

Stay connected

ConneXium industrial
communication solutions

Make the most of your energySM

Schneider
Electric



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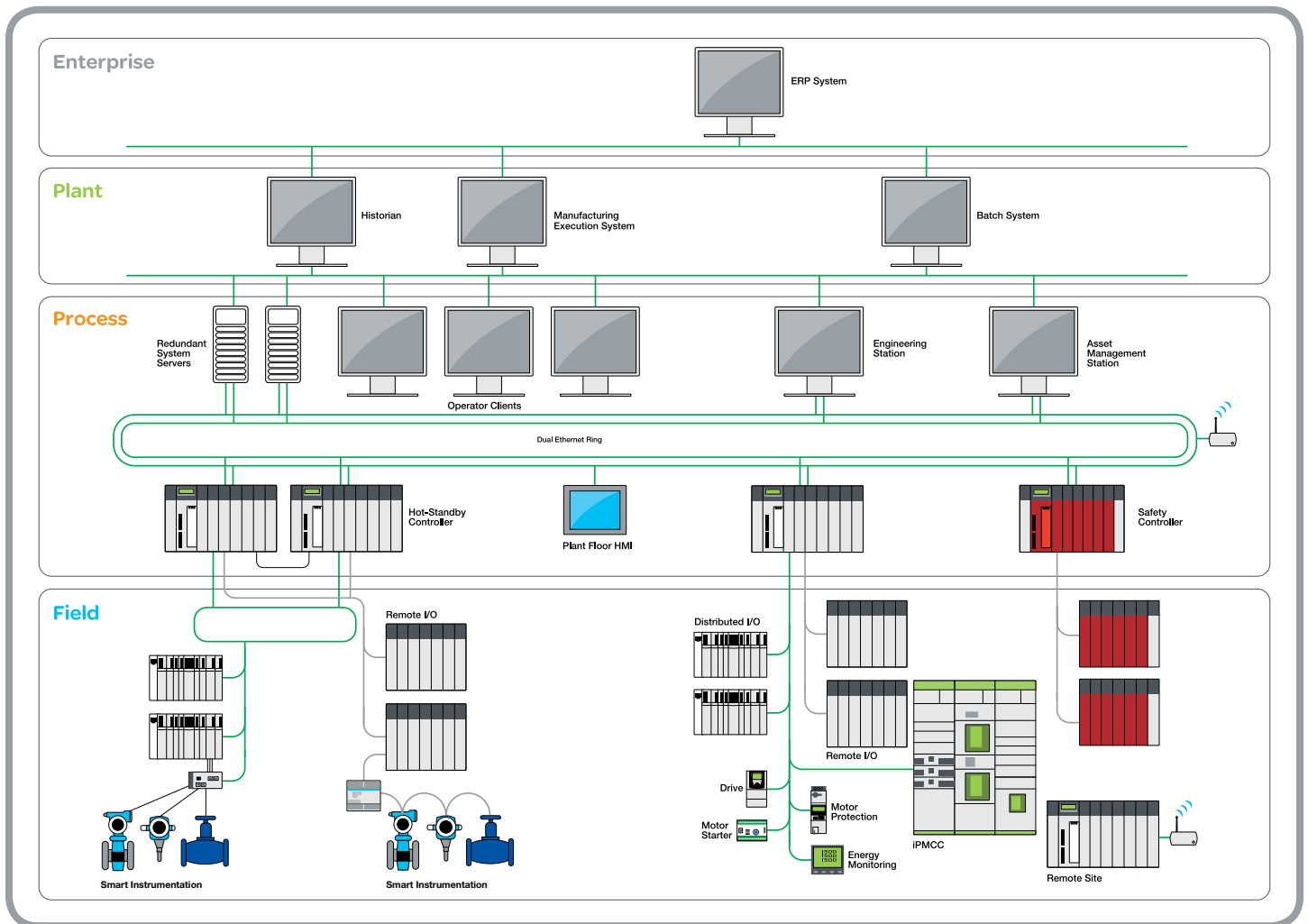
Enhanced connectivity

Your need:
Improved device
mobility and
network flexibility.

Our solution:
A new range of
reliable and efficient
connectivity solutions.

When integrated into an overall automation
architecture, ConneXium™ communication
solutions will maximize your network flexibility
and minimize future reconfiguration costs.

When you need to achieve your energy and productivity improvement objectives by delivering innovative solutions throughout your enterprise, or to create a single environment to measure energy usage, data processing, asset utilization, and machine performance, turn to Schneider Electric!



Our innovative automation solutions allow you to:

- Reduce engineering, operations, and maintenance costs
- Maximize plant and production efficiency
- Improve production quality
- Protect people, plant assets, and the environment
- Support production and business decisions

ConneXium Communication Solutions

- > Managed and unmanaged switches
- > Gateways
- > Cables and connectors
- > Wireless access points and antennas

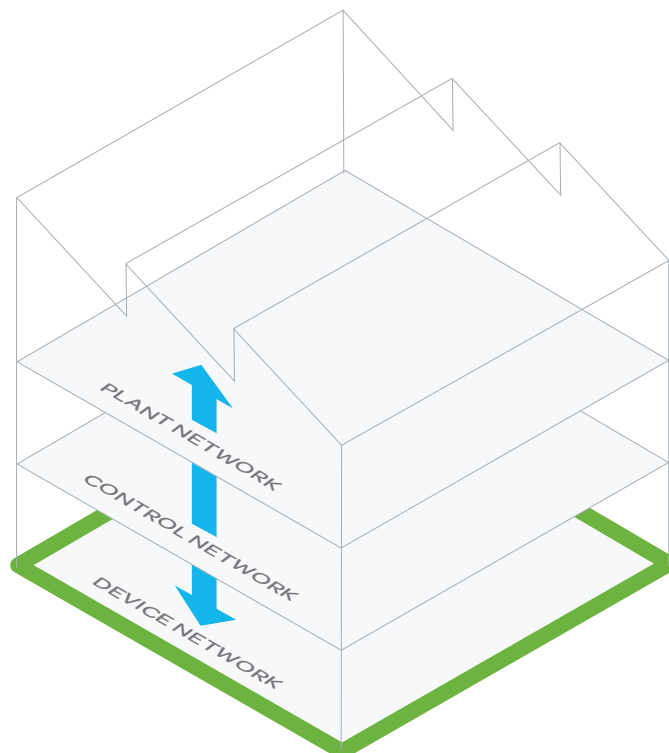
As the industrial environment moves toward Ethernet and open communications protocols, plant architectures are becoming increasingly capable of providing fast and predictable data exchanges. The right offer with many configuration possibilities will align the network architecture with the needs of every application.

At the same time, competitive pressures leave no space or time for poor choice of equipment or inefficient network layout. So why take chances on network infrastructure devices, when you can choose ConneXium Communication Solutions — the network infrastructure products from Schneider Electric™ that are designed specifically for production environments like yours? Schneider Electric offers both wired and wireless connectivity solutions.

The ConneXium Communication Solutions line is fully compatible with other Schneider Electric automation products. You can be confident of proven and reliable performance that you simply can't get when using untested products from other manufacturers.



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ConneXium Communication Solutions products provide seamless communications from your plant floor to your plant network.

Choose from a range of solutions

Managed switches

ConneXium managed switches are an industrial grade product, designed to work continuously on the plant floor, providing high level functionality for enhanced network availability and performance.

Maximize system uptime

- Network recovery features:
 - » Rapid Spanning Tree Protocol (RSTP)
 - » Media Redundancy Protocol (MRP)
 - » HIPER-ring
 - » Faulty device replacement

Guard your network from unauthorized access

- IP address restriction
- Port security
- Simple network management protocol (SNMP) data encryption
- Virtual local area network (VLAN) sharing

Facilitate troubleshooting

- Device diagnostics
- SNMP
- Alarm relays
- Port mirroring
- Log files
- Duplicate IP address detection

Reduce the chances of a network overload

- Broadcast storm filters
- Class of service controls
- Quality of service controls

Fiber optic capability

- Resistance to electrical interference
- Extend your network over long distances

Unmanaged switches

ConneXium unmanaged switches are robust, low-cost devices that can be used in simple networks to reduce the limitations of hub- or transceiver-based architectures.

- Minimize data collisions
- Free up network traffic
- 'Plug 'n play'
- Easy to implement
- Remote diagnostics (some models)
- IP67 for harsh environments

Gateways

Protect your investment in legacy systems with ConneXium gateways that connect Modbus™ or Modbus Plus networks to Ethernet, helping move your plant forward into the age of information transparency via the openness of industrial Ethernet.

Accessories: cables, connectors, IP67 patch cords, and adapters

ConneXium accessories are manufactured to strict specifications to meet the demands of the industrial environment.

Wireless access points and antennas

ConneXium Wi-Fi infrastructure offers industrial grade wireless local area network (WLAN) technology, which extends operability into hard-to-access locations.

- Increased mobility of devices and operators
- Flexible reconfiguration
- Dual radio variants
- Advanced security and redundancy features
- Multiple options of architectures for verticals
- Full range of accessories and antennas

ConneXium Communication Solutions

in the industrial Ethernet environment

Solutions for every level of your enterprise:

Plant network

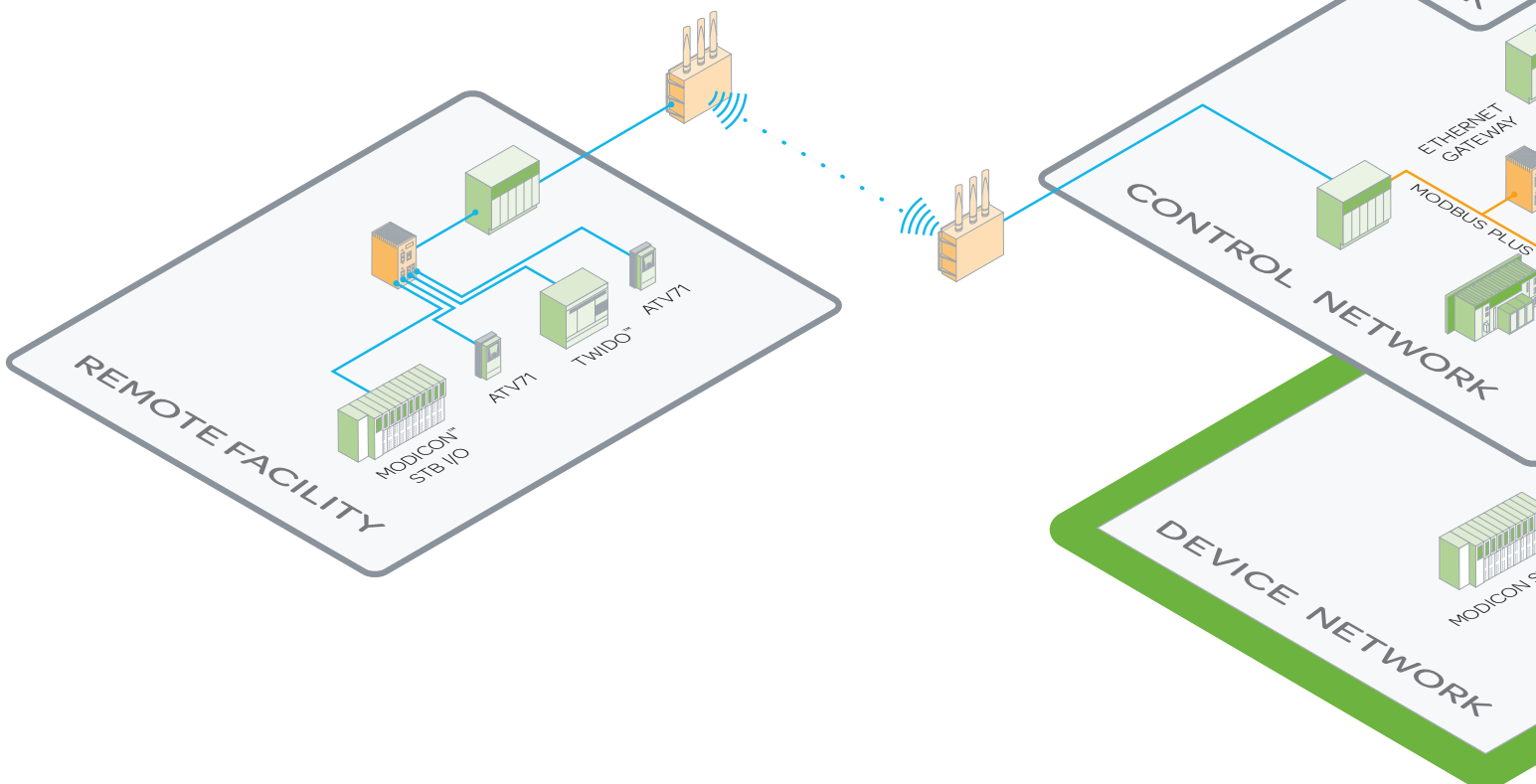
- Data warehousing and large servers
- Supervision/control room
- Plant management and quality systems

Control network

- PLCs
- Local servers
- HMI

Device network

- Sensors/actuators
- Intelligent devices
- Distributed I/O





Gateways protect your investment in Modbus or Modbus Plus networks by easily connecting them to industrial ethernet.



Through a large selection of port counts and configurable features, ConneXium **managed switches** can handle busy networks, while providing fast and reliable data transfers.



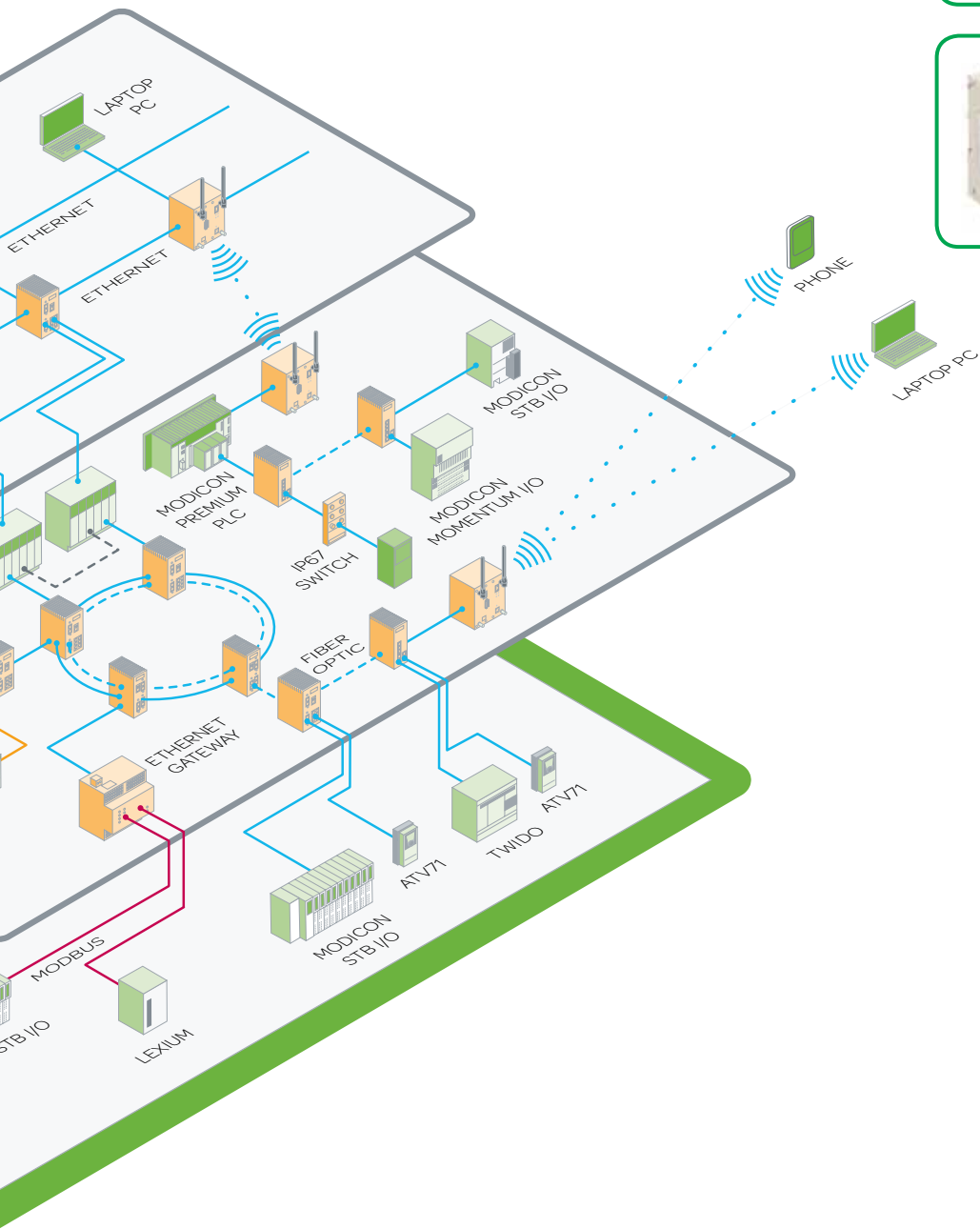
Perfect for simple, lower-volume networks, ConneXium **IP67-rated unmanaged switches** can deliver reliable performance even in harsh environments.



Wireless access points enable easy remote monitoring of data in locations where additional wiring is too costly or impractical to implement. They also allow flexible and low-cost network reconfiguration, including installation of temporary stations.



Unmanaged switches are robust, low-cost devices that can be used in simple networks to reduce the limitations of hub- or transceiver-based architectures.



ConneXium Communication Solutions Selection guide

	Description	Media	Commercial reference
Managed switches			
Basic switches	8TX		TCSESB083F23F0
	6TX/2FX	Multi-mode	TCSESB083F2CU0
	6TX/3FX	Multi-mode	TCSESB093F2CU0
4 ports	4TX	Copper	TCSESM043F23F0
	3TX/1FX	Copper/Multi-mode fiber	TCSESM043F1CU0
	2TX/2FX	Copper/Multi-mode fiber	TCSESM043F2CU0
	3TX/1FX	Copper/Single-mode fiber	TCSESM043F1CS0
	2TX/2FX	Copper/Single-mode fiber	TCSESM043F2CS0
	8 ports	8TX	Copper
8 ports	7TX/1FX	Copper/Multi-mode fiber	TCSESM083F1CU0
	6TX/2FX	Copper/Multi-mode fiber	TCSESM083F2CU0
	7TX/1FX	Copper/Single-mode fiber	TCSESM083F1CS0
8 ports extended switches	6TX/2FX	Copper/Single-mode fiber	TCSESM083F2CS0
	8TX	Copper	TCSESM083F23F1
	6TX/2FX	Copper/Multi-mode fiber	TCSESM063F2CU1
16 ports	6TX/2FX	Copper/Single-mode fiber	TCSESM063F2CS1
	16TX	Copper	TCSESM163F23F0
	14TX/2FX	Copper/Multi-mode fiber	TCSESM163F2CU0
24 ports	14TX/2FX	Copper/Single-mode fiber	TCSESM163F2CS0
	22TX/2FX	Copper/Multi-mode fiber	TCSESM243F2CU0
	10-port gigabit managed switch	8TX/2TX-Gbit	Copper/Gbit copper
	8TX/2SFP-Gbit	Copper/Gbit fiber	TCSESM103F2LG0*
	* Note: This product ships with open sockets (SFP) on the fiber ports. To use these ports, order 1 or 2 fiber modules in any combination (see below).		
Fiber modules (SPF gigabit switch only)	SFP-SX/LC (50/125um – 550m)	Multi-mode fiber	TCSEAAF1LFU00
	(62.5/125um – 275m)		
	SFP-LX/LC (50/125um – 550m)	Single or multi-mode fiber	TCSEAAF1LFS00
	(62.5/125um – 550m) (9/125um – 20km)		
	SFP-LH/LC (9/125um – 72km)	Single-mode long haul fiber	TCSEAAF1LFH00
Accessories	ConneXium memory back-up adapter (optional)	–	TCSEAM0100
	ConneXium serial configuration cable (optional)	–	490NTRJ11
Unmanaged switches			
3 ports	3TX	Copper	TCSESU033FN0
5 ports	4TX/1FX	Copper/Multi-mode fiber	TCSESU043F1N0
	5TX	Copper	TCSESU053FN0
	4TX/1FX	Copper/Multi-mode fiber	499NMS25101
	3TX/2FX	Copper/Multi-mode fiber	499NMS25102
	4TX/1FX	Copper/Single-mode fiber	499NSS25101
	3TX/2FX	Copper/Single-mode fiber	499NSS25102
8 ports	8TX	Copper	499NES18100
	8TX		TCSESU083FN0

	Description	Media	Commercial reference
IP67 Unmanaged switches			
5 ports	5TX (M12 type D female connector)	Copper	TCSESU051F0
IP67 switch/ accessories	Power cable – Female M12, straight	–	XZCP1164Lx
	Power cable – Female M12, elbow	–	XZCP1264Lx
	Spare power connector – Female M12, straight	–	XZ-CC12FDM50B
	Spare power connector – Female M12, elbow	–	XZ-CC12FCM50B
Hub			
	4x10BASE-T	Copper	499NEH10410
Gateways			
	Modbus/Ethernet	Copper	TSXETG100
	Modbus Plus/Ethernet	Copper	174CEV20040
Converters			
	Twidoport ethernet	–	499TWD01100
Cables			
<p>The “x” in the cable reference numbers is a placeholder for the various lengths in which they are available. Please see the ConneXium catalog for specific cable lengths (48384-EN).</p> <p>Catalog is available through the Technical Library at www.schneider-electric.com/us</p>	Ethernet STP CAT5/RJ45 – EIA/TIA 56	–	490NTW000xx
	Ethernet STP CAT5/RJ45 – UL, CSA 22.1	–	490NTW000xxU
	Ethernet STP CAT5/RJ45 – EIA/TIA 568 (crossed cables)	–	490NTC000xx
	Ethernet STP CAT5/RJ45 – UL, CSA 22.1 (crossed cables)	–	490NTC000xxU
	Straight; RJ45 male to M12 D-coded 4 pole male	–	TCSECL1M3MxS2
	Straight; M12 D-coded 4 pole male to M12 D-coded 4 pole male	–	TCSECL1M1MxS2
	Adapter; M12 D-coded 4 pole female (IP67) to RJ45 female (IP20)	–	TCSEAAF11F13F00
	Fiber optic adapter cable, SC/MT-RJ, 5 meter	–	490NOC00005
	Fiber optic adapter cable, ST/MT-RJ, 5 meter	–	490NOT00005
	Fiber optic adapter cable, MT-RJ/MT-RJ, 3 meter	–	490NOR00003
	Fiber optic adapter cable, MT-RJ/MT-RJ, 5 meter	–	490NOR00005
	Ethernet Cable 1M Cat 5E w/RJ45 – UL	–	TCSECU3M3M1S4
	Ethernet Cable 2M Cat 5E w/RJ45 – UL	–	TCSECU3M3M2S4
	Ethernet Cable 3M Cat 5E w/RJ45 – UL	–	TCSECU3M3M3S4
	Ethernet Cable 5M Cat 5E w/RJ45 – UL	–	TCSECU3M3M5S4
Ethernet Cable 10M Cat 5E w/RJ45 – UL	–	TCSECU3M3M10S4	

ConneXium Communication Solutions

Selection guide

	Description	Mounting	IP Rating	Reference
ConneXium wi-fi				
Access points				
LAN access point/client	IEEE 802.11a/b/g/h/i, 2.4 GHz & 5 GHz, 54 Mbps	Din Rail	IP 40	TCSGWA242
	IEEE 802.11a/b/g/h/i, 2.4 GHz & 5 GHz, 54 Mbps	Wall/Mast	IP 67	TCSGWA272
High performance LAN access point/client	IEEE 802.11a/b/g/h/n, 2.4 GHz & 5 GHz, 300 Mbps	Din Rail	IP 40	TCSNWA241
	IEEE 802.11a/b/g/h/n, 2.4 GHz & 5 GHz, 300 Mbps	Wall/Mast	IP 67	TCSNWA271
Antennas			TSCG compatible references	TSCN compatible references
2.4 GHz	2.4 GHz omni directional (6dBi)		TCSWAB2O	–
	2.4 GHz directional (14dBi)		TCSWAB2D	–
	2.4 GHz dual slant (8dBi)		TCSWAB2S	TCSWAB2S
	Leaky cable – 50 meter		TCSWABC5	–
	Leaky cable – 100 meter		TCSWABC10	–
5 GHz	5 GHz omni directional (5dBi)		TCSWAB5O	–
	5 GHz directional – medium (18.5dBi)		TCSWAB5D	–
	5 GHz directional – long (23dBi)		TCSWAB5V	TCSWAB5V
	5 GHz directional – 802.11n (23dBi)		TCSWAB5VN	TCSWAB5VN
	5 GHz dual Slant (9dBi)		TCSWAB5 S	–
	5 GHz directional – 802.11n (9dBi)		–	TCSWAB5DN
Dual band	Dual band hemispherical (6dBi/8dBi)		TCSWABDH	–
	Dual band omni (3.5dBi/5.5dBi)		–	TCSWABDON





ConneXium switches, gateways, cables, wireless access points, and antennas from Schneider Electric help you **optimize network performance and improve plant productivity**.

All devices are specifically designed and tested for automation networks and industrial environments like yours, and when implemented within an overall automation system from Schneider Electric, they are a complete solution to your connectivity needs.

For more information, contact your local Schneider Electric sales representative.

For more information visit
www.schneider-electric.com/us
and enter keycode **p897v**.

Enter keycode

> OK



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