



生命卫士 生命卫士 Amulet of Life and Security



Introduction

Covert communication system is one of our key products. Designed for covert operations; the product can be easily concealed in clothing. It is convenient for user to integrate into the crowd during the undercover operation via wireless PTT control. This provide user with flexibility in the implementation of tasks. The system combines many innovative functions to meet

the unique covert wireless communication needs, and greatly improve the practicability. As a lead in micro-communication, QDC fully understand that the unique circumstances require system and solution. Users operating in public safety, including those involved in surveillance, close and VIP protection and special operations, have very high requirements on confidentiality. The covert

communication equipment, designed to meet the requirements and usability of users in undercover operations, is especially suited for critical covert tasks

FreshEar Frequency Shift Zero Noise Digital Covert Communication System

FreshEar uses advanced frequency shift technique and the latest state-of-art DSP system with 4 Microprocessors and accelerator. Based on smart frequency shift transmission and intelligent noise cancellation software developed by Qili, and advanced electrical and acoustic design, FreshEar automatically classifies environmental noise, monitots noise level independently in 128 individual bands with 32k sample rate. It efficiently cancels a wide variety of noise and ensure high-fidelity digital sound quality. Compared to conventional earpiece, it is totally immune to electromagnetic interference caused by power lines, car ignition, soldering iron and many other electronic devices. FreshEar ensures that users will not miss any instruction in a variety of complex

electromagnetic environment.

FreshEar can be used with a range of accessories, including bag, belt, microphone and wired or wireless PTT. QDC can customize covert communication solution based on user's specific applications; enabling customers to fully take advantage of frequency shift zero noise technique. Under rapid technology advance circumstance, people pay more attention to security, interoperability and reliability. QDC is committed to providing innovative technology; promoting customers to complete their tasks in a straightforward manner. Users do not have to worry about the technology behind. FreshEar frequency shift zero noise digital earpiece is an excellent customization example to show

that QDC focus on meeting the unique requirements of critical missions.

With high quality and reliability, and ultra invisibility and comfort features, FreshEar can be widely used in criminal investigation, public security, counter-narcotics, national security, anti-evil, patrolman, special police and military, and other law enforcement agencies.

0601 FreshEar Specification



Maximum Volume output @ 3KHz	105dB
Frequency Response	300-3600Hz
Signal Processing Mode	Modulation @ DSP
Noise Filtering Mode	Soft Squelch
Battery Model	ZnQ2,A10
Battery Operating Time	80hr
Low Battery Warning/Turn-on Alert	Beep/Yes
SNR	>45dB
Storage Temperature	-20°C to 70 °C
Operating Temperature	0°C to 40 °C
Dimensions	5X10X15mm
Weight (Incl. Battery)	1.3g
Color	Beige
Complies with	CE/FCC



QDC 0501 Digital Covert Communication Earpiece

QDC Digital Covert Communication Earpiece utilizing DSP system with 4 Microprocessors and accelerator, automatically classifies environmental noise, monitors noise levels independently in 128 individual bands with 32k sample rate by means of the advanced adaptive noise reduction algorithm. It efficiently cancels a wide variety of noises, ensures high-fidelity digital sound quality, and offers the user a clear natural voice in comfortable value without environmental noise.

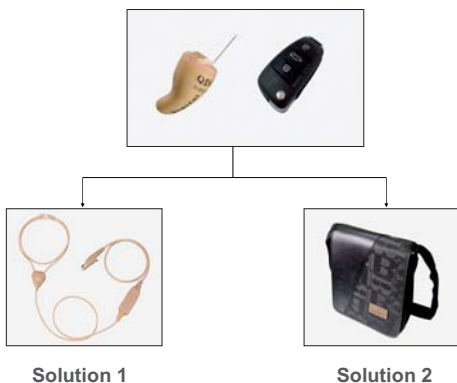
With effective soft squelch algorithm and advanced hardware, the electromagnetic interference caused by car ignition systems, power lines and many other electronic devices is eliminated. The squelch system will switch the earpiece to standby status without any audio output when no or weak audio signal is present.

0501 Digital Earpiece Specification



Maximum Volume output @ 3KHz	110dB
Frequency Response	300-3600Hz
Signal Processing Mode	Electret @ DSP
Noise Filtering Mode	Soft Squelch
Battery Model	ZnQ2,A10
Battery Operating Time	100hr
Low Battery Warning/Turn-on Alert	Beep/--
SNR	>45dB
Storage Temperature	-20°C to 70 °C
Operating Temperature	0°C to 40 °C
Dimensions	5X10X15mm
Weight (Incl. Battery)	1.3g
Color	Beige
Complies with	CE/FCC

The system consists of :
Earpiece + Adapter + Wireless PTT
Three solutions for customer to choose



Wireless PTT:

The Wireless PTT specially designed by utilizing the NFMI (Near Field Magnetic Induction) Technology has extremely strong noise cancellation ability. It adopts ultra low frequency that makes it immune to any interference of electromagnetic wave and disturbance of any other communication equipment. It can work one year with one cell button in normal conditions. This wireless is designed for waterproof. It looks like car remote control and is convenient to applications under circumstances

Wireless PTT Specification

Operation Principle	NFMI
Modulated	2-level CPFSK
Operation Range	60-150cm
Battery Type	CR2450
Battery Operation Time	1 year
Stand-by Current	< 200uA
Operation Current	< 6mA
Low Battery Warning	LED
Waterproof	IP67



SP-2F Frequency Shift Integrated Loopset

This is an accessory for use with earpiece, consisting of wireless PTT, FreshEar 0601 earpiece and inductive loopset (including microphone) for direct communication via the loop set.



Inductive Loopset

Color	Beige
Impedance	≥40Ω(300Hz -1kHz)
	≥130Ω(≥ 5kHz)
Length	> 50cm, C/W self separation Unit
Maximum Output Signal	3.5V
Power Supply	Form Radio
Voltage	3.3V to 10V

Microphone

Type	Omni Directional, Electret
Impedance	4.4K at 1kHz
Frequency Response	100Hz to 10kHz
Sensitivity@1kHz(dB re 1.0V/0.1Pa)	-53±2dB
Maximum Output Current	50uA
Voltage	1.5V to 10V
Operating Temperature	-10°C to 60 °C

Applications

1. Criminal Investigator
2. Anti-terrorist
3. Security
4. Counter-narcotics
5. Anti-Evil
6. Patrolman, special police, military and other law enforcement agencies .



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