ALQ-213(V) DEFENSIVE AIDS CONTROLLER

Lightweight defensive aids controller
Terma's ALQ-213(V) Defensive Aids Controller (DAC) offers a versatile independent solution for military Aircraft Survivability Equipment (ASE) suites. The DAC is available in both DK (non-ITAR) and US (ITAR) versions.

The ALQ-213(V) DAC belongs to Terma's family of controllers, in service on 2,500+ aircraft, counting 25+ different platform types operated by more than 15 different countries around the globe.

The ALQ-213(V) DAC is a small form-factor lightweight platform for easy integration of any ASE sensor or effector system as well as aircraft core functions thanks to its many configurable interfaces and robust computing power.

A Terma integrated ASE suite allows for selection of enhanced functions for optimization of performance through Automatic Threat Reaction / Decision Support algorithms and an extensive Embedded Training function – all fully user programmable.

Technical description
The ALQ-213(V) DAC is designed for painless avionics bay installations, thanks to its small form-factor and light weight. The DAC is built using low power consuming components and thus no forced air cooling is required.

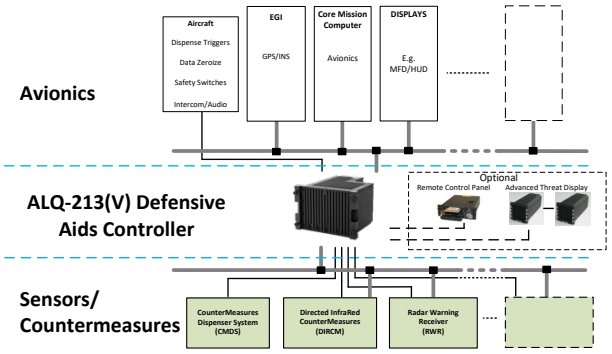
The architecture is centered around a powerful multi-core CPU for hosting of customer applications and a large Field Programmable Gate Array (FPGA). Terma's software components fielded with a high integrity Real-Time Operating System provide generic application programming interfaces and allow for firewalled integration of safety critical avionics systems with the applicable ASE suite of systems and secure data management.

The DAC is prepared with a vacant expansion slot to allow drop-in of additional capabilities with minimal impact to the unit design.

Typical application

The DAC typically integrates a number of ASE sensors and effectors via one or more MIL-STD-1553B, Ethernet or serial interfaces in combination with discrete power control signals. Depending on the application, the DAC may integrate cockpit Multi-Function Display and Control Units as applicable or provide Human Interaction via Terma's Advanced Threat Display and Remote Control Panel.

Available sources for time, position, and attitude data is normally centrally integrated by the DAC which in turn provides low latency data in any required format to the applicable systems and functions of the ASE.



General technical overview

Processor	Multi-core processing with HW supported encryption
FPGA	75000 logic cells
Volatile memory	512 MiB
Non-volatile memory	1 GiB
MIL-STD-1553B	3 ea.
Ethernet	2 ea. 100 Base-T 1 ea. 1000 Base-T
ARINC-429	2 ea. input 2 ea. output
Discretes	60 ea.
Audio	1 ea. Analog output
Special	1 ea. PPD input/output 1 ea. analog input 3 ea. hardware interlocked arm/safe signals
Power	28VDC, Max. 40W
Weight	1.6 kg max. (3.6 lbs)
Dimensions (l x w x h)	173x146x95mm (6.8x5.75x3.75")

Alternatives within the Terma controller family

- Cockpit installation
- Alpha numerical display
- Power control / hard switches
- One-box controls, processor & interface solution

- Avionic bay installation
- Hosts related functions e.g. PIBU
- Multi CPU provisions

TERMA
ALLIES IN INNOVATION