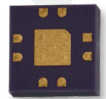


Graphene – Delivering superior magnetic sensing

Paragraf has pioneered mass production of graphene-based Hall effect sensors (GHS) that leverage graphene's superior electron mobility, energy efficiency, and thermal robustness.

This results in a range of magnetic and current sensors that can accurately measure a wide dynamic range of magnetic fields and currents in a range of environments.



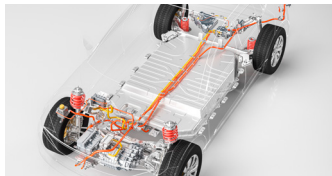
General purpose sensors

These sensors offer magnetic field measurement resolution close to traditional sensors with the simplicity of a Hall sensor. Paragraf sensors provide high sensitivity and a strong linear response across a wide temperature range.



Encoders

Higher sensitivity, more flexible integration for high-performance encoders.



Inverters

Enhance inverter efficiency for optimal EV performance.



Batteries

Measure currents from mA to kA at high accuracy in battery management systems.

Cryogenic sensors

The cryogenic-ready graphene-based sensors are the only Hall effect sensors capable of measuring magnetic field strengths from microTesla to 30 Tesla at extreme temperatures down to the millikelvin (mK) level.



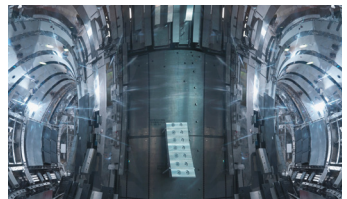
Quantum Computing

Monitor unwanted fields, for reliable quantum computing.



Particle Accelerators

Ensure reliable operation in high magnetic fields.



Fusion

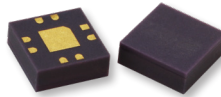
Characterise superconducting magnets in extreme environments.

Complete magnetic field measurement system

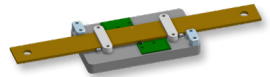


The highly configurable data acquisition unit allows for the simultaneous acquisition and digitisation of magnetic field signals from four channels.

GHS sensors can be mounted onto the PCB and optimally positioned relative to magnetic field induced by busbar geometry. Flexibility of placement also allows them to be built into custom development projects.



Graphene Hall sensors



Current sensing evaluation hardware


Specifications

Type	Sensing Range	Sensitivity (V/AT)	Sensitivity (V/VT)	Min. Temp	Max. Temp
General purpose	2 T	400	0.16	-40°C	125°C
Cryo - high field	± 30 T	200	-	<1 K	350 K
Cryo	± 7 T	300	-	4 K	350 K
Cryo - low field	± 0.5 T	1,700	-	<1 K	350 K

Contact us

7-8 West Newlands, Somersham,
Cambridgeshire, PE28 3EB. UK

 sales@paragraf.com

 +44 (0)1223 739782

 www.paragraf.com

 store.paragraf.com

