

TERMS AND CONDITIONS FOR TELECOMMUNICATION TECHNICAL TRIALS

1 INTRODUCTION

- 1.1 This document contains the terms and conditions which shall be complied with by a person¹ who intends to conduct technical trials (as described in condition 3 below) on telecommunication systems and/or services in Singapore.

2 SCOPE OF TECHNICAL TRIALS REQUIRING IMDA'S APPROVAL

- 2.1 Any person who wishes to conduct any technical trial on any telecommunication service, system and/or network under any of the following circumstances (hereinafter referred to as a "trial licensee") must obtain prior written approval from IMDA. Such persons include:

- (a) A person who does not already hold a licence from IMDA which would allow the provision of the telecommunication systems and/or services which are intended to be used or provided in the technical trial;
- (b) An existing licensee whose licence does not allow the provision of the specific telecommunication systems and/or services which are intended to be used or provided in the technical trial; or
- (c) An existing licensee who does not have the required radio frequency for its technical trial (including those who are intending to provide services during their technical trial which are beyond the scope of their existing spectrum right or licence).

- 2.2 Trial licensees should note that separate licences or authorisations may be required from other government agencies in relation to the deployment and/or provision of certain types of telecommunication systems and/or services in Singapore².



¹ The word "person" as used herein includes both natural and legal persons (e.g., companies).

² For example, trial licensees may need to comply with terms and conditions that may be imposed by the Media Development Authority of Singapore if they intend to distribute any Internet content.

3 NATURE OF TRIAL

- 3.1 The nature of the trial must be non-commercial, i.e., trial participants shall not be charged for any service or equipment made available to them during the technical trial. However, the trial licensee can levy a refundable deposit for the equipment utilised by the trial participants.
- 3.2 Trial licensees shall not impose any obligations on trial participants that would require them to subscribe to any non-trial service that may be offered by the trial licensee.
- 3.3 If a trial licensee intends to launch the trial service on a non-trial basis at the end of its technical trial, it must obtain the appropriate licence from IMDA, or expand an existing licence to include the new systems and/or services.

4 OPERATING CONDITIONS FOR TECHNICAL TRIALS

4.1 Participants

- 4.1.1 The number of participants in the technical trial will be subject to IMDA's prior written approval.
- 4.1.2 If the trial network is connected to any public telephone network of any Facilities-Based Operator or Services-Based Operator, the trial licensee must inform trial participants in advance that they could be liable for any local or international call charges from such operators incurred during the trial.

4.2 Period of Trial

- 4.2.1 The period of the technical trial must be for a fixed duration. In general, any technical trial shall not last more than 6 months where there is no use of radio frequencies.
- 4.2.2 For technical trials that require the use of radio frequencies, the trial period will be subject to condition 4.7.5.
- 4.2.3 Any request for extension of the period of technical trial must be submitted to IMDA for prior written approval and, in such an event, IMDA will determine a reasonable period for the technical trial, taking into consideration the proposed trial set-up.

4.3 Trial Publicity

- 4.3.1 Technical trial publicity material must be submitted to IMDA for information at least 3 days before release.
- 4.3.2 Trial licensees must not make any claim to be a service provider/operator on the basis of the technical trial.

4.4 Interconnection with the Public Telephone Network

- 4.4.1 Any proposed interconnection to a public telephone network or any other telecommunication networks authorised by IMDA shall be subject to IMDA's prior written approval and any terms and conditions which IMDA may impose in respect thereof from time to time.

4.5 Geographic Coverage of Trial

- 4.5.1 The geographic coverage of the technical trial must be clearly specified and shall be subject to IMDA's prior written approval.

4.6 Future Public/Commercial Service

- 4.6.1 An approval by IMDA for a technical trial shall not be construed in any way as an approval or indication of future approval from IMDA that any other licence or right shall be granted to the trial licensee who wishes to offer its trial services on a non-trial basis after the conclusion of its technical trial.

4.7 Frequency Fees/Station Fees and Other Fees Payable

- 4.7.1 The trial licensee shall be subject to the payment of radio frequency fees, station licence fees or any other fees determined by IMDA to be applicable. The fees are shown in Annex 1.
- 4.7.2 Trial licensees should note that radio frequency fees and station fees are separately payable to IMDA for the allocation and management of radio frequencies.
- 4.7.3 Any frequency spectrum allocated for the purposes of the technical trial must only be used for the technical trial and not for any other purposes.
- 4.7.4 Any frequency spectrum allocated for the purposes of the technical trial must not be construed in any way as an approval or indication of frequency spectrum being available or to be allocated for any future non-trial service.

4.7.5 Any technical trial that requires the allocation of frequency spectrum by IMDA on an ad-hoc temporary basis will be for a period not exceeding 90 days.

4.8 Precautions against Interference

4.8.1 For technical trials involving wireless technologies, the radio-communications stations/networks shall be subject to inspection, where necessary, by an officer of IMDA prior to the commencement of the trial.

4.8.2 The trial licensee shall take all precautions necessary to ensure that there is no interference with any authorised networks of IMDA.

4.8.3 The trial licensee shall also take the necessary steps, at its own cost and on a timely basis, to rectify any interference problems, including the setting up of monitoring facilities and procedures that will keep track of any potential interference problems.

4.8.4 The trial licensee shall provide information on radio frequency measurements, if any.

4.9 Changes to Technical Trial

4.9.1 Any changes to the technical trial proposed by the trial licensee must be submitted to IMDA for prior written approval. IMDA may impose any additional terms and conditions it deems fit.

4.9.2 Any proposed changes must be submitted to IMDA at least two weeks before the proposed implementation date.

4.9.3 IMDA reserves the right to require changes to be made to the technical trial. IMDA will give the trial licensee at least two weeks' notice to implement the changes.

4.10 Provision of Information

4.10.1 The trial licensee shall provide IMDA with any documents or information that IMDA may be notice require, on a timely basis and at its own cost, for IMDA's exercise of its function and duties under the Act. The Licensee undertakes to IMDA that any such document and information provided to IMDA shall be true, accurate and complete.

4.10.2 IMDA may use and disclose any such document or information provided to IMDA pursuant to Condition 4.10.1 as IMDA deems fit. Where IMDA proposes to disclose any document or information obtained pursuant to Condition 4.10.1 and IMDA considers that the disclosure would result in the release of information concerning the business, commercial or financial affairs of the Licensee or which disclosure would or could reasonably be expected to adversely affect the Licensee's lawful business, commercial or financial affairs, IMDA will give the Licensee a reasonable opportunity to make representations on the proposed disclosure before IMDA makes a final decision on whether to disclose the information.

4.11 Governing Law and Jurisdiction

4.11.1 The governing law of this document shall be the laws of Singapore. The trial licensee shall agree to be subject to the laws of Singapore including but not limited to the Telecommunications Act 1999 and the Telecommunications (Radio-communication) Regulations. The trial licensee shall submit to the exclusive jurisdiction of the Singapore Courts.

4.12 Compliance with conditions

4.12.1 The trial licensee shall comply with the trial conditions provided herein. In the event that the trial licensee breaches any of the trial conditions, IMDA shall have the right to terminate the technical trial or require the trial licensee to take the appropriate corrective action.

4.13 Termination of Technical Trial

4.13.1 Where the trial licensee has breached any of the terms and conditions herein, IMDA may terminate the technical trial after giving due notice in writing to the trial licensee.

4.13.2 Such a notice in writing shall be deemed to be given if sent by pre-paid registered post or facsimile to the registered address of the trial licensee, in the event of termination by IMDA.

4.13.3 IMDA shall not be liable for any loss suffered by trial participants or the trial licensee, in the event of termination by IMDA.

4.13.4 Where the trial licensee wishes to terminate the technical trial, IMDA shall be kept informed of the decision, including the rationale of the decision.

4.13.5 In the event the technical trial is terminated, the trial licensee will be obliged to remove all equipment, including equipment at the premises of trial participants, with two weeks unless a time extension has been sought and obtained from IMDA.

4.14 Local Representative

4.14.1 The trial licensee shall have a local office for purposes of discharging the obligations and settling the payment of any fees under these terms and conditions. In the event that the trial licensee is an overseas entity, the trial licensee shall appoint a local authorised representative for the said purposes.

FREQUENCY AND EXPERIMENTAL STATION/NETWORK FEE TABLE
Fees for Ad Hoc Temporary Radio Frequency Assignment

Bandwidth	Fee	
1. Frequencies from Table 1 (see below)	\$100	
2. All other frequencies	<u>10 days or less*</u>	<u>11 – 90 days</u>
$x \leq 25$ kHz	\$ 100	\$ 175
$25 \text{ kHz} < x < 500$ kHz	\$ 150	\$ 275
$500 \text{ kHz} \leq x < 1$ MHz	\$ 450	\$ 825
$1 \text{ MHz} \leq x < 20$ MHz	\$ 900	\$1,625
$x \geq 20$ MHz	\$1,550	\$2,800

* Unless otherwise determine by the Authority, a fee of \$100 is payable for the use of any of the above radio frequencies if the period of usage or cumulative period of usage is less than 24hours.

Table 1

	Frequency	Bandwidth
(i)	25273 kHz	16 kHz
(ii)	71.575 MHz	16 kHz
(iii)	83.875/87.875 MHz	16 kHz
(iv)	137.175/141.775 MHz	16 kHz
(v)	161.450 MHz	16 kHz
(vi)	433.05 - 434.79 MHz	Low power devices of 10 mW erp
(vii)	866 - 869 MHz	Low power devices of 500 mW erp
(viii)	920 - 925 MHz	Low power devices of 500 mW erp
(ix)	1525 - 1559 MHz	Satellite Receive Band
(x)	1880 - 1900 MHz	Low power devices of 100 mW eirp
(xi)	2400 - 2483.5 MHz	Low power devices of 100 mW eirp
(xii)	3400 - 4200 MHz	Satellite Receive Band
(xiii)	5150 - 5350 MHz	Low power devices of 100 mW eirp
(xiv)	5725 - 5850 MHz	Low power devices of 1 W eirp
(xv)	10.7 - 11.7 GHz	Satellite Receive Band
(xvi)	12.2 - 12.75 GHz	Satellite Receive Band

Note: The above list may be modified from time to time due to international/national frequency allocations.