RAFAEL
ADVANCED DEFENSE SYSTEMS LTD.

AIR, LAND & SEA



BNET Family™

Broadband IP Software Defined Radio

The Future of Tactical Communications

The BNET family is an advanced Broadband IP MANET (Mobile Ad-hoc NETwork) Software Defined Radio for tactical operations. It supports the modern digital battlefield's needs with high-speed, low delay, reliable connectivity for data, voice and video on-the-move. Modular, multi-band and multi-channel, BNET is a net-centric, spectrum aware, system for vehicular and airborne platforms, headquarters, and dismounted soldiers. Rafael's patented Multi Channel Reception (MCR) technology enabls unprecedented network capacity in terms of data rates, number of users, and minimal delay, BNET enables all radios of land, sea and air units to participate in a single, seamless, scalable MANET network.

Benefits

- High Scalability +1000 Users
- Multi-Band, IP, Software Defined Radio S.C.A. 2.2.2 Compliant
- Multi-Channel Reception MANET Waveform
- Ultra-High Capacity
- High-Speed, Low Delay
- Efficiency and full utilization of the limited spectrum resource
- Operational simplicity and ease of operation
- Simple maintenance and logistic survivability
- Open architecture using IP technology, allowing smooth, cost-effective integration with existing and future applications.







Main Capabilities

- Diverse wideband voice, video & various IP data services, transmitted over seamless wireless networks
- Communication continuity in all conditions, and system survivability
- Support for delay-sensitive applications (i.e., closing sensor-to-shooter cycles)
- Support for "flat" networks with thousands of members in changing traffic and variable link conditions (mountainous, alpine, urban, hilly, sub-alpine, forested, etc.)
- Interoperability between branches and between military and para-military forces ("blue light" forces)
- Fast network forming and healing
- Networking ECCM capabilities; frequency hopping spread spectrum techniques.



BNET-AR
Airborne SDR



BNET-V
Vehicular SDR



BNET-MP
Man-Pack SDR



BNET-HH
Hand Held SDR



NANO BNET

BNET Family	**BNET-AR** Airborne	**BNET-V** Vehicular	**BNET-MP** Manpack Soldier	**BNET-HH** Hand Held	**NANO BNET** For UAV	**NANO BNET** For Soldier
RF Head	Up to 3	Up to 3	2	1	1	1
Tx Power (Max)	Up to 100W per RF head, depending on configuration	50W Per Ch	5W/20W	5W	1W	1W
Weight	11Kg	15	5.5Kg (Including Battery)	1Kg (Including Battery)	55gr	330gr
Freq. Range (MHz)	30-88, 108-174 ,225-406 L-band: 960-1240 S-band optional Up to 512 MHz optional	V/UHF : 30-88, 108-174 ,225-512 L-band, S-band optional			1000-6000	
Supported WF's	Clear Voice (8.33kHz, 12.5kHz, 25kHz, AM/FM) WB MANET with MCR, 1.25MHz	NB 25KHz SC MCR (multi-channel reception), WB 1.25/5MHz OFDM MCR AM/FM Other WF can be supported			WB 1.25/2.5MHz OFDM MCR Other WF can be supported	
BNET Waveform Network Capability	More than 100Mbps Overall capacity, Up to 10Mbps Upload Rate Per User					

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