

# DATASHEET

**RO-HY5030M81-2**  
UHF RFID Dry Inlay

## KEY DATA

Chip: MW8112  
Antenna Size: 50 × 30 mm  
Format: Dry Inlay

## APPLICATION

Supply Chain & Logistics Management  
Warehouse Management



**RO-HY5030M81-2**

## OVERVIEW

RO-HY5030M81-2 UHF RFID Dry Inlay is built with MAXWAVE MICRO MW8112 chip.

MW8112 is an UHF passive electronic tag chip independently developed by MAXWAVE MICRO with complete intellectual property rights. Product specifications are compatible with EPC GS1 Gen2V2 standards and ISO/IEC 18000-6C standards. Good performance and consistency make MW8112 very suitable for UHF label applications such as asset inventory and logistics management.

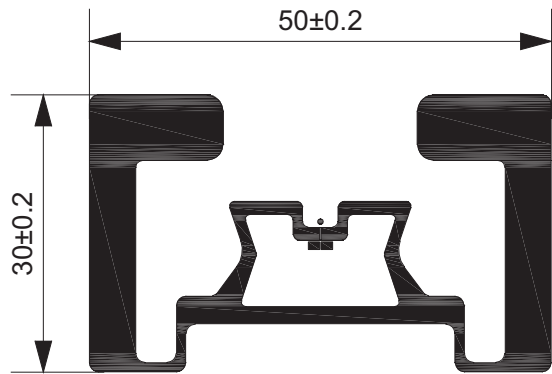
MW8112 supports all mandatory commands specified by the standard, including full-featured lock and inactivation commands. The factory-preset EPC can save customers' operating costs. The TID code with verification provides further security. The user area can be convenient for customers to do EAS and brand protection functions, while the chip provides automatic confirmation of hardware writing, and features such as quick switching between EPC area and user area to provide users with practical convenience.



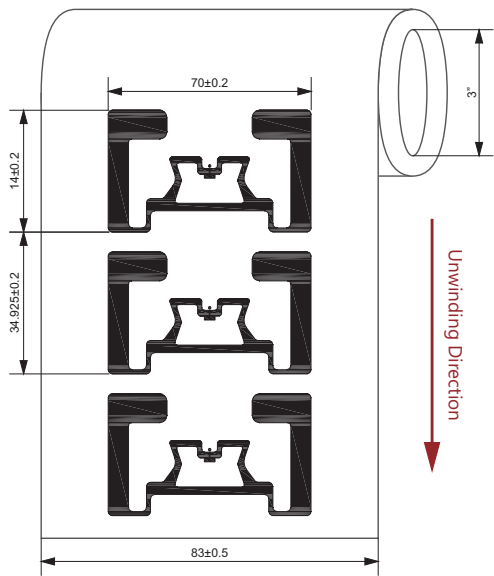
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DIMENSIONS

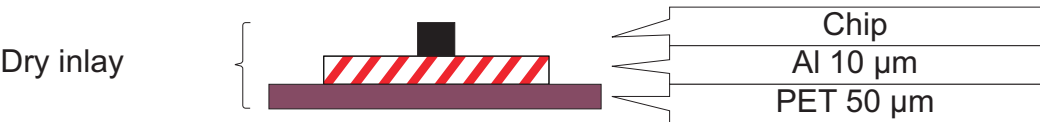


ORIENTATION



Physical characteristics	Dimensions
Antenna size	50 × 30 mm
Inlay pitch	34.925 mm
PET width	83 mm
Dry Inlay thickness	Al 10 μm + PET 50 μm
Reel detail	Inner core diameter: 3" (76.2 mm) Core thickness: 5 ± 2 mm

STRUCTURE



ELECTRICAL CHARACTERISTICS

Item		Description
Manufacture/IC		MAXWAVE MICRO / MW8112
Base Material		PET
Antenna		Etched Al (10 μm) + PET (50 μm)
Protocol		ISO/IEC 18000-6C GS1 Class1 Gen2
Memory	User	Up to 32 bits
	TID	96 bits
	EPC	96 ~ 128 bits
	Password	Kill Password - 32 bits
		Access Password - 32 bits
Frequency		860 ~ 960 MHz
Operating Mode		Passive
IC Life		100,000 Programming cycles, 10 years data retention
ESD Voltage Immunity		Max. 2000 V

ENVIRONMENTAL REQUIREMENT

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

PACKAGING

Reference Packing: Static-free bag with zipper; 9000 ± 100 Pcs/roll, 4 rolls/ctn (Actual Qty as per Shipping Mark).

