

C<sup>2</sup>I<sup>2</sup> Systems offers a range of Systems and Board-Level Products for mission-critical and real-time applications.

The SA Navy's new Valour-class light frigates are being outfitted with C<sup>2</sup>I<sup>2</sup> Systems's Navigation Distribution System and Tracker Radar Console.

C<sup>2</sup>I<sup>2</sup> Systems's range of board-level FDDI data communications products is being used in the latest NATO AWACS aircraft; the latest US Navy's aircraft carrier, the USS Ronald Reagan; the US Navy's latest class of combat ships, the San Antonio class of amphibious assault vessels; the Swedish Navy's Visby-class corvettes and various German Navy ships.

### Navigation Distribution System (NDS)

The Navigation Distribution System (NDS) is a dual-redundant, real-time distribution system for ship sensor data. The NDS consists of two Navigation Processor Units (NPU's) which receive and relay inertial and navigation data. The NDS's replicated design, as well as its distributed hardware and software architecture, ensure a high level of reliability and freedom from any single point of failure.

### Tracker Radar Console (TRC)

The Tracker Radar Console (TRC) provides a sophisticated, graphically-orientated, human-machine interface for tracking radars such as the RTS 6400 Optronics Radar Tracker (ORT). The system simultaneously displays tracking video from several ORT sensors and overlays high-resolution graphics and symbology to facilitate searching for and tracking of targets by the operator, as well as weapons firing.

### Helicopter Take-Off and Landing System (HTLS)

The HTLS assists in the take-off, landing and flying operations of the ship-borne helicopter, by measuring and displaying environmental conditions and ship's motion data. The HTLS allows the operator to set maximum values for the parameters of roll, pitch and heave and determines when it is safe for the helicopter to take-off and land, also accounting for the combat situation.

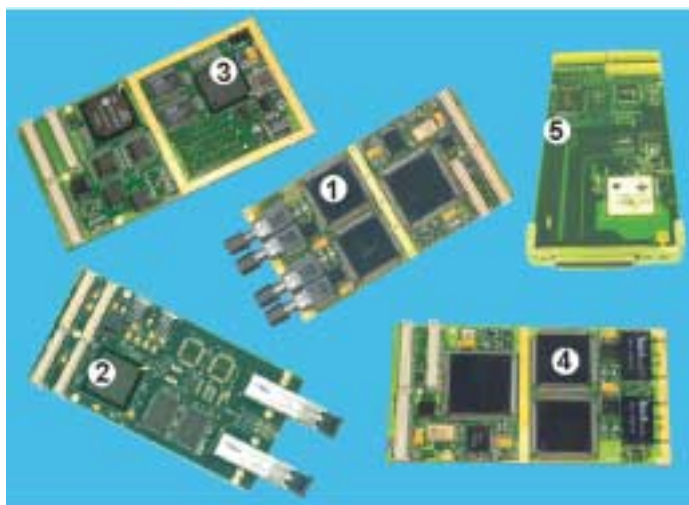
### Board-Level Products (BLP)

C<sup>2</sup>I<sup>2</sup> Systems's range of PMC Network Interface Cards (NICs) is ideally suited to real-time embedded platforms and features a wide range of compatible and qualified software drivers.

Conduction-cooled (CC) versions of the boards are especially suited for harsh environments with high temperature, shock and vibration levels.

NICs are available in the following versions :

|                        |                  |
|------------------------|------------------|
| Conduction-Cooled (CC) | (-40 C to +85 C) |
| Industrial             | (-15 C to +75 C) |
| Commercial             | ( 0 C to +55 C)  |



- 1. CC FDDI      2. Dual 2 Gbps Fibre Channel      3. CC Serial I/O
- 4. CC CDDI      5. GPS

### Board-Level Products Characteristics

#### Networking Interface Cards (NICs)

Various software drivers are offered including VxWorks as standard for certain platforms; others are optional. Built-in-Test (BIT) software is optional.

##### Fibre Channel

Dual, full duplex, 2 Gbps Fibre Channel communication links on short-haul or long-haul singlemode fibre media and 1 Gbps over shielded copper cable. Supports all Fibre Channel topologies, including Arbitrated Loop. 64-bit 66 MHz PCI-bus.

##### Fibre Distributed Data Interface (FDDI)

4B/5B signalling over multimode fibre media. ST I/O connectors. Dual-(DAS) and Single-(SAS) Attachment Station options. Front-panel or rear facing I/O.

##### Copper Distributed Data Interface (CDDI)

MLT-3 signalling over copper UTP media. Dual-(DAS) and Single-(SAS) Attachment Station options. Front-panel or rear connector I/O.

#### Serial I/O Adapters

##### 2-Channel Serial I/O

2 x RS232 channels, high-performance, industry standard 16550 compatible UART.

##### 8-Channel Serial I/O

8 x Channels of simultaneous, bi-directional UART serial communications. All channels configurable as RS422/485/232.

##### 4-Channel High-Speed Serial I/O

4 x High-speed plus 2 low-speed (UART) channels. All channels configurable as RS422/485/232. Intelligent adapter with onboard CPU. Front-panel or rear connector I/O.

#### GPS Adapter

Incorporates Global Positioning System (GPS) functionality and also offers one UART serial channel. Port for Differential GPS (DGPS) provided.



## CCII Systems (Pty) Ltd

P.O. Box 171, Rondebosch, 7701, Republic of South Africa  
 Telephone : (+27) (0)21 683 5490, Facsimile : (+27) (0)21 683 6365  
 Email : info@ccii.co.za      URL : http://www.ccii.co.za/

