ACTIVE RFID FRAME SPECIFICATION

1. CONCERNED PRODUCTS

The **PUCK** format differs from the **COIN** format in that it offers **increased transmission power without reducing the autonomy**. In addition, the RHT (humidity + temperature) sensor is only available in PUCK format.

PRODUCTS	REFERENCES
SLIM ID	IDF0348X
COIN ID	IDF1034X
WATCH ID	IDP2735X
THINLINE IR	IDP0231X
PUCK ID	IDF2573X
PUCK T	IDF2574X
COIN T	IDF1044X
PUCK RHT	IDF2572X
PUCK MOV	IDF2562X
COIN MOV	IDF1062X
PUCK MAG	IDF2564X
COIN MAG	IDF1064X
ITEM TD	IDF1075X
COIN LUX	IDF0943X

2. FRAME SPECIFICATION

Here's how the information from each tag or sensor is encoded for 24-bit frames:

2.1 ID

[NNXXXXXXLL]

- NN : Reception level
- XXXXXX : Tag ID number
- LL : Receiver ID number
- Low Bat alert : **2**XXXXX

2.2 SLIM ID

The frame is the same as for the ID, there is in addition a tear-off alert :

- Low Bat alert : **2**XXXXX
- Tear-off alert: **1**XXXXX
- Low Bat + Tear-off alert : 3XXXXX

2.3 MOV

[NNXXXFFFLL]

- NN : Reception level
- XXX : Tag ID number
- FFF : Sensor information: acceleration or corner crossing. Refer to the MOV user's guide for more details. (In Low bat, value is : XXX**7FF**)
- LL : Receiver ID number

2.4 MAG

[NNXXXPPPLL]

- NN : Reception level
- XXX : Tag ID number
- PPP : Sensor information: Presence of the magnet + counter (XXX**7FF** for Low Bat alert)
- LL : Receiver ID number

2.5 LUX

[NNXXXYZZLL]

- NN : Reception level
- XXX : Tag ID number
- YZZ : Sensor information: Lightness (In Low bat, value is : XXX**7FF**)
- Y : result exponent (EXP)
- ZZ : mantissa of the result (MAN)
- Lightness (in lux) = (MAN) x 0.16 x 2^{EXP}
- LL : Receiver ID number

2.6 T

[NNXXXTTTLL]

- NN : Reception level
- XXX : Tag ID number
- TTT : Sensor information: Temperature. (In Low bat, value is XXX**7FF**)
- LL : Receiver ID number

2.7 RHT

[NNXXXHHHLL]

- NN : Reception level
- XXX : Tag ID number
- 8XXTTT: temperature information (In Low bat, value is XXX**7FF**)
- 9XXHHH: Relative humidity information (In Low bat, value is : XXX**FFF**)
- LL : Receiver ID number

It is possible to configure tags and sensors in 32-bit format. The ID will include two additional quarters.