General Specifications

Mechanical

Material: Stainless Steel (304) front face / Anodised Aluminium rear face
Mounting: Cased (VESA 75 mount) or Bezel
Dimensions (mm): 584 (W) x 384 (H) x 100.5 (D) cased
Weight (g): 15Kg

Environmental

Operating Temp.: PC: -5°C to +45°C cased, -5°C to +50°C bezel   Monitor: -10°C to +55°C
Storage Temp.: -20°C to +70°C
Relative Humidity: 95% non-condensing
Seal: IP65 / IP67 / IP69K

Electrical and Electronic

Supply Voltage: 12VDC, 12-18VDC (BT), 24VDC,
9-33VDC, or 95-265VAC
Power Consumption: PC – Typically 50W   Heated PC – Typically 170W*   Monitor – Typically 30W
* Not available on DC options
Display: 21.5" 300cd/m² 16:9 (1920 x 1080) TFT-LCD LED backlit
Active Area: 476.64(H) x 268.11(V) mm
Motherboard: See Appendix A

General

Warranty: 3 year standard return to base
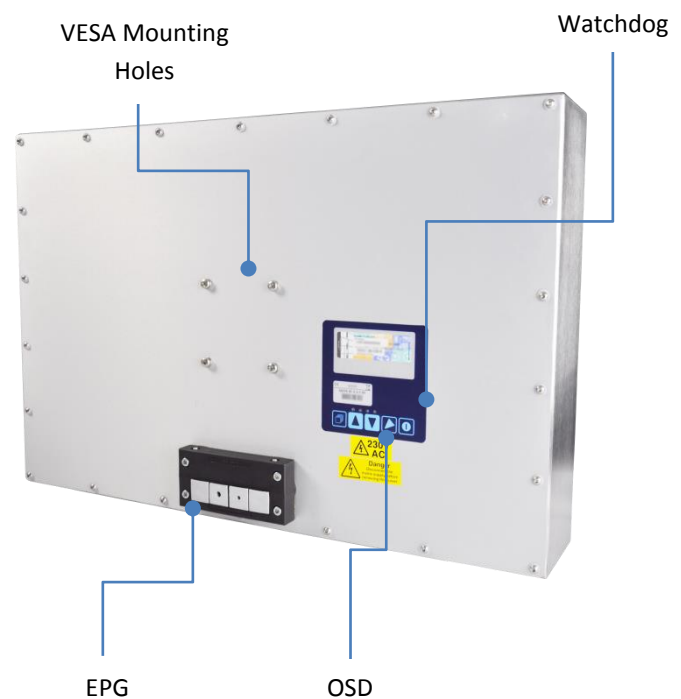Extendable to 5 years if required

Watchdog

Continually monitors and records internal operating conditions, protecting the hardware. In conditions outside the operating temperature watchdog will prevent start-up. Four rear panel LEDs indicate to the operator the status of fans, internal temperature, motherboard reset and drive activity. See separate datasheet that can be found on our website for more information, located in the Support tab of the product page.

Front View

IP69 Polycarbonate Protected
PCAP Touchscreen

LED Backlit Display

Stainless Steel
Enclosure

Rear View

VESA Mounting
Holes

Watchdog

EPG

OSD

COMPUTERS | WORK STATIONS | MONITORS | KEYBOARDS | TRACKERBALLS

Options and Customisation

Touchscreens

PCAP: Projected Capacitive touchscreen behind a 4mm flush filter (see spec below)

                         Material 2.1mm tempered glass with 0.57mm sensor
                         Hardness 5H, Transparency 91% or more
                         Connectivity USB or RS232

No Touchscreen: 4mm flush filter Polycarbonate with hard coat and anti-newton ring coatings
                         Material UV stabilised clear transparent polycarbonate
                         Hardness 8H

Options

Monitor only   VGA, DVI, and HDMI. (DP+ via an adapter)
KVM Extenders   See Appendix C
CKS Thin Client   Based on our standard S22 product with Windows 7 Embedded.
Axel Thin Client   This can be built into the S22 or supplied separately
Wi-Fi   Communication is available via an external antenna. Fully compliant with IEEE's security 802.11b
                      or 802.11g (2.4 GHz) standards with WPA/WEP support.
High Bright Display   For sunlight readable display
Thermal Control   Internal heater PTC F-Plate (2 x 60W) to extend to -30°C and/or external waterproof fan
                      assembly to extend to +50°C
Fail Safe   See separate datasheet that can be found on our website for more information, located in the
                      Support tab of the product page.
Mounting   Mounting kits include pedestal and wall mount brackets

Customisation

Colour   Full customisation of case colour and logos available.
OS / Software   Contact us for further details.
Output Sockets   These can be customised to suit your requirements.

Appendix A

Motherboard	BT	I7
Form Factor	Mini-ITX	Mini-ITX
CPU	Intel® Baytrail-M/D™ J1900 2.00Ghz Supports Hyper-Threading	Intel® Core™ i7-6700TE 2.40Ghz Supports Hyper-Threading
Core Number	4	4
Chipset	-	Intel® H110
BIOS	UEFI	AMI UEFI
Graphics	Intel® Gen7 Intel Graphics DX11™ , OGL3.2	Intel® 6th Generation CPU integrated
LVDS	Dual Channel up to 1920 x 1080	Dual Channel up to 1920 x 1080
Display	CRT + LVDS	CRT + LVDS
HDMI	Supports HDMI 1.3a, max resolution 1920 x 1080	3840 x 2160 @ 30 Hz, 2560 x 1600 @ 60 Hz
RAM	Up to 16GB (DDR3-1333)	Up to 32GB (DDR4-2133)
SATA	2 x SATA3 (6.0Gb/s)	4 x SATA3 (6.0Gb/s)
Mini-PCIe	1 x Half-Sized	1 x Half-Sized
m-SATA	1	1
PCI / PCIe	N/A	N/A
Serial Ports	3 x RS232/RS422/485, 1 x RS232	2 x RS232/RS422/485 , 1 x RS232
USB Ports	2 x USB2, 2 x USB3 // 4 x USB2, 2 x USB3	2 x USB2, 4 x USB3 // 4 x USB2, 4 x USB3
Keyboard	1 x PS2	1 (shared)
Mouse	1 x PS2	1 (shared)
Ethernet	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps
Parallel Port	1 x LPT1	N/A
Audio	HD Audio with 3W Amplifier	HD Audio with 2 x 6W Amplifier
Power	50W	60W
Storage Media	16GB – 128GB SSD (SLC/MLC) or 500GB HDD	16GB – 128GB SSD (SLC/MLC) or 500GB HDD
Operating System	W7e 32/64-bit, W7 FES 32/64-bit, W10 IoT Enterprise LTSB 32/64-bit, DOS	W7e 64-bit, W7 FES 64-bit, W10 IoT Enterprise LTSB 64-bit, DOS

Appendix B

Axel Thin Client	
Description	S22 monitor with Axel M85 built in
Keyboard	1 x PS2
Mouse	1 x PS2
USB	4
Ethernet	1 x TCP/IP 10/100BaseT LAN
Serial	2 x RS232
Parallel Port	1 x LPT1
Graphical Sessions	Microsoft TSE (from NT4 to 2008R2) / RemoteApp / Multipoint 2011, Citrix XenApp & Metaframe / XenDesktop, VMware View, Linux (VNC Client)
Text Sessions	AS/400 iSeries: 5250, S/390 zSeries: 3270, Unix/Linux: Telnet, SSH & TTY (ANSI, SCO OPENSERVER, UNIX SCO 3.2.2, UNIX SCO 3.2.4, XENIX SCO, ANSI INTERACTIVE, UNIX SVR4, ANSI , RS6000, ANSI DATA GENERAL, UNIXWARE 7, LINUX, VT100/VT220, VT52, WYSE 50/60/120, DS VP-A2, ADDS VP-60, IBM 3151, ATO300, PRISM, REAL/32, THEOS, OS2 POLYMOD2, SM9400, SM9412, TWINSERVER, PROLOGUE 3, TVI 950, QVT119+, C332
Administration	Remote interactive set-up / Text sessions remote control / VNC remote control / Downloadable firmware / AXRM compliant

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Appendix C

KVM CE770

Function			CE770L (Local)	CE770R (Remote)
Connectors	Console Ports	Keyboard	1 x USB Type A Female (White)	
		Video	1 x HDB-15 Female (Blue)	
		Mouse	1 x USB Type A Female (White)	
		Speakers	1 x Mini Stereo Jack Female (Green)	
		Mic.	1 x Mini Stereo Jack Female (Pink)	
		RS-232	1 x DB-9 Female (Black)	1 x DB-9 Male (Black)
	KVM Ports	Keyboard/ Video / Mouse	1 x SPHD-17 Female (Yellow)	N/A
		Speakers	1 x Mini Stereo Jack (Green)	
		Mic.	1 x Mini Stereo Jack (Pink)	
	Power		1 x DC Jack (Black)	
	Unit to Unit		1 x RJ-45 Female (Black)	
LEDs	Local		1 (Green)	N/A
	Remote		1 (Green)	N/A
	B		N/A	1 (Blue)
	G	Link	N/A	1 (Orange/Green)
	R	Remote	N/A	1 (Red)
Pushbuttons	Operating Mode Selection		1 x Pushbutton	N/A
	Color / Up		N/A	1 x Pushbutton
	Select / Down		N/A	1 x Pushbutton
Emulation	Keyboard / Mouse		USB	
Video			1920 x 1200 @ 60Hz (150 m); 1280 x 1024 @ 60Hz(300m); DDC, DDC2, DDC2B	
Power Consumption			DC5.3V/3.5W	DC5.3V/5.1W
Environment	Operating Temp.		0 - 50°C	
	Storage Temp.		-20 - 60°C	
	Humidity		0-80% RH, Non-condensing	
Physical Properties	Housing		Metal	
	Weight		0.49 kg	0.48 kg
	Dimensions (L x W x H)		20.20x8.64x2.50cm	20.20x8.64x2.50cm

KVM CE610

Function		CE610L (Local)	CE610R (Remote)
Connectors	DVI In	1 x DVI-D Female (White)	N/A
	DVI Out	N/A	1 x DVI-D Female (White)
	USB	1 x USB Type B Female (White)	3 x USB Type A Female (White)
	Power	1 x DC Jack	
	F/W Upgrade	1 x RJ-11 Female (Black)	
	Unit to Unit	1 x RJ-45 Female (Black)	
LEDs	Power	1 (Green)	
	Link	1 (Green)	
	USB	1 (Green)	
	Video	1 (Green)	
Emulation	Keyboard / Mouse	USB	
Video		1920 x 1200 @ 60Hz (100 m)	
Power Consumption		DC 5V, 15 W	
Environment	Operating Temp.	0–50°C	
	Storage Temp.	-20–60°C	
	Humidity	0–80% RH, Non-condensing	
Physical Properties	Housing	Metal	
	Weight	0.61 kg	0.62 kg
	Dimensions (L x W x H)	18.20x11.79x2.87cm	18.20x11.79x2.87cm

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Appendix D

The connector plate is rated at IP67, achieving complete protection against dust ingress, and effective protection against water ingress in harmful quantities when immersed in water for up to 1m of submersion.

A simple quarter turn is all that is required to lock your connector in place, making sure that you lose no connectivity to the PC due to dust or water ingress, or from being disconnected accidentally.

The table below shows the maximum quantity of each port per motherboard which is available to bring out to the connector plate.

MAX QTYs of each port*

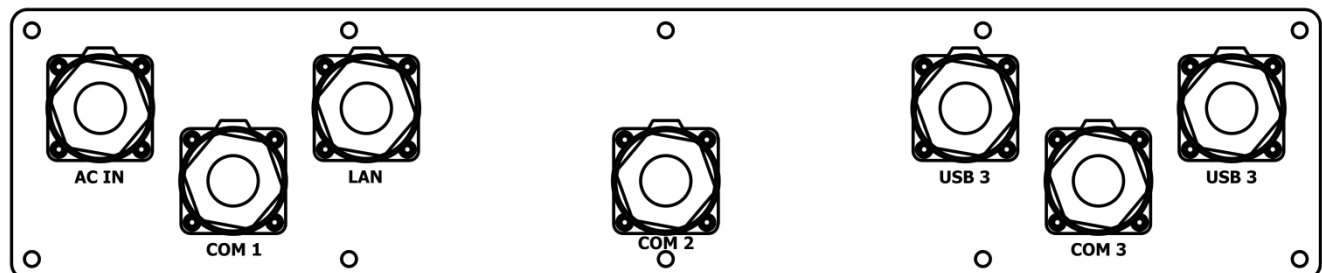| Motherboard	BT	i5/i7
AC/DC POWER IN	1	1
LAN	2	2
USB3	2	4
USB2	2	4
COM	3	2

*MAX QTYs may have the potential to be increased for custom projects and requirements.

Using our standard 7-hole connector plate, the desired connector area configuration may only be reserved to 7 connector I/Os. One port must be reserved to AC/DC POWER IN, unless a different method of powering is used such as PoE (Power over Ethernet).

Example configurations using 7-hole layout connector plate:

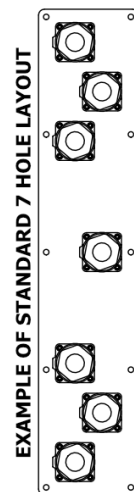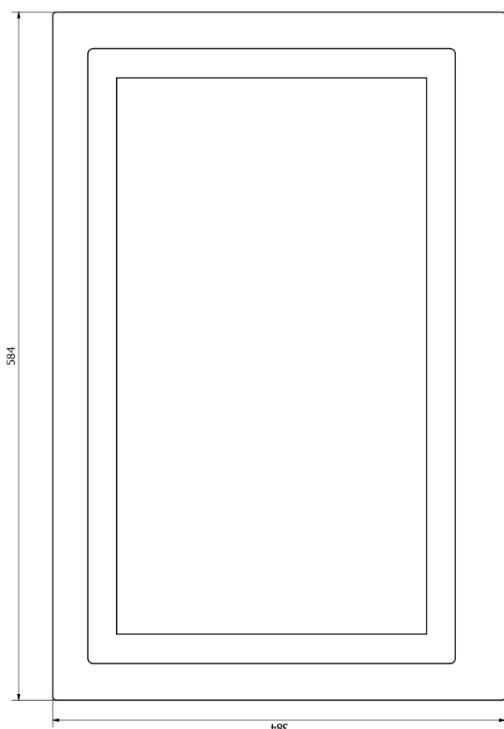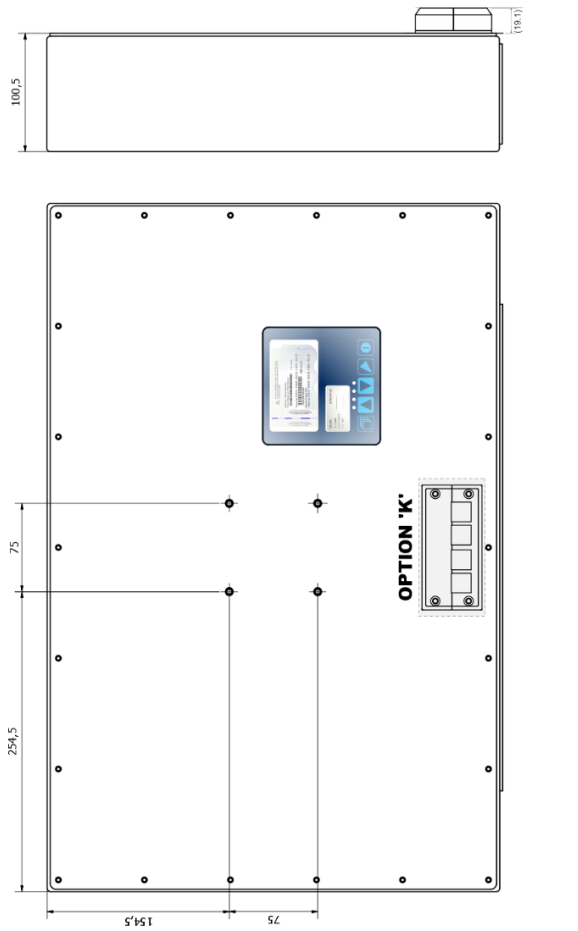| Motherboard	BT	i5/i7
AC/DC POWER IN	1	1
LAN	1	2
USB3	2	2
USB2	0	2
COM	3	0

The below diagram is an illustration of the example configuration for the BT motherboard in the table above.

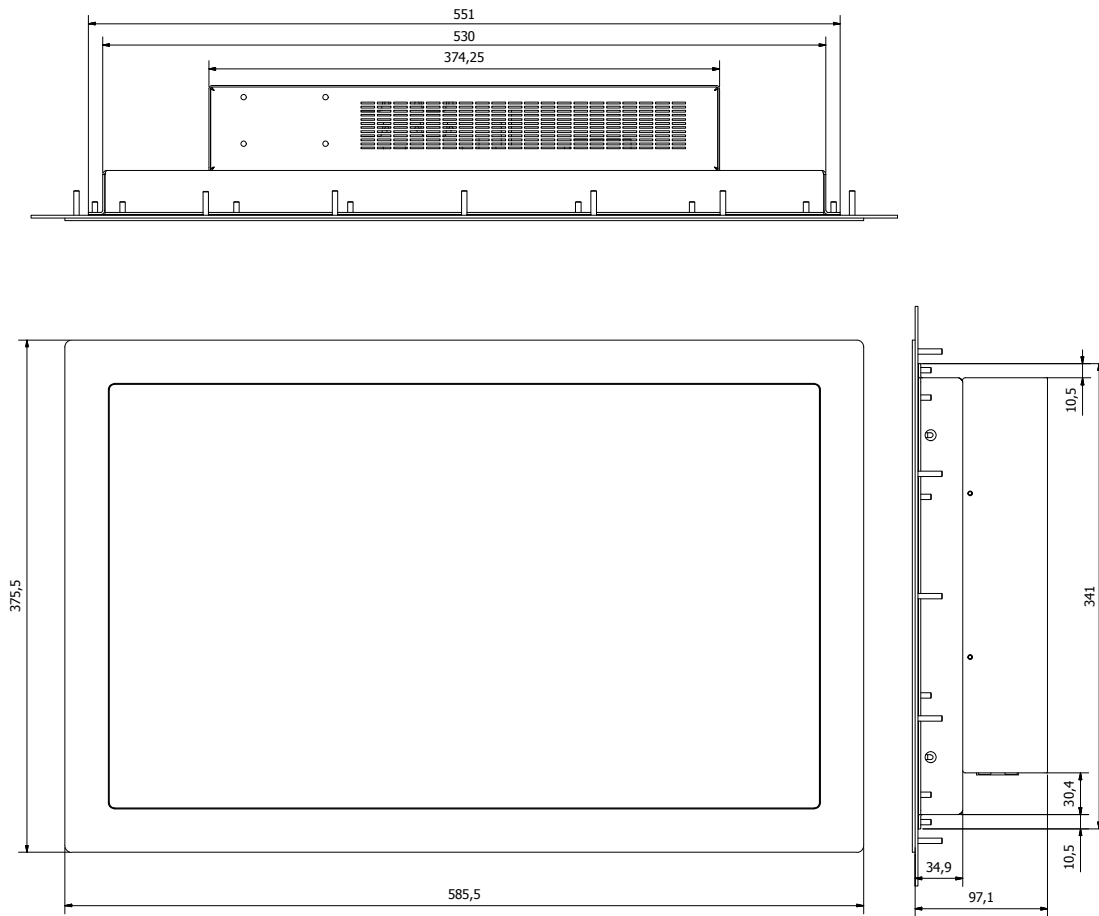Cables are available in 2 or 5 metres length.

Dimensions

Option 'K'

Mechanical	Rear/Bottom Seal	Description
C	IP67	Cased Client PC, Bottom outlet 4 connections
D	IP67	Cased Client PC, Bottom outlet 7 connections
K	IP65	Cased Client PC, Rear outlet EPG
L	IP65	Cased Monitor/ Thin Client, Rear outlet EPG
Z	IP22	1.5mm Bezel, Bottom outlet connections

OPTION 'K'

CONNECTOR PLATE SEE APPENDIX D

EXAMPLE OF STANDARD 7 HOLE LAYOUT

Dimensions

Bezel Mount

Bezel mount fixing detail

555 (CUTOUT)

20 x M4x20 WELD STUD

345 (CUTOUT)

89,63

94,75

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