



721S FIXED-SITE V/UHF RADIO

RELIABLE AND FLEXIBLE PERFORMANCE

Clarity that you can count on

Trusted, reliable and flexible communication is critical in today's battlespace. Collins Aerospace's software defined 721S fixed-site V/UHF radio provides a tailorable solution for stand-alone or networked transceivers.

As a part of our V/UHF family of solutions for battle management, the 721S delivers superior connectivity through an Ethernet-based command and control system employing open system architecture.

721S radios are fully configurable to satisfy your VHF and UHF line-of-sight needs and support multiple voice and data operating modes. It can be customized to provide AM and FM frequency coverage in any band within the 30-512 MHz range.

Frequency agile EPM waveform options are available. The radio sets can be upgraded for seamless interoperability with

numerous frequency agile radio platforms such as, SATURN, HAVE QUICK I/II and country-unique waveforms.

The 721S can be optimized for highly congested operational conditions. Features robust internal tracking filter capable of supporting ECCM waveforms while providing great co-location performance.

Color display and software-definable touchscreen on the removable RCU-720 remote control unit provide intuitive radio control and status interfacing, along with voice audio and keying connections. Used remotely, the RCU-720 uses a single standard 10/100/1000 Ethernet interface for radio control, keying, status and audio via Voice over Internet Protocol (VoIP).

The system supports the installation of Ethernet encryptors between each network component for added security. A robust Microsoft® Windows® application is available for a standard IBM® compatible PC to enable 721S control and monitoring through an Ethernet connection or network.



KEY FEATURES

- Flexible AM/FM operating frequency from 30-512 MHz
- 100-watt, high-power radio frequency (RF) transmitter with selectable 20 dB RF output power turndown in 0.1 dB increments
- RCU-720 remote control unit – installed in the radio front panel or remotely connected via IEEE-compliant 10/100/1000 Ethernet link
- 721S compatible to Rome Touch Control Software (RTCS) Ethernet and Serial Version
- A single remote control unit can manage multiple radio transceivers for monitor and control, voice audio and transmitter PTT keying

OPTIONS (INQUIRE FOR AVAILABILITY)

- Electronic Protection Measures (EPM) with HAVE QUICK I/II and SATURN waveforms
- Additional RCU-720s for radio control, status, voice audio and transmitter keying of a radio or multiple radios through Ethernet link
- Inputs for external timing or frequency standards
- External auto-tune filter/multi-coupler available
- PC-based software for remote control over Ethernet
- RT slide, connector kits and RCU desktop mounts available
- Link 11/22 (TADIL-A) data mode (requires external modem)
- Blank front panel (no local control option)

SPECIFICATIONS

Part numbers** 270-3148-012 (108-174 MHz VHF RT)
 270-3148-022 (225-400 MHz UHF RT)
 270-3148-032 (108-400 MHz V/UHF RT)
 270-3148-042 (30-512 MHz)
 270-3148-066 (RCU-720 control)

** -022, -032, -042 support HAVE QUICK I/II

270-3148-023 (225-400 MHz UHF RT)
 270-3148-033 (108-400 MHz V/UHF RT)
 270-3148-043 (30-512 MHz)

** -023, -033, -043 support HAVE QUICK I/II and SATURN

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|--------------------------------------|--|
| Operating frequency | 30.000 – 511.975 MHz (available) |
| 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 μ V), AM voice -108 dBm (0.9 μ V), FM voice -97 dBm (3.2 μ V), AM or FM WB |
| Stability | 1.0 PPM (0.1 PPM available) |
| Transmit power | 100 W FM 30 W AM carrier; 50 W AM carrier optional |
| Transmit duty cycle | Continuous duty under all conditions Full power at VSWR <2:1; up to 6 dB power reduction VSWR >2:1 |

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| RT physical | Standard 19" (483 mm) rack mounted 7" (178 mm 4 RU) high, 20" (520 mm) deep; weight 40 lbs (18 kg) typical, but not more than 50 lbs (23 kg) |
| RT control | Removable front panel control unit, external RCU or remote networked PC |
| Built-In-Test | Continuous fault detection (C-BIT), User initiated fault Isolation (I-BIT) |
| Power input | 85 to 264 V ac, 47-63 Hz 24 to 30 V dc |
| Temperature | -30°C to +55°C operating -40°C to +85°C storage |
| Humidity | 5% to 95% non-condensing |
| Cooling | Internal forced air |
| Audio | NB voice and WB data; Balanced 600 Ohm, -15 to +10 dBm output level |
| Reliability | >50,000 hours MTBF ground benign |
| Maintainability | NMT 15 minutes MTTR |

Specifications subject to change without notice.



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