# AIRBORNE CHEMICAL DETECTOR

## Model ~ DRONECHEM-2-IWC-U ~ CHEM-2-IWC-H

## FEATURES:

- QUICK CONNECT FOR UAV (DRONECHEM-2-IWC-U)
- OR AS HAND HELD (DRONECHEM-2-IWC-H)
- WIDE RANGE OF DETECTABLE CHEMICALS -(CWA/TIC)
- DETECTS IRRITANTS, WARFARE (CWA), CHEMICALS (TIC)
- INTUITIVE USER INTERFACE
- REAL-TIME DETECTION
- INTERNAL PUMP WITH CONTINUOUS AIRFLOW
- EXPANDABLE DETECTOR NETWORK
- WIRELESS NETWORK CONNECTIVITY
- BUILT-IN GPS AND GROUP LOCATION
- SIMULATION TRAINING MODE
- CHEMICAL DATABASE AND INSTRUCTIONS
- OPTIMIZED USABILITY
- LOWEST MAINTENANCE COSTS IN ITS CLASS
- UAV & UGV USE WITHOUT INTEGRATION
- OPTION: FULL CBRN DETECTION CAPABILITY
- IP67

## **APPLICATION:**

- Hazardous area perimeter definition
- Battlefield detection and monitoring
- UAV & UGV chemical monitoring
- Unmanned area monitoring

#### DRONECHEM-2-IWC-U



CHEM-2-IWC-H

- Chemical reconnaissance and surveillance
- Locating leaks and faulty containers
- Customs and border control
- Mass and VIP events security

# DRONE TYPE IS DETERMINED BY MISSION OBJECTIVES.

## **DESCRIPTION:**

Dronechem-2-IWC-U and Chem-2-IWC-H rely on a unique and enhanced open-loop Ion Mobility Spectrometry (IMS) technology for chemical detection and identification.

A real-time trend display allows for chemical surveillance, warning for areas with higher concentration of hazardous compounds, even before it reaches alarm triggering levels. Real-time location and alarms are shared between the team members and the Command Centre.

An alarm can be triggered using Bluetooth sources, and complex simulations can be created using Mobile C&C and Training Software.



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#### **SPECIFICATIONS:**

Detector:	Orthogonal detection using:		
	Open-loop (aspirated) IMS cell		
	Multiple semiconductor sensors		
Display:	3,5" Full color graphical LCD display and 3 operation keys		
Alarm Indicator:	Audible alarm; Visual alarms (display / LED)		
Training:	Built-in training mode		
Data Download:	WLAN, WPAN, Radio Data, GPS USB memory stick		
	Ethernet (optional accessory) Up to 10 device per group with radio data		
Sampling:	Internal pump with continuous airflow		
Power:	110 – 250 VAC, 50 – 60 Hz.		
Batteries:	Easily interchangeable Li-Ion rechargeable (3 x AA) battery packs		
	Battery hot swap with power bank		
Operating Temp:	-25° F to 131° F (-32° C to 55° C); RH: 0-95% non-condensing		
Calibration:	Not required		
Shock and Vibration:	MIL-STD-810G; Highly resistant to shock and vibration. Drop resistance 48" (1.22m)		

#### Weight & Dimensions:

Dimensions:	Approx. 6.3" L x 3.9" W x 2" D (16.0 cm x 10cm x 5.0 cm)
Weight:	Approx. 27 oz (770 g) (w/Li-Ion battery)

#### Other Features: DRONECHEM-2-IWC-U and CHEM-2-IWC-H

- User adjustable data logging
- Interface Software Team display
- Agent database
- Rapid response instructions

#### **Options: DRONECHEM-2-IWC-U and CHEM-2-IWC-H**

• Standard Accessory Kit (SAK) CBRN Kit

Simulation Source Set

- Nerve, Blister, Blood, Toxic
  + Alarm Module
- Repeater & Remote Alarm Unit
- Charging Station
- Ethernet Adapter
- Mounting Bracket
- Battery Pack (AA)



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#### CHEMICAL DETECTORS (CWA) – HANDHELD (H) AND AERIAL SURVELLIENCE (DRONE) AGENTS DETECTED

AGENTS AND PRECURSORS	MAJOR DETECTION	DRONECHEM-WDE CHEM-WDE-H (Warfare, Drugs, Explosives)	DRONECHEM-2-IWC CHEM-2-IWC-H (Irritants, Warfare, Chemicals)
WAR GASES		YES	YES
	CWA	YES	YES
NERVE GASES		YES	YES
POISONS		YES	
	NOVICHOK	YES	
	SARIN	YES	YES
	SULFER MUSTARD	YES	YES
	VS VX	YES	
	CYANIDE		YES
IRRITANTS		YES	YES
	PEPPER SPRAY	YES	YES
	MACE		YES
	TEAR GAS		YES
EXPLOSIVES			
	EXPLOSIVES	YES	
	LEL EXPLOSIVE LEVEL		YES
DRUGS			
	FENTANYL	YES	
DANGEROUS CHEMICALS	TIC -TOXIC INDUSTRIAL CHEMICALS	YES	YES
	CHLORINE		YES
	AMMONIA		YES
	SULFUR DIOXIDE		YES
	CARBON MONOXIDE		YES
	FORMIC ACID		YES
	PHOSPHORUS		YES

Real-Time TA Real-Time TA Real-Time Rea