

Metro Ethernet

Powering Next Generation Broadband
Access Network Solutions



VOLKTEK

PRODUCT FEATURES & BENEFITS

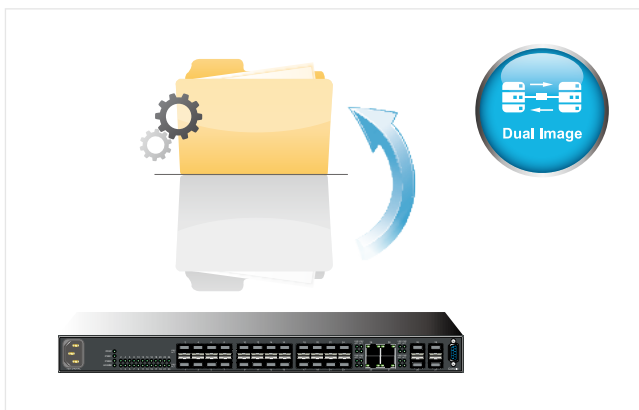


Power Back-Up

Volktek switches with battery backup option allow you to connect them to an alternate power source, a battery, to ensure that the device and your network is always available during power outages.

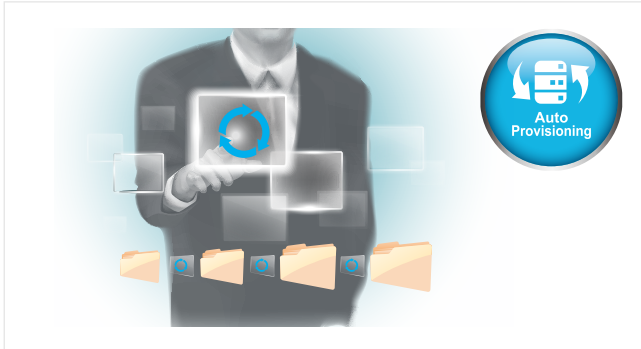
Device Locking

Volktek switches are designed with Device Lock feature, a feature that locks your device to your network. By enabling Device Lock feature, the switch will not function in any network other than its configured network.



Dual Image

Volktek switches are built with 32MB dual-flash space in place of conventional 16MB. Even when primary flash space is corrupted, the configuration file saved on secondary flash space ensures that your device is up and running.

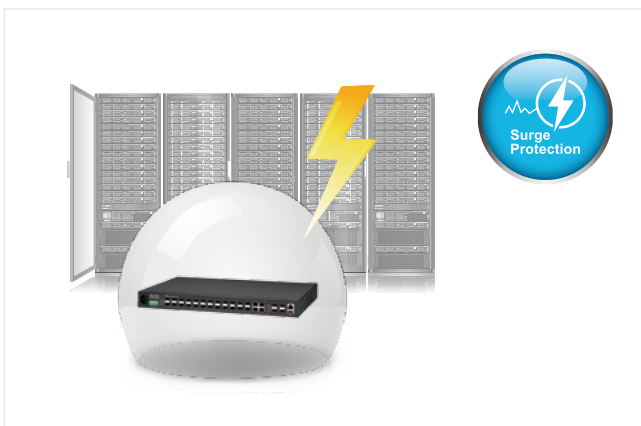
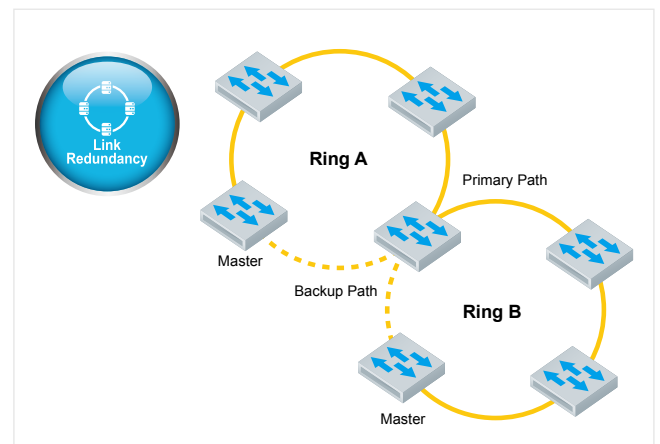


Auto Provisioning

Volktek implements Auto-provisioning, a self-serving function, on its switches to automate the process of upgrading and installing latest firmware configurations from an external server via HTTP/FTP/TFTP protocols.

Link Redundancy

Volktek implements link redundancy features such as Xpress Ring and Dual Homing to rapidly react to physical link failures and recover the link or provide an alternate link path to support non-stop transmissions.



Surge Protection

Integrated with surge protector function on each port, Volktek switches provide increased level of Surge protection that offers safety, flexibility and protection against dangerous power irregularities.

PRODUCT SELECTION GUIDE



6500-24GS4XS

Managed 20 x FX/GbE SFP & 4 x FE/GbE Combo RJ45/SFP & 4 x GbE/10G SFP+ Switch

- The multi-rate ports allow to reduce CapEx offering two available speeds 1Gb and 10G
- 1 x Console Port for command-line interface and USB port supports firmware upgrades, saves configuration files and downloads log files
- Quick troubleshooting to identify the interface errors through cable test and DDM I functions
- Operating temperatures 0°C ~ 60°C (32°F ~ 140°F)

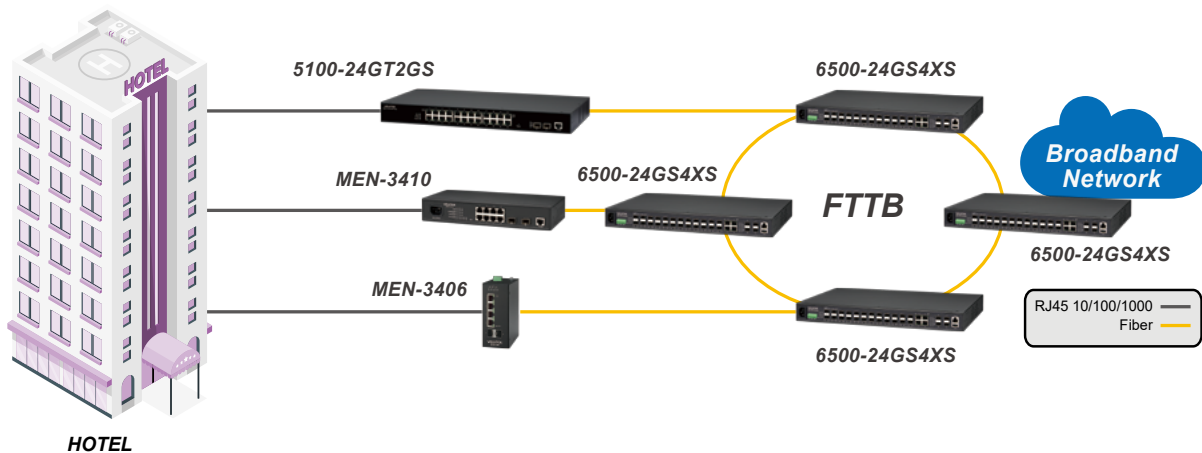
Telco / ISP

FTTB

Fiber to the Building solutions take advantage of the quick-transfer and noise-reduced properties of fiber to improve the speed of broadband networks in residential and commercial buildings with the help of Volktek Switches' technology that prioritize smooth navigation.

Key Features

- Port security to limit the number of users on particular port.
- Bandwidth limitation for different kind of users.
- TACACS+ support for authentication.
- 4K VLAN support for different kind of services.



FTTB Aggregation



6500-24GS4XS

Managed 20 x FX/GbE SFP & 4 x FE/GbE Combo RJ45/SFP & 4 x GbE/10G SFP+ Switch

FTTB Access



5100-24GT2GS

Managed 24 x 10/100/1000 RJ45 & 2 x FX/GbE SFP



MEN-3410

Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP



MEN-3406

Managed 4 x 10/100/1000 RJ45 & 2 x FX/GbE SFP

MEN- 6412

Managed 4 x GbE Combo RJ45/SFP & 4 x FX/GbE SFP & 4 x GbE SFP Switch, USB Support



- 1 x Console Port for command-line interface and USB port supports firmware upgrades, saves configuration files and downloads log files
- Storm control and QoS prioritizes traffic to support efficient work
- A front power outlet design for easy installation
- Operating temperatures -20°C ~ 60°C (-4°F ~ 140°F)

Advantages of USB Port

- Upgrades and installations of the Switch firmware and features can be done through the USB port with a USB drive. an existing large network.
- No need for a PC or Laptop to upgrade the device. Allows to quickly upload data to a new switch and include it in an existing large network.

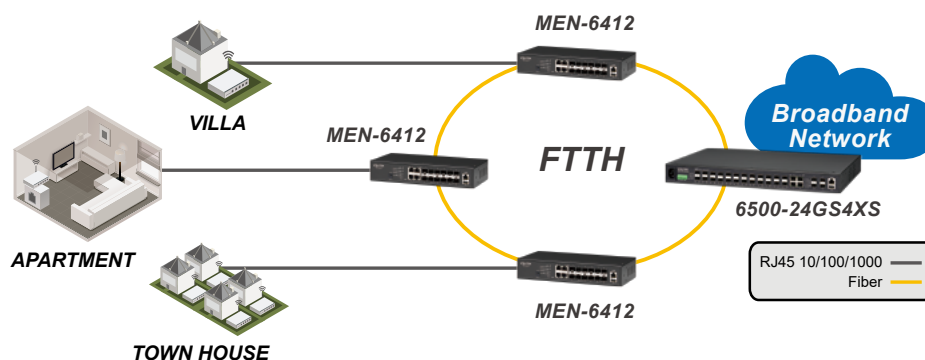
Telco / ISP

FTTH

Fiber to the home (FTTH), is the installation and use of optical fiber from a central point directly to individual residences and apartments to provide high-speed Internet access. FTTH dramatically increases the connection speeds available to computer users compared to mainstream technologies used in most places.

Key Features

- Ring and Daisy Chain Connectivity supported in the devices which can be achieved with its four SFP port interface.
- DDM feature collects diagnostics data and alarms from the SFP ports to monitor its activity in real time.
- Traps help to identify issues easily.



FTTH Aggregation



6500-24GS4XS

Managed 20 x FX/GbE SFP & 4 x FE/GbE Combo RJ45/SFP & 4 x GbE/10G SFP+ Switch

FTTH Access



MEN-6412

Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP

PRODUCT SELECTION GUIDE



5100-24GT2GS

Managed 24 x 10/100/1000 RJ45 &
2 x FX/GbE SFP Switch



MEN-3410

Managed 8 x 10/100/1000 RJ45 &
2 x FX/GbE SFP Switch



MEN-3406

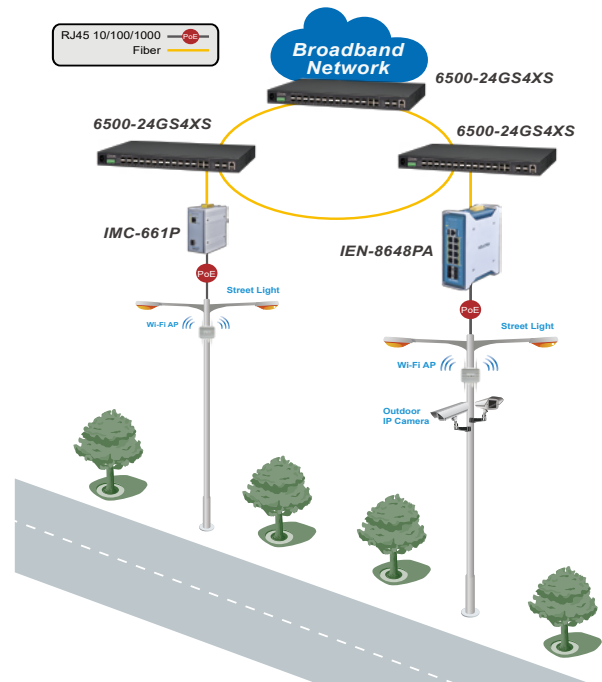
Managed 4 x 10/100/1000 RJ45 &
2 x FX/GbE SFP Switch

Mobile Backhaul

The increment in consumption of bandwidth wirelessly due to the increased use of mobile devices provides the opportunity to offer wireless services in public areas. Organizations carry the responsibility to provide safe and fast wireless services to all users to protect their privacy. Our PoE and Metro solutions provide a stable platform to form the backbone of MBH networks.

Key Features

- Supports various ring redundancy protocols for fast switching from the fault link.
- Advanced security features to prevent DoS attacks from client side.
- On the go firmware up gradation when you connect USB.



Package Lookup Guide

FTTX	Commercial	Hardened
AGGREGATION	6500-24GS4XS	MEN-6412
ACCESS	5100-24GT2GS, MEN-3410	MEN-3406

Aggregation Level:

- **6500-24GS4XS:**
Managed 20 x FX/GbE SFP & 4 x FE/GbE Combo RJ45/SFP & 4 x GbE/10G SFP+ Switch
- **MEN-6412:**
Managed 4 x GbE Combo RJ45/SFP & 4 x FX/GbE SFP & 4 x GbE SFP Switch, USB Support

Access Level:

- **5100-24GT2GS:**
Managed 24 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch
- **MEN-3410:**
Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch
- **MEN-3406:**
Managed 4 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch

Product Selection Guide



		Aggregation			Access	
Model		6500-24GS4XS	MEN-6412	5100-24GT2GS	MEN-3410	MEN-3406
Downlink	10/100/1000Base-T	-	-	24	8	4
	100FX/1000-SX / LX	20	8	-	-	-
Uplink	1000Base-SX / LX	-	-	-	-	-
	100FX/1000-SX / LX	-	4	2	2	2
	Copper Combo	4	4	-	-	-
	1G / 10G SFP+	4	-	-	-	-
Hardware	Jumbo Frame (Bytes)	10k	10k	10k	10k	10k
	MAC Entries	16K	16K	8k	8k	8k
	Fan-less	Fan x 2	Y	Y	Y	Y
	Battery Charging	optional	optional	optional	optional	optional
	Surge Protector	-	-	Y	Y	Y
	Automatic MDI / MDI-X on RJ-45	Y	Y	Y	Y	Y
	SFP Information	Y	Y	Y	Y	Y
	SFP DDMI	Y	Y	Y	Y	Y
	Switching Fabric	128Gbps	24Gbps	52Gbps	20Gbps	12Gbps
	L2 Forwarding	95.2Mpps	17.9Mpps	38.7Mpps	14.9Mpps	8.9Mpps
L3 Function	Static Route	Y	Y	-	-	-
	Inter-VLAN Routing	Y	Y	-	-	-
Enhanced L2 Function	MSTP	Y	Y	-	-	-
	Dual Homing	Y	Y	Y	Y	Y
	GARP / GVRP	Y	Y	-	-	-
	VLAN Stacking (QinQ)	Y	Y	Y	Y	Y
	MVR	Y	Y	-	-	-
	DHCP Relay / Option 82	Y	Y	Y	Y	Y
Basic L2 Function	Static Link Trunking / LACP	Y	Y	Y	Y	Y
	STP / RSTP	Y	Y	Y	Y	Y
	Loop Detection	Y	Y	Y	Y	Y
	Tag-based VLAN	Y	Y	Y	Y	Y
	Port-based VLAN	Y	Y	Y	Y	Y
	IGMP Snooping	Y	Y	Y	Y	Y
User Security	IGMP Querier / Proxy	Y	Y	-	-	-
	802.1x Auth	Y	Y	Y	Y	Y
	Port Security	Y	Y	Y	Y	Y
	Access Control List	Y	Y	Y	Y	Y
	Port Isolation	Y	Y	Y	Y	Y
	DHCP Snooping	Y	Y	Y	Y	Y
	ARP Inspection	Y	Y	Y	Y	Y
Quality of Service	SSH Support	Y	Y	Y	Y	Y
	Rate Limiting	Y	Y	Y	Y	Y
	802.1p Support	Y	Y	Y	Y	Y
	Schedule mode	SP / WRR	SP / WRR	SP / WFQ / WRR	SP / WFQ / WRR	SP / WFQ / WRR
	Priority Queue	8 hardware	8 hardware	8 hardware	8 hardware	8 hardware
	Network Storm Control	Y	Y	Y	Y	Y
	Traffic Monitor	Y	Y	Y	Y	Y
Network Management	SNMP / SNMP Trap	Y	Y	Y	Y	Y
	RMON Statistics	Y	Y	Y	Y	Y
	Mirroring	Y	Y	Y	Y	Y
	SNTP	Y	Y	Y	Y	Y
	LLDP	Y	Y	Y	Y	Y
	DHCP Client	Y	Y	Y	Y	Y
	eMail Alarm	Y	Y	Y	Y	Y
	Local Console	Y	Y	Y	Y	-
	Telnet CLI	Y	Y	Y	Y	Y
	Web-based GUI	Y	Y	Y	Y	Y
	Firmware Upgradeable	Y	Y	Y	Y	Y
	Configuration Backup / Restore	Y	Y	Y	Y	Y
Power	AC Power Input	100 ~ 240VAC	100 ~ 240VAC	100 ~ 240VAC	100 ~ 240VAC	-
	DC Power Input (36-60V)	optional	optional	optional	optional	-
	A/D Adapter	-	optional	-	optional	12V / 2A adapter built-in
	15VDC Battery	optional	optional	optional	optional	optional
	Max Power Consumption	6500-24GS4XS-A-C: 30W 6500-24GS4XS-AB-C: 50W	w/o Bat-18W	20W	w/o Bat-12W	w/o Bat-10W
Mechanical & Environmental	Dimensions (W x H x D)	440 x 44 x 284 mm	268 x 44 x 128 mm	440 x 44 x 173 mm	268 x 44 x 128 mm	50 x 116 x 100 mm
	Weight	3.89kg	1.25kg	4kg	1.2kg	0.43kg
	Operating Temperature	0°C ~ 60°C	-20°C ~ 60°C	0°C ~ 60°C	0°C ~ 50°C	0°C ~ 60°C
	Storage Temperature	-20°C ~ 70°C	-40°C ~ 70°C	-20°C ~ 70°C	-20°C ~ 70°C	-20°C ~ 70°C
	Operating Humidity	5% ~ 95% (no-condensing)	5% ~ 95% (no-condensing)	5% ~ 95% (no-condensing)	10% ~ 95% (no-condensing)	10% ~ 95% (no-condensing)
	Storage Humidity	5% ~ 95% (no-condensing)				

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