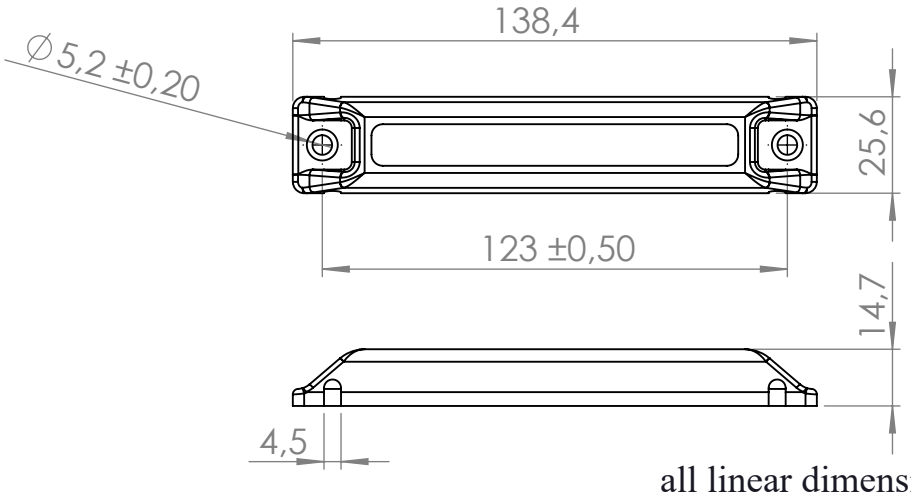
RFID-tag for metal object identification
ISBC Tags Reflect42UHF



all linear dimensions are in millimeters

Technical specification

Electronic

Table 1

Chip code (***)	Chip	Memory type			AES-128 (cryptographic)	Reading distance */** (m)
		EPC	TID	USER		
1	NXP UCODE 8	up to 128bit	96bit	-	-	27-30/42
2	NXP UCODE 8m	up to 96bit	96bit	32bit	-	27-30/42
3	NXP UCODE DNA	224bit	96bit	up to 3kbit	+	25-27/40
4	NXP UCODE City	224bit	96bit	1kbit	+	25-27/40
5	NXP UCODE Track	448bit	96bit	256bit	+	25-27/40
6	NXP UCODE 7xm(2k)	up to 448bit	96bit	2kbit	-	25-27/40

Reading distance (on metal surface):

*** Theoretical distance of stable reading,** measured on *Voyantic Tagformance Pro* in anechoic chamber
1W measure station with antenna 8.5dBi ;

**** Experimental distance of stable reading**, *2W ERP (tests with RFID reader FEIG Electronic LRU1002 UHF EU with 9dBi antenna).*

Pay attention. Reading distance depends of many factors, including type of material of surface and its linear sizes.

Anti-collision: yes;

Air interface protocol: EPC Global Class1 Gen2 ISO 18000-6C;

Physical and personalization options

Housing material: polypropylene;

Size: 138,4 x 25,6 x 14,7 mm.

Weight: 33 gr.

Mounting method:
- by screws (holes 5.2 mm dia);
- with glue/adhesive;
- clamp;

Personalization by customer request:
- electronical encoding;
- laser engraving and/or durable inkjet logo;
- database uploading;

Chemical and mechanical parameters

Case protection:
IP69K - high protection against dust and moisture, additional protection against high temperature and jets of high pressure water;

Chemical and climatic resistance:

- high resistance to UV radiation;
- high resistance to acids, alcohol, vegetable and mineral oils, petroleum;
- housing material retains its characteristics at high temperatures, in conditions of high humidity, when impacted to salt mist;
- environmental stress crack resistance;

Thermal parameters

Storage: from -55°C to +125°C;

Operating:
- from -25°C to +85°C - stable reading distance;
- from -35°C to +125°C - still work, but the reading distance could be reduced.
To be sure, please test in your application conditions;

Extremal operating tests:
- heating up to +100°C, boiling about 10 minutes;
- ice frosting on -35°C climatic chamber (days).

Lifetime: 20 years in case of normal usage.

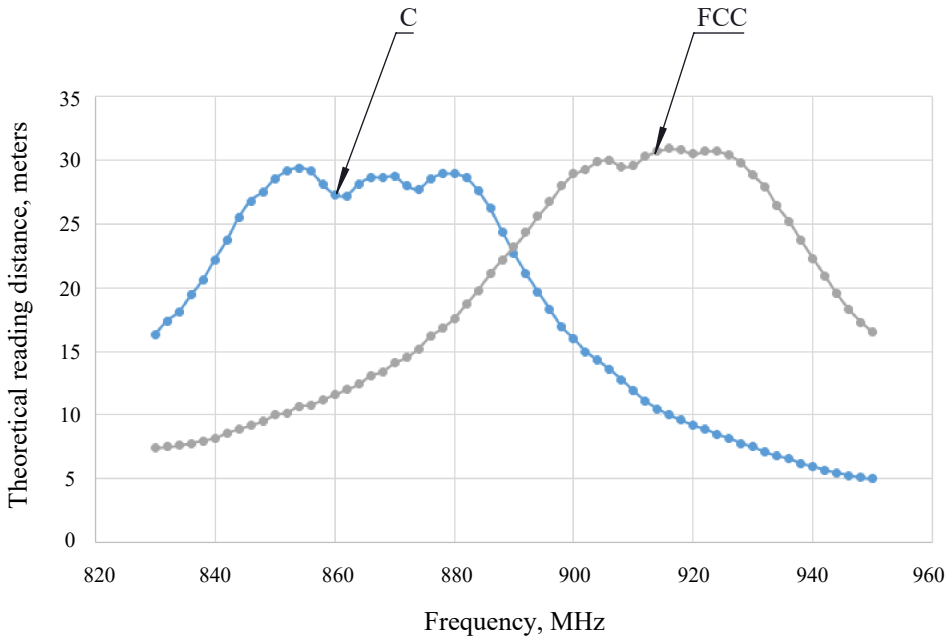
ISBC Tags Reflect designation structure

ISBC Tags Reflect42 v.X.X.X.X (i)

- internal index (it may be missing);
- chip code in table 1;
- type of tuning:
  - **C** (by defolt without designation), tuning for Europe;
  - **F** for FCC compatible tuning;
- design number (used for internal purposes of the company);

Example: ISBC Tags Reflect42 v.2.1.C.6(i)

Graphs of theoretical reading distance depending on the type of tuning for 1W of radiating power of antenna*.



*measured on Voyantic Tagformance Pro for UCODE8 and UCODE8m chips