# XERAFY

# TEX 70x15

## Technical Specifications

- **RF protocol** EPC global Class 1 Gen 2; ISO18000-63
- **Frequency** 860-960 MHz (Global)

  **NXP**
- **IC type** (chip)[1] NXP UCODE 9xe
- **Chip memory**[2] 128 bits EPC; 96 bits TID
- **Write cycles** 100,000 times
- **Data retention** 20 years
- **Read range** fixed[3] Up to 29.53 ft (9 m)
- **Read range** handheld[3] Up to 23.62 ft (7.20 m)

  **Impinj**
- **IC type** (chip)[1] Impinj M830
- **Chip memory**[2] 128 bits EPC; 96 bits TID
- **Write cycles** 10,000 times
- **Data retention** 10 years
- **Read range** fixed[3] Up to 32.81 ft (10 m)
- **Read range** handheld[3] Up to 26.25 ft (8 m)

- **Polarization** Linear

## Key Features

- + **Textile:** flexible and washable
- + **200+:** commercial washing cycles
- + **EECC certified:** quality assurance
- + **10m:** long read range
- + **Cost-effective:** for high volume
- + **Printable:** texts, patterns and barcodes

## Applications

- • **Medical scrubs**
- • **Hospital linens**
- • **Hotel linens**
- • **Uniforms**
- • **Rental costumes**

## Environmental Specifications

### Temperatures

- Operational -40°C to +85°C
  -40°F to +185°F
- Washing: 90°C (194° F), 15 minutes
- Pre-drying: 180°C (356°F), 30 minutes
- Ironing: 185°C (365°F), 10 seconds
- Heat-sealing: 210°C (410°F), 20 seconds
- Sterilization process: 135°C (275°F), 20 minutes

### Chemicals[4]

- Standard detergents, fabric softeners, bleach, oxygen/chlorine compounds, alkali substances, acetic and peracetic acid

- **Storage humidity** 8% - 95% RH
- **Mechanical resistance** 60 bars

- **Vibration** MIL-STD-810G
- **Warranty** 200 washing cycles or 3 years

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[1] The chip data retention is based on the chip operating under general environment conditions.
[2] EPC can be re-programmed, password protected, or permanently locked. TID is locked and unique at the point of manufacturing.
[3] Off metal, actual read range may vary based upon use case and antenna power.
[4] The chemical resistance is based on the concentration of solutions and application environment. Please contact Xerafy for further details on chemical resistance.

# Physical Specifications

- **Material** Textile
- **Dimensions (in)**[1] 2.76 x 0.59
- **Dimensions (mm)**[1] 70 x 15
- **Thickness (in)**[1] 0.03 in,
  0.04 in on chip location, sew
  0.06 in on chip location, heat-seal
- **Thickness (mm)**[1]
  0.70 mm, 1 mm on chip location, sew
  0.60 mm, 1.50mm on chip location,
  heat-seal
- **Color** White
- **Weight** 0.40 g
- **Washing method** Laundry, dry cleaning



## Mounting Systems

Sew or heat-seal based on specific requirements, with different product P/N selections

## Installation Instructions

1. Install the tag by sewing:

Sew into a hem or inside a pocket of fabric

2. Install the tag by heat-sealing:

Seal the tag onto the textile at 210°C and 0.6-0.8 MPa for 20 seconds
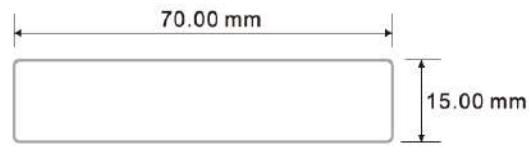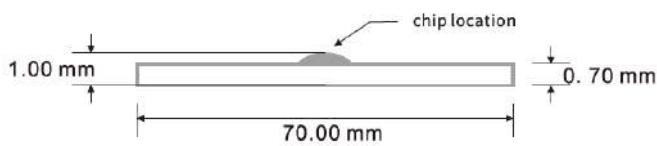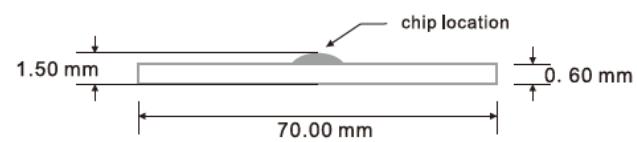
[1] Tolerance: +/- 0.02; +/- 0.50
[2] Tolerance: H: +/- 0.004; H: +/- 0.100

# Industry Compliance



## Order Information

| NXP | |
| --- | --- |
| TEX 70x15 (Sew): X7015-GL010-U9xe | TEX 70x15 (Heat-seal): X7015-GL011-U9xe |
| **Impinj** | |
| TEX 70x15 (Sew): X7015-GL010-M830 | TEX 70x15 (Heat-seal): X7015-GL011-M830 |

## Customization Options

| Encoding | Laser Marking[1] |
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[1] Since the barcode reading rate isn't 100% reliable, we do not recommend laser engraving barcodes on the heat-seal version. Please select the sew version instead.

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