



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

SIEMIC LABORATORIES

San Jose, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).



Presented this 11th day of July 2008.

A handwritten signature in black ink, appearing to read "Peter M. Meyer".

President & CEO
For the Accreditation Council
Certificate Number 2742.01
Valid to September 30, 2010

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

SIEMIC LABORATORIES ¹

2206 Ringwood Ave.

San Jose, CA 95131

Mr. Leslie Bai (Authorized Representative) Phone: 408 526 1188 www.siemic.com

ELECTRICAL

Valid to: September 30, 2010

Certificate Number: 2742.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following EMC, Product Safety, Radio and Telecommunication tests:

Test Description:

Test Method:

EN & IEC - Emissions & Immunity

IEC/CISPR 11; IEC/CISPR 12; EN 55011; IEC/CISPR 22; EN 55022; IEC/CISPR 20; EN 55020; EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4; EN 61204-3; EN 61326, EN 61326-1; EN 61000-3-2, EN 61000-3-3; EN 50081-1, EN 50081-2; EN 50082-1; IEC 61000-4-2; EN 61000-4-2; IEC 61000-4-3; EN 61000-4-3; IEC 61000-4-4; EN 61000-4-4; IEC 61000-4-5; EN 61000-4-5; IEC 61000-4-6; EN 61000-4-6; IEC 61000-4-8; EN 61000-4-8; IEC 61000-4-11; EN 61000-4-11; IEC/CISPR 24; EN 55024; EN 50412-2-1; EN 50083-2; EN 50090-2-2; EN 50091-2; EN 50130-4; EN 50130-4 +A12; IEC 60601-1-2; EN 12184

Korea - Emissions & Immunity

KCC Notice 2008-39, May 19, 2008;
RRA Announce 2009-9, Dec. 21, 2009; KN22:2007-12;
KCC Notice 2008-38, May 19, 2008;
RRA Notice 2009-10, Dec. 21, 2009;
KN24:2008-5; KN61000-4-2:2008-5; KN61000-4-3:2008-5;
KN61000-4-4:2008-5; KN61000-4-5:2008-5; KN61000-4-6:2008-5;
KN61000-4-8:2008-5; KN61000-4-11:2008-5;
RRL Notice 2008-3; RRL Notice 2008-4;
RRL Notice 2005-131; RRL Notice 2007-99;
RRL Notice 2007-101; RRL Notice 2008-4;
RRA Notice No 2008-11(2008.12.16);
RRA Notice No 2008-12(2008.12.16); KN 60601-1-2

FCC - Emissions

ANSI C63.17 and ANSI C63.4 with FCC Method;
ANSI C63.4 with FCC Method 47 CFR Part 11;
ANSI C63.4 with FCC Method 47 CFR Part 15, Subpart E;
ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart C;
ANSI C63.4 and DA 02-2138;
ANSI C63.4 with FCC Method 47 CFR Part 15, Subpart B;
FCC Method 47 CFR Part 18, FCC OST/MP-5 (1986);
FCC Report and Order ET Docket 98-153 (FCC 02-48);
FCC Part 15.G using FCC Order 04-425; SAE J1113-11, SAE J1113-12;
SAE J1113-41; SAE J1113-4; SAE J1113-13

Canada - Emissions	ICES-001, ICES-002, ICES-003 Issue 4, ICES-003 Issue 4 (2004); ICES-006 Issue 1
Vietnam – Emission & Immunity	TCN 68-193:2003, TCN 68-196:2001, TCVN 7189:2002
Australia / New Zealand – Emissions and Immunity	AS/NZS 1044; AS/NZS 4251.1, AS/NZS 4251.2; AS/NZS CISPR 22 and AS/NZS 3548; AS/NZS 2279.3; AS/NZS 61000-3-3; AS/NZS CISPR 11; AS/NZS CISPR 22; AS/NZS CISPR 24; AS/NZS 61000.6.3 , AS/NZS 61000.6.4 , AS/NZS CISPR 14.1 , AS/NZS 61000.3.2
Japan - Emissions	JEITA IT-3001; VCCI-3
China - Emissions	GB9254; GB17625.1
Taiwan - Emissions	CNS 13438; CNS 13783-1; CNS 13803; CNS 13439
Singapore - Emissions & Immunity	IDA TS EMC; CISPR 22; IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6
FCC- Radio TIA/EIA 603-C with 47 CFR Part 2	Maritime and Aviation Radio Services in 47 CFR Parts 80 and 87; Personal Mobile Radio Services in 47 CFR Parts 22 (cellular), 24, 25, 26, and 27; Personal Mobile Radio Services in 47 CFR Part 22 (cellular) and Part 24 – [limited to TX conducted and radiated power and RX - TX radiated spurious emissions]; General Mobile Radio Services in 47 CFR Parts 22 (non-cellular), 74, 90, 95, and 97; General Mobile Radio Services in 47 CFR Part 90; Microwave Radio Services in 47 CFR Parts 21, 27, 74, and 101
Canada - Radio	RSS 102, RSS 111, RSS 112, RSS 117, RSS 118, RSS 119, RSS 123, RSS 125, RSS 127, RSS 128, RSS 129, RSS 131, RSS 132, RSS 133, RSS 134, RSS 135, RSS 136, RSS 137, RSS 138, RSS 139, RSS 141, RSS 142, RSS 170, RSS 181, RSS 182, RSS 188, RSS 191, RSS 192, RSS 193, RSS 194, RSS 195, RSS 199, RSS 210, RSS 220, RSS 213, RSS 215, RSS 243, RSS 287, RSS 310, RSS Gen
CE - Radio	EN 301 502, EN 301 511, EN 301 526, EN 301 681, EN 301 721, EN 301 751, EN 301 753, EN 301 783-2, EN 301 796, EN 301 797, EN 301 840-2, EN 301 843-1, EN 301 843-4, EN 301 843-5, EN 301 893, EN 301 908-01, EN 301 908-02, EN 301 908-03, EN 301 908-04, EN 301 908-05, EN 301 908-06, EN 301 908-07, EN 301 908-08, EN 301 908-09, EN 301 908-10, EN 301 908-11, EN 301 929-2, EN 301 997-2; EN 302 018-2, EN 302 054-2, EN 302 064-2, EN 302 066-2, EN 302 077-2, EN 302 186, EN 302 195-2, EN 302 217-3, EN 302 245-2, EN 302 288-2, EN 302 291-2, EN 302 296, EN 302 297, EN 302 326-2, EN 302 326-3, EN 302 340, EN 302 372-2, EN 302 426, EN 302 454-2, EN 302 502, EN 302 510-2 EN 302 217-4-2; EN 300 224-1, EN 300 279, EN 300 339, EN 300 385; EN 301 839-2, EN 301 843-6; EN 302 017-2, EN 302 208-2, EN 302 217-2-2; ETS 300 329, ETS 300 445, ETS 300 446, ETS 300 683, ETS 300 826, ETS EN 300 328; ETSI EN 300 086-2; EN 302217-1, EN 302217-2-1, EN 302217-4-1; EN 302288-1; EN 302908-12;

CE – Radio, continued

EN 302326-1; EN 301929-1; EN 301997-1; EN 300224-2; EN 301839-1;
EN 301843-1, EN 301843-2, EN 301843-3, EN 301843-4, EN 301843-5;
EN 302017-1; EN 302208-1; EN 300086-1; EN 300113-1; EN 300224-1;
EN 300341-1; EN 302291-1; EN 302500-1, EN 302500-2
ETSI EN 300 113-2, ETSI EN 300 197, ETSI EN 300 198,
ETSI EN 300 219-1, ETSI EN 300 219-2,
ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 300 220-3
ETSI EN 300 224-2, ETSI EN 300 296-1, ETSI EN 300 296-2,
ETSI EN 300 328-1, ETSI EN 300 328-2,
ETSI EN 300 330, ETSI EN 300 330-1, ETSI EN 300 330-2,
ETSI EN 300 341-2, ETSI EN 300 373-1, ETSI EN 300 373-2,
ETSI EN 300 373-3, ETSI EN 300 390-1, ETSI EN 300 390-2,
ETSI EN 300 422-1, ETSI EN 300 422-2, ETSI EN 300 431,
ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 454-1,
ETSI EN 300 454-2, ETSI EN 300 718-2; ETSI EN 301 021,
ETSI EN 301 166-1, ETSI EN 301 166-2, ETSI EN 301 178-2,
ETSI EN 301 213-1, ETSI EN 301 213-2, ETSI EN 301 213-3,
ETSI EN 301 213-4, ETSI EN 301 213-5, ETSI EN 301 357-1,
ETSI EN 301 357-2, ETSI EN 301 390, ETSI EN 301 459,
ETSI EN 301 489-01[excluding section 9.6], ETSI EN 301 489-02,
ETSI EN 301 489-03, ETSI EN 301 489-04, ETSI EN 301 489-05,
ETSI EN 301 489-06, ETSI EN 301 489-07, ETSI EN 301 489-08,
ETSI EN 301 489-09, ETSI EN 301 489-10, ETSI EN 301 489-11,
ETSI EN 301 489-12, ETSI EN 301 489-13, ETSI EN 301 489-14,
ETSI EN 301 489-15, ETSI EN 301 489-16, ETSI EN 301 489-17,
ETSI EN 301 489-18, ETSI EN 301 489-19, ETSI EN 301 489-20,
ETSI EN 301 489-22, ETSI EN 301 489-23, ETSI EN 301 489-24,
ETSI EN 301 489-25, ETSI EN 301 489-26, ETSI EN 301 489-27,
ETSI EN 301 489-28, ETSI EN 301 489-31, ETSI EN 301 489-32;
IEC 60945

IDA - Radio

IDA TS 3G-BS, IDA TS 3G-MT, IDA TS AR, IDA TS CT-CTS,
IDA TS GMPCS, IDA TS GSM-BS, IDA TS GSM-MT, IDA TS LMR,
IDA TS RPG, IDA TS SRD, IDA TS UWB, IDA TS WBA

Vietnam - Radio

TCN 68-242:2006 , TCN 68-243:2006, TCN 68-246:2006

Korea - Radio

KCC Notice 2009-13, KCC Notice 2008-26, RRL Notice 2008-2,
RRL Notice 2005-105, RRL Notice 2008-17,
RRL Notice 2005-127, RRL Notice 2005-24, RRL Notice 2005-25,
RRL Notice 2005-179, RRL Notice 2008-10, RRL Notice 2007-49,
RRL Notice 2007-20, RRL Notice 2007-11, RRL Notice 2007-80,
RRL Notice 2004-68; KCC Notice 2009-36, Dec. 8, 2009;
RRL Notice 2009-6, October 15, 2009; KCC Notice 2010-1;

Taiwan - Radio

LP0002; PLMN07

Japan - Radio

ARIB STD-T81, ARIB STD-T66; RCR STD-1; RCR STD-29;
ARIB STD-T94 Fascicle 1, ARIB STD-T90, ARIB STD-T89;
RCR STD-33

Australia - New Zealand -
Radio

AS 2772.2; AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1,
AS/NZS 4280.2, AS/NZS 4281, AS/NZS 4295, AS/NZS 4582,
AS/NZS 4583, AS/NZS 4769.1, AS/NZS 4769.2, AS/NZS 4770,
AS/NZS 4771

Hong Kong - Radio HKTA 1002, HKTA 1007, HKTA 1008, HKTA 1010, HKTA 1015, HKTA 1016, HKTA 1020, HKTA 1022, HKTA 1026, HKTA 1027, HKTA 1029, HKTA 1030, HKTA 1031, HKTA 1032, HKTA 1033, HKTA 1034, HKTA 1035, HKTA 1036, HKTA 1037, HKTA 1039, HKTA 1041, HKTA 1042, HKTA 1043, HKTA 1044, HKTA 1046, HKTA 1047, HKTA 1048, HKTA 1049, HKTA 1051

USA - Telecom ANSI/TIA-968-A:03, ANSI/TIA-968-A-1:03, ANSI/TIA-968-A-2:04, ANSI/TIA-968-A-3:05, ANSI/TIA-968-A-4:07, ANSI/TIA-968-A-5:07; TIA-968-B; FCC Rule Part 68; 47 CFR Part 68.316, 47 CFR Part 68.317; ANSI/TIA/EIA-464-C, TIA-810-B; T1.TRQ6 (2002); TCB-31-B (1998); TIA-470.110-C, TIA-810-B, TIA-920

Canada - Telecom CS-03 Part V Issue 9:2009 Amndt 1; CS-03 Part VIII Issue 9:2009 Amndt 4; CS-03 Part I Issue 9:2006 Amndt 3, CS-03 Part II Issue 9:2004, CS-03 Part III Issue 9:2004 , CS-03 Part V Issue 9:2004 CS-03 Part VI Issue 9:2004, CS-03 Part VII Issue 9:2006 Amndt 3 CS-03 Part VIII Issue 9:2007 Amndt 3, CS-03 issue 9:04 + A2(06) + A3(06)

Europe - Telecom TBR 2: 01-1997, TBR 004 Ed.1.95 + A1 (97), TBR 1, TBR 3, TBR 12:A1 01-1996,TBR 013 ed.1, TBR 024 ed.1, TBR 25, TBR 38 ed.1; ETSI ES 203 021-05, ETSI ES 203 021-2, ETSI ES 021-3; TBR 021; ETSI EG 201 121, ETSI EN 301 437, ETSI TS 101 270-1; ITU-T Recommendation Q.920 , ITU-T Recommendation Q.920 – Amendment 1, ITU-T Recommendation Q.921, ITU-T Recommendation Q.921 – Amendment 1, ITU-T Recommendation Q.931, ITU-T Recommendation Q.931 – Amendment 1, Erratum 1 (02/2003) ITU-T Recommendation Q.931 (05/1998), ISDN userNetwork interface layer 3 Specification for basic call control; ITU-T Recommendation P.300

Australia - Telecom AS/CA S003.1:2010; AS/CA S003.2:2010; AS/CA S003.3:2010; AS/CA S004:2010; AS/ACIF S006:2008; AS/ACIF S041.1:2009; AS/ACIF S041.2:2009; AS/ACIF S041.3:2009; AS/ACIF S042.1:2008; AS/ACIF S043.2:2008; AS/ACIF S043.3:2008; AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06, AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06; AS ACIF S042.1

New Zealand - Telecom PTC200:2006; PTC200 issue No.2:97 + A1(980); PTC220; PTC273:2007; TNA 115, TNA 117

Singapore - Telecom IDA TS ADSL, Issue 1, Rev. 1 (April 2006), IDA TS DLCN, Issue 1 (July 2005), IDA TS ISDN BA, Issue 1 (July 2005), IDA TS ISDN PRA, Issue 1 (July 2005), IDA TS ISDN 3 (Oct. 2000), IDA TS-PSTN, Issue 1 (March 2007), IDA TS ACLIP 07

Hong Kong - Telecom	HKTA 2011, HKTA 2012, HKTA 2013, HKTA 2014, HKTA 2017, HKTA 2018, HKTA 2022, HKTA 2024, HKTA 2026, HKTA 2027, HKTA 2028, HKTA 2029, HKTA 2030, HKTA 2031, HKTA 2032, HKTA 2033
Vietnam - Telecom	TCN 68-188:2000, TCN 68-193:2003, TCN 68-196:2001, TCN 68-143:2003, TCN 68-192:2003, TCN 68-189:2000, TCN 68-221:2004, TCN 68-222:2004, TCN 68-245:2004, TCN 68-223:2004
Korea - Telecom	RRA Notice 2009-38, Sep. 11, 2009; RRA Notice 2009-7 (including attachments 1, 3, 5, 6); Presidential Decree 21098, RRL Notice 2007-30, RRL Notice 2008-10 (attachments 1, 3, 5, 6), RRL Notice 2009-25, RRL Notice 2008-59
China - Telecom	YD/T 514-1:98, YD/T 1277.1-2003; GB/T 17904.1-1999, GB/T 17904.2-1999, GB/T 17154.1-1997, GB/T 17154.2-1997; YD/T1091-2000, YD/T1006-1999; GB/T 17789-1999
Taiwan - Telecom	PSTN01:03; ADSL01:08; ID0002; IS6100: 93
Japan - Telecom	JATE Blue Book, Green Book
South Africa - Telecom	DPT-TE-001; TE-002, TE-003, TE-004, TE-005, TE-006, TE-007, TE-008, TE-009, TE-010, TE-012 (telephone interface), TE-013 (telephone interface), TE-014, TE-015, TE-018 ; SWS-001, SWS-002, SWS-003, SWS-004, SWS-005, SWS-006, SWS-007, SWS-008, SWS-009, SWS-010
Israel - Telecom	Israel MoC Spe. 23/96
Mexico - Telecom	NOM-151-SCT1-1999, NOM-152-SCT1-1999
Argentina - Telecom	CNC-ST2-44-01
Brazil - Telecom	Resolution 392-2005
International Telecom Union	ITU-T-G.703:01, ITU-T-G.823:93, ITU-T G.824, ITU-T G.825, ITU-T-G.991.2, ITU-T-G.992.1, ITU-T-G.992.3, ITU-T-G.992.5, ITU-T-G.993.1
Product Safety	IEC 60950-1; EN 60950-1; UL 60950-1; IEC 60601-1-1 CAN/CSA 22.2 NO. 60950-1-03; SS-EN 60950-1; AS/NZ 60950-1, [voltage surge testing up to 6kV, excluding Annex A and H]; CNS 14336, CNS 14408; GB4943; President Notice 20664, RRL Notice 2008-10 (attachment 4); RRA Notice 2009-7 (attachment 4); TCN 68-190:2003; SABS IEC 60950; IEC/EN 61558; IEC/EN 61558-2-7

¹Note: This accreditation covers testing performed at the laboratory listed above and the OATS located at 44366 South Grimmer Blvd., Fremont CA 94538. At this site “Radiated Emissions” are tested at a measurement distance of 10m.

*Limitations for listed standards are indicated by square brackets and Scope excludes protocol sections of applicable standards.