The Ultimate Industrial RFID Product Guide

Your guide to finding the right RFID Tags, Labels, Inlays and Sensors for your Industrial System, and more.

XERAFY

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Companies all over the world run their operations on Xerafy RFID to track, count, analyze, and monitor their assets. In this RFID Product Guide, we share Xerafy's passive UHF tag and labels within expertise developed over the years working with industry leaders to implement their RFID.

MICRO series

The MICRO series from Xerafy offers the ultimate metal mount RFID tags for high temperatures, providing consistent performance where reliability and durability are critical.

PICO series

PICO tags from Xerafy power Industrial RFID Systems for manufacturing processes, providing superior performance in small form factors that are ready for deployment.

XS series

The Xerafy XS series packs RAIN RFID performance into the smallest sizes available for tracking systems.

ROSWELL series

The Xerafy ROSWELL series offers the ultimate survivability in Industrial RFID tags.

OUTDOOR series

The Xerafy OUTDOOR series tags are designed for long-range tracking and all-weather durability required for tracking shipping containers, RTI, and yard management.

TRAK series

The Xerafy TRAK series offers cost-effective RFID asset tracking tags optimized for the Warehouse and the Factory to deliver real-time visibility for every workflow and lifecycle.

METAL SKIN series

Xerafy METAL SKIN series offers printable versatile On/Off Metal RFID labels that are engineered for superior performance in industrial systems.

XSKIN series

The Xerafy XSKIN series offers off-metal RFID inlays specifically engineered for specialized industrial systems.

XENSE series

The Xerafy XENSE series offers battery-free RFID sensors to monitor and track assets in Construction, Infrastructure, and Manufacturing.

XPLATE series

The Xerafy XPLATE is a smart RAIN RFID metal nameplate that enables asset tracking and identification in the field.

Tool Tracking

Xerafy RFID for Hand Tools, Molds, Tooling, Oil Fields, Mining, Rolling Stock, MRO Tool Control

Manufacturing

Xerafy RFID for Paint Shop, High Temperature, Embeddable

Intralogistics

Xerafy RFID for Warehouse Automation,Returnable Transport Items (RTIs), Production Logistics, Work-In-Process Inventory, Fulfillment and Shipping

Oil & Gas

Xerafy RFID for Downhole Drilling, Pipe Management, ATEX, Mining, Construction

Data Centers and IT Assets

Xerafy RFID for Data Centers, Smart Grid, Waste, Government

Utilities

Xerafy RFID for Waste Management, Weapon Management, Telco Towers,Smart Grid

Healthcare

Xerafy RFID for Surgical Tracking, Medical Devices, Sterile Inventory, PPE

Industry Certification and Compliance

CE Certification

ATEX Certification

ISO 9001:2015

ISO 14001:2015

ETSI

FC

RoHS 2002/95/EC

REACH COMPLIANCE

Ex

Awards

RED HERRING GLOBAL WINNER 100

2018 EY Accelerating Entrepreneurs Program

The Alconics 2017 Best AI Application in Healthcare -Finalist-

FROST & SULLIVAN 2017 BEST PRACTICES AWARD GLOBAL RFID SURGICAL INSTRUMENT TRACKING NEW PRODUCT INNOVATION AWARD

RFID JOURNAL LIVE!

GS1

Industry Alliance

Xerafy is a member of RAIN RFID .

RAIN RFID

Product Guide

Embeddable | Global Frequency | High Temp | Autoclavable | User Memory | Long Range

Series	MICRO series - high temp					XS series - world smallest		
Product	 **MICRO Industrial**	 **MICRO Paint Shop**	 **MICRO Autoclavable**	 **MICRO Power**	 **MICRO Heat**	 **XS Dash**	 **XS Dot**	 **XS Wedge**
Part Number (P/N) User memory version	X1130-US100-H9 (US) X1130-EU100-H9 (EU)	X1130-US130-H9 (US) X1130-EU130-H9 (EU)	X1130-US140-H9 (US) X1130-EU140-H9 (EU)	X3130-US101-M750 (US) X3130-EU101-M750 (EU)	X1220-US050-H4 (US) X1220-EU050-H4 (EU)	X4101-US000-U8 (US) X4101-EU000-U8 (EU) X4101-US000-H3 (US) X4101-EU000-H3 (EU)	X4102-US000-U8 (US) X4102-EU000-U8 (EU) X4102-US000-H3 (US) X4102-EU000-H3 (EU)	X4202-US100-H3 (US) X4202-EU100-H3 (EU)
Operating frequency	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz(US) 865-868 MHz (EU)	902-928 MHz(US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz(EU)
IC type	Alien Higgs-9	Alien Higgs-9	Alien Higgs-9	Impinj M750	Alien Higgs-4	NXP UCODE8 Alien Higgs-3	NXP UCODE8 Alien Higgs-3	Alien Higgs-3
Memory configuration	96 bits TID 48 bits EPC 688 bits User Memory	96 bits TID 48 bits EPC 688 bits User Memory	96 bits TID 48 bits EPC 688 bits User Memory	96 bits TID 96 bits EPC 32 bits User Memory	64 bits TID 128 bits EPC 128 bits User Memory	96 bits TID 128 bits EPC 512 bits User Mem (opt)	96 bits TID 128 bits EPC 512 bits User Mem (opt)	64 bits TID 96/480 bits EPC 512 bits User Memory
Read range on metal (2W EIRP)	Up to 32.8 ft (10 m)	Up to 32.8 ft (10 m)	Up to 32.8 ft (10 m)	Up to 13.1 ft (4 m)	Up to 23.0 ft (7 m)	Up to 6.6 ft (2 m)	Up to 4.9 ft (1.5 m)	Up to 3.3 ft (1 m)
Read range off metal	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Limited
Case material	High-performance engineered polymer	High-performance engineered polymer	High-performance engineered polymer Silicone sealer	High-performance engineered polymer	High-temperature polymer	Ceramic	Ceramic	High-performance engineered polymer
Mounting system	Screws (Rivet hole, M3) Pop rivets (Max size 3.2mm) Industrial Adhesive (optional)	Screws (Rivet hole, M3) Pop rivets (Max size 3.2mm) Industrial Adhesive (optional)	Screws (Rivet hole, M3) Pop rivets (Max size 3.2mm)	Screws (Rivet hole, M3) Pop rivets (Max size 3.2mm) Cable tie Industrial Adhesive (optional)	Screws (Rivet hole, M3) High performance adhesive	Epoxy	Epoxy	Embeddable
Operating temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)
Application temperature	-40°F to +482°F (-40°C to +250°C)	-40°F to +482°F (-40°C to +250°C)	-40°F to +302°F (-40°C to +150°C)	-40°F to +302°F (-40°C to +150°C)	-67°F to + 419°F (-55°C to +215°C)	-40°F to +302°F (-40°C to +150°C)	-40°F to +302°F (-40°C to +150°C)	-58°F to +428°F (-50°C to +220°C)
Compression strength	181 psi (1,250 kPa)	181 psi (1,250 kPa)	181 psi (1,250 kPa)	181 psi (1,250 kPa)	355 psi (2,450 kPa)	790 psi (5,447kPa)	790 psi (5,447kPa)	10,100psi (70 MPa)
IP	IP68	IP68	IP69K	IP68	IP68	IP68	IP68	IP68
Dimensions	2.16 x 1.43 x 0.30 in (55x 36.2x 7.5 mm)	2.16 x 1.43 x 0.30 in (55 x 36.2x 7.5 mm)	2.16 x 1.43 x 0.30 in (55x 36.2x 7.5 mm)	1.25 x 0.43 x 0.24 in (32 x 10.8 x 6.0mm)	1.65x 0.59 x 0.09 in (42.0 x 15.0 x 2.1 mm)	0.48 x 0.12 x 0.09 in (12.3 x 3 x 2.2 mm)	ø 0.24 x 0.1 in (ø 6 x 2.5 mm)	ø 0.405 x 0.181 in (ø 10.3 x 4.6mm)
Weight	0.92 oz (26 g)	0.92 oz (26 g)	0.92 oz (26 g)	0.1 oz (3 g)	0.08 oz (2.2 g)	0.016 oz (0.44 g)	0.012 oz (0.34 g)	0.28 oz (8 g)
Suggested applications	Work-In-Process High-Temp Production Automotive Assembly RTI Management	Paint Shop Skids Chemical Pre-Treatments Cataphoresis Coating High-Temp Drying Ovens Powder Coating	Autoclave Sterilization Surgical Trays Medical Devices Healthcare Equipment Chemical Cleaning	Power Tool Tracking Automotive Post-Paint Processes Construction Tools Audio-Video Equipment Rental Fleet Management RTI Management	WIP conveying equipment,post-paint oven baking,High temperature environment	Hand Tools and Equipments Automated Tool Tracking Active FOD Prevention	Hand Tools and Equipments Automated Tool Tracking Active FOD Prevention	Onshore and Offshore pipes Heavy equipment and tools Automotive manufacturing Industrial molds

Product Guide

Embeddable · Global Frequency · High Temp · Autoclavable · User Memory · Long Range

Series	PICO series- small				ROSWELL series - extra strong			
Product	 **Pico On**	 **Pico In**	 **Pico Plus**	 **Nano Plus**	 **Roswell Autoclavable**	 **Roswell**	 **Xplorer Surface**	 **Xplorer Downhole**
Part Number (P/N) User memory version	X3110-US001-U8 (US) X3110-EU001-U8 (EU) X3110-US001-H3 (US) X3110-EU001-H3 (EU)	X3210-US000-U8 (US) X3210-EU000-U8 (EU) X3210-US000-H3 (US) X3210-EU000-H3 (EU)	X3110-US101-H3 (US) X3110-EU101-H3 (EU)	X1120-US101-U8 (US) X1120-EU101-U8 (EU) X1120-US101-H3 (US) X1120-EU101-H3 (EU)	X1114-US143-H3 (US) X1114-EU143-H3 (EU)	X1114-US101-H3 (US) X1114-EU101-H3 (EU)	X1115-US111-H3 (US) X1115-EU111-H3 (EU)	X1115-US101-H3 (US) X1115-EU101-H3 (EU)
Operating frequency	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)
IC type	NXP UCODE8 Alien Higgs-3	NXP UCODE8 Alien Higgs-3	Alien Higgs-3	NXP UCODE8 Alien Higgs-3	Alien Higgs-3	Alien Higgs-3	Alien Higgs-3	Alien Higgs-3
Memory configuration	96 bits TID 128 bits EPC 512 bits User Mem (opt)	96 bits TID 128 bits EPC 512 bits User Mem (opt)	64 bits TID 96/480 bits EPC 512 bits User Memory	96 bits TID 128 bits EPC 512 bits User Mem (opt)	64 bits TID 96/480 bits EPC 512 bits User Memory	64 bits TID 96/480 bits EPC 512 bits User Memory	64 bits TID 96/480 bits EPC 512 bits User Memory	64 bits TID 96/480 bits EPC 512 bits User Memory
Read range on metal (2W EIRP)	Up to 9.8 ft (3 m)	Up to 6.6 ft (2m) when embedded	Up to 9.8 ft (3 m)	Up to 19.7 ft (6 m)	Up to 16.4 ft (5 m)	Up to 16.4 ft (5 m)	Up to 4.9 ft (1.5m) when embedded	Up to 4.9 ft (1.5m) when embedded
Read range off metal (2W EIRP)	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Limited
Case material	Ceramic	Ceramic	Engineered grade nylon polymer/ Ceramic	Engineered grade nylon polymer	Stainless steel	Aluminum	Stainless steel	Stainless steel
Mounting system	High-performance adhesive	Epoxy, embeddable	High-performance adhesive	High-performance adhesive	Welding, cable tie, rivet hole ø 0.19 in (ø 5 mm)	Welding, cable tie, rivet hole ø 0.19 in (ø 5 mm)	Embeddable	Embeddable
Operating temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)
Application temperature	-40°F to +302°F (-40°C to +150°C)	-40°F to +302°F (-40°C to +150°C)	-40°F to +302°F (-40°C to +150°C)	-40°F to +302°F (-40°C to +150°C)	-40°F to +482°F (-40°C to +250°C)	-40°F to +482°F (-40°C to +250°C)	-58°F to +482°F (-50°C to +250°C)	-58°F to +482°F (-50°C to +250°C)
Compression strength	170 psi (1,176 kPa)	Packaging dependent	174 psi (1,200 kPa)	166.8 psi (1,150 kPa)	1,145 psi (7,900 kPa)	115 psi (793 kPa)	< 13,000 psi (89 MPa)	< 13,000 psi (89 MPa)
IP	IP68	IP68	IP68	IP68	IP68, IP69K	IP68	IP68, IP69K	IP68, IP69K
Dimensions	0.5 x 0.28 x 0.12 in (12.8x 7.08 x 3.08 mm)	0.5 x 0.28 x 0.12 in (12.8 x 7.08 x 3.08 mm)	0.70 x 0.43 x 0.2 in (17.7 x 10.9 x 5 mm)	1.25 x 0.51 x 0.20 in (31.7 x 12.8 x 4.8 mm)	1.89 x 1.10 x 0.53 in (48 x 28 x 13.5 mm)	1.89 x 1.10 x 0.53 in (48 x 28 x 13.5 mm)	ø 1.11 x 0.33 in (ø 28.3 x 8.5 mm)	ø 1.11 x 0.33 in (ø 28.3 x 8.5 mm)
Weight	0.05oz (1.4g)	0.05 oz (1.4 g)	0.07 oz (2 g)	0.18 oz (5 g)	1.55 oz (44 g)	0.74 oz (21 g)	0.89 oz (25.4 g)	0.89 oz (25.4 g)
Suggested applications	Manufacturing Hand Tools and Equipments MRO Tool Tracking Military Equipments Tracking Warehouse Automation	Hand Tools and Equipments Oil Wells Equipments MRO Tool Tracking	Manufacturing Hand Tools and Equipments MRO Tool Tracking Military Equipments Tracking Warehouse Automation	MRO Tool Tracking Manufacturing WIP IT Asset Management	Sterilizable surgical trays Medical devices Oil & Gas Valve / Wellhead Management Food Processing Plants Automotive Manufacturing	Sterilizable surgical trays Medical devices Oil & Gas Valve / Wellhead Management Food Processing Plants Automotive Manufacturing	Yard Management for Oil and Gas pipes Pipe maintenance Heavy equipment in Mining Building sites in Construction High-pressure ovens in Manufacturing	Onshore and Offshore Oil Pipes Management Downhole Assets Tracking

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Series	OUTDOOR series - long range				TRAK series - cost effective			
Product	 **Container Outdoor**	 **Cargo Outdoor**	 **RTI Outdoor**	 **Flex Outdoor**	 **Versa Trak**	 **Data Trak II**	 **Global Trak**	 **Slim Trak**
P/N	X0361-US100-R6P (US) X0361-EU100-R6P (EU)	X03A3-US100-M750 (US) X03A3-EU100-M750 (EU)	X0352-US100-R6P (US) X0352-EU100-R6P (EU)	X0370-GL100-H3 (Global)	X0350-GL011-M750 (Global)	X0330-GL011-M750 (Global)	X0340-GL011-M750 (Global)	X0330-GL001-H9 (Global)
Operating frequency	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz (US) 865-868 MHz (EU)	860-960 MHz(Global)	860-960 MHz (Global)	860-960 MHz (Global)	860-960 MHz (Global)	860-960 MHz (Global)
IC type	Impinj Monza R6-P	Impinj M750	Impinj R6-P	Alien Higgs-3	Impinj M750	Impinj M750	Impinj M750	Alien Higgs-9
Memory configuration	48 bits TID 128/96 bits EPC 32/64 bits User Memory	96 bits TID 96 bits EPC 32 bits User Memory	48 bits TID 128/96 bits EPC 32/64 bits User Memory	64 bits TID 96/480 bits EPC 512 bits User Memory	96 bits TID 96 bits EPC 32 bits User Memory	96 bits TID 96 bits EPC 32 bits User Memory	96 bits TID 96 bits EPC 32 bits User Memory	96 bits TID 48 bits EPC 688 bits User Memory
Read range on metal (2W EIRP)	Up to 65.6 ft (20 m)	Up to 39.4 ft (12 m)	Up to 39.4 ft (12 m)	Limited	Up to 29.5 ft (9 m)	Up to 14.8 ft (4.5 m)	Up to 14.8 ft (4.5 m)	Up to 6.6 ft (2 m)
Read range off metal (2W EIRP)	Up to 49.2 ft (15 m)	Up to 19.7 ft (6 m)	Up to 13.1 ft (4 m)	Up to 24.6 ft (7.5 m)	Up to 9.8 ft (3 m)	Up to 6.6 ft (2 m)	Up to 6.6 ft (2 m)	Up to 4.9 ft (1.5 m)
Case material	Industry-Grade Polymer	Industry-Grade Polymer with metal inserts	Industry-Grade Polymer	High-Elasticity Polymer	Industry-Grade Polymer	Polycarbonate	Polycarbonate	Flame-Resistant Glass-Reinforced Epoxy Laminate
Mounting system	Screws, Rivets (ø 1/4" M6), Zip ties, Cable ties, High-performance adhesive (optional)	Screws, Rivets (ø 3.2mm), Zip ties, Cable ties, High-performance adhesive (optional)	Screws, Rivets (ø 0.14 in / 3.5 mm), Zip ties, Cable ties, High-performance adhesive (optional)	Zip ties, Cable ties	High-performance adhesive	High-performance adhesive, Tethering (ø 0.10 in / 2.6 mm)	High-performance adhesive, Tethering (ø 0.10 in / 2.6 mm)	High-performance adhesive, Epoxy (optional)
Operating temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +167°F (-40°C to +75°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to 185°F (-40°C to +85°C)
Application temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +167°F (-40°C to +75°C)	-40°F to +212°F (-40°C to +100°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +302°F (-40°C to +150°C)
Compression strength	29 psi (200 kPa)	29 psi (200 kPa)	26.1 psi (180 kPa)	213psi (1470 kPa)	26.1 psi (180 kPa)	14.5 psi (100 kPa)	14.5 psi (100 kPa)	106 psi (731 kPa)
IP	IP68	IP68	IP68	IP68	IP68	IP54	IP54	IP68
Dimensions	5.46x 4.99 x 0.47 in (138.8 x42 x12 mm)	3.94 x 1.02 x 0.35 in (100 x 26 x 8.9 mm)	2.88 x 0.9 x 0.33 in (73.3 x 22.8 x 8.3 mm)	3.54 x 0.7 x 0.16 in (90 x 18 x 4.0 mm)	1.98 x 0.67 x 0.21 in (50.3 x 17 x 5.3 mm)	1.50 x 0.51 x0.16 in (38 x 13 x 4 mm)	1.50 x 0.51x0.16 in (38 x 13 x 4 mm)	2.22 x 0.234 x 0.051 in (56.5 x 5.95 x 1.3 mm)
Weight	1.45 oz (41 g)	0.68 oz (19.4 g)	0.39 oz (11 g)	0.28 oz (8 g)	0.11 oz (3 g)	0.08 oz (2.4 g)	0.09 oz (2.4 g)	0.035 oz (1 g)
Suggested applications	Yard Management Production Logistics RTI Management Long-Distance Shipping	RTI Management Transportation and Logistics Yard Management Construction Tools	RTI Management Production Logistics Yard Management Long-Distance Shipping	Supply Chain Management Warehouse Automation RTI Management Production Logistics Work-In-Process Inventory Fulfillment and Shipping	RTI Management Pallet Logistics Storage Rack Identification	Datacenters IT Asset Management Work-In-Process Inventory Automated Inventory	Global supply chain Logistics Datacenter servers E-commerce	MRO Tool Tracking IT Asset Management Military Asset & weapon Tracking

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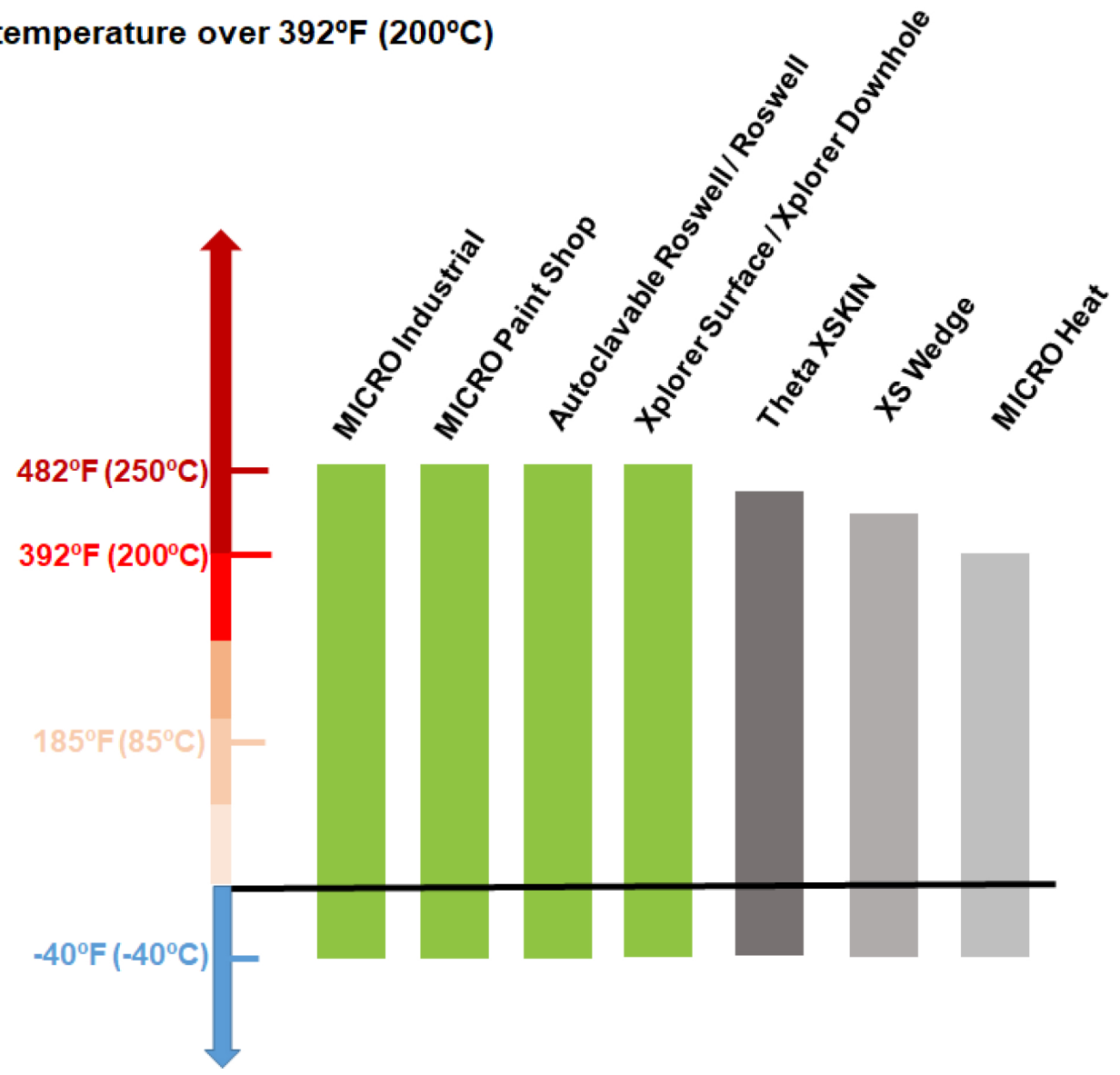
Series	METAL SKIN series - printable labels				XSKIN series - off metal inlays		XENSE series - sensors	XPLATE series
Product	 **Mercury**	 **Delta**	 **Platinum**	 **Titanium**	 **Gamma**	 **Theta**	 **Temp Concrete**	 **XPLATE**
P/N	X51A0-US100-U9 (US) X51A0-EU100-U9 (EU)	X8020-US100-R6P (US) X8020-EU100-R6P (EU)	X50A3-US011-U9 (US) X50A3-EU011-U9 (EU)	X5220-US100-U9 (US) X5220-EU100-U9 (EU)	X6101-GL011-F1 (Global)	X7101-GL100-H3 (Global)	X90A0-US100-AS3211 X90A0-EU100-AS3211	X8001-US100-M750 (aluminum) X8001-EU100-M750 (aluminum) X8002-US100-M750 (stainless steel) X8002-EU100-M750 (stainless steel)
Operating frequency	902-928 MHz (US) 865-868 MHz (EU)	902-928 MHz(US) 865-868 MHz (EU)	902-928 MHz(US) 865-868 MHz (EU)	902-928 MHz(US) 865-868 MHz (EU)	860-960 MHz(Global)	860-960 MHz(Global)	902-928 MHz(US) 865-868 MHz (EU)	902-928 MHz(US) 865-868 MHz (EU)
IC type	NXP UCODE 9	Impinj Monza R6-P	NXP UCODE 9	NXP UCODE 9	Fujitsu MB97R8050	Alien Higgs-3	Asygn AS3211	Impinj M750
Memory configuration	96 bits TID 96 bits EPC	48 bits TID 128/96 bits EPC 32/64 bits User Memory	96 bits TID 96 bits EPC	96 bits TID 96 bits EPC	176 bits TID 160 bits EPC	64 bits TID 96 bits EPC 512 bits User Memory	48 bits TID 192 bits EPC 32 bits User Memory	96 bits TID 96 bits EPC 32 bits User Memory
Read range on metal (2W EIRP)	Up to 26.2 ft (8 m)	Up to 16.4 ft (5 m)	Up to 16.4 ft (5 m)	Up to 8.2 ft (2.5 m)	Limited	Limited	Up to 6.6 ft (2m)	Up to 32.8ft (10 m)
Read range off metal (2W EIRP)	Up to 19.7 ft (6 m)	Limited	Up to 6.6 ft (2 m)	Up to 3.3 ft (1 m)	Up to 9.8 ft (3 m)	Up to 29.5 ft (9 m)	Up to 14.8 ft (4.5 m) in concrete Up to 9.8 ft (3 m)	Up to 19.7 ft (6 m)
Case material	White thermal transfer face stock	White thermal transfer face stock	White thermal transfer face stock	White thermal transfer face stock	White thermal transfer face stock	FPC	Industry-Grade Polymer with metal inserts	Industry-grade polymer Aluminum or stainless steel plate
Mounting system	High-performance adhesive	High-performance adhesive	High-performance adhesive	High-performance adhesive	High-performance adhesive	Embeddable, Injection molding, Compression molding	Casting, Screws, Rivets (ø 3.2mm), Zip ties, Cable ties, High-performance adhesive (optional)	Screw (M3), Pop rivets (Max size 3mm, Metal plate rivets 3.5mm), Welding, Adhesives (optional)
Operating temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +212°F (-40°C to +100°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)
Application temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +446°F (-40°C to +230°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)
Compression strength	92 psi (634 kPa)	355 psi (2450 kPa)	14 psi (97 kPa)	58 psi (400 kPa)	14 psi (97 kPa)	142 psi (980 kPa)	29 psi (200 kPa)	181 psi (1250 kPa)
IP	IP68	IP68	IP68	IP68	IP54	IP68	IP68	IP68
Dimensions	4 x 1.5 x 0.04 in (101.6x 38 x 1.0 mm)	3.15 x 0.87 x 0.04 in (80 x 20 x 1.0 mm)	2.8 x 0.75 x 0.04 in (58.5 x 19 x 1 mm)	1.77 x 0.22 x 0.04 in (45 x 5.6 x 1 mm)	4.0 x 2.0 x 0.008 in (101.6 x 50.8 x 0.2 mm)	2.8 x 0.43 x 0.005 in (71 x 11 x 0.13 mm)	3.94 x 1.02 x 0.35 in (100 x 26 x 8.9 mm)	3.35 x 2.31 x 0.61 in (85 x 59.3 x 15.4 mm)
Weight	Reel:1.98lbs (0.9kg)	Reel: 1.76 lbs (0.8 kg)	Reel: 1.32 lbs (0.6 kg)	Reel: 0.88 lbs (0.4 kg)	Reel: 2.54 lbs (1.15 kg)	0.007 oz (0.2 g)	0.68 oz (19.4 g)	0.42 oz (11.8 g)
Suggested applications	Warehouse Management RTI Management Manufacturing WIP Data Center Automation IT Assets Inventory Medical Supplies	Product authentication Supply chain management Foil-based packaging tracking IT asset management	Industrial Supply Chain RTI Management Warehouse Automation Automated Inventory	Product authentication IT asset and laptop tracking Radio and mobile equipment Foil-based packaging tracking	Healthcare devices and equipment Pharmaceutical & biotech processing equipment Food	Plastics Injection Molding RTI Management Automotive Components Hand Tools and Equipment Portable Power Equipment and Cables	Concrete Curing Infrastructure Monitoring Manufacturing Asset Tracking	Tooling machinery Manufacturing equipment Shipping container Construction equipment Utilities

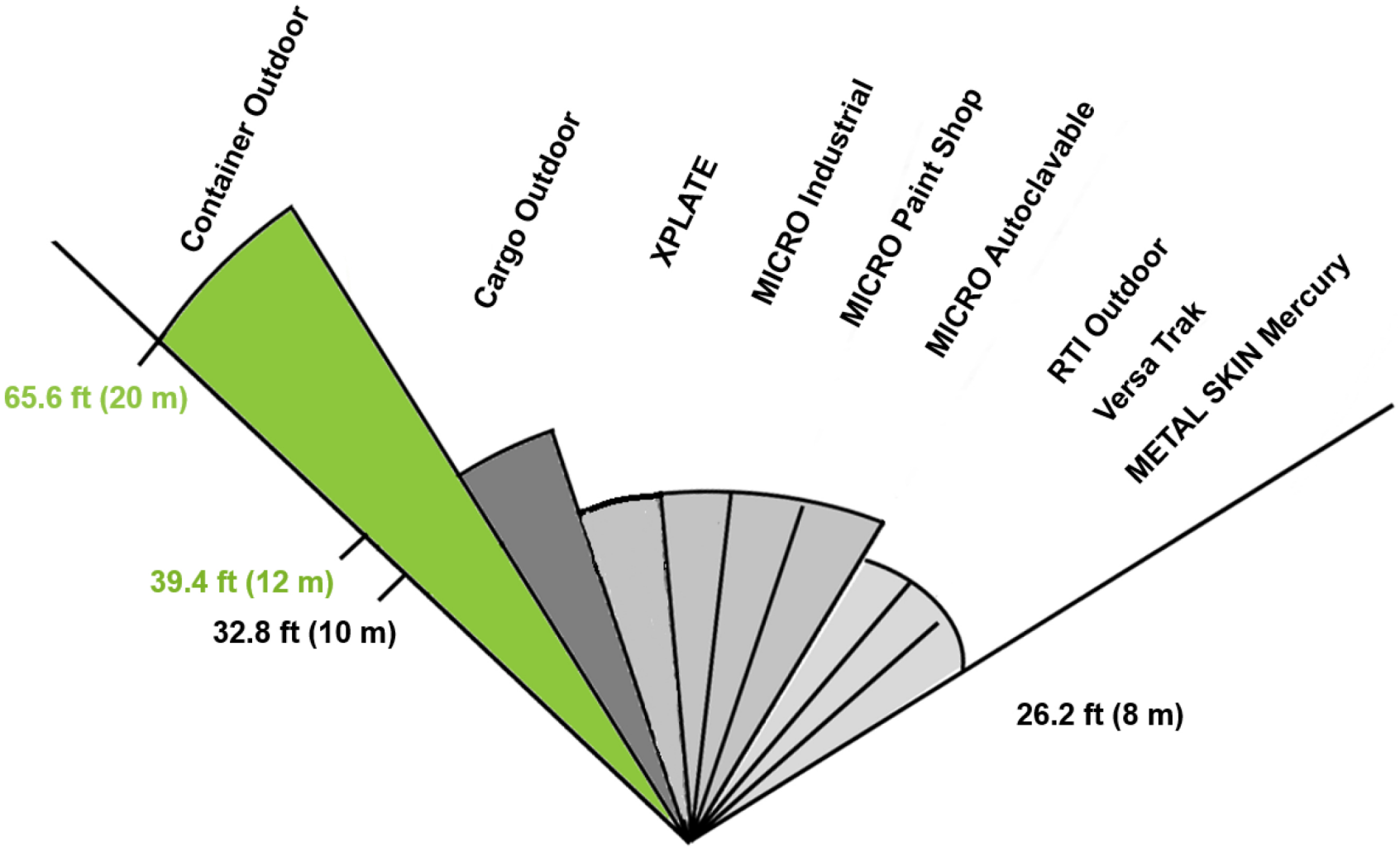
Xerafy High Temperature RFID Tags And Inlay

Application temperature over 392°F (200°C)

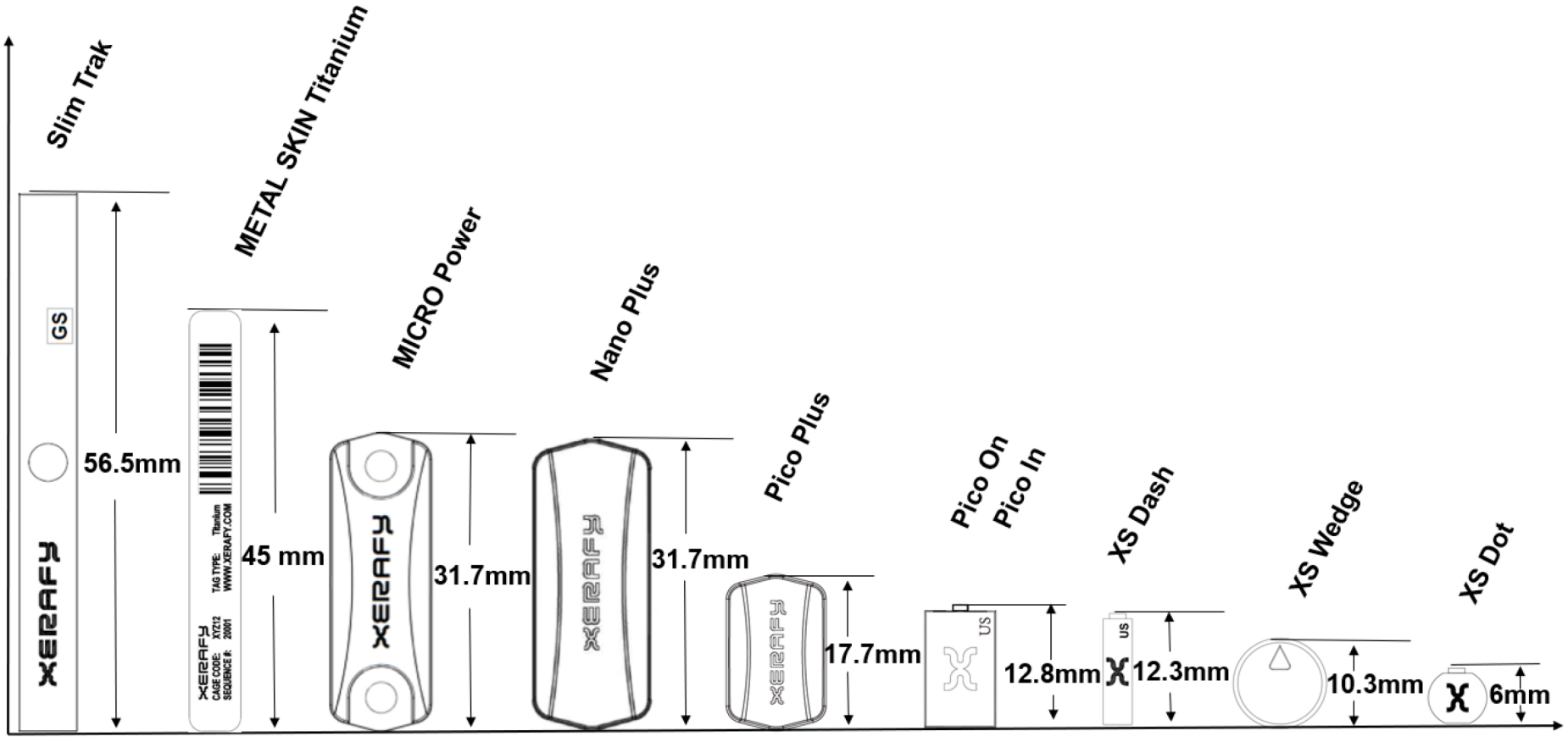


Xerafy Long-Range RFID Tags And Label

Read range is tested on metal with fixed reader (2W ERP)



Xerafy Small Footprint RFID Tags and Labels



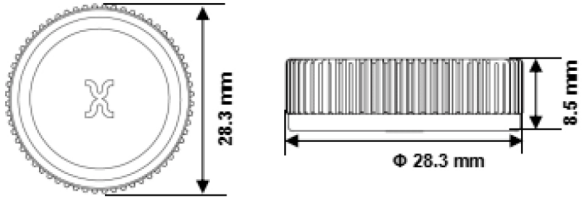
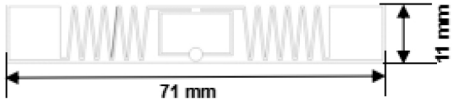
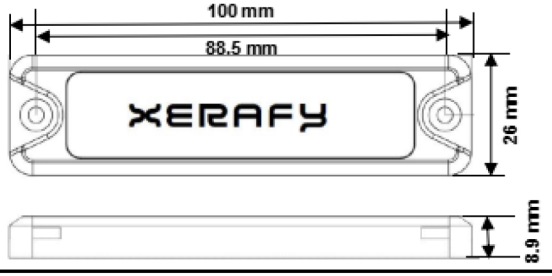
Xerafy High User Memory RFID Tags and Labels

Types of Memory in RFID Tags

1. **RESERVED MEMORY** - This memory bank stores the kill password and the access password (each are 32 bits).
2. **TID MEMORY** - The Tag ID is a serial number that is unique to the chip and cannot be altered.
3. **EPC MEMORY** - The Electronic Product Code can be re-programmed, protected with a password, and also permanently locked.
4. **USER MEMORY** - Some chips offer extended user memory which is typically used when EPC memory is not enough.

High User Memory RFID Tags and Labels

Xerafy Embeddable RFID Tags, Inlays and Sensors

Products		Embedding Recommendations	Embedding Methods	Applicable Materials
XS Wedge		1. Make a plane on the surface (Length ≥ 12 mm * Width ≥ 12 mm). 2. Drilling - Make a flat bottom groove on the metal surface 10 mm * 5 mm). 2. Position - Put ⅔ of the XS Wedge into the groove and adjust the tag's direction according to the object size. 3. Insertion - Drive the remaining ⅓ of the tag into the groove, using a hammer or similar tool.	Flush mounting Seal-in	Metal
Pico In		Click to watch the instruction video.	Flush mounting Seal-in	Metal
Xplorer Downhole Xplorer Surface		Click to watch the instruction video.	Flush mounting Seal-in	Metal
Theta XSKIN		Designed to work with a wide range of thermoplastic resins and to be compatible with a large number of molding processes for temperatures of up to 230°C.	Injection molding Compression molding	Plastics
XENSE Temp Concrete		Fix the tag to the metal rebars using cable ties and embedded in concrete.	Casting	Concrete Rebars Plaster

Xerafy Customizable RFID Tags

Xerafy offers a Custom RFID tag development service drawing on a 10 year-long expertise in RF technology and industrial asset tracking systems.

Xerafy lets you build your RFID System on the company's unparalleled reputation for first-class durable, passive, on-metal tags and labels.

Our Custom RFID Tags co-development approach ensures you start in no time with the support you need at every step of the process:

1. **KEY FEATURES** - Identifying the application environment and the level of performance to be achieved allows for effective validation of the custom design's MVP
2. **FEASIBILITY** - A technical and financial assessment provides the data required to finalize the business case and confirm the expected ROI
3. **PROTOTYPING** - Incremental innovation to achieve the performance required
4. **DEPLOYMENT** - Manufacturing, shipping, and full support throughout

Xerafy Service Bureau

Chose from a full range of customization services available to personalize off-the-shelf RFID tags, labels, inlays, and sensors.

- **Readable** identifications - Serial numbers, text, custom colors, logos
- **Optical** identifications - Barcodes, QR Codes
- **Encoding** - Unique ID numbers, serialized or unserialized, written in the memory of the chip

RFID Labels are specifically designed to be personalized in the field, with the leading Industrial RFID printers from SATO, Zebra, Postek... able to print and encode at the same time, at scale.

Customized physical markings are available with various levels of durability to suit every use case:

- **Painting**
- **Printing**, for labels
- **Laser marking,** for hard tags.

XERAFY

Find Your Tag

Xerafy offers ten series of RAIN RFID UHF passive Tags and Labels and a full range of Custom Design capabilities to power every project.

- MICRO series - high temp
- PICO series - small
- XS series - world smallest
- ROSWELL series - extra strong
- OUTDOOR series - long range
- TRAK series - cost effective
- METAL SKIN series - printable labels
- XSKIN series - off metal inlays
- XENSE series - sensors
- XPLATE series - nameplate

About Xerafy

At Xerafy, we share the vision of the Industrial IoT. With our technology, manufacturers and end-users create smart assets, enabling more efficient business processes and new product capabilities.

Our mission: To push technological boundaries and solve the operational issues holding back Industry 4.0.

How We Got Started

Xerafy was founded by a team of experienced RFID tag developers who got together to solve a universal customer problem in managing small metal assets like hand tools, medical devices, IT equipment, and other supply chain.

Customers wanted tags small enough to embed or attach to their metal assets but rugged enough to survive extreme temperatures, humidity, and rough handling.

The team developed a breakthrough radio frequency antenna design to produce the world's smallest and most rugged mount-on-metal asset tag.

The company decided to name themselves Xerafy to symbolize the smallest tag to verify and quantify assets.
Since then, our technology has been distinguished by EY, Frost & Sullivan, GS1, RFID Journal, AIconics, and Red Herring.

The Company

Xerafy is headquartered in Singapore, and maintains sales and technical support offices in the US, UK and China. Xerafy's wholly owned manufacturing plant in China allows the company to guarantee quality as well as provide unique customization capabilities and cost advantages.