

News Release

24 October 2016

COBHAM ANNOUNCES QML V QUALIFICATION OF THEIR CONTROLLER AREA NETWORK (CAN) FLEXIBLE DATARATE (FD) TRANSCEIVER

COLORADO SPRINGS, COLO. – Cobham has received Defense Logistics Agency (DLA) Qualified Manufacturer's List (QML) V qualification of their UT64CAN333x series of RadTolerant Controller Area Network (CAN) Flexible Datarate (FD) Transceivers. QML V qualification will assure customers the CAN Transceivers have been through the most rigorous DLA tests required. The CAN Transceiver series will be produced by Cobham Semiconductor Solutions, a business unit of the Cobham Advanced Electronics Solutions sector.

"The series provides the physical layer that permits operation on a differential CAN bus and are ideal for sensor monitoring, system telemetry and command and control applications," said Elaine Gonsalves, Product Marketing Manager. "Developed in accordance with both ISO 11898-2 and 11898-5 standards, the latter in support of CAN FD, the UT64CAN333x series are capable of baud rates between 10 kbps to 8 Mbps, fastest in the market, and include a slope-control mode to control the slew rate of the transmissions for baud rates of up to 500kbps. A standby mode disables the transmitter circuit to conserve power while monitoring the bus for activity. The UT64CAN333x series of transceivers can support up to 120 nodes."

According to Gianluca Furano, On-board Computer Engineer at the European Space Agency, "Space avionic systems are witnessing a change from highly centralized intelligence to distributed autonomous functions, thanks to the availability of high capacity FPGAs and Microcontrollers that offload tasks that traditionally have been concentrated in the on-board computer. The impetuses of these changes are the command and control buses. In the late 1980s, a similar process led to the development and successive adoption of CAN as an automotive and industrial automation bus."

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“A CAN bus-based system in Space will allow engineers to replace older, more complex wiring communication architectures with a CAN two-wire bus network. Reducing the number of wires and weight, along with lower power consumption and easier testability, will result in major cost savings for spacecraft manufacturers. With the arrival of Cobham’s QML V qualified RadTolerant CAN bus transceivers, and the impending introduction of several CAN-able RadTolerant microcontrollers and the availability of larger RadTolerant FPGAs, space electronic engineers will be able to implement a CAN bus network for spacecraft on-board communications and controls of the same level of complexity as a terrestrial CAN-based embedded system.”

“Cobham products provide competitive leeway (thanks to the compatibility with CAN-FD PHY and support for large networks) to support this architecture for many years to come, providing a solid foundation for current and future designs,” continued Furano.

The three transceiver options are:

- UT64CAN3330 provides a low power sleep mode of operation.
- UT64CAN3331 supports a bus isolated diagnostic loopback.
- UT64CAN3332 offers the ability to monitor bus traffic enabling the local controller to change its baud rate to match the operations of the bus.

Cobham’s RadTolerant CAN Transceivers are the only products on the market supporting CAN FD (up to 8 Mbps) and have superior radiation performance of 100 krad(Si) total dose with latch up of $LET \leq 141 \text{ Mev-cm}^2/\text{mg}$. The UT64CAN333x series is packaged in an 8-lead ceramic flatpack. Prototypes and production parts are available now with Standard Microcircuit Drawing (SMD) number 5962-15232, QML-Q and V.

“Cobham’s RadTolerant CAN FD Transceivers allow for the implementation of robust low-level networks within spacecraft saving weight and power,” continued Gonsalves. “Cobham designed the UTCAN333X series to meet industry’s demand. We are now working with designers on future flight applications using prototypes and look forward to successful missions.”



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For copies of the CAN FD Transceiver series datasheets, call 1-800-645-8862, email info-AMS@cobham.com or visit www.Cobham.com/HiRel.

About Cobham Semiconductor Solutions

Enhancing the performance of your products with semiconductor solutions you can depend on.

We are a global supplier of Standard HiRel ICs including memory, μ processor, interconnect & power and ASICs for space, commercial, medical and industrial markets, along with Electronic Manufacturing Services (Circuit Card Assembly, Radiation Testing, Component Up-screening and Packaging).

Cobham Semiconductor Solutions' Colorado Springs site is a supplier of semicustom and standard VLSI circuits and custom circuit card assemblies. They have a Qualified Manufacturer List (QML) certification for Class Q, Class T, Class V and Class Y.

About Cobham

Cobham is a leading global technology and services innovator, respected for providing solutions to the most challenging problems, from deep space to the depths of the ocean.

We employ approximately 11,000 people on five continents, and have customers and partners in over 100 countries, with market leading positions in: wireless, audio, video and data communications, including satellite communications; defence electronics; air-to-air refuelling; aviation services; life support and mission equipment.

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Media Relations

Teresa Farris

+1 719-594-8035

teresa.farris@Cobham.com