**1553B IP Core**

1553B IP cores are FPGA based solutions for the 1553B domain, in the industries like aerospace, avionics and defense. The compact footprint of the IP core will require very less real estate, and the high speed clocks will give a very robust and reliable performance.

The single stream IP cores can be configured either BC, RT or monitor at a time and the multi stream IP core have a power to work all the three (BC, RT, MT) functionalities simultaneously.

The configurable register set allow the IP core to configure for filters, events and the functionalities.

**IP Core Features**

- Single Stream (BC or RT or Monitor)
- Multi Stream (BC, RT and Monitor)
- Small Footprint (887 Luts)
- High Speed Clocks (100 MHz)
- Configurable Register Set
- Supports up to 1MB Ram
- Supports hardware like Xilinx, Actel, Altera, Lattice
- Suitable for customized boards and ASIC chips
- Emulator concept will replace any vendor specific register set
Remote Terminal (RT) Features

- Multiple RT Selection
- Programmable Error Injection
- Modify data, status word on run
- BC to RT, RT to BC, RT to RT and Mødecoder Response Cycle
- Robust IP Core Design as per DOD standards
- Full Error Detection
- Comply with ComAvia’s RT Validation build as per the DOD standards.

Connections

- Direct or Transformer coupling
- Triggers for inputs and outputs
- Configurable discrete

Power for Two channel

- +5V DC @ 1.5 Amp
- PCI power compatibility for 5V and 3.3V

Foot Print

The RT IP core is designed to use very less gates and it is very compact design. The code can be modified according to the customer requirement. It also support different hardware like Actel, Altera and Lattice with minimal changes. Below table give the details about the IP core developed for Xilinx Spartan 3 series

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Family</th>
<th>Utilization (4 LUTs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xilinx</td>
<td>SPARTAN 3/Vertex 5</td>
<td>887</td>
</tr>
<tr>
<td>ACTEL</td>
<td>PROASIC 3</td>
<td>Equivalent to Xilinx</td>
</tr>
<tr>
<td>ALTERA</td>
<td>CYCLONE 3</td>
<td>Equivalent to Xilinx</td>
</tr>
<tr>
<td>LATTICE</td>
<td>XP2</td>
<td>Equivalent to Xilinx</td>
</tr>
</tbody>
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