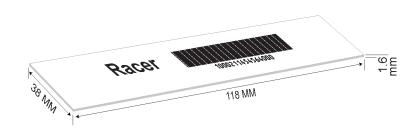


# SMART RFID LABELS RACER

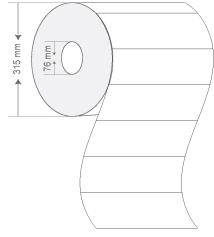


SIVA's RFID foam tags are ready to apply foam backed race timing tags on marathon bibs and are designed to ensure athletes receive the most accurate measurement of their timings while they race. With capabilities of custom printing and encoding, these race timing foam tags are supplied in roll form.

The tag houses a finely tuned antenna to counter the detuning effect produced due to its close proximity from the human body. With the latest generation chips, its performance is the same as that of the standard 3mm foam tags regardless of its foam thickness. The reduction in thickness of the foam also ensures more labels fit on a standard roll and reduction in weight, thereby reducing freight costs.

## **TYPICAL APPLICATIONS**

- Marathons and Ultrathons
- Sprint Races



PHYSICAL SPECIFICATION		
Face Stock	Printable white PET (Resin ribbon is Recommended)	
Label Sizes	118 x 38.1 x 1.6 mm 4.64 x 1.5 x 0.06 in	
Adhesive	High performance acrylic adhesive	
Weight	1.807 g	
Delivery format	Roll form	
No. of Labels/ Reel	1000 pcs	
Label Pitch	38 mm / 1.5 in	
Core inner diameter	76 mm / 3 in	
Outer diameter	315 mm / 12.40 in	



RF SPECIFICATION			
	NXP UCODE 8	IMPINJ MONZA R6 P	
Mode of Operation	Passive	Passive	
Device type	Class 1 Gen 2 Passive UHF RFID Transponder	Class 1 Gen 2 Passive UHF RFID Transponder	
Air interface protocol	EPC Global Class 1 Gen 2 ISO 18000-6C	EPC Global Class 1 Gen 2 ISO 18000-63 Compliant, Gen 2v 2 Compliant	
Operational frequency	Global 860 - 960 MHz	Global 860-960 MHz	
IC type*	NXP UCODE 8	IMPINJ MONZA R6 P	
Memory configuration	Upto 128 bits	EPC Size of 96 Bits, 96 bits TID with 48 bits Unique serial number	
Write cycle endurance	Minimum 100,000	Minimum 100,000	
Data Retention	Upto 20 years	Upto 50 years	
Applicable Surface Materials	Race timing bibs on human body.	Race timing bibs on human body.	
Read range (2W ERP)**	ETSI - Upto 5 m FCC - Upto 5 m	ETSI - Upto 5 m FCC - Upto 5 m	

ENVIRONMENTAL RESISTANCE		
Operating Temperature	-20°C to +70°C / -4°F to +158°F	
Withstands Exposure To	95% humidity, 60°C $\times$ 100 h, 50% humidity, 80°C $\times$ 100 h	
Peak Temperature	+80°C (Label remains securely attached with object. No physical or performance changes observed.)	
Adhesive Service Temperature	-20°C to +70°C / -4°F to +158°F	
Recommended Application Temperature	+10°C to +38°C	
Water Resistance	IP67	
Chemical Resistance	Resistant to moisture	
Ideal Storage Condition	+20°C / 50% RH	
Expected Lifetime	Years in normal operating conditions	

## **PRODUCT INSTALLATION**



- Ensure the application surface is not uneven and is clean and dry, to obtain maximum bond strength.
- Avoid touching the backside of the label while mounting it.

#### PERSONALIZATION OPTIONS

#### **Pre-encoding**

• Customer specific encoding of EPC

#### **Customized Printing**

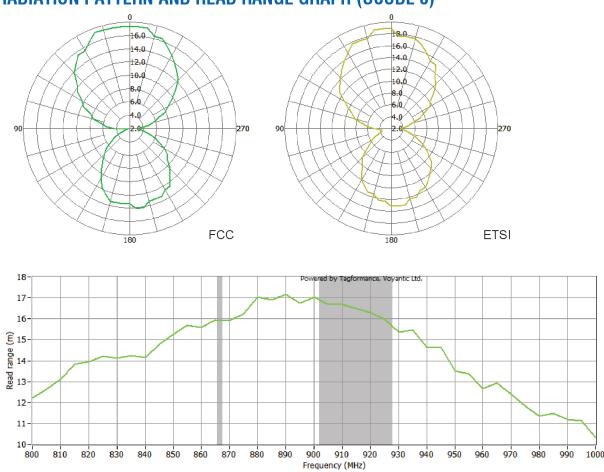
• Customer specific layout including logo, text, numbers, barcodes etc.

#### **ORDER INFORMATION**

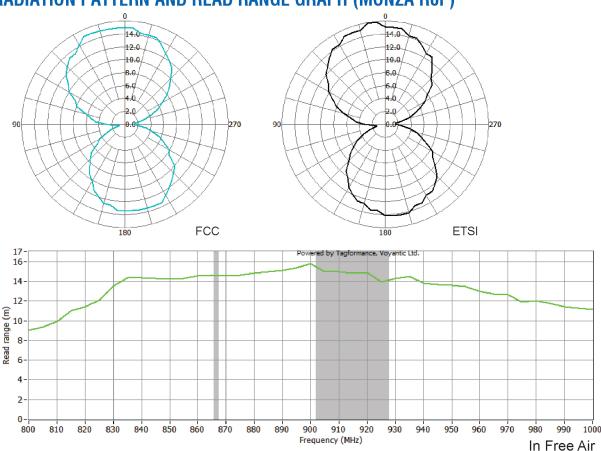
#### **Roll Sizes**

• 1000 Tags per roll / 4 Rolls per carton

## **RADIATION PATTERN AND READ RANGE GRAPH (UCODE 8)**



# **RADIATION PATTERN AND READ RANGE GRAPH (MONZA R6P)**





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 $<sup>^{\</sup>star}$  Other IC's available on request

<sup>\*\*</sup> The indicated read range values are measured in our laboratory testing environment, where antennas with optimum directivity are used with maximum allowed operating power. Different surface materials and environments may exhibit different results.

1 (888) 238-1155 Inside USA • 1 (205) 383-2244 Outside USA