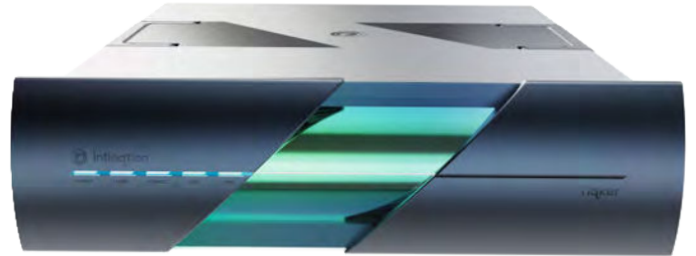


Atomic Frequency Reference

Tiqker™ offers active hydrogen maser short-term precision in a compact form-factor package that occupies the same rack space as cesium-beam frequency references. Tiqker™ operates continuously in industrial environments, minimizing signal instability due to vibration and temperature variation.



Applications



Holdover for GNSS/GPS-reliant timing solutions, allowing uninterrupted access



High-precision RF and optical outputs for coherent sensing such as Very Long Baseline Interferometry (VLBI) or multistatic radar



Integrated optical frequency comb output enables sub-picosecond clock synchronization through optical two-way time and frequency transfer



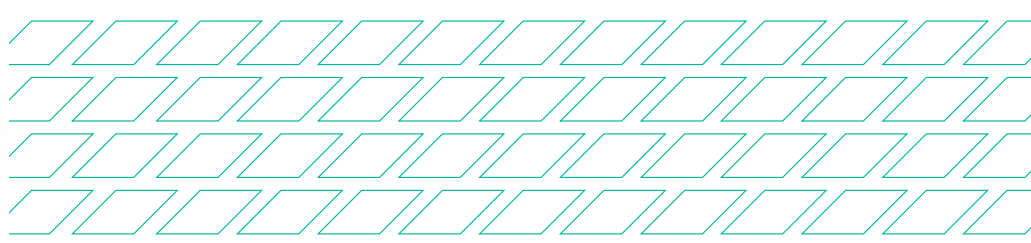
Time synchronization for high-speed data networks



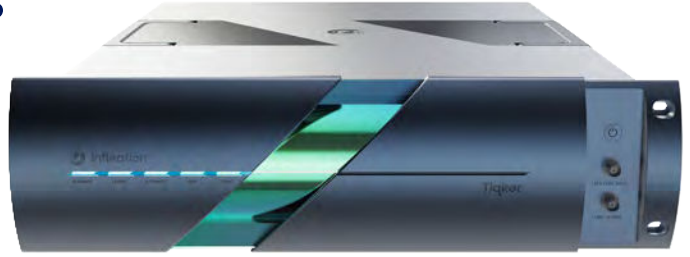
- Active hydrogen maser-like stability with compact form factor and low environmental sensitivity
- One-tenth the size and one-fifth the weight of an active hydrogen maser
- Half the cost of an active hydrogen maser

Short lead times and available now!
Contact sales@infleqtion.com to learn more or place an order!





Tiqker Prime Specifications



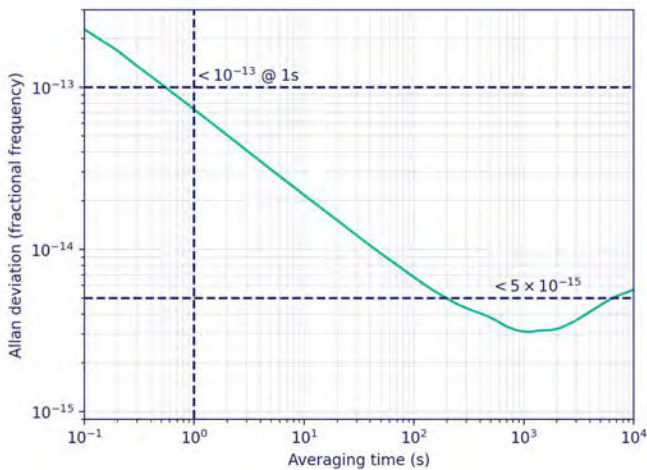
Frequency Stability

| Average Time (s) | Allan Deviation | |
|------------------|----------------------------|----------------------------|
| | Typical Performance | Minimum Performance |
| 1 | $\leq 8.0 \times 10^{-14}$ | $\leq 3.0 \times 10^{-13}$ |
| 10 | $\leq 3.0 \times 10^{-14}$ | $\leq 1.0 \times 10^{-13}$ |
| 100 | $\leq 7.0 \times 10^{-15}$ | $\leq 3.0 \times 10^{-14}$ |
| 1,000 | $\leq 4.0 \times 10^{-15}$ | $\leq 1.0 \times 10^{-14}$ |
| 10,000 | $\leq 6.0 \times 10^{-15}$ | $\leq 9.0 \times 10^{-15}$ |

Phase Noise

| Offset Frequency | SSB - 100MHz | |
|------------------|---------------------|---------------------|
| | Typical Performance | Minimum Performance |
| 1 Hz | ≤ -95 | ≤ -95 |
| 10 Hz | ≤ -105 | ≤ -105 |
| 100 Hz | ≤ -115 | ≤ -115 |
| 1k Hz | ≤ -125 | ≤ -120 |
| 10k Hz | ≤ -125 | ≤ -120 |
| 100k Hz | ≤ -125 | ≤ -120 |

Performance (typical)



Frequency Outputs

| | |
|-----------|-----------------------------|
| Frequency | 5 MHz, 10 MHz, 100 MHz |
| Format | Sine |
| Amplitude | ≥ 1 Vrms |
| Optical | 1556 CW, Narrow Comb Output |

Timing Interfaces

| | |
|----------------|-------------|
| Output Format | 1 PPS (3x) |
| Load Impedance | 50 Ω |
| Input Format | 1 PPS (2x) |

Size, Weight, and Power

| | |
|------------------------|-------------------------------------|
| Height x Width x Depth | 133.4 mm x 425.5 mm x 532.9 mm |
| Weight | <30 kg |
| Power | <80 W Warm Up <70 W Steady State |

Programming

| | |
|----------------------|------------------------------------|
| Software Command Set | SCPI adapted to RS-232C & Ethernet |
| Alarm (TTL) | BNC |
| Output | TTL High, Normal TTL Low, Fault |