NIRIKHON

SECURITY & DEFENCE TECHNOLOGY

PRODUCT BROCHURE

COUNTER-SURVEILLANCE EQUIPMENT

Multi-Band Tactical Frequency Jammer

The Multi-Band Tactical Frequency Jammer by NIRIKHON delivers full-spectrum RF coverage across cellular, Wi-Fi, GPS, and RC bands, with a 100m+ counter-RCIED and anti-drone neutralization radius. Weighing ≤15kg, it's built for single-operator backpack carry, with a 50m remote control interface for standoff deployment. Rugged IP65 construction ensures field reliability. Backed by a 12-month warranty.



Multi-Band Tactical Frequency Jammer | Official Brochure

SOLUTION SNAPSHOT

Full-Spectrum Multi-Band Jamming	**100m+ Effective Threat Neutralization Radius**	**Man-Portable Single-Operator Backpack Architecture**
Anti-RCIED & Anti-UAV/Drone Electronic Countermeasure Capability	**Dual Control Architecture (Local Panel & 50m Remote Control Unit)**	**High-Efficiency Thermal Dissipation System**

OVERVIEW

Built for Real Operations 01

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CAPABILITIES

Key Features & Product Modules 02

Tactical Aluminum Alloy Chassis & Shielded Enclosure

The chassis houses and protects all internal RF, power, and control components within a rugged aluminum alloy structure. This shielded enclosure forms the system's structural foundation, safeguarding sensitive electronics during transport and active field deployment.

Core ECM Control & Signal Processing Unit

This unit coordinates activation across all frequency bands — VHF/UHF, Cellular 2G/3G/4G/5G, Wi-Fi, GPS, and RC — managing which bands are engaged based on operator input. This control core is the operational brain that translates operator commands into coordinated multi-band RF output.

Multi-Channel RF Power Amplification Modules

These amplification modules generate the broadband RF output across VHF/UHF, Cellular, Wi-Fi, GPS, and RC frequencies that establishes the system's 100m+ neutralization radius. This is the core transmission engine responsible for the system's full-spectrum jamming capability.

High-Efficiency Aluminum Alloy Radiator Heat Sink

The aluminum alloy radiator draws heat away from the RF amplification modules during sustained multi-band transmission. This passive thermal component is essential to maintaining consistent output power during extended operational sessions.

Active Cooling Fan Assembly

Working alongside the radiator, the cooling fan assembly actively circulates air to accelerate heat dissipation from internal components. This active cooling system supports continuous, reliable operation during prolonged high-output deployment.

Man-Portable Antenna System

The antenna system radiates the system's broadband RF output across all active frequency bands, projecting the jamming signal to establish the 100m+ neutralization radius. This antenna architecture is the final link between the internal RF modules and the operational field environment.

RCIED & Anti-UAV/Drone Signal Mitigation Capability

The system's broadband RF output is engineered to disrupt both remote-controlled improvised explosive device (RCIED) trigger signals and unmanned aerial system (UAS/drone) control links. This dual-threat mitigation capability provides layered electronic protection within a single deployable system.

Independent Per-Band Channel Selector Panel

This panel gives operators direct control to switch individual frequency bands on or off independently, tailoring RF output to the specific threat profile of a given deployment. This selective control minimizes unnecessary spectrum denial while maintaining focused protection where needed.

Local Main Control & System Status Interface Panel

The local control panel provides direct on-unit access to system operation and status monitoring, allowing operators to manage the system without relying solely on remote control. This interface supports full operational control at the point of deployment.

50-Meter Remote Control Unit (RCU)

The RCU extends system control to a 50-meter standoff distance, allowing operators to activate and manage the jammer without maintaining direct physical proximity. This remote interface supports safer operational positioning during active threat response.

High-Capacity Rechargeable Battery Pack

The internal rechargeable battery supplements the system's external power inputs, supporting sustained operation during extended tactical missions where fixed power sources are unavailable. This battery reserve ensures continuity of protection throughout mission duration.

Power Management System with AC/DC & Vehicle Input Support

This system manages power delivery from AC mains, DC, or vehicle-based sources, giving operators flexible power sourcing whether deployed at a fixed post, aboard a convoy vehicle, or in a field command position. Flexible power input ensures the system remains operational across varied deployment scenarios.

VSWR Isolator Protection System

The VSWR isolation system monitors signal reflection within the RF transmission path, protecting internal amplification modules from damage caused by antenna mismatch or output irregularities during operation.

Over-Current & Over-Temperature Safeguard System

Built-in over-current and over-temperature protection continuously monitors internal system conditions, automatically safeguarding components from damage during sustained high-output operation.

Weatherproof Sealing System (IP65 Rated)

The system's IP65-rated sealing protects internal components from dust and water ingress, ensuring reliable operation across outdoor field conditions ranging from -10°C to +55°C.

Heavy-Duty Tactical Backpack Harness

The backpack harness enables single-operator carry of the complete ≤15kg system, distributing weight for extended mobility during field deployment by EOD and tactical response teams.

Shock & Vibration Resistant Construction

The system's build is engineered to withstand shock and vibration stress encountered during transport and active field movement, maintaining structural and operational integrity across rugged terrain.

EMC/RF Safety Compliance

The system meets EMC/RF safety compliance standards, ensuring safe co-operation alongside other institutional communication and electronic equipment during deployment.

Rugged Field Transport Configuration

The system's rugged, shock-resistant construction and backpack architecture support secure transport between deployment sites, maintaining protection for internal components throughout mobilization.

SPECIFICATION

Technical Details

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FULL-SPECTRUM MULTI-BAND JAMMING
✓ Included

100M+ EFFECTIVE THREAT NEUTRALIZATION RADIUS
✓ Included

MAN-PORTABLE SINGLE-OPERATOR BACKPACK ARCHITECTURE
✓ Included

ANTI-RCIED & ANTI-UAV/DRONE ELECTRONIC COUNTERMEASURE CAPABILITY
✓ Included

DUAL CONTROL ARCHITECTURE (LOCAL PANEL & 50M REMOTE CONTROL UNIT)
✓ Included

HIGH-EFFICIENCY THERMAL DISSIPATION SYSTEM
✓ Included

INDEPENDENT PER-BAND FREQUENCY SWITCHING WITH MANUAL OVERRIDE
✓ Included

MULTI-POWER INPUT COMPATIBILITY (AC/DC/VEHICLE)
✓ Included

HIGH-CAPACITY INTERNAL BATTERY FOR EXTENDED MISSIONS
✓ Included

COMPREHENSIVE HARDWARE PROTECTION SAFEGUARDS
✓ Included

IP65 RATED WEATHERPROOF & ENVIRONMENTAL RESISTANCE
✓ Included

SHOCK & VIBRATION RESISTANT CONSTRUCTION
✓ Included

EMC/RF SAFETY COMPLIANCE & 12-MONTH WARRANTY
✓ Included

QUESTIONS

Frequently Asked Questions

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Q. Can the system maintain effective 100m+ neutralization across 5G and satellite GPS bands simultaneously?

A. Yes. The system provides broadband coverage across Cellular 2G/3G/4G/5G and GPS L1/L2/L5 bands as part of its full-spectrum jamming architecture, with an operational neutralization radius exceeding 100 meters. Independent per-band switching allows operators to activate multiple bands concurrently, including 5G and GPS together, without one band's output compromising another's effective range.

Q. How does the system manage thermal endurance during full-load, continuous multi-band operation?

A. The system integrates a high-efficiency aluminum alloy radiator paired with an active cooling fan assembly to manage heat generated during sustained transmission. This combined passive-and-active thermal management is designed to support continuous operational reliability during extended full-load deployment periods.

Q. What fail-safe protection exists if an antenna is damaged or disconnected during active operation?

A. The system incorporates VSWR isolation protection, which monitors signal reflection within the RF transmission path and safeguards internal amplification modules from damage caused by antenna mismatch, damage, or disconnection. This protects the system's core electronics from failure even under compromised antenna conditions.

Q. How does the 50-meter remote control interface support safe standoff operation during active threat scenarios?

A. The Remote Control Unit (RCU) allows operators to activate and manage all system functions from up to 50 meters away, without requiring direct physical proximity to the unit. This standoff capability supports safer operational positioning for EOD and tactical response teams during active deployment.

Ready to deploy Multi-Band Tactical Frequency Jammer?

Talk to Nirikhon for product consultation, installation planning, integration support, and enterprise deployment.

Hotline: 09647 120 120 | Website: www.nirikhon.com