



IEC/TC or SC 107	Secretariat France	Date 2007-XX-XX
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Please ensure this form is annexed to the Report to the Committee of Action if it has been prepared during a meeting, or sent to the Central Office promptly after its contents have been agreed by the committee.

Title of TC

**Process management for avionics**

**A. Background**

Scope :

*To develop process management standards on systems and equipment used in the field of avionics. Avionics includes electronics used in commercial, civil and military aerospace applications.*

Initially the work of TC 107 was carried out by the Avionics Working Group within the IECQ which subsequently worked under the auspices of the Committee of Action until the establishment of TC 107 in 2001.

P members (9) CN , CZ , FR , DE , JP , KR , ES , GB , US

Liaison D : Society of Automotive Engineers (SAE)  
Liaisons within IEC :TC 47, TC 48, TC 56, IECQ-CMC  
ISO/TC 20

Working groups:

AHWG1: Lead-free electronics in aerospace

AHWG2: Aerospace qualified electronic component (AQEC)

PT 62396: Accommodation of atmospheric radiation effects via single event effects within avionics electronic equipment

PT 62500: Process management for avionics - Guide for defining and performing highly accelerated tests in avionic systems

MT 1: Electronic component management plans (IEC 62239 series)

**B. Environment**

**B.1 Business environment**

The aerospace industry is increasingly dependent on electronic components, equipment, and systems designed and manufactured for other industries, over which the aerospace industry has little control. TC 107 must develop standard processes to use and manage these components, equipment, and systems in aerospace applications.

**B.2 Market demand**

Aerospace customers, regulatory agencies, and defence agencies demand assurance that avionics products will operate reliably during their required life. The market requires that the effects of component obsolescence be minimized.

**B.3 Trends in technology and trade**

The electronics industry is dominated by high-volume applications such as computers and telecommunication products. There is relentless pressure to reduce component cost and improve their performance. This results in products that change rapidly and cause obsolescence and wearout problems. The aerospace industry must respond to these trends while meeting its own cost and performance requirements. Work is continuing on meeting the impact of legislation on lead-free electronics.

**B.4 Ecological environment**

The work of TC 107 will take into account the appropriate ecological and environmental concerns

such as disposal or recycling of electronic equipment.

**C. Work programme**

**Current work**  
See attached program of work in annex.

**C.2 Resources/infrastructure needed**  
New groups and teams have been set up to deal with the above projects.

**D. Future work**  
Management of the effects of atmospheric radiation  
Lead-free in aerospace electronics  
Aerospace Qualified Electronic Components (AQEC)  
Device wearout  
Highly Accelerated Testing (HAT)  
Counterfeits components management

**E. Maintenance cycle**

Publication no.	Date of publication	Review date	Validity date	Responsibility (Maintenance Team)
IEC/TS 62239	2003-05	2005-04	2007	MT1
IEC/TR 62240	2005-06	2006	2009	MT2
IEC/TS 62396-1	2006-03	2007	2008	PT 62396
IEC/PAS 62500	2006-11	2007	2009	PT 62500

Name or signature of the secretary  
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