

KEY DATA

Chip: Higgs-4
Antenna Size: 95 × 3 mm
Format: Dry Inlay, Wet Inlay,
White Paper

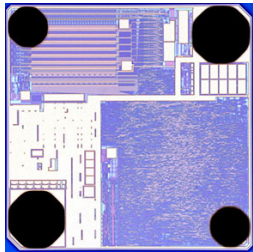


RS-HY9503H4-2

APPLICATION

Distribution Logistics
Supply Chain Management
Product Authentication

OVERVIEW



RS-HY9503H4-2 UHF RFID Dry Inlay is built with Alien Higgs-4.

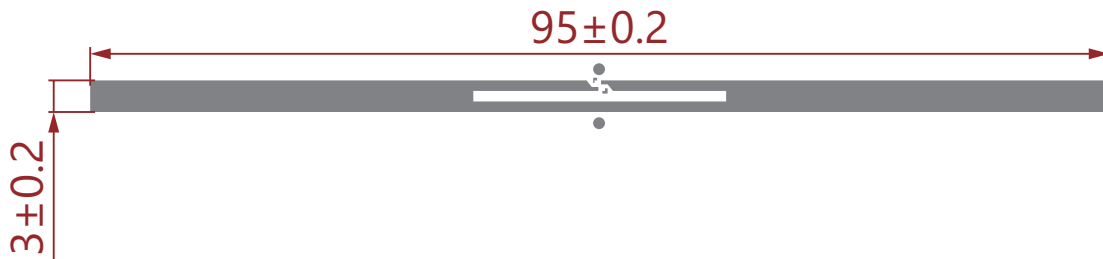
Higgs-4 operates at extremely low power levels yet still provides sufficient backscatter signal to read tags at extended range. It can also be programmed at low RF power and at high speed using Alien's QuickWrite single instruction bank-write capability. BlastWrite can also be used to program multiple tags simultaneously for mass-encoding in high-volume retail applications. Higgs-4 also fully supports the latest industry standard serialization schemes.

Higgs-4 offers a mass-market optimized but flexible memory architecture that provides for the optimum allocation of EPC and User memory for different use cases such as legacy part numbering systems and service history. Usermemory can also be read and or write locked on 32-bit boundaries, supporting a variety of public/private usage models.

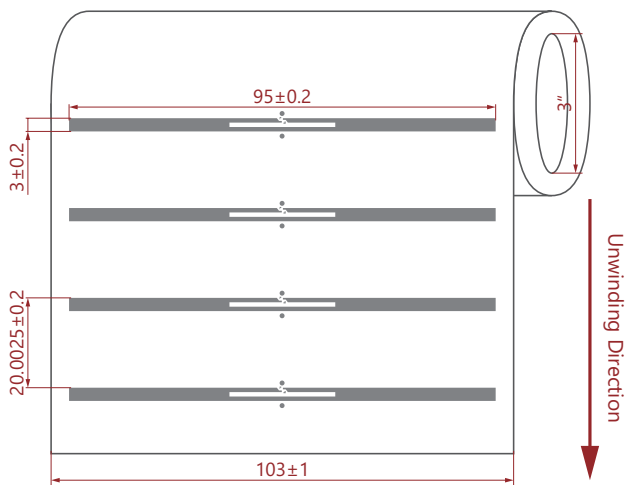
Higgs-4 contains a number of unique advanced features. Dynamic Authentication provides a unique non-reproducible fingerprint that can be used for anti-cloning and anti-counterfeiting.

The IC also features factory programmed 64-bit serial number that cannot be altered. In conjunction with the EPC code, this provides a unique identification for the tagged item.

DIMENSIONS

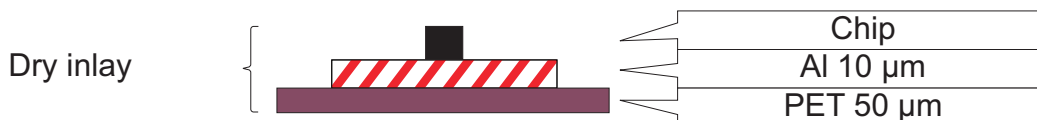


ORIENTATION



| Physical characteristics | Dimensions |
|--------------------------|---|
| Antenna size | 95 × 3 mm |
| Inlay pitch | 20.0025 mm |
| PET width | 103 mm |
| Dry Inlay thickness | Al 10 μm + PET 50 μm |
| Reel detail | Web width: 103 ± 1.0 mm Inner core diameter: 3" (76.2 mm) Core thickness: 5 ± 2 mm |

STRUCTURE



ELECTRICAL CHARACTERISTICS

| Item | | Description |
|----------------------|----------|--|
| Manufacture/IC | | Alien Higgs-4 |
| Base Material | | PET |
| Antenna | | Etched Al (10 μ m) + PET (50 μ m) |
| Protocol | | ISO/IEC 18000-6C / EPC global Class 1 Gen 2 |
| Memory | EPC | 128 bits |
| | User | 128 bits |
| | TID | 64 bits |
| | Reserved | Kill Password - 32 bits Access Password - 32 bits |
| Frequency | | 860 ~ 960 MHz |
| Operating Mode | | Passive |
| IC Life | | 100,000 Programming cycles, 50 years data retention |
| ESD Voltage Immunity | | Max. 2000 V |

ENVIRONMENTAL REQUIREMENT

- Operating Temperature/Humidity: -5°C ~ 60°C / 20% ~ 80% RH
- Storage Temperature/Humidity: 20°C ~ 30°C / 20% ~ 60% RH
- Shelf Life: From the date of manufacture, 1 year in anti-static bag at 20°C ~ 30°C / 20% ~ 60% RH, and avoid direct sunlight exposure

PACKAGING

Reference Packing: Static-free bag with zipper; 15000 \pm 100 Pcs/roll, 4 rolls/ctn (Actual Qty as per Shipping Mark).

