

Thermochron iButtons



What is a Thermochron?

The Thermochron family of iButtons are temperature data loggers that can go almost anywhere. They record time, temperature, and optional humidity, storing these readings for later analysis. The iButton's embedded computer chip integrates a 1-Wire transmitter / receiver, a globally unique address, a thermometer, a clock/calendar, a thermal history log, an alarm event log, and additional memory to store user data, such as location data or a shipping manifest. Thermochron iButtons are recyclable, and under normal conditions, will log data for up to 10 years or 1 million temperature measurements. thaimeter.com

The following table is a comparison of the available Thermochron models:

Model	Temperature Range	Accuracy	Resolution	Values/Readings	Logging Rate
DS1921G	-40°C to +85°C	± 1°C: -30°C to +70°C ± 1.3°C outside this range	0.5°C	2048	1 to 255 min
DS1921H	+15°C to +46°C	± 1°C	0.125°C	2048	1 to 255 min
DS1921Z	-5°C to +26°C	± 1°C	0.125°C	2048	1 to 255 min
DS1922L	-40°C to +85°C	± 0.5°C: -10°C to +65°C (With software correction)	Programmable 0.5°C - 8 bit / 0.0625°C - 11 bit	8192 - 8 bit / 4096 - 16 bit	1 sec to 273 hrs
DS1922T	0°C to +125°C	± 0.5°C: +20°C to +75°C (With software correction)	Programmable 0.5°C - 8 bit / 0.0625°C - 11 bit	8192 - 8 bit / 4096 - 16 bit	1 sec to 273 hrs
DS1923 Hygrochron (Humidity and Temperature)	-20°C to +85°C Includes 0 to 100% Humidity Logger	± 0.5°C: -10°C to +65°C (With software correction)	Programmable 0.5°C - 8 bit / 0.0625°C - 11 bit	8192 - 8 bit / 4096 - 16 bit	1 sec to 273 hrs

Scientific Research Projects - iButtons can be discretely located in the environment for monitoring the temperature of ecosystems.

- Because of their low-cost, it is possible to have multiple loggers spread throughout an area.
- Because of their small size, loggers can be attached to places previously impossible. acim.in.th, automation.in.th

Monitoring Thermally Sensitive Products - iButtons easily attach to containers of frozen or fresh foods, blood products, and chemicals or drug reagents, recording time and temperature during transport and storage. By logging the thermal experience of temperature-sensitive material, you can pinpoint responsibility for spoilage and take corrective action.