

## SparkLight HSP

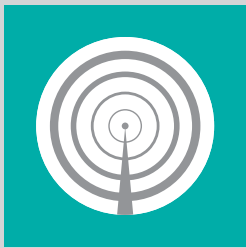
Optical line terminal with PDH multiplexer for E1, E3 and Ethernet



SparkLight HSP is a compact, powerful, user-friendly and easy to install device for providing transmission of PDH (E1, E3) and Ethernet over optical fibers, that enables service providers to offer subscribers reliable, high-performance, high-speed communications services such as LAN interconnection, Internet access, voice & data services, etc.

Any combination of up to 40x E1, up to 4x E3 and up to 2x Ethernet (10/100BaseT/TX) is possible in common capacity 72x E1 equivalent.

**SPARKLight**  
optical transmission system



# SparkLight HSP

## Features

- Extended PDH multiplexing principle - HSP (High Speed PDH)
- Internal and external testing loops
- EOW service channels and external static alarm input output option
- 1U or 2U high 19" subrack
- All cables on the front side
- SFP pluggable optical modules with Digital Diagnostics monitoring
- Hot swap tributary cards
- Management over SNMP with JavaWebStart GUI, CLI, Telnet, VT-100 or LEDs + LCD display
- Compatible with SpakView NE management system or any other SNMP based

## Applications

- Point-to-point Ethernet plus TDM connections over fiber optics
- Last mile access for voice and internet service providers
- LAN and PBXs extension and distribution
- Telecommunications for protecting and control systems
- Optical interconnections and/or protection for radio relay systems



## Benefits:

- Easy to install and configure
- Compact solution
- PDH multiplexing principle enables 72xE1 in 154 Mb/s stream
- E1 channels are suitable for synchronization transmission
- SFP up to 140 km without regenerator
- Enables smooth migration from TDM to packet services
- Possibility of adapting capacity of Ethernet traffic to actual needs
- A management system with a SNMP agent and OSPF router is built into the unit.
- Embedded EMS (Element Management System) No proprietary SW installation is required.

## Technical data

<b>Line Interface</b>	Bit Rate	154.176 Mbit/s ±20 ppm
	Transmission capacity	72 x E1 Equivalent*
	Installation mode	SFP plug-in module (optical up to 140 km or electrical)
	Compatibility	SFF-8472, MSA Digital Diagnostics Monitor compliant. SFF-8074i, SFP Transceiver MSA Spec.
	Suitable SFP modules	ITU-T G.957 SDH STM-1 optical/electrical SFP passive cable
	*E3 every E3 occupies 17 x N (N is the number of equivalent E1 channels)	
	*Ethernet: transmission capacity is: 2092 kbit/s x N (N is the number of equivalent E1 channels)	
<b>E1 interface</b>	Bitrate (plesiochronous)	2.048 kbit/s
	Number of ports	8/8 per central/tributary module
	ITU-T recommendations	G.703 point 6
	Nominal impedance	120Ω/75Ω - SW defined
	Connector type	SubD 37 pins
<b>E3 interface</b>	Bitrate (plesiochronous)	34.386 kbit/s
	Number of ports	3 per tributary module
	ITU-T recommendations	G.703 point 8
	Nominal impedance	75Ω
	Connector type	1.0/2.3 coaxial
<b>Ethernet interface</b>	Interface type	IEEE 802.3 half duplex and duplex IEEE802.3 management statistics (RMON) IEEE 802.3u auto-negotiation
	Transmission speed	Adjustable 2-100 Mbit/s - 2.092 Mbit/s step
	Number of ports	2 on central module
	Connector type	RJ45, Automatic connector MDI/MDIX
	<b>EOW Data interface</b>	ITU-T recommendations
	Number of ports	8 per TMEOW module input/output - SW defined
	Transmission speed	Up to 512 kbit/s - SW defined
	Connector type	SubD 37 pins
<b>EOW aux. input/output</b>	Number of inputs	4-6 per TMEOW module SW defined
	Number of outputs	2-4 per TMEOW module SW defined
<b>Other interfaces</b>	Management interface	10 Base-T/100 Base-TX adaptive
	Service channel interface	10 Base-T/100 Base-TX adaptive
<b>Mechanical/ Environmental</b>	Operation climatic conditions (temp./humidity.)	-5-+45°C/8-95% ETSI EN 300 019 class 3.1E
	Storage/transport condit.	ETSI EN 300 019 class 1.1/class 2.3
	EMC compatibility	ETSI 301 489-4
	Power Supply	From 20V to 72V ETSI EN 300 132
	Power consumption	(1U/2U) <19W/<39W
	Dimensions in mm (HxWxD)	(1U/2U) 45x442x240/86x442x240
	Weight	(1U/2U) 3,17kg/<5,96kg

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