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**REVISION
LOG**

**TITLE: Software Detailed Design
Radiation Monitor Device**

**DOC. NO.
36-53237 Rev. A**

Revision	Date (mm/dd/yy)	ECO No.	Page(s) Affected	Reason	Approval
A	4/10/96	36-576	all	Initial version. Incorporated comments from initial review.	<i>ATL</i> 4/22/96

12.0 Radiation Monitor Device (36-53237 A)

12.1 Purpose

The purpose of the Radiation Monitor Device is to provide access to the radiation monitor interface logic.

12.2 Uses

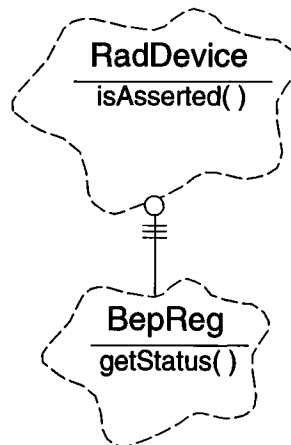
The Radiation Monitor Device class provides the following features:

Use 1:: Provide current state of the radiation monitor flag

12.3 Organization

Figure 30 illustrates the relationships used by the **RadDevice** class.

FIGURE 30. Radiation Monitor Device Class Relationships



RadDevice- This class is responsible for providing access to the Back End Processor's Radiation Monitor logic. This class provides a single function to test the current status of the monitor (`isAsserted`).

BepReg- This class represents the lowest level hardware access to the features provided by the Back End hardware control, status, and pulse registers. The **RadDevice** class uses this class to read the Back End's status register (`getStatus`).

12.4 Scenarios

12.4.1 Use 1: Provide current state of the radiation monitor flag

To obtain the current state of the radiation monitor flag, the client calls *radDevice.isAsserted()*. The member function *isAsserted()* then reads the Back End's status register, using *bepReg.getStatus()*. It then tests the radiation monitor status bit, and returns the appropriate answer to its caller.

12.5 Class RadDevice

Documentation:

This class represents the radiation monitor device. It provides access to the flag and handles radiation monitor interrupts.

Export Control: Public

Cardinality: 1

Hierarchy:

Superclasses: None

Implementation Uses:

BepReg

Public Interface:

Operations: `isAsserted()`

Concurrency: Synchronous

Persistence: Transient

12.5.1 isAsserted()

Public member of: **RadDevice**

Return Class: **Boolean**

Documentation:

This function indicates whether or not the radiation monitor is currently asserted by reading the Back End's status register using *bepReg.getStatus()*, and then testing the radiation status bit. If so, it returns *BoolTrue*. If the flag is not asserted, it returns *BoolFalse*.

Concurrency: Synchronous