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Département d'Etudes et de Recherches
en Technologie Spatiale

ETAT D'AVANCEMENT DES TRAVAUX EAT/456406

DERTS
Novembre 1997

ESSAI DE LOT : COMPOSANT ADG441

Rédigé par J.P. David
Ph. Millan

CR/COMP/180

FICHE D'IDENTIFICATION

ORGANISME EMETTEUR

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CENTRE D'ETUDES ET DE RECHERCHES DE TOULOUSE

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DERTS

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TITRE :

ESSAI DE LOT : COMPOSANT ADG441

AUTEUR(s) : J.P. David, P. Millan
(personne physique)

Date	N° d'origine du document	Nombre Pages	Figures	Réf. biblio
Novembre 1997	CR/COMP/180 EAT/456406	122	69	-

RESUME D'AUTEUR :

Le composant testé est très sensible à la dose cumulée : les spécifications du fabricant sont dépassées dès les premières dizaines de Gray (Si).

NOTIONS D'INDEXAGE :

Tested parameters list:

#	Name	Description
1	Idds	Positive Power Supply Current (Single)
2	Idd	Positive Power Supply Current (Dual)
3	Iss	Negative Power Supply Current
4	Inl 1s	Digital Input Low Current (Single)
5	Inl 2s	Digital Input Low Current (Single)
6	Inl 3s	Digital Input Low Current (Single)
7	Inl 4s	Digital Input Low Current (Single)
8	Inh 1s	Digital Input High Current (Single)
9	Inh 2s	Digital Input High Current (Single)
10	Inh 3s	Digital Input High Current (Single)
11	Inh 4s	Digital Input High Current (Single)
12	Vinl 1s	Digital Input Low Voltage (Single)
13	Vinl 2s	Digital Input Low Voltage (Single)
14	Vinl 3s	Digital Input Low Voltage (Single)
15	Vinl 4s	Digital Input Low Voltage (Single)
16	Vinh 1s	Digital Input High Voltage (Single)
17	Vinh 2s	Digital Input High Voltage (Single)
18	Vinh 3s	Digital Input High Voltage (Single)
19	Vinh 4s	Digital Input High Voltage (Single)
20	Is (Off) 1s	Source OFF Leakage Current (Single)
21	Is (Off) 2s	Source OFF Leakage Current (Single)
22	Is (Off) 3s	Source OFF Leakage Current (Single)
23	Is (Off) 4s	Source OFF Leakage Current (Single)
24	Id (Off) 1s	Drain OFF Leakage Current (Single)
25	Id (Off) 2s	Drain OFF Leakage Current (Single)
26	Id (Off) 3s	Drain OFF Leakage Current (Single)
27	Id (Off) 4s	Drain OFF Leakage Current (Single)
28	Id (On) 1s	Drain ON Leakage Current (Single)

Tested parameters list (cont.):

#	Name	Description
29	Id (On) 2s	Drain ON Leakage Current (Single)
30	Id (On) 3s	Drain ON Leakage Current (Single)
31	Id (On) 4s	Drain ON Leakage Current (Single)
32	Ron 1s	On Resistance (Single)
33	Ron 2s	On Resistance (Single)
34	Ron 3s	On Resistance (Single)
35	Ron 4s	On Resistance (Single)
36	Inl 1d	Digital Input Low Current (Dual)
37	Inl 2d	Digital Input Low Current (Dual)
38	Inl 3d	Digital Input Low Current (Dual)
39	Inl 4d	Digital Input Low Current (Dual)
40	Inh 1d	Digital Input High Current (Dual)
41	Inh 2d	Digital Input High Current (Dual)
42	Inh 3d	Digital Input High Current (Dual)
43	Inh 4d	Digital Input High Current (Dual)
44	Vinl 1d	Digital Input Low Voltage (Dual)
45	Vinl 2d	Digital Input Low Voltage (Dual)
46	Vinl 3d	Digital Input Low Voltage (Dual)
47	Vinl 4d	Digital Input Low Voltage (Dual)
48	Vinh 1d	Digital Input High Voltage (Dual)
49	Vinh 2d	Digital Input High Voltage (Dual)
50	Vinh 3d	Digital Input High Voltage (Dual)
51	Vinh 4d	Digital Input High Voltage (Dual)
52	Is (Off) 1d	Source OFF Leakage Current (Dual)
53	Is (Off) 2d	Source OFF Leakage Current (Dual)
54	Is (Off) 3d	Source OFF Leakage Current (Dual)
55	Is (Off) 4d	Source OFF Leakage Current (Dual)
56	Id (Off) 1d	Drain OFF Leakage Current (Dual)

Irradiation timing:

Radiation Source: Co^{60} source(gamma)
Comment: Irradiateur type GMA
Temperature: 290 K

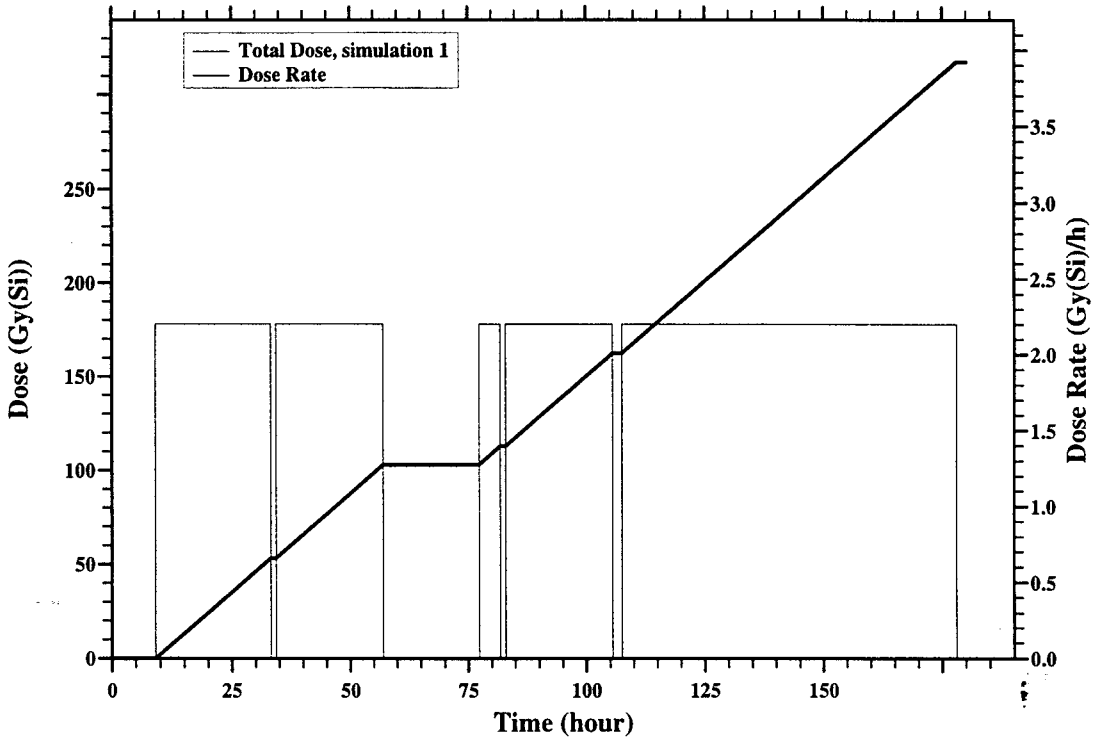

Figure 1.2: Dose versus Time

Date	Time	Dose	Dose Rate	Remarks
15/09/1997	9h00	0 Gy(Si)	2,2 Gy(Si)/h	Step beginning
16/09/1997	9h10	53 Gy(Si)	—	Step end
—	10h19	53 Gy(Si)	2,2 Gy(Si)/h	Step beginning
17/09/1997	9h00	100 Gy(Si)	—	Step end
18/09/1997	5h19	100 Gy(Si)	2,2 Gy(Si)/h	Step beginning
—	9h49	110 Gy(Si)	—	Step end
—	11h00	110 Gy(Si)	2,2 Gy(Si)/h	Step beginning
19/09/1997	9h30	160 Gy(Si)	—	Step end
—	11h29	160 Gy(Si)	2,2 Gy(Si)/h	Step beginning
22/09/1997	10h00	320 Gy(Si)	—	Step end

Table 1.1: Irradiation Steps

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

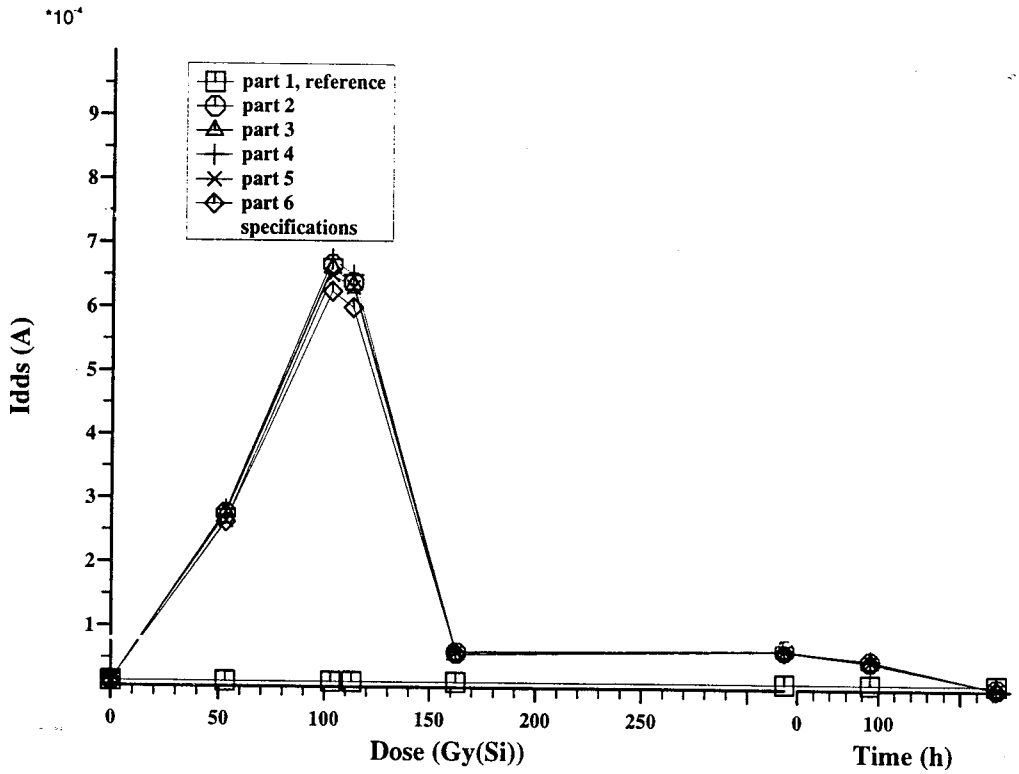

Figure 1.3: Positive Power Supply Current (Single)

Specification: Idds $< 8.10^{-5}$ A

Measured values are given in page 78.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

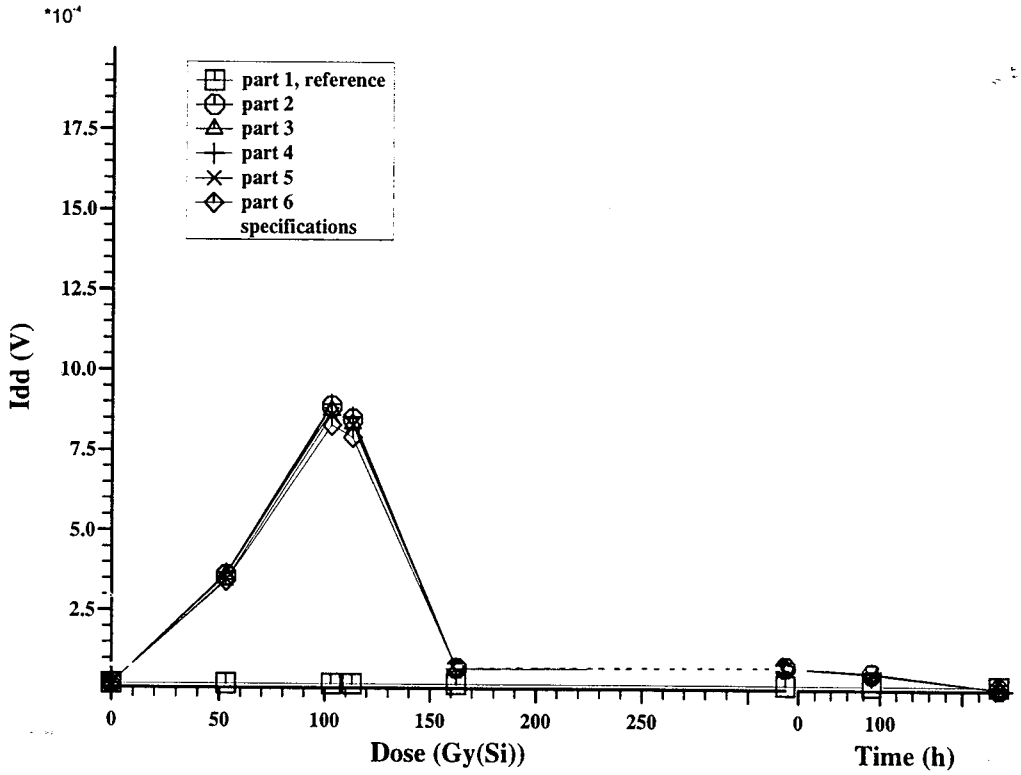

Figure 1.4: Positive Power Supply Current (Dual)

Specification: Idd $< 8.10^{-5}$ V

Measured values are given in page 78.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

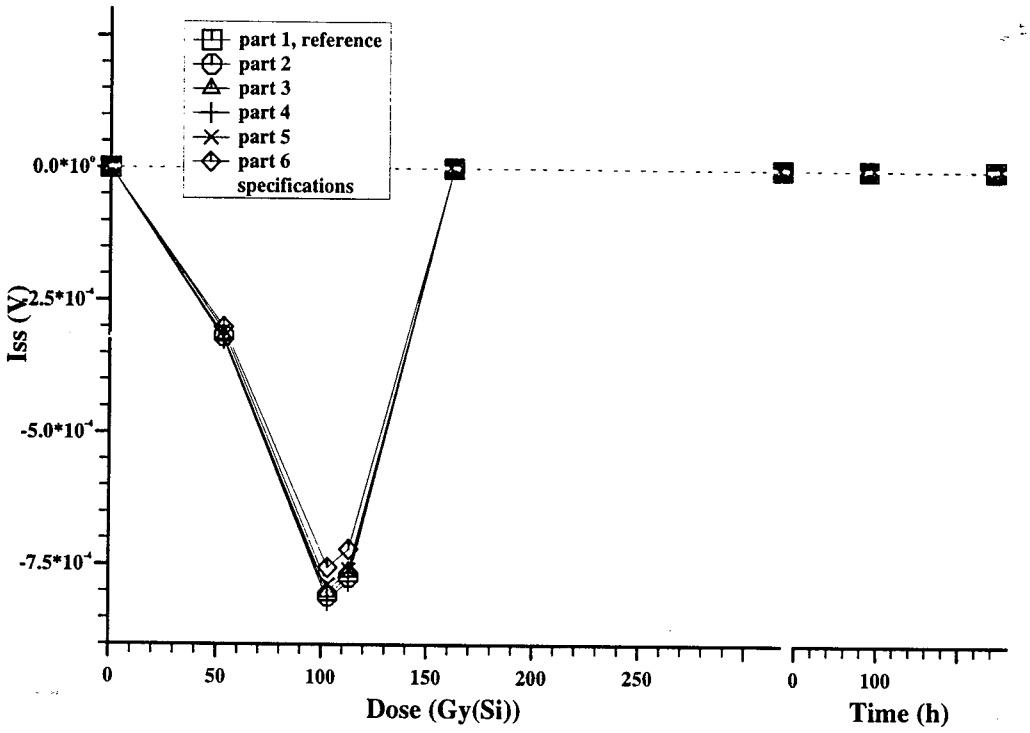

Figure 1.5: Negative Power Supply Current

Specification: Iss $< 10.10^{-7}$ V

Measured values are given in page 79.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

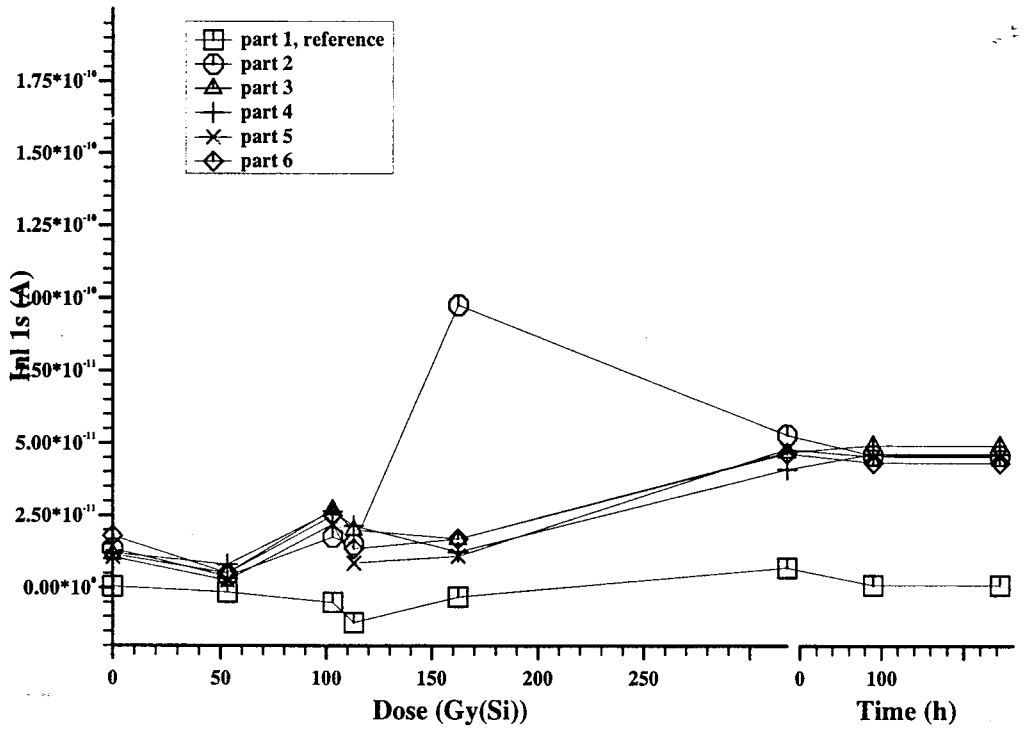

Figure 1.6: Digital Input Low Current (Single)

Specification: Inl 1s $< 5.10^{-7}$ A

Measured values are given in page 79.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

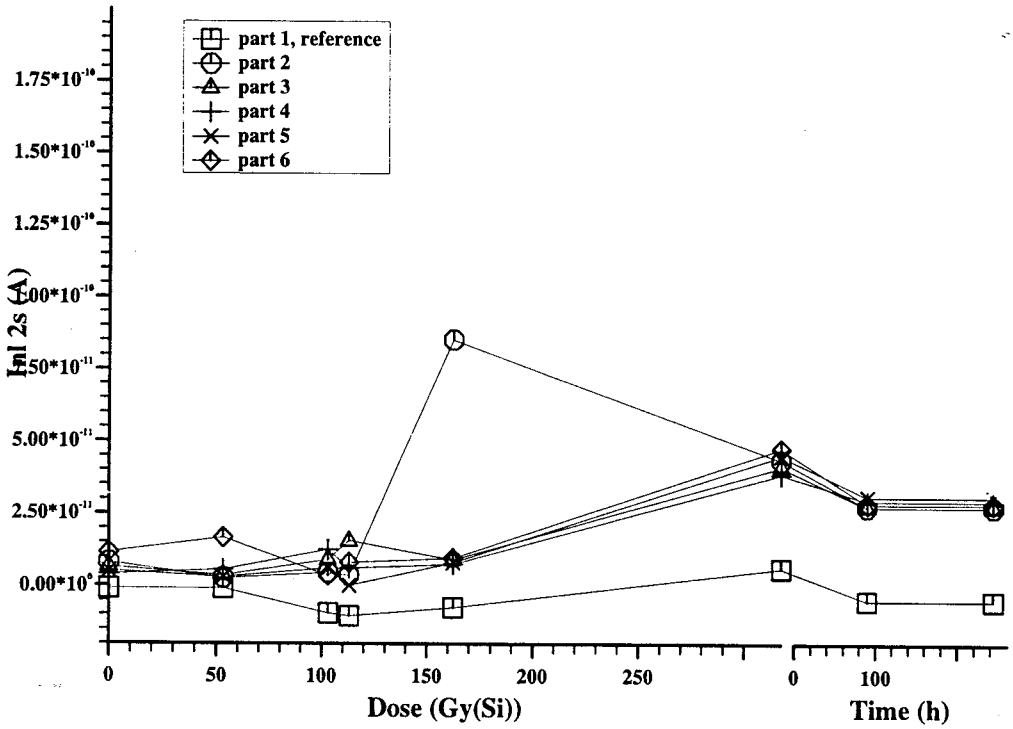

Figure 1.7: Digital Input Low Current (Single)

Specification: Inl 2s $< 5.10^{-7}$ A

Measured values are given in page 80.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

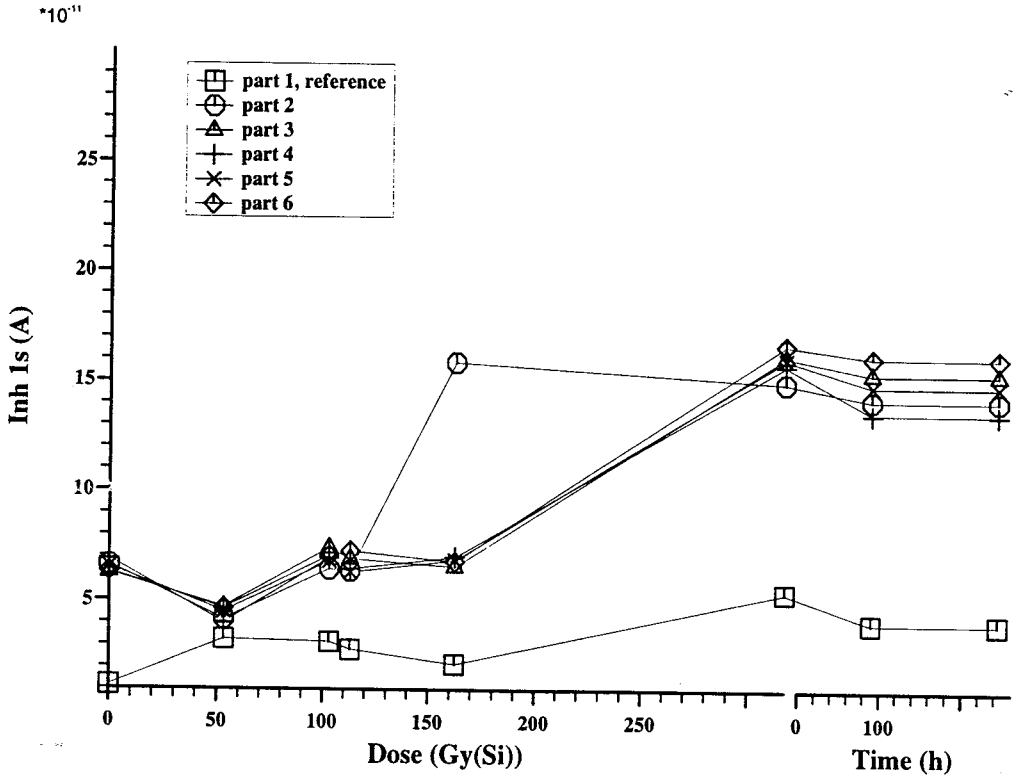

Figure 1.10: Digital Input High Current (Single)

Specification: Inh Is $< 5.10^{-7}$ A

Measured values are given in page 82.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

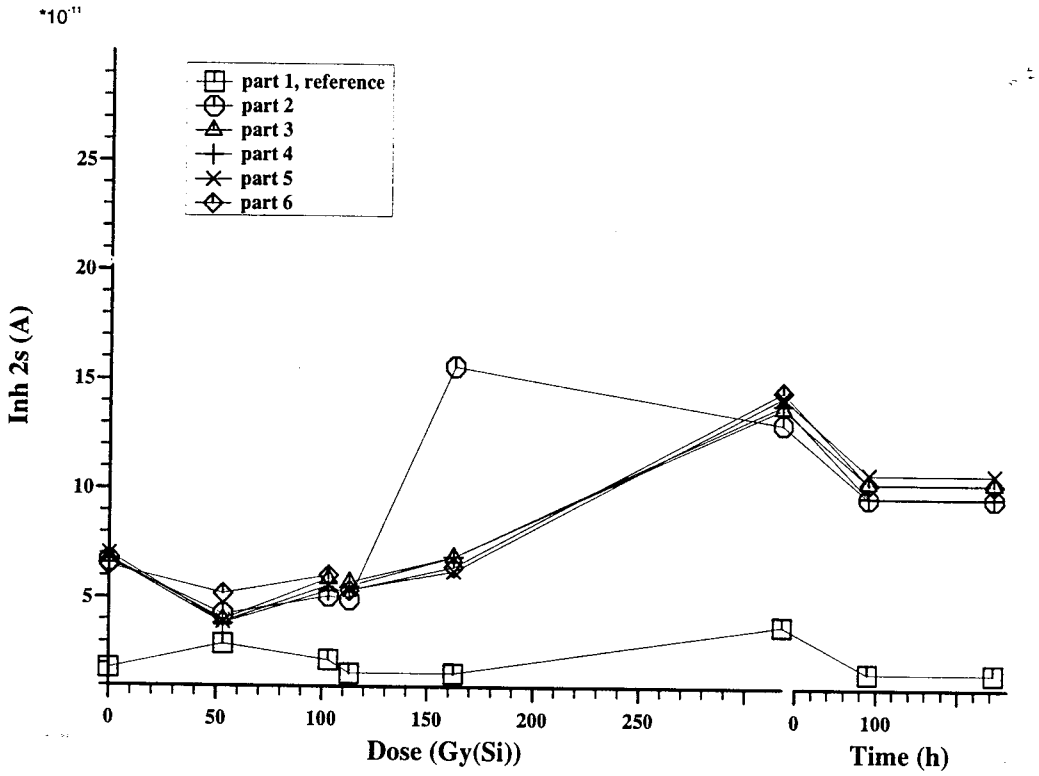

Figure 1.11: Digital Input High Current (Single)

Specification: Inh 2s $< 5.10^{-7}$ A

Measured values are given in page 83.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

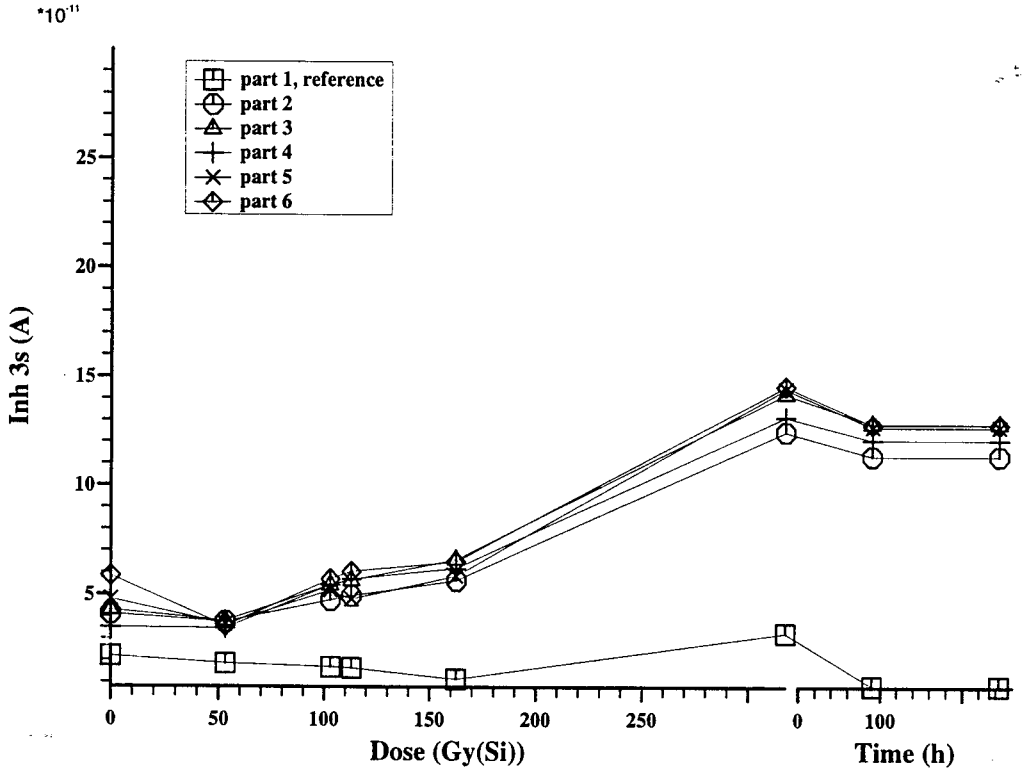

Figure 1.12: Digital Input High Current (Single)

Specification: Inh 3s $< 5.10^{-7}$ A

Measured values are given in page 83.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

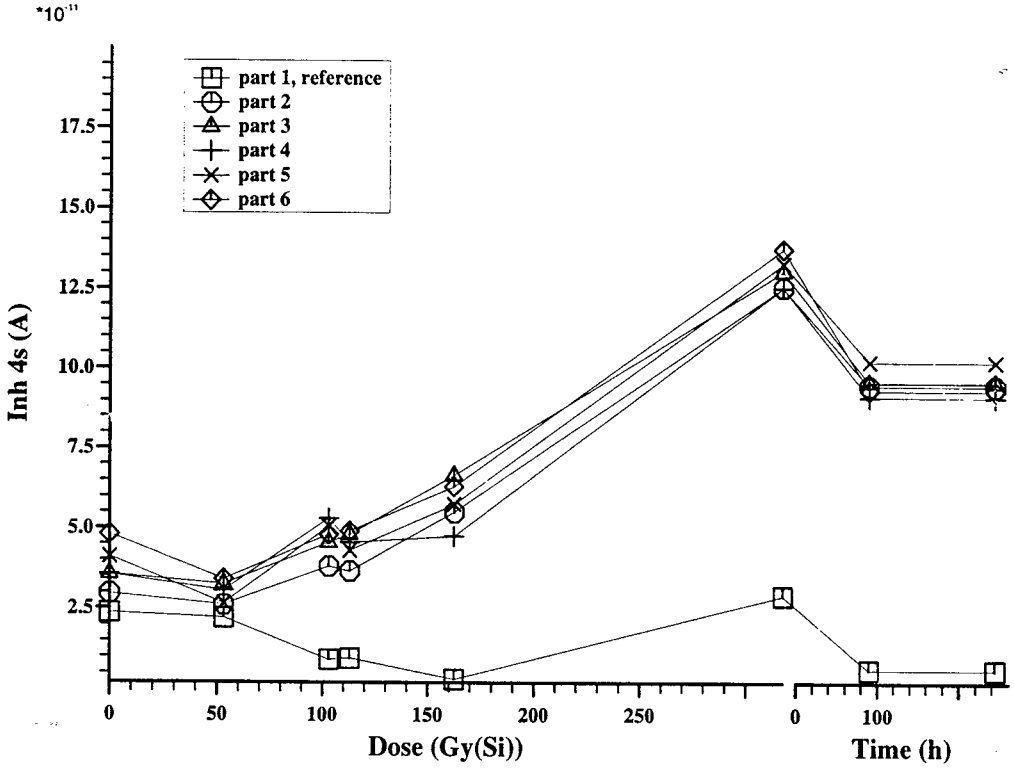

Figure 1.13: Digital Input High Current (Single)

Specification: Inh 4s $< 5.10^{-7}$ A

Measured values are given in page 84.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

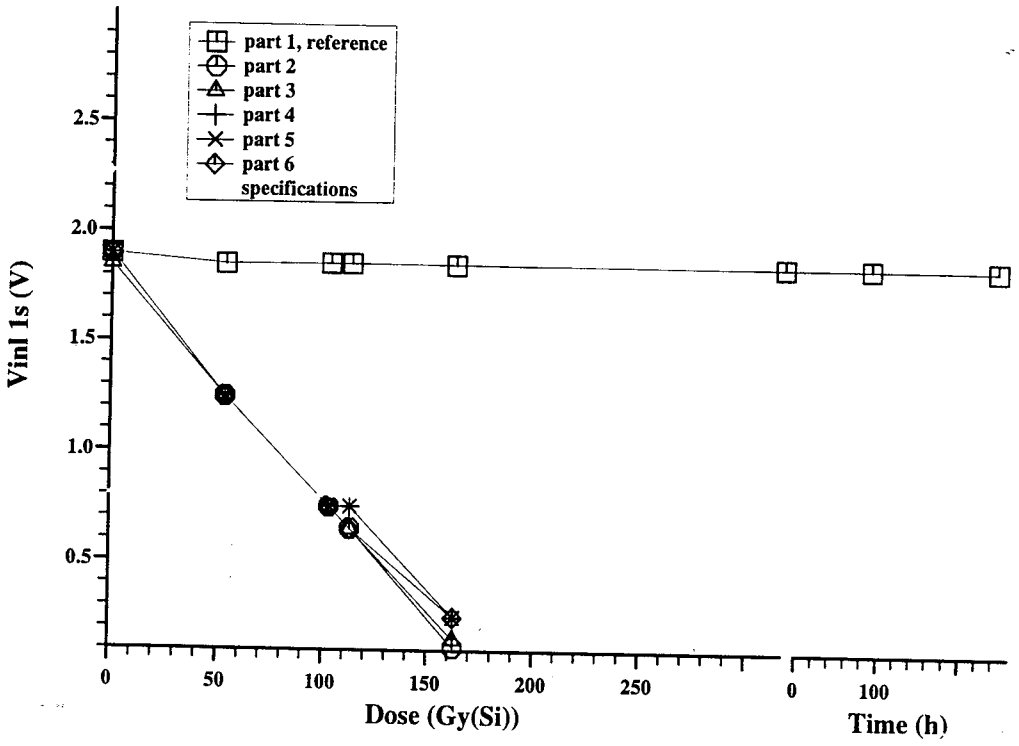

Figure 1.14: Digital Input Low Voltage (Single)

Specification: Vinl 1s < 0,8 V

Measured values are given in page 85.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

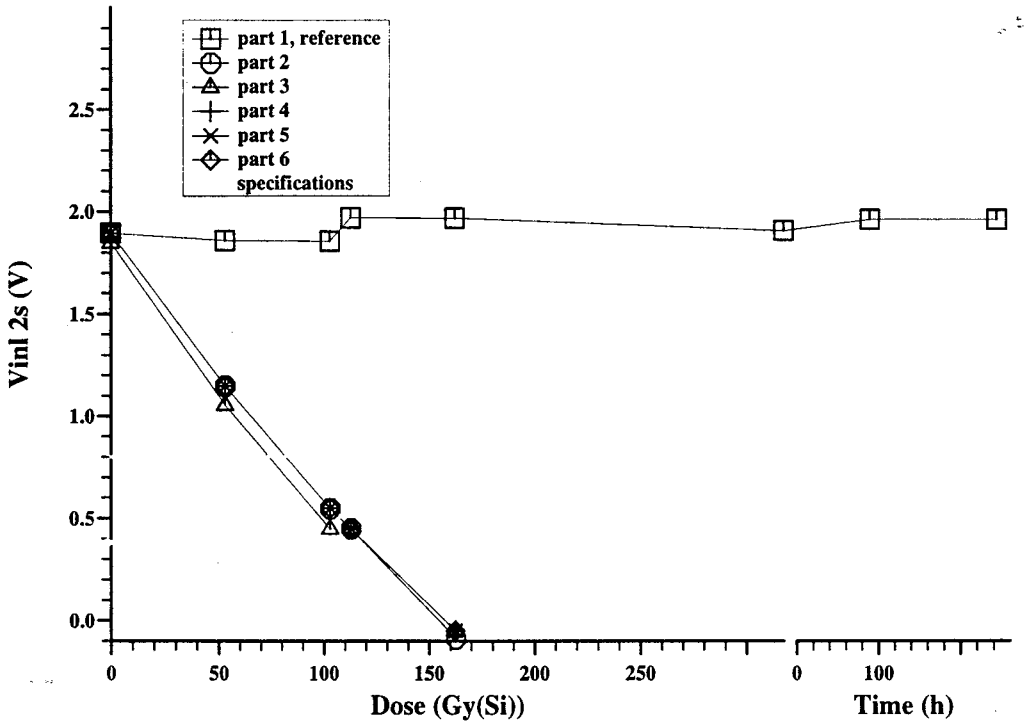

Figure 1.15: Digital Input Low Voltage (Single)

Specification: Vinl 2s < 0,8 V

Measured values are given in page 85.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

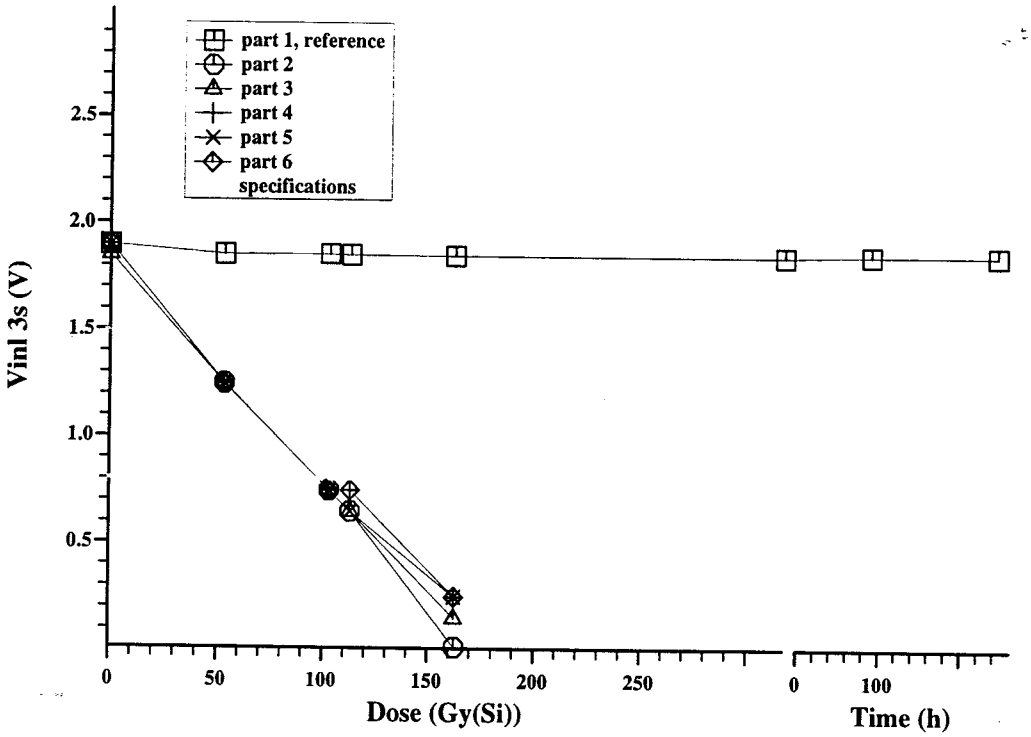

Figure 1.16: Digital Input Low Voltage (Single)

Specification: Vinl 3s < 0,8 V

Measured values are given in page 86.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

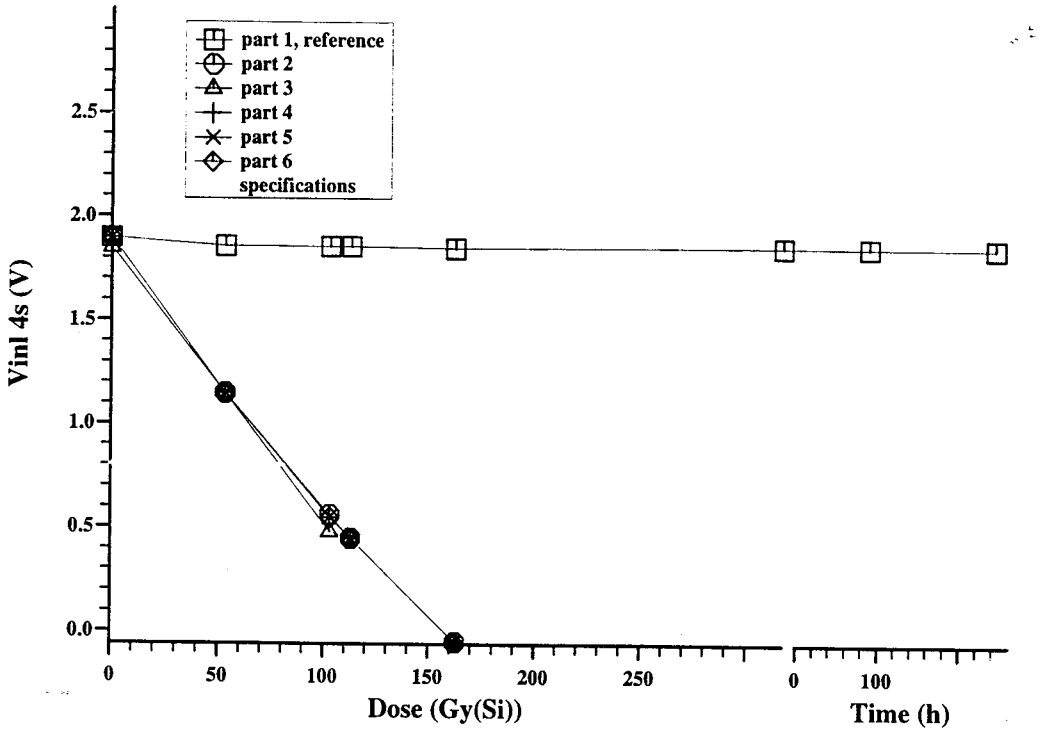

Figure 1.17: Digital Input Low Voltage (Single)

Specification: Vinl 4s < 0,8 V

Measured values are given in page 87.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

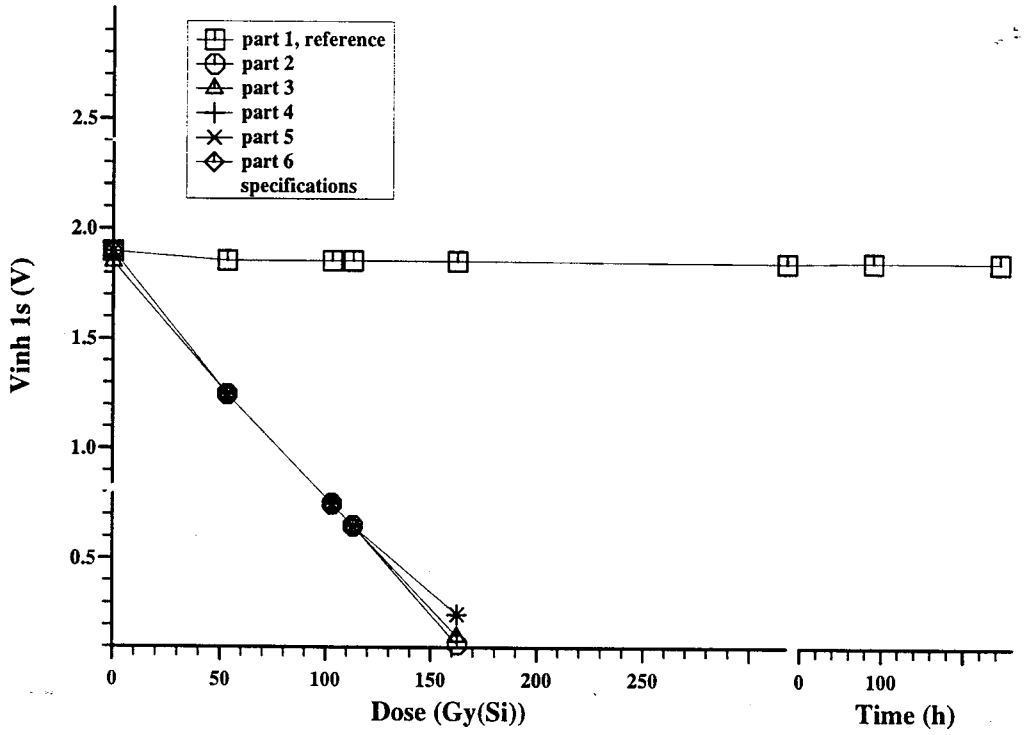

Figure 1.18: Digital Input High Voltage (Single)

Specification: 2,4 V < Vinh 1s

Measured values are given in page 87.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

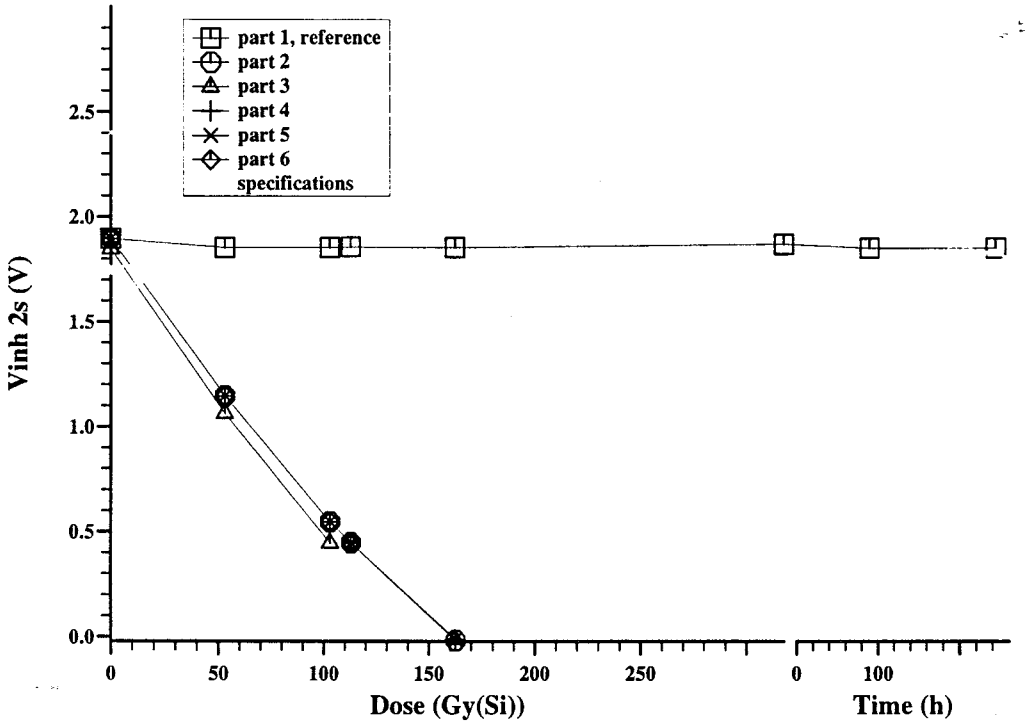

Figure 1.19: Digital Input High Voltage (Single)

Specification: 2,4 V < Vinh 2s

Measured values are given in page 88.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

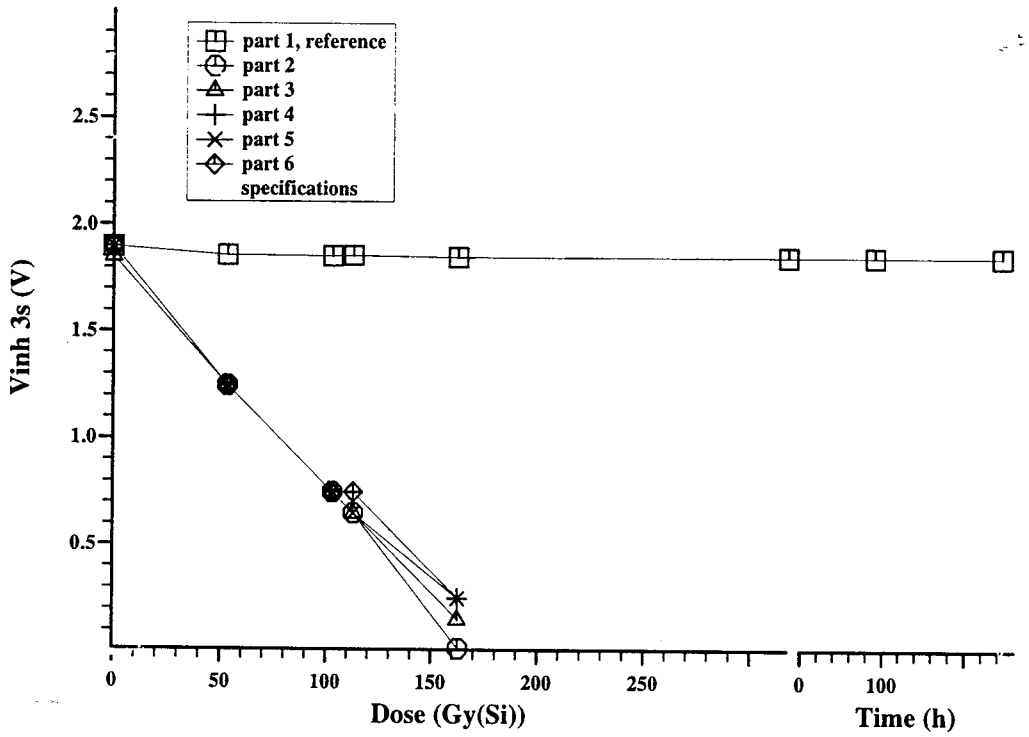

Figure 1.20: Digital Input High Voltage (Single)

Specification: 2,4 V < Vinh 3s

Measured values are given in page 89.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

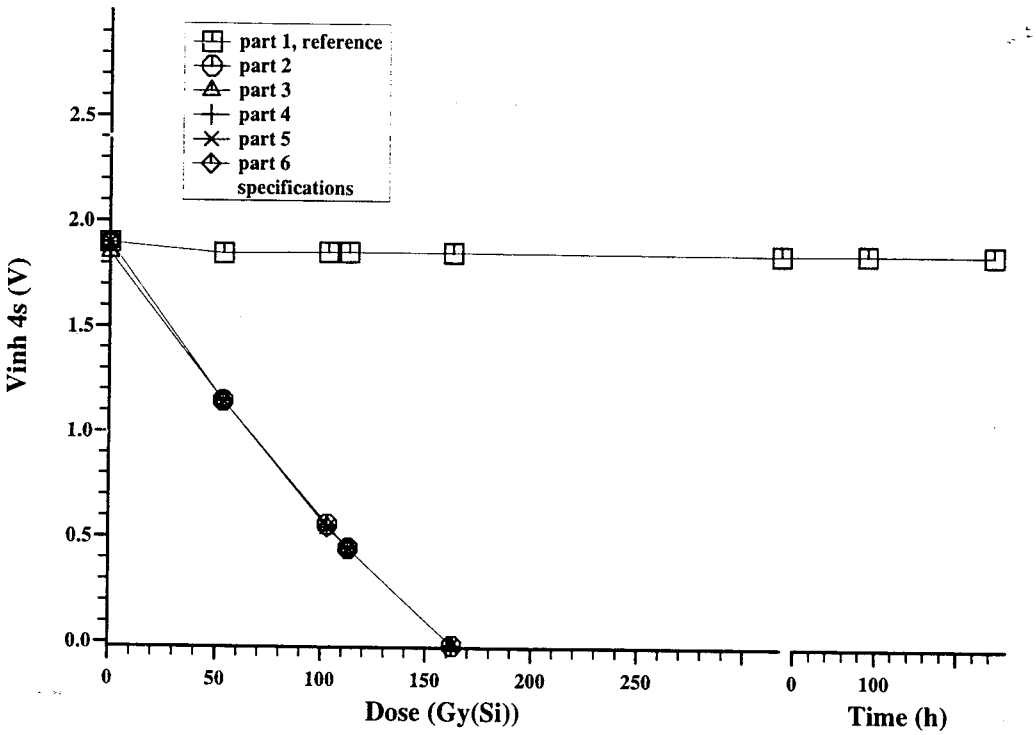

Figure 1.21: Digital Input High Voltage (Single)

Specification: 2,4 V < Vinh 4s

Measured values are given in page 89.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

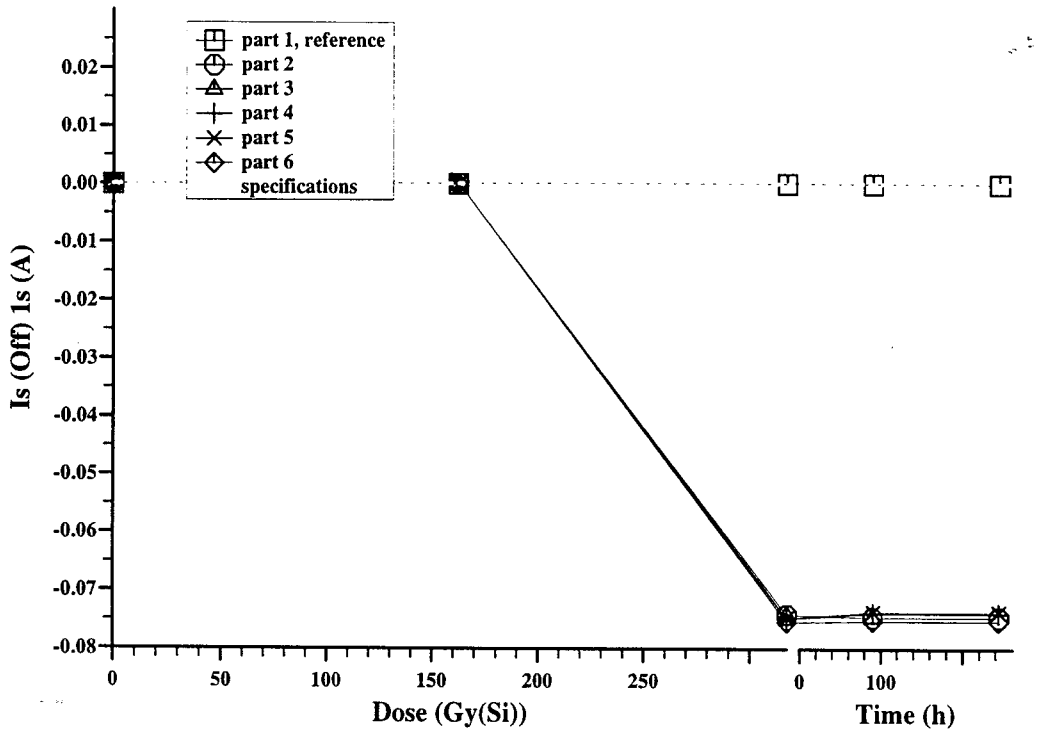

Figure 1.22: Source OFF Leakage Current (Single)

Specification: Is (Off) 1s $< 5.10^{-10}$ A

Measured values are given in page 90.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

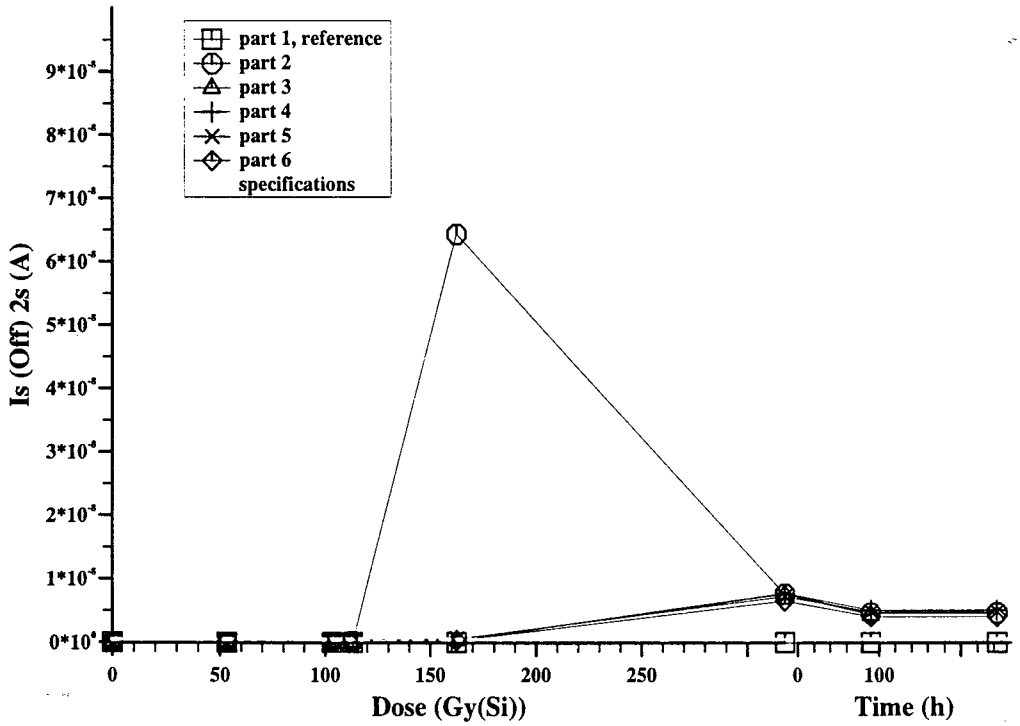

Figure 1.23: Source OFF Leakage Current (Single)

Specification: Is (Off) 2s $< 5.10^{-10}$ A

Measured values are given in page 91.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

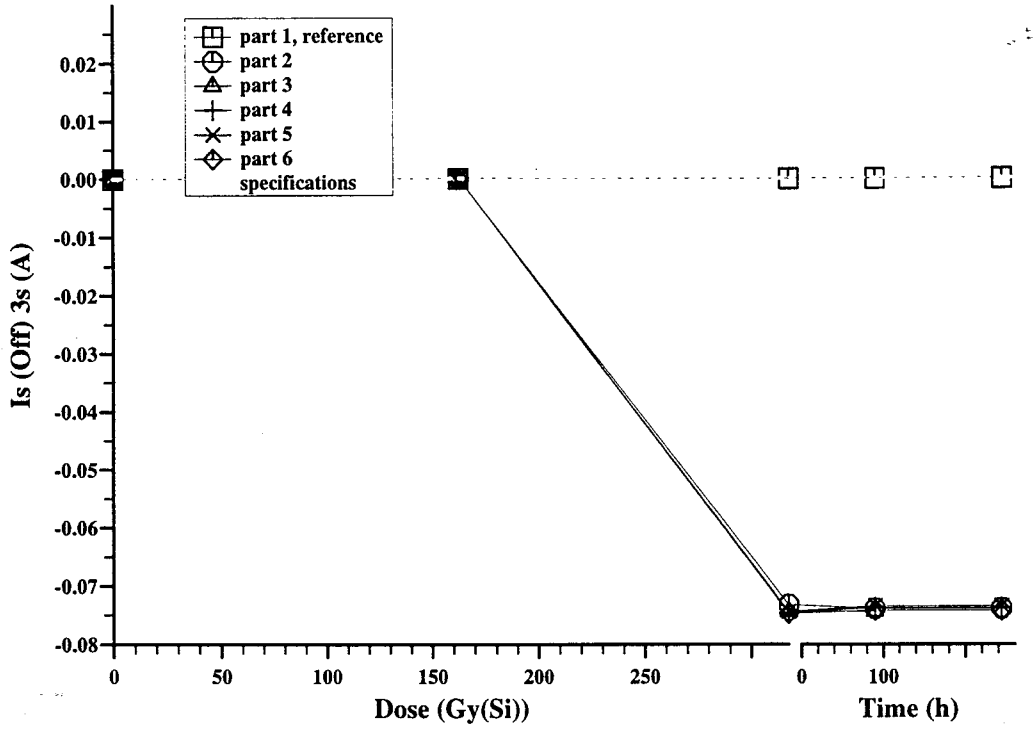

Figure 1.24: Source OFF Leakage Current (Single)

Specification: Is (Off) 3s $< 5.10^{-10}$ A

Measured values are given in page 91.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

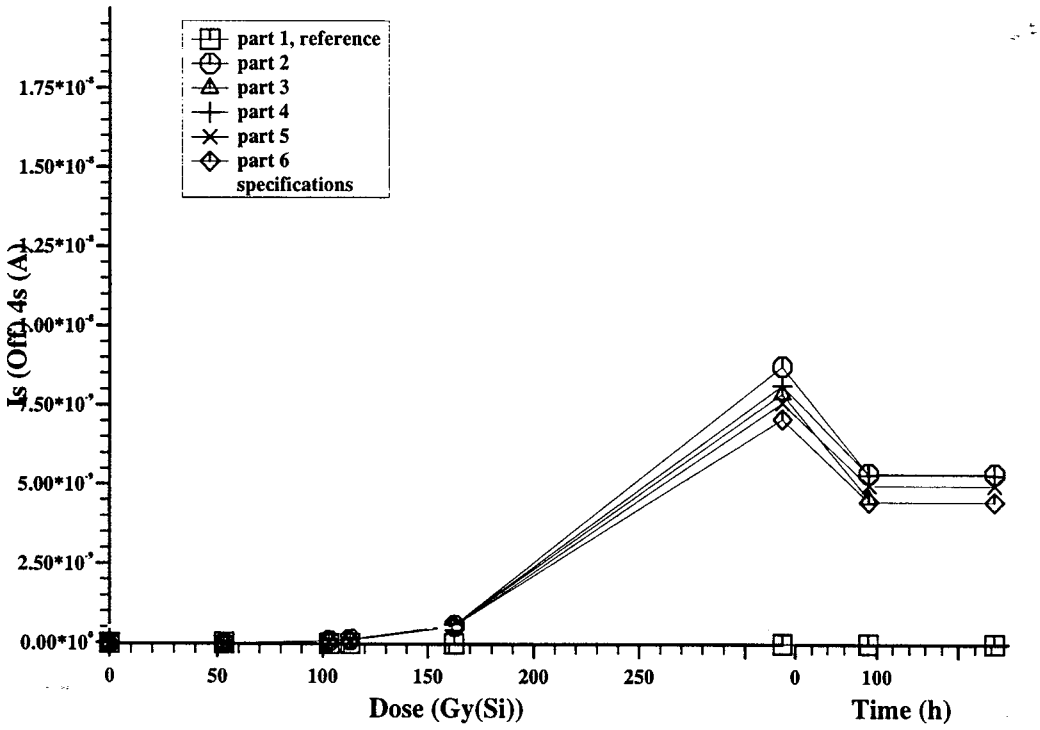

Figure 1.25: Source OFF Leakage Current (Single)

Specification: Is (Off) 4s $< 5.10^{-10}$ A

Measured values are given in page 92.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

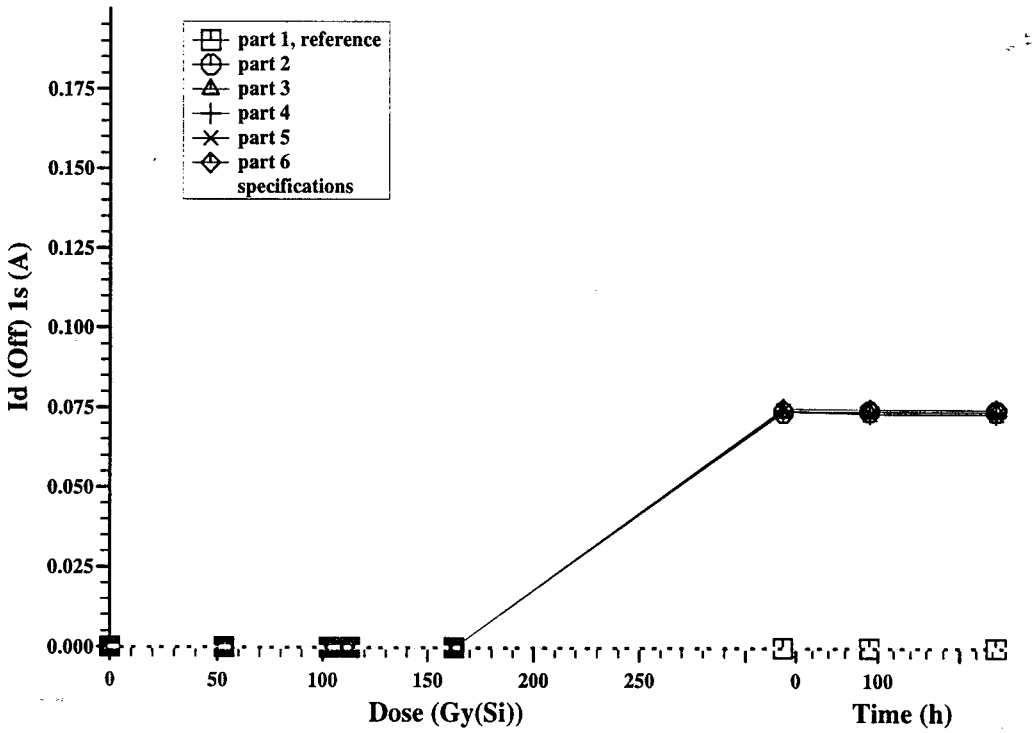

Figure 1.26: Drain OFF Leakage Current (Single)

Specification: Id (Off) 1s $< 5.10^{-10}$ A

Measured values are given in page 93.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

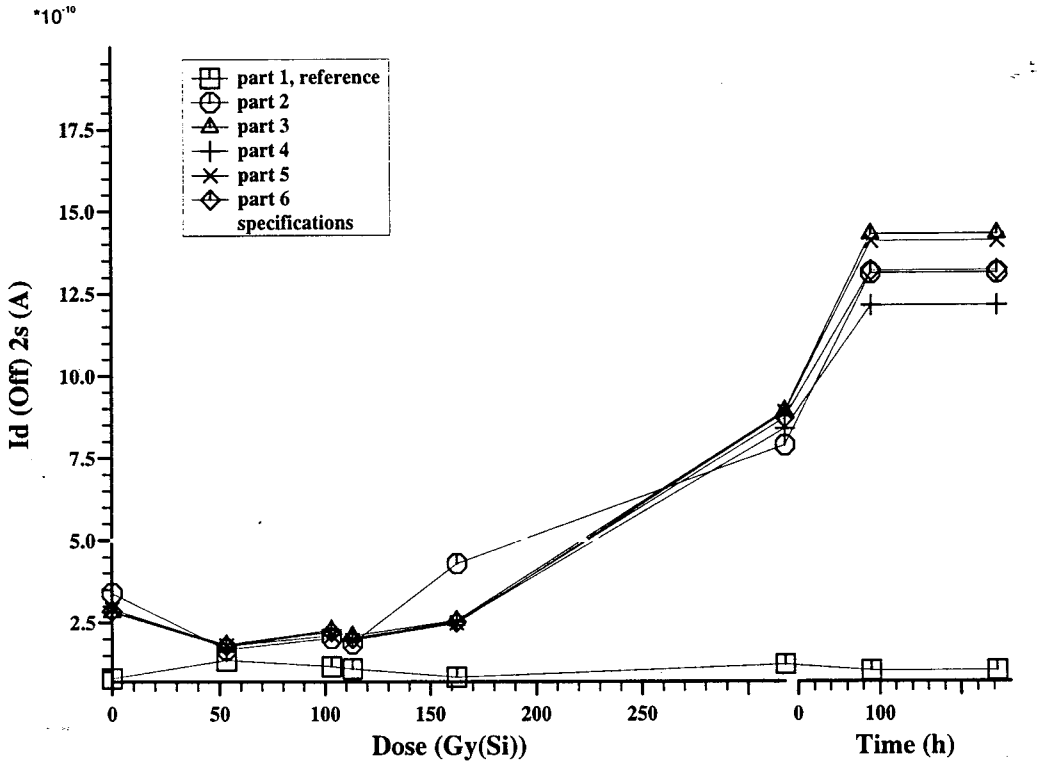

Figure 1.27: Drain OFF Leakage Current (Single)

Specification: Id (Off) 2s $< 5.10^{-10}$ A

Measured values are given in page 93.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

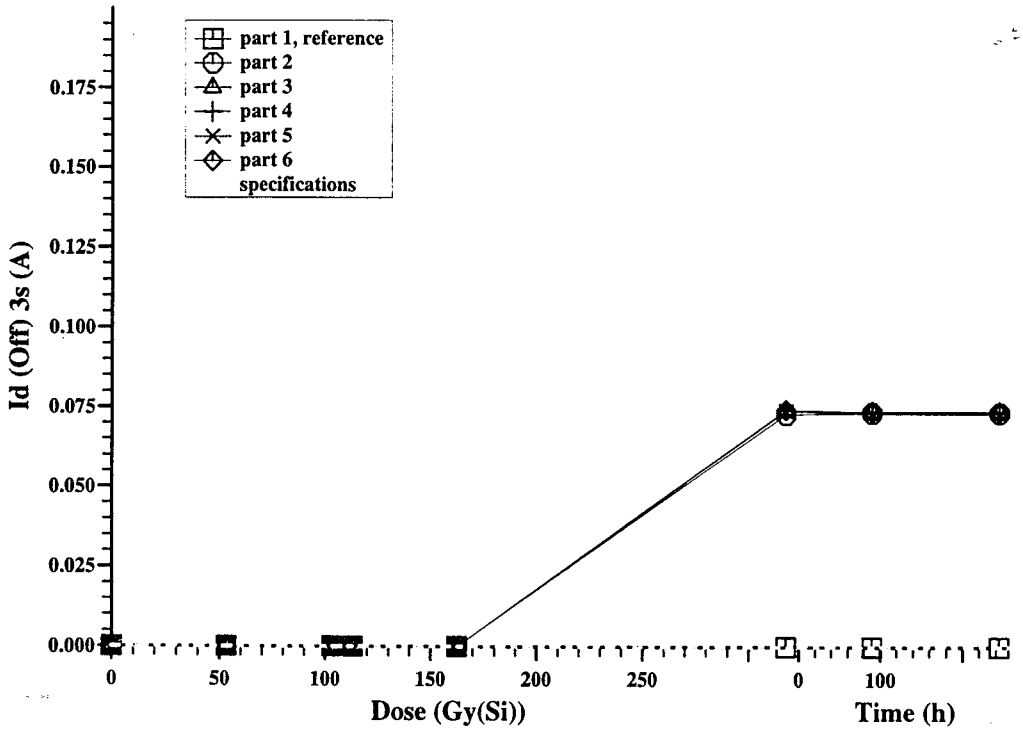

Figure 1.28: Drain OFF Leakage Current (Single)

Specification: Id (Off) 3s $< 5.10^{-10}$ A

Measured values are given in page 94.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

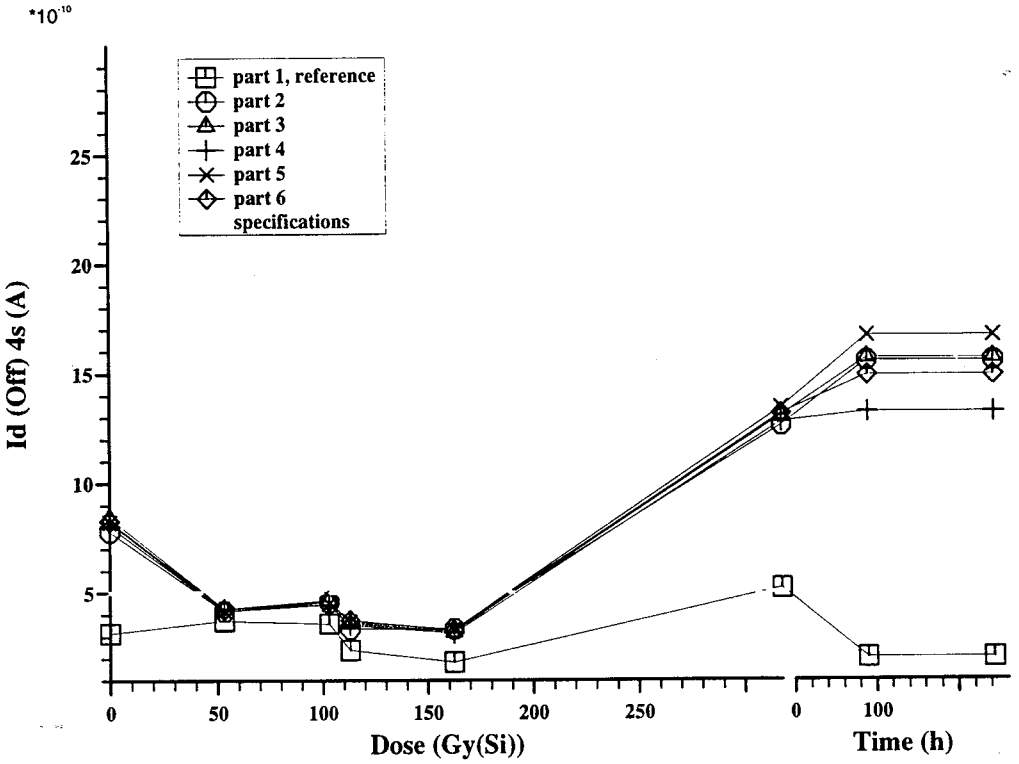

Figure 1.29: Drain OFF Leakage Current (Single)

Specification: Id (Off) 4s $< 5.10^{-10}$ A

Measured values are given in page 95.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

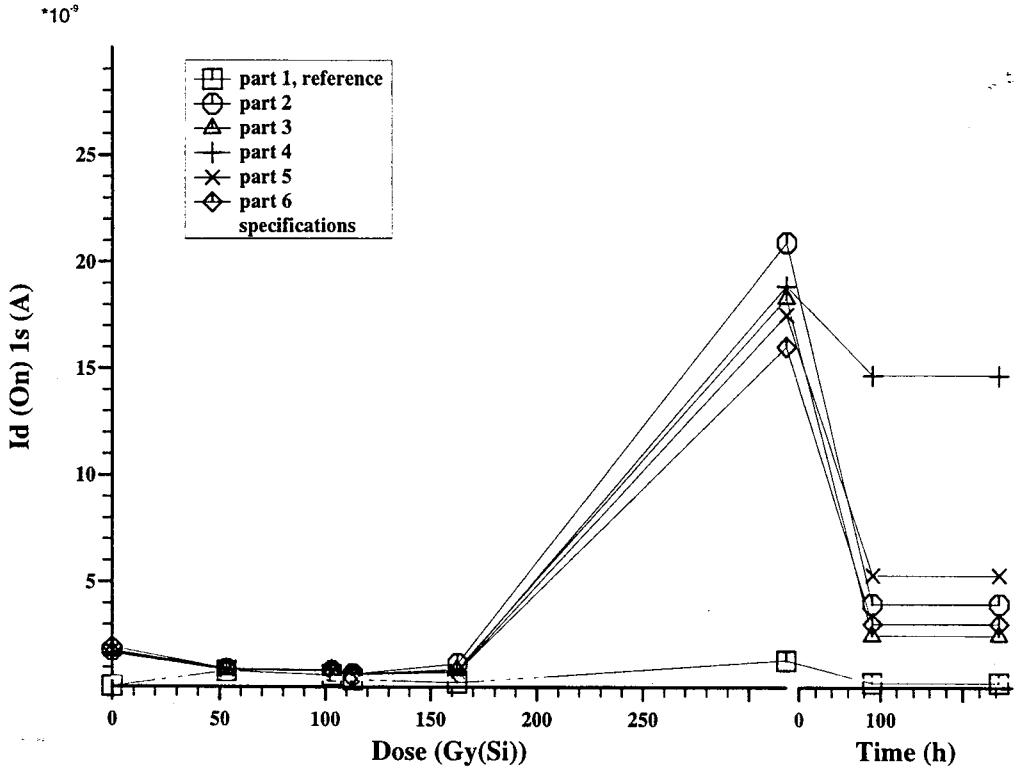

Figure 1.30: Drain ON Leakage Current (Single)

Specification: Id (On) 1s $< 5.10^{-10}$ A

Measured values are given in page 95.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

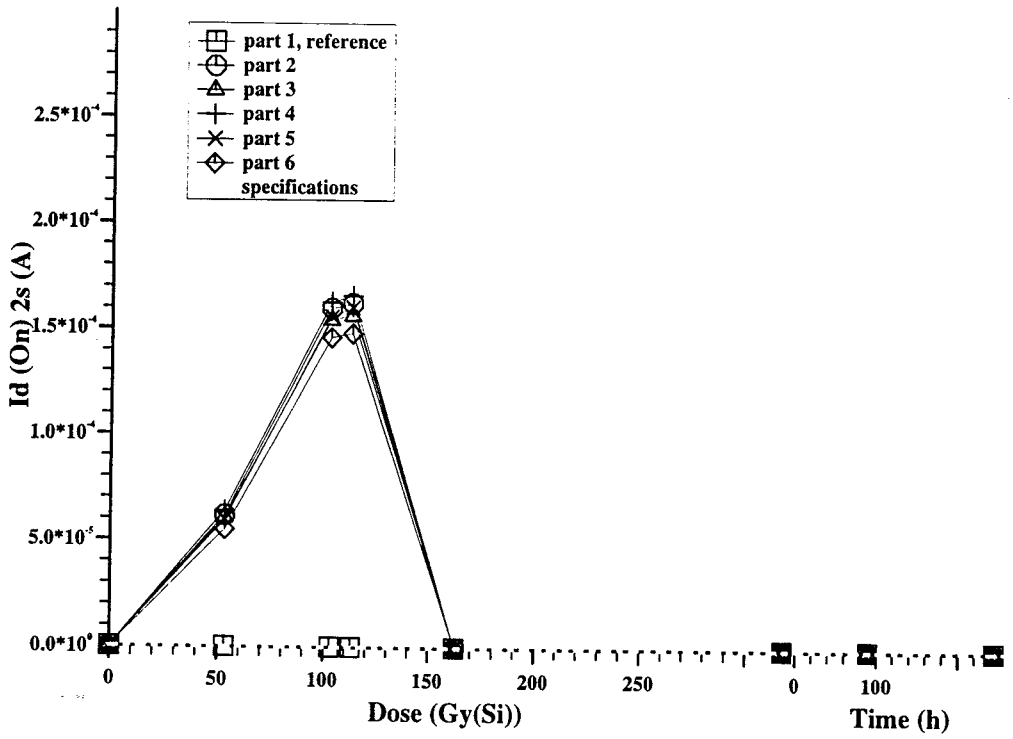

Figure 1.31: Drain ON Leakage Current (Single)

Specification: Id (On) 2s $< 5.10^{-10}$ A

Measured values are given in page 96.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

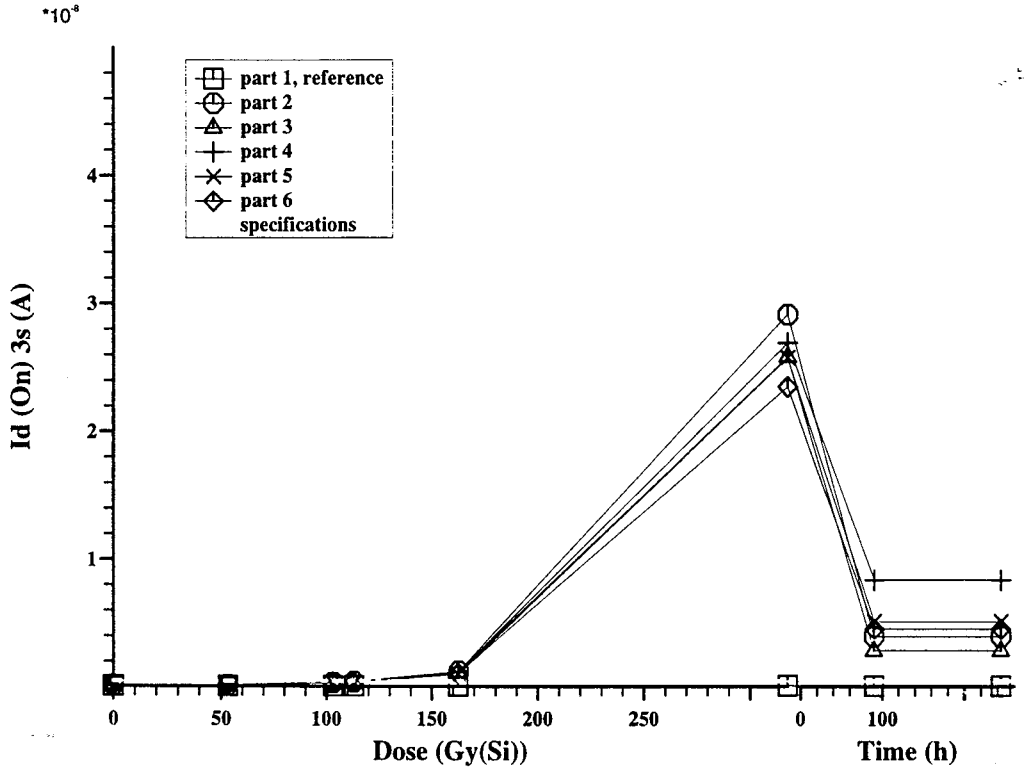

Figure 1.32: Drain ON Leakage Current (Single)

Specification: Id (On) 3s $< 5.10^{-10}$ A

Measured values are given in page 97.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

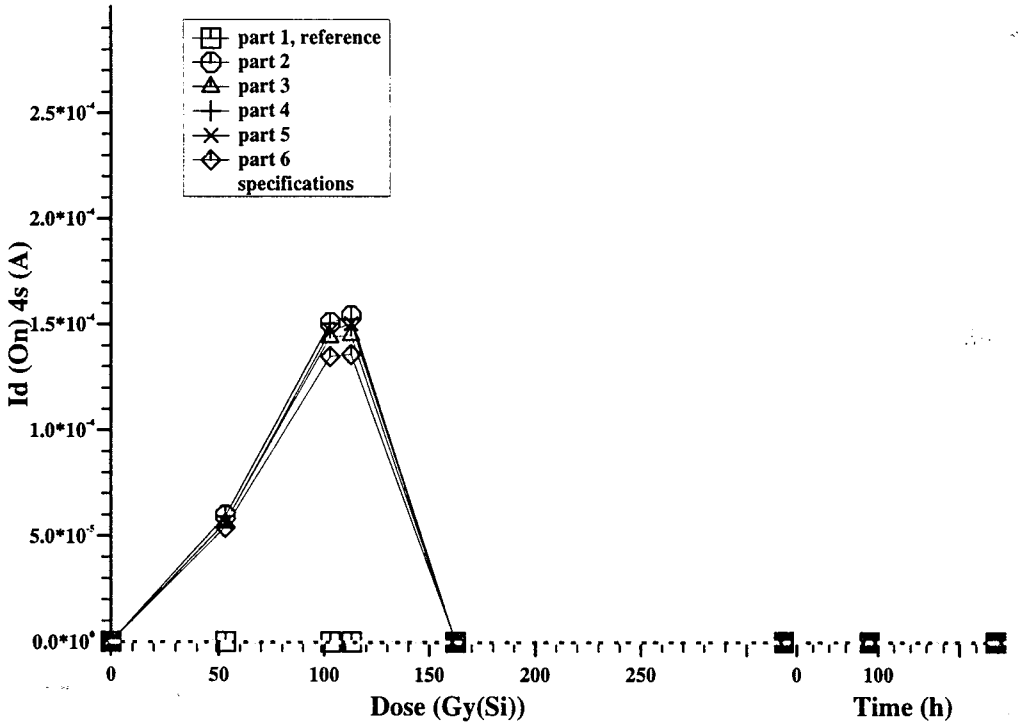

Figure 1.33: Drain ON Leakage Current (Single)

Specification: Id (On) 4s $< 5.10^{-10}$ A

Measured values are given in page 97.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

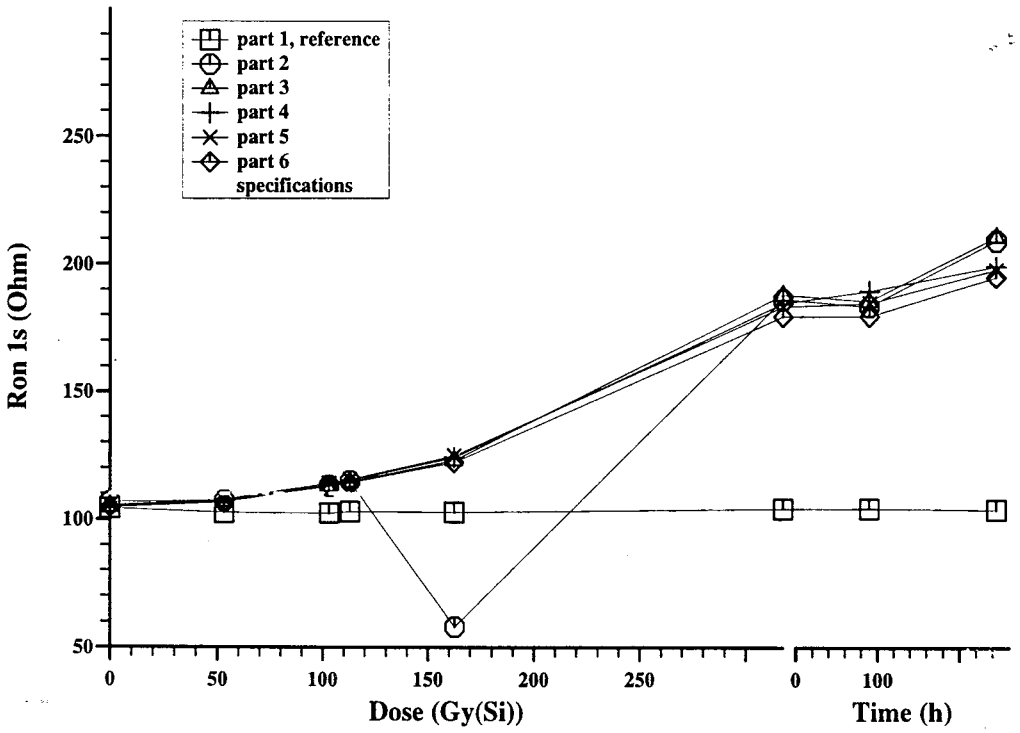

Figure 1.34: On Resistance (Single)

Specification: Ron 1s < 110 Ohm

Measured values are given in page 98.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

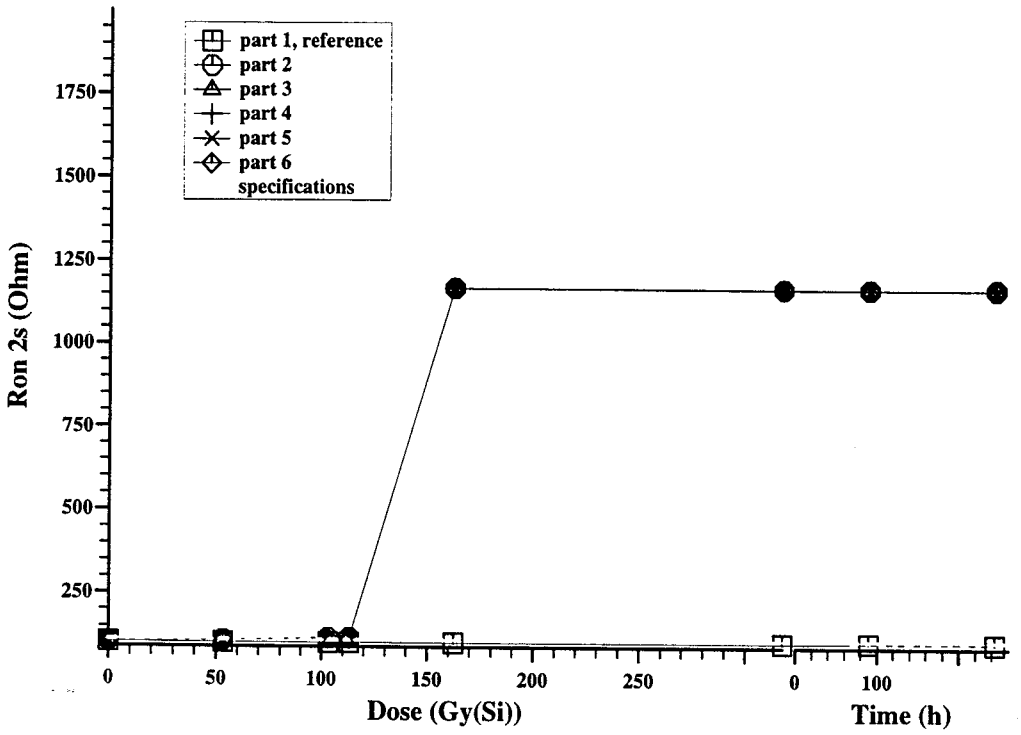

Figure 1.35: On Resistance (Single)

Specification: Ron 2s < 110 Ohm

Measured values are given in page 99.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

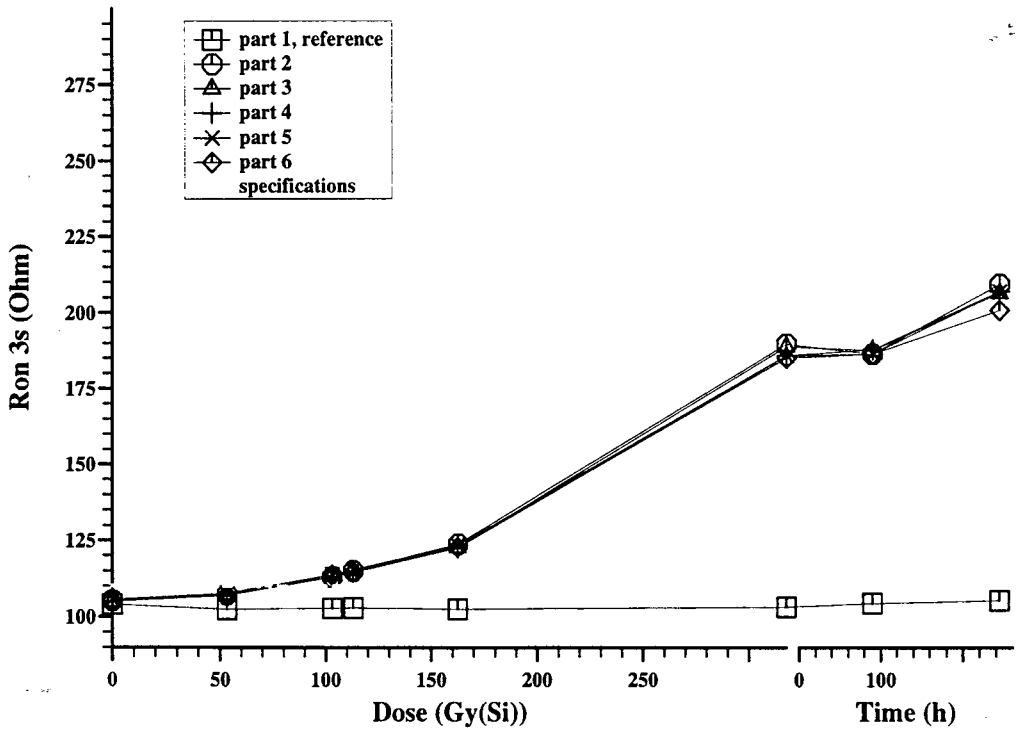

Figure 1.36: On Resistance (Single)

Specification: Ron 3s < 110 Ohm

Measured values are given in page 99.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

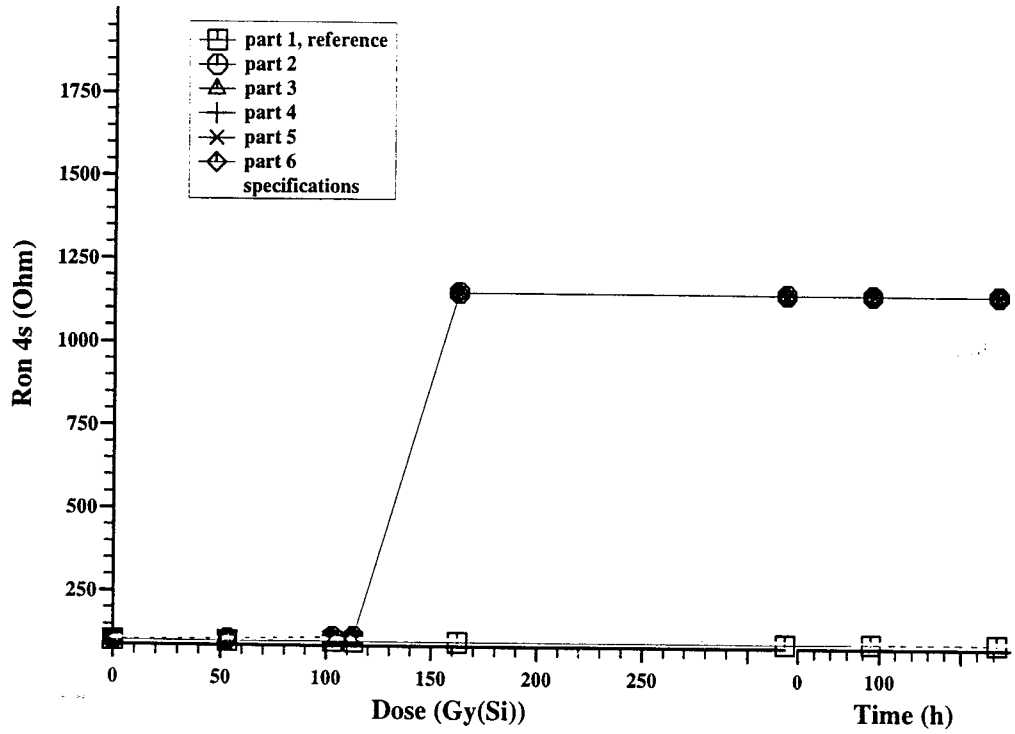

Figure 1.37: On Resistance (Single)

Specification: Ron 4s < 110 Ohm

Measured values are given in page 100.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

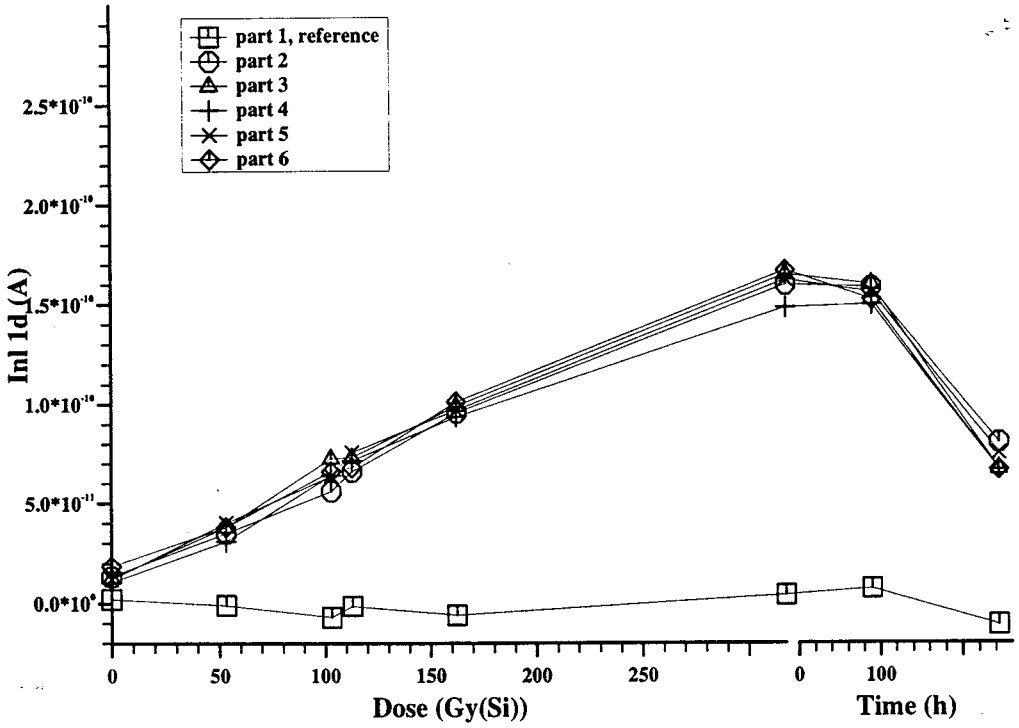

Figure 1.38: Digital Input Low Current (Dual)

Specification: Inl 1d $< 5.10^{-7}$ A

Measured values are given in page 101.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

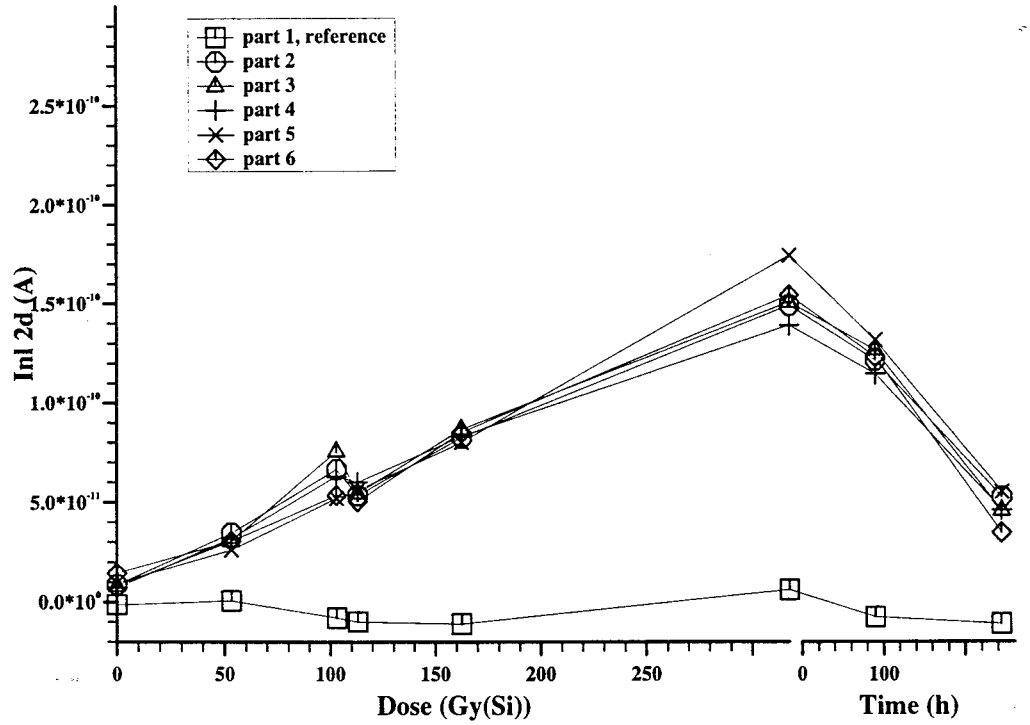

Figure 1.39: Digital Input Low Current (Dual)

Specification: Inl 2d $< 5.10^{-7}$ A

Measured values are given in page 101.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

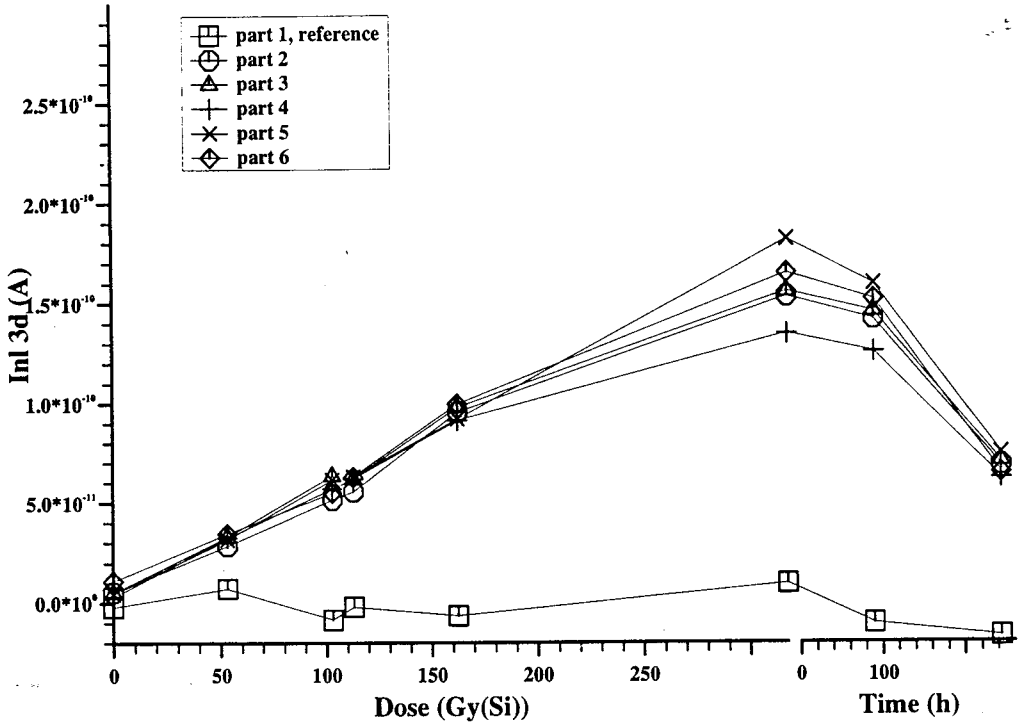

Figure 1.40: Digital Input Low Current (Dual)

Specification: Inl 3d $< 5.10^{-7}$ A

Measured values are given in page 102.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

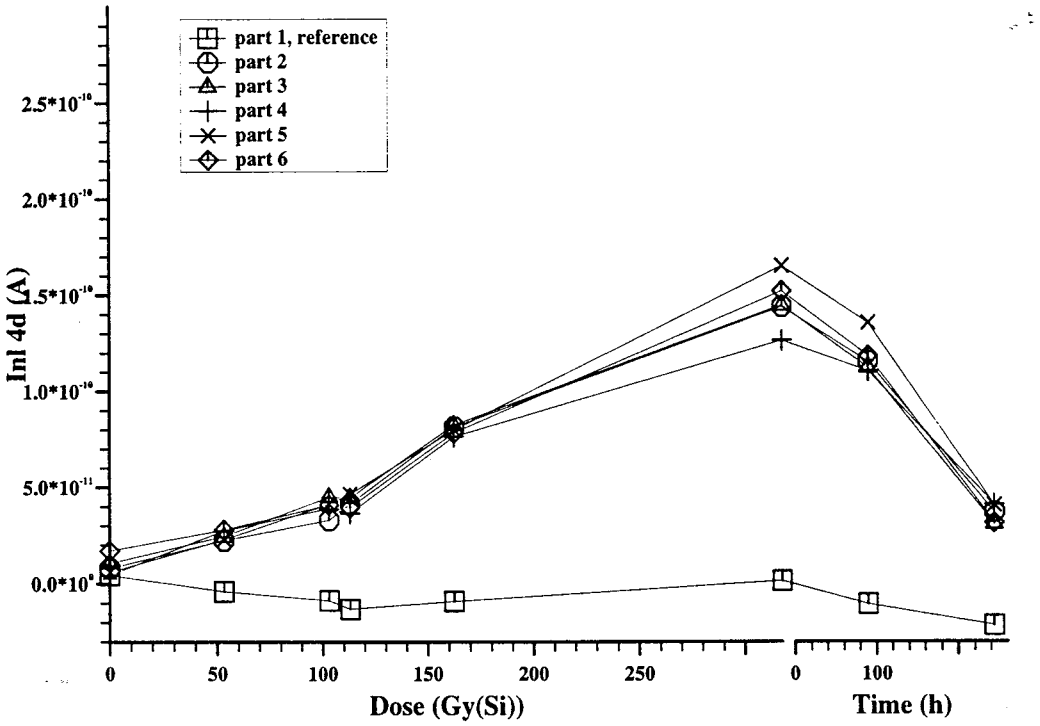

Figure 1.41: Digital Input Low Current (Dual)

Specification: Inl 4d $< 5.10^{-7}$ A

Measured values are given in page 103.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

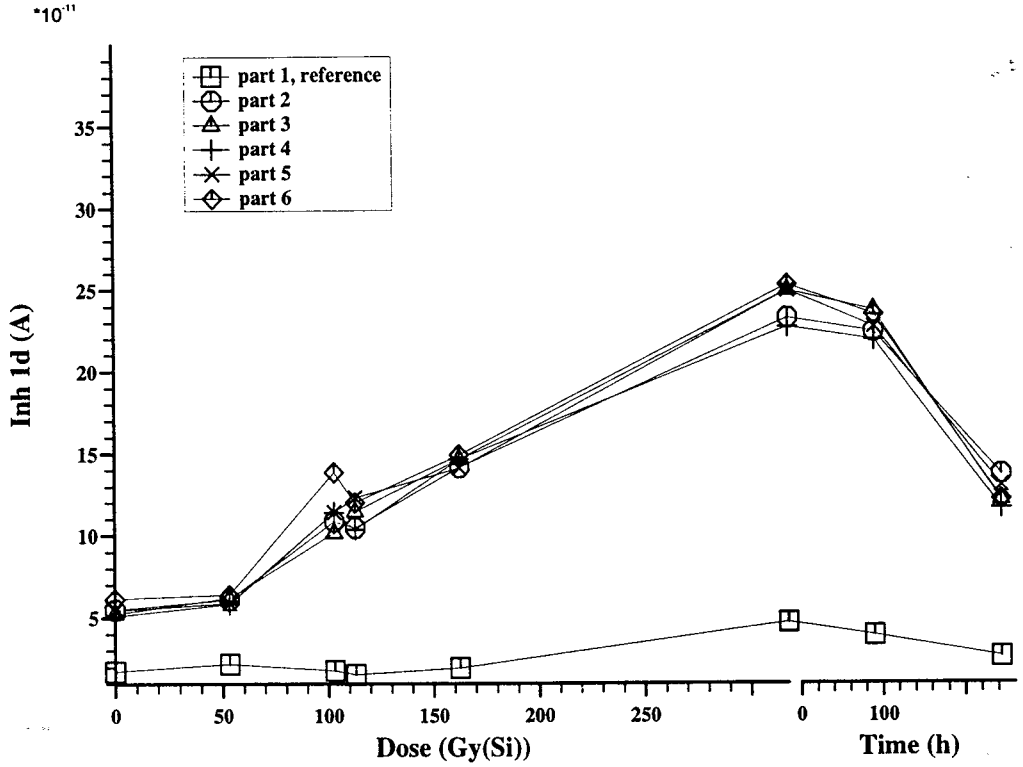

Figure 1.42: Digital Input High Current (Dual)

Specification: Inh 1d $< 5.10^{-7}$ A

Measured values are given in page 103.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

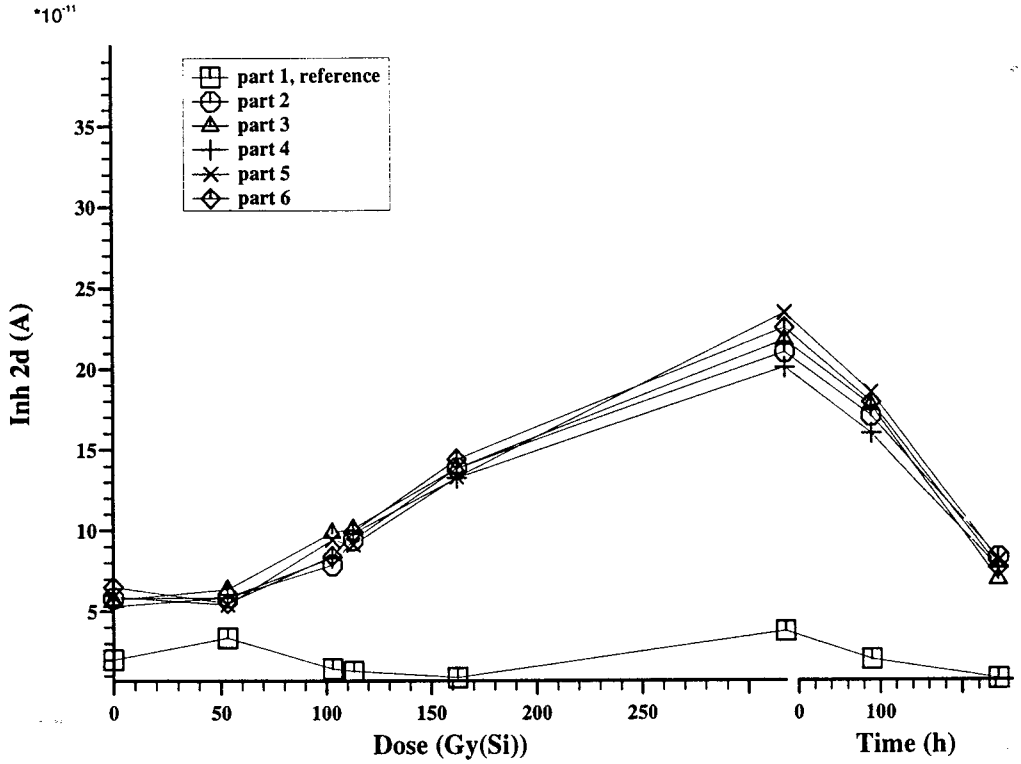

Figure 1.43: Digital Input High Current (Dual)

Specification: Inh 2d $< 5.10^{-7}$ A

Measured values are given in page 104.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

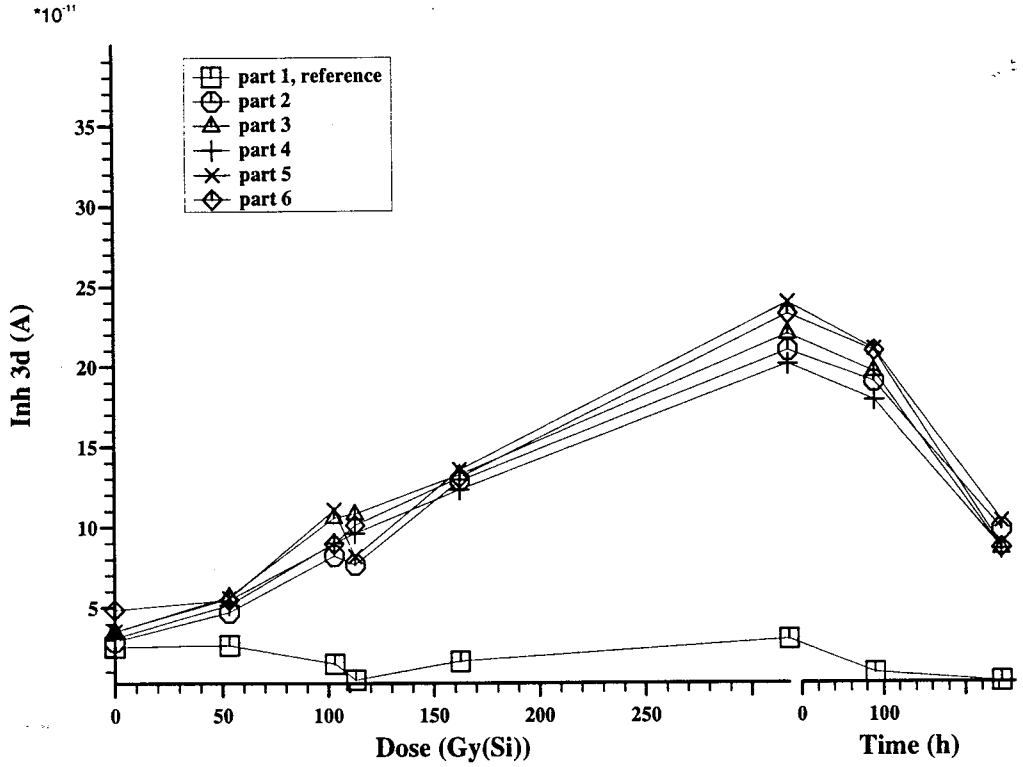

Figure 1.44: Digital Input High Current (Dual)

Specification: Inh 3d $< 5.10^{-7}$ A

Measured values are given in page 105.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

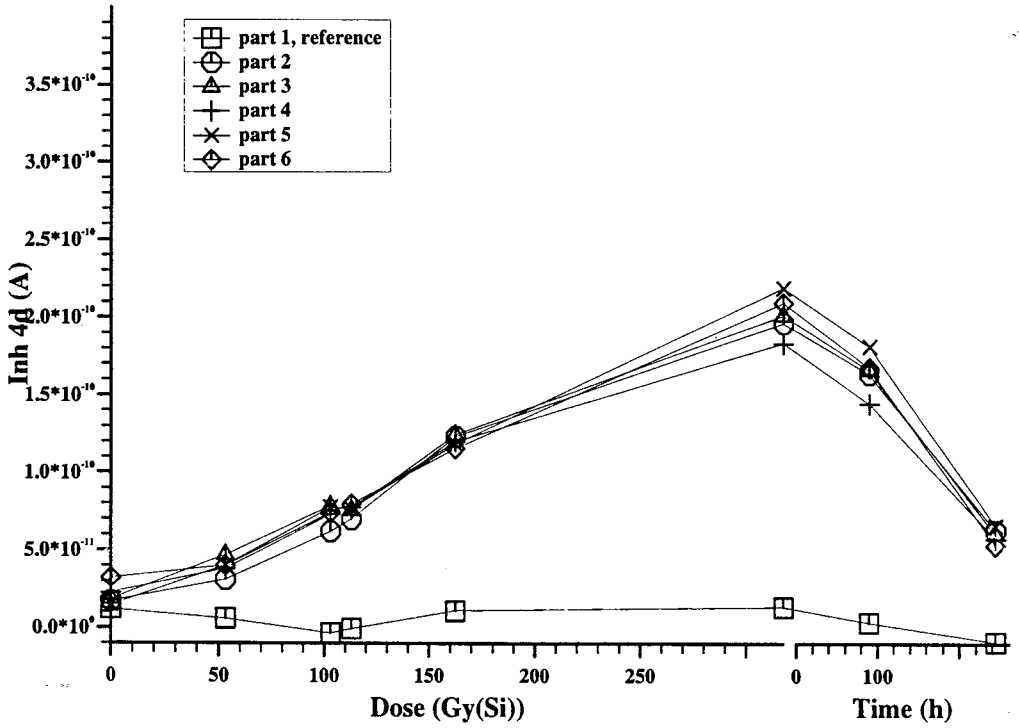

Figure 1.45: Digital Input High Current (Dual)

Specification: Inh 4d $< 5.10^{-7}$ A

Measured values are given in page 105.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

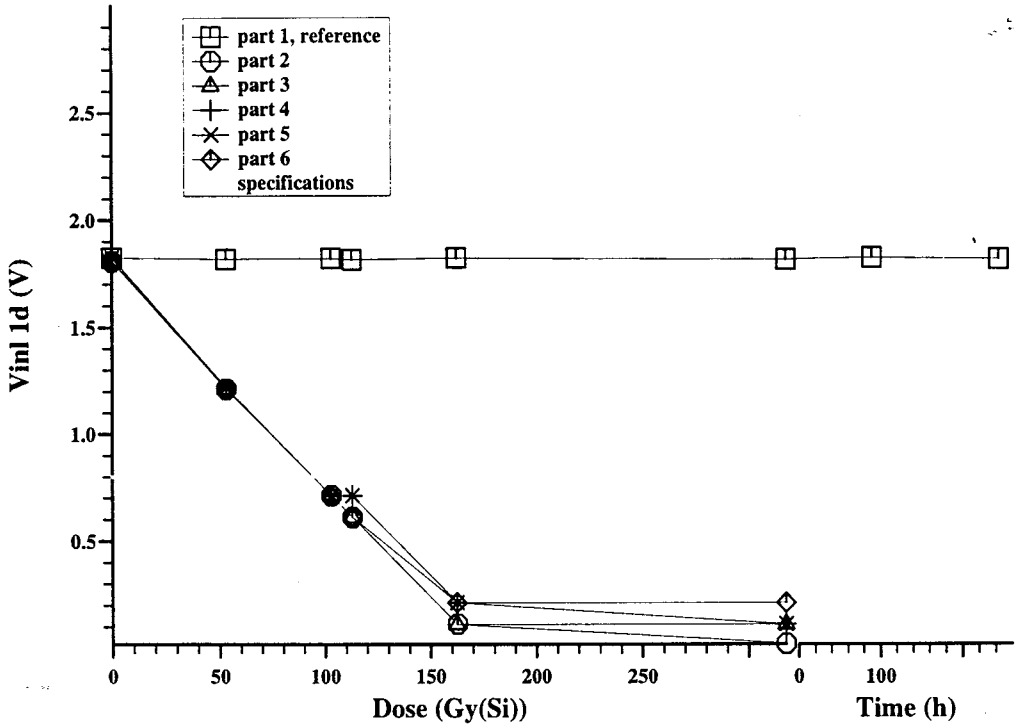

Figure 1.46: Digital Input Low Voltage (Dual)

Specification: Vinl 1d < 0,8 V

Measured values are given in page 106.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

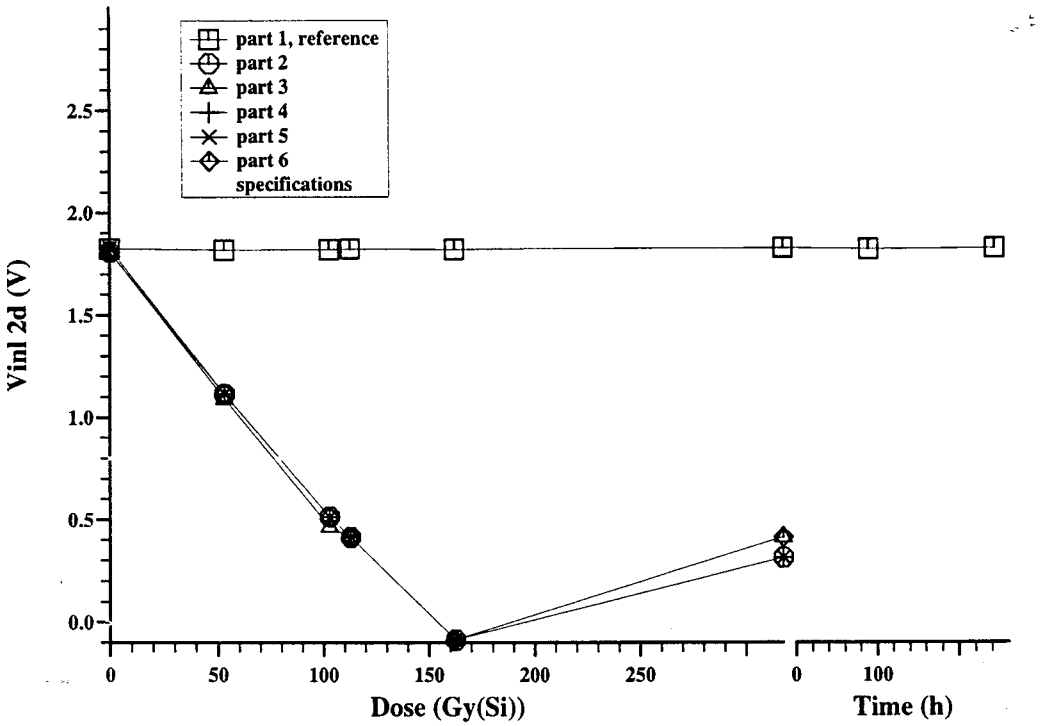

Figure 1.47: Digital Input Low Voltage (Dual)

Specification: Vinl 2d < 0,8 V

Measured values are given in page 107.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

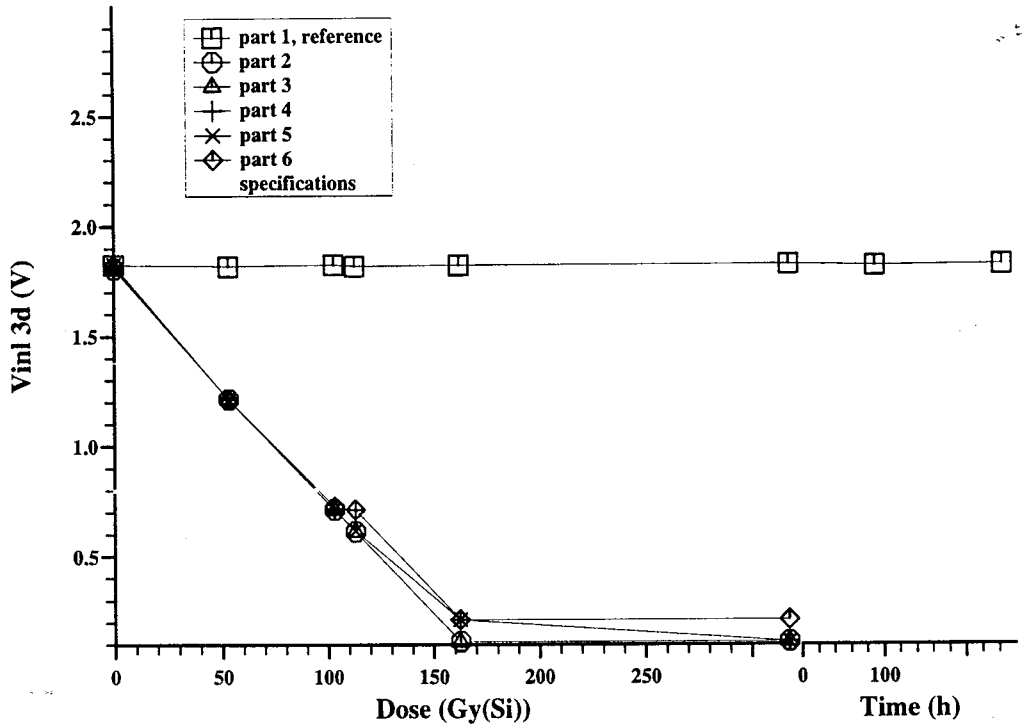

Figure 1.48: Digital Input Low Voltage (Dual)

Specification: Vinl 3d < 0,8 V

Measured values are given in page 107.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

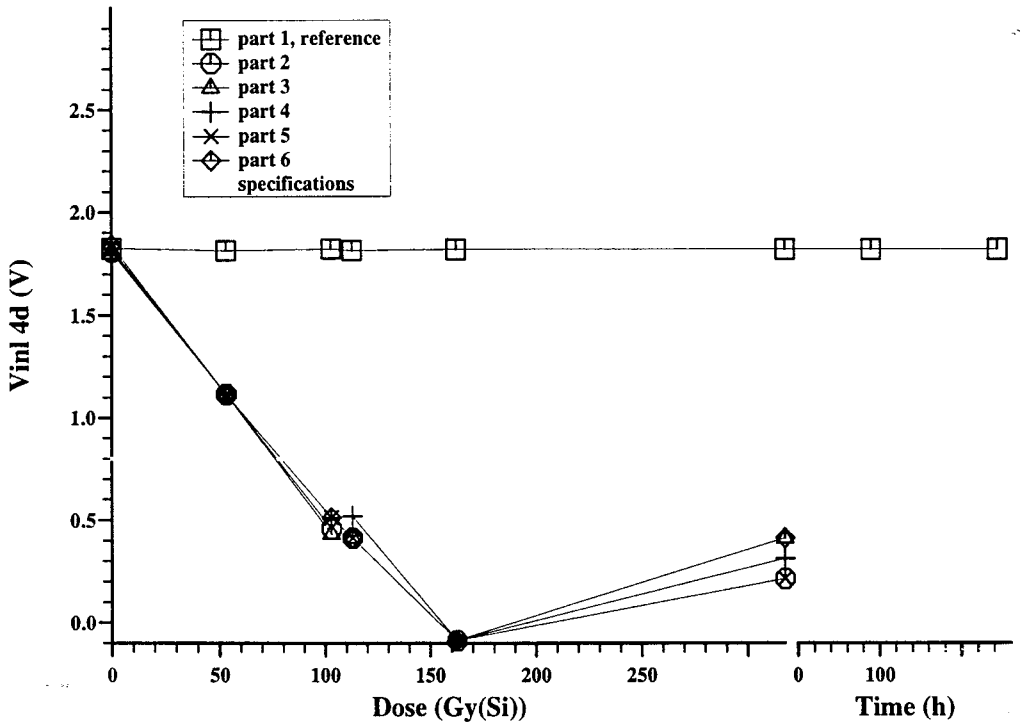

Figure 1.49: Digital Input Low Voltage (Dual)

Specification: Vinl 4d < 0,8 V

Measured values are given in page 108.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

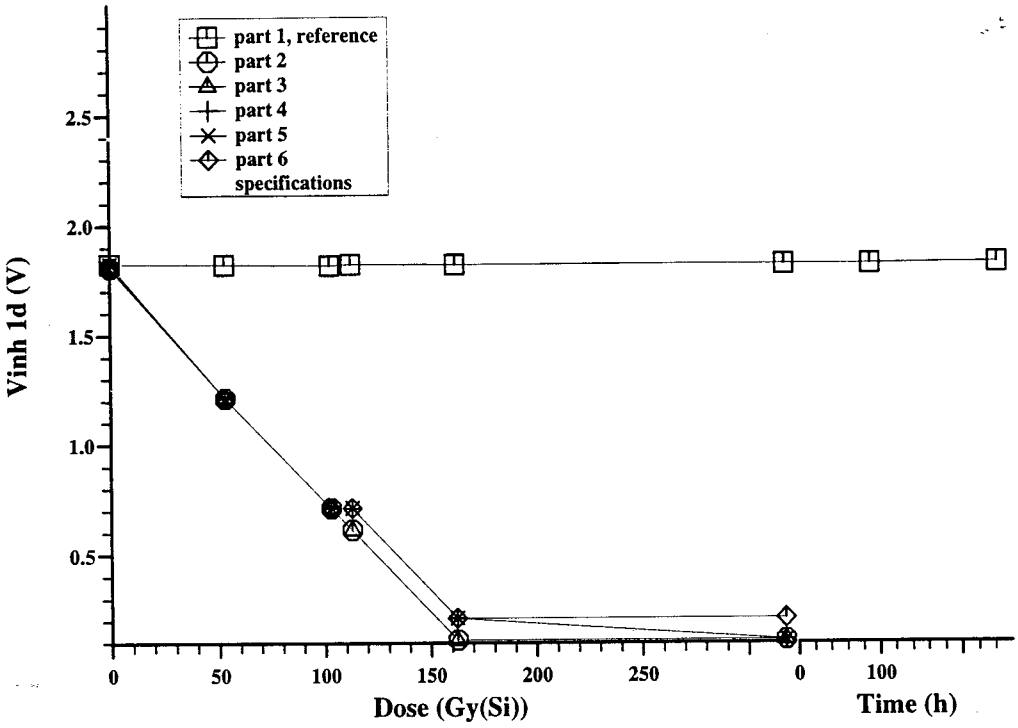

Figure 1.50: Digital Input High Voltage (Dual)

Specification: 2,4 V < Vinh 1d

Measured values are given in page 109.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

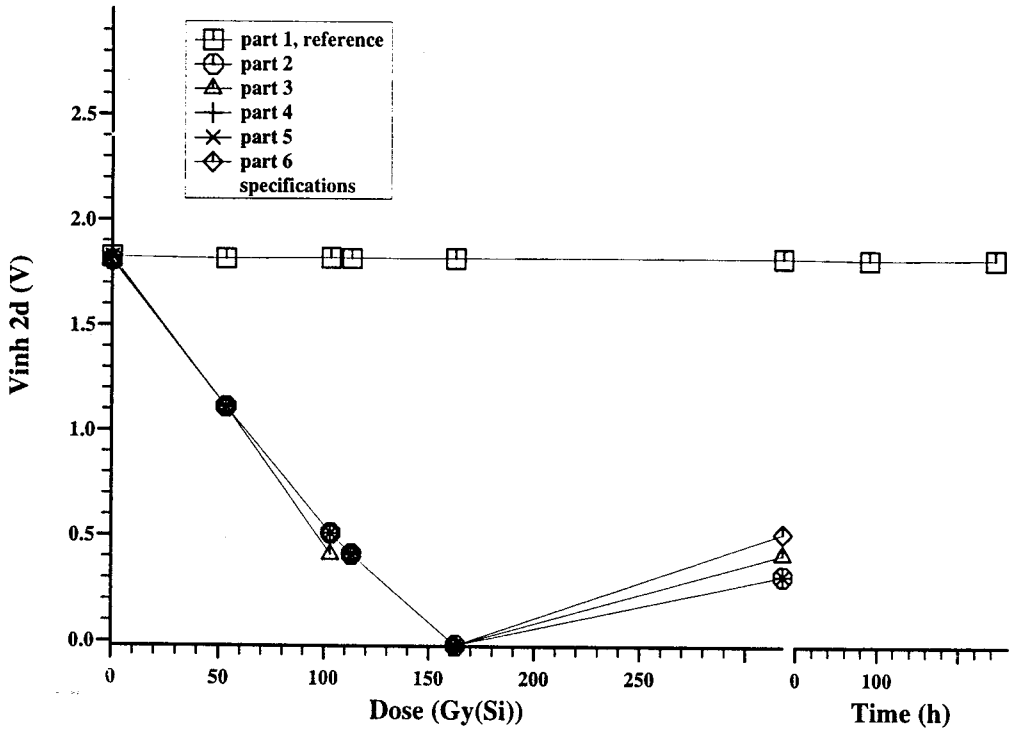

Figure 1.51: Digital Input High Voltage (Dual)

Specification: 2,4 V < Vinh 2d

Measured values are given in page 109.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

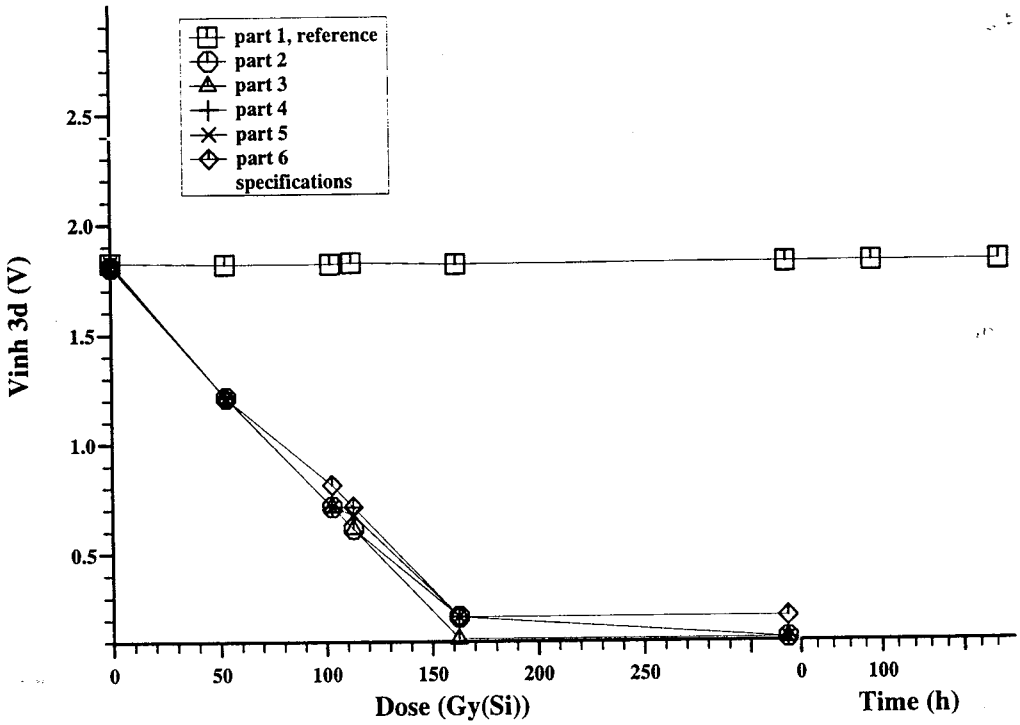

Figure 1.52: Digital Input High Voltage (Dual)

Specification: 2,4 V < Vinh 3d

Measured values are given in page 110.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

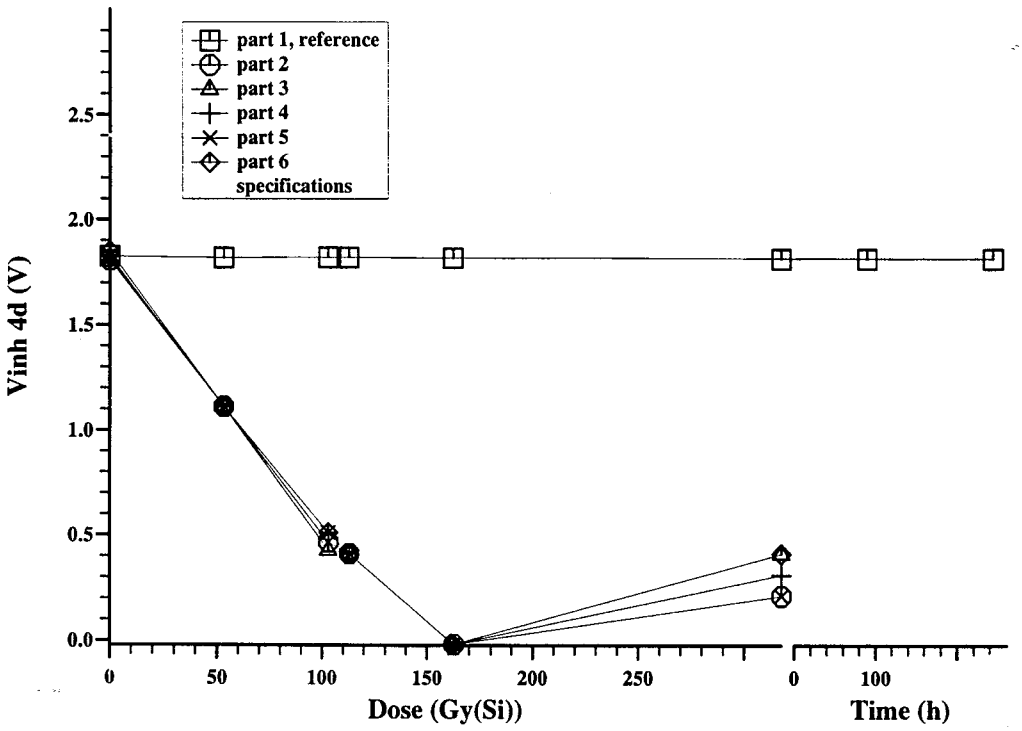

Figure 1.53: Digital Input High Voltage (Dual)

Specification: 2,4 V < Vinh 4d

Measured values are given in page 111.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

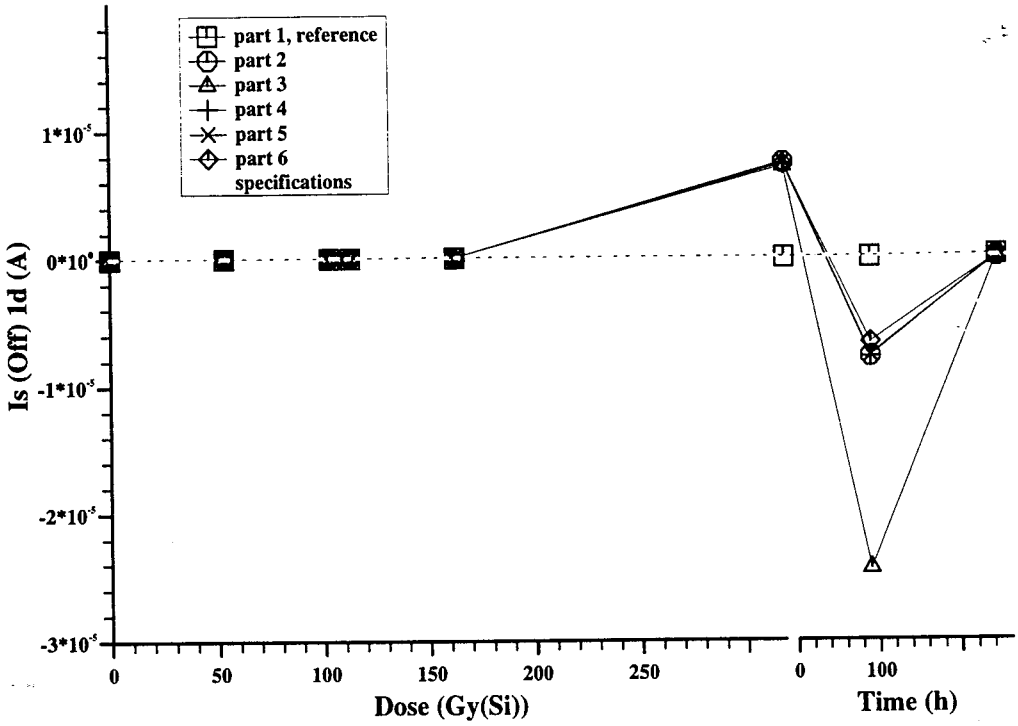

Figure 1.54: Source OFF Leakage Current (Dual)

Specification: Is (Off) 1d $< 5.10^{-10}$ A

Measured values are given in page 111.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

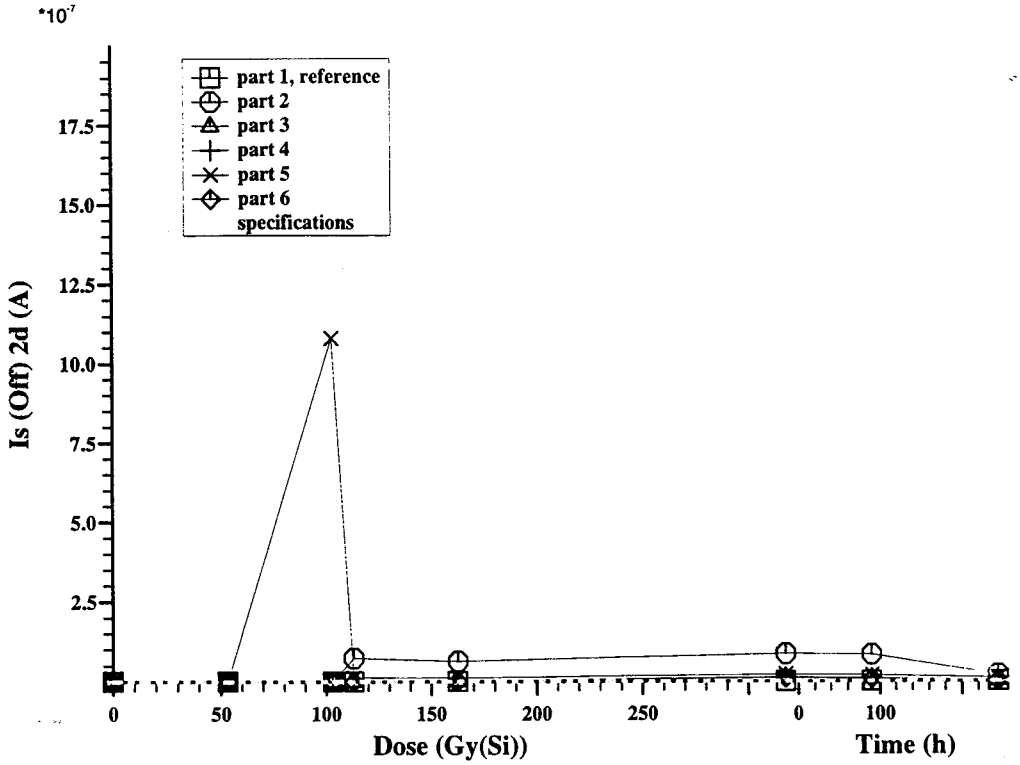

Figure 1.55: Source OFF Leakage Current (Dual)

Specification: Is (Off) 2d $< 5.10^{-10}$ A

Measured values are given in page 112.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

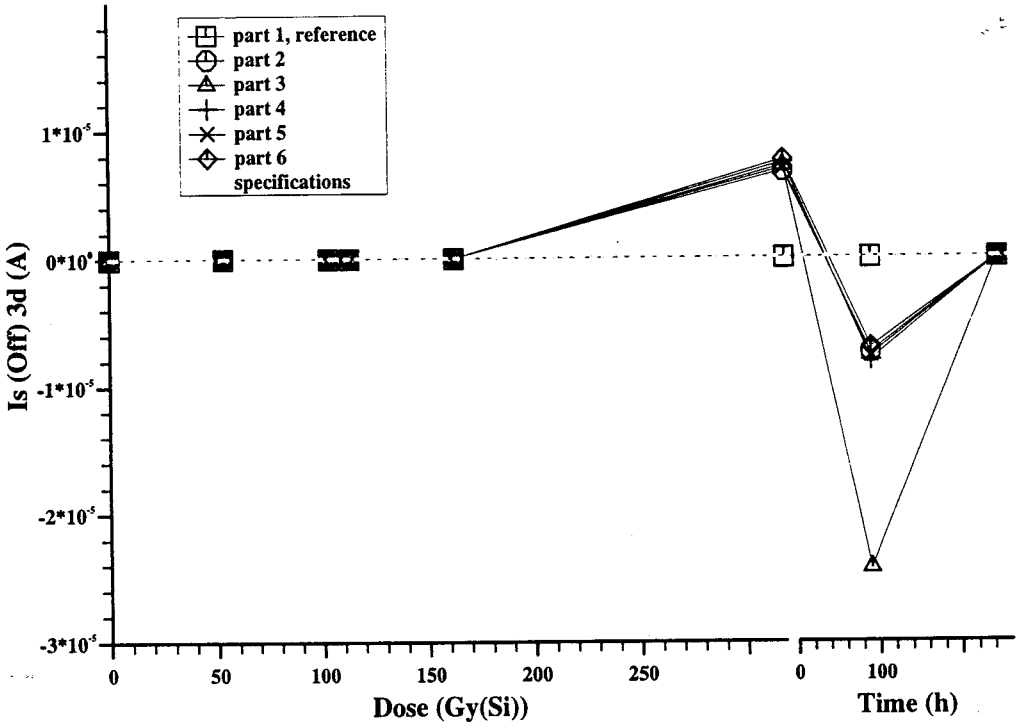

Figure 1.56: Source OFF Leakage Current (Dual)

Specification: Is (Off) 3d $< 5.10^{-10}$ A

Measured values are given in page 113.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

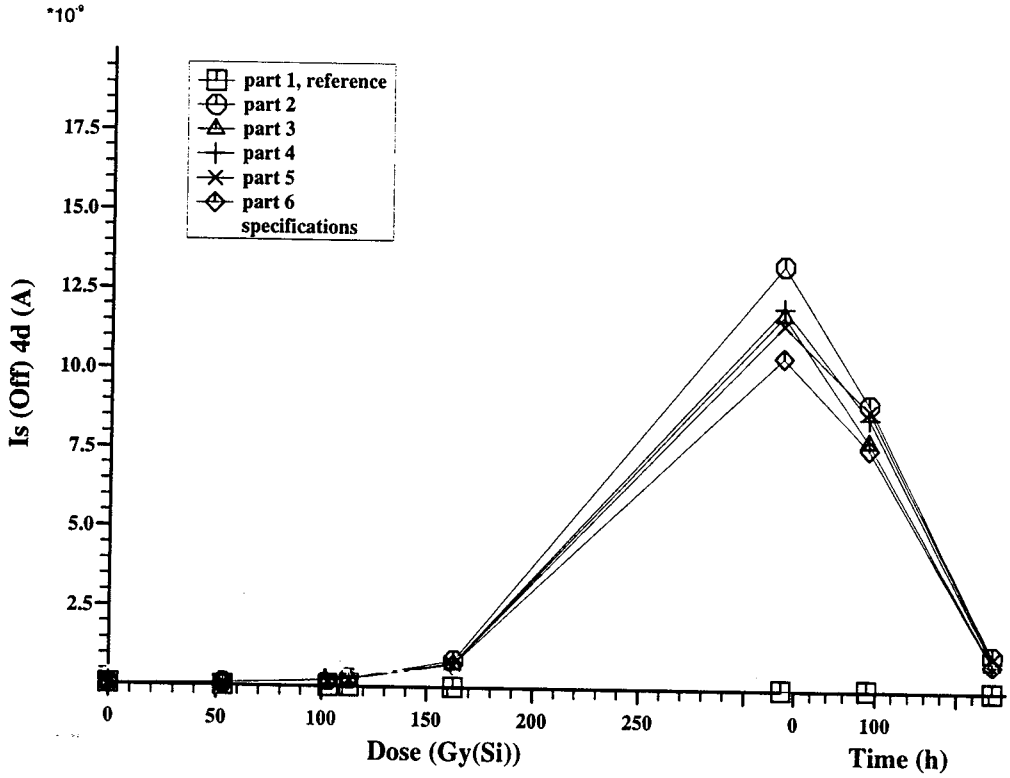

Figure 1.57: Source OFF Leakage Current (Dual)

Specification: Is (Off) 4d $< 5.10^{-10}$ A

Measured values are given in page 113.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

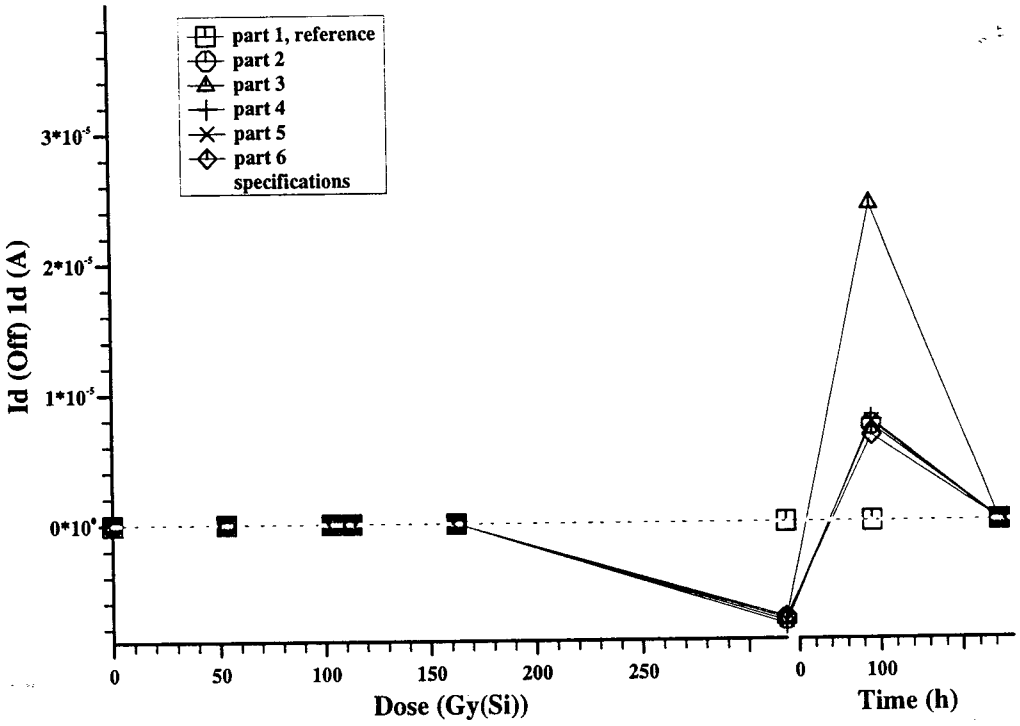

Figure 1.58: Drain OFF Leakage Current (Dual)

Specification: Id (Off) 1d $< 5.10^{-10}$ A

Measured values are given in page 114.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

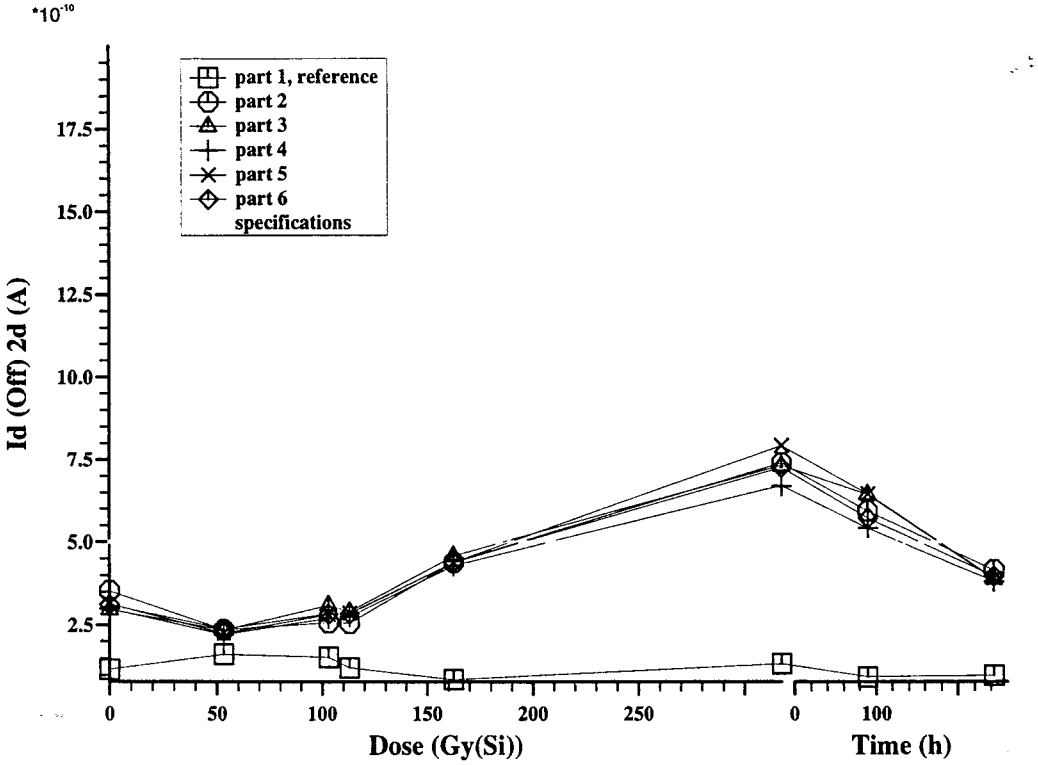

Figure 1.59: Drain OFF Leakage Current (Dual)

Specification: Id (Off) 2d $< 5.10^{-10}$ A

Measured values are given in page 115.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

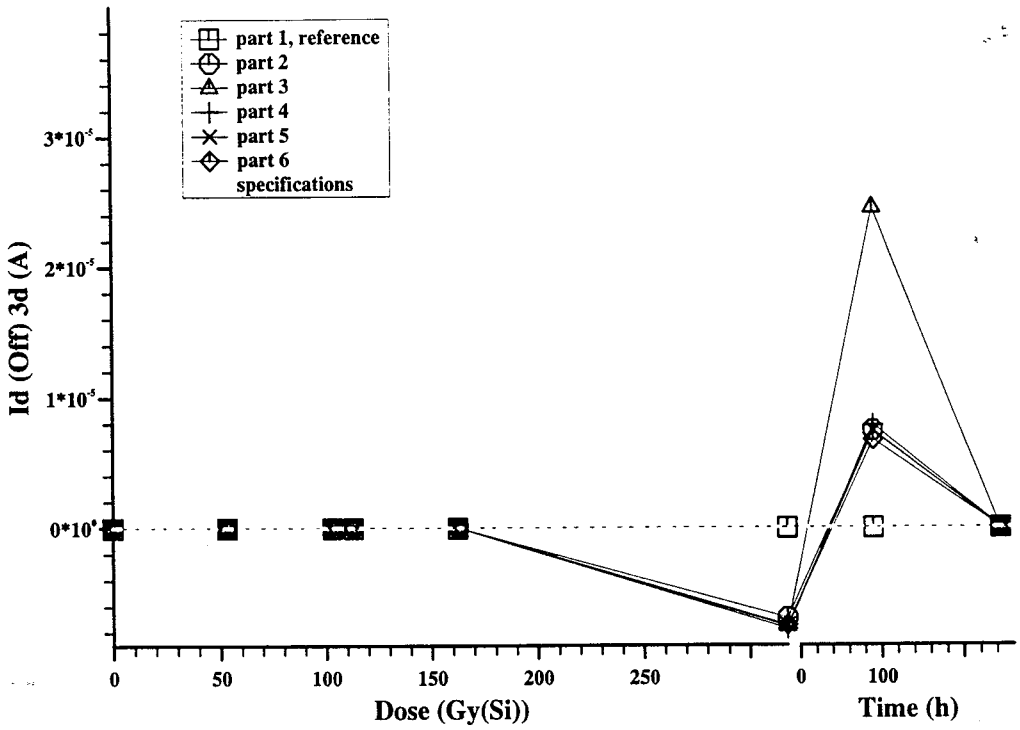

Figure 1.60: Drain OFF Leakage Current (Dual)

Specification: Id (Off) 3d $< 5.10^{-10}$ A

Measured values are given in page 115.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

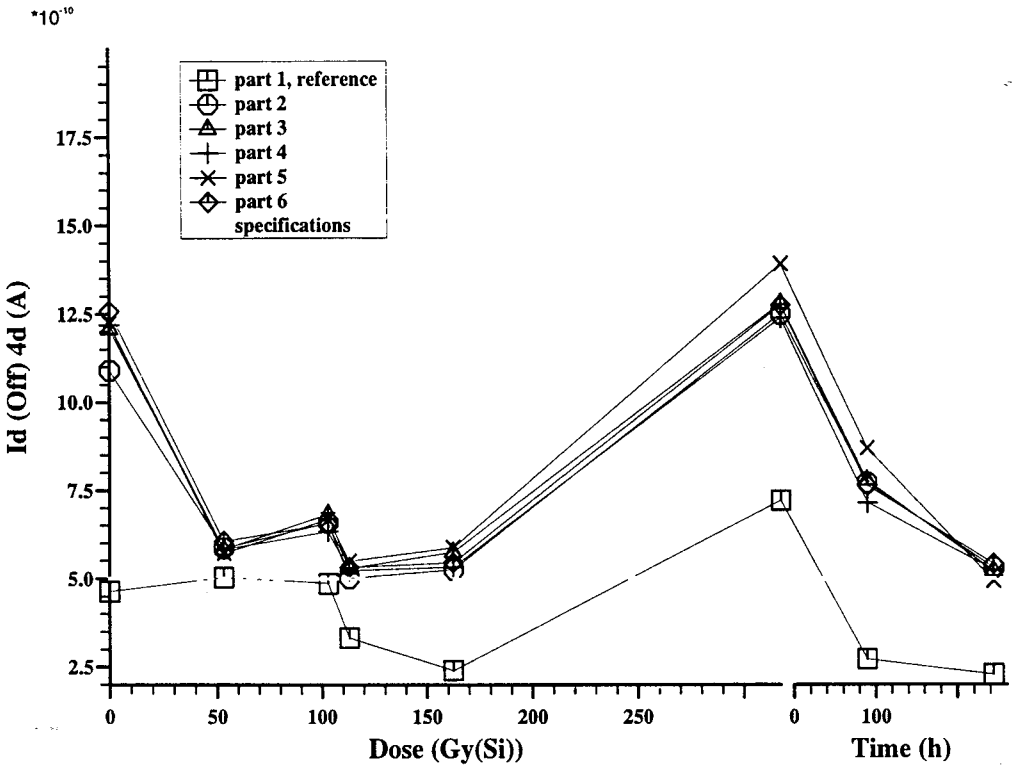

Figure 1.61: Drain OFF Leakage Current (Dual)

Specification: Id (Off) 4d $< 5.10^{-10}$ A

Measured values are given in page 116.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

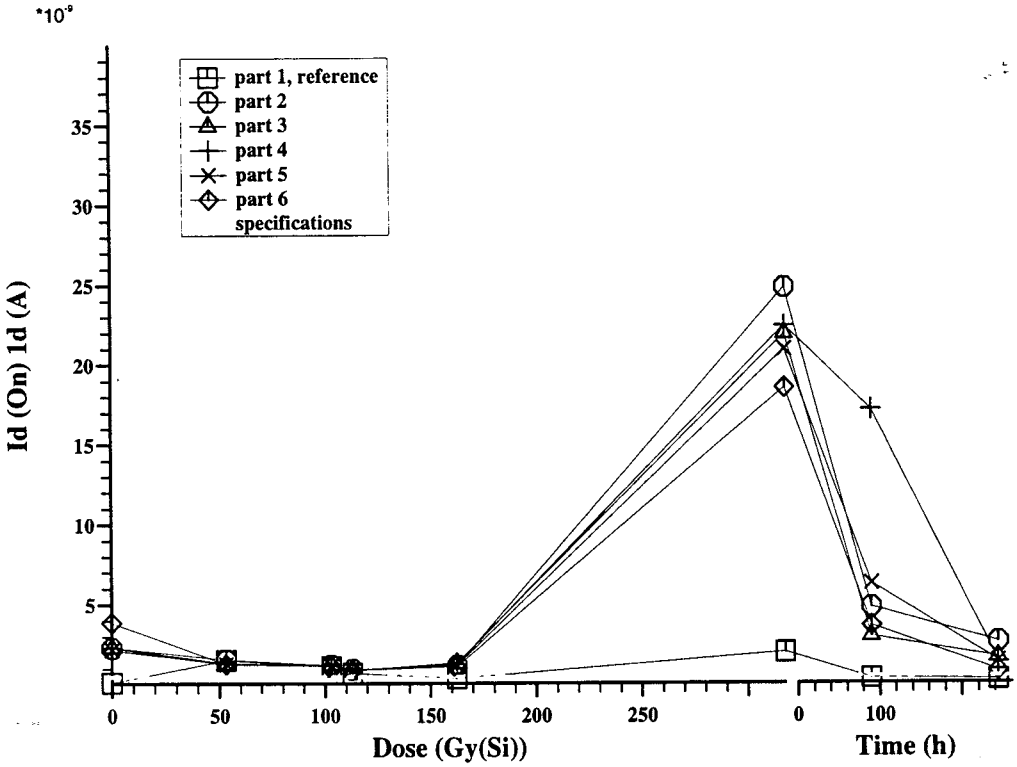

Figure 1.62: Drain ON Leakage Current (Dual)

Specification: Id (On) 1d $< 5.10^{-10}$ A

Measured values are given in page 117.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

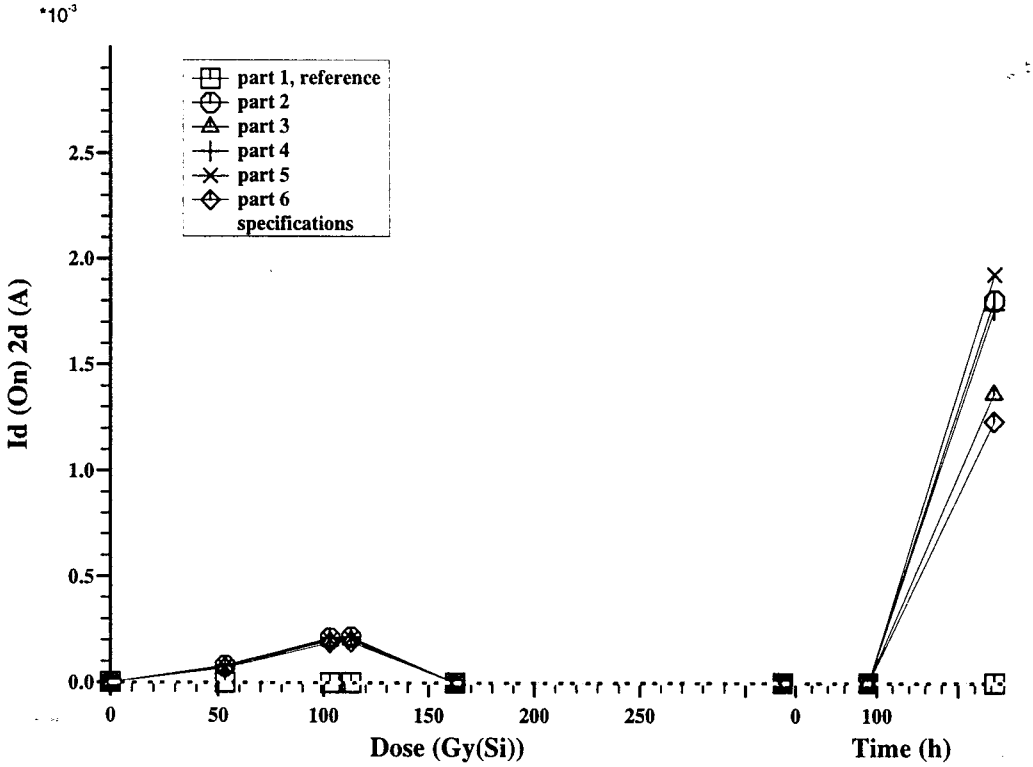

Figure 1.63: Drain ON Leakage Current (Dual)

Specification: Id (On) 2d $< 5.10^{-10}$ A

Measured values are given in page 117.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

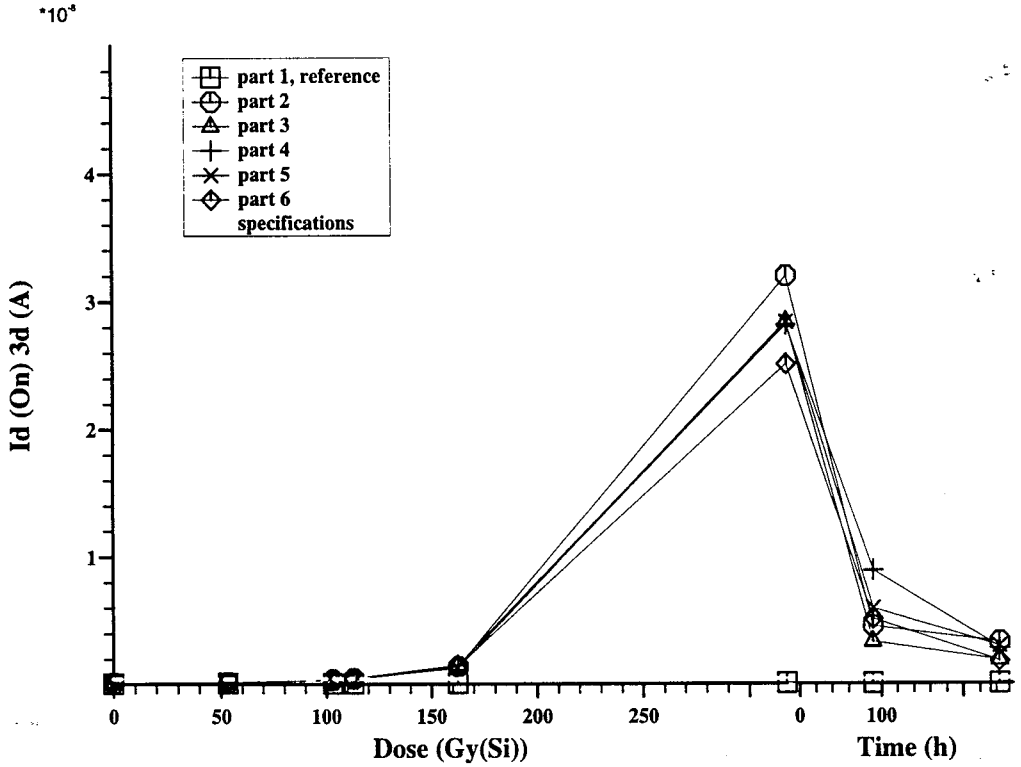

Figure 1.64: Drain ON Leakage Current (Dual)

Specification: Id (On) 3d $< 5.10^{-10}$ A

Measured values are given in page 118.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

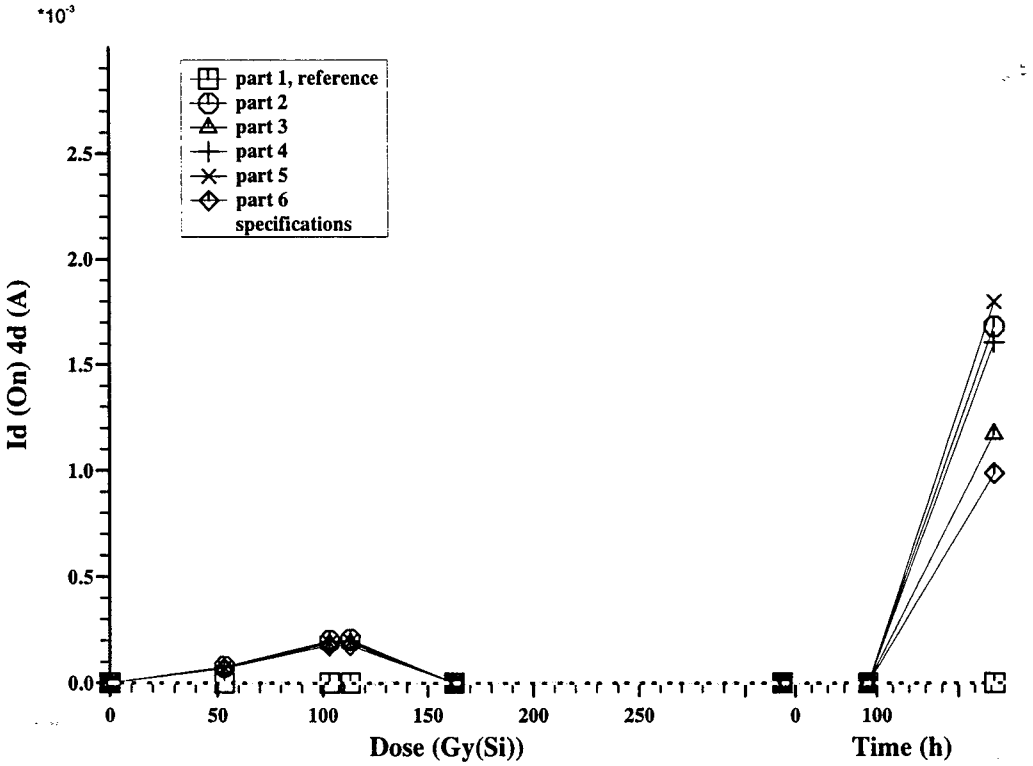

Figure 1.65: Drain ON Leakage Current (Dual)

Specification: Id (On) 4d $< 5.10^{-10}$ A

Measured values are given in page 119.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

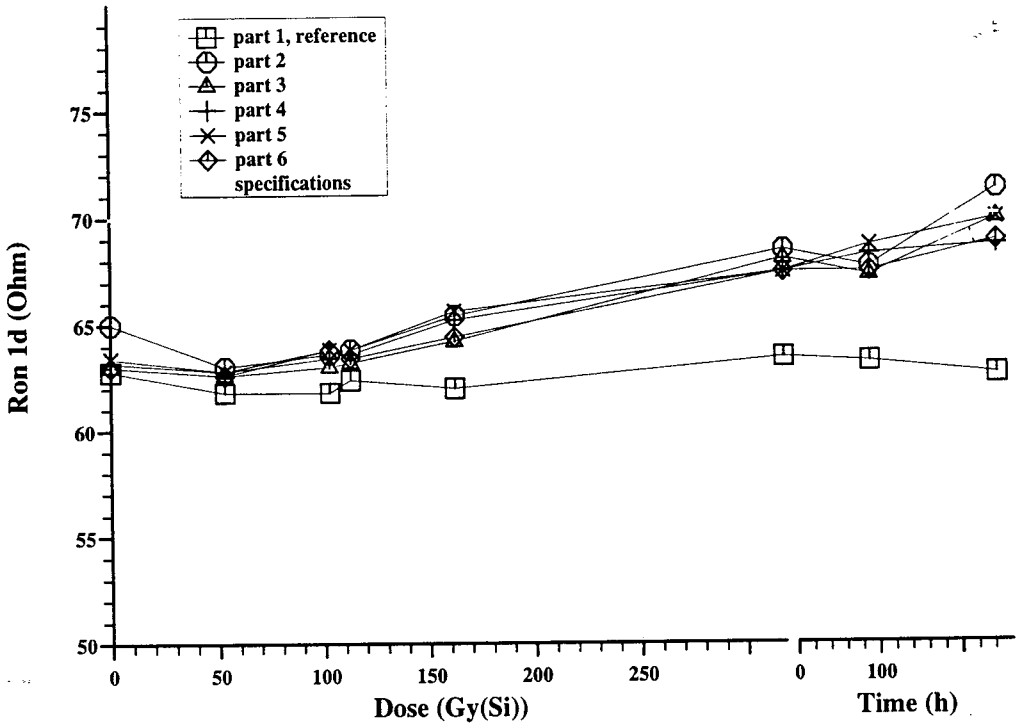

Figure 1.66: On Resistance (Dual)

Specification: Ron 1d < 70 Ohm

Measured values are given in page 119.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

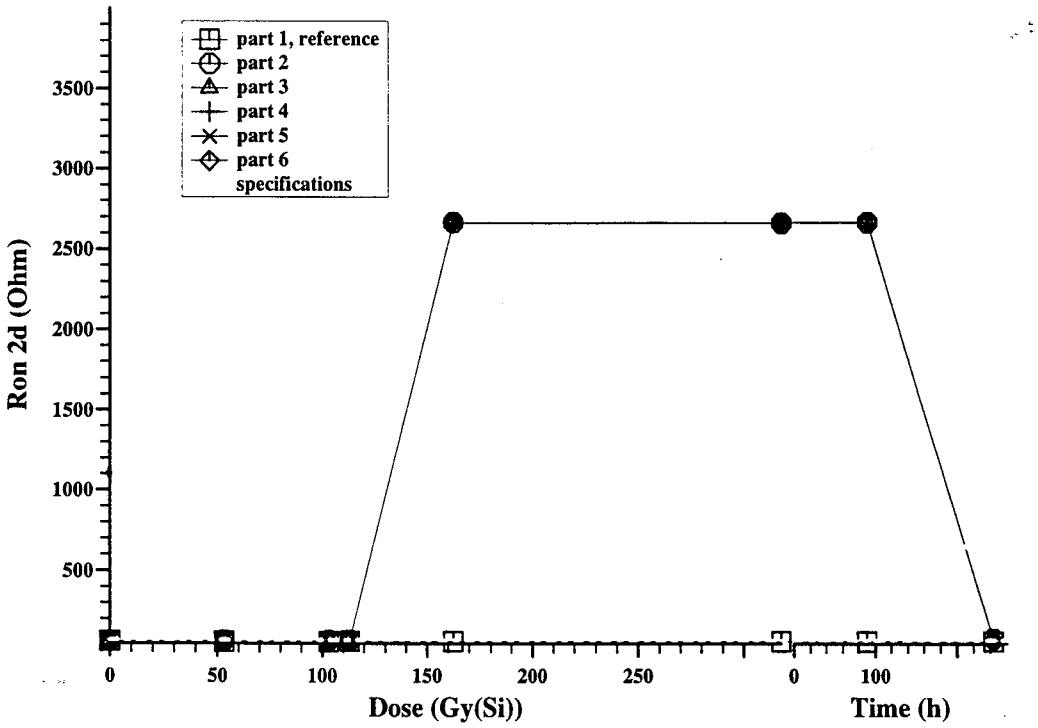

Figure 1.67: On Resistance (Dual)

Specification: Ron 2d < 70 Ohm

Measured values are given in page 120.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

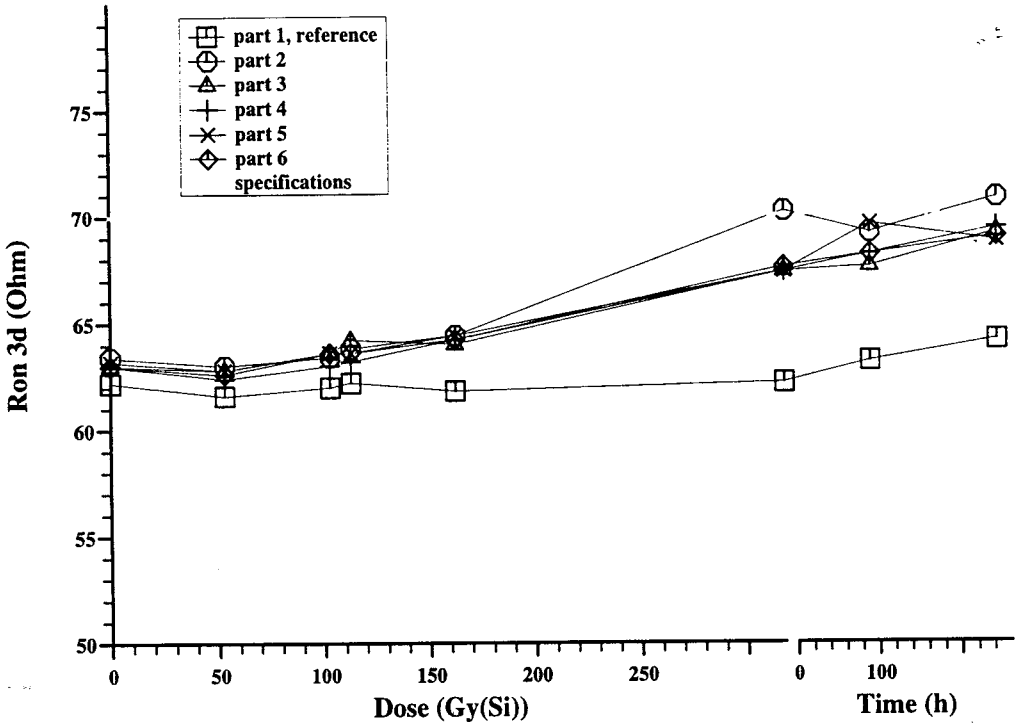

Figure 1.68: On Resistance (Dual)

Specification: Ron 3d < 70 Ohm

Measured values are given in page 121.

Contract Reference: CNES 97
Manufacturer: Analog Devices
Date Code: 9452

DERTS Reference: 97036
Package: DIL 16
5 irradiated parts and 1 reference

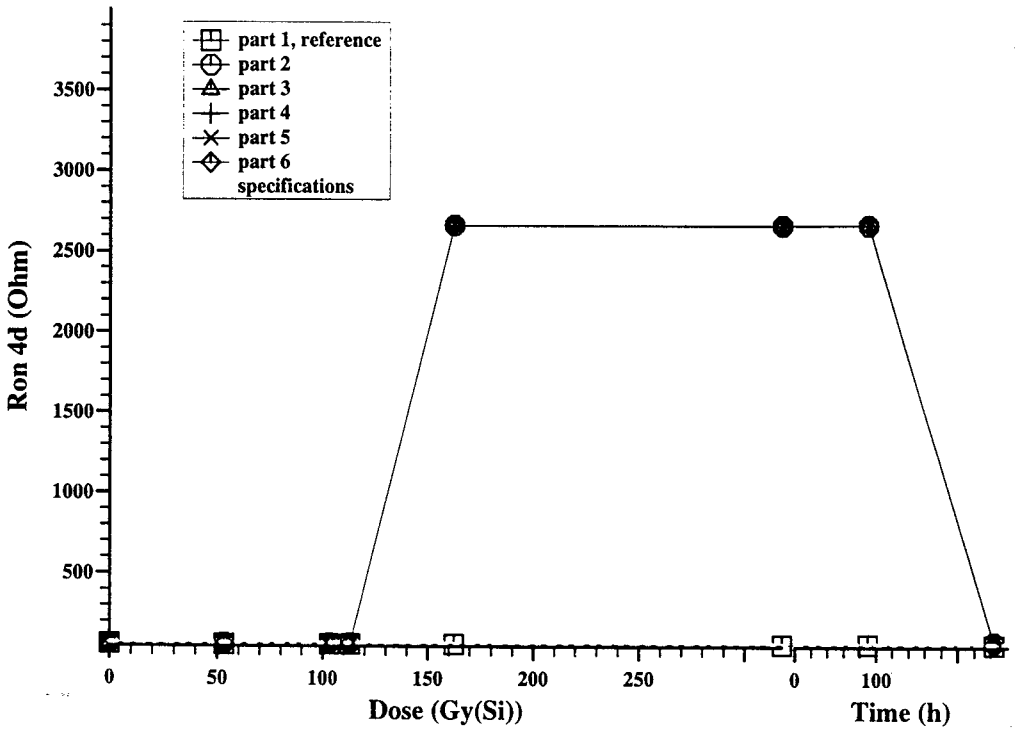

Figure 1.69: On Resistance (Dual)

Specification: Ron 4d < 70 Ohm

Measured values are given in page 121.

Measurements data

In the following pages are detailled the measured values for all parameters.

Table description:

dose/time this column concerns the different dose levels, or the elapsed time after the end of the last irradiation step.

minimum value minimum value on all the tested parts.

average value average value on all the tested parts.

maximum value maximum value on all the tested parts.

reference measurement result on the reference part, or average value of the measurements on all the reference parts.

average variation in this column, you can find the variation of the average value of the irradiated parts.

$$\text{Variation} = \sigma_{\text{reference}} \times \text{Ent}\left[\frac{\text{averageval.}_{\text{doseX}} - \text{averageval.}_{\text{initial}}}{\sigma_{\text{reference}}}\right]$$

standard deviation the standard deviation is calculated on the irradiated parts only.

Symbols:

— no value available.

*** the test system is out of range.

Parameter: Idds
Positive Power Supply Current (Single)
Unit: A
Specification: Idds < 8.10^{-5} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}42.10^{-5}$	$1{,}47.10^{-5}$	$1{,}49.10^{-5}$	$1{,}43.10^{-5}$	0	$2{,}79.10^{-7}$
53 Gy(Si)	$2{,}63.10^{-4}$	$2{,}72.10^{-4}$	$2{,}81.10^{-4}$	$1{,}43.10^{-5}$	$2{,}58.10^{-4}$	$8{,}09.10^{-6}$
100 Gy(Si)	$6{,}25.10^{-4}$	$6{,}55.10^{-4}$	$6{,}75.10^{-4}$	$1{,}43.10^{-5}$	$6{,}41.10^{-4}$	$1{,}93.10^{-5}$
110 Gy(Si)	$5{,}99.10^{-4}$	$6{,}31.10^{-4}$	$6{,}50.10^{-4}$	$1{,}43.10^{-5}$	$6{,}16.10^{-4}$	$1{,}89.10^{-5}$
160 Gy(Si)	$5{,}78.10^{-5}$	$6{,}08.10^{-5}$	$6{,}27.10^{-5}$	$1{,}43.10^{-5}$	$4{,}61.10^{-5}$	$1{,}90.10^{-6}$
320 Gy(Si)	$6{,}51.10^{-5}$	$6{,}61.10^{-5}$	$6{,}74.10^{-5}$	$1{,}43.10^{-5}$	$5{,}14.10^{-5}$	$9{,}54.10^{-7}$
+96 h.	$4{,}86.10^{-5}$	$5{,}05.10^{-5}$	$5{,}27.10^{-5}$	$1{,}43.10^{-5}$	$3{,}58.10^{-5}$	$1{,}62.10^{-6}$
+240 h.	$7{,}33.10^{-6}$	$8{,}16.10^{-6}$	$8{,}98.10^{-6}$	$1{,}43.10^{-5}$	$-6{,}53.10^{-6}$	$6{,}67.10^{-7}$

Parameter: Idd
Positive Power Supply Current (Dual)
Unit: V
Specification: Idd < 8.10^{-5} V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}25.10^{-5}$	$2{,}30.10^{-5}$	$2{,}33.10^{-5}$	$2{,}27.10^{-5}$	0	$3{,}50.10^{-7}$
53 Gy(Si)	$3{,}42.10^{-4}$	$3{,}55.10^{-4}$	$3{,}66.10^{-4}$	$2{,}27.10^{-5}$	$3{,}32.10^{-4}$	$1{,}01.10^{-5}$
100 Gy(Si)	$8{,}28.10^{-4}$	$8{,}69.10^{-4}$	$8{,}94.10^{-4}$	$2{,}27.10^{-5}$	$8{,}46.10^{-4}$	$2{,}59.10^{-5}$
110 Gy(Si)	$7{,}90.10^{-4}$	$8{,}31.10^{-4}$	$8{,}54.10^{-4}$	$2{,}27.10^{-5}$	$8{,}07.10^{-4}$	$2{,}48.10^{-5}$
160 Gy(Si)	$6{,}89.10^{-5}$	$7{,}18.10^{-5}$	$7{,}39.10^{-5}$	$2{,}27.10^{-5}$	$4{,}88.10^{-5}$	$1{,}83.10^{-6}$
320 Gy(Si)	$7{,}71.10^{-5}$	$7{,}80.10^{-5}$	$7{,}93.10^{-5}$	$2{,}27.10^{-5}$	$5{,}50.10^{-5}$	$9{,}56.10^{-7}$
+96 h.	$5{,}93.10^{-5}$	$6{,}13.10^{-5}$	$6{,}37.10^{-5}$	$2{,}27.10^{-5}$	$3{,}82.10^{-5}$	$1{,}72.10^{-6}$
+240 h.	$1{,}35.10^{-5}$	$1{,}45.10^{-5}$	$1{,}54.10^{-5}$	$2{,}27.10^{-5}$	$-8{,}54.10^{-6}$	$7{,}65.10^{-7}$

Parameter: Iss
Negative Power Supply Current
Unit: V
Specification: Iss < 10.10^{-7} V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$-1{,}52.10^{-9}$	$-1{,}34.10^{-9}$	$-1{,}08.10^{-9}$	$-1{,}04.10^{-9}$	0	$1{,}78.10^{-10}$
53 Gy(Si)	$-3{,}24.10^{-4}$	$-3{,}14.10^{-4}$	$-3{,}01.10^{-4}$	$-1{,}00.10^{-9}$	$-3{,}14.10^{-4}$	$9{,}25.10^{-6}$
100 Gy(Si)	$-8{,}17.10^{-4}$	$-7{,}94.10^{-4}$	$-7{,}55.10^{-4}$	$-1{,}26.10^{-9}$	$-7{,}94.10^{-4}$	$2{,}41.10^{-5}$
110 Gy(Si)	$-7{,}81.10^{-4}$	$-7{,}59.10^{-4}$	$-7{,}20.10^{-4}$	$-9{,}40.10^{-10}$	$-7{,}59.10^{-4}$	$2{,}34.10^{-5}$
160 Gy(Si)	$-1{,}38.10^{-8}$	$-1{,}18.10^{-8}$	$-6{,}90.10^{-9}$	$-7{,}75.10^{-10}$	$-1{,}03.10^{-8}$	$2{,}84.10^{-9}$
320 Gy(Si)	$-6{,}58.10^{-8}$	$-5{,}93.10^{-8}$	$-5{,}15.10^{-8}$	$-9{,}20.10^{-10}$	$-5{,}79.10^{-8}$	$6{,}67.10^{-9}$
+96 h.	$-4{,}79.10^{-8}$	$-3{,}92.10^{-8}$	$-3{,}59.10^{-8}$	$-9{,}60.10^{-10}$	$-3{,}79.10^{-8}$	$4{,}88.10^{-9}$
+240 h.	$-1{,}74.10^{-6}$	$-1{,}41.10^{-6}$	$-9{,}40.10^{-7}$	$-1{,}20.10^{-9}$	$-1{,}41.10^{-6}$	$3{,}38.10^{-7}$

Parameter: Inl 1s
Digital Input Low Current (Single)
Unit: A
Specification: Inl 1s < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}05.10^{-11}$	$1{,}31.10^{-11}$	$1{,}80.10^{-11}$	$5{,}00.10^{-13}$	0	$2{,}95.10^{-12}$
53 Gy(Si)	$2{,}50.10^{-12}$	$4{,}90.10^{-12}$	$8{,}00.10^{-12}$	$-1{,}50.10^{-12}$	$-5{,}52.10^{-12}$	$2{,}01.10^{-12}$
100 Gy(Si)	$1{,}75.10^{-11}$	$2{,}36.10^{-11}$	$2{,}70.10^{-11}$	$-5{,}00.10^{-12}$	$5{,}52.10^{-12}$	$3{,}93.10^{-12}$
110 Gy(Si)	$8{,}50.10^{-12}$	$1{,}57.10^{-11}$	$2{,}15.10^{-11}$	$-1{,}20.10^{-11}$	0	$5{,}23.10^{-12}$
160 Gy(Si)	$1{,}10.10^{-11}$	$3{,}10.10^{-11}$	$9{,}75.10^{-11}$	$-3{,}00.10^{-12}$	$1{,}66.10^{-11}$	$3{,}73.10^{-11}$
320 Gy(Si)	$4{,}10.10^{-11}$	$4{,}71.10^{-11}$	$5{,}30.10^{-11}$	$7{,}00.10^{-12}$	$3{,}31.10^{-11}$	$4{,}28.10^{-12}$
+96 h.	$4{,}35.10^{-11}$	$4{,}62.10^{-11}$	$4{,}95.10^{-11}$	$10{,}00.10^{-13}$	$2{,}76.10^{-11}$	$2{,}17.10^{-12}$
+240 h.	$4{,}35.10^{-11}$	$4{,}62.10^{-11}$	$4{,}95.10^{-11}$	$10{,}00.10^{-13}$	$2{,}76.10^{-11}$	$2{,}17.10^{-12}$

Parameter: Inl 2s
Digital Input Low Current (Single)
Unit: A
Specification: Inl 2s $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$4{,}00.10^{-12}$	$7{,}00.10^{-12}$	$1{,}15.10^{-11}$	$-10{,}00.10^{-13}$	0	$2{,}94.10^{-12}$
53 Gy(Si)	$2{,}50.10^{-12}$	$6{,}20.10^{-12}$	$1{,}65.10^{-11}$	$-10{,}00.10^{-13}$	0	$5{,}87.10^{-12}$
100 Gy(Si)	$3{,}50.10^{-12}$	$7{,}10.10^{-12}$	$1{,}25.10^{-11}$	$-9{,}50.10^{-12}$	0	$3{,}66.10^{-12}$
110 Gy(Si)	0	$6{,}60.10^{-12}$	$1{,}55.10^{-11}$	$-1{,}05.10^{-11}$	0	$5{,}80.10^{-12}$
160 Gy(Si)	$7{,}50.10^{-12}$	$2{,}38.10^{-11}$	$8{,}50.10^{-11}$	$-7{,}50.10^{-12}$	$1{,}62.10^{-11}$	$3{,}42.10^{-11}$
320 Gy(Si)	$3{,}85.10^{-11}$	$4{,}31.10^{-11}$	$4{,}75.10^{-11}$	$6{,}00.10^{-12}$	$3{,}24.10^{-11}$	$3{,}49.10^{-12}$
+96 h.	$2{,}75.10^{-11}$	$2{,}88.10^{-11}$	$3{,}10.10^{-11}$	$-5{,}00.10^{-12}$	$2{,}16.10^{-11}$	$1{,}48.10^{-12}$
+240 h.	$2{,}75.10^{-11}$	$2{,}88.10^{-11}$	$3{,}10.10^{-11}$	$-5{,}00.10^{-12}$	$2{,}16.10^{-11}$	$1{,}48.10^{-12}$

Parameter: Inl 3s
Digital Input Low Current (Single)
Unit: A
Specification: Inl 3s < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$5{,}00.10^{-12}$	$8{,}60.10^{-12}$	$1{,}40.10^{-11}$	$5{,}00.10^{-13}$	0	$3{,}66.10^{-1}$
53 Gy(Si)	$-10{,}00.10^{-13}$	$4{,}20.10^{-12}$	$8{,}00.10^{-12}$	$-6{,}50.10^{-12}$	0	$3{,}95.10^{-1}$
100 Gy(Si)	$1{,}20.10^{-11}$	$1{,}69.10^{-11}$	$2{,}15.10^{-11}$	$-8{,}50.10^{-12}$	$7{,}02.10^{-12}$	$3{,}58.10^{-1}$
110 Gy(Si)	$1{,}45.10^{-11}$	$1{,}82.10^{-11}$	$2{,}00.10^{-11}$	$-9{,}50.10^{-12}$	$7{,}02.10^{-12}$	$2{,}17.10^{-1}$
160 Gy(Si)	$5{,}50.10^{-12}$	$1{,}26.10^{-11}$	$1{,}70.10^{-11}$	$-10{,}00.10^{-12}$	0	$4{,}38.10^{-1}$
320 Gy(Si)	$4{,}00.10^{-11}$	$4{,}70.10^{-11}$	$5{,}85.10^{-11}$	$8{,}00.10^{-12}$	$3{,}51.10^{-11}$	$7{,}04.10^{-1}$
+96 h.	$3{,}60.10^{-11}$	$4{,}15.10^{-11}$	$4{,}80.10^{-11}$	$-1{,}20.10^{-11}$	$2{,}81.10^{-11}$	$5{,}39.10^{-1}$
+240 h.	$3{,}60.10^{-11}$	$4{,}15.10^{-11}$	$4{,}80.10^{-11}$	$-1{,}20.10^{-11}$	$2{,}81.10^{-11}$	$5{,}39.10^{-1}$

Parameter: Inl 4s
Digital Input Low Current (Single)
Unit: A
Specification: Inl 4s < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$4{,}50.10^{-12}$	$8{,}30.10^{-12}$	$1{,}15.10^{-11}$	$5{,}00.10^{-13}$	0	$2{,}86.10^{-12}$
53 Gy(Si)	$-3{,}50.10^{-12}$	$-2{,}00.10^{-13}$	$3{,}50.10^{-12}$	$-7{,}00.10^{-12}$	0	$3{,}03.10^{-12}$
100 Gy(Si)	$-4{,}50.10^{-12}$	$3{,}90.10^{-12}$	$1{,}10.10^{-11}$	$-1{,}15.10^{-11}$	0	$6{,}45.10^{-12}$
110 Gy(Si)	$10{,}00.10^{-13}$	$6{,}20.10^{-12}$	$1{,}25.10^{-11}$	$-1{,}35.10^{-11}$	0	$4{,}24.10^{-12}$
160 Gy(Si)	0	$3{,}70.10^{-12}$	$7{,}00.10^{-12}$	$-1{,}75.10^{-11}$	0	$2{,}73.10^{-12}$
320 Gy(Si)	$3{,}05.10^{-11}$	$4{,}07.10^{-11}$	$4{,}90.10^{-11}$	$9{,}00.10^{-12}$	$2{,}62.10^{-11}$	$7{,}97.10^{-12}$
+96 h.	$1{,}70.10^{-11}$	$2{,}42.10^{-11}$	$3{,}10.10^{-11}$	$-1{,}25.10^{-11}$	$8{,}75.10^{-12}$	$5{,}64.10^{-12}$
+240 h.	$1{,}70.10^{-11}$	$2{,}42.10^{-11}$	$3{,}10.10^{-11}$	$-1{,}25.10^{-11}$	$8{,}75.10^{-12}$	$5{,}64.10^{-12}$

Parameter: Inh 1s
Digital Input High Current (Single)
Unit: A
Specification: Inh 1s < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$6{,}25.10^{-11}$	$6{,}50.10^{-11}$	$6{,}85.10^{-11}$	$1{,}15.10^{-11}$	0	$2{,}42.10^{-12}$
53 Gy(Si)	$4{,}00.10^{-11}$	$4{,}40.10^{-11}$	$4{,}70.10^{-11}$	$3{,}25.10^{-11}$	$-2{,}10.10^{-11}$	$3{,}10.10^{-12}$
100 Gy(Si)	$6{,}45.10^{-11}$	$6{,}93.10^{-11}$	$7{,}40.10^{-11}$	$3{,}15.10^{-11}$	$4{,}30.10^{-12}$	$3{,}48.10^{-12}$
110 Gy(Si)	$6{,}30.10^{-11}$	$6{,}65.10^{-11}$	$7{,}25.10^{-11}$	$2{,}80.10^{-11}$	$1{,}50.10^{-12}$	$4{,}11.10^{-12}$
160 Gy(Si)	$6{,}55.10^{-11}$	$8{,}61.10^{-11}$	$1{,}58.10^{-10}$	$2{,}15.10^{-11}$	$2{,}11.10^{-11}$	$4{,}05.10^{-11}$
320 Gy(Si)	$1{,}49.10^{-10}$	$1{,}59.10^{-10}$	$1{,}67.10^{-10}$	$5{,}40.10^{-11}$	$9{,}42.10^{-11}$	$6{,}42.10^{-12}$
+96 h.	$1{,}36.10^{-10}$	$1{,}48.10^{-10}$	$1{,}62.10^{-10}$	$4{,}05.10^{-11}$	$8{,}34.10^{-11}$	$9{,}97.10^{-12}$
+240 h.	$1{,}36.10^{-10}$	$1{,}48.10^{-10}$	$1{,}62.10^{-10}$	$4{,}05.10^{-11}$	$8{,}34.10^{-11}$	$9{,}97.10^{-12}$

Parameter: Inh 2s
Digital Input High Current (Single)
Unit: A
Specification: Inh 2s < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$6{,}45.10^{-11}$	$6{,}73.10^{-11}$	$7{,}00.10^{-11}$	$1{,}80.10^{-11}$	0	$2{,}02.10^{-12}$
53 Gy(Si)	$3{,}85.10^{-11}$	$4{,}24.10^{-11}$	$5{,}20.10^{-11}$	$2{,}90.10^{-11}$	$-2{,}49.10^{-11}$	$5{,}58.10^{-12}$
100 Gy(Si)	$5{,}10.10^{-11}$	$5{,}60.10^{-11}$	$6{,}05.10^{-11}$	$2{,}20.10^{-11}$	$-1{,}13.10^{-11}$	$3{,}89.10^{-12}$
110 Gy(Si)	$4{,}95.10^{-11}$	$5{,}40.10^{-11}$	$5{,}75.10^{-11}$	$1{,}60.10^{-11}$	$-1{,}33.10^{-11}$	$2{,}96.10^{-12}$
160 Gy(Si)	$6{,}25.10^{-11}$	$8{,}42.10^{-11}$	$1{,}56.10^{-10}$	$1{,}60.10^{-11}$	$1{,}69.10^{-11}$	$4{,}02.10^{-11}$
320 Gy(Si)	$1{,}30.10^{-10}$	$1{,}39.10^{-10}$	$1{,}46.10^{-10}$	$3{,}80.10^{-11}$	$7{,}20.10^{-11}$	$5{,}73.10^{-12}$
+96 h.	$9{,}70.10^{-11}$	$1{,}02.10^{-10}$	$1{,}08.10^{-10}$	$1{,}70.10^{-11}$	$3{,}47.10^{-11}$	$4{,}68.10^{-12}$
+240 h.	$9{,}70.10^{-11}$	$1{,}02.10^{-10}$	$1{,}08.10^{-10}$	$1{,}70.10^{-11}$	$3{,}47.10^{-11}$	$4{,}68.10^{-12}$

Parameter: Inh 3s
Digital Input High Current (Single)
Unit: A
Specification: Inh 3s < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$3{,}50.10^{-11}$	$4{,}51.10^{-11}$	$5{,}85.10^{-11}$	$2{,}20.10^{-11}$	0	$8{,}82.10^{-12}$
53 Gy(Si)	$3{,}45.10^{-11}$	$3{,}64.10^{-11}$	$3{,}80.10^{-11}$	$1{,}85.10^{-11}$	$-8{,}70.10^{-12}$	$1{,}43.10^{-12}$
100 Gy(Si)	$4{,}75.10^{-11}$	$5{,}31.10^{-11}$	$5{,}70.10^{-11}$	$1{,}70.10^{-11}$	$8{,}00.10^{-12}$	$3{,}60.10^{-12}$
110 Gy(Si)	$4{,}80.10^{-11}$	$5{,}43.10^{-11}$	$6{,}05.10^{-11}$	$1{,}65.10^{-11}$	$9{,}20.10^{-12}$	$5{,}32.10^{-12}$
160 Gy(Si)	$5{,}65.10^{-11}$	$6{,}16.10^{-11}$	$6{,}60.10^{-11}$	$1{,}15.10^{-11}$	$1{,}65.10^{-11}$	$4{,}08.10^{-12}$
320 Gy(Si)	$1{,}24.10^{-10}$	$1{,}38.10^{-10}$	$1{,}46.10^{-10}$	$3{,}25.10^{-11}$	$9{,}25.10^{-11}$	$9{,}19.10^{-12}$
+96 h.	$1{,}13.10^{-10}$	$1{,}24.10^{-10}$	$1{,}28.10^{-10}$	$8{,}50.10^{-12}$	$7{,}85.10^{-11}$	$6{,}40.10^{-12}$
+240 h.	$1{,}13.10^{-10}$	$1{,}24.10^{-10}$	$1{,}28.10^{-10}$	$8{,}50.10^{-12}$	$7{,}85.10^{-11}$	$6{,}40.10^{-12}$

Parameter: Inh 4s
Digital Input High Current (Single)
Unit: A
Specification: Inh 4s $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}95.10^{-11}$	$3{,}79.10^{-11}$	$4{,}80.10^{-11}$	$2{,}35.10^{-11}$	0	$6{,}96.10^{-12}$
53 Gy(Si)	$2{,}60.10^{-11}$	$2{,}99.10^{-11}$	$3{,}40.10^{-11}$	$2{,}20.10^{-11}$	$-8{,}00.10^{-12}$	$3{,}56.10^{-12}$
100 Gy(Si)	$3{,}80.10^{-11}$	$4{,}70.10^{-11}$	$5{,}30.10^{-11}$	$9{,}00.10^{-12}$	$9{,}10.10^{-12}$	$5{,}76.10^{-12}$
110 Gy(Si)	$3{,}65.10^{-11}$	$4{,}44.10^{-11}$	$4{,}90.10^{-11}$	$9{,}50.10^{-12}$	$6{,}50.10^{-12}$	$4{,}99.10^{-12}$
160 Gy(Si)	$4{,}75.10^{-11}$	$5{,}79.10^{-11}$	$6{,}65.10^{-11}$	$3{,}00.10^{-12}$	$2{,}00.10^{-11}$	$7{,}36.10^{-12}$
320 Gy(Si)	$1{,}26.10^{-10}$	$1{,}30.10^{-10}$	$1{,}38.10^{-10}$	$2{,}90.10^{-11}$	$9{,}25.10^{-11}$	$5{,}13.10^{-12}$
+96 h.	$9{,}15.10^{-11}$	$9{,}57.10^{-11}$	$1{,}02.10^{-10}$	$6{,}00.10^{-12}$	$5{,}78.10^{-11}$	$4{,}16.10^{-12}$
+240 h.	$9{,}15.10^{-11}$	$9{,}57.10^{-11}$	$1{,}02.10^{-10}$	$6{,}00.10^{-12}$	$5{,}78.10^{-11}$	$4{,}16.10^{-12}$

Parameter: Vinl 1s
Digital Input Low Voltage (Single)
Unit: V
Specification: Vinl 1s < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,25	1,25	1,25	1,85	-0,64	0
100 Gy(Si)	0,75	0,75	0,75	1,86	-1,14	$2{,}4.10^{-4}$
110 Gy(Si)	0,65	0,69	0,75	1,86	-1,20	0,05
160 Gy(Si)	0,11	0,20	0,25	1,85	-1,68	0,07
320 Gy(Si)	0,65	0,70	0,75	1,86	-1,19	0,06
+96 h.	0,65	0,69	0,75	1,86	-1,20	0,05
+240 h.	0,15	0,22	0,25	1,86	-1,66	0,05

Parameter: Vinl 2s
Digital Input Low Voltage (Single)
Unit: V
Specification: Vinl 2s < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,05	1,13	1,15	1,86	-0,75	0,04
100 Gy(Si)	0,45	0,53	0,55	1,85	-1,35	0,04
110 Gy(Si)	0,45	0,45	0,45	1,97	-1,40	0
160 Gy(Si)	-0,09	-0,06	-0,05	1,97	-1,90	0,02
320 Gy(Si)	0,45	0,45	0,45	1,91	-1,40	0
+96 h.	0,45	0,45	0,45	1,97	-1,40	0
+240 h.	-0,05	-0,05	-0,05	1,97	-1,90	0

Parameter: Vinl 3s
Digital Input Low Voltage (Single)
Unit: V
Specification: Vinl 3s < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,25	1,25	1,25	1,85	-0,64	—
100 Gy(Si)	0,75	0,75	0,75	1,85	-1,14	$2{,}4.10^{-4}$
110 Gy(Si)	0,65	0,69	0,75	1,85	-1,20	0,05
160 Gy(Si)	0,01	0,18	0,25	1,85	-1,70	0,10
320 Gy(Si)	0,65	0,67	0,75	1,85	-1,21	0,05
+96 h.	0,65	0,69	0,75	1,86	-1,20	0,05
+240 h.	0,15	0,23	0,25	1,86	-1,66	0,05

Parameter: Vinl 4s
Digital Input Low Voltage (Single)
Unit: V
Specification: Vinl 4s < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,15	1,15	1,15	1,86	-0,74	0
100 Gy(Si)	0,48	0,54	0,56	1,86	-1,35	0,03
110 Gy(Si)	0,45	0,45	0,45	1,86	-1,44	0
160 Gy(Si)	-0,05	-0,05	-0,05	1,85	-1,94	$1{,}5.10^{-5}$
320 Gy(Si)	0,45	0,45	0,45	1,86	-1,44	0
+96 h.	0,45	0,45	0,45	1,86	-1,44	0
+240 h.	-0,05	-0,05	-0,05	1,86	-1,94	—

Parameter: Vinh 1s
Digital Input High Voltage (Single)
Unit: V
Specification: 2,4 V < Vinh 1s

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,25	1,25	1,25	1,86	-0,64	0
100 Gy(Si)	0,75	0,75	0,75	1,86	-1,14	$2{,}4.10^{-4}$
110 Gy(Si)	0,65	0,65	0,65	1,86	-1,24	$2{,}4.10^{-4}$
160 Gy(Si)	0,11	0,30	0,75	1,86	-1,58	0,26
320 Gy(Si)	0,65	0,65	0,65	1,85	-1,24	$2{,}0.10^{-4}$
+96 h.	0,65	0,65	0,65	1,85	-1,24	$2{,}4.10^{-4}$
+240 h.	0,11	0,19	0,25	1,85	-1,70	0,07

Parameter: Vinh 2s
Digital Input High Voltage (Single)
Unit: V
Specification: 2,4 V < Vinh 2s

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,07	1,13	1,15	1,85	-0,76	0,04
100 Gy(Si)	0,45	0,53	0,55	1,85	-1,36	0,04
110 Gy(Si)	0,45	0,45	0,45	1,86	-1,44	0
160 Gy(Si)	-0,02	0,10	0,55	1,85	-1,79	0,25
320 Gy(Si)	0,45	0,45	0,45	1,87	-1,44	0
+96 h.	0,45	0,45	0,45	1,85	-1,44	0
+240 h.	-0,02	-0,01	-0,01	1,85	-1,90	$2{,}6.10^{-3}$

Parameter: Vinh 3s
Digital Input High Voltage (Single)
Unit: V
Specification: 2,4 V < Vinh 3s

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,25	1,25	1,25	1,86	-0,64	0
100 Gy(Si)	0,75	0,75	0,75	1,85	-1,14	—
110 Gy(Si)	0,65	0,69	0,75	1,86	-1,20	0,05
160 Gy(Si)	0,02	0,28	0,75	1,85	-1,60	0,28
320 Gy(Si)	0,65	0,67	0,75	1,85	-1,21	0,05
+96 h.	0,65	0,69	0,75	1,85	-1,20	0,05
+240 h.	0,02	0,17	0,25	1,85	-1,72	0,11

Parameter: Vinh 4s
Digital Input High Voltage (Single)
Unit: V
Specification: 2,4 V < Vinh 4s

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,85	1,89	1,90	1,90	0,00	0,02
53 Gy(Si)	1,15	1,15	1,15	1,85	-0,74	0
100 Gy(Si)	0,55	0,55	0,56	1,86	-1,33	$6{,}6.10^{-3}$
110 Gy(Si)	0,45	0,45	0,45	1,85	-1,44	0
160 Gy(Si)	-0,01	0,10	0,55	1,86	-1,79	0,25
320 Gy(Si)	0,45	0,45	0,45	1,85	-1,44	0
+96 h.	0,45	0,45	0,45	1,85	-1,44	0
+240 h.	-0,01	-0,01	-0,01	1,85	-1,90	$1{,}3.10^{-4}$

Parameter: Is (Off) 1s
Source OFF Leakage Current (Single)
Unit: A
Specification: Is (Off) 1s $< 5.10^{-10}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Stand deviat
0 Gy(Si)	$-8{,}50.10^{-12}$	$-5{,}00.10^{-12}$	$10{,}00.10^{-13}$	$-6{,}00.10^{-12}$	0	3,55.1
53 Gy(Si)	$-8{,}00.10^{-12}$	$-1{,}80.10^{-12}$	$7{,}00.10^{-12}$	$-6{,}50.10^{-12}$	$2{,}60.10^{-12}$	5,66.1
100 Gy(Si)	$3{,}00.10^{-11}$	$3{,}28.10^{-11}$	$3{,}45.10^{-11}$	$-8{,}50.10^{-12}$	$3{,}64.10^{-11}$	1,89.1
110 Gy(Si)	$3{,}80.10^{-11}$	$3{,}96.10^{-11}$	$4{,}15.10^{-11}$	$-8{,}50.10^{-12}$	$4{,}42.10^{-11}$	1,39.1
160 Gy(Si)	$1{,}84.10^{-10}$	$2{,}36.10^{-10}$	$4{,}09.10^{-10}$	$-4{,}00.10^{-12}$	$2{,}39.10^{-10}$	9,67.1
320 Gy(Si)	$-7{,}54.10^{-2}$	$-7{,}46.10^{-2}$	$-7{,}41.10^{-2}$	$-2{,}50.10^{-12}$	$-7{,}46.10^{-2}$	5,18.1
+96 h.	$-7{,}52.10^{-2}$	$-7{,}43.10^{-2}$	$-7{,}36.10^{-2}$	$-9{,}50.10^{-12}$	$-7{,}43.10^{-2}$	6,17.1
+240 h.	$-7{,}52.10^{-2}$	$-5{,}94.10^{-2}$	$1{,}98.10^{-10}$	$-9{,}50.10^{-12}$	$-5{,}94.10^{-2}$	3,32.1

Parameter: Is (Off) 2s
Source OFF Leakage Current (Single)
Unit: A
Specification: Is (Off) 2s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standar deviatio
0 Gy(Si)	$-1{,}60.10^{-11}$	$-8{,}80.10^{-12}$	$5{,}00.10^{-13}$	$3{,}00.10^{-12}$	0	$6{,}81.10^{-1}$
53 Gy(Si)	$-1{,}40.10^{-11}$	$-1{,}11.10^{-11}$	$-7{,}50.10^{-12}$	$-1{,}30.10^{-11}$	0	$2{,}63.10^{-1}$
100 Gy(Si)	$4{,}65.10^{-11}$	$4{,}94.10^{-11}$	$5{,}60.10^{-11}$	$-1{,}40.10^{-11}$	$5{,}60.10^{-11}$	$3{,}93.10^{-1}$
110 Gy(Si)	$6{,}95.10^{-11}$	$1{,}30.10^{-10}$	$3{,}31.10^{-10}$	$-2{,}20.10^{-11}$	$1{,}36.10^{-10}$	$1{,}13.10^{-1}$
160 Gy(Si)	$3{,}13.10^{-10}$	$1{,}32.10^{-8}$	$6{,}42.10^{-8}$	$-1{,}80.10^{-11}$	$1{,}32.10^{-8}$	$2{,}86.10^{-}$
320 Gy(Si)	$6{,}53.10^{-9}$	$7{,}34.10^{-9}$	$7{,}71.10^{-9}$	$-1{,}55.10^{-11}$	$7{,}34.10^{-9}$	$4{,}90.10^{-1}$
+96 h.	$4{,}05.10^{-9}$	$4{,}59.10^{-9}$	$5{,}09.10^{-9}$	$-2{,}05.10^{-11}$	$4{,}59.10^{-9}$	$4{,}05.10^{-1}$
+240 h.	$3{,}62.10^{-10}$	$3{,}79.10^{-9}$	$5{,}09.10^{-9}$	$-2{,}05.10^{-11}$	$3{,}80.10^{-9}$	$1{,}95.10^{-}$

Parameter: Is (Off) 3s
Source OFF Leakage Current (Single)
Unit: A
Specification: Is (Off) 3s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standa deviati
0 Gy(Si)	$-1{,}35.10^{-11}$	$-8{,}30.10^{-12}$	$-3{,}00.10^{-12}$	$-1{,}05.10^{-11}$	0	4,06.10
53 Gy(Si)	$-1{,}50.10^{-11}$	$-1{,}13.10^{-11}$	$-8{,}00.10^{-12}$	$-1{,}45.10^{-11}$	$-2{,}82.10^{-12}$	2,54.10
100 Gy(Si)	$3{,}75.10^{-11}$	$3{,}82.10^{-11}$	$3{,}90.10^{-11}$	$-1{,}90.10^{-11}$	$4{,}51.10^{-11}$	5,70.10
110 Gy(Si)	$3{,}70.10^{-11}$	$4{,}41.10^{-11}$	$4{,}85.10^{-11}$	$-1{,}70.10^{-11}$	$5{,}07.10^{-11}$	4,42.10
160 Gy(Si)	$1{,}93.10^{-10}$	$2{,}33.10^{-10}$	$2{,}50.10^{-10}$	$-1{,}80.10^{-11}$	$2{,}39.10^{-10}$	2,37.10
320 Gy(Si)	$-7{,}46.10^{-2}$	$-7{,}43.10^{-2}$	$-7{,}32.10^{-2}$	$-1{,}90.10^{-11}$	$-7{,}43.10^{-2}$	5,95.1(
+96 h.	$-7{,}43.10^{-2}$	$-7{,}39.10^{-2}$	$-7{,}35.10^{-2}$	$-1{,}70.10^{-11}$	$-7{,}39.10^{-2}$	3,68.1(
+240 h.	$-7{,}42.10^{-2}$	$-5{,}90.10^{-2}$	$2{,}50.10^{-10}$	$-1{,}70.10^{-11}$	$-5{,}90.10^{-2}$	3,30.1(

Parameter: Is (Off) 4s
Source OFF Leakage Current (Single)
Unit: A
Specification: Is (Off) 4s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standa deviati
0 Gy(Si)	$-1{,}25.10^{-11}$	$-8{,}20.10^{-12}$	$-5{,}50.10^{-12}$	$-1{,}05.10^{-11}$	0	2,61.10
53 Gy(Si)	$-7{,}00.10^{-12}$	$-6{,}10.10^{-12}$	$-4{,}00.10^{-12}$	$3{,}00.10^{-12}$	0	1,19.10
100 Gy(Si)	$6{,}50.10^{-11}$	$7{,}24.10^{-11}$	$7{,}90.10^{-11}$	$-1{,}15.10^{-11}$	$7{,}67.10^{-11}$	5,91.10
110 Gy(Si)	$9{,}25.10^{-11}$	$1{,}07.10^{-10}$	$1{,}17.10^{-10}$	$-1{,}10.10^{-11}$	$1{,}15.10^{-10}$	9,96.10
160 Gy(Si)	$5{,}24.10^{-10}$	$5{,}55.10^{-10}$	$5{,}78.10^{-10}$	$-9{,}50.10^{-12}$	$5{,}61.10^{-10}$	2,02.10
320 Gy(Si)	$7{,}08.10^{-9}$	$7{,}88.10^{-9}$	$8{,}74.10^{-9}$	$-8{,}00.10^{-12}$	$7{,}89.10^{-9}$	6,19.10
+96 h.	$4{,}47.10^{-9}$	$4{,}94.10^{-9}$	$5{,}36.10^{-9}$	$-1{,}05.10^{-11}$	$4{,}94.10^{-9}$	4,16.10
+240 h.	$5{,}65.10^{-10}$	$4{,}14.10^{-9}$	$5{,}36.10^{-9}$	$-1{,}05.10^{-11}$	$4{,}14.10^{-9}$	2,03.10

Parameter: Id (Off) 1s
Drain OFF Leakage Current (Single)
Unit: A
Specification: Id (Off) 1s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}82.10^{-9}$	$1{,}89.10^{-9}$	$1{,}97.10^{-9}$	$8{,}60.10^{-11}$	0	$6{,}36.10^{-11}$
53 Gy(Si)	$8{,}31.10^{-10}$	$8{,}57.10^{-10}$	$8{,}81.10^{-10}$	$8{,}37.10^{-10}$	$-1{,}03.10^{-9}$	$2{,}33.10^{-11}$
100 Gy(Si)	$7{,}00.10^{-10}$	$7{,}32.10^{-10}$	$7{,}53.10^{-10}$	$6{,}09.10^{-10}$	$-1{,}16.10^{-9}$	$2{,}42.10^{-11}$
110 Gy(Si)	$5{,}26.10^{-10}$	$5{,}39.10^{-10}$	$5{,}59.10^{-10}$	$3{,}97.10^{-10}$	$-1{,}35.10^{-9}$	$1{,}23.10^{-11}$
160 Gy(Si)	$4{,}02.10^{-10}$	$4{,}71.10^{-10}$	$6{,}88.10^{-10}$	$2{,}69.10^{-10}$	$-1{,}42.10^{-9}$	$1{,}22.10^{-10}$
320 Gy(Si)	$7{,}38.10^{-2}$	$7{,}43.10^{-2}$	$7{,}50.10^{-2}$	$1{,}30.10^{-9}$	$7{,}43.10^{-2}$	$4{,}77.10^{-4}$
+96 h.	$7{,}33.10^{-2}$	$7{,}40.10^{-2}$	$7{,}48.10^{-2}$	$2{,}71.10^{-10}$	$7{,}40.10^{-2}$	$6{,}25.10^{-4}$
+240 h.	$7{,}33.10^{-2}$	$7{,}40.10^{-2}$	$7{,}48.10^{-2}$	$2{,}71.10^{-10}$	$7{,}40.10^{-2}$	$6{,}25.10^{-4}$

Parameter: Id (Off) 2s
Drain OFF Leakage Current (Single)
Unit: A
Specification: Id (Off) 2s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}82.10^{-10}$	$2{,}96.10^{-10}$	$3{,}39.10^{-10}$	$8{,}00.10^{-11}$	0	$2{,}42.10^{-11}$
53 Gy(Si)	$1{,}68.10^{-10}$	$1{,}77.10^{-10}$	$1{,}83.10^{-10}$	$1{,}34.10^{-10}$	$-1{,}19.10^{-10}$	$5{,}41.10^{-12}$
100 Gy(Si)	$2{,}03.10^{-10}$	$2{,}18.10^{-10}$	$2{,}28.10^{-10}$	$1{,}17.10^{-10}$	$-7{,}80.10^{-11}$	$1{,}10.10^{-11}$
110 Gy(Si)	$1{,}87.10^{-10}$	$2{,}00.10^{-10}$	$2{,}10.10^{-10}$	$1{,}10.10^{-10}$	$-9{,}67.10^{-11}$	$8{,}54.10^{-12}$
160 Gy(Si)	$2{,}48.10^{-10}$	$2{,}88.10^{-10}$	$4{,}29.10^{-10}$	$8{,}30.10^{-11}$	$-8{,}60.10^{-12}$	$7{,}91.10^{-11}$
320 Gy(Si)	$7{,}88.10^{-10}$	$8{,}54.10^{-10}$	$8{,}90.10^{-10}$	$1{,}22.10^{-10}$	$5{,}58.10^{-10}$	$4{,}25.10^{-11}$
+96 h.	$1{,}21.10^{-9}$	$1{,}33.10^{-9}$	$1{,}42.10^{-9}$	$1{,}03.10^{-10}$	$1{,}04.10^{-9}$	$8{,}56.10^{-11}$
+240 h.	$1{,}21.10^{-9}$	$1{,}33.10^{-9}$	$1{,}42.10^{-9}$	$1{,}03.10^{-10}$	$1{,}04.10^{-9}$	$8{,}56.10^{-11}$

Parameter: Id (Off) 3s
Drain OFF Leakage Current (Single)
Unit: A
Specification: Id (Off) 3s $< 5.10^{-10}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$7{,}60.10^{-11}$	$8{,}98.10^{-11}$	$1{,}07.10^{-10}$	$8{,}20.10^{-11}$	0	$1{,}13.10^{-11}$
53 Gy(Si)	$1{,}24.10^{-10}$	$1{,}29.10^{-10}$	$1{,}40.10^{-10}$	$7{,}65.10^{-11}$	$3{,}90.10^{-11}$	$6{,}41.10^{-12}$
100 Gy(Si)	$1{,}72.10^{-10}$	$1{,}80.10^{-10}$	$1{,}91.10^{-10}$	$9{,}95.10^{-11}$	$9{,}04.10^{-11}$	$7{,}65.10^{-12}$
110 Gy(Si)	$1{,}84.10^{-10}$	$1{,}89.10^{-10}$	$1{,}96.10^{-10}$	$6{,}85.10^{-11}$	$9{,}91.10^{-11}$	$5{,}80.10^{-12}$
160 Gy(Si)	$2{,}22.10^{-10}$	$2{,}33.10^{-10}$	$2{,}45.10^{-10}$	$8{,}00.10^{-11}$	$1{,}43.10^{-10}$	$8{,}69.10^{-12}$
320 Gy(Si)	$7{,}30.10^{-2}$	$7{,}39.10^{-2}$	$7{,}43.10^{-2}$	$9{,}55.10^{-11}$	$7{,}39.10^{-2}$	$5{,}69.10^{-4}$
+96 h.	$7{,}32.10^{-2}$	$7{,}36.10^{-2}$	$7{,}40.10^{-2}$	$1{,}03.10^{-10}$	$7{,}36.10^{-2}$	$3{,}46.10^{-4}$
+240 h.	$7{,}32.10^{-2}$	$7{,}36.10^{-2}$	$7{,}40.10^{-2}$	$1{,}03.10^{-10}$	$7{,}36.10^{-2}$	$3{,}46.10^{-4}$

Parameter: Id (Off) 4s
Drain OFF Leakage Current (Single)
Unit: A
Specification: Id (Off) 4s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$7{,}80.10^{-10}$	$8{,}16.10^{-10}$	$8{,}44.10^{-10}$	$3{,}16.10^{-10}$	0	$2{,}46.10^{-11}$
53 Gy(Si)	$4{,}15.10^{-10}$	$4{,}20.10^{-10}$	$4{,}28.10^{-10}$	$3{,}72.10^{-10}$	$-3{,}96.10^{-10}$	$5{,}37.10^{-12}$
100 Gy(Si)	$4{,}45.10^{-10}$	$4{,}55.10^{-10}$	$4{,}65.10^{-10}$	$3{,}59.10^{-10}$	$-3{,}60.10^{-10}$	$8{,}36.10^{-12}$
110 Gy(Si)	$3{,}36.10^{-10}$	$3{,}58.10^{-10}$	$3{,}74.10^{-10}$	$2{,}38.10^{-10}$	$-4{,}57.10^{-10}$	$1{,}49.10^{-11}$
160 Gy(Si)	$3{,}16.10^{-10}$	$3{,}27.10^{-10}$	$3{,}34.10^{-10}$	$1{,}83.10^{-10}$	$-4{,}89.10^{-10}$	$7{,}56.10^{-12}$
320 Gy(Si)	$1{,}26.10^{-9}$	$1{,}30.10^{-9}$	$1{,}34.10^{-9}$	$5{,}19.10^{-10}$	$4{,}84.10^{-10}$	$3{,}14.10^{-11}$
+96 h.	$1{,}32.10^{-9}$	$1{,}52.10^{-9}$	$1{,}67.10^{-9}$	$2{,}02.10^{-10}$	$7{,}05.10^{-10}$	$1{,}29.10^{-10}$
+240 h.	$1{,}32.10^{-9}$	$1{,}52.10^{-9}$	$1{,}67.10^{-9}$	$2{,}02.10^{-10}$	$7{,}05.10^{-10}$	$1{,}29.10^{-10}$

Parameter: Id (On) 1s
Drain ON Leakage Current (Single)
Unit: A
Specification: Id (On) 1s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}66.10^{-9}$	$1{,}78.10^{-9}$	$1{,}95.10^{-9}$	$1{,}17.10^{-10}$	0	$1{,}07.10^{-10}$
53 Gy(Si)	$8{,}82.10^{-10}$	$9{,}06.10^{-10}$	$9{,}41.10^{-10}$	$8{,}48.10^{-10}$	$-8{,}75.10^{-10}$	$2{,}48.10^{-11}$
100 Gy(Si)	$8{,}41.10^{-10}$	$8{,}76.10^{-10}$	$9{,}14.10^{-10}$	$6{,}54.10^{-10}$	$-9{,}04.10^{-10}$	$3{,}06.10^{-11}$
110 Gy(Si)	$6{,}74.10^{-10}$	$6{,}96.10^{-10}$	$7{,}18.10^{-10}$	$4{,}47.10^{-10}$	$-1{,}08.10^{-9}$	$1{,}72.10^{-11}$
160 Gy(Si)	$7{,}95.10^{-10}$	$9{,}13.10^{-10}$	$1{,}19.10^{-9}$	$3{,}04.10^{-10}$	$-8{,}68.10^{-10}$	$1{,}60.10^{-10}$
320 Gy(Si)	$1{,}60.10^{-8}$	$1{,}83.10^{-8}$	$2{,}09.10^{-8}$	$1{,}35.10^{-9}$	$1{,}65.10^{-8}$	$1{,}79.10^{-9}$
+96 h.	$2{,}53.10^{-9}$	$5{,}92.10^{-9}$	$1{,}47.10^{-8}$	$3{,}10.10^{-10}$	$4{,}14.10^{-9}$	$5{,}01.10^{-9}$
+240 h.	$2{,}53.10^{-9}$	$5{,}92.10^{-9}$	$1{,}47.10^{-8}$	$3{,}10.10^{-10}$	$4{,}14.10^{-9}$	$5{,}01.10^{-9}$

Parameter: Id (On) 2s
Drain ON Leakage Current (Single)
Unit: A
Specification: Id (On) 2s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}93.10^{-10}$	$3{,}23.10^{-10}$	$3{,}52.10^{-10}$	$1{,}01.10^{-10}$	0	$2{,}65.10^{-11}$
53 Gy(Si)	$5{,}51.10^{-5}$	$6{,}01.10^{-5}$	$6{,}37.10^{-5}$	$1{,}88.10^{-10}$	$6{,}01.10^{-5}$	$3{,}22.10^{-6}$
100 Gy(Si)	$1{,}46.10^{-4}$	$1{,}56.10^{-4}$	$1{,}63.10^{-4}$	$1{,}42.10^{-10}$	$1{,}56.10^{-4}$	$6{,}35.10^{-6}$
110 Gy(Si)	$1{,}48.10^{-4}$	$1{,}58.10^{-4}$	$1{,}66.10^{-4}$	$1{,}39.10^{-10}$	$1{,}58.10^{-4}$	$6{,}73.10^{-6}$
160 Gy(Si)	$4{,}51.10^{-10}$	$5{,}72.10^{-10}$	$6{,}60.10^{-10}$	$1{,}30.10^{-10}$	$2{,}50.10^{-10}$	$7{,}90.10^{-11}$
320 Gy(Si)	$6{,}76.10^{-9}$	$7{,}44.10^{-9}$	$7{,}81.10^{-9}$	$1{,}93.10^{-10}$	$7{,}12.10^{-9}$	$4{,}21.10^{-10}$
+96 h.	$5{,}17.10^{-9}$	$5{,}69.10^{-9}$	$6{,}03.10^{-9}$	$1{,}11.10^{-10}$	$5{,}36.10^{-9}$	$3{,}36.10^{-10}$
+240 h.	$5{,}17.10^{-9}$	$5{,}69.10^{-9}$	$6{,}03.10^{-9}$	$1{,}11.10^{-10}$	$5{,}36.10^{-9}$	$3{,}36.10^{-10}$

Parameter: Id (On) 3s
Drain ON Leakage Current (Single)
Unit: A
Specification: Id (On) 3s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}30.10^{-10}$	$1{,}54.10^{-10}$	$1{,}88.10^{-10}$	$1{,}22.10^{-10}$	0	$2{,}13.10^{-11}$
53 Gy(Si)	$1{,}65.10^{-10}$	$1{,}78.10^{-10}$	$1{,}87.10^{-10}$	$1{,}37.10^{-10}$	$2{,}38.10^{-11}$	$9{,}47.10^{-12}$
100 Gy(Si)	$3{,}54.10^{-10}$	$3{,}87.10^{-10}$	$4{,}08.10^{-10}$	$1{,}38.10^{-10}$	$2{,}33.10^{-10}$	$2{,}09.10^{-11}$
110 Gy(Si)	$4{,}01.10^{-10}$	$4{,}37.10^{-10}$	$4{,}59.10^{-10}$	$1{,}24.10^{-10}$	$2{,}84.10^{-10}$	$2{,}27.10^{-11}$
160 Gy(Si)	$1{,}01.10^{-9}$	$1{,}16.10^{-9}$	$1{,}25.10^{-9}$	$1{,}14.10^{-10}$	$1{,}01.10^{-9}$	$9{,}37.10^{-11}$
320 Gy(Si)	$2{,}35.10^{-8}$	$2{,}62.10^{-8}$	$2{,}91.10^{-8}$	$1{,}58.10^{-10}$	$2{,}61.10^{-8}$	$2{,}04.10^{-9}$
+96 h.	$2{,}88.10^{-9}$	$4{,}99.10^{-9}$	$8{,}40.10^{-9}$	$1{,}31.10^{-10}$	$4{,}84.10^{-9}$	$2{,}08.10^{-9}$
+240 h.	$2{,}88.10^{-9}$	$4{,}99.10^{-9}$	$8{,}40.10^{-9}$	$1{,}31.10^{-10}$	$4{,}84.10^{-9}$	$2{,}08.10^{-9}$

Parameter: Id (On) 4s
Drain ON Leakage Current (Single)
Unit: A
Specification: Id (On) 4s < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$8{,}35.10^{-10}$	$8{,}64.10^{-10}$	$8{,}96.10^{-10}$	$3{,}33.10^{-10}$	0	$2{,}93.10^{-11}$
53 Gy(Si)	$5{,}41.10^{-5}$	$5{,}72.10^{-5}$	$5{,}95.10^{-5}$	$4{,}23.10^{-10}$	$5{,}72.10^{-5}$	$2{,}27.10^{-6}$
100 Gy(Si)	$1{,}35.10^{-4}$	$1{,}45.10^{-4}$	$1{,}51.10^{-4}$	$3{,}79.10^{-10}$	$1{,}45.10^{-4}$	$6{,}45.10^{-6}$
110 Gy(Si)	$1{,}36.10^{-4}$	$1{,}47.10^{-4}$	$1{,}54.10^{-4}$	$2{,}74.10^{-10}$	$1{,}47.10^{-4}$	$7{,}35.10^{-6}$
160 Gy(Si)	$8{,}28.10^{-10}$	$8{,}55.10^{-10}$	$8{,}68.10^{-10}$	$2{,}10.10^{-10}$	$-8{,}70.10^{-12}$	$1{,}62.10^{-11}$
320 Gy(Si)	$7{,}68.10^{-9}$	$8{,}40.10^{-9}$	$9{,}06.10^{-9}$	$5{,}73.10^{-10}$	$7{,}53.10^{-9}$	$5{,}12.10^{-10}$
+96 h.	$5{,}76.10^{-9}$	$6{,}22.10^{-9}$	$6{,}65.10^{-9}$	$2{,}30.10^{-10}$	$5{,}36.10^{-9}$	$3{,}60.10^{-10}$
+240 h.	$5{,}76.10^{-9}$	$6{,}22.10^{-9}$	$6{,}65.10^{-9}$	$2{,}30.10^{-10}$	$5{,}36.10^{-9}$	$3{,}60.10^{-10}$

Parameter: Ron 1s
On Resistance (Single)
Unit: Ohm
Specification: Ron 1s < 110 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}05.10^{2}$	$1{,}05.10^{2}$	$1{,}07.10^{2}$	$1{,}04.10^{2}$	0	$7{,}84.10^{-1}$
53 Gy(Si)	$1{,}07.10^{2}$	$1{,}07.10^{2}$	$1{,}08.10^{2}$	$1{,}03.10^{2}$	$1{,}65.10^{0}$	$3{,}63.10^{-1}$
100 Gy(Si)	$1{,}13.10^{2}$	$1{,}13.10^{2}$	$1{,}14.10^{2}$	$1{,}02.10^{2}$	$7{,}43.10^{0}$	$4{,}58.10^{-1}$
110 Gy(Si)	$1{,}14.10^{2}$	$1{,}15.10^{2}$	$1{,}15.10^{2}$	$1{,}03.10^{2}$	$9{,}08.10^{0}$	$4{,}80.10^{-1}$
160 Gy(Si)	$5{,}80.10^{1}$	$1{,}10.10^{2}$	$1{,}25.10^{2}$	$1{,}03.10^{2}$	$4{,}95.10^{0}$	$2{,}93.10^{1}$
320 Gy(Si)	$1{,}79.10^{2}$	$1{,}84.10^{2}$	$1{,}88.10^{2}$	$1{,}04.10^{2}$	$7{,}84.10^{1}$	$3{,}17.10^{0}$
+96 h.	$1{,}80.10^{2}$	$1{,}84.10^{2}$	$1{,}89.10^{2}$	$1{,}04.10^{2}$	$7{,}84.10^{1}$	$3{,}54.10^{0}$
+240 h.	$1{,}95.10^{2}$	$2{,}02.10^{2}$	$2{,}10.10^{2}$	$1{,}04.10^{2}$	$9{,}66.10^{1}$	$6{,}96.10^{0}$

Parameter: Ron 2s
On Resistance (Single)
Unit: Ohm
Specification: Ron 2s < 110 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}04.10^{2}$	$1{,}05.10^{2}$	$1{,}05.10^{2}$	$1{,}03.10^{2}$	0	$2{,}98.10^{-1}$
53 Gy(Si)	$1{,}08.10^{2}$	$1{,}08.10^{2}$	$1{,}09.10^{2}$	$1{,}02.10^{2}$	$3{,}16.10^{0}$	$3{,}83.10^{-1}$
100 Gy(Si)	$1{,}15.10^{2}$	$1{,}15.10^{2}$	$1{,}16.10^{2}$	$1{,}02.10^{2}$	$1{,}05.10^{1}$	$6{,}40.10^{-1}$
110 Gy(Si)	$1{,}15.10^{2}$	$1{,}16.10^{2}$	$1{,}16.10^{2}$	$1{,}02.10^{2}$	$1{,}05.10^{1}$	$6{,}11.10^{-1}$
160 Gy(Si)	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}03.10^{2}$	$1{,}06.10^{3}$	$8{,}66.10^{-1}$
320 Gy(Si)	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}03.10^{2}$	$1{,}06.10^{3}$	$7{,}07.10^{-1}$
+96 h.	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}05.10^{2}$	$1{,}06.10^{3}$	$5{,}00.10^{-1}$
+240 h.	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}17.10^{3}$	$1{,}04.10^{2}$	$1{,}06.10^{3}$	$1{,}00.10^{0}$

Parameter: Ron 3s
On Resistance (Single)
Unit: Ohm
Specification: Ron 3s < 110 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}05.10^{2}$	$1{,}05.10^{2}$	$1{,}06.10^{2}$	$1{,}04.10^{2}$	0	$2{,}46.10^{-1}$
53 Gy(Si)	$1{,}07.10^{2}$	$1{,}07.10^{2}$	$1{,}08.10^{2}$	$1{,}02.10^{2}$	$1{,}04.10^{0}$	$2{,}58.10^{-1}$
100 Gy(Si)	$1{,}13.10^{2}$	$1{,}13.10^{2}$	$1{,}14.10^{2}$	$1{,}03.10^{2}$	$7{,}25.10^{0}$	$3{,}74.10^{-1}$
110 Gy(Si)	$1{,}14.10^{2}$	$1{,}15.10^{2}$	$1{,}15.10^{2}$	$1{,}03.10^{2}$	$9{,}32.10^{0}$	$3{,}85.10^{-1}$
160 Gy(Si)	$1{,}23.10^{2}$	$1{,}23.10^{2}$	$1{,}24.10^{2}$	$1{,}03.10^{2}$	$1{,}76.10^{1}$	$5{,}04.10^{-1}$
320 Gy(Si)	$1{,}85.10^{2}$	$1{,}87.10^{2}$	$1{,}90.10^{2}$	$1{,}03.10^{2}$	$8{,}08.10^{1}$	$2{,}05.10^{0}$
+96 h.	$1{,}86.10^{2}$	$1{,}87.10^{2}$	$1{,}88.10^{2}$	$1{,}04.10^{2}$	$8{,}08.10^{1}$	$7{,}13.10^{-1}$
+240 h.	$2{,}01.10^{2}$	$2{,}06.10^{2}$	$2{,}09.10^{2}$	$1{,}05.10^{2}$	$1{,}00.10^{2}$	$3{,}13.10^{0}$

Parameter: Ron 4s
On Resistance (Single)
Unit: Ohm
Specification: Ron 4s < 110 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}05.10^{2}$	$1{,}05.10^{2}$	$1{,}05.10^{2}$	$1{,}04.10^{2}$	0	$2{,}83.10^{-1}$
53 Gy(Si)	$1{,}08.10^{2}$	$1{,}08.10^{2}$	$1{,}09.10^{2}$	$1{,}02.10^{2}$	$2{,}30.10^{0}$	$4{,}55.10^{-1}$
100 Gy(Si)	$1{,}15.10^{2}$	$1{,}16.10^{2}$	$1{,}16.10^{2}$	$1{,}03.10^{2}$	$1{,}04.10^{1}$	$7{,}07.10^{-1}$
110 Gy(Si)	$1{,}15.10^{2}$	$1{,}16.10^{2}$	$1{,}16.10^{2}$	$1{,}02.10^{2}$	$1{,}04.10^{1}$	$5{,}54.10^{-1}$
160 Gy(Si)	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}03.10^{2}$	$1{,}05.10^{3}$	$7{,}07.10^{-1}$
320 Gy(Si)	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}03.10^{2}$	$1{,}04.10^{3}$	$6{,}12.10^{-1}$
+96 h.	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}05.10^{2}$	$1{,}05.10^{3}$	$1{,}00.10^{0}$
+240 h.	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}15.10^{3}$	$1{,}05.10^{2}$	$1{,}04.10^{3}$	$5{,}00.10^{-1}$

Parameter: Inl 1d
Digital Input Low Current (Dual)
Unit: A
Specification: Inl 1d < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}05.10^{-11}$	$1{,}34.10^{-11}$	$1{,}85.10^{-11}$	$2{,}00.10^{-12}$	0	$3{,}05.10^{-12}$
53 Gy(Si)	$3{,}10.10^{-11}$	$3{,}64.10^{-11}$	$4{,}00.10^{-11}$	$-10{,}00.10^{-13}$	$1{,}81.10^{-11}$	$3{,}51.10^{-12}$
100 Gy(Si)	$5{,}60.10^{-11}$	$6{,}44.10^{-11}$	$7{,}25.10^{-11}$	$-7{,}00.10^{-12}$	$4{,}83.10^{-11}$	$5{,}91.10^{-12}$
110 Gy(Si)	$6{,}60.10^{-11}$	$7{,}08.10^{-11}$	$7{,}55.10^{-11}$	$-1{,}50.10^{-12}$	$5{,}44.10^{-11}$	$3{,}82.10^{-12}$
160 Gy(Si)	$9{,}35.10^{-11}$	$9{,}72.10^{-11}$	$1{,}01.10^{-10}$	$-6{,}00.10^{-12}$	$7{,}85.10^{-11}$	$2{,}93.10^{-12}$
320 Gy(Si)	$1{,}48.10^{-10}$	$1{,}60.10^{-10}$	$1{,}67.10^{-10}$	$4{,}00.10^{-12}$	$1{,}45.10^{-10}$	$7{,}26.10^{-12}$
+96 h.	$1{,}49.10^{-10}$	$1{,}55.10^{-10}$	$1{,}59.10^{-10}$	$7{,}00.10^{-12}$	$1{,}39.10^{-10}$	$4{,}14.10^{-12}$
+240 h.	$6{,}65.10^{-11}$	$7{,}11.10^{-11}$	$8{,}05.10^{-11}$	$-1{,}10.10^{-11}$	$5{,}44.10^{-11}$	$6{,}38.10^{-12}$

Parameter: Inl 2d
Digital Input Low Current (Dual)
Unit: A
Specification: Inl 2d < 5.10^{-7} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$7{,}00.10^{-12}$	$9{,}50.10^{-12}$	$1{,}45.10^{-11}$	$-1{,}50.10^{-12}$	0	$2{,}94.10^{-12}$
53 Gy(Si)	$2{,}60.10^{-11}$	$3{,}07.10^{-11}$	$3{,}45.10^{-11}$	$5{,}00.10^{-13}$	$1{,}88.10^{-11}$	$3{,}09.10^{-12}$
100 Gy(Si)	$5{,}20.10^{-11}$	$6{,}21.10^{-11}$	$7{,}55.10^{-11}$	$-8{,}00.10^{-12}$	$5{,}01.10^{-11}$	$9{,}69.10^{-12}$
110 Gy(Si)	$5{,}05.10^{-11}$	$5{,}49.10^{-11}$	$6{,}00.10^{-11}$	$-10{,}00.10^{-12}$	$4{,}39.10^{-11}$	$3{,}49.10^{-12}$
160 Gy(Si)	$8{,}00.10^{-11}$	$8{,}34.10^{-11}$	$8{,}65.10^{-11}$	$-1{,}10.10^{-11}$	$6{,}89.10^{-11}$	$2{,}48.10^{-12}$
320 Gy(Si)	$1{,}39.10^{-10}$	$1{,}53.10^{-10}$	$1{,}73.10^{-10}$	$6{,}00.10^{-12}$	$1{,}38.10^{-10}$	$1{,}28.10^{-11}$
+96 h.	$1{,}14.10^{-10}$	$1{,}23.10^{-10}$	$1{,}31.10^{-10}$	$-7{,}50.10^{-12}$	$1{,}13.10^{-10}$	$6{,}29.10^{-12}$
+240 h.	$3{,}45.10^{-11}$	$4{,}67.10^{-11}$	$5{,}50.10^{-11}$	$-1{,}10.10^{-11}$	$3{,}13.10^{-11}$	$7{,}96.10^{-12}$

Parameter: Inl 3d
Digital Input Low Current (Dual)
Unit: A
Specification: Inl 3d $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$3{,}00.10^{-12}$	$5{,}80.10^{-12}$	$1{,}10.10^{-11}$	$-2{,}00.10^{-12}$	0	$3{,}05.10^{-12}$
53 Gy(Si)	$2{,}85.10^{-11}$	$3{,}20.10^{-11}$	$3{,}45.10^{-11}$	$7{,}00.10^{-12}$	$1{,}77.10^{-11}$	$2{,}24.10^{-12}$
100 Gy(Si)	$5{,}15.10^{-11}$	$5{,}77.10^{-11}$	$6{,}35.10^{-11}$	$-8{,}50.10^{-12}$	$4{,}43.10^{-11}$	$4{,}86.10^{-12}$
110 Gy(Si)	$5{,}55.10^{-11}$	$6{,}11.10^{-11}$	$6{,}30.10^{-11}$	$-2{,}00.10^{-12}$	$5{,}31.10^{-11}$	$3{,}17.10^{-12}$
160 Gy(Si)	$9{,}15.10^{-11}$	$9{,}53.10^{-11}$	$9{,}95.10^{-11}$	$-6{,}50.10^{-12}$	$8{,}85.10^{-11}$	$3{,}55.10^{-12}$
320 Gy(Si)	$1{,}34.10^{-10}$	$1{,}58.10^{-10}$	$1{,}81.10^{-10}$	$9{,}50.10^{-12}$	$1{,}50.10^{-10}$	$1{,}70.10^{-11}$
+96 h.	$1{,}26.10^{-10}$	$1{,}45.10^{-10}$	$1{,}59.10^{-10}$	$-1{,}05.10^{-11}$	$1{,}33.10^{-10}$	$1{,}26.10^{-11}$
+240 h.	$6{,}20.10^{-11}$	$6{,}80.10^{-11}$	$7{,}45.10^{-11}$	$-1{,}70.10^{-11}$	$6{,}20.10^{-11}$	$4{,}92.10^{-12}$

Parameter: Inl 4d
Digital Input Low Current (Dual)
Unit: A
Specification: Inl 4d $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$4{,}50.10^{-12}$	$9{,}20.10^{-12}$	$1{,}70.10^{-11}$	$4{,}50.10^{-12}$	0	$4{,}91.10^{-12}$
53 Gy(Si)	$2{,}25.10^{-11}$	$2{,}51.10^{-11}$	$2{,}80.10^{-11}$	$-4{,}00.10^{-12}$	$8{,}24.10^{-12}$	$2{,}53.10^{-12}$
100 Gy(Si)	$3{,}30.10^{-11}$	$3{,}99.10^{-11}$	$4{,}50.10^{-11}$	$-8{,}50.10^{-12}$	$2{,}47.10^{-11}$	$4{,}42.10^{-12}$
110 Gy(Si)	$3{,}65.10^{-11}$	$4{,}17.10^{-11}$	$4{,}65.10^{-11}$	$-1{,}30.10^{-11}$	$2{,}47.10^{-11}$	$3{,}96.10^{-12}$
160 Gy(Si)	$7{,}65.10^{-11}$	$7{,}98.10^{-11}$	$8{,}25.10^{-11}$	$-9{,}00.10^{-12}$	$6{,}60.10^{-11}$	$2{,}39.10^{-12}$
320 Gy(Si)	$1{,}26.10^{-10}$	$1{,}46.10^{-10}$	$1{,}65.10^{-10}$	$1{,}50.10^{-12}$	$1{,}32.10^{-10}$	$1{,}40.10^{-11}$
+96 h.	$1{,}11.10^{-10}$	$1{,}18.10^{-10}$	$1{,}36.10^{-10}$	$-1{,}05.10^{-11}$	$1{,}07.10^{-10}$	$9{,}97.10^{-12}$
+240 h.	$3{,}10.10^{-11}$	$3{,}62.10^{-11}$	$4{,}10.10^{-11}$	$-2{,}15.10^{-11}$	$2{,}47.10^{-11}$	$4{,}78.10^{-12}$

Parameter: Inh 1d
Digital Input High Current (Dual)
Unit: A
Specification: Inh 1d $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$5{,}10.10^{-11}$	$5{,}49.10^{-11}$	$6{,}15.10^{-11}$	$1{,}75.10^{-11}$	0	$4{,}02.10^{-12}$
53 Gy(Si)	$5{,}85.10^{-11}$	$6{,}09.10^{-11}$	$6{,}40.10^{-11}$	$2{,}20.10^{-11}$	$6{,}00.10^{-12}$	$2{,}25.10^{-12}$
100 Gy(Si)	$1{,}01.10^{-10}$	$1{,}15.10^{-10}$	$1{,}39.10^{-10}$	$1{,}80.10^{-11}$	$6{,}04.10^{-11}$	$1{,}39.10^{-11}$
110 Gy(Si)	$1{,}03.10^{-10}$	$1{,}13.10^{-10}$	$1{,}23.10^{-10}$	$1{,}55.10^{-11}$	$5{,}82.10^{-11}$	$8{,}86.10^{-12}$
160 Gy(Si)	$1{,}41.10^{-10}$	$1{,}45.10^{-10}$	$1{,}49.10^{-10}$	$1{,}95.10^{-11}$	$9{,}00.10^{-11}$	$3{,}49.10^{-12}$
320 Gy(Si)	$2{,}26.10^{-10}$	$2{,}41.10^{-10}$	$2{,}52.10^{-10}$	$4{,}70.10^{-11}$	$1{,}87.10^{-10}$	$1{,}14.10^{-11}$
+96 h.	$2{,}18.10^{-10}$	$2{,}28.10^{-10}$	$2{,}37.10^{-10}$	$3{,}90.10^{-11}$	$1{,}73.10^{-10}$	$7{,}43.10^{-12}$
+240 h.	$1{,}16.10^{-10}$	$1{,}25.10^{-10}$	$1{,}37.10^{-10}$	$2{,}60.10^{-11}$	$7{,}02.10^{-11}$	$8{,}34.10^{-12}$

Parameter: Inh 2d
Digital Input High Current (Dual)
Unit: A
Specification: Inh 2d $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$5{,}30.10^{-11}$	$5{,}84.10^{-11}$	$6{,}50.10^{-11}$	$2{,}00.10^{-11}$	0	$4{,}34.10^{-12}$
53 Gy(Si)	$5{,}40.10^{-11}$	$5{,}79.10^{-11}$	$6{,}35.10^{-11}$	$3{,}35.10^{-11}$	$-5{,}00.10^{-13}$	$3{,}73.10^{-12}$
100 Gy(Si)	$7{,}85.10^{-11}$	$8{,}76.10^{-11}$	$9{,}85.10^{-11}$	$1{,}45.10^{-11}$	$2{,}92.10^{-11}$	$8{,}32.10^{-12}$
110 Gy(Si)	$9{,}10.10^{-11}$	$9{,}66.10^{-11}$	$1{,}01.10^{-10}$	$1{,}30.10^{-11}$	$3{,}82.10^{-11}$	$4{,}04.10^{-12}$
160 Gy(Si)	$1{,}32.10^{-10}$	$1{,}37.10^{-10}$	$1{,}44.10^{-10}$	$9{,}00.10^{-12}$	$7{,}89.10^{-11}$	$4{,}73.10^{-12}$
320 Gy(Si)	$2{,}01.10^{-10}$	$2{,}17.10^{-10}$	$2{,}34.10^{-10}$	$3{,}75.10^{-11}$	$1{,}59.10^{-10}$	$1{,}30.10^{-11}$
+96 h.	$1{,}59.10^{-10}$	$1{,}74.10^{-10}$	$1{,}85.10^{-10}$	$2{,}00.10^{-11}$	$1{,}16.10^{-10}$	$9{,}71.10^{-12}$
+240 h.	$6{,}90.10^{-11}$	$7{,}69.10^{-11}$	$8{,}25.10^{-11}$	$8{,}00.10^{-12}$	$1{,}85.10^{-11}$	$5{,}19.10^{-12}$

Parameter: Inh 3d
Digital Input High Current (Dual)
Unit: A
Specification: Inh 3d $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}90.10^{-11}$	$3{,}57.10^{-11}$	$4{,}85.10^{-11}$	$2{,}55.10^{-11}$	0	$7{,}61.10^{-12}$
53 Gy(Si)	$4{,}70.10^{-11}$	$5{,}30.10^{-11}$	$5{,}65.10^{-11}$	$2{,}65.10^{-11}$	$1{,}73.10^{-11}$	$3{,}84.10^{-12}$
100 Gy(Si)	$8{,}20.10^{-11}$	$9{,}55.10^{-11}$	$1{,}11.10^{-10}$	$1{,}50.10^{-11}$	$5{,}98.10^{-11}$	$1{,}20.10^{-11}$
110 Gy(Si)	$7{,}65.10^{-11}$	$9{,}26.10^{-11}$	$1{,}08.10^{-10}$	$5{,}00.10^{-12}$	$5{,}69.10^{-11}$	$1{,}32.10^{-11}$
160 Gy(Si)	$1{,}23.10^{-10}$	$1{,}30.10^{-10}$	$1{,}36.10^{-10}$	$1{,}65.10^{-11}$	$9{,}43.10^{-11}$	$4{,}69.10^{-12}$
320 Gy(Si)	$2{,}01.10^{-10}$	$2{,}20.10^{-10}$	$2{,}39.10^{-10}$	$3{,}00.10^{-11}$	$1{,}84.10^{-10}$	$1{,}56.10^{-11}$
+96 h.	$1{,}78.10^{-10}$	$1{,}97.10^{-10}$	$2{,}10.10^{-10}$	$9{,}00.10^{-12}$	$1{,}61.10^{-10}$	$1{,}33.10^{-11}$
+240 h.	$8{,}55.10^{-11}$	$9{,}15.10^{-11}$	$1{,}02.10^{-10}$	$3{,}50.10^{-12}$	$5{,}58.10^{-11}$	$7{,}97.10^{-12}$

Parameter: Inh 4d
Digital Input High Current (Dual)
Unit: A
Specification: Inh 4d $< 5.10^{-7}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}45.10^{-11}$	$2{,}09.10^{-11}$	$3{,}20.10^{-11}$	$1{,}20.10^{-11}$	0	$6{,}85.10^{-12}$
53 Gy(Si)	$3{,}10.10^{-11}$	$3{,}92.10^{-11}$	$4{,}70.10^{-11}$	$6{,}00.10^{-12}$	$1{,}83.10^{-11}$	$5{,}72.10^{-12}$
100 Gy(Si)	$6{,}20.10^{-11}$	$7{,}30.10^{-11}$	$7{,}85.10^{-11}$	$-3{,}50.10^{-12}$	$5{,}21.10^{-11}$	$6{,}57.10^{-12}$
110 Gy(Si)	$7{,}00.10^{-11}$	$7{,}58.10^{-11}$	$7{,}95.10^{-11}$	$-5{,}00.10^{-13}$	$5{,}49.10^{-11}$	$3{,}56.10^{-12}$
160 Gy(Si)	$1{,}15.10^{-10}$	$1{,}20.10^{-10}$	$1{,}24.10^{-10}$	$1{,}10.10^{-11}$	$9{,}94.10^{-11}$	$3{,}58.10^{-12}$
320 Gy(Si)	$1{,}83.10^{-10}$	$2{,}01.10^{-10}$	$2{,}18.10^{-10}$	$1{,}35.10^{-11}$	$1{,}81.10^{-10}$	$1{,}34.10^{-11}$
+96 h.	$1{,}44.10^{-10}$	$1{,}65.10^{-10}$	$1{,}81.10^{-10}$	$3{,}50.10^{-12}$	$1{,}44.10^{-10}$	$1{,}31.10^{-11}$
+240 h.	$5{,}35.10^{-11}$	$6{,}01.10^{-11}$	$6{,}60.10^{-11}$	$-9{,}00.10^{-12}$	$3{,}92.10^{-11}$	$4{,}84.10^{-12}$

Parameter: Vinl 1d
Digital Input Low Voltage (Dual)
Unit: V
Specification: Vinl 1d < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,83	1,82	0,00	$8{,}4.10^{-3}$
53 Gy(Si)	1,21	1,21	1,22	1,82	-0,60	$2{,}7.10^{-3}$
100 Gy(Si)	0,71	0,71	0,71	1,82	-1,10	0
110 Gy(Si)	0,61	0,65	0,71	1,81	-1,16	0,05
160 Gy(Si)	0,11	0,17	0,21	1,82	-1,64	0,05
320 Gy(Si)	0,61	0,66	0,71	1,81	-1,15	0,06
+96 h.	0,61	0,65	0,71	1,82	-1,16	0,05
+240 h.	0,02	0,11	0,21	1,81	-1,70	0,07

Parameter: Vinl 2d
Digital Input Low Voltage (Dual)
Unit: V
Specification: Vinl 2d < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,83	1,83	0,00	$8{,}5.10^{-3}$
53 Gy(Si)	1,09	1,11	1,11	1,82	-0,71	0,01
100 Gy(Si)	0,46	0,50	0,51	1,82	-1,31	0,02
110 Gy(Si)	0,41	0,41	0,41	1,82	-1,40	0
160 Gy(Si)	-0,09	-0,09	-0,09	1,82	-1,90	0
320 Gy(Si)	0,41	0,41	0,41	1,82	-1,40	0
+96 h.	0,41	0,41	0,41	1,82	-1,40	0
+240 h.	0,31	0,35	0,41	1,82	-1,46	0,05

Parameter: Vinl 3d
Digital Input Low Voltage (Dual)
Unit: V
Specification: Vinl 3d < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,83	1,82	0,00	$7{,}4.10^{-3}$
53 Gy(Si)	1,21	1,21	1,21	1,82	-0,61	$7{,}7.10^{-4}$
100 Gy(Si)	0,71	0,72	0,73	1,82	-1,10	$6{,}2.10^{-3}$
110 Gy(Si)	0,61	0,65	0,71	1,82	-1,17	0,05
160 Gy(Si)	0,11	0,17	0,21	1,82	-1,65	0,05
320 Gy(Si)	0,61	0,64	0,71	1,82	-1,18	0,05
+96 h.	0,61	0,65	0,71	1,81	-1,17	0,05
+240 h.	0,11	0,13	0,21	1,82	-1,69	0,04

Parameter: Vinl 4d
Digital Input Low Voltage (Dual)
Unit: V
Specification: Vinl 4d < 0,8 V

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,84	1,83	0,00	0,01
53 Gy(Si)	1,11	1,11	1,11	1,81	-0,71	$6{,}0.10^{-4}$
100 Gy(Si)	0,43	0,49	0,51	1,82	-1,34	0,04
110 Gy(Si)	0,41	0,43	0,52	1,81	-1,39	0,05
160 Gy(Si)	-0,09	-0,09	-0,09	1,82	-1,91	—
320 Gy(Si)	0,41	0,44	0,52	1,82	-1,38	0,05
+96 h.	0,41	0,43	0,52	1,82	-1,39	0,05
+240 h.	0,21	0,31	0,41	1,82	-1,51	0,10

Parameter: Vinh 1d
Digital Input High Voltage (Dual)
Unit: V
Specification: 2,4 V < Vinh 1d

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,83	1,83	0,00	$8{,}7.10^{-3}$
53 Gy(Si)	1,21	1,21	1,21	1,82	-0,60	0
100 Gy(Si)	0,71	0,71	0,71	1,81	-1,10	0
110 Gy(Si)	0,61	0,67	0,71	1,82	-1,14	0,05
160 Gy(Si)	0,11	0,17	0,21	1,82	-1,64	0,05
320 Gy(Si)	0,61	0,66	0,71	1,82	-1,15	0,06
+96 h.	0,61	0,67	0,71	1,82	-1,14	0,05
+240 h.	0,11	0,13	0,21	1,82	-1,68	0,04

Parameter: Vinh 2d
Digital Input High Voltage (Dual)
Unit: V
Specification: 2,4 V < Vinh 2d

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,83	1,83	0,00	$8{,}2.10^{-3}$
53 Gy(Si)	1,11	1,11	1,11	1,82	-0,70	$7{,}7.10^{-4}$
100 Gy(Si)	0,41	0,49	0,51	1,82	-1,32	0,04
110 Gy(Si)	0,41	0,41	0,41	1,82	-1,40	0
160 Gy(Si)	-0,02	-0,02	-0,02	1,82	-1,83	$9{,}3.10^{-6}$
320 Gy(Si)	0,41	0,41	0,41	1,82	-1,40	0
+96 h.	0,41	0,41	0,41	1,82	-1,40	0
+240 h.	0,31	0,37	0,51	1,82	-1,44	0,09

Parameter: Vinh 3d
Digital Input High Voltage (Dual)
Unit: V
Specification: 2,4 V < Vinh 3d

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,83	1,83	0,00	$9{,}0.10^{-3}$
53 Gy(Si)	1,21	1,21	1,21	1,82	-0,60	$7{,}7.10^{-4}$
100 Gy(Si)	0,71	0,73	0,81	1,82	-1,08	0,04
110 Gy(Si)	0,61	0,67	0,71	1,82	-1,15	0,05
160 Gy(Si)	0,11	0,19	0,21	1,81	-1,62	0,04
320 Gy(Si)	0,61	0,65	0,71	1,82	-1,16	0,05
+96 h.	0,61	0,67	0,71	1,82	-1,15	0,05
+240 h.	0,11	0,13	0,21	1,82	-1,68	0,04

Parameter: Vinh 4d
Digital Input High Voltage (Dual)
Unit: V
Specification: 2,4 V < Vinh 4d

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	1,81	1,82	1,85	1,83	0,00	0,02
53 Gy(Si)	1,11	1,11	1,11	1,82	-0,71	$6{,}0.10^{-4}$
100 Gy(Si)	0,43	0,49	0,51	1,82	-1,34	0,04
110 Gy(Si)	0,41	0,41	0,41	1,82	-1,41	0
160 Gy(Si)	-0,02	-0,02	-0,02	1,82	-1,84	0
320 Gy(Si)	0,41	0,41	0,41	1,81	-1,41	0
+96 h.	0,41	0,41	0,41	1,81	-1,41	0
+240 h.	0,21	0,31	0,41	1,81	-1,51	0,10

Parameter: Is (Off) 1d
Source OFF Leakage Current (Dual)
Unit: A
Specification: Is (Off) 1d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}95.10^{-11}$	$3{,}44.10^{-11}$	$3{,}85.10^{-11}$	$3{,}55.10^{-11}$	0	$3{,}31.10^{-12}$
53 Gy(Si)	$7{,}30.10^{-11}$	$7{,}66.10^{-11}$	$8{,}25.10^{-11}$	$2{,}90.10^{-11}$	$4{,}22.10^{-11}$	$3{,}90.10^{-12}$
100 Gy(Si)	$1{,}63.10^{-10}$	$1{,}69.10^{-10}$	$1{,}74.10^{-10}$	$5{,}65.10^{-11}$	$1{,}35.10^{-10}$	$4{,}84.10^{-12}$
110 Gy(Si)	$1{,}92.10^{-10}$	$1{,}98.10^{-10}$	$2{,}01.10^{-10}$	$1{,}86.10^{-10}$	$1{,}63.10^{-10}$	$3{,}81.10^{-12}$
160 Gy(Si)	$3{,}91.10^{-10}$	$4{,}80.10^{-10}$	$5{,}22.10^{-10}$	$2{,}22.10^{-10}$	$4{,}45.10^{-10}$	$5{,}12.10^{-11}$
320 Gy(Si)	$7{,}07.10^{-6}$	$7{,}26.10^{-6}$	$7{,}40.10^{-6}$	$1{,}88.10^{-10}$	$7{,}26.10^{-6}$	$1{,}32.10^{-7}$
+96 h.	$-2{,}44.10^{-5}$	$-1{,}09.10^{-5}$	$-6{,}68.10^{-6}$	$2{,}44.10^{-10}$	$-1{,}09.10^{-5}$	$7{,}59.10^{-6}$
+240 h.	$6{,}12.10^{-10}$	$6{,}80.10^{-10}$	$7{,}73.10^{-10}$	$1{,}29.10^{-7}$	$6{,}45.10^{-10}$	$6{,}43.10^{-11}$

Parameter: Is (Off) 2d
Source OFF Leakage Current (Dual)
Unit: A
Specification: Is (Off) 2d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$3{,}50.10^{-12}$	$1{,}72.10^{-11}$	$3{,}50.10^{-11}$	$5{,}55.10^{-11}$	0	$1{,}34.10^{-11}$
53 Gy(Si)	$1{,}12.10^{-10}$	$1{,}20.10^{-10}$	$1{,}30.10^{-10}$	$7{,}15.10^{-11}$	$1{,}03.10^{-10}$	$6{,}82.10^{-12}$
100 Gy(Si)	$2{,}36.10^{-10}$	$2{,}16.10^{-7}$	$1{,}08.10^{-6}$	$6{,}35.10^{-11}$	$2{,}16.10^{-7}$	$4{,}82.10^{-7}$
110 Gy(Si)	$2{,}72.10^{-10}$	$1{,}74.10^{-8}$	$7{,}43.10^{-8}$	$6{,}30.10^{-11}$	$1{,}74.10^{-8}$	$3{,}22.10^{-8}$
160 Gy(Si)	$7{,}01.10^{-10}$	$1{,}55.10^{-8}$	$6{,}38.10^{-8}$	$5{,}05.10^{-11}$	$1{,}55.10^{-8}$	$2{,}74.10^{-8}$
320 Gy(Si)	$1{,}09.10^{-8}$	$2{,}90.10^{-8}$	$8{,}61.10^{-8}$	$5{,}40.10^{-11}$	$2{,}89.10^{-8}$	$3{,}22.10^{-8}$
+96 h.	$7{,}84.10^{-9}$	$2{,}58.10^{-8}$	$8{,}41.10^{-8}$	$7{,}20.10^{-11}$	$2{,}58.10^{-8}$	$3{,}29.10^{-8}$
+240 h.	$8{,}81.10^{-10}$	$6{,}74.10^{-9}$	$2{,}02.10^{-8}$	$5{,}65.10^{-11}$	$6{,}72.10^{-9}$	$8{,}62.10^{-9}$

Parameter: Is (Off) 3d
Source OFF Leakage Current (Dual)
Unit: A
Specification: Is (Off) 3d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$3{,}35.10^{-11}$	$4{,}07.10^{-11}$	$4{,}60.10^{-11}$	$4{,}70.10^{-11}$	0	$5{,}04.10^{-12}$
53 Gy(Si)	$7{,}80.10^{-11}$	$8{,}33.10^{-11}$	$8{,}80.10^{-11}$	$8{,}55.10^{-11}$	$4{,}26.10^{-11}$	$4{,}32.10^{-12}$
100 Gy(Si)	$1{,}74.10^{-10}$	$1{,}84.10^{-10}$	$1{,}90.10^{-10}$	$5{,}90.10^{-11}$	$1{,}43.10^{-10}$	$6{,}04.10^{-12}$
110 Gy(Si)	$2{,}01.10^{-10}$	$2{,}09.10^{-10}$	$2{,}13.10^{-10}$	$6{,}85.10^{-11}$	$1{,}68.10^{-10}$	$5{,}07.10^{-12}$
160 Gy(Si)	$4{,}93.10^{-10}$	$5{,}39.10^{-10}$	$5{,}63.10^{-10}$	$6{,}90.10^{-11}$	$4{,}98.10^{-10}$	$2{,}64.10^{-11}$
320 Gy(Si)	$6{,}71.10^{-6}$	$7{,}14.10^{-6}$	$7{,}59.10^{-6}$	$7{,}60.10^{-11}$	$7{,}14.10^{-6}$	$3{,}49.10^{-7}$
+96 h.	$-2{,}43.10^{-5}$	$-1{,}09.10^{-5}$	$-7{,}02.10^{-6}$	$6{,}10.10^{-11}$	$-1{,}09.10^{-5}$	$7{,}49.10^{-6}$
+240 h.	$5{,}51.10^{-10}$	$6{,}12.10^{-10}$	$6{,}85.10^{-10}$	$6{,}50.10^{-11}$	$5{,}72.10^{-10}$	$5{,}09.10^{-11}$

Parameter: Is (Off) 4d
Source OFF Leakage Current (Dual)
Unit: A
Specification: Is (Off) 4d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$4{,}70.10^{-11}$	$4{,}94.10^{-11}$	$5{,}35.10^{-11}$	$4{,}75.10^{-11}$	0	$2{,}48.10^{-12}$
53 Gy(Si)	$9{,}10.10^{-11}$	$9{,}78.10^{-11}$	$1{,}09.10^{-10}$	$3{,}65.10^{-11}$	$4{,}84.10^{-11}$	$6{,}89.10^{-12}$
100 Gy(Si)	$2{,}12.10^{-10}$	$2{,}21.10^{-10}$	$2{,}29.10^{-10}$	$3{,}30.10^{-11}$	$1{,}72.10^{-10}$	$7{,}23.10^{-12}$
110 Gy(Si)	$2{,}46.10^{-10}$	$2{,}61.10^{-10}$	$2{,}72.10^{-10}$	$2{,}95.10^{-11}$	$2{,}12.10^{-10}$	$1{,}08.10^{-11}$
160 Gy(Si)	$7{,}41.10^{-10}$	$7{,}74.10^{-10}$	$8{,}55.10^{-10}$	$3{,}40.10^{-11}$	$7{,}25.10^{-10}$	$4{,}71.10^{-11}$
320 Gy(Si)	$1{,}05.10^{-8}$	$1{,}18.10^{-8}$	$1{,}34.10^{-8}$	$4{,}40.10^{-11}$	$1{,}18.10^{-8}$	$1{,}04.10^{-9}$
+96 h.	$7{,}63.10^{-9}$	$8{,}39.10^{-9}$	$9{,}04.10^{-9}$	$6{,}65.10^{-11}$	$8{,}34.10^{-9}$	$6{,}18.10^{-10}$
+240 h.	$8{,}70.10^{-10}$	$1{,}00.10^{-9}$	$1{,}17.10^{-9}$	$3{,}20.10^{-11}$	$9{,}55.10^{-10}$	$1{,}17.10^{-10}$

Parameter: Id (Off) 1d
Drain OFF Leakage Current (Dual)
Unit: A
Specification: Id (Off) 1d $< 5.10^{-10}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}26.10^{-9}$	$2{,}71.10^{-9}$	$4{,}13.10^{-9}$	$1{,}11.10^{-10}$	0	$7{,}98.10^{-10}$
53 Gy(Si)	$1{,}16.10^{-9}$	$1{,}23.10^{-9}$	$1{,}39.10^{-9}$	$1{,}45.10^{-9}$	$-1{,}48.10^{-9}$	$9{,}24.10^{-11}$
100 Gy(Si)	$1{,}01.10^{-9}$	$1{,}02.10^{-9}$	$1{,}04.10^{-9}$	$1{,}10.10^{-9}$	$-1{,}69.10^{-9}$	$1{,}11.10^{-11}$
110 Gy(Si)	$6{,}71.10^{-10}$	$7{,}25.10^{-10}$	$7{,}61.10^{-10}$	$5{,}51.10^{-10}$	$-1{,}99.10^{-9}$	$3{,}41.10^{-11}$
160 Gy(Si)	$6{,}70.10^{-10}$	$6{,}97.10^{-10}$	$7{,}17.10^{-10}$	$4{,}17.10^{-10}$	$-2{,}01.10^{-9}$	$2{,}00.10^{-11}$
320 Gy(Si)	$-7{,}89.10^{-6}$	$-7{,}56.10^{-6}$	$-7{,}31.10^{-6}$	$1{,}94.10^{-9}$	$-7{,}56.10^{-6}$	$2{,}20.10^{-7}$
+96 h.	$6{,}54.10^{-6}$	$1{,}07.10^{-5}$	$2{,}42.10^{-5}$	$3{,}93.10^{-10}$	$1{,}07.10^{-5}$	$7{,}56.10^{-6}$
+240 h.	$4{,}53.10^{-10}$	$4{,}83.10^{-10}$	$5{,}22.10^{-10}$	$3{,}12.10^{-10}$	$-2{,}23.10^{-9}$	$2{,}92.10^{-11}$

Parameter: Id (Off) 2d
Drain OFF Leakage Current (Dual)
Unit: A
Specification: Id (Off) 2d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}96.10^{-10}$	$3{,}14.10^{-10}$	$3{,}52.10^{-10}$	$1{,}17.10^{-10}$	0	$2{,}24.10^{-11}$
53 Gy(Si)	$2{,}20.10^{-10}$	$2{,}30.10^{-10}$	$2{,}38.10^{-10}$	$1{,}62.10^{-10}$	$-8{,}40.10^{-11}$	$7{,}72.10^{-12}$
100 Gy(Si)	$2{,}57.10^{-10}$	$2{,}81.10^{-10}$	$3{,}10.10^{-10}$	$1{,}53.10^{-10}$	$-3{,}36.10^{-11}$	$1{,}95.10^{-11}$
110 Gy(Si)	$2{,}56.10^{-10}$	$2{,}78.10^{-10}$	$2{,}91.10^{-10}$	$1{,}21.10^{-10}$	$-3{,}60.10^{-11}$	$1{,}38.10^{-11}$
160 Gy(Si)	$4{,}29.10^{-10}$	$4{,}41.10^{-10}$	$4{,}59.10^{-10}$	$8{,}65.10^{-11}$	$1{,}27.10^{-10}$	$1{,}10.10^{-11}$
320 Gy(Si)	$6{,}71.10^{-10}$	$7{,}32.10^{-10}$	$7{,}93.10^{-10}$	$1{,}34.10^{-10}$	$4{,}18.10^{-10}$	$4{,}32.10^{-11}$
+96 h.	$5{,}42.10^{-10}$	$6{,}00.10^{-10}$	$6{,}45.10^{-10}$	$9{,}40.10^{-11}$	$2{,}86.10^{-10}$	$4{,}52.10^{-11}$
+240 h.	$3{,}82.10^{-10}$	$3{,}95.10^{-10}$	$4{,}16.10^{-10}$	$9{,}85.10^{-11}$	$8{,}09.10^{-11}$	$1{,}32.10^{-11}$

Parameter: Id (Off) 3d
Drain OFF Leakage Current (Dual)
Unit: A
Specification: Id (Off) 3d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$9{,}00.10^{-11}$	$1{,}03.10^{-10}$	$1{,}40.10^{-10}$	$1{,}00.10^{-10}$	0	$2{,}13.10^{-11}$
53 Gy(Si)	$1{,}28.10^{-10}$	$1{,}36.10^{-10}$	$1{,}46.10^{-10}$	$1{,}11.10^{-10}$	$3{,}30.10^{-11}$	$7{,}29.10^{-12}$
100 Gy(Si)	$2{,}11.10^{-10}$	$2{,}31.10^{-10}$	$2{,}56.10^{-10}$	$1{,}37.10^{-10}$	$1{,}28.10^{-10}$	$1{,}76.10^{-11}$
110 Gy(Si)	$2{,}26.10^{-10}$	$2{,}43.10^{-10}$	$2{,}57.10^{-10}$	$1{,}26.10^{-10}$	$1{,}40.10^{-10}$	$1{,}44.10^{-11}$
160 Gy(Si)	$4{,}05.10^{-10}$	$4{,}57.10^{-10}$	$4{,}97.10^{-10}$	$1{,}33.10^{-10}$	$3{,}54.10^{-10}$	$4{,}67.10^{-11}$
320 Gy(Si)	$-7{,}75.10^{-6}$	$-7{,}43.10^{-6}$	$-6{,}91.10^{-6}$	$1{,}16.10^{-10}$	$-7{,}43.10^{-6}$	$3{,}15.10^{-7}$
+96 h.	$6{,}72.10^{-6}$	$1{,}08.10^{-5}$	$2{,}44.10^{-5}$	$1{,}29.10^{-10}$	$1{,}08.10^{-5}$	$7{,}65.10^{-6}$
+240 h.	$2{,}77.10^{-10}$	$2{,}95.10^{-10}$	$3{,}19.10^{-10}$	$1{,}26.10^{-10}$	$1{,}92.10^{-10}$	$1{,}75.10^{-11}$

Parameter: Id (Off) 4d
Drain OFF Leakage Current (Dual)
Unit: A
Specification: Id (Off) 4d $< 5.10^{-10}$ A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}09.10^{-9}$	$1{,}20.10^{-9}$	$1{,}26.10^{-9}$	$4{,}64.10^{-10}$	0	$6{,}40.10^{-11}$
53 Gy(Si)	$5{,}71.10^{-10}$	$5{,}86.10^{-10}$	$6{,}06.10^{-10}$	$5{,}04.10^{-10}$	$-6{,}13.10^{-10}$	$1{,}25.10^{-11}$
100 Gy(Si)	$6{,}33.10^{-10}$	$6{,}59.10^{-10}$	$6{,}82.10^{-10}$	$4{,}87.10^{-10}$	$-5{,}40.10^{-10}$	$1{,}79.10^{-11}$
110 Gy(Si)	$5{,}01.10^{-10}$	$5{,}27.10^{-10}$	$5{,}49.10^{-10}$	$3{,}33.10^{-10}$	$-6{,}73.10^{-10}$	$1{,}74.10^{-11}$
160 Gy(Si)	$5{,}25.10^{-10}$	$5{,}53.10^{-10}$	$5{,}88.10^{-10}$	$2{,}40.10^{-10}$	$-6{,}47.10^{-10}$	$2{,}70.10^{-11}$
320 Gy(Si)	$1{,}24.10^{-9}$	$1{,}29.10^{-9}$	$1{,}39.10^{-9}$	$7{,}21.10^{-10}$	$8{,}62.10^{-11}$	$6{,}02.10^{-11}$
+96 h.	$7{,}15.10^{-10}$	$7{,}80.10^{-10}$	$8{,}69.10^{-10}$	$2{,}72.10^{-10}$	$-4{,}20.10^{-10}$	$5{,}61.10^{-11}$
+240 h.	$4{,}93.10^{-10}$	$5{,}22.10^{-10}$	$5{,}41.10^{-10}$	$2{,}29.10^{-10}$	$-6{,}77.10^{-10}$	$1{,}77.10^{-11}$

Parameter: Id (On) 1d
Drain ON Leakage Current (Dual)
Unit: A
Specification: Id (On) 1d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$2{,}18.10^{-9}$	$2{,}61.10^{-9}$	$3{,}89.10^{-9}$	$1{,}46.10^{-10}$	0	$7{,}21.10^{-10}$
53 Gy(Si)	$1{,}26.10^{-9}$	$1{,}35.10^{-9}$	$1{,}56.10^{-9}$	$1{,}55.10^{-9}$	$-1{,}26.10^{-9}$	$1{,}23.10^{-10}$
100 Gy(Si)	$1{,}18.10^{-9}$	$1{,}21.10^{-9}$	$1{,}24.10^{-9}$	$1{,}13.10^{-9}$	$-1{,}40.10^{-9}$	$2{,}15.10^{-11}$
110 Gy(Si)	$8{,}75.10^{-10}$	$9{,}18.10^{-10}$	$9{,}65.10^{-10}$	$7{,}23.10^{-10}$	$-1{,}69.10^{-9}$	$3{,}27.10^{-11}$
160 Gy(Si)	$1{,}15.10^{-9}$	$1{,}24.10^{-9}$	$1{,}36.10^{-9}$	$4{,}11.10^{-10}$	$-1{,}36.10^{-9}$	$8{,}12.10^{-11}$
320 Gy(Si)	$1{,}86.10^{-8}$	$2{,}17.10^{-8}$	$2{,}48.10^{-8}$	$2{,}04.10^{-9}$	$1{,}91.10^{-8}$	$2{,}27.10^{-9}$
+96 h.	$3{,}00.10^{-9}$	$7{,}00.10^{-9}$	$1{,}72.10^{-8}$	$4{,}13.10^{-10}$	$4{,}39.10^{-9}$	$5{,}85.10^{-9}$
+240 h.	$8{,}33.10^{-10}$	$1{,}59.10^{-9}$	$2{,}64.10^{-9}$	$3{,}11.10^{-10}$	$-1{,}02.10^{-9}$	$6{,}65.10^{-10}$

Parameter: Id (On) 2d
Drain ON Leakage Current (Dual)
Unit: A
Specification: Id (On) 2d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$4{,}26.10^{-10}$	$4{,}46.10^{-10}$	$4{,}78.10^{-10}$	$1{,}44.10^{-10}$	0	$2{,}04.10^{-11}$
53 Gy(Si)	$6{,}91.10^{-5}$	$7{,}56.10^{-5}$	$7{,}97.10^{-5}$	$2{,}43.10^{-10}$	$7{,}56.10^{-5}$	$4{,}20.10^{-6}$
100 Gy(Si)	$1{,}89.10^{-4}$	$2{,}03.10^{-4}$	$2{,}12.10^{-4}$	$1{,}93.10^{-10}$	$2{,}02.10^{-4}$	$9{,}13.10^{-6}$
110 Gy(Si)	$1{,}93.10^{-4}$	$2{,}07.10^{-4}$	$2{,}16.10^{-4}$	$1{,}70.10^{-10}$	$2{,}07.10^{-4}$	$9{,}66.10^{-6}$
160 Gy(Si)	$4{,}59.10^{-10}$	$5{,}51.10^{-10}$	$8{,}65.10^{-10}$	$1{,}64.10^{-10}$	$1{,}05.10^{-10}$	$1{,}76.10^{-10}$
320 Gy(Si)	$6{,}82.10^{-9}$	$7{,}72.10^{-9}$	$8{,}16.10^{-9}$	$2{,}34.10^{-10}$	$7{,}27.10^{-9}$	$5{,}89.10^{-10}$
+96 h.	$5{,}47.10^{-9}$	$6{,}03.10^{-9}$	$6{,}37.10^{-9}$	$1{,}66.10^{-10}$	$5{,}58.10^{-9}$	$3{,}55.10^{-10}$
+240 h.	$1{,}24.10^{-3}$	$1{,}62.10^{-3}$	$1{,}93.10^{-3}$	$1{,}26.10^{-10}$	$1{,}62.10^{-3}$	$2{,}99.10^{-4}$

Parameter: Id (On) 3d
Drain ON Leakage Current (Dual)
Unit: A
Specification: Id (On) 3d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}56.10^{-10}$	$1{,}65.10^{-10}$	$1{,}85.10^{-10}$	$1{,}19.10^{-10}$	0	$1{,}14.10^{-11}$
53 Gy(Si)	$1{,}88.10^{-10}$	$1{,}98.10^{-10}$	$2{,}14.10^{-10}$	$1{,}60.10^{-10}$	$3{,}32.10^{-11}$	$1{,}02.10^{-11}$
100 Gy(Si)	$3{,}98.10^{-10}$	$4{,}23.10^{-10}$	$4{,}55.10^{-10}$	$1{,}28.10^{-10}$	$2{,}58.10^{-10}$	$2{,}26.10^{-11}$
110 Gy(Si)	$4{,}60.10^{-10}$	$4{,}97.10^{-10}$	$5{,}31.10^{-10}$	$1{,}24.10^{-10}$	$3{,}32.10^{-10}$	$3{,}30.10^{-11}$
160 Gy(Si)	$1{,}34.10^{-9}$	$1{,}47.10^{-9}$	$1{,}56.10^{-9}$	$1{,}53.10^{-10}$	$1{,}31.10^{-9}$	$9{,}07.10^{-11}$
320 Gy(Si)	$2{,}50.10^{-8}$	$2{,}83.10^{-8}$	$3{,}19.10^{-8}$	$1{,}68.10^{-10}$	$2{,}82.10^{-8}$	$2{,}42.10^{-9}$
+96 h.	$3{,}34.10^{-9}$	$5{,}57.10^{-9}$	$8{,}92.10^{-9}$	$1{,}39.10^{-10}$	$5{,}41.10^{-9}$	$2{,}10.10^{-9}$
+240 h.	$1{,}84.10^{-9}$	$2{,}58.10^{-9}$	$3{,}31.10^{-9}$	$1{,}40.10^{-10}$	$2{,}41.10^{-9}$	$6{,}64.10^{-10}$

Parameter: Id (On) 4d
Drain ON Leakage Current (Dual)
Unit: A
Specification: Id (On) 4d < 5.10^{-10} A

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$1{,}12.10^{-9}$	$1{,}23.10^{-9}$	$1{,}31.10^{-9}$	$4{,}57.10^{-10}$	0	$7{,}19.10^{-11}$
53 Gy(Si)	$6{,}79.10^{-5}$	$7{,}19.10^{-5}$	$7{,}61.10^{-5}$	$5{,}45.10^{-10}$	$7{,}19.10^{-5}$	$3{,}33.10^{-6}$
100 Gy(Si)	$1{,}77.10^{-4}$	$1{,}90.10^{-4}$	$1{,}99.10^{-4}$	$5{,}30.10^{-10}$	$1{,}90.10^{-4}$	$8{,}65.10^{-6}$
110 Gy(Si)	$1{,}78.10^{-4}$	$1{,}93.10^{-4}$	$2{,}05.10^{-4}$	$3{,}59.10^{-10}$	$1{,}93.10^{-4}$	$1{,}03.10^{-5}$
160 Gy(Si)	$5{,}26.10^{-10}$	$5{,}63.10^{-10}$	$6{,}20.10^{-10}$	$2{,}76.10^{-10}$	$-6{,}71.10^{-10}$	$3{,}65.10^{-11}$
320 Gy(Si)	$7{,}46.10^{-9}$	$8{,}29.10^{-9}$	$9{,}08.10^{-9}$	$8{,}07.10^{-10}$	$7{,}06.10^{-9}$	$5{,}95.10^{-10}$
+96 h.	$5{,}76.10^{-9}$	$6{,}24.10^{-9}$	$6{,}63.10^{-9}$	$3{,}11.10^{-10}$	$5{,}01.10^{-9}$	$3{,}65.10^{-10}$
+240 h.	$9{,}88.10^{-4}$	$1{,}45.10^{-3}$	$1{,}79.10^{-3}$	$2{,}57.10^{-10}$	$1{,}45.10^{-3}$	$3{,}48.10^{-4}$

Parameter: Ron 1d
On Resistance (Dual)
Unit: Ohm
Specification: Ron 1d < 70 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$6{,}30.10^{1}$	$6{,}35.10^{1}$	$6{,}50.10^{1}$	$6{,}28.10^{1}$	0	$8{,}44.10^{-1}$
53 Gy(Si)	$6{,}26.10^{1}$	$6{,}28.10^{1}$	$6{,}30.10^{1}$	$6{,}18.10^{1}$	$-6{,}14.10^{-1}$	$1{,}68.10^{-1}$
100 Gy(Si)	$6{,}30.10^{1}$	$6{,}35.10^{1}$	$6{,}38.10^{1}$	$6{,}18.10^{1}$	0	$3{,}34.10^{-1}$
110 Gy(Si)	$6{,}32.10^{1}$	$6{,}36.10^{1}$	$6{,}38.10^{1}$	$6{,}24.10^{1}$	0	$2{,}60.10^{-1}$
160 Gy(Si)	$6{,}42.10^{1}$	$6{,}50.10^{1}$	$6{,}56.10^{1}$	$6{,}20.10^{1}$	$1{,}23.10^{0}$	$6{,}23.10^{-1}$
320 Gy(Si)	$6{,}74.10^{1}$	$6{,}77.10^{1}$	$6{,}84.10^{1}$	$6{,}34.10^{1}$	$3{,}69.10^{0}$	$4{,}61.10^{-1}$
+96 h.	$6{,}72.10^{1}$	$6{,}78.10^{1}$	$6{,}86.10^{1}$	$6{,}32.10^{1}$	$3{,}69.10^{0}$	$5{,}84.10^{-1}$
+240 h.	$6{,}86.10^{1}$	$6{,}96.10^{1}$	$7{,}12.10^{1}$	$6{,}26.10^{1}$	$5{,}53.10^{0}$	$1{,}03.10^{0}$

Parameter: Ron 2d
On Resistance (Dual)
Unit: Ohm
Specification: Ron 2d < 70 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$6{,}26.10^{1}$	$6{,}29.10^{1}$	$6{,}30.10^{1}$	$6{,}20.10^{1}$	0	$1{,}80.10^{-1}$
53 Gy(Si)	$6{,}38.10^{1}$	$6{,}39.10^{1}$	$6{,}40.10^{1}$	$6{,}12.10^{1}$	$8{,}28.10^{-1}$	$1{,}13.10^{-1}$
100 Gy(Si)	$6{,}54.10^{1}$	$6{,}57.10^{1}$	$6{,}60.10^{1}$	$6{,}12.10^{1}$	$2{,}48.10^{0}$	$2{,}25.10^{-1}$
110 Gy(Si)	$6{,}56.10^{1}$	$6{,}60.10^{1}$	$6{,}62.10^{1}$	$6{,}18.10^{1}$	$2{,}48.10^{0}$	$2{,}61.10^{-1}$
160 Gy(Si)	$2{,}66.10^{3}$	$2{,}66.10^{3}$	$2{,}66.10^{3}$	$6{,}20.10^{1}$	$2{,}60.10^{3}$	$2{,}24.10^{0}$
320 Gy(Si)	$2{,}66.10^{3}$	$2{,}66.10^{3}$	$2{,}66.10^{3}$	$6{,}20.10^{1}$	$2{,}60.10^{3}$	$1{,}73.10^{0}$
+96 h.	$2{,}66.10^{3}$	$2{,}67.10^{3}$	$2{,}67.10^{3}$	$6{,}36.10^{1}$	$2{,}60.10^{3}$	$2{,}24.10^{0}$
+240 h.	$7{,}50.10^{1}$	$7{,}80.10^{1}$	$8{,}08.10^{1}$	$6{,}30.10^{1}$	$1{,}49.10^{1}$	$2{,}39.10^{0}$

Parameter: Ron 3d
On Resistance (Dual)
Unit: Ohm
Specification: Ron 3d < 70 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$6{,}30.10^{1}$	$6{,}31.10^{1}$	$6{,}34.10^{1}$	$6{,}22.10^{1}$	0	$1{,}82.10^{-1}$
53 Gy(Si)	$6{,}24.10^{1}$	$6{,}27.10^{1}$	$6{,}30.10^{1}$	$6{,}16.10^{1}$	0	$2{,}28.10^{-1}$
100 Gy(Si)	$6{,}30.10^{1}$	$6{,}34.10^{1}$	$6{,}36.10^{1}$	$6{,}20.10^{1}$	0	$2{,}61.10^{-1}$
110 Gy(Si)	$6{,}32.10^{1}$	$6{,}37.10^{1}$	$6{,}42.10^{1}$	$6{,}22.10^{1}$	0	$3{,}64.10^{-1}$
160 Gy(Si)	$6{,}40.10^{1}$	$6{,}42.10^{1}$	$6{,}44.10^{1}$	$6{,}18.10^{1}$	$8{,}58.10^{-1}$	$1{,}65.10^{-1}$
320 Gy(Si)	$6{,}74.10^{1}$	$6{,}80.10^{1}$	$7{,}02.10^{1}$	$6{,}22.10^{1}$	$4{,}29.10^{0}$	$1{,}23.10^{0}$
+96 h.	$6{,}76.10^{1}$	$6{,}86.10^{1}$	$6{,}96.10^{1}$	$6{,}32.10^{1}$	$5{,}15.10^{0}$	$8{,}18.10^{-1}$
+240 h.	$6{,}88.10^{1}$	$6{,}94.10^{1}$	$7{,}08.10^{1}$	$6{,}42.10^{1}$	$6{,}00.10^{0}$	$7{,}92.10^{-1}$

Parameter: Ron 4d
On Resistance (Dual)
Unit: Ohm
Specification: Ron 4d < 70 Ohm

Dose/, Time	Minimum value	Mean value	Maximum value	Reference	Mean variation	Standard deviation
0 Gy(Si)	$6{,}30.10^{1}$	$6{,}30.10^{1}$	$6{,}32.10^{1}$	$6{,}22.10^{1}$	0	$8{,}84.10^{-2}$
53 Gy(Si)	$6{,}38.10^{1}$	$6{,}40.10^{1}$	$6{,}44.10^{1}$	$6{,}12.10^{1}$	0	$2{,}82.10^{-1}$
100 Gy(Si)	$6{,}56.10^{1}$	$6{,}59.10^{1}$	$6{,}62.10^{1}$	$6{,}18.10^{1}$	$2{,}06.10^{0}$	$2{,}26.10^{-1}$
110 Gy(Si)	$6{,}56.10^{1}$	$6{,}59.10^{1}$	$6{,}64.10^{1}$	$6{,}16.10^{1}$	$2{,}06.10^{0}$	$3{,}34.10^{-1}$
160 Gy(Si)	$2{,}66.10^{3}$	$2{,}66.10^{3}$	$2{,}67.10^{3}$	$6{,}20.10^{1}$	$2{,}60.10^{3}$	$2{,}65.10^{0}$
320 Gy(Si)	$2{,}66.10^{3}$	$2{,}66.10^{3}$	$2{,}67.10^{3}$	$6{,}20.10^{1}$	$2{,}60.10^{3}$	$2{,}45.10^{0}$
+96 h.	$2{,}66.10^{3}$	$2{,}67.10^{3}$	$2{,}67.10^{3}$	$6{,}42.10^{1}$	$2{,}60.10^{3}$	$1{,}73.10^{0}$
+240 h.	$7{,}32.10^{1}$	$7{,}66.10^{1}$	$7{,}94.10^{1}$	$6{,}36.10^{1}$	$1{,}34.10^{1}$	$2{,}63.10^{0}$