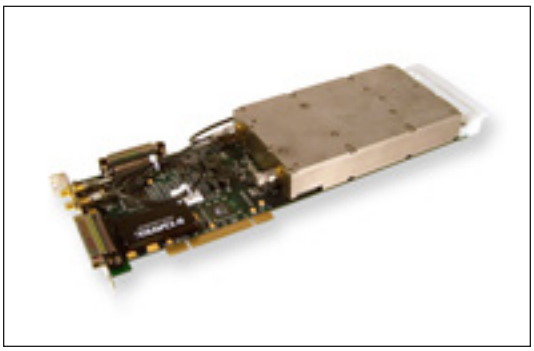
TELETRONICS
A Curtiss-Wright Company

RBDS-120DT Datasheet

RF Dual Receiver, Bit Sync, Decom, Simulator and IRIG Time Code Reader



Features

- PC-based PCI Bus Full Size Card with RF Diversity Receiver (Dual Receivers), Bit Synchronizer, Data Decommutator, Simulator, and IRIG Time Code Reader
- RF Diversity Receiver (Dual Receivers)
  - For use with modern antenna tracking systems
  - L Band or S Band coverage
  - Selective tuning with 20 kHz tuning steps
  - 4 selectable IF Band widths; 0.5 to 20 MHz available
  - Processes PCM/FM NRZ codes - programmable from 50 kbps to 10Mbps NRZ codes, and 25kbps to 5 Mbps Bi-phase codes
  - Codes can be NRZ-L/M/S, RNRZ-L (fwd/rev) or Bi-phase L/M/S per IRIG STD 106, programmable
  - Real time indication of active channel
- Receiver Signal Strength Indication (RSSI) (Per Channel)
  - Selectable Output ranges and time constants
- AM Outputs (Per Channel)
  - Selectable Bandwidths
- Bit Sync:
  - Bit Rates up to 10 Mbps, NRZ Codes
  - Input Signal Amplitudes from 0.1 to 5.0 Volts p-p
  - Accepts all IRIG-106 PCM Inputs
  - Provides all IRIG-106 PCM Outputs with Coherent Clock
  - Onboard Bit Error Rate Detector and Test Data Simulator
- Data Decommutator
  - PCM Input Rate up to 20 Mbps
  - Accepts RS-422 or TTL Input Data and Clock
  - Onboard Minor Frame Time Tag
  - Word Select Mode: Any or all words from the format can be steered to this PCM output
- Simulator
  - Regenerates playback Archived PCM data at programmable rates of up to 20 Mbps
  - Random Number Generator: Used for checking Bit Sync
- IRIG-B Time Code reader
  - Accepts IRIG AC or DC time in
  - Time tags incoming PCM Minor Frames
  - Provide IRIG Time to the PC
- Windows Compatible Driver Software Included
- Supported by Third Party Data Analysis Software

Description

The RBDS-120DT combines the functions of a RF Tracking Receiver, Bit Synchronizer, Data Decommutator and Simulator into a single full size PCI Bus card. The card can be installed in a Desk Top PC for preflight or lab test. The RF Tracking Receiver has L or S band coverage (customer specified at time of order). Tuning is in 20Khz steps. There are four selectable IF Bandwidths from 0.5MHz to 20MHz. The Bit Synchronizer provides full-featured clock reconstruction, data recovery and code conversion. The Bit Sync accepts PCM inputs at rates of up to 10 Mbps for NRZ codes and up to 5 Mbps for BiØ codes with amplitudes from 0.1 to 5.0 Volts p-p. The Bit Sync input impedance is programmable to 50, 75 or 10K ohms. PCM data and 0°/180° clock Bit Sync outputs are provided via RS422 and TTL drivers. The Bit Sync output is also internally connected to the on card Decom. A Bit Error Rate (BER) measurement capability with an on card Test Data Simulator is included to allow characterization of data link quality. The Data Decommutator provides full IRIG Frame Synchronization and data Decommutation. The Decom accepts PCM data at rates up to 20 Mbps from either an external source or the on-card Bit Sync (10 Mbps max.). The Decom external data and clock inputs are programmable for RS-422 (20 Mbps – 120 ohm) or TTL (10 Mbps – 10K ohm). Decommutated data words and frame time tags are made available via the PCI bus for analysis, archival, and monitoring. The PCM Output has four options. 1. It can regenerate archived PCM Data (simulator) at programmable rates up to 20 Mbps, 2. Pass the recovered data and clock from the Bit Sync directly to this output, 3. Provide bursts of selected data and clock in Word Select mode or 4. Can be used as a Random Number Generator for testing the link integrity of the Bit Sync input.

Applications

- Data Analysis
- Data Archival
- Flight Test Instrumentation

CAIS Compatible

DEKRA Certified

Management System AS9100C ISO 9001:2008

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