

AS_RFIDGP1 GP-Tag™

RFID Temperature Sensor Label

Overview

The GP-Tag represents the leading edge of new smart label technology. This wireless sensor tag has the look, feel and application characteristics of a conventional small shipping label. The difference is that this tag can report the temperature of the environment it experiences.

The passive tag has no battery requirement and the wireless capability of the tag allows reporting temperatures inside of a shipping container without requiring the container to be opened. The tag can be also be used as an integral part of data collection for product quality.

The tag requires RFID readers that can provide sufficient power for the temperature sensing functions in addition to the write and read commands that are typical of Class1Gen2 RFID tags. Low-cost full-size readers and portable hand-held readers are currently available for this tag. Applications and support for reading/plotting temperature data are available for Android and Windows platforms



Features

Parameter	Spec
Frequency	UHF (902-928MHz)
Power	Passive RF (Reader Supplied)
Data Protocol	ISO 18000-63 (EPC Gen2)
Data Link	256Kbps
Serialized Identification	Yes
Tamper Detection	On-Request
Sensor Data	Temperature
Temperature Range (T_{range})	-40 to 60°C
Temperature Resolution (T_{res})	±0.25°C
Measurement Time (T_{time})	8 ms
Temperature Accuracy (T_{acc1})	± 2.0°C from -40°C ≤ T ≤ +60°C
Temperature Accuracy (T_{acc2})	± 1.5°C from -1°C ≤ T ≤ + 13°C
Range with measurement	~8 feet
Reader "write" modification	Required
Typical Application	Plastic or Cardboard container
Physical Tag Size	4" x 1" (25.4mm x 101.6mm)
Tag/Label Adhesion	Pressure Sensitive Adhesive
Q Code on label	Yes
Serial number on label	Yes
Flexibility	Radius of Curvature > 15mm
Moisture Resistant	On-Request
Product Samples	Available with NDA
Price (30K unit min. typical)	\$1.50 to \$3.00 per tag based on volume

Contact Info

Email: sales@americansemi.com

Phone: 208.336.2773

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