Digital Radio Solutions for 3G

Ixthos, Inc., has announced a new line of digital radio boards for telecoms-intensive applications. The new highly integrated, software programmable CHAMP-DR/T&reg boards provide four channel receivers or dual channel transceivers (transmitters/receivers), tightly coupled to up to four PowerPC G4 with AltiVec), or four TI high end C6x digital signal processors (DSPs) in a single 6U VME or CompactPCI slot.

The new high performance, multi-function boards incorporate dual digital radio PMCs (PCI Mezzanine Cards) that provide exceptional I/O flexibility and versatility for wireless G3 telecom systems. The CHAMP-DR/T&reg allows carriers of wireless services to provide higher call capacity and increased efficiency for advanced voice, video and data convergence. The boards also feature Ixthos' patented CHAMP&reg (Common Heterogeneous Architecture for Multi-Processing) architecture which delivers the highest throughput, non-proprietary, open architecture signal processing available for digital radio. Sub-system solutions include several third-party PMC products integrated from Ixthos' Embedded Business Partners program, including the advanced digital radio modules from Echotek and Red River Engineering.

The CHAMP-DR/T is capable of implementing multi-channel, very low noise, wide and narrow band receivers and transmitters. This allows virtually any demodulation scheme, including AM, FM, PM, FSK, PSK, QPSK, CDMA and others. The boards incorporate SPEs (Signal Processing Elements) tightly coupled to 14 bit A/D front end, digital down converters for high speed data transfers and high data throughput (&lt260Mb/sec).

A full range of software support for multiple operating systems - including VxWorks&reg and Linux is available. In addition, full function optimized math libraries, PMC drivers, software development tools (for developing filter coefficients, board configuration parameters, programming and algorithms, etc.), and multiple host board support packages are available.

Extended temperature and conduction-cooled versions of the CHAMP-DR/T are available from DY 4 Systems, Ixthos' parent company.

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