

**ESD**

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**ESD**

**4.1 IEC**

**4.1.1 IEC61340**

**1 IEC61340 1**

**2 IEC61340 2 1**

**3 IEC61340 2 2**

**4 IEC61340 2 3**

**5 IEC61340 3 1**

**HBM**

**6 IEC61340 3 2**

**MM**

**7 IEC61340 3 3**

**CDM**

**8 IEC61340 4 1**

**9 IEC61340 4 2**

• 10 IEC61340 4 3

• 11 IEC61340 4 4  
FIBC

• 12 IEC61340 4 5

• 13 IEC61340 4 6  
IBC

• 14 IEC61340 5 1

• 15 IEC61340 5 2

• 16 IEC61340 5 3

• 4.1.2 IEC61340 5 1

• 1 2 3 4 5 EPA ESD

• 6 7 8 9

• 10

ISO SC/122

ESDS

- IEC61340 5 1 A B  
C ESD  
ESDS ZA
- 4.2 ESD
- 4.2.1 MIL
- 1 MIL--STD-1686 Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment
- 
- 2 MIL- HDBK 263 Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment
-

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- 3 MIL-M-38510
- 4 MIL-STD 129
- 5 MIL-STD 1285
- 6 MIL STD 750            1020  
HBM
- 7 MIL STD 883            3015  
HBM
- 8 MIL PRF 81705
- 9 MIL-HDBK-773
- 10 MIL P 82646
- 11 MIL PRF 87893
- 12 MIL PRF 19500  
HBM
- 13 MIL—PRF 38535  
HBM
- 14 MIL STD 3010
- 15 MIL DTL 117
- 16 MIL E 17555
- 17 MMA 1985 79            3

# ANSI/ESD

- 4.2.2

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- A

- B

- C

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- 4

- 5

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- **1 EOS/ESD ADV 1.0**
- **2 ESD S1.1**
- **3 ESD ADV 2.0**
- **4 ESD STM 2.1**
- **5 ANSI EOS/ESD S 3.1**
- **6 EOS/ESD SP3.3**
- **7 ESD S 4.1**
- **8 ESD STM 4.2**
  
- **9 ESD STM 5.1**
- **10 ESD STM 5.2**
- **11 ESD STM 5.3.1**
  
- **12 ANSI EOS/ESD S 6.1——**
- **13 ANSI/ESD S 7.1**
- **14 EOS/ESD S 8.1 EOS/ESD**

- **15 ESD S 9.1**
- **16 ESD DSP10.1**
- **17 ESD ADV 11.2**
- **18 ESD STM12.1**
- **19 ESD DS 13.1**
- **20 ESD TR53**
  
- **21 ESD STM 97.1**
  
- **22 ESD STM 97.2**
  
- **23 ANSI/ESD541**
- **24 ESDSIL**
- **25 VZAP**

- 4.2.3 ESD EIA JEDEC

- EIA-625 ESD EIA

- JESD625-A EIA-625 1999 12



- JESD625-A

### ANSI/ESD

- 1 EIA-583
- 2 EIA-471



- **4.2.4 American National Standard Institute (ANSI) ESD**
- **1 ANSI C63.16, American National Standard Guide for Electrostatic Discharge Test Methodologies and Criteria for Electronic Equipment**
- 
- **2 ANSI/ASTM F150, Standard Test Method for Electrical Resistance of Conductive Resilient Flooring**
- 
- **3 ANSI/AATCC 134, Electrostatic property of Carpets(ANSI, American Association of Textile Colorists and Chemists)**
-

- **4 ANSI Z-41, Protective Footwear**
- 
- **5 ANSI/UL 779, Electrically Conductive Floorings (ANSI, Underwriters Laboratories)**
- 
- **4 2.5 National Fire Protection Association (NFPA) ESD**
- **1 NFPA 5-8—Static Electricity**
- 
- **2 NFPA 77—Static Electricity**
- 
- **3 NFPA 99—Chapters 6 and 7—Standards for Health Care Facilities,**
- **Quincy, MA**
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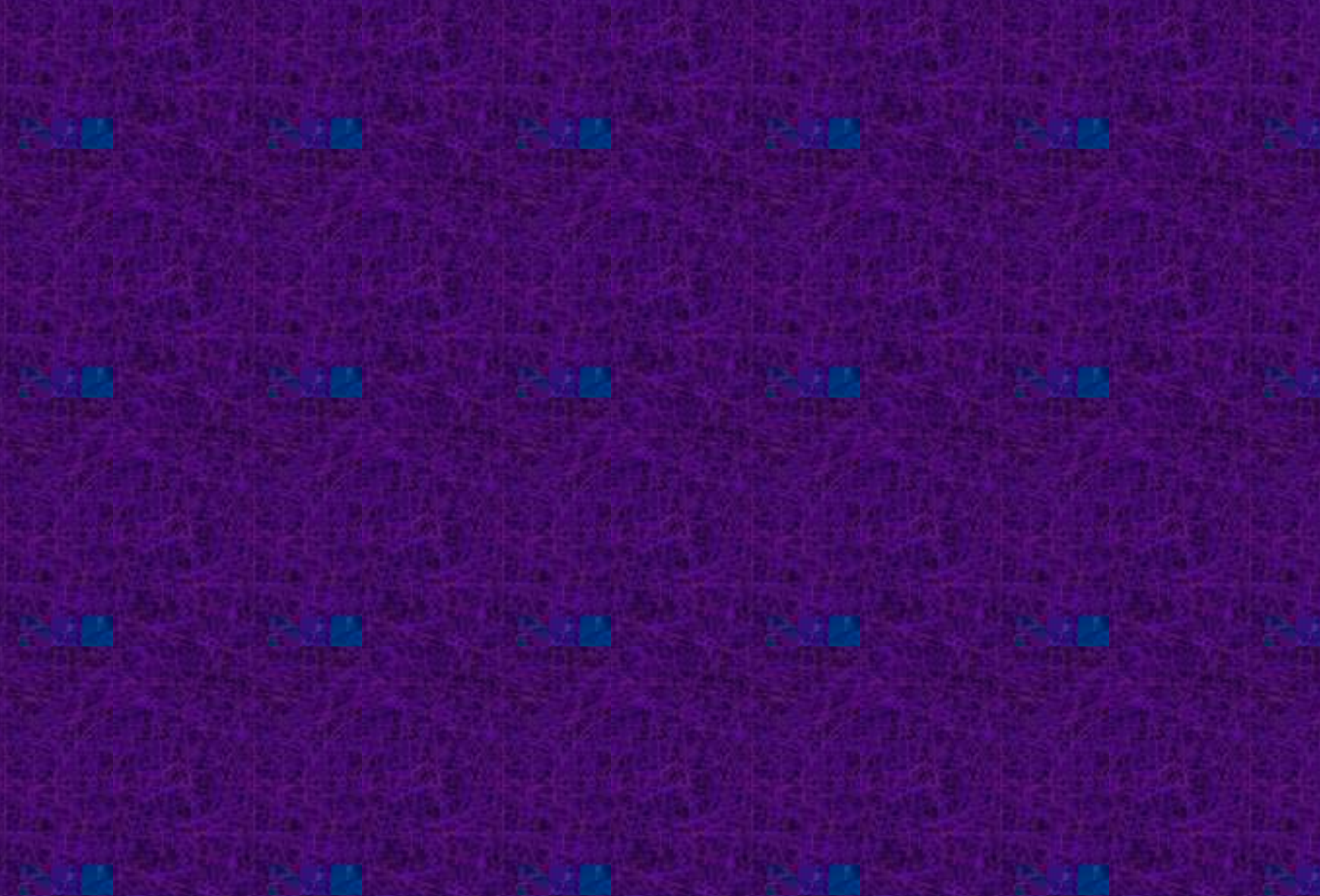
- **ESD**
- **2.1 GB**
- **1 GB12158 2006**
- **2 GB12014 1989 2006**
- **3 GB21146 -2007 GB4385  
1995**
- **4 GB50174**

- **11 GB/T13962-92**
- **12 GB/T15662-95**
- **13 GB/T18044-2000**
- **14 GB9228-88**
- **15 CB**
- **16 GB**
- **17 GB50174**
- **18 GB**
- **19 GB/T14447 93**
- **20 GB**
- **21 GB**
- **22 GB**



- **2.2 GJB**
- **1 GJB1649 — 1993**
- **2 GJB3007 — 1997 2006**
- **3 GJB/Z105 1998**
- **4 GJB2605 1996**
- **5 GJB1201 1991**
- **6 GJB/86 1997**
- **7 GJB/J5972 2007**
- **8 GJB**
- **9 GJB128A 97**
- **10 GJB548A 96**
- **11 GJB5006 2001**

- 2.3 SJ-0.0C2\_Tw 0 Ts 1020 7011.223/1 G01C3  $\rightarrow$  0.001 Tc 1.1



- 11 SJ/T31469 2002
- 12 SJ/T11294 2003
- 13 SJ 20154 92
- 14 SJ/T
- 15 SJ/T
- 16 SJ/T
- 2.4 QJ
- QJ
- 1 QJ2177
- 2 QJ1950
- 3 QJ1875
- 4 QJ1693
- 5 QJ2245

MIL GJB SJ

- 6 QJ2846
- 7 Q/W293
- 8 QJ2225
- 9 QJ2191

ESD

- 3.1 EPA
- ANSI/ESD S20.20 RH30% 70%
- IEC61340-4-1 1 RH12% 3% 2 2a
- RH25% 3% 3 RH50% 5%
- GJB3007 RH45% 75% GJB2605
- RH12% 3% MIL MIL
- RH12% 3% SJ/T10694 RH40%
- 60% ,MIL

- 3.2

- IEC81340-5-1 ANSI/ESD  
10V/100V

EPA  
DC 100V/500V

100V  
IEC

AC 100V

DC

GB GJB SJ

DC 10V/100V

AC 380V

AC220V

SJ/T10694-2006

DC 500V, ( )

- 3.3

- IEC GB GJB SJ

ANSI/ESD TR53

ANSI/ESD

S20.20



- 3.4

- IEC6140-5-1 GJB3007 SJ/T10694

1000V 100V, 2s  
ANSI/ESD S20.20 MIL

- ,IEC61340-5-1  
1000V

100V 20s 2007 50V 1999

100V 1.2m JGB3007 SJ/T10694

IEC6140-5-1 ANSI/ESDS20.20

50V 150V

, JESD625-A-1999

35V

- 3.5

- ANSI/ESDS20.20

16000

SJ/T10694

IEC61340-5-1

GJB3007

- 3.5
- ANSI/ESDS20.20

IEC61340-5-1

GB12014

ANSI/ESDTR53 IEC61340-5-1

JIS L1094

IEC6130--1 RS

1 1012 ANSI/ESD S20.20 RS

1 1011 RD 1 109 RD

3.5 107 GB12014 Q 0.2 c Q

0.6 c GJB3007 Q 0.1 c SJ/T10694

RS 1 105 1 1010 Q 0.6 c

- 3.6 ( )
- IEC6140-5-1

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SJ/T10694

GJB3007

GB21146

SJ/T10694

ESD STM 97.1

ESD STM 97.2

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- **3.7 EPA**
- **ANSI/ESD S20.20**

- 3.8
- ANSI/ESD S20.20 1999 2007  
 ANSI/ESD 541  
 1 104 /  
 1 104 1 1011 / 50nJ  
 ESD ADV11.2  
 SJ/T11277 ,  
 GJB3007 SJ/T10694 ,  
 MIL PRF 81705 JGB2605
- IEC61340-5-1, 30V HBM  
 1000V  
 IEC61340-4-4 IEC61340-4-6  
 .IEC613405-1  
 ANSI/ESD



- **3.9 EPA**

- **ANSI/ESD S20.20**

- **EIA625-99**

- **EPA**

- **12**

- **30cm**

- **1000V**

- **JGB3007**

- **100V**

- **GB50174**

- **1000V**

- **3.10**

- 

- **SJ10694**

- **JIS**

- **GB/T10723**

- **IEC61340-5-1**