



Electro Optical Components, Inc.

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

www.eoc-inc.com | info@eoc-inc.com



Core Body Temperature Measurement



gSKIN®: (Core) Body Temperature - Intro

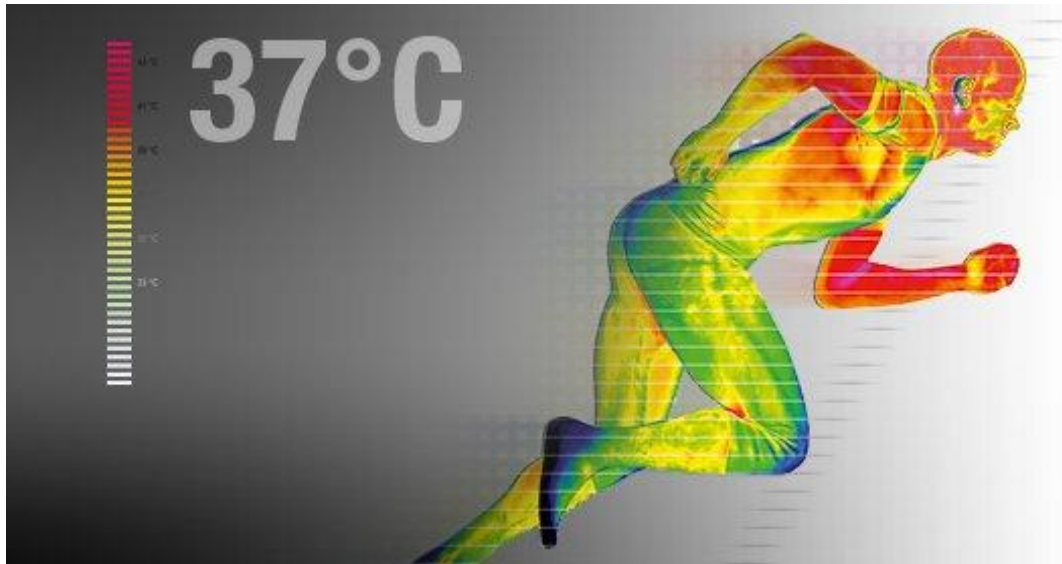
Our CBT measurement prototype aims to enable continuous visualization of the body core temperature in those for whom it can be life saving / performance enhancing.

At greenTEG we are focusing our R&D to provide YOU (soon) with a wireless, accurate and convenient CBT wearable device.

With the gSKIN® technology developed by greenTEG, Heat Flux is measured with a very sensitive thermoelectric sensor. Calculation of informative core body temperature is done by an algorithm developed by our team of engineers and scientists.

As of now, we are selling Heat Flux Sensors for R&D purposes in small quantities, we aim for lower pricing and higher quantities attracting OEM customers in the near future.

gSKIN® CBT focus area

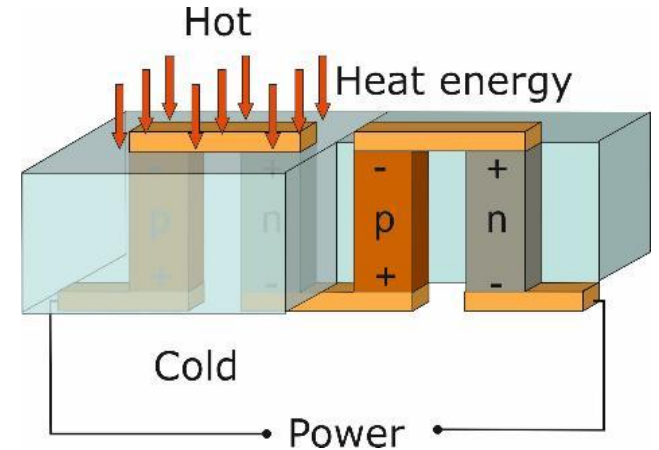
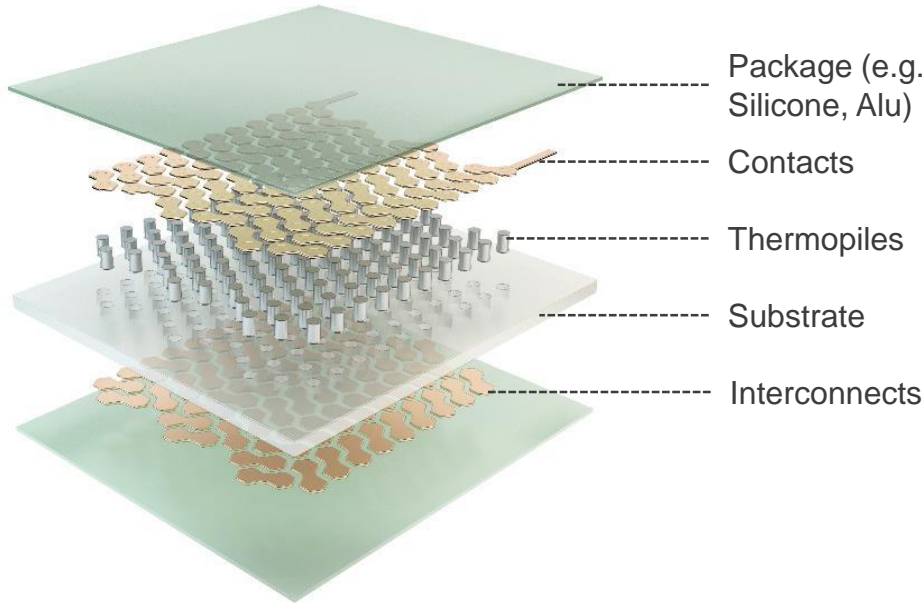


greenTEG's focus area:

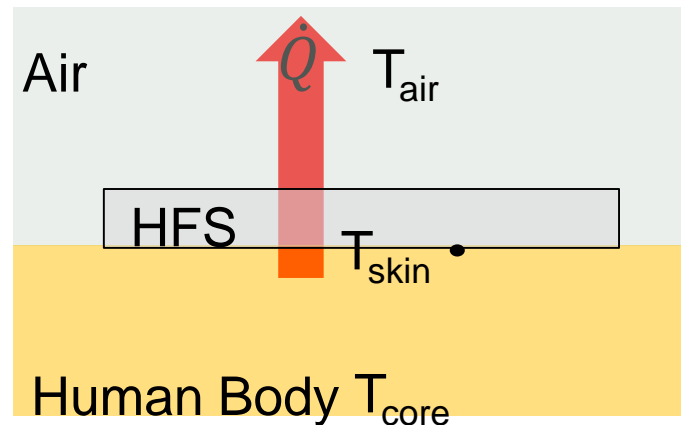
- Athletes
- Firefighters
- Soldiers
- Sleep tracking
- Factory/mining workers
- Animal breeding

gSKIN®: device design

Thermoelectric generators (TEG)



Working principle:



$$\text{Formula: } T_{core} = T_{skin} + K_{body}/\dot{Q}$$

gSKIN®: want to find out more?

Visit our e-shop: <http://shop.greenteg.com/shop/heat-flux-measurement/gskin-xm/>

gSKIN®-XM



Heat Flux Sensor

Size: 4.4mm x 4.4mm

Resolves 0.4 W/m² - 9 μW - 140 μK

Features

- Ultra-high resolution of thermal energies and temperature differences
- Low invasiveness and thickness
- Models with connector compatible with all gSKIN® DLOG Data Loggers
- All sensors with conductive heat flux calibration cohering to ISO 8301
- Applications: R&D, thermal optimization, energy efficiency, industrial monitoring of thermal properties

gSKIN®: want to find out more?

Visit our e-shop: <http://shop.greenteg.com/shop/heat-flux-measurement/gskin-xm/>

Downloads

[gSKIN® Heat Flux Sensors Datasheet](#)

[gSKIN® Heat Flux Sensors Instruction Manual](#)

gSKIN® XM	
Article Number	A-044335
Detector Type	Thermoelectric
Surface Material (Sensing Area)	Aluminum
Sensing Dimensions (a x b x d) [mm x mm x mm]	4.4 x 4.4 x 0.5
Heat Flux Range Min / Max [kW/m ²]	-150 / 150
Noise Equivalent Heat Flux ^a per area [W/m ²] / absolute [μW]	0.340 / 6.6
Heat Flux Resolution per area [W/m ²] with gSKIN® DLOG ^b / absolute [μW]	0.41 / 7.9
Temperature Difference Resolution [μK]	~140
Min. Sensitivity (S) [μV/(W/m ²)]	1.5
Temperature Dependence of S [%/°C]	0.25
Response Time (0-95%) [s]	0.7
Electrical Resistance [Ohm]	< 20
Absolut Thermal Resistance [K/W]	~18.0
Max. Compressive Force when clamped [kgf]	< 2
Operating Temperature Range Min/Max [°C]	-50 / 150
Calibration Temperature Range Min/Max ^c [°C]	-30 / 70
Calibration Accuracy [±%]	3
Homogeneity ^d [±%]	1
Linearity with Power [±%]	1
Flexprint Length [cm]	5

Contact-us:



Electro Optical Components, Inc.

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

www.eoc-inc.com | info@eoc-inc.com