



**Rocket Science
Technologies**



Picture for reference only, subject to actual product.

SwifTag

FASTag (UHF RFID) Reader

Data Sheet - v1.0 - 2025

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1. Standards and Compliance

Protocol	EPC Global Gen2 / ISO 18000-6C
Frequency	865–868 MHz (ETSI / India band)
Regulatory	WPC ETA approval (India)
Ecosystem	IHMCL / NPCI NETC FASTag interoperability
Ingress Protection	IP65 enclosure
Environmental	-25 °C to +65 °C operation

2. RF and Performance

RF Power Output	Up to 33 dBm adjustable
Built-in Antenna Gain	9 dBi, circular polarized
Read Range	0–20 m (with standard FASTag cards)
Anti-collision	>350 tags/sec
Sensitivity	-73 dBm @ 10% BER
Axial Ratio	≤3 dB (ensures reliable tag detection)

3. Interfaces and Connectivity

Default Interfaces	10/100 Base-T Ethernet, RS-232
Optional Interfaces	RS-485, Wiegand, USB
GPIO	4× Inputs, 4× Outputs (relay supported)
Buzzer	Built-in status buzzer
API Support	C, C#/.NET, Java

4. Power

Input Voltage	DC 9–24 V (nominal 12V/2A)
Power Consumption	6.75 W peak, 1.76 W standby
Protection	Surge, reverse polarity, ESD protected

5. Mechanical and Environmental

Dimensions	258 × 258 × 83 mm
Weight	1.87 kg
Housing	Aluminium + PC/ABS shield
Operating Temperature	-25 °C to +65 °C
Storage Temperature	-40 °C to +85 °C
Humidity	5–95% non-condensing

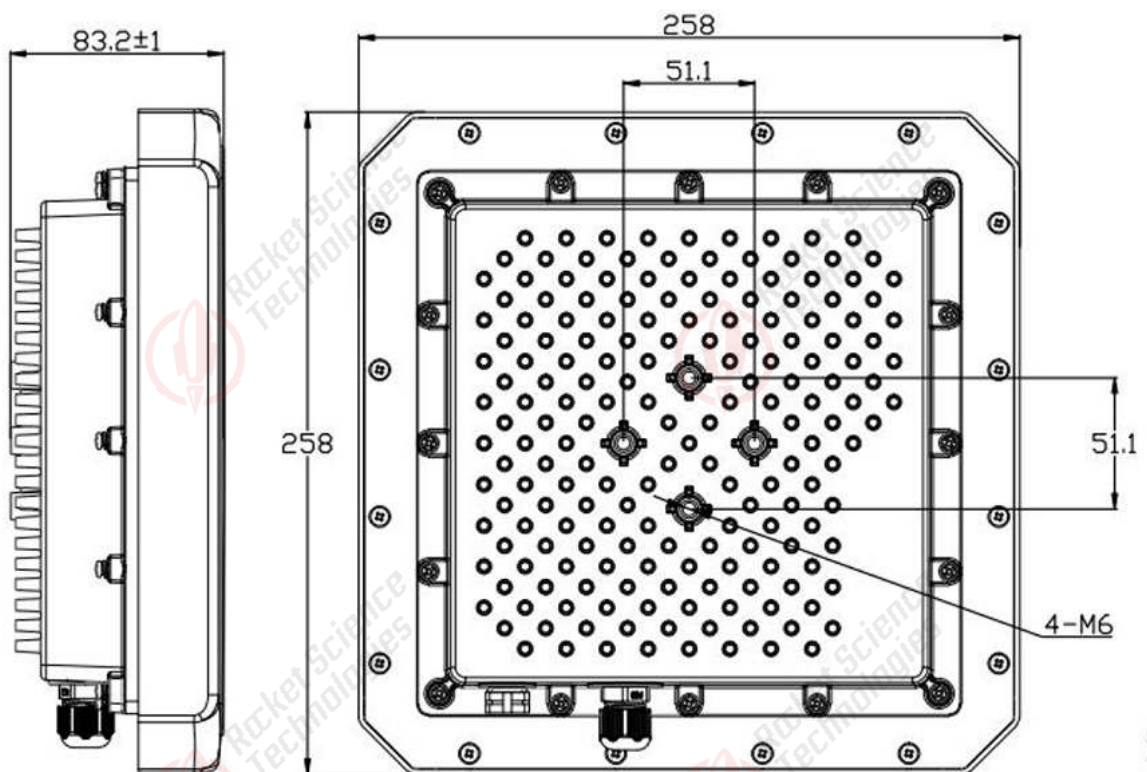
6. Typical Integration

Application	Parking/ITMS/ETC lanes with Boom Barrier integration
Event Trigger	GPIO relay output to barrier gate controller
Connectivity	PMS/ETC via API/SDK, real-time event logs
FASTag Use Case	Lane identification 6–10 m, barrier auto-open after tag validation

* Product information is subject to change without prior notice.

7. Ports

1 - GPIO	+		-	
DEF	NO1		COM1	
2 - GPIO	1	2	3	4
DEF	NO2	COM2	NO3	COM3
3 - GPIO	1	2	3	4
DEF	GPIOV	GND	IN1	OUT4
4 - GPIO	1	2	3	4
DEF	IN2	IN3	IN4	GND
5 - RS32 (Default)	1	2	3	4
DEF	GND	TX	RX	NC
6 - Power	DC9-24V			
7 - Power	RJ45 (8 Core)			



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