SWATCOM DX

Full-Duplex, Hands-Free Portable Communications System

www.swatcom.co.uk

SWATCOM DX

Hands-Free Full-Duplex, lightweight, compact radio communication system. Without base or relay, on a coded network, this is the simplest mobile voicecom which works in a multitude of industry sectors. Users have great freedom to work and communicate in a variety of environments, therefore increasing personal safety and productivity.

> Fire & Rescue

> Surveillance

> Offshore & Petro-chemical

> SWAT team communication

> Military & Security

> Survey teams

> Utilities

> Harsh environments

Not a Walkie Talkie. A headset must be connected.

Ultra-lightweight and user friendly: essentials for a natural conversation flow

SWATCOM DX is a wireless "intercom" for professionals, for use in many demanding situations.

It's small, compact rugged design, and ease of use also makes it the product suited to sports professionals and enthusiasts. SWATCOM DX allows a natural conversation between users despite physical obstacles (walls, floors, etc.), even when wearing protective equipment including SCBA (self-contained breathing apparatus).

Three users in a full-duplex conference with an infinite number of users to listen in to the dialogue.

The digital coded wireless network is deployed within seconds, on a license free radio band allowing the use of SWATCOM DX practically everywhere and independently.

SWATCOM DX with its water-tight (IP67) shell, and its coloured protective covers can even be customised to match your style or work regulations!

Reliable, safe communications made simple

Full-duplex using several channels

In most cases communication systems offer a Half-Duplex (HDX) mode of talking, this provides communication in both directions, but only one direction at a time (not simultaneously). Typically, once a party begins receiving a signal, it must wait for the transmitter to stop transmitting, before replying.

An example of a half-duplex system is a two-party system such as a walkie-talkie, wherein one must use "Over" or another previously designated command to indicate the end of transmission, and ensure that only one party transmits at a time, because both parties transmit and receive on the same frequency.

A Full-Duplex (FDX), allows communication in both directions, and, unlike half-duplex, allows this to happen simultaneously. Land-line telephone networks are full-duplex, since they allow both callers to speak and be heard at the same time.

There are several benefits to using full-duplex over half-duplex. Firstly, time is not wasted, since no frames need to be retransmitted, as there are no collisions. Secondly, the full data capacity is available in both directions because the send and receive functions are separated. Thirdly, stations (or nodes) do not have to wait until others complete their transmission, since there is only one transmitter for each twisted pair.

For industrial sectors this increases safety and productivity as it allows free speech whilst freeing up the need to push switches to talk, both hands therefore can be utilised for other means.

Key features

> **ATEX (IP67)** and **NON-ATEX (IP66) versions**

> **High signal penetration (even through Faraday cage)**

> **Coded digital network**

> **Paging feature**

> **Range up to 1 km (1000 metres line of sight) with ½ wave antenna**

> **DSP (Digital Signal Processing)**

> **Can be deployed within seconds**

> **Internal and external antenna versions**

> **Hands-free self-synchronised system (Exclusive Patent)**

> **Encryption**

> **3 user conference mode (Full-Duplex) or more (2+X mode)**

> **Additional users in 'LISTEN' mode**

> **Hands free or PTT options**

> **Wide range of headsets**

> **Up to 10 hour battery life**

> **Man down Alarm***
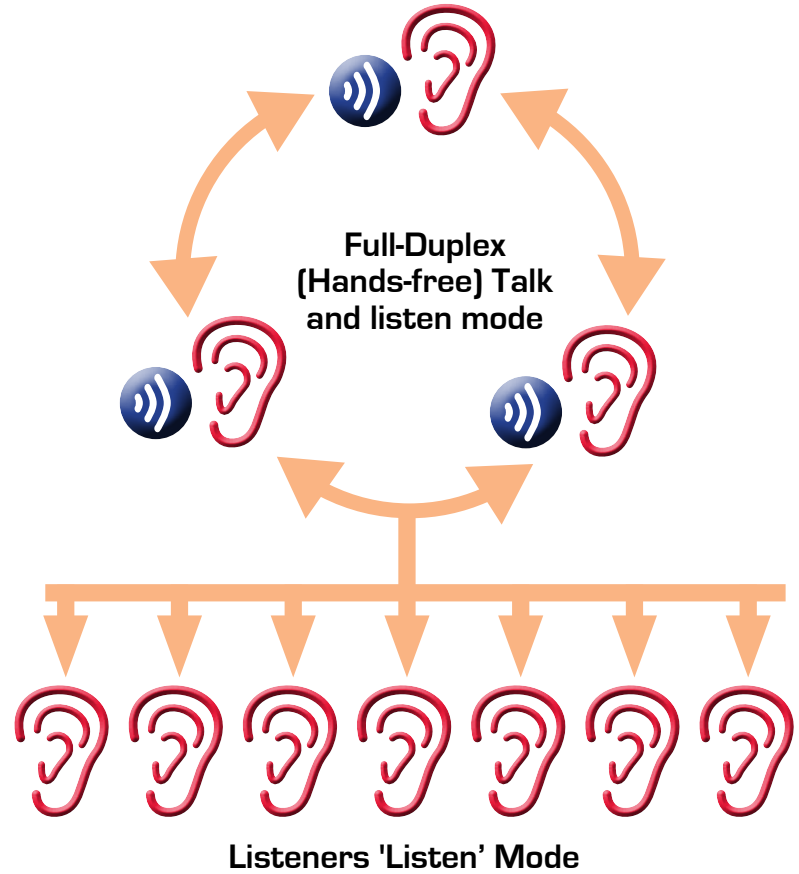
> **Impact Alarm***

> **Immobility Alarm***
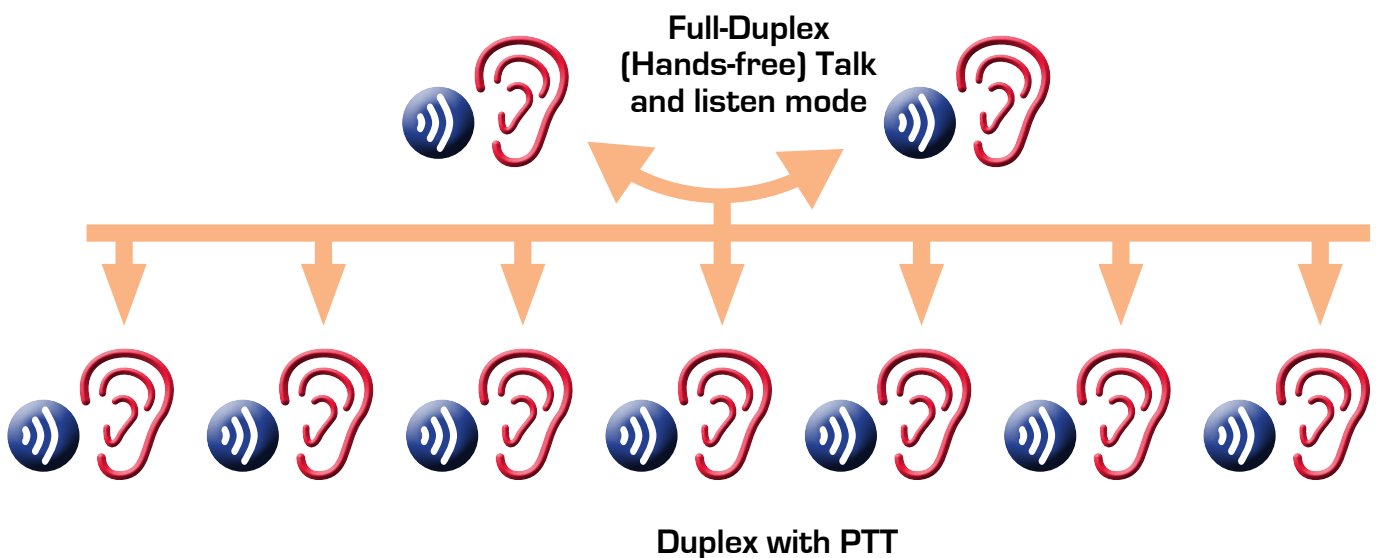
* Programmable features.

Typical applications

- Offshore & Petro-Chemical
- Construction
- Pharmaceutical Plants
- Chemical Weapons Destruction
- Shot Blasting
- Power Plants
- Utilities
- Shipping
- Spray Painting
- Fire & Rescue
- Technical Rescue
- Water Rescue
- Highway Maintenance
- Railway Maintenance
- Hazardous Material Suits
- Law Enforcement
- Tactical Response Teams
- Crane Operators
- High Steel Riggers
- Pile Driving Crews
- Pulp & Paper Plants
- Ships Engine Rooms
- Riggers
- Forestry
- Government Agencies
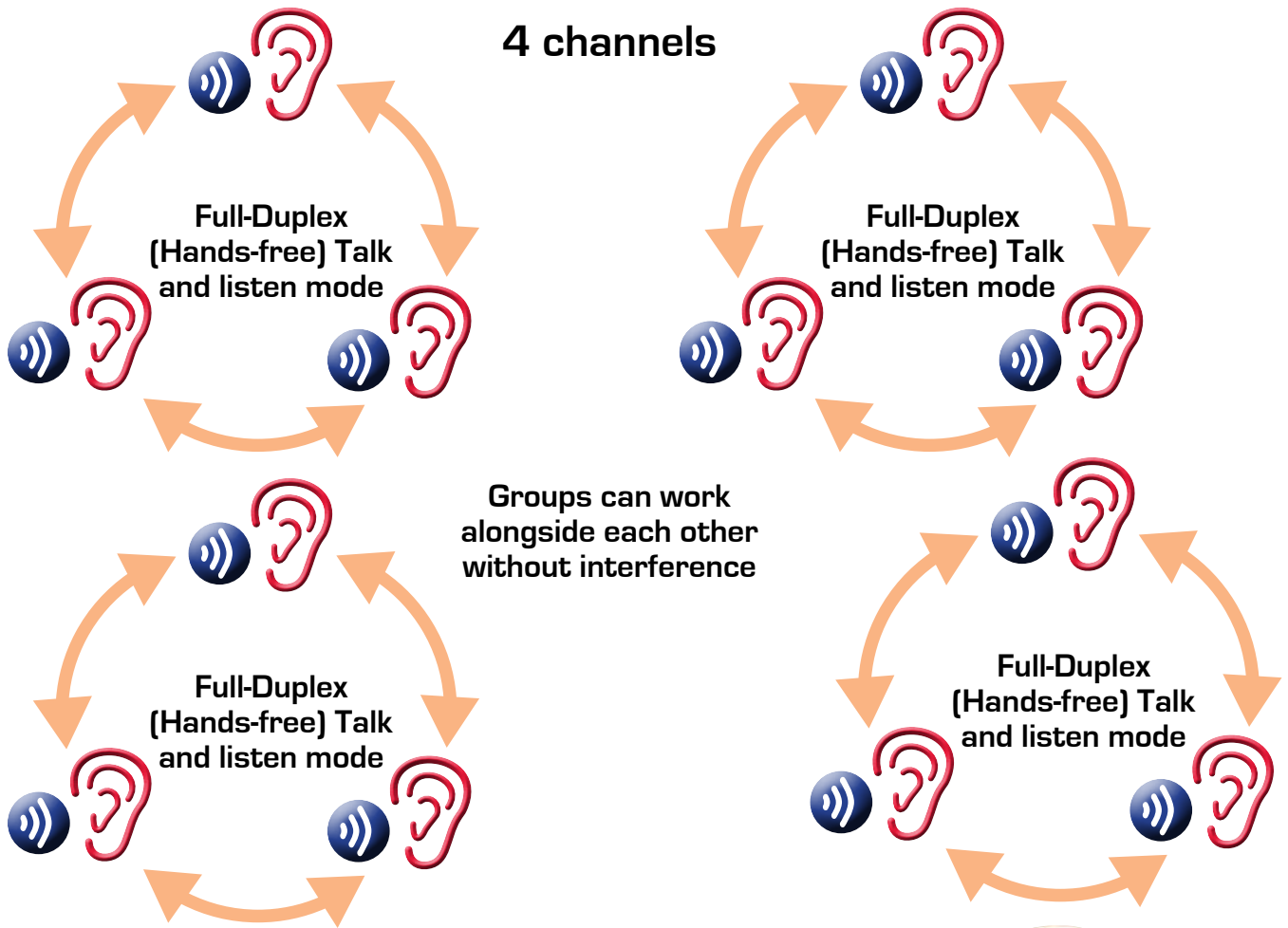
Hands-free Audio Conference

Full-Duplex
(Hands-free) Talk
and listen mode

Listeners 'Listen' Mode

'2+X' Configuration

Full-Duplex
(Hands-free) Talk
and listen mode

Duplex with PTT

One person at a time can join the Duplex conference with PTT,
the others still operate on listening mode

4 channels

Full-Duplex
(Hands-free) Talk
and listen mode

Full-Duplex
(Hands-free) Talk
and listen mode

**Groups can work
alongside each other
without interference**

Full-Duplex
(Hands-free) Talk
and listen mode

Full-Duplex
(Hands-free) Talk
and listen mode

Private radio conversation

**The SWATCOM DX system deploys a coded digital
radio network. Each SWATCOM DX kit is identified
by a "code" that prohibits another terminal, unless
authorised, to listen-in to the conversation.**

**Terminals from other SWATCOM DX kits, when placed
in "Listen" mode may or may not be authorised to
listen to the conversation.**

**To ensure optimal confidentiality, a dedicated coding
option "SECURE" can be personalised to create
"secured groups."**

ATEX headsets

ATEX Intrinsic safety is a protection for safe operations of equipment in explosive atmospheres, such as petrochemical refineries, mines or areas with dangerous concentrations of flammable gases and dust, and this is done by limiting the energy available for ignition therefore providing increased safety.

All of our ATEX intrinsically safe equipment has been subject to a detailed process of examination, testing and assessment of equipment intended for use in potentially hazardous atmospheric areas, with the end result being the issue of an ATEX intrinsically safe certificate and report, confirming and demonstrating that the product is safe to use (within certain parameters) within potentially explosive atmospheres.

Many workplaces may contain, or have activities that produce, explosive or potentially explosive atmospheres. Examples include places where work activities create or release flammable gases or vapours, such as vehicle paint spraying, or in workplaces handling fine organic dusts such as grain flour or wood.

Talking Headsets Ltd recognises the complexity and unique elements of difference employment sectors and whilst 'off the shelf' systems may work in the majority of environments requiring ATEX intrinsically safe approved systems, there are occasions when bespoke systems need to be developed and managed therefore providing the best solution possible to the client.

SCDX-M3Ex

Invisio intrinsically safe in-ear bone conduction headset features dual internal fault protection that eliminates risk of igniting explosive environments.

ATEX Approved

SCDX-AK5850

ATEX approved heavy duty headset for use in the most demanding of environments with excellent hearing protection to meet the demands of extreme environments.

ATEX Approved

SCDX-CTHS1-EX

Ultra-lightweight yet durable headset with noise-cancelling boom microphone and generic in-ear earphone.

Available with or without PTT.

ATEX Approved

NON-ATEX headsets

SCDX-76332

MIL-Spec headset with noise cancelling microphone. The 'Active Listening' headsets deliver very high sound quality, with reproduction of ambient sound and good directional awareness.

SCDX-SC8

This military grade headset is designed for rugged use. Noise-cancelling microphone is mounted on a robust and highly flexible boom. The speaker element is of high quality, waterproof design and protected by a moulded housing.

SCDX-SC5

Water resistant throat microphone for Military and Law Enforcement users who want a reliable accessory for voice communication that is streamline, easy to use, for a variety of operational scenarios.

SCDX-SC7

Heavy duty, durable headset with a flexible boom mic that is designed to be worn with a variety of safety helmets.

SCDX-M3

INVISIO Bone Conduction Technology, offers unsurpassed comfort and fit for the professional user with a mission critical need to communicate in extreme environments.

SCDX-SC22

A comfortable low profile headset with noise-cancelling flexi-boom microphone that allows good communication.

SCDX-BTH1

Bluetooth in-ear headset

SCDX-BTD1

Bluetooth dongle with Fischer connector to connect to SWATCOM DX handset.

SCDX-CTHS1

Ultra-lightweight yet durable headset with noise-cancelling boom microphone and generic in-ear earphone.

Available with or without PTT.

SCDX-PBH1

Lightweight Behind-the-head monaural headset with boom microphone

Other headsets are available on request.

Accessories

SCDX-PELI-1400-OR-CF3628

PELI waterproof case with custom foam insert for up to 6 SWATCOM DX handsets and chargers. Available in orange, black, silver, yellow, desert tan and olive drab green.

Kits come pre-programmed, complete with chargers, software and a PELI carry case.

Headsets are selected as an addition to the kit to suit your operational needs.

We are an official Peli UK supplier and can offer alternative cases from the Peli range.

Handsets and headsets can be purchased individually.

SCDX-Aqua-548 SMALL

Waterproof pouch with cable gland and belt strap IPX7 for SCDX with internal antenna.

SCDX-Aqua-558 LARGE

Waterproof pouch with cable gland and belt strap IPX7 for SCDX with external antenna

SCDX-Aqua-158

Waterproof pouch with cable gland and belt strap IPX7 for SCDX with internal antenna

Other Aquapac cases are available on request.

Specification/Technical data

Dimensions (HxLxP) : 91x48x15mm (3.6''x1.9''x0.6'')
Weight : 60 g (1.9 oz)
Radio : 863 to 870 MHz (License free band)
300 mW output (equivelant to 5 watt radio)
Number of channels : 4 –
Emission power < 500 mW
Radio range: Up to 1 km (1000 metres) line of sight
Battery autonomy: up to 5h (standard) or 10h ("long life") –
Charging : USB / around 1h30
Batteries : Lithium Polymer
Audio code : « enhanced » ADPCM – Modulation : FM
Temp. range : -10/+40°C (6/105°F)
Dust and Water protection: IP66 (ATEX version : IP67)
CE Certification.

**SWATCOM DX ATEX Version : For use in Explosive zones « 2 »
CE ATEX II 3G/D Eex is T6 IP67**

And there's more...

SWATCOM
Modular Radio Accessories

HOME SWATCOM DX SWATCOM 1 SWATCOM 2 SWATCOM 3 SWATC
DOWNLOADS

A intrinsically
voice amplifers desig
demanding environme

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SWATCOM

ARBORCOM

BY A-KABEL, NORWAY

Professional Communication Solutions