



## Hylío PHOTON Spec Sheet - US Customary Units

<b>Aircraft</b>	
Total Weight (without battery, without payload)	3.1 lb
Maximum Takeoff Weight (MTOW)	7.7 lb
Maximum Thrust	13.2 lb
Maximum Operating Speed	33.5 mph
Max Flight Time	Empty: 55 min MTOW: 35 min <i>Flight times are affected by numerous conditions such as weather conditions, altitude relative to MSL, temperature, battery age/health, and other factors.</i>
Maximum Flight Altitude	14,764 ft MSL
Material	High Impact Polystyrene
Dimensions	18.5 x 18.2 x 8.3 in. (arms deployed, excluding propellers) 15.3 x 4.9 x 5.3 in. (arms folded)
<b>Position Control</b>	
GPS RTK Accuracy	0.6 in.
Obstacle Avoidance	Omni-Directional up to 65.6 ft
<b>Propulsion</b>	
Motor KV	720 rpm/V
Foldable Propeller	13 x 5 in.
Configuration	Quadcopter
Operating Voltage	6S (21.6 V)
<b>Battery</b>	
Capacity	21.6V 14.5 Ah (313.2 Wh) Intelligent Silicone-Anode LiPo Battery
Weight	2.4 lb
<b>Charger</b>	
Input Voltage	90 – 264 V
Output Power	235 W
Dimensions	5 x 2.6 x 1.3 in.
Weight	0.7 lb
Charging Current	Up to 8A single channel
<b>Weather</b>	
Ingress Protection Rating	IP55 <i>The IP rating may reduce due to aircraft's wear</i>
Maximum True Airspeed of UAS	44.7 mph <i>True airspeed is the UAS's speed relative to the surrounding air mass, incorporating the effects of altitude, temperature, pressure, and other atmospheric conditions on air density</i>
Maximum Ground Speed of UAS	33.5 mph <i>Speed relative to ground taking a blend of GPS speed and IMU data. Monitored and controlled by AgroSol GCS</i>



<b>Primary Camera</b>	
Sensor	OnSemi® AR0821
Pixel Size	0.082 x 0.082 mil
Format	1/1.7"
Video Outputs	3840 x 2160, 30 FPS 1920 x 1080, 60 FPS
Field of View	120° (D), 104.8° (H), 58.7° (V)
<b>Telephoto Camera</b>	
Sensor	Sony IMX415
Pixel Size	0.057 x 0.057 mil
Format	1/2.8"
Video Outputs	3840 x 2160, 30 FPS 1920 x 1080, 60 FPS
Field of View	23.0° (D), 20.1° (H), 11.4° (V)
<b>Laser Rangefinder (Optional)</b>	
Range	6561 ft
Accuracy	3 ft, Detection Probability >98%
Wavelength	905nm Class 1 Safety
Divergence	3x6 mRad
<b>Thermal Camera (Optional)</b>	
Sensor	Lynred ATTO640
Pixel Size	0.47 x 0.47 mil
Sensitivity	<35 mK NEΔT
Video Outputs	640 x 480, 60 FPS
Field of View	60.7° (D), 50° (H), 38.7° (V)
<b>FPV Gimbal</b>	
Stabilization	3-Axis
Angular Resolution	±0.02°, All Axes Encoder Driven
Range	Roll: -90° to 90° Pitch: -135° to 90° Yaw: -90° to 90°
Modes	Lock Mode, Follow Mode, Point of Interest Mode
Maximum Control Speed	120°/s
<b>Payloads</b>	
Maximum Weight	2.2 lb
Maximum Size	7.1 x 7.1 x 7.1 in.
Ports	6S Power, LAN, UART, CAN
Available Options	Sentera 6X, MicaSense RedEdgeP, FLIR Duo R, WorksWell WIRIS Pro, Sony ILX-LR1, FLIR Hadron 640R, and more support for payload gimbals
<b>On-Board Computing</b>	
Processor	Nvidia Jetson Orin Nano
Storage	500 GB



Data Offload	Wi-Fi 6, Ethernet
<b>Communication &amp; Control (Hylio GroundLink)</b>	
Operating Frequencies	Data Link: 2400 to 2480 MHz (AES Encrypted) LTE: Band 2, 4, 13
Standard Control Device	Hylio GroundLink Controller
Ground Station Control Software	Hylio AgroSol GCS; Operating System: Windows 11
Available Flight Modes	Swarm up to 3 units, fully autonomous, position hold manual, fully manual
Wireless Transmission Range	Max Unobstructed: 6.2 mi Typical Rural Operation Setting: 2.5 mi Typical Urban Operation Setting: 1.2 mi <i>Range can be further extended with range extension kits</i> With LTE: Unlimited (wherever cellular coverage is available)
Display	13.3" Sunlit Readable 1000 nits, 10-Point Touch Display
Weather	IP67
Battery	6-8 hours, Rechargeable Li-ion Battery <i>Battery life dependent on factors such as screen brightness and level of activity</i>
<b>Regulatory</b>	
Regulatory Compliance	FY2019 NDAA Sec. 889 Compliant; FY2020 NDAA Section 848 Compliant; FCC Part 15 Compliant