



RFID TRANSPONDER

World TAG

Intelligent solutions
for process automation
and logistics



Overview

World Tag is a family of passive contactless transponders that communicates with a reader via radio frequency. World Tags are available with different features and memory sizes to meet your application requirements.

World Tag transponders have been designed for all applications which require an optimum **price/performance ratio** for a variety of industrial and logistical uses. World Tags are available in 3 sizes (Ø 20, 30 & 50mm) to allow for optimum ratio of size/reading performance requested by the application. Compared to other identification technologies such as barcode, radio frequency identification (RFID) has the following advantages:

- No line of sight required
- Read/Write feature
- Several tags read at the same time (anticollision feature)

Applications

- Pallets, kegs, containers tracking
- Process control and automation
- Waste management
- Identification of tools, boxes...



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IC features

	Frequency	Coding Type Read Mode	Data Rate (Kbaud)	Unique ID number (UID)	Read/Write Memory	User Memory	Security	Anticollision	ISO Compliance	Key points
Unique	125KHz	Manchester	2	40 bits			UID & database	no	Defacto Standard	Laser ROM In use since >14 years
Q5	125KHz	Manchester Biphase PSK, FSK, NRZ	1 to 62	64 bits	330 bits	224 bits	Password mode, Write protection area	Answer On Request Mode	11784/785	Multi-purpose chip
Titan	125KHz	Manchester	2 or 4	2 x 32 bits	1024 bits	928 bits	32 bit password, Read/Write protection area	no		Selectable protection area
Hitag s	125KHz	Manchester	2, 4 or 8	32 bits	2048 bits	1984 bits	24 bit password, 48 bit secret key	yes	anticollision coding ISO 18000-2	256 or 32 bits on request

World Tag with other ICs, please contact SOKYMAT

Transponder Specifications

	World Tag 20mm	World Tag 30mm	World Tag 50mm
Diameter	20 +/- 0.2 mm	30 +/- 0.2 mm	50 +/- 0.2 mm
Center hole	-	3.2mm	4.2mm
Thickness	2.15 +/- 0.25mm	2.15 +/- 0.25mm	2.15 +/- 0.25mm
Weight	0.8g	1.9g	5.2g
Material	Polycarbonate	Polycarbonate	Polycarbonate
Color	Black	Black	Black
Operating temperature	-25°C to + 75°C	-25°C to + 75°C	-25°C to + 75°C
Storage temperature	-40°C to + 90°C	-40°C to + 90°C	-40°C to + 90°C
Peak temperature	130°C 100h	130°C 100h	100°C 100h
Chemical resistance	Unleaded gasoline, petroleum, oil, water	Unleaded gasoline, petroleum, oil, water	Unleaded gasoline, petroleum, oil, water
Mechanical resistance	300N radial, 500N axial	300N radial, 500N axial	100N radial, 500N axial
Shock & Vibration resistance	IEC 68-2-6 / 29	IEC 68-2-6 / 29	IEC 68-2-6 / 29
Available ICs	Unique, Q5, Hitag S, Titan	Unique, Q5, Hitag S, Titan	Unique, Q5, Hitag S, Titan



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SOKYMAT

Industry & Logistics

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