Shenzhen XQPOWER Technology Co., LTD

FEIYIDA

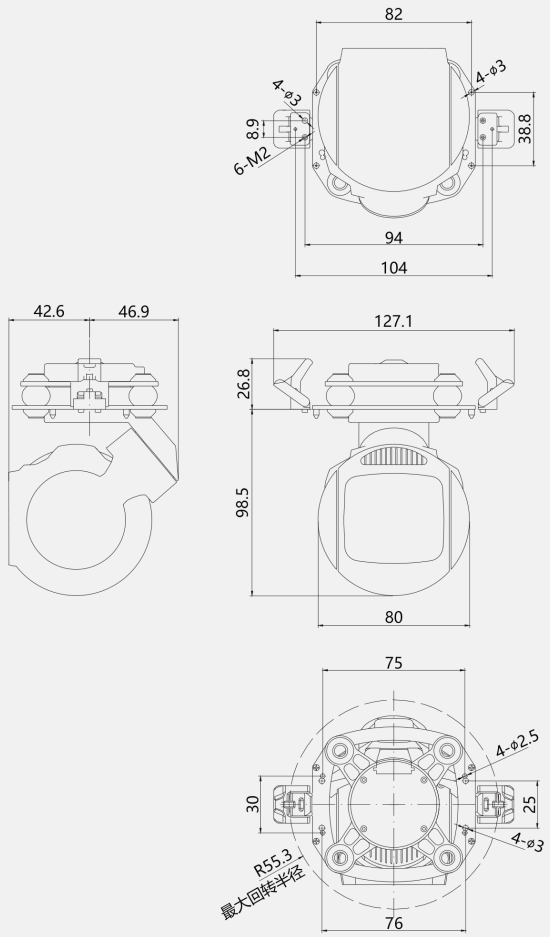
PRODUCT SPECIFICATION

DOCUMENT NO.	FYD-80A-SP-2601
VER	V1.0
PAGE	P.1
PREPARE DATE	20261105

SERIES	FYD-80	NAME	Dual-view Spherical Pod	MODEL	FYD-80A	TYPE	AI Gimbal Camera

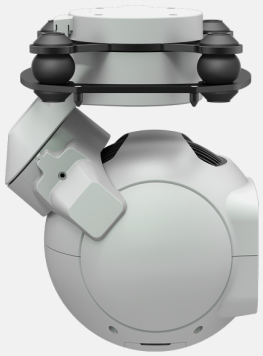
Application	UAV inspection / surveillance / patrol

DIMENSIONAL DRAWING - POD



All dimensions in mm.

SIDE VIEW



GENERAL SPECIFICATIONS

NO.	General	
1-1	Dimensions (Pod)	85.8 x 86 x 129.3 mm
1-2	Dimensions (GCU)	45.4 x 40 x 13.5 mm
1-3	Weight (Pod)	429 g
1-4	Weight (GCU)	18.6 g
1-5	Operating Voltage	14 ~ 53 VDC
1-6	Power (Pod)	6.7 W avg. (light off) / 55 W stall (light on)
1-7	Power (GCU)	1.8 W
1-8	Installation	Upright / inverted
1-9	Sphere Diameter	80 mm
1-10	Max. Rotation Radius	R55.3 mm
NO.	**Gimbal**	
2-1	Gimbal Type	3-axis nonorthogonal mechanical stabilization
2-2	Angular Accuracy	±0.01°
2-3	Controllable Range	Pitch -157° ~ +80°, yaw ±360° continuous
2-4	Max. Controllable Speed	Pitch ±200°/s, yaw ±200°/s
NO.	**Zoom Camera**	
3-1	Image Sensor	1/2.8" CMOS, 2.07 MP effective
3-2	Lens	Focal length 4.7 ~ 47 mm
3-3	Field of View	HFOV 61.3°~6.8° VFOV 36.9°~3.9° DFOV 68.4°~7.8°
3-4	Resolution	1920 x 1080
3-5	Pixel Pitch	2.9 μm
3-6	Optical Zoom	10x
3-7	Digital Zoom (equivalent)	3x
3-8	Min. Illumination	0.01 Lux/F1.6 (night vision off) / 0.0015 Lux/F1.6 (on)
NO.	**Wide Camera**	
4-1	Image Sensor	1/2.8" CMOS, 2.07 MP effective
4-2	Lens	Focal length 2.4 mm
4-3	Field of View	HFOV 98.5° / VFOV 44.3° DFOV 101.7°
4-4	Resolution	1920 x 1080
4-5	Pixel Pitch	2.9 μm
NO.	**Storage**	
5-1	Supported SD Card	microSD, up to 256 GB, Speed Class 10 or above
5-2	File System	HDD-FAT32

PREPARED	CHECKED	APPROVED

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PRODUCT SPECIFICATION

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SERIES	FYD-80	NAME	Dual-view Spherical Pod	MODEL	FYD-80A	TYPE	AI 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	709 m	932 m	1986 m
Recognize	142 m	187 m	397 m
Verify	71 m	93 m	199 m

TECHNICAL DATA

OPTICAL & SYSTEM SPECIFICATIONS

NO.	Laser Lighting Module	
6-1	Wavelength	850 ± 10 nm
6-2	Laser Power	0.8 W
6-3	Beam Angle	8°
6-4	Beam Diameter	14 m @ 100 m
6-5	Effective Illumination Distance	≤ 200 m
6-6	Laser Safety	Class 3B (IEC 60825-1:2014)
NO.	**AI Detection & Tracking**	
7-1	Object Size	16x16 ~ 128x128 px
7-2	Object Identification Delay	< 40 ms
7-3	Tracking Speed	±32 px / field
7-4	Deviation Refresh Rate	30 Hz
7-5	Deviation Output Delay	≤ 5 ms
NO.	**Image & Video**	
8-1	Image Format	JPEG
8-2	Max. Image Resolution	1920 x 1080
8-3	Photo EXIF	Shooting point coordinates
8-4	Video Format	MP4
8-5	Max. Video Resolution	1080P@25fps
8-6	Stream Encode	H.264 / H.265
8-7	Stream Protocol	RTSP
NO.	**Environment**	
9-1	Operating Temperature	-20°C ~ 50°C
9-2	Storage Temperature	-40°C ~ 60°C
9-3	Operating Humidity	≤ 85% RH (non-condensing)
NO.	**Control & Software**	
10-1	Control Interface	Network / serial / S.BUS
10-2	Protocol	Private protocol, MAVLink
10-3	Software	Dragonfly / customized QGC

PREPARED	CHECKED	APPROVED