

**PRODUCT COMPARISON CHART**

# RAIN® UHF: 860 MHz to 960 MHz

Global EPC Class-1 Generation-2 (C1 G2) UHF RFID protocol for communications.  
Compliant with ISO/IEC 18000-6C and other standards.



	DISCS										SPECIALTY												
Product Family	Bin Tag	Epoxy Tag	In Tag	Embeddable RFID	Brick Tag	High Temperature Label	InLine Tag Plate	InLine Tag Ultra		Iron Tag			ISO Card	Keg Tag	LinTag	Seal Tag vTamper	Seal Tag vTamper (Black)	Seal Tag edTamper	SlimFlex Tag		TapMark Tag	Inlays & Labels - On Metal	Labels
Sub-family	UHF	UHF	500	Logi Tag 180	Ceramic UHF			Standard /Curve	Mini	176	206	206F	UHF	UHF	200	UHF	89/56/35	UHF	Standard / Mini	Laundry	UHF	UHF	UHF
Description	Screw or embed into standard waste collection bins	Thin, rigid, surface-printable rectangle. Can withstand plastic injection molding	Versatile disc-shaped RFID tags designed to perform in the toughest conditions.	Highly robust near-field UHF coin for embedding. Withstands high temperatures, liquids and impact.	Micro-sized transponders for tracking small metal assets	Impermeable, wafer-thin sheets, resistant to high heat and torsion. Shape customizable	Thin, rigid container tags with large surface to accommodate laser engraving or labels	High performance, general purpose transponders. Mount via glue, screw or weld	Small, robust, general purpose transponders	High-temperature and flame resistant tags. Enable tracking of metal assets in harsh environments			Standard ISO cards, configurable to any application requirements, including multiple frequencies	Curved to fit metal kegs and gas cylinders. Mount via welding	Sewn, hemmed or heat-sealed into linens, withstands rigors of commercial laundry cycles	Flexible units with built-in visually tamper evident cable tie		Digitally tamper evident seals report status via RFID when seal is broken	Flexible, rugged transponders deliver versatile mounting options	Sewn into hem of garments, chemicals and high temperatures of up to 200 washing cycles	Indoor asset tracking on/off metal tag with a multitude of mounting options incl. sticker, cable tie, screw or magnet	Thin, printable self-adhesive labels for on-metal use	UHF inlays and labels in various form factors, material and chip options
Chip type	Higgs 3	Higgs 3	G2IM	Monza R6-P	Higgs 3, Monza R6-P	Monza 4QT	Monza 4E or EM4423 (UHF/NFC)	Monza 4QT	Monza R6	Higgs 3	Monza X		Monza 4QT	Monza 4QT, Monza R6	Monza M5	Higgs 3	Higgs 4	UCODE G2IM+	Higgs 3		Monza R6	UCODE 8, UCODE 7XM	Monza R6/R6-P, Higgs 4, EM4423
EPC   TID	96 bit   64 bit	96 bit   64 bit	256 bit   96 bit	96 bit   48 bit	96 bit   64 bit	128 bit   96 bit	496 bit   96 bit / 1920 bit	128 bit   96 bit	96 bit   48 bit	96 bit   64 bit	128 bit   96 bit		128 bit   96 bit	128 bit   96 bit	128 bit	96 bit   64 bit	128 bit   64 bit	256 bit   96 bit	96 bit   64 bit		96 bit	96 bit	128 bit   96 bit / 1920 bit
User memory up to	512 bit	512 bit	640 bit	64 bit	512 bit	512 bit	N/A	512 bit		512 bit	8192 bit		512 bit	512 bit	N/A	512 bit	128 bit	112 bit	512 bit		N/A	32 bit	64 bit
Reading distance up to	6.5 ft (2 m)	26 ft (8 m)	10 ft (3 m)	10 in (25 cm)	22.9 ft (7.0 m)	26 ft (8 m)	25 ft (7.5 m) / 13 ft (4 m)	26 ft (8 m)	9.8 ft (3 m)	13 ft (4 m)	8 ft (2.5 m)		N/A	29 ft (9 m)	23 ft (7 m)	26 ft (8 m)	32.8 ft (10 m)	6.5 ft (2 m)	26 ft (8 m)	16 ft (5 m)	9.8 ft (3 m)	16 ft (5 m)	46 ft (14 m)
Other frequencies	LF, HF	LF, HF	LF, HF	LF, HF	LF, HF		HF						LF, HF	HF		HF			HF			HF	HF
Dimensions <i>Refer to datasheets for other available sizes</i>	Ø 1.2 x 0.6 in (30 x 15 mm)	3.3 x 1.0 x 0.04 in (83 x 25 x 1 mm)	Ø 1.97 x 0.14 in (Ø 50 x 3.5 mm)	Ø 0.7 x 0.1 in (Ø 18 x 3 mm)	max. 0.4 x 0.2 x 0.12 in (10 x 5.4 x 3.1 mm)	3.1 x 2.0 x 0.02 in (80 x 50 x 0.5 mm)	4.7 x 2.7 x 0.2 in (120 x 68 x 4 mm)	3.8 x 1.0 x 0.6 in (97 x 27 x 15 mm)	2.4 x 0.7 x 0.3 in (60 x 18 x 8 mm)	2.0 x 0.9 x 0.3 in (53 x 23 x 7 mm)	1.3 x 1.2 x 0.24 in (33.7 x 31.1 x 6.1 mm)		3.4 x 2.1 x 0.03 in (85.6 x 53.98 x 0.8 mm)	3.5 x 1.5 x 0.6 in (88 x 37 x 15 mm)	max. 2.5 x 1.1 x 0.04 in (64 x 28 x 1 mm)	3.3 x 1.0 x 0.1 in (85 x 25 x 3 mm); cable tie: 15.0 x 0.2 x 0.1 in (380 x 6 x 2 mm)	3.5 x 2.2 x 1.4 in (89 x 56 x 35 mm); cable tie: 171 x 0.4 x 0.08 in (450 x 9 x 2 mm)	153 x 0.55 x 0.14 in (39 x 14 x 36 mm); cable tie: 307 x 0.55 x 0.14 in (78 x 14 x 36 mm)	max. 3.4 x 1.0 x 0.1 in (87 x 25 x 3 mm)	2.1 x 0.5 x 0.1 in (55 x 12 x 2 mm)	1.5 x 0.5 x 0.2 in (38 x 13 x 4.5 mm)	max. 2.4 x 0.9 x 0.05 in	0.7 x 1.7 in (18 x 43 mm) / 3.6 x 1.1 in (92 x 28 mm)
Mount on metal			Yes		Yes		Yes	Yes			Yes		Yes	Yes		Yes	Yes				Yes	Yes	
Moisture resistance	IP67	IP68, IP69K	IP69K	IP68	IP67	IP68	IP68, IP69K	IP68, IP69K	IP68, IP69K	IP67	IP69K	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP67	IP68	IP67
Food compatible			Yes									Yes											
Operating temperature	-40° to +158° F (-40 to +70° C)	-40° to +185° F (-40 to +85° C)	-4° to +185° F (-20 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)		-40° to +158° F (-40 to +70° C)	-40° to +185° F (-40 to +85° C)	-40° to +185° F (-40 to +85° C)	-40° to +158° F (-40 to +70° C)	-40° to +185° F (-40 to +70° C)	-40° to +158° F (-40 to +70° C)	-40° to +158° F (-40 to +70° C)	-40° to +158° F (-40 to +70° C)	-40° to +158° F (-40 to +70° C)	-4° to +158° F (-20 to +70° C)	-40° to +185° F (-40 to +85° C)
Peak temperature	194° F (90° C)	284° F (140° C)	284° F (140° C)	184° F (140° C)	302° F (150° C)	446° F (230° C)	185° F (85° C)	185° F (85° C)	356° F (180° C)	428° F (220° C)	212° F (100° C)	176° F (80° C)	185° F (85° C)	248° F (120° C)	158° F (70° C)	158° F (70° C)	158° F (70° C)	158° F (70° C)	158° F (70° C)	428° F (220° C)	302° F (150° C)	185° F (85° C)	185° F (85° C)
Flame resistant			Yes			Yes					Yes							Yes					
Standards <i>Compliant with EPC C1 G2, ISO 18000-6C and others listed</i>	DIN 30745		ISO 4892-2 ISO 18000-6C IEC 68.2.6 IEC 68.2.29 UL94-HB	IEC 62262-IK07			IEC 62262-IK06 ISO 17364, ISO 18000-63, ISO 14443A - NFC Tag Type 2	DIN 40050-9 IEC 62262-IK09 to IK07 ISO 17364		ATA Spec 2000 DIN 40050-9 IEC 62262-IK07 GS1 EPC TDS 1.6 SAE AS5678			ISO 10373 ISO 7816-1	IEC 62262-IK08/IK07 ISO 17364	IEC 62262-IK04	IEC 62262-IK06	IEC 62262-IK08	ATA Spec 2000 DIN 40050-9 GS1 EPC TDS 1.6 SAE AS5678		IEC 62262-IK06			



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**A tag for every application**  
HID can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials. You can even embed multiple technologies in a single RFID tag, providing transition paths that connect legacy systems with new roll-outs.  
A comprehensive reference of RFID tag variations can be found at [www.rfid.com](http://www.rfid.com)

PRODUCT COMPARISON CHART

# RAIN® RFID (UHF): 860 MHz to 960 MHz + NFC\*

Global EPC Class-1 Generation-2 (C1 G2), ISO/IEC 18000-6C, NFC and other standards.



	SPECIALTY			
				
Product Family	<a href="#">Keg Tag</a>	<a href="#">InLine Tag Ultra</a>	<a href="#">InLine Tag Plate</a>	<a href="#">Inlays &amp; Labels</a>
Sub-family	UHF / NFC	UHF / NFC	UHF / NFC	White Paper / PET Label   Clear Label / Wet Inlay
Description	Curved to fit metal kegs and gas cylinders. Mount via welding	High performance, general purpose transponders. Mount via glue, screw or weld	Thin, rigid container tags with large surface to accommodate laser engraving or labels	Thin, self-adhesive labels in printable white or clear finish
Chip type	Monza R6-P + ICODE SLIX2		EM4423 (em echo)	
User memory up to	128 bit EPC   96 bit TID + 2560 bit ICODE SLIX2		1920 bit	
Reading distance	32.8 ft (10 m)		13 ft (4 m)	20 ft (6 m)
Dimensions <small>Refer to datasheets for other available sizes</small>	3.5 × 1.4 × 0.6 in (88 × 37 × 15 mm)	3.8 × 1.0 × 0.6 in (97 × 27 × 15 mm)	4.7 × 2.7 × 0.2 in (120 × 68 × 4 mm)	3.1 × 1.8 in (80 × 44.8 mm)
Mount on metal	Yes	Yes	Yes	
Moisture resistance	IP68, IP69K		IP68	IP67
Food compatible				
Operating temperature	-40° to +185° F (-40° to 85° C)			-4° to +158° F (-20° to +70° C)
Peak temperature	185° F (85° C)		185° F (85° C)	257° F (125° C)
Flame resistant				
Standards <small>Compliant with EPC C1 G2, ISO 18000-6C and others listed</small>	IEC 62262- IK08/IK07, ISO 17364, ISO 18000-3, ISO 15693 - NFC Tag Type 5	DIN 40050-9 IEC 62262-IK09 to IK07 ISO 17364, ISO 15693 - NFC Tag Type 5	ISO 18000-63, ISO 14443A - NFC Tag Type 2	ISO 18000-63, ISO 14443A - NFC Tag Type 2

\* To be NFC Forum Tag Type compliant, tags need to be formatted with an NDEF data structure.



## NFC / UHF Combo

RAIN® RFID / NFC combo tags extend the potential applications by combining the best of both worlds. Long-distance logistic applications in the warehouse, and simple user interaction via mobile phone at the consumer / recipient side.

## A tag for every application

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2020-04-06-idx-rfid-il-frequency-uhf-nfc-tags-ct-en  
PLT-05087

PRODUCT COMPARISON CHART

HF: 13.56 MHz / ISO 15693 / NFC\*

Compliant with ISO/IEC 18000-3 and other standards.



	DISCS					EMBEDDABLE					SPECIALTY		
<b>Product Family</b>	<a href="#">Bin Tag</a>	<a href="#">IN Tag™</a>		<a href="#">LogiTag®</a>		<a href="#">Poly Tag™</a>	<a href="#">Brick Tag</a>	<a href="#">Embeddable RFID</a>	<a href="#">Glass Tag</a>		<a href="#">Inlays &amp; Labels</a>	<a href="#">Seal Tag</a>	<a href="#">SlimFlex™ Tag</a>
<b>Sub-family</b>	HF	HF		081/121	161/162	HF	Vigo	Piccolino	Vigo	ICODE	White or Clear	HF	HF 200
<b>Description</b>	Screw or embed into standard waste collection bins	Ruggedized discs for severe industrial environments		Small, thin discs with high chemical and pressure resistance. Optional button format		Extreme-impact resistant discs	Micro-sized transponders for embedding into assets	Tiny, water resistant embeddable RFID disc	Compact embeddable capsules, resistant to long term immersion into water or chemicals		Small, thin, translucent self-adhesive; hide discretely behind print media or inside product packaging.	Visually or electrically tamper evident RFID seals	Flexible, rugged transponders deliver versatile mounting options
<b>Chip type</b>	ICODE SLIX	ICODE SLIX, SLIX2	F-Mem	Vigo, ICODE SLIX	ICODE SLIX2, F-Mem	ICODE SLIX2, TTS, NTAG 216	Vigo	ICODE SLIX2, Vigo, F-Mem	Vigo	ICODE SLIX2	ICODE SLIX2	ICODE SLIX2	
<b>User memory up to</b>	896 bit	896 bit, 2560 bit	8 Kbyte	1024 or 2048 bit, 896 bit	2560 bit, 2 or 8 Kbyte	2560 bit	1024 bit	16 Kbit	1664 bit	2560 bit	2560 bit	2560 bit	
<b>Reading distance up to</b>	Dependent upon reader, environment and application					Dependent upon reader, environment and application					Dependent upon reader, environment and application		
<b>Other frequencies</b>	LF, UHF	LF, UHF		LF		LF	LF, UHF	LF, UHF	LF		UHF		
<b>Dimensions</b> <i>Refer to datasheets for other available sizes</i>	Ø 1.2 x 0.6 in (30 x 15 mm)	Ø 0.8 to 2.2 in (20 to 55 mm) Thickness 0.1 to 0.5 in (3 to 13 mm)		Ø 0.5 x 0.1 in (8/12 x 2 mm)	Ø 0.6 x 0.1 in (16 x 3 mm)	Ø 1.34 x 0.31 in (Ø 34 x 8 mm)	0.4 x 0.1 x 0.1 in (10 x 3.0 x 2.6 mm)	Ø 0.23 - 0.37 in (6 - 9.5 mm)	Ø 0.1 x 0.5 in (Ø 2 x 12 mm)	Ø 0.2 x 0.9 in (Ø 4 x 22 mm)	18x57 mm	3.3 x 1.0 x 0.1 in (85 x 25 x 3 mm); cable tie 15.0 x 0.2 x 0.1 in (380 x 6 x 2 mm)	max. 3.4 x 1.0 x 0.1 in (87 x 25 x 3 mm) (6 mm on metal)
<b>Mount on metal</b>		Yes		Yes								Some models	
<b>Moisture resistance</b>	IP67	IP68, IP69K		IP68		IP67		IP67	IP68		IP67	IP68	
<b>Food compatible</b>		Yes							Yes				
<b>Operating temperature</b>	-40° to +158° F (-40 to +70° C)	-4° to +185° F (-20 to +85° C)		-40° to +194° F (-40 to +90° C)	-13° to 185° F (-25° to +85° C)	-13° to +185° F (-25° to +85° C)	-13° to +158° F (-25° to +70° C)	-40° to +185° F (-40° to 85° C)	-13° to +185° F (-25° to +85° C)		-4° to +158° F (-20° to +70° C)	-40° to +158° F (-40 to +70° C)	
<b>Peak temperature</b>	194° F (90° C)	284° F (140° C)		194° F (90° C)	248° F (120° C)	266° F (130° C)			284° F (140° C)		257° F (125° C)	212° F (100° C)	
<b>Flame resistant</b>		Yes							Yes				
<b>Standards</b> <i>Compliant with ISO 18000-3 and others listed</i>	DIN 30745 ISO 15693 NFC Tag Type 5	ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007 ISO 15693 NFC Tag Type 5		ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007 ISO 15693 NFC Tag Type 5		ISO 15693 NFC Tag Type 5, 4, 2 (depending on chip)	ISO 15693 NFC Tag Type 5	ISO 15693 NFC Tag Type 5	ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007 ISO 15693 NFC Tag Type 5		ISO/IEC 15693 NFC Tag Type 5	ISO 15693 NFC Tag Type 5	

\* To be NFC Forum Tag Type compliant, tags need to be formatted with an NDEF data structure.



## A tag for every application

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2020-04-06-ift-rfid-il-frequency-hf-tags-ct-en PLT-02388

**PRODUCT COMPARISON CHART**

HF: 13.56 MHz / ISO 14443 / NFC\*

Compliant with ISO/IEC 14443A and other standards.

	DISCS		EMBEDDABLE				SPECIALTY			
<b>Product Family</b>	<a href="#">Embeddable RFID</a>	<a href="#">Poly Tag™</a>	<a href="#">Inlays &amp; Labels</a>		<a href="#">Inlays &amp; Labels - On Metal</a>	<a href="#">InLine Tag® Plate</a>	<a href="#">Seal Tag</a>	<a href="#">Epoxy Keyfob</a>	<a href="#">ISO Card</a>	<a href="#">Secure Mobile Device Sticker</a>
<b>Sub-family</b>	Clear Disc	HF	White paper / PET Label	Clear Label / Wet Inlay	OM Label	Asset Tag	eTamper Coin		MIFARE	
<b>Description</b>	Transparent coating resists chemical exposure, shock, vibration and thermal fluctuations	Rugged disc for outdoor applications and other harsh environments. Optimal Trusted Tag® Services enabled.	Custom-imprintable labels to integrate digital touch points onto physical media	Small, thin, translucent self-adhesive; hide discretely behind print media or inside product packaging.	Thin, printable self-adhesive labels for on-metal use	Small on-metal asset tags utilizing HID Trusted Tag® Services for authentic "proof of presence". Printable or clear housing options.	Self destructing when removed, eTamper Coin TTS adds a non-replicable identity to each interaction - ideal for "proof of presence" applications.	Customer-friendly form keeps credentials at hand; withstands rigors of daily transport in pockets or purses	Standard dimension cards enable access control, cashless payment and related applications	Printable ISO card with detachable sticker that adheres to mobile phones or metal objects for NFC applications
<b>Chip type</b>	MIFARE DESFire EV1/EV2	NTAG 216, HID Trusted Tag	NTAG 213	NTAG 213, HID Trusted Tag	NTAG 213	HID Trusted Tag	MIFARE DESFire EV1/EV2, HID Trusted Tag	MIFARE EV1 1K, HID Trusted Tag	MIFARE DESFire EV1/EV2, HID Trusted Tag	MIFARE DESFire EV1
<b>User memory up to</b>	4 KB	888 byte, 8KB	144 byte	144 byte, 8KB	144 byte	8 KB				4K
<b>Reading distance up to</b>	Near tap		Near tap		Near tap	Near tap				
<b>Other frequencies</b>	LF				UHF			LF	LF, UHF	
<b>Dimensions</b> <i>Refer to datasheets for other available sizes</i>	Ø 0.98 in (25 mm)	Ø 1.34 x 0.31 in (Ø 34 x 8 mm)	Ø 0.86 in (22 mm), Ø 0.9 in (23 mm) or Ø 1.6 in (40 mm)		max. 2.4 x 0.9 x 0.05 in (60 x 24 x 1.2 mm)	"1.2 x 2.5 x 0.12 in (30 x 65 x 3.5 mm)"	Ø 1.5 in (39 mm)	1.2 x 1.8 x 0.06 in (30 x 45 x 1.6 mm)	3.4 x 2.1 x 0.03 in (85.6 x 54 x 0.76 mm)	ISO card 3.4 x 2.1 x 0.03 in (85.6 x 54 x 0.84 mm); sticker 1.9 x 1.0 in (48 x 25 mm)
<b>Mount on metal</b>		Yes			Yes	Yes	Yes	Yes		Yes
<b>Moisture resistance</b>	IP67	IP69K, IP68	IP67		IP68	IP68		IP67	IP68	IP68
<b>Food compatible</b>										
<b>Operating temperature</b>	-4° to +140° F (-20° to +60° C)	-13° to +185° F (-25° to +85° C)	-4° to +158° F (-20° to +70° C)		-4° to +158° F (-20° to +70° C)	-40° to +185° F (-40° to +85° C)	-13° to +158° F (-25° to +70° C)	-13° to +176° F (-25° to +80° C)	-31° to +122° F (-35° to +50° C)	-31° to +122° F (-35° to +50° C)
<b>Peak temperature</b>	194° F (90° C)	266° F (130° C)	257° F (125° C)		185°F (85°C)			284° F (140° C)	176° F (80° C)	176° F (80° C)
<b>Flame resistant</b>										
<b>Standards</b> <i>Compliant with ISO 18000-3, ISO 14443A and others listed</i>	NFC Tag Type 4	NFC Tag Type 2 (NTAG 216) NFC Tag Type 4 (Trusted Tag)	NFC Tag Type 2 (NTAG 213) NFC Tag Type 4 (Trusted Tag)		NFC Tag Type 2 (NTAG 213)	NFC Tag Type 4			NFC Tag Type 4 ISO 10373 ISO 7816-1	NFC Tag Type 4

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2020-04-06-1dt-rfid-ii-frequency-nfc-tags-ct-en  
PLT-02389

HID can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials. A comprehensive reference of RFID tag variations can be found at [www.rfid.com](http://www.rfid.com) and [www.lux-ident.com/hf-nfc-inlays-product-range](http://www.lux-ident.com/hf-nfc-inlays-product-range)

**Enhanced security potential with HID Trusted Tag® Services**

Tags equipped with HID Trusted Tag integrated chips are uniquely programmed to enhance security and efficiency when deployed with HID Trusted Tag® Services. Our cloud-based NFC authentication platform adds unique identities to everyday objects enabling more secure, efficient transactions. Simply tap an embedded or attached HID Trusted Tag with any NFC device. Trusted Tag Services deliver a frictionless authentication experience for "proof-of-presence" applications, including time-and-attendance, brand protection, promotional marketing and Internet of Things programs.





PRODUCT COMPARISON CHART

LF: 125 or 134.2 kHz

	DISCS									EMBEDDABLE				
<b>Product Family</b>	<a href="#">Bin Tag</a>	<a href="#">Epoxy Tag</a>	<a href="#">IN Tag™</a>	<a href="#">identiFUEL™ Vehicle Tags</a>	<a href="#">LogiTag®</a>		<a href="#">Poly Tag™</a>	<a href="#">Volcano Tag</a>	<a href="#">World Tag®</a>	<a href="#">Brick Tag</a>	<a href="#">Embeddable RFID</a>	<a href="#">Glass Tag</a>	<a href="#">Nail Tag</a>	<a href="#">Plug Tag</a>
<b>Sub-family</b>	LF	LF	LF		120	160	LF			HDX, Nova	LF	LF		
<b>Description</b>	Screw or embed into standard waste collection bins	Thin, rigid, discs can withstand plastic injection molding	Ruggedized discs for severe industrial environments	Small, tamper proof tags for unique identification of vehicles towards Fuel Management Systems (FMS)	Small, thin discs with high chemical and pressure resistance		Extreme-impact resistant discs	For high temperature environments	Cost-effective, general use indoor asset tags	Micro-sized transponders for embedding into assets	Ring and rod shaped chips and antennas for customized enclosures	Compact capsules, resistant to long term immersion. Embeddable into metal or plastic	Glass-fiber nails pound into wood and pallets	Plastic inserts for permanent mounting to waste and other containers
<b>Chip type</b>	Unique; FDX-b BDE; HDX BDE	HITAG S; Unique	HITAG S; Unique	HITAG S	HITAG S; Q5; Unique	Unique	HITAG S; Unique	Q5; Unique	HITAG S; Q5; Titan; Unique	HDX, Nova	EM4305, HDX, HITAG-S, Q5, Unique	EM4305, HDX, HITAG-S, Q5, Unique	Unique	Unique; FDX-b
<b>User memory up to</b>	128 bit	2048 bit	2048 bit	256 bit	2048 bit	64 bit	2048 bit	264 bit	2048 bit	160 bit	2048 bit	2048 bit	64 bit	128 bit
<b>Reading distance up to</b>	Dependent upon reader, environment and application									Dependent upon reader, environment and application				
<b>Other frequencies</b>	HF, UHF	UHF	HF, UHF		HF		HF			HF, UHF	HF, UHF	HF		
<b>Dimensions</b> <i>Refer to datasheets for other available sizes</i>	Ø 1.2 x 0.6 in (30 x 15 mm)	Ø 0.8 or 1.18 x 0.04 in (20 or 30 x 1 mm)	Ø 0.8 to 2.0 in (20 to 50 mm); thickness 0.1 in (3 mm)	0.98 x 1.0 x 0.44 in (25 x 25.8 x 11.2 mm)	Ø 0.5 x 0.1 in (12 x 2 mm)	Ø 0.6 x 0.1 in (16 x 3 mm)	Ø 1.34 x 0.31 in (Ø 34 x 8 mm)	Ø 1.0 x 0.2 in (26 x 4 mm)	Ø 0.8 to 2.0 in (20 to 50 mm); thickness 0.1 in (2 mm)	0.5 x 0.2 x 0.1 in (12 x 6 x 3 mm)	Multiple	Ø 0.06 to 0.2 in (1.4 to 4 mm); length 0.3 to 0.9 in (8 to 23 mm)	Ø 0.16 x 1.40 in (4 x 35.5 mm)	Ø 0.35 x 0.75 in (9 x 19 mm); cap Ø 0.6 in (15 mm)
<b>Mount on metal</b>	Yes									Yes				
<b>Moisture resistance</b>	IP67	IP67	IP68, IP69K	IP67	IP68		IP67	IP68		IP68	Customize to meet requirements	IP68	IP67	IP68
<b>Food compatible</b>			Yes											
<b>Operating temperature</b>	-40° to +158° F (-40 to +70° C)	-40° to +185° F (-40° to +85° C)	-40° to +194° F (-40° to +90° C)	-13° to +140° F (-25° to +60° C)	-13° to 185° F (-25° to +85° C)		-13° to +185° F (-25° to +85° C)	-13° to +185° F (-25° to +85° C)	-13° to +158° F (-25° to +70° C)	-40° to +194° F (-40° to +90° C)	Customize to meet requirements	-40° to +185° F (-40° to +85° C)	-13° to +185° F (-25° to +85° C)	-13° to +185° F (-25° to +85° C)
<b>Peak temperature</b>	194° F (90° C)	284° F (140° C)	284° F (140° C)		320° F (160° C)		266° F (130° C)	392° F (+200° C)	212° F (100° C)	284° F (140° C)			284° F (140° C)	
<b>Flame resistant</b>			Yes									Yes		
<b>Standards</b> <i>Compliant with standards and others listed</i>	DIN 30745 EN 14803		ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007	ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007	ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007							ATEX EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007		EN 14803

**A tag for every application**

HID can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials. You can even embed multiple technologies in a single RFID tag, providing transition paths that connect legacy systems with new roll-outs.

A comprehensive reference of RFID tag variations can be found at [www.rfid.com](http://www.rfid.com)



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PRODUCT COMPARISON CHART

# BLE: Bluetooth Smart - 2.4 GHz

	BEACONS						GATEWAYS		
<b>Product Family</b>	BEEKs™						BluFi™		
<b>Sub-family</b>	Plus	Lite	CM v2/Industrial	Mini / Mini Tamper	Badge	Duress Badge	AC (US/EU/UK/AU)	DC (Battery)	DC (Plenum)
<b>Description</b>	BLE beacon without sensors to be used for Proximity Marketing, way-finding and/or real-time location (RTLS).		Rugged BLE condition monitoring beacon with embedded sensors to measure temperature and vibration of motorized equipment in manufacturing, coolers, escalators etc.	Tiny BLE beacon with or without tamper evidence functionality that raises an alert when beacon is removed. Supports real-time location (RTLS).	Beacon badge that can be optionally combined with passive RFID card credentials for access control. Typically used for workplace optimization or emergency mustering.	BLE badge holder, into which a horizontally printed (RFID) ISO card can be inserted. Includes call button on the back that can raise an alert in the Bluzone console when in vicinity of a connected BluFi.	BluFi acts as gateway between BLE beacons and existing WiFi networks to enable cloud based remote management, location and beacon data collection. This model plugs into any standard A/C outlet and features an omnidirectional antenna.	BluFi acts as gateway between BLE beacons and existing WiFi networks to enable cloud based remote management, location and beacon data collection. This model features a rechargeable battery and directional antenna. Optional outdoor housing with solar panel available.	BluFi DC Plenum is a flame resistant, low-voltage DC powered version that is designed to be installed on walls, ceilings or in the plenum, with an optional mounting kit.
<b>Radio Type</b>	Bluetooth Low Energy 4.1, 2.4 GHz ISM						Bluetooth Low Energy 4.1, Wifi 802.11 b/g/n		
<b>Bluetooth Sensitivity</b>	-97dBm						-98dBm		
<b>Processor Type</b>	ARM Cortex M3 and ARM Cortex M0						ARM Cortex M4 and ARM Cortex M3		
<b>Memory</b>	55KB Flash (512 KB optional)						256KB Flash (100KB free for custom applications)		
<b>Protocols</b>	Eddystone, iBeacon, sBeacon						Eddystone, iBeacon, sBeacon, WiFi		
<b>Power *</b>	Up to 8 year battery life	Up to 5 year battery life	Up to 3 year battery life	Up to 2 year battery life	Up to 4 year battery life		100-240 VAC, 50/60 Hz	USB charger, up to 24h battery life	N/A
<b>Dimensions</b>	2.41 x 1.46 in (61.3 x 37.2 mm)	2.36 x 0.85 in (60 x 21 mm)		1.3 x 0.3 in (34.2 x 8.35 x 2.5 mm)	2.14 x 3.39 x 0.10 in (54 x 86 mm)	2.5 in x 3.5 in x 0.19 in (64 mm x 89 mm x 5 mm)	2 x 1.5 x 1.5 in (50 x 38 x 38 mm)	3.4 X 3.2 X 1.2 in (86.1 X 82.2 X 31.8 mm)	
<b>Affixation</b>	3M VHB adhesive sticker		Epoxy glue	3M VHB adhesive sticker with metal foil	Clip		A/C power plug	Micro USB	USB Type A
<b>Weight</b>	2.7 oz (76 g)	1 oz (28 g)	1.39 oz (37 g)	0.24 oz (7 g)	0.5 oz (14 g)	0.85 oz (24 g)	1.7 oz (48 g)	9.3 oz (264 gr)	4.13 oz (117 g)
<b>Water resistance</b>	IP67						IP67		
<b>Operating temperature</b>	-22° to +170° F (-30° to +77° C)		-13° F to +185° F (-25° C to +85° C)	-13° to +170° F (-25° to +77° C)	-4° to +170° F (-20° to +77° C)		-13° to +149° F (-25° to +65° C)	-4° to +158° F (-20° to +70° C)	
<b>Withstands Exposure To</b>	Water and UV Resistant						Water, Flame UL-2043		
<b>Compliant with</b>	FCC / CE		FCC / CE / JRF / IC		FCC / CE		FCC/CE/UL/FRE; BLE; Wifi 2.4 GHz	FCC/CE; BLE; Wifi 2.4 GHz	

## Advanced BLE Beacons with sensor technology and multi-protocol support

BEEKs™ Bluetooth Low-Energy (BLE) beacons are among the most advanced beacons in the industry. Being fully Apple iBeacon and Google Eddystone compatible, BEEKs beacons may be used for any standard beacon application that provides location based promotional services to smartphone users. When combined with HID Global's end-to-end IoT Services ecosystem, that includes BluFi™ BLE to WiFi gateways and the Bluzone™ cloud services, BEEKs can be centrally managed through the cloud to transfer messages, firmware updates and status information remotely. Their unique design allows BEEKs to broadcast reliably even in densely populated WiFi environments.

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\*Battery life is dependent on device configuration, such as broadcast power and transmission rate. This estimate is based upon typical beacon configuration and use-cases. This estimate is subject to increase or decrease based on specific usage needs.



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