A powerhouse in a small package.

Trusted, reliable communication: We know it’s critical to your ground-air communications, both day-to-day and in an emergency. It’s why Rockwell Collins has developed the 721S Blade ground V/UHF radio.

Part of our family of V/UHF battle management solutions, 721S Blade offers you a highly flexible, portable and space-efficient solution for primary, emergency and backup AM/FM V/UHF ground-air communication.

The radio system’s modular, “building block” architecture makes it easily scalable across your users’ unique requirements. It provides superior radio-frequency performance in a small form factor that accommodates transportable and fixed-site applications.

Count on clear communication with the 721S Blade Clarity™ noise reduction technology. It significantly reduces background noise in transmit and receive modes by removing non-syllabic audio (e.g., cockpit/aircraft noise, heating/cooling system noise, street and office sounds, and signal interference from co-location pollution). The result is a clean and uncluttered communication signal between ground radio operator and pilot.

The 721S Blade consists of small, hot-swappable TCP/IP-based 10- or 50-watt radio frequency receiver-transmitters that are integrated into a 19-inch rack mount transit case. Each receiver-transmitter exhibits excellent radio-frequency co-site performance, which enables deployment of multiple 721S Blade systems at one site.

With a compact size for easy deployment, 721S Blade has been fielded with numerous voice communications systems. It features a user-friendly interface for simple and intuitive operation. 721S Blade is compatible with the USAF Rome Touch Control Software, as well as ED-137 VoIP audio compatibility using the G.711 codec.

KEY BENEFITS

- Compact, modular packaging minimizes transport space and simplifies deployment
  - Lowest size, weight and power usage (SWaP) in dual-band V/UHF market
  - No radio-frequency compromise for transportable/expeditionary market space
  - 10-minute setup time in deployable configurations
  - Modular design enables easy upgrades

- Clarity noise reduction
  - Boosts area of coverage 4X over conventional V/UHF transceivers
  - Significantly reduces operator fatigue by removing non-syllabic background noise in both transmit and receive operations

- Embedded scanning guard receiver mode
KEY FEATURES

- Intuitive touchscreen menu with interactive help screens
- Superior RX
- 10/100 Base-T Ethernet remote-control interface for full receiver-transmitter control
- Robust, built-in test (BIT) for quick, simplified equipment status and diagnostics aid
- Wide-range AC input power with backup DC inverter for genset
- Full range of antenna options
- High mean time between failures (MTBF)

EQUIPMENT OPTIONS

- 721S Blade
  - RT-1410 10 W V/UHF 270-3186-070
  - RT-4150 50 W V/UHF 270-3186-072
  - RT-8850 VHF 50 W FM 270-3186-075
- Control options
  - RCU-710 controller 270-3148-062
  - PC software 270-3148-050
- Power*
- Mounting chassis
  - 270-3186-060 (MMT-1000)
  - Up to six 10 W radios or three 50 W radios, or a mixture of both

*Depends on application. Please contact your Rockwell Collins representative for details.

SPECIFICATIONS

- Operating frequency 108-400 MHz
  - 30-88 MHz (RT-8850)
- Transmit power 10 W AM (carrier)/20 W FM or 50 W AM (carrier)/100 W FM
  - 50 W FM (RT-8850)
  - The power output – user adjustable
    - (20 dB range in 0.1-dB increments)
- Transmit duty cycle Continuous duty under all conditions
  - Full power VSWR <2:1;
  - up to 6 dB power reduction VSWR >2:1
- Built-In-Test Continuous fault detection (C-BIT);
  - user initiated fault isolation (I-BIT)
- Power input 90-250 Vac, 47-63 Hz, 1Phase
  - DC power input available with optional AC/DC inverter
- Cooling Internal forced air
- Temperature ranges
  - -30°F to +55°C operating
  - -40°F to +85°C storage
- Humidity 15% to 95% noncondensing
- Reliability >50,000 hours MTBF ground benign
- Maintainability 15 minutes MTTR
- Channel spacing and modulation modes
  - 25 kHz (AM DSB, FM, FSK)
  - 12.5 kHz (AM DSB, FM, FSK)
  - 8.33 kHz (AM DSB in VHF ATC band)
- Receiver sensitivity
  - -103.5 dBm (1.5 μV), AM voice
  - -108 dBm (0.9 μV), FM voice
  - -97 dBm (3.2 μV), AM or FM WB
- Stability 1.0 PPM
- RT control Removable front panel control unit,
  - external RCU or remote networked PC
- Audio
  - NB voice and WB data
  - Balanced 600 Ohm,
  - -10 to +10 dBm output level
  - Adjustable in approx. 1 dB steps

 Specifications subject to change without notice.