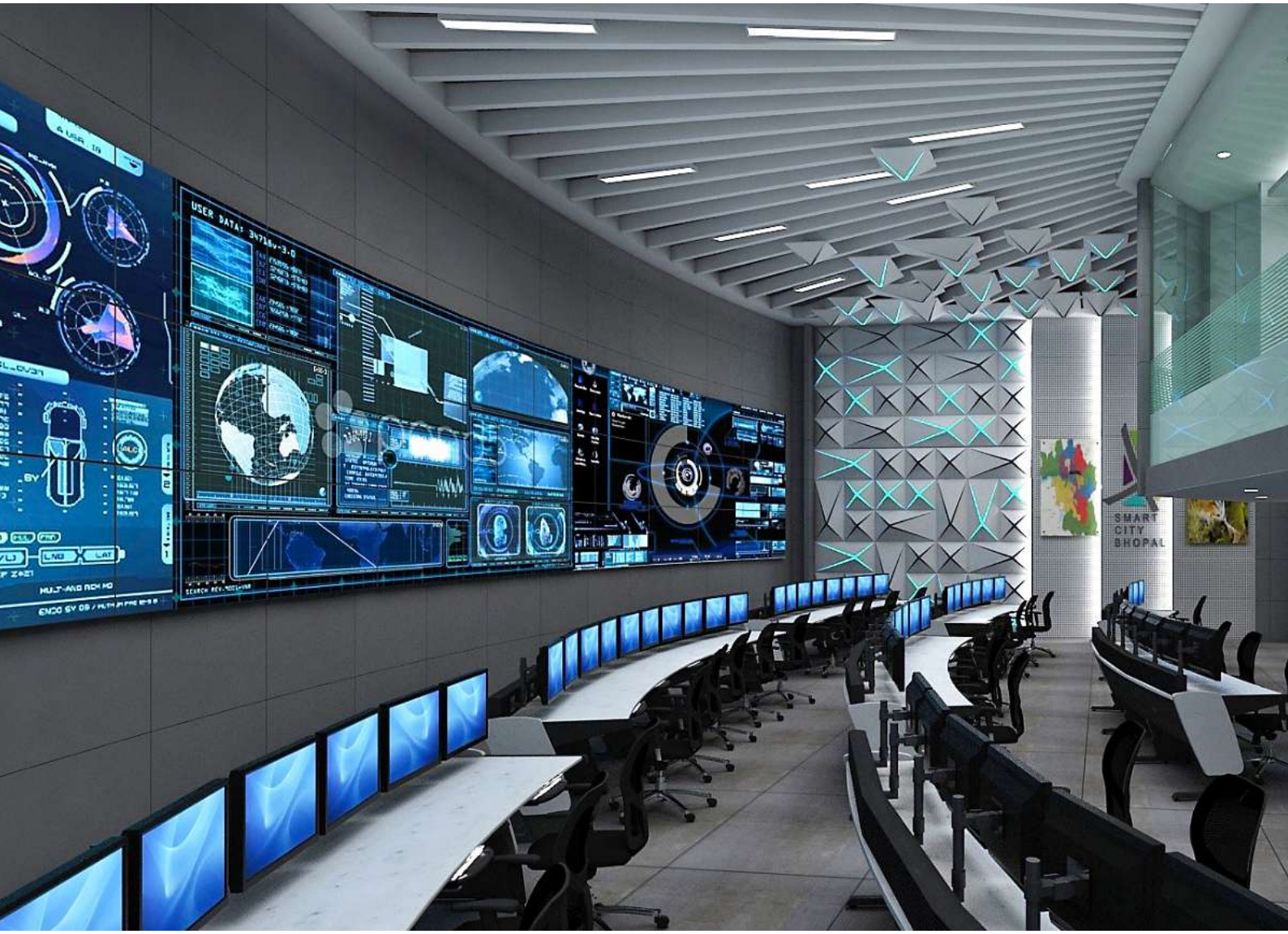
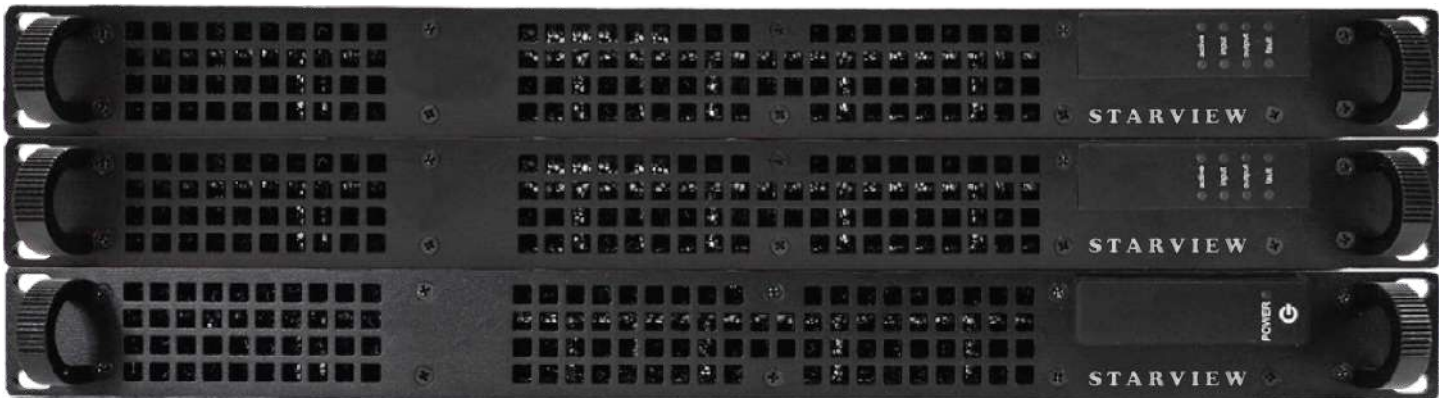
STARVIEW
TECHNOLOGIES
Infinite Possibilities



STARVIEW NET4K

VIDEO WALL PROCESSOR

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979
Website: www.starviewtech.asia or www.starviewtech.net | Email: sales@starviewint.com | Tell: +65 31575338



MORE SCALABILITY, MORE CONNECTIONS

Starview NET4K is a complete audio visual distribution platform capable of visualizing any type of data on any size or resolution display. The flexible hardware platform can be deployed as a single signage player, matrix switcher, multi-viewer and video wall processor. Powerful software manages each input and each display in the ecosystem. Displays can be synchronized together to create a video wall of infinite size - all the way up to 4K resolution on each display or connect hundreds single displays together for the ultimate meeting room visualization tool. Starview NET4K delivers an increased density of processing power and connectivity, which yields a per channel price reduction of 30 - 40% over its predecessor.

THE NET4K PERFECT PLATFORM

NET4K systems can scale to connect and distribute video across buildings, campuses, and is ideal for the following applications:

- Redundant control room display walls in multiple locations
- Manufacturing and process management
- Digital signage
- Law enforcement and security monitoring
- Instructional networks

NET4K, is a revolutionary and powerful new way to capture, distribute, control, and display video and audio sources, both direct and over IP, for audiovisual applications. NET4K hardware adds native support for 4K video, fiber network, and audio for a scalable and ultra high definition video distribution system that can support an unlimited number of inputs and displays in multiple locations.

NET4K hardware increases the density of processing power, connecting more sources and displays to a single Input or Output Node, while providing centralized control to support a wide variety of installations with live audio and video, streaming data, and other real-time sources of information for control rooms, conference rooms, lobby displays, offices and classrooms. New features enable real-time HD or 4K information display to a virtually unlimited number of screens at sites spanning a building, a campus.

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

EASY TO MANAGE AND CONTROL

With NET4K Controller Node, centralized configuration and management of the system. NET4K Controller is a simple to use configuration tool to design video walls, add new hardware, configure sources or check the status of the hardware.

Allows creating and viewing display matrix lists:

+ Allows creating layouts displayed on the Videowall screen system;
+ Device management: manage the status of all devices, add or delete a device in the system;
+ User management.

The new web based video wall management tool, mimic, is designed to for a user to easily control and manipulate a single video wall within the NET4K eco system. Mimic is used to setup layouts which can be recalled at any given time using mimic, API or the layout launcher.

Starview has also created a simple and easy to use user interface to load layouts with a simple touch of a button. The layout launcher user interface lists all the layouts in NET4K into a web browser that any device can access. It provides a level of simplicity unmatched by any other product on the market.

POWERFUL MODULARITY

A NET4K network is comprised of Input Nodes to capture various types of video data, Output Nodes to drive displays, and switches to interconnect them. NET4K Input and Output Nodes can now be configured with fiber optic connections via SFP+. The 10Gbps network capabilities allow NET4K to support very large distributed systems with an unlimited number of sources and displays across multiple locations and vast geographies. Each Node has two 10Gbps SFP+ links to support multiple 4K video streams. Input and output signals can be either direct or IP, but inside the NET4K Controller signals are always digital and can be transmitted extremely long distances without degradation. All video processing is done in the digital domain, including cropping, scaling, de-interlacing, and noise reduction.

NET4K is a self-configuring and self-monitoring system designed for 24/7 uptime. All hardware components are autonomous and can be redundant for a fully secure and reliable system.

SCALABLE AND EXTENSIBLE

NET4K is all about scalability. The same component parts can scale from a single input distributed to a single output, to literally hundreds of inputs and outputs, for real-time HD or 4K information display on a virtually unlimited number of screens at sites spanning a building, a campus, or a continent.

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

Sources can be multicast to create copies without requiring additional hardware. In addition, NET4K provides enhanced flexibility to display multicast windows within displays or across displays, on a single wall or on multiple walls. Expanding a NET4K system is easy.
Have a 100" HD or 4K screen? NET4K's limitation of windows per screen is 64 which provides the best performance and scalability in the industry. This provides a confidence preview of all the sources within a single Add Input Nodes or NET4K Streaming to accommodate more sources. Add more Output Nodes to support more displays.

AVAILABLE WITH NET4K STREAMING

NET4K Streaming is the most advanced and flexible multi-stream decoder anywhere. For applications ranging from security monitoring to traffic management to military command and control, NET4K Streaming is the affordable solution for high performance decoding of multiple streams. NET4K Streaming supports more streaming video resolutions and protocols than ever before, including H.264, H.265, MPEG-2, MPEG-4, and MJPEG at resolutions up to 4K.

OUTSTANDING VISUAL QUALITY

Uncompressed video ensures the best pixel quality for crystal clear video, and patented technology creates a video distribution ecosystem capable of handling inputs and outputs in almost any resolution. Autonomous Input and Output Nodes, located anywhere, enable the system to move video from any input to any output. Direct connect and streaming IP inputs signals sources at up to 4K resolution mean ultra-high quality video.
Each NET4K Input Node allows the connection of four 4K or eight 1080p inputs, while each Output Node provides two 4K or six 1080p outputs, all rack-mounted. NET4K hardware features high bandwidth networking for real-time streaming sources, pixel perfect visual quality using uncompressed video, and resolutions ranging up to 4K. New datacentergrade Starview switches support up to 100GB Ethernet connections.
All connection between Nodes and switches is accomplished using common SFP+ connections. NET4K is completely digital in nature, and with input sources such as a computer source or an IP video, the network can be digital end-toend, resulting in the best possible visual performance. Video signals are enhanced through the use of superior video processing technology for deinterlacing, anti-aliasing and inverse telecine, resulting in broadcast-quality display. Any application will benefit from the simple installation and superb visual performance of a NET4K network.

BACKWARDS COMPATIBILITY

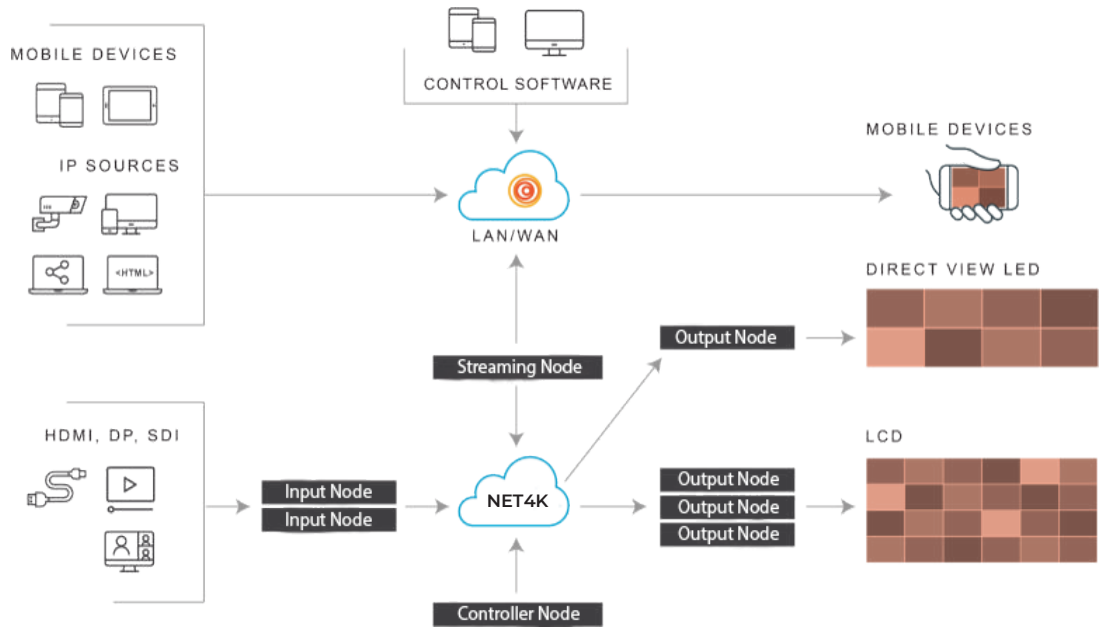
NET4K hardware can be connected together to create a hybrid system, lowering the cost of upgrading hardware to fit any budget.

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

HIGH AVAILABILITY HARDWARE

NET4K is a high-bandwidth, non-blocking switched network. Data transmission from one NET4K Node to another is completely independent of other communicating nodes. NET4K Nodes have a very long MTBF, but in the unlikely event that a Node does fail it will not disrupt the operation of the other nodes in the network, and a failed Node can easily be replaced while leaving the rest of the network running. For the ultimate in reliability, NET4K supports fully redundant servers, add a second NET4K Controller to automatically take over for critical 24/7 operation. NET4K Controller auto-recognizes issues before or after they show up on the wall by monitoring all the hardware in the network. It will automatically log and send out an SNMP trap to IT's central management servers.

ARCHITECTURE OF A NET4K INSTALLATION



Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

BUILDING A NET4K SYSTEM

Match the input sources with an appropriate Input Node. The NET4K product line serves the two most common inputs: Direct inputs use the NET4K Input Node and IP streams use NET4K Streaming for multi-stream decoding.

Attach a NET4K Output Node to the displays. Sources can be displayed on the Display Port outputs with true flexibility. The NET4K Output Node can drive a single window on a single screen, multiple windows on a single screen, or an entire display wall. If audio is desired, plug the speakers directly into the Output Node for instant audio.

Connect the Input and Output Nodes through one or more NET4K switches. Next, connect NET4K Streaming to decode and display streaming IP sources – each one can handle 1080 or 4K resolutions. Add more to handle thousands of streams. Switches can be stacked together for larger installations, augmented by a 100GB backbone switch in order to expand the system infinitely. All connections between Nodes and switches are accomplished using fiber options to extend the distance even further. Manage it all with Starview's NET4K Controller software running on a server connected to the NET4K switch. A second server running NET4K Controller can be added for full, automatic redundancy for mission critical 24/7 operation.

SPECIFICATIONS

NET4K CONTROLLER NODE	
Form Factor	1U
Dimension (W x D x H)	482.6 x 431.8 x 44.5 mm
Power Consumption	240 W
Control Platform	Starview Software
CPU Processor	Intel Xeon Processor Bronze 3204
Drive	SSD 250 GB
Memory	16 GB RAM
Input Devices	2x USB 3.0 ports, 2x USB 2.0 ports
PN Bus Interface	1x 10G SFP+ ports
Network Interface	2x 1G RJ45; HTTPS Encryption
Control Port	Serial RS232
Operating System	Windows LTSC
API	TCP
Video Output Interface	VGA
Output Resolutions	1920 x 1080
Regulatory Certifications	cULus, FCC, TAA, CE, RCM, VCCI, BSMI, WEEE
Controller Redundancy	Support

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

NET4K INPUT NODES						
	HDMI-8	HDMI-4	SDI-8	SDI-4	DP-4	DP-2
Form Factor	1RU					
Dimension (W x D x H)	482.6 x 431.8 x 44.5 mm					
Power Consumption	240w					
Control Platform	Starview Software					
CPU Processor	AMD Ryzen Embedded 1807B					
Input Devices	2x USB 3.0 ports, 2x USB 2.0 ports					
PN Bus Interface	2x 10G SFP+ ports; Protocols: IPv4, IGMPv2, IP, UDP, TCP; Encryption: AES 128-bit					
Operating System	Embedded Linux					
Video Input Interface	HDMI	HDMI	SDI	SDI	Display Port	Display Port
Input Resolutions	8x 1920 x 1200@60Hz 4x 3840 x 2160@30Hz 2x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant	4x 1920 x 1200@60Hz 4x 3840 x 2160@30Hz 2x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant	8x 1920 x 1200@60Hz 4x 3840 x 2160@30Hz 2x 3840 x 2160@60Hz	4x 1920 x 1200@60Hz 2x 3840 x 2160@30Hz 2x 3840 x 2160@60Hz	4x 1920 x 1200@60Hz 2x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant	2x 1920 x 1200@60Hz 2x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant
Audio	-	-	-	-	-	-
Compression	Uncompressed up to 4K/60 (8-bit 4:4:4, 10-bit 4:2:2)					
Latency	No Compression (Zero Latency): < 100 µs					
MTBF	> 50,000 hours					
KVM	Up to 4 computers with K/M Links					
Power Supply	100 - 240 VAC @ 50/60 Hz					
Control	1x RS232 port, 1x RJ45 port					
Regulatory Certifications	cULus, FCC, TAA, CE, RCM, VCCI, BSMI, WEEE					
Features	Support HDR10, 3D, HLG					

NET4K OUTPUT NODES			
	HDMI-8	HDMI-4	HDMI-SA
Form Factor	1RU		Desktop
Dimension (W x D x H)	482.6 x 431.8 x 44.5 mm		193.6 x 259.1 x 49.4 mm
Power Consumption	240 W		120 W
Control Platform	Starview Software		
CPU Processor	AMD Ryzen Embedded 1807B		
Input Devices	4x USB 2.0 ports	2x USB 2.0 ports	
PN Bus Interface	2x 10G SFP+ ports; Protocols: IPv4, IGMPv2, IP, UDP, TCP; Encryption: AES 128-bit		

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

Operating System	Embedded Linux		
Video Output Interface	HDMI		
Output Resolutions	8x 1920 x 1080@60Hz 4x 3840 x 2160@30Hz 2x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant	4x 1920 x 1080@60Hz 2x 3840 x 2160@30Hz 1x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant	4x 1920 x 1080@60Hz 2x 3840 x 2160@30Hz 1x 3840 x 2160@60Hz Content protection: HDCP 2.2 compliant
Audio	2x 3.5 mm TRS	3.5 mm TRS	3.5 mm TRS
Compression	Uncompressed up to 4K/60 (8-bit 4:4:4, 10-bit 4:2:2)		
Latency	No Compression (Zero Latency): < 100 µs		
MTBF	> 50,000 hours		
KVM	Workstations, Web Browser and VNC		
Power Supply	100 - 240 VAC @ 50/60 Hz		
Control	1x RS232 port, 1x RJ45 port		
Regulatory Certifications	cULus, FCC, TAA, CE, RCM, VCCI, BSMI, WEEE		cULus, FCC, TAA, CE, WEEE
Features	Support HDR10, 3D, HLG		

NET4K K/M LINK	
Form Factor	Utility
Dimension (W x D x H)	73.7 x 35.6 x 12.0 mm
Power Consumption	200mW
Control Platform	Starview Software
CPU Processor	BCM2835
Memory	512 MB
Input Devices	2x micro USB port
Operating System	Embedded Linux
Regulatory Certifications	FCC, CE, WEEE

NET4K STREAM CENTER	
Form Factor	1U
Dimension (W x D x H)	482.6 x 431.8 x 44.5 mm
Power Consumption	240W
Control Platform	Starview Software
CPU Processor	Intel Xeon Processor Silver 4210R
Drive	SSD 250 GB
Memory	16 GB RAM
Input Devices	2x USB 3.0 ports, 2x USB 2.0 ports

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

PN Bus Interface	2x 10G SFP+ ports
Network Interface	2x 1G RJ45
Operating System	Linux (Ubuntu 20.04 or CentOS 7)
Streaming Video Codecs Support	H.264, H.265, MPEG4 (sources)
Streaming Channels	16x 1920 x 1080@30Hz 8x 1920 x 1080@60Hz 4x 3840 x 2160@30Hz 2x 3840 x 2160@60Hz
Web Browser	16x Web Browsers (with KVM)
VNC	16x VNC (with KVM)
Regulatory Certifications	cULus, FCC, TAA, CE, RCM, VCCI, BSMI, WEEE

Copyright © 2024 Starview Technologies Private Limited. All rights reserved.
Singapore Headquarters: 60 Kaki Bukit Place, #05-19 Eunos Techpark, Singapore 415979

Corporate offices

STARVIEW TECHNOLOGIES PTE LTD
Singapore Headquarters
60 Kaki Bukit Place
#05-19 Eunos Techpark
Singapore 415979

Tel: +65 3157 5338
Fax: +65 3112 8181

Worldwide offices

STARVIEW TECHNOLOGIES VIETNAM
Hanoi Office
R9, 33th Floor, C2 Building, D'Capitale,
119 Tran Duy Hung Street,
Trung Hoa – Cau Giay, Hanoi
Ho Chi Minh Office
#C9-16, Block A, Sky Center Building,
#10 Pho Quang Street,
Tan Binh District, Ho Chi Minh City

Tel: (024) 66661268
Hotline: 19008695
Sale Contact: 0866.207.855

Representatives

Brazil
Tel: +55 11 9-8244-7630

Germany
Tel: +49 172 946 69 39

France - Benelux - Africa
Tel: +33 782 702 214

Southern, Eastern Europe & Middle East Operations
Tel: +420 602 66 75 66

STARVIEW TECHNOLOGIES
Infinite Possibilities

For the most current specification information, please visit: http://starviewtech.asia or http://www.starviewtech.net
Copyright 2024 STARVIEW TECHNOLOGIES PTE LTD. All rights reserved. All brand names and product names are trademarks, registered trademarks or tradenames of their respective holders. STARVIEW TECHNOLOGIES PTE LTD management system is registered to ISO 9001 and ISO 45001. Performance specifications are typical. Due to constant research, specifications are subject to change without notice.