ES700 AND ES800
2D CMOS READER MODULES

7.5 cm

ES700

16 cm

ES800

Empowering Kiosk Solutions
Ultimate performance with an unbeatable price!

The Unitech ES700 and ES800 2D embedded barcode reader modules are the ideal solution for OEM kiosk (self-service/ interactive kiosk) and EPOS integration. These Unitech 2D CMOS imager readers enables you to bring your systems to the market quickly and cost effectively. Therefore, Unitech introduces 2 models to meet the system requirements based on size and functionality.

- The ES700 has a diagonal screen measurement of 7.5 cm and is designed when high motion tolerance is needed, used in a semi-outdoor environment and a compact size is required.

- The ES800 has a diagonal screen measurement of 16 cm and is designed for the self-checkout and POS market, especially when a larger reading screen is key for the solution.

Both models support several scanning modes such as: auto-detection (image auto-induction), continuous scanning and embedded scanning commands via the host mode**. Additionally, the ES700 can also be triggered by infrared auto-induction, this allows the ES700 to detect barcodes even under ambient light. Both the ES800 and ES700 will scan fast and efficiently.

The ES700 and ES800 are both high performance and aggressive readers which offers superior 1D and 2D scanning, able to read digital barcodes from mobile screens (including QR codes) without losing scanning quality or performance. They will facilitate users to scan barcodes at extraordinary speed on their first pass thanks to its high motion tolerance imaging speed. Both models support multiple interfaces and enabling them to smoothly be utilize with different devices. In addition they feature a loud but adjustable speaker and offers convenient visual confirmation of good scans.

** Host mode is only applicable via RS232 interface and USB-SPP (USB virtual com port).

The Unitech ES700 and ES800 imagers are specilly designed for Kios and other POS solution integration in mind that require high performance and easy configuration. These imagers can be used in a wide variety of applications such as:

PARKING PAYMENT & RENTAL KIOSK

AUTO-DISPENSER / VENDING MACHINE

SELF-CHECKOUT, ORDERING & TICKETING

SELF SERVICE PICKUP & LOCKER KIOSK

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Specifications

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because we care

ES700

ES800

Physical characteristics

	ES700	ES800
Dimension	90.5×35.4×80.2 mm (diagonal screen 7.5 cm)	147×74.5×139 mm (diagonal screen 16 cm)
Weight	95.3g (without cable)	361g (without cable)
Case material	ABS	PC
Cable	Black, straight, 2.0m (comes inside the box)	Black, straight, 2.0m (comes inside the box)
Connector	RJ45	RJ45
Interface	USB - HID, USB - SPP, RS232	USB - HID, USB - SPP, RS232
Indicator	Beeper and LED	Beeper and LED
Scan Mode	Auto-detection (infrared auto-induction, image auto-induction), Continue mode and Host mode **	Auto-detection (image auto-induction), Continue mode and Host mode **
	**Host mode via RS232 interface and USB-SPP (virtual com port).	**Host mode via RS232 interface and USB-SPP (virtual com port).
Program Method	Manual by scanning special barcodes in sequence or Remote commands	Manual by scanning special barcodes in sequence or Remote commands
Input voltage	5±0.25V	5±0.25V
Inside the box	ES700 + 2.0m USB/RJ45 cable	ES800 + 2.0m USB/RJ45 cable

Electrical characteristics

ES700
Current — Working: 550mA, 800mA(max); Standby: 220mA

ES800
Current — Working: 410mA, 700mA(max); Standby: 300mA

Performance characteristics

	ES700	ES800
CPU	32 bits ARM processing	32 bits ARM processing
Scan pattern	Image scan	Image scan
Image resolution	1280×800 pixels	1280×1024 pixels
LED	White, 5000K	White, 2700K
Scan angle	Skew: ±66°, Pitch: ±61°, Roll: 360°	Skew: ±60°, Pitch: ±54°, Roll: 360°
Field of view	Horizontal: 46.5°, Vertical: 68°	Horizontal: 40°, Vertical: 32°
Frames/second	30 frames/sec.	60 frames/sec.
Motion tolerance	no less than 1.8 m/s	no less than 3 m/s
Print contrast	20% minimum reflectance difference	20% minimum reflectance difference
Support symbology	All common 1D & 2D barcodes incl. GS1 DataBar	All common 1D & 2D barcodes incl. GS1 DataBar
Minimum resolution	4mil	4mil

Reading distance (DOF)*

ES700

4 mil Code39 (9 chars)	20 mm - 45 mm
5 mil Code39 (3 chars)	15 mm - 55 mm
10 mil Code39 (3 chars)	5 mm - 100 mm
13 mil UPC (6 chars)	5 mm - 110 mm
15 mil Code39 (1 char)	5 mm - 115 mm
20 mil Code39 (1 char)	0 mm - 160 mm
6.7mil PDF417 (20 chars)	20 mm - 50 mm
10mil QR (20 chars)	10 mm - 55 mm
20mil QR (20 chars)	5 mm - 100 mm

* Depending on width, type and quality of barcode.

ES800

4 mil Code39 (9 chars)	35 mm - 70 mm
5 mil Code39 (3 chars)	25 mm - 80 mm
10 mil Code39 (3 chars)	0 mm - 120 mm
13 mil UPC (6 chars)	0 mm - 140 mm
15 mil Code39 (1 char)	0 mm - 145 mm
20 mil Code39 (1 char)	0 mm - 210 mm
6.7mil PDF417 (20 chars)	20 mm - 95 mm
10mil QR (20 chars)	10 mm - 100 mm
20mil QR (20 chars)	10 mm - 100 mm

* Depending on width, type and quality of barcode.

Environmental Characteristics

ES700
Temperature — Operating: -10°C to 50°C; Storage: -30°C to 70°C
Humidity — 5% to 95% (non-condensing)

ES800
Operating: -0°C to 70°C; Storage: -40°C to 70°C
5% to 95% (non-condensing)

Safety, EMC & Warranty

ES700

EMC:	EN55032:2015, EN55024
Electrical safety:	EN60950-1
Photo biological:	EN62471
RH immunity,	IEC61000-4-3, 10V/m
Artificial light immunity:	Illumination: 0 to 100,000LUX
Regulatory approvals;	CE, FCC, RoHS
Warranty	1 year

ES800

EMC:	EN55032:2015, EN55024
Electrical safety:	EN60950-1
Photo biological:	EN62471
RH immunity:	IEC61000-4-3, 10V/m
Artificial light immunity:	Illumination: 0 to 100,000LUX
Regulatory approvals;	CE, FCC, RoHS
Warranty	1 year

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