Shenzhen XQPOWER Technology Co., LTD

FEIYIDA

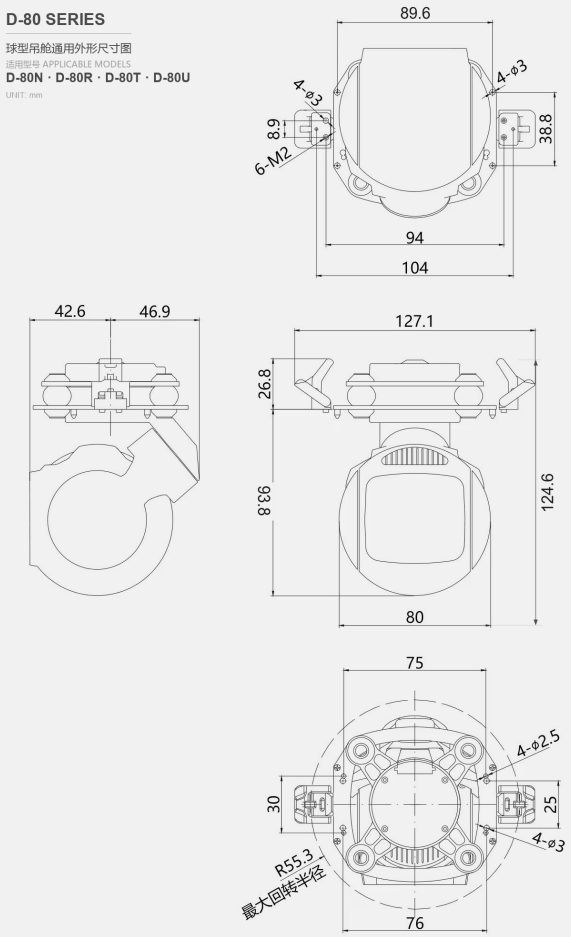
PRODUCT SPECIFICATION

DOCUMENT NO.	FYD-80U-SP-2601
VER	V1.0
PAGE	P.1
PREPARE DATE	20261106

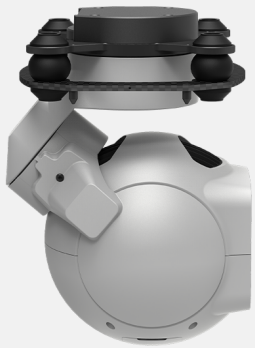
SERIES	FYD-80	NAME	Intelligent 4K Full-color Night Vision Spherical Pod	MODEL	FYD-80U	TYPE	4K Gimbal Camera

Application	UAV inspection / surveillance / patrol

DIMENSIONAL DRAWING - POD



SIDE VIEW



GENERAL SPECIFICATIONS

NO.	General	
1-1	Dimensions	89.6 x 86 x 124.6 mm
1-2	Weight	398 g
1-3	Operating Voltage	20 ~ 53 VDC
1-4	Power	6.5 W avg. / 23.4 W stall
1-5	Installation	Suspended / upright
NO.	**Gimbal**	
2-1	Gimbal Type	3-axis nonorthogonal mechanical stabilization
2-2	Angular Accuracy	±0.01°
2-3	Max. Stabilization Tilt	45°
2-4	Controllable Range	Pitch -145° ~ +60° Yaw ±360° continuous
2-5	Max. Controllable Speed	150°/s
NO.	**Zoom Camera**	
3-1	Image Sensor	1/2.8" CMOS, 8.29 MP effective
3-2	Focal Length	6.1 ~ 61.4 mm
3-3	Equivalent Focal Length	41.6 ~ 415.8 mm
3-4	Aperture	f/1.8 ~ f/2.6
3-5	Field of View	HFOV 48.8°~5.2° VFOV 28.6°~2.9° DFOV 55.0°~6.0°
3-6	Resolution	3840 (H) x 2160 (V)
3-7	Pixel Pitch	1.45 μm (H) x 1.45 μm (V)
3-8	Optical Zoom	10x
3-9	Digital Zoom (equivalent)	8x
3-10	Image Engine	AI-ISP full-color night vision AI-HDR
NO.	**AI Multi-object Detection & Tracking**	
4-1	Object Size	16x16 ~ 128x128 px
4-2	Object Identification Speed	< 40 ms
4-3	Tracking Speed	±32 px / field
4-4	Deviation Refresh Rate	30 Hz
4-5	Deviation Output Delay	≤ 5 ms

PREPARED	CHECKED	APPROVED

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SERIES	FYD-80	NAME	Intelligent 4K Full-color Night Vision Spherical Pod	MODEL	FYD-80U	TYPE	4K Gimbal Camera

Product view / target distance / technical data

PRODUCT VIEW & TARGET DISTANCE



Oblique view



Front view

TARGET DISTANCE (EN62676-4:2015)

TARGET	PERSON	SMALL VEHICLE	LARGE VEHICLE
Detect	1854 m	2436 m	5190 m
Recognize	371 m	487 m	1038 m
Verify	185 m	244 m	519 m

TECHNICAL DATA

OPTICAL & SYSTEM SPECIFICATIONS

NO.	Image & Video	
5-1	**Image Format**	JPEG
5-2	**Max. Image Resolution**	3840 x 2160
5-3	**EXIF**	Time, camera attitude, carrier coordinates, resolution
5-4	**OSD**	Time, camera attitude, carrier coordinates, zoom, SD status
5-5	**Video Format**	MP4
5-6	**Max. Video Resolution**	Stream 3840x2160@30fps Record 1920x1080@30fps (4K via firmware upgrade)
5-7	**SEI**	Supported via firmware upgrade
5-8	**Stream Encode Format**	H.264 / H.265
5-9	**Stream Network Protocol**	RTSP
5-10	**Stream Latency (OSD/AI off)**	210 ms (Dragonfly) 260 ms (QGC)
5-11	**Stream Latency (OSD on)**	300 ms (Dragonfly) 330 ms (QGC)
5-12	**Stream Latency (AI on)**	370 ms (Dragonfly) 400 ms (QGC)
5-13	**Stream Latency (OSD+AI on)**	530 ms (Dragonfly) 600 ms (QGC)
5-14	**Frame Rate**	30 fps (AI off) 21 fps (AI on, OSD off) 13 fps (OSD+AI on)
NO.	**Storage**	
6-1	**Supported SD Card**	microSD, up to 256 GB, U3/V30 or above
NO.	**Environment**	
7-1	**Operating Temperature**	-20°C ~ 50°C
7-2	**Storage Temperature**	-40°C ~ 60°C
7-3	**Operating Humidity**	≤ 85% RH (non-condensing)
NO.	**Control & Software**	
8-1	**Control Interface**	Network / serial / S.BUS
8-2	**Protocol**	Private protocol / MAVLink
8-3	**Software**	Dragonfly / XF-QGC
8-4	**Yaw Rotation**	360° x N continuous

PREPARED	CHECKED	APPROVED