

COPPERWAY-BIS-6TTX

SECURE ACCESS ROUTER



Introduction

The **CopperWay-Bis-6TTX** is a fiber optic and copper Add-and-Drop Ethernet Access Device that delivers high speed Ethernet services on existing copper pairs and fiber optic infrastructure.

The **CopperWay-Bis-6TTX** is a layer 3 router with extensive cybersecurity features to respond to the most stringent requirements of networks. This includes IPSec tunnelling, X.509 authentication certificates with SCEP PKI enrolment protocol, firewall filtering. It embeds a Secure-Element for enhanced authentication certificate control, strong encryption of stored information and Secure-Boot to ensure total security of both data and software.

The **CopperWay-Bis-6TTX** delivers 6x RJ45 Ethernet ports and 2x gigabit Ethernet SFP sockets that can also be used as WAN interfaces when fiber optic cables are available. The CopperWay-Bis-6TTX offers also 1x Digital Input and 1x Relay Output to control simple devices or detector such as the substation door alarm contact to send an immediate alarm to the security control services.

The **CopperWay-Bis-6TTX** embeds all IP protocols to fit in the latest network management and security architecture of Critical IT infrastructure. Such protocols include IPSec with IKEv2 and Hub-and-Spoke functions, SCEP, etc.

Applications

Intelligent transport network: Surveillance, Protection, Remote Control, Metering and Administration

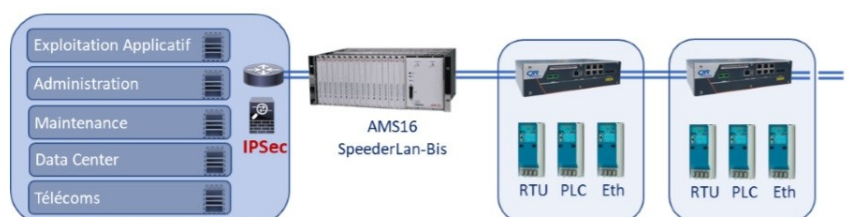
CopperWay-Bis-6TTX connects all the equipment over a communication infrastructure made of fiber optic cables to the data center. It delivers many Ethernet ports to connect all systems. It embeds very strong security features including IPSec, X509 authentication and a hardware secure element.

CYBERSECURITY

IPSec
X.509 SCEP
Encryption
Authentication
HW security

CONNECTIVITY

Fiber optic
Ethernet
Digital I/O



Specifications

SHDSL interfaces
<ul style="list-style-type: none"> • 2x interfaces, East / West • SHDSL.Bis : TC-PAM 16/32/64/128 • Throughput : Nx64kbps, 192 kbps to 15.4 Mbps • Encapsulation EFM, 802.3ah • Impedance 120 Ohms • Hardware resiliency : by-pass relay • Screw bloc
Ethernet interfaces
<ul style="list-style-type: none"> • 2x Gigabit Ethernet SFP sockets • Choice of SFP modules MM 0.5/2km or SM 2~100km • 6x 10/100BT interfaces, 802.3, RJ45 • Auto MDI/MDIX • MAC address memory: 16 K • Frame buffer memory: 2 Mb
Ethernet protocols
<ul style="list-style-type: none"> • Frame size : 1,524 bytes • Resiliency : STP, RSTP, 802.1D • Authentication : 802.1X • VLAN : 802.1Q, per port • QoS : 802.1p, VLAN/DSCP, rate limiting • LLDP, 802.1ab
IP Protocols
<ul style="list-style-type: none"> • IP v4, v6 • Routing : static, GRE • VPN : IPSec, Ike v2, Hub-and-Spoke, GRE • DHCP, DNS

Typical DSL performance on AWG26 / 0.4mm copper cable, no noise

Rate Mbps	0.192	1.280	2.048	4.6	5.7	11.4	15.3
Distance km	7	4.5	4	2.5	2	0.9	0.4

Digital Input and Relay Output
<ul style="list-style-type: none"> • 1x digital input • 1x dry contact relay output : 48Vdc / 0.1A max • Screw bloc
Management
<ul style="list-style-type: none"> • Interfaces: USB, IP • Port USB M/S : CLI, web server, memory card for configuration backup and firmware updates, event log memory • CLI: SSH (V2) • Web server : http (deactivatable), Https STLS1.2/TLS1.3) • SNMP : v1, v2c, V3 • Radius: web and Ssh authentication • LLDP • SCEP : X509 certificate management • Security : SecureBoot, secure element to provide strong encryption and integrity of stored information (AES,TDS) and hashage (SHA) • Diagnostics: Syslog, ping, tracer, interface and
General characteristics
<ul style="list-style-type: none"> • Robust metallic enclosure , DIN rail mounting • Dimensions: 280x150x70 mm • Weight : 1.3 kg • Power supply: 2x inputs, 12-24 Vdc (10-36Vdc) • Max power consumption : 12 W • Typical power consumption : 7W • Operating temperature : -20 to +60 °C, fan-less • Hygrometry : 0 to 90%, non-condensing • Compliance : CE, EN-62368-1, EN-61000-6-2, EN-61000-6-4 • MTBF : 242,000 Hours

Ordering information

Reference	Description
CWAY-BIS-6TTX-MC2	CopperWay-Bis-6TTX secure router
PROTEC-1DSL-RJ45	Lightning protection, 2x kits for each CopperWay
SFP-GSX-MM	Gigabit SFP module, Multi-Mode 850 nm, 500m, LC connector
SFP-GLX-SM20/40	GE SFP module, Single-Mode 1310 nm, 20 or 40 km, LC connector
SFP-GLX-SM80	GE SFP module, Single-Mode 1550 nm, 80 km, LC connector
PS-DIN-12V-40/75/120W	DIN power supply, 110-230 Vac to 12 Vdc, power 40, 75 or 120 W



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