

Monitor

Industrial monitors with touch LCD display from 12" to 19" in panel, VESA or rack mounting system and different materials, available also with integrated remotation of video and USB signals to solve distance connection issues.



Monitor

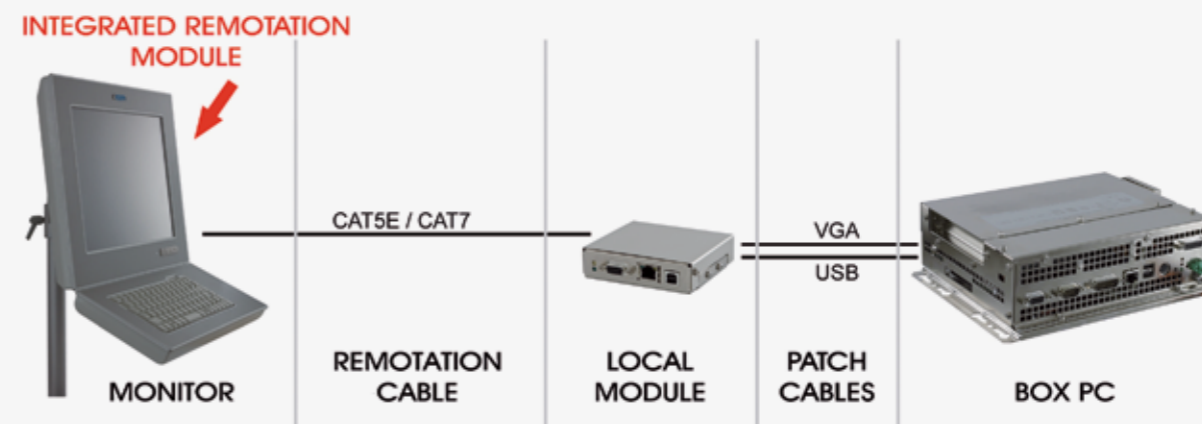
		MT	MV	MA	MP	MR
	LCD	8,4" 12" 15" 17" 19"	15"	12" 15" 17" 19"	12" 15" 17"	12" 15"
	INSTALLATION	Panel	VESA	Panel	Panel	Rack
	FRONT PANEL	Alu INOX	Alu	Alu	Plastic	Alu
	VIDEO INPUT	VGA	VGA	VGA DVI	VGA DVI	VGA DVI
	REMOTATION	Yes	Yes	No	No	No
	POWER SUPPLY	12VDC 24VDC 220VAC	24VDC	24VDC 220VAC	24VDC 220VAC	24VDC 220VAC
	PAGE	84	86	88	88	88

Panel: panel mount | VESA: VESA mount | Rack: 19" rack mount | Alu: aluminium | INOX: stainless steel | Plastic: plastic | Res 4: resistive 4 wires | Res 5: resistive 5 wires | GFG: Glass Film Glass

Remotation by ASEM and USB devices

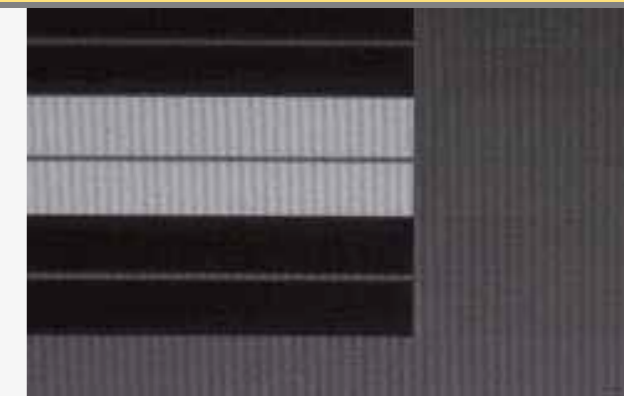
Remotation developed by ASEM is based on electric transformation of video and USB signals. Signals are made more robust and transmitted by differential pairs on Ethernet cable. Remotation kit is composed by a local transmitter module, pla-

ced near PC, and a remote receiver module that is integrated in ASEM's monitors. This technology let reach high quality for distances up to 40mt using automatic equalization for received signals, because loss and delay introduced by remotation are compensated.



Related problems

Typical remotation problems are from two types: signal attenuation and delay between signals couples. Attenuation shows his consequences in two ways: bad video reproduction in high speed transitions images and shadows at the end of monochromatic horizontal figures. ASEM remotation is able to correct the first effect of the attenuation. The second effect is not worth considering, can be seen only for distances more than 20mt and is common to most devices on the market. Delay between signals couples is shown as a coloured shadow on the object edges, mouse arrow for example, it's due to colors' different position on screen. This difect is subjective by observator and is present with low quality cables. Cables supplied by ASEM guarantee the absence of this kind of image weakness.



USB standard and system limitations

USB standard permits the link up to 127 devices by a tree structure obtained with HUB devices. USB communication has timing that have to be respected and every HUB device introduce a delay in signals propagation that create in fact the limit of 5 HUB connected consequently. Remotation by serialization is a complex process that also introduces delay in signals transmission. Due to this delay is possible that remotation system doesn't work when we add an external USB HUB, even connected PC side or monitor side. The event that system work or doesn't work depend from many factors, for examplly the quality of the added HUB and the lenght and quality of the remotation cable. Therefore this kind of configuration is not admitted. We underline that on the market exist USB devices, for example keyboards, that have USB HUB inside.



MTXX

MTXX is the first panel mounting industrial monitor with integrated remotation of USB and VGA interfaces up to 40mt.

Available with a 8.4", 12.1", 15", 17" and 19" LCD display with an optional five-wire resistive touch screen, the MT family uses the same front frame of the OT family in aluminium or optional INOX.

MTXX monitors have 1 USB port on the front and 2 USB ports on the rear connections with integrated HUB.



Image 1: INOX true flat version
Image 2: Optional remotation with receiver module integrated

FEATURES PLUS

- INTEGRATED REMOTATION OF USB AND VIDEO SIGNALS UP TO 40MT OPTIONAL
- 1 USB FRONTAL PORT AND 2 REAR PORTS
- RESISTIVE TOUCHSCREEN WITH SERIAL OR USB INTERFACE
- SAME FRONT PANEL OF OT FAMILY
- INOX TRUEFLAT FRONT PANEL OPTIONAL

System characteristics						
Display	Size	8,4"	12,1"	15"	17"	19"
	Type	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT
	Resolution	800 x 600 (SVGA)	1024 x 768 (XGA)	1024 x 768 (XGA)	1280 x 1024 (SXGA)	1280 x 1024 (SXGA)
	Colors	256K	256K	16M	16M	16M
	Pixel pitch	0,213 x 0,213mm	0,240 x 0,240mm	0,297 x 0,297mm	0,264 x 0,264mm	0,294 x 0,294mm
	Backlight	CCFL 2 lamps	CCFL 2 lamps	CCFL 4 lamps	CCFL 4 lamps	CCFL 2 lamps
	Luminance	400cd/m2	400cd/m2	450cd/m2	300cd/m2	300cd/m2
	Contrast	250:1	500:1	400:1	1000:1	1000:1
	Viewing angle	120° H, 100° V	120° H, 100° V	160° H, 140° V	160° H, 160° V	160° H, 160° V
	MTTF	-	60000h	50000h	50000h	-
Video inputs	Type	1 x VGA (DB15F) , 1 x DVI-D single link				
Touchscreen	Technology	5 wires – analog – resistive				
	Light transmissiion	80% ±2%				
	Lifetime	35mln activations				
	Linearity deviation	< 1 %				
Interface	Serial / USB					
Serial interfaces	Type	1 x RS232 (DB9M) input for touchscreen				
USB interfaces	Type	2 x USB 2.0 (rear, TYPE-A, host port), 1 x USB 2.0 (front, TYPE-A, host port, protected), 1 x USB 2.0 (rear, TYPE-B, client port - HUB input)				
	Transfer rate	Up to 480Mbit (high speed)				
Buttons and leds	LEDs	Power				
	OSD	Yes, by 3 buttons on the back				
Remotation optional	Type	Serializaion of video and USB signals				
	Max length	20m, 30m, 40m				
	Cables type	CAT 5E, CAT7				
Electrical characteristics						
Power supply	Input voltage	12 VDC / 9÷36 VDC / 230 VAC				
Mechanical characteristics						
Case	Type	Panel mount				
	Material	Steel, electro zinc				
Front panel (note 1)	Protection	IP65		IP66K		
	Construction	Aluminum alloy with polycarbonate foil		Stainless Steel True Flat with polyester foil		
	Color	RAL 7035		RAL 7035		
Measurements mm		Aluminium (W x H x D)		Stainless Steel (W x H x D)		Cutout (W x H)
	8,4"	250 x 210 x 103		-		230 x 190
	12,1"	335 x 270 x 103		335 x 270 x 103		315 x 250
	15"	390 x 315 x 103		398 x 315 x 103		370 x 295
	17"	455 x 355 x 103		455 x 355 x 103		435 x 335
	19"	nd		-		nd
		nd		-		nd
		nd		-		nd
Enviromental characteristics						
Temperature	Operation	0° ÷ +45°C				
	Storage	-20° ÷ +60°C				
Humidity	Operation/Storage	80% (non-condensing)				
Warranty & Approvals						
CE	Emission	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker				
	Immunity Safety	Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety				
Warranty	Management	By ASEM headquarters				
	Standard	12 months				
	Extended	18 / 24 / 36 months (optional)				
Notes						
1	With stainless steel front panel, touchscreen in mandatory and have no USB port on the front					

MV15

The industrial monitor for arm mounting system stands out for its integrated remotation of USB and VGA interfaces, the reduced depth, the comprehensive configurations available and the highly integrated design. Available with a 15" LCD display with a fivewire resistive touch screen, the MV15 can be ordered to have an external keyboard and side control panels integrated with the system both aesthetically and functionally.



Image 1: Optional remotation: receiver module integrated
Image 2: 2 USB frontal ports
Image 3: Easy mounting system

FEATURES PLUS

- INTEGRATED REMOTATION OF USB AND VIDEO SIGNALS UP TO 40MT OPTIONAL
- SIDE MODULE WITH BUTTON AND LEDS PREDISPOSITION OPTIONAL
- KEYBOARD MODULE OPTIONAL
- COMPATIBILITY WITH VESA 75/100, RITTAL CP-S, ROLEC TARAPLUS

System characteristics			
Display	Size	15"	
	Type	Color LCD TFT	
	Resolution	1024 x 768 (XGA)	
	Colors	16M	
	Pixel pitch	0,297 x 0,297mm	
	Backlight	CCFL 4 lamps	
	Luminance	400cd/m2	
	Contrast	400:1	
	Viewing angle	150° H, 135° V	
	MTTF	35.000	
Video inputs	Type	1 x VGA (DB15F)	
Touchscreen	Technology	5 wires – analog – resistive	
	Light transmission	80% ±2%	
	Lifetime	35mln activations	
	Linearity deviation	< 1 %	
USB interfaces	Interface	USB	
	Type	2 x USB 2.0 (rear, TYPE-A, host port), 2 x USB 2.0 (front, TYPE-A, host port, protected), 1 x USB 2.0 (rear, TYPE-B, client port - HUB input) Up to 480Mbit (high speed)	
Buttons and leds	LEDs	Power/Status	
	OSD	Yes, by 3 buttons on the back	
Remotation optional note 1	Type	Serializaion of video and USB signals	
	Max length	20m, 30m, 40m	
	Cables type	CAT 5E, CAT7	
Side Modules optional	Position	Left, Right, Left&Right	
	Buttons and leds	Predisposition 2 x 4 matrix, holes Ø22	
	Labeling	Customizable	
Keyboard Module optional	Layout	Compact, 86 keys, US-international, anti-glare protection	
	Predisposition	emergency stop button, hole Ø22	
Electrical characteristics			
Power supply	Input voltage	9÷36 VDC, 230 VAC	
Mechanical characteristics			
Case	Type	For VESA 75-100 / RITTAL CP-S / ROLEC TARAPLUS arm mounting	
	Material	Steel painted	
Front panels monitor and modules	Color	RAL 9006 / 7024	
	Protection	IP65 frontal	
Measurements	Construction	Aluminum alloy with polycarbonate foil	
	Color	Pantone 429C	
	Monitor	Dimensions (W x H x D) - mm	Weight - Kg
	Side modules	400 x 335 x 50	8,0
	Keyboard	150 x 335 x 50	2,0
		400 x 180 x 37	3,0
Enviromental characteristics			
Temperature	Operation	0° ÷ +45°C	
	Storage	-0° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
	Immunity Safety		
Warranty	Management	By ASEM headquarters	
	Standard	12 months	
	Extended	18 / 24 / 36 months (optional)	
Notes			
1		Granted USB 1.1 using remotation, no external USB HUB admitted	

MAXX

MAXx is an industrial monitor for panel mount with aluminium front frame (IP65 frontal protection). It's available in 12,1", 15", 17" and 19" display size. Touchscreen is optional and has USB or serial interface.



12" 15" 17" 19"

Res 5 Panel Alu

VGA DVI No

24VDC 220VAC

MPXX

MPxx is an industrial monitor for panel mount with plastic front frame (IP65 frontal protection). It's available in 12,1", 15" and 17" display size. Touchscreen is optional and has USB or serial interface.



12" 15" 17" Res 5

Panel Plastic

VGA DVI No

24VDC 220VAC

MRXX

MRxx is an industrial monitor for 19" rack mount systems with aluminium front frame (IP65 frontal protection). It's available in 12,1" and 15" display size. Touchscreen is optional and has USB or serial interface.



12" 15" Res 5

Rack Alu

VGA DVI No

24VDC 220VAC

System characteristics					
Display	Model	MA, MP, MR	MA, MP, MR	MA, MP	MA
	Size	12,1"	15"	17"	19"
	Type	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT
	Resolution	800 x 600 (SVGA)	1024 x 768 (XGA)	1280 x 1024 (SXGA)	1280 x 1024 (SXGA)
	Colors	256K	16M	16M	16M
	Pixel pitch	0,307 x 0,307mm	0,297 x 0,297mm	0,264 x 0,264mm	0,294 x 0,294mm
	Backlight	CCFL 2 lamps	CCFL 4 lamps	CCFL 2 lamps	CCFL 2 lamps
	Luminance	400cd/m2	400cd/m2	300cd/m2	300cd/m2
	Contrast	500:1	400:1	1000:1	1000:1
	Viewing angle	120° H, 100° V	160° H, 140° V	160° H, 160° V	160° H, 160° V
MTBF	60.000h	50.000h	50.000h	-	
Video inputs	Type	1 x VGA (DB15F)		1 x DVI-D	
	Cable length	2m		1,8m	
Touchscreen	Technology	5 wires – analog – resistive			
	Light transmission	80% ±2%			
	Lifetime	35mln activations			
	Linearity deviation	< 1 %			
Serial interfaces	Type	1 x RS232 (DB9M) input for touchscreen			
	Buttons and leds	Power Yes, by 3 buttons on the back			
Electrical characteristics					
Power supply optional	Input voltage	90÷265 VAC 36W autoranging			
		18÷36 VDC 36 W autoranging			
Mechanical characteristics - MA Model					
Case	Type	Panel mount			
	Material	Steel, nickel treatment			
Front panel	Protection	IP65			
	Construction	Aluminum alloy			
Measurements mm	12,1"	Dimensions (W x H x D)		323 x 245	Weight - Kg
	15"	345 x 267 x 65		397 x 315	
	17"	421 x 337 x 71		435 x 335	
	19"	455 x 355 x 71		475 x 368	
		496 x 388 x 71			
Mechanical characteristics - MP Model					
Case	Type	Panel mount			
	Material	Steel, electro zinc			
Front panel	Protection	IP65			
	Construction	Plastic with polycarbonate foil			
	Color	Grey / PANTONE 428C			
Measurements mm	12,1"	Dimensions (W x H x D)		335 x 247	Weight (Kg)
	15"	360 x 275 x 71		397 x 285	
	17"	430 x 315 x 71		395 x 350	
		430 x 380 x 73			
Mechanical characteristics - MR Model					
Case	Type	19" Rack mount			
	Material	Steel, nickel treatment			
Front panel	Protection	IP65			
	Construction	Aluminium alloy			
Measurements mm	12,1"	Dimensions (W x H x D)		483 x 266 x 77	Weight (Kg)
	15"	483 x 355 x 77		5,5	
				6,8	
Environmental characteristics					
Temperature	Operation	0° ÷ +50°C			
	Storage	-0° ÷ +60°C			
Humidity	Operation/Storage	80% (non-condensing)			
Warranty & Approvals					
CE	Emission	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety			
	Immunity Safety				
Warranty	Management Standard	By ASEM headquarters			
	Extended	12 months			
		18 / 24 / 36 months (optional)			