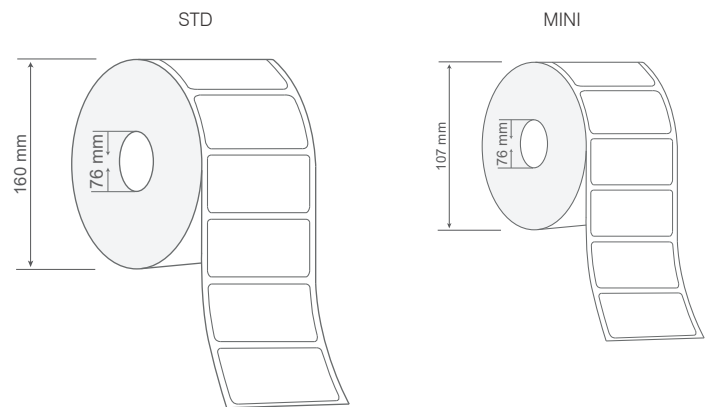




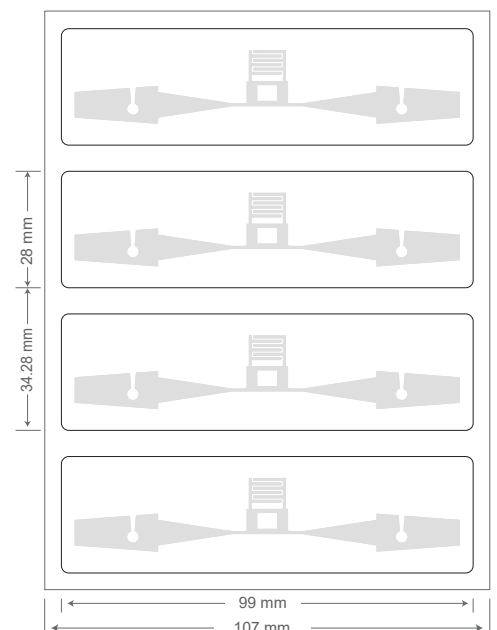
SIVA's Sense-T 9928 is a temperature sensing tag which has an inbuilt temperature or humidity sensor. These tags for example are quite effective in managing perishable goods supply chain operations wherein efficiency can be significantly improved by utilizing temperature sensors to monitor ambient temperature conditions. These tags can be inexpensively deployed on every item or pallet passing through the supply chain and are quite affordable. These tags are offered with customer specific encoding of EPC and printing of logos, text, barcodes, etc. and are delivered in roll form.

TYPICAL APPLICATIONS

- Asset tracking
- Temperature and humidity sensing of remote assets



PHYSICAL SPECIFICATION	
Face Stock	PET
Label Sizes	99 mm x 28 mm x 0.2 mm / 3.89 in x 1.10 in x 0.0078in
Adhesive	Permanent Acrylic Adhesive
Weight	0.68 gm
Delivery Format	Roll
No. of Labels/ Reel	std: 2000 pcs
Label Pitch	34.29 mm approx mini: 500 pcs
Core Inner Diameter	3 Inch
Roll Outer Diameter	std: 160 mm / 6.29 Inch mini: 107 mm / 4.21 Inch



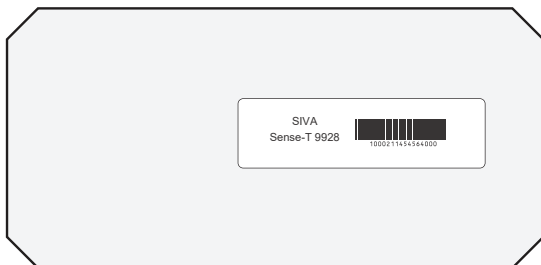
RF SPECIFICATION

Mode of Operation	Passive
Device type	Class 1 Gen 2 Passive UHF RFID transponder
Air interface protocol	EPC Global Class 1 Gen 2 ISO 18000-6C
Operational frequency	Global 860-960 MHz
IC type*	Magnus®-S3 M3D Sensor IC
Memory configuration	64-bit unique Tag ID (read-only), 128-bit EPC, 128-bit user memory
Write cycle endurance	10,000
Data Retention	10 years
Read range (2W ERP)**	ETSI: On Plastic - Upto 7 m / 22.96 ft, On Glass - Upto 6 m / 19.68 ft, On Cardboard - Upto 6 m / 19.68 ft FCC: On Plastic - Upto 7 m / 22.96 ft, On Glass - Upto 7 m / 22.96 ft, On Cardboard - Upto 6 m / 19.68 ft
Applicable Surface Materials	Non metallic surfaces

ENVIRONMENTAL RESISTANCE

Operating Temperature	-40°C to +85°C / -40°F to +185°F
Temperature Measurement Range	-40°C to +85°C / -40°F to +185°F
Temperature accuracy @ 30°C	± 0.5°C
Withstands Exposure To	95% humidity, 60°C × 100 h, 50% humidity, 80°C × 100 h
Peak Temperature	+100°C for 1 hr, +80°C for 100 hrs (Label remains securely attached with object. No physical or performance changes observed)
Adhesive Service Temperature	-20°C to +85°C / -4°F to +185°F
Recommended Application Temperature	+10°C to +38°C / 50°F to +100.4°F
Water Resistance	IP68, tested for 5 hours in 1m deep water
Chemical Resistance	No physical or performance changes in: - 168 h Salt water (salinity 10%) exposure - 168 h Motor oil exposure - 12 h NaOH (10%) exposure - 30 min Acetone exposure
Ideal Storage Condition	+23°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. If required, use approved cleaning solvents to clean surface.
- 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

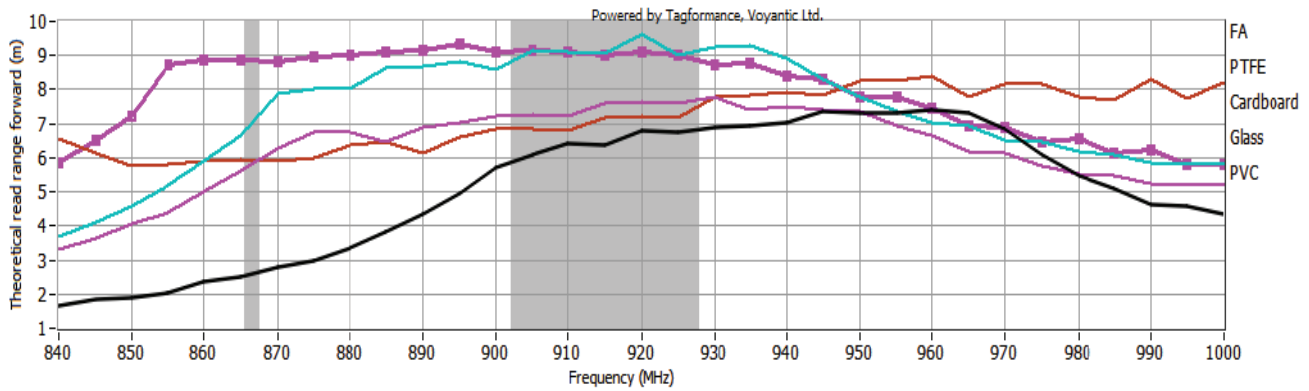
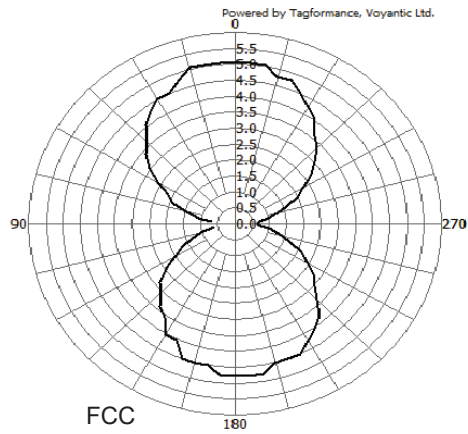
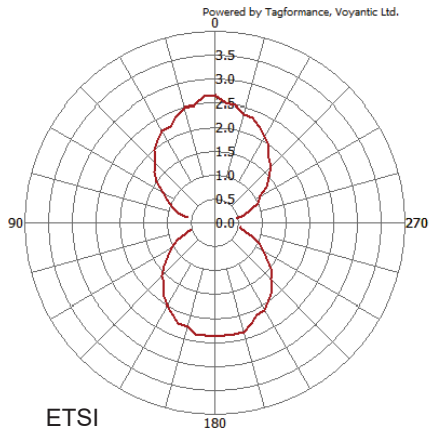
Part Number

- RF.Li.TT.Sen-T.9928

Roll Sizes

- std: 2000 Labels per Roll / 4 Rolls per Carton
- mini: 500 Labels per Roll

RADIATION PATTERNS & READ RANGE GRAPHS (ETSI & FCC)



* Other IC's available on request

** 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.



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