The Company

Beijer Electronics AB
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www.beijerelectronics.com

Products

General

The products are CE-labeled. The products meet the requirements of the RoHS Directive (EU directive 2011/65/EC) and REACH Directive (No 1907/2006)

Mechanicals

Aluminum and stainless steel are judged to be environmentally non-hazardous. Expanded rubber packing for the front, expanded polyethylene packing for the display with adhesive that is not classified as environmentally hazardous. Screws may have the following surface treatments: Bright nickel-plated or bright zinc-plated. Any display frame and the CF cover are made of halogen-free plastic, PC/ABS.

Electronics

Circuit boards

The majority of the components on the circuit boards are surface mount, which use less solder compared to through-hole mount components. All materials and components are RoHS compliant.

Display

The liquid crystals in the display are cyclohexane compounds. The backlight uses LED technology.

Batteries

The product contains a poly-carbonmonofluoride Lithium battery (CR2032).

Documentation

Product documentation is available in digital form on the Beijer Electronics website, *www.beijerelectronics.com*

Distribution

The packaging consists of 91% wood fiber and 7% bleached new fiber (oxygen and chlorine dioxide bleach). A white coating on the inside and outside consists of starch. The glue for the packaging is made from wheat or corn starch. Inside the packaging is a plastic bag for brackets or other mounting hardware.

Use

The products are tested and comply with the EMC requirements as per directive 2014/30/EC. The products require no special maintenance. The products produce no noise.

Environmental Impact Report

Recycling

The products consist largely of aluminum. It is a great advantage from the viewpoint of both resources and the environment if this can be recycled. Make sure that the worn out product goes to a facility for electronic scrap. Beijer Electronics' electronic waste is recycled.. Any plastic frame must be sorted as solid plastic. The circuit board contains many valuable metals and should therefore be recycled. Remove the lithium battery. Electrolytic capacitors and displays are currently not classified as hazardous waste, but may be harmful to health and the environment. The packaging is made from wood fiber and should be recycled. The label and the plastic bag for the brackets are sorted as soft plastic.The protective film on the front is sorted as soft plastic. When the product is no longer useful it can be returned to Beijer Electronics for environmentally responsible recycling. Contact the company for further information.

Environmental Impact

A product has an impact on the environment throughout its entire life cycle. An operator panel impacts on the environment through its function, i.e. controlling industrial equipment. The energy and the scrapped parts that can be saved with efficient controls mean that the product contributes to a reduced environmental burden. Other important environmental impact factors are the energy the product consumes during use, as well as the non-renewable raw materials in the form of metals, etc. that are included in the product and which are obtained using environmentally harmful mining.

Opportunities to reduce environmental burden during use

– Switch the system off when it is not in use.
– Use green electricity.
– Use energy-saving options, e.g. turn off backlighting to save energy and reduce wear on the backlight.
– If possible, reduce the brightness of the backlighting to reduce energy consumption.
– Ensure that the product, battery and packaging are recycled in an environmentally responsible way.

Product Specifications

Parameter X2 base 5

Display	TFT-LCD. 800 x 480 pixels, 64k colors. LED backlight, Screen size 5" Active area of display, W 108.0 x H 64.8 mm
Brightness (cd/m2)	350
View angle (H) / (V)	140 deg. Horiz. / 120 deg. Vert.
Back light lifetime	20,000 h (min.)
Touch screen	resistive, 1 million finger touch operations
LEDs	1 x multi-color
Frame material	Plastic, PC/ABS
Front foil	Polyester Autoflex, EBA 180L
Front panel seal	IP 65
Rear panel seal	IP 20
Processor	Atmel AT91SAM9G45C-CU
Application memory	>=200 MB
Power consumption	at rated voltage 14 W
Fuse	3.15A slow
Power supply	+24 V DC (18-32 V DC)
Operating temperature	-10° C to +50° C
Storage temperature	-20 to +60° C
Relative operating humidity	< 85% non-condensed
Ethernet	1 x 10/100 Mbit/s. Shielded RJ45.
USB	1 x USB Host 2.0, max output current 400 mA
Serial ports	COM1, COM3: serial Ports for RS232. COM2: serial Ports for RS422/485 COM4: serial Ports for RS485
Front panel	W x H x D 170.4 x 106.8 x 7.5 mm
Cut out dimensions	W x H 160.7 x 93.0 mm
Mounting depth	41.7 mm (141.7 mm including clearance)
Weight	0.5 kg

Parameter X2 base 7

Display	TFT-LCD. 800 x 480 pixels, 64k colors. LED backlight, Screen size 7" Active area of display, W 154.1 x H 85.9 mm
Brightness (cd/m2)	400 (typ.)
View angle (H) / (V)	140 deg. Horiz. / 120 deg. Vert.
Back light lifetime	20,000 h (min.)
Touch screen	resistive, 1 million finger touch operations
LEDs	1 x multi-color
Frame material	Plastic, PC/ABS
Front foil	Polyester Autoflex, EBA 180 L
Front panel seal	IP 65
Rear panel seal	IP 20
Processor	Atmel AT91SAM9G45C-CU
Application memory	>=200 MB
Power consumption	at rated voltage 6 W
Fuse	2A/500V
Power supply	+24 V DC (18-32 V DC)
Operating temperature	-10° C to +50° C
Storage temperature	-20 to +60° C
Relative operating humidity	< 85% non-condensed
Ethernet	1 x 10/100 Mbit/s. Shielded RJ45.
USB	1 x USB Host 2.0, max output current 400 mA
Serial ports	COM1, COM3: serial Ports for RS232. COM2: serial Ports for RS422/485 COM4: serial Ports for RS485
Front panel	W x H x D 196.0 x 146.0 x 7.5 mm
Cut out dimensions	W x H 185.8 x 135.8 mm
Mounting depth	44.7 mm (144.7 mm including clearance)
Weight	0.7 kg

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Parameter X2 base 10

Display	TFT-LCD 800x480 pixels, 64k colors, LED backlight, Screen size 10.2" Active area of display, W 222.0 x H 132.48 mm
Brightness (cd/m2)	350 (typ.)
View angle (H) / (V)	130 deg. Horiz. / 110 deg. Vert.
Back light lifetime	20,000 h (min.)
Touch screen	Resistive, 1 million finger touch operations
LEDs	1 x multi-color
Frame material	Plastic, PC/ABS
Front foil	Polyester Autoflex, EBA 180 L
Front panel seal	IP 65
Rear panel seal	IP 20
Processor	Atmel AT91SAM9G45C-CU
Application memory	>=200 MB
Power consumption	at rated voltage 10.8 W
Fuse	2A/500V
Power supply	+24 V DC (18-32 V DC)
Operating temperature	-10˚ C to +50˚ C
Storage temperature	-20 to +60˚ C
Relative operating humidity	< 85% non-condensed
Ethernet	1 x 10/100 Mbit/s. Shielded RJ45.
USB	1 x USB Host 2.0, max output current 400 mA
Serial ports	COM1, COM3: serial Ports for RS232. COM2: serial Ports for RS422/485 COM4: serial Ports for RS485
Front panel	W x H x D 284.3 x 186.6 x 7.5 mm
Cut out dimensions	W x H 274.3 x 176.6 mm
Mounting depth	44.7 mm (145 mm including clearance)
Weight	1.3 kg