



Make Your Drones
Unjammable

From ISR to Strike: We Enable the Full Mission Cycle.

Introduction	02
About Us	03
Problem	04
Solution	05
Key Features	06
Specifications	07
Why Unique	09
OPTX Ground Unit Modules	10
Fiber Optic Datasheet	11
Integration	13

Developed on the battlefield. Manufactured in Lithuania, EU.



No gimmicks.

No theory.

Only field-proven
solutions dedicated for
those 3–5 soldiers
heading to their mission
in a 4x4 pickup.

About Us



Who we are defines what we do, and what we do reflects what we believe in.

We are not just engineers. Our team unites aerospace, satellite launches, advanced 3D printing, heavy industry, programming, and electronics — together with military service and combat UAV experience on Ukraine's frontlines. Built on NATO's eastern edge in Lithuania, Europe, with pride in defending freedom. Featured in American and Ukrainian media.

If NATO ever comes face to face with the common enemy...

...many Western-made FPV drones might not even lift off the ground.

- As a constant standard, today's armed conflict zones are heavily saturated with electronic warfare and GPS jamming.
- Even with newly tuned drones on uncommon RX/VTX frequencies, combat UAV teams still have no certainty they'll fly — or hit their target.
- You may build incredible drones — but can they fly when 300 MHz to 1050 MHz, 1.2–1.5 GHz, 2.1–2.7 GHz, 2.4 GHz, 5.2 GHz, and 5.8 GHz are under enemy jamming?



Unjammable control
and live video feed -
up to 50 km / 31
miles.

**The world's
highest-quality,
lowest-weight
fiber optic
spools for
drones.**





Feature-rich. Mission-ready. Cost-effective.



III ОКРЕМА
ШТУРМОВА
БРИГАДА

OPTAC DOES NOT HAVE THE LIMITATIONS OF OTHER FIBRE OPTIC SYSTEMS



42 m/s (150 km/h / 81 kt) speed and 150 m (492 ft) altitude are not the limit.



Complete unwinding — to the bone, every time.



Mounts easily on any drone platform.



Incomparable build quality compared to traditional fiber optic spools. Backed by EU warranty.

Mission-Ready Fiber Optic Spool Models for UAVs

VTX+RX SPOOL MODEL

WEIGHT IN FLIGHT

DIMENSIONS

10 km
6.2 mi

1.0 kg / 2.2 lbs

30 x 13.5 cm / 11.8 x 5.3 in

15 km
9.3 mi

1.3 kg / 2.9 lbs

30 x 13.5 cm / 11.8 x 5.3 in

20 km
12.4 mi

1.6 kg / 3.5 lbs

36 x 13.5 cm / 14.2 x 5.3 in

25 km
15.5 mi

2 kg / 4.4 lbs

36 x 13.5 cm / 14.2 x 5.3 in

35 km
21.7 mi

2.7 kg / 5.95 lbs

36 x 16 cm / 14.2 x 6.3 in

40 km
24.9 mi

3.2 kg / 7.1 lbs

44 x 16 cm / 17.3 x 6.3 in

50 km
31.1 mi

4.0kg / 8.8 lbs

44 x 16 cm / 17.3 x 6.3 in

Always request the latest specifications, as our products are constantly being improved.

Custom integrations for air, land, and naval platforms — with tailored lengths and configurations available on request.



25 km / 15.5 mi

Why Unique

Engineered and manufactured on equipment we designed and built in-house, then precisely calibrated for UAV flight dynamics.

CAPACITY METRICS

4000+

Spools per month

**x2
x3w**

Production capacity can be doubled every three weeks

100%

China free production possible on demand

1

Year EU warranty

99.9%

Complete spool unwinding guarantee*



OPTAC OPTX Ground Control Modules

Seamless, click-in solution that transforms traditional RC controllers into fiber-optic systems.

OPTAC uses only high-reliability bending-insensitive single-mode optical fiber engineered for mission-critical optical communication systems where compact routing, mechanical robustness, and stable signal integrity are required.

Optical fiber used by OPTAC maintains low attenuation and consistent optical performance even under tight bending conditions. High-performance dual-layer acrylate coatings provide robust mechanical protection and long-term environmental stability, ensuring reliable operation under temperature cycling, humidity exposure, and other demanding field conditions.

CHARACTERISTICS		Data	Unit
OPTICAL PROPERTIES			
Attenuation	1310nm	≤0.36	dB/km
	1383nm	≤0.34	dB/km
	1550nm	≤0.22	dB/km
	1625nm	≤0.24	dB/km
Zero dispersion wavelength		1300~1324	nm
Zero dispersion slope		≤0.092	ps/(nm ² .km)
Maximum value of single-fiber PMD Fiber link value (M=20,Q=0.01%) Typical value		≤0.2 ≤0.06 0.04	ps/ km ps/ km ps/ km
Optical cable cutoff wavelength λ _{cc}		≤ 1260	nm
Mode Field Diameter(MFD)	1310nm	8.6±0.4	μm
	1550nm	9.9±0.5	μm
Effective group refractive index	1310nm	1.4683	
	1550nm	1.4688	
Discontinuity of attenuation	1310nm	≤0.05	dB
	1550nm	≤0.05	dB

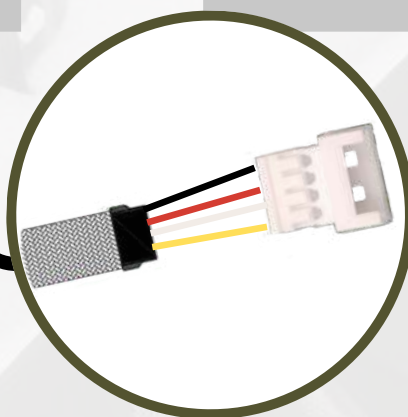
GEOMETRICAL FEATURES			
Cladding diameter		125±0.7	μm
Cladding non-circularity		≤0.7	%
Coating diameter		245±10	μm
Coating/bonding concentricity error		≤ 12.0	μm
Core/encapsulant concentricity error		≤0.5	μm
Warpage (radius)		≥4.0	m
ENVIRONMENTAL CHARACTERISTICS (1310NM & 1550NM & 1625NM)			
Temperature additional attenuation	-60°C ~+85°C	≤0.05	dB/km
Temperature-humidity cycle additional attenuation	-10°C ~+85°C,98% relative humidity	≤0.05	dB/km
Submersion additional attenuation	23°C, 30 days	≤0.05	dB/km
Hydrothermal additional attenuation	85°C and 85% relative humidity, for 30 days	≤0.05	dB/km
Dry heat aging	85°C, 30 days	≤0.05	dB/km
MECHANICAL CHARACTERISTICS			
Filtering tension		≥9.0	N
Flanged pipe, 10 turns, diameter 30mm	1550nm	≤0.03	dB
Flanged pipe, 10 turns, diameter 30mm	1625nm	≤0.1	dB
Flange 1, 1 circle, diameter 20mm	1550nm	≤0.1	dB
Flange 1, 1 circle, diameter 20mm	1625nm	≤0.2	dB
Flange 1, 1 circle, diameter 15mm	1550nm	≤0.5	dB
Flange 1, 1 circle, diameter 15mm	1625nm	≤1.0	dB
Stripping resistance	average value	1.0~5.0	N
	peak value	1.3~8.9	N

OPTAC VTX/RX 10 - 40 KM HARDWARE INTEGRATION GUIDE



Cable length: 20cm

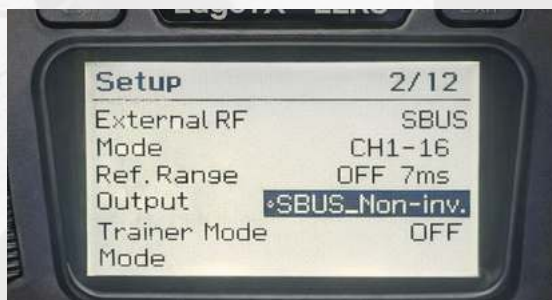
PIN	SIGNAL	CONNECT TO FC	DESCRIPTION
1 BLACK	GND	GND	Ground
2 RED	VIN	BAT	Power input 5.5V - 26V
3 WHITE	SBUS OUT	SBUS IN	Control output to FC
4 YELLOW	VIDEO IN	VTX / VIDEO OUT	Analog video input



Cable interface:
Molex Picoblade 4pin
1.25mm pitch male

Mating part:
Molex Picoblade 4pin
1.25mm pitch female

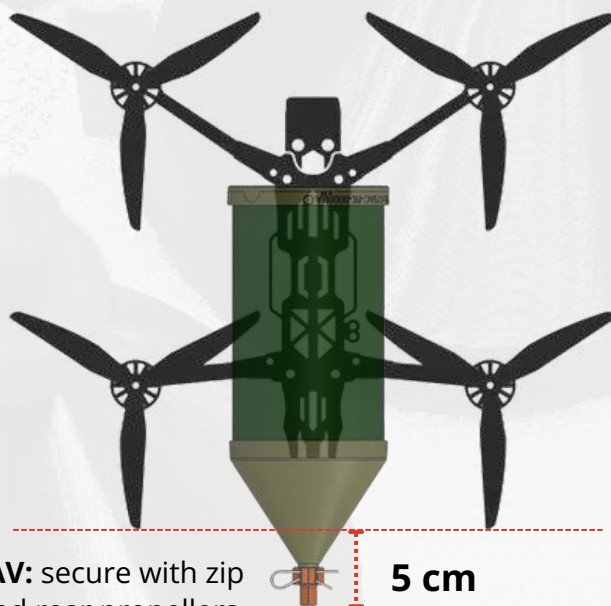
RADIOMASTER BOXER / TX12 CONFIG WITH OPTX JR MODULE



1. OPEN MODEL SETUP (LONG-PRESS MDL)
2. ON THE SETUP PAGE, ENABLE **EXTERNAL RF**
3. SET MODE = **SBUS**
4. SET INVERSION = **NON-INVERTED**
5. LEAVE TRAINER MODE = OFF
6. GO TO SYS > PAGE TO VERIFY CHANNEL ORDER = **AETR1234**

DRONE CONFIG

1. OPEN BETAFLIGHT / INAV / ARDUPILOT.
2. IN PORTS TAB ENABLE **SERIAL RX** ON THE UART WHERE SBUS IS CONNECTED.
3. SAVE AND REBOOT.



Mounting on UAV: secure with zip ties, 5 cm behind rear propellers.

5 cm



Fiber Optic Spools made in Lithuania, EU.

