

SMART RFID LABELS

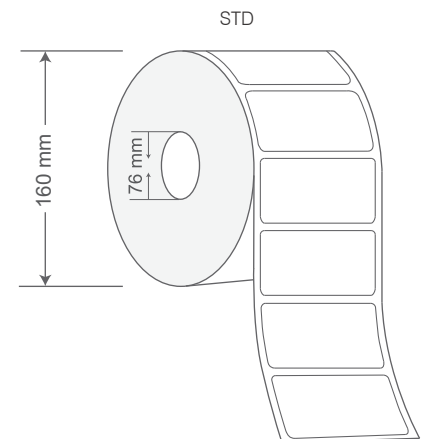
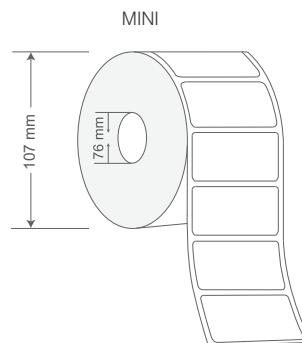
Dumbel



Dumbel is a special label for plastic containers or corrugated cardboard boxes used for carrying high dielectric materials like fruits, vegetables, metallic items, water bottles etc. Syndicate Dumbel is delivered in a reel format and it can be encoded and printed with typical RFID printers that are capable of printing labels.

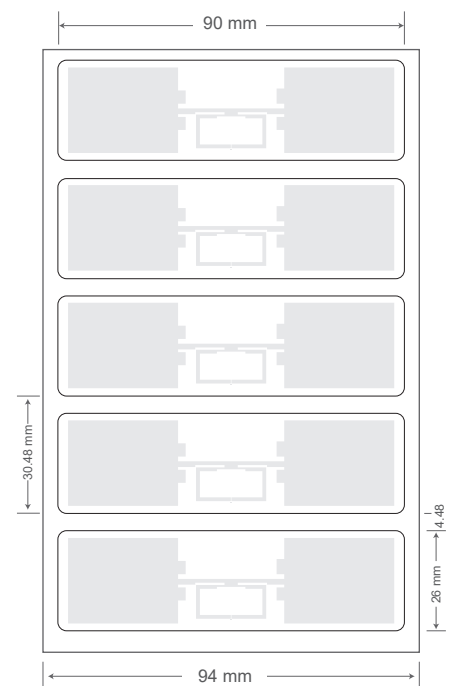
TYPICAL APPLICATIONS

- Manufacturing and Supply Chain
- Packaging
- Warehouse Operations
- Logistics
- Inventory Management & Asset Tracking
- Indoor Asset Management



PHYSICAL SPECIFICATION

Face Stock	Printable white PET Resin Ribbon is Recommended	
Label Sizes	90.0 x 26.0 x 0.2 mm 3.5 x 1.02 x 0.01 in	
Adhesive	High performance permanent adhesive with excellent bonding to a variety of substrates	
Weight	0.75 gms	
Delivery Format	On reel	
No. of Labels/ Reel	std: 2000 pcs	mini: 500 pcs
Label Pitch	30.48 mm / 1.2 in	
Core Inner Diameter	76 mm / 3 in	
Roll Outer Diameter	std: 160 mm / 6.3 in	mini: 107 mm / 4.21 in



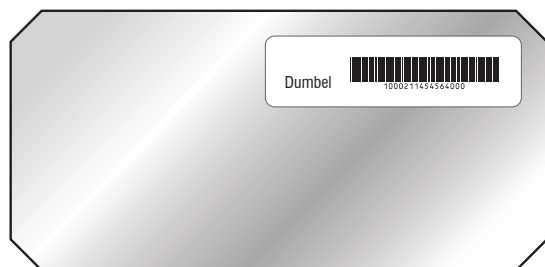
RF SPECIFICATION

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	EPC Size 96 - 128 Bits
Write Cycle Endurance	100,000
Data Retention	Upto 20 years
Applicable Surface Materials	Non-metallic surfaces
Read Range **	ETSI : 12 m / 39.37 ft FCC : 14 m / 13.12 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)
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	IP67
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

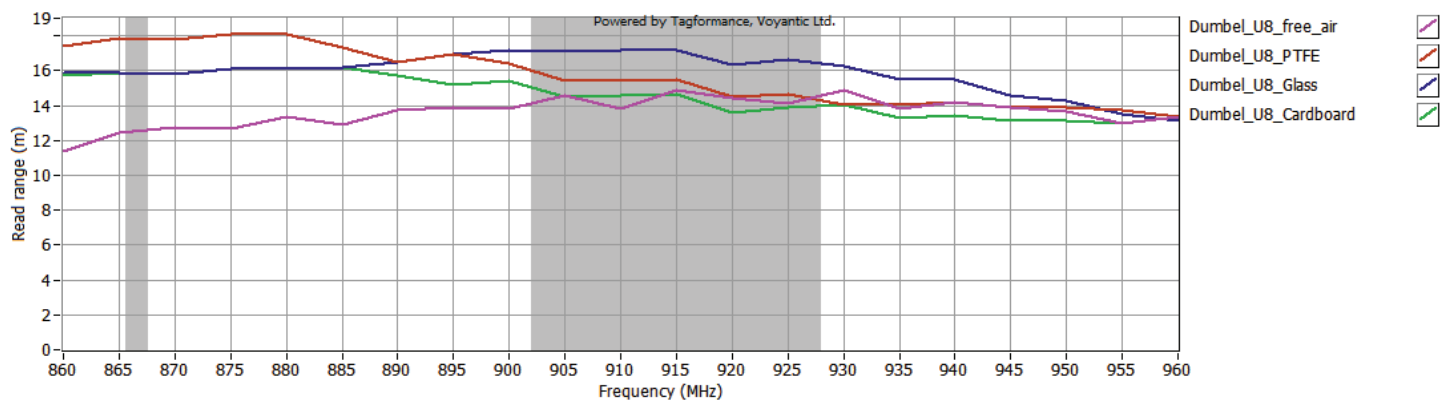
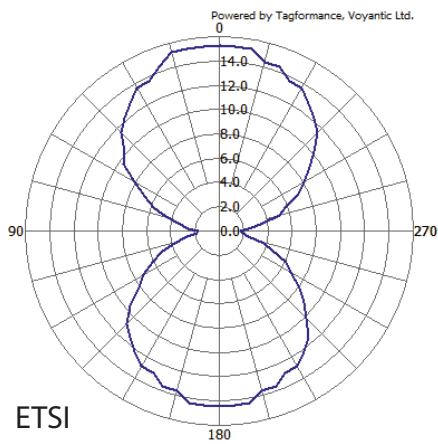
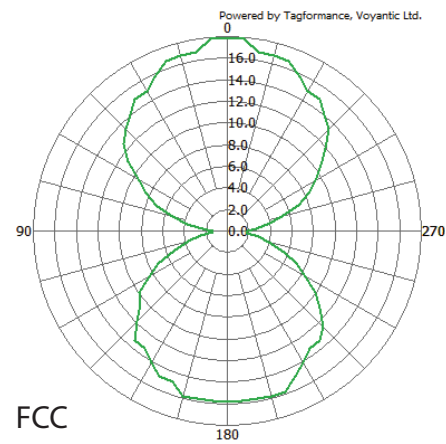
Part Number

- RF.Li.TT.Dumbel.U8

Roll Sizes

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

RADIATION PATTERN & READ RANGE GRAPH (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.

