

# GNSS Time & Frequency Standards with NTP

The GNSS series of instruments are precision time & frequency standards that use time signals from Global Navigation Satellite Systems (GNSS) (with an alternative IRIG-B timecode input) as a reference to provide a suite of reliable output and interface options.



## Key Features (All Models)

- Choice of GNSS synchronisation source (GPS, Glonass or Beidou)
- Backup synchronisation source from IRIG-B Timecode
- Oven Controlled Crystal Oscillator for high frequency stability
- Dual Redundant Power Supply
- 1 x NTP/SNMP network interface
- 2U high 19" rack-mountable chassis

## GNSS-FO Time & Frequency Standard

This model benefits from IRIG-B fibre optic outputs in addition to the standard hardwired outputs:

- 6 x IRIG-B outputs (hardwire)
- 7 x IRIG-B outputs (fibre optic)
- 1 x 1PPS output
- 1 x pulse output (customer defined)

## GNSS-HQ Time & Frequency Standard

This model benefits from HaveQuick outputs for secure communication applications (e.g. military) with the additional flexibility to include 4 frequency outputs instead of some of the IRIG-B outputs:

- 2 x HaveQuick outputs
- 6 x IRIG-B outputs (hardwire) **or**  
2 x IRIG-B outputs (hardwire) plus 4 x frequency outputs
- 1 x 1PPS output

## GNSS-F Time & Frequency Standard

This model offers the option to include 4 frequency outputs as in the GNSS-HQ model, but without the additional cost of including HaveQuick outputs.

- 6 x IRIG-B outputs (hardwire) **or**  
2 x IRIG-B outputs (hardwire) plus 4 x frequency outputs (1MHz, 5MHz or 10MHz)
- 1 x 1PPS output
- 1 x pulse output (customer defined)

## GNSS-E Time & Frequency Standard

This model has the simplest suite of outputs and consequently is a great economic option

- 6 x IRIG-B outputs (hardwire)
- 1 x 1PPS output
- 1 x pulse output (customer defined)



# GNSS Time & Frequency Standard Comparison Table

| Product                         | GNSS-FO | GNSS-F     | GNSS-HQ    | GNSS-E |
|---------------------------------|---------|------------|------------|--------|
| NTP/SNMP Interface              | 1       | 1          | 1          | 1      |
| 1PPS output                     | 1       | 1          | 1          | 1      |
| Pulse output (customer defined) | 1       | 1          | -          | 1      |
| IRIG-B output (Hard-wired)      | 6       | 2 (or 6) * | 2 (or 6) * | 6      |
| IRIG-B output (fibre optic)     | 7       | -          | -          | -      |
| Frequency outputs               | -       | 4 (or 0)*  | 4 (or 0)*  | -      |
| HaveQuick outputs               | -       | -          | 2          | -      |

**For more in-depth information regarding any of the products featured on this brochure, please see relevant product datasheet (available to download from our website) or contact our Sales team.**