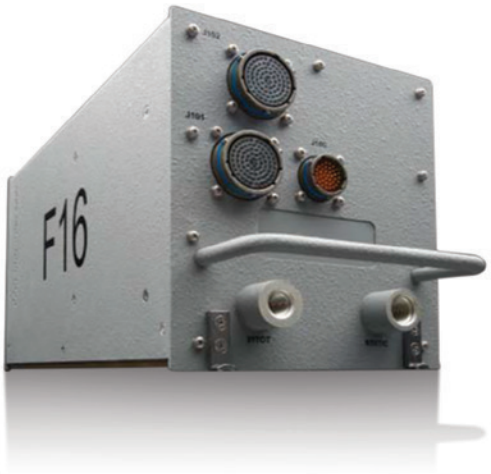
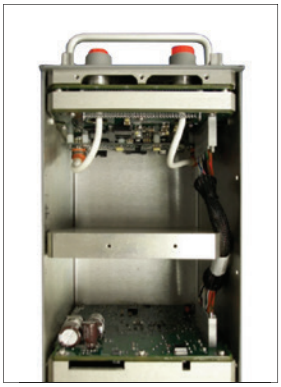
Product Brief

Kellstrom Defense

F-16 Advanced Central Air Data Computer (ACADC)

Honeywell





CADC/UCADC Transition to ACADC

- Form, fit, and function replacement
- Fully qualified replacement
- Uses existing field test equipment
- Solves obsolescence problems for 20+ years
- Approximately 4X Better MTBF
- Proven accurate, long life silicon sensors (> 20 yrs stability)
- Two CCAs and power supply
- Easily maintained
- Eliminates BeCu and other obsolescence issues
- Supportable for the next 20-50 years

P/N: 62000030-903 | **NSN: 6610-01-621-9255**

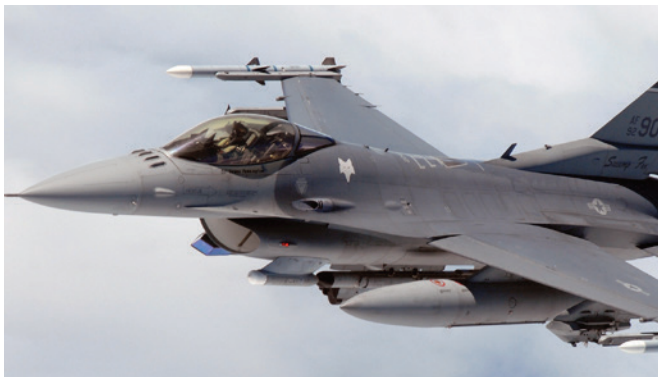
Lockheed Martin Part Number 16VC045-1

Benefits

- Low Cost
- Very small, light weight
- Low power consumption
- Flexible, modular, and adaptable
- State of the art performance
- Product commonality = high production/low obsolescence
- Rugged construction for demanding environments
- Exceptional long term stability
- Supportable for the next 20-50 years

Critical Issues

- CADC build with 40 year old technology
- Long term sustainment issues for CADC
- BeCu pressure transducer no longer supported
- Test equipment failing at Honeywell
- Test equipment no longer supported
- Test equipment designed and built in the 1970s
- Significant development required if replaced
- Current average TAT for R&O activity > 150 days
- Wire wrap mother boards failing and BER rates increasing
- New CADC required to solve known issues



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F-16 Advanced Central Air Data Computer (ACADC)

Background/Program Status

Honeywell has been the sole supplier of air data computers on all non-Israeli F-16s

- Increasing demand BeCu replacement
- Obsolete and out of production since 2006
- Test equipment situation critical
- The ACADC is in full production
- Process for compatibility and integration testing matured/multiple countries in process
- ACADC available for aftermarket retrofit
- Demo/integration unit available
- Firm fixed price for aftermarket
- Trade-in program is offered

Program initiated January 1, 1991 via AM-ALC F-16 SPO

Program and Goals

Form, fit, and function replacement for the F-16 Block 50/52+
Complete backward compatibility to earlier blocks of F-16s
Reduced weight, power, CCAs and increased reliability

Program Status

Units delivered: ~900
User countries: Greece, Korea, Singapore, USA, Chile, Oman
Key obsolete parts: BIOC (1553), Ultraglue ASICs, BeCu pressure sensor

Reliability/Performance Enhancements:

Parameter	CADC	R&M Upgrade 2000 UCADC	ACADC
Vintage	1975	1992	2010
MTBF	600 ours	9,000 hours	> 36,500 hours
CCA Count	12	3	2
Power supply assembly	1	1	1
Replaceable sensors	2 BeCu	2 BeCu	2 Silicon "ADM"
Motherboard	Wire Wrap	Multi-Layer	None
Power dissipation			
Weight	6.2 watts	19.5 watts	15 watts
Temperature Range C^{o}	17.1 pounds	12.3 pounds	14.4 pounds
Cooling required	Forced air	Forced air	Forced air
Program memory ROM)	3k words	32k x 16	128k x 32
Spare memory	< 10%	62%	90+%
RAM memory	16 words	8k words	6k words x 32
Spare RAM	none	50%	95+%
Spare Program Time	12%	50%	90+%
Multiplex Bus	1553 R/T	1553A/B R/T	1553B R/T
Processor	HI ADC 3	MIL-STD-PACE 1750A	HI MFASIC w/ ARM-7 Licensed core
Software	Assembly	MIL-STD-JOVIAL	ANSI C