Military users need an easy to operate, multifunctional, fully Digital Signal Processing (DSP) high frequency radio for rotary wing applications. That’s why Rockwell Collins designed the ARC-220, providing embedded Automatic Link Establishment (ALE), serial tone data modem, text messaging, GPS position reporting and anti-jam (ECCM) functions.

With the ARC-220 designed specifically for rotary wing applications it allows the pilot to keep his eyes out of the cockpit.

Our ARC-220 is fielded on all U.S. Army Blackhawk, Chinook and Apache helicopters and has identical capabilities to the VRC-100 which is fielded by the U.S. Army at Aviation Tactical Operation Centers.

KEY FEATURES/USER BENEFITS
- Embedded Automatic Link Establishment (ALE) offers best clear channel connection (JITC certified)
- Embedded ECCM and data modem (JITC certified)
- Automatic Quick Call ALE (AQC-ALE)
- Securable Automatic Position Reporting - (V)3/(V)4
- Securable Binary Messaging with ARQ protocol - (V)3/(V)4
- Form/fit/function retrofit of existing AN/ARC-199 installations
**SPECIFICATIONS**

**Frequency**
2.0000 - 29.9999 MHz in 100-Hz steps

**Channels/Nets**
20 programmable simplex or half-duplex
20 programmable ALE scan lists
12 programmable ECCM hop sets

**Frequency Stability**
3.3 x 10^-7 over operating temperature range

**Emission Modes**
USB & LSB-voice and data, CW, and AME

**ALE**
IAW MIL-STD-188-141B Appendix A
Appendix A Quick Call AQC-ALE
– JITC certified 26 July 2002

**ALE Linking Protection**
ALE Linking Protection AL1, AL2, & AL3
(MIL-STD-188-141B Appendix B)

**ECCM**
IAW MIL-STD-188-148A (with ALE)
– JITC certified 18 July 2002
IAW CR-CX-0218-001 (Army Enhanced)

**Modem**
IAW MIL-STD-188-110B and STANAG 4285 – JITC certified 18 July 2002

**Power Requirements**
+28 V dc per MIL-STD-704 (550 W max)

**Reliability**
1000 hours MTBF minimum

**Fault Isolation/Detection**
95% LRU fault detection
98% fault isolation (LRU level)

**FIELD REPROGRAMMABLE**

**Mission Data**
DS-101, EIA-232, MIL-STD-1553B

**Transec Keys**
RT-1749/URC

**Software (OPF)**
IAW MIL-STD-2217

**RECEIVE Characteristics**
IAW MIL-STD-188-141B

**Sensitivity**
-111 dBm signal for 10 dB (S+N/N)

**TRANSMIT Characteristics**
IAW MIL-STD-188-141B

**Power Output**
3 levels: 175 W pep (100 W avg)
50 W and 10 W

**Antennas**
Shorted loop, open loop, open wire and 50 ohm resistive

**INTERFACES**

**Audio Voice**
0 or up to +17 dBm (50 mW) max,
150 ohm balanced

**Audio Data**
1 mW (0 dBm), 600 ohm balanced
Compatible with KY-100 (AIRTERM),
USC-43 (TACTERM)

**Secure Voice/Data Operation**
1553, EIA-232C, GPS (Time & Position)

**ENVIROMENTAL**

**Operating temperature**
-40°C to +55°C

**Storage temperature**
-51°C to +85°C

**Altitude**
25,000 ft maximum

**Humidity**
95%

**Vibration**
2.5g

**Operational shock**
20g

**Crash safety shock**
40g

**EMI**
IAW MIL-STD-461D

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

Building trust every day.

Rockwell Collins delivers smart communication and aviation electronics solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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