

Radio link TP-6000

System overview

Radio link TP-6000 is a system specially designed for data communication point to point or point to multi-point (scanned systems).

Short turn-around times, sturdy construction and simple installation were among the goals when designing the TP-6000.

The radio link is well suited where ever there is a need for reliable transfer of data e.g. within the SCADA field.

The maximum range depends heavily on the surroundings such as antenna height and gain, nearby obstacles and required availability.

Distances of more than 50 Km are common.

Fig. Base station for SCADA systems, full duplex 25W output.



Features

One analogue or digital channel.

2400 bps AFSK or 9600 bps GMSK.

Simplex, half duplex or full duplex.

High output power.

Convection cooled, no fans.

Heavy design.

Optional switching between data and speech.

Optional circulators to reduce IM products.

Fig. Heavy designed aluminum cabinet, convection cooled, no fans.

Made in Scandinavia

Radio link TP-6000

Technical data

General

RF frequency band	335 – 470 MHz
Duplex spacing	10 MHz
RF bandwidth	48 MHz
Channel spacing	25 / 20 / 12,5 kHz
Antenna impedance	50 ohm
Frequency stability	+/- 5 ppm (opt. 2,5 ppm)
Operating temperature	-25 to +55 C
Type of modulation	FM or GMSK
Audio input	-10 dBm at 600 ohm balanced
Audio output	-10 dBm at 600 ohm balanced
Data in/out	RS232C
Data speed	300 – 9600 bps GMSK build in modem, 300 – 2400 bps AFSK with external modem on audio.

Transceiver

RX sensitivity	<0,7 μ V at 20 dB SINAD (P)
TX RF output power	5-25 W adjustable
Modulation range	0,3 to 4 kHz
Deviation max	+/- 5 / 4 / 2,5 kHz
Spurious rejection TX	<0,25 μ W
Spurious rejection RX	>70 dB
Adjacent ch. Rejection	>70 dB
IM rejection	>73 dB
Audio distortion	< 2 %
RX – TX switching time	1 ms typical, 2 ms max. < 3ms with build in GMSK modem

Power supply

Voltage ranges	12, 24, 48, 110 VDC or 115, 230 VAC nominal
Internal voltage	13,5 VDC (10.8 – 15,6 VDC)
Current drain standby	0,1 A typical at 48 VDC 0,1 A typical at 230 VAC
Current drain transmit 25 W	2,0 A max, 1,9 A typical at 48 VDC 1,25 A max, 0,40 A typical at 230 VAC

Enclosure

Type	Heavy duty aluminum
Dimensions	H 530 mm, W 320 mm, D 125 mm
Ventilation	Convection cold for continuous transmitter operation
Mounting	Wall on separate frame
Weight	Apr. 14 kg fully equipped

Type approval

ETS.300.086 and ETS.300.113

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