



PTP-SYNC UNIT

TIMING REFERENCE FOR PTP 500 AND 600 SERIES RADIOS

Often it is beneficial to deploy a number of point-to-point (PTP) radios on the same tower or rooftop or to install a number of links in a large, dense network configuration. This is typically done to maximize tower or rooftop space and reduce operating costs. In such configurations, it is possible that the performance or throughput of some of the links can be significantly reduced due to interference between the radios. When equipped with our Cambium PTP-SYNC synchronization unit, PTP 500 and PTP 600 Series radios can all but eliminate cross interference.

PRECISE SYNCHRONIZATION

The effects of cross interference can be greatly reduced by synchronizing the transmit and receive frames of collocated radios so that none are sending while their neighbors are receiving. Our PTP 500 and PTP 600 Series radios include Time Division Duplex (TDD) synchronization technology which introduces a fixed TDD framing mode. This allows the frame timing in a link to be synchronized with other PTP 500 and 600 units or an external GPS (Global Positioning System) timing module.

Our PTP-SYNC unit provides a reliable, convenient timing reference for your PTP 500 and 600 Series radios. The PTP-SYNC unit receives a time signal from a clock source and sends it to the outdoor radio unit. Then the radio adjusts its own timing to achieve precise synchronization with neighboring radios. This allows you to collocate PTP 500 and 600 radios on a tower or rooftop with greatly reduced interference.

EASY AND COST-EFFECTIVE

You need only one PTP-SYNC unit per link. To share the timing information among a group of radios on the same tower or rooftop, you can daisy-chain up to ten PTP-SYNC units together. When multiple radios are mounted on two or more towers or rooftops, a GPS receiver or other synchronized 1 Hz input is required. The cost-effective, indoor-mounted PTP-SYNC is a small-footprint device which can be conveniently mounted in a 1-U rack or on a wall. It can even be placed on a desktop. Our Cambium PTP LINKPlanner tool lets you perform PTP 500 and 600 path calculations and accurately project link performance with a PTP-SYNC unit as the timing reference.

RADIO TECHNOLOGY

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| Timing input signal | 1 Hz or 1 PPS (pulse per second) received from a timing device (GPS module, CMM or other synchronized timing device); PTP-SYNC unit can maintain local synchronization between collocated radios when timing is unavailable |
| System configuration | One PTP-SYNC unit per link; up to 10 PTP-SYNC units can be daisy-chained to one timing source |

Powering

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| LED indicator | Power status, GPS and SYNC activity |
| Powering | 56 V DC, phantom powering from PIDU/ODU cable |
| Cable | Standard Cat-5e |
| Connection | Standard RJ-45 |

Physical

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| Dimensions | Width 7.1" (180 mm), Height 1.4" (35 mm), Depth 3.1" (80 mm) |
| Weight | 1.32 lbs (0.6 kg) |
| Operating temperature | -40°F (-40°C) to +140°F (+60°C), including solar radiation |
| Humidity | Up to 95% non-condensing |
| Power supply | Integrated with Indoor Unit |
| Operating voltage | +39.0 V to +60.0 V, measured at the terminals of the unit |
| Power consumption | 1.5 W max at the terminals of the unit |

Environmental & Regulatory

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|-----------------------|---|
| Protection and safety | UL60950; IEC60950; EN60950; CSA-C22.2 No. 60950; CB Approval for Global |
| EMC | USA—FCC Part 15, Class A; Europe —EN 301 489-4 |

For more information, refer to the PTP 500 and PTP 600 Series Product Spec Sheets, or visit our web site at cambiumnetworks.com.