

## HFS-900D HIGH SPEED DATA RADIO

Automatic, real time, global coverage.



**Rockwell  
Collins**

Building trust every day



The Rockwell Collins HFS-900D high frequency data link (HFDL) system is the premier choice for HF Data Radios in its class. Whether you operate in oceanic, polar or remote land areas, the HFS-900D provides a cost-effective, long-range data link system for air transport class aircraft

#### KEY FEATURES

- Embedded industry-standard HFDL functionality (ARINC 753/635)
- ARINC 719- and 429-compatible
- D0-160C-compliant
- D0-178B Level C-compliant
- ARINC 615 data-loadable
- Improved OMS BITE
- Improved reliability with digital technology

#### A QUALITY INVESTMENT

Rockwell Collins HFDL technology extends and improves the overall functionality of your HF system. The HFS-900D delivers an integrated voice and data radio in a single unit with no need for an external modem and allows for maximum use of the airborne communications addressing and reporting system (ACARS).

#### AUTOMATIC SELECTION

Using a unique frequency management system, the HFS-900D automatically selects the optimum communication frequency and establishes the primary data link between the aircraft and the

ground station. Once the primary channel is set up and the coupler is turned on, the frequency management system continuously monitors up to 20 additional channels in the background. If the primary channel degrades to a point where it is no longer usable, the frequency management system will automatically select a new primary channel. The new channel can typically be logged onto within 32 seconds, versus several minutes for HF data radios that lack this frequency management system.

#### COMPATIBILITY

The HFS-900D is fully compatible with the CPL-920D Digital Antenna Coupler. When these two powerful systems are combined, a highly reliable system for HFDL applications is produced. A Rockwell Collins HFDL system can also be paired with a single satellite communications (SATCOM) system to provide maximum data link communication availability. Because these two systems have different propagation characteristics and link failure modes, HFDL and SATCOM systems together provide a 99.98% availability, meeting the FAA's air traffic management (ATM) requirement.

#### FOR EXISTING USERS

Existing Rockwell Collins HF users can also extend their current HF investment through a service bulletin retrofit kit that will embed data link technology into their existing voice-only ARINC 719 radios: Rockwell Collins HFS-900, HFS-700 or 628T-2A. This creates a new HFDL radio with the same ARINC 753 and ARINC 635 functionality as that of the HFS-900D.

## A TRUSTED SOURCE

Rockwell Collins continues to lead the industry with innovative and reliable HF solutions. Whether it's new, fully integrated HFDL radios, cost-effective HFDL upgrade kits or digitally tuned antenna couplers, Rockwell Collins will take your HF investment to the next level of performance.

## SPECIFICATIONS

Size	6 MCU per ARINC 719, 600
Weight	27.7 lbs maximum
Power	115 V ac, 3 phase
Frequency range	2.0 to 29.9999 MHz
Number of channels	280,000 in 100 Hz increments
Frequency stability	±20 Hz (OXCO standard)
Channel selection	Serial (ARINC 429) or reentrant
Channel change time	1 second maximum
Types of emission	Rx: AM, USB/LSB/AME, DATA, CW TX: USB/LSB/AME, DATA, CW

### Transmitter Characteristics

RF power output	SSB: 400 W pep, 125 W average, nominal +1.0 dB, -1.5 dB at 30% modulation AME: 125 W average, nominal +1.0 dB, -1.5 dB CW: 125 W
RF output impedance	50 ohms nominal
Modulation response	6 dB maximum 350 to 2500 Hz

### Receiver Characteristics

Sensitivity	SSB: 1 $\mu$ V for 10 dB (s+n)/n AM: 4 $\mu$ V for 10 dB (s+n)/n
Selectivity	SSB passband variation: <4 dB for fc +350 Hz to fc + 2500 Hz 35 dB bandwidth: fc to fc -300 Hz; fc + 2900 Hz to fc +3300 Hz 60 dB bandwidth: <fc -300 Hz; fc >3300 Hz
Audio outputs	50 mW RX audio, sidetone/tune tone into 600 ohm load SELCAL: 50 mW into 600 ohm load
Squelch/sensitivity control	RF sensitivity or squelch control provided via external 5 K pot adjustment

*Note: Rockwell Collins 628T-2A, HFS-700 and HFS-900 voice radios can be updated to full HFS-900D capability with an HFDL upgrade kit.*

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

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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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