

E1 mm-wave radio

Features

- Frequency bands:
40.5-43.5 GHz, 59-64 GHz, 92-96 GHz
- Quasi-optical propagation
- Compact Cassegrain antennas
- “All outdoor” design

Applications

- Crowded spectrum communications
- Ultra-secure communications



Description

Elva-1 produces millimeter wave E1-capacity radio (PPC-E1). PPC-E1 is designed for crowded spectrum urban areas. Available frequency bands are 40.5-43.5 GHz, 59-64 GHz, 92-96 GHz.

PPC-E1 designed as “all outdoor” unit, with RJ45 interface to connect directly to E1 source. PPC stations are offered with antennas, mounting units and peripherals to allow a turnkey installation to the customer’s communication system. These products are compact and lightweight. Elva-1’s experienced staff is available to assist customers to select required parameters such as antenna size, transmitter power etc.

Range*

		40.5-43.5 GHz	59-64 GHz	92-96 GHz
Antenna	10 cm	9400 m	1600 m	5300 m
	20 cm	15000 m	2200 m	7900 m
	30 cm	17000 m	2400 m	8700 m
	45 cm	21500 m	2600 m	-
	60 cm	22800 m	2900 m	-

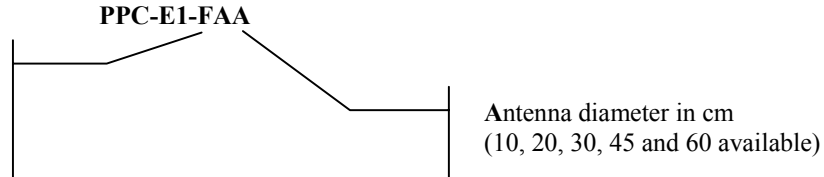
*) 5 mm/h rain rate

Specifications

		40.5-43.5 GHz	59-64 GHz	92-96 GHz
Data stream		E1, HDB3		
Data interface		Twisted pair		
Antenna type		Cassegrain		
Output power		150 mW	18 mW	70 mW
Antenna	10 cm	28 dB/4,8°	34 dB/3,1°	35 dB/2,1°
gain/beamwidth	20 cm	34 dB/2,3°	39 dB/1,5°	41 dB/1,0°
	30 cm	38 dB/1,6°	42 dB/1,0°	45 dB/0,7°
	45 cm	42 dB/1,0°	45 dB/0,7°	
	60 cm	44 dB/0,7°	47 dB/0,5°	
Power		48-75 VDC, 25 W		
Dimensions		330 x 350 x 460 mm		
Weight		14 kg		
Operating temperature		-40 to +50° C		

How to Order

Frequency range
 Q – 40.5-43.5 GHz
 V – 59-64 GHz
 W – 92-96 GHz



Example: PPC-E1-Q30 – E1 wireless bridge operating in 40.5-43.5 GHz band with 30 cm antennas