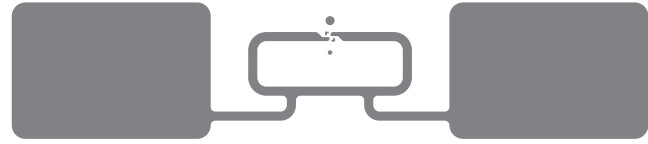


DATASHEET

RS-HYZRN4801HEC-2
UHF RFID Label

KEY DATA

Chip: Higgs-EC
Antenna Size: 70 × 15 mm
Format: Dry Inlay, Wet Inlay,
White Paper

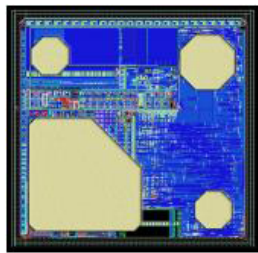


RS-HYZRN4801HEC-2

APPLICATION

Liquid Packaging Management
Supply Chain & Logistics Management

OVERVIEW



RS-HYZRN4801HEC-2 UHF RFID label is built with Alien Higgs-EC chips.

Higgs-EC offers a new approach to RFID. Higgs-EC leverages from the successful and proven Higgs family from Alien Technology and now adds the industry's most robust memory architecture. As RFID tag volumes grow, even the small percentage of bit errors inherent to semiconductors becomes problematic. Higgs-EC provides a leapfrog in RFID technology by providing self-correcting memory.

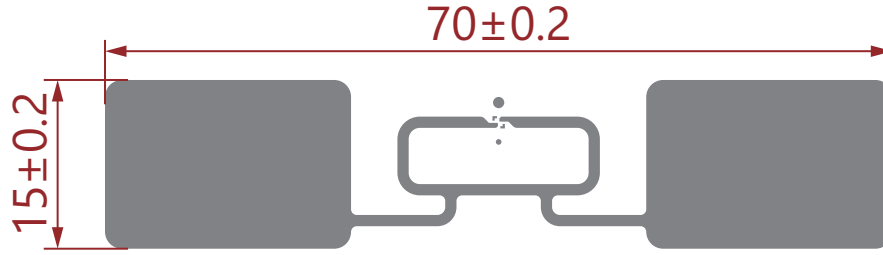
Higgs-EC also provides class-leading read and write sensitivity enabling smaller tags to be designed or tags to be used across longer distances from the RFID reader antenna. Both read and write sensitivities are enhanced benefiting both types of applications.

Higgs-EC is fully backwards compatible with Alien's other Higgs ICs. For example Alien's mass-encoding capabilities (QuickWrite and BlastWrite) and Alien anti-cloning technology (Dynamic Authentication) are supported.

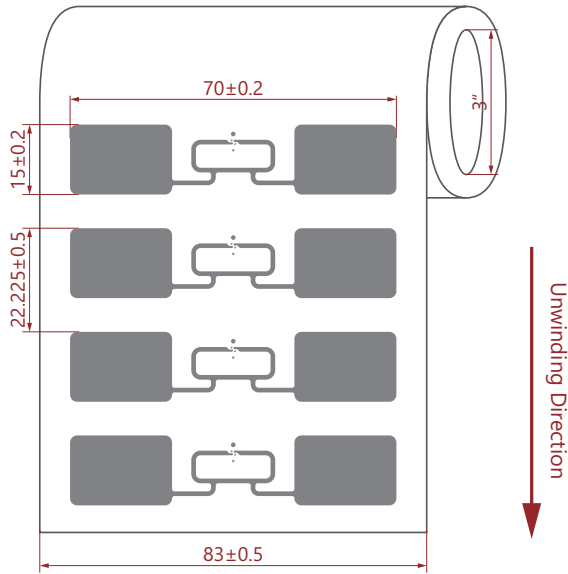
DATASHEET

RS-HYRZN4801HEC-2
UHF RFID Label

DIMENSIONS

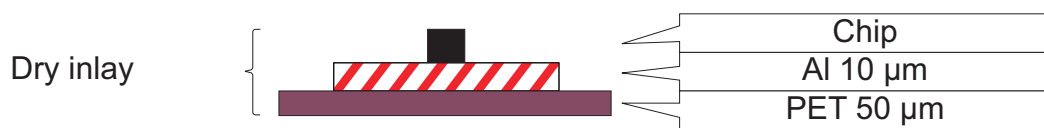


ORIENTATION



Physical characteristics	Dimensions
Antenna size	70 × 15 mm
Inlay pitch	22.225 mm
PET width	83 mm
Dry Inlay thickness	Al 10 μm + PET 50 μm
Reel detail	Web width: 83 ± 1.0 mm Inner core diameter: 3" (76.2 mm) Core thickness: 5 ± 2 mm

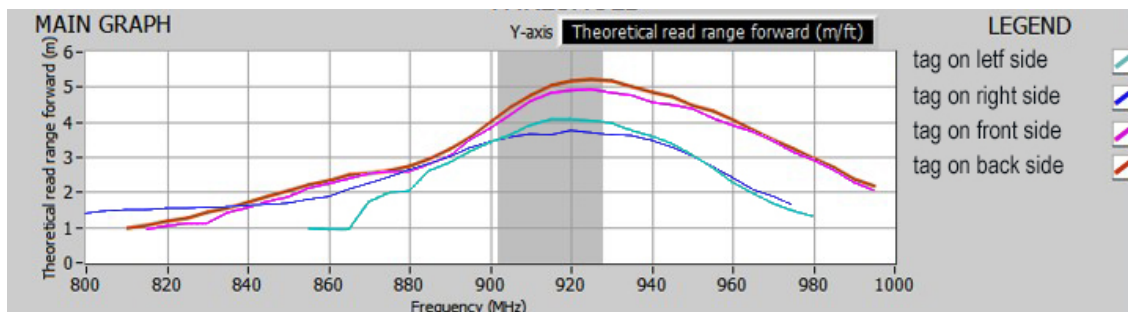
STRUCTURE



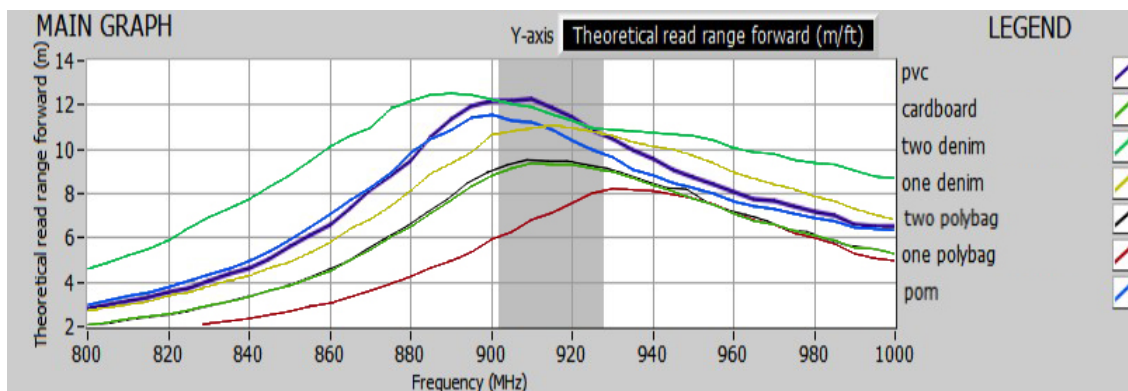
ELECTRICAL CHARACTERISTICS

Item		Description
Manufacture/IC		ALIEN/Higgs-EC
Base Material		PET
Antenna		Etched Al (10 μm) + PET (50 μm)
Protocol		ISO/IEC 18000-6C EPC global Gen2 (V1.2.0)
Memory	User	128 bits
	TID	48 bits
	EPC	128 bits
	Password	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

READ RANGE ON WATER



READ RANGE ON DIFFERENT MATERIAL



DATASHEET

RS-HYRZN4801HEC-2
UHF RFID Label

READ RANGE AND POWER

The range of sensitivity at 920 MHz band equal to 6 dBm or less (The actual test shall prevail).

ENVIRONMENTAL REQUIREMENT

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

PACKAGING

Reference Packing: Static-free bag with zipper; 12000 \pm 100 Pcs/roll, 4 rolls/ctn (Actual Qty as per Shipping Mark).

