RAFAEL
ADVANCED DEFENSE SYSTEMS LTD.

DATASHEET

BNET-AR ™ (Air)
Broadband IP Radio

KEY BENEFITS

- Multi-Band, IP, Software Defined Radio
- Multi Channel Reception MANET Waveform
- Ultra High Capacity
- Low Delays
- High Scalability – +1000 Users
- High Level of Integration
- S.C.A Software Defined Radio S.C.A 2.2.2 Compliant

BNET is A unique Software Defined Radio & Network architecture enabling the future of digitized warfare by delivering wideband, with low delay and reliable connectivity

BNET – AR is modular multiband SDR for Airborne platforms.

BNET brings to the battlefield groundbreaking capabilities based on RAFAEL's multi channel reception technology.

By simultaneously receiving and processing hundreds of MHz's and merging them into a single IP network BNET provides unprecedented network capacity in terms of data rates, number of users and minimal delay.

BNET has the ability to cognitively manage the scarce spectrum resources providing seamless force merge and minimal planning with efficient spectrum usage.

BNET's highly advanced, S.C.A compliant, radio platform supports user defined & custom waveforms.

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Specifications for BNET-AR ™

GENERAL	
IP	Layer 3 IP Radio
ECCM	Frequency Hopping Spread Spectrum techniques Networking ECCM capabilities Error detection and correction
COMSEC	Built in AES - 256 encryption /integration with costumer encryption measures
Frequency Range	30-512 MHz Optional L-band, S-band
Modularity	Up to 3 Independent RF Heads (50W) Standard Open Architecture (VITA 65) Supporting additional RF, Compute & Storage Modules
Main Waveforms	AM, FM Narrow Band Networking : SC ; Channel spacing: 25KHz, Optional : other channel spacing per user request Wide Band Networking : BNET MCR WF : OFDM , SC ; Channel spacing: 1.25MHz, 5 MHz, Optional : other channel spacing per user request UHF SATCOM, Custom WF's supported
BNET Waveform Network Capability	More than 100 Mbps Overall capacity , Up to 10 Mbps Upload Rate Per User
Software Architecture	Software Defined Radio, SCA 2.2.2 compliant
Optional	Integrated LTE & WIFI Support
Radio Network Management System	Radio monitoring & configuration over the air

TRANSMITTER	
RF Heads	Up to 3
Power Output	Up to 50 Watt
Self Protection	VSWR, Over temperature Power reduction (automatic)

ENVIRONMENTAL	
Operating Temperature	-40º ÷ +55º C according to MIL-STD-810F
Storage Temperature	-55º ÷ +71º C according to MIL-STD-810F
Standards	Comply to MIL-STD-810F IP 67, MIL-STD-461E/F

POWER	
Power Input	28 VDC/ 8A (typical) according to MIL-STD-704D
Power Consumption	700W Max

INTERFACES	
External Data	USB 2.0, 10/100/1000 Ethernet, RS232/422
Control	Front panel, SNMP, PCU
Antenna Port	TNC, GPS
Audio	Standard Audio Analog & Digital (VoIP) Standard MIL-DTL-55116 connector, 6W

FORM FACTOR	
Dimensions	½ ATR Short
Weight	10 kg

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