C-Nav1PPSI
1 pulse per second (PPS) interface

FEATURES

- Multifunction interface for GNSS receiver 1 PPS signals
- Combines ("OR") two 1 PPS signals into a single output
- Converts transistor-transistor logic (TTL) signals into RS-232/422 signals
The C-Nav1PPSI converter and combiner is a multifunction interface for GNSS receiver 1 PPS signals. It has two opto-isolated 1 PPS inputs that are connected directly to the receiver’s 1 PPS outputs. For high integrity systems with dual GNSS receivers, the interface will “OR” the two TTL sources for output to peripherals which requires a continuous 1 PPS for time stamping.

This output is maintained should either GNSS input fail. The drive distance of the signal from most GNSS receivers is limited by the TTL drivers. The “OR”ed signal is converted to RS-232 and RS-422 signals. These signals drive standard National Marine Electronics Association (NMEA) splitters, including the O.Overland AS Electronics UPC 3005, which enables multiple devices to obtain the same 1 PPS timing signal.

### I/O Connections

| Inputs | 1 PPS A BNC TTL level pulse  
| 1 PPS B BNC TTL level pulse |
| Outputs | 1 PPS A "OR" B BNC TTL level pulse  
| Single DB 9 male  
| 1 PPS A RS 422  
| 1 PPS B RS 422  
| 1 PPS A "OR"ed with RS 422  
| 1 PPS B "OR"ed with RS 232 |
| Indicators | Power  
| 1 PPS A "OR"ed with B  
| 1 PPS A  
| 1 PPS B |

### Power requirements

- **Input voltage**: 12 V to 24 V DC
- **Reverse polarity protected**
- **Power consumption**: < 50 mA

### Environmental

- **Operating temperature**: -32° to 158° F / 0° to 70° C

### Mechanical

- **Enclosure construction**: Black anodized extruded aluminum
- **I/O connectors**: BNC Female  
| DB9 Male |
- **Dimensions**: 6.1 x 4.1 x 2.4 in / 154 x 103 x 61 mm
- **Weight**: 0.82 lb / 0.37 kg

### For more information:

oceaneering.com/cnav