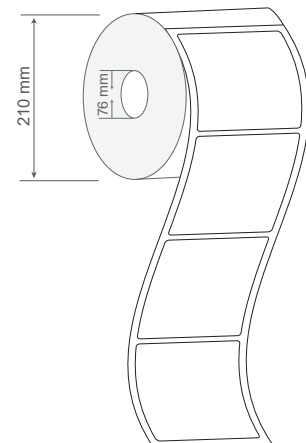


Syndicate's Aerial Zenith label is an easy to deploy UHF label and especially designed for outdoor environment with strong grip on different kinds of objects, enabling new applications and revolutionizing integration into manufacturing and supply chain processes.

These labels are supplied in roll form as either finished labels. Syndicate's Aerial Zenith labels have been optimized to provide high read reliability, thermal barcode printers compatibility and enable low cost hassle-free RFID deployment.

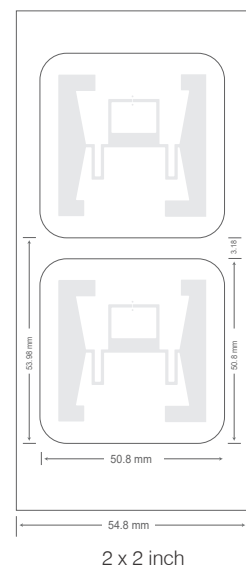
TYPICAL APPLICATIONS

- Manufacturing and Supply chain
- Apparel and Item-level Retail
- Logistic
- Retail
- Inventory Management & Asset Tracking



PHYSICAL SPECIFICATION

Face Stock	Printable white PET, resin ribbon is recommended
Label Sizes	50.8 x 50.8 x 0.2 mm 2 x 2 x 0.01 in
Adhesive	High performance permanent adhesive with excellent bonding to a variety of substrates
Weight	0.42 gms
Delivery Format	On reel
No. of Labels/ Reel	2000 pcs
Label Pitch	53.98 mm / 2.125 in
Core Inner Diameter	76 mm / 3 in
Roll Outer Diameter	210 mm / 8.26 in



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*	NXP UCODE 8
Memory configuration	Upto 128 bits
Write cycle endurance	Minimum 100,000
Data Retention	Upto 20 years
Applicable Surface Materials	Non-Metallic surfaces
Read range (2W ERP)**	ETSI : On Plastic 17 m / 55.77 ft FCC : On Plastic 12.5 m / 41.01 ft

ENVIRONMENTAL RESISTANCE

Operating Temperature	-20°C to +70°C / -4°F to +158°F
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.)
Recommended Application Temperature	+10°C to +38°C / 50°F to +100.4°F
Adhesive Service Temperature	-20°C to +85°C / -4°F to +185°F
Water Resistance	Good, tested 5 hours in 1.5 m 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 - 24 h Sulfuric acid (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

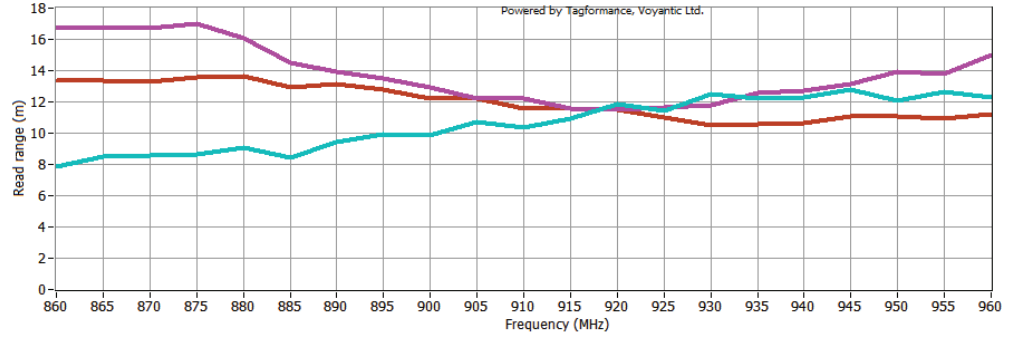
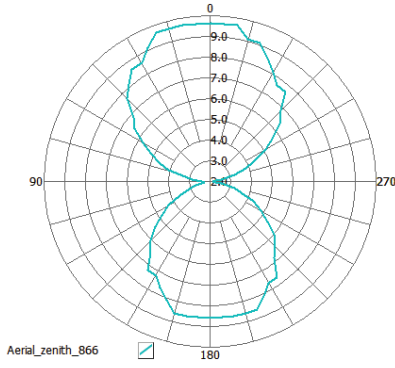
Part Number


- RF.Li.TT.Arl-Zenith

Roll Sizes

- 2000 Labels per Roll / 4 Rolls per Carton

RADIATION PATTRN AND READ RANGE GRAPH



Aerial_Zenith_Free_Air 
 Aerial_Zenith_Plastic 
 Aerial_Zenith_Cardboard 

* 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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