

Chelton Airborne TETRA

Effective communication is essential for airborne emergency service providers, allowing air and ground-based first responders to deliver effective and coordinated responses using common trunked-mode networks such as airborne Terrestrial Trunked Radio (TETRA) and P25.

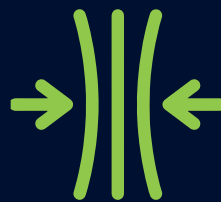
Chelton is the world's leading supplier of airborne TETRA with the largest install base around the world. We started by supplying the UK but today have international users of our airborne TETRA systems. Chelton's proven airborne TETRA radio has been adapted to allow use across different regions and public safety sectors all of which are in use today around the world.

Chelton and its customers learned the lessons required to integrate this capability into an airborne system, including the use of Highly Preferred Subscriber Class and the need for a dedicated TETRA air-cell overlay. Airborne TETRA systems provide essential communications on more than 500 aircraft worldwide, including aircraft operated by police, air ambulance, military, coastguard, and other government departments. Aircraft OEMs, design organizations and end users install Chelton's avionic-standard TETRA systems because it is designed and environmentally qualified for airborne use.



Reliable

Chelton has been supplying airborne TETRA for almost 30 years and are trusted across the world by a number of public safety and emergency agencies.



Resilient

Whether it's in the highest mountains or the deepest depths of the jungle, Chelton's airborne TETRA performs well no matter what environment it's operating in.



Robust

With a high Mean Time between Failure Rate, Chelton's airborne TETRA ensures superior performance throughout its lifetime.



Multiple Configuration Options

Single, dual and multiple radios with single or dual CDU systems, to facilitate operation from cockpit and rear-cabin.

What can Chelton offer?

A proven core TETRA radio, offering full compatibility with:

- TEA1-4 Air Interface Encryption
- End to End Encryption (E2E)
- Highly Preferred Subscriber Class (HPSC)
- Interoperability with any TETRA ground infrastructure
- Integrated GPS
- Option gateway and repeater functionality

A range of configuration options

- Single, dual, multiple radio
- Single or dual CDU systems, to facilitate operation from cockpit and rear-cabin

MMI tailored for airborne use

NVG compatible displays

Support services options, including:

- Support for installation and commissioning
- Software upgrades
- Obsolescence management

A range of support peripherals including:

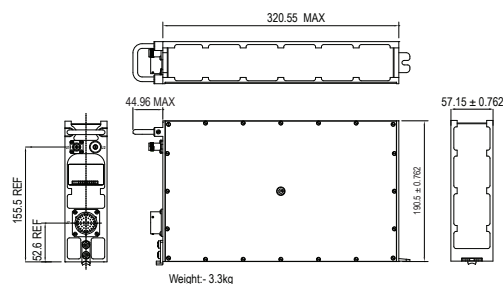
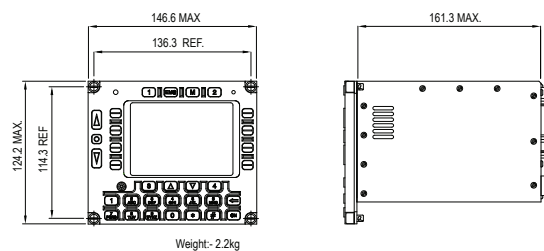
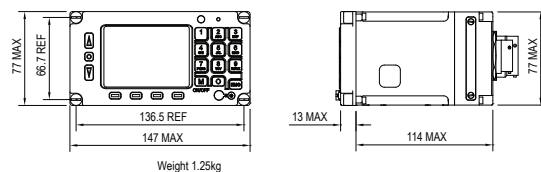
- Programming kits
- Interface modules

Commissioning and Support of Airborne TETRA

- Chelton offers a full range of support tools and services. These include:
 - Programming tools
 - Support for installation
 - Assistance with commissioning on the network, including loading air interface algorithms and radio customisation
 - Focused SLAs
 - Software upgrades
 - Obsolescence

Equipment Summary

- Proven core radio
- Operates on Motorola, Selex, Rohde and Schwarz, EADS and other networks
- DO160 D/E environmental qualification
- Standard Dzus/ATR LRUs
- 28V DC power
- Interfaces with standard aircraft audio system
- NVG/NVIS compatible displays



TETRA in the Airborne Environment

- The TETRA Standard includes specific elements for airborne use. There are a number of additional features which must be considered, including:
 - Highly Preferred Subscriber Class (HPSC)
 - HPSC ensures that the airborne radio terminal affiliates to ground base stations specifically designated for use with aircraft
 - Chelton's airborne TETRA range is HPSC tested and proven

TETRA Security – Encryption

- TEAs (TETRA Encryption Algorithms) are used to encrypt transmissions between all radio terminals and base stations
 - TEAs are geographically-based.
 - For example, TEA2 is used in the Schengen Region Chelton's core TETRA radio covers all four TEAs
- End to End (E2E) encryption encrypts the complete link between the two ends of the communication path