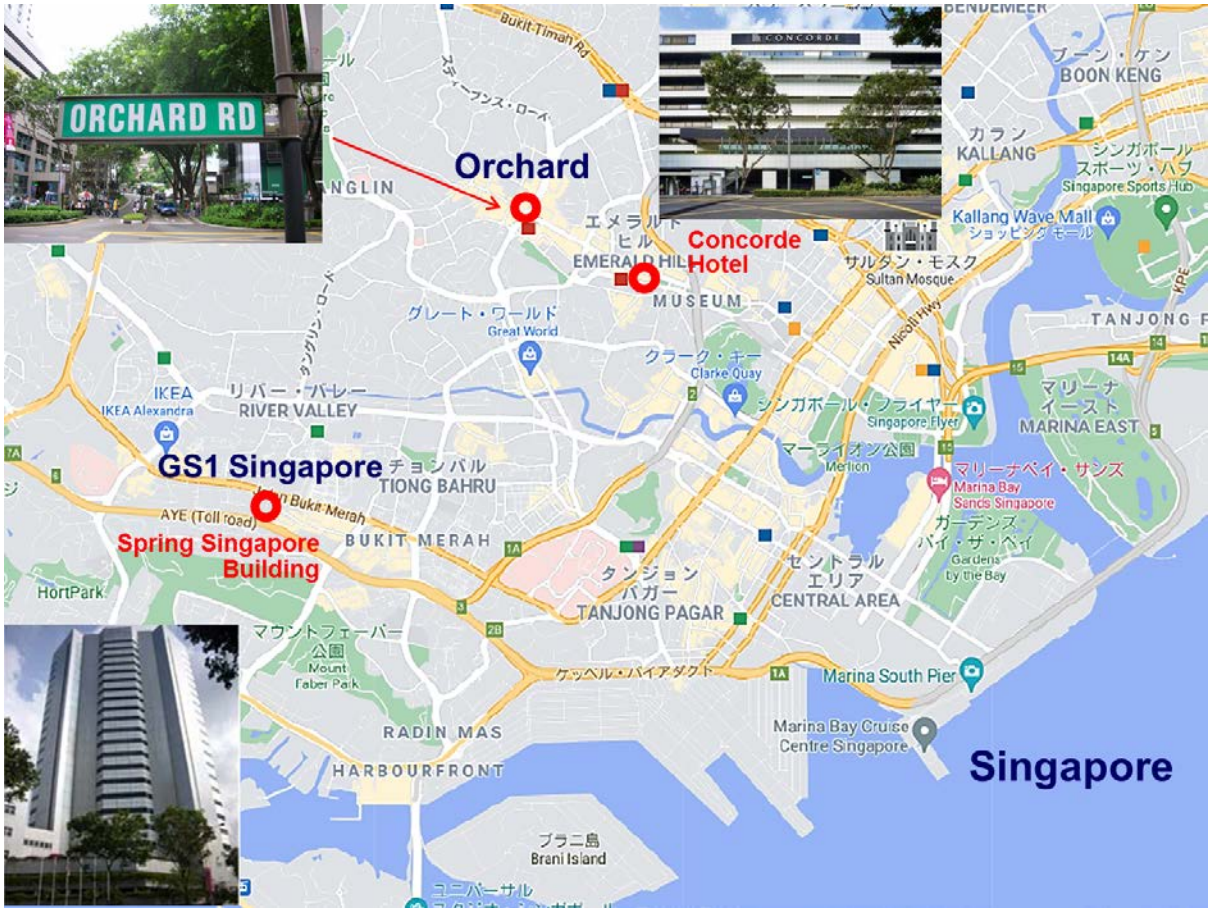
JAISA Project Singapore /Melbourne

Schedule: 2009.02.21～02.28
2009.02.21 Kansai ⇒Singapore
2009.02.22 10:00-14:00 Meeting with GS1 Singapore
2009.02.23 10:00-14:00 Meeting with IDA, iCELL, RPI
2009.02.24 Singapore ⇒Sydney ⇒Melbourne
2009.02.25 09:00-17:00 Meeting with DIAU, Australia Post
2009.02.26 10:00-12:00 Meeting with Telstra
2009.02.27 10:00-17:00 Meeting with GS1 Australia, ALLES Oceania
2009.02.27 Melbourne ⇒Sydney
2009.02.28 Sydney ⇒Narita ⇒Chubu

2009 年 2 月 21 日～28 日の日程で、シンガポールとメルボルンを訪問した。この第一の目的は JAISA からの日本提案である「心臓のペースメーカーに及ぼす RF タグの影響を測定する方法」に関して、その概要説明と、賛成票獲得にある。第二の目的は QR コードのモバイルアプリケーションの普及促進である。

DIAU: DENSO International Australia, IDA: INFOCOMM Development Authority of Singapore
iCELL: iCELL Network Pte. Ltd, RPI: RPI eSolutions Pte Ltd.



CONCORDE HOTEL SINGAPORE

2009.02.22
Concorde Hotel Singapore

GS1 Singapore
Spring Singapore Building

2 Bukit Merah Central 159835 Singapore

INFOCOMM
Development Authority of Singapore(IDA)

MICA building

140 Hill Street, #04-01 Singapore 179369

31N2730

ISO/IEC JTC 1/SC 31 N2730
DATE: 2009-02-04

ISO/IEC JTC 1/SC 31

Automatic Identification and Data Capture Techniques

Secretariat: ANSI (USA)

DOC TYPE:	New Work Item Proposal
TITLE:	Information technology – Automatic identification and data capture techniques – Radio frequency identification for item management – Experimental evaluation method for impact distance and mitigation method of Electromagnetic Interference (EMI) from RFID interrogators on active implantable medical devices
SOURCE:	National Body of Japan
PROJECT:	
STATUS:	The National Body of Japan proposes a new project as described in the attached "SC031-N-2730 - NWIP Form.doc", and this document is provided to supplement additional information on the proposal. P-members have an obligation to vote and are requested to cast votes on the SC 31 Web site (LiveLink) by the date indicated on this cover page. Per Resolution 5 of the Seoul Plenary Meeting, P-Members are requested to use the attached form (SC031 - Form 13B Comment Document.doc)
ACTION ID:	COM
DUE DATE:	2009-05-04
DISTRIBUTION:	ISO/IEC JTC 1/SC 31 members
MEDIUM:	ISO TC Portal (LiveLink)
NO. OF PAGES:	52 (including this cover)

Secretariat ISO/IEC JTC 1/SC 31: GS1 US, 1009 Lenox Drive, Suite 202, Lawrenceville, NJ 08648, USA
Telephone: (609) 620-0200; Facsimile: (609) 620-1200; E-Mail: SC31@gs1us.org ;
Web Site: http://isotc.iso.org/livelink/livelink?func=ll&objId=3279468objAction=Browse&sort=name

31N2730

New Work Item Proposal

February 2009

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal:	Proposer:
2009-02-04	JISC (National Body of Japan)
Secretariat:	ISO/IEC JTC 1 N xxxx
ANSI	ISO/IEC JTC 1/SC 31 N 2730

A proposal for a new work item shall be submitted to the secretariat of the ISO/IEC joint technical committee concerned with a copy to the ISO Central Secretariat.

Presentation of the proposal - to be completed by the proposer

Title (subject to be covered and type of standard, e.g. terminology, method of test, performance requirements, etc.)

Information technology – Automatic identification and data capture techniques – Radio frequency identification for item management – Experimental evaluation method for impact distance and mitigation method of Electromagnetic Interference (EMI) from RFID interrogators on active implantable medical devices

Scope (and field of application)

This technical information can be applied to ISO18000 Series RFID interrogators.

(a) The purpose of this information is to present the method of configuring the standard test system and the test method, to evaluate the EMI from RFID interrogators on active implantable medical devices (cardiac pacemakers and cardioverter defibrillators).

(b) Propose a mitigation method using auxiliary radio wave (or a radio filter) to reduce EMI influence of RFID interrogators on active implantable medical devices.

Purpose and justification - attach a separate page as annex, if necessary

(a) Background

There are cases where electromagnetic waves emitted by RFID interrogators may cause EMI to active implantable medical devices, resulting in malfunctions.

It has already been confirmed that EMI characteristics depend on the radiation characteristics of the RFID interrogators' electromagnetic field and the immunity of active implantable medical devices.

The influence of radio waves from cellular phones is a similar EMI issue. A standard method to evaluate the influence experimentally (SAR measurement method, IEC TC106/84/FDIS) has been proposed (reference: AAMI), and Japanese guidelines have also been established, regarding 22 cm as an isolation distance where cellular phones can be used without causing any disturbance.

Regarding RFID, there is an EMI influence evaluation method that uses flat-plane phantom using a liquid that may only be handled by a qualified expert. Using this method, the isolation distance not influenced by RFID was measured, and the measured distance has been presented as a guideline. The Japanese guideline indicates that the required isolation distance is a radius of 1 m for UHF band high-power stationary RFID interrogators, and 22 cm for other RFID interrogators (same as that for cellular phones).

For RFID, however, no methods to prevent or mitigate EMI have been examined yet, in spite of the large isolation distance (radius of 1 m).

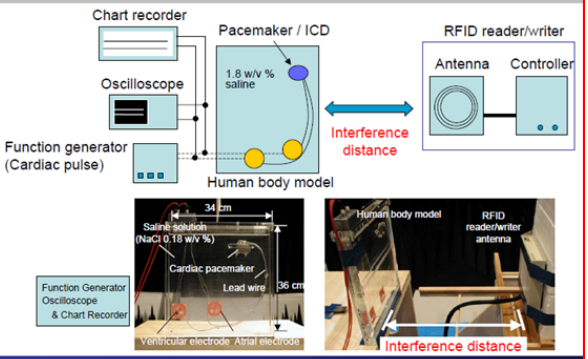
Experimental Estimation and Mitigation Methods to be Used for Electromagnetic Interference From RFID reader/writers on Active Implantable Medical Devices

Wireless Technology & EMC Research Lab.
Graduate School of Information Science and Technology,
Hokkaido University, Japan.
Japan Automatic Identification Systems Association, Japan

Contents

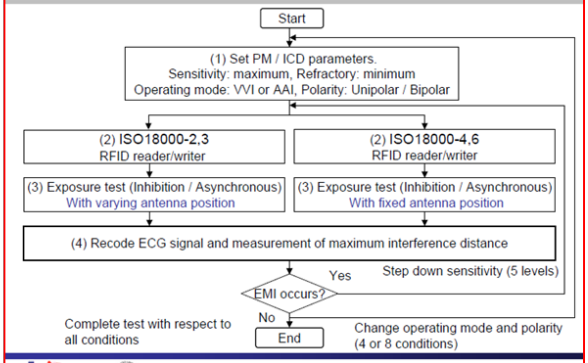
2. Electromagnetic interference (EMI) measurement set-up

2.1 Configuration of the measurement set-up



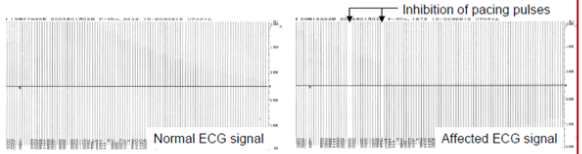
2.2 Overview of the measurement set-up

2.3 Procedure of the experiments

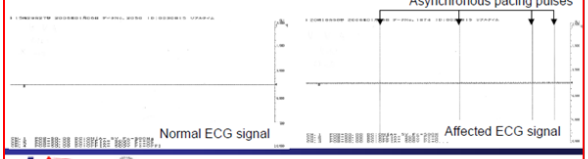


2.4 Examples of affected ECG signal

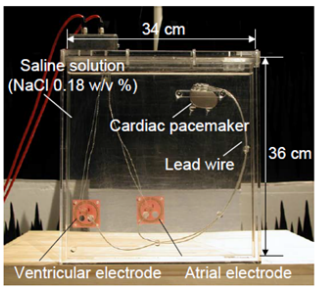
- Inhibition test: pacing pulses are inhibited or pulse interval are changed



- Asynchronous test: asynchronous pacing pulses are generated



2.5 The human torso phantom

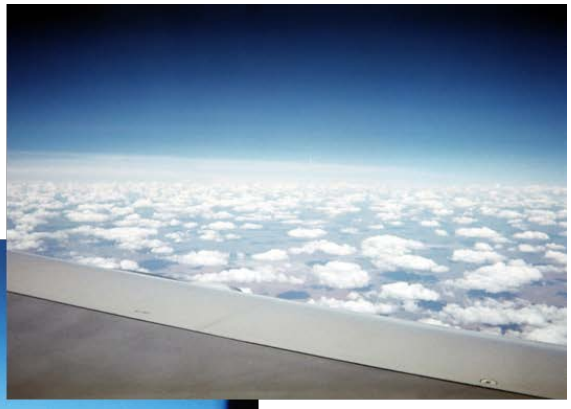


- The human torso phantom is based upon Irnich's flat torso phantom model.
- Both atrial and ventricular electrodes are modified and enable us to separate each chambers' signal by more than 20 dB.
- This phantom allows us to examine EMI with low interference by another chambers' signal.

This construction of a human torso phantom is confirmed to give more conservative results for EMI estimations.

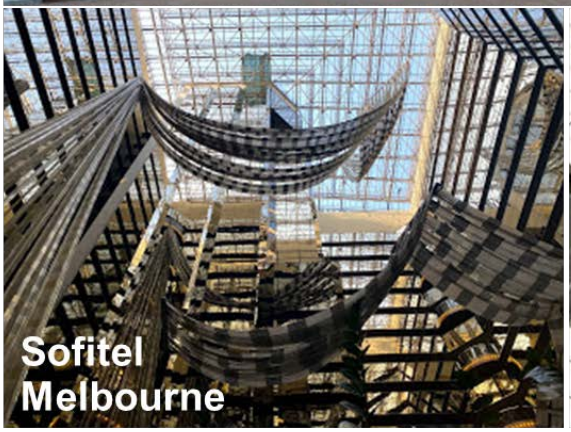
2009.02.24 QF032

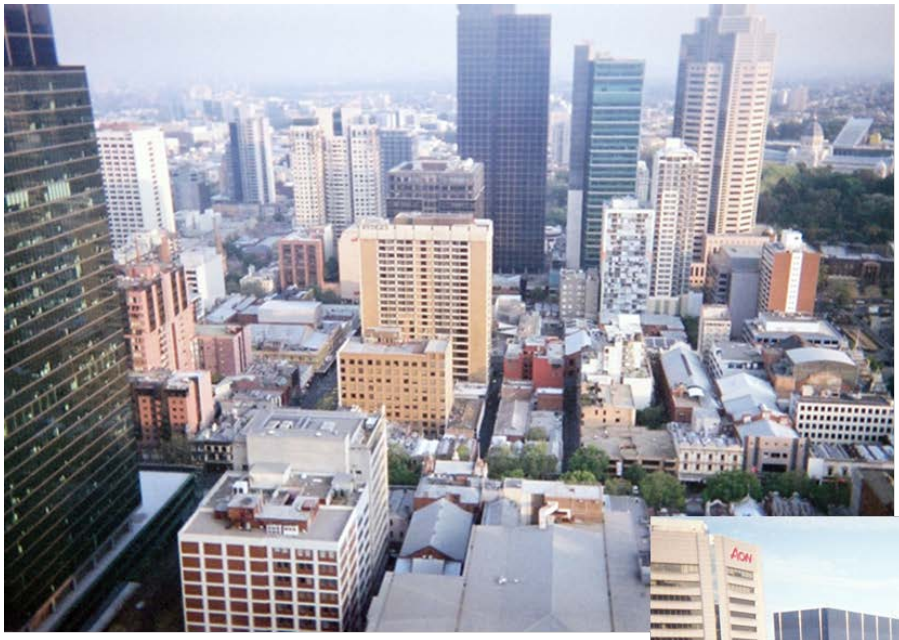
Singapore ⇒ Sydney




Melbourne
DENSO
Club Kilsyth
DENSO
International
Australia
GS1 Australia
Axxess
Corporate Park
Sofitel Melbourne
St Albans
Coburg
Brunswick
Moreland
Footscray
Williamstown
Altona
Camberwell
Box Hill
Doncaster
Heidelberg
Mill Park
Diamond Creek
Reservoir
Bundoora
Epping
South Morang
Lilydale
Mount Evelyn
Ringwood
Mount Dandenong
Wantirna
Glen Waverley
Chadstone
Elsternwick
Bentleigh
Moorabbin
Springvale
Cheltenham
Mentone
Dandenong
Wheelers Hill
Tarrawarra
Sivan
Puffing Billy Railway


SOFITEL


Sofitel
Melbourne



2009.02.25

Sofitel Melbourne

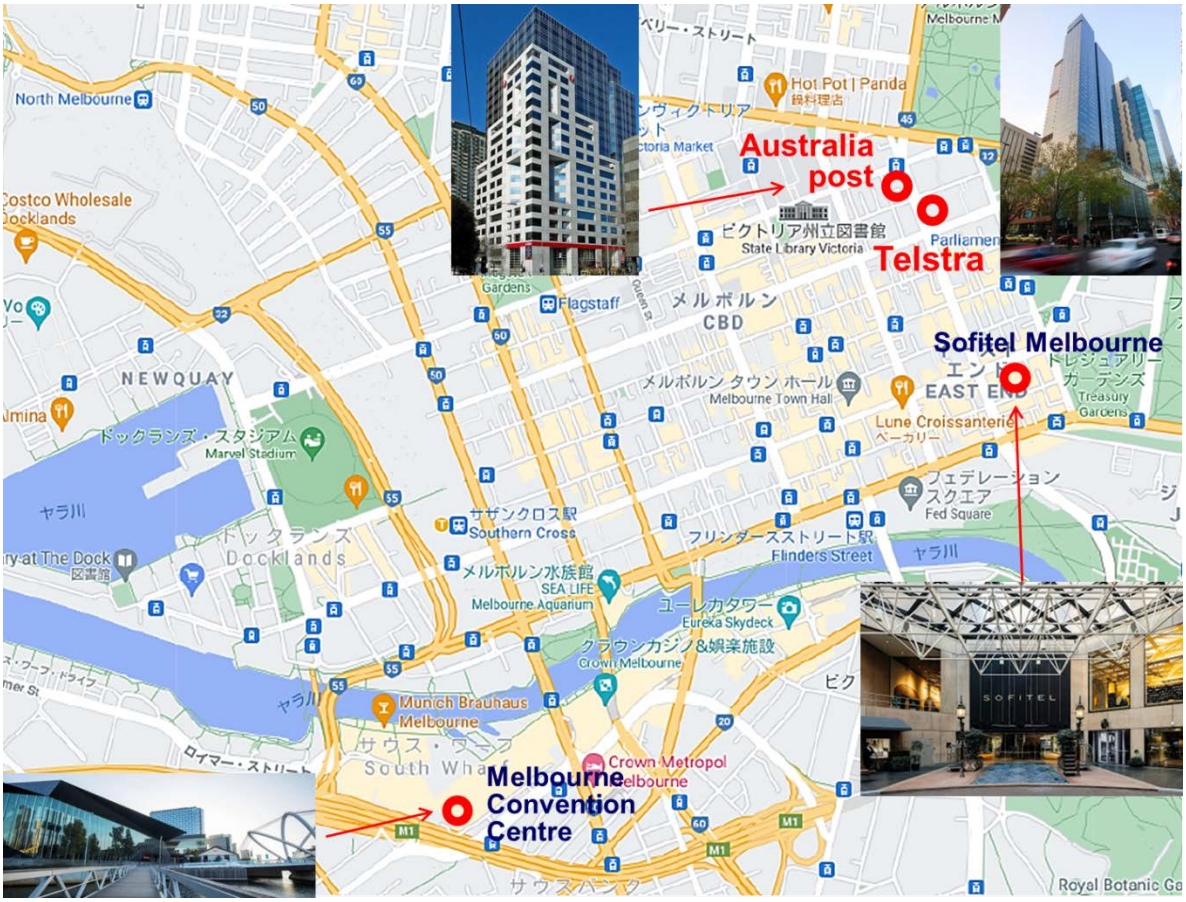
SOFITEL
ACCOR HOTELS & RESORTS

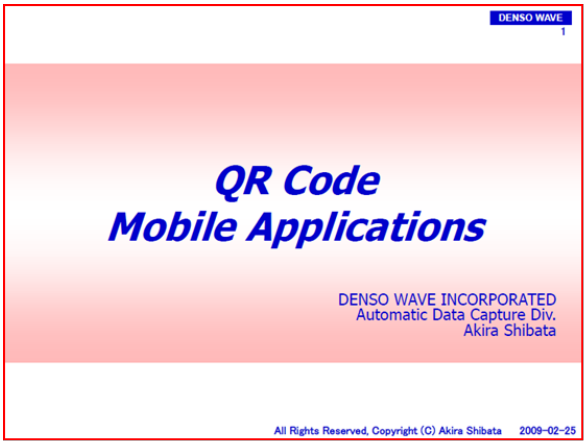
DENSO International Australia

453 Dorset Road Croydon Victoria Australia 3136

GS1 Australia Axxess Corporate Park

Unit 100/45 Gilby Road, Mount Waverley VIC 3149


Australia post
Telstra
Sofitel Melbourne
Melbourne Convention Centre
North Melbourne
Hot Pot | Panda
State Library Victoria
Flagstaff
メルボルン CBD
Melbourne Town Hall
EAST END
Lune Croissanterie
Fed Square
Treasury Gardens
Marvel Stadium
Southern Cross
Flinders Street
SEA LIFE Melbourne Aquarium
Eureka Skydeck
Crown Melbourne
Munich Brauhaus Melbourne
Crown Metropol Melbourne
South Wharf
Docklands
NEWQUAY
Royal Botanic Ga


DENSO WAVE
1
QR Code
Mobile Applications
DENSO WAVE INCORPORATED
Automatic Data Capture Div.
Akira Shibata
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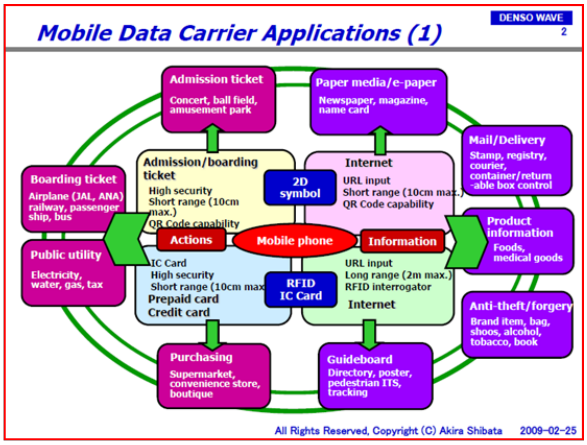
Mobile Data Carrier Applications (1)
DENSO WAVE
2
Admission ticket
Concert, ball field, amusement park
Paper media/e-paper
Newspaper, magazine, name card
Mail/Delivery
Stamp, registry, courier, container/return -able box control
Boarding ticket
Airplane (JAL, ANA) railway, passenger ship, bus
Admission/boarding ticket
High security
Short range (10cm max.)
QR Code capability
2D symbol
Internet
URL input
Short range (10cm max.)
QR Code capability
Actions
Mobile phone
Information
Product information
Foods, medical goods
Public utility
Electricity, water, gas, tax
IC Card
High security
Short range (10cm max.)
Prepaid card
Credit card
RFID IC Card
URL input
Long range (2m max.)
RFID interrogator
Internet
Anti-theft/forgery
Brand item, bag, shoos, alcohol, tobacco, book
Purchasing
Supermarket, convenience store, boutique
Guideboard
Directory, poster, pedestrian ITS, tracking
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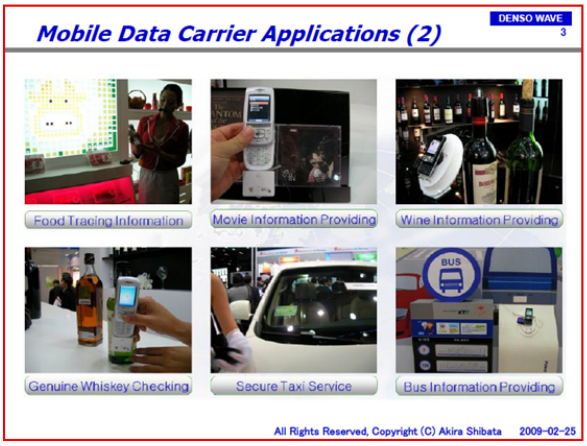
Mobile Data Carrier Applications (2)
DENSO WAVE
3
Food Tracing Information
Movie Information Providing
Wine Information Providing
Genuine Whiskey Checking
Secure Taxi Service
Bus Information Providing
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Consumer Market
DENSO WAVE
4
Use cases in consumer market
■QR Code on mobile phone LCD
Mobile QR Code
Member card/coupon
Electronic ticket
Electronic payment
■QR Code reading by mobile phone
Service available for some NTTdocomo or SoftBank terminals
Mail order
Ads (magazine/poster)
Sales campaign
Business card
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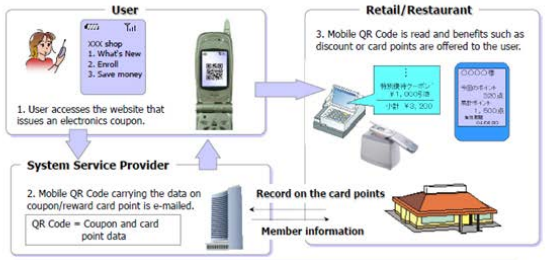
Electronic Coupon

DENSO WAVE 5

QR Code displayed on a mobile LCD

■Application: Calculating reward points offered to a member card holder



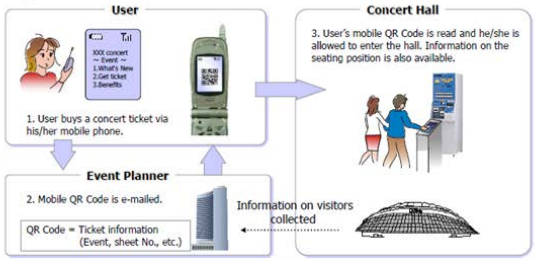
<Benefits> ■Can evaluate and operate a marketing and sales promotion.
■Can reduce the cost of issuing member cards and coupons.

Electronic Ticket

DENSO WAVE 6

QR Code displayed on a mobile LCD

■Application: Visitor Control at Concert Hall



<Benefits> ■Can reduce the personnel cost with automated visitor control.
■No need to issue a paper ticket, reducing the paper and postage cost.

Mobile Membership Service (1)

DENSO WAVE 7

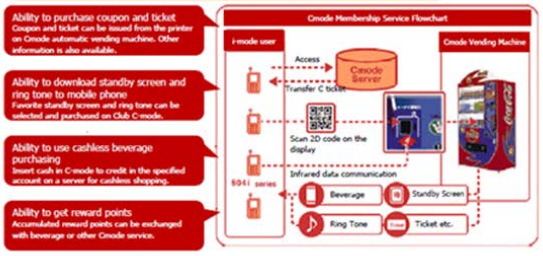
A new service which offers you various contents via the internet to your mobile telephones is available with Java Application. As well as the ability to check reward points and purchase history, two-dimensional code displayed on your mobile phone can be scanned at point of purchase to show your personal customer data for authentication. It can also be used to calculate reward points. Customers wishing to use the service will receive a biweekly magazine.

Make your mobile phone a member of The SUIT COMPANY.
If you register with The SUIT COMPANY's mobile membership, your mobile phone will be proof of your membership. Two-dimensional code displayed on your mobile phone offers you the full benefits of our membership service at the store of purchase. Only available to the models that can be connected to the internet.
Some models are excluded. (i-mode, SoftBank, EZ web).

Mobile Membership Service (2)

DENSO WAVE 8

New mobile terminal type automatic vending machine (Cmode automatic vending machine called "C-mo") is now available, which is equipped with computer, display, speaker, printer and so on. Collaboration with i-mode has made it possible to offer various services to i-mode users, such as cashless shopping, downloading standby screen and ring tone.



Telstra Corporate Building

242 Exhibition St, Melbourne
VIC 3000 Australia

Australia POST

321 Exhibition Street
Melbourne Victoria 3000

Club Kilsyth

1-15 Canterbury Road, Bayswater North VIC 3153

NAME
please print
AKIRA SHIBATA

ADDRESS
453 DORSET RD
CROYDON 3136

GUEST'S SIGNATURE

MEMBER'S SIGNATURE

CLUB KILSYTH
ABN 38 830 146 915
Cnr Canterbury & Colchester Rds
Bayswater North VIC 3153
P.O Box 847 Bayswater VIC 3153
Telephone: (03) 9761 4233
Fax (03) 9761 6844
Email: enquiries@clubkilsyth.com.au
www.clubkilsyth.com.au

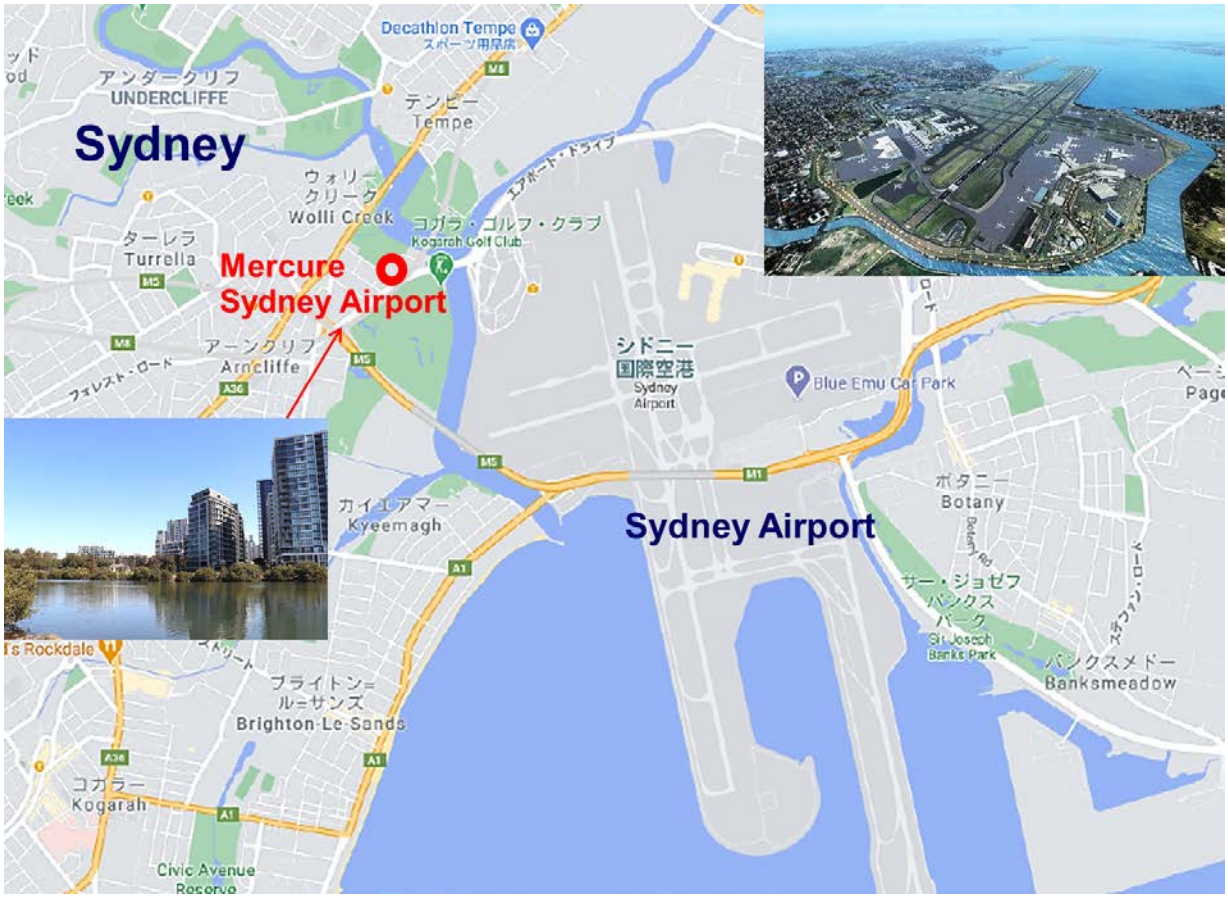
CLUB Kilsyth

PLEASE READ CAREFULLY

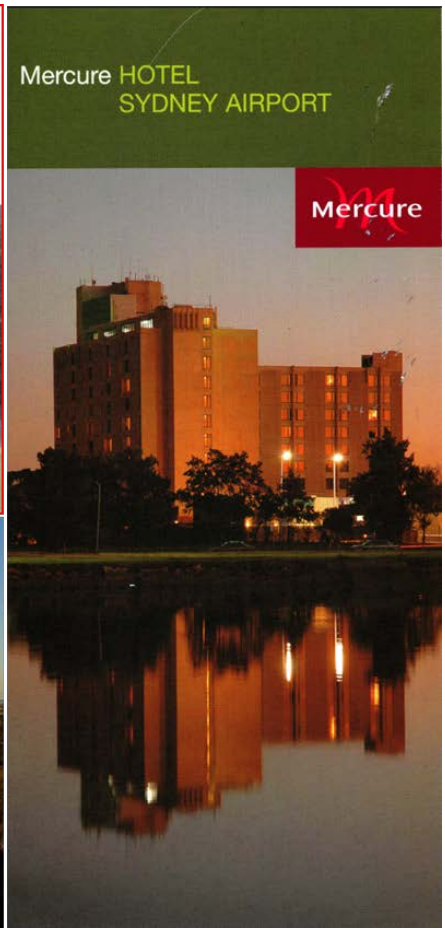
I DECLARE I AM OVER THE AGE OF 18 AND IF REQUIRED WILL SHOW IDENTIFICATION, DETAILS OF WHICH WILL BE RECORDED.

I WILL ADHERE TO THE DIRECTIONS OF MANAGEMENT OF THE CLUB, INCLUDING THE RESPONSIBLE SERVICE OF ALCOHOL, DRESS REGULATIONS AND PORTRAY RESPONSIBLE BEHAVIOUR AND SENSIBLE APPROACH TO GAMING.

I AM AWARE OF THE CONSEQUENCES OF ENTERING PREMISES WHERE SMOKING IS PERMITTED. I WILL PRODUCE THIS SIGN IN SLIP WHEN REQUESTED.




Mercure Sydney Airport
mercure
HOTEL


Mercure HOTEL
SYDNEY AIRPORT
Mercure


2009.02.28 Great Barrier Reef