Tag

Product Code: W-TG501 / W-TG501 MS
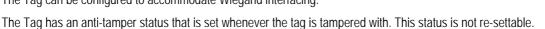
Description: Personnel Tag

An internal battery powers the Wavetrend W-series of Active Tags. The Personnel Tag will, for the duration of its life, transmit a Radio Frequency (RF) signal at a pre-set time-interval. The Tag life is estimated at 5 years at a transmission time interval of approximately 1.5 seconds. The lifespan of the Tag ends when the battery life is exhausted. Battery status can be inferred by interrogating the internal Tag Age Counter Value.

The transmitted Tag data could include optional Customer Site Code (CSC), Tag ID, Tag Age Counter Value, Movement Alarm and Tamper Alarm status, Tamper logged status, etc.

For protection against adverse environmental conditions, Wavetrend Tags are encapsulated in a moulded ABS plastic case, which is ultrasonically sealed during the manufacturing process.

The Tag can be configured to accommodate Wiegand interfacing.

The Tag has an anti-tamper status that is set whenever the tag is tampered with. This status is not re-settable.

The Tag has an auto wake function. When it is secured with the anti-tamper kit it will automatically 'wake-up' after 5 minutes and start transmitting its pre-configured data.

The Tag is generally used for personnel tagging, although it may be used in other applications such as asset monitoring. The mounting and affixing of a Tag depends on the type of application. Wavetrend Tags can be mounted on a variety of items. Where permanent fixing is required VHB double-sided tape is used (Product number L-TA200), otherwise, the tags may be worn on a necklace or clipped to clothing.

Features

- Configurable settings, including Site / Vendor ID, Tag ID, Transmission Repetition Interval and Alarm functions (these are programmed at order placement stage).
- Low power consumption. Tag life is estimated at 5 years when transmitting at a 1.5 second interval.
- Housing incorporates a clip-slot for convenient wearing.
- A Collision avoidance algorithm is used to disperse the transmissions around the mean repetition interval.

Specifications

Environmental

Operational temperature	-10º C to +60º C
Storage temperature	-20º C to +70º C
Humidity	5% to 90% (non condensing)

Physical

Size	86 mm x 54 mm x 5 mm (Slimline Enclosure)
Weight	15 grams
Colour	Black
Type of material	ABS (ultrasonically sealed) IP 65

RF Specifications

T_x Frequency	433 Mhz
Field strength	< 1600 µV/m
Modulation	ASK
Stability	Saw Stabilised

Electrical Specifications

Power	Internally powered Lithium Battery

Certification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference and

2. This device must accept any interference received, including interference that may cause undesired operation.

The following standards applied in accordance with Article 5 of the directive, 1999/5/EC:

EN 300 220-1 V1.2.1 (1997-11)

ETS 300 683 (1997-03).

Summary of tests

Effective radiated power	25MHz - 4GHz
Range of modulation bandwidth for wideband equipment	
Frequency stability under low voltage conditions	
EN55022	Radiated emissions 30MHz – 1GHz
EN61000-4-3	Radiated immunity 80MHz – 1GHz, excl 433 MHz $\pm$ 20MHz
EN61000-4-2	Electrostatic discharge
RTCA/DO-160C sec 21 cat Z	Aircraft safety specification

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