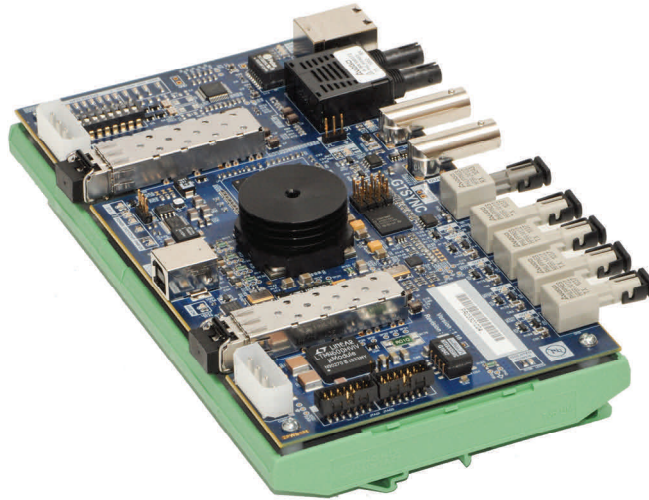


RTDS Simulator

GTSYNC



The clock used to generate the RTDS Simulator timestep has an accuracy of +/-100ppm. As such, the phase of signals computed within the RTDS Simulator will drift relative to the phase of signals on external equipment that are synchronized to a high precision time reference.

The GTSYNC card is used to synchronize the RTDS simulation timestep to an external time reference (eg. GPS clock) and to synchronize devices under test. The GSYNC connects to the GT port on the GTWIF card and cannot be daisy chained to other I/O cards.

One GTSYNC card is able to synchronize a single or multi-rack simulation. If independent simulations require synchronization in a multi-rack RTDS Simulator, one GTSYNC card is required to synchronize each simulation.

The GTSYNC card supports 1 Pulse Per Second (1PPS) over BNC coax or ST type fibre connectors, IEEE 1588 over RJ45 or ST fibre connectors as well as IRIG-B over a BNC coax connection. Synchronization of the simulation timestep to an external time reference is necessary for PMU benchmark testing with the GTNET-PMU card. It is also advantageous for IEC 61850-9-2 sampled value output.