



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899

August 26, 2009

Mr. Raymond Klouda  
Elite Electronic Engineering Inc.  
1516 Centre Circle  
Downers Grove, IL 60515-1082

NVLAP Lab Code: 100278-0

Dear Mr. Klouda:

I am pleased to inform you that continuing accreditation for specific test methods in EC&T : Electromagnetic Compatibility & Telecommunications is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until September 30, 2010, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP symbol and/or term in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Beth Hackett, Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

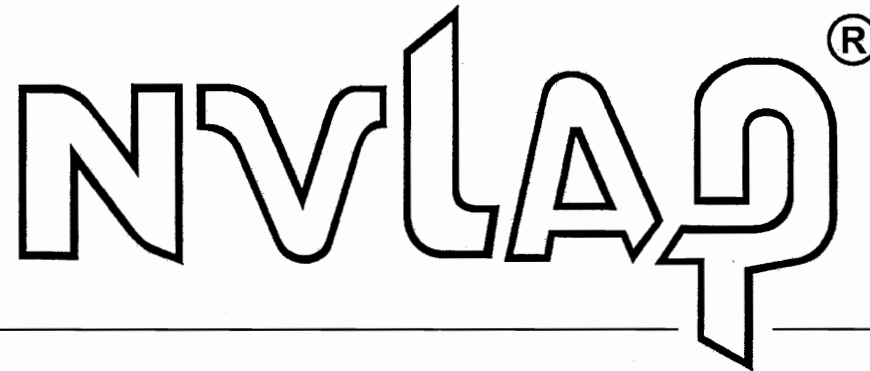
Sincerely,

Sally S. Bruce, Chief  
Laboratory Accreditation Program

Enclosure(s)



United States Department of Commerce  
National Institute of Standards and Technology



---

**Certificate of Accreditation to ISO/IEC 17025:2005**

---

NVLAP LAB CODE: 100278-0

**Elite Electronic Engineering Inc.**  
Downers Grove, IL

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

**ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2009-10-01 through 2010-09-30

*Effective dates*



*Dally S. Bruce*  
For the National Institute of Standards and Technology



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**Elite Electronic Engineering Inc.**  
1516 Centre Circle  
Downers Grove, IL 60515-1082  
Mr. Raymond Klouda  
Phone: 630-495-9770 Fax: 630-495-9785  
E-Mail: rjklouda@elitetest.com  
URL: <http://www.elitetest.com>

**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

*NVLAP Code Designation / Description*

**Emissions Test Methods**

- 12/160D21 RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 21 - Emission of Radio Frequency Energy
- 12/160F21 RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 21 - Emissions of Radio Frequency Energy
- 12/60E213 RTCA DO-160E: Section 21.3, RF Emissions, Conducted
- 12/60E214 RTCA DO-160E: Section 21.4, RF Emissions, Radiated
- 12/61000g EN 61000-6-3 (2007): Electromagnetic compatibility (EMC) - Part 6-3: Generic standard - Emission standard for residential, commercial and light industrial environments
- 12/CIS11g IEC/CISPR 11, Ed. 4.1 (2004-06): Industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurements
- 12/CIS14 CISPR 14-1 (March 30, 2000): Limits and Methods of Measurement of Radio interference Characteristics of Household Electrical Appliances, Portable Tools and Similiar Electrical Apparatus - Part 1: Emissions

2009-10-01 through 2010-09-30

*Effective dates*

*Sally S. Bruce*  
For the National Institute of Standards and Technology



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/CIS14a	EN 55014-1 (1993), A1 (1997), A2 (1999):
12/CIS14a4	EN 55014-1 (2006): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
12/CIS14e	EN 55014-1 (2001) and A1 (2001): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
12/CIS22	IEC/CISPR 22 (1997) & EN 55022 (1998) + A1(2000): Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22c4	EN 55022 (1998) + A1(2000) + A2(2003): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
12/CIS22j	EN 55022 (2006): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
12/EM02i	IEC 61000-3-2, Ed. 3.0 (2005-11): Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase)
12/EM03ii	IEC 61000-3-3, Edition 1.2 (2005-10): EMC- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low- voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection
12/FCC15b	ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart B: Unintentional Radiators
12/KN11d	KN11 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008): Conformity Assessment Procedure for Electromagnetic Interference; With KN 11
12/KN14b	KN 14-1 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Emission
12/KN22e	KN22 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008): Conformity Assessment Procedure for Electromagnetic Interference; With KN 22

2009-10-01 through 2010-09-30

*Effective dates*

*Dolly S. Bruce*  
For the National Institute of Standards and Technology



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

***NVLAP Code    Designation / Description***

12/T51a            AS/NZS CISPR 22 (2004): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement

**Immunity Test Methods**

- 12/160D16        RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 16 - Power Input
- 12/160D17        RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 17 - Voltage Spike
- 12/160D18        RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 18 - Audio Frequency Conducted Susceptibility - Power Inputs
- 12/160D19        RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 19 - Induced Signal Susceptibility
- 12/160D20        RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 20 - Radio Frequency Susceptibility (Radiated and Conducted)
- 12/160D22        RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 22 - Lightning Induced Transient Susceptibility
- 12/160F15        RTCA/DO 160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 15 - Magnetic Effect
- 12/160F16        RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 16 - Power Input
- 12/160F17        RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 17 - Voltage Spike
- 12/160F18        RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 18 - Audio Frequency Conducted Susceptibility - Power Inputs

2009-10-01 through 2010-09-30

*Effective dates*

  
For the National Institute of Standards and Technology



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/160F19	RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 19 - Induced Signal Susceptibility
12/160F20	RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 20 - Radio Frequency Susceptibility (Radiated and Conducted)
12/160F22	RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 22 - Lightning Induced Transient Susceptibility
12/160F25	RTCA/DO-160F (2007): Environmental Conditions and Test Procedures for Airborne Equipment - Section 25 - Electrostatic Discharge (ESD)
12/501304a	EN 50130-4 (1995) + A1(1998) & A2(2003): Alarm systems - Part 4. Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems
12/60E05	RTCA DO -160E: Section 5: Temperature
12/60E06	RTCA DO-160E: Section 6: Humidity
12/60E15	RTCA DO 160E: Section 15, Magnetic Effects
12/60E16	RTCA DO160E: Section 16, Power Input
12/60E17	RTCA DO-160E: Section 17, Voltage Spikes
12/60E18	RTCA DO-160E: Section 18, Audio Frequency Conducted Susceptibility
12/60E19	RTCA DO-160E: Section 19, Induced Signal Susceptibility
12/60E204	RTCA DO-160E: Section 20.4, RF Susceptibility, Conducted
12/60E205	RTCA DO-160E: Section 20.5, RF Susceptibility, Radiated
12/60E206	RTCA DO-160E: Section 20.6: RF Susceptability (Radiated Mode Tuned)

2009-10-01 through 2010-09-30

*Effective dates*

*For the National Institute of Standards and Technology*



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/60E22	RTCA DO-160E: Section 22, Lightning Induced Transient Susceptibility
12/60E23	RTCA DO-160E: Section 23, Lightning Direct Effects
12/60E25	RTCA DO-160E: Section 25, Electrostatic Discharge (ESD)
12/610006j	EN 61000-6-2 (2005): Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
12/61000k	EN 61000-6-1 (2007): Electromagnetic compatibility (EMC) - Part 6 - 1: Generic standards - Immunity for residential, commercial and light-industrial environments
12/CIS14i	EN 55014-2 (1997) and IEC/CISPR 14-2 (1997): Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2. Immunity - Product family standard
12/I01	IEC 61000-4-2, Ed. 1.2 (2001); EN 61000-4-2: Electrostatic Discharge Immunity Test
12/I01a	IEC 61000-4-2 (1995), A1(1998), A2(2000); EN 61000-4-2(1995): ESD Immunity Test
12/I02c	IEC 61000-4-3 (1995), A1(1998), A2(2000): Radiated, radio-frequency, electromagnetic field immunity test
12/I02g	IEC 61000-4-3, Ed. 3.0 (2006-02): Electromagnetic compatibility (EMC) - Part 4-3: Testing measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test
12/I03	IEC 61000-4-4(1995), A1(2000), A2(2001); EN 61000-4-4: Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test
12/I03c	IEC 61000-4-4, Ed. 2.0 (2004-07): Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test
12/I04a	IEC 61000-4-5(1995),A1(2000); EN 61000-4-5(1995),A1(2001): Surge Immunity Test

2009-10-01 through 2010-09-30

*Effective dates*

*For the National Institute of Standards and Technology*



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/I04c	IEC 61000-4-5, Ed 1.1 (2005-11): EMC - Part 4-5: Testing and measurement techniques - Surge immunity test
12/I05a	IEC 61000-4-6 (1996),A1(2000); EN 61000-4-6(1996),A1(2001): Immunity to Conducted Disturbances, Induced by Radio Frequency Fields
12/I05f	IEC 61000-4-6, Ed 2.0 (2006-05): EMC - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
12/I06	IEC 61000-4-8, Ed. 1.1 (2001); EN 61000-4-8: Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test
12/I06a	IEC 61000-4-8(1993), A1(2000); EN 61000-4-8(1994), A1(2000): Power Frequency Magnetic Field Immunity Test
12/I07c	IEC 61000-4-11, Ed. 2 (2004-03) & EN 61000-4-11: Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests
12/I08	IEC/CISPR 24 (1997), Amd1, A1(2001); EN 55024 (1998): Information technology equipment - Immunity characteristics - Limits and methods of measurement
12/I08a	EN 55024 (1998) + A1 (2001) + A2 (2003): Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement
12/KN11f	KN 61000-4-11 (2008-5); RRL Notice No. 2008-4 (May 20, 2008): Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests
12/KN14c	KN14-2 (2008-5) with RRL Notice No. 2008-4 (May 20, 2008): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Immunity
12/KN24d	KN 24 (2008-5) with RRL Notice No. 2008-4 (May 20, 2008): Information Technology Equipment - immunity characteristics - limits and methods of measurements

2009-10-01 through 2010-09-30

*Effective dates*

*For the National Institute of Standards and Technology*



ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

NVLAP LAB CODE 100278-0

NVLAP Code Designation / Description

- 12/KN2c KN 61000-4-2 (2008-5); RRL Notice No. 2008-4 (May 20, 2008): Electrostatic Discharge Immunity Test
12/KN3c KN 61000-4-3 (2008-5); RRL Notice No. 2008-4 (May 20, 2008): Radiated, radio-frequency, electromagnetic field immunity test
12/KN4c KN 61000-4-4 (2008-5); RRL Notice No. 2008-5 (May 20, 2008): Electromagnetic compatibility (EMC): Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test
12/KN5c KN 61000-4-5 (2008-5); RRL Notice No. 2008-4 (May 20, 2008): Surge Immunity Test
12/KN6c KN 61000-4-6 (2008-5); RRL Notice No. 2008-4 (May 20, 2008): Electromagnetic compatibility (EMC): Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
12/KN8c KN 61000-4-8 (2008-5); RRL Notice No. 2008-4 (May 20, 2008): Power Frequency Magnetic Field Immunity Test

Product Safety Test Methods

- 12/CSA03 CAN/CSA E60065: Audio, Video and Similar Electronic Apparatus - Safety Requirements

Telecommunications Test Methods

- 12/T01 Terminal Equipment Network Protection Standards, FCC/ACTA Method - 47 CFR Part 68 - Analog and Digital
12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b 68.316 and 68.317 Hearing Aid Compatibility: technical standards

2009-10-01 through 2010-09-30

Effective dates

Sally S. Bruce
For the National Institute of Standards and Technology



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

***NVLAP Code      Designation / Description***

12/T01c	68.302 Environmental simulation (Par. a,b)
12/T1TRQ6	T1.TRQ.6 (2001): Technical Requirements for SHDSL, HDSL2, HDSL4, Digital Subscriber Line Terminal Equipment to Prevent Harm to the Telephone Network
12/TIA31B	TIA/EIA TSB-31-B (1998): Part 68 Rational and Measurement Guidelines
12/TIA968	ANSI/TIA-968-A (2003): Telephone Terminal Equipment, Technical Requirements for Connection of Terminal Equipment to the Telephone Network
12/TIA968a	ANSI/TIA-968-A-1 (2003): Telephone Terminal Equipment, Technical Requirements for Connection of Terminal Equipment to the Telephone Network - Addendum 1
12/TIA968b	ANSI/TIA-968-A-2 (2004): Telephone Terminal Equipment, Technical Requirements for Connection of Terminal Equipment to the Telephone Network - Addendum 2
12/TIA968c	ANSI/TIA-968-A-3 (2005): Telephone Terminal Equipment, Technical Requirements for Connection of Terminal Equipment to the Telephone Network - Addendum 3

**MIL-STD-462 : Conducted Emissions**

12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04
12/A10	MIL-STD-462 Method CE06
12/A12	MIL-STD-462 Method CE07
12/A13	MIL-STD-462 Version D Method CE101

2009-10-01 through 2010-09-30

*Effective dates*

*For the National Institute of Standards and Technology*



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/A14	MIL-STD-462 Version D Method CE102
12/A15	MIL-STD-462 Version D Method CE106
12/A16	MIL-STD-461 Version E Method CE101
12/A17	MIL-STD-461 Version E Method CE102
12/A18	MIL-STD-461 Version E Method CE106
12/A19	MIL-STD-461 Version F Method CE101
12/A20	MIL-STD-461 Version F Method CE102
12/A21	MIL-STD-461 Version F Method CE106

**MIL-STD-462 : Conducted Susceptibility**

12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B04	MIL-STD-462 Method CS03/CS04/CS05/CS08
12/B05	MIL-STD-462 Method CS06
12/B06	MIL-STD-462 Method CS07
12/B07	MIL-STD-462 Method CS09
12/B08	MIL-STD-462 Method CS10
12/B09	MIL-STD-462 Method CS11
12/B10	MIL-STD-462 Method CS12
12/B11	MIL-STD-462 Method CS13

2009-10-01 through 2010-09-30

*Effective dates*

*Sally S. Bruce*  
For the National Institute of Standards and Technology



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/B12	MIL-STD-462 Version D Method CS101
12/B13	MIL-STD-462 Version D Method CS103
12/B14	MIL-STD-462 Version D Method CS104
12/B15	MIL-STD-462 Version D Method CS105
12/B16	MIL-STD-462 Version D Method CS109
12/B17	MIL-STD-462 Version D Method CS114
12/B18	MIL-STD-462 Version D Method CS115
12/B19	MIL-STD-462 Version D Method CS116
12/B20	MIL-STD-461 Version E Method CS101
12/B21	MIL-STD-461 Version E Method CS103
12/B22	MIL-STD-461 Version E Method CS104
12/B23	MIL-STD-461 Version E Method CS105
12/B24	MIL-STD-461 Version E Method CS109
12/B25	MIL-STD-461 Version E Method CS114
12/B26	MIL-STD-461 Version E Method CS115
12/B27	MIL-STD-461 Version E Method CS116
12/B28	MIL-STD-461 Version F Method CS101
12/B29	MIL-STD-461 Version F Method CS103
12/B30	MIL-STD-461 Version F Method CS104

2009-10-01 through 2010-09-30

*Effective dates*

*For the National Institute of Standards and Technology*

NVLAP-01S (REV. 2005-05-19)



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
12/B31	MIL-STD-461 Version F Method CS105
12/B32	MIL-STD-461 Version F Method CS106
12/B33	MIL-STD-461 Version F Method CS109
12/B34	MIL-STD-461 Version F Method CS114
12/B35	MIL-STD-461 Version F Method CS115
12/B36	MIL-STD-461 Version F Method CS116

**MIL-STD-462 : Radiated Emissions**

12/D01	MIL-STD-462 Method RE01
12/D02	MIL-STD-462 Method RE02
12/D03	MIL-STD-462 Method RE03
12/D04	MIL-STD-462 Version D Method RE101
12/D05	MIL-STD-462 Version D Method RE102
12/D06	MIL-STD-462 Version D Method RE103
12/D07	MIL-STD-461 Version E Method RE101
12/D08	MIL-STD-461 Version E Method RE102
12/D09	MIL-STD-461 Version E Method RE103
12/D10	MIL-STD-461 Version F Method RE101
12/D11	MIL-STD-461 Version F Method RE102
12/D12	MIL-STD-461 Version F Method RE103

2009-10-01 through 2010-09-30

*Effective dates*

*Sally S. Bruce*  
For the National Institute of Standards and Technology



**ELECTROMAGNETIC COMPATIBILITY  
AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 100278-0**

*NVLAP Code    Designation / Description*

**MIL-STD-462 : Radiated Susceptibility**

12/E01	MIL-STD-462 Method RS01
12/E02	MIL-STD-462 Method RS02
12/E04	MIL-STD-462 Method RS03 employing RADHAZ procedures for high level testing (Consult laboratory for field strengths available)
12/E05	MIL-STD-462 Method RS05
12/E07	MIL-STD-462 Method RS06
12/E08	MIL-STD-462 Version D Method RS101
12/E09	MIL-STD-462 Version D Method RS103
12/E10	MIL-STD-462 Version D Method RS105
12/E11	MIL-STD-461 Version E Method RS101
12/E12	MIL-STD-461 Version E Method RS103
12/E13	MIL-STD-461 Version E Method RS105
12/E15	MIL-STD-461 Version F Method RS101
12/E16	MIL-STD-461 Version F Method RS103

2009-10-01 through 2010-09-30

*Effective dates*

*For the National Institute of Standards and Technology*