

629F-23 SERIES

Increased bandwidth, power efficiency and frequency range extension.



The Rockwell Collins 629F-23 series is the most current offering in the ARC-210 Programmable Digital Communication System. A fully digital transceiver, the 629F-23 provides superior performance from 30 to 512 MHz and provides interoperability between

ground and airborne military forces and land-based civil agencies. The 629F-23 is the first ARC-210 with software loads tailored to customer requirements.

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SYSTEM FEATURES

- Non-COMSEC drop-in replacement for RT-1794(C)/RT-1824(C)/RT-1851(C)/RT-1851A(C)
- FM Immunity compliant with ICAO Annex 10 and ED-23B
- Interoperable with a variety of high power amplifiers, low noise amplifiers, tunable filters, interference mitigation systems and antennas
- Control via MIL-STD-1553, full size, or half size remote control
- Support structure including logistics, training, test sets, PC based loader and controller
- Software reprogrammable in the field
- Scan (4 channel)
- LOS: AM voice/data, FM voice/data
- ATC (8.33 kHz and 25 kHz channels) with embedded FM immunity
- Dedicated 121.5 MHz and 243 MHz guard channels
- ADF capable

FREQUENCY RANGE

- VHF 30 - 88 MHz Tactical FM
- VHF 108 - 118 MHz Navigation
- VHF 118 - 137 MHz Air Traffic Control
- VHF 137 - 156 MHz Land Mobile
- VHF 156 - 174 MHz Maritime
- UHF 225 - 512 MHz Military/Landmobile/Public Safety

BANDWIDTH

- 8.33, 12.5 and 25 kHz bandwidths
- Future growth to other bandwidths with software upgrade

TUNING

1.25 kHz increments

TRANSMIT OUTPUT POWER

- AM: 10 W - 15 W
- FM: 15 W - 23 W
- FM: 5 W \pm 1 dB (400 - 512 MHz)

CARRIER MODULATION

AM, FM, FSK

FREQUENCY STABILITY

\pm 1.0 PPM

ADJACENT CHANNEL EMISSIONS

Meets adjacent channel emissions requirements

RECEIVE SENSITIVITY (10 dB SINAD)

- AM: -103 dBm (30%)
- FM: -108 dBm (2.4 KHz deviation)

INPUT/OUTPUT INTERFACES

- MIL-STD-1553B
- MIL-STD-188-114A/RS-422 data port
- MIL-STD-188C data port
- RS-232 data port
- Two serial frequency information busses
- GPS time interface

INPUT POWER

28 VDC per MIL-STD-704D

SUPPORTED FEATURES

- HAVE QUICK
- HAVE QUICK II
- Harris Citadel^{® 1,2}
- Harris Quicklook 1A^{1,2}
- SATURN
- TALON¹
- TALON II¹
- 128 bit software encryption (AES)¹
- Continuous Phase Modulation (CPM)¹
- SINCGARS¹
- Link 11 (with external "smart" mount)
- MIL-STD-188-220B/C¹
- SubNet Relay (SNR)
- CTCSS
- CDCSS¹

EMERGENCY BEACON

- AM swept tone beacon compatible

PHYSICAL PARAMETERS

| | |
|--------|----------------------------------|
| Size | 5.6 in H x 5.00 in W x 9.85 in D |
| Weight | 11 lbs (maximum) (10.5 typical) |

MEAN TIME BETWEEN FAILURE (MTBF) (PREDICTED)

- NLT 3400 HRS Airborne Inhabited Cargo (AIC)
- NLT 1050 HRS Airborne Uninhabited Cargo (AUF)

ENVIRONMENTAL SPECIFICATIONS

| | |
|-----------------------|--|
| Temperature | -40°C to +71°C Storage: -54°C to +95°C |
| Humidity | Up to 100% IAW MIL-STD-810E Method 507.3 |
| Shock (functional) | 20 G peak IAW MIL-STD-810E, Method 516.4 (on isolated mount MT-4935) |
| Random vibration | MT-6567/ARC 8.5 Grms Functional 12.7 Grms Endurance MIL-STD-810F Method 514.5 |
| Altitude | Up to 70,000 ft |

EMI SPECIFICATIONS

- MIL-STD-461E

GENERAL ATTRIBUTES

- Initiated Built-In Test (IBIT) (over 100 discrete tests)
- >95% fault detection and isolation
- Continuous Built-In Test (real time monitoring of critical functions)
- Single Point Fill (DS-101) of up to 10 radios from one fill port

- Fill data
 - Presets
 - 25 single channel
 - 25 Electronic Protection Mode (EPM)
 - 5 half-duplex
 - HAVE QUICK I/II variables
 - SATURN variables
 - SINCGARS variables¹
 - TALON I/II variables¹
 - Quicklook 1A variables^{1,2}
 - Citidel encryption keys^{1,2}
 - AES encryption keys¹

ANCILLARY EQUIPMENT

- Full size remote control: 379F-16A
- Half size remote control: 379F-21
- PC based MIL-STD-1553 controller
- Link 11 mount: 994M-4/4A
- Isolated and low profile mounts
- High Power UHF Amplifier: AM-7526 (125 W UHF)
- High Power VHF Amplifier: AM-7189A (50 W VHF FM)

¹ Future capability
² Requires selection of 629F-24

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



Building trust every day.

Rockwell Collins delivers smart communication and aviation electronic 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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