Access Control System

Parameter Security

HVAC & Power Solution

Environment Monitoring Solution

IP Public Address System

Smart City Solution

Language Lab

CCTV Security Surveillance

Fire Detection & Suppression

UPS Solution

Data Centre Solution

Copper & Fiber 10g-400g Solution

Enterprise KVM Solution

HS

RELIABLE SERVICES

H.K. SHAH ENTERPRISE (PVT.) LTD.

NETWORKING & SECURITY DISTRIBUTION COMPANY

CELEBRATING 50 YEARS IN BUSINESS

H.K. Shah Enterprise (Pvt.) Ltd. was established in 1971 and incorporated as a (Pvt.) limited company in 1984 and over the past years have become a leader in distributing & Integrating IT, security and telecommunication company in the territory of Pakistan. H.K Shah Enterprise (Pvt.) Ltd. is one of the most recognized high technology companies to emerge in recent years. It focuses totally on working effectively providing and dealing with information management for many organizations in the Private, Public and Goverment sectors.
The high standards achieved by H.K. Shah Enterprise (Pvt.) Ltd. using their high skills and expert knowledge on solutions, which includes Data Center Solutions, Networking Passive infrastructure, Physical Security , Fire & Saftey and associated Options by manufacturers.
H.K. Shah Enterprise (Pvt.) Ltd. boasts of having high successful individuals who provide service of excellence to the clients at all times. They are fully trained and equipped to deal with all matters relating to IT and its related technologies.

H.K. Shah Enterprise (Pvt.) Ltd. solutions on systems integration and information management approaches are innovative & efficient. Training and documentation is a standard feature of our solutions.
We use maximum range of modern information technologies and management approaches to meet the challenges of our partners. We work to improve business efficiency and create a solid platform for its further development. We guarantee our partners a decent level of service and individual approach, based on a high degree of confidence, equality and fairness.

Clients Oriented Policy

We use maximum range of modern information technologies and management approaches to meet the challenges of our partners. We work to improve business efficiency and create a solid platform for its further development. We guarantee our partners a decent level of service and individual approach, based on a high degree of confidence, equality and fairness.

Professional Team

H.K. Shah Enterprise (Pvt.) Ltd. is lead by a seasoned management team that has a proven track record in developing and marketing technology products. They also have significant experience in managing high growth enterprises and partnerships to enhance and implement its growth strategy, H.K. Shah Enterprise (Pvt.) Ltd. have established several key resellers to expedite product development & distribution. Our team brings together highly qualified specialists with a higher profile education and international certification of (BICSI) and Uptime institute as well as the extensive experience in information technology and telecommunications.

Partner Support

H.K. Shah Enterprise (Pvt.) Ltd. provide a complete set of multi-vendor support options, fully backed by partners thus enabling us to provide an unmatched service from start to finish. We have the capability of carrying out training on a number of products which are also sold by us. The addition of this enables us to provide the following services to our entire client base. .

- Systems and Network integration
- Voice and Data Communication Systems
- Turnkey Solutions
- Project Management
- Consultancy
- Training
- Network and Systems documentation
- Design and implementation of Management information Systems.

Developed Logistics System

Due to the successful cooperation with leading international transpotation and logistics companies, we ensure the optimal and reliable delivery of your goods within secured terms.The existence of our own customs ware house in Karachi, Lahore and Islamabad helps to

- Drive goods anywhere in the world as quickly as possible. Monitor shipments for the entire transport and ensure their safety in the best conditions.
- Supervise the loading in the warehouse and transportation to the final destination.
- Provide a full package of necessary legal and transportation documents.

Vision & Values

To become the most successful showcase Company in IT related field.

Mission : Enhance information Technology and living standard in IT related countries by providing the world best IT related solutions along with superior service.

Teamwork : We all are different, yet united into one solid team reasoned and fuelled for success. We work together to achieve common goals.

Innovation : Our style is to meet and exceed expectations of our customers with "Cut-Of-The-Edge". technologies and Branded Products.

Efficiency : We manage to provide our customers the up-to-date information; the most prompt response and the comfort of using effective logistics and business tools.

Human Relation : We strive to maintain the best relationship with our Customers, Partners and vendors. Primarily each of them for us is an individual and we treat them with highest grade of diginity, equality and trust.

Responsibility: Reliable distributor and reliable partner is an image which we strive to keep and to meet our commitment which is our distinguishing feature.

Clients & Achievements

H.K. Shah Enterprise (Pvt.) Ltd. manages a good success rate in dealing with its customers and their needs rather than focusing on material gain. Offers providing a service of excellence to customers at all times & providing products to suit their needs. At no point is quality overlooked thus making H.K Shah Enterprise (Pvt.) Ltd. the most reliable amidst all its competitors I opponents I challenge the challenger. Our success is mainly due to the way we give priority to our customers and provide a service that is unmatched by any of our rivals.
H.K Shah Enterprise (Pvt.) Ltd. extensive portfolio of blue chip customers is testimony to the company's strong track records in the industry.

Magnum Mall
Hyderabad

Bahria Icon Tower
Karachi

Bahria Town Tower
Karachi

New Sindh Assembly
Karachi

Abdullah Shah Ghazi
MazarKarachi

Hutchison Ports
Pakistan, Karachi

Hoshang Pearl
Karachi

UBL Tower
Karachi

Dollar Industry
Karachi

TPL Center Point
Karachi

OMV Oil & Gas Field
Karachi

Pak Suzuki
Karachi

EFU Tower
Karachi

PTET Tower
Islamabad

Software Technology
Park Lahore

FFC Tower
Rawalpindi

LEVITON®
Network Solutions

The Key to 400G Understanding the infrastructure and ecosystem

Leviton Network Solutions supports commercial and residential networks around the globe with an unparalleled selection of infrastructure products and systems. Leviton fiber and copper cabling systems are engineered to exacting standards, verified by third party testing labs, and backed by the industry's best service and customer support. With a worldwide presence and thousands of global distribution locations, we can serve you wherever and whenever you need us. All of this creates the highest return on your infrastructure investment.

Leviton cabling systems support mission critical networks with demanding requirements. Our key customers include hyperscale Data Centers, Hospitals, Schools and Universities, Businesses, and Government facilities.

1

e2XHD Snap-In Cassette Patching System

Fast deployment and simple maintenance.

2

Leviton wallplates

Customize your work area outlets with an extensive selection. It's come in plastic and stainless, or furniture mount; I P67-rated for industrial environments

3

40/100G MTP* Systems

Ideal multimode and single-mode migration path to 40/100/200/400 GbE speeds.

4

Cable Management

Vertical, horizontal, and overhead cable management with standard equipment racks and cabinets*.

6

Cable

Extensive selection of fiber optic and copper cable to support high-density applications. fiber options including OM2, OM3, OM4, and OS2,

5

Secure Connectivity

Physical port security with copper RJ and fiber LC assemblies.

7

Cat 6A/Cat 8 Premium UTP/STP System

Best-in-class component-rated UTP/STP system with crosstalk prevention technology.

8

Pre-terminated Copper & Fiber Trunks

Provide backbone connections between entrance facility, MDA/Core, SAN, and HDA.

9

Fiber Optic Systems, Enclosures, and Accessories

Ultra high-density enclosures can be custom configured with cassettes, adapter plates, and pre-terminated solutions.

10

Opt-X SDX Wall-mount enclosures

Opt-X SDX are a smart choice to deploy in entrance facilities, telecommunications rooms and remote network hubs that require patching, cross-connect or splicing while using a minimum of space.

Data Center Network Infrastructure

Extensive experience with the most popular active equipment, network topologies, and transmission methods. Many of them are active members on standards bodies that define future data center networks, including standards for 25, 40, 100, and 400 gigabit networks.

We've made building the exact data center product or system quicker and easier than ever with our Make-To-Order Program. The program offers custom -configurable option for enclosures, cassettes, cable assemablies, and PDUs. Our ISO-certified facilities in the US and UK can build and ship these products in some of the fastest turnaround times in the indudtry.

Network Infrastructure Expertise

Every data center has a unique set of network priorities, from consolidation and cost control to quick deployment and zero downtime. You can count on Leviton to ensure your data center's infrastructure meets your specific requirements. We have experience serving all types of customers, including telecom providers, Fortune 100 e-commerce companies, universities, and high-security government installations.
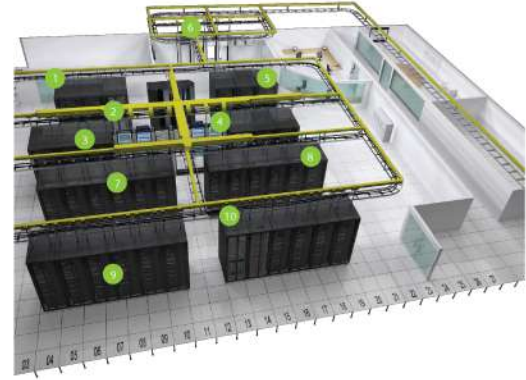
Every data center has a unique set of priorities.

Higher speeds and more bandwidth requirements are driving IT and data center manager equipment and architecture choices. If you don't get the physical layer right, everything else is going to suffer. Performance lags, mismatched systems, expensive upgrades, and chances of network downtime all increase. From consolidation and cost control to quick deployment and zero downtime, you can count on Leviton to help you solve your data center challenges.

Data Center Technology Alliances

Leviton works closely with the biggest names in networking technology to create scalable, high-density data center networks. When combined with the latest data center switches from Arista, Brocade, Cisco, and Extreme Networks, our cable assemblies and connectivity give you extra design flexibility for your equipment architecture.

ARISTA   BROCADE   CISCO   Extreme networks

SmartPatch

Intelligent Infrastructure Management Solutions

At the core of any IT Service Management framework are processes for configuration, change, and incident management. It is vital to maintain accurate and timely information to ensure the effectiveness and quality of these efforts.

SmartPatch provides simple and controlled management and recording of common network changes such as those resulting form office moves and terminal additions. The system also gives multisite businesses the tools to effectively monitor and manage all sites from a central location.

SmartPatch is widely recognized for the many benefits it delivers:
- Robust network management services
- Reduced cost and increased effectiveness of IT operations
- A platform for high availability
- Improved customer responsiveness
- Improved information quality
- Enhanced physical security

Manage from a DESK TOP

Manage from a SMA RTPHONE

HDX Fiber Optic Distribution

Data centers and telecommunications rooms are rapidly outgrowing their footprints as they attempt to meet increasing network demands. Leviton UHDX enclosures offer optimum patching capacity in areas where space is at a premium. Using HDX Adapter Plates and Cassettes, the enclosures allow up to 144 fibers with LC connectors, or 1,728 fibers with 24-fiber MTP® connectors — the highest density per rack unit available

The HDX Frame is a main cross-connect or interconnect patching frame for all fiber channels in the data center. One frame consolidates patching into an incredibly small footprint, with capacity for up to 3,168 LC fibers, or 7,776 fibers using 12-fiber MTP connections.

The HDX Frame accomplishes such high density through its unique patch deck design. One frame holds 22 decks, each configured with HDX fiber cassettes, adapter plates, or splice trays. And since it occupies only one 2x2-foot data center floor tile, it's easier than ever to access space beneath a raised floor.

JCC | a LEVITON company

Innovative LED Lighting
Solution Experts
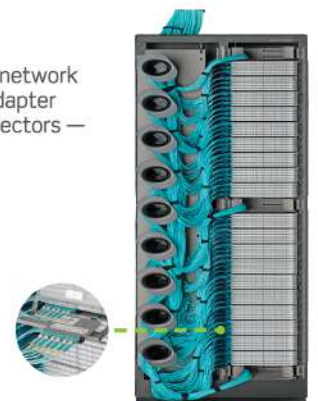
Leviton is a world leader in diversified electrical technologies and the largest privately own manufacturer of electrical wiring equipment in North America. Leviton products help customer create sustainable and intelligent environments through their electrical wiring devices, network and data center connectivity solutions, lighting energy management systems, and security and automation applications. Established in 1989, JCC are market leadings in the development of cutting edge LED lighting technology. We believe that LED lighting is the most effective way that homes and businesses can tackle rising energy costs and the global need to reduce CO2 consumption. Leviton acquired **JCC** in 2013 to enhance JCC's position as the UK market leader in LED lighting and strengthen our shared vision to ensure accessibility to the benefits of the latest LED technology.

Fire-rated Downlights

V50™

Colour selectable fire-rated LED downlight

- Selectable colour temperature from beneath the ceiling
- 350° rotatable and 20° tiltable
- Die-cast aluminium bezels
- Fully fire rated for 30°, 60° and 90° minute ceilings
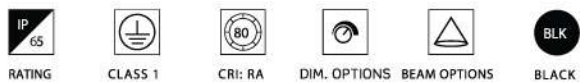- Available as a complete fixture or without bezel (JC1001/NB)

IP 65 RATING	CLASS 2	CLASS 1 (EM)	COL. SWITCH	CRI: RA 80	DIMMABLE	BEAM 60°

LED Panels

Skytile®

High perfomance LED Flat/Linear panel

- Meets TP(a) requirements, suitable for all applications
- Up to 100 lumens per circuit Watt
- Designed to comply with BS EN 12464-1 lighting of workspace
- DALI, DSI and 1-10V dimmable options available
- DALI, DSI and 1-10V dimmable options available

IP 20 RATING	CLASS 2	CRI: RA 80	EM OPTIONS	DIM OPTIONS	UGR <19	WHITE

Battens & Weatherproofs

Skypack™

Outperforms traditional fluorescent Batter

- Conduit entry point at both ends
- Suitable for BESA mounting
- DALI and 1-10V dimming available
- Microwave on/off sensing available
- Press-fit terminals with loop-in/loop-out

IP 20 RATING	CLASS 1	CRI: RA 80	DIM OPTIONS	SENSING	EM OPTIONS	WHITE

Undershelf & Cabinet

Direct replacement of T5 fluorescent

- Three link leads available in 250mm, 500mm and 1000mm lenght
- End to end connection available
- on/off switch on each luminaire
- Supplied as standard with 1000mm mains cable

IP 20 RATING	CLASS 2	CRI: RA 80	3yr WARRANTY*	BEAM 120°	WHITE

Highbay & Lowbay

Toughbay™

150W to 400W HID replacement

- Available in 60°, 90° and 120° beam angle options
- 1-10V microwave step dimmable
- Come complete with IP65 junction box
- Emergency options available
- Remote control available

IP 65 RATING	CLASS 1	CRI: RA 80	DIM. OPTIONS	BEAM OPTIONS	BLACK

Spotlights & Track Systems

Starspot™

High output retail / Global track spotlight

- Available in wide range of retail/track spotlight
- Durable die-cast aluminium construction
- up to 35° tiltable & 350° rotatable options
- Easy fix with quick mount unmount option.
- Triac dimmable as standard

IP 20 RATING	CLASS 1	CRI: RA 85	BEAM 36°	DIM. OPTIONS

Interior Pendants

Architectural / Doom Interior Pendant

- Available in 60°, 90° and 120° beam angle options
- 1-10V microwave step dimmable
- Come complete with IP65 junction box
- Emergency options available
- Remote control available

IP 20 RATING	CLASS 1	CRI: RA 80	BEAM 36°	DIM OPTIONS	BLACK	WHITE

Bulkheads

Ultra durable, stylish LED bulkhead

- Come with white rim as standard, multiple rim options available
- Improve lumen output and efficency
- Ultra durable IK09 impact rating
- DALI and 1-10V dimmable now available

IP 65 RATING	CRI: RA 80	IK 09 RATING	SENSING	DIM OPTIONS	EM OPTIONS	WHITE

LED Strip

Colour changing IP Rated LED Strip lighting

- Red, Green, Blue, and white combine the 16 different color options.
- White options available in warm white (3000K) and neutral white
- 24V driver and RGBW IR controller
- Cut to required lebght at 100mm cut points ensuring a more accurate installation

IP 65 RATING	CLASS 3	80 CRI: RA	DIM. OPTIONS	24V

Bollards

NiteLED™

Low Voltage LED Exterior Lighting

- Matching 3000K, 4000K LED Color Temperature and finish to the Architectureal Exterior range.
- Come complete with IP65 junction box
- Emergency options available
- Root mounting kit available.

IP 44 RATING	CLASS 1	80 CRI: RA	BLK ANTHRACITE	SS STAINLESS STEEL	BLK BLACK

Flood Light

Toughflood™

Ultra efficient 100W to 600W directional floodlight

- Conduit entry point at both ends
- Suitable for BESA mounting
- DALI and 1-10V dimming available
- Microwave on/off sensing available
- Press-fit terminals with loop-in/loop-out

IP 66 RATING	CLASS 1	70 CRI: RA	IK 10 RATING	BLK BLACK

Wall Wedge

NiteLED™

Low Wattage LED exterior lighting

- IP65/IP67 protection against dust and moisture
- Durable die-cast aluminum construction
- Matching 3000K, 4000K LED Color Temperature and finish to the Architectureal Exterior range.

IP 65 RATING	80 CRI: RA	IK 09 RATING

Architectural exterior luminaires

Linear Wall Lights p.288	Cylindrical Up/Down Wall Lights	Surface Mounted Downlight p.293	Rectangular Wall Light p.295	Wall Light p.303	Wall Spot p.304
Up/Down Light Box p.296	Up/Down Lights p.297	Wall Light p.299	Louvred Wall Light p.302	Directional Spotlight p.306	Directional Spotlight p.307

Recessed Ground & Spike Lights

NiteLED™

Wide beam architectural inground LED

- Durable die-cast aluminum construction
- IP65/IP67 protection against dust and moisture
- Supply pre-wired with 900mm flex
- Supplied as standard with plug, driver and cable

IP 67 RATING	CLASS 1	80 CRI: RA	3yr WARRANTY*	99° BEAM	BLK ANTHRACITE

Lanterns

Montella™

Traditional & Architectural exterior LED

- Discreet integrated PIR with manual override function available
- Durable die-cast aluminum construction
- Matching 3000K, 4000K LED Color Temperat and finish to the Architectureal Exterior range.

IP 65 RATING	80 CRI: RA	IK 09 RATING	SENSING	DIM OPTIONS	EM OPTIONS	WH WHITE

Emergency

Contemporary LED Exit wall / bulkhead blade

- Quick and simple programming & mounting
- Durable structure with new edge design
- Direct 8W T5 retrofit LED exit box
- IP65, IP20 rating structure

IP 65 RATING	CLASS 1	48 CRI: RA (JC 50305)	83 CRI: RA (JC 50328)	WH WHITE

Controls & Sensors

Toughbay ™ Remote & PIR Detector

Microwave remote & PIR detection sensor

- Quick and simple programming of microwave sensor settings
- For use with Toughbay Retrofit and Toughbay Linear
- Supplied as standard with plug, driver and cable
- Manual override PIR sensor feature

44 RATING	G GUARANTEE	WH WHITE	BLK BLACK

Marine | Oil & Gas | Mobility | Public Parking | Public Safety

Innovative video security systems

Tailor made, flexible and integrated video monitoring solutions.

Siqura TKH Security a global supplier of advanced video surveillance solutions, We provide a full range of network products based on open technology. Siqura solution offer a perfect blend of ease of use and processing power, enabling end users to optimize the effectiveness of their surveillance system while reducing the total cost of ownership. The TKH Security Solutions portfolio consists of a wide range of products for video transmission, video content analysis, video management and central control room surveillance.TKH Security Solution has the corporate headquarters in the Netherlands with a central branch office in the United States. The regional presence and enable us to take into account local regulations & demands and offer you tailor-made solutions.

VDG Sense (Video Management Software)

VDG Sense is the most flexible, creative and secure video management system in the field of security. Available for different video security solutions, this state-of-the-art video management system caters to any business wish or requirements by seamlessly integrating all components of a security network into a fully functioning system.

Live images and video data from one or one hundred cameras and other connected devices can be monitored from a secure, user-friendly interface that is also accessible remotely through web and mobile device. All the tools needed to run a seamless security network are embedded in the VDG Sense video surveillance system.

The open end platform of the VDG Sense interface allows it to integrate with any security device or video environment with the help of ONVIF support and a well-documented API.

Integrated intelligence

Using advanced algorithms that endlessly analyze camera images and video data, the VDG Sense video surveillance system (VMS) takes note of unusual occurrences based on your filter settings to alert you of important incidents and their location.

The integrated intelligence feature in the video content analysis function of the VDG Sense can decipher and differentiate faces, objects, license plate numbers and scout for perimeter intrusion detection.
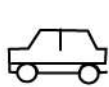
CarR | FaceR | ObjectR | SceneR

Explosion-Proof Fixed Intelligent Thermal Camera

Siqura has expanded its Object R-PID solution with a thermal network camera. Built around a high -quality longwave infrared (LWIR) sensor, the TC620-PID offers reliable intrusion detection in all lighting and weather conditions. Thermal cameras and conventional cameras are sensitive to different parts of the electromagnetic spectrum. Conventional cameras see light, while thermal cameras see heat. As a result, thermal cameras are able to detect objects shrouded in darkness, smoke, fog or dust. A further advantage is that thermal cameras do not raise false alarms because of shadows or glare
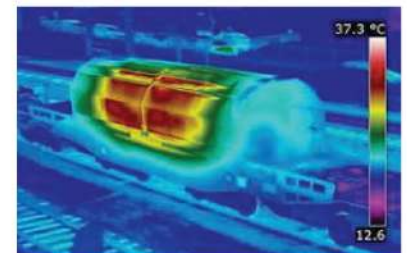
The intelligent thermal camera automatically and instantaneously can detect hotspots in a region of interest, like small fires, smoldering dust or overheated machinery. Specially for flare monitoring the Siqura Thermal camera is fitted Flare off detection and flare too large detection. The camera housing is constructed from electro-polished 316L stainless steel for maximum corrosion protection and is fitted as standard with sunshield and thermostatically controlled heater element. Optionally the camera can be connected direct to optical fiber.

FenceGuard™ Perimeter Intrusion Detection VCA

We provide a security solution for such businesses with our unique FenceGuard. FenceGuard or PID is an embedded video content analysis (VCA) solution to detect unwanted intruders. It can run inside one of our security cameras, night vision camera or on board of our video management system VDG Sense. Siqura's Perimeter Intrusion Detection system is based on a unique way of off-line configuration. In a matter of seconds, a PID configuration can be tested against the real-world images and can be optimized to get the best performance with the lowest nuisance alerts.

Explosion Proof Solutions

The life-saving effects that a reliable video surveillance system offers cannot be overemphasized, especially in the Marine, Oil & Gas (MOG) industry. Our specially designed products, such as explosion and corrosion proof cameras, video encoders and switches, can provide quick solutions to avoid major and costly incidents before they escalate or start.

Highway Monitoring

Siqura has solutions for open road mobility with emphasis placed on highway monitoring. Our solutions on mobility are used across the world and apply in different commercial settings. Siqura understands the importance of high quality camera images for highway monitoring. Therefore, we have designed a unique PTZ camera specially for these purposes: the Traffic PTZ Ultimo. With in-house developed techniques, and a robust and maintenance-free exterior housing, the Traffic PTZ Ultimo offers a solution to any highway monitoring request.

Tunnel Safety Solutions

Response time and efficiency are two major factors that are vital to the success of any surveillance system so Siqura can proudly guarantee that its mobility solutions are designed to be the best in the business. The pre-installed tunnel cameras are compact, easy to install and lightweight with differing aluminum and stainless steel build material that is perfectly suited for a bracket system. With the Tunnel Cam USPs, you can replace camera housing without compromising on mounting angles.

Vega 1
3MP Dual-Sensor
ANPR Camera

BC840-PID-XT
Temperature-Hardened
Box camera
with Perimeter Intrusion
Detection

XCU Fusion 2SM
Dual Imager Thermal
Camera with
Singlemode Fiber

SA-HSD820V2H3 PD
3MP, PTZ Dome camera
Marine Proof, Corrosion
Protected 316L stainless
steel

SA-PTZ series
Thermal Camera
316L Stainless-Steel
Camera Housing

TrafficPTZv2
TrafficPTZ Ultimo v2
30x Optical zoom

BL2005M1-EI
5MP,
Bullet camera,
H.265, IP67, IR

FD360IR-E
6 MP,
outdoor fisheye
D/N and IR

FD820v2M1IR
4MP
Fixed Dome/IR

PD1104Z2-EI
4 Mp
PTZ camera
36x zoom wit IR

PD900
3 MP
High-speed PTZ
Camera 30x zoom

CD1004F2-EI
4mp,
Outdoor compact dome,
IR

VIDEO ENCODERS

EVE-ONE-V1   EVE-FOUR-V1   09   EVE-4X4-V2   EVE-ONE-PoE-V1   EVE-FOUR-PoE-V1

THE BEST KVM SOLUTION FOR REMOTE OFFICES CONTROL

Centrally and remotely manage server room devices

ALTUSCN™
Enterprise KVM Solutions by ATEN

16/32 Port Cat Matrix KVM Switch

8/16 Port KVM Over IP Switch

■ CS1708i

- 8 Window on Screen Display-Simultaneous monitoring 8 computers from one screen.
- Remote access up to 16 computers over the LAN / WAN / Internet / Intranet.
- Adjustable front panel.
- Secure SSI 128-bit / RSA 1024-bit encryption.
- Dual Bus KVM administrator login and control.

16/32 Port Matrix KVM Switch

■ KM0532

- 5 consoles independently and simultaneously control up to 32 directly connected servers
- Audio support for multimedia-capable devices
- Support up to 1024 user and 255 group accounts
- Controls up to 300m away using Cat 5 cable between computers and user consoles.
- Three level password security: Super Administrator, Administrator and Users.

8/16 Port High- Density KVM Over IP Switch

■ KH1508Ai

- Power Over the Net integration for remote power control
- High port density – RJ-45 connectors for up to 8 ports in a 1U housing
- A dedicated USB port directly connects to a laptop for easy Console operation
- One bus for remote KVM over IP access
- Multiplatform support - Windows, Mac, Sun and Linux
- IP/MAC Filter for enhanced security protection
- IPv6 Capable

8/16 Port KVM Over IP Switch

■ KN1108v

- One KVM console control up to 16 directly connected computers
- Configue port access rights for users on a port - by - port basis
- Multiplatform support – PC, Mac, Sun, and serial
- Supports up to 10 user and 1 administrator accounts
- Two-Level Password Security- Supports one administrator and ten user profiles.
- Auto Scan mode enables continuous monitoring of user-selected computers
- IP/MAC Filter for enhanced security protection

8/16 Port PS/2 KVM Switch

■ CS1308

- One USB-PS/2 console controls 8 computers
- Cascade up to 2 levels - control up to 64 computers
- Supports computers with PS/2 or USB keyboards and mice
- Multiplatform support - Windows, Linux, Mac, and Sun
- Video DynaSync™ - Optimizes resolution when switching between ports
- Supports USB keyboards for PC, Mac and Sun
- Superior video quality - up to 2048 x 1536; DDC2B

8/16 Port PS/2 KVM Switch

■ ACS1208A

- One PS/2 console controls 8 computers.
- Control up to 256 computers from a single console.
- Firmware upgrades to all the chained KVM switches
- Buzzer ON/OFF via hotkey and OSD.
- Operations simultaneously performed on all selected computers, software installation and upgrading, system wide shutdown....etc.
- Superior video quality- up to 2048 x 1536; DDC2B.
- Rack mountable in 19" system rack.

8/16 Port USB HDMI KVM Switch

■ CS1798

- One USB console controls up to 8 HDMI interface computers
- Cascadable to three levels–control up to 512 computers*1
- Multi-Display feature – stack up to eight CS1798 units and display video from up to eight monitors
- 2-port USB 2.0 hub built in
- Independent switching of KVM and USB focus
- OSD Backup/Restore feature–enables the administrator to back up the switch's configuration and user profile information
- Superior video quality–supports up to 1080p/1920x1200@60Hz
- Multiplatform support–Windows, Linux, Mac, Sun

8/16/32 Port High Density KVM Over IP Switch

■ KH1508Ai

- Power Over the Net integration for remote power control
- High port density – RJ-45 connectors for up to 8 ports in a 1U housing
- A dedicated USB port directly connects to a laptop for easy Console operation
- One bus for remote KVM over IP access
- Multiplatform support - Windows, Mac, Sun and Linux
- IP/MAC Filter for enhanced security protection
- IPv6 Capable
- Firmware upgradeable

ATEN

A SOLUTION WITH CENTRALIZED CONTROL ALL PACKED IN

8/16 Port KVM Console Switch

CL1308

- A single console controls up to 128 computers
- Integrated KVM console with 19" LED-backlit LCD panel
- Dual Interface – supports computers with PS/2 or USB
- Multiplatform support – Windows, Linux, Mac, and Sun
- Supports USB keyboards for PC, Mac and Sun
- Auto PS/2 and USB interface detection
- Superior video quality – up to 1280 x 1024 @ 75 Hz; DDC2B
- Convenient computer switching via front panel push buttons, hotkeys, or multilingual on-screen display menu.
- Auto Scan feature for monitoring user-selected computers
- Buzzer on/off via hotkey and OSD

8/16 Port KVM Console Switch

CL5716N

- Integrated KVM console LED-backlit LCD monitor in a Slideaway™ housing
- Available with or without Fingerprint Identification Reader*
- Up to two consoles (one bus) control up to 16 computers
- Control up to 512 computers from a single console
- LCD module rotates up to 115 degrees for a more comfortable viewing angle
- Multiplatform support – Windows, Linux, Mac, and Sun
- Supports external USB mouse
- Supports resolutions up to 1280 x 1024 @ 75 Hz

Single Rail LCD Console

CL6700

- Superior video quality – up to 1920 x 1080 @ 60Hz
- Supports an external console with USB / DVI / VGA / HDMI connectors
- Additional hot-pluggable USB mouse port on front panel
- Audio support (speakers)
- Standard rack mount kit included
- Optional Easy Installation Rack Mounting Kit available
- Standard 105-key keyboard; Sun keyboard emulation
- Multiplatform support – Windows, Linux, Mac, and Sun
- Adjustable depth to fit within the rack
- Firmware upgradeable

Dual Rail LCD Console

CL5800N

- Supports an external console* with either PS/2 or USB
- Dual interface - Supports computers and KVM switches with PS/2 or USB keyboards and mice
- Additional hot-pluggable USB mouse port on front panel
- High video resolution: Up to 1280 x 1024 @75Hz
- Dual rail design allows LCD monitor and keyboard/touch pad modules to operate independently
- Compatible with all ATEN KVM Switches and most other KVM switches
- Adjustable depth to fit within the rack
- Firmware upgradeable

8/16 Port Short Depth KVM Console Switch

CL3116

- Superior video quality - up to 1366 x 768 @60Hz; DDC2B
- Controls up to 256 computers from a single console
- Supports computers with PS/2 or USB keyboards and mice
- Auto PS/2 and USB interface detection
- Computer selection via pushbuttons, hotkeys, and multilingual on-screen display (OSD)
- Two level password security - only authorized users can view and control computers
- Additional hot-pluggable USB mouse port on front panel that supports HID device for keyboard and mouse

Ultra Short Depth LCD Console

CL3100

- Supports VGA video input; supports an external console with USB / VGA connectors
- 18.5" LCD screen with resolution of 1366 x 768 @ 60Hz
- External console supports input video resolutions up to 1920 x 1200 @ 60Hz
- Audio support for connecting speakers
- Additional hot-pluggable USB mouse port on front panel
- Console selection via hotkey
- Standard 105-key keyboard
- The design complies to the UL 60950-1 and CAN/CSA standards.

Ultra Short Depth Widescreen LCD Console

CL3700

- Integrated KVM Console with short depth single rail design and a 18.5" LED-backlit LCD monitor allows you to work in narrow spaces
- 18.5" LCD screen supports Full HD resolution of 1920 x 1080 @ 60Hz (CL3700NW); 18.5" LCD screen supports resolution of 1366 x 768 @ 60Hz (CL3700NX)
- Supports an external console with USB / HDMI connectors; supports input video resolutions up to 1920 x 1200 @ 60Hz
- Supports HDMI video input

8/16 Port KVM Over IP Console Switch

KL1116V

- Integrated KVM console with LED-backlit LCD monitor in a dual rail housing.
- One bus for local and one bus for remote KVM over IP access
- Space-saving RJ-45 ports for Cat 5e/6 cable connections
- Supports PS/2, USB, Sun Legacy (13W3) and serial connectivity
- Supports external USB mouse
- Dual rail housing is slightly less than 1U with top and bottom
- LCD module rotates up to 120 degrees for a more comfortable viewing angle
- LCD power button saves energy and prolongs the life of the display

ATEN
Simply Better Connections™

4K KVM over IP Matrix System

4K KVM over IP Extender with PoE
KE9952
- Supports DisplayPort video resolutions up to 3840 x 2160 @30Hz (4:4:4) ; 36-bit color depth
- Supports connection via Gigabit Ethernet port (RJ-45) or SFP port for failover or for dual IP addresses access
- Supports 1Gbps SFP fiber module expansions up to 10 km
- Supports Power over Ethernet (PoE) function – compliant with the IEEE 802.3at standard

4K KVM over IP Extender
KE9950
- Supports DisplayPort video resolutions up to 3840 x 2160 @30Hz (4:4:4) ; 36-bit color depth
- Supports connection via Gigabit Ethernet port (RJ-45) or SFP port for failover or for dual IP addresses access
- Supports 1Gbps SFP fiber module expansions up to 10 km
- Power Redundancy – Dual DC Jack

Slim KVM over IP Transmitter
KE9900ST
- Advance processor provides lossless and low latency video transmissions up to 1920 x 1200 @ 60Hz; 24-bit color depth;
- Flexible connections - allows multiple extender and matrix connections for Multi-Display installations and Video Wall
- Slim, light, and fanless design
- Push and Pull - share content instantly by just one click

4K HDBaseT™ 2.0 KVM Extender (4K@100 m)
CE920
- Extends video, audio, USB, RS-232, and Ethernet signals via a single Cat6 / 6a / 2L-2910 Cat 6 cable
- HDBaseT™ Standard mode up to 4K @ 100m (Cat 6 / 6a / 2L-2910)
- HDBaseT™ Long-Reach mode up to 1080P @ 150m
- Supports individual 2-channel stereo audio and USB 2.0 full speed ports

HDMI Over Cat 5 Extender (1080p@40m)
VE800
- Extends the distance between HDMI source and HDMI display
- Uses Cat 5e cable to connect the local and remote units Extend 1080p by 40 m; extend 1080i (HDTV) by 60 m
- HDMI (3D, Deep Color); HDCP Compatible
- Supports Dolby True HD and DTS HD Master Audio

4K HDBaseT-Lite Extender (4K@40m; 1080p@70m)
VE901
- HDBaseT Connectivity – Extends display up to 70 meters DisplayPort v1.1   HDCP 1.4 compliant
- Superior video quality – 4K @ 35 m (Cat 5e/6) / 40 m (1920 x 1080 @ 60m (Cat 5e/6) / 70m
- HDBaseT Anti-Jamming – resists signal interference
- Featuring 3.3V / 500mA power output for powering auxiliary devices

VGA Over Cat 5 Extender (1280 x 1024@150m)
VE150A
- Uses Cat 5e cables to connect the local and remote units Supports one local and one remote display
- Long distance transmission – up to 150 m
- Superior video quality – up to 1920x1200 (30 m); 1600x1200 (100 m); 1280x1024 (150 m)

VGA/Audio Over Cat 5 Extender (1280 x 1024@300m)
VE500
- Uses Cat 5e cable to connect the Transmitter and Receiver
- Long Distance Transmission up to 300 m
- Deskew Function (VE500RQ) - automatically synchronizes the time delay of RGB signals to compensate for distance
- Superior video quality 1600x1200 @60Hz (150 m) 1920x1200 @60Hz (150 m); 1280x1024 @60Hz (300 m)

8x8 4K HDMI Matrix Switch
VM0808HA
- Connects any of 8 HDMI sources to any of 8 HDMI displays
- Supports 4K resolutions up to UHD (3840 x 2160) and DCI (4096 x 2160) with refresh rates of 30Hz(4:4:4) and 60Hz(4:2:0)
- Signaling rates up to 3.4 Gbits for flawless 4K output
- Multiple Control Methods – system management via front-panel pushbuttons, IR remote, RS-232 control, and Ethernet connections (Web GUI)
- Upgradeable firmware

16x16 Cat 5 VGA/Audio Matrix Switch
VM1616T
- ATEN VE500/VE300 A/V Over Cat 5 Extender system for input & output
- Long signal range – supports up to 300 meters between
- Supports Video Quality – up to 1920 x 1200@60Hz; DDC2B
- Supports additional local display – provides an extra output source
- Automatic and adjustable video quality
- Upgradeable firmware

ATEN Control System

Simply Intelligent

VK1100/VK2100

No more programming
Control over Internet
iOS Android Windows GUI

The ATEN Control System is based around either a VK2100 or a VK1100, which is essentially the main controller, or the heart of the control system. This is the central processor which deals with all the commands and sends them to the relevant outputs. In essence, you create a project file and a copy of this sits on the control system. In order to operate the programmed functions, you can easily create a front-end layout through the ATEN Configurator Software which can then be deployed to any tablet, whether an Apple iPad or an Android device. Easier control Both from the internal network and the internet. In addition, users can easily design the GUI by themselves. Just click, drag and drop. Without having to rely on a programmer Can set the time to turn on-off the device in advance With keypad accessories for permanent installation Press the command button immediately.

SMART MEETING ROOM

The ATEN Control System is the perfect Meeting Room Controller for creating device control systems in the Meeting room Automation, such as projectors, screens, TVs, curtains, lighting, video conferencing cameras, shuffleboards, and Mixing video, audio, etc.

SMART HOME

Smart homes and smart buildings are closely aligned with technology used in offices and commercial buildings. They incorporate advanced automation to provide the inhabitants with sophisticated monitoring and control over the functions of the building. Aten Control System make this easy to control your home automation.

Why choose ATEN Control System?

INTELLIGENT CONTROL
Your device can intelligently interact and respond to each other through pre-programmed actions to perform advanced automated commands.

REAL-TIME SYNCHRONIZATION
Device status is synchronized in real time in all control interfaces, allowing for control from multiple users at the same time.

SIMPLIFIED SETUP
The ATEN Control System can be installed easily in 3 steps: connect, set up and control, allowing you to easily set up and customize control styles without any programming knowledge.

ON-THE-GO CONTROL
Supports both iOS, Android, and Windows mobile devices. Centralized control of rooms through user-defined profiles with easy point-n-tap operation.

USER-CENTERED CONVENIENCE
With a single software you can create a GUI for a mobile device. Easy to customize, just click, drag and drop. Enter the command or add the command to the database itself. Sync with the App and run immediately.

Applications

It's not just available in conference rooms, the ATEN Control System can easily be deployed in a variety of commercial and educational environments as it can work seamlessly with any hardware device. This solution is suitable for meeting rooms, conference centers, meeting rooms, classrooms, or any room that requires complete control of all hardware equipment.

VK0200
Wallmount Control Pad

VK1100
Compact Control Box

VK224
Serial/IR Expansion Module

VK2100
Main Control Box

VK6000
Configurator Software

VM3200 32x32 Modular Matrix Switch

The VM3200 Modular Matrix Switch offers advanced access and real-time control of multiple local and remote A/V input devices and displays from a single chassis. The VM3200 allows users to independently switch and route video and/or audio content directly to various monitors, displays, projectors, and/or speakers simply by pressing front panel pushbuttons. A built-in Scaler encodes the video format in order to provide seamless, real-time switching. The front panel LCD shows a quick view of active port connections. The switch also includes an option to select an EDID Mode that yields the best resolution across different monitors.

VM0808HA 8x8 4K HDMI Matrix

The ATEN VM0808HA 8x8 4K HDMI Matrix Switch supports 4K resolutions of UHD (3840 x 2160) and DCI (4096 x 2160) with refresh rates of 30 Hz (4:4:4) and 60 Hz (4:2:0). Ready for the future of high-definition video switching, the VM0808HA is ideal for applications where the routing of 4K digital signals is required, such as in classrooms, auditoriums, department stores and more.

VM5808H 8 x 8 HDMI Matrix Switch with Scaler

The VM5808H 8 x 8 HDMI Matrix Switch is a distinct HDMI solution that offers an easy and affordable way to route any of 8 HDMI video sources to any of 8 HDMI displays, with a quick view of all port connections via the front panel LCD.

The VM5808H includes seamless switching that employs a FPGA matrix architecture that ensures continuous video streams, real-time control and stable signal transmissions. With a built in high-performance scaler, the VM5808H easily converts various input resolutions into various output display resolutions, giving viewers the best video and picture quality across all displays. The switch integrates video wall functionality with an easy to use web GUI that lets you create 16 connection profiles that can be customized into different video wall layouts.

VM3909H 9 x 9 4K HDMI HDBaseT-Lite Matrix Switch

With the rapid development of HDBaseT technology, ATEN has released the new VM3909H HDMI HDBaseT-Lite Matrix Switch. The switch extends uncompressed 4K / Full HD digital video, audio, IR and power via HDBaseT technology through a single Cat 6a cable up to 40/70 meters. ATEN's exclusive Seamless Switch™ technology employs an FPGA graphics processor to ensure continuous video streaming, real-time control and stable signal transmission across all sources. The Video Wall functionality allows you to create 18 video wall profiles for custom screen layouts through an easy-to-use web interface.

ATEN

1K-3KVA Professional Online UPS

The ATEN Professional Online UPS is an exceptional and innovative electrical apparatus that provides emergency power to a load when the input power source, or the mains, fails. The basic technology of an online UPS is the same as in a standby or line-interactive UPS, however, the ATEN Professional Online UPS provides a much greater current of AC-to-DC battery-charger/rectifier where the rectifier and inverter are designed to run continuously with improved cooling systems.

In all our years of working with computers, we've found the vast majority of hardware failures can be directly attributed to the stress hardware components experience during the shut-down and startup process, especially if power surges or blackouts are involved. With severe weather, the aging electrical grid, and hazards lurk inside your own walls, your equipment is under constant attack from power problems.

Benefits :

- Output power factor is 1 (maximum), which means all of the power supplied is being used for productive work and makes work the most
- efficient. Output voltage regulation < 1% – Provides higher performance and efficiency for critical applications.
- Programmable power management outlets – Users can easily and independently control load segments.
- Emergency Power Off function (EPO) – EPO connector at rear panel allows emergency UPS Power Off from a remote location.
- SNMP + USB + RS-232 multiple communications – Allows either USB or RS-232 communication ports to work with SNMP interface simultaneously.
- Hot swappable battery design – As long as utility power is on, you can leave the UPS and connected equipment on while replacing the battery.
- ECO mode for energy saving – Offers up to 97% efficiency to cut energy usage and cost.

BP48V18AH Battery Box

ATEN UPS Battery Box extends battery runtime when used with ATEN UPS systems. Users will have an extra time to save valuable data from any unexpected power shutdowns.

SP100 SNMP Card

ATEN's SP100 (SNMP card) is an UPS monitoring equipment. Allows connection of the UPS directly to the ethernet network through a RJ-45 connector without using RS-232 ports on the computer.

NRGence™ Energy Intelligence With Eco PDU
ergy Intelligence by ATEN

Current with increasing energy challenges, including rising demand, growing consumption, and sufficient energy supplies, energy-saving issues have become an important global concern. ATEN offers various series of PDU and energy management solution allowing you to easy upgrade your server room to a green data center quickly and cost-effectively.

Aten NRgence provide instant, real-time power management control and energy-saving efficiency by enabling IT managers to easily upgrade current IT resources quickly and cost effectively. With the use of dynamic Rack Cooling Index (RCI) and Return Temperature Index (RTI) by zone, Eco Sensors software, in conjunction with sensor-enable Eco PDUs, gives IT managers the means to assess, diagnose and estimate how and where energy can be saved. Our eco PDUs offer remote power control combined with real time power measurement, IT managers to control and monitor the power status of devices attached to the PDUs, either at the PDU device or outlet level, from practically any location via a TCP/IP connection.

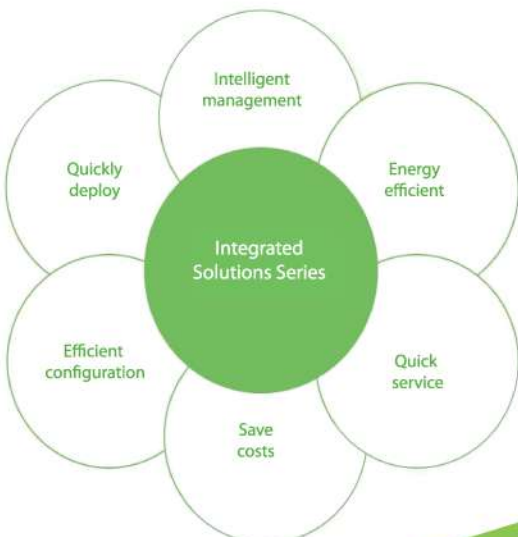| Energy Box with Real-time Power Monitoring EC1000	Reed Door Sensor EA1442	Differential Pressure & Temperature EA1340	Inductive Proximity Door Sensor EA1441	Temperature & Humidity Sensor EA1240	C14 EZ-Lok Plug Connector 2X-EA10

PE5221T

PE5342TG

HAIRF®

Hairf Smart Cabinet System an emerging trend in Micro Data Centre which provides a cost effective and energy efficient service with a rapid deployment time-frame. These solutions provide a cost effective power, precision cooling and management infrastructure to help you achieve your IT objective and reduce the user's IT system construction cost, quickly deployment the core service and green energy conservation.

This Micro-module integrated intelligent standalone self-contained Cabinet from Hairf provide the one stop solution Cabinet integrated with Precession Air condition, UPS, Cabinet, PDU, KVM, Environment Monitoring System & Fire Suppression is pre-configured &Pre-tested to be deployed in sectors like Finance, Government, Education, Medical, Public Security, and Small to Medium-sized Enterprises, Textiles, IT branches as a single, integrated, repeatable package where ambient conditions and temperatures are not in control and also where dust & dirt is common. Secure remote management and monitoring capabilities, enabling your IT team to remotely access and manage IT assets.

Camera

Beacon

Network Switches

On Site / Over IP Monitoring & Management System

KVM Console

Servers

Environmental Monitoring System

UPS

Power Distribution Module

Precision Air Conditioning

Intelligent management

Quickly deploy

Energy efficient

Integrated Solutions Series

Efficient configuration

Quick service

Save costs

HCS8010 Double Cabinet

HCS8015 Triple Cabinet

16

Focus on network power products for thirty years

Precision air conditioner / UPS / Valve-regulated lead acid (VRLA battery / STS (Static Transfer Switch)
IPDC (Intelligent Power distribution cabinet) / SPD (Surge protechtion device)

HAIRF®

Hairf, the world leading providers of critical premise power supplies and cooling systems, is headquartered in Rome, established in 1996. The company now delivers a compelling portfolio of UPS power supplies, precision cooling systems, STS and lightening protection system. Hairf has established subsidiaries or joint ventures in more than 20 countries and regions, including one in Hong Kong. To better cater for demands of Asia and Pacific region countries, the company set up a joint venture in Beijing in 2004 and established local sales and service offices in shanghai, Guangzhou, Chengdu, Wuhan, Fuzhou, Xi'an, Jinan, Nanning etc. Hairf telecom units are specially designed to control the internal environment of shelters, containers and mobile based-stations that require cooling by means of energy efficient and highly reliable air conditioning units.

Quality Control Component

It Strictly complies with CE and IEC standards and is empowered with advanced electric control technology and is able to work under a power source of 380V ±20%. In addition, it's installed with a power supply protection module, enabling it to makes a selection of protective value in a range of 380V ±50%. When voltage goes beyond the selected range, it will automatically protect the unit. It will automatically restart the unit when the voltage normalizes.

Evaporator & indoor Blower Fan

An efficient evaporator made from quality material with advanced professional technology and featuring large heating exchange are and undisturbed flow. A blower fan made by EBM, an international famous blower fan maker, adopting radial flow fan with reverse blades and electronic steeling DC dynamo and featuring reliable operation, low noise and small energy consumption is also a feature of this product.

Dual Automatic switching function

Automatically switch on standby unit after master unit keeps working for the set time. The standby unit continues the master units operating mode and speed to maintain the set temperature before switching status (sent from the master) and so forth, master and standby unit work in redundant.

Humidifier

An internationally advanced electrode steam humidification system under which the amount of humidification and water flow and out flow are all controlled by computer, the also cleaning program for the humidifier cylinder ensure normal humidification efficiency of the cylinder.

Heater

An electric heater with perfect overheat protection function and ionization resistance, able to meet Environmental requirements of the small heat load machine rooms for base station in cold alpine area.

Condenser

An enclosure of anti-corrosion alloy that ensures service life and appearance of the condenser, an external rotor axial flow fan that is elaborately designed and able to satisfy the environmental protection requirements on noise, and fan speed regulator that controls the rotating speed under different temperature and ensures sound operating effect and energy saving.

Microprocessor Control

The control system of the unit adopts advanced microprocessor that provides more accurate and convenient system monitoring and parameter setting. Under normal range of working temperature and humidity, the accuracy of temperature control is at ±1? and that of humidity control ±3%.

Remote monitoring

Through special designed HAIRF software, real-time long-distance monitoring on air conditioning unit can be realized. This system supports various kinds of networks, such as: home net, telnet, building auto control system and power and environment centralized monitoring network.

Designed to operate 24x7

Pasfinder designed higher than the industry standards, suit for uninterrupted operation of all-weather under 40 C + 55 C ambient conditions.

Intelligent Control technology

Advanced intelligent control technology, Chinese/English large LCD backlit display, easy-to-human Interface, precise microcomputer control system can store 250 historical alarm information with filter cleaning time alerts.

Hairf Modular Date Center also knows as **"HMDC"**, according to the global trend of cloud computing and development needs adhering to the efficient modular construction concept the integration of Internet based on traditional modular digital technology.

HMDC is a smart and flexible architecture suitable for small and medium enterprise applications. In addition to the integration of main systems of power, cooling, racks and monitoring, the cold or hot aisle containment also provides superior air flow management to enhance cooling efficiency. A traditional datacenter takes 18 to 24 months to build, while a modular datacenter requires only a few weeks or months for deployment. Hairf modular datacenter, with its fully modular design concept, is flexible and offers pay-as-you-grow with short installation time to meet the rapidly growing needs of data storage and processing.

Highly scalable for quick deployment.

Integrated design, factory prefabricated installation engineering products Site decoration requirements are low, easy to install, plug and play, greatly shorten the installation time. Modular design, with the business development on-demand expansion, to further shorten the business on-line time .

Security
The top configuration of the electric sunroof, which activate in case of Fire.

Orderly
Top integrated wiring system for orderly cable distribution.

High Configuration
Hairf inrow Cooling Unit.

Quick

Efficient

Intelligent

Reliable

High Efficiency
Integrated precision column head power distribution cabinet, high efficiency

Highly modularized UPS
A variety of specifications are available to meet different IT load application requirements

One-stop service
Server cabinet system providing efficient one--stop service

Intelligent and Convenient
Manual, automatic sliding doors, support for passwords, fingerprints, smart card open the door

Intelligent monitoring
Monitor the local maintenance platform, provide a friendly man-machine interface, you can touch the way to view the module within the device status or Over IP.

All-in-One. Highly Intelligent Management & Redundant System

Perfect alarm platform, support SMS voice alarm, local sound and light alarm, mobile side alarm, really 7 x 24 hours unattended. Powerful reporting function, the regular state of the engine room for statistical analysis, effectively improve the operation maintenance capabilities. Simpler redundancy If a data center has a redundancy requirement (i.e. N+1, 2N, 2N+1), you can make this redundancy in smaller increments. For example if you need 120KW cooling requirement, you can provide n+1 redundancy with 5 X 30 KW inrow units (4+1). Inrow cooling units have hot-swappable EC fans and easily replaceable control .

Highly efficient. Eco-friendly.

Sealed channel design, compared to open design, effectively prevent the mixing of hot and cold air, energy saving effect is remarkable. Using row-level air conditioning refrigeration, heat source near-end refrigeration, to further reduce the cooling loss. Using efficient modular UPS, you can achive flexible configuration, can be expand on demand.

Lower CAPEX & OPEX Cost

 Over-conservative designing of a data center with perimeter coolers results in significant capital expense waste. Due to unbalanced distribution of cold air, datacenter designers are conservative while defining the required cooling capacity. Actually they assumemore cooling capacity than required to eliminate balancing and hot spot problems in future. Upto 30-40% of this expense can be eliminated by relying on inrow coolers to cool the entire data Over-provisioning of coolers results in added energy expense, especially if the unnecessary coolers have fixed-speed fans, which is very common in perimeter units supplying cold air via raised floor.

Uniform distribution of cold air

 The inrow cooling units provide uniform cooling capacity and pressure on the entire rack level. Flexible design - An inrow-cooling based datacenter design allows cooling capacity and redundancy to be targeted to the actual requirements of containments. For example, one containment of racks can run on high density applications such as blade servers, pizza boxes etc., while another containment will be used lower power density applications such as telecommunication or cabling enclosures. Furthermore, N+1, 2N , 2N+1 redundancy can be targeted at specific containments.

# HCDC All in One Containerized Data Center

With the intensification of social informatization, the demand of data processing swelling, the traditional data center construction cycle, construction cycle, construction cost, cooling pattern and operation method cannot adapt to the changing demand, so the new green, intelligent and low TCO modular data center comes to the best option.

Hairf container date center, be short for **"HCDC"**, is research & development as a new generation of data center solution. It's high performance high available, high density, mass extension, easy management and wide compatibility greatly shorten customer's data construction period, great improve the efficiency of energy utilization, reduce construction investment and operation cost, to provide customers with good price ratio, high security products and solutions.

Building —— Green —— Intelligent —— Low TCO —— Modular Data Center
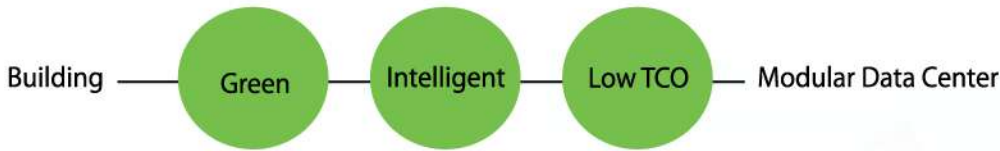
Dynamic Environment Monitoring System

The environment parameter acquisition sensor information (temperature and humidity. smoke, water, magnetic door etc.) directly connected to the host Collected monitoring parameters for UPS, precision air conditioning, Intelligent power meter, video and so on. Adopts rack data acquisition host Desktop 3D real show modeling, according to the actual position sensor installation location of the monitoring data.
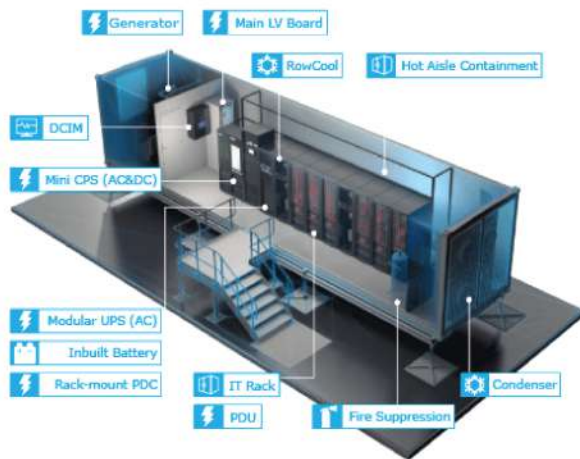
cision Head Distribution Cabinet

ntegrated Precision Intelligent distribution cabinet is adopted to integrate
 distribution unit, air conditioning distribution unit, UOS distribution
and truly integrated distribution. It also supports the monitoring of voltage,
nt, frequency and other information of the main road and branches which
 monitoring continuously for 7 times 24 Hours.

rigeration System = Inrow Precision Air Conditioning

 Inrow precision air conditioning, N + 1 backup DC frequency conversation
pressor DC driven EC fan Electronic expansion Valve technology Air Filtration
m. High efficiency compressors and Electrical Computation (EC) fans, with
grated intelligent logic regulating the opening of expansion valves, realize
00% step-less capacity regulations, and meet the low-load ratio cooling
irements for data centers.

Advantages

Data Center on Move- A traditional datacenter takes 7 to 8 months to build. With the fully modularized design concept, Hairf's containerized datacenter is flexible and scalable with only a few weeks or months for deployment to meet the rapidly growing IT needs. Mobile Data center is ideal for Military , Oil & Gass Fields , Colocations.

Highly integrated. Highly reliable - Prefabricated, pretested, and fully configured architecture with high portability for edge computing application. All subsystems, such as UPS, power distribution, battery, cooling, racks and more, are well integrated., work orders, security, capacity management, and more.

Energy efficient. Low PUE - RowCool's continuously variable fan speed control enables high energy savings. Hot aisle containment further improves cooling efficiency. UPS can generate high AC-AC efficiency 95% even at 30% light load.

Pre-engineered and Factory Assembled - Prefabricated Modules are designed and built to precise specifications in a controlled factory environment and utilize DCIM software which results in improved reliability and a more predictably performing data center.

Scalable and Flexible - Prefabricated modules inherently allow for scalable growth of IT infrastructure and the flexibility to adjust the design and size of future phases of deployment. Capital investments can be deferred, improving cash flow.

Data Center Expert Preinstalled - Industry proven DCIM software provides real-time monitoring, user-defined reports and graphs, and fault notification and escalation of critical infrastructure events. Software is preinstalled, significantly reducing on- site configuration and cost.

Simple and Fast Deployment - Prefabricated Data Center Modules arrive on site ready to deploy which significantly reduces installation time and cost.

Comprehensive manageability - Hairf's DCIM provides a sophisticated management and monitoring solution including power, energy, assets

HKLINE logo

IMPORTED SERVER & COM. RACKS

HKLINE Server Cabinets combine attractive styling with a rugged, toughened steel structure. A one of its kind rack that has the ability to gauge its inner temperature with the help of a Built in Digital Thermostat and a fan unit on top of the rack mounted equipment. The Speed of the Fans can be adjusted by pressing a designated button. They are treated with a high quality, durable, powder coated finish and offer a wide range of features at outstanding value. HKLine offers up to 85% Air flow whilst retaining its rigidity. The front and rear doors also have unique quick release hinges. HKLine rack is recognized as one of the toughest in the market today for this reason. Preconfigured customizable server racks are package built to fit most enterprise environments.

HKLine racks are designed for mounting Telecommunications, Data Communications, Security, Broadcast and other 19" Electronic equipment. Our rack mount enclosure items come complete with dual fans, 4 (2 fronts, 2 rears) adjustable mounting rails casters, leveling feet and lockable acrylic front door, Quick release doors, Quick release side panels, Rear Cable management and pretreated door channels.

Server Rack

Standard:
- Comply with ANSI/EIA RS-310-D....IEC297-2....DIN41494.... PART1....DIN41494; PART7 Standard.

Main material:
- SPCC cold rolled steel
- Thickness of steel: mounting profile: 2.0 mm mounting angle: 1.5mm; other:1.2 mm mounting angle :1.5mm others: 1.2mm

Feature:
- Easy to assemble & disassemble with easy to understand and do it your yourself instructions.
- 19" standard installation with adjustable dimension.
- Blue Zinc Mounting profile, free of statics.
- Exquisite design with precision measurement and craftsmanship
- Hexagonal retical high-density Curved shape vented front door (patent) & rear door enabled equipement protection, ventilation and reliable operation, with turning angle above 120degrees and ventilation rate above 85%. (Also available in Glass door).
- Bottom with cable entrance, optional cover to close.
- Side doors with locks for protection
- Advanced moon-shaped lock on front & back door.
- Various optional accessories.

Thermostate

Loading Capacity:
- Static loading : 800KG

Types:
- Availbe in all sizes

MODEL	SIZE
HKL6642TM	600x600mm
HKL6842TM	600x800mm
HKL8842TM	800x800mm
HKL6142TM	600x1000mm
HKL8142TM	800x1000mm

MODEL	SIZE
HKL6G	600x550mm
HKL9G	600x550mm
HKL12G	600x550mm
HKL15G	600x550mm
HKL18G	600x550mm

Frame Rack

WALL MOUNTED RACKS

HKLINE offer's a wide range of wall mounted cabinets Double Section and Accessable from side for easy access during installation of equipment or Trouble Shoting. These data cabinets are lightweight and versatile to suit almost any installation where a wall mounted data rack is required.

Their lightweight design means despite their size they are suitable for mounting on almost any wall. Each data rack includes 19" mounting profiles and a lockable front door , Rear and Side Doors for additional security with a high-quality durable powder coated paint finish in black Color.

WallMount Rack

POWER DISTRIBUTION UNIT

HKLINE is an advanced power distribution and control unit for servers mounted into racks. In addition, HKLine is the only PDU which allows the monitoring both of the electrical and environmental parameters. According to the version, HKLine allows to monitor the total electrical load and for single socket in the "switched" version; the possibility to switch on/off each single socket in remote control, the possibility to set the sequential switch on of each socket in order to prevent single server electrical input peaks. The main and new features is the integration of an environment control unit in the HKLine

HKLine's rack-mount Power Distribution Units (PDUs) simplify power distribution into racks and cabinets in data centers and equipent rooms. Select models provide real-time power monitoring to help identify power problems and track power demand, allowing you to organize IT processes and equipment for the most efficient use of available power.

There are four progressive levels of PDUs: basic, metered, monitored and controlled. Basic PDUs feature electromagnetic circuit breakers which isolate power problems to a particular group of power outlets preventing disruption of power on other circuit segments. Metered PDUs include an in-line digital ammeter that displays the amount of current being used by attached equipment so that you can track current use and estimate remaining power on each circuit segment. Monitored PDUs include an Ethernet port that allows network-based monitoring of current use, temperature and humidity using a web browser or HKLine's Scalable Enterprise Management Application (SEMA) software or another application via SNMP. An optional sensor (ordered separately) is required to measure temperature and humidity. Controlled PDUs feature switchable outlets for remote power cycling with port monitoring which lets you measure current use at each outlet. Additionally, some PDUs are available without circuit breakers. Choose PDUs to match the voltage and current rating of the power connection. Single-phase or threephase, vertical or horizontal PDUs with various outlet and plug combinations are available. Combine HKLine monitored or controlled PDUs with SEMA software and CenterBridge products for real-time enterprise wide IP-based power monitoring and server access. Other PDUs can be upgraded for network monitoring with the PowerScope In-Line Meter.

Product & Description

Product Series : PDU
Socket Type : BS1363 outlet Module[6]; [8];
Socket Quantity : 6 / 8
Cable with Plug : BS1363 13A plug
Control Function : 16a Master switch
Protection Function : No Protection function
Case : Black
Cable Specication : 3 x 1.5 mm 2 x 2M
Mounting Length : 459 mm / 573 mm

Product Series : PDU
Socket Type : DIN49440 16A Socket [6]; [8];
Socket Quantity : 6 / 8
Cable with Plug : DIN49441 14A plug
Control Function : 16a Master switch
Protection Function : No Protection function
Case : Black
Cable Specication : 3 x 1.5 mm 2 x 2M
Mounting Length : 456.5 mm

Product Series : PDU
Socket Type : BS1363 45 degree [15];
Socket Quantity : 15
Cable with Plug : IEC60309 plug (32A 2P+E)
Control Function : 32A master air circuit breaker
Protection Function : 32A CR32 digital AMP meter
Case : Black
Cable Specification : 3 x 6.0 mm 2 x 2M
Mounting Length : 1247 mm

Product Series : PDU
Socket Type : BS1363 45 degree [15];
Socket Quantity : 15
Cable with Plug : IEC60309 plug (16A 2P+E)
Control Function : 16a Master switch
Protection Function : 16A CR32 digital AMP meter
Case : Black
Cable Specification : 3 x 1.5 mm 2 x 2M
Mounting Length : 1189mm

Product Series : PDU
Socket Type : Single IEC320 C13 Socket [15];
Socket Quantity : 15
Cable with Plug : IEC60309 plug (32A 2P+E)
Control Function : 32A master air circuit breaker
Protection Function : 32A CR32 digital AMP meter
Case : Black
Cable Specication : 3 x 6.0 mm 2 x 2M
Mounting Length : 977 mm

Temperature & Humidity Sensor

Smoke Sensor

Doors Opening Sensors

Industrial Socket

FIBERRUNNER ROUTING SYSTEMS

HKLINE (ABS) fiber optic cables carry far more services and much greater throughput than traditional copper services and downtime or outages can cost tens of thousands of dollars per second in lost revenue for each cord damaged. Optical fiber cables are fragile and need to be correctly protected throughout any cabling installation from end to end. Traditional cable routing on open cable trays and ladders may cause damage to the delicate fiber cables. These methods of routing cables provide no protection for the exposed fiber.

Our innovative solutions for routing fiber optic and high performance copper cabling to and between equipment racks within a data center, telecommunications room, or service provider facility. Routing products such as the Routing System are critical factors in your ability to quickly install, easily implement moves, adds, and changes and maintain the integrity of your fiber and copper cabling plant in order to maximize long-term performance.

Adapts to Any Application
Raceway components are available in four colors (yellow, orange, grey, and black), four sizes, and a wide variety of styles. Ducting is available solid or slotted, with or without covers; connecting components enable drop-offs and routing around obstacles. Mounting kits allow overhead, raised floor, and vertical installation.

Assembles Quickly and Easily
Ducting is easily cut to size with a mitre saw, and the system installs with only a screwdriver and other simple carpentry tools. Connection components, including vertical and horizontal outlets and hardware-free covers, snap together tool-free, saving time and money. Side drop- off kits can be added after initial installation anywhere along the Raceway to accommodate new cable routing to racks and cabinets.

Preserves Fiber Integrity
High impact thermoplastic construction ensures ample protection, rigidity, and support. Ducting won't sag under heavy cable loads, and accidental cable damage is prevented, minimizing network downtime. Plus, the system maintains a minimum bend radius of 30 mm at all times.

Reduces Fire Damage
The Fiber Raceway System is UL 2024A listed for riser-rated telecommunications applications. In addition, Raceway materials carry one of UL's highest flammability ratings, 94 V-0. They are also halogen-free and produce no corrosive acid or toxic gas emissions in the event of fire, making them ideal for sensitive environments from hospitals and nursing homes to telecom rooms and data centers.

Routing System

HKLINE fiber runner Routing Systems are comprised of channel, couplers, fittings and brackets designed to segregate, route, and protech filbe optic and hige high performance copper cabling. Reconfirm Sizes.

Cable Fills	Split Cover 4-Way Cross Fitting	Horizontal Right Angle Fitting	Trumpet Spillout	Coupler	4-Way Cross Fitting
Fiber Channel	6x4 Up Spout	Angle Fitting	Inside Vertical 45° Angle Fitting	Horizontal Tee Fitting	Reducer Fitting
Vertical Tee	Y-Reducer 2 way Exits	Horizontal Tee	4-Way Cross Fitting	Reducer Fitting	Spill-Over Junction

Accessories

Mounting Brackets	Angle Mounting Brackets	Mounting Brackets	Cable Raceway Mounting Bracket	Quicklock Mounting Bracket	Pedestal Mounting Bracket

WIRE GRID CABLE ROUTING SYSTEM

HKLINE Cable management is a key consideration of the physical infrastructure for optimizing system reliability, effective space utilization, and scalability. HKLine offers industry-leading Cable Routing Systems as part of comprehensive, integrated Data Center Solutions to effectively manage and protect high-performance communication, computing, and power cables. Wire Grid Overhead Cable Tray Routing System contributes to effective real estate usage and network performance. It provides speed of deployment, structural integrity, cable protection, and ease of use.

Pathways

| 12" wide x 10' long pathway section | 18" wide x 10' long pathway section | 24" wide x 10' long pathway section | 30" wide x 10' long pathway section |
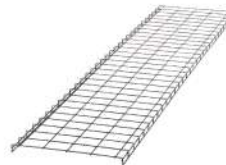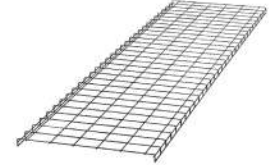
Splice Connectors

Straight splice connector quickly joins two 8", 12"

Straight splice connector quickly joins two 24", 30"

Intersection splice connector quickly joins Wyr-Grid

Waterfalls

The bottom waterfall bend radius control for cables

The side waterfall bend radius control for cables

Support Brackets

Support 8" wide Wire-Grid

Support 12" wide Wyr-Grid

Support 30" wide Wire-Grid

Used to support the end of the 8"

Used to support the end of the 12"

Used to support the end of the 18"

Mounting Brackets

QuikLock Mounting Brackets

Trapeze Bracket

Mounting Bracket for Strut

Cantilever Brackets

Support the 12" wide Wyr-Grid

Support the 18" wide Wyr-Grid

Support the 24" wide Wyr-Grid

Structured Ground Grounding System

Structure Ground Grounding System brackets provide a convenient location to attach ground wire for grounding Wire-Grid to ground bar.

Grounding System brackets provide the flexibility to install grounding conductors above or below the Wire-Grid system.

Accessories

High Snap-On Sidewalls

Pathway Intersection Bend Radius Controls

The hardware kit for field fabricating a right angle,

Grounding Cable Hanger Brackets-2

Grounding Cable Hanger Brackets-3

6 AWG grounding jumper

ACCESS FLOOR SYSTEM

HKLINE access floor technology brings the evolution of building design to the next level. Under floor air, wiring, and data cabling services combined with significant structure advantages offer in comparable first-build and long-term value and flexibility. Raised floor systems deliver an unlimited ability to reconfigure data and electrical systems on demand, Under floor air distribution reduces energy costs, improves in door air quality, and enhances personal productivity and comfort. These benefits and more reside in green building, environmentally conscious construction solutions.

HPL/VINYL CEMENTITOUS STEEL RAISE FLOOR

High pressure plastic laminate is used in 90% of all computer room applications, and is the largest product used on factory laminated floor finishes. Laminate is a one piece tile (24" x 24") and unlike vinyl, will provide a uniform finish with no joints. HPL has the advantage of not requiring wax or maintenance that could produce static problems in the data center.

BOLTED STRINGER SYSTEM
• Designed specially for Underfloor Air Distribution for Data Centers.
• Trapeziform PVC taped stringer provide excellent Air Leakage Rate
• Excellent seismic proof performance
• Improved static load performance
• Maximum Finished Floor Height 1200mm
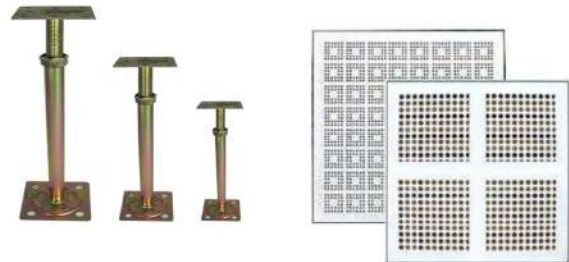
AIR FLOW PANEL

A special type of panel must be used to allow underfloor air conditioning to flow through the floor up to the equipment. These panels are called Perforated Air Flow panels because of the many holes drilled through them. Sometimes they are called a air flow panel, air tiles, perforated panels, air vents, or louvers.

ANTISTATIC ESD FLOOR TILES

HKLINE ESD & cleanroom flooring is an advanced technical flooring system specifically designed to control static discharge in sensitive areas such as Data Center, Machine room, Electrical room & Operation theaters. It is not only functional, it is also aesthetically pleasing in bring fresh colors, It's true standard ESD tile or static free flooring looks like a utilitarian floor. Our goal has always been to protect mission critical operations and expensive static-sensitive circuits. In an effort to provide the highest quality ESD floor, utility trumped any other consideration.

CHARACTERISTICS

Thickness:	2.0 mm
Tiles:	608 x 608 mm
Sheet on request:	width 200cm, length 15m (30m)
Weight EN 430:	approx., 3500g/m
Residual indentation EN433:	< 0.1 mm
Light fastness ISO 105-B02:	> 6
DIN IEC 61340-4-1:	DIF
Conductivity resistance EN 1081:	<10 Ohm
Treading test EN 1815:	<2 kV
Electrical insulation value VDE 0100:	B -S1
Exposure to chemicals EN423:	resistant
Castor chair resistance EN 425:	suitable for castors type W

BENEFITS

Gap-free Installation : High density resin eliminates tile shrinkage.
Color runs through entire thickness of the tile so that deep scratches do not reveal a different color helps hide scratches.
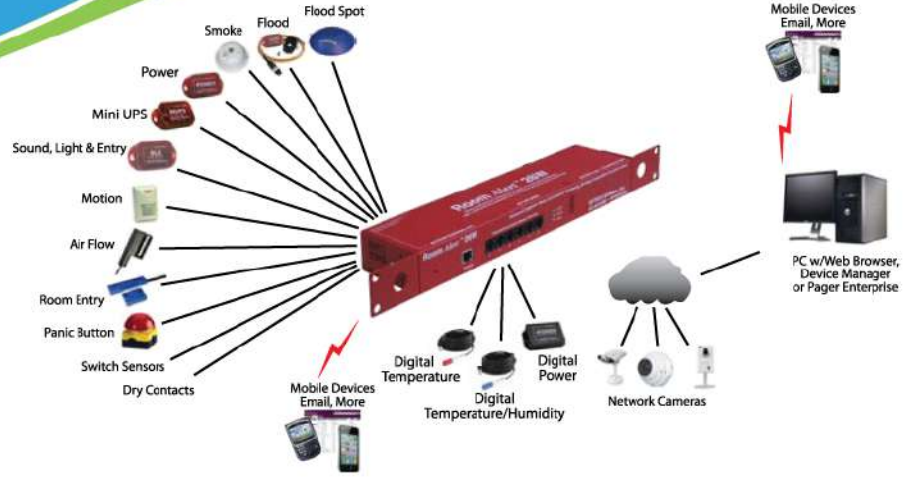**Never require Wax :** High density resin reduces maintenance, resists scuff marks and staining, overall is easier to keep clean.
Ideal for extreme duty manufacturing applications.

Smoke
Flood
Flood Spot
Power
Mini UPS
Sound, Light & Entry
Motion
Air Flow
Room Entry
Panic Button
Switch Sensors
Dry Contacts
Mobile Devices Email, More
Digital Temperature
Digital Temperature/Humidity
Digital Power
Network Cameras
Mobile Devices Email, More
PC w/Web Browser, Device Manager or Pager Enterprise

▲ AVTECH

Protect Your IT Facility
Don't Wait Until It's Too Late!

Room Alert© is a complete solution for easy remote monitoring of the environment conditions in IT and other valuable facilities , from anywhere on the network or around the world. Room Alert is perfect for environments such as telecom closets, critical rack cabinets, large computer rooms or data centers, cold storage facilities, hospitals, restaurants, warehouses, educational facilities, museums, multi-building plants and facilities of all types and sizes, Room Alert connect via Ethernet to the network and does not require a host PC for operation. Room Alert helps protect important assets to minimize downtime and reduce losses when conditions change or a disaster occurs. Use the built-in web server, Device ManageR TM software, GoToMyDevice cloud service, or an SNMP application to monitor Room Alert devices network wide.

Monitoring - Sensors

Digital Temperature Sensor
Real-Time Recognition of Temperature

Digital Temperature/Humidity Sensor
Real-Time Recognition of Temperature & Humidity

Power Sensor
Real-Time Recognition of Power On/O.

Mini UPS & Power Sensor
Real-Time Recognition of Main Power
Loss w/Backup UPS

Current Loop 2 Sensor (250A)
Real-time Monitor of Electrical Current

Room Entry Semsor
Real Time Recognition of Entry

GSM Modem w/USB
Gsm Modem w/USB connect offers connectivity of AVTECH's Room Alerts monitors located network wide to any GSM/GPRS cellular network.

Smoke Sensor w/Escape Light
Real-Time Recognition of Smoke/Fire...

Motion Sensor
Real-Time Recognition of Motion...

Air Flow Sensor
Real-Time monitoring changes normally closed.

Flood Sensor w/24' Cable
Real-Time Recognition of Flood/Water...

Fuel Tank Level
Monitor Fuel Tank Levels and Alerts

Digital Fluid Temperature Sensor
Real-Time Monitor of Fluid temperature

Water Tank Level and Alerts Sensor
Gsm Modem w/USB connect offers connectivity of AVTECH's Room Alerts monitors located network wide to any GSM/GPRS cellular network.

PYROGEN™

Pyrogen is a new class fixed fire extinguishing system using solid propellant aerosol technology. Unlike conventional re extinguishing systems, PyroGen is stored as a stable solid chemical compound which when activated generates fire-fighting aerosol. The extinguishing medium however is not stored in a pressurised cylinder, it is produced in-situations only when required. The aerosol is a mixture of gases and micron-sized solids, possessing gas-like distribution properties and long holding times, totally floods the protected enclosure and rapidly extinguishes any fire present.

Benefits

○ Environmentally Friendly
- Zero Ozone Depleting Potential (ODP);
- Zero Global Warming Potential (GWP).

○ High Performance
- Fast response after detection of fire;
- Rapid system discharge –instantaneous extinguishing action;
- Low agent concentration.

○ Low Maintenance Cost
- No pressure cylinder or pipe work;
- No moving parts;
- No gases, no liquid, no leakage;
- No pipe work or manifold;
- Simple to install & re-commision;
- No maintenance on aerosol modules.
- Only electrical circuit check required;

○ Compact & Versatile
- Smallest & lightest fire extinguishing system. Most compact when compared size for size with other fire extinguishing systems;
- Resistant to high humidity, corrosive and salty atmospheres;
- Choice of system operation modes –automatic, manual, electrical, thermal;
- Can be fully autonomous stand-alone systems when coupled with our TAD detection and activation devices-no power source or battery required.

○ Tested & Certified
- Activefire, Active Fire Protection-Product Certification by CSIRO Australia* Listed;
- Approved alternative to Halon under Significant new Alternative Policy (SNAP) program by United States Environmental Agency (USEPA);
- American Bureau of Shipping (ABS);
- Certified & Recognized by various certification bodies world Wide

Applications

Some of the critical areas protected by Pyrogen are :

Electrical
Protection of transformers, sub-stations, switchgear room, cable tunnels, electrical cabinets.

Industrial
Protection of machinery and Equipment in factories.

Commercial
Protection of warehouse , Storage areas , raised floors / above ceiling areas, garages.

Marine
Protection of engine Spaces/compartments of ships, Boats, ferries.

CNG Grinders
Specially developed system for Protection of oil coolant based CNG Machine.

Computer Room
Protection of data storage and Data processing areas.

Trains
Protection of locomotives, Electrical cabinets of trains.

Pyrogen Signature Features

Cost Effective

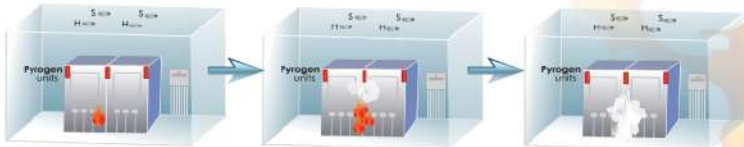**No Pressurised Cylinders, Pipe Work or leakage**

Save Space
Progen | Halon 1301 | FM-200 | FE-13 | CO₂ | Inert Gases

Total Flooding / Direct-To-Source

NFPA® APPROVED

- Outbreak of fire in electrical control panel
- Heat/smoke detectors activated
- Signal transmitted to control panel
- Pyrogen unit discharged
- FIRE EXTINGUISED

- Outbreak of fire in electrical control panel
- DTS canister activated automatically
- Spread of fire contained
- Pyrogen unit discharged
- FIRE EX INGUISHED
- Minimal collateral damage & downntime

26

SCHRACK
S E C O N E T

The **SCHRACK-SECONET** has subsidiaries in Poland, Sweden and Hungary as well as regional offices in Romania, Russia, Slovakia, Czech Republic, Turkey and India. In Central and Eastern Europe we have a network of local partners. Safety is a valuable asset. Schrack Seconet have made it's duty to develop systems and solutions for people to increase their safety, thereby making the world a safer place. Our products represent the highest level of technology, are easy to operate and help build confidence.

Integral IP Control Panels

Schrack Seconet supplies all system components, from hardware to software. When combined with the support services, they offer a perfectly coordinated, integrated solution.

The complete Integral Remote package has the perfect application for every requirement and enables access via all platforms, from computer to tablet. All Integral IP control panels are equipped with an IP interface, thus supporting the Internet protocol. The control panels can also be monitored via remote access by intelligent software applications using a PC, smartphone or tablet device.

Addressable Fire Detection Panel

The Addressable Fire Detection control panel can be used also as a single-zone extinguishing control panel (electrical control and delay system in compliance with EN 12094-1 and VdS 2496) or as a combined fire alarm/extinguishing control panel. For this purpose special versions of the cabinet with additional LED parallel indicators and additional freely programmable inputs and outputs are available. Integral IP CXE has been designed and approved for controlling the following fire extinguishing systems:

- CO_2 high and low pressure extinguishing systems or areas hazardous and non-hazardous to human lives.
- Inert gas and argon extinguishing systems for areas hazardous and non-hazardous to human lives.
- Water spray & mist water deluge systems
- Pre-action sprinkler systems
- Sprinkler systems
- Chemical extinguishing systems

The powerful and networkable MX Series control panels are specially optimized for protecting large plants and buildings, such as industrial plants, office buildings, airports, hospitals, shopping centers, etc. The modular system construction also is the basis for a standard-conforming modernisation of legacy systems.

- Modular, decentralized structure
- Up to 16 loops – max. 4000 elements per control panel
- TCP/IP interface
- Networkable
- Hardware & software redundancy
- Modernisation of older systems
- Floor-standing cabinet
- Multizone extinguishing control panel.
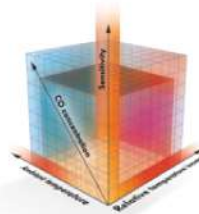
Line-Type Heat Detectors

Line-type heat detectors are predominantly used in locations where, due to the aggressive and critical atmospheric conditions (e.g. high air humidity, extreme temperatures, outdoor areas, aggressive gases, dust pollution etc.), conventional fire detectors cannot be used, or where, due to the exceptionally large monitoring length or areas, a very large number of heat detectors would be required.

Aspirating Highly Sensitive Smoke Detector

Aspirating Highly Sensitive smoke detector consists of one or two independent aspiration pipes with one or several suction inlets as well as a metering box. The air of the rooms to be monitored is aspirated and accurately analyzed in the metering box of the scattered light detector. If the detector samples smoke particles which exceed the defined threshold value, it will immediately trigger an alarm. This enables the fire brigade to fight the fire before it breaks out fully.

A Smart City is a City Where People Feel Safe

With the application of the advanced IP Audio ™ technology, SPON IP network intercom system, a hands-free intercom system to transmit the pure digital data, sends the data packages of the audio signals via LAN and WAN, solving the traditional limitation on the transmission distance and the problems of being vulnerable to interference.

SPON IP network intercom system has been used across fields from the industries (iron and steel, electricity and petrochemical industry), the transportation, the prison and the financial industry, especially suitable for the working places which require a high standard of function and reliability on the communication. In order to meet variously customized demands, SPON has been engaging in developing versatile systems with diversified functions in different working environment such as the ordinary indoor and outdoor circumstances, the formidable industrial environment and some other special kind.

INTERCOMS SYSTEM IN SAFE CITY

1. One-touch call: One-touch call from help point to local police station to realize full-duplex intercom.
2. Call transfer:The system supports Busy line transfer, Power-off transfer, No-response transfer, Time-period transfer, Manual transfer.
3. Voice broadcasting: The police can make common or deterrent voice broadcasting to help point
4. Monitoring and recording: The system supports audio and video monitoring around IP terminal and recording of each call automatically
5. ONVIF protocol: Available for directly connecting to the mainstream NVR to realize audio and video recording synchronously for traceability.
6. Racket and tamper alarm:The IP terminal will alert server automatically when detecting racket and it will also emit alarm bell when someone tries dismantling it.
7. Module design: Available to design podetium by customer themselves.
8. Linkage:The system supports to link video surveillance system to pop up front end video automatically and to link VoIP telephone system to realize two-way intercom Nwith IP phone etc.
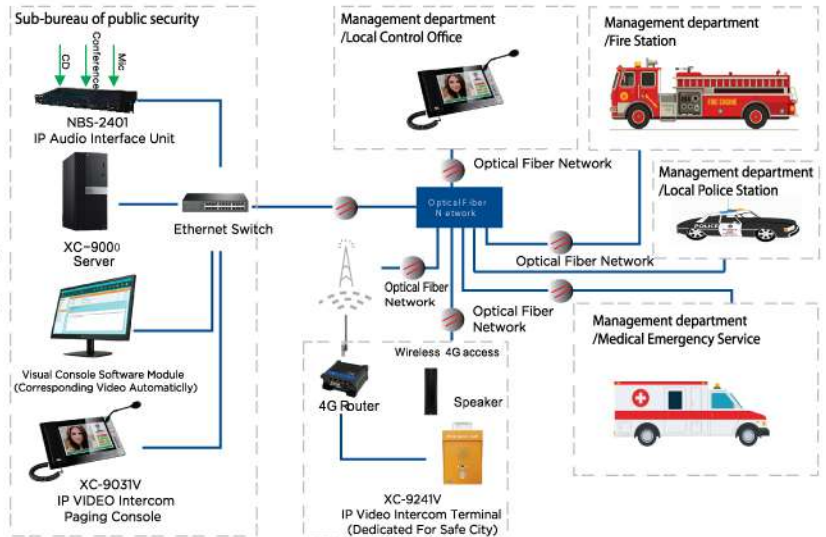
SECURITY MANAGEMENT

We offer tailor-made, user-friendly, flexible and integrated video management solutions and integration platforms. Driven by innovation, we have an innovative solution to every security need. Creating a safe and secure environment is a challenge. How do you monitor security in an efficient way and still remain welcoming? The solutions of TKH Security provide an answer for every security need. Scalable from access control only, to a combination of all aspects of security in a single clear platform. Our Security Management Solution is based on the smart iProtect software and our 4th generation controllers with the latest, most powerful and innovative technology. Both developed in-house. Having more than 30 years' worth of experience as a trend-setting industry leader in the field of ICT and product technology, you can rely on TKH Securitys' expertise.

Motion Detected Recording
CCTV VMS uses its available storage as efficiently as possible, by only recording data when the camera detects movement.

Device Support
CCTV VMS is built on an open platform and can therefore be configured to work with any security device.

Intelligence
CCTV VMS can be expanded with intelligent video content analysis (VCA), adding huge value to collected video data.

Unlimited possibilities
CCTV VMS is created to fit in any kind of security environment. No matter how large or complex, we have the solution.

Face Detection

Line Crossing / Parameter Detection

Incident Detection

INTELLIGENCE VIDEO SURVEILLANCE

Parameter Intelligence can isolate objects from video images and classify them into several categories, each containing pre-defined rules. When a rule is violated, an event is created. For instance, objects which enter a specific area, cross a virtual wire, leave behind or take away items can be marked as an event. These events can be used to trigger macros from other components. Multiple rules can be set per camera, and, together with the event / macro feature, the applications are virtually unlimited. Also detect camera tampering and can analyze video images on change of angle and / or loss of detail. If a camera's view changes (deliberately or by innocent mistake), this has a negative effect on the installed algorithm (intelligence). SceneR is as an ideal tool for automated maintenance of network cameras. SceneR can also trigger an alarm if a camera has been tampered with (for instance moved or covered).

Automatic Incident Detection (AID) use computers to continuously monitor traffic conditions and detect incidents or traffic queues. Road networks equipped with a variety of detectors and CCTV cameras provide the basis for automated continuous monitoring. The detectors are deployed to provide speed, occupancy and flow data to assist with traffic operations.

SUNSHINE

VIDEO DOOR ENTRY SYSTEMS

Electronic audio and video door entry systems

We have a leading audio and video door entry systems and control Access systems manufacturer. We offer home automation and security solutions for the home. SunShine has a great range of video door entry systems, telephones and panels for any kind of need, with basic and advanced functions. Always at the forefront of cutting edge technologies.

Designed for homes,

VIDEO DOOR ENTRY SYSTEMS KITS for 1 and 2 residences include a WAY DOOR ENTRY PANEL of 25mm width made of zamak with awide angle CCD colour camera. The outdoor panel incorporates a lighting sensor, a hood to protect the panel from the rain and backlighted cardholders surface installation.

WITH TOUCHSCREEN AND GRAPHIC ICONS

Way PROX Kit

For home, offices, businesses, schools, hospitals, work centres...where there is an area that needs to be controlled and restricted, the WAY PROX KIT does it in a very simple way. The WAY PROX door entry panel includes a proximity reader and allows access without requiring a key. Just by presenting the proximity keyring to the panel, you can open the door.

Residential Panel Features

- Made of 316 stainless steel.
- Surface mounted (44 mm) .
- CCD wideangle colour camera (104°).
- Blue backlighted cardholder with lighting change according to the status of the panel calling, conversation, door open .
- Large proximity reader. Up to 320 users.
- Dimensions: 182(H)x93(W)x30(D)mm. (44 with hood).

Commercial Panel Features

- Made of zamakpanel with an attractive design.
- Push-button module assembly is extremely simple.
- CCD wide angle colourcamera (angle: 104°).
- Two-way volume control
- Built in lighting lets you see the card slots, even in pitch dark.
- One relay lock control.
- Hood included, to be installed with the outdoor panel.
- Requiring 12Vdc max250mA. An extra power supply is
- IPK-437

Telephones

Automatic door entry systems or telephones are basic terminals for communication from apartments and places of business to the outside world. The range of telephones combines the well-known and highly successful SunShine design in audio version with different aesthetic approaches and features depending on the preferences of the end user.

Door Entry Monitors

Door entry monitors are a basic security element for the home and an investment in the overall quality of the building. Our range includes everything from monitors with the essential features to IP video door entry systems which are capable of integrating automation control features. Our monitors open the door to a world of possibilities for communication, security and home comfort.

Outdoor Panel

The outdoor panel is the external element of the electronic audio or video door entry system. Find the perfect outdoor panel for your project in our catalogue. We have a wide variety of audio and video panels: modular and versatile panels, anti-vandal panels and even panels with high design touch screens.

OPTIMUS
SOUND & COMMUNICATION

OPTIMUS, the reference company in sound and communication, provides its customers with the extensive experience it has acquired since its creation in 1933. OPTIMUS is now the leader in PA systems design and supply with an extensive commercial network throughout the country and projects implemented in 81 countries on the 5 continents. OPTIMUS offers engineering offices & prescriptors, wholesalers, installers and end users a large team of professionals to advise them in all phases of the work. From project preparation and site assistance to training courses for the end user, our customers are accompanied by our experts in sound and intercommunication at all times.

The large OPTIMUS product range resolves the sound needs of large complexes such as airports or railway station networks, but also small facilities like schools, petrol stations and restaurants. Hotels, gymnasiums, sports halls, office buildings, hospitals, industries, etc.; countless projects whose needs are met by our sound systems. OPTIMUS, the end solution in PA systems, distributed sound and intercommunication.

DA-500D4 | 4 x 500 W

Digital power unit with 2 or 4 outputs of 500 W of RMS power at 100V. Its design allows high energy efficiency and minimum heat generation (class D), in addition to a reduction of the rack space required. It offers protection circuits and voltage, current and temperature monitoring, with automatic disconnection to avoid possible overload, short circuit or overheating.

UMX-2M3
2 audio inputs for music

- RCA stereo connector with L&R internal sum for each input.
- Audio level adjustment.
- Configurable sensitivity via software: AUX H (775 mV) & AUX L (100 mV)

AXD-TEL
Telephone interface

- DTMF telephone interface for access to PA
- Analogue line or extension, DMTF dialling.
- Volume adjustment and maximum priority

UMX-C16
Contacts I/O

- 16 input contacts with supervision possibility.
- 4 output contacts (dry contact or referred to ground).

A-480MZ | 480 W | 5 zones

100 V amplifiers with six inputs and five speaker output zones, indivsual input level adjust, master volume control, 7-band graphic equalizer, gong and siren tones... Both include a music source with radio FM and SD and USB port to play MP3 files. It allows recording from the inputs in the SD card or USB memory.

DC-700ETH

Live or pre-recordedmessages broadcasting through the Ethernet network, supervision of the system and configuration of parameters. Also prepared for broadcastmade by firemen in emergency situations. Equivalent to a VACIE remote control unit.

WP-1
Wall control panel

Wall control to remotely adjust the volume of the outputs and connect a Microphone or audio source.

School-oriented Public Address kit
A-240KIT

The kit includes the necessary equipment to configure complete public address systems for schools. It covers the usual needs of school; power enough for all speaker zones, schedule of audio messages, live announcements to speaker zones, MP3 music...

The kit consists of a compact amplifier **A-240MZ**, a 5-zone microphone desk **SMM-8SA** with 50 schedules.

Acoustic Columns Speakers

C1000 series

Acoustic columns formed by 5" loudspeaker with treble disperser in a metal enclosure allowing outdoor installation. The columns include brackets for wallmounting.

Ceiling Loud speakers

A-266EN | 6,5" | 6 W | 99 dB

A 6.5" loudspeaker, 100 V line, with metal rear cover, ceramic terminals, thermal fuse and fire-resistant internal cabling.

Two-Way Speakers

BS-60BA | 60 W

Two-way speaker with 8" woofer and 1" twitter, maximum power of 60W RMS in 100 V line with power taps of 30, 15 & 7.5 W. Also available the low impedance connection of 8 Ω.

Access control solutions

reliable | scalable | powerful

impro technologies®
ACCESS CONTROL

Impro Technologies became one of the first companies in the world to adopt RFID and quickly became pioneers in the technology. This resulted in the business developing innovative new products that revolutionized the access control industry, and achieved tremendous growth for the group. Today, the business employs some 150 full-time employees and has grown to become a multi-million Randenterprise with offices in America, Africa and Europe. When it comes to access control, we understand that one size doesn't fit all. That's why we've created a range of solutions, tailored to meet the needs of small to very large multi-site enterprises, and everything in between.

Access portal software unlocks the future of access control

Access Portal Enterprise brings a new dimension to access control systems, by unleashing a new tier of functionality. No longer does just the size of your site determine an Enterprise solution, but rather the business value that you require your access control system to deliver.

Convergence is where Access Portal Enterprise meets your needs, today and tomorrow – where a broad spectrum of solutions are deployed throughout your organization, but converge with Enterprise – this could be as simple as time & attendance, to logistics, production management or supply chain. Further, our class-leading API enables the seamless integration of additional services, specific to your business needs.

Cluster Controllers

The Access Portal cluster controller offers unrivalled simplicity and cost-effectiveness. True plug-and-play modular hardware means you simply plug units together and all the power and communication cabling is done for you, with just one click. Need to expand your installation? Simply plug more units together.

The ability to plug a number of reader modules into one Access Portal controller is termed 'clustering'. This is a highly cost-effective solution as one cluster controller can manage up to eight reader modules and 16 readers – no longer are you constrained to one controller per door.

Reader modules

Access Portal reader modules simply clip into the cluster controller for one of the most rapid installation procedures ever seen. With just one click, your power and communication cabling is done. Alternatively, the reader module can be installed up to 150m* from the cluster controller.

Up to eight modules, of any variant, can be installed with a single cluster controller. This provides a huge amount of flexibility to meet different installation needs, with off-the-shelf hardware, as well as significant cost savings.

Readers

Impro offers a diverse array of access control readers, to meet a variety of installation requirements. We offer interior and exterior readers, one of the smallest reader footprints, to traditional junction box mountings.

Most readers are available as multi-discipline versions, ensuring that legacy 125kHz proximity tags and the new 13.56MHz ranges are able to be read.

Your key replacement

We offer a variety of access control tags to meet your specific requirements. Our tags include both 13.56MHz MIFARE® tags and legacy 125kHz tags, as well as units that operate on dual frequency of both MIFARE® and Omega (125kHz). We also have the anti-cloning S-Series credit card tag, which incorporates a proprietary encryption for additional security, as well as SEOS cards.

A range of styles is also available, from the ever popular credit card tag, to rectangular key rings, round button tags and slim long range tags. We also offer a four button transmitter tag, for those wanting to drive relays, such as for a gate.

31

Fire Rated Door

HK LINE®

Safe data centers are the indispensable backbone of today's highly engineered society. They are processing an ever-increasing quantity of videos, voice and data throughout a global network of several billion devices. In today's world, no one can afford not to be connected Therefore, the most important objective in a data center is maximum availability (99.995% per year)1.
It is thus understood that data centers have to be designed, implemented and operated in such a way that a high level of availability can be guaranteed even in case of a fire. High availability can only be achieved if all relevant influencing factors are planned, implemented and put into effect in the company in a coordinated and consistent way.

HKLINE provides the best Fire Rated Doors in different styles that will protect your property from fire hazards. We provide a high quality cost effective alternative to traditional doors to improve both the level of protection and the aesthetics .
All of our fire doors have been designed and manufactured to exceed internationally recognized standards like NFPA , CE, UL BS, EN & BG certificate for 180Min Fire Rating .

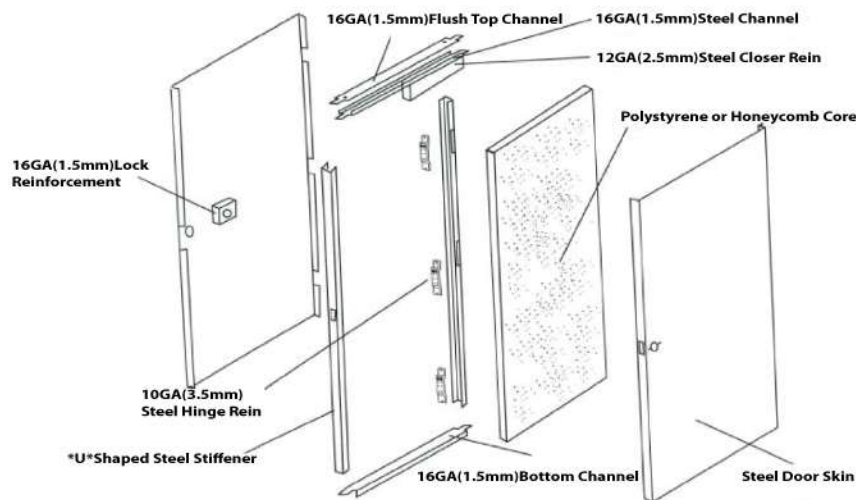## FIRE DOOR CROSS SECTION VIEW

STEEL DOOR SKIN:

16GA(1.5mm), 18GA (1.1mm), 20GA (0.9mm) A40 Galvanized or Cold-rolled Steel Skins Construction is 1-3/4" (45mm) Thickness

Hinge, Closer, Lock and strike plate reinforcements shall be provided.

Hinge reinforcement: 10GA(3.5mm)
Closer reinforcement:12GA(2.5mm)
Lock reinforcement:16GA(1.5mm)
Strike Plate reinforcement:16GA(1.5mm)

The Top, bottom and side closeures are fabricated from 16GA(1.5mm) thick channel shaped steel sections welded to the fornt and back door skins.
Flush top channel: 16GA(1.5mm)

Laser-welded site-seamed edge.
widths up to and insluding 4' 0"
Heights up to and including 4' 0"
Avalibe with polystyrene core or honeycomb core.

EXIT

| 16GA(1.5mm)Flush Top Channel | 16GA(1.5mm)Steel Channel |
| | 12GA(2.5mm)Steel Closer Rein |

Polystyrene or Honeycomb Core

16GA(1.5mm)Lock Reinforcement

10GA(3.5mm) Steel Hinge Rein

*U*Shaped Steel Stiffener

16GA(1.5mm)Bottom Channel

Steel Door Skin

OPEN DIRECTION INDICATOR

The Direction of opening the door can be based on customer need

Left inside open

Right inside open

Left outside open

Right outside open

CLASSIFIED c (UL) us

NFPA®

CE

c (HK) us
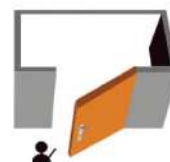
Flap Barrier

Flap barrier is a good solution for pedestrian access control requirement. This unique pedestrian barrier installed in conjunction with any access control system provides valuable assistance to security personnel at any monitored entrance. Passage in one or both directions electronically controlled. This Flap barrier is available as a single- or multiple-lane setup and is compatible with most access control systems, such as magnetic, biometric and proximity readers.

On receiving a signal from the access control system, or remote control, the arms open(Normally Closed NC.) If an unauthorized person tries to tailgate or attempts to enter from the opposite direction, the in-built alarm system is activated. if within the pre-set timeout no passage has occurred, the lane will close and reset.The flap barrier combine features like high throughput rate, user acceptance, comfort, attractive design and different levels of security to prevent unauthorized access pedestrian safety has also been taken into account.

1. Finishing

The standard Flap Barrier is finished in brushed AISI 304 stainless steel and ACRYLIC arms. The top cover of the unit can be finished with marble, stainless steel or other materials, the color of arms can be optional for several color.

2. Hieroglyphic Symbols

This Flap Barrier equipped with two types of hieroglyphic symbols to inform authorization permission and access situation.

3. Advanced Design

The design include an elegant style appearance; a stainless steel cabinet; Which integrates the PLC with rigorous logic; an advance system of detection and tracking sensors; the hieroglyphic symbols; and both audio and visual alarms.

4. Emergency

The Flap Barrier is a failsafe security barrier. In case of power failure the arms will open automatically. If a fire alarm system or other alarming signal is input by according ports, the barrier will also open automatically.

5. Detection Logic and Alarming

The standard Flap Barrier is equipped with several sets of detection cells on each side of unit. All the detection cells are in the position where they will most accurately detect intrusions according our rigorous defining. When detective any intrusion, the alarming will be triggered. Use an audio and visual alarming with corresponding output.

- Single lane or multiple lane setups
- Normally open or normally closed working mode
- Top cover equipped with marble or stainless steel
- Serveral color of arms optional
- Adaptations for integration of a proximity card reader under the top cover
- Pedestal for mounting of external card readers, biometric or other authorization systems.

Security Turnstiles & Access Controlled Gates

Our full height security turnstiles are highly configurable both in material and in features. This saves your budget and provides exactly the security solution you want. Controlled Access is a family run business with family instilled values: Quality, reliability, durability and customer service. For over 30 years, we've been building our globally trusted turnstiles right here in Ohio and shipping them to professional sports and entertainment venues, manufacturing facilities, universities, military sites and embassies across the globe.

Not only are our products engineered for easy installation and built for years of reliable service, but we're the only full line, manufacturer of turnstiles that's earned the rigorous ISO: 9001-2015 certification for our manufacturing processes and company wide commitment to excellence.

Boom Barrier
A TECHNOLOGY
to control access professionally!!

HK LINE®

The Boom Barrier used for controlling vehicle access points has proved to be reliable and cost effective with car park service companies and clients a like. With a installation service and maintenance capability we are able to provide a swift and efficient solution to all parking and vehicle access requirements.

The Boom Electro Mechanical Barrier stands 135mm above foundation level with the boom 840mm above foundation level. The boom is constructed form a rectangular section aluminium 76mm x 38mm supplied white polyester powder coated with red fascal striping.

The heavy duty motor plate supports the permanent capacitor 4 pole T.E.F.C. motor, which powers the sinusoida drive mechanism via an industrial grade low ratio gearbox. Two heavy duty bearings are secured to the motor plate, this having 2 nos adjustable cams to activate the limit switches to control the boom travel.

The barrier "parking logic" control panel is mounted within the barrier cabinet behind a removable/lockable panel and provides the necessary power supply isolator, fuses, thermal overload trips and motor contactors. Control voltage S.E.L.V 24V.

The hinged/removable and lockable steel top cover provides easy a access to the Drive Mechanism. The all steel constructed cabinet and cover are shot blasted to give a clean grease free surface providing maximum keying effect for the two pack high zinc primer, 40 microns, followed by a yellow (RAL 1007) textured polyester powder coated top coat, 40 microns-approx wt form 105kg.

An integral support is provided to maintain the boom in the horizontal position, but an adjustable spring loaded end stead can be supplied if required.

It is recommended that the barrier is secured to the foundation using 4 nos M12 X 160mm chemical anchors. The installation of ducts for cabling is dependent upon the control criteria.

KEY FEATURES
- Electro-Mechanical Drive Unit
- Fast Acting 2.4secs
- Conforms to BS6571 Part 4
- Modular Design
- Winding Handle Facility
- 230V Single Phase 50HZ 5A Supply

BENEFITS
- Relability
- Low Maintenance
- Service Spares Availability
- Manual Operation in Event Of Power Failure
- Ease of Installation

AESTHETICS & CUSTOMIZATION
- Quick and simple customization of the ParkPlus housing
- Easy to install
- Auto-configuration of the barrier isibility of the obstacle
- Resistant to lifting

TECHNICAL SPECIFICATION

- Material - Elliptical white painted Aluminium boom
- Housing - The control unit shall be housed in weather proof housing with IP 54 Protection
- Operation - Smooth operation of Parking Barrier while open and close without bounce/jerks at end positions.
- Motor - Brushless DC motor for intensive use operation.
- Control - Stand alone with push Button switch, also using remote control and if needed shall be integrated with Access Control system.
- Sensor - Optical beam sensor to detect presence of vehicles and inversion of Parking movement and loop detector for added safety.
- In case of power failure- Barrier can be raised or lowered by releasing the lock with key type mechanism.

OPTIONAL EXTRAS

Access control:	Card/Proximity Reader Keypad/Key Switch Radio Transmitter Infra-Red Tokens Time Clock Facility Inductive Loops Intercom
Safety Equipment:	Boom Lights Safety Buffer Photo-Electric Cell Inductive Loop
Revenue Generating:	Fixed Charge-(Dual Tariff Option Variable Change Pay On Foot System
Signs:	Stop/No Entry Single/Double Sided
Boom Shear Facility:	Boms Up to 3m
Boom Crank Facility:	Boms Up to 3m

Bollard

HK LINE®

The Hydraulic / Pneumatic bollards is a high-performance anti-terrorism product indepently developed accordance with international standard. It is usually used for access controlling of entry/exit and control points of motor vehicles, and commands are sent by remote control or control systems to automatically make the bollard below the ground to release authorized vehicles.

The Hydraulic / Pneumatic has high-strength anti-collision performance, which can effectively prevent the intrusion of illegal vehicles and protect the safety of the inner part of the bollard. The distance between bollards ensures the barrier-free passage of pedestrians. It realizes the access controlling function of the people and vehicle that cannot be satisfied by the gate and the anti-collision door. Its highlighted LED lights can be perfectly integrated into various environments.

The bollard is suitable for customs buildings, port terminals, high-end residential areas, pedestrian streets, industrial parks, government buildings, prisons, airports, military bases and other places where vehicles need to be controlled.

Features

- Stainless Steel 304; high quality polished surface treatment; excellent anti-rust performance.
- Double-acting hydraulic system; stable running; compatible well with other devices
- High quality aviation grade hydraulic oil for a wide range of ambient temperatures;
- High-brightness LEDs; strong warning effect.
- A warning light is provided with a protective cover to prevent scratching and durability.

Application

Government   School   Business   Enterprise

Reflector band
3M diamond level
high reflecting effect

LED warning light
High brightness led
with protective cover

Inlet
large hole beside
convenient for wiring

Oil cylinder
double-acting hydraulic system
stable working speed

Drainage port
large hole beside;
convenient for installation

Hydraulic/Pneumatic system
full seal; IP 68

Fixed Bollard

According to the application, fixed bollard is divided into landscape bollard and function bollard. Different kinds of fixed bollard, cooperated with the existing traditional street facilities and municipalconstruction need, aiming at protecting some permanently closed area for pedestrian, building, glass curtain wall, specific facilities and landscape. In addition to having the warning role of the vehicle, functional bollards, based on unique material and structural design, meet the needs of the terror attack.

Removeble Bollard

Removeble bollard is made of carbon steel, 304SS or 316SS. Manual removable bollards aooer atracktive aesthetis which is designed for vehicle got vehicles access control requirement of residential area, commercial and retail premises, walk street, car show room, plaza etc. To enhance security, the bollard can be locked permanently on the floor. With a thick wall body of (3mm), it can withstand a certain degree of light impact from vehicles. In case of emergency, the bollard can be unlocked with a key and taken away easily. Simply unlock & lift bollard up.

Retractable Bollard

Retractable bollard are used for a wide range of application, application for school, walking street and park.. As the bollard retracts with lock, it is lifted easily and can be loacked into place firmly. The locked stainless steel lid provides extra security and covers the bollard toprevent pedestian from hurt. It can be pulled up during emergency to block off road excess. After pulled up, it can also belocked with a key system to prevent illegal entry. When the bollard falls on the floor, the protrusion is only 5mm(handle) above the ground.

HIGH SECURITY ROAD BLOCKER

HK LINE®

The High Security Road Blocker provides a high level of security against unauthorised vehicle access. Designed to withstand direct impact forces designed and manufactured by engineers with significant experience in the fields of High Security and Access Control, highly dependable security product that will easily interface with a wide range of control equipment. Units are assembled in our fabrication facilities using heavy gauge materials to give maximum strength & durability. This makes the ideal product to protect high security establishments, iconic buildings and critical infrastructure.

KEY FEATURES

- Independently structurally evaluated
- Manufactured from heavy gauge materials
- Manual hand pump facility
- Programmable Logic Controlsystem

BENEFITS

- Comprehensive understanding of attack resistance
- Protection from multi-direction
- impact approach
- Confidence in proven performance Strength & Durability
- Operational under power failure conditions
- Flexibility to interface with all forms of access control
- Reliable and Dependable

The Road Blocker is an Electro-Hydraulically operated blocking system with segment widths available from 2m to 5m (in 500mm increments). The unit has an 800mm height when fully raised and is comprised of a static subsurface ground frame with hinged, rising impact wedge. Raised/Lowered back indication signalling canbe provided to enable remote monitoring of the blockerstatus on a real time basis (optional). The hydraulic power pack is controlled by a programmable logic controller(PLC) enabling connection of virtually any access control to the blocker.

In addition, the PLC can be configured to enable the blocker to be raised quickly (under 1 second) in an emergency by utilising an hydraulic accumulator (optional). In the event of power failure a manual pump is provided to ensure operator control is maintained. The blocker comes with a push-button control as standard, however it can be customised to interface with a wide range of access control equipment to suit specific customer requirements (available as options) and any configuration including (but not limited to) inductive loop systems, card readers, communication equipment and manned guard emergency systems can be accommodated.

TYRE KILLER

TYRE KILLER is composed by heavy duty spikes that rise from the ground; it operates like an access control barrier, it prevents the passage of unauthorized vehicles or it allows the exit from a supervised area. It can be installed with other access control elements (for example bollards, road blocker or gates) in order to achieve an access control check-point at the highest level of security. Many optionals items are available for TYRE KILLER in order to configure each individual system. The tyre-killer is especially designed for blocking passage of unauthorized vehicles and for allowing passage of authorized vehicles but not for controlling the general traffic flow. When in lowered position the tyre-killer can be passed by vehicles. Tyre killer is a kind of high security anti-terrorism product mainly used in Government, nuclear power station army, banks and restricted streets etc

Technical Data:

Bloacking length : 3M or 4.5M
Bloacking hieght: 475mm
Raise and fall speed: 2-3S
Protection class: IP55

HeadOffice

Suite # 409, 4th Floor, The Regency Mall (Unishopping Center), Abdullah Haroon Road, Saddar, Karachi-74400. Pakistan.
Tel : +92 21 35670406, 35671570, 35674624, 35220704, 35221372   **Fax :** +92 21 35682605
Email : info@hkshah.com.pk   **Web :** www.hkshah.com.pk

Branch Offices

Lahore Office

Suite # 7, Firtst Floor, Al-Hafiz Trade
Center, Model Town, Link Road, Lahore.
Tel : +92 51 5970244
Fax : +92 21 35682605

Islamabad Office

Suite # 3, First Floor, Bilal Arcade,
Pakistan Town, Phase 1, Islamabad
Tel : +92 51 5970244
Fax : +92 21 35682605