Sital's Mil-Std-1553 IP core for FPGA still orbiting the moon on board NASA's Lunar Reconnaissance Orbiter

Back in 2005 NASA chose Sital's product after a rigorous selection process during which it was thoroughly tested against several other competing products. The IP core was implemented inside a space environment hardened Field Programmable Gate Array (FPGA) to create a general purpose MIL-STD-1553B Remote Terminal, which is now in use by NASA for more than 20 projects since.

The first project at NASA to use Sital's 1553 IP core was the Lunar Reconnaissance Orbiter, which was launched in June 2009. Originally, this satellite was meant to orbit the moon for about 18 months. Now, 4.5 years later, it is still running around the moon and transmitting valuable information regarding the moon's surface and environment. NASA now projects that LRO will continue to send back lunar data until October 2014, with the possibility of an additional two years.

In addition to the great science results from the mission, here are some interesting facts about LRO (as of June 2013):

- LRO's laser altimeter has conducted over 6 billion topographic measurements
- LRO has travelled in lunar orbit over 200 million kilometers, more than the distance to the sun
- Produced 434 Terabytes of data that are publicly available through the Planetary Data System
- Been in space for 1460 days
- Orbited the moon nearly 18,000 times

A big portion of that data is constantly being transmitted between the various systems within LRO via the Sital Mil-Std-1553 IP core.

It doesn't get more reliable than that, does it?

About LRO:

LRO is a robotic mission that set out to map the moon's surface and, after a year of exploration, was extended with a unique set of science objectives. LRO observations have enabled numerous groundbreaking discoveries, creating a new picture of the moon as a dynamic and complex body. These developments have set up a scientific framework through which to challenge and improve our understanding of processes throughout the solar system.

LRO and the Lunar CRater Observation and Sensing Satellite (LCROSS) were launched on an Atlas V rocket on June 18, 2009, beginning a four-day trip to the moon. LRO spent its first three years in a low polar orbit collecting detailed information about the moon and its environment. After this initial orbit, LRO transitioned to a stable elliptical orbit, passing low over the lunar

south pole. With a suite of seven powerful instruments, LRO has collected a treasure trove of data, making an invaluable contribution to our knowledge about the moon.

About Sital:

Sital Technology provides world-class products and expertise for communication bus applications in the avionics, aerospace and automotive industries. Sital embeds its vast experience and proficiency in its products which include Mil-Std-1553 and other avionics IP cores, components, boards and testers, as well as CAN bus devices and applications. Sital's serial bus technologies and expertise improve robustness and efficiency as they lower cost, space and resource utilization.

Sital's formidable customer list the world's leading commercial and military avionics companies, space agencies, and automobile designers and manufacturers.

More information about LRO can be found at:

http://lro.gsfc.nasa.gov/

About Sital ERL 1553 IP core:

http://www.sitaltech.com/BRM1553ERL.asp