SparkLight ADM-1/4

NG SDH multi-service STM-1/4 Add/Drop multiplexer

SparkLight ADM-1/4 is a compact, powerful and user-friendly device for providing PDH (E1, E3), SDH (STM-1, STM-4) and Ethernet (FE, GE) over SDH networks.

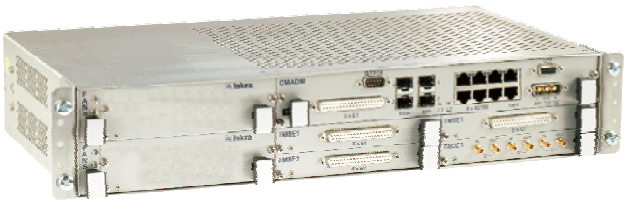
Used as an add/drop multiplexer on the SDH ring (or as a terminal multiplexer at the remote site), the SparkLight ADM-1/4 improves Ethernet bandwidth efficiency via GFP, VCAT and LCAS protocols, and also supports TDM mapping for termination at any point in the SDH network.

Various tributary interfaces on central module, many optional tributary modules, and a high capacity cross-connect matrix with stacking connectivity gives an opportunity to set up flexible and effective multi-service communication node.

Integrated Ethernet L2 switch enables point-to-point and point-to-multipoint LAN traffic with many possibilities for traffic protection (on SDH or L2 switch level).

Only radio module, outdoor unit and antenna are needed to establish SDH STM-1 microwave link.

The management system with Java Web Start user interface, SNMP agent and OSPF router is built into the device. No additional equipment except a standard PC with built-in web browser is needed to set up the telemanagement system.



Features

- Compact 1U/2U high; 19"/ETSI compatible device.
- 32xSTM-1 equivalent CC capacity.
- Up to 2xSTM-1/4 electrical/optical line interfaces on the central module.
- Up to 2xSTM-1 microwave radio line interfaces.
- Up to 40xE1 interfaces; 8xE1 on the central module.
- Up to 3xE3 interfaces.
- 6xFE interfaces on the central module.
- 8xGFP mappers for P2P FE connections.
- 1xGE interface on the central module.
- Up to 2xESSI interfaces for equipment CC stacking.
- GFP, VCAT, LCAS and embedded L2 switch for EoS.
- Supports many different radio and SDH protection mechanisms.
- Java Web Start and SNMP based integrated management.
- xWDM ready.

Benefits

- Provides revenue-generating next generation Ethernet services while preserving investments in legacy SDH networks.
- Optimized bandwidth utilization for Ethernet services using GFP, VCAT, LCAS functionality.
- Effective management integration using Java Web Start GUI and SNMP protocol transported by an embedded IP/OSPF telemanagement network.
- Integrated optical/electrical and microwave radio SDH lines in the same device.
- SFP modules for up to 120 km.
- By stacking more ADM devices with ESSI interfaces a STM-1/4 non-blocking crossconnect node could be set up with no additional hardware.
- Easy migration from TDM to IP.
- Combination of TDM and IP traffic.
- Low OPEX/CAPEX.

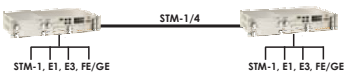
SPARKLIGHT
optical transmission system

SparkLight
ADM-1/4

Applications

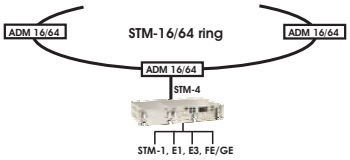
SparkLight ADM-1/4 is ideally suited for next generation IP services coexisting with legacy voice and TDM services in public telecommunications networks as well as networks of large corporations like: railways, highways, oil/gas distribution companies, government and private organizations.

Ring, access and point to point are most typical optical applications.



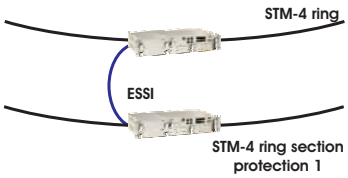
E1, E3, FE, GE, STM-1 PtP

SDH STM-1/4 ring

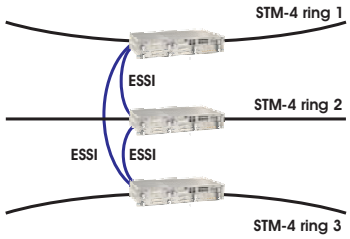


Access to STM-16/64 backbone

ESSI buss for crossconnect stacking and/or card protection.

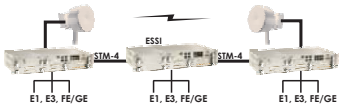


Card & section protection

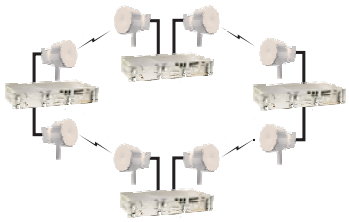


STM-4 rings interconnection

Ideal solution for radio optical applications.



Radio protected optical SDH



Microwave radio STM-1 ring

Technical data

Line Interfaces	STM-1/4 Optical	Up to 2 interfaces on central module
	Compatibility	SFF-8472, SFF-8074i
		MSA Digital Diagnostics Monitor compliant
		SFP Transceiver MSA Spec
	Suitable SFP Modules	Optical STM-1/4 up to 120km, ITU-T G.957, Electrical STM-1
Line Radio Interfaces	STM-1	Up to 2 radio modules with one interface
	Radio Protection	1+1 HSB/FD/SD, hitless
Tributary interfaces	E1	8xE1 on central module, up to 4 tributary modules 8xE1 G.703 point 6., 2.048 kbit/s 120/75 Ω - SW defined
	E3	Up to 3xE3 on tributary module G.703 point 8., 34,386 kbit/s
	Ethernet interfaces	1x1000 Base-SX/LX/CX SFP module (optional electrical RJ45 SFP) 6x10/100 Base T, Rj45
SDH Features	Crossconnect	Capacity: 5Gb/s incoming, 2,5Gb/s outgoing, nonblocking Connectivity: VC-12, VC-3, VC-4
	Protection EoS	UPSR/SNCP, MS APS, BLSR/MS-SPRING ITU-T G.7041, GFP (Generic Framing Procedure) ITU-T G.707/Y.1322 in G.783, VCAT (Virtual Concatenation) ITU-T G.7042/Y.1305 LCAS (Link Capacity Adjustment Scheme) Up to 8 VCG (Virtual Concatenated Groups) L2 switch for FE
	Synchronization	Standard: ITU-T G.813, Sources: T1, T2, T3, E1 (framed/unframed) Outputs: T4, E1 (framed/unframed)
Management	Protocols	SNMP, Telnet
	Interfaces	10/100 Base T, RS-232
	Functions	Fault, Performances, Configuration, Access management
Environmental Conditions	Operation	-5-+45°C/8-100% ETSI EN 300 019 class 3.1E
	Storage/Transport	ETSI EN 300 019 class 1.1/class 2.3
	EMC compatibility	ETSI 301 489-4
Power	Power Supply	From 20 V to 72 V, ETSI EN 300 132
	Power consumption	<20W - 1U, <35W - 2U
Mechanical	Dimensions (HxWxD)	45x442x240 mm - 1U, 86x442x240 mm - 2U
	Weight	3,26 kg - 1U, <6,05 kg - 2U

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