Rockwell Collins FlexNet™-Four

Our FlexNet™-Four H/V/UHF vehicular multichannel Software Defined Radio (SDR) offers enhanced capacities to significantly improve the connectivity, mobility, versatility, interoperability and exchange of information on the battlefield.

Connectivity and Mobility: By integrating FlexNet-Waveform, our FlexNet-Four V/UHF SDR equipment offers transverse communications, high data rate transmission on the move, and mobility management that greatly improve the connection between the users from HQ to small action units. FlexNet-Four brings to the users an increased level of service such as voice (digital or VoIP), data (short messages, formatted messages, file transfer), image and video transmission.

Versatility: With a scalable capacity of four simultaneous channels and embedded routing capability, FlexNet-Four acts as a communication node. Each channel can be configured and programmed independently according to a majority of missions dedicated to mobile battlefield platforms. In addition to the services provided by each channel, FlexNet-Four provides networking and cross-banding functions that enable connecting users on the field even if they are not on the same frequency range radio networks.

Flexibility: Based on an open architecture, compliant with Software Communications Architecture (SCA 2.2) international standard, and a powerful programmable hardware platform, FlexNet-Four ensures enhanced functionality, expandability and waveform portability accommodating future technology or requirement upgrades with ease. This flexibility is improved due to the modular hardware architecture of FlexNet-Four.

Interoperability: The radio can be immediately reconfigured to provide interoperability with the PR4G standard and is open to host other standard waveforms (MIL-STD, STANAG) and national waveforms with their national specificities.

The FlexNet products are joint developments of Rockwell Collins and Thales.

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KEY BENEFITS

- Internetworking communication nodes
- Supporting the FlexNet-Waveform, a high data rate ad hoc networking waveform
- Supporting standard legacy waveforms, notably PR4G and F@stnet waveforms
- Multimedia services, up to 6 Mbps
- SCA 2.2 compliant

FEATURES

- Modular and scalable up to four simultaneous channels
- SCA 2.2 compliant to ensure waveform portability and accommodate customized requirements and upgraded functionality
- Hosts the Rockwell Collins FlexNet-Waveform IP-capable waveform for broadband wireless, ad hoc network supporting simultaneous voice, data and video communications for more than 150 participants, managing QoS and data rates up to 6 Mbps
- Hosts Thales 64 Kbps PR4G F@stnet ECCM waveform supporting simultaneous and independent voice and data
- Open to integrate standard waveforms (MIL-STD, STANAG) and national waveforms
- Automatic power output and duty cycle adaptation to optimize spectrum occupancy and power consumption
- High performance VHF and UHF co-site filters
- Internal or external GPS
- Embedded or external high grade encryption including customer specific encryption
- Uses and combines IP-compliant protocols and therefore greatly improves the system integration in local area networks or other tactical networks and easily interfaces with standard applications such as Information System and Battlefield Management System, Command Information System or other IP standard applications

PERFORMANCE

Frequency range	2 -2000 MHz
Bandwidth	25 kHz (V/UHF), 300 kHz, 1.25 MHz and 5 MHz (UHF), 3 kHz (HF)
Data rate	From 64 Kbps up to 5 Mbps (half-duplex)
Power output	50 watts VHF and UHF, open in HF

ENVIRONMENTAL

Operating temperature	-40°C to 55°C
Shock and vibration	IAW MIL-STD-810E

INTERFACES

Audio for Combat Net mode
Ethernet 10/100 Mbps
V24/V28 RS232 - PPP
SNMP remote control

PHYSICAL CHARACTERISTICS

Width	15.39 in (391 mm)
Height	7.48 in (190 mm)
Depth	14.50 in (343 mm)

INSTALLATION

Scalable to four channels with a second chassis	
Power supply	24 VDC nominal

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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