PRODUCT SOLUTION

Full-Duplex Team Wireless Communication System

A professional Sub-1G private-network communication system that supports simultaneous two-way voice, independent group operation and locally controlled deployment for coordinated teams.



Key Features

Up to 32 Terminals

One cluster gateway supports connection for up to 32 handheld terminals.

Four Independent Groups

Organize communication into as many as four independent groups

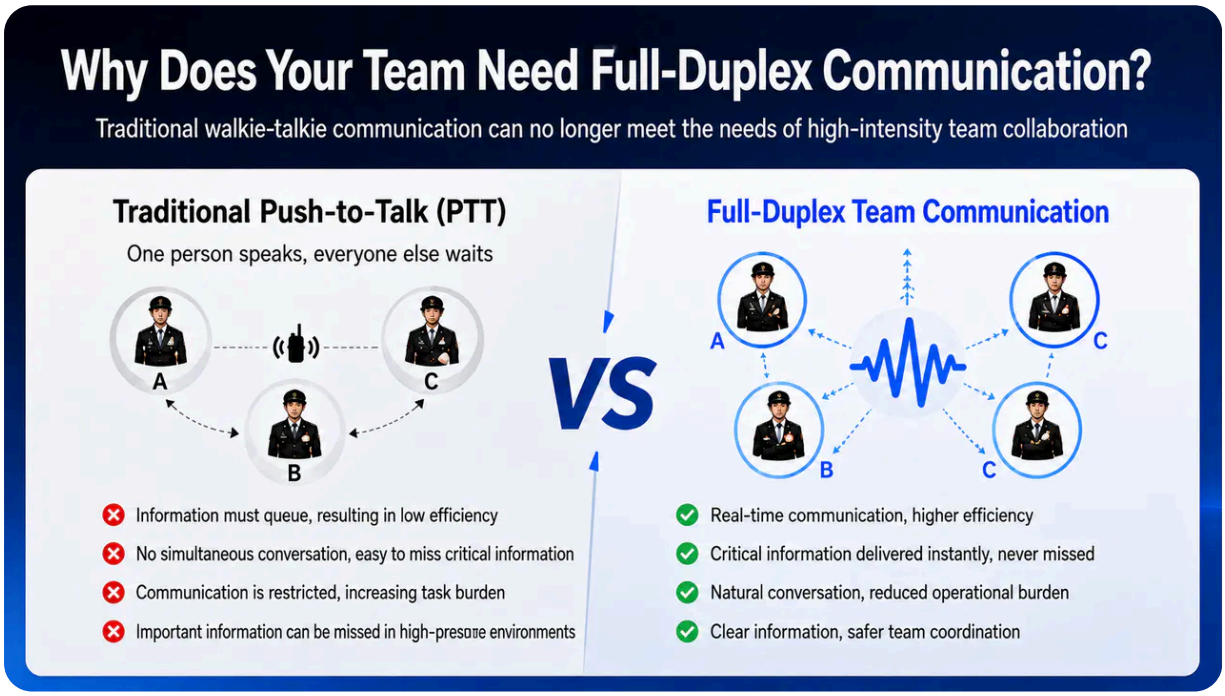
without interference between groups.

Eight Full-Duplex Users

Each group supports simultaneous two-way voice for up to eight users.

Private Sub-1G Network

Build local team communication without depending on public-network coverage.



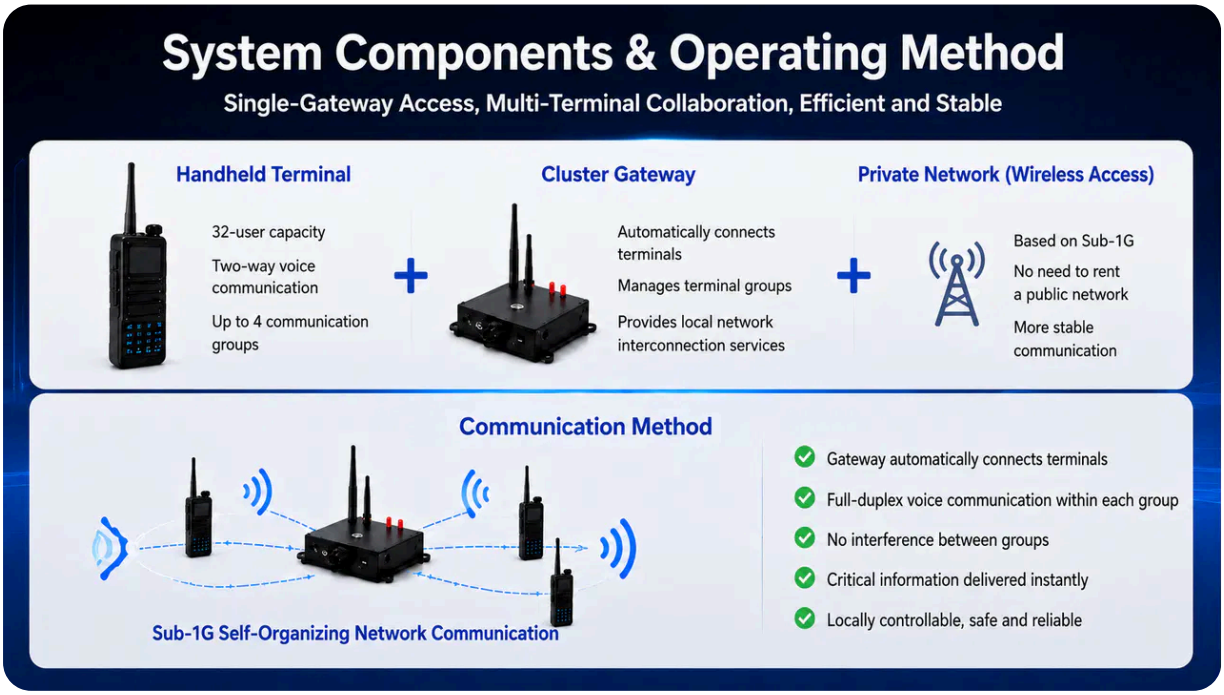
Why Teams Need Full-Duplex Communication

Traditional push-to-talk communication allows one person to speak while everyone else waits, which can delay time-sensitive information and restrict natural conversation. Full-duplex communication lets team members talk and listen at the same time, supporting faster coordination in high-intensity professional scenarios.



Professional Audio and Connectivity Features

The system combines low-latency full-duplex voice, microphone and speaker support, noise reduction, echo cancellation and Bluetooth headset compatibility. Sub-1G wireless access and dedicated audio processing support clear and stable communication across complex working environments.



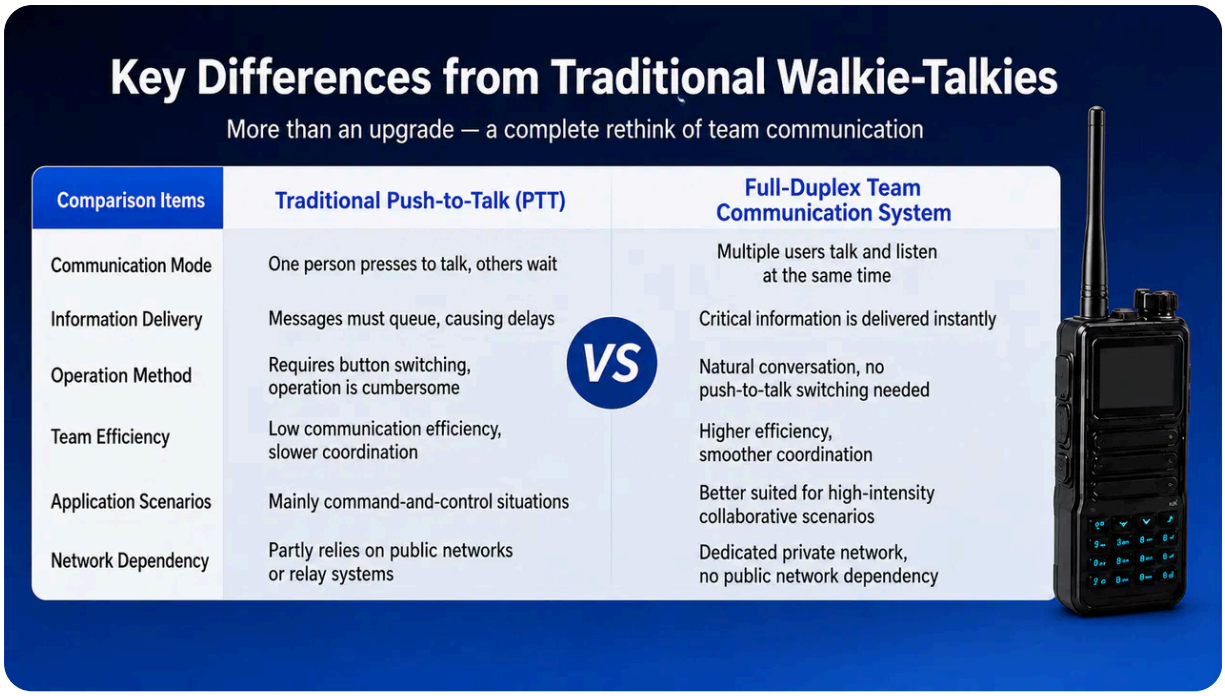
System Components and Operating Method

Handheld terminals connect automatically to a cluster gateway that manages terminal groups and provides local network interconnection through Sub-1G wireless access. The locally controlled architecture supports independent group communication without renting or depending on a public network.



Key Functional Highlights

A single gateway supports 32 terminals, four independent groups and up to eight full-duplex users per group, with private network deployment and Sub-1G wireless access. Hardware-based PUF authentication, enhanced audio technology and Bluetooth headset support provide secure and flexible operation for professional teams.



A Different Team Communication Experience

Unlike traditional push-to-talk systems, full-duplex users can speak and listen simultaneously without button switching or queued messages. Immediate information delivery and smoother coordination make the system suitable for high-intensity collaborative work that requires locally controlled communication.

Technical Specifications Overview

Key Parameters at a Glance



Handheld Terminal

Communication Mode:	Full-Duplex Two-Way Voice
Band:	Sub-1G (Customizable)
Capacity:	Up to 32 Terminals
Groups:	Up to 4 Independent Groups
Users per Group:	Up to 8 Full-Duplex Users
Audio:	MIC / Speaker, Noise Reduction / Echo Cancellation
Interfaces:	Bluetooth, Type-C Charging
Battery:	Large-Capacity Lithium Battery (Replaceable)
Protection Rating:	IP54 or above



Cluster Gateway

Communication Mode:	Sub-1G Self-Organizing Network
Access:	Up to 32 Terminals
Group Management:	4 Independent Groups
Audio Ports:	MIC / Speaker Port
Network Ports:	Ethernet / Type-C
Encryption:	PUF Digital Fingerprint / National-Grade Encryption
Power Supply:	DC 9–36V
Operating Temperature:	-20°C to +60°C
Installation:	Desktop / Wall Mount / Rack (Optional)

*Specific frequency bands, power, dimensions and other parameters can be customized according to project requirements.

Technical Specifications Overview

The handheld terminal supports full-duplex two-way voice, Sub-1G operation, up to four groups, Bluetooth and Type-C charging, with audio enhancement and a replaceable lithium battery. The gateway supports up to 32 terminals, four independent groups, microphone and speaker ports, Ethernet and Type-C connectivity, PUF-based encryption and DC 9–36 V power.



Built for Professional Team Communication

The platform combines full-duplex communication, group management, stable wireless performance and advanced security in one locally deployable system. Flexible adaptation and service support help professional teams establish efficient, safer and more reliable communication for demanding applications.

PROJECT SUPPORT

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