

Product Brief

Smart Landside Warning & Monitoring System

LoRaWAN Surface Tiltmeter Sensor

Model: LAS-F01

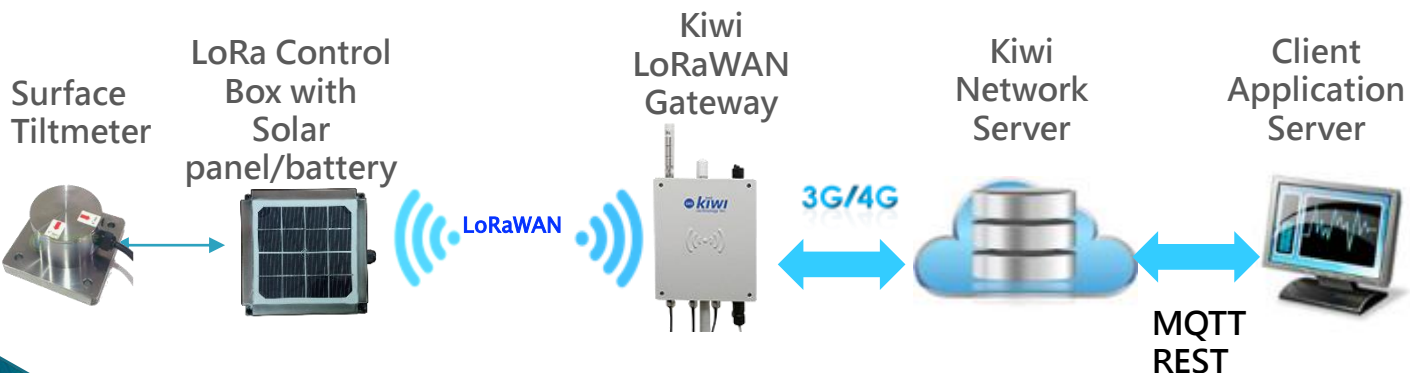
Ver.: 2.1



For disaster prevention solution, LAS-F01 LoRaWAN surface tiltmeter is a detection sensor which has installed on the falling stone net that can be sensed for collision times. It is for a landside warning & monitoring application. This sensor has great sensitivity to monitor rockfall and landslide. With LoRaWAN wireless module, this surface tiltmeter sensor status will be sent to the network server via LoRa gateway. In general, this rockfall and landslide warning monitoring system has been established as a total solution to do disaster prevention.

FEATURES

- Integrate Lora Wireless transmission, data capture , Solar and battery power energy
- LoRa Frequency Range: Kiwi TLM922S module, 862~932MHz (Japan, Taiwan, Thailand, Indonesia)
- Able to connect to LED warning systems and in a real-time monitoring
- Applicable for rockfall and landslide areas
- Maintenance Free & Easy Installation
- Solar panel and embedded battery Power



SYSTEM

LoRa	Kiwi TLM922-S module (FCC, TELEC, LoRaWAN AS923 certificate) Frequency : 862~ 932MHz RF output : 2~ 20 dBm Sensitivity : -138 dBm
LoRa Transmit RF power	-2 ~ +20dBm
Transmission Range (LOS)	10Km (Max.) * depends on situation
Surface Tiltmeter	Dual Axis tilt sensor, X and Y
LoRa Antennas	3dBi, outdoor application, IP67, fiberglass
Solar	5V, 2.5W
Battery	3.3v, 3200mAH

SURFACE TILTMETER TECHNICAL SPEC

Tilt Sensor	Dual Axis, X and Y
Full Scale	± 15 degree
Accuracy	± 0.0065 degree
Resolution	0.0013 degree
Ingress Protection	IP66
Operating Temperature	-25°C ~ +85°C
Power Consumption	0.36W@24VDC

CONTROL BOX POWER SYSTEM

Input Voltage Range	Type	3.3V LiFePO4 3200mAH
	Voltage range	3.0 ~ 3.6V
Battery life	5 min sample interval	Up to 2 month (1 x 3.3V 3200mAH LiFePO4 Battery)
External power charge	USB	5V
	Solar power	5V, 2.5W
Control Box IP rating	IP65	

SYSTEM ENVIRONMENT

Operating temperature	-25°C ~ +75°C
Storage Temperature	-30°C ~ +75°C

