

TILT SENSOR

Battery or Green Power (option)



KEY INDICATORS



Tilt Range

-90°~90°



Accuracy

0.1°/0.01°/0.001°



Directions

1-axis/2-axis
3-axis(option)



Architecture

Real-time Monitoring
Plan A+B backup system



System Talk

4G/NB-IoT
/LoRA



Lifespans

5-10 years

OVERVIEW

The H310-TS180C is an industrial-grade tilt measurement smart terminal that integrates wireless communication technology with military-grade MEMS sensors, engineered to deliver uncompromising accuracy and reliability in extreme operational environments. Its robust architecture ensures continuous structural integrity monitoring under dynamic physical stress, vibration, and temperature fluctuations.

FEATURES

Cloud

Supports public cloud and custom cloud services

Green

Ultra low power consumption, battery life for over 10 years under standard operating conditions

IP68 / IP66

Ensuring stable and reliable performance even in the harshest industrial environments

NFC

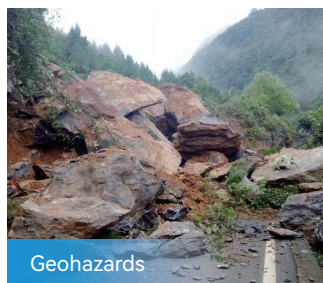
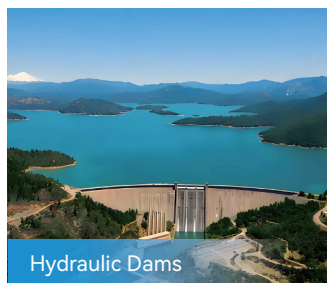
Using innovative NFC technology for power on/off and operation and maintenance configuration

OTA

The cloud platform enables one-click, remote, firmware updates for devices, ensuring all devices run the latest version to enhance system stability

Innovation

Its Ultra low-power design and consistent long-term operation make it an ideal component in IoT solutions



Item Numbers		Description
Physical Characteristic	Network Standard	LTE Cat.1 GSM Version (Excluding Japan and Korea)
	Power Supply	Battery-Powered 19000mAH (38000mAH option)
	Consumption	Sleep Mode: 25uW
	Battery Life	10Year+ (10Min interval, Hourly Reporting)
	SIM card	"Type1: Standard IoT SIM Card Type2: Embedded SIM (eSIM option) "
	Antenna	Built-in
	Size	115*90*60
	Installation	Flexible installation options: Wall, Pole, or DIN rail mounting.
Frequency Band	FDD-LTE	B1/ B2/ B3/ B4/ B5/ B7/ B8/ B12/ B13/ B18/ B19/ B20/ B25/ B26/ B28/ B66
	TDD-LTE	B34 / B38 / B39 / B40 / B41
Speed Rating	FDD-LTE	Downlink Rate: 10Mbps, Uplink Rate: 5Mbps
	TDD-LTE	Downlink Rate: 8.96Mbps, Uplink Rate: 3.1Mbps
Power Rating	FDD-LTE	+23dBm (Power Class3)
	TDD-LTE	+23dBm (Power Class3)
Tilt Sensor	Range	-90° ~ 90°
	Accuracy	0.1° / 0.01° / 0.001°
	Resolution	0.01° / 0.001° / 0.0005°
	Type	MEMS

Item Numbers		Description
Waterproof Rating	Metal Physical Body Protection	IP68
	Plastics Physical Body Protection	IP66
Reliability	Electrostatic discharge immunity	Contact discharge: 6KV, Air discharge: 8KV
	Surge immunity	Differential mode: 1KV, Common mode: 2KV
	Fast Transient Burst	Power supply circuit: 2KV
Environmental Range	Operating temperature	-40°C~+85°C
	Operating humidity	5%~95% (Non-condensing)
	Storage temperature	-40°C~+85°C
Certificated CCC,CE, FCC,RoHS	Safety	EN IEC 62368-1:2020+A11:2020
	Health	EN IEC 62311:2020
	EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-52 V1.2.1(2021-11)
	Radio	ETSI EN 301 908-1 V15.2.1 (2023-01) ETSI EN 301 908-13 V13.2.1 (2022-02)
	Frequency Range	FDD Band1: 1920-1980 MHz(TX), 2110-2170 MHz FDD Band3: 1710-1785 MHz(TX),1805-1880 MHz FDD Band8: 880-915 MHz(TX),925-960 MHz TDD Band40: 2300-2400 MHz(TX)(RX)
	Maximum Output Power	FDD Band1: 22.89dBm Max. FDD Band3: 23.23dBm Max. FDD Band8:24.02dBm Max. TDD Band40: 22.24dBm Max.
	Modulation	QPSK, 16QAM



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