



Microwave backbone

PROFESSIONAL SCADA BACKBONE

RAy microwave point-to-point bridges are optimised for the type of **high capacity long distance** backbone links, required for modern SCADA networks.

RAy is available for both licensed and unlicensed bands. It's long range, minimal latency, exceptional system gain and resistance to interference make **RAy** the **product of choice** as the professional backbone solution.

RAy and **RipEX** narrowband radio modems complement each other while providing *the professional and comprehensive solution for SCADA and Telemetry networks.*

- 92 km / 2,5 Mbps
- 10, 11, 17, 24 GHz
- Native IP environment
- Full integration with RipEX
- Low operating costs
- Every single unit is climate chamber tested
- Full Outdoor

Optimized for long distances

RAy's ability to operate on narrow channels (1.75, 3.5 and 7 MHz) brings **two important benefits** for network efficiency: the ability to build **long distance** links and **cost savings** on frequency licenses.

Focused on distance

frequency	10 GHz	11 GHz	17 GHz	24 GHz
channel	7 MHz	1,75 MHz	3,5 MHz	3,5 MHz
speed	8,5 Mbps	2,5 Mbps	4,9 Mbps	4,9 Mbps
ant. 30 cm	20 km	38 km	14 km	11 km
60 cm	28	56	21	15
99 cm	44	85	28	-
120 cm	48	92	32	21
calculated for 99.99% availability				

Running at maximum speed

Thanks to its exceptional sensitivity, RAY is also the optimal solution for applications requiring **maximum link capacity**. Even when using high order modulations, distance performance is still outstanding.

Focused on speed

frequency	10 GHz	11 GHz	17 GHz	24 GHz
channel	28 MHz	56 MHz	56 MHz	56 MHz
speed	170 Mbps	360 Mbps	360 Mbps	360 Mbps
ant. 30 cm	6.5 km	7.5 km	2.5 km	2.8 km
60 cm	9	11	6	5
99 cm	14	16	9	-
120 cm	15	18	10	8
calculated for 99.99% availability				

RACOM – the professional solution for your entire network infrastructure

Drawing on RACOM's experience on the SCADA and Telemetry market, the combination of **RAy** with **RipEX** makes for **smart network design** which can meet both long range and high capacity criteria. **Ethernet Layer 2 transparent** architecture and **low latency** RAY backbone links allow you to run multiple applications within the one infrastructure – e.g. your core SCADA network, your Security&Surveillance cameras and a Network Management System. **Easy installation** and **minimal maintenance** costs mean you can build highly efficient networks which satisfy customer requirements.

