System	CPU	32bit(Rx-631, Renesas)	32bit(LPC1519, NXP)	ARM7(LPC2470, NXP)	ARM7(LPC2470, NXP)
	Program	2MByte Flash (CPU Internal)	256KByte Flash (CPU Internal)	16Mbits Flash	16Mbits Flash
Memory	Data	4Mbit SRAM	96KByte Serial-EEPROM	16Mbit SRAM (Default)	4Mbit SRAM
	Ext. (Opt.)	4Mbit SRAM (Total 8Mbit)	-	-	16Mbit SRAM (Total 16Mbit)
	Data Storage	60 Days	90 Days	90 Days	90 Days
Fiscal Memory	EPROM	4Mbit OTPROM	-	1Mbit/2Mbits	1Mbit/2Mbits
	RS-232C	2 Ports (RJ45 x 2)	Use only firmware update	3 Ports	3 Ports
Interface	USB	Host: 1 Port (Mass Storage/Scanner) Device: 1 Port (PC) (Host / Device Selectable)	-	1 Port (PC)	1 Port (PC)
	Network	Ethernet (10/100 Mbps)	-	IRC 1 Port(Max. 16 sets)	-
	GPRS Modem	Built-in (Optional)	-	-	-
Drawer	Type	3B4C, 4B4C	3B4C, 4B4C	5B5C, 4B8C	5B5C, 4B8C
	Port	1 Port, RJ11(24V)	1 Port	2 Ports	2 Ports
Peripherals		Scanner(Serial/USB), Remote Printer, Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, SD Card(2 Slots: 1-Internal, 1-External) (SDHC Compatible)	-	MSR, Operator Key, Scanner(Serial), Remote Printer, Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, Kitchen Video, SD Card(1 Slot: 1-External)	MSR, Operator Key, Scanner(Serial), Remote Printer, Slip Printer, Kitchen Printer, Scale, Pole, PC, EFT, Kitchen Video, SD Card(1 Slot: 1-External)
Software	Keyboard Departments	12	16	28/63/100	28/63/100
	PLU's	1000(Max.8000)	500	2,000(Max. 20,000)	2,000(Max. 20,000)
	Group	20(Max.99)	-	20(Max. 99)	20(Max. 99)
	Clerk	10(Max.99)	10	10(Max.99)	15(Max.99)
	Tax	VAT, ADD ON, TAX TABLE	4	VAT, ADD ON, TAX TABLE	VAT, ADD ON, TAX TABLE
	Electronic Journal	Yes (SD Card)	Yes	Yes	Yes
	Euro Currency Conversion	Yes	Yes	Yes	Yes
	Graphics Logo	Yes	-	Yes	Yes
	Daily and Periodic Reporting	Yes	Yes	Yes	Yes
	Table Management	-	-	Yes	Yes
	PLU Descriptors size	24	12	18	18
	F/W Update	PC/SD Card	PC	PC/SD Card	PC/SD Card
	PC Utility	Ethernet/Serial/USB	-	Serial/USB	Serial/USB

Specification - EFT POS Terminal

Model			SHC-350	SHC-320	SHC-210
Picture					
Main	CPU		AT91SAM9G35, 400MHz	ARM9 LPC3240, 266MHz	ARM9 LPC3240, 266MHz
	OS		Embedded Linux (2.6.x)	Embedded Linux (2.6.x)	Embedded Linux (2.6.x)
	Memory	Flash ROM	128Mbytes	128Mbytes	128Mbytes
		SDRAM	128Mbytes	32Mbytes	32Mbytes
	MSR		ISO7811 Standard, 2/3 Track	ISO7811 Standard, 2/3 Track	ISO7811 Standard, 2/3 Track
	Display		4.3" (480x272) TFT Color LCD	128x96 Graphic LCD	128x64 Graphic LCD
	Printer	Printing Method	3" Thermal with Auto Cutter	3" Thermal with Auto Cutter	2" Thermal
		Printing Speed	Max. 200mm/sec	Max. 200mm/sec	Max. 100mm/sec
	Modem		ISO Modem (56Kbps)	ISO Modem (56Kbps)	ISO Modem (56Kbps)
Smart Card	Key Pad		23 Keys (Alpha/Num x 12, Function x 11)	23 Keys (Alpha/Num x 12, Function x 11)	23 Keys (Alpha/Num x 12, Function x 11)
	Smart Card		EMV Level I & II Certified, ISO7816	EMV Level I & II Certified, ISO7816	EMV Level I & II Certified, ISO7816
	Sam Socket		4-SIM	4-SIM	4-SIM
Interface	Serial		4 Ports	3 Ports	3 Ports
	USB		1 Port (Type A)	1 Port (Type A)	-
	Ethernet		1 Port	1 Port	1 Port
	Telephone		2 Ports	2 Ports	2 Ports
	Drawer		1 Port	1 Port	-
Dimensions			136(W) x 216(D) x 118(H) mm	137(W) x 217(D) x 111(H) mm	113.5(W) x 181(D) x 82.5(H) mm
Power Supply			DC 24V/2.5A	DC 24V/2.5A	DC 9V/2.5A

Model		SSP-1100
Picture		
Main	CPU	32Bits ARM Processor (Cortex M3)
	Touch Panel	A2281F
	Display	128 x 64 Graphic Touch LCD
	Key Pad	-
Smart Card	Serial	RS-232 x 2 Ports
	USB	Yes (Optional)
Dimensions		75(W) x 131(D) x 29(H) mm
Power Supply		DC 5V/1A

Specification - Peripherals

Model		15" Rear Display		15" Touch Monitor
Picture				
Submodel		QCD-P15,N15	SCD-150/P,D	SPM-T15
TFT-LCD	Size of LCD Panel	15" LED LCD	15" LED LCD	15" LED LCD
	Resolution	1024 x 768	1024 x 768	1024 x 768
Touch Panel	Type	-	-	5W Resistive Touch PCAP Touch (Optional)
	Transparency	-	-	81%
	Touch Life	-	-	36 Million Times
	OS	-	-	POSReady 2009&7, Win 8 Industry (Retail), Win 10 IoT Enterprise (Retail)
Power Adapter	Type	-	-	60(W) External Adapter
	Input Voltage	-	-	AC 100V~240V, 50/60Hz
	Output Voltage Current	-	-	DC 12V/5A
Set	Input Signal	Analog RGB	Analog RGB	Analog RGB
	Video Input Signal Connector	D-SUB 15Pin VGA Type	D-SUB 15Pin VGA Type	D-SUB 15Pin VGA Type
	OSD Control Function	-	-	5 Press Button
	Regulations Approved	CE/ FCC/ RoHS	CE/ FCC/ RoHS	CE/ FCC/ RoHS
	Temperature	0℃ ~ 40℃	0℃ ~ 40℃	0℃ ~ 40℃
	Humidity	10% ~ 80%	10% ~ 80%	10% ~ 80%
Options	Touch Panel	Yes	Yes	Default
	MSR	Yes	Yes	Yes
	MSR + iButton	Yes	Yes	Yes

Model		9.7" Rear Display	9.7" Pole Display
Picture			
Submodel		SCD-100	SCD-100 Pole Type
TFT-LCD	Size of LCD Panel	9.7" LED LCD	9.7" LED LCD
	Resolution	1024 x 768	1024 x 768
Measurement	Display	246(W) x 197(D) x 115(H)mm	246(W) x 197(D) x 115(H)mm
	Stand	-	200(W) x 128(D) x 28(H)mm
	Height	-	450mm ~ 550mm
Set	Input Signal	Analog RGB	Analog RGB
	Video Input Signal Connector	D-SUB 15Pin Cable	D-SUB 15Pin Cable
	Input Voltage	12V/1A, 50/60Hz ± 3Hz	12V/1A, 50/60Hz ± 3Hz
	Temperature	10℃ ~ 40℃	10℃ ~ 40℃
	Humidity	10% ~ 80%	10% ~ 80%

Specification - Peripherals

Model		7" Rear Display	7" Pole Display
Picture			
Submodel		QCD-L7	QPD-ML700
TFT-LCD	Size of LCD Panel	7" LCD	7" LCD
	Resolution	800 x 480	800 x 480
Interface	Serial	-	RS-232C (RJ45/D-SUB 9Pin)
	USB	-	USB (Virtual COM)
	Ethernet	-	10/100 base-T (Optional)
	Wi-Fi	-	IEEE 802.11b/g (Optional)
VGA		D-SUB 15Pin Cable	-
Input Signal		LVDS	LVDS
Power Adapter	Type	-	External Adaptor
	Output Voltage Current	-	DC 7.5V/2.5A
Storage	NAND Flash	-	512MByte
Image	Format	-	ECR: JPEG, BMP, PNG, TGA POS: JPEG, BMP, GIF, PNG, TGA
	Download	-	USB Memory, PC (Serial, USB, Ethernet, Wi-Fi)
Command	Mode	-	4 Type Windows Mode
	Type	-	ESC/POS
Other	Pivot Function	-	Yes
	VESA	-	Yes
	Utility	-	Image & F/W Download
	Driver	-	Yes

Model		VFD Rear Display	VFD Pole Display	2Line Character LCD
Picture				
Submodel		QCD-V202	QPD-V202	QPD-ML162S
Display	Type	VFD	VFD	2Line Character LCD
	Font	-	-	Europe
	Format	20 Columns x 20 Line	20 Columns x 20 Line	16 Columns x 2 Line
Interface	Serial	RS-232C (RJ45)	RS-232C (RJ45/D-SUB 9Pin)	RS-232C (RJ45/D-SUB 9Pin)
	USB	-	USB (Virtual COM)	-
Emulation		CD 5220/ DSP800/ EPSON ESC / POS/ ADM788 / ADM787 / AEDEX / UTC-S / UTC-E / ICD2002	CD 5220/ DSP800/ EPSON ESC / POS/ ADM788 / ADM787 / AEDEX / UTC-S / UTC-E / ICD2002	EPSON/STAR
Power	Supply Voltage	DC 12V	DC 7V~12V	DC 7V~12V
	Consumption	4.5W (Max)	4.5W (Max)	2.5W (Max)
Tilt Angle		0° ~ 40°	0° ~ 40°	0° ~ 30°
Swivel Angle		-	350°	-

Specification - Peripherals

Model			Cash Drawer		
Picture					
Submodel			H-Drawer	G-Drawer	Bplus-Drawer
Color			White / Black	White / Black	White / Black
Dimensions			420(W) x 400(D) x 112(H) mm	400(W) x 450(D) x 112(H) mm	325(W) x 420(D) x 95(H) mm
Housing	Top Material		Steel	Steel	Steel
	Bottom Material		Steel	Steel	Plastic
Tray	Till Material		Steel	Steel	Plastic
	Sliding Type		Plastic-Roller	Plastic-Roller	Plastic-Roller
	Media Slot		2 Slots, Height: 10mm	2 Slots, Height: 10mm	1 Slot, Height: 10mm
	Lock Key		2 Position ① On-Line ② Closed 3 Position (4 Function) Option ① On-Line ② Closed ③ Locked Open ④ Manual Open 3 Position Key Option ① On-Line ② Closed ③ Manual Open		
Bill Coin	Bill Till Size (mm)	Width	72 (5B5C)	87 (4B8C) / 67 (5B5C)	82 (3B4C) / 67 (4B4C)
		Depth	180	180	179
		Height	46	54	50
	Coin Till Size (mm)	Width	71 (5B5C)	78 (4B8C) / 68 (5B5C)	62
		Depth	97 (5B5C)	67 (4B8C) / 97 (5B5C)	87
		Height	48 (5B5C)	39 (4B8C) / 48 (5B5C)	40
	Coin Box Separation		-	Yes (4B8C) / No (5B5C)	Yes
	Coin Partition Separation		Yes	Yes	Yes
	Bill Partition Separation		Yes	Yes	Yes
	Lever Press	Standard	Plastic	Plastic	Plastic
Option		Steel	Steel	Steel	
Lock Unit	Compulsory		Yes		
	Latch		2 Latch		
Interface			RJ11		
Locking Lid			Yes (Optional)	Yes (Optional)	-
Power Input (Solenoid)			12V/24V	7V/12V/24V	7V/12V/24V
Life			1,000,000 Cycle	1,000,000 Cycle	3,000,000 Cycle
Weight			6.7Kg	6.7Kg	3.1Kg

Model		Bluetooth Dongle(ELLIXBLUE Series)	
Picture			
Submodel		BT-DG_F	BT-DG_M
Use		Master Device (POS, PC, ECR or Various Terminal Device)	Slave Device (Printer, Scanner, Scale or Various Peripheral Device)
Bluetooth Version		V2.0 + EDR Certification	
Frequency		Up to 18dBm Typical	
Rx. Sensitivity		-88 dBm Typical	
Coverage		Up to 100 Meters (Open Space)	
Antenna		Dongle Type: Chip Antenna (Gain: Max 1.5dBi) Interface Card Type: Cable Antenna (Gain: Max 2.0dBi)	
Power Supply		DC5V 80mA USB: USB BUS POWER RS-232C: D-SUB 9Pin DC 5V Adapter	
Profile		SPP (Serial Port Profile)	
Interface Support		RS-232C USB V1.1 (Virtual COM Profile)	
Flow Control		RTS / CTS	
Baud Rate		1.2 / 2.4 / 4.8 / 9.6 / 19.6 / 38.4 / 57.6 / 115.2 Kbps	



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All features and specifications described and subject to change without notice.