Temperature Transmitter

OVERVIEW:

The Dragino LTC1/LTC2 series Temperature Transmitter is designed to monitor temperature for different environment. It supports to read PT100 probe and convert the value to temperature and uplink to IoT server via LoRaWAN, NB-IoT, LTE-M, or LTE CAT-1 networks.

LTC1 series supports one temperature monitoring channel. Press the button to immediately sample and upload the data packet.
LTC2 series supports a maximum of 2 temperature monitoring channels.

The device supports configurable temperature alarms, allowing users to receive instant notifications when readings exceed predefined thresholds.

With built-in BLE configuration and wireless OTA firmware updates, the LTC1/LTC2 is simple to set up and maintain.

To support various deployment scenarios, the LTC1/LTC2 offers multiple power options — including 8,500 mAh or 19,000 mAh high-capacity non-rechargeable battery, 1,000 mAh rechargeable Li-ion battery, as well as a solar-powered version with a rechargeable Li-ion battery for long-term, maintenance-free operation.



Features:

- PT100 Temperature Converter
- Max: 1 x monitor temperature channels, press the button to immediately take a sample and upload a data packet. (For LTC1 Series)
- Max: 2 x monitor temperature channels (For LTC2 Series)
- Support 3-wire PT-100
- Temperature alarm
- Datalog Feature

Applications:



Food Safety



Laboratory



Cold Chain



Industrial Equipment

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Temperature Transmitter -- Probe Option

DR-SI -- Standard IP68:

※ Installation: Insert
※ Probe Dimension: φ5*30mm
※ Measure Range: -60°C ~ 200 °C
※ Cable Length: 2 meters
※ Class A PT100
※ Suitable Environment: General environment



DR-LT -- Low Temperature:

※ Installation: Insert
※ Probe Dimension: φ5*30mm
※ Measure Range: -196°C ~ 150 °C
※ Cable Length: 2 meters
※ Class A PT100
※ Suitable Environment: Low temperature measurement, such as COVID vaccine transport.



DR-HT -- High Temperature:

※ Installation: Insert
※ Probe Dimension: φ4.5*30mm
※ Measure Range: -70°C ~ 450 °C
※ Cable Length: 3 meters
※ Class A PT100
※ Suitable Environment: High Temperature



DR-UHT -- Ultra High Temperature:

※ Installation: Insert
※ Probe Dimension: φ6*50mm
※ Measure Range: -40°C ~ 600 °C
※ Cable Length: 3 meters
※ Class A PT100
※ Suitable Environment: Ultra High Temperature



DR-FSA -- Food Safety Type:

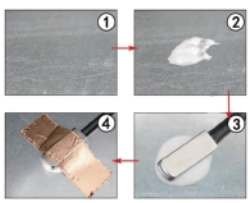
※ Installation: Insert
※ Probe Dimension: φ4*150mm
※ Measure Range: -40°C ~ 260 °C
※ Cable Length: 2 meters
※ Class A PT100
※ Suitable Environment: Foods



DR-FT -- Flat Type:

※ Installation: Attached
※ Probe Dimension: 3.6*7.5*20mm
※ Measure Range: -60°C ~ 200 °C
※ Cable Length: 2 meters
※ Class A PT100
※ Suitable Environment: measure flat object, the whole flat side is measurement point.





Notice: Thermal silicone paste and high-temperature tape is not included in shipment.

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Wireless & Battery Selection

	LB	LB2	LS	NB	NB2	NS	CB	CB2	CS	KS	KN
Wireless	LoRaWAN	LoRaWAN	LoRaWAN	NB-IoT	NB-IoT	NB-IoT	NB-IoT & LTE-M	NB-IoT & LTE-M	NB-IoT & LTE-M	LTE CAT-1	LTE CAT-1
Module	LA66	LA66	LA66	BC660K-GL	BC660K-GL	BC660K-GL	BG95-M2	BG95-M2	BG95-M2	EG800xx	EG800xx
Frequency Band	EU433, CN470, EU868, IN865, KR920, MA869, AU915, US915, AS923-1, AS923-2, AS923-3, AS923-4	EU433, CN470, EU868, IN865, KR920, MA869, AU915, US915, AS923-1, AS923-2, AS923-3, AS923-4	EU433, CN470, EU868, IN865, KR920, MA869, AU915, US915, AS923-1, AS923-2, AS923-3, AS923-4	**CAT-NB2:** B1/B2/B3/B4/B5/ B8/B12/B13/B17/ B18/B19/B20/B25/ B28/B66/B70/B85	**CAT-NB2:** B1/B2/B3/B4/B5/ B8/B12/B13/B17/ B18/B19/B20/B25/ B28/B66/B70/B85	**CAT-NB2:** B1/B2/B3/B4/B5/ B8/B12/B13/B1/ B18/B19/B20/B25/ B28/B66/B70/B85	**CAT-NB2:** B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85 **LTE-M:** B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B26/B27/B28/B66/ B85	**CAT-NB2:** B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85 **LTE-M:** B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B26/B27/B28/B66/ B85	**CAT-NB2:** B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85 **LTE-M:** B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B26/B27/B28/B66/ B85	**EU:** For European, Asia, Australia, LTE-FDD: B1/ 3/5/7/8/20/28 **LA:** For Latin America, LTE-FDD: B2/3/4/5/7/ 8/28/66 **NA:** For North America, LTE-FDD: B2/4/5/12/ 13/66	**EU:** For European, Asia, Australia, LTE-FDD: B1/ 3/5/7/8/20/28 **LA:** For Latin America, LTE-FDD: B2/3/4/5/7/ 8/28/66 **NA:** For North America, LTE-FDD: B2/4/5/12/ 13/66
Uplink Method	LoRaWAN, OTAA, ABP	LoRaWAN, OTAA, ABP	LoRaWAN, OTAA, ABP	MQTT, MQTTs, TCP, UDP or CoAP	MQTT, MQTTs, TCP, UDP or CoAP	MQTT, MQTTs, TCP, UDP or CoAP	MQTT, MQTTs, TCP, UDP or CoAP	MQTT, MQTTs, TCP, UDP or CoAP	MQTT, MQTTs, TCP, UDP or CoAP	MQTT, MQTTs, TCP or UDP	MQTT, MQTTs, TCP or UDP
Enclosure	Type B	Type B2	Type S	Type B	Type B2	Type S	Type B	Type B2	Type S	Type S	Type N
Battery	8500mAh	19000mAh	3000mAh	8500mAh	19000mAh	3000mAh	8500mAh	19000mAh	3000mAh	3000mAh	1000mAh
Battery Type	Li-SOCI2	Li-SOCI2	Li-ion	Li-SOCI2	Li-SOCI2	Li-ion	Li-SOCI2	Li-SOCI2	Li-ion	Li-ion	Li-ion
Rechargeable	--	--	Yes	--	--	Yes	--	--	Yes	Yes	Yes
Solar Panel	--	--	Yes	--	--	Yes	--	--	Yes	Yes	--
Solar Panel Power	--	--	0.9W	--	--	0.9W	--	--	0.9W	0.9W	--
DC Connector	--	--	Optional	--	--	Optional	--	--	Optional	Optional	Provides 12V DC power
GNSS	--	--	--	--	--	--	Yes	Yes	Yes	--	--
BLE Config	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IP Rate	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP54

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Enclosure Type

Enclosure Type B



- Battery: 8500 mAh
- None-rechargeable
- Dimension: 118 x 57 x 47 mm

Enclosure Type B2



- Battery: 19000 mAh
- None-rechargeable
- Dimension: 145 x 105 x 45 mm

Enclosure Type S



- Battery: 3000 mAh
- Rechargeable
- 0.9w Solar Panel
- Dimension: 108 x 102 x 40 mm

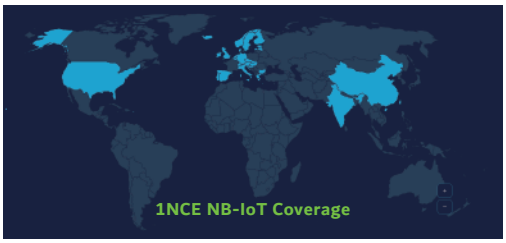
Enclosure Type N

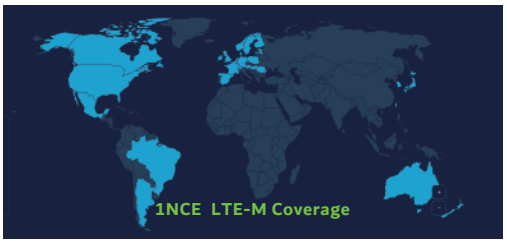


- Battery: 1000 mAh
- Rechargeable
- Provides 12V DC power
- Dimension: 118 x 57 x 47 mm

What is 1T version for Cellular version?

The 1T version of NB-IoT/LTE-M/LTE CAT-1 Temperature Transmitter is with 1) 1NCE SIM Card & 2) ThingsEye Pre-configured.
1NCE SIM Card (10 Years Cellular service with 500MB Data Traffic, Enough for devices to uplink 10 years at 1hour interval).

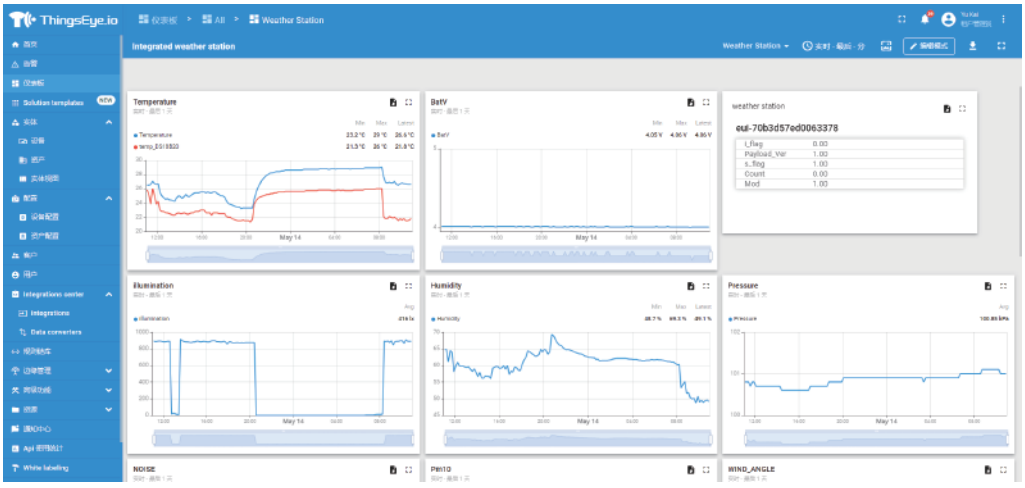






ThingsEye.io platform:

1T version with ThingsEye IoT service pre-installed. This save a lot of work from user side to confgure IoT server.
Below is Dash Board is the demo in ThingsEye.io.



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Ordering Information

Example: LTC2-LB-EU868

Model Name:

LTC1 (Max: 1 x monitor temperature channels, press the button to immediately take a sample and upload a data packet.)
LTC2 (Max: 2 x monitor temperature channels)

Wirless Tech:

L: LoRaWAN
N: NB-IoT
C: NB-IoT & LTE-M
K: LTE CAT-1

Battery Type:

B: 8500 mAh Li-SOIC2 Battery
B2: 19000 mAh Li-SOIC2 Battery
S: Solar Panel + 3000 mAh Li-ion Battery
N: 1000 mAh Li-ion Battery

Frequency Band or Cellular SIM:

Frequency Band:

For LoRaWAN version: EU433, CN470, EU868, IN865, KR920, MA869, AU915, US915, AS923-1, AS923-2, AS923-3, AS923-4
For CAT-1 version: **EU:** For European, Asia, Australia
LA: For Latin America
NA: For North America

Cellular SIM option (For NB-IoT, LTE-M, CAT-1):

GE -- General version (Exclude SIM card)
1T -- With 1NCE & ThingsEye Pre-configured

Probe Option (Order Seperately):

DR-SI: Standard IP68
DR-LT: Low Temperature
DR-HT: High Temperature
DR-UHT: Ultra High Temperature
DR-FSA: Food Safety Type
DR-FT: Flat Type

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