

Atlas Industrial Flat Panel PC Monitors

ATM1900/ATM1900T

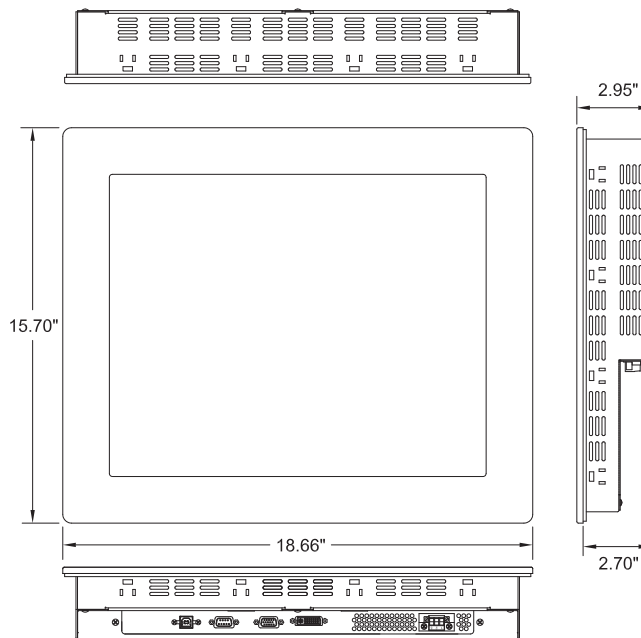
The **Atlas** ATM1900/ATM1900T is a high performance 19" color TFT flat panel monitor specifically designed for harsh industrial environments including Class I & II, Division 2 Hazardous Locations. The ATM1900/ATM1900T accepts standard analog VGA input, or digital DVI input, and can display all VESA video modes up to 1280 x 1024 at 75Hz with 16 million colors. An optional 5-wire analog touch screen (ATM1900T) is available that offers both RS-232 and USB interface capability. The monitor is housed in a heavy duty steel chassis with a powder coated machined aluminum bezel. The monitor is certified to NEMA 4/4X/12 standards, is UL/CUL listed, meets CE requirements and is RoHS compliant. Panel mounting is simplified using convenient mounting clips instead of conventional studs. All monitors are shipped with a power input wiring receptacle, 6' VGA cable, 6' RS-232 cable (ATM1900T only), 2m USB Cable (ATM1900T only), mounting hardware, Quick Installation Guide, and CD-ROM containing Hardware User's Guide (ATM-19-USER) and touch screen driver software for Windows 98/NT/2000/XP/Vista/7.



Specifications

- 19" color TFT LCD display
- UL 508 and UL 1604 listed for Hazardous Locations: Class I, Division 2, Groups A, B, C, D and Class II, Division 2, Groups F and G
- NEMA 4/4X/12 front bezel
- 2-year warranty
- RoHS compliant
- Integral 100-240 VAC power supply
- Simplified installation with no studs
- Thin design - only 2.7" behind bezel
- Accepts analog 15-pin video input, DVI-D
- VESA compliant - all modes up to SXGA, 16 million colors
- Optional 5-wire resistive touch screen with both RS-232 and USB interface

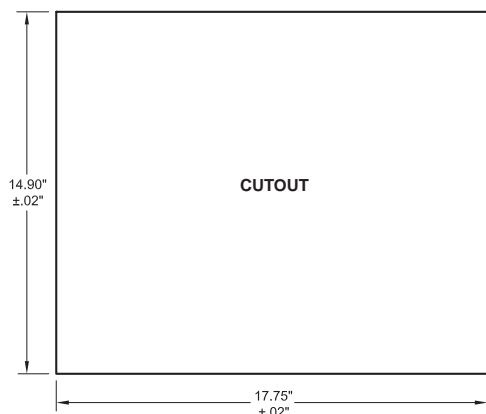
Dimensions



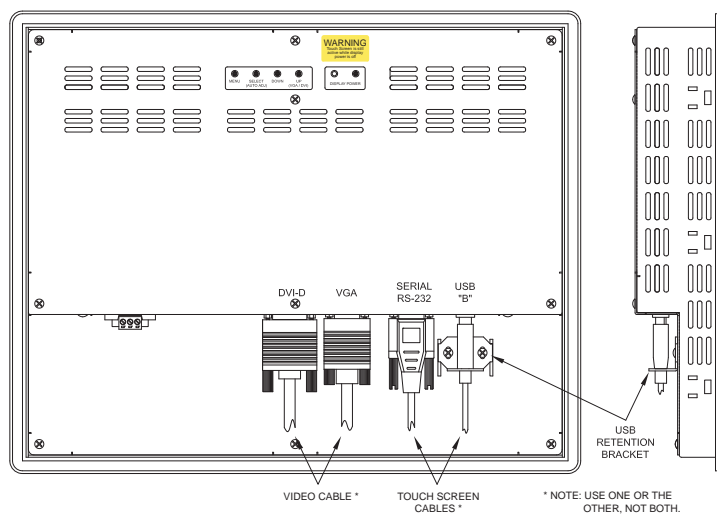
NOTE: Don't forget the optional cables shown on the Accessories page.



Mounting Cutout



Cable Connections



Atlas Industrial Flat Panel PC Monitors

LCD Monitor Specifications



LCD Monitor Specifications						
Part Numbers	ATM1500	ATM1500T	ATM1700	ATM1700T	ATM1900	ATM1900T
Nominal Size	15"		17"		19"	
Price	<--->	<--->	<--->	<--->	<--->	<--->
DISPLAY						
Display Type	TFT Active Matrix					
Display Diagonal Size	14.96"		17.04"		18.97"	
Display Size (Active Area H x W)	8.98" x 11.97"		10.64" x 13.30"		11.85" x 14.82"	
Native Resolution	XGA, 1024 x 768		SXGA, 1280 x 1024			
VESA Modes Supported	Up to 1280 x 1024 @75Hz					
Displayable Colors	16M					
Brightness, Typical	250 Nit				270 Nit	
Contrast Ratio, Typical	550:1		600:1		800:1	
Horizontal/Vertical View Angle, CR>5, Typical	160/140		160/160		178/178	
Backlight Life	40,000 hrs, Minimum		50,000 hrs, Minimum		40,000 hrs, Minimum	
Display Input Signal	Analog 15-Pin D-Sub		Analog 15-Pin D-Sub, DVI-D			
Impact Window	0.125" Lexan (polycarbonate), clear hard coat					
PHYSICAL						
Overall Monitor Dimensions (H x W x D)	12.80" x 15.80" x 2.65"		14.48" x 17.14" x 2.85"		15.7" x 18.66" x 2.95"	
Cutout Dimensions (H x W)	12.00" x 15.00"		13.70" x 16.35"		14.90" x 17.75"	
Chassis Depth	2.4"		2.6"		2.7"	
Bezel Construction	0.25" Machined Aluminum with recessed gasket pocket					
Bezel Finish	Dark Gray Textured Powder Coated					
Chassis Construction	16 Gauge RoHS Compliant CRS Steel					
Weight	12.5 lbs		17.5 lbs		21 lbs	
Shipping Weight	15 lbs		22 lbs		26 lbs	
ELECTRICAL						
AC Input Voltage	100 - 240 VAC, 50/60 Hz					
AC Input Current	0.5A Maximum		1A Maximum			
Input Power	20W		30W		35 W	
ENVIRONMENTAL						
Operating Temperature	0 to 50 °C (32 to 122 °F)					
Storage Temperature	-20 to 60 °C (-4 to 140 °F)					
Operating Humidity	20% to 80% RH, noncondensing					
Storage Humidity	10% to 90% RH, noncondensing					
Operating Shock	15g peak acceleration, 11msec					
Operating Vibration 5-2000 Hz	0.006" peak to peak, 1g max					
Operating Altitude	Sea level - 10,000 feet					
AGENCY						
Front Panel NEMA Rating	NEMA 4/4X/12, IP65					
FCC	47 CFR, Part 15, Class A					
EU CE Marking Compliance	CE, EN 55022: Class A, EN 61000-3-2: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1					
Safety Agency Approvals	UL 508 Listed (file #E157382), UL 1604 Listed* (file #E200031), cUL Listed CSA C22.2, #142, CSA C22.2, #143*					

* Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G

Atlas Industrial Flat Panel PC Monitors

LCD Monitor Specifications (cont'd)

Touch Screen Specifications			
Part Numbers	ATM1500T	ATM1700T	ATM1900T
TOUCH SCREEN (Optional)			
Touch Screen Technology	5- Wire Analog Resistive		
Interface	USB 1.1 and Serial RS-232		
Resolution	4096 x 4096		
Positional Accuracy (Maximum Error)	0.18"		0.19"
Positional Accuracy (Standard Deviation of Error)	<0.08"		
Screen Finish	Anti-Reflective, Surface Durability - 3H per ASTM D3363		
Chemical Resistance	Acetone, Methylene Chloride, MEK, Isopropyl Alcohol, Hexane, Turpentine, Mineral Spirits, Unleaded gasoline, Diesel fuel, Motor oil, Transmission fluid, Antifreeze, vinegar, ammonia-based glass cleaner.		
Electrostatic Protection	Per EN 61000-4-2, 1995, Withstands 20 discharges up to 15 kV		
Expected Life	>35,000,000 Activations		

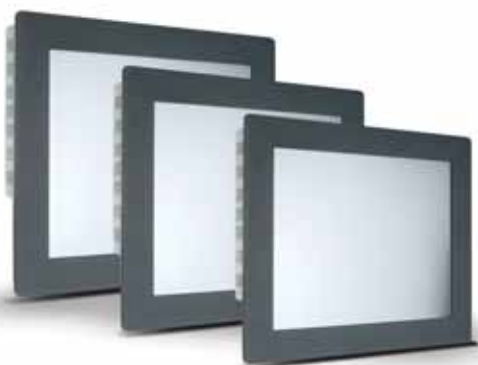


Supported PC Video Modes

Video Modes						
Mode	Dot Clock (MHz)	Horizontal Freq (KHZ)	Vertical Freq (Hz)	H Sync Polarity	V Sync Polarity	Display Modes for Best Image Quality
640 x 350 @ 70Hz	25.144	31.430	70.000	P	N	
640 x 400 @ 70Hz	28.287	31.430	70.000	N	P	
720 x 400 @ 70Hz	28.287	31.430	70.000	N	P	
640 x 480 @ 60Hz	25.175	31.469	59.940	N	N	
640 x 480 @ 72Hz	31.500	37.861	59.940	N	N	
640 x 480 @ 75Hz	31.500	37.500	75.000	N	N	
800 x 600 @ 56Hz	36.000	35.156	56.250	P	P	
800 x 600 @ 60Hz	40.000	37.879	60.317	P	P	
800 x 600 @ 72Hz	50.000	48.077	72.188	P	P	
800 x 600 @ 75Hz	49.500	46.875	75.000	P	P	
1024 x 768 @ 60Hz	65.000	48.363	60.005	N	N	ATM1500/ATM1500T
1024 x 768 @ 70Hz	75.000	56.476	70.070	N	P	ATM1500/ATM1500T
1024 x 768 @ 75Hz	78.750	60.023	75.030	P	P	ATM1500/ATM1500T
1280 x 1024 @ 60Hz	108.000	63.981	60.020	P	P	ATM1700/ATM1700T & ATM1900/ATM1900T
1280 x 1024 @ 75Hz	135.000	79.976	75.035	P	P	ATM1700/ATM1700T & ATM1900/ATM1900T



Atlas™ Industrial Grade LCD Monitors



UL Approved for Class I Division 2 Hazardous Locations

Integrated Power Supply



Features

- Optional non-touch or 5-wire analog resistive touch screen available
- UL 508 and UL 1604 listed for Hazardous Locations: Class I, Division 2, Groups A, B, C, D and Class II, Division 2, Groups F and G
- NEMA 4/4X/12 front bezel
- RoHS compliant
- Integral 100-240 VAC power supply
- RS-232 and USB support for touch screen models
- Simplified installation with no studs
- VESA compliant - all modes up to SXGA, 16 million colors
- 2-year warranty

These heavy duty PC monitors offer superb quality at a competitive price. Their compact size and very thin panel mounted depth (less than 2.75") allows them to be used in size restricted projects. And the class I, Div 2 listing makes them ideal for installation in harsh environments found in many factory automation applications. All sizes are available in non-touch or with a 5-wire analog resistive touchscreens. There are currently three sizes, 15", 17", and 19", in this series.

The ATLAS series includes 15" XGA, 17" SXGA, and 19" SXGA LCD monitors. All models come standard with 100-240 VAC input power supplies and have NEMA 4/4X/12 panel-mountable front bezels. All units provide Analog Video (VGA) connections, and 5-wire analog resistive touchscreen "T" models supply connection via either USB or RS-232. The ATM1700 and ATM1900 include Digital Video Inputs (DVI) as well. The entire series is UL/cUL listed, complies with European CE and RoHS requirements, and is UL approved for Class I and II, Division 2 hazardous locations.

ATM1500

\$995.00

(touch)

\$1,195.00



ATM1500 - 15"

- 15" color TFT LCD display
- XGA, 1024 x 768 native resolution
- 16 million colors
- 40,000 hrs backlight life
- Integral 100-240 VAC power supply
- Simplified installation with no studs
- Thin design - only 2.4" behind bezel
- Accepts analog 15-pin video input

ATM1700

\$1,405.00

ATM1700T (touch)

\$1,605.00



ATM1700 - 17"

- 17" color TFT LCD display
- SXGA, 1280 x 1024 native resolution
- 16 million colors
- 50,000 hrs backlight life
- Integral 100-240 VAC power supply
- Simplified installation with no studs
- Thin design - only 2.6" behind bezel
- (DVI) Digital Video Inputs
- Accepts analog 15-pin video input

ATM1900

\$1,705.00

ATM1900T (touch)

\$1,910.00



ATM1900 - 19"

- 19" color TFT LCD display
- SXGA, 1280 x 1024 native resolution
- 16 million colors
- 40,000 hrs backlight life
- Integral 100-240 VAC power supply
- Simplified installation with no studs
- Thin design - only 2.7" behind bezel
- (DVI) Digital Video Inputs
- Accepts analog 15-pin video input

Quality Industrial Monitors at a Great Price!



15" ATLAS	17" ATLAS	19" ATLAS
<---> ATM1500	<---> ATM1700	<---> ATM1900
<---> ATM1500T	<---> ATM1700T	<---> ATM1900T

**"T" models
have resistive
touchscreens**

UL, cUL, CE approved
NEMA 4/4X/12, IP65
FCC 47 CFR, Part 15,
Class A Bezel
Construction

Bezel Construction:
0.25" Machined Aluminum with a recessed
gasket pocket to keep moisture out and
powder coated treated with an attractive
dark gray textured powder coating

FRONT



TFT Active Matrix
with auto-scaling,
auto-adjusting
(VESA compliant - all
modes up to SXGA).
Up to 1280 x 1024
native resolution.

5 wire analog resis-
tive touch-screen
(xxxx T part #):
Allows fine-featured
touch control; works
with gloved hands and
is durable and reliable
in industrial
environments.

Impact Window:
.125" Lexan(Polycarbonate)
with a clear hard coat

ELO provided
drivers for Windows 7,
VISTA, WinXP,
Win2000, WinNT,
Win98, Win95
and DOS.
**Software works
on USB 2.0 and
serial RS-232.**

Simplified installation with no studs,
housed in a heavy duty steel chassis with a
powder coated machined aluminum bezel
(mounting clips included)

Screen setup
via rear keypad
prevents tampering

"Auto-adjust" button on
back panel keypad for
easy display optimization

Ventilation located
on all sides to
reduce heat build-
up 0 to 50 °C (32 to
122 °F)

VESA Ready
VESA arm mount
ready (100mm)

The 16-gauge RoHS compliant CRS steel chassis
provides corrosion resistance and extra strength.

USB Cable
Bracket keeps
the USB cable
from loosening
(included with
monitor)

SIDE

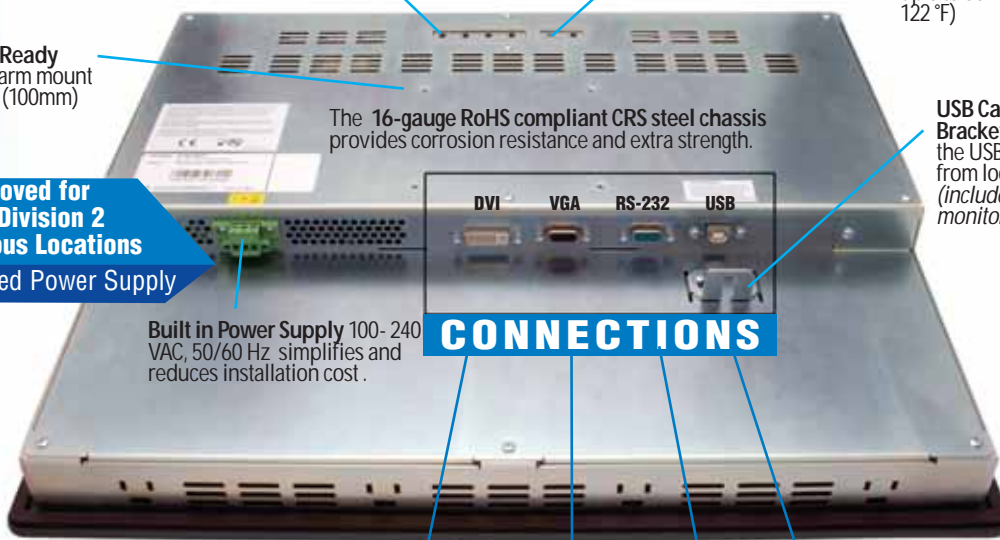
Compact size and very
thin panel mount depth
of less than 2.75" saves
enclosure space
**Recessed cable
connections** conserve
panel space

**UL Approved for
Class I Division 2
Hazardous Locations**

Integrated Power Supply

Built in Power Supply 100- 240
VAC, 50/60 Hz. simplifies and
reduces installation cost.

CONNECTIONS



BACK



DVI
On 17" and
19" monitors
only

VGA

RS-232

USB

Touch models
only

Full selection of cables in
various lengths is located
on page 12-25

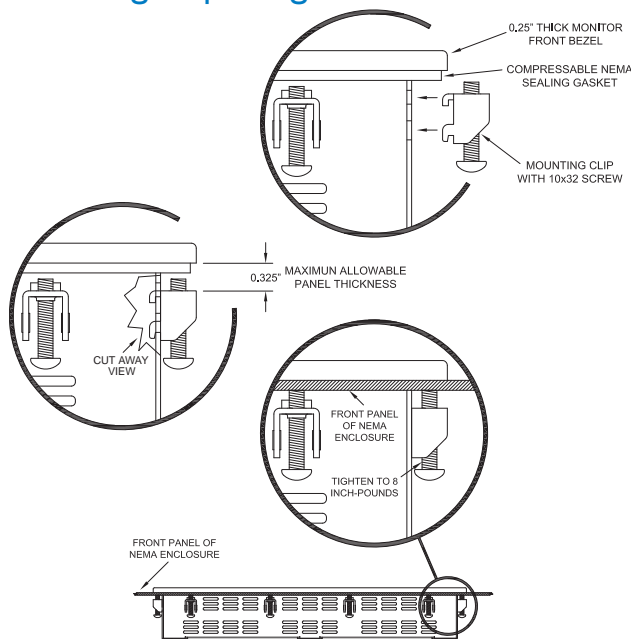
For detailed specifications, refer to the Specification Charts in the ATLAS Technical section of the Catalog

Atlas Industrial Flat Panel PC Monitors

Mounting clip installation

To install the monitor, make a cutout (according to the cutout diagram for the respective monitor) through one of the walls of your NEMA enclosure. Next, hold the monitor in place and install the mounting clips. The monitor uses "U"-shaped clips and a special gasket to achieve a proper seal. Tighten the clips to the point where the back of the monitor's bezel just begins to contact the front of the NEMA enclosure. The use of an adjustable torque driver is recommended. The screws should be tightened to 8 inch-pounds. Tighten the clips in a cross pattern to develop an even pressure on the sealing gasket. **DO NOT OVERTIGHTEN AS DAMAGE CAN RESULT, CAUSING LOSS OF SEALING INTEGRITY.**

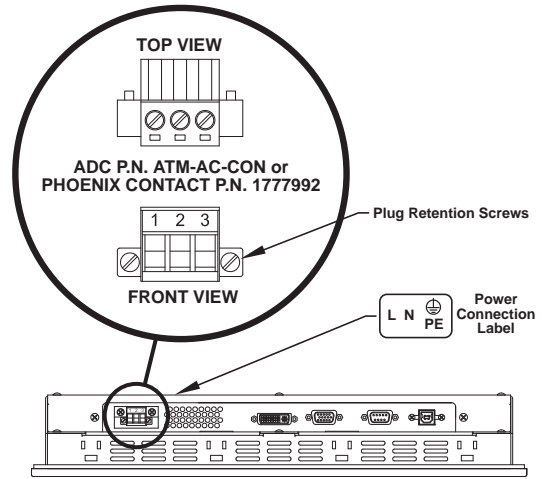
Mounting Clip Diagram



Connecting power

The monitor is powered from 100-240 VAC, 50/60 Hz. Power is connected to the monitor through a removable Phoenix Contact plug (ADC P.N. ATM-AC-CON or Phoenix Contact P.N. 1777992) that allows for screw termination of field wiring. The use of 18 AWG or greater (12 AWG maximum wire) is recommended. Connect the field wiring according to the appropriate table below. After the connections are made, make sure the power connection screws (the two screws shown in the "Front View" below) are securely tightened. This will prevent the plug from pulling out.

Power Wiring Diagram

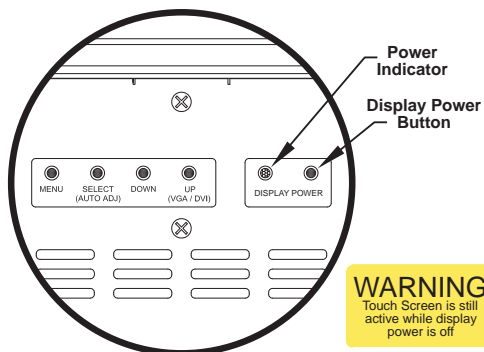


100 VAC - 240 VAC INPUT (1.0 Amps Min)		
	PIN No.	Definition
	1	AC Line Input
	2	AC Neutral Return
	3	Protective Earth Ground

Setting the On-Screen Display (OSD) controls

The On Screen Display (OSD) controls are used for making adjustments to the monitor's settings and are located on the back of the monitor. They consist of a single LED and five pushbuttons (functions are described in Chapter 3 of the respective monitor's Hardware User's Guide) located on the Documentation and Driver CD, or downloadable from the Online Documentation area of the *AutomationDirect* Web site.

OSD Controls



OSD Main Menu Display



Atlas PC Monitor Accessories

Accessories & Replacement Parts

Part Number	Description	Price
ATM-CBL-VGA10	10 ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card.	<--->
ATM-CBL-VGA25	25 ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card.	<--->
ATM-CBL-VGA50	50 ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card.	<--->
ATM-CBL-DV2M	6 ft. (2 meter) DVI (type D) video cable. Connects M1700 and M1900 to a standard DVI-D port. DVI cables provide a higher bandwidth video interface than the VGA cables.	<--->
ATM-CBL-DV3M	10 ft. (3 meter) DVI (type D) video cable. Connects M1700 and M1900 to a standard DVI-D port. DVI cables provide a higher bandwidth video interface than the VGA cables.	<--->
ATM-CBL-10	10 ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port.	<--->
ATM-CBL-25	25 ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port.	<--->
ATM-CBL-50	50 ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port.	<--->
USB-CBL-AB3	3-ft (0.9 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	<--->
USB-CBL-AB6	6-ft (1.8 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	<--->
USB-CBL-AB10	10-ft (3 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	<--->
USB-CBL-AB15	15-ft (4.6 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	<--->
ATM-AC-CON	Replacement Power Wiring Connector for AC Powered Units.	<--->
ATM-CLIP	Replacement flat panel mounting clip kit. Package of 16 clips and screws.	<--->

USB-CBL-AB3

USB-CBL-AB6

USB-CBL-AB10

USB-CBL-AB15

ATM-CBL-VGA10

ATM-CBL-VGA25

ATM-CBL-VGA50

ATM-CBL-DV2M

ATM-AC-CON

ATM-CBL-DV3M

ATM-CBL-10

ATM-CLIP

ATM-CBL-25

ATM-CBL-50
