Alien Higgs® 3 Heat Resistant RFID Embedded Tag











1. Product Overview

This tag is equipped with the industry-leading Alien Higgs® 3 chip, offering high read sensitivity and fast data transmission rates, ensuring seamless tracking even in harsh environments. It can withstand temperatures as high as 260°C and can be embedded in industrial and outdoor equipment, such as automotive manufacturing, metalworking, and glass manufacturing machinery.

Key Features

Frequency Band UHF 860-960MHz

Chip

Alien Higgs® 3

International Standard EPC Global Gen2, ISO18000-6C

EPC memory 96-480 Bits

IP Rating

IP68

High-Temperature Resistant

150 °C

User Memory

512 Bits

2. Product Parameters

2.1 Physical Characteristics

Product Type	D30-1	D30-2
SKU	AZ-H3-BXG-3011	AZ-H3-BXG-4034
Material	304 Stainless Steel	304 Stainless Steel
Tag Size	D30 mm	45x34 mm, Hole: Diameter 4 mm x2
Mounting Methods	Screw	Welding
Tag Thickness	11 mm	
Tag Weight	34 g	
Tag Color	Gray	
IP Rating	IP68	

2.2 Technical Parameters

Operating Frequency	UHF 860-960MHz
Communication Protocol	EPC Global Gen2, ISO18000-6C
Applicable Surface	Metal Surfaces



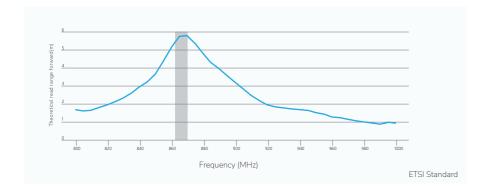
2.3 Chip Characteristics

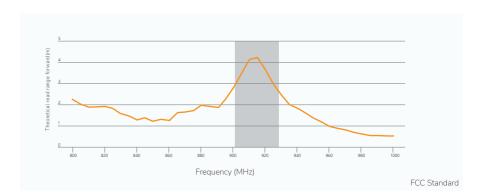
Chip Manufacturer	Alien	
Chip Family	Alien Higgs® 3	
EPC Memory	96-480 bits	
User Memory	512 bits	
Nonvolatile Memory	800 bits	
Unique TID	64 bits	
Reserved Memory	Access password: 32 bits	Kill password: 32 bits
Read Sensitivity	-18 dBm	
Write Sensitivity	-13.5 dBm	
Write Endurance	100,000 times	
Data Retention	50 years	

2.4 Additional Information

Storage Environment	-50°C to +260°C, +300°C (100 hours)	
Operating Environment	-40°C to +150°C	
Testing Limits	 Withstand 300°C for 100 hours; Withstand 280°C for 1000 hours; Withstand 260°C for 2000 hours; Withstand -20°C for 8 hours, then 260°C for 16 hours/day, 80 days; Withstand from 150°C to -40°C, 7.5 cycles /day, 80 days, total of 600 cycles. 	

Reading range under different frequency







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