PRODUCT OVERVIEW

XTRAFLY Fiber Optic Transmission System

Inner-Release Fiber Reels · Air & Ground Units · 16 - 21 km Fiber · CRSF / SBUS + CVBS

High-performance fiber optic transmission engineered for secure, high-speed and interference-free links. Advanced inner-release reels and durable low-loss optical fiber deliver maximum reliability, seamless deployment and mission-critical performance in the most demanding environments - with no RF signature and no interception path.



Key Features

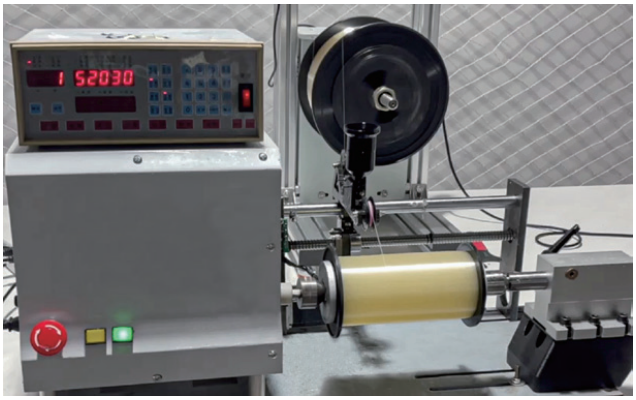
- **16 - 21 km fiber** in three reel versions - SE, STD and PRO (0.25 - 0.3 mm fiber, G657.A1/A2).
- **Inner-release reel** - smooth, tangle-free payout from the core at up to 200 km/h.
- **Sensor-monitored winding** with expert-developed adhesive for stable release tension over years of storage.
- **Cross-compatible links** - CRSF / SBUS RC control plus CVBS video over one fiber.
- **Wide-environment reels** - HDPE housing, -40°C to +60°C, 55 - 80 N tensile strength.
- **Compact air unit** - 60 x 32 x 23 mm, 31 g, 5.5 - 26 V.

21 km	98%	200 km/h	40 / 100 km
MAX FIBER LENGTH (SE)	SUCCESS RATE (PRO)	MAX RELEASE SPEED	TRANSMISSION RANGE

Product Advantages

Multiple sensors monitor the condition of the adhesive and the tension throughout the winding process. The adhesive formula is developed by materials-science experts so the finished reel has the optimal release tension and remains stable even after years of storage.

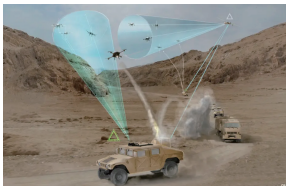




Sensor-monitored winding (left) and inner-release reel core (right).

The reel features advanced inner-release technology for smooth, tangle-free payout of fiber directly from the reel core. This design minimizes mechanical stress and prevents snags during flight, with a maximum release speed of 200 km/h.

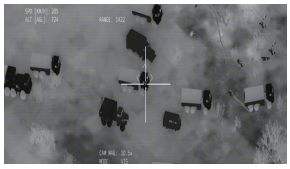
Application Scenarios



Electronic Warfare Environments



Tactical Reconnaissance Missions



Precision Strike Support



High-Security Surveillance

Reel Specifications

Parameter	SE version 20 km	STD version 20 km	PRO version 15 km
Fiber Optic Type	0.25 mm Resin	0.27 mm Resin	0.3 mm Aramid
Fiber Length	21 km	20.5 km	16 km
Fiber Model	G657.A1	G657.A2	G657.A2
Unit Weight	1830 ± 20 g	2050 ± 20 g	1750 ± 20 g
Housing Material	HDPE	HDPE	HDPE
Working Temperature	(-40 ~ 60)°C	(-40 ~ 60)°C	(-40 ~ 60)°C
Fiber Color	Transparent / customized	Transparent / customized	Aramid natural color
Tensile Strength	55 N	60 N	80 N
Success Rate *	93% min.	97% min.	98% min.

* The success rate is based on 100 consecutive rolls.



XFFIBER-SE · XFFIBER-STD · XFFIBER-PRO

Air Unit & Ground Unit

Air Unit

Parameter	Value
Power Supply	5.5 - 26 V
Size	60 x 32 x 23 mm
Weight	31 ± 2 g
RC Protocol	CRSF / SBUS
Video Signal	CVBS
Max Transmission Range	40 / 100 km



Ground Unit

Parameter	Value
Power Supply	5.5 - 26 V
Size	65 x 49 x 45 mm
Weight	56.4 g
Fiber Optic Interface	FC / UPC
Video Output Port	RCA 8.4
RC Protocol	CRSF / SBUS
Max Transmission Range	40 / 100 km



Ordering Information

System	Reel	Fiber	Air Unit	Ground Unit
XFFIBER	SE / STD / PRO	16 - 21 km, G657	Included	Included

Order as reel + matched air / ground unit set. Contact our sales team for fiber length, connector and firmware configurations.

Contact

WEBSITE	**www.xtraflysystems.com**
E-MAIL	**sales@xtraflysystems.com**
DOCUMENT	XTRAFLY Fiber Optic Transmission System - Product Datasheet Rev 1.0