

The PulsON 200 Evaluation Kit (EVK) contains 2 PulsON 200 radios (transceivers), 2 power supplies, 2 antenna assemblies and associated software and documentation. The EVK is designed to enable Time Domain Corporation (TDC) partners to both evaluate Ultra Wideband Technology (UWB) and to develop prototype applications. These activities are critical steps in creating UWB products for communications, tracking and radar.

Initially the user of the EVK will work with the TDC developed Performance Analysis Tool (PAT) software package to collect propagation data for link budget and channel assessment. Using PAT, the radio can be set up to transmit a standard BER pattern at a selectable raw data rate and using a TDC provided transmission code file. The receiving radio displays parameters such as  $E_b$ ,  $N_{eff}$ , receive data rate, acquisition percentage, and bit error rate. The user can also display a scan of the captured waveform as well as a scan of the ambient environment. This data will allow a user to determine if UWB will provide acceptable performance in their particular target application.

Once a system application is found to be feasible, the EVK provides both a host and embedded software development environment for early implementation prototyping. An embedded application layer which extracts more detailed functionality is provided for users wishing to develop on the host or PC side. Limited access to the TDC UWB Kernel is also provided for users that want to develop everything at an embedded level. It is important to note that user cannot at either level modify the fundamental signal shape, strength or spectral properties, nor can the user place the radio in a mode that spectrally violate the FCC regulations.