



***ALCON EARS***  
***TACTICAL COMMUNICATION***  
***HEADSET***



## Product Features



# FE

## TACTICAL COMMUNICATION HEADSET



26dB Noise Reduction

**TSFS**

TSFS Pickup System



Dual Channel



Anti-Electromagnetic  
Interference Design

**SEO**

Auditory Protection



High Battery Life



Switching Between  
Multiple Scene Modes

**DSP**

Dual DSP Chips



Chinese/English  
/Other Languages



Quick Release Design

## Product Introduction

The FCS FE Tactical Communication Headset utilizes FCS's independently developed TSFS (True Sound Field Situation) panoramic sound real-world sound processing technology. Through a new DSP adaptive audio signal processing, users can effectively enhance their situational awareness of the surrounding sound environment after wearing the earphones. It features a powerful audio characteristic database, selectively enhancing or attenuating common sound characteristics (such as drone noises, footsteps, gunfire, explosions, etc.). After undergoing rigorous multi-faceted testing and real-world validations, it can protect users' hearing and achieve a more sensitive and faster tactical response.

1. Physical Sound Insulation + FCS DSP Chip Dual Noise Reduction Technology: Fearless of explosive sound, stronger noise reduction effect.

2. High-Fidelity Stereo Sound Effects: The sound cavity adopts large-diameter 30/40mm high-quality speakers + honeycomb structure, making the sound clearer and more pleasant (requires use with FCS Bluetooth adapter).

3. Overall Circuit EMI EMC Optimization Design: Resistant to complex wireless signal impacts and electromagnetic signal crosstalk, fearless of communication interference.

4. 360° Sound Localization: Accurate positioning, clearer and more realistic sound pickup.

5. Multiple Wearing Methods: Wider compatibility, adaptable to FAST helmets, WENDY helmets, high-cut earmuff helmets, rescue helmets, etc.

6. Sound-Insulating Skin-Friendly Ear Pads: Made of high-molecular material, sound-insulating and comfortable, comfortable to wear for long periods without pressure pain.

7. High-Quality Composite Material Structure: Resilient, impact-resistant, suitable for all kinds of harsh environments.

8. Single-Line Dual-Channel Communication: The FE earphones employ a dual-communication link technology, suitable for commanders to simultaneously equip two radios for command and combat operations, resolving the comprehensive command and dispatching issues.

9. Detachable microphone, interchangeable between left and right sides, adaptable to your usage habits.



# TSFS

## True Sound Field Situation Technology

360° Surround Sound with automatic amplification of subtle sounds, providing enhanced detail for certain sounds, ideal for tactical judgment.

## Eavesdropping Mode

### Adaptive Intelligent Noise Reduction Mode

In accordance with different spatial environments, intelligently recognize scenes and select noise reduction modes. In indoor shooting ranges or enclosed spaces, further eliminate emission noise. In outdoor shooting ranges or open-air environments, eliminate short-lived impulse noise.

### Monitoring Mode

In quiet or nighttime environments, the headphones can pick up faint sounds from a distance and amplify them several times to enhance hearing. (The monitoring mode will automatically turn off after 15 seconds of activation).



# 26dB

## NOISE REDUCTION

NRR(Noise Reduction Rating) : FE STD (30mm)

Frequency (Hz)	125	250	500	1000	2000	4000	8000
Average attenuation(dB)	8.12	16.82	24.66	24.77	33.5	37.53	35.14
Standard Deviation (dB)	0.11	0.75	0.21	0.06	0.08	2.34	0.95
Minimum attenuation (dB)	8.01	16.07	24.45	24.71	33.42	35.19	34.19
NRR(dB)	26						

NRR(Noise Reduction Rating) : FE PRO (40mm)

Frequency (Hz)	125	250	500	1000	2000	4000	8000
Average attenuation(dB)	6.5	17.05	19.51	18.17	26.05	35.4	32.27
Standard Deviation (dB)	0.11	0.75	0.21	0.06	0.08	2.34	0.95
Minimum attenuation (dB)	6.39	16.3	19.3	18.11	25.97	33.06	31.77
NRR(dB)	24						



# SEO

## Shooting Environment Auditory Protection Optimization Technology

Adaptive Isolation of Harmful Sound Pressure, Effectively Protecting Hearing

Fully Automatic Electronic Sound Pressure Protection

Threshold:  $\leq 82\text{dB}$

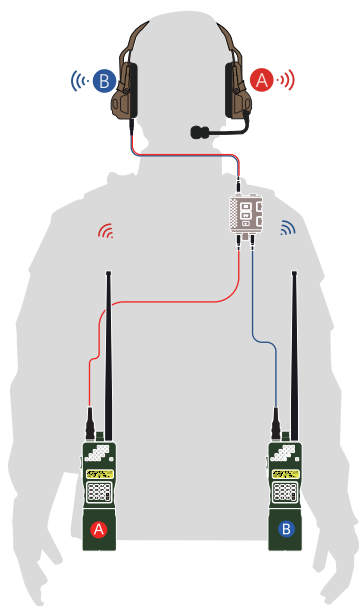
### Feature Overview

During the development process, testing was conducted in indoor shooting ranges and other high-noise environments. Data were collected, verified, and analyzed to design a specialized sound model based on real combat scenarios, both indoor and outdoor. The optimized SEO (Shooting Environment Optimization) passive sound pressure control auditory protection technology was developed to enhance various indicators and data related to auditory protection.



## PTT Communication Connection Illustration

By pairing different PTT devices, both single-cable dual communication and single-cable single communication can be achieved to facilitate communication.



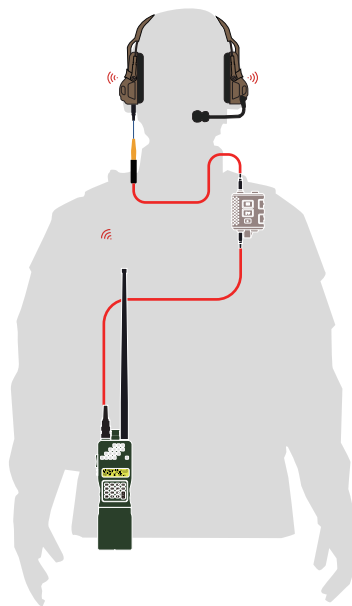
Single-cable Dual Communication

Connect FCS V60PTT to achieve single-cable dual communication, connecting two radios for communication.



PTT Connection Options

PTT: FCS V60 PTT  
FCS DUAL PTT  
Upper Output Cable: KN6 Connector Cable  
Lower Output Line: Custom KN6 to Various Radio Downloads Cable



Single-cable Single Communication

Connect FCS V60PTT to achieve single-cable single communication, connecting to the radio for communication.

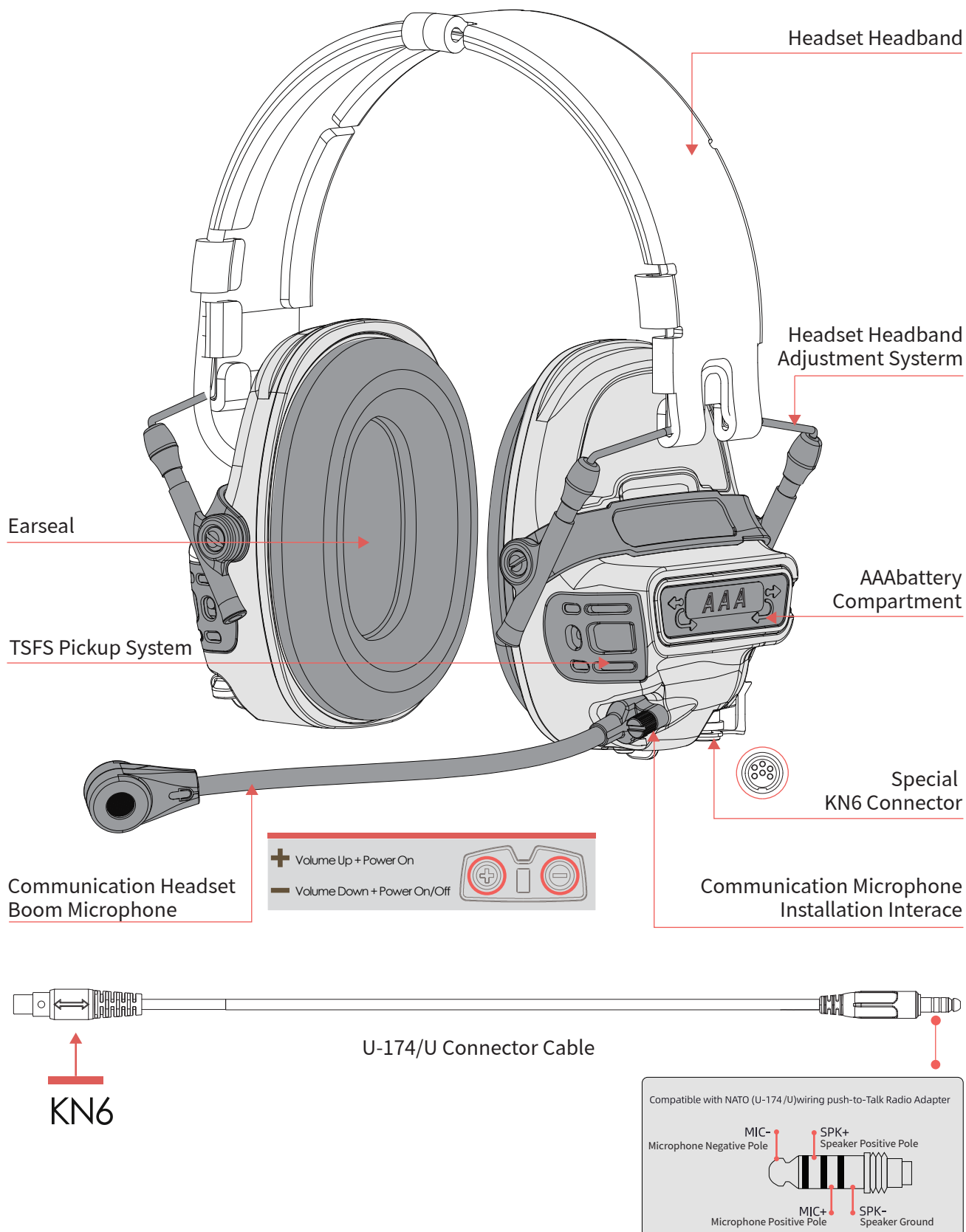


PTT Connection Options

PTT: FCS V60 PTT, FCS V20 PTT, FCS DUAL PTT  
Upper Output Cable: U174/U to KN6 Connector Cable  
Lower Output Line: Custom KN6 to Various Radio Downloads Cable



## Appearance Introduction





# QUICK CHANGE



## QUICK-RELEASE HEADBAND DESIGN

Utilizing a quick-release design, enables rapid switching between wearing modes without the need for cumbersome disassembly and installation, allowing for easy transition between headband and helmet-mounted configurations in a short period of time.





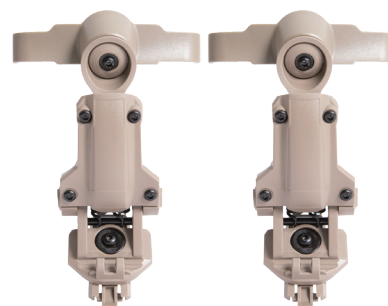
## Standard Equipment List



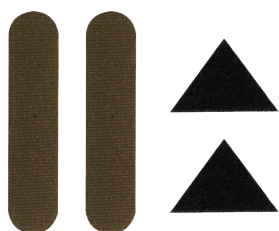
FALCON EARS



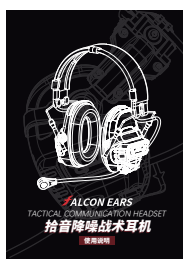
U-174/U  
Connection Cable



Helmet Rail  
Connector Bridge



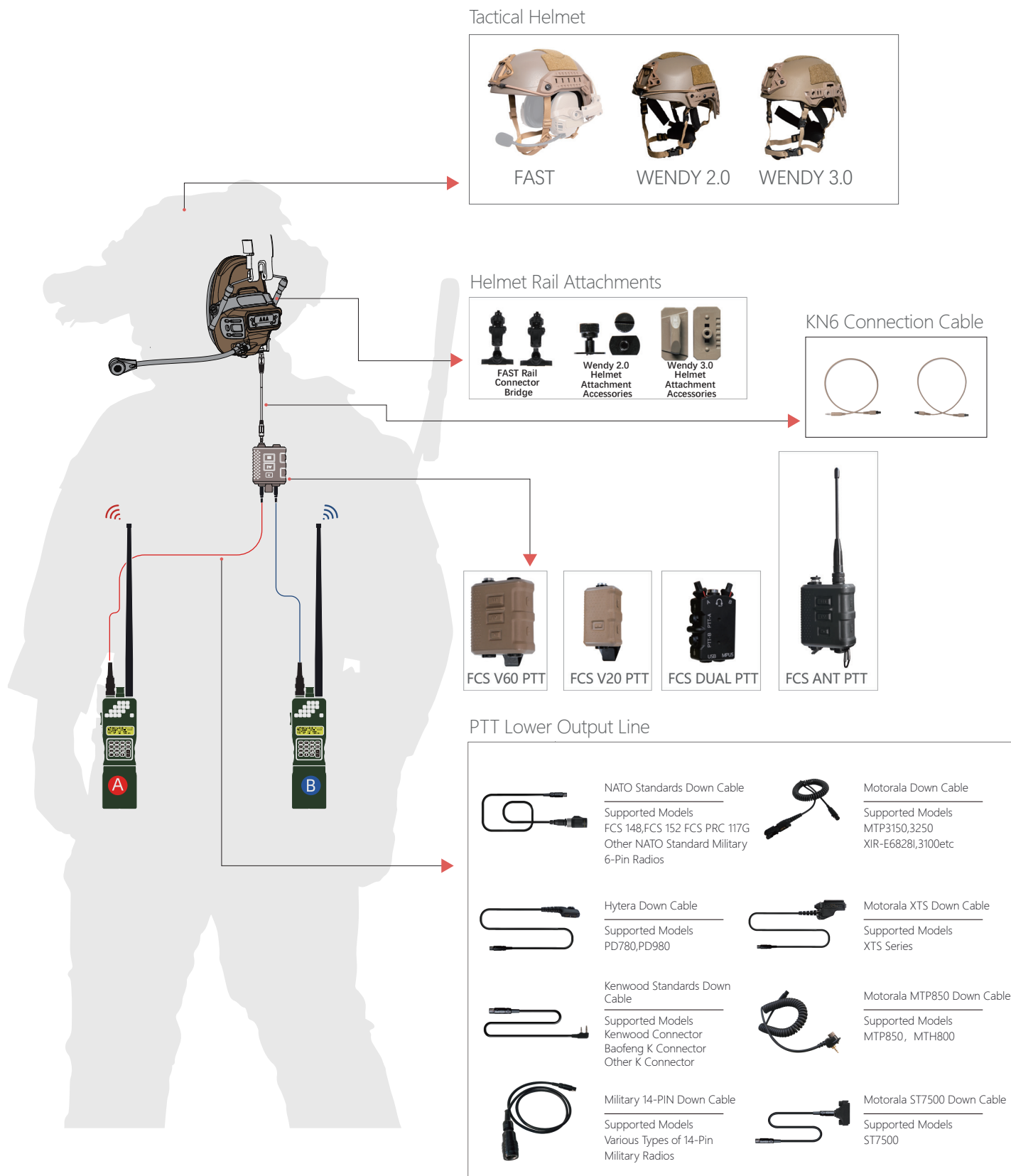
Helmet Velcro



Product Manual



## Assembly Instructions





Color Options



TAN



BK



RG



TAN



BK



RG

Recommended Options



FCS V60 PTT



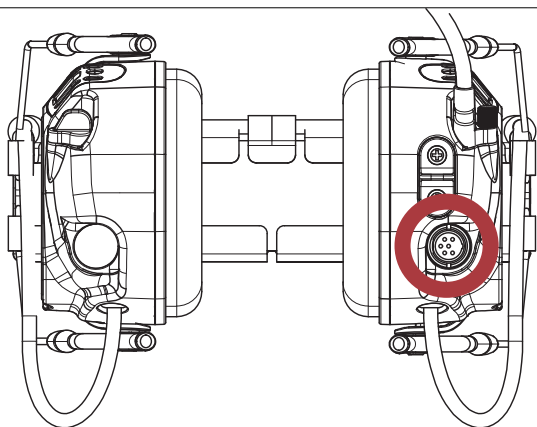
FCS V20PTT



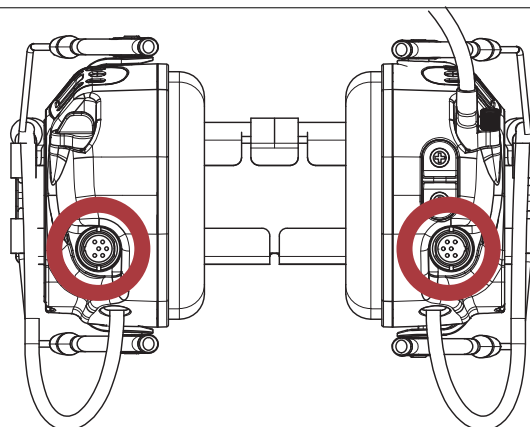
FCS DUAL PTT

## Product Specifications

	FE30 Standard Edition	High Fidelity FE40 PRO Edition
Mounting Method	Helmet / Headband / Neckband	Helmet / Headband / Neckband
Pickup Mode Switching	Standard Mode (Indoor/Outdoor)	Standard Mode (Indoor/Outdoor)
Pickup Method	Omnidirectional	Omnidirectional
Weight	≈385g (Net Weight)	≈385g (Net Weight)
Package Size	24.5cm X 14.3cm X 11cm	24.5cm X 14.3cm X 11cm
Number of Audio Input Channels	Single-cable Dual Channel	Dual-cable Dual Channel
Noise Reduction Rating (NRR)	26dB	24dB
Hearing Protection	≤82dB	≤82dB
Battery	Two 1.5V AAA batteries	Two 1.5V AAA batteries
Usage Time	50-70 hours	40-60 hours
Microphone	Condenser (2K)	Condenser (2K)
Speaker	30mm/32 Ohms	40mm/32 Ohms
Frequency Response	300-8000hz	63-16000hz
Sensitivity	-38dB (±2dB, average across frequencies)	-38dB (±2dB, average across frequencies)
Impedance Characteristics	32 Ω	32 Ω
Communication Microphone	Condenser/Dynamic	Condenser/Dynamic
Material	Composite Material	Composite Material
Compatible	NATO military radio standards, using FCS or NATO standard dual-channel PTT and cables, allowing simultaneous control of two radios for communication.	



FE STD KN6 x1 Single-sided full-duplex



FE PRO KN6 X2 Double-sided full-duplex



