

**RADIO SPECTRUM AND TECHNICAL STANDARDS ADVISORY  
COMMITTEE**

**Proposed Allocation of the 401 – 402 MHz and 405 – 406 MHz Bands  
to Mobile Service on a Secondary Basis**

**Introduction**

This paper seeks Members' views on the proposed allocation of the 401 – 402 MHz and 405 – 406 MHz bands ("the proposed bands") to the mobile service (except aeronautical mobile service) on a secondary basis.

**Background**

2. In 2008, the then Telecommunications Authority allocated the 402 – 405 MHz band to the mobile service (except aeronautical mobile service) on a secondary basis for use by Medical Implant Communication System. As technology continues to evolve, new Medical Data Services ("MEDS") are now available for transfer of non-time-critical patient data from external devices, among others, to peripherals. Typical devices of MEDS operating in the proposed bands are miniaturised sensors, for example glucose sensors, for monitoring therapeutic and/or diagnostic information of a patient.

3. In Hong Kong, local medical equipment industry has made enquiries on frequency allocation for MEDS applications which are considered beneficial to patients and medical professionals. It is therefore necessary to consider allocating the proposed bands to the mobile service (except aeronautical mobile service) on a secondary basis with a view to facilitating the deployment of MEDS in Hong Kong.

**Spectrum Availability for MEDS**

4. The proposed bands are currently allocated to the Meteorological Aids, Earth Exploration-satellite and Meteorological-satellite services on a primary basis in Hong Kong. Under the proposed allocation, devices of MEDS operating in the proposed bands as a secondary service shall not cause harmful interference to the above-said primary services. In this connection, the

European Conference of Postal and Telecommunications Administrations has published a report<sup>1</sup> advising the technical and operational requirements for co-existence between MEDS and existing radiocommunications services. Nevertheless, there has not been any frequency assignment in the proposed bands in Hong Kong so far. The proposed bands are therefore available for allocation to the mobile service (except aeronautical mobile service) on a secondary basis for MEDS in Hong Kong.

### **MEDS Frequency Allocation in Other Places**

5. Australia, Canada, most European countries and the United States have allocated the proposed bands to the mobile service (except aeronautical mobile service) and allowed the use of MEDS in these bands. In late 2016, the Ministry of Industry and Information Technology also approved the use of the proposed bands for MEDS applications in the Mainland.

### **Frequency Allocation of the International Telecommunication Union (“ITU”)**

6. The global allocation of the 401 – 406 MHz band under the Radio Regulations published by ITU and that in Hong Kong are summarised at **Annex**. The proposed allocation of the 401 – 402 MHz and 405 – 406 MHz bands to the mobile service (except aeronautical mobile service) on a secondary basis in Hong Kong is in compliance with the Radio Regulations.

### **Proposed Frequency Allocation**

7. Having considered the factors mentioned in paragraphs 2 to 6 above, it is recommended that the proposed bands (i.e. the 401 – 402 MHz and 405 – 406 MHz bands) be allocated to the mobile service (except aeronautical mobile service) on a secondary basis. With the adoption of the proposed allocation, the entire band of 401 – 406 MHz will be allocated to the mobile service (except aeronautical mobile service) on a secondary basis in Hong Kong.

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<sup>1</sup> Electronic Communications Committee Report 92 entitled “Coexistence between ultra low power active medical implants devices (ULP-AMI) and existing radiocommunication systems and services in the frequency bands 401–402 MHz and 405–406 MHz” available at <http://test.ecodocdb.dk/docdb/download/4ed71249-f15f/ECCREP092.PDF>.

## **Advice Sought**

8. Members are invited to comment on the proposed frequency allocation in paragraph 7 above.

Office of the Communications Authority  
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### Current ITU and Hong Kong Allocation of the 401 – 406 MHz Band

| ITU GLOBAL ALLOCATION  | HONG KONG ALLOCATION   |
|--|--|
| <b>401-402 MHz</b><br>METEOROLOGICAL AIDS<br>SPACE OPERATION<br>(space-to-Earth)<br>EARTH<br>EXPLORATION-SATELLITE<br>(Earth-to-space)<br>METEOROLOGICAL-SATELLITE<br>(Earth-to-space)<br>Fixed<br>Mobile except aeronautical mobile | <b>401-402 MHz</b><br>METEOROLOGICAL AIDS<br>EARTH<br>EXPLORATION-SATELLITE<br>(Earth-to-space)<br>METEOROLOGICAL-SATELLITE<br>(Earth-to-space)                                      |
| <b>402-403 MHz</b><br>METEOROLOGICAL AIDS<br>EARTH<br>EXPLORATION-SATELLITE<br>(Earth-to-space)<br>METEOROLOGICAL-SATELLITE<br>(Earth-to-space)<br>Fixed<br>Mobile except aeronautical mobile  | <b>402-403 MHz</b><br>METEOROLOGICAL AIDS<br>EARTH<br>EXPLORATION-SATELLITE<br>(Earth-to-space)<br>METEOROLOGICAL-SATELLITE<br>(Earth-to-space)<br>Mobile except aeronautical mobile |
| <b>403-406 MHz</b><br>METEOROLOGICAL AIDS<br>Fixed<br>Mobile except aeronautical mobile  | <b>403-405 MHz</b><br>METEOROLOGICAL AIDS<br>Mobile except aeronautical mobile   |
|  | <b>405-406 MHz</b><br>METEOROLOGICAL AIDS  |
| <b>Note:</b><br>Services in “capitals” : primary services<br>Services in “normal characters” : secondary services  |  |