Baby Tag Instruction Manual and Spec-Sheet

FCC Compliance

The FCC Wants You to Know

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

  a) Reorient or relocate the receiving antenna.
  b) Increase the separation between the equipment and receiver.
  c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
  d) Consult the dealer or an experienced radio/TV technician.

FCC Warning

Modifications not expressly approved by manufacturer could void the user authority to operate the equipment under FCC rules.

IR and RF Baby Tag

P/N: BKB00001 (433.92 MHz)

Baby Tag

Description

A small tag, attachable to a baby's ankle, capable of transmitting Infra Red signals in addition to RF signals in the frequency of 433.92 MHz. The tag is used for security monitoring (abduction and mismatch prevention) of infants whereabouts in real time, in hospitals' Maternity Wards. The tag sends a unique message when the ankle band has been tampered with and disconnected.

Recommended use is with the ELPAS BabyWatch system.

General

Electrical power source	One 3-Volt lithium battery
Battery type	CR 2032 Renata
Transmission rate	A. Every 1.6 seconds, when the tag is in normal operation mode - i.e. affixed to a baby. (IR is transmitted on every 3rd RF transmission, and RF is transmitted 200ms after IR). B. Every 60 seconds (RF), when the tag is not affixed to a baby, and is motionless. C. Every 4 seconds (200 ms apart), when the tag is not affixed to a baby, but is in motion. D. Four times every 0.4 seconds, immediately after tampering, or after affixing to baby (B2 indicates that the band is either on or off). Then, as either B or C, depending on mode of operation.
Battery life	In regular use, battery life will be approximately three months, based on a combination of A,B,C: A. Six weeks when the tag is affixed to a baby. B. Over three years when the tag is not affixed to a baby and is motionless. C. Six weeks when the tag is not affixed to a baby, but the tag is in constant motion.
LED indicator on badge	Activated with every RF and IR message
Tag ID	Unique factory-programmed (ID code, transmit rate, motion sensor activation and deactivation, etc.)
Data rate	19,200 bits per second
Message protocol	4 bytes proprietary format
Message duration	2.08 ms
Dimensions	39.4 x 31.5 x 14.8 mm
Tag re-usability	After each use, the baby tag needs to be cleaned and prepared for next use using the Baby Tag disposable kit's contents. The tag can be re-used up to 100 times (this is solely because of connector restrictions).

Tag's Disposable components	• Light green snap-on cover • Disposable band • White connector • Assembly set • Insulator • Sticker
Weight (when assembled)	20 gram
Temperature: Operating	-10 to 70°C
Temperature: Storage	-20 to 60°C
Water resistance	Waterproof
Accessories	Baby Tag Disposable Kit P/N BKB09001

IR Transmission

Peak optical transmitted power	500mW
Peak transmission wavelength	880nm
Peak radiant intensity	120 mW/Sr
Frequency of transmission	Carrier at 455 KHz
Transmission angle	360° badge plane. ±60° to badge perpendicular axis

RF Transmission

	433.92 MHz RF
Modulation	ASK (Amplitude Shift Keying of 433.92 MHz carrier)
Average effective radiated power	In motion: less than –35 dbm. Motionless: less than –45 dbm
Stability	+/- 20ppm
Peak ERP	-15 dbm (max)
Transmission pattern	Omnidirectional
FCC compliance	FCC Part 15.231 Level C
I-ETS	EE 300 220-1

Using the Baby Tag

The following is a set of procedures to ensure proper use of the Baby Tag.

To use the Baby Tag:

1. Place the Baby Tag band around the baby's ankle.

2. Gently pull at both loose ends of wire until the strap is well wrapped (but not tightened) around the baby's ankle.

3. Hold the Baby Tag using two fingers of one hand, ensuring that the activating set, comprising of the thumbscrew and hook, is held straight.

4. Close the thumbscrew.

5. Rotate the thumbscrew in a counterclockwise direction, as if closing a water tap, until the lamp on the wall is switched on displaying a green light.

6. Cut excess loose wires.

7. Open the thumbscrew slightly and remove the activating set.

8. Align the wire in the loop on the back of the tag, and snap the tag's over onto the tag.