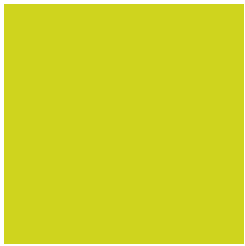
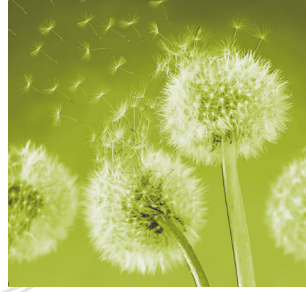


Long-Haul Radio-Relay System

SparkWave 7/8

Low and Medium Capacity
Digital Radio-Relay System



Principally, there are two solutions in the system: an all-indoor system and an indoor/outdoor system. Indoor/outdoor systems eliminate the influence of waveguide insertion losses, which enables price effective solution of links. However, the all-indoor system has also certain advantages. It simplifies maintenance of the RF module of the device.



Iskra

Iskra Transmission

Technical Specifications

	Digital Radio Link	SparkWave 7	SparkWave 8
FREQUENCY PLAN	Frequency bands	7125-7425 MHz 7250-7550 MHz 7425-7725 MHz 7550-7850 MHz 7425-7900 MHz 7110-7750 MHz	7900-8400 MHz 8275-8500 MHz
	Transmit/receive spacing	154/161/196/245 MHz	119/266 MHz
	Channel spacing	3,5/7/14/28 MHz	3,5/7/14/28 MHz
	Channel plan	ITU-R Rec. F. 385-6	ITU-R Rec. F. 386-6
	Minimum frequency setting step	0.25 MHz	0.25 MHz
SYSTEM SPECIFICATIONS	Transmission capacity	2x2, 8, 4x2, 34 and 16x2 Mbit/s 2 Mbit/s wayside traffic at 34 or 16x2 Mbit/s	
	System value for BER=10 ⁻³ :		
	- 2x2 Mbit/s	116 dB	116 dB
	- 8, 4x2 Mbit/s	113 dB	113 dB
	- 34, 16x2 Mbit/s	107 dB	107 dB
	Frequency stability	< ±15 ppm	< ±15 ppm
	Modulation/Demodulation	QAM/coherent	
	MTBF for 1+0 terminal	>170.000 ur	
ELECTRICAL SPECIF. - TRANSMITTER	RF output power	25 dBm	25 dBm
	RF output power setting	1-15 dB in 1 dB steps	1-15 dB in 1 dB steps
ELECTRICAL SPECIF. - RECEIVER	Receiver threshold level		
	BER	10 ⁻³	10 ⁻⁶
	- 2x2 Mbit/s	- 91 dBm	- 88 dBm
	- 8, 4x2 Mbit/s	- 88 dBm	- 85 dBm
	- 34, 16x2 Mbit/s	- 82 dBm	- 79 dBm
ELECTRICAL SPECIF. - BASEBAND	Code	HDB3	
	Parameters of the input/output interface	according to ITU-T G.703	
ELECTRICAL SPECIF. - SERVICE CHANNEL	Voice service channel	2-wire, 600 Ω, 300-3400 Hz, A/D-D/A, 64 kbit/s PCM	
	Data service channel	19.2 kbit/s V.28	
ELECTRICAL SPECIF. - AUXILIARY 2 Mbit/s	Code	HDB3	
	Parameters of the input/output interface	according to ITU-T G.703	
OTHER SPECIFICATIONS	Type of the antenna waveguide flange	UDR 84	
	Connector type for the connecting cable	N	
	Maximum attenuation of the connecting cable	27 dB @ 1.5 GHz	
	Power supply voltage	40-60 VDC or 20-36 VDC (+20 % ±10 %)	
	Consumption (16x2 Mbit/s, 1+0)	<20.0 W	
	Weight		
	- System subrack with 5 units/system module	4.0 kg/2.5 kg	
	- RF module without antenna/RF subrack for 1+1 config.	5.0 kg/6.0 kg	
	Dimensions in mm (height x width x depth)		
	- System subrack (VSEP)/19" modules	290 x 115 x 200/45 x 480 x 240	
	- RF module without antenna/RF subrack	230 x 200 x 110/222 x 500 x 150/250	
CLIMATIC CONDITIONS	Operation range (temperature/humidity):		
	- System part	- 5°C to +50°C/5 % to 95 %	
	- RF module	-50°C to +50°C/8 % to 100 %	
	Storage temperature	-55°C to +85°C	
ELECTROMAGNETIC COMPATIBILITY	ETS standard	ETS 300 385, class B	
	Radiation	EN 55022, 40/47 μV/m	
	Immunity compliance to	IEC 1000-4-6, 10V/m, IEC 1000-4-2, IEC 1000-4-4	
CERTIFICATES OF CONFORMITY	CE 0862	E8131450-CC	E8131340-CC
	SiQ		C251-540/02
	CCC		OC/1-PPC327

The subject can be changed without notice.



Iskra Transmission, d. d., Ljubljana, Stegne 11, SI-1000 Ljubljana, Slovenia
phone: +386 1 5003 350, fax: +386 1 5003 500,
e-mail: info@iskratr.si, Internet: www.iskratr.com.