**Tropos 6420**
Outdoor mesh core router

The Tropos 6420 outdoor mesh router is a cost-effective, easy to deploy, high-performance outdoor networking solution.

**Tropos 6420** provides superior reliability by accessing 653 MHz of RF spectrum (463 MHz in ETSI) using automatic interference avoidance capabilities of Tropos Mesh OS. The Tropos 6420 uses the 802.11a/b/g/n wireless standards to deliver 600 Mbps total wireless data rate, 300 Mbps at 2.4 GHz and another 300 Mbps at 5 GHz.

**Wireless**
- **IEEE 802.11b/g/n radio**
  - Modulation: 802.11g/n - OFDM (64-QAM, 16-QAM, QPSK, BPSK); 802.11b - DSSS (DBPSK, DQPSK, CCK)
  - Media access protocol: CSMA/CA with ACK
  - TX power (dBm EIRP)

<table>
<thead>
<tr>
<th>Band (MHz)</th>
<th>FCC</th>
<th>ETSI</th>
<th>Brazil</th>
<th>ASEA N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2400-2473</td>
<td>21-36</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2400-2483</td>
<td>N/A</td>
<td>5-20</td>
<td>11-26</td>
<td>5-20</td>
</tr>
</tbody>
</table>

assumes use of 7.4 dBi antennas

- 2x2 MIMO-antenna system: 2-TX x 2-RX
- 7 dBi integrated omnidirectional antennas
- RX Sensitivity:
  -98 dBm @ 1 Mbps
  -96 dBm @ 6 Mbps

- **IEEE 802.11a/n radio**
  - Modulation: 802.11a/n - OFDM (64-QAM, 16-QAM, QPSK, BPSK)
  - Media access protocol: CSMA/CA with ACK
  - TX Power (dBm EIRP)

<table>
<thead>
<tr>
<th>Band (MHz)</th>
<th>FCC</th>
<th>ETSI</th>
<th>Brazil</th>
<th>ASEA N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>5150-5250</td>
<td>21-36</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5250-5350</td>
<td>15-30</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5470-5725</td>
<td>15-30</td>
<td>15-30</td>
<td>N/A</td>
<td>15-30</td>
</tr>
</tbody>
</table>

assumes use of 8 dBi antennas

**Interfaces**
- Full 802.11a/b/g/n wireless, 802.11n client compatibility
- One IEEE 802.3u autosensing 10/100/1000BASE-T Ethernet port
- One IEEE 802.3u autosensing 10/100BASE-T Ethernet port or one serial port, RS-232 and/or RS-485
  - Protocols: DNP3, Modbus (RTU), Modbus (ASCII), raw (serial pass-through) support
  - IPv4, IPv6-ready
  - BGP
  - 802.1q VLAN support (ESSID and IP based tagging)
  - Support for static and dynamic addressing for wireless and wired clients
  - Session-persistent mobility across subnets
  - IP multicast forwarding, IGMPv3; IGMP Proxy
  - Automatic rate, power, channel and band control
  - IEC 61850 GOOSE messaging
  - Reliable broadcast
  - Network Address Translation (NAT) support for wired clients

**Quality of service**
- 802.11e 802.11e WMM
- 802.1p/q with 4 queues per VLAN and ESSID
- 802.1p and DSCP
- VoIP and VoWiFi support
Management
- Local and remote management tools via HTTPS
- Role-based authentication (4 levels)
- Configuration save and restore
- Over the air software upgrades
- SNMP (standard MIBs)
- Wireless, network and client monitoring and statistics
- Infrared (IR) port
- Wireless rescue
- SuprOS carrier-class NMS support

Security
- IPsec VPNs with tunnels to wired client interfaces using AES
- Authentication: WPA, WPA2, 802.11i, RADIUS, 802.1x (includes EAP-TLS, EAP-TTLS, EAP-SIM, PEAP)
- Encryption: open, WEP, TKIP, AES-CCM
- AES encryption of mesh and control traffic
- Technical controls required to achieve NERC CIP v5 compliance
- Multiple BSSIDs & ESSID (ESSID suppression)
- Integrated firewall
  - Packet filtering on TCP/UDP port, protocol, SA, DA
  - Peer-to-peer blocking
  - Client access control lists
- Evil twin detection and reporting
- Denial of service (DoS) attack detection and reporting
- Jamming attack detection and reporting

Environmental specifications
- Operating temperature range: -40°C to 75°C
- Storage temperature range: -40°C to 85°C
- Weather rating: IP67 UL579/IEC 60529 IP67
- Wind survivability: >165 mph
- Wind loading (165 mph): <210 Newtons
- ASTM B117 salt fog rust resistance compliant
- Shock & vibration: ETSI 300-19-2-4 spec T4.1E class 4M3
- Transportation: ISTA 2A

Physical
- Dimensions (w/o mounting brackets): 8.75” (22.2 cm) x 7.25” (18.4 cm) x 14” (35.6 cm) high with antennas
- Weight: 5 lbs (2.3 kg) max., without mounting brackets
- Outdoor pole mounting kit and cable glands included with each unit

Wireless approvals
- FCC CFR 47 Part 15
- Industry Canada RSS 210
- EN 301 489-17
- EN 300 328
- EN 301 893
- EN 302 502

Safety approvals
- EN 60950
- IEC 950
- UL 60950-1
- CSA 22.2 No. 60950-1
- UL 579/IEC 60529 IP67 rated for outdoor use
- UL 1449/IEC 60664-1
- CE
- IEEE 1613

Protection
- Antenna protection integrated
- Electrical protection:
  - EN61000-4-4 Level 2 electrical fast transient burst immunity
  - EN61000-4-3 Level 2 EMC field immunity
  - EN61000-4-2 Level 2 (contact), Level 3 (air) ESD immunity

Warranty
- Five-year hardware warranty
- Software and hardware maintenance plans available

Click the link to find out more information about our wireless mesh routers.