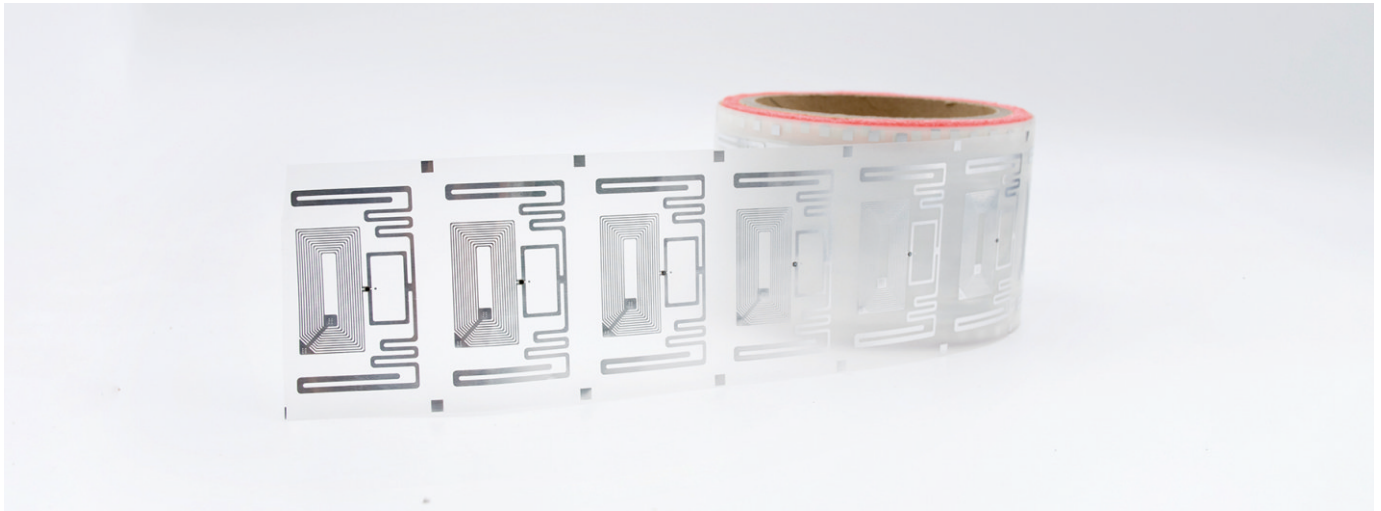




Mesh DF Em4425

50 x 30 mm EM4425

The Mesh DF EM4425 from RICHRFID is a versatile, high-performance dry inlay designed for a wide range of applications. It delivers reliable reading performance across apparel and fashion, beauty and personal care, and warehouse logistics.

The product complies with EPC global Class 1 Gen 2 and is manufactured under ISO 9001 quality management and ISO 14001 environmental management standards, ensuring reliable, industry-grade performance for diverse use cases.

Equipped with the EM4425 IC, it offers long-range UHF identification and convenient HF/NFC mobile interaction, combined with advanced cryptographic security features. The EM4425 is fully compatible with ISO/IEC 18000-63 (EPCglobal Gen 2v2), ISO/IEC 14443 Type A, and NFC Forum™ Type 2. Featuring up to 2 Kb of user memory shared between UHF and HF, the IC offers outstanding data retention of up to 30 years at 85°C.

When Privacy Mode is enabled, the converted label can be used for highvalue products, authenticity verification, and applications requiring enhanced privacy protection.

Designed with a 50 x 30 mm dry inlay for conversion into a 54 x 34 mm RFID label, it delivers stable RFID performance and is especially wellsuited for retail applications

Overview

Frequency Band

UHF 860-960 MHz
HF 13.56 MHz

Chip Type

EM4425

Dimensions

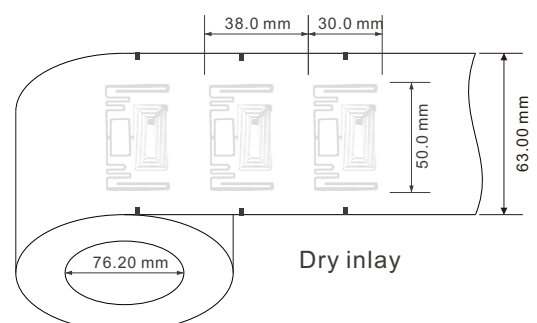
50 x 30 mm / 1.97 x 1.18 in

Air Interface Protocol

ISO/IEC 18000-63 Type C
ISO/IEC 15693 Type A
NFC FORUM Type 5

Application

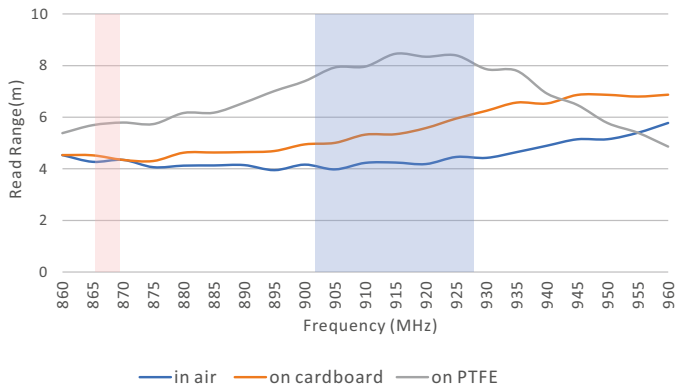
Authentication & Brand protection
Digital product passport
Food & Pharmaceuticals
Supply Chain
Hospitality & Events



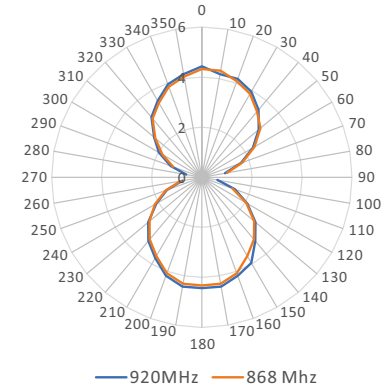
Technical Features

Chip Type	EM4425	
Memory	UID-64 bits, TID- 96 bits 2048-bits used for HF +UHF User memory	
Model	—	RC5131
Delivery Format	Dry Inlay	Label
Die-Cut Dimension	—	54 x 35 mm / 2.13 x 1.38 in
Inlay Substrate	50 um PET	50 um PET
Face Material	—	Coated Paper
Adhesive	—	Hot Melt
Standard Pitch	38 mm / 1.5 in	38 mm / 1.5 in
Web Width	63 mm / 2.48 in	67 mm / 2.60 in
Core inner Diameter	76.2 mm / 3.0 in	76.2 mm / 3.0 in
Operating Temperature	-40°C to 85°C / -40°F to 185°F	
Storage Condition	20±5°C, 50±10% RH, Store away from sunlight	
Installation	—	Adhesive on clean & dry surface
Customization	Encoding, Designing, etc.	Printing, Encoding, Designing, etc.
Package	10,000 pcs / roll, 4 rolls / box	2,500 pcs / roll, 4 rolls / box
Application	Non-metal	

Read Range(2W ERP)



Radiation Pattern



PS: The performance is theoretical values in the lab and the actual effect depends on the specific applications.

RICHRFID

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DISCLAIMER

All specifications are indicative and results may vary. Each user bears full responsibility for making its own determination as to the suitability of RICHRFID products, materials, services, recommendations, or advice for its own particular use.

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