

StiknTrak™

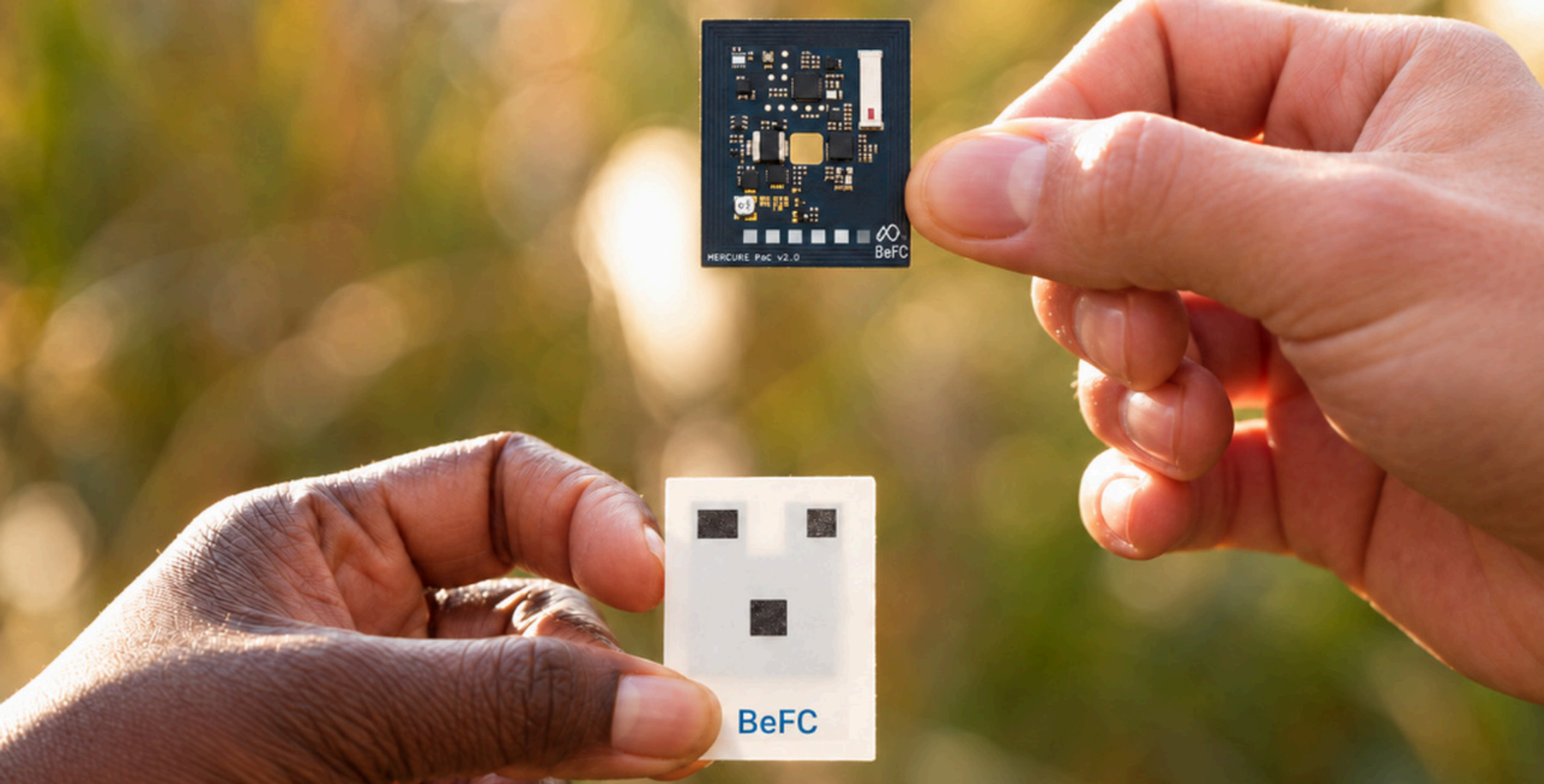
Fresh produce. Tracked with confidence.

SNS-ONiO

One-way location and temperature monitoring

A low-cost, biofuel-powered label designed to travel with fresh produce from packing shed to destination.





Fresh-produce benefits that work at carton and shipment level.

Fresh produce moves through multiple hands, facilities and transport stages before reaching its destination.

Temperature exposure and delays along the way can affect quality, shelf life and commercial value.

The StiknTrak **SNS-ONiO** is a compact, single-use label designed to record temperature and provide observed location updates throughout that journey. Its combination of ultra-low-power electronics, BeFC biofuel-cell power and Ambient IoT firmware is designed to make monitoring practical at carton and shipment level.

Biofuel power. A different approach.

The SNS-ONiO uses a thin BeFC biofuel cell to convert energy from bio-based fuel into electrical power. Combined with ultra-low-power electronics, this supports a compact label design without a conventional lithium battery.

One journey. No return logistics.

Designed for single-use deployment, the SNS-ONiO travels with the produce. There is no device recovery, recharging or return programme to organise – simplifying use across exporters, carriers, distributors and receiving sites.

Bio-based alternative.

The bio-based power source offers an alternative to conventional battery-powered trackers, with the environmental performance of the complete label dependent on its materials and end-of-life handling.

Low cost enables wider visibility.

Monitoring must make economic sense for the produce it protects. The SNS-ONiO architecture is designed to minimise hardware and deployment costs, making broader monitoring commercially viable across fresh-produce movements.

A small label designed to make more journeys visible.

The technology behind SNS-ONiO.

SNS-ONiO brings together ONiO's ultra-low-power electronics, BeFC's biofuel-cell power and Ambient IoT's sensing firmware, communications and shipment-visibility platform.



ONiO®

Ultra-low-power processing and temperature sensing.

ONiO provides the system-on-chip at the heart of the label. It combines ultra-low-power processing with integrated temperature sensing, reducing the need for a separate temperature-sensor component. This helps reduce component count, cost and power consumption within the compact label.



Thin biofuel-cell power.

BeFC provides the biofuel-cell technology that powers the label. It converts chemical energy from bio-based fuel into electrical power using enzymes. The thin power source supports a compact, single-use design without a conventional lithium battery.



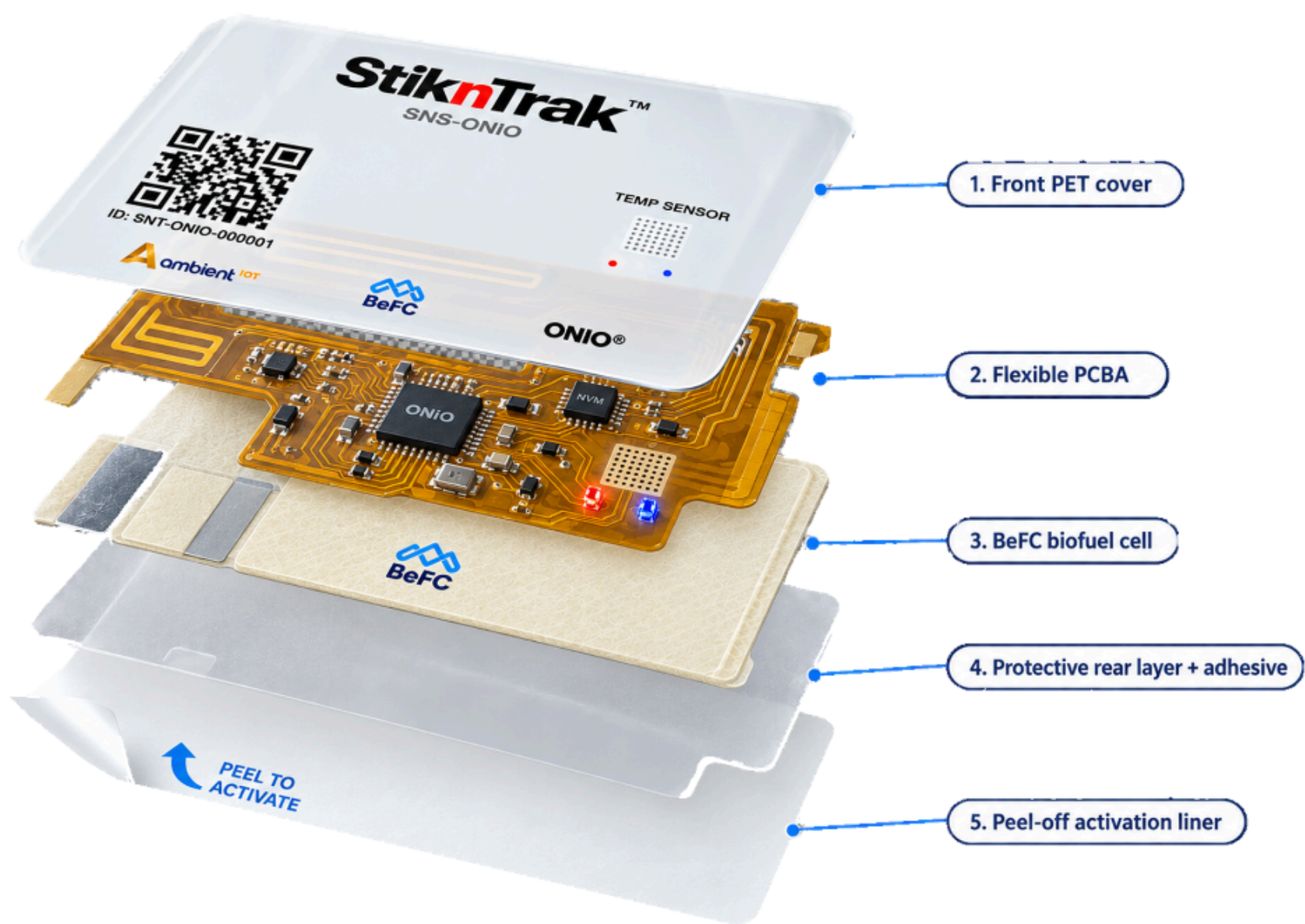
Intelligent firmware, communications and visibility.

Ambient IoT provides the proprietary firmware that manages temperature recording, local data storage and Hybrid BLE communications. Its architecture supports low-power discovery and authenticated collection of stored readings. The SAVP platform brings temperature history and available location observations together, with QR access to shipment information from iPhone and Android phones without downloading an application.

Low-power electronics. Biofuel energy. Connected shipment intelligence.

Label construction and specifications.

The SNS-ONiO combines an ONiO ultra-low-power system-on-chip, a thin BeFC biofuel cell and proprietary Ambient IoT firmware. The flexible electronics support sensing, local data storage and energy-efficient communications within a compact adhesive label.



FORM FACTOR	Target dimensions, 70 × 50 mm	MEMORY	Non-volatile storage retains recorded data when power is unavailable
DEPLOYMENT	Single-use, one-way monitoring	COMMUNICATIONS	Hybrid BLE: low-power advertising and managed data-retrieval sessions
PROCESSOR	ONiO ultra-low-power SoC	LOCATION	Observed location supplied through compatible external infrastructure
POWER	Two-cell BeFC biofuel power source	DEVICE HARDWARE	No GPS chip, SIM card or cellular modem on the label
OPERATING LIFE	Bench testing indicates up to six weeks using a two-cell BeFC biofuel power source; duration depends on operating conditions and configuration.	MOBILE ACCESS	Designed for QR access without installing a custom mobile app
FIRMWARE	Proprietary Ambient IoT sensing and communications firmware		
TEMPERATURE RECORD	Locally stored sensing history		

Peel. Attach. Monitor.



- ACTIVATE**
Lift the marked corner and completely remove the backing to activate the label.
- ATTACH**
Press firmly onto clean, dry carton packaging. Keep the front sensor area and QR code unobstructed.
- MONITOR**
The label records temperature locally throughout the journey.

Hybrid BLE communications



Scan the label. See the complete shipment history.

Any user with an iPhone or Android phone can scan the label's QR code to access the complete shipment history – without downloading an application.

WORKFLOW

Record



Discover



Collect



Synchronise



View history

01

Works with iOS and Android phones.

02

No application download required.

03

View recorded temperature readings and available location history.

04

Review shipment progress and temperature exceptions.

05

Access shipment information at receiving, handover or inspection.

HOW IT WORKS

The SNS-ONiO records temperature throughout the journey. Hybrid BLE combines low-power discovery with authenticated collection of stored readings. The QR scan opens the shipment record; the BLE collection retrieves readings stored on the label.



Fresh produce. Connected from dispatch to delivery.

Location and temperature visibility

Follow shipment progress and review conditions throughout the journey.

Biofuel-powered design

BeFC power combined with ultra-low-power ONiO electronics.

Recorded temperature history

Readings remain stored locally between collection opportunities.

Scan to view shipment history

Accessible from an iPhone or Android phone without downloading an application.

Single-use convenience

No device recovery, recharging or return logistics.

Up to six weeks of operation

Indicated by bench testing, depending on conditions and configuration.

Hybrid BLE communications

Low-power discovery with authenticated collection of stored readings.

SAVP platform visibility

Review shipment history, temperature exceptions and available location information.

Make your next produce journey visible.

Contact Tony Raftis to discuss an SNS-ONiO evaluation.

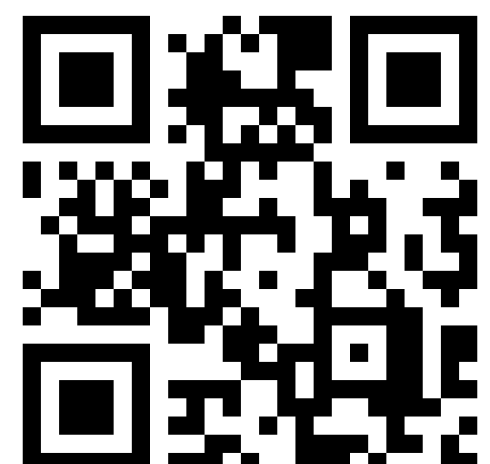
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Explore StiknTrak



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