Criteria for Designation of U.S. Conformity Assessment Bodies under the US-Israel Mutual Recognition Agreement

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Introduction

The *Mutual Recognition Agreement between the Government of the United States and the Government of the State of Israel for Conformity Assessment of Telecommunications Equipment* (US-Israel MRA) was signed on October 15, 2012, and entered into force on December 12, 2013.

The US-Israel MRA applies to the conformity assessment of telecommunications equipment that may be attached to a public telecommunications network and other equipment subject to telecommunications regulations, whether wire or wireless, and including terrestrial and satellite equipment.

Phase I of the US-Israel MRA provides for the mutual recognition of qualified testing laboratories termed here as Conformity Assessment Bodies (CABs) and mutual acceptance of the results of testing of equipment undertaken by recognized CABs.

Phase II, which covers the recognition of certification bodies, is not currently implemented.

A U.S. testing laboratory seeking designation by NIST and recognition by the State of Israel (Israel) shall meet the requirements identified in this document. CABs must submit the documentation and information listed in the Application Checklist (see Section 2.0). NIST, as the U.S. Designating Authority under the MRA, will review and process requests for designation.

The Ministry of Communication (MOC) and the Ministry of Industry, Trade and Labor (MOITAL) in Israel shall make the decision on recognition.

For questions about the information contained in this document, please contact the NIST MRA Team via e-mail at mra@nist.gov.

National Institute of Standards and Technology
U.S. Department of Commerce

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1. Requirements for Designation

To be eligible for designation by NIST to Israel for consideration as a recognized testing laboratory for telecommunications equipment, the U.S. CAB shall meet the following requirements:

1.1 The CAB shall be a legally identifiable entity located in the U.S.

1.2 The CAB shall be ISO/IEC 17025 accredited by a U.S. laboratory accreditation body that is listed by NIST as acceptable for use for the purpose of the NIST MRA designations under various EMC/Telecom MRAs. There are currently three U.S. accreditation bodies listed: A2LA, ACLASS, and NVLAP.

1.3 The CAB shall meet all testing laboratory requirements described in the FCC Test Firm Roles and Responsibilities Document and shall be recognized by the U.S. Federal Communication Commission (FCC) as an Accredited Laboratory.

1.4 The CAB shall have expert knowledge of Israel's applicable laws, technical regulations and administrative requirements relevant to the testing of telecommunications equipment covered under the scope of the US-Israel MRA. Refer to US-Israel MRA, Appendix A.I for further information.

1.5 Israel has provided guidance information on applicable test methods, procedures and rules. This information is included in Section 3 below. The CAB shall be ISO/IEC 17025 accredited for one or more of the test methods identified by Israel in the guidance sections noted.

1.6 The CAB is responsible for staying up-to-date with the applicable test methods, procedures and rules of Israel as these apply to the scope of the MRA. The CAB shall have a policy and procedure that describes how the CAB stays up-to-date.

IMPORTANT NOTICE

There is no formal list of standards available for designation in the US-Israel MRA. CABs will be designated on the basis of (1) FCC recognition and (2) maintaining an ISO/IEC 17025 Scope of Accreditation containing one or more relevant test methods identified in guidance provided by Israel and included in Section 3 of this document.

2. Application Checklist

To apply for designation, the CAB shall submit the following documents/information to the NIST MRA Program Office at mra@nist.gov.

	Application Checklist	NIST use only
	Copy of this Application Checklist.	
	Cover letter that includes the following information: organization name, web address, mailing address, physical address of laboratory, main phone number, and the CAB's primary and alternate contact information (including name, title, email address and phone number) for that location.	
	Documentation of FCC Recognition as an Accredited Laboratory.	
	A copy of the ISO/IEC 17025 Certificate and Scope of Accreditation valid for at least six more months.	
	The Scope of Accreditation must include one or more of the test methods identified in the guidance provided from Israel (see Section 3). Please circle or highlight the relevant test methods on the Scope of Accreditation.	
	A copy of the CAB's written policy and procedures for staying up-to-date with telecommunications equipment testing requirements for Israel.	
	Signed CAB Declaration Form	

NAME OF CAB: _____

COMPLETED BY: _____

E-MAIL ADDRESS: _____

3. Guidance on Applicable Test Methods, Procedures and Rules

(This guidance has been provided by Israel.)

3.1 Part I: EMC/Safety

a. SI 60950 Part I
(*Note: A list of Israel's national deviations from the IEC 60950-1 is available from NIST upon request.)*

b. SI 961 Part 6.1

c. SI 961 Part 6.2

d. FCC Part 15

3.2 Part II: Wire Equipment

a. PSTN - *Ministry of Communications Specification 023/96: Specification of Terminal Equipment Interconnected to the Analog Public Telephone Network - Requirements for Type Approval.*

Link on MOC website: http://www.moc.gov.il/144-en/MOC.aspx

The referenced document 023/96 is posted here:
http://www.moc.gov.il/sip_storage/FILES/8/388.pdf

*According to Israel, the following standards are considered equivalent:
- FCC Part 68 subparts

b. ISDN - *Ministry of Communications Specifications ISDN BRA and ISDN PRA (Note: A copy of these documents is available from NIST upon request.)*

*According to Israel, the following standards are considered equivalent:
- ETSI Technical Basis for Regulation (TBR) 3 – ETSI TBR 3 - (1995 and A1), *Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN basic access*

- ETSI Technical Basis for Regulation (TBR) 4 – ETSI TBR 4 (1995 and A1), *Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN primary rate access*

c. ADSL - *Ministry of Communications Specification dated October 3, 2005*
(Note: Further information on the availability of this reference is pending.)

*According to Israel, the following standards are considered equivalent:

- For equipment that supports ADSL Technology:
  ANSI T1.43i2
  ITU G.992.1 Annex a (G.dmt)

  and at least one of the following:
  RFC 2684 (1483 bridge)
  RFC 2364 PPPoA
  RFC 2516 PPPoE

- For equipment that supports ADSL2 Technology:
  ITU G.992.3

- For equipment that supports ADSL2+ Technology:
  ITU G.992.5

- For equipment that supports VDSL Technology:
  ITU G.993.1

- For equipment that supports VDSL2 Technology:
  ITU G.993.2

3.3 Part III: Wireless Equipment

a. Wireless Telegraph Ordinance (Ordinance Non-application Directive), 1984
http://www.moc.gov.il/sip_storage/FILES/3/293.pdf

b. Frequencies for GSM and UMTS networks
http://www.moc.gov.il/sip_storage/FILES/0/3040.pdf

c. Checklist for Conformance Approval for DECT equipment in the Spectrum Division, July 2010 http://www.moc.gov.il/sip_storage/FILES/6/2106.doc

(Note: English translations of 3.3.a and 3.3.c are available from NIST upon request.)

3.4 Part IV: Type Approval – Licensed Frequencies

Type approval is required for the following devices operating at licensed frequencies:

- Land Mobile simplex, two-way radio, trunking 136-174 MHz
- Land Mobile simplex, two-way radio, trunking 450 - 470 MHz
- Land Mobile trunking, Iden,
  Up-Link 806 - 821 MHz; Down-Link 851 - 866 MHz

- Land Mobile cellular:
  a. CDMA2000 and UMTS 850 Up-Link 824 - 845 MHz / Down-Link 869 - 890 MHz
  b. GSM 1800 Up-Link 1710 - 1740 / Down-Link 1805 - 1835
  c. UMTS 2100 Up-Link 1920 - 1980 / Down-Link 2110 - 2170 MHz

3.5 Part V: Type Approval - License Exempt Frequencies

Type approval is required for the devices listed in Table 1- *Devices Operating at License Exempt Frequencies*:

Table 1 – Devices Operating at License Exempt Frequencies

	Frequency Range	**Max Transmit Power**	**Field Strength /Magnetic Field**
1.	125.0 - 148.5 KHz	0.5 mW	
2.	1.6 - 1.8 MHz	100 mW	
3.	13.567 - 13.553 MHz (RFID) see CEPT 70-03		42 dBuA@10 m
4.	26.96 - 27.28 MHz	100 mW	
5.	43.71 - 44.49, 46.60 - 46.98, 48.75 - 49.51, 49.66 - 50.00 MHz		10 mV/m@3 m
6.	174.1, 174.3, 174.5, 177.6, 181.1, 181.75, 182.0, 202.05, 202.150, 202.250 MHz	50 mW	
7.	174 - 174.750, 178.150 - 179.250, 181 - 181.750, 185.150 - 186.250, 202.000 - 202.750, 433.05 - 434.79 MHz		10 mW
8.	50.840, 50.920, 50.960, 53.300, 53.600, 72.070, 72.080, 72.190, 72.240, 72.310, 72.430, 72.980, 75.430, 75.710, 75.990 MHz	500 mW	
9.	87.5 - 108.0 MHz; 200 kHz bandwidth; European CEPT 70-03 or US part 15.230	CEPT 70-03 50 nW e.r.p.	
			CFR 47 § 15.239 250µvolts/m @ 3 m
10.	315 and 325 MHz	100 mW	

	Frequency Range	Max Transmit Power	Field Strength /Magnetic Field
11.	433 MHz	10 mW	
12.	446 - 446.1(8 channels of 12.5 KHz)	500 mW (eirp)	
13.	794 - 806 MHz (wireless microphones)	10 mW	
14.	915 - 917 MHz; Out Of Band (OoB) below 915 MHz, -74 dBm per 100 KHz; above 917 MHz - 63.6 dBm per 25 KHz; the duty cycle (DC) provides a linear release only at 915 MHz; e.g. for DC 1 % (-20 dB) OoB below 915 MHz is -54 dBm per 100 KHz, and not -74 dBm per 100 KHz. Manufacturer should mark the product model by suffix in order to emphasize the specific ISR RF band and Out of Bands: unique identifier "IL" is convenient. 40 KHz crystal stability per 5 years.	EiRP: 2 Watts;	
15.	922.36 - 924.80 MHz	150 mW; not more than 40 µW average power	
16.	1222.6 - 1232.6, 1,570.42 - 1,580.42 - GPS receivers		
17.	1880 - 1900 MHz (European DECT)		
18.	2400 - 2483.5 MH; 802.11 b, g or ETSI EN 300 - 328, ETSI EN 300 - 440, ERC/DEC/(01)07, or Bluetooth. Internal embedded antenna or external antenna connector per CFR 47 part 15.203	100 mW (eirp)	
19.	5150 - 5350 MHz; 802.11 a channels 36, 40, 44, 48, 52, 56, 60, 64; Indoor only; ETSI EN 301893 or ECC/DEC/(04)08 dated 12 November 2004; Internal embedded antenna or external antenna connector per CFR 47 part 15.203 Dynamic Frequency Selection (DFS) as specified by ETSI EN 301893 and Transmitter Power Control (TPC) as specified by ITU-R Recommendation M. 1652 - as outlined in Table 2 below.	60-200 mW (eirp), pending on implementation of TPC and/or DFS mechanisms	
20.	76 - 77 GHz (safety and car control)	316 W (eirp)	
21.	10.5 - 10.55 GHz, 11.4 - 11.7 GHz, 24.07, 24.11 GHz, 24.19 GHz, 24.1 - 24.2 GHz, 33.4 - 36.0 GHz, 300 - 770 Terahertz – Car velocity detectors (receivers)		
22.	1000 GHz – 430000 GHz - Infrared	Less than 200 mW	

Table 2 – DFS and TPC at 5 GHz

		mean e.i.r.p. dBm	
RF Band	DFS	TPC exists	No TPC
5250 - 5150 MHz	Not needed	23	23
5250 - 5350 MHz	Must	23	20

4. Additional References

For information on mandatory Israeli Standards published by decree, see:
http://www.moital.gov.il/NR/exeres/0F56C368-2D7E-4973-B5D2-C8B375FD2C10.htm

For standardization information in Israel, see:
http://www.moital.gov.il/NR/exeres/E3D9B802-3B23-463D-BE6D-785AF6D702BC.htm

5. Document Control Information

Date	Description	Other Details
February 7, 2014	Version 1.0	First version released to stakeholders for implementation