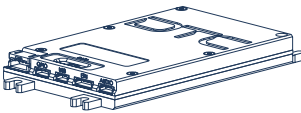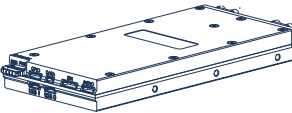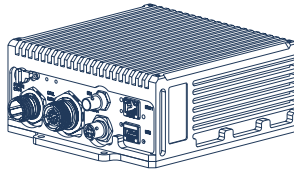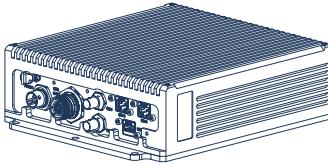# The BluSDR™ Family Hardware Platforms

The BluSDR™ family is a streamlined range of wideband IP radio links each chosen to offer class-leading performance in a range of Unmanned systems applications in the air, on the ground and at sea.

BluSDR™ - 6
The BluSDR™- 6 is ideal for size and weight critical UxV applications. Weighing only 0.9oz / 26g, the BluSDR™- 6 is smaller than a standard credit card.

BluSDR™ - 6
SHORT RANGE
from 26g | 6km | 400mW
3W consumption
Up to 87Mbps throughput
2 x USB Ports

BluSDR™ - 30
The BluSDR™-30 has been designed to be the core of a wide range of systems. Weighing only 3oz / 110g, the BluSDR™- 30 is the thickness of a pencil and the width of a playing card.

BluSDR™ - 30
MEDIUM RANGE
from 110g | 30km | 2W
6W consumption
Up to 87Mbps throughput   Serial
 2 x USB Ports   Audio
Ethernet   USB PD

BluSDR™ - 90 - UL
The BluSDR™-90-UL is a light option designed for Long Range capable UxV platforms. With its small form factor, the BluSDR™- 90- UL is suitable for installation both as a mobile and fixed site system. Weighing only 7.4oz/210g, the BluSDR™- 90- UL fits in the palm of your hand and is the size of a smartphone.

BluSDR™ - 90 - UL
LONG RANGE
from 210g | over 150km* | 10W
Up to 87Mbps throughput
USB Port
Ethernet
Serial
Audio *depending on the environment

BluSDR™ - 90
The BluSDR™- 90 is a robust option designed for Long Range capable UxV platforms. With its small form factor and meeting MIL-STD-461 environmental requirements, the BluSDR™- 90 is suitable for installation both as a mobile and fixed site system.

BluSDR™ - 90
LONG RANGE
from 2.5kg | 90km | 10W
Up to 87Mbps throughput
HD-SDI
USB Port
2 x Ethernet, 2 x Serial
Audio

BluSDR™ - 200
The BluSDR™- 200 is DTC's highest power Mesh product and provides up to 30W total RF power output for extreme long range applications.

BluSDR™ - 200
LONG RANGE
from 5kg | 200km | 30W
Up to 87Mbps throughput   2 x Serial
USB Port   2 x HD-SDI
2 x Ethernet   Audio

POWERED BY MeshUltra™

BluSDR™ radios deliver exceptional real-world range, unrivalled throughput and robustness, thanks to the DTC MeshUltra™ family of COFDM IP Mesh waveforms. The DTC proprietary waveforms operate as a Mobile Adhoc Network (MANET) and combine multiple features to deliver outstanding performance in the most challenging environments. BluSDR™ radios can support every waveform variant, enabling users to "mix and" match between form factors and power levels.

Each MeshUltra™ waveform is best suited for a specific application, from swarming drones to point to point links and are interchangeable across all of the DTC Software Defined Radios (SDRs). DTC has one of the widest ranges of hardware products catering for the smallest, lightest, low-power OEM modules for miniature UAVs to ruggedized MIL-spec radios, ideal for maritime, ground vehicle and control station applications. Frequency options span from 340MHz to 6GHz as well as combining bands for tri-band capable products. Each band typically has 500MHz of frequency to choose from, one of the widest ranges in the industry.

BluSDR™ radios deliver self-forming, self-healing mesh networks from a 2 radio, point to point link, right up to 144 radios in a dynamic mesh network.

For more information about the DTC BluSDR™ family or any of our other solutions, contact your Sales Account Manager, our Regional Sales Office, or email us at **info@dtccodan.com**

AMERICA
+1 571 563 7077
 info@DTCCodan.com

UNITED KINGDOM
+44 1489 566 750
solent.info@DTCCodan.com

SINGAPORE
 +65 6339 0508
singapore.info@DTCCodan.com

DENMARK
+45 87 91 81 00
spectronic.sales@DTCCodan.com

UAE
+971 44 53 72 01
sales@codancomms.com

AUSTRALIA
+61 8 8305 0311
sales@codancomms.com

DTC | A CODAN COMPANY

The BluSDR™ Family
High Performance UxV Communications

UNMANNED SYSTEMS

Unmanned systems are becoming essential assets to many military and non-military applications. DTC is a pioneer in the creation of wireless RF systems for uncrewed solutions.

Unmanned Communication Applications

- Policing and Surveillance
- Search & Rescue
- Disaster Management
- SIGINT/EW
- Intelligence, Surveillance, Reconnaissance (ISR)
- Humanitarian Aid & Disaster Recovery (HADR)
- First Responders
- Battlefield Management Systems
- Military Border & Maritime Security
- Broadcast and Filmmaking
- Environmental Monitoring

The requirements for unmanned communications are centred around range, endurance and secure, robust control with real-time video delivered with negligible glass to glass latency. In military sectors there is the continuing need for countering active jamming of electronic warfare threats and delivering the mission objectives.

Our radio products are developed by a 60-strong engineering team based in the US, Europe, and Australia with combined expertise in RF, MANET mesh networks, video encoding, hardware design and certification. We are renowned for developing a strong 'technical partnership' between DTC and the unmanned platform design team.

UNMANNED AERIAL VEHICLES (UAV)

DTC continues to partner with world leading UAV solution providers. The BluSDR™ products are built to compliment the needs of the smallest to the longest-range UAV platforms, and DTC prides itself in providing solutions that are tailored to each specific requirement.

DTC hardware combines the best combination of, size, weight, RF power output as well as power draw which are crucial to provide UAVs with the longest ranges possible. Specific hardware options can maximize the transmission distances and minimize the battery draw for the longest flight times. Lightweight OEM options exist from 200mW right up to 10W.

Multiple software options allow for versatility according to the operational requirements. There are three different options of waveform depending on the number of radios required and the volume of data throughput needed. Up to 87Mbps can be achieved across the Mesh network. DTC also offers the most flexible bandwidth settings from 1.25MHz right up to 20MHz, 15 different options to maximize throughput and range.

Optional software applications such as the DTC Interference Avoidance Scheme (IAS) provide interference detection and mitigation: Advanced signal processing techniques can be utilized to detect and mitigate interference using dynamic channel selection techniques. This means jamming and interference can be avoided by automatically switching to an interference-free channel.

DTC's solutions are tried, tested and proven in Military situations as well as the commercial sector, with one of the most extensive portfolio offerings, catering for every operational need.
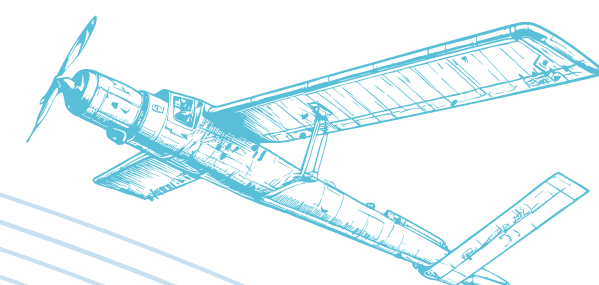
UNMANNED GROUND VEHICLES (UGV)

The rise in global demand for unmanned and connected systems has created a requirement for innovative, reliable, and secure connectivity solutions. We are proven in service, with over 5,000 DTC radios on Unmanned Ground Vehicles (UGVs) in Defence, Law Enforcement and Public Safety applications.

Unmanned ground systems are more likely to suffer from interference in the congested wireless environment that we live in today. DTC has over 2750 MHz of frequency available to operate in over UHF, L, S and C band, and can avoid the heavily congested bands like the ISM, Wi-Fi and Cellular allocations.

With an easy-to-use spectrum analyser built into the GUI, it is easy to find a clear area of spectrum to form a mesh network for secure, reliable communications. All DTC radios have the option of FIPS 140-2 accredited encryption to ensure the security and integrity of your critical mission data and imagery.
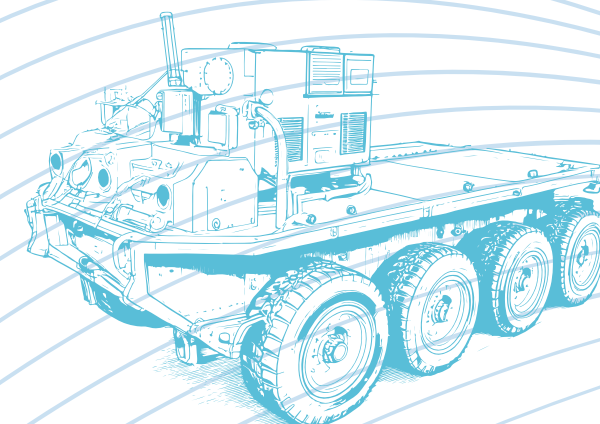
UNMANNED SURFACE VEHICLES (USVs)

Communicating at sea brings its own challenges and harsh environments. Constantly changing sea conditions affect line of sight with the vessel on the peak or trough of a wave.

DTC offers the option of 2-way diversity transmit and 4-way diversity receive radios. Having four antennas significantly increases link robustness in this challenging environment.

DTC radios operate in a Robust MiMo mode and combine the use of multipath and beam forming to provide greater robustness than a single transmit approach and are revolutionizing communications between vessels at sea.

Our Maritime Mesh offers wireless IP connectivity which can be used for ship-to-shore communications as well as between manned and unmanned vessels. This enables data links for telemetry control, video and audio between vessels and control stations.
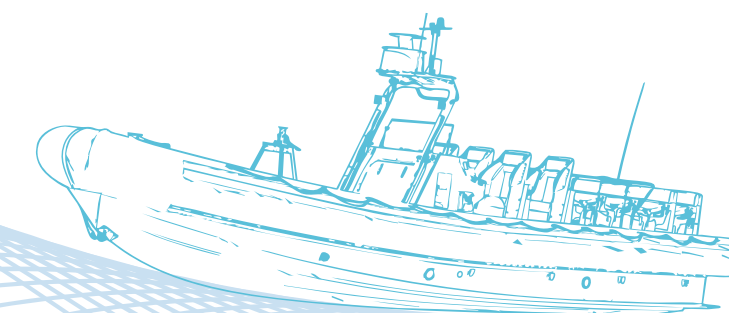
OTHER UNMANNED APPLICATIONS

UAVs are growing in popularity in broadcast applications and filmmaking, from aerial photography to camera support replacements for cranes, dollies, and tripods. DTC's sub-miniature, lightweight on-board transmitters are the first choice among discerning crews who can't compromise on quality. In agriculture, large farm operators optimize manpower through the deployment of unmanned vehicles for an array of tasks including spraying, inspection, surveying, planting, and data collection to optimize crop yields.

In mining, heavy equipment operators utilize Autonomous Haulage Systems (AHS) to optimize the movement of ore and mined materials, autonomous drilling and blasting, fleet management, obstacle detection and avoidance, as well as UAVs for survey, mapping, inspection, and safely operating in harsh environments.

A wide array of companies in industries from energy to construction, from passenger and cargo transport to power generation and transmission, utilize unmanned vehicles for inspection, survey, mapping, transport, surveillance, and to make operations safer for personnel and equipment.