Technical Specification
PC 17.0 ®

ISSUED DATE:	18.01.2008
MODEL NO. / ART.NO.:	PC 17.0
SENIOR ENGINEER:	Josef Voldrich TM / Partner Josef Voldrich

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1. REVISION HISTORY

DATE	REVISION NO.	PAGE	SUMMARY
18.01.2008	1.0	All	
11.02.2008	1.1	8,9	SdSC

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2. GENERAL DESCRIPTION

2.A DESCRIPTION

The PC LINE is a high-quality flush fitted monitor with an integrated powerful PC.

The PC LINE is equipped with a fully integrated RJ-45/RS-232 interface and two USB connection inputs. The PC LINE is also equipped with a passive cooling system, which enables comprehensive and secure incorporation behind mirror and glass surfaces. In addition to excellent picture quality, the PC LINE monitors offer very long lifespan and wide viewing angle. It is the perfect solution for complete content control at Point of Sale via CMS and Multimedia Management Systems.

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2. GENERAL DESCRIPTION

2.B GENERAL SPECIFICATION

LCD / TFT

Display type	TFT-Thin Film Transistor
Active screen area	335 x 268 mm /diagonal 429 mm; 13.19" x 10.55" diagonal 17"
Picture format	5 :4
Resolution	1280 x1024 phys.,
Viewing angle	140° horiz. / 125° vert.
Brightness / Contrast	350 cd/m², 400:1
Displayable colours	16,7 M
Response time	8 ms

Main Board

CPU	1,4 GHz Intel® Pentium® M
Chipset	Intel R GME855/ICH4
Main memory	1 GByte internal DDR RAM
Interfaces	1x 100MBit Ethernet
	2x USB2.0
	Mini-PCI for WLAN or peripherals
	Compact Flash-HDD 2GByte & optional max. 32 GB
	VGA-HD15-Output (for additional external display)
	1xAudio Line-Out optinal Video and Audio OUT via RCA
	PS/2 Keyboard- / Mouse-Interface
PC-Card Typ II interface:	UMTS / HSDPA / EDGE / GSM Interface or WLAN PCMIA Card
	UP to 7.2Mbps Peak Rate
	Quadband support
	(850 / 900 / 1800 / 1900 MHz)
	RAB-Streaming 64, 57.6, 28.8, 14.4 kbps
	Microsoft WHQL certified drivers Optional IEEE 802.11b/g Wireless PC Card

Mechanical

Dimensions	603 x 452 x 36 with out Touch
Case	PPS plastic (acc. to UL94, IEC60695-11-10,V0), Dibond 2 (acc. to DIN 4102/B2)
Weight	6,5 kg

Audio Board

Audio Output	Stereo plug 3,5

Plug & Play	Yes	
Remote input	Yes RS 232 or RF Aqua	
Video Modes	Unter Construktion	
Video signals	Optional FBSA RCA Out	

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2. GENERAL DISCRIPTION

2.C GENERAL SPECIFICATION

Remote Control

Remote Control	☐ RF ☐ IR

AQUA RF 3
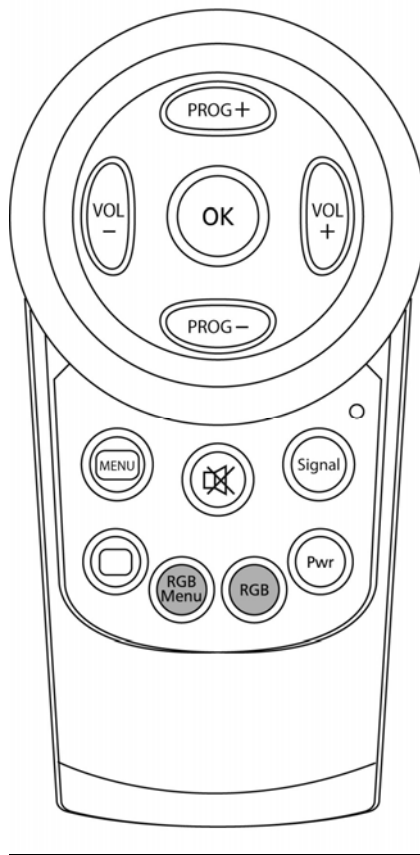
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3. Operation Storage

3.A Storage

ITEM	SYMBOL	MIN.	MAX.	UNIT
Storage	TsTG	-20°C	+85°C	
Operating	TOPR	+5°C	+60°C	
Humidity	Snop	5%	95%	

3.B Power Supply

Power Supply	NE-T-55
Power	100-240VAC / 50-60Hz
Rules/regulations	DC 12V; security / Sicherheit: UL99BJE176177, FCC, CE, GS Connector/Hohlbuchse 2,1mm DIN 45323
Plug	2.1mm
Cable length	1800mm +/- 50mm
Voltage	12DC 59 W / 5000 mA
Dimensions	132 x 58 x 30mm

3.C GLASS

Type	Surface	Safety/Tempered	Thickness	Dimensions
	☐ Magic	☐ Yes ☐ No		
	☐ Crystal			
	☐ Black			
	☐ White			

3.D GLASS MAX.

Optiwhiteglas	
Floatglas	
Floatglas	

3.E LCD

Type	Surface	Safety/Tempered	Thickness	Dimensions

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4. PRODUCTS

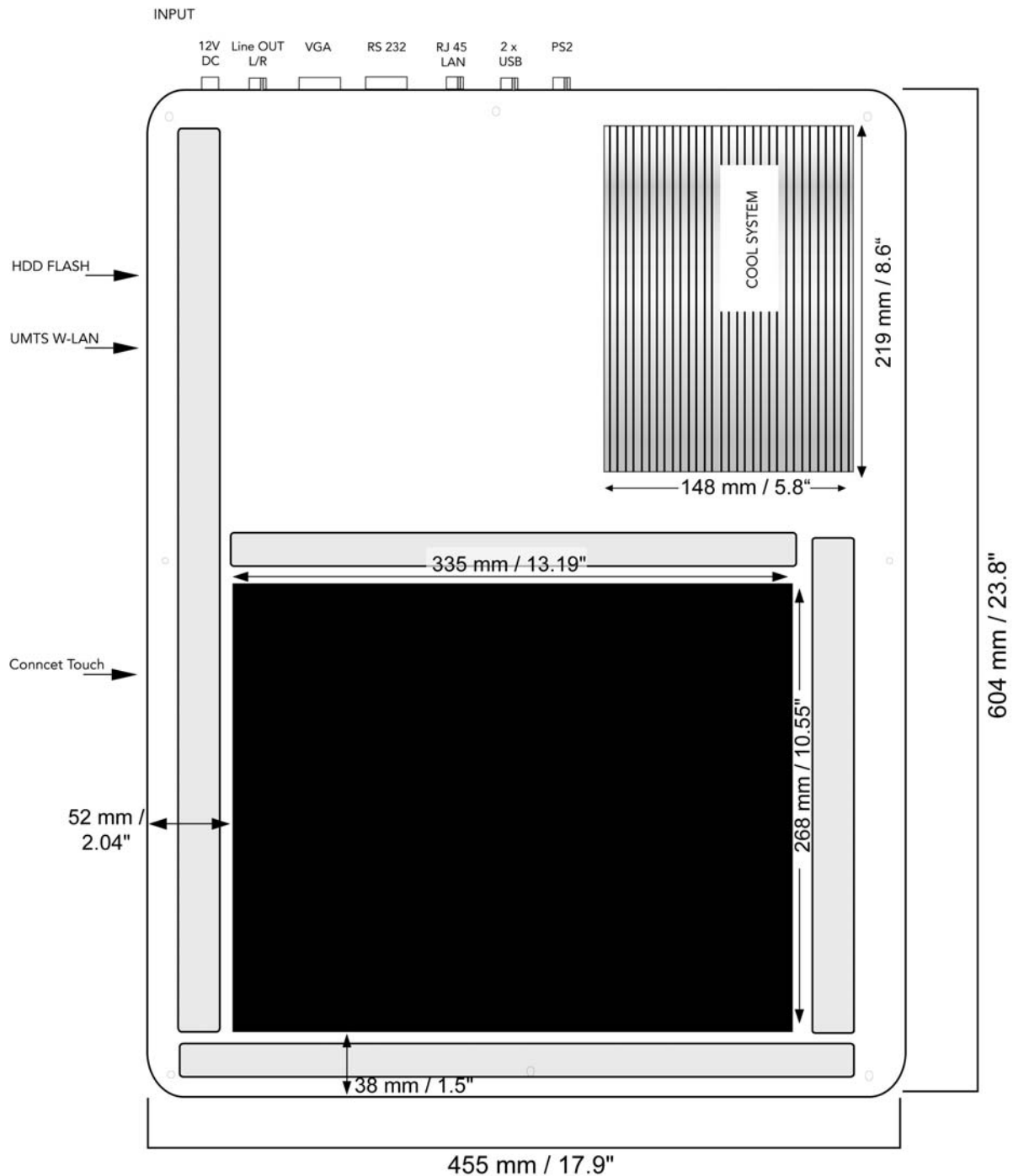**4.A LCD Front view / Measure in mm and inch**
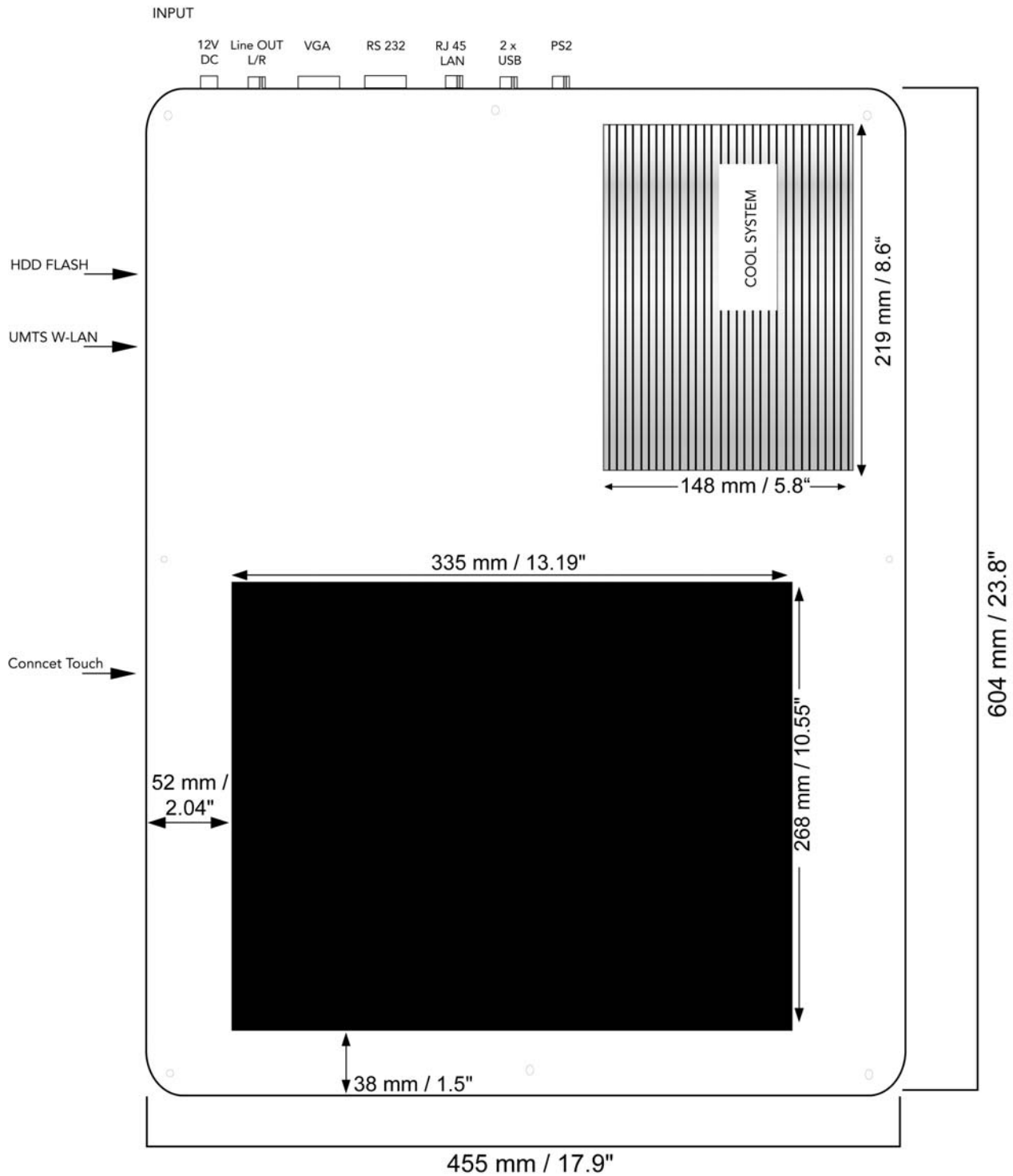
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4. PRODUCTS

4.B Magnetic Mounting System
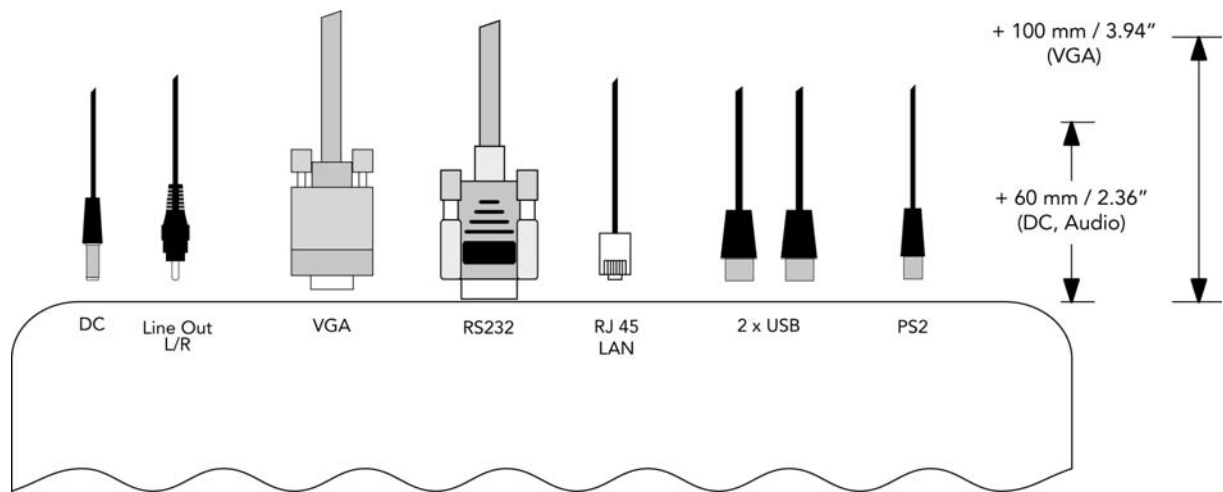**LCD**

Magnetic Mounting System
1 x 500 mm x 25 mm
3 x 275 mm x 25mm

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4. PRODUCTS

4.C Input Connectors

DC   Line Out L/R   VGA   RS232   RJ 45 LAN   2 x USB   PS2

+ 100 mm / 3.94" (VGA)
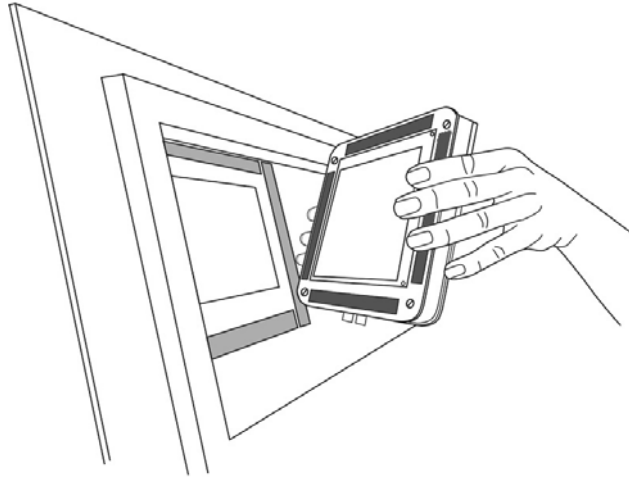
+ 60 mm / 2.36" (DC, Audio)

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5. MONTAGE

5.A Product

MIRROR IMAGE® LCD Magnetic Mounting System (LCD Mounting onto Mirror & Glass)

ad notam®'s patented Magnetic Mounting System provides placement versatility and easy installation for the **MIRROR IMAGE**® LCD onto the backside of mirror or glass panels. This extremely easy and yet sophisticated mounting system allows perfect integration of the **MIRROR IMAGE**® LCD to the mirror or glass panel, resulting in less than an 1.5" deep complete product.
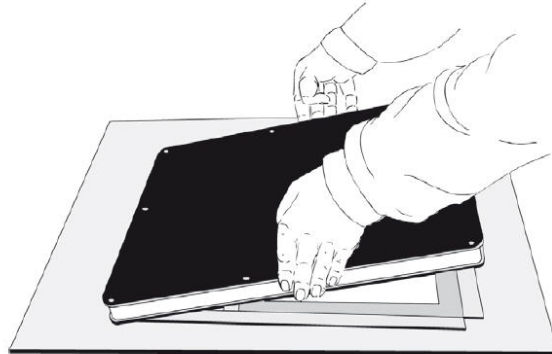
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5. MONTAGE

**5.B LCD**

Attaching the ad notam LCD

The device can now be affixed with the connections at the top of the rear side of the carrier surface.

Version 1: LCD horizontally on the carrier surface
Carefully press the device against the carrier surface until the magnetic strips adhere firmly to the device surface. Check the device for safe hold! Risk of injury! Make sure that no fingers are pinched when installing the LCD.
The magnetic adhesion is very strong.

Version 2: LCD vertically on the carrier surface
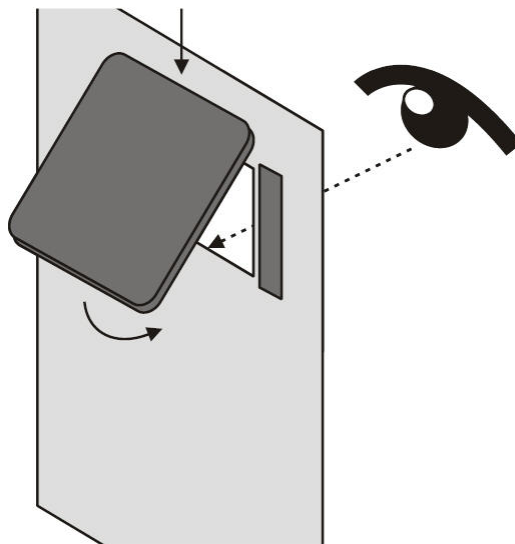
The device should be assembled vertically, in the case of large vertical carrier surfaces.
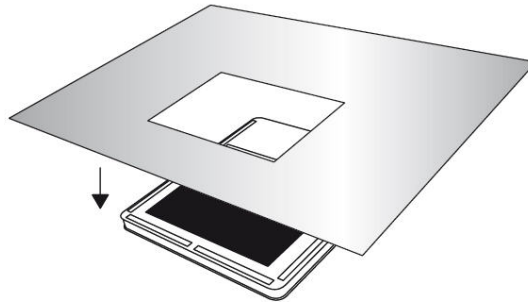A second person should check the LCD position from the other side.

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5. MONTAGE

5.C LCD

Version 3: Carrier surface on LCD

You can alternatively place the carrier surface onto the LCD from the front. This is a convenient installation method, if the LCD has already been fastened in or on the wall. We recommend this procedure for monitor sizes of 23" and more.

Connect the signal sources. The device must be adjusted to the optimal position after connecting Check when the screen is on, whether the picture area of the device is level with the edge of the visible surface of the carrier. The device can be easily moved to the appropriate position because it is only held in place by the magnet. More force is needed to correctly position larger models. Proceed very carefully.
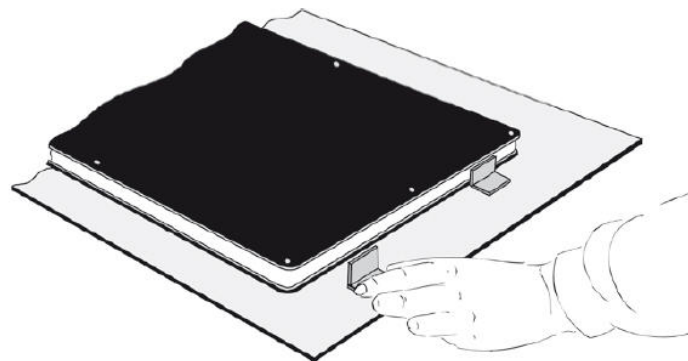
Attaching the additional fastening angles to the lower surface of the device completes the assembly. Both fastening angles are bonded to the rear side of the carrier surface directly under the device for this purpose. This prevents later slipping of the device due to vibrations or the normal effects of gravity.

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6. ACCESSORIES / DELIVERY SCOPE

Mounting Systems for ad notam LCD

Art.No.	Description	Unit
MHS 170 PC	Magnetic mounting system MHS 17.0 PC	

Cable Sets for ad notam LCD

Art.No.	Description	Unit
CSET-1	Cable Set 1	
CSET-2	Cable Set 2	
CSET-3	Cable Set 3	
CSET-4	Cable Set 4	
CSET-5	Cable Set 5	
CSET-6	Cable Set 6	
CSET-7	Cable Set 7	
CSET-8	Cable Set 8	

Remote Controls for ad notam LCD

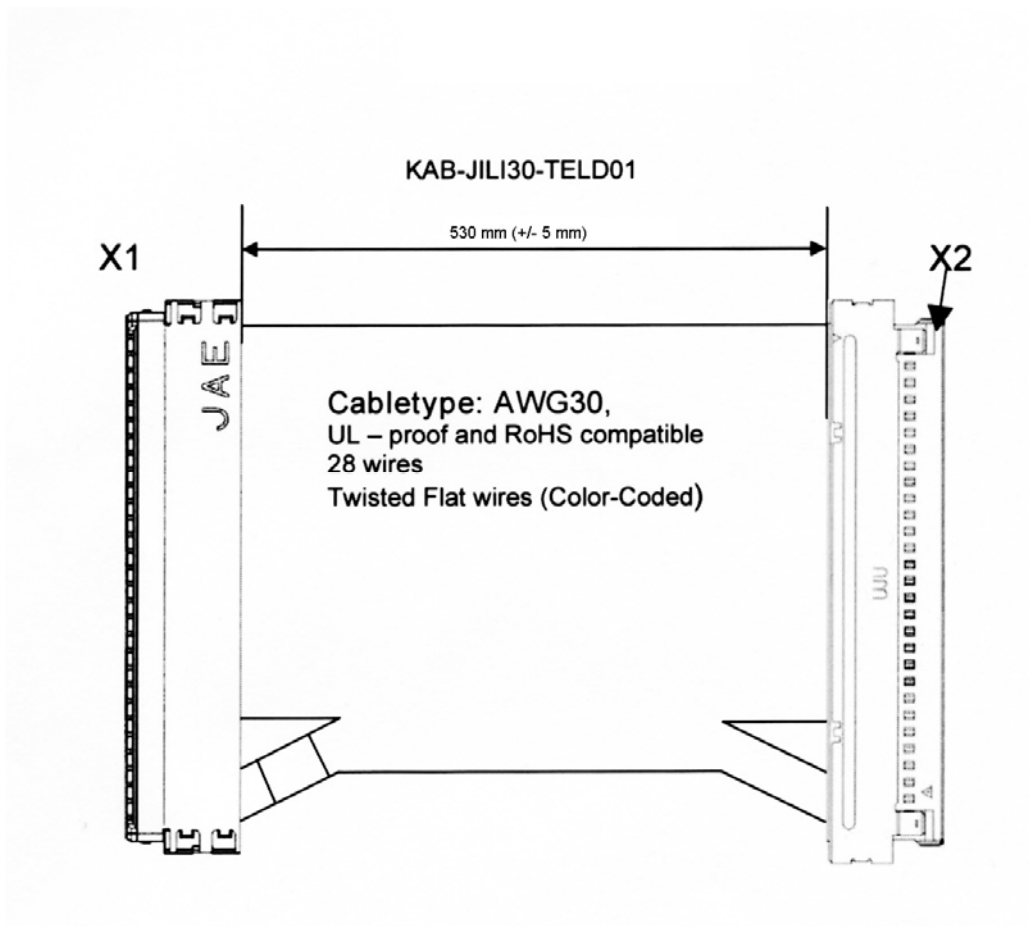| Art.No.	Description	Unit
AQUA RF 3	RF remote control AQUA 3, water resistant	
AQUA IR 2	IR remote control AQUA 2, water-resistant	
NUM RF 5	RF remote control SLIMLINE 5	
NUM IR 4	IR remote control SLIMLINE 4	

Modules & Options for ad notam LCD

Art.No.	Description	Unit
HA-IR-EYE	Additional Infrared Module	
HA-RS232	Interactive Module RS 232	
HA-SM-EL	Special Mounting Frame (Elevator)	
HA-WI-AN_1	Wireless Video System / PAL-SECAM	
HA-WI-AN_2	Wireless Video System / NTSC	

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6. ACCESSORIES / DELIVERY SCOPE

6.B CABLE SET

KAB-JILI30-TELD01

530 mm (+/- 5 mm)

X1

X2

JAE

Cabletype: AWG30,
UL – proof and RoHS compatible
28 wires
Twisted Flat wires (Color-Coded)

6.B CABLE SET

2.0	Technical Information Summary
	KAB-JILI30-TELD03 is used to connect Samsung LTM190E4-L02 type panels to Kontron´s flat panel controllers with JILI30 interface.

3.0	Configuration
	Caution! The supply voltage of the flat panel must be configured on the flat panel controller. See the technical manual of the specific controller.

4.0	Connectors & Cables	
4.1	JILI30 connector	X1
4.2	Panel connector	X2

4.1	JILI30 connector X1

Connector Single Row 1,00 mm, 30 Contacts
JAE FI-X30H

Description	Name	Pin	Pin	Name	Description
Receiver Signal 0	FTX0-	1	2	FTX0+	Receiver Signal 0
Receiver Signal 1	FTX1-	3	4	FTX1+	Receiver Signal 1
Receiver Signal 2	FTX2-	5	6	FTX2+	Receiver Signal 2
Power Ground	GND	7	8	FTXC-	Receiver Signal CLK
Receiver Signal CLK	FTXC+	9	10	FTX3-	Receiver Signal 3
Receiver Signal 3	FTX3+	11	12	STX0-	Receiver Signal 0
Receiver Signal 0	STX0+	13	14	GND	Power Ground
Receiver Signal 1	STX1-	15	16	STX1+	Receiver Signal 1
Power Ground	GND	17	18	STX2-	Receiver Signal 2
Receiver Signal 2	STX2+	19	20	STXC-	Receiver Signal CLK
Receiver Signal CLK	STXC+	21	22	STX3-	Receiver Signal 3
Receiver Signal 3	STX3+	23	24	GND	Power Ground
Not connected	NC	25	26	NC	Not connected
Not connected	NC	27	28	SW_VCC	Panel Power
Panel Power	SW_VCC	29	30	SW_VCC	Panel Power

6. ACCESSORIES / DELIVERY SCOPE

6.B CABLE SET

4.2	Panel connector X2				
	Connector Single Row 1,00 mm, 30 Contacts UJU IN-30-OB100 (HP100-C30N-N15)				
Description	Name	Pin	Pin	Name	Description
Receiver Signal 0	FTX0-	1	2	FTX0+	Receiver Signal 0
Receiver Signal 1	FTX1-	3	4	FTX1+	Receiver Signal 1
Receiver Signal 2	FTX2-	5	6	FTX2+	Receiver Signal 2
Power Ground	GND	7	8	FTXC-	Receiver Signal CLK
Receiver Signal CLK	FTXC+	9	10	FTX3-	Receiver Signal 3
Receiver Signal 3	FTX3+	11	12	STX0-	Receiver Signal 0
Receiver Signal 0	STX0+	13	14	GND	Power Ground
Receiver Signal 1	STX1-	15	16	STX1+	Receiver Signal 1
Power Ground	GND	17	18	STX2-	Receiver Signal 2
Receiver Signal 2	STX2+	19	20	STXC-	Receiver Signal CLK
Receiver Signal CLK	STXC+	21	22	STX3-	Receiver Signal 3
Receiver Signal 3	STX3+	23	24	GND	Power Ground
Not connected	NC	25	26	NC	Not connected
Not connected	NC	27	28	SW_VCC	Panel Power
Panel Power	SW_VCC	29	30	SW_VCC	Panel Power

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7. REGISTRATION

7.A Product

Rules/regulations	CE Class B, EN 55103-1,EN 61000-4-2 (acc. to DIN VDE 0875 Section 103-1),TCO 99, UL60950, RF: EN 300-220-1-3, EN 301489-3	

7.B Power Supply

Rules/regulations	DC 12V; security / Sicherheit: UL99BJE176177, FCC, CE, GS Connector/Hohlbuchse 2,1mm DIN 45323	

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8. GENERAL PRECAUTIONS

Handling

a) When the module is assmbled into a system, it should be attached firmly using all mounting holes. Be careful not to twist and bend the modules.

b) Refrain from strong mechanical shock and / or any force to the module. In addition to damage, this may cause improper operation or damage to the module and CCFL black-light.

c) Note that polarizers are very fragile and can be easily damaged. Do not press or scratch the surface harder than a HB pencil lead.

d) Wipe off water droplets or oil immediately. If you leave the droplets for a long time, Staining and discoloration may occur.

e) If the surface of the polarizer is dirty, clean it using absorbent cotton or soft cloth.

f) The desirable cleaners are water, IPA (Isopropyl Alcohol) or Hexane. Do not use Ketone type materials (ex. Acetone), Ethyl alcohol, Toluene, Ethyl acid or Methyl chloride. It may cause permanent polarizer damage due to the chemical reaction.

g) If the liquid crystal material leaks from the panel, it should be kept away from the eyes and mouth. In case of contact with skin or clothes, thoroughly wash it away with soap and water.

h) Protect the module from static electricity. It may cause damage to the C-MOS Gate Array IC.

i) Use finger-stalls with soft gloves to keep display clean during the incoming inspection and the assembly process.

j) Do not disassemble the module.

k) Do not pull or fold the lamp wire.

l) Do not adjust the variable resistor located on the back side.

m) I/F connector pins should not be touched directly with bare hands.

8.1. Storage

a) Do not expose the module in high temperature, and/or high humidity for a long time. It is highly recommended to store the module within the temperature from 0 to 35°C and relative humidity of less than 70%.

b) Do not store the TFT-LCD module in direct sunlight. The module shall be stored in a dark place. Prolonged exposure to sunlight or fluorescent light during the storage will damage the module.

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8. GENERAL PRECAUTIONS

8.2

a) Do not connect or disconnect the module in the "Power on" condition.

b) Power supply should always be turned on/off by following item *6.3 "Power on/off sequence"*

c) The module has high frequency circuits. Sufficient suppression to the electromagnetic interference shall be done by system manufacturers. Grounding and shielding methods may be important to minimize the interference.

d) The cable between the back-light connector and its inverter power supply should be at the minimum length possible to be connected directly. The longer cable between the back-light and the inverter may cause lower luminance of lamp (CCFT) and may require higher startup voltage (Vs.).

8.3

Operation Condition Guide

a) The LCD product should be operated under normal conditions.
   Normal condition is defined as below;
- Temperature: 20+-15°C
- Humidity: 65+-20%
- Display pattern: continually changing pattern (not stationery)

b) If the product will be used in extreme conditions such as high temperature, humidity, display patterns or operation time etc…, It is strongly recommended to contact SEC for Application engineering advice. Otherwise, its reliability and function may not be guaranteed. Extreme conditions are commonly found at Airports, Transit Stations, Banks, Stock market, and Controlling systems.

8.4

a) Use Ultra-violet light filters if outdoor operation is necessary.

b) Avoid water condensation. Moisture may penetrate sensitive electrical connections resulting in improper operation.

c) Do not exceed the absolute maximum rating values. (supply voltage variation, input voltage variation, variation in part contents and environmental temperaturel, etc…) Otherwise, the module may be damaged.

d) If the module displays the same pattern continuosly for a long period of time, it can result in the situation where the image "sticks" (remains) on the screen. We recommend that you should discuss SEC when you want the module to be operated in displaying the same pattern for a long time.

e) The module has sensitive PCB circuitry on the back side and should be handled carefully in order prevent stress and possible failure.