Precise Location Ultra Wideband System

The Precision Location Ultra Wideband System (PLUS) from Time Domain is a highly accurate Real-Time Location System (RTLS) that enables enterprises to have precise location information on their people and assets. Using Ultra Wideband (UWB) technology, a PLUS network can provide indoor and outdoor position information at accuracy levels previously unavailable from Wi-Fi or other RTLS technologies.

Using Tags, Readers, Synchronization Distribution Panels (SDPs), and our Location Software, a PLUS network can increase real-time productivity by quickly bringing people and assets together, by locating and documenting interactions of staff and patients in healthcare environments, and by securing assets, clients, and facilities.

**PLUS RTLS PERFORMANCE**

- Provides highly accurate location information in 1D, 2D, and multi-floor applications
- Can achieve up to 12 inch location accuracy
- Robust network deployment can track thousands of tags
- Battery powered active tags that transmit once per second (1 Hz)
- Indoor, through-wall operation
- Time Difference of Arrival (TDOA) based positioning and tracking
- Time of Arrival (TOA) raw data available via Ethernet interface
- Mounted infrastructure of readers
- Power, data, and signaling provided to readers through shielded Cat 5E cable
- FCC Certified
- ETL Certified
**Tag**

Function: Transmits RF packets  
Battery Type: Lithium Manganese Dioxide, non-replaceable  
Battery Life: 4 years  
Packet Rate: 1 Hz  
Range: 75' typical line of sight  
Dimensions: 0.5” H, 1.4” W, 1.3” D (13 mm x 36 mm x 33 mm)  
Weight: 0.74 oz (22 g)  
RF Emissions Center Frequency: 6.6 GHz, 1/2 Max FW 2 ns, burst emissions  
Operating Temperature: -20º C to +50º C  
Storage Temperature: -30º C to +60º C  
Housing Material: HDPE  
Flame Rating: V0  
Cleaning: Surface wipe only, do not immerse  
FCC Certification: FCC 15.250 certified, FCC ID: NUF-P350-1006  
Warranty: One (1) year

**Reader**

Function: Receives tag packets, demodulates data, and computes TOA  
Dimensions: 1.5” H, 8.5” W, 6.5” D (38 mm x 216 mm x 165 mm) (not including antenna)  
Reader Weight: 1.8 lbs (816 g)  
Assembly Weight: 8 lbs (3.6 kg), includes reader and antenna assembly  
Mounting: Replaces a standard 2’ x 2’ acoustic ceiling tile. Need a minimum of 2” above framework for installation  
Power Interface: Input - Sync In port or auxiliary power connector  
Power Consumption: 5.2 W typical  
Input Power: 20 W maximum (supplies local unit plus units later in chain)  
Output Power: 15 W maximum  
I/O Ports: RJ45 Input provides power, data, and synchronization signal  
RJ45 Output for pass-through of power, data and timing signal to upstream readers  
Network Data Interface: 10/100 Mbps Ethernet  
Configuration Interface: RS-232 (PS2)  
RF Interface: SMA input for connection to TDC supplied antennas  
FCC Certification: Class B digital device per CFR FCC Part 15  
Warranty: One (1) year

**24-Port Synchronization Distribution Panel (SDP)**

Function: Provides power and timing synchronization to all readers, pass-through for Ethernet data  
Dimensions: 3.47” H, 18.95” W, 16.2” D  
Weight: 11.5lbs (5.2kg)  
Mounting: 19” rack mount or table top operation  
Power Output: 420 W with maximum reader load @ 50 Vdc  
Power Draw: 20 W with no reader load, 565 W for maximum reader load  
I/O Ports: 24 LAN In ports; 24 Sync Out ports  
Port Capacity: Up to 3 readers/Sync Out port (72 total) powered by SDP, 6 readers/port (144 total) if auxiliary power applied  
Cable Length: 90 meters maximum from SDP to last reader in chain  
FCC Certification: Class A digital device per CFR FCC Part 15  
Warranty: One (1) year

**Ordering Information**

<table>
<thead>
<tr>
<th>Product</th>
<th>Part #</th>
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<tbody>
<tr>
<td>Omni 360º Antenna</td>
<td>1000A01</td>
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<tr>
<td>Omni 360º Antenna (Hinged Mount)</td>
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<tr>
<td>Reader</td>
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<td>Reader External Power Supply</td>
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<td>Plus Reseller Certification Training</td>
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**About Time Domain**

Time Domain is the world leader in Ultra Wideband (UWB) product development and provides solutions that enable enterprises to maximize productivity of their people and assets using a Real-Time Location System (RTLS). Our products and professional services deliver “Precise Location for a World in Motion” to the healthcare, retail, and other vertical markets and are sold and supported through a network of certified channel partners. Time Domain’s new Precision Location UWB System (PLUS) products are powered by the innovative PulsON suite of UWB technologies, which are also available for strategic OEM integration.

www.timedomain.com