

QUANTIFYING THE UNKNOWN



CAPABILITIES

SAPPHIRE OSCILLATORS Cryoclock

Ultra-high stability
Purest signal available
on the commercial
market

X-LNO

Ultra-Low phase noise
Producing a world-
leading ultra-low
phase noise reference
signal in the
microwave band



QUANTUM CLOCKS

Compact Rubidium Optical Clock

Better than GPS quality,
accurate timekeeping, at low
SWaP, and a stable long-term
holdover



QUANTUM MAGNETOMETERS Q- MAG

Ability to measure extremely
small anomalies in the
magnetic field on Earth, the
Moon and Mars



DIFFERENTIATORS

- ❑ 100% Australian owned and controlled
- ❑ Track record of R&D translation into Defence programs
- ❑ Deep collaboration with Australian universities for IP transfer
- ❑ Harnessing quantum sensing techniques
- ❑ Unique patent portfolio

CUSTOMERS / STAKEHOLDERS



APPLICATIONS

Q- MAG Intelligence gathering

Underground

Vehicles, Armed People,
Armour. New
infrastructure
Mines

Underwater

Submarines, UUV's, Mines

In-space

Other satellites, Solar
activity, Magnetic
anomaly's

QUANTUM CLOCKS

Alternate - PNT

Independent
timekeeping,
Synchronised sensor
arrays, GNSS-spoof
detection, Spacecraft
autonomy, Navigation
warfare, GPS-denied
resilience

SAPPHIRE OSCILLATORS

HF Radar

OTHR - JORN

Microwave Radar

Line of sight