



K-R600

Kirisun Next-Generation Digital Repeater



2.0 inch
LCD



1U Compact
Design



Low Networking
Cost



More Powerful
Performance



Intelligent
Management



Overview

Based on extensive field experience, customer feedback, and technological innovation, KIRISUN has launched its next-generation digital repeater, the K-R600. With superior performance and efficiency, the K-R600 delivers converged gateway functionality that integrating SIP gateway features, along with backend network platform management capabilities, reducing operating and maintenance costs. It ensures on-demand command delivery and improved work efficiency.



New UI Design, Clearer, More Intuitive

The 2.0-inch high-definition semi-transparent color screen delivers improved visibility and operational convenience, helping users monitor device status at a glance.



Dual Power Supply and Battery Charging Function

The repeater can charge the backup batteries during AC power supply works and switch automatically to backup batteries if AC power supply fails to keep repeater uninterrupted.



Compact 1U Design with Efficient Cooling

The slim 1U structure combined with dual-fan cooling provides excellent heat dissipation, enabling long-term stable operation while minimizing rack space.



Digital-to-analog Compatibility with Intelligent Switching

Supports digital, analog, and mixed modes, Automatic signal recognition.



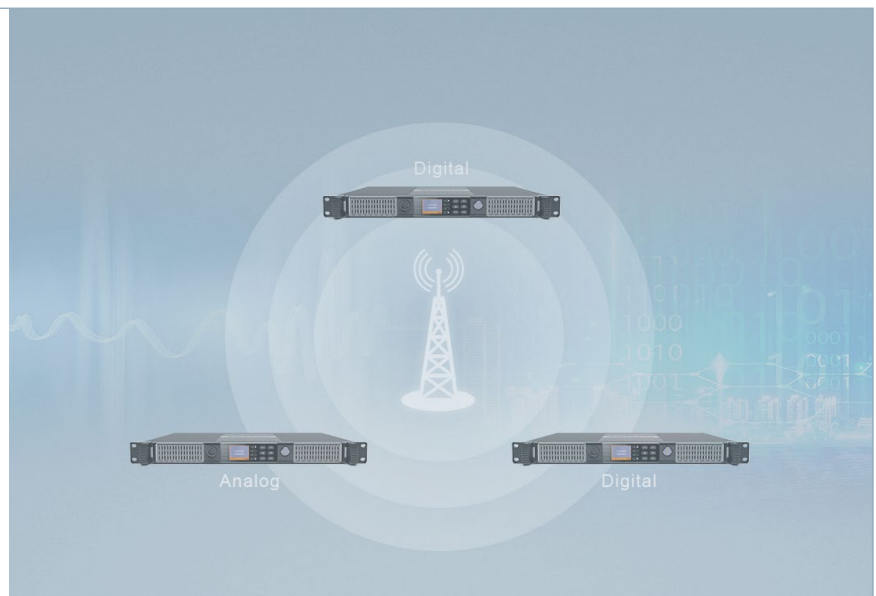
Hand mic Voice, Clear Sound

It supports hand microphone connection for voice transmission, plus a built-in 16Ω 7W high-capacity speaker that delivers loud, clear audio—even in noisy environments.



IP Interconnection Mode

The repeater supports multiple repeaters connection via IP interfaces to cover wide area.



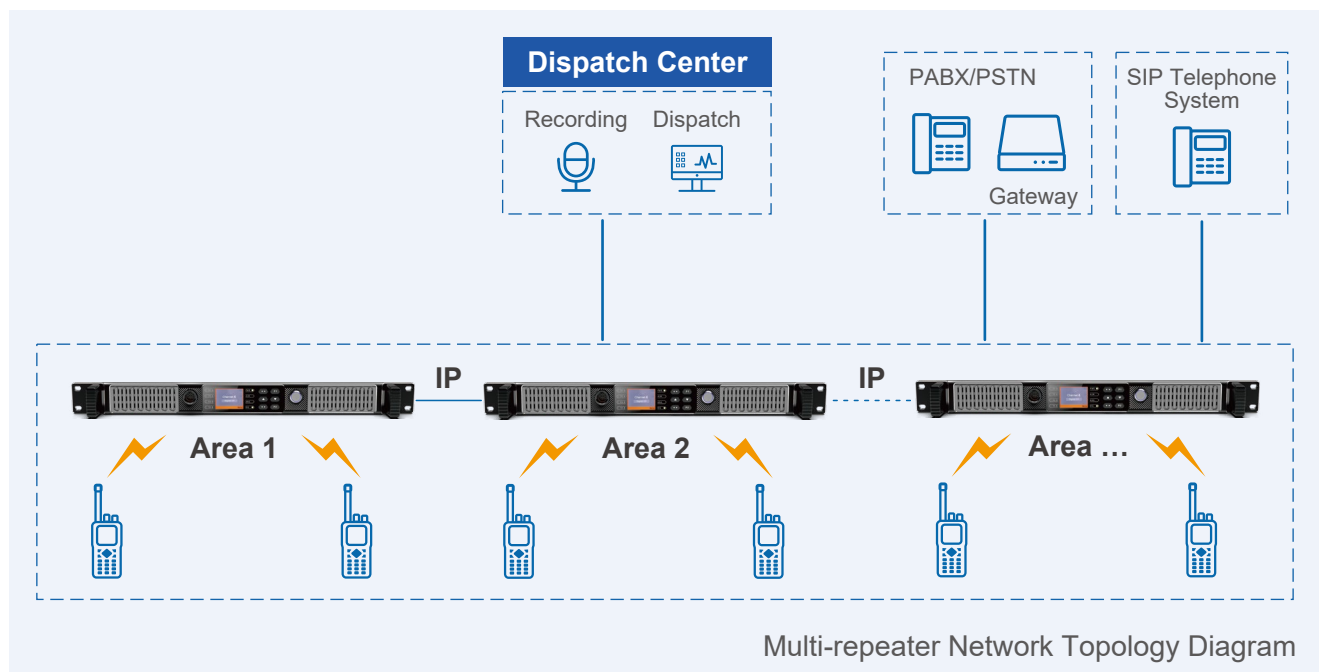
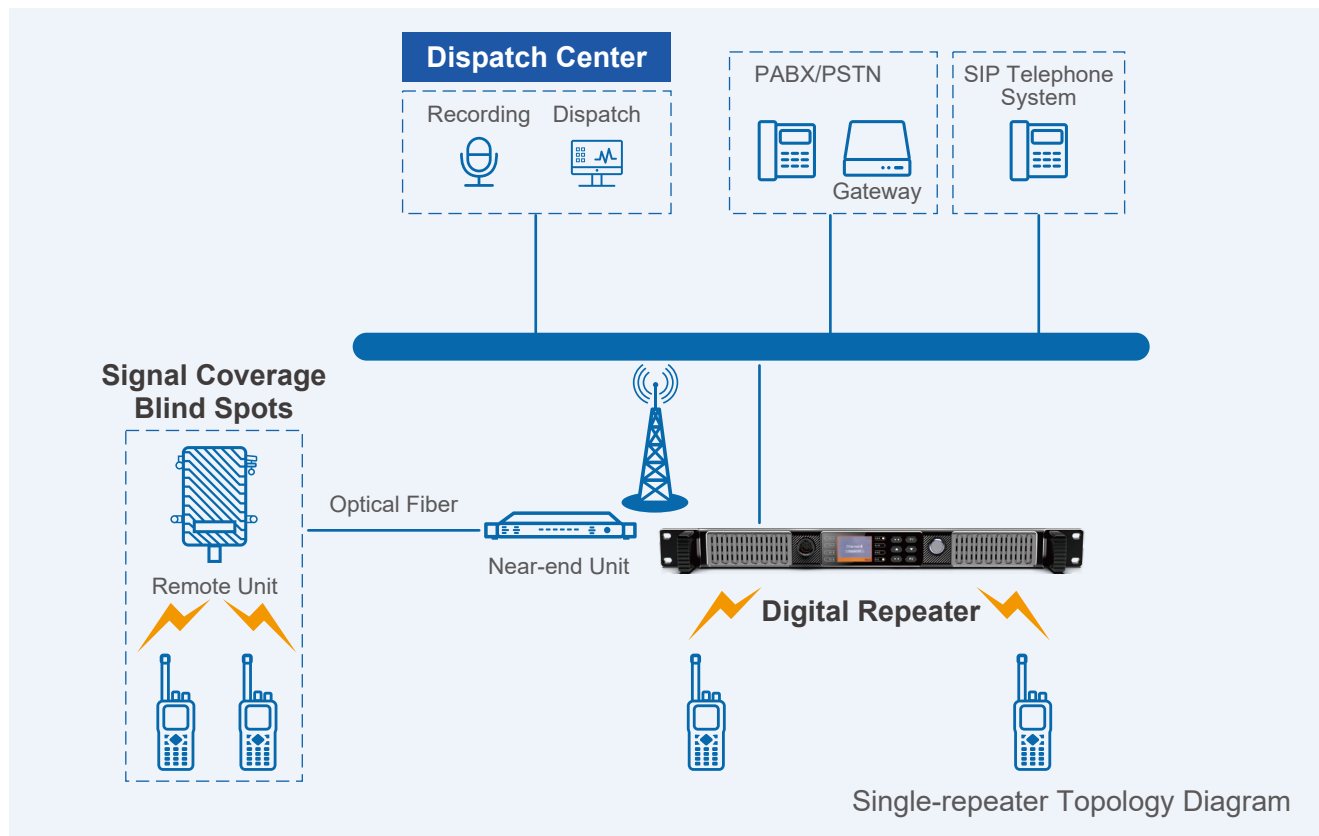
Powerful Expansion Capabilities

Equipped with a 26-pin secondary development interface, and also supports an RJ45 Ethernet secondary development interface. It allows for easy integration with third-party dispatching or network management systems, or other third-party systems via AIS/SNMP/SIP interfaces.



Solution

IP-based interconnected digital conventional wireless communication solutions rely on IP networks to achieve interconnection of regional repeaters, supporting voice, SMS, location, and recording. It features voice and other dispatching functions. With low networking cost, easy maintenance, and wide-area coverage, this solution is ideal for industries requiring wide coverage with moderate call volume, such as industry and commerce, public safety, transportation and logistics, energy and chemical Industry, mining areas, supermarkets, hotels, property parks, prisons, coal mines and etc.



Technical Parameters

General	
Frequency Range	136-174MHz, 400-470MHz
Channel Capacity	2048
Channel Spacing	25kHz/20kHz/12.5kHz
Operating Voltage	DC: 13.8, AC: 100~250V 50/60Hz
Current Drain Standby	<1.0A
Current Drain Transmit	<12A
Frequency Stability	0.5 ppm
Antenna Impedance	50Ω
Duty Cycle	100%
Dimensions(H·W·D)	482.6mm×370mm×44mm
Weight	9.5Kg

Transmitter	
RF Power Output	1W - 50W(Continuously adjustable)
FM Modulation	11K0F3E@12.5kHz, 14K0F3E@20kHz, 16K0F3E@25kHz
4FSK Digital Modulation	12.5kHz Data: K60FXD, 12.5kHz Voice and Data: 7K60FXW
Modulation Limiting	≤±2.5kHz@12.5kHz, ≤±4.0kHz@20kHz, ≤±5.0kHz@25kHz
FM Hum & Noise	≥40dB@12.5kHz, ≥43dB@20kHz, ≥45dB@25kHz
Adjacent Channel Power	≤60dB@12.5kHz, ≤70dB@20kHz/25kHz
Audio Response	+1~-3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3,-4

Receiver	
Sensitivity Analog	0.18μV(12dB SINAD)
Sensitivity Digital	0.18μV/BER5%
Selectivity	≥60dB@12.5kHz, ≥70dB@20/25kHz(TIA-603); ≥70dB@12.5kHz, ≥70dB@20/25kHz(ETSI)
Spurious Response Rejection	75dB@12.5/20/25kHz(TIA-603); 70dB@12.5/20/25kHz(ETSI)
Inter-modulation	70dB@12.5kHz/25kHz(TIA-603); 65dB@12.5kHz/25kHz(ETSI)
Hum and Noise	≥ 40dB@12.5KHz, ≥ 43dB@20KHz, ≥ 45dB@20/25KHz
Rated Audio Power Output	2W
Rated Audio Distortion	≤3%
Audio Response	+1~-3dB
Conducted Spurious Emission	-57dBm@<1GHz, -47dBm@>1GHz

Environment Specifications	
Operating Temperature	-30℃~ +60℃
Storage Temperature	-40℃~+85℃
ESD	IEC610000-4-2(Level4); ±4kV(Contact) ±8kV(air)
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G Standard

Application Scenarios



Industry and Commerce



Public Safety



Transportation and Logistics



Energy and Chemical Industry



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