



KONGSBERG



FEATURES

- Point-to-Point
- Point-to-Multi-Point (option)
- Light weight and small, easy handling
- Field proven equipment, ruggedized by design
- Frequency hopping
- Flexible data interface and SNMP based management
- Spectrally efficient modulation
- Communication carrier in IP based tactical system
- AES256 encryption (option)

RL542A Radio Link

Software Defined Band 3 Tactical Radio Link

The RL542A provides up to 100 Mbit/s (200 Mbit/s aggregated) full duplex, reliable and secure Point-to-Point communications in a hostile electronic warfare (EW) environment. IP and TDM-interfaces are available. Unique ECCM/EPM methods ensure communications in harsh environments. The RL542A can also operate in a Point-to-Multi Point configuration.

ECCM/EPM

- Frequency Hopping - Conventional and adaptive. Up to 1000 hop/s.
- Automatic Power Control
- Automatic Frequency Evasion
- Pulse Jammer Protection - Advanced jammer detection algorithms.
- FEC, channel coding and interleaving.

The RL542A is mounted on top of the mast close to the antenna and connects directly to an IP router. No indoor or base band unit is required. The RL542A can be remotely located using the optical fibre interface.

The radio is fully configured and managed remotely through the KONGSBERG Communication Management System (CMS).

RL542A is a software defined radio with additional analogue filtering for superior tactical performance, ensuring long range and good collocation capabilities.

Communication Carrier

RL542A is well suited as communication carrier for tactical wide area networks connecting command posts and advanced weapon systems like the NASAMS Air Defence system. Rapid link establishment combined with the robust waveforms ensure stable and reliable connections.

TECHNICAL DATA

General	Point-to-point and Point-to-Multi-point	
	Frequency range:	4,4 – 5,0 GHz
	Duplex spacing:	Minimum 60 MHz
	Channel spacing:	125 kHz
	Transmission capacity:	up to 100 Mbit/s FD
	Modulation:	PSK, 4/16/64 QAM
Transmitter	Output power:	+36 dBm CPM mode
	APC dynamic range:	20 dB
	Spurious attenuation:	80 dB
	Harmonic attenuation:	60 dBc (2nd and 3rd harmonics 80 dBc for higher order)
Receiver	Sensitivity	
	8448 kbit/s:	-86 dBm (16 QAM)
	34 Mbit/s:	-76 dBm (64 QAM)
Port Interfaces	Ethernet:	1 Gbit/s 1 Gbit/s optical
	TDM interface:	G.703
	IPv4 and IPv6	
	DLEP	
ECCM	Full-band FH Mode:	1000 hop/s, up to 8448 kbit/s
	Adaptive FH mode:	up to 8448 kbit/s
	Automatic power control:	All modes
	Frequency evasion:	Fixed frequency modes
	Pulse jamming protection:	Fixed frequency modes
	AES256 encryption (option)	
Power Supply	19 - 60 VDC MIL-STD 1275	
	100 W nominal power consumption	
Environmental	Operating temp.:	-40°C to +60°C
	Environmental:	MIL-STD-810 army ground
	EMC:	MIL-STD 461 army ground
Dimensions	Height: 190 mm excluding handles	
	Width: 260 mm excluding handles	
	Length: 400 mm excluding handles	
	Weight: 13 kg	



Communication in the field



RL542A and typical antenna mounting in the rain-forest