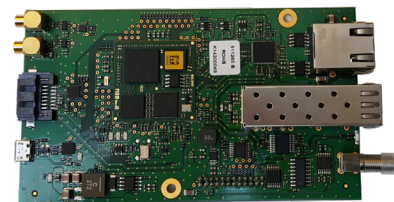


## Presentation

- The PTP (Precision Time Protocol) option card supports PTP v2.
- The card delivers PTP v2 via SFP port or 1Gb port.
- The PTP option card also delivers a configurable frequency signal on SMA output.
- System configure and parameter setting using the Netsilon web server.
- Firmware upgradable/downgradable.



## PTP Specifications

### Precision Time Protocol (on RJ45 or SFP):

- Time accuracy: 8 ns.
- Mode Master capacity: up to 32 slaves at 128 requests per second.

### Profiles:

- IEEE 1588v2 Default E2E Profile.
- IEEE 1588v2 Default P2P Profile.
- ITU-T G.8265.1 Telecom Frequency Profile.
- ITU-T G.8275.1 Telecom Phase / Time Profile.
- ITU-T G.8275.2 Telecom Phase / Time Profile.

### Modes:

- Multicast / Unicast Layer 2 (IEEE 802.3).
- Multicast / Unicast Layer 3 (UDP IPv4/IPv6).
- E2E / P2P Delay Mechanisms.
- Master and Slave capability.
- 1-Step, 2-Step for both Master and Slave operation.

## SyncE Specifications

### Synchronous Ethernet (only on RJ 45):

- Master and Slave capability (as a complement to PTP).
- Ethernet Synchronisation Messaging Channel ( ESMC).
- Meets requirements of ITU-T G.8261, ITU-T G.8262 (SyncE) EEC Options 1 & 2.

## Main Characteristics

### Ethernet Interface Combo Port:

- 1x 10/100/1000Base-T RJ45
- 1 x GBit SFP - slot:  
Slot SFP compatible with SX/LX modules:  
907 921LX - Module LX for SFP module.  
907 921SX - Module SX for SFP module.

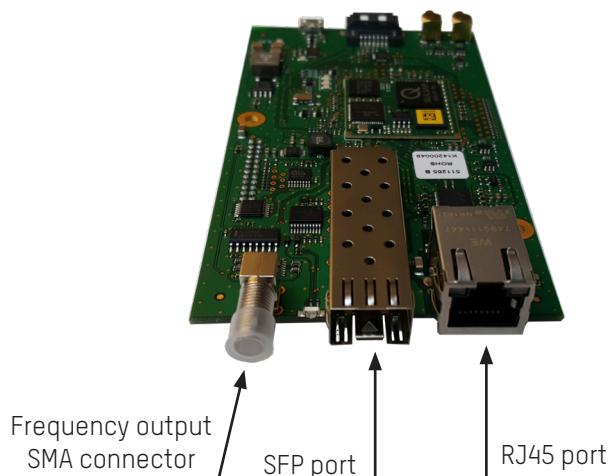
### Network Protocols:

- IPv4, IPv6
- IEEE 802.1p (quality of service)
- DHCP
- VLAN tagging
- DSCP

### SMA Output connector (50 Ohm):

- Configurable frequency output signal:  
- 1 PPS, 5 MHz, 10 MHz, 20 MHz, 25 MHz and 2048 KHz.

Signal waveform and levels: TTL, (5Vp-p), 50 Ohm, SMA.



## Notes

- Master mode operate with GNSS reception.
- Master mode can not operate if GNSS reception is only based on GLONASS constellation.
- PTP option card is only compatible with Netsilon 9 and Netsilon 11.
- One PTP option card only per Netsilon 9 or Netsilon 11 time server.

## Product Reference

- 907 922..... PTP Option card

