

# HuneTec

## ReFlex™ Radio

# PT100

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HuneTec Co., Ltd

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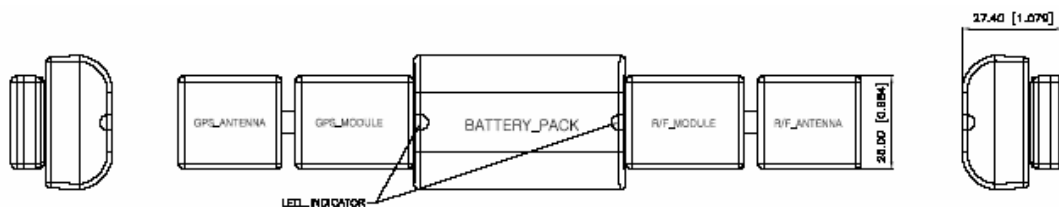
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## 1. OVERVIEW

The purpose of this project is to invent a new generation of a mobile tracking device for pets. A H/W structure of the new device will be similar to a typical pet collar so that pets can wear it comfortably. More importantly, the new pet collar device provides a location-based service over the ReFLEX network and also run more than 6 months without recharging a battery.

## 2. BRIEF DESCRIPTION

There are two key points for a new device that can be differentiated from existing pet collar devices. Unlike other competitors' products, a new device will consist of several modules that fit into a customized pet collar. Another competitive advantage is to maximize its battery lifetime and to reduce airtime fees by using a ReFLEX protocol.



## 3. MAIN FEATURES

- ReFlex 2.7.4 Full Support
- SiRF 3 GPS Module
- AA battery
- Weight: estimate 120 g
- Size: 7.171 inch \* 0.905 inch \* 0.095 inch

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## RF Specifications:

## 1. Receiver

Item	Specification
Frequency	929~932MHz, 935~942MHz
Channel Spacing	12.5KHz / 10KHz
Bit Rate	1600~6400bps
Signaling Modulation	2 or 4 Level FSK
Frequency Deviation	800Hz and 2400Hz
Receiver Sensitivity	20uV/M with 80 char(TBD)
Frequency Accuracy	1ppm
Adjacent Channel Rejection	> 50dB from Sensitivity to -80dBm > 40dB at -70dB Signal Level > 30dB at -60dB Signal Level
Co-Channel Rejection	< 15dB at -105dBm < 10dB at -102dBm < 6dB at -95dBm
Spurious Response Rejection	> 55dB at -105dBm
Image Rejection	> 55dB at -105dBm
Inter-Modulation Distortion Rejection	> 50dB from Sensitivity to -80dBm > 40dB at -70dB Signal Level > 30dB at -60dB Signal Level
Simulcast Delay Spread Tolerance	> 1/4 symbol width at -105dBm and 15dB C/I > 1/4 Symbol width at -102dBm and 10dB C/I > 1/4 Symbol width at -55dBm and 6dB C/I

## 2. Transmitter

Item	Specification
Frequency Range	896~902MHz
Channel Spacing	12.5KHz/10KHz
Bit Rate	800~9600bps
Signaling Modulation	4Level FSK
Frequency Deviation	800Hz and 2400Hz
Frequency Accuracy	-2.5ppm < X < 2.5ppm
Frequency Stability	-1.0ppm < X < 1.0ppm
Output Power	0.75W into Antenna
ERP	0.2W minimum over 8 positions
Spurious Emission In-Band/Out-Band	< -50dB
Occupied Bandwidth	8.5KHz

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