

SOLUM

Electronic Shelf Label

SOLUM
Solution provider.

**INDUSTRY
4.0**

ANALYTICS

AUTOMATION

CLOUD COMPUTING

GRATION

SMART FACTORY

INDUSTRIAL REVOLUTION

CYBER SECURITY

SMART
TECHNOLOGY

NEW BUSINESS MODEL



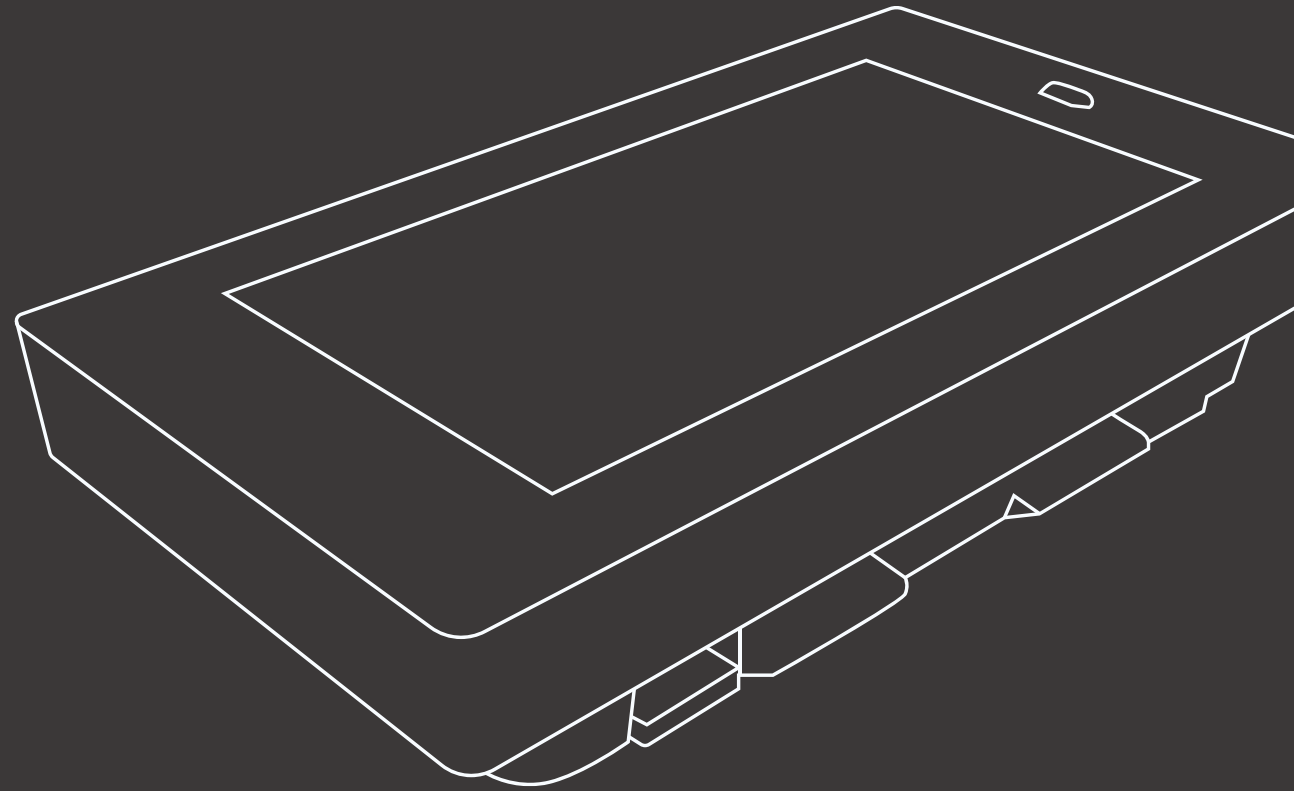
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Capítulo 2. Hardware

Capítulo 3. Software

Capítulo 4. Casos de Uso



Capítulo 1. Arquitectura Básica

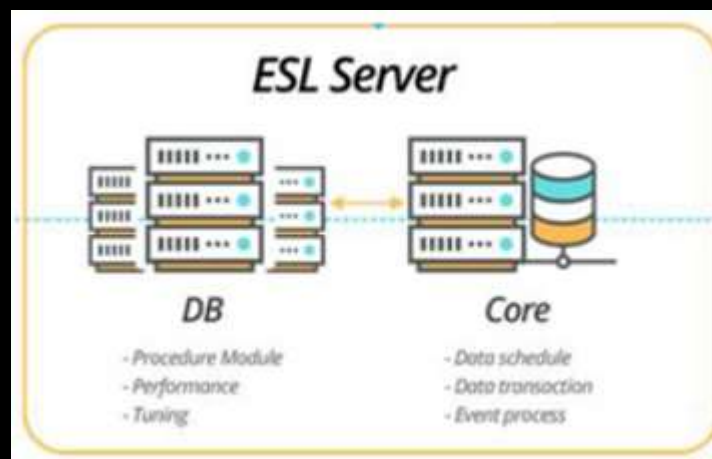
- ERP, SGA...
- .csv, .xml, .json...
- Webservice
- Middleware



ORIGEN DE DATOS

ESL SERVER

GATEWAY SOLUM



ETIQUETA NEWTON

Capítulo 2. Hardware: Gateway



Capítulo 2. Hardware: Gateway



		
 Capacity	50,000 labels	50,000 labels
 Communication radius	25 m	20 m
 Flash memory	4GB	4GB
 RAM	2GB	1GB
 Power consumption	10W	2.5W
 Interface	Ethernet	USB

Capítulo 2. Hardware: Gateway

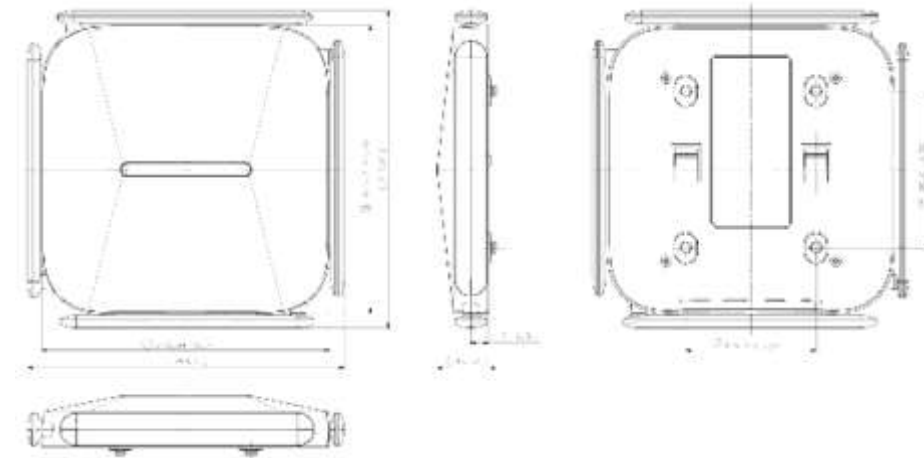


Newton Gateway digital numbering system gives it a modern and digitized look. But more importantly, this makes it easier for managers to identify the Gateway's ID for internal device management purposes.

Another improvement with Newton Gateway is that it has a tag and load-balancing system which means that the number of connected labels will always be evenly distributed.



Newton Gateway



Communications

Ethernet (10/100/1000 Mbps)
2.4 GHz SOLUM Proprietary Protocol

Capacity

50,000 labels

Dimensions (WxHxD) (mm)

243 x 243 x 46

Weight

650 g / 23 oz

Enclosures

Plastic (ABS)

Power

PoE (Power over Ethernet (IEEE802.3af))
AUX DC Input (5-12V, 10W)

2.4 GHz RF Antenna Type

External Antenna Internal Antenna

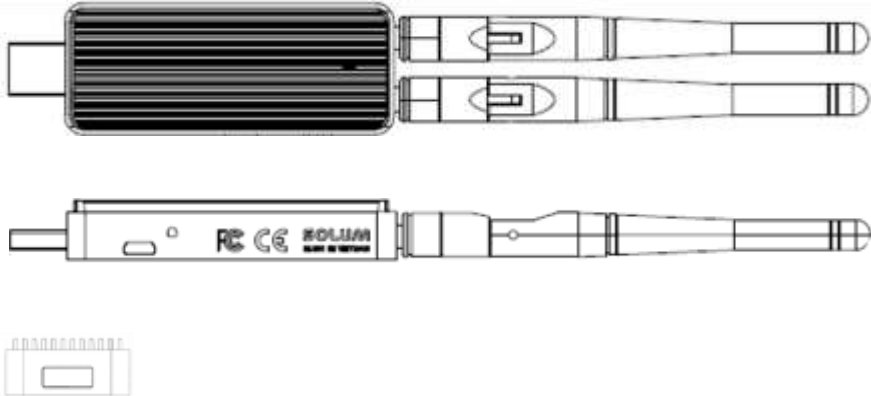
Fantasy Band (Tx, Rx): 2402MHz - 2480MHz

Antenna Gain: External: 3.4 dBi / Internal 3.2 dBi

Operating Temperature

0°C to +40°C

Capítulo 2. Hardware: Gateway



The USB Gateway is a stand-alone system. However, it can also be an extension to the Newton Gateway. It can offer additional capacity, memory, range, among others, without the added infrastructure.

With Newton's Gateways, you can achieve a more seamless and automated data exchange between your electronic shelf labels and your command system.

Dimensions (WxHxD) (mm)
30 x 200 x 11

Weight
50 g / 1.75 oz

Enclosures
Plastic (ABS) + Aluminum

Power
USB Power (5V,0.5A)

Antenna Type
Dipole Antenna (external type), 2ea

Transmit Frequency
2405MHz ~ 2480MHz

Receive Frequency
2405MHz ~ 2480MHz

Antenna Gain
2 dBi

Modulation
O-QPSK

Channels
16ch

Operating Temperature
0°C to +40°C



Newton USB Gateway

Capítulo 2. Hardware: Etiquetas Electrónicas



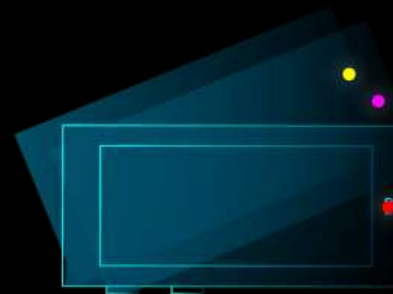
MODELO	1.6”	2.2”	2.6”	2.7”	2.9”	4.2”	4.3”	6.0”	7.5”	11.6”
DIMENSIONES (mm)	36.7 x 45.0 x 13.1	67.1 x 37.4 x 13.1	79.3 x 42.4 x 13.1	76.0 x 49.5 x 13.1	86.0 x 41.3 x 13.1	98.1 x 83.8 x 14.5	130.3 x 42.4 x 13.9	133.0 x 109.0 x 14.7	125.0 x 183.0 x 15.2	192.0 x 268.0 x 21.9
ÁREA ACTIVA PANTALLA(mm)	27.0 x 27.0	48.1 x 26.0	60.1 x 30.7	57.3 x 38.1	67.6 x 29.6	84.8 x 63.6	105.4 x 30.7	114.9 x 85.8	163.2 x 97.9	163.0 x 244.5
RESOLUCIÓN (Pixel)	200 x 200	296 x 160	360 x 184	300 x 200	384 x 168	400 x 300	522 x 152	600 x 448	800 x 480	640 x 960
DENSIDAD PIXELS	184 dpi	156 dpi	152 dpi	133 dpi	144 dpi	120 dpi	125 dpi	132 dpi	126 dpi	100 dpi
TECNOLOGÍA DE PANTALLA	Pantalla de e-papel totalmente gráfica									
COLORES	BW(Negro, Blanco) / BWR(Negro, Blanco, Rojo) / BWY(Negro, Blanco, Amarillo)									
ÁNGULO DE VISIBILIDAD	Casi 180°									
PÁGINAS EN MEMÓRIA	Hasta 7 páginas	Hasta 7 páginas	Hasta 7 páginas	Hasta 7 páginas	Hasta 7 páginas	Hasta 7 páginas	Hasta 7 páginas	Hasta 3 páginas	Hasta 3 páginas	Hasta 3 páginas
RANGO DE TEMPERATURA	0 ~ 40°									
BATERÍA	CR2450 x 1	CR2450 x 2	CR2450 x 2	CR2450 x 2	CR2450 x 2	CR2450 x 2	CR2450 x 2	CR2450 x 4	CR2450 x 4	AA x 4
VIDA DE BATERIA	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)	Hasta 10 años (2 actualizaciones diarias)
ENCRIPTADO	128-Bit AES									
NORMATIVAS	CE, ROHS, FCC									
NFC	FeliCa NFC Forum Type 3									
PROTECCIÓN	IP67									
BOTONES	2 Botones									
LED	7 Colores (Rojo/Verde/Azul/Amarillo/Cian/Magenta/Blanco)									
FRECUENCIA DE COMUNICACIONES	2.4 Ghz									
ACTUALIZACIÓN DE FW INALÁMBRICA	Si									

Capítulo 2. Hardware: Etiquetas Electrónicas



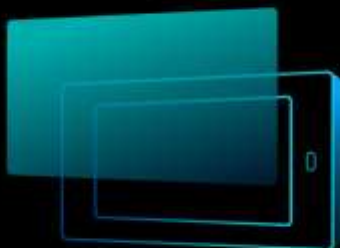
1. Botones interactivos multifunción

La solución permite la personalización de la función de los botones interactivos integrados en las propias etiquetas, lo que permite una amplia variedad de casos de uso.



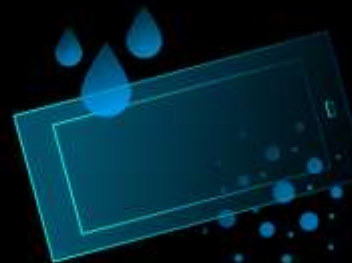
2. LED 7 colores

Todos los formatos de la serie Newton incluyen un led integrado de 7 colores, con una visibilidad de 180 grados, que permite diferentes aplicaciones.



3. Protección de pantalla

Gracias a la protección de la pantalla, la serie M3 Newton es un 80% más resistente que los antiguos modelos de ESL.



4. Protección IP67

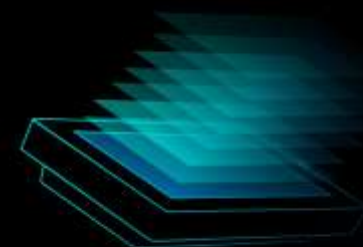
Lo que permite su instalación en entornos de interior o exterior y alarga al máximo la vida útil de los equipos, optimizando el retorno de inversión.

Capítulo 2. Hardware: Etiquetas Electrónicas



5. NFC

Chip NFC integrado en todos los formatos, lo que permite gran variedad de aplicaciones



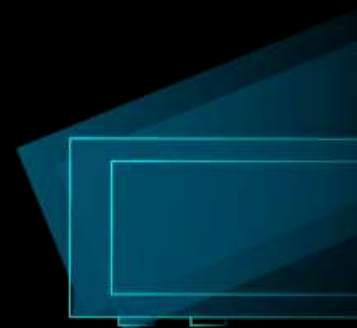
6. 7 Páginas

La serie Newton dispone de hasta 7 páginas internas para garantizar que las etiquetas muestran el máximo de información posible.



7. ALTA RESOLUCION

Se ha incrementado la resolución de todos los formatos M3 Newton en un 20% con respecto a la anterior serie.



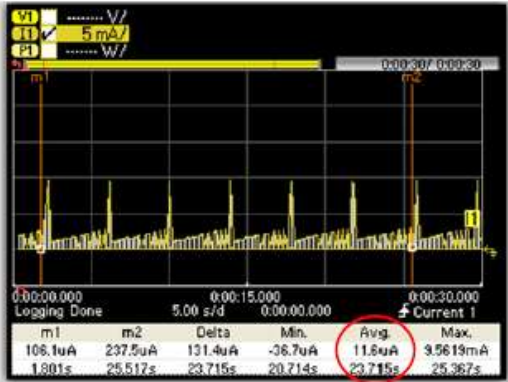
8. SELLADO COMPLETO

los formatos M3 Newton están completamente sellados, para garantizar la máxima durabilidad del epaper.

Capítulo 2. Hardware: Etiquetas Electrónicas

Baterías de larga duración

M2



Average Current 11.6uA

5 years
(Expected battery life)

Newton



Average Current 4.9uA

10 years
(Expected battery life)

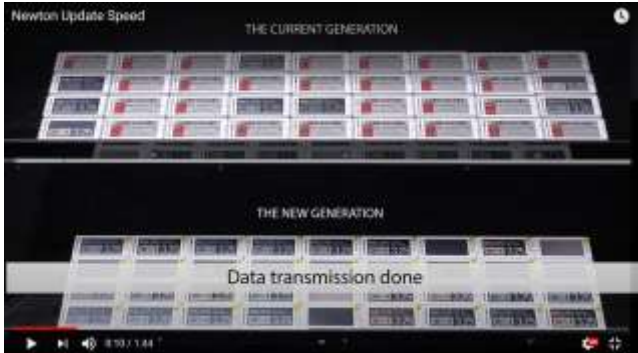
Details of Newton Battery Life

Average battery consumption current	Others : 12uA Newton : 5uA
Expected battery life (2 updates/day, 100 sec LED/day)	1.3"~1.6" : 7 years 2.2"~11.6" : 13 years
Battery Warranty (2 updates/day, 100 sec LED/day)	1.3"~1.6" : 5 years 2.2"~11.6" : 10 years
Maximize usage of LED (guaranteed over 5 years of battery life)	1 hour LED blinking / day
Maximize usage of price / display update (guaranteed over 5 years of battery life)	10 price/display updates / day

* Others: other RF based ESL

Capítulo 2. Hardware: Etiquetas Electrónicas

Rápida actualización: Real-time speed



<https://youtu.be/Q0Ag8Axw0x4>

Details of Newton Real-time Speed	
Newton wake up period	3 or 6 sec. Configurable.
1 label assignment speed	Others: 30 sec~1 min Newton: 5 ~ 10 sec
1 label image update speed	Others: 30 sec~1 min Newton: ~ 5 sec
1 label LED reaction speed	Others: 30 sec~1 min Newton: ~ 5 sec
1 GW 5 min update speed capability	Others: 200pcs~500pcs Newton: 4,000pcs
1 GW 1 hour update speed capability	Others: 2,500pcs~4,500pcs Newton: 46,000pcs

La serie M3 Newton tiene una velocidad de actualización 10 veces más rápida que cualquier otro sistema del mercado basado en transmisiones RF.

Capítulo 3. Software

1. Site Server



2. Central server



3. SaaS Server



Capítulo 3. Software Dashboard

SOLUM
ESL DASHBOARD

Overview

Overview

Label Info

Product Info

Gateway Info

Template Info

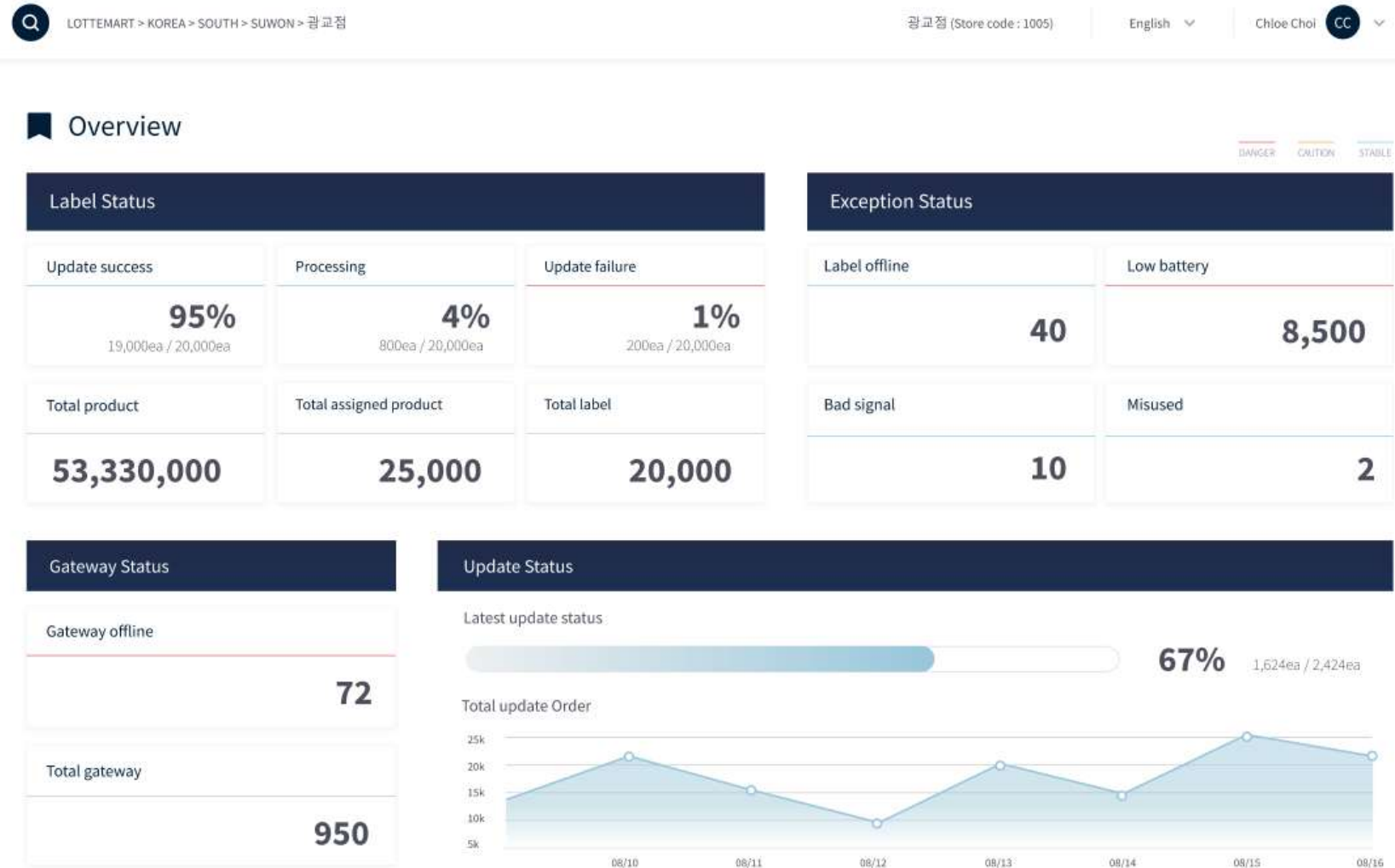
Multifunction Info

Firmware Info

Store Info

User Info

Config



Capítulo 3. Software Layout Designer



Capítulo 3. Software PDA



Newton

CORE 4 Color

PRODUCT SPECIFICATION ON SHEET

Jan.31.2024

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Full Line-Up



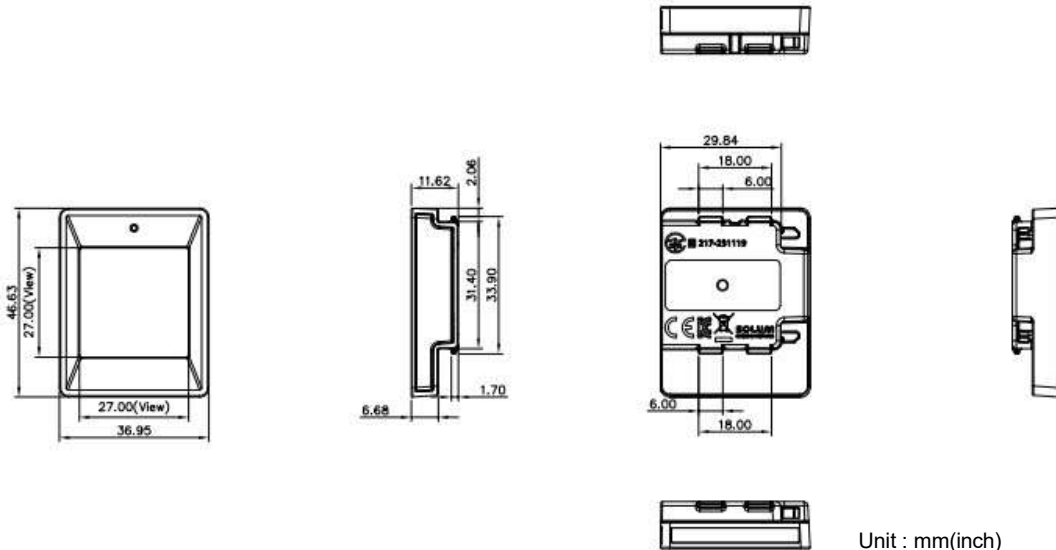
Product Specification Summary														
Model	1.6"	2.2"	2.6"	2.9"	3.5"	4.2"	4.3"	5.8"	6.0"	6.1"	7.5"	9.7"	11.6"	12.2"
Dimension (mm)	36.95 x 46.63 x 11.62	66.95 x 36.95 x 11.62	78.12 x 42.79 x 11.62	85.67 x 42.79 x 11.62	99.73 x 49.35 x 12.80	97.13 x 82.18 x 13.55	128.73 x 41.90 x 12.80	166.16 x 65.67 x 13.26	133.20 x 109.96 x 14.85	133.20 x 109.96 x 14.90	124.10 x 185.50 x 14.85	168.05 x 224.07 x 14.81	190.31 x 267.70 x 14.85	215.95 x 259.82 x 14.85
Active Area (mm)	27.0 x 27.0	48.1 x 26.0	60.1 x 30.7	67.6 x 29.6	81.0 x 37.9	84.8 x 63.6	105.4 x 30.7	139.00 x 47.74	114.9 x 85.79	118.78 x 88.22	97.9 x 163.2	141.12 x 201.6	163.0 x 244.5	190.08 x 237.6
Resolution (Pixel)	200 x 200	296 x 160	360 x 184	384 x 168	384 x 180	400 x 300	522 x 152	792 x 272	600 x 448	648 x 480	528 x 880	672 x 960	640 x 960	768 x 960
Pixel Density	184 dpi	156 dpi	152 dpi	144 dpi	120 dpi	120 dpi	125 dpi	144 dpi	132 dpi	138 dpi	136 dpi	121 dpi	100 dpi	102dpi
Pixel Colors	BWRY (Black, White, Red, Yellow)													

SPECIFICATION SUMMARY

MODEL	1.6"	2.2"	2.6"	2.9"	3.5"	4.2"	4.3"
DIMENSION (mm/inch)	36.95 × 46.63 × 11.62 mm (1.45 × 1.84 × 0.46 inches)	66.95 × 36.95 × 11.62 mm (2.64 × 1.45 × 0.46 inches)	78.12 × 42.79 × 11.62 mm (3.08 × 1.68 × 0.46 inches)	85.67 × 42.79 × 11.62 mm (3.37 × 1.68 × 0.46 inches)	99.73 × 49.35 × 12.80 mm (3.93 × 1.94 × 0.50 inches)	97.13 × 82.18 × 13.55 mm (3.82 × 3.24 × 0.53 inches)	128.73 × 41.90 × 12.80 mm (5.07 × 1.65 × 0.50 inches)
ACTIVE DISPLAY AREA (mm/inch)	27.0 × 27.0 mm (1.06 × 1.06 inches)	48.1 × 26.0 mm (1.89 × 1.02 inches)	60.1 × 30.7 mm (2.37 × 1.21 inches)	67.6 × 29.6 mm (2.66 × 1.17 inches)	81.0 × 37.9 mm (3.19 × 1.49 inches)	84.8 × 63.6 mm (3.34 × 2.50 inches)	105.4 × 30.7 mm (4.15 × 1.21 inches)
RESOLUTION (pixels)	200 × 200	296 x 160	360 x 184	384 x 168	384 x 180	400 x 300	522 x 152
PIXEL DENSITY	184 dpi	156 dpi	152 dpi	144 dpi	120 dpi	120 dpi	125 dpi
DISPLAY TECHNOLOGY	Full Graphic E-Ink Display						
PIXEL COLORS	BWRY (Black, White, Red, Yellow)						
VIEWING ANGLE	Nearly 180°						
USABLE PAGES	Up to 7 pages						
OPERATING TEMPERATURE	0 ~ 40° / 32 ~ 104°F						
BATTERY LIFETIME	Up To 5 years (2 Update/day)	Up To 10 years (2 Update/day)					
BATTERY	CR2450 x 1	CR2450 x 2			CR2450 x 2 (battery pack)		CR2450 × 3 (battery pack)
ENCRYPTION	128-Bit AES						
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS						
NFC	FeliCa NFC Forum Type 3						
WATERPROOF	N/A						
BUTTON	N/A						
LED	7 Colors (Red / Green / Blue / Yellow / Cyan / Magenta / White)						
ESL OPERATING FREQUENCY	2.4 Ghz						
WIRELESS FIRMWARE UPDATE	Yes						

※ This specification May varies depending on the installation environment and user scenario.

1.6 inch



Unit : mm(inch)

MODEL	G : EL016F5C4C/WWW W : EL016F5W4C/WWW B : EL016F5B4C/WWW
DIMENSION	36.95 x 46.63 x 11.62 mm (1.45 x 1.84 x 0.46 inches)
ACTIVE DISPLAY AREA	27.0 x 27.0 mm (1.06 x 1.06 inches)
RESOLUTION (Pixel)	200 × 200
PIXEL DENSITY	184 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 1ea
BATTERY LIFETIME	Up To 5 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.2inch

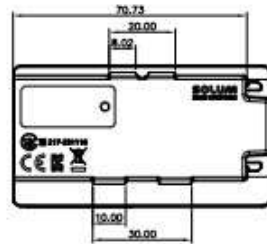
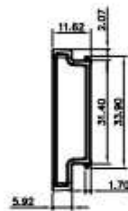
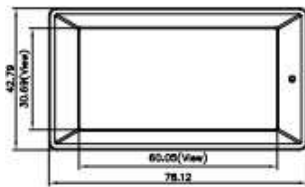


Unit : mm(inch)

MODEL	G : EL022F5C4C/WWW W : EL022F5W4C/WWW B : EL022F5B4C/WWW
DIMENSION	66.95 x 36.95 x 11.62 mm (2.64 x 1.45 x 0.46 inches)
ACTIVE DISPLAY AREA	48.1 x 26.0 mm (1.89 x 1.02 inches)
RESOLUTION (Pixel)	296 x 160
PIXEL DENSITY	156 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.6 inch

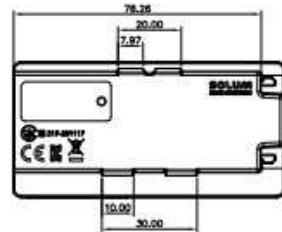
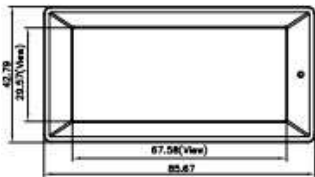


Unit : mm(inch)

MODEL	G : EL026F5C4C/WWW W : EL026F5W4C/WWW B : EL026F5B4C/WWW
DIMENSION	78.12 x 42.79 x 11.62 mm (3.08 x 1.68 x 0.46 inches)
ACTIVE DISPLAY AREA	60.1 x 30.7 mm (2.37 x 1.21 inches)
RESOLUTION (Pixel)	360 x 184
PIXEL DENSITY	152 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.9 inch

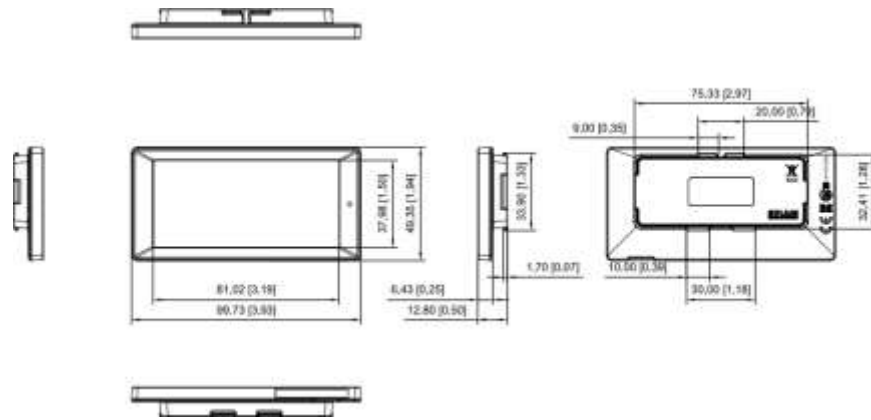


Unit : mm(inch)

MODEL	G : EL029F5C4C/WWW W : EL029F5W4C/WWW B : EL029F5B4C/WWW
DIMENSION	85.67 x 42.79 x 11.62 mm (3.37 x 1.68 x 0.46 inches)
ACTIVE DISPLAY AREA	67.6 x 29.6 mm (2.66 x 1.17 inches)
RESOLUTION (Pixel)	384 × 168
PIXEL DENSITY	144 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

3.5 inch

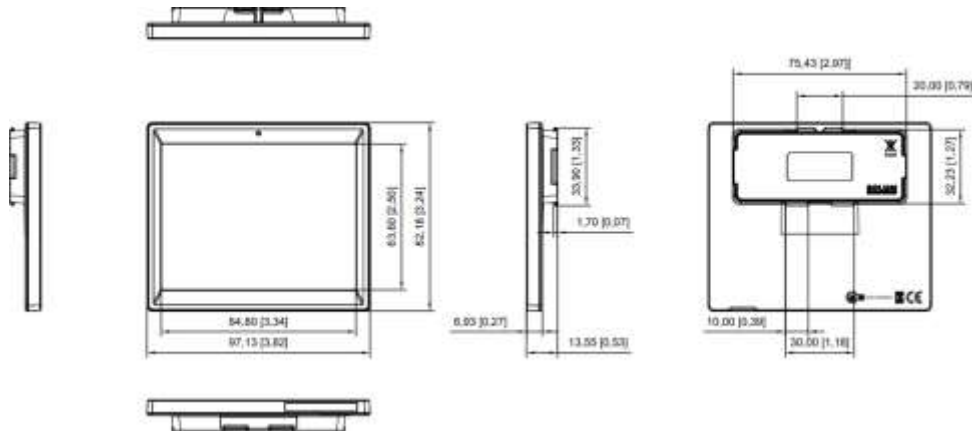


Unit : mm(inch)

MODEL	G : EL035F5C4C/WWW W : EL035F5W4C/WWW B : EL035F5B4C/WWW
DIMENSION	99.73 x 49.35 x 12.80 mm (3.93 x 1.94 x 0.50 inches)
ACTIVE DISPLAY AREA	81.0 x 37.9 mm (3.19 x 1.49 inches)
RESOLUTION (Pixel)	384 x 180
PIXEL DENSITY	120 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 2 (battery pack)
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

4.2 inch

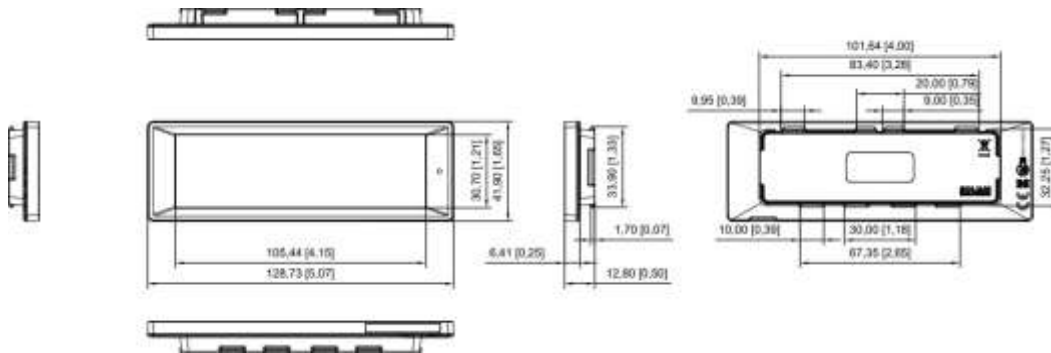


Unit : mm(inch)

MODEL	G : EL042F5C4C/WWW W : EL042F5W4C/WWW B : EL042F5B4C/WWW
DIMENSION	97.13 x 82.18 x 13.55 mm (3.82 x 3.24 x 0.53 inches)
ACTIVE DISPLAY AREA	84.8 x 63.6 mm (3.34 x 2.50 inches)
RESOLUTION (Pixel)	400 x 300
PIXEL DENSITY	120 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 2 (battery pack)
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

4.3 inch



Unit : mm(inch)

MODEL	G : EL043F5C4C/WWW W : EL043F5W4C/WWW B : EL043F5B4C/WWW
DIMENSION	128.73 × 41.90 × 12.80 mm (5.07 x 1.65 x 0.50 inches)
ACTIVE DISPLAY AREA	105.4 x 30.7 mm (4.15 x 1.21 inches)
RESOLUTION (Pixel)	522 x 152
PIXEL DENSITY	125 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 3 (battery pack)
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

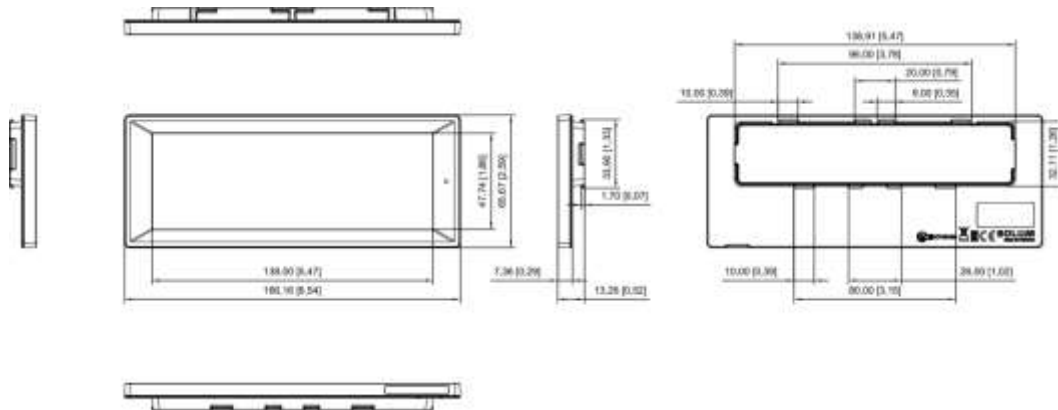
※ This specification May varies depending on the installation environment and user scenario.

SPECIFICATION SUMMARY

MODEL	5.8"	6.0"	6.1"	7.5"	9.7"	11.6"	12.2"
DIMENSION (mm/inch)	166.16× 65.67× 13.26 mm (6.54 x 2.59 x 0.52 inches)	133.20× 109.96× 14.85 mm / 5.24 x 4.33 x 0.58 inch	133.20× 109.96× 14.90 mm (5.24 x 4.33 x 0.59 inches)	124.10× 185.50 x 14.85 mm (4.89 x 7.30 x 0.58 inches)	168.05 x 224.07 x 14.81 mm (6.62 x 8.82 x 0.58 inches)	190.31 x 267.70 x 14.85 mm (7.49 x 10.54 x 0.58 inches)	215.95 x 259.82 x 14.85 mm (8.50 x 10.23 x 0.58 inches)
ACTIVE DISPLAY AREA (mm/inch)	139.00 x 47.74 mm (5.47 x 1.88 inches)	114.9 x 85.79 mm / 4.52 x 3.38 inch	118.78 x 88.22 mm (4.68 x 3.47 inches)	97.9 x 163.2 mm (3.85 x 6.43 inches)	141.12 x 201.6 mm (5.56 x 7.94 inches)	163.0 x 244.5 mm (6.42 x 9.63 inches)	190.08 x 237.6 mm (7.48 x 9.35 inches)
RESOLUTION (pixels)	792 x 272	600 x 448	648 x 480	528 x 880	672 x 960	640 x 960	768 x 960
PIXEL DENSITY	144 dpi	132 dpi	138	136 dpi	121dpi	100 dpi	102 dpi
DISPLAY TECHNOLOGY	Full Graphic E-Ink Display						
PIXEL COLORS	BWRY (Black, White, Red, Yellow)						
VIEWING ANGLE	Nearly 180°						
USABLE PAGES	Up to 7 pages						
OPERATING TEMPERATURE	0 ~ 40° / 32 ~ 104°F						
BATTERY LIFETIME	Up To 10 years (1 Update/day)						
BATTERY	CR2450 x 3 (battery pack)	CR2450 x 4 (battery pack)			CR2450 x 5 (battery pack)		CR2450 x 6 (battery pack)
ENCRYPTION	128-Bit AES						
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS						
NFC	FeliCa NFC Forum Type 3						
WATERPROOF	N/A						
BUTTON	N/A						
LED	7 Colors (Red / Green / Blue / Yellow / Cyan / Magenta / White)						
ESL OPERATING FREQUENCY	2.4 Ghz						
WIRELESS FIRMWARE UPDATE	Yes						

※ This specification May varies depending on the installation environment and user scenario.

5.8 inch

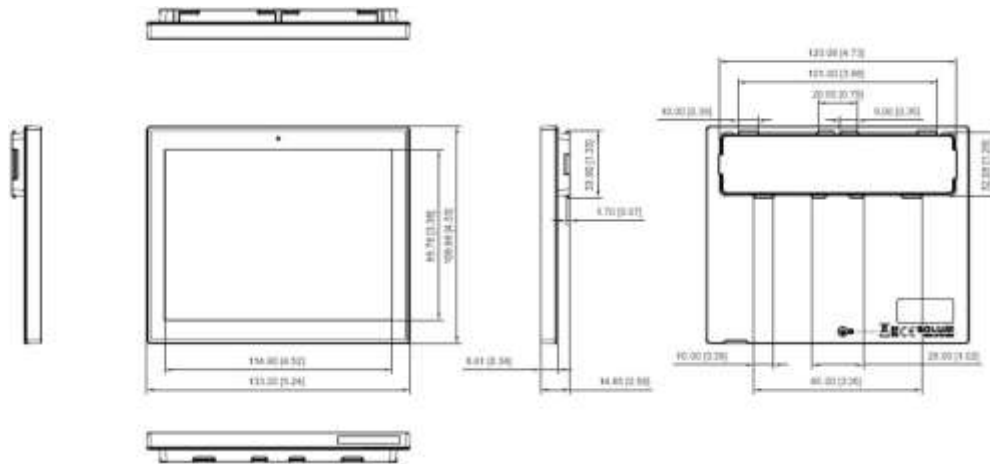


Unit : mm(inch)

MODEL	G : EL058F5C4C/WWW W : EL058F5W4C/WWW B : EL058F5B4C/WWW
DIMENSION	166.16 × 65.67 × 13.26 mm (6.54 x 2.59 x 0.52 inches)
ACTIVE DISPLAY AREA	139.00 x 47.74 mm (5.47 x 1.88 inches)
RESOLUTION (Pixel)	792 x 272
PIXEL DENSITY	144 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 3 (battery pack)
BATTERY LIFETIME	Up To 10 years (1 update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

6.0 inch

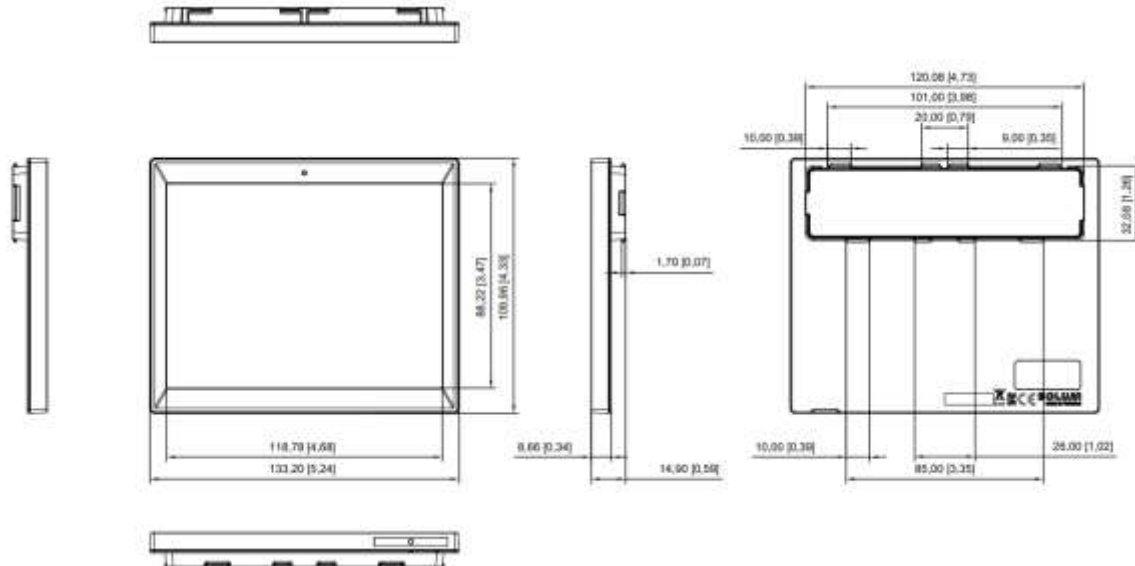


Unit: mm (inch)

MODEL	G : EL060F5C4C/WWW W : EL060F5W4C/WWW B : EL060F5B4C/WWW
DIMENSION	133.20 × 109.96 × 14.85 mm / 5.24 x 4.33 x 0.58 inch
ACTIVE DISPLAY AREA	114.9 x 85.79 mm / 4.52 x 3.38 inch
RESOLUTION (Pixel)	600 x 448
PIXEL DENSITY	132 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWR (Black, White, Red)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 4 (battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	CE, RoHS, FCC
NFC	FeliCa NFC Forum Type 3
WATERPROOF	Not supported
BUTTON	Not supported
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

6.1 inch

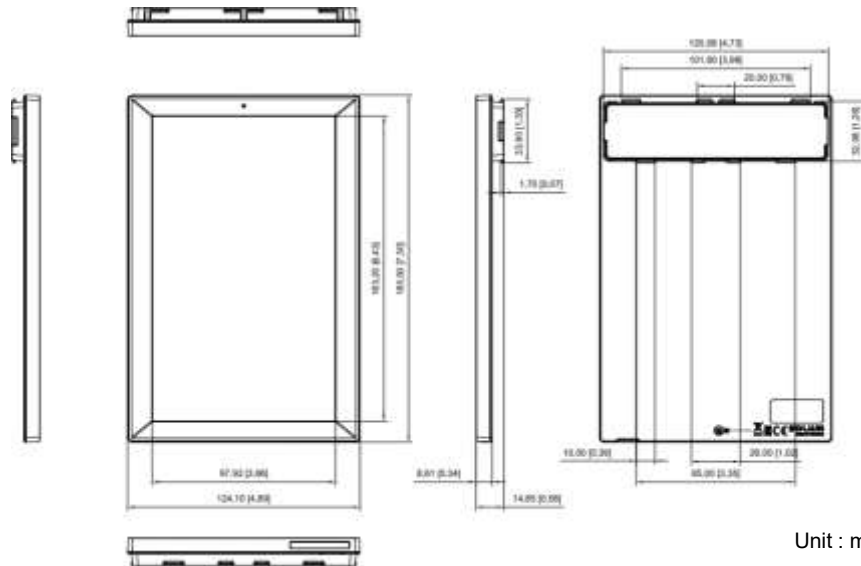


Unit : mm(inch)

MODEL	G : EL061F5C4C/WWW W : EL061F5W4C/WWW B : EL061F5B4C/WWW
DIMENSION	133.20 × 109.96 × 14.90 mm (5.24 x 4.33 x 0.59 inches)
ACTIVE DISPLAY AREA	118.78 x 88.22 mm (4.68 x 3.47 inches)
RESOLUTION (Pixel)	648 x 480
PIXEL DENSITY	138 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 4 (battery pack)
BATTERY LIFETIME	Up To 10 years (1 update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

7.5 inch

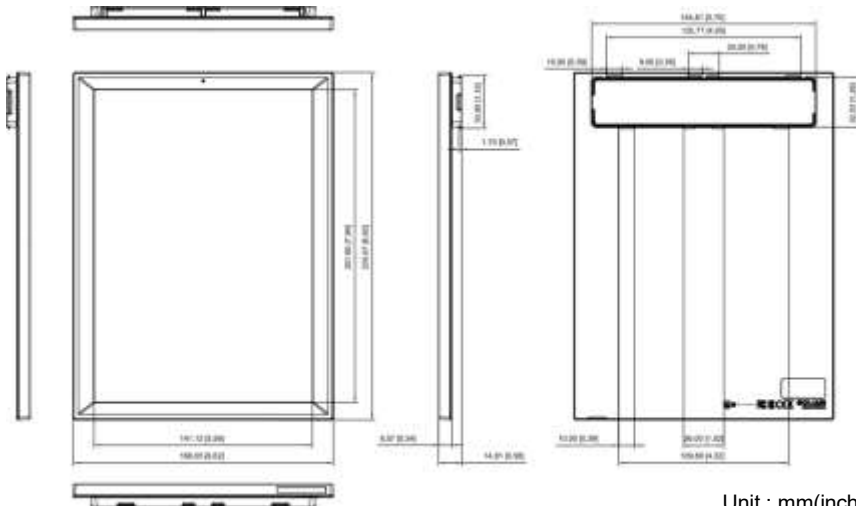


Unit : mm(inch)

MODEL	G : EL075F5C4C/WWW W : EL075F5W4C/WWW B : EL075F5B4C/WWW
DIMENSION	124.10 x 185.50 x 14.85 mm (4.89 x 7.30 x 0.58 inches)
ACTIVE DISPLAY AREA	97.9 x 163.2 mm (3.85 x 6.43 inches)
RESOLUTION (Pixel)	528 x 880
PIXEL DENSITY	136 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 4 (battery pack)
BATTERY LIFETIME	Up To 10 years (1 update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

9.7 inch

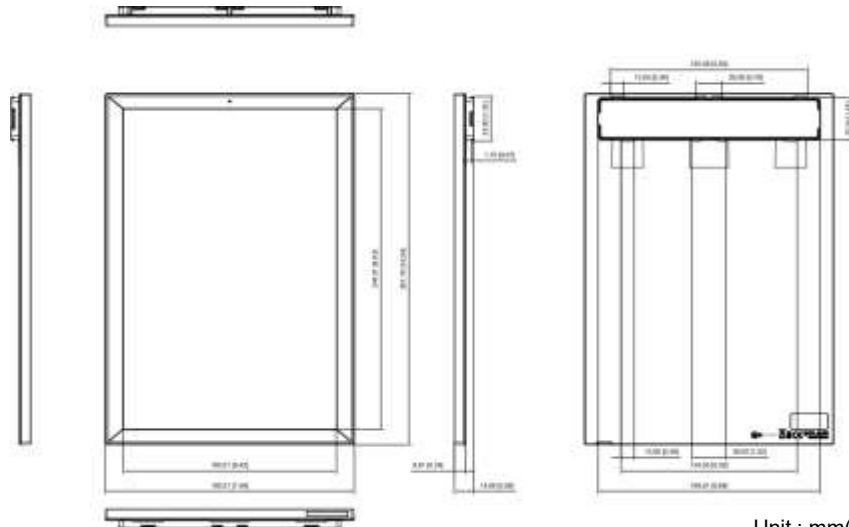


Unit : mm(inch)

MODEL	G : EL097F5C4C/WWW W : EL097F5W4C/WWW B : EL097F5B4C/WWW
DIMENSION	168.05 x 224.07 x 14.81 mm (6.62 x 8.82 x 0.58 inches)
ACTIVE DISPLAY AREA	141.12 x 201.6 mm (5.56 x 7.94 inches)
RESOLUTION (Pixel)	672 x 960
PIXEL DENSITY	121 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450× 5ea (battery pack)
BATTERY LIFETIME	Up To 10 years (1 update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

11.6inch

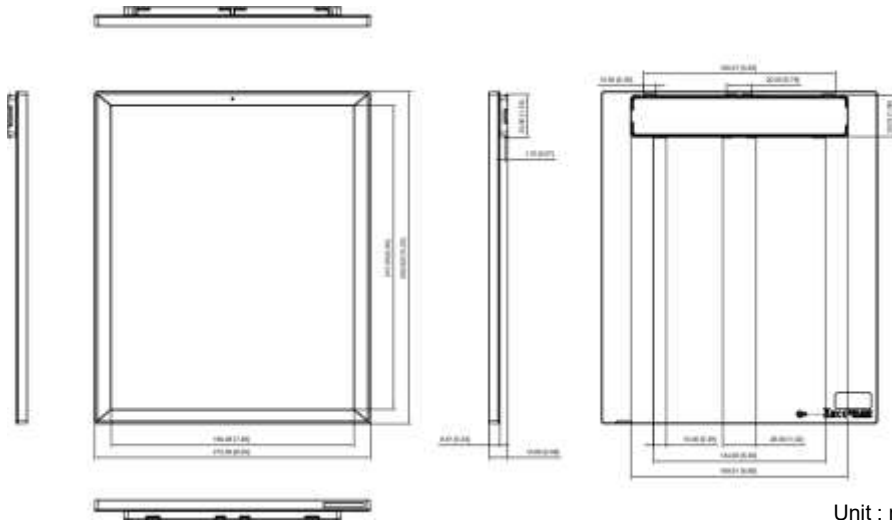


Unit : mm(inch)

MODEL	G : EL116F5C4C/WWW W : EL116F5W4C/WWW B : EL116F5B4C/WWW
DIMENSION	190.31 x 267.70 x 14.85 mm (7.49 x 10.54 x 0.58 inches)
ACTIVE DISPLAY AREA	163.0 x 244.5 mm (6.42 x 9.63 inches)
RESOLUTION (Pixel)	640 x 960
PIXEL DENSITY	100 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450× 5ea (battery pack)
BATTERY LIFETIME	Up To 10 years (1 update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

12.2 inch



Unit : mm(inch)

MODEL	G : EL122F5C4C/WWW W : EL122F5W4C/WWW B : EL122F5B4C/WWW
DIMENSION	215.95 x 259.82 x 14.85 mm (8.50 x 10.23 x 0.58 inches)
ACTIVE DISPLAY AREA	190.08 x 237.6 mm (7.48 x 9.35 inches)
RESOLUTION (Pixel)	768 x 960
PIXEL DENSITY	102 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Gray / white / black, customizable color(optional)
PIXEL COLORS	BWRY(Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 6ea (battery pack)
BATTERY LIFETIME	Up To 10 years (1 update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	N/A
BUTTON	N/A
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

Newton

Pro

PRODUCT SPEC IFICATION SHEET

26 Jan 2024

SOLUM

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Full Line-Up



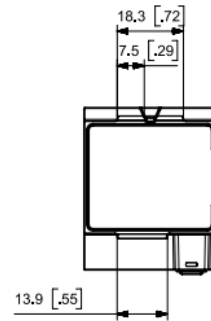
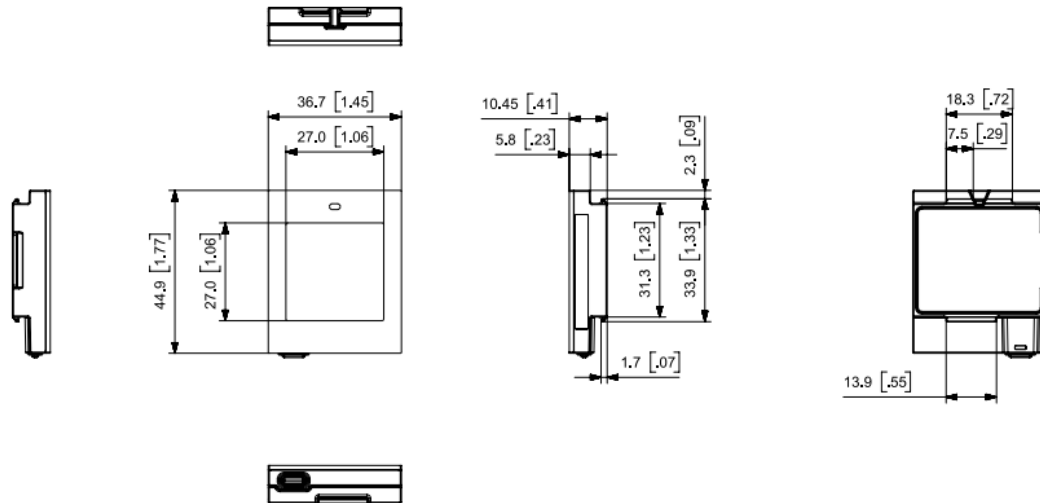
Product Specification Summary																
Model	1.6" (V)	1.6" (H)	2.2"	2.6"	2.7"	2.9"	3.5"	4.2"	4.3"	5.8"	6.0"	6.1"	7.5"	9.7"	11.6"	12.2"
Dimension (mm)	36.7 x 44.9 x 10.45	44.9 x 36.7 x 10.45	67.0 x 37.4 x 10.45	79.2 x 42.5 x 10.45	76.0 x 49.5 x 10.5	85.9 x 41.3 x 10.45	100.2 x 49.6 x 10.45	98.1 x 83.7 x 12.45	130.2 x 42.3 x 13.0	164.0 x 66.8 x 14.3	133.0 x 109.0 x 14.30	133.20 x 109.96 x 14.90	125.0 x 182.9 x 14.85	170.2 x 223.6 x 14.85	192.0 x 269.1 x 15.35	216.2 x 260.0 x 15.35
Active Area (mm)	27.0 x 27.0	27.0 x 27.0	48.1 x 26.0	60.0 x 30.7	57.3 x 38.2	67.6 x 29.6	81.0 x 38.0	84.8 x 63.6	105.4 x 30.7	139.0 x 47.7	114.9 x 85.8	118.78 x 88.22	97.9 x 163.2	141.1 x 201.6	163.0 x 244.5	190.1 x 237.6
Resolution (Pixel)	200 x 200	200 x 200	296 x 160	360 x 184	300 x 200	384 x 168	384 x 180	400 x 300	522 x 152	792 x 272	600 x 448	648 x 480	480 x 800	672 x 960	640 x 960	768 x 960
Pixel Density	184 dpi	184 dpi	156 dpi	152 dpi	133 dpi	144 dpi	120 dpi	120 dpi	125 dpi	144 dpi	132 dpi	138 dpi	126 dpi	121 dpi	100 dpi	103dpi
Pixel Colors	BWRY (Black, White, Red, Yellow)															

SPECIFICATION SHEET

MODEL	1.6" (V)	1.6" (H)	2.2"	2.6"	2.7"	2.9"
DIMENSION (mm/inch)	36.7 x 44.9 x 10.45 mm (1.45 x 1.77 x 0.41 inches)	44.9 x 36.7 x 10.45 mm (1.77 x 1.45 x 0.41 inches)	67.0 x 37.4 x 10.45 mm (2.64 x 1.47 x 0.41 inches)	79.2 x 42.5 x 10.45 mm (3.12 x 1.67 x 0.41 inches)	76.0 x 49.5 x 10.5 mm (2.99 x 1.95 x 0.41 inches)	85.9 x 41.3 x 10.45 mm (3.38 x 1.62 x 0.41 inches)
ACTIVE DISPLAY AREA (mm/inch)	27.0 x 27.0mm (1.06 x 1.06 inches)	27.0 x 27.0mm (1.06 x 1.06 inches)	48.1 x 26.0mm (1.89 x 1.02 inches)	60.0 x 30.7mm (2.37 x 1.21 inches)	57.3 x 38.2mm (2.25 x 1.50 inches)	67.6 x 29.6 mm (2.66 x 1.16 inches)
RESOLUTION (pixels)	200 x 200	200 x 200	296 x 160	360 x 184	300 x 200	384 x 168
PIXEL DENSITY	184 dpi	184 dpi	156 dpi	152 dpi	133 dpi	144 dpi
DISPLAY TECHNOLOGY	Full Graphic E-Ink Display					
PIXEL COLORS	BWRY (Black, White, Red, Yellow)					
VIEWING ANGLE	Nearly 180°					
USABLE PAGES	Up to 7 pages					
OPERATING TEMPERATURE	0 ~ 40° / 32 ~ 104°F					
BATTERY LIFETIME	Up To 5 years (2 Update/day)		Up To 10 years (2 Update/day)			
BATTERY	CR2450 x 1		CR2450 x 2			
ENCRYPTION	128-Bit AES					
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS					
NFC	FeliCa NFC Forum Type 3					
WATERPROOF	IP68					
BUTTON	1					
LED	7 Colors (Red / Green / Blue / Yellow / Cyan / Magenta / White)					
ESL OPERATING FREQUENCY	2.4 Ghz					
WIRELESS FIRMWARE UPDATE	Yes					

※ This specification May varies depending on the installation environment and user scenario.

1.6 inch (V)

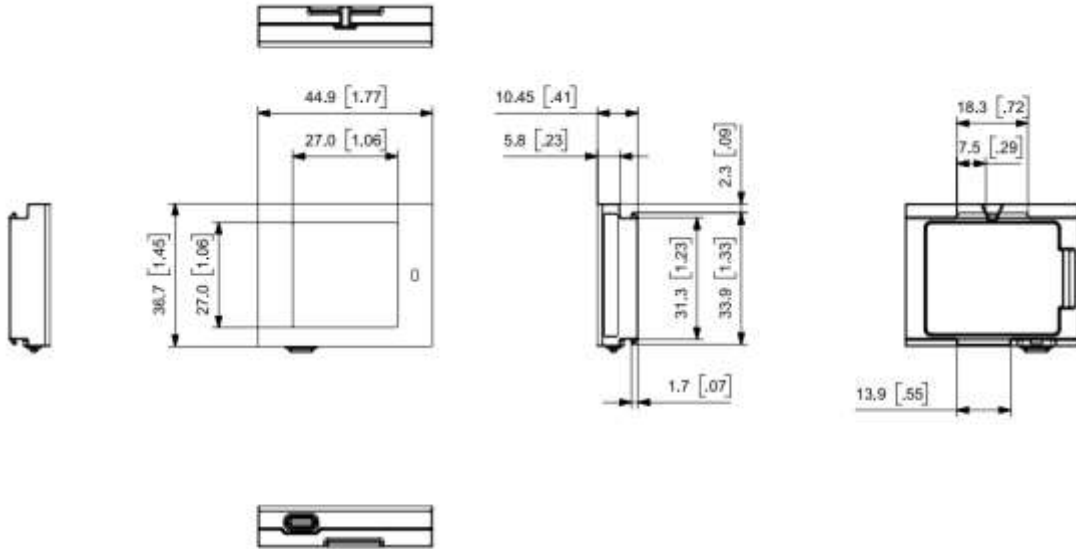


Unit : mm(inch)

MODEL	W : EL016F6W4A/WWW, B : EL016F6B4A/WWW
DIMENSION	36.7 x 44.9 x 10.45 mm (1.45 x 1.77 x 0.41 inches)
ACTIVE DISPLAY AREA	27.0 x 27.0mm (1.06 x 1.06 inches)
RESOLUTION (Pixel)	200 x 200
PIXEL DENSITY	184 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 1ea
BATTERY LIFETIME	Up To 5 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

1.6 inch (H)

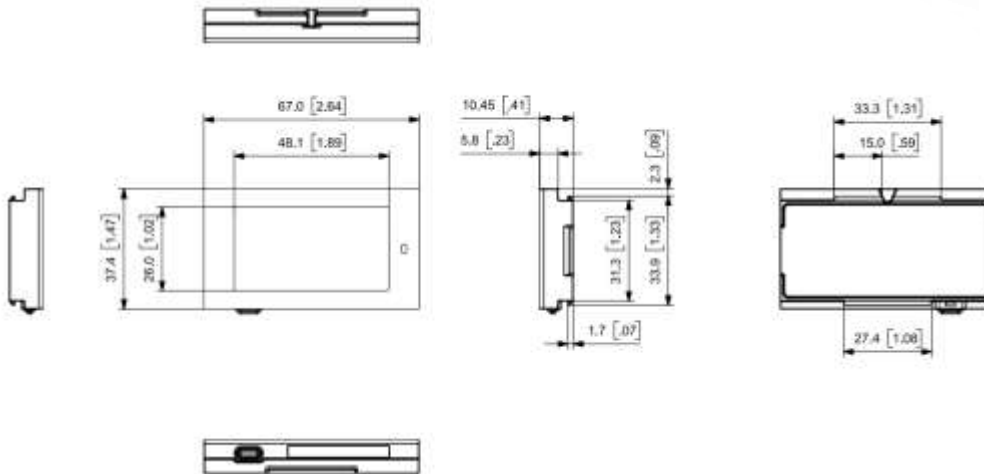


Unit : mm(inch)

MODEL	W : EL016F6W4A/WST, B : EL016F6B4A/WST
DIMENSION	44.9 x 36.7 x 10.45 mm (1.77 x 1.45 x 0.41 inches)
ACTIVE DISPLAY AREA	27.0 x 27.0mm (1.06 x 1.06 inches)
RESOLUTION (Pixel)	200 x 200
PIXEL DENSITY	184 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 1ea
BATTERY LIFETIME	Up To 5 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.2inch

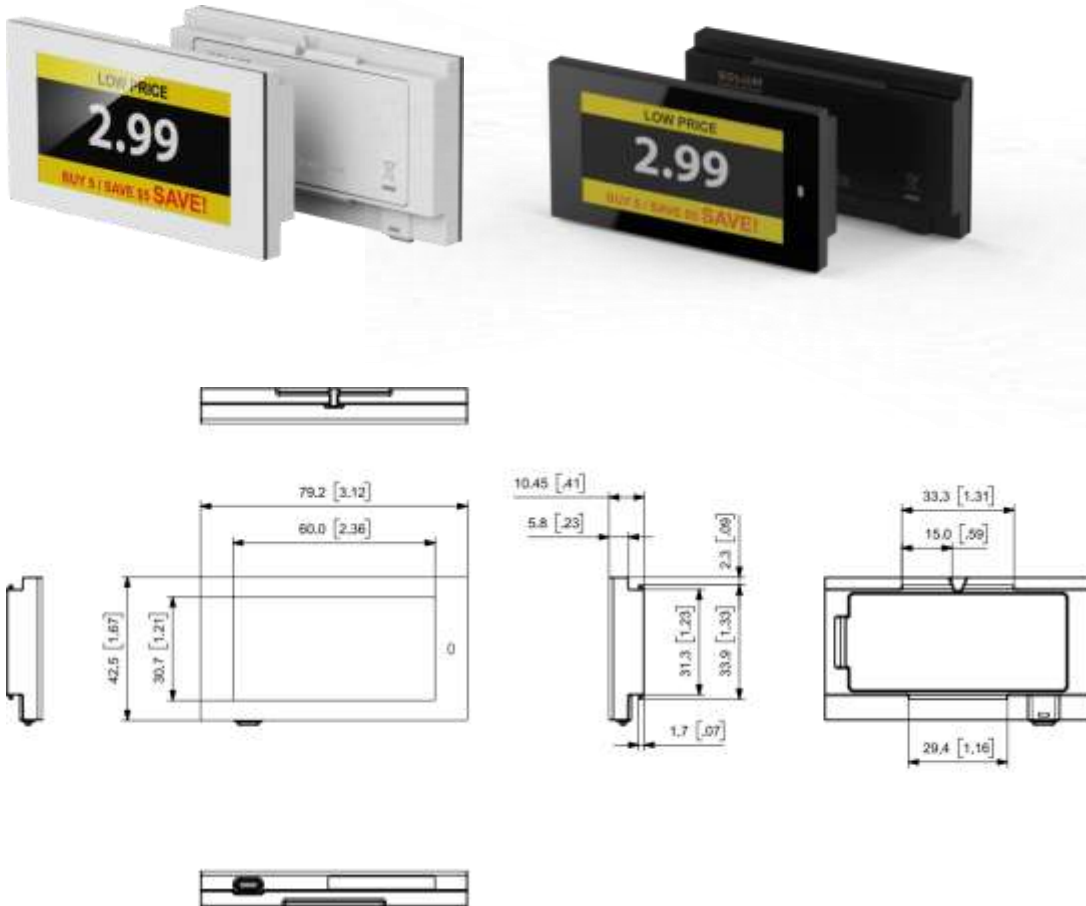


Unit : mm(inch)

MODEL	W : EL022F6W4A/WWW, B : EL022F6B4A/WWW
DIMENSION	67.0 x 37.4 x 10.45 mm (2.64 x 1.47 x 0.41 inches)
ACTIVE DISPLAY AREA	48.1 x 26.0mm (1.89 x 1.02 inches)
RESOLUTION (Pixel)	296 x 160
PIXEL DENSITY	156 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.6 inch



Unit : mm(inch)

MODEL	W : EL026F6W4A/WWW, B : EL026F6B4A/WWW
DIMENSION	79.2 x 42.5 x 10.45 mm (3.12 x 1.67 x 0.41 inches)
ACTIVE DISPLAY AREA	60.0 x 30.7mm (2.36 x 1.21 inches)
RESOLUTION (Pixel)	360 x 184
PIXEL DENSITY	152 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.7 inch

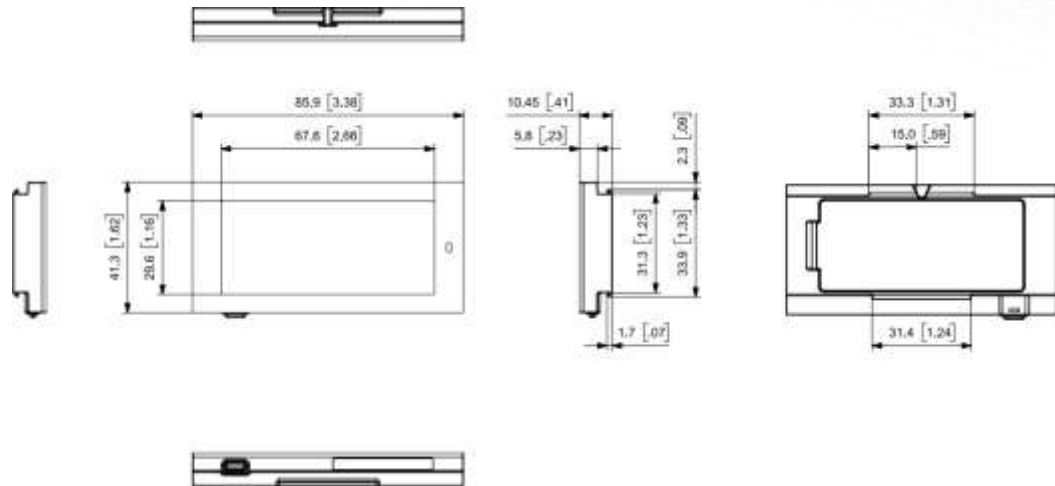


Unit : mm(inch)

MODEL	W: EL027F6W4A/WWW, B: EL027F6B4A/WWW
DIMENSION	76.0 x 49.5 x 10.5 mm (2.99 x 1.95 x 0.41 inches)
ACTIVE DISPLAY AREA	57.3 x 38.2mm (2.25 x 1.50 inches)
RESOLUTION (Pixel)	300 x 200
PIXEL DENSITY	133 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

2.9 inch



Unit : mm(inch)

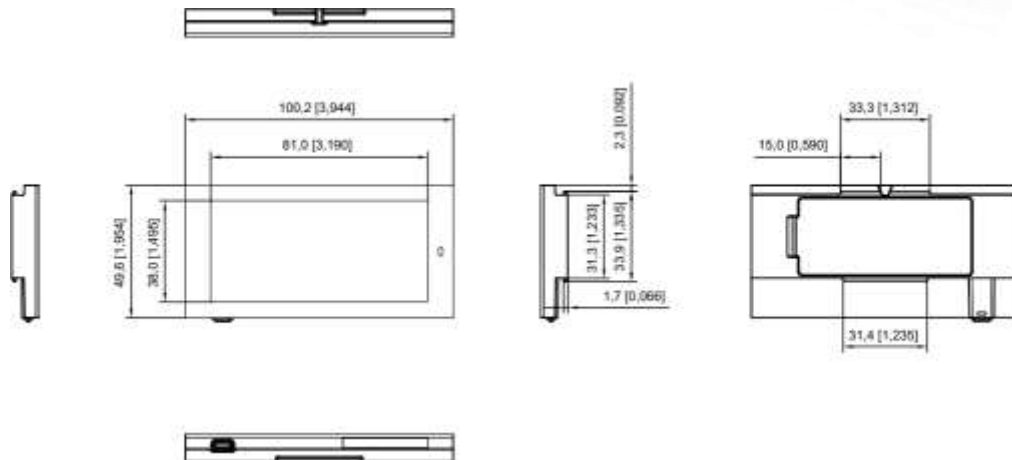
MODEL	W : EL029F6W4A/WWW, B : EL029F6B4A/WWW
DIMENSION	85.9 x 41.3 x 10.45 mm (3.38 x 1.62 x 0.41 inches)
ACTIVE DISPLAY AREA	67.6 x 29.6 mm (2.66 x 1.16 inches)
RESOLUTION (Pixel)	384 x 168
PIXEL DENSITY	144 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

SPECIFICATION SHEET

MODEL	3.5"	4.2"	4.3"	5.8"	6.0"	6.1"	7.5"	9.7"	11.6"	12.2"
DIMENSION (mm/inch)	100.2 x 49.6 x 10.45 mm (3.94 x 1.95 x 0.41 inches)	98.1 x 83.7 x 12.45 mm (3.86 x 3.29 x 0.49 inches)	130.2 x 42.3 x 13.0 mm (5.13 x 1.67 x 0.51 inches)	164.0 x 66.8 x 14.3 mm (6.46 x 2.63 x 0.56 inches)	133.0 x 109.0 x 14.30 mm / 5.23 x 4.29 x 0.56 inch	133.20 x 109.96 x 14.90 mm (5.24 x 4.33 x 0.58 inches)	125.0 x 182.9 x 14.85 mm (4.92 x 7.2 x 0.58 inches)	170.2 x 223.6 x 14.85 mm (6.70 x 8.80 x 0.58 inches)	192.0 x 269.1 x 15.35 mm (7.50 x 10.6 x 0.60 inches)	216.2 x 260.0 x 15.35 mm (8.51 x 10.23 x 0.60 inches)
ACTIVE DISPLAY AREA (mm/inch)	81.0 x 38.0 mm (3.19 x 1.50 inches)	84.8 x 63.6mm (3.34 x 2.50 inches)	105.4 x 30.7mm (4.15 x 1.21 inches)	139.0 x 47.7 mm (5.47 x 1.88 inches)	114.9 x 85.8 mm / 4.52 x 3.38 inch	118.78 x 88.22 mm (4.68 x 3.47 inches)	97.9 x 163.2 mm (3.8 x 6.4 inches)	141.12 x 201.6 mm (5.56 x 7.94 inches)	163.0 x 244.5 mm (6.42 x 9.63 inches)	190.1 x 237.6 mm (7.48 x 9.35 inches)
RESOLUTION (pixels)	384 x 180	400 x 300	522 x 152	792 x 272	600 x 448	648 x 480	480 x 800	672 x 960	640 x 960	768 x 960
PIXEL DENSITY	120 dpi	120 dpi	125 dpi	144 dpi	132 dpi	138 dpi	126 dpi	121 dpi	100 dpi	103 dpi
DISPLAY TECHNOLOGY	Full Graphic E-Ink Display									
PIXEL COLORS	BWRY (Black, White, Red, Yellow)									
VIEWING ANGLE	Nearly 180°									
USABLE PAGES	Up to 7 pages									
OPERATING TEMPERATURE	0 ~ 40° / 32 ~ 104°F									
BATTERY LIFETIME	Up To 10 years (2 Update/day)			Up To 10 years (1 Update/day)						
BATTERY	CR2450 x 2		CR2450 x 3 (Battery pack)		CR2450 x 4 (Battery pack)			CR2450 x 5 (Battery pack)		CR2450 x 6 (Battery pack)
ENCRYPTION	128-Bit AES									
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS									
NFC	FeliCa NFC Forum Type 3									
WATERPROOF	IP68									
BUTTON	1									
LED	7 Colors (Red / Green / Blue / Yellow / Cyan / Magenta / White)									
ESL OPERATING FREQUENCY	2.4 Ghz									
WIRELESS FIRMWARE UPDATE	Yes									

3.5 inch

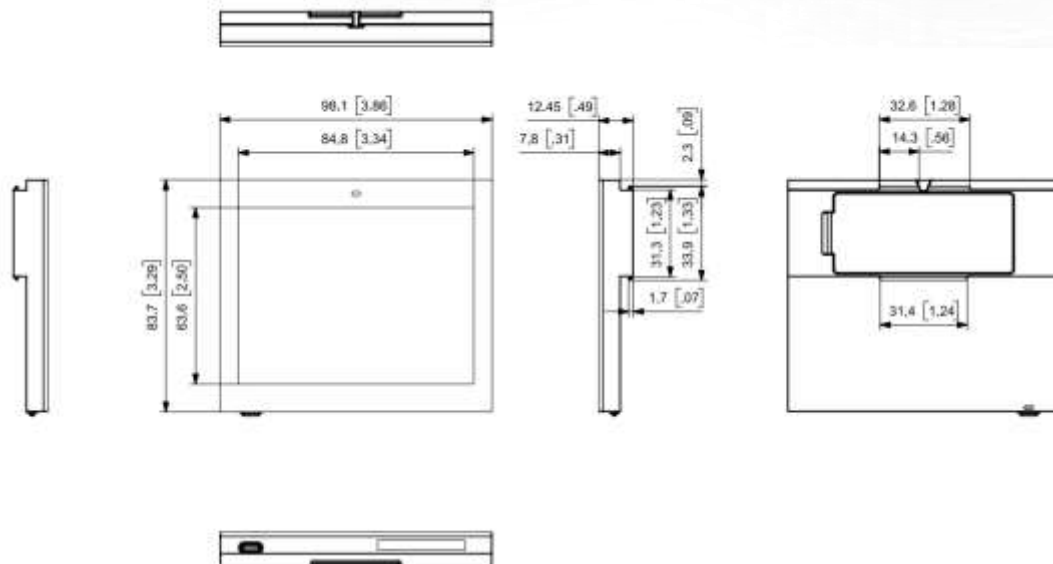


Unit : mm(inch)

MODEL	W : EL035F6W4A/WWW, B : EL035F6B4A/WWW
DIMENSION	100.20 x 49.6 x 10.45 mm (3.94 x 1.95 x 0.41 inches)
ACTIVE DISPLAY AREA	81.0 x 38.0 mm (3.19 x 1.50 inches)
RESOLUTION (Pixel)	384 x 180
PIXEL DENSITY	120 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

4.2 inch

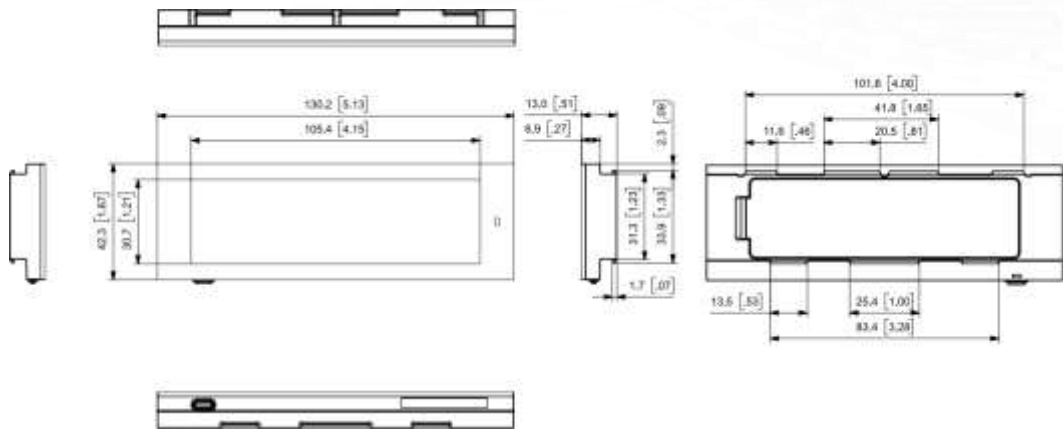


Unit : mm(inch)

MODEL	W : EL042F6W4A/WWW, B : EL042F6B4A/WWW
DIMENSION	98.1 x 83.7 x 12.45 mm (3.86 x 3.29 x 0.49 inches)
ACTIVE DISPLAY AREA	84.8 x 63.6mm (3.34 x 2.50 inches)
RESOLUTION (Pixel)	400 x 300
PIXEL DENSITY	120 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 2ea
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

4.3 inch

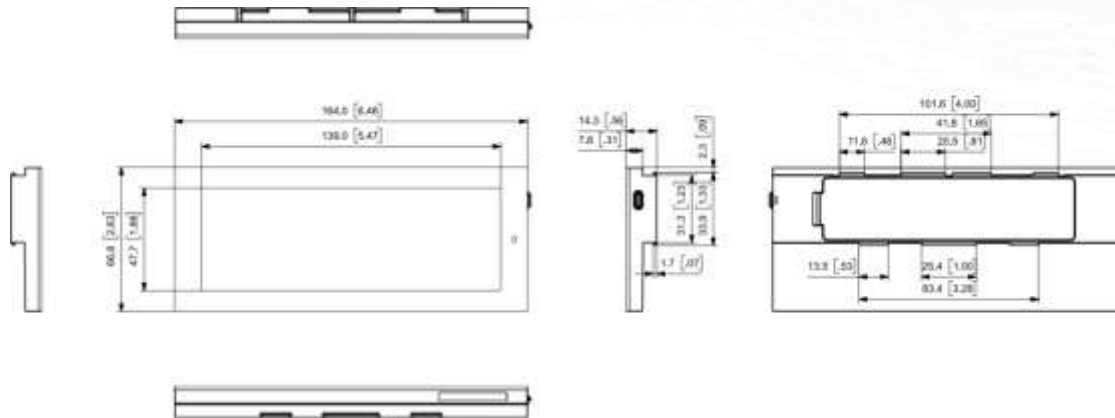


Unit : mm(inch)

MODEL	W : EL043F6W4A/WWW, B : EL043F6B4A/WWW
DIMENSION	130.2 x 42.3 x 13.0 mm (5.13 x 1.67 x 0.51 inches)
ACTIVE DISPLAY AREA	105.4 x 30.7mm (4.15 x 1.21 inches)
RESOLUTION (Pixel)	522 x 152
PIXEL DENSITY	125 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450× 3ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (2 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

5.8 inch

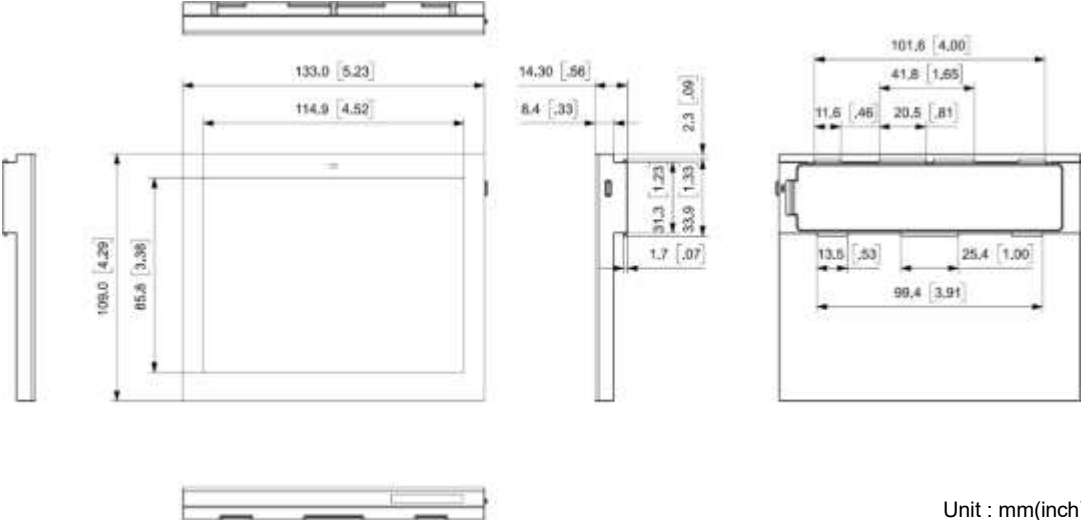


Unit : mm(inch)

MODEL	W : EL058F6W4A/WWW, B : EL058F6B4A/WWW
DIMENSION	164.0 x 66.8 x 14.3 (6.46 x 2.63 x 0.56 inches)
ACTIVE DISPLAY AREA	139.0 x 47.7 (5.47 x 1.88 inches)
RESOLUTION (Pixel)	792 x 272
PIXEL DENSITY	145 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450× 3ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

6.0 inch

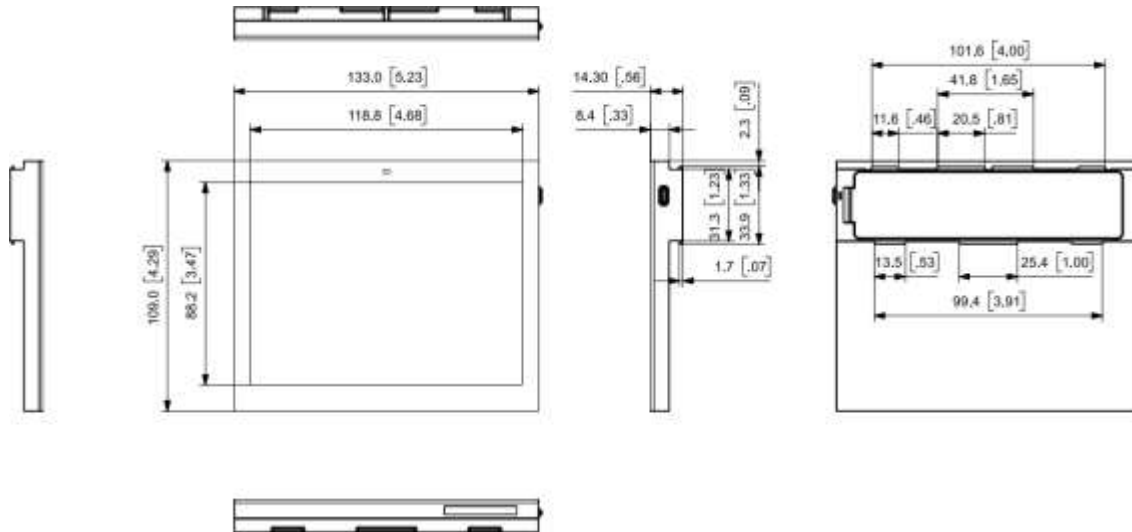


Unit : mm(inch)

MODEL	W : EL060F6W4A/WWW, B : EL060F6B4A/WWW
DIMENSION	133.0 x 109.0 x 14.30 mm / 5.23 x 4.29 x 0.56 inch
ACTIVE DISPLAY AREA	114.9 x 85.8 mm / 4.52 x 3.38 inch
RESOLUTION (Pixel)	600 x 448
PIXEL DENSITY	132 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 x 4ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	CE, RoHS, FCC
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

6.1 inch



Unit : mm(inch)

MODEL	W: EL061F6W4A/WWW, B: EL061F6B4A/WWW
DIMENSION	133.20 × 109.96 × 14.90 mm (5.24 x 4.33 x 0.58 inches)
ACTIVE DISPLAY AREA	118.8 × 88.2 mm (4.68 x 3.47 inches)
RESOLUTION (Pixel)	648 x 480
PIXEL DENSITY	138 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 4ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

7.5 inch

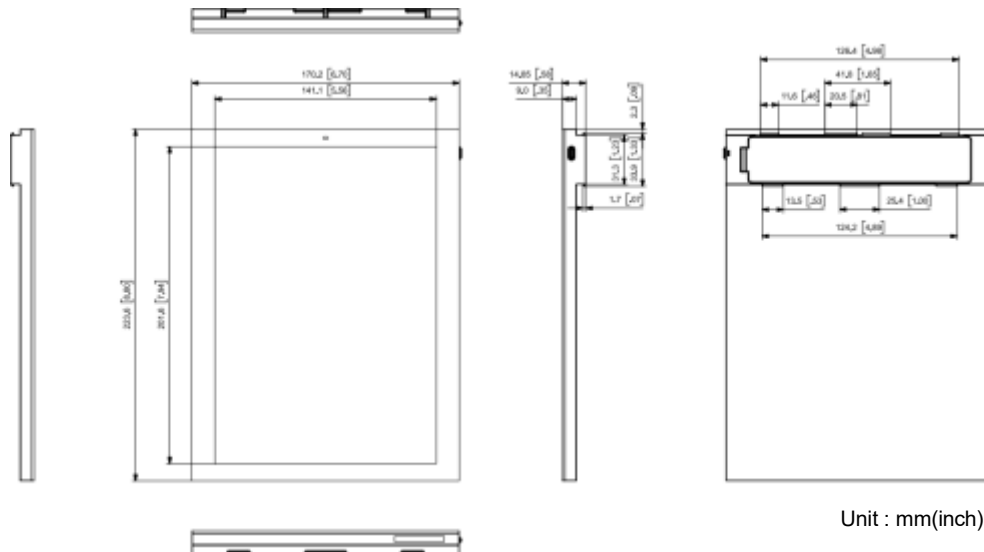


Unit : mm(inch)

MODEL	W : EL075F6W4A/WWW, B : EL075F6B4A/WWW
DIMENSION	125.0 x 182.9 x 14.85 mm (4.92 x 7.2 x 0.58 inches)
ACTIVE DISPLAY AREA	97.9 x 163.2 mm (3.86 x 6.43 inches)
RESOLUTION (Pixel)	480 x 800
PIXEL DENSITY	126 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 4ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

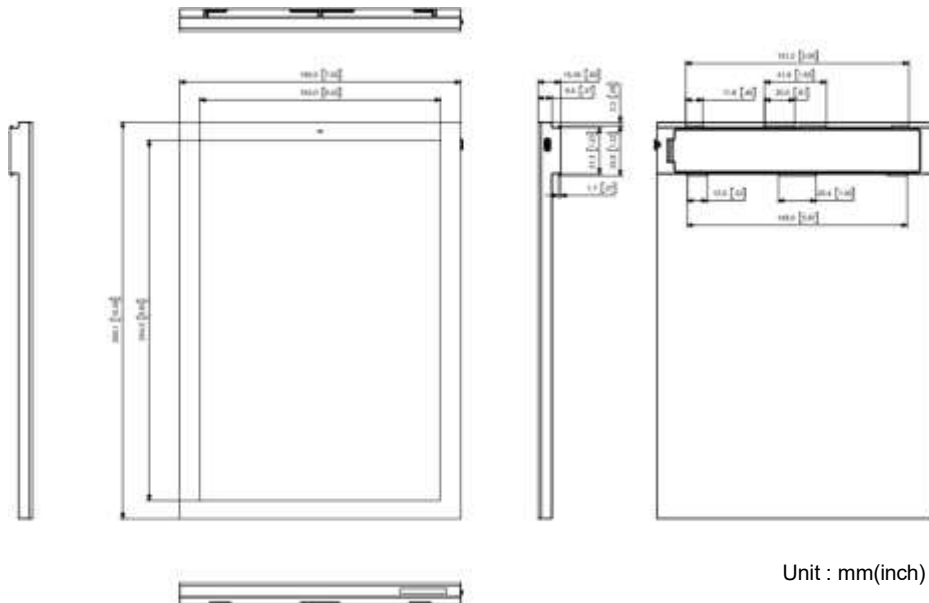
9.7 inch



MODEL	W : EL097F6W4A/WWW, B : EL097F6B4A/WWW
DIMENSION	170.2 x 223.6 x 14.85 mm (6.70 x 8.80 x 0.58 inches)
ACTIVE DISPLAY AREA	141.1 x 201.6 mm (5.56 x 7.94 inches)
RESOLUTION (Pixel)	672 x 960
PIXEL DENSITY	121 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450× 5ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

11.6 inch

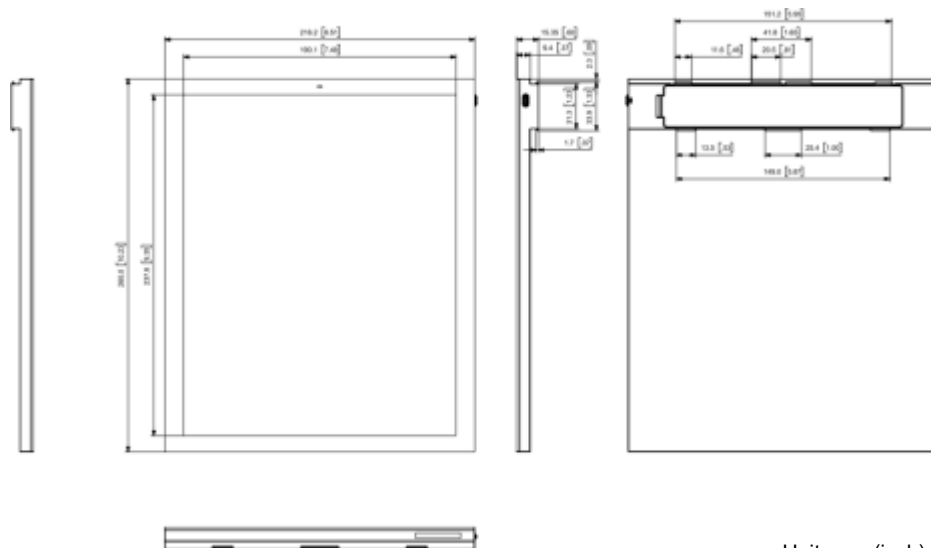


Unit : mm(inch)

MODEL	W : EL116F6W4A/WWW, B : EL116F6B4A/WWW
DIMENSION	192.0 x 269.1 x 15.35 mm (7.50 x 10.6 x 0.60 inches)
ACTIVE DISPLAY AREA	163.0 x 244.5 mm (6.42 x 9.63 inches)
RESOLUTION (Pixel)	640 x 960
PIXEL DENSITY	100 dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450× 5ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

12.2inch

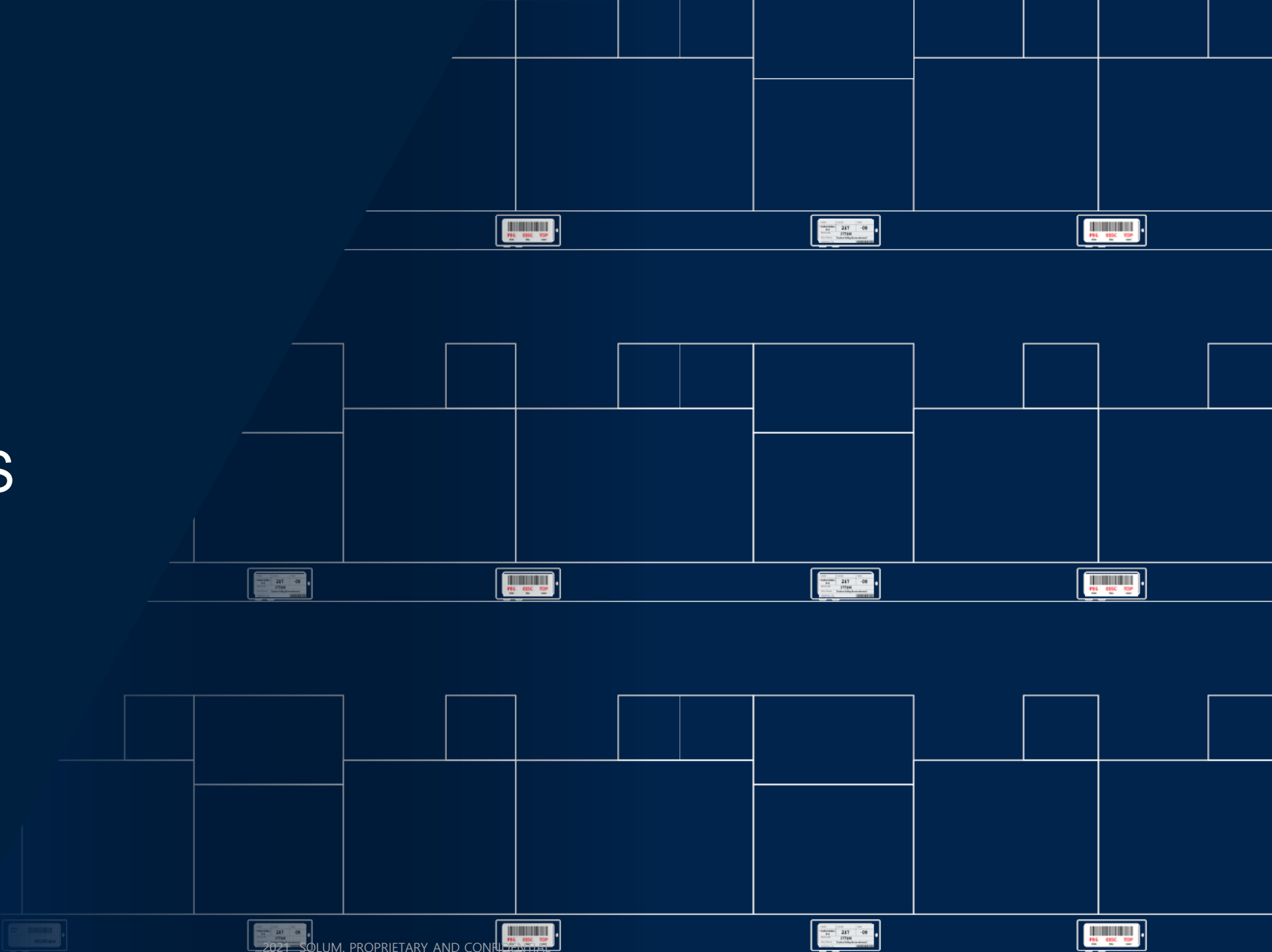


Unit : mm(inch)

MODEL	W : EL122F6W4A/WWW, B : EL122F6B4A/WWW
DIMENSION	216.2 x 260.0 x 15.35 mm (8.51 x 10.23 x 0.60 inches)
ACTIVE DISPLAY AREA	190.1 x 237.6 mm (7.48 x 9.35 inches)
RESOLUTION (Pixel)	768 x 960
PIXEL DENSITY	103dpi
DISPLAY TECHNOLOGY	Full Graphic E-ink Display
BEZEL COLOR	Grey / White / Black / Customizable Colors (Optional)
PIXEL COLORS	BWRY (Black, White, Red, Yellow)
VIEWING ANGLE	Nearly 180°
USABLE PAGES	Up to 7 pages
OPERATING TEMPERATURE	0 ~ 40°C (32 ~ 104°F)
BATTERY	CR2450 × 6ea (Battery pack)
BATTERY LIFETIME	Up To 10 years (1 Update/day)
ENCRYPTION	128-Bit AES
COMPLIANCE	FCC, IC, CE, TELEC, KC, RoHS
NFC	FeliCa NFC Forum Type 3
WATERPROOF	IP68
BUTTON	1
LED	7 Colors (Red/Green/Blue/Yellow/Cyan/Magenta/White)
ESL OPERATING FREQUENCY	2.4 Ghz
WIRELESS FIRMWARE UPDATE	Yes

※ This specification May varies depending on the installation environment and user scenario.

REFERENCIAS





BOSCH



MAGNA



FALCONER



SAMSUNG

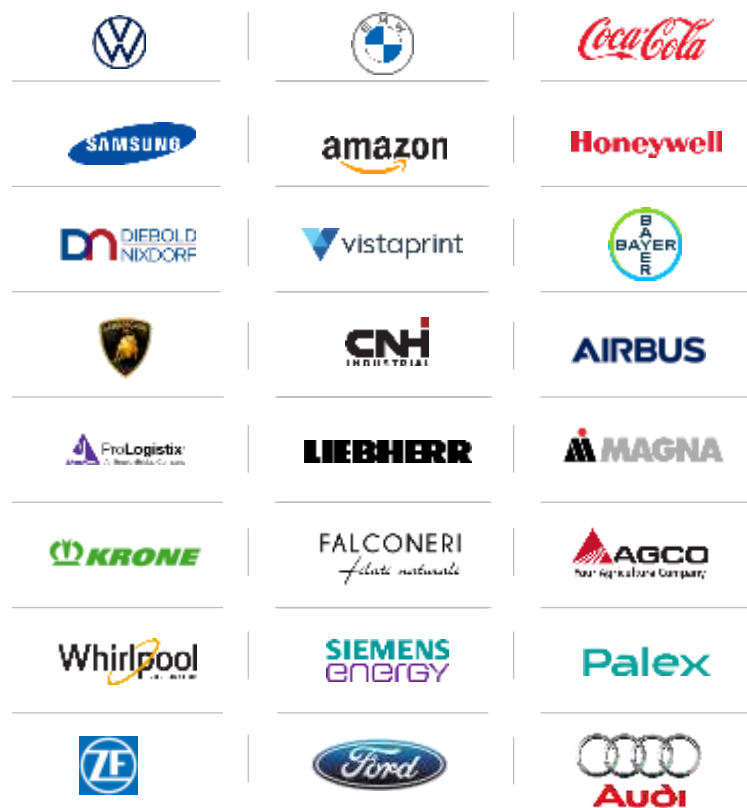
faurecia



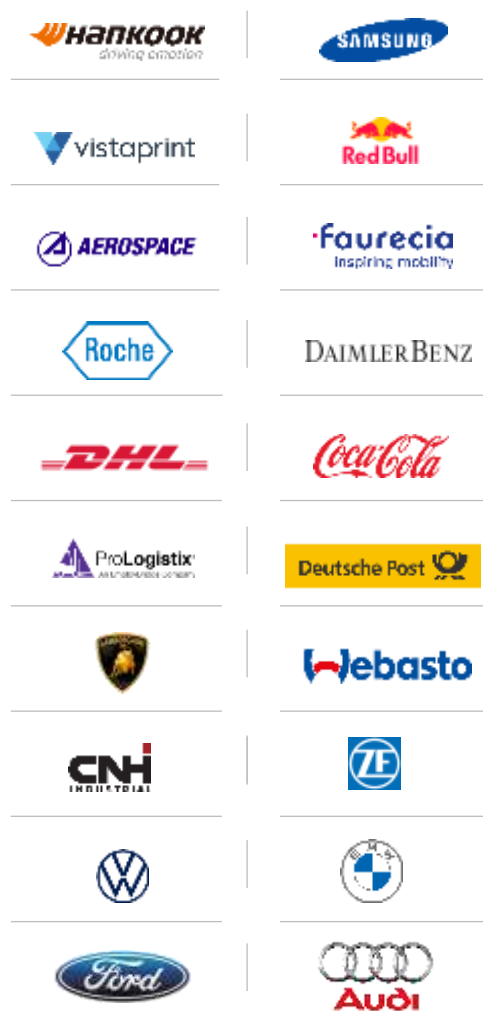
Coca-Cola

- In 2017, SOLUM introduced the **first Button and LED featured ESL for industrial market** (manufacturing, warehouse, logistics etc) which gives bi-directional user interaction with shelf and worker. Newton with x10 time faster speed, geo-location and its security feature give more possibilities for industrial use cases.
- Global car manufacturers such as VW group, BMW and leaders in other industrial sectors such as Coca-cola and SAMSUNG chose SOLUM ESL thanks to its performance, various features and reliability. They are already improving their operational efficiency and achieving their digital transformation using SOLUM ESL.

WAREHOUSE MANAGEMENT



MANUFACTURING PROCESS



SMART ORDERING



LBS

