Aspire™ 200 Satcom System
Allows passengers and crew to be connected during flight, reduces workload and sends real-time data quickly to and from the aircraft
Aspire™ 200 Satcom Systems for Helicopters

Helicopter missions require constant connectivity for passengers and crew, both voice and data. When you’re beyond line of sight or beyond VHF coverage area, you need dependable, reliable high-speed data connectivity. In challenging environments, low latency voice, real-time data transfer and aircraft tracking empower pilots to complete their missions successfully and safely.

Honeywell is responding to these challenges with the Aspire 200™ Satellite Communications System for helicopters. Providing a single channel of SwiftBroadband, the Aspire 200 system offers a broad range of connectivity options to suit a wide variety of mission requirements. These systems operate on the Inmarsat I-4 satellite network, which has worldwide coverage. With the certified High-Data Rate (HDR) software upgrade, incorporating a long-burst interleaver, the Aspire 200 is ideal choice for helicopter operators who need high-speed and high bandwidth connectivity for mission-critical applications.

The system is designed with common interfaces that provide flexible installation options and ease of upgrade to further increase the system’s capabilities.

Honeywell’s performance is unmatched and unparalleled. The Aspire 200 System with HDR can transmit more data, faster than any other L-band system. No matter your mission – air ambulance, law enforcement, oil and gas, search and rescue, VIP transport – or your area of operations, the Aspire 200 system provides a high-speed data connection that is always on.

<table>
<thead>
<tr>
<th>ASPIRE 200 STANDARD SYSTEM BUNDLES</th>
<th>Aspire 200 Intermediate Gain</th>
<th>Aspire 200 High Gain</th>
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<tbody>
<tr>
<td>System Components</td>
<td>HDU-200 Transceiver</td>
<td>HDU-200 Transceiver</td>
</tr>
<tr>
<td></td>
<td>SCM</td>
<td>SCM</td>
</tr>
<tr>
<td></td>
<td>CNX-250 or CNX-900</td>
<td>CNX-250 or CNX-900</td>
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<tr>
<td></td>
<td>AMT-1800</td>
<td>AMT-700 or AMT-3800</td>
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<tr>
<td></td>
<td>IPLD</td>
<td>IPLD</td>
</tr>
<tr>
<td>Services</td>
<td>One channel of SwiftBroadband voice/multiple simultaneous Background Data Services up to 332kbps and Streaming Data Services up to 128kbps (no HDR) or 500kbps with HDR</td>
<td>One channel of Swift Broadband voice/multiple simultaneous Data Services up to 432kbps and Streaming Data Services up to 128kbps (no HDR) or 650kbps with HDR, plus full Swift 64 redundancy/revisionary operation</td>
</tr>
</tbody>
</table>

| Coverage Area                      | Inmarsat Class 6 and 7 Coverage |

High-Data Rate (HDR) Upgrade

The HDR software upgrade is used to enhance Inmarsat L-band services. The upgrade to SwiftBroadband channels provides up to 650 Kbps per channel compared to the previous maximum data rate of 432 Kbps. This low cost solution for increasing cabin performance also reduces the effects of rotor blockage making it an ideal solution for adding high speed data to helicopters. The HDR software upgrade may be installed by a qualified user or the terminal can be returned to Honeywell for upgrade at a minimal cost.
Standard Components

High-speed Data Unit (HDU-200)
The Aspire HDU-200 Transceiver (HDU-200) offers one channel of SwiftBroadband service for simultaneous voice and data connectivity with the Inmarsat I-4 satellite network and fallback to Swift 64 with a high-gain antenna. HDU-200 is designed for flexible installation and can be mounted inside or outside the pressure vessel.

Communications Convergence Unit (CCU-200)
The Communications Convergence Unit (CCU-200) is a full-service multi-port router, Wi-Fi® Access Point (802.11 a/b/g) and full-featured PBX (digital and analogue) that supports VoIP, phone directory, call forwarding and three-way calling. The component provides network and telephony connectivity to multiple cabin users with Swift 64, SwiftBroadband systems and programmable, digital I/O.

Integrated High-power/Low-noise Amplifier Diplexer (IPLD)
The Integrated High-power/ Low-noise Amplifier Diplexer (IPLD) connects the HDU-200 to the externally mounted aircraft antenna. With an integrated higher-power amplifier, it provides optimal performance of the voice and data communication services over SwiftBroadband or Swift 64, even in adverse conditions. The unit’s integrated Type F diplexer ensures compliance with SwiftBroadband service requirements. The IPLD is rated for installation outside the pressure vessel.

Satcom Configuration Module (SCM)
The Satcom Configuration Module (SCM) stores all configuration information for the HDU-200. It gives the operator the ability to seamlessly upgrade a component without the time and effort of reconfiguring the units and reprovisioning the network access.

Antenna Options

Honeywell’s range of Inmarsat antennas fits a wide range of aircraft types using a variety of fuselage adapters and radomes.

AMT-1800
Intermediate-gain Antenna (IGA)
The AMT-1800 is the smallest available Class 7 ARINC781 intermediate-gain Inmarsat antenna that offers up to 332 kbps voice and data service as a part of the Aspire 200 IG communications system. The AMT-1800 IGA operates over the extended L-band frequency range to support operation with the new Inmarsat Alphasat satellite. The antenna’s phased array technology maintains gain at very low angles and meets stringent SwiftBroadband Passive Intermodulation (PIM) requirements.

AMT-3800
High-gain Antenna (HGA)
The AMT-3800 is an ARINC 781 high-gain antenna offering up to 432 kbps of voice and data services over the Inmarsat satellite network. Connected to the IPLD and installed on the empennage of an aircraft’s tail, the antenna’s technology and design (U.S. patent pending) result in the highest gain of any Inmarsat Mechanical High-gain Antenna – achieving greater than 13.5 dBiC over the Inmarsat networks.

AMT-700
High-gain Antenna (HGA)
The AMT-700 is a complete ARINC 781 high-gain antenna offering up to 432 kbps of voice and data services over the Inmarsat satellite network. Connected to the IPLD and installed on the empennage of an aircraft’s tail, the antenna’s technology and design (U.S. patent pending) result in the highest gain of any Inmarsat Mechanical High-gain Antenna – achieving greater than 13.5 dBiC over the Inmarsat networks.

Specifications Table:

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-speed Data Unit (HDU-200)</td>
<td></td>
<td>14.8&quot; 37.6 cm</td>
<td>2.4&quot; 6.0 cm</td>
<td>7.8&quot; 19.0 cm</td>
<td>8.8 lb. 4.0 kg</td>
</tr>
<tr>
<td>Integrated High-power/Low-noise Amplifier Diplexer (IPLD)</td>
<td></td>
<td>9.0&quot; 22.68 cm</td>
<td>6.0&quot; 15.24 cm</td>
<td>1.0&quot; 2.54 cm</td>
<td>3.97 lb. 1.80 kg</td>
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<tr>
<td>AMT-1800 IGA</td>
<td></td>
<td>18.3&quot; 46.5 cm</td>
<td>7.6&quot; 19.0 cm</td>
<td>1.9&quot; 5.0 cm</td>
<td>6.0 lb. 2.7 kg</td>
</tr>
<tr>
<td>AMT-3800 HGA</td>
<td></td>
<td>43.0&quot; 109.2 cm</td>
<td>14.3&quot; 36.3 cm</td>
<td>2.5&quot; 6.35 cm</td>
<td>19.8 lb. 9.0 kg</td>
</tr>
</tbody>
</table>

Notes:
The AMT-1800 is the smallest available Class 7 ARINC781 intermediate-gain Inmarsat antenna that offers up to 332 kbps voice and data service as a part of the Aspire 200 IG communications system.

The AMT-3800 is an ARINC 781 high-gain antenna offering up to 432 kbps of voice and data services over the Inmarsat satellite network. Connected to the IPLD and installed on the empennage of an aircraft’s tail, the antenna’s technology and design (U.S. patent pending) result in the highest gain of any Inmarsat Mechanical High-gain Antenna – achieving greater than 13.5 dBiC over the Inmarsat networks.
Aspire™ 200 Intermediate Gain System Diagram

Enhance system performance with an CNX-900 Network Accelerator

**CNX®-900 Network Accelerator**

The CNX-900 Cabin Gateway is a multi-port network router with a data accelerator module that acts as the communications hub for all aircraft data and voice links. The appliance increases the number of network users, the strength of encryption and the speed (data acceleration) of a Satcom or ATG system.

**Features**

The CNX-900 provides a single cabin network based on Ethernet that supports high-speed data and voice communications and is scalable to support future growth and system expansion.

- Next Generation Acceleration/Compression technology
- Multi-WAN support
- 2x ISDN BRI ST
- 3G/4G connectivity (on ground only)
- Wi-Fi ON/OFF discrete
- Streaming class QoS management
- VoIP support with VoIP trunking
- Reliability 30,000 MTBF

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>2MCU Tray Mount / ARINC-600</td>
</tr>
<tr>
<td></td>
<td>Removable configuration module (holds the configuration settings and cellular SIMS)</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>28Vdc / 40W</td>
</tr>
<tr>
<td>Weight</td>
<td>7.3 lbs</td>
</tr>
</tbody>
</table>

Learn More

To learn more about Honeywell’s Aspire 200 Satcom System, please visit: aerospace.honeywell/aspire200

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