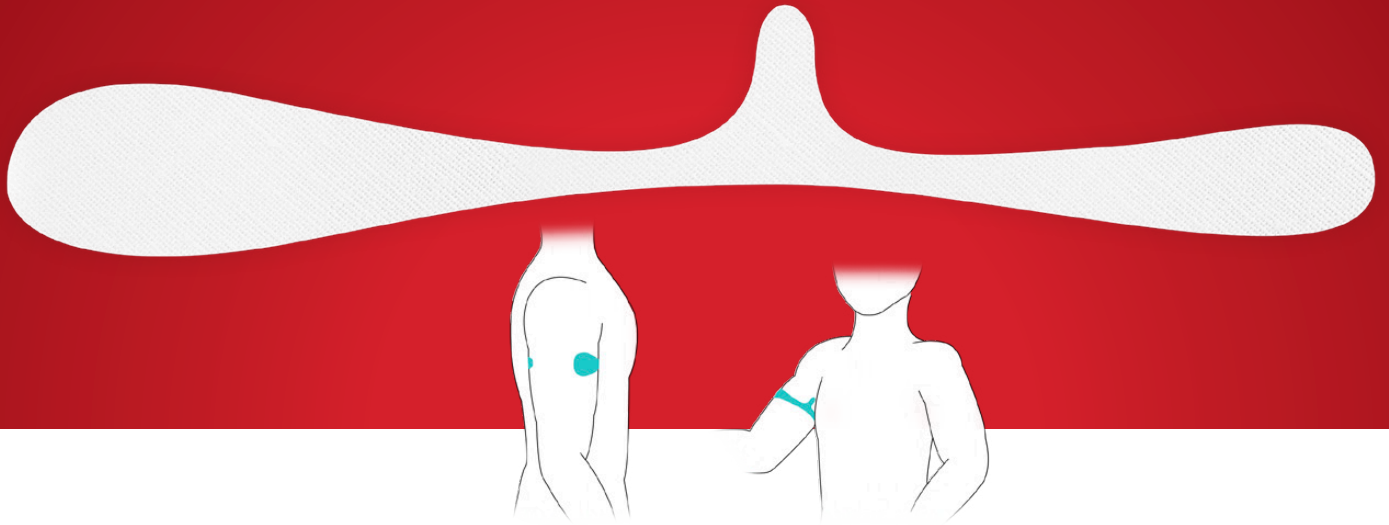# IDENTIV

uTrust SafeTemp

NFC-Enabled Personal Temperature Measurement

Identiv's uTrust SafeTemp wearable NFC patch supports the reopening of public venues and simplifies patient monitoring by government and healthcare workers.

Identiv's uTrust SafeTemp patch allows the reopening of public spaces, including theme parks and stadiums, and helps operators keep attendees and employees comfortable, confident, and safe. The product also supports global governments and healthcare workers that need to periodically monitor quarantined patients diagnosed with COVID-19.

The new solution combines the simplicity of using NFC and the smart technology potential of the IoT, making body temperature monitoring easier than ever. The patch is most accurately read when applied under the upper arm, features skin friendly, water-resistant adhesive, and can be

worn for multiple days. For instant temperature measurements, tap the passive patch with any NFC-enabled smartphone. The positioning of the patch allows temperature measurement close to the body yet keeps the readout as simple as possible.

Government and healthcare workers can use a passive or active version for quarantined citizens, employees, or patients testing positive for COVID-19. Monitored via the cloud, temperature measurements can be assessed without in-person reads; yet, if conditions suddenly grow worse, healthcare personnel can be immediately alerted.

Simple and Accurate

- Smart NFC sensor can track, monitor, and store temperature readings
- Accuracy of 0.3 degrees Celsius

Comfortable and Wearable

- Skin friendly, water-resistant adhesive
- Can be worn for several days or a week

Clinical-Grade Option

- Combined with high-accuracy temperature sensor
- Follows the ASTM E1112 Standard for Electronic Thermometers for Intermittent Determination of Patient Temperature

Active Battery Version

- Track body temperatures over a longer period of time without tapping
- Measure over multiple days and store the data in the cloud or offline

uTrust SafeTemp App coming soon

Passive uTrust SafeTemp Specifications

RFID Chip	
IC Code	NXP NHS3100W8
RF Protocol	NFC/RFID ISO 14443 type A interface
Thickness	~150 µm
User Memory Size	• 32 kB on-chip flash programming memor y (shared between program and data) • 4 kB on-chip EEPROM (of which 256 byte can be write protected) • 8 kB SRAM
Temperature Sensor Accuracy	± 0.3°C at 0 to 40°C and ± 0.5°C at -40 to 85°C

Inlay	
Inlay	HF 13.56 MHz Smart Inlay
Antenna Size	45 x 45 mm (MD x CD)
Material	Aluminium etched on PET substrate

Adhesive	
Adhesive	Skin friendly and hypoallergenic

Firmware	
Firmware	app_demo_label_signedurl.hex
Functionality	At each tap, a temperature measurement is performed by the IC and a new URL is created dynamically by the firmware running on the IC. This URL contains queries, containing the tag UID, the number of taps, the measured temperature, and a hash value to prove integrity and validity of the other queries (UID, tap-count, temperature). A phone's default handling is to open the URL in a browser. The URL points to a configured server. The server extracts the query arguments, validates them, and stores them.

Reliability	
Operating Temperature	-20 to ~70°C, 20 to ~80% RH
Storage Life	Two (2) years under desiccated condition; 10 to ~25°C (50 to ~77°F), ≤ 60% RH
ESD Voltage Immunity	≤ ±2kV human body model (HBM), according to IC specification

Ordering Information	
Product Part Number	TBD

Active Battery Specifications are TBD