

## Metal Skin® Mercury Smart Label

P/N: X50A0-GL100-M4



### Functional Specifications

RF air protocol	EPC Class 1 Gen 2; ISO18000-6C
Operating frequency	UHF 860-960 MHz (Global)
IC type	Impinj Monza M4E
Memory configuration	496 EPC bits, 128 bits user memory, 48-bit serialized TID
Functionality	Read / write (user programmed)

### Performance Characteristics

Read range on metal (2W ERP)*	Up to 13 ft (4 m)
Read range off metal (2W ERP)*	Up to 16 ft (5 m)
Polarization	Linear

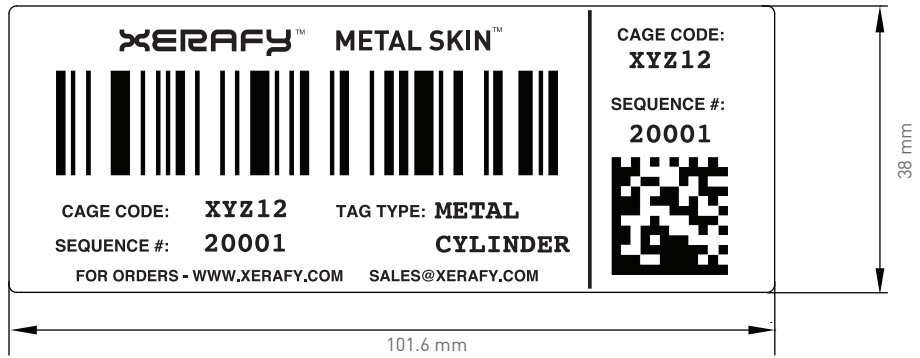
\*Actual read range may vary based upon specific application case and antenna power

### Smart Label Specifications

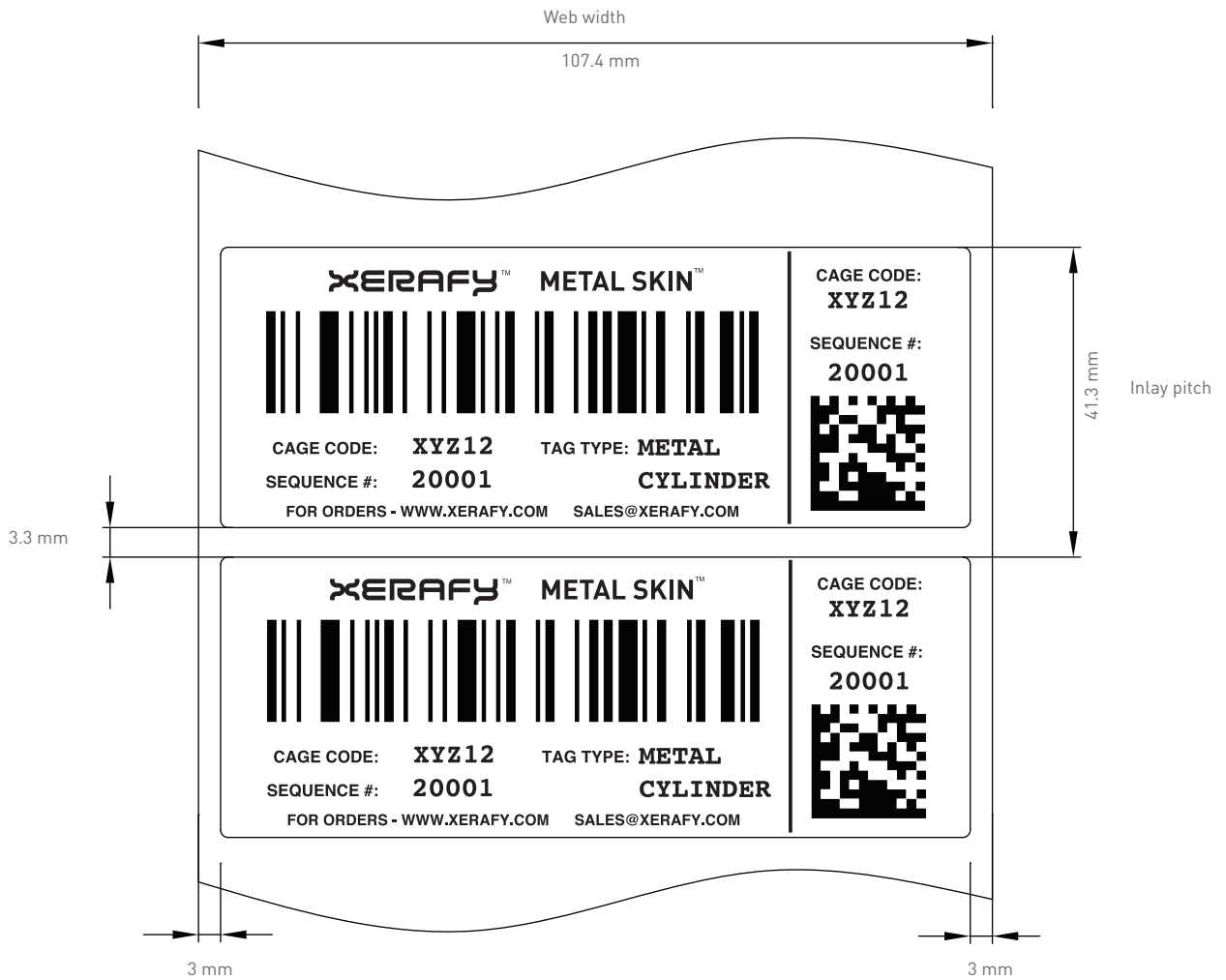
Dimensions / tolerance (mm)	101.6(+/- 1) x 38(+/- 0.8) x 0.76(+/- 0.1)
Dimensions / tolerance (in)	4(+/- 0.04) x 1.5(+/- 0.03) x 0.03(+/- 0.004)
Face material	White thermal transfer face stock
Background adhesive	High performance adhesive
Delivery format	On reel
Quantity per reel	500
Inner reel core diameter	3 in (76.2 mm)
Outer reel diameter	8 in (203 mm)
Weight (reel)	3.5 lbs (1.6 kg)

\*This product utilizes an Impinj M4E chip; each tag will have the exact same EPC number and a unique TID number. Xerafy will verify the Read/Write function of each chip memory before shipment.

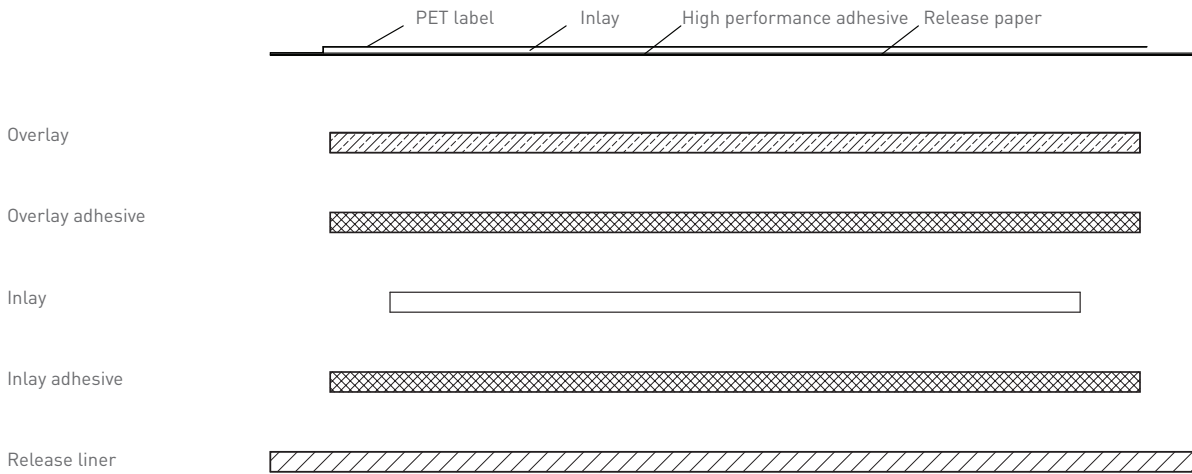
**Product Dimensions**



**Product Reel Dimensions**

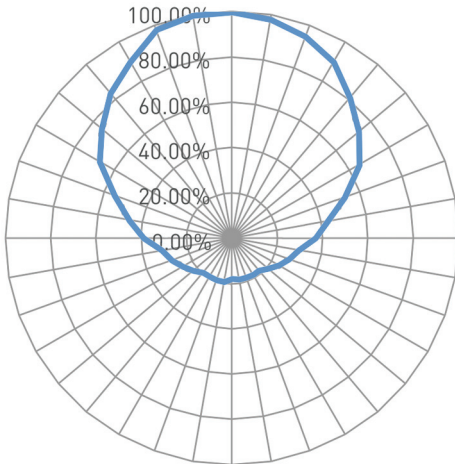


## Smart Label Cross Section

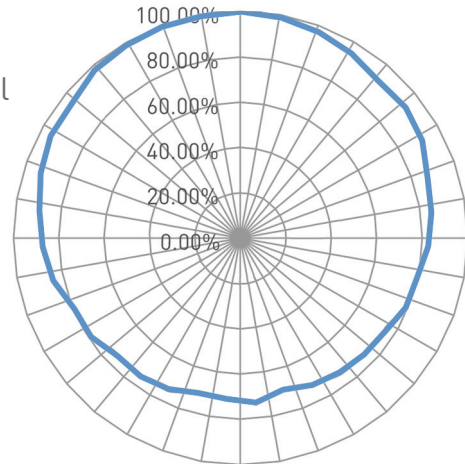


## Radiation Pattern

On metal



Off metal



## Operational and Environmental Specifications

### Operational temperature

Cold	-40°F (-40°C)
Dry heat	+149°F (+65°C)
Thermal shock	-40°F to 149°F (-40°C to +65°C); cycled

### Application temperature

Cold	-40°F (-40°C)
Dry heat	+149°F (+65°C)

### Storage conditions

2 years at +68°F (+20°C) and 50% relative humidity

### Shock (drop)

3 ft (1 m) to concrete/granite up to 100 cycles

### Compression strength

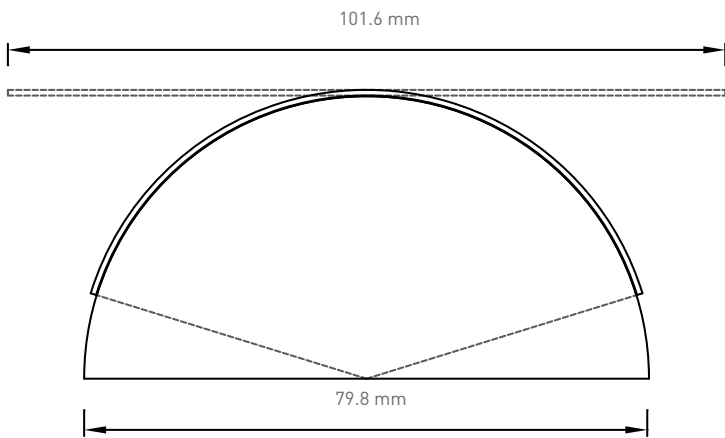
92 psi (634 kPa)

**Application Instructions**

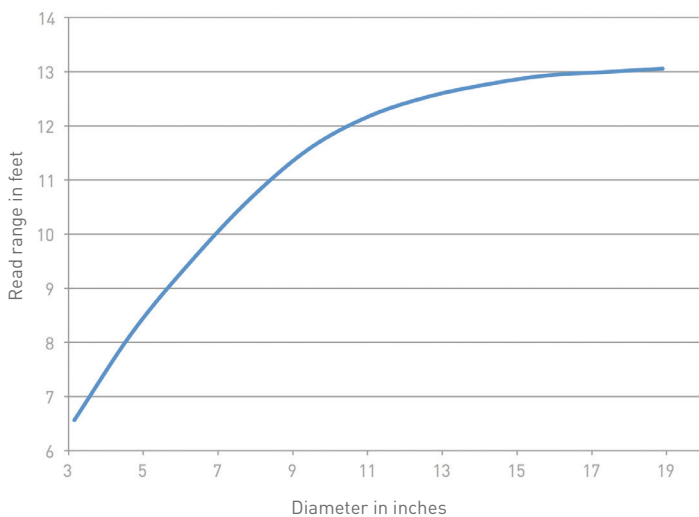
The Metal Skin can be applied directly onto metal surfaces. Its polarization is along the length of the label. For the purpose of determining a guideline, we've defined acceptable performance as 50 percent of the expected read distance. If the label is horizontally oriented, the minimum bending radius is 1.57 in (40 mm). If the label is vertically oriented, the minimum bending radius is 0.98 in (25 mm). Exceeding these recommended ranges will affect performance and may also physically damage the label, resulting in shortened life span.

The label should ideally be applied in the following conditions, 68°F (+20°C) and 50% relative humidity. For exceptional conditions, please contact Xerafy. The label adhesive will provide maximum adhesion 24 hours after application.

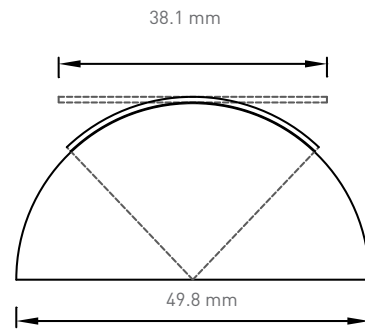
Horizontally oriented



Read range



Vertically oriented



Read range

