

# Radio Spectrum and Technical Standards Advisory Committee

SSAC Paper 6/2017 for information

Update on Testing Requirements under the  
APEC Mutual Recognition Arrangement  
for Conformity Assessment of Telecommunications Equipment

Office of the Communications Authority  
13 December 2017

# APEC Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment (APEC Tel MRA)



# APEC Tel MRA Background

Adopted by the APEC  
Telecommunications and  
Information Working Group  
in July 1999

A voluntary multilateral  
agreement among APEC  
economies



Initiative



Status

Purpose



Participation



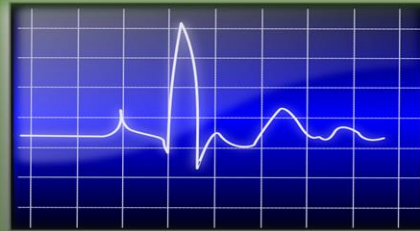
Streamline conformity  
assessment by avoiding  
duplicative testing and  
certification in APEC economies

Hong Kong, China joined  
APEC Tel MRA since its  
inauguration in July 1999

# APEC Tel MRA Framework



MRA partners publish **their technical regulations** for which they will accept test reports and equipment certification



## Phase I – Testing

Mutual recognition of **testing labs** as Conformity Assessment Bodies (CABs) and mutual acceptance of **test reports**

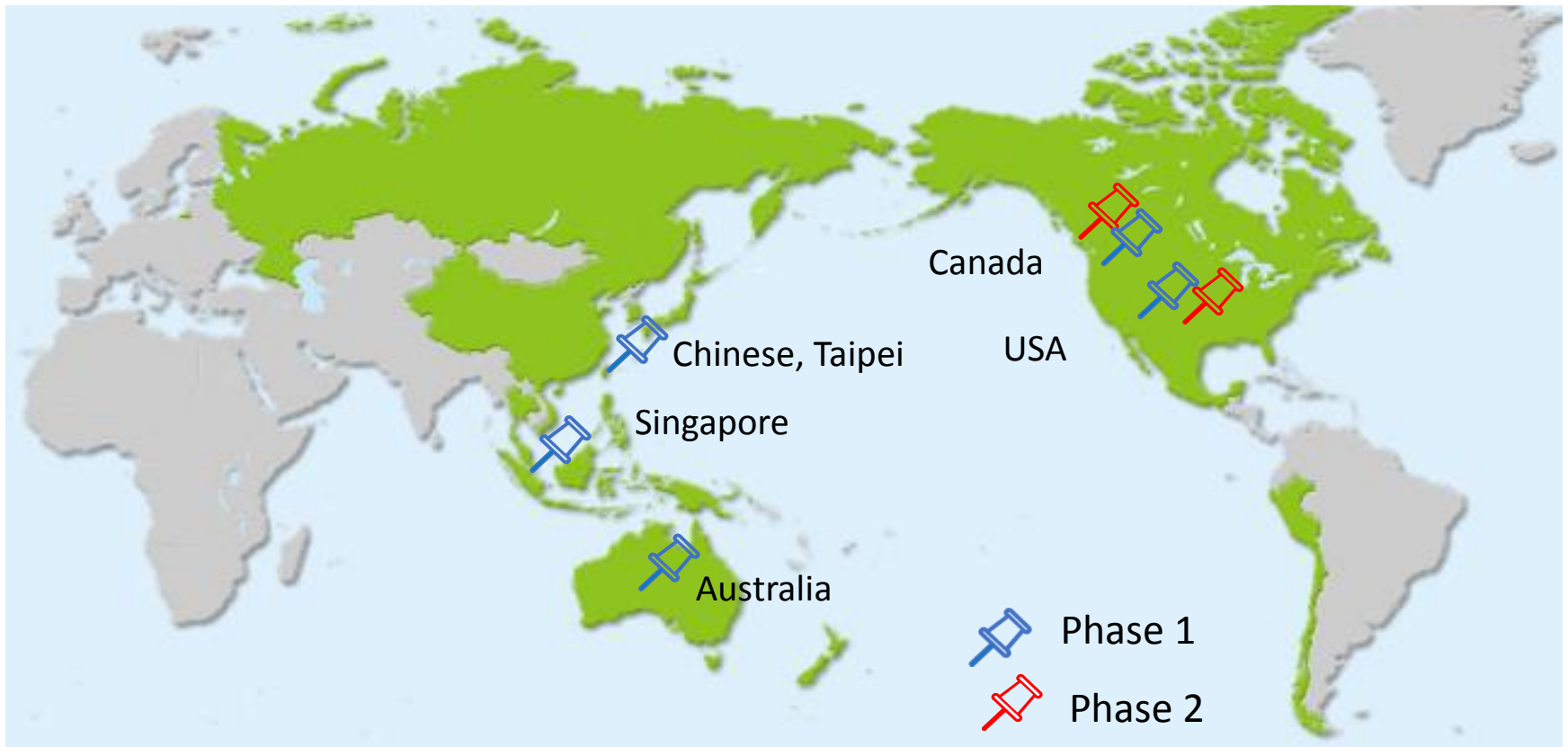
## CERTIFICATE



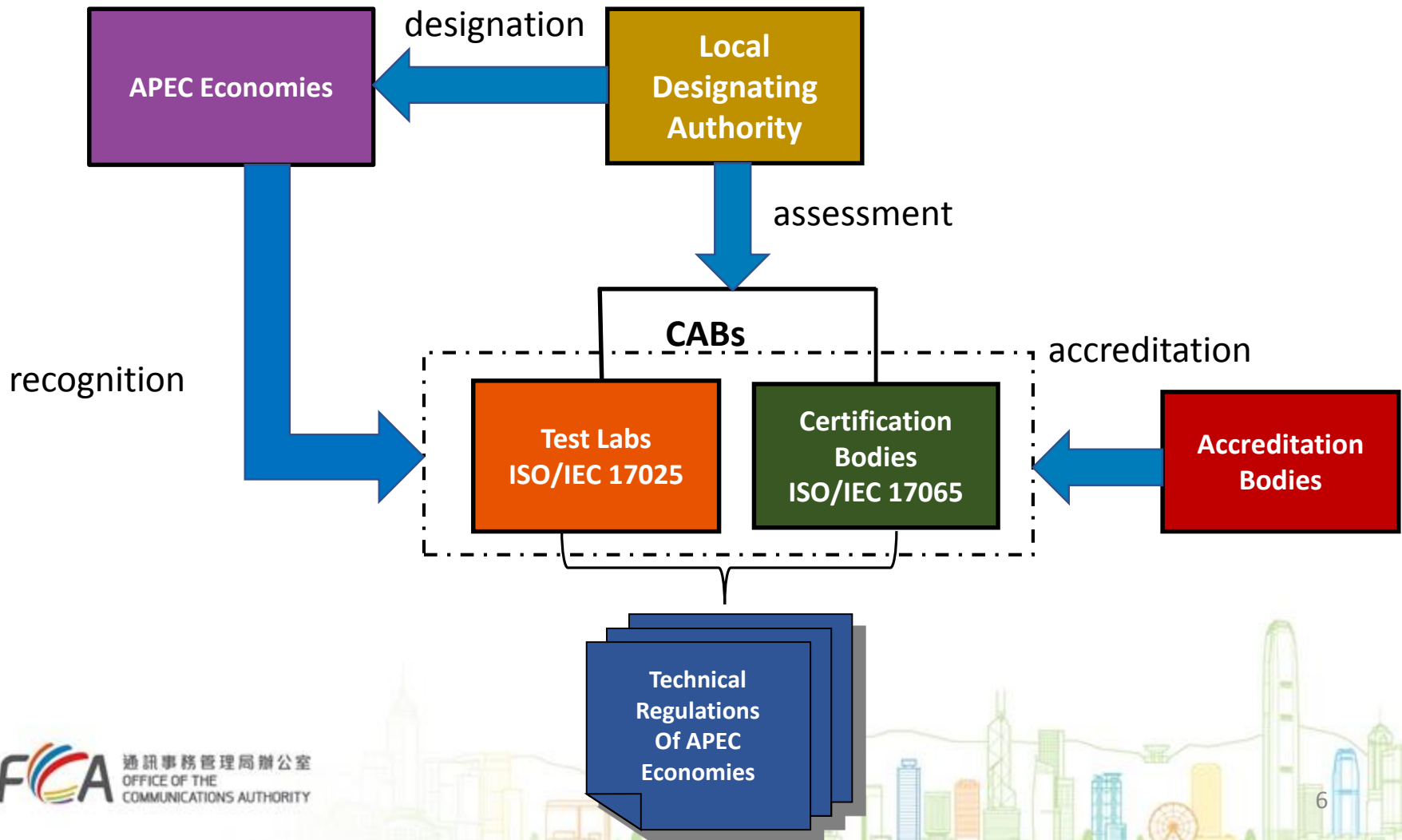
## Phase 2 - Certification

Mutual recognition of **certification bodies** as CABs and mutual acceptance of **equipment certification**

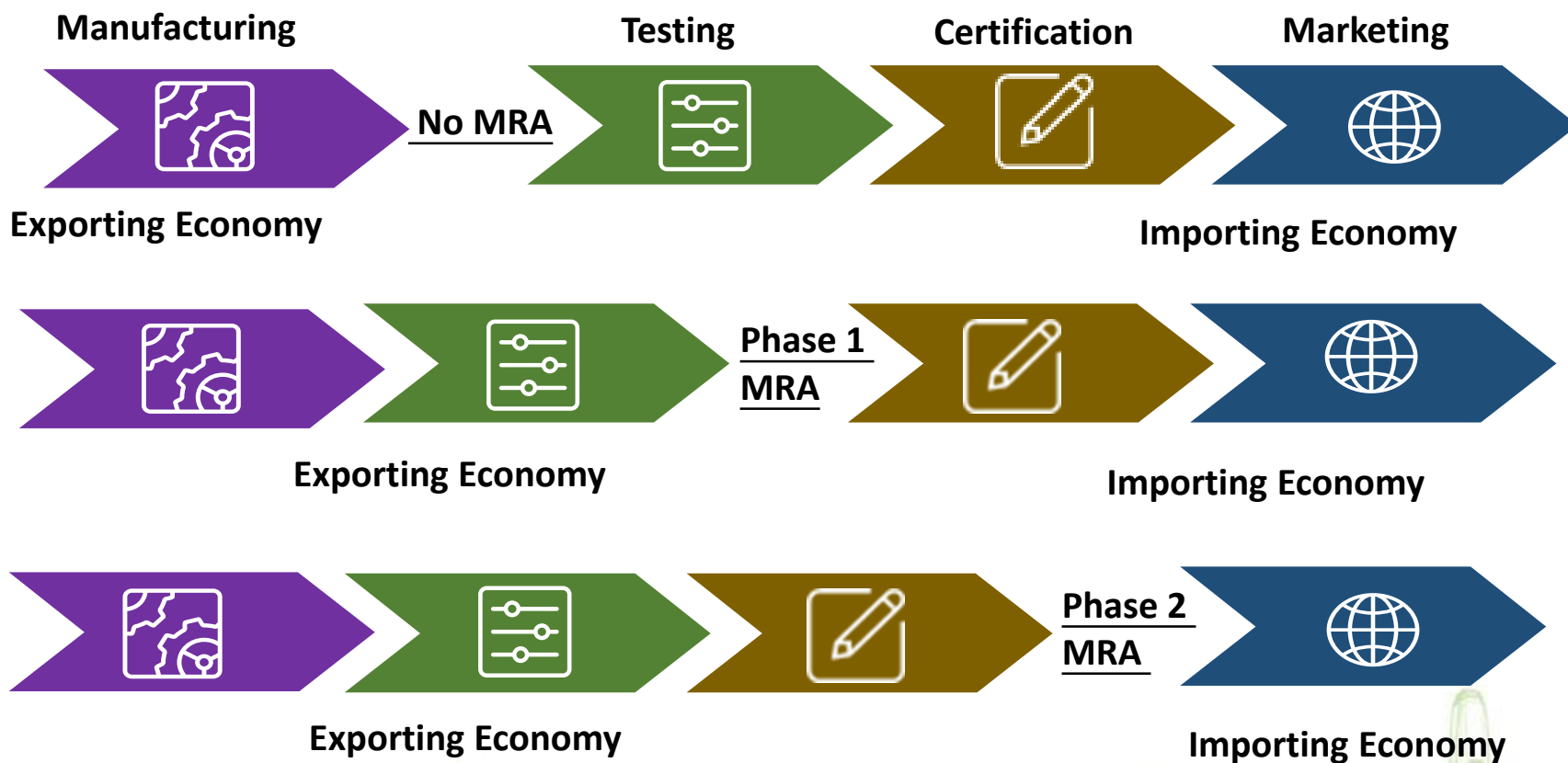
# MRA Partners of Hong Kong, China



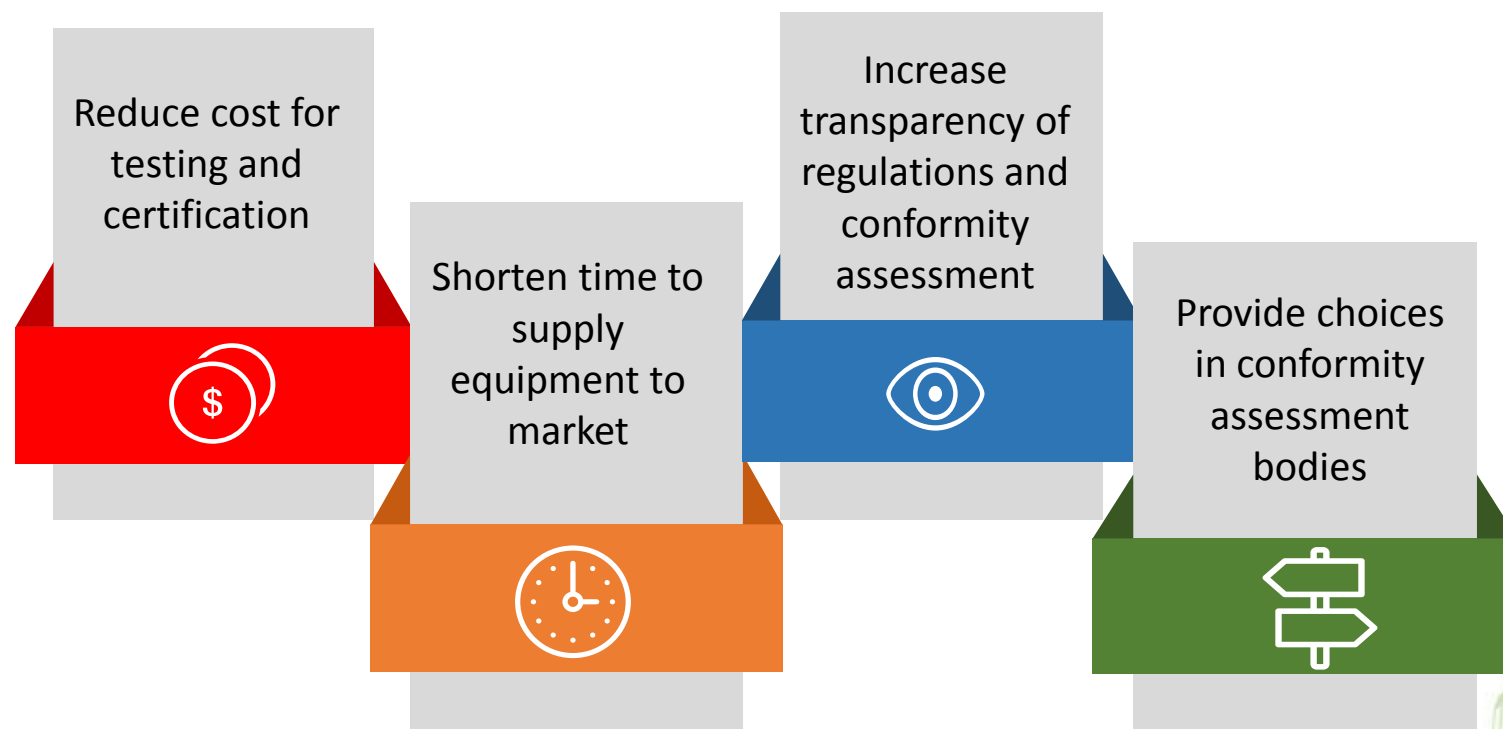
# Designation and Recognition of CABs



# Benefits of APEC Tel MRA (1)



# Benefits of APEC Tel MRA (2)





**Update on Testing Requirements by the  
Federal Communications Commission (FCC)  
after 13 July 2017  
Knowledge Database (KDB) Publication 974614**



# KDB Publication 974614



3 FCC scopes expanded to 18 scopes



Re-accredited every two years



Accredited to test everything within the identified scope (FULL SCOPE)



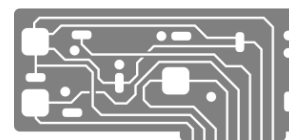
KDBs and prescribed test methods as part of the assessed scopes

# 3 FCC Scopes Before KDB 974614

## Eight HK CABs recognised by FCC

### Part 15B – Unintentional Radiator

CB Receiver, TV Receiver, cable system terminal device, personal computers and peripherals, CPU boards, power supplies, scanning receiver, radar detector, access Broadband over Power Line



Part 15 C -Licensed  
free RF devices



Part 18 - ISM (Industrial,  
Scientific and Medical  
Equipment)



# 18 FCC Scopes in KDB 974614 (1)

**15B** Unintentional Radiator

**15C** Intentional Radiator

**18** ISM

**15D** Unlicensed PCS Devices

**15E** UNII without dynamic frequency selection

**15E** UNII with dynamic frequency selection

**15F** UWB Devices

**15G** Broadband over Powerline Devices

**15H** TV White Space Devices

# 18 FCC Scopes in KDB 974614 (2)

22,24,  
25,27

**Commercial Mobile  
Services**

22,90,  
95,97

**General Mobile  
Radio Services**

80,87

**Maritime and  
Aviation Radio  
Services**

96

**Citizen Bands  
Broadband Radio  
Services (3.5 GHz)**

25,  
74,90

**Microwave and  
mmWave Band  
Services**

73,74

**Broadcast Radio  
Services**

IEEE  
1528

**RF Exposure (SAR)**

20

**Hearing Aid  
Compatibility**

20

**Signal Booster**

# Partial Scopes not Recognised after 13 July 2017

## 47 CFR Part 15B unintentional radiators

### Non-compliance to KDB 974614

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性
Unintentional radiators subject to 47 CFR Part 15 with the highest frequency generated or used or which operates or tunes below 108MHz < Including the following > - FM broadcast receiver; - Superregenerative receiver; - Scanning receiver, - Class B personal computers and peripherals; - CPU boards and internal power supplies used with Class B personal computers - Class B personal computers assembled using authorized CPU boards or power supplies - Class B external switching power supplies	- Measurement of radiated emission - 30 MHz to 1 GHz - Measurement of conducted emission - 9 kHz to 30 MHz

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性
Unintentional radiators subject to 47 CFR Part 15 < Excluding the following > - TV broadcast receivers - Citizen-band receivers - Scanning receivers - Radar detectors - TV interface devices, - Cable system terminal devices - Access Broadband over Power Line	EMC tests :-  Emission tests - Measurement of radiated emission - 9 kHz to 40 GHz - Measurement of conducted emission - 9 kHz to 30 MHz

# Scopes Acceptable Under KDB 974614

Electrical and Electronic Products 電氣及電子產品		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Unintentional radiators	<p>EMC tests :- <b>maximum frequency</b> Emission tests</p> <ul style="list-style-type: none"> <li>- Measurement of radiated emission 9 kHz to <b>40 GHz</b></li> <li>- Measurement of conducted emission 150 kHz to 30 MHz</li> </ul>	<p><b>Test standards</b></p> <p>47 CFR Part 15 Subpart A and Subpart B using test method specified in <b>ANSI C63.4-2014</b></p>
Intentional radiators	<ul style="list-style-type: none"> <li>- Measurement of radiated emission - 9 kHz to <b>40 GHz</b></li> <li>- Measurement of conducted emission - 150 kHz to 30 MHz</li> </ul>	<p>47 CFR Part 15 Subparts A and C using test methods specified in <b>ANSI C63.10-2013</b></p>

# Status and Way Forward

## CABs

Part 15B partial scope  
July 2017 – 4  
Nov 2017 - 2

Part 15C partial scope  
Nov 2017 – 1

## OFCA

coordinate with the  
Hong Kong Accreditation  
Service and FCC to  
facilitate CABs in  
meeting the KDB 974614  
requirements.



# Applications as CABs under APEC Tel MRA

Testing labs in Hong Kong are welcome to apply through OFCA (Designating Authority) as accredited labs to perform EMC and RF tests to technical regulations of APEC economies

Designation

Information notes and guidelines about APEC Tel MRA are published at:

[http://www.ofca.gov.hk/en/industry\\_focus/telecommunications/standards/telecom/apec\\_tel\\_mra/index.html](http://www.ofca.gov.hk/en/industry_focus/telecommunications/standards/telecom/apec_tel_mra/index.html)

# Statistics at a glance



Type of CAB	Number
Phase 1 CABs recognised by OFCA	31
Phase 2 CABs recognised by OFCA	5
Phase 1 CABs designated by OFCA	9
Phase 2 CABs designated by OFCA	1

# Thank you.

