

FCS | FMA<sup>®</sup>



***FALCON EARS***  
***FE Tactical Communication Headset***

**PRODUCT OVERVIEW**

# ONE HEADSET ANY SCENES

Dedicated to tactical communication for 20 years, FCS has been renowned for its technical strength. Successively launching RAC, C3, and AMP tactical earphones, it has gained recognition from numerous professional and civilian users at home and abroad.

Focusing on materials science and structural engineering, FMA has been providing high-quality products with excellent cost performance to gamers and professional users over the past 15 years. Since collaborating with FCS on the RAC earphones, it has established a complete experimental development environment, marking its entry into the acoustic field

Science and technology are the primary productive forces. We will show you how to leverage technological strength to solve:

**Hearing Protection**

**Battlefield Protection**

**Situational Awareness**

**Comfort**



# TSFS

## True Sound Field Situation

Relying on the powerful FCS audio feature database, we can categorize and enhance or attenuate different sounds. This includes representative drone sounds on the battlefield, which are highly threatening targets that can be identified and enhanced. Harmful sounds such as gunfire and explosions will be identified and attenuated



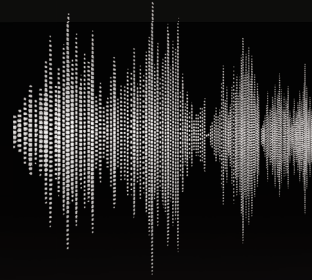
**DSP**

# SEO

## Shooting environment optimization

Our SEO passive sound pressure control hearing protection technology is specially designed and optimized for harmful explosive sounds. During development, we conducted testing in indoor shooting ranges and other high-noise application environments, collecting and validating data for analysis. This technology can effectively protect hearing in real combat environments

# 26dB



## Physical Noise Isolation + Dual DSP Chips Achieve 26dB Strong Noise Reduction

The new acoustic chamber structure is paired with a brand-new dual DSP chip algorithm, achieving an NRR of 26dB noise reduction

Effectively protecting your ears from noise isolation. Matching the noise reduction capabilities of international top-tier earphones, fearless of noise risks

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

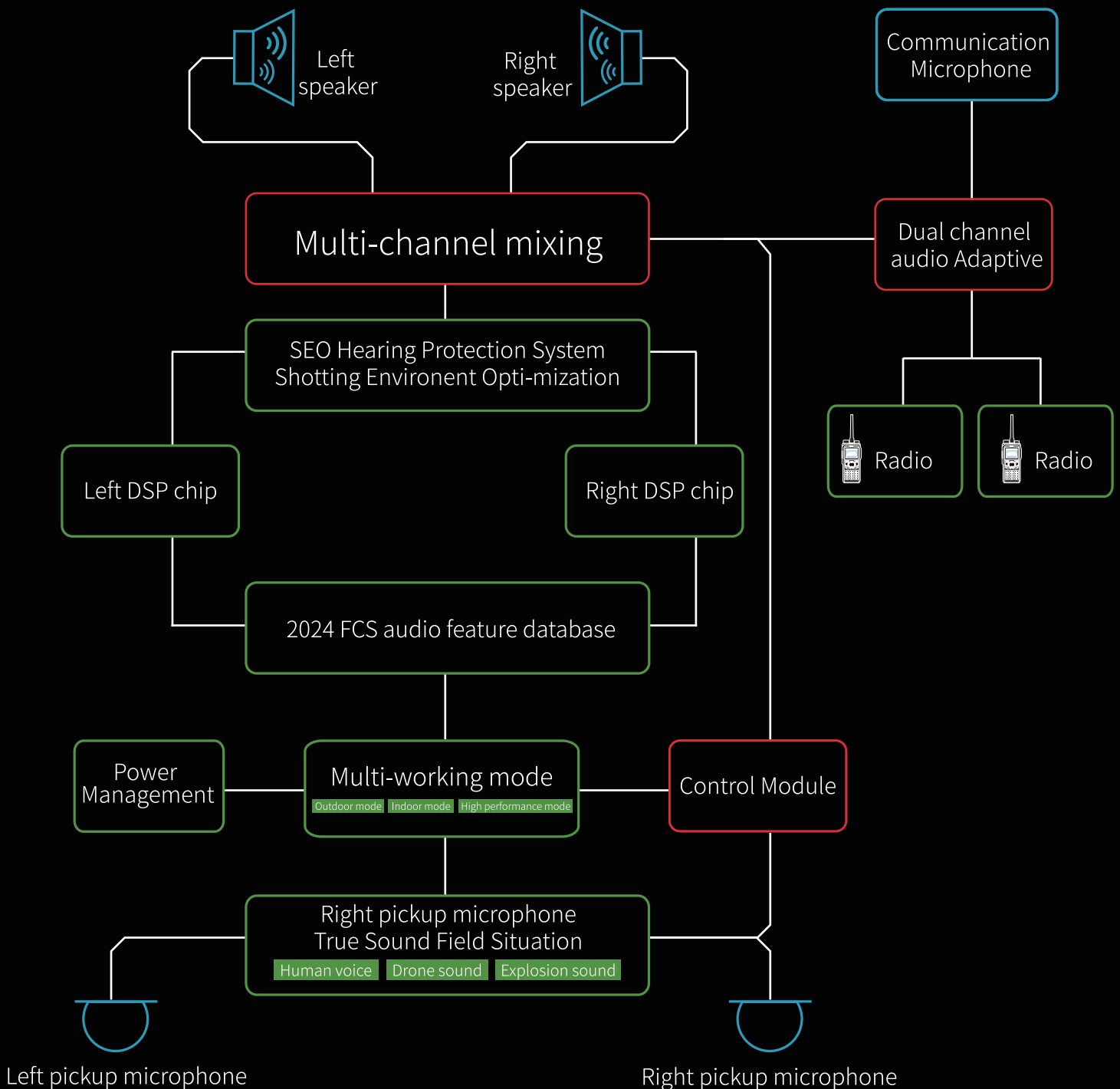
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Average attenuation(dB)	8.12	16.82	24.66	24.77	33.5	37.53	35.14
Standard Deviation (dB)	0.11	0.75	0.21	0.06	0.08	2.34	0.95
Minimum attenuation (dB)	8.01	16.07	24.45	24.71	33.42	35.19	34.19
NRR(dB)	26						

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						

# True Sound Field Situation

FCS independently developed the TSFS (True Sound Field Situation) panoramic sound true environmental audio processing technology. Through a brand-new powerful DSP digital audio processing chip, it effectively enhances the environmental audio situational awareness capability. With a powerful audio feature database, it can specifically enhance or attenuate certain sounds



# Omnidirectional Perception

360° omnidirectional pickup,  
sound localization, fearless of threats



**Drones**



**Gun Explosion Sound**



**Pace**



**Communications**





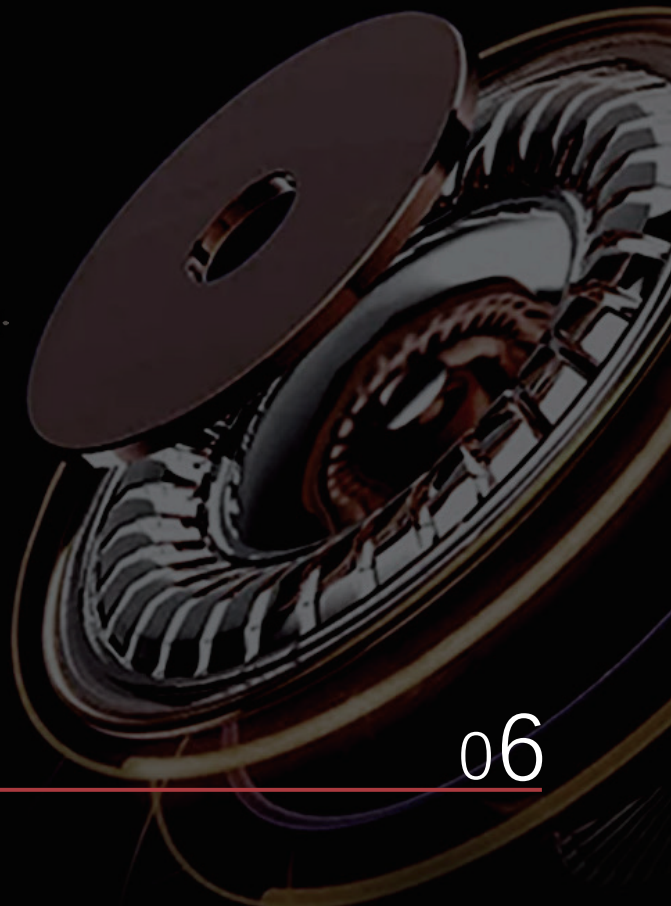
Equipped with an advanced acoustic system and high-quality speaker units, our earphones deliver Hi-Fi level sound quality, providing you with an exceptional audio experience. Regardless of the usage scenario, they consistently produce optimal sound quality, protecting your hearing. Moreover, the earphones allow for interchangeable speaker units, granting them the ability to adapt to various scenarios



Our FE tactical earphones were born out of in-depth understanding of diverse customer needs across various industries and usage scenarios. We have always been committed to meeting users' diversified demands. Today, we present to you a valuable solution that meets your needs. Whether it's in battlefields, wireless communication, survival games, electronic games, or e-sports, the FE tactical earphones can handle it, satisfying your diverse requirements



Our FE tactical earphones feature a self-designed KN6 connector, offering a rich selection of accessories, including dual-channel PTT or stereo Bluetooth modules. With outstanding physical noise isolation performance, the earphones can perfectly meet your diverse needs



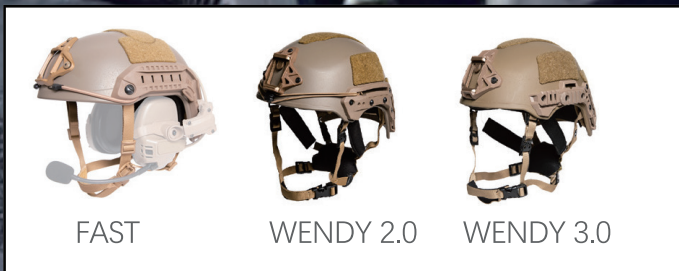
# MULTI-SCENE MODE SWITCHING

Indoor mode reduces echo  
Outdoor mode increases pickup  
High-performance mode  
enhances situational awareness  
capabilities Multiple-fold  
enhancement of hearing  
and picking up all surrounding  
detailed sounds



# COMPATIBLE WITH ALL MAINSTREAM TACTICAL HELMETS

Ultra-slim design, multiple installation modes available, and powerful compatibility for seamless connection. From popular high-cut FAST, Wendy, and super high-cut Maritime and CAIMAN helmets, to no-cut MICH and 19/21-style helmets, we cater to all mainstream helmet models. Enjoy worry-free connectivity and choose what you like



FAST

WENDY 2.0

WENDY 3.0

# Universal interface matching, no compatibility worries

Featuring modular design and rapid swap-out capability, our proprietary KN6 interface works in conjunction with PT to quickly switch between different wire leads, supporting the vast majority of mainstream two-way radios and intercoms on the market



Hytera Donw Cable

Supported models  
PD780,PD980



Hytera X1 Donw Cable

Supported models  
X1 , X1P , X1E , Z1P  
HP700 , HP780 , PD600  
HP680



14-PIN Donw Cable

Supported models  
TBR-17X  
TBR-19X Series Radio Stations  
Various Types of 14-Pin Military Radios



Motorola Donw Cable

Supported models  
XTS-1500,2500,3000,  
3500,5000



NATO Standards 6-PIN  
Donw Cable

Supported models  
FCS-148,AN/PRC-148  
FCS-152,AN/PRC-152  
FCS PRC/117G  
Other NATO Standard 6-pin Radios



Kenwood Connector(K)  
Donw Cable

Supported models  
FCS DCSS self-organizing  
intercom Kenwood Connector,  
Other K-Connector  
Baofeng , Quansheng , Senheix



Motorola Donw Cable

Supported models  
MTP-3100,3150,3250  
XIR-E8628i,E8608,6600i,6620i



Motorola ST7500  
Donw Cable

Supported models  
ST7500



BaoFeng UV-9R Donw Cable

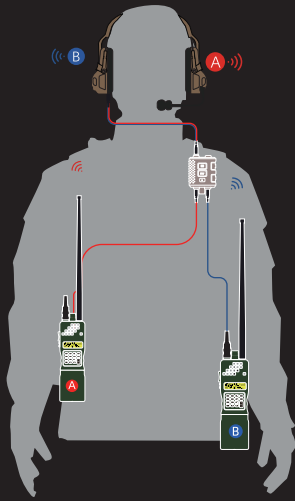
Supported models  
UV-9R,UV-9R Plus  
UV-9R Pro,BF-9700



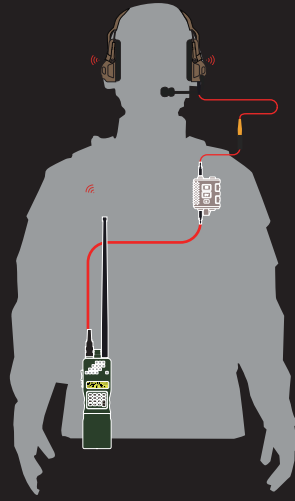
Motorola APX Donw Cable

Supported models  
APX4000,6000,7000,8000  
SRX200  
XIR8660,8668

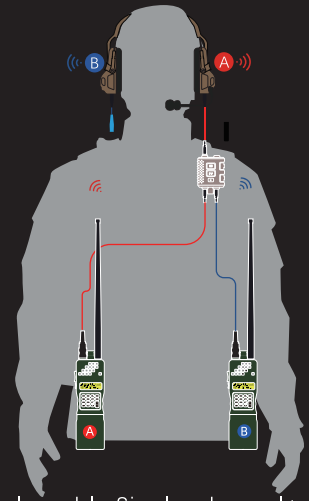
# A variety of communication options



**Single-cable Dual-channel**  
Connect FCS V60PTT to achieve single-cable dual-channel



**Single-cable Single-channel**  
Connect FCS V60PTT to achieve single-cable Single-channel



**Single-cable Single-channel+ Bluetooth adapter**  
Connect FCS V60PTT to achieve single-cable dual-channel, Can also connect to other devices via Bluetooth



**PTT connection optional accessories**  
PTT: FCS V60 PTT FCS DUAL PTT  
Up cable: KN6 dual-channel cable  
Down cable: Customized KN6 Down cable for various radios



**PTT connection optional accessories**  
PTT: FCS V60 PTT FCS V20 PTT FCS DUAL PTT  
Up cable: U174/U Cable  
Down cable: Customized KN6 Down cable for various radios



**PTT connection optional accessories**  
PTT: FCS V60 PTT FCS DUAL PTT  
Up cable: KN6 dual-channel cable  
Down cable: Customized KN6 Down cable for various radios  
Bluetooth: FCS Bluetooth Adapter



## 3.5mm Cable

The Kn6 interface converts to a 3.5mm cable, allowing for direct connection to computers, mobile phones, and tablets, enabling the FE headphones to transform into monitoring headphones, gaming headphones, and music headphones, becoming a new type of multi-functional tactical headset



## Ultra-Strong Composite Flame-Retardant Material

5-second self-extinguishing, resistant to fragmentation impact, and low water absorption. This material can still maintain its excellent performance even in extremely high or low temperatures.

## IP66 Water Resistance

Brand new battery compartment design, convenient and quick, with waterproof and pollution-proof features that fear no corrosion

## Skin-Friendly Ear Pad Material

High-molecular material, sound-insulating and comfortable to wear, with no pressure or discomfort even after prolonged use

## New Omnidirectional Pickup Mouth

360-degree clear and accurate sound recognition, with clear and precise sound orientation and location

# Comprehensive mil-spec Testing and Validation Environment

We dare to venture into the depths of technological challenges, building a complete set of military-grade testing standards that meet national military standards. Each function and protection feature is thoroughly considered to withstand harsh and rugged battle-field environments. We bravely face technical challenges, not only achieving breakthroughs in technology but also reaching new heights in reliability and durability, ensuring stable operation in extreme conditions



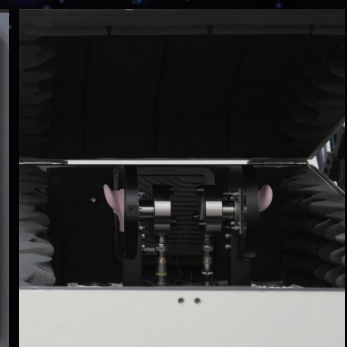
**Water Resistance Test**



**UV Aging Test**



**Salt Spray Test**



**Artificial Ear Testing**



**High-Temperature Impact Test**



**Low-Temperature Durability Test**



**Impact Fragmentation Test**



**Acoustic Testing**



**Audio Feature Library**



**Electromagnetic Environment Testing**



# Mounting options for mission needs

The FE tactical communication headset can be easily switched from the headband to the helmet connection bridge, making the headset more secure and comfortable to wear on the helmet and maintaining stability. The helmet connection bridge comes default with installation on FAST series ARC rails, and can also be installed on Wendy series rails or other series rails with additional accessories





## Standard Equipment List



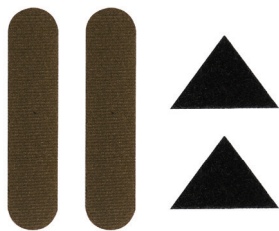
FALCON EARS



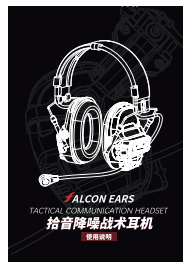
U-174/U  
Connection Cable



Helmet Rail  
Connector Bridge



Helmet Velcro

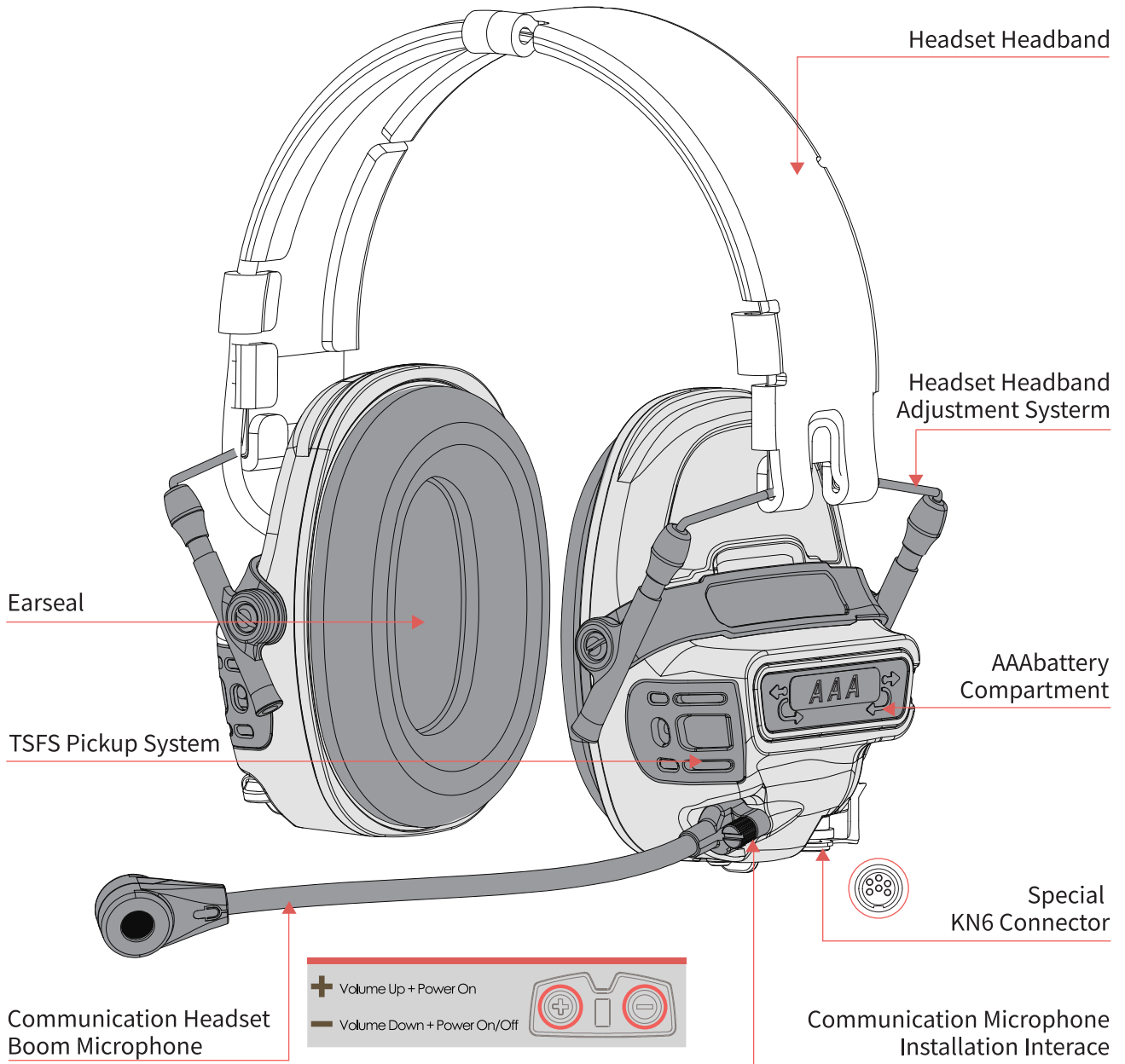


Product Manual

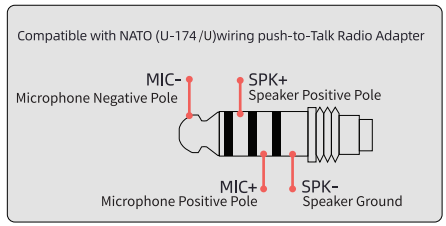


Product Box





↑  
**KN6**





# Color classification and product matching



TAN



BK



RG



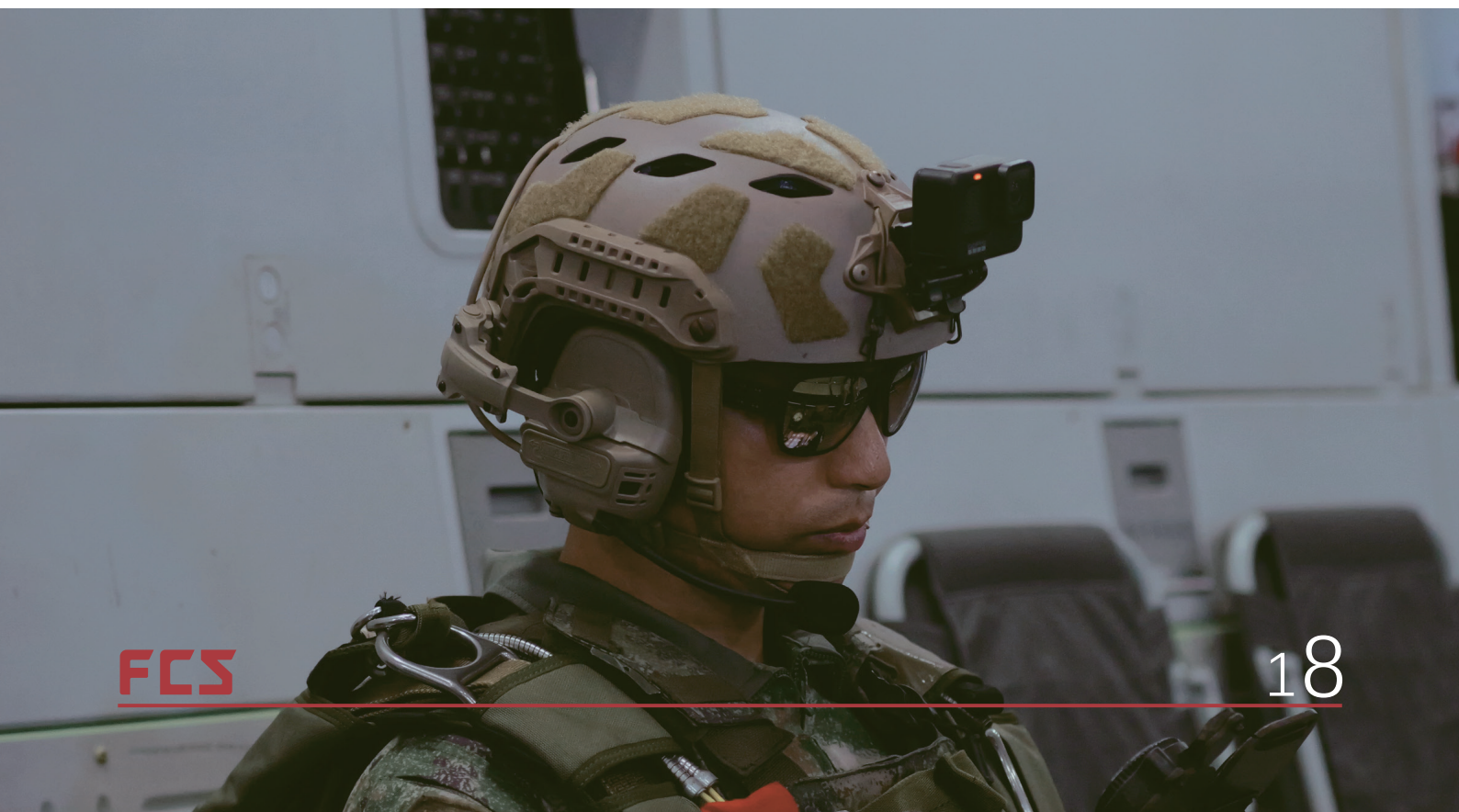
FCS V60 PTT



FCS V20PTT



FCS DUAL PTT

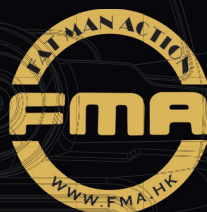


# Product Parameters

	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.	



[WWW.FCS.FUN](http://WWW.FCS.FUN)



[WWW.FMA.HK](http://WWW.FMA.HK)