

Operational Description

This device is the transmitter portion of the tracking system which is designed for security / remote monitoring of asset and product. By receiving the signal from the transmitter, this system can monitor the tracking object. The condition that will activate this transmitter is described as following:

1. Power on. When the battery is put on this transmitter, an one second no modulation signal and then a 6 codes ($70\text{ms} * 6 = 420\text{ ms}$) signal will be transmitted once for checking the system.
2. Start up. When the switch on the back (adhesive side) of the transmitter is pressed more than 5 seconds, a 6 codes ($70\text{ms} * 6 = 420\text{ ms}$) signal will be transmitted once.
3. Vibrated or moved. When the tracking object is moved, the transmitter attached to the object is also moved. This action will activate the transmitter. A 3 codes ($70\text{ms} * 3 = 210\text{ ms}$) signal will be transmitted. If the motion continues, the transmitter will continue to send the 3 codes signal with a time interval of 10 seconds. In this condition the transmitting time is 210 ms and the silent period is 10 seconds which is longer than $210\text{ ms} * 30 = 6.3\text{ s}$. So it complies with the requirement of section 15.231(e) of FCC rules.
4. Standby mode. After the transmitter is started up, it is in standby mode. In standby mode the 3 codes ($70\text{ms} * 3 = 210\text{ ms}$) signal will be transmitted in every 15 minutes. This also complies with the requirement of section 15.231(e) of FCC rules.
5. Emergency mode. When the switch is off (usually when the transmitter is separated from the attached object) the 3 codes ($70\text{ms} * 3 = 210\text{ ms}$) signal with a time interval of 10 seconds will be transmitted 5 times. Then this transmitter will not transmit until been started up again. Following the calculation above, this also complies with the requirement of section 15.231(e) of FCC rules.
6. External activation. When the voltage change (5.5 Vdc to 0 Vdc) is detected from the “mini-phone” plug, a 3 codes signal is transmitted.

IMTS/ATS Normal
Transmission Code
Format

