

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 7, 8, 13, 15, 18 and 23 GHz frequency range. Powerful multi service SDH ADM-1/4 multiplexer is integral part of the radio IDU.

SPARKWAVE

digital microwave radio





SparkWave SDR

ADM Compact



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-1 equivalent) 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	7 GHz	8 GHz	13 GHz	15 GHz	18 GHz	23 GHz
RF output power in dBm	22/26	22/26	20	20	18	18
Channel spacing	28 MHz	28 MHz	28 MHz	28 MHz	27,5 MHz	28 MHz
Frequency stability	±5 ppm					
Frequency seeding step	0,25 MHz					
ATPC output power adjusting range	20 dB in 1 dB step					
Receiver threshold 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 module (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 module (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/8-100% ETSI EN 300 019 class 3.1E				
	ODU	-33°C-+50°C/5%-95% ETSI EN 300 019 class 4.1E				
	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				