Iskra

SparkWave SDR
ADM Compact

SparkWave SDR
ADM Compact
SDH MW radio
with ADM functionality

The SparkWave SDR ADM is intended for microwave transmission of STM-1 traffic, operating in 5, 6, 7, 8, 11, 13, 15, 18, 23 and 26 GHz frequency range. Powerful multi service SDH ADM-1/4 multiplexer is integral part of the radio IDU.

SPARKWAVE
digital microwave radio

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Any ADM combination (optical/electrical-radio, radio-radio or optical/electrical-optical/electrical) is possible. The capacity of radio links and electrical interfaces is STM-1. Optical interfaces can be STM-1 or STM-4. Many different radio and SDH protection mechanisms are available. Split Mount solution with ADM IDU and compact ODU. Various tributary interfaces (E1, E3, Ethernet 10/100/1000), a powerful cross-connect matrix (16XSTM-1equivalent) and stacking connectivity gives opportunity for powerful, flexible and effective SDH optical and/or radio solutions.

A management system with an SNMP agent and a OSPF router is built into the unit. No additional equipment except a standard PC computer with built-in web browser is needed.

The unit enables operation in ATPC (Automatic Transmitted Power Control) mode.

Technical data

Frequency plan	5, 6, 7, 8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz	26 GHz
RF output power in dBm	22/26	21/26	20	20	19	18	18
Channel spacing	28 MHz	28 MHz	28 MHz	28 MHz	27,5 MHz	28 MHz	28 MHz
Frequency stability	±5 ppm						
Frequency seeting step	0,25 MHz						
ATPC output power adjusting range	20 dB in 1 dB step						
Receiver treshold at antenna connector in dBm for BERR 10^{-6}	128QAM/28MHz		-69				
Link protection modes	Hot Stand-By Space Diversity Frequency Diversity Hitless switch						

Line interface		
Bit rate	155,52 Mbit/s ±20 ppm	
Installation mode	SFP plug-in modle (electrical or optical)	

Tributary interfaces			
PDH		E1	E3
ITU-T Rec.		G.703 point 6.	G.703 point 8.
Bit rate		2048 kbit/s	34368 kbit/s
SDH			
Bit rate	155,52 Mbit/s ±20 ppm		
Installation mode	SFP plug-in modle (electrical or optical)		
Ethernet interface	10Base-T/100 Base-TX adaptive 1000Base-SX/LX/CX or 1000Base-T Compatibility IEEE 802.3 half duplex and full duplex IEEE 802.3u auto-negotiation		
Mapping mode	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) Transmitting capacity via SDH Adaptive N x VC12/VC3/VC4		

Other interfaces		
Management interface	10 Base-T/100 Base-TX adaptive	
Service channel interface	10 Base-T/100 Base-TX adaptive V.24, V.11	

Mechanical/ Environmental		
Operation climatic conditions (temp./humidity.)		
IDU	-5-+45°C/8-95% ETSI EN 300 019 class 3.1E	
ODU	-33°C-+50°C/5%-100% ETSI EN 300 019 class 4.1E (-50°C-+50°C option)	
Storage/transport conditions	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 IDU	(1U/2U) <35W/<57W	
Power consumption ODU	<25W	
Dimensions in mm (HxWxD) IDU	(1U/2U) 45x442x240/86x442x240	
Dimensions in mm (HxWxD) ODU	200x150x80/F305x120	
Weight IDU	(1U/2U) 3,17kg/<5,96kg	
Weight ODU	<6kg	