






Model No.		2D LDAR (AmberD)	2D LiDAR (Sapphire_S)	2D LiDAR (SapphireS_S)	3D LiDAR (Amethyst_S)	3D LiDAR (Amethyst_EW)
Figure						
	Item	Specification	Specification	Specification	Specification	Specification
Laser & Sensor	Sensor Type	CMOS (single layer)	SPAD (single layer)	SPAD (single layer)	SPAD (16 layers)	2D CMOS
	Laser Wavelength	780nm	808nm	905nm	905nm	850nm
	Safety Class	Laser Class 1	Laser Class 1	Laser Class 1	Laser Class 1	Laser Class 1
Electronics	Power Consumption	<2.5W	<2.5W	<3W	<7.5W	1W
	Operating Voltage	5V	5V	9~24V	9~24V	5V
Motor	Motor Type	DC motor	DC motor	DC Brushless motor	DC Brushless motor	~
General	Distance Range	0.15m ~ 6m	0.2m~15m	0.2m~30m	0.2m~20m	0.3m~5m
	Distance Accuracy	±1%(@ ≥0.15m & ≤3m) ±2%(@ >3m & ≤6m) (Target: 200gsm white matt art paper)	± 20 mm(@ <2 m) ± 30 mm(@>= 2 m) (Target: 200gsm white matt art paper)	± 30 mm (Target: 200gsm white matt art paper)	± 30 mm (Target: 200gsm white matt art paper)	± 30 mm(@ <1 m) ± 2%(@>= 1 m) (Target: 200gsm white matt art paper)
	Field of View (Vertical)	~	~	~	-8° to 8°	V:21°
	Field of View (Horizontal)	360°	360°	360°	360°	H:100°
	Angular Resolution (Vertical)	~	~	~	1°	V:0.75°
	Angular Resolution (Horizontal)	1°	0.5°	0.5°	0.5° / 1°	H:0.75°
	Rotation Rate	5 (1°) Hz	5 (0.5°) Hz	10 (0.5°) Hz	5 (0.5°) / 10 (1°) Hz	30 fps
	Weight (Typical)	200 g	180 g	340 g	850 g	40 g
Environment	Dimensions(Typical)	108(L)×76(W)×54.6(H) mm	108(L)×76(W)×51(H) mm	75(L)×75(W)×43.5(H) mm	80(L)×80(W)×75(H) mm	54(L)×43(W)×20.5(H) mm
	Operating Temperature	0°C ~ 40°C without condensaion	0°C ~ 40°C without condensaion	0°C ~ 40°C without condensaion	0°C ~ 40°C without condensaion	0°C ~ 40°C without condensaion
	Operating Humidity	~93%RH without condensaion	~93%RH without condensaion	~93%RH without condensaion	~93%RH without condensaion	~93%RH without condensaion
	Storage Temperature	-20°C ~ 65°C	-20°C ~ 65°C	-20°C ~ 65°C	-20°C ~ 65°C	-20°C ~ 65°C
Interface	Storage Humidity	~93%RH	~93%RH	~93%RH	~93%RH	~93%RH without condensaion
	Baud	UART (115200 bps)	UART (345600bps)	UART (921600bps)	UART (2M)	UART (8M)
	Internal Connector	~	~	6-pin: (1) 5V (4) TD- (2) GND (5) RX+ (3) TD+ (6) RX-	6-pin: (1) 5V (4) TD- (2) GND (5) RX+ (3) TD+ (6) RX-	~
External Connector (Box)	12-pin connector: (1) Driver_+ : Pin 1,2 (2) Driver_- : Pin 5,6 (3) Vcc_5V: Pin 9,10 (4) UART_TX : Pin 7,8 (5) GND: Pin 3,4,11,12	12-pin connector: (1) Driver_+ : Pin 1,2 (2) Driver_- : Pin 5,6 (3) Vcc_5V: Pin 9,10 (4) UART_TX : Pin 7,8 (5) GND: Pin 3,4,11,12	(1) Ethernet (RJ-45) connector (2) 5V DC jack.	(1) Ethernet (RJ-45) connector (2) 12V DC jack.	10-pin connector: (1)VDD (2)GND (3)OUT1 (4)UART_TX (5)UART_RX (6)GND (7)GND (8)GND (9)VDDLED (10)VDDLED	