



CHELTON Wireless Integrated Communications System (CWICS)

CWICS provides a cordless extension to the VIC-3 family of products. The CWICS is a radio system that enables the members in a conference group to speak freely from the vehicle to dis-mounted crew. Digital speech encoding provides high quality speech between the group members and the connected VIC-3. The system consists of an integrated wireless Full Function Crew Station (FFCS/W) access point from the VIC-3 and the Chelton Personal Radio (CPR) for the dis-mounted crew.

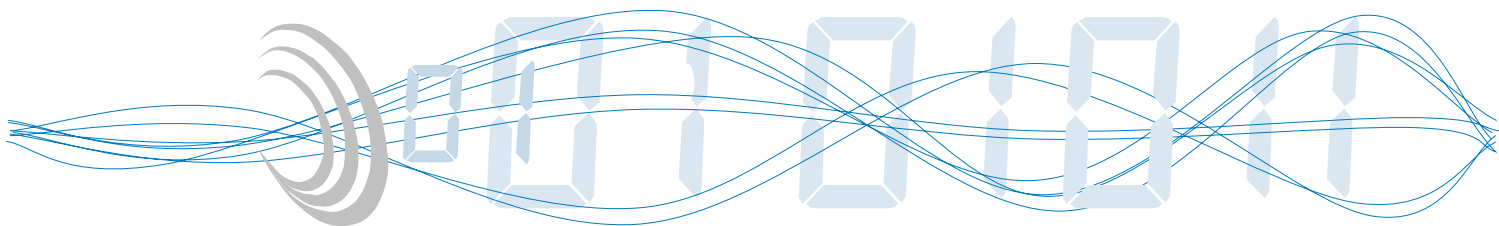
The CWICS is available as full duplex using the FFCS/W C200Z and the CPR210 or as a simplex system using the FFCS C100Z and the CPR110.

Full Duplex Wireless Communications - CWICS 200 System

The CWICS 200 System provides full duplex wireless communications to and from the VIC-3 and the wireless users using the CPR210 with a number of selectable audio or data sources. The integrated C200Z provides all the necessary echo cancellation and routing of intercom and Combat Net Radio (CNR) to the Personal Radios. The system can be operated in simplex mode if this is desired.

The CWICS 200 provides the following capabilities:

- Full duplex intercommunications between users and the vehicle
- Intercom Traffic from VIC-3 always available to wireless users and access to the VIC-3 intercom from wireless users is guaranteed
- Ability to select for reception and transmission of CNR on LV2, ROVIS or AN/VIC-3 from CPR210 handheld
- Six full duplex speakers with up to 30 listeners per channel
- Hands-free voice operated keying of intercom signals
- Digital noise reduction of ambient noise on transmitted audio and digital encoding for high speech intelligibility
- Directional hearing if used with stereo headset
- Embedded simultaneous data transfer with voice
- Sidetone suppression and echo cancellation
- Frequency hopping – low probability of intercept
- Adaptive power management to prevent blocking and extend battery life
- 2.4 GHz license free frequency band
- FCC approved



CHELTON Defence Communications Ltd

Haslingden Road, Blackburn, Lancashire, United Kingdom BB1 2EE

T// +44 (0) 1254 292010 F// +44 (0) 1254 292035 E// sales@cheltondc.com W// www.cheltondcweb.com

© Chelton Defence Communications Ltd.



CWICS 200 System

This system provides complete flexibility between squad members and the communication assets within the vehicle. The squad operates using an all informed hands free wireless intercom both with each other and the vehicle while maintaining independent communication links with up to two of the on-board transceivers.

- Full duplex intercom communication
- Full transmit and receive capability to VIC-3 radios
- Up to two radios can be accessed remotely
- No loss in VIC-3 functionality
- Plug and play with VIC-3

CWICS 200 Technical Summary

Number of channels 50 user selectable channels

Frequency usage 2.4 – 2.4835 GHz ISM band, frequency hopping TDMA using 20 frequencies per user channel

Transmit power / Range 0.1 – 100 mW (configurable) / up to 800 m (line-of-sight)

Size / Weight 28 x 73 x 128 mm (excl. antenna, incl. battery), 300 g incl. Battery

Operating time 16 hours (rechargeable Li-ION battery pack) or 24 hours (extended Li-ION battery pack)

Speech coding 32 kbps ADPCM

Earphone limiter 85 dBA limiter (configurable) to avoid impaired hearing

Microphone Type Dynamic or Electret (configurable)

Microphone AGC Automatic Gain Control on microphone input

Noise cancellation Up to 15 dB reduction in 125 dBA environment

Number of users 30 units in each conference group (1 master + 29 slaves)

Number of speakers Up to 6 simultaneous speakers (1 master + 5 slaves)

Operating temperature -40°C -- +55°C

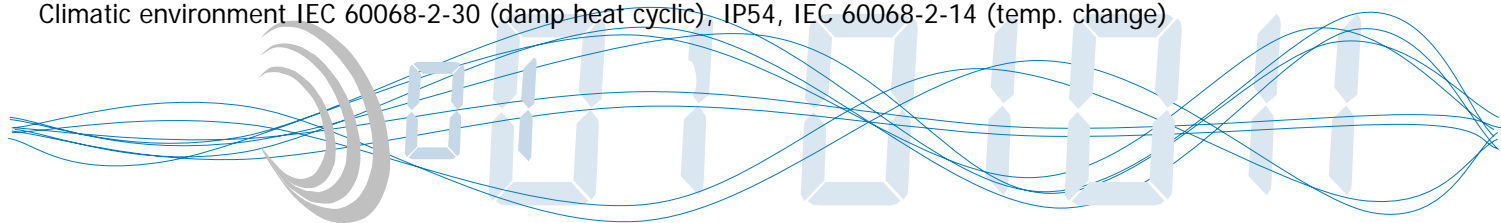
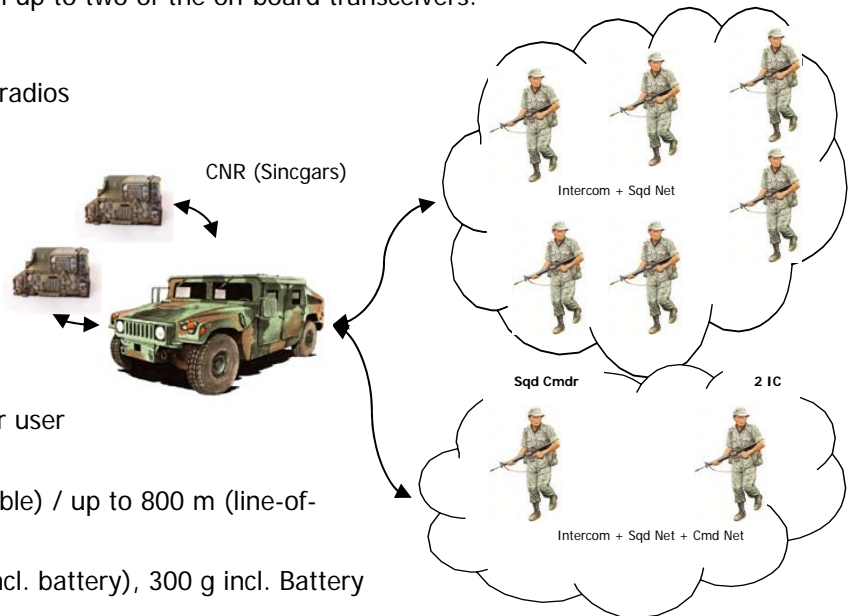
EMC Emission MIL-STS-461E (RE102, CE101, CE102)

EMC Immunity EN61000-6-2, MIL-STD-461E (RS103, CS101, CS114, CS115), Radio Compliance EN 300 328-2, EN 301489-17

Mechanical environment IEC 60068-2-6 (vibration 5 g), IEC 60068-2-29 (bump 40 g)

Chemical environment MIL-STD-810F, 509.4 (salt mist), aircraft fuel, diesel, hydraulic oil, de-icing fluid

Climatic environment IEC 60068-2-30 (damp heat cyclic), IP54, IEC 60068-2-14 (temp. change)



CHELTON Defence Communications Ltd

Haslingden Road, Blackburn, Lancashire, United Kingdom BB1 2EE

T// +44 (0) 1254 292010 F// +44 (0) 1254 292035 E// sales@cheltondc.com W// www.cheltondcweb.com

© Chelton Defence Communications Ltd.