

Sunflower Seeds Ukraine

and the BB Jam project

August 2024

Sunflower Seeds Ukraine

Vision:

save lives and reduce suffering in Ukraine

Mission:

provide medical aid and protective gear to small groups of defenders

Fundraising, development in Colorado, USA

Logistics and outreach in Europe

Distribution center near Rivne, Ukraine

Direct contacts on the front lines

Registered organizations in USA and Ukraine



WE HAVE PROVIDED

AS OF JUNE 2024

MEDICAL ITEMS



3,548

UNIFORM PARTS



10,717

OPTICAL DEVICES



1,501

PROTECTIVE GEAR



6,226

TACTICAL GEAR



5,874

OTHER BIG ITEMS



537

5,660+

DEFENDERS HELPED



Many of the 'Ukrainian' EW systems are rebranded Chinese systems sold at 3-5x price
We provided a few customized Chinese jammers in 700-1000MHz and 400-700MHz range
UAV measures and EW countermeasures are changing too fast - need more flexible solutions

SUNFLOWER SEEDS
UKRAINE
www.sunflowerseedsukraine.org

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Broad Band Jammer (BBJam)



Overview

- BBJam is an EWF device to interfere with control and video channels of UAV
- Can be scanned continuously or work in frequency jumping modes.
- Smart device with user programmable software interface
- Possibility of changing device configurations in field conditions.

Current needs:

- Robust broadband antenna 100MHz – 2.8GHz
- Inexpensive 50-100W broadband power amplifier



PARAMETER	VALUE
Work Frequency	0,1 .. 2,8 GHz
Output Power	25 W
Antenna	Broad spectrum dome
Power Supply	12-32 V
Connectors	Input: Power Output: Antenna
Interfaces	Programmable (USB)
Enclosure	Aluminum, IP67
Dimensions	200 x 50 x 25 mm
Weight (with antenna)	2 kg

BBJam targeted use



Supported jamming waveforms

- Spot jamming: multiple spots with gaps in between
- Linear scan jamming: adjustable direction, speed, slope/density
- WGN jamming: sectional

Tactical level

- Company/platoon installations
- Individual usage for certain tasks

Installation types

- Carry-on/backpack
- Stationary
- Vehicles
- Aircraft

Increased output power (40-50W+)

Single-channel DDS-based carrier generation

Simultaneous multi-carrier in different freq. bands

Analyze the spectrum for activation

Spoofing capabilities

Introductions and current needs



- Design and integration in the USA: Lexycom technologies, Inc (Alex, Slava, Denis)
- Export from USA and import to Ukraine: Sunflower Seeds Ukraine (Andriy)
- Representation and support in Ukraine: Ukrcertico LLC (Mykola)



Alex



Slava



Denis



Mykola



Andriy

Current needs:

- Integration in Ukraine – currently Lexycom in the USA
- Testing and certification – currently Brave1 and individual units
- Fundraising/funding – currently Lexycom + Sunflower Seeds
- Import into Ukraine – need end user certificates co-signed by MOD
- Technical support in Ukraine – currently Ukrcertico