

# Remote Monitoring System for Tiltmeter

## i-SENSOR<sup>2</sup> Tilt



MODEL-4781

i-SENSOR<sup>2</sup> Tilt

MODEL-4782

i-SENSOR<sup>2</sup> Tilt-node

### < Abstract >

i-SENSOR2 (intelligent-SENSOR2) Tilt is consisted of a tilt sensor, a data logger, a transmission module and a wireless-link. Monitoring data is aggregated from sub [Tilt-node] to main [Tilt] and the aggregated data is transferred to customers using GSM/GPRS.

Splash-proof housing and lithium batteries / C cell batteries are adopted and a storage box is not necessary. Installation work becomes easier and it leads to saving cost by reducing work load and time.

This has a warning alert function and a self-judgment function and it is available to prepare /develop an early warning system for preventing natural disasters.

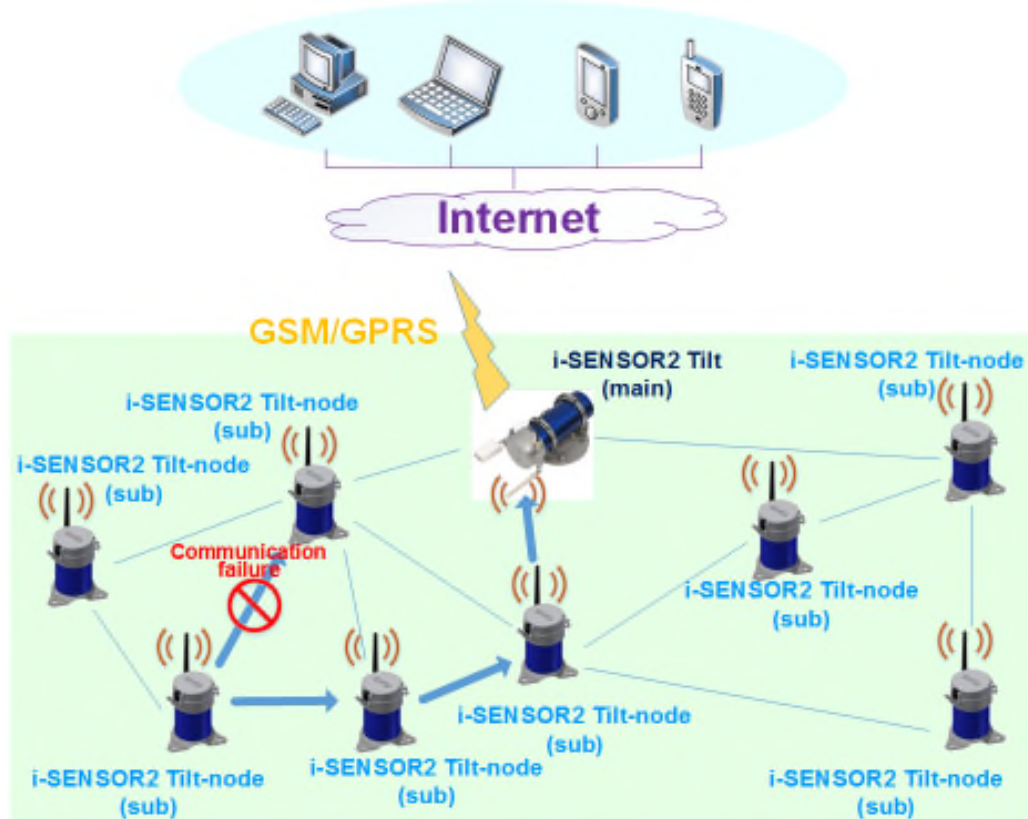
### < Features >

- 2 axes (X axis, Y axis) of tilt sensor are contained.
- It is available high-resolution monitoring (resolution: 0.001°).
- 1 main [Tilt] can be connected up to 10 subs [Tilt-node].
- Wireless-link is correctly synchronized time and sent/received data with requisite minimum time leads to low power consumption.
- Mesh type wireless-link which is a redundant pathway function is adopted to avoid missing data.
- Measurement and data transmission interval are automatically changeable by setting threshold on the self-judgment functions.

## < Specification >

- Tilt Sensor
  - Measurement direction : 2 axes (X axis, Y axis)
  - Measurement range : +/-10°
  - Display resolution : 0.001°
  - Accuracy : +/- 0.5 % FS  
(+/- 0.05° at 25°C)
- Communication (mobile phone communication) [Tilt]
  - Packet Communication : GSM/GPRS
  - Time & position : GPS
- Wireless-link [Tilt], [Tilt-node]
  - Wireless-link : 2.4 GHz, Smart Mesh IP
  - Connectable number of wireless-link : Up to 10 units
  - Distance of link : max. 150 m  
(Line-of-sight distance in case of 2 m height of antenna)
- Interface
  - USB : USB2.0 × 1 port  
(For conversion port between USB and RS232C)
  - Memory card : SD-card, SDHC-card
  - Communication card : SIM-card (GSM/GPRS)
- Data Logger
  - Data storage capacity : approx. 28,000 data
- Housing
  - Protection grade : Splash-proof
- Outer Dimension
  - Outer size [Tilt] : φ85 × 220 mm  
(Excluding projections)
  - [Tilt-node] : φ85 × 125 mm  
(Excluding projections)
  - Weight [Tilt] : approx. 2 kg  
(Excluding internal battery)
  - [Tilt-node] : approx. 1 kg  
(Excluding internal battery)

[Image of Configuration: communication & wireless-link path]



Color, design and specifications are subject to change without notice

**OYO**  
oyo corporation



JQA-2772

- Instruments & Solutions Division  
43 Miyukigaoka, Tsukuba, Ibaraki, 305-0841 Japan  
Phone: +81-(0)298-51-5078, Fax: +81-(0)298-51-7290  
e-mail: seihin@oyo.jp

- Head Office  
7 Kanda-Mitoshiro-cho, Chiyoda-Ku, Tokyo 101-8486, JAPAN  
Phone: +81-3-5577-4501, Fax: +81-3-5577-4567

■ Your representative

