PRODUCT DATASHEET

Dual Frequency RFID Label – 30 x50

RAIN RFID (UHF) + NFC technology in one chip

This special label can operate on both NFC and RAIN RFID (UHF) technologies. Powered by em|echo-V chip (EM4425), it provides an application crossover and opens the possibility to apply just one label to fit all use cases in two domains.
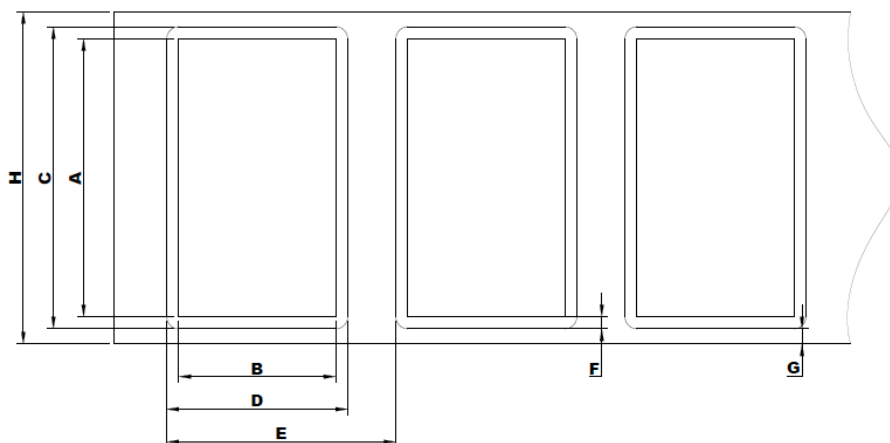
Features

- Dual frequency in one chip
- Shared memory

Applications

- Inventory and Supply Chain Management
- Customer Engagement
- Logistics

Physical Specification

A	Inlay Length	46.0mm / 1.81 in	**E**	Label Pitch	38.0mm / 1.49 in
B	Inlay Width	26.0mm / 1.02 in	**F**	Inlay to Die Cut	2.0mm / 0.07 in
C	Label Length	50.0mm / 1.96 in	**G**	Die Cut to Web Edge	2.0mm / 0.07 in
D	Label Width	30.0mm / 1.81 in	**H**	Web Width	55.0mm / 2.16 in

*Size is mainly in metric measurement.

Label Structure

Label Orientation
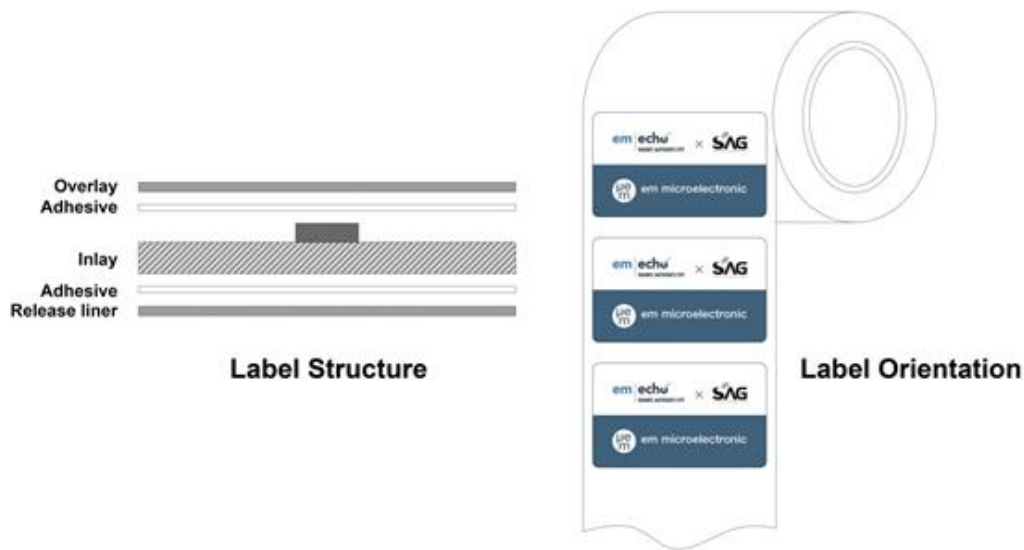
Label Structure

Overlay	White Glossy OPP
Adhesive 1	Acrylic
Inlay	Double-sided aluminum antenna design
Adhesive 2	Acrylic
Release Liner	Glassine

RF Specification

|	
IC Type	EM 4425
Memory	(HF) UID 64 bit (UHF) TID 96 bit EPC up to 480 bit HF/UHF Shared Memory 2048 bit
RF Interface Protocol	HF: ISO 15693 / ISO 18000-3 M1 / NFC Forum Type5 UHF: ISO 18000-63 / EPC^{TM} Gen2v2
Operating Frequency	860-960 MHz / 13.56 MHz
Read Range (2W ERP)	Up to 8 M / 26.24 ft

▪ UHF Read Range
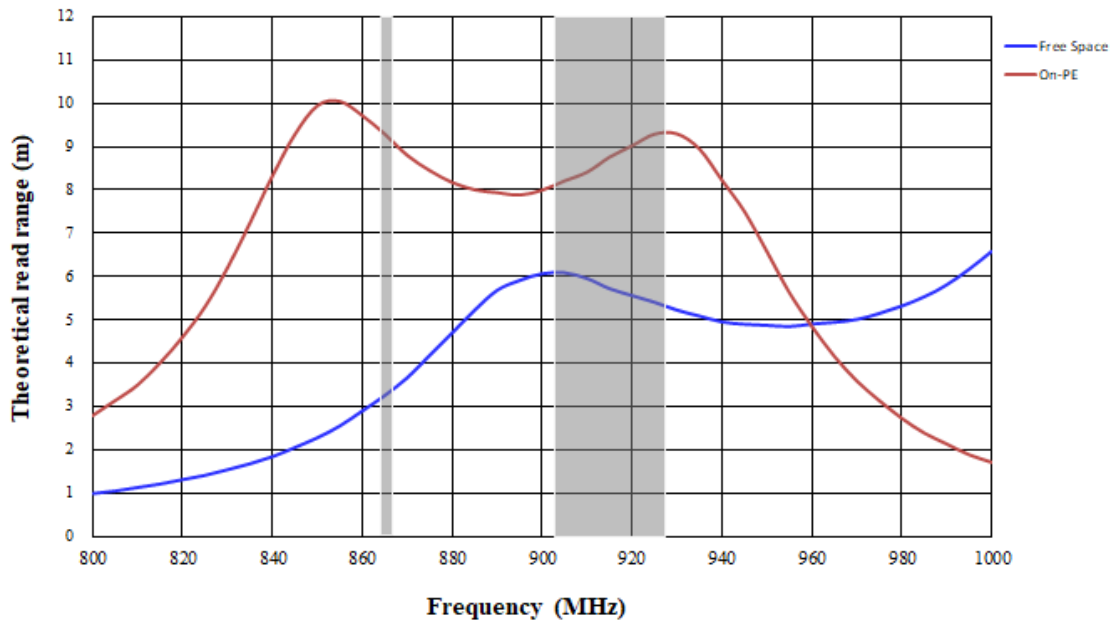
▪ **Reading distance might differ on the material which the tag is attached. SAG can help fine tune the antenna to obtain the optimized reading performance.**

• Front Reading
• Applicable Surface : Free space / PE
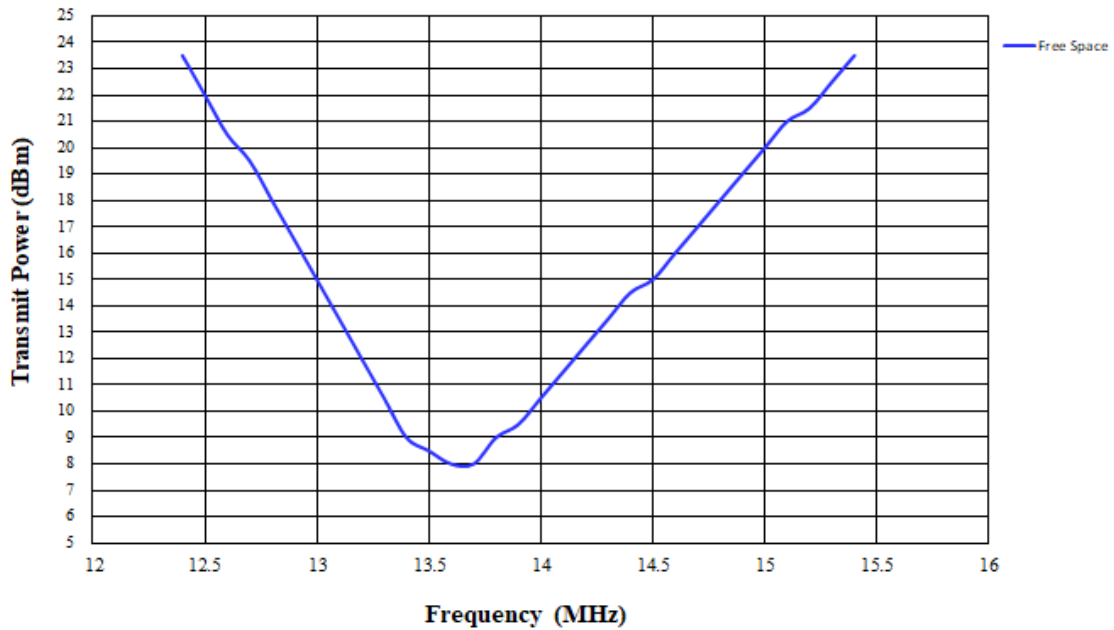
• Side Reading
• Applicable Surface : Free space / PE
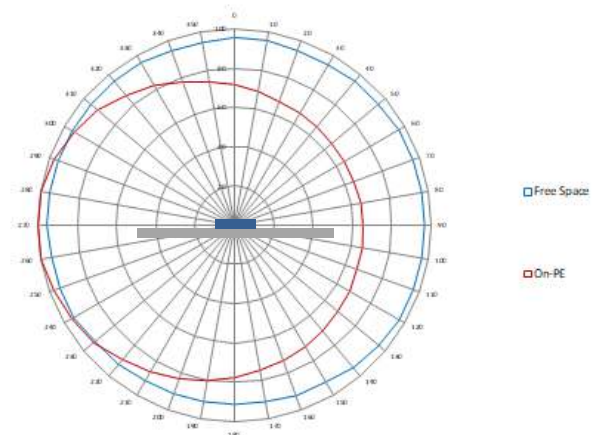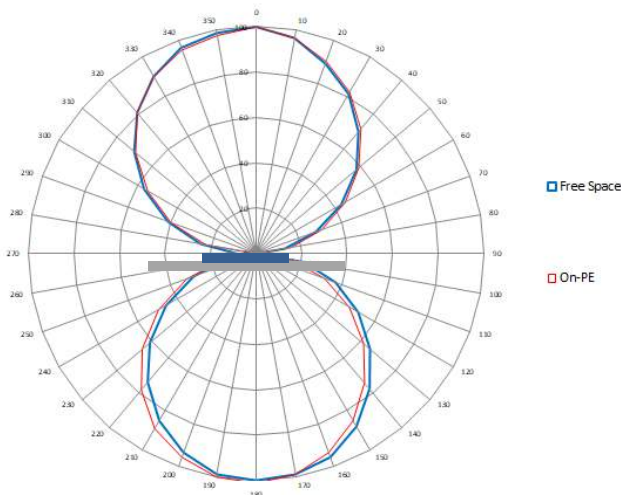
*Reading distance shown in the figure is measured by Voyantic Tagformance.
Actual reading performance is subject to the environment in practice.

▪ HF Sensitivity Curve

*HF sensitivity shown in the figure is measured by Voyantic Tagformance HF Loop Antenna C60. Actual sensitivity performance is subject to the environment in practice.

Environmental Specification	
Operating Temperature	-25°C to +70°C
Storage Temperature	-25°C to +70°C
ESD Protection	±2 kV peak according to IEC 61000-4-2 Contact discharge
Warranty	One Year

Ref. No: Digi-key / 441070626-02402