SCIENTIS SOLUTIONS
Connecting Networks

Wireline Network Management Solutions

SRB-21 E1 & Ethernet Router / Bridge Series

Scientis Solutions Limited provides multi- vendor and technology, end-to-end network element and data connectivity monitoring platforms, together with a range of Network Management System integration possibilities. We have developed cost effective end-to-end solutions and a complementary services portfolio, enabling our clients to have complete visibility and control of their networks, improved detection of network failures and reduced repair times, while significantly reducing operational expenditure. From various types of site monitoring and control solutions, through to integration into existing NMS/EMS platforms, Scientis Solutions provides a comprehensive multi-vendor and technology proposition.

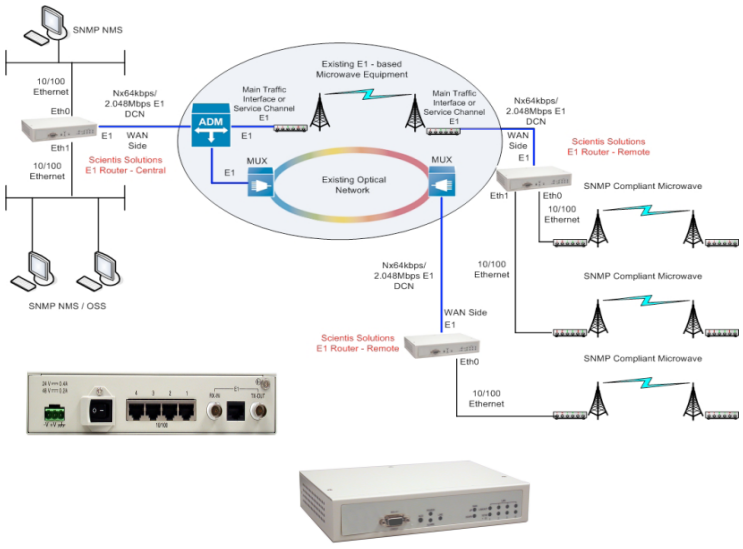
E1 / Ethernet Router - Bridge

Our SRB-21 E1 Router/Bridge product range has been Engineered and optimized to solve the challenge of connecting multiple Ethernet ports at a remote location back to a central site over existing E1 based infra-structures. The SRB-21 can be configured either in router or bridge mode. In router mode, each Ethernet port can reside on a separate IP sub-net, meaning that multiple IP sub-nets can be extended from the central site location out to the remote site via a single shared E1 bearer. This makes the product particularly suited to DCN extension applications, where multiple remote equipment types need to share the common E1 bearer. In bridged mode, all Ethernet ports reside on Layer 2 switched fabric, allowing LAN segments to be extended to remote locations over the E1 infrastructure.

The E1 interface operates in framed mode, whereby the actual transmission bandwidth over the E1 interface is configurable in 64K steps (1 - 31 x 64K time-slots). This means that the product is compatible with existing E1 networks, where certain timeslots in a given E1 may already be used for another purpose. The SRB-21 supports extensive performance management and diagnostic functions. In addition, remote management via CLI (Telnet and SSH) or SNMP V1/2 is supported, together with an http web-based interface for configuration and monitoring. These features allow the product to co-exist with existing carrier-class equipment and to be integrated with existing NMS/OSS platforms (MIBs can be provided) - native integration into the Scientis Solutions SNMS is supported as standard. In addition to E1 and DS1, DTE interfaces are also available with V.35, V.36, EIA530, RS449, RS232, X.21, RS422

Application

The foremost important application for the SRB-21 E1 Router/Bridge product range is for transporting Ethernet based DCN channels over an existing TDM-based infrastructure. In particular, the SRB-21 series finds many uses in microwave radio environments, where Ethernet-based DCN connectivity is necessary to the microwave cluster, but only legacy TDM-based transport technologies exist back to the NMS location. In these instances, deploying a leased Ethernet circuit is likely to prove prohibitively expensive.



Key Features

- ✓ Supports 1 or 4 Ethernet LAN ports.
- ✓ Supports 1 WAN port with multiple interface options: E1 or DS1 (DTE interfaces are also available with V.35, V.36, EIA530, RS449, RS232, X.21, RS422 standards).
- ✓ Supports 10/100 BaseT speed auto-sensing and half/full duplex negotiation.
- ✓ Local control and diagnostic via DB9S console port.
- ✓ Local/remote management via local console, LAN, or WAN (http, SNMP, telnet, SSH).
- ✓ Supports SNMP management.
- ✓ Can be integrated to 3rd party NMS via supplied MIBs.
- ✓ Fully integrated into the Scientis Solutions SNMS platform or interoperable with other vendor NMS.
- ✓ Automated SNMP alarm delivery to NOC via E1 (nx64K) channel.
- ✓ Framed E1; compatible with existing networks.
- ✓ Allows re-use of spare E1s / 64K slots for NMS channel transport.
- ✓ PPP, HDLC, CISCO HDLC, Frame Relay supported.
- ✓ Multiple WAN, remote bridge support, Router.
- ✓ 220/240VAC mains or 24/48V DC power options.

Technical Specification

Model	Description
For E1 WAN Port:	
SRB-21-E75-1ETH-BR-pp	75 ohm E1 WAN port and 1 Ethernet port w/ Bridge function only
SRB-21-E75-4ETH-BR-pp	75 ohm E1 WAN port and 4 Ethernet ports w/ Bridge function only
SRB-21-E75-1ETH-RT-pp	75 ohm E1 WAN port and 1 Ethernet port w/ Router & Bridge function
SRB-21-E75-4ETH-RT-pp	75 ohm E1 WAN port and 4 Ethernet ports w/ Router & Bridge function
SRB-21-E120-1ETH-BR-pp	120 ohm E1 WAN port and 1 Ethernet port w/ Bridge function only
SRB-21-E120-4ETH-BR-pp	120 ohm E1 WAN port and 4 Ethernet ports w/ Bridge function only
SRB-21-E120-1ETH-RT-pp	120 ohm E1 WAN port and 1 Ethernet port w/ Router & Bridge function
SRB-21-E120-4ETH-RT-pp	120 ohm E1 WAN port and 4 Ethernet ports w/ Router & Bridge function
For DS1 WAN Port:	
SRB-21-T-1ETH-BR-pp	DS1 WAN port and 1 Ethernet port w/ Bridge function only
SRB-21-T-4ETH-BR-pp	DS1 WAN port and 4 Ethernet ports w/ Bridge function only
SRB-21-T-1ETH-RT-pp	DS1 WAN port and 1 Ethernet port w/ Router & Bridge function
SRB-21-T-4ETH-RT-pp	DS1 WAN port and 4 Ethernet ports w/ Router & Bridge function
For DS1 WAN Port with In-band Management:	
SRB-21-T-IM-1ETH-BR-pp	DS1 WAN port w/ In-band management and 1 Ethernet port w/ Bridge function only
SRB-21-T-IM-4ETH-BR-pp	DS1 WAN port w/ In-band management and 4 Ethernet ports w/ Bridge function only
SRB-21-T-IM-1ETH-RT-pp	DS1 WAN port w/ In-band management and 1 Ethernet port w/ Router & Bridge function
SRB-21-T-IM-4ETH-RT-pp	DS1 WAN port w/ In-band management and 4 Ethernet ports w/ Router & Bridge function
For DTE WAN port:	
SRB-21-dte-1ETH-BR-pp	DTE WAN port and 1 Ethernet port w/ Bridge function only
SRB-21-dte-4ETH-BR-pp	DTE WAN port and 4 Ethernet ports w/ Bridge function only
SRB-21-dte-1ETH-RT-pp	DTE WAN port and 1 Ethernet port w/ Router & Bridge function
SRB-21-dte-4ETH-RT-pp	DTE WAN port and 4 Ethernet ports w/ Router & Bridge function

Where dte is used	Description	Note
22	V.35 WAN port	With DB25 connector
33	EIA530 WAN port	With DB25 connector
44	X.21 WAN port	With DB15 connector
55	RS232 WAN port	With DB25 connector
66	V.36/RS449 WAN port	Via DB25P to DB37S (1-feet) conversion cable
77	RS422/V.11 WAN port	With DB25 connector

Where pp is used	Description
AC	Fixed AC power supply (90 to 264 Vac)
DC	Fixed DC power supply (For -24 Vdc and -48 Vdc: -20 to 60 Vdc)
DC 24	Fixed DC power supply (For -24 Vdc: -18 to -36 Vdc)
DC 48	Fixed DC power supply (For -48 Vdc: -36 to -72 Vdc)

Dimensions	210 x 41.5 x 140 mm. (WxHxD)
Temperature	0 -50°C
Humidity	0-95% RH (NON-CONDENSING)
Mounting	Desk-top stackable, wall mount
AC	Full range support 100V – 240V
DC	-24V or -48V support
Power Consumption	Max. 6 watt

EMC	FCC15 Class A EN300 386
Safety	UL60950 ETL/ETLC,IEC60950CB,EN60950

AC Power cords available for, America, Europe, UK and Australia Regions	
81.TRAY19.000-G	19" tray. One tray for two units
SRB 21-UPGRT	Activation code for Router function

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