**Mobilicom Range Enhanced Amplified Radios**

UHF, S, and C Band 2x2 MIMO High Power Radios (THPR Series)

**Longer Range | Higher Data Rates | Lowest SWaP**

Triad’s THPR series breaks performance barriers for MIMO radios and enables first-run link success. They eliminate the need to integrate stand-alone components for long range wireless links. Triad combines our high-power RF subsystems with Mobilicom MCU-30 and SkyHopper OEM core radios in low SwAP packages. THPR products contain BDAs, RF filtering, and innovative SoC-based monitoring and controls, with real-time power measurement and link diagnostics.

**AVAILABLE FEATURES**

- Fully Integrated High-Power RF Sub-System & Radio
- Extended Range / Data Rate over Stand-Alone Radio
- Enhanced RF Link Control via USB & Serial
- Wide Vin, Single DC Supply
- Power Equalization over Frequency and Temperature

**APPLICATIONS**

- Long Distance - High Data Rate ISR Links
- UAS, UGV and USV Video / Data Links
- Military MANET
- Maritime High-Throughput LOS/NLOS Systems
- Point-To-Point and Mesh Networking

**FULLY INTEGRATED MOBILICOM CORE RADIO SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency</th>
<th>RF Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCU-30</td>
<td>UHF, S, and C Band</td>
<td>10 - 50 WATTS PER CHANNEL</td>
</tr>
<tr>
<td>SkyHopper</td>
<td>S and C Band</td>
<td>10 - 50 WATTS PER CHANNEL</td>
</tr>
</tbody>
</table>
LINK DISTANCE CAPABILITIES

The chart and tables below provide estimates for link distances achievable, based on typical bandwidth needs and antenna configurations. Contact Triad for our expert ISR link team to assess of your link requirements.

### TYPICAL USE CASE 1: SHORT RANGE, LOW ANTENNA GAIN LINK CONFIGURATION

**Ground Station Antenna:** 9dBi Fixed Omni  
**Air Vehicle Antenna:** 2-5 dBi Blade

| Short range, fixed antenna application | 100 km |
| ~6 Mbps | |

### TYPICAL USE CASE 2: LONGE RANGE, HIGH ANTENNA GAIN LINK CONFIGURATION

**Ground Station Antenna:** 24dBi Tracking Dish  
**Air Vehicle Antenna:** 2-5 dBi Blade

| Low data rate application | 200+ km |
| ~6 Mbps | |

### MECHANICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Connectors</td>
<td>SMA-F, N-F, and TNC Standard, others available</td>
<td>--</td>
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</tbody>
</table>
### ENVIRONMENTAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Max</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>Ambient Operating Temperature</td>
<td>-40</td>
<td>60</td>
<td>°C</td>
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<tr>
<td>Ingress Protection Rating</td>
<td>IP67</td>
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</tr>
<tr>
<td>Altitude</td>
<td>0-50,000</td>
<td></td>
<td>ft.</td>
</tr>
<tr>
<td>Shock / Vibration</td>
<td>MIL-STD-810 and Equivalents</td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

For more information and to request a quote: [Triad RF Radio Systems](http://www.triadrf.com)