Hitelecom®

TILT SENSOR

Triaxial | High Precision

H310-TS380C



KEY INDICATORS

Tilt Range	Accuracy	Directions	Architecture	System Talk	Lifespans
Per-axis range* By configuration	±0.01°	X / Y / Z Three-axis	1-min sampling 4-hour reporting	4G / NB-IoT / LoRa	10 years*

OVERVIEW

The H310-TS380C is a high-precision triaxial tilt sensor with ±0.01° accuracy for monitoring local inclination of structural members, rack uprights, poles and equipment frames. It acquires readings every minute and reports every four hours. Record the installation reference and axis orientation so subsequent readings can be compared at the same mounting point.

FEATURES

Cloud
Hitelecom Cloud or a compatible customer platform; select the supported data interface.

Green
1-min acquisition, 4-hour reports. 10-year reference profile at 25°C with normal signal.*

IP68 / IP66
Metal IP68 / plastic IP66 enclosure options. Select protection for the installation conditions.

NFC
NFC activation and local configuration support installation and device commissioning.

OTA
Remote firmware updates on supported versions; confirm the supplied device configuration.

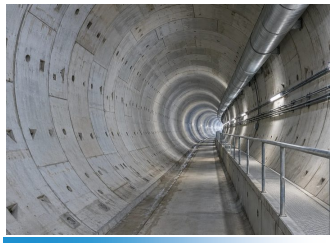
Innovation
Three-axis sensing with defined angle outputs, axis convention and an installation reference.

APPLICATIONS


Warehouse racking

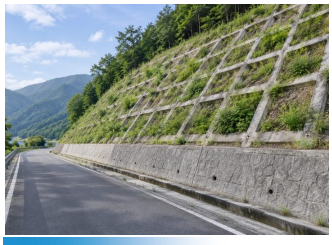

Bridge members


Railway structures


Tunnel linings


Transmission towers


Dams & reservoirs


Slopes

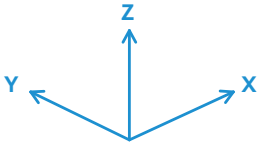

Heritage structures

Item Numbers		Description
Physical Characteristic	Network Standard	LTE Cat.1 (4G); NB-IoT / LoRa by selected variant
	Power Supply	Battery: 19000 mAh (38000 mAh option)
	Consumption	Sleep mode: 25 uW (platform reference)
	Battery Life	10 years*: 1-min acquisition; 4-hour reporting
	SIM card	Standard IoT SIM; embedded SIM (eSIM option)
	Antenna	By supplied radio / enclosure configuration
	Size	115 x 90 x 60 mm (platform body reference)
	Installation	Wall, pole or DIN-rail mounting, by selected kit
Frequency Band	FDD-LTE	B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66*
	TDD-LTE	B34 / B38 / B39 / B40 / B41*
Speed Rating	FDD-LTE	Downlink: 10 Mbps; uplink: 5 Mbps (4G reference)
	TDD-LTE	Downlink: 8.96 Mbps; uplink: 3.1 Mbps (reference)
Power Rating	FDD-LTE	+23 dBm (Power Class 3, 4G reference)
	TDD-LTE	+23 dBm (Power Class 3, 4G reference)
Tilt Sensor	Range	Working range specified per axis / configuration*
	Accuracy	±0.01° (grade; test conditions by configuration)*
	Resolution	Reported increment specified per axis*
	Type	MEMS; three-axis sensing (X / Y / Z)

SPECIFICATIONS

Item Numbers		Description
Waterproof Rating	Metal Physical Body Protection	IP68 (metal enclosure)
	Plastics Physical Body Protection	IP66 (plastic enclosure)
Reliability	Electrostatic discharge immunity	Contact discharge: 6 kV; air discharge: 8 kV
	Surge immunity	Differential mode: 1 kV; common mode: 2 kV
	Fast Transient Burst	Power supply circuit: 2 kV
Environmental Range	Operating temperature	-40°C to +85°C
	Operating humidity	5% to 95% RH (non-condensing)
	Storage temperature	-40°C to +85°C
Certification References 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 B1: 1920-1980 TX; 2110-2170 RX MHz FDD B3: 1710-1785 TX; 1805-1880 RX MHz FDD B8: 880-915 TX; 925-960 RX MHz TDD B40: 2300-2400 MHz TX / RX
	Maximum Output Power	FDD B1: 22.89 dBm max. FDD B3: 23.23 dBm max. FDD B8: 24.02 dBm max. TDD B40: 22.24 dBm max.
	Modulation	QPSK, 16QAM

Sensing axes*



Schematic only

X/Y/Z identify sensing axes. Angle definitions and reference orientation follow the supplied protocol. Gravity-referenced inclination does not independently determine yaw.

Specify per-axis range, resolution and accuracy conditions for the ordered configuration.

10-year reference: 1-minute acquisition, 4-hour reporting, 25°C, normal signal. Actual life varies with enabled functions, event frequency and radio retries.

CE completed for H200/H300/H500 platform. Confirm certificate applicability and other compliance references for the supplied configuration.

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