



WEB DF

Perfect Fit for Retail, Industrial and Logistics Applications

SMARTRAC has complemented its passive inlay and tag offering with a new, state-of-the-art WEB dual frequency (DF) inlay. SMARTRAC WEB DF inlays and tags combine HF (NFC) and UHF frequencies in one single inlay to meet demanding retail, industrial or logistics application requirements. These tags are suitable for product inventory management for warehouses, product authentication and loyalty programs.

WEB products are compact inlays that are ideally shaped for use as apparel hang-tags or industrial labeling, providing high read reliability and optimum performance with fixed infrastructure. To create this innovative, dual-frequency WEB DF inlay, the proven WEB UHF antenna design has been combined with the MIDAS NFC antenna. SMARTRAC WEB DF inlays and tags can be easily converted into hang-tags and are available in wet and paper tag delivery formats.

Web DF is equipped with the EM4423 chip that combines two functionalities on one single die: the EPC technology used for long-range application purposes, and the NFC technology used to exchange data in close proximity. Both protocols may share a common, unique ID. Leveraging the IC's unique features, WEB DF provides multiple benefits for retailers and logistics providers. Enabling NFC functionalities on top of UHF is straightforward, since only programming of the chip is needed.

The NFC element opens up fascinating post-sales scenarios in conjunction with SMARTRAC's Smart Cosmos solutions. Users, already carrying a NFC-enabled smartphone, can start the interaction with the product or simply by tapping the embedded tag. It allows customers to use their smartphones to access additional information about their purchases, such as user manuals, product warranty documentation, warranty programs, proof of product authenticity for anti-counterfeiting purposes, and many more potential applications for retailers and industrial automation.

Overview

Operating Frequency

13.56 MHz /
860 - 960 MHz

Integrated Circuit (IC)

EM4423

Antenna Size

50 × 30 mm (2.0 × 1.2 in)

Die-cut Size

54 × 34 mm (2.1 × 1.3 in)

International Standards

- ▶ ISO/IEC 14443 A, NFC Forum
- ▶ ISO/IEC 18000-63 and EPC Gen2 V2

Application Areas

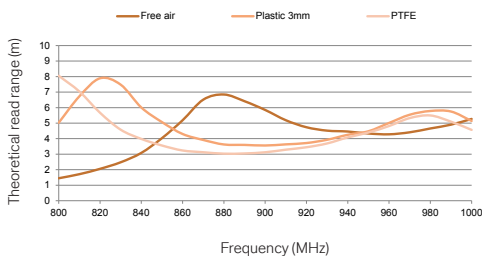
- ▶ Retail
- ▶ Loyalty programs
- ▶ Media & Advertising
- ▶ Product Authentication
- ▶ Inventory Management
- ▶ Supply Chain Management

WEB DF

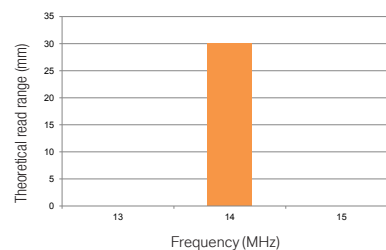
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Technical Features	
IC	EM4423
Memory protocols	1920 bit - memory can be accessed and written using both ISO 18000-63 / Gen 2 and ISO 14443A-3
Frequency	Dual Frequency: HF 13.56 MHz and UHF 860-960 MHz
Antenna Size	50 × 30 mm / 2.0 × 1.2 in
Die-Cut Size	54 × 34 mm / 2.1 × 1.3 in
Web Width	60 mm / 2.4 in
Operating Temperature	-40 °C to +85 °C / -40 °F to +185 °F
Delivery Format	inlay - sales code: 3005951 wet - sales code: 3005952 paper tag - sales code: 3005953
Adhesive	Acrylic, water borne adhesive
Qty/Reel	5,000 pcs
Core Size	76 mm / 3 in
Shelf Life	+20 °C, 50 % RH / 68 °F, 50 % RH - minimum 2 years from the date of manufacturing

UHF Read Range (m)



NFC Performance (Free air)



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