TELEDYNE e2v
Everywhereyoulook™
Part of the Teledyne Imaging Group

QUANTUM TIME & FREQUENCY SOLUTIONS

Taking Timing and Synchronisation to Another Level




Precision Timing and Synchronisation is becoming ever more important in today's complex battlespace. Time and synchronisation capability is currently derived from Global Navigation Satellite Systems (GNSS), however the vulnerabilities of GNSS to natural terrain interference, along with accidental or malicious air/ground-based jamming and spoofing is widespread.

Teledyne e2v, in conjunction with NPL, is developing a family of low Size, Weight and Power/Cost (SWAP-C), environmentally rugged, caesium frequency standard atomic clocks.

These clocks have a wide range of applications, including as a holdover backup to GNSS provided timing, and provision of local/distributed timing and synchronisation capabilities in GNSS denied environments.

The **MINAC** range of atomic clocks will be available in a variety of form factors and interfacing options, including the ability to synchronise to an external timing source, and the option of multiple frequency outputs.

The MINAC atomic clocks are designed, manufactured and all key components sourced in the UK, and therefore free of ITAR or EAR restrictions.

KEY BENEFITS & FEATURES

» High accuracy/stability caesium reference standard
» Developed with NPL, who define and disseminate the UKs national time scale (UTC)
» 1PPS input for synchronisation to an external timing source
» 1PPS & 10 MHz outputs (other frequencies available as an option)
» Wide range of environmental operating conditions
» Low SWAP-C
» RS-422 or USB interface for monitoring & control

APPLICATIONS

» Air Traffic Management
» Alternative PNT (A–PNT)
» Autonomous Systems (including SWARM)
» C4I Integration
» Critical National Infrastructure (CNI) Resilience
» Cyber Security
» Electronic Countermeasures (ECM)
» Fixed & Mobile Communications (including Tactical CIS)
» Next Generation Lidar & Radar
» Precision Weapons
» Situational Awareness (SA)
» Time Difference of Arrival (TDOA) Applications

For more information and to enquire about samples please talk to us or visit our website

In Partnership with NPL