Oil & Gas

Reliable, high-performance wireless broadband connectivity for on and off-shore digital oil fields

RADWIN delivers high capacity Point-to-Point, Point-to-MultiPoint with a smart beamforming antenna and wireless broadband in motion (FiberinMotion®) solutions for digital oil fields.

RADWIN’s solutions support a wide range of broadband applications that are essential for oil and gas companies to assure enhanced safety, security and operational efficiency through real-time data, IoT, video and VoIP connectivity from wells, mobile drillers, vehicles and field offices.
Solutions for Digital Oil Fields

**JET Smart Beamforming Point-to-MultiPoint:**
- Up to 1.5Gbps per sector / 6Gbps per cell
- Bi-directional beamforming antenna
- Innovative air interface
- Support 3.4-3.8 GHz or 4.9-6.0 GHz bands
- Guaranteed SLA
- High uplink system gain in limited EIRP, ETSI & FCC
- 25 dBm transmission power across all modulations
- High packets-per-second (PPS) for VoIP and CCTV
- High frequency reuse of 1:2
- Up to 90% uplink traffic transmission
- Dynamic channel bandwidth selection (D-CBS)

**RADWIN 2000 Point-to-Point:**
- High Capacity – up to 750Mbps
- Long range – up to 120km/75miles
- Dynamic channel bandwidth selection (D-CBS) - maximizing link capacity in congested spectrum
- Configurable asymmetric capacity
- Ruggedized IP67 outdoor units

**RADWIN FiberinMotion® Mobility:**
- Up to 750Mbps
- Simultaneously support up to 16 vehicles per sector
- Wide Area Coverage – up to 5km/3miles
- Multiband - 4.9 - 6.0GHz
- MIMO3x3/MIMO2x2/Diversity dynamic selection for maximum capacity and quality
RADWIN advantages for Oil and Gas companies:

» Highest capacity to support bandwidth demanding applications including CCTV, VoIP and high data traffic.
» Service Level Assurance (SLA) per camera, sensor and vehicle.
» High spectrum efficiency
» Support of real-time high quality video transmission (fixed and mobile):
  › Committed uplink capacity – up to 90%
  › Low latency and jitter
» Network redundancy and increased availability
» Unified synchronization, eliminating self-interference
» High durability with IP67-rated units

Applications:

» Remote site connectivity
» Real time CCTV monitoring
» Automatic Metering Infrastructure (AMI)
» Supervisory Control and Data Acquisition (SCADA)
» Wellhead connectivity
» Mobile or nomadic connectivity to mobile drillers, mobile offices and service trucks
» Pipeline protection- real time connectivity to CCTV cameras and security patrol vehicles
### Technical Data

<table>
<thead>
<tr>
<th></th>
<th>RADWIN JET DUO</th>
<th>RADWIN JET PRO</th>
<th>RADWIN 2000</th>
<th>FiberinMotion*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Point-to-MultiPoint</td>
<td>Point-to-MultiPoint</td>
<td>Point-to-Point</td>
<td>Mobility</td>
</tr>
<tr>
<td><strong>Net Aggregate Throughput</strong></td>
<td>Up to 1.5Gbps</td>
<td>Up to 750Mbps</td>
<td>10Mbps up to 750Mbps</td>
<td>Up to 750Mbps</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>Up to 40km/ 25 miles</td>
<td>Up to 40km/ 25 miles</td>
<td>Up to 120km/ 75 miles</td>
<td>Up to 5km/ 3 miles</td>
</tr>
<tr>
<td><strong>Frequency Multi-Band</strong></td>
<td>4.9-6.0GHz</td>
<td>4.9-5.9GHz, 3.4-3.8GHz,</td>
<td>2.3-2.4GHz, 3.3-3.8GHz,</td>
<td>4.9-6.0GHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.65GHz (IC)</td>
<td>4.9-6GHz, 5.7-6.4GHz</td>
<td></td>
</tr>
<tr>
<td><strong>MIMO/Antenna Diversity</strong></td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Beamforming antenna at Base Station</strong></td>
<td>Supported</td>
<td>Supported</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Latency</strong></td>
<td>Constant per subscriber unit: Typical 4 to 10msec</td>
<td>Constant per subscriber unit: Typical 4 to 10msec</td>
<td>&lt;3msec</td>
<td>Constant per subscriber unit: Typical 4 to 10msec</td>
</tr>
<tr>
<td><strong>TDD Synchronization</strong></td>
<td>Intra and Inter-Site Built-in GPS receiver</td>
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<td>Intra and Inter-Site</td>
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</tr>
<tr>
<td><strong>Security</strong></td>
<td>SNMPv1, SNMPv3, AES 128-bit encryption</td>
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</tr>
<tr>
<td><strong>Bandwidth allocation</strong></td>
<td>Guaranteed bandwidth per site and vehicle</td>
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</tr>
<tr>
<td><strong>Operating Temperatures</strong></td>
<td>-35°C to 60°C/-31°F to 140°F</td>
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</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>100% condensing, IP67</td>
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RADWIN is a leading provider of Point-to-Multipoint and Point-to-Point broadband wireless solutions. Incorporating the most advanced technologies such as a Beamforming antenna and an innovative Air Interface, RADWIN’s systems deliver optimal performance in the toughest conditions including high interference and obstructed line-of-sight. Deployed in over 170 countries, RADWIN’s solutions power applications including backhaul, broadband access, private network connectivity, video surveillance transmission as well as delivering broadband on the move for trains, vehicles and vessels.

RADWIN Ltd Corporate Headquarters
+972.3.766.2900 | sales@radwin.com

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