

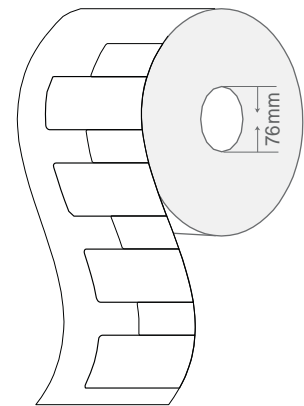
42010159(U7XM) is a passive UHF RFID label for Mount on Metal applications demanding long read range in small form factor with a high performance permanent adhesive. These labels feature a film face to print private logos, product information, or scan able barcodes directly on the label and its additional flexibility for curved surfaces makes it perfect for tracking a variety of transit items.

This product is ideal for asset tracking of medical devices, IT (Information Technology) asset tracking, industrial asset tracking, tracking high value/luxury retail items, etc. among a list of other asset tracking applications.

### TYPICAL APPLICATIONS

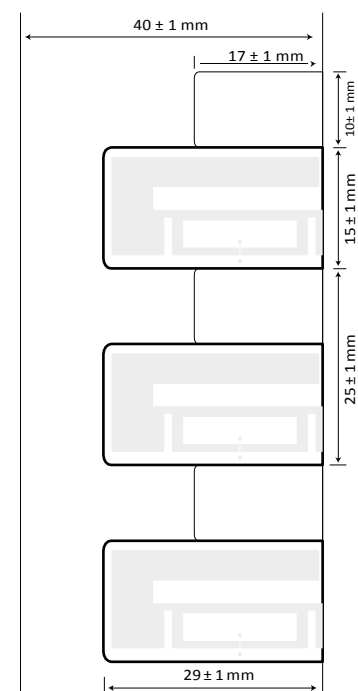
#### Only for metal surfaces

- Indoor Asset Management: IT Assets, furniture's, home appliances and kitchen equipment
- Automotive: Components, spare parts and RTI's
- Healthcare: Hospital Assets & Equipment's
- Industrial: Metal assets, structural steel and RTI's
- Retail: RTI's"



### PHYSICAL SPECIFICATION

Face Stock	Printable white PET (Resin ribbon is Recommended)
Label Sizes	29 x 16 x 2.1 mm 1.14 x 0.63 x 0.003 in
Adhesive	High performance permanent adhesive
Weight	1 gm
Delivery format	Roll form
No. of Labels/ Reel	500 pcs
Label Pitch	25.4 mm / 1 in
Core inner diameter	76 mm / 3 in



# RF SPECIFICATION

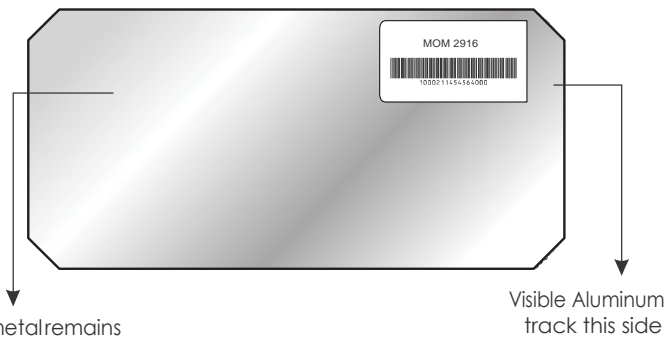
Mode of Operation	Passive		
Device type	Class 1 Gen 2 Passive UHF RFID Transponder		
Air interface protocol	EPC Global Class 1 Gen 2 ISO 18000-6C		
Operational frequency	ETSI 865-868 MHz FCC 902-928 MHz		
IC type*	NXP UCODE 7XM		
Memory configuration	Upto 448 bits		
User memory	1 K-Bit		
Write cycle endurance	Minimum 100,000		
Data Retention	Upto 20 years		
Applicable Surface Materials	Metallic surfaces		
Read range (2W ERP)**		ETSI	FCC
	Tag at Center of steel plate	1.5 m / 4.9 ft.	2.6 m / 8.5 ft.
	Tag at edge of steel plate	5.0 m / 16.4 ft.	5.7 m / 18.7 ft.

# ENVIRONMENTAL RESISTANCE

Operating Temperature	20°C to +70°C / -4°F to +158°F
Withstands Exposure To	Tested at 85°C / 185°F for one month, no change in electrical behavior observed
Peak Temperature	85°C / 185°F
Adhesive Service Temperature	+70°C / 158°F
Recommended Application Temperature	23°C to 25°C / 73.4°F to 77°F
Water Resistance	IP68, tested by submerging in 1.5 m deep water for 5 hours
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

Attach label in close proximity to edge of metal surface for optimum read range performance, as shown in image below.



- 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

## PERSONALIZATION OPTIONS

### Pre-encoding

- Customer specific encoding of EPC

### Customized Printing

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

## ORDER INFORMATION

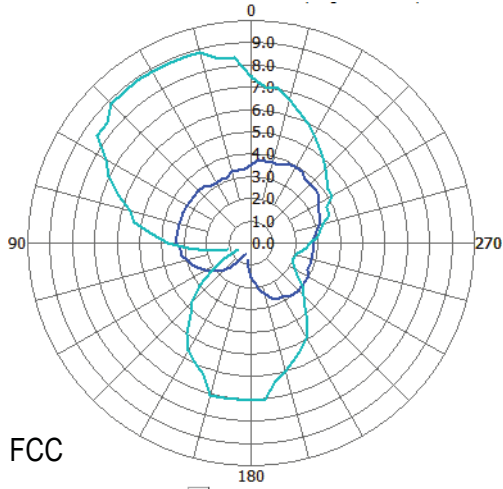
**Part Number**  
mounting it

- 42010159 (U7XM)

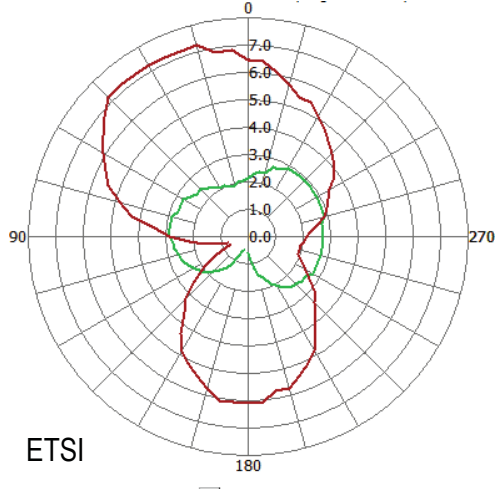
**Roll Sizes**

- 500 Labels per Roll / 4 Rolls per Carton

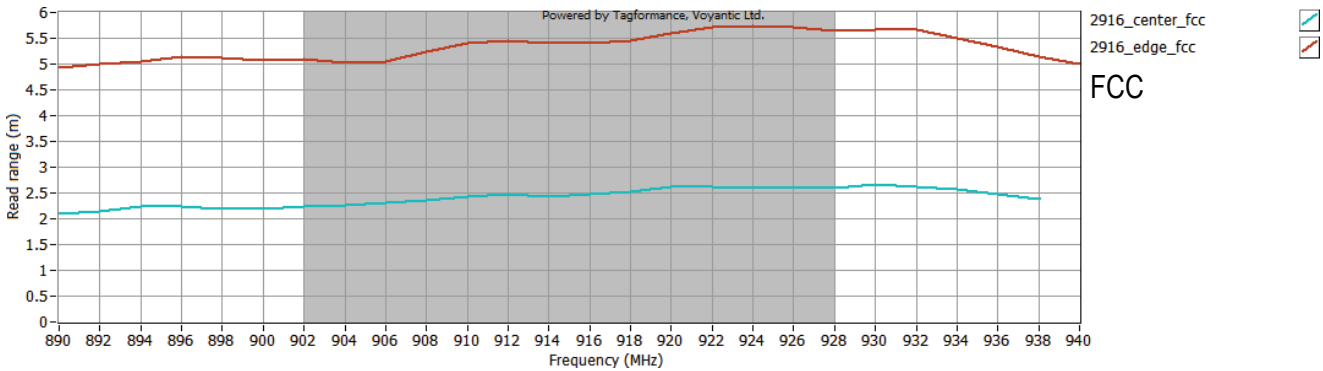
# RADIATION PATTRN AND READ RANGE GRAPH (ETSI & FCC)



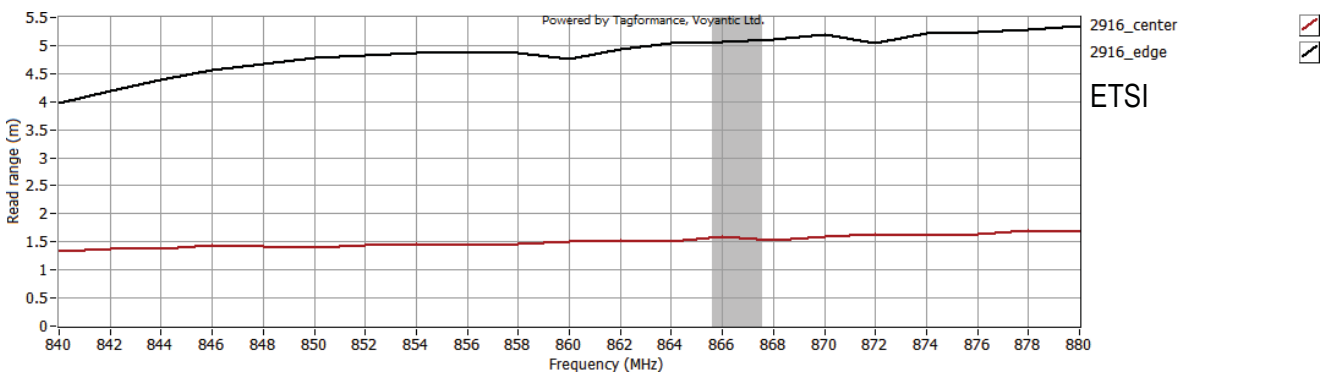
FCC  
2916\_center\_fcc  
2916\_edge\_fcc



ETSI  
2916\_center\_ETSI  
2916\_edge\_ETSI



2916\_center\_fcc  
2916\_edge\_fcc  
FCC



2916\_center  
2916\_edge  
ETSI

\* 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.

