



RACOM

Introduction

Company
RAy3-80

RACOM



- Leading Global manufacturer of critical communications equipment
- Trading since 1989
- Private Ownership and still owned by founders
- Operates with no debt and 10% Annual Growth
- Over 120 countries

Product Portfolio

Radio Modems



Licensed VHF / UHF
SCADA control and monitoring

Cellular Routers



4G / 3G / 2G
SCADA monitoring

Microwave Links



10 / 11 / 17 / 18 / 24 / 80 GHz
Backbones, High speed last-mile





RAY3 - 80

RAy3-80 Key Features #1

- Performance

- Max. Speed 10 Gb/s
- Up to 128QAM
- Up to 2 GHz channels

- Range

- Robust & Interference Tolerant Receiver
- Exceptional Sensitivity
- Reliable in almost NLOS Conditions

- Reliability & Quality

- Designed & Manufactured in Czechia, EU
- Each unit tested in Climatic Chamber
- Real life MTBF > 400 years

- Security

- Peer Unit Permanently Monitored
- Role-based Access Control
- Unique SSH Key for each Unit

RAy3-80 Key Features #2

- Spectral Efficiency

- Channels 250-2000MHz
- Asymmetric channels and modulations
- SW adjustable polarization switch**

- Scalability

- SW Keys (pay as you grow)
- External antennas 0.5-2 ft

- Management & Diagnostics

- WiFi management
- Both units managed from one window
- On-line live engineer support

- RAYTools App

- Antenna alignment tool
- Link management
- Link calculator

RAy3-80 Technical Specification

- 10 Gb/s FDD
- 250 MHz to 2 GHz channels
- 2PSK to 128QAM modulations
- Hitless ACMB, ATPC
- -6 dBm to +20 dBm TX power
- -82 dBm max sensitivity
- 1× ETH, 1× SFP/SFP+



Highlights #1

- Developed & Manufactured in EU
- Lightweight & Robust HW
 - Aluminum RAY3 casing (2.9 kg)
 - Ergonomic, fast HW installation (5 minutes)
 - Strong overvoltage protection (3 levels)
 - Each unit tested in climatic chamber
 - Very high MTBF (>100 years)
- Eco-power (35-45 W, PoE or DC)
- Short latency (11-16 us)



Highlights #2

- Robust & Easy to use FW
 - Pre-configured parameters (out of the box)
 - Intuitive RAY3 user interface
 - RAYTools app
 - Max user productivity
- External antennas 0.5–2 ft
 - Class3, 41-51 dBi (several vendors)
 - Quality holder, easy to align
- Experienced & Fast support team

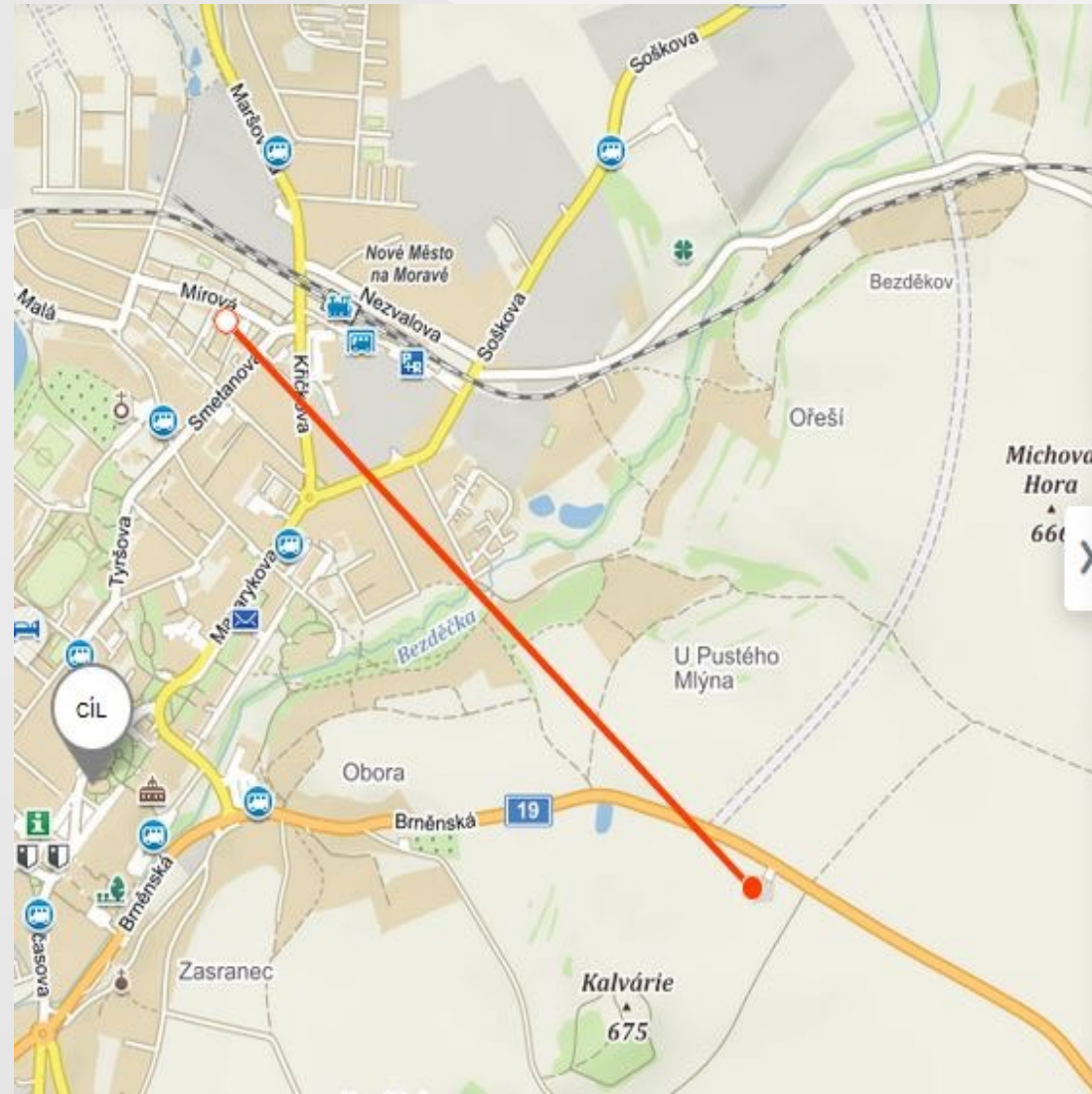


Reliability over distance – RAY3-80 (#1)

10 Gbps FDD
(2 GHz @ 128 QAM
@ +12 dBm)

1,3 km link
2x 40cm Class3
Jirous antennas

(installed 26.5.2022,
everything works, found
stable even in heavy rain)



Ruční měření



Uložit



Sdílet



Exportovat



Nové měření

Úsek Vzdálenost Součet Azimut

Délka

1,326
km

Plocha

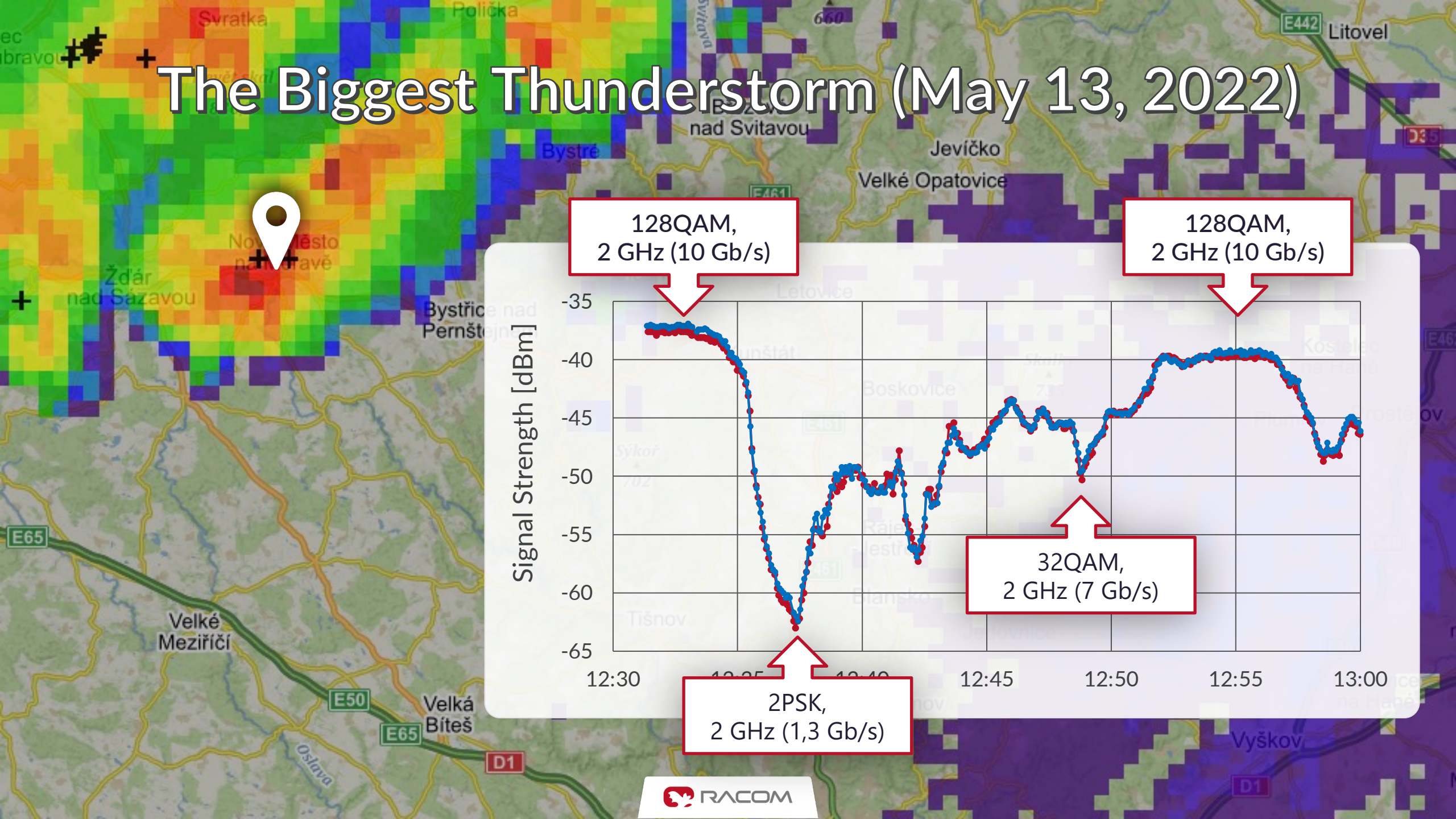
0
m²

Výškový profil

↗ 61 m ↘ 5 m



The Biggest Thunderstorm (May 13, 2022)



Reliability over distance – RAY3-80 (#2)

10 Gbps FDD
(2 GHz @ 128 QAM
@ +12 dBm)

6,8 km link
2x 68cm Class3
Jirous antennas

(installed 29.9.2022,
everything works, no
signif. observations yet)

