

# DCC Guidance Note

## ICHIS Compliance- Emissions Level Testing



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## Document Control

### Revision History

Revision Date	Summary of Changes	Changes Marked	Version Number
05/12/17	Release	No	1.0

## Contents

<b>1</b>	<b>Background .....</b>	<b>4</b>
<b>2</b>	<b>Introduction .....</b>	<b>4</b>
<b>3</b>	<b>Recommended Testing Approach for ICHIS RF Emissions Level Compliance</b>	<b>5</b>
<b>4</b>	<b>DCC Assistance.....</b>	<b>6</b>
<b>5</b>	<b>References .....</b>	<b>7</b>
	5.1 Glossary .....	7
	5.2 Links to Published Specifications.....	7

## 1 Background

The Intimate Communications Hub Interface specification (ICHIS) defines a common interface between DCC Communications Hubs and Smart Meters which will be deployed for the GB Smart Metering Implementation Programme.

DCC would like to, through this Guidance Note, provide information on clarifying relevant reference documents, testing methods and insight on tools required by industry participants/device manufacturers of ICHIS Hosts (Hot Shoes, Cradles etc.) to verify compliance with ICHIS for use with DCC Communications Hubs and DCC Systems.

## 2 Introduction

ICHIS Part F describes additional requirements and testing pertaining to the RF implementation of Hosts such that they do not adversely affect the WAN performance of the DCC Communications Hubs. Part F describes both radiated (wireless) and conducted (via electrical connections) RF emissions.

The levels of interference tolerated by a DCC Communications Hub can vary dependent on the WAN signal strength in an individual property. The limits of interference specified in the DCC Communications Hub data sheets are specified in order to align with both CSPs WAN coverage commitments.

This Guidance Note is also intended to assist parties who are seeking to assure that Hosts are compliant with ICHIS in this respect and assist in testing

### 3 Recommended Testing Approach for ICHIS RF Emissions Level Compliance

The following steps should be followed in order to prove compliance:

- Obtain latest version of the Intimate Communications Hub Interface Specification – see [References](#)
- Obtain latest version of the relevant DCC Communications Hub datasheets for each Communications Hub variant – see [Links to Published Specifications](#)
- Purchase relevant Communications Hub Antenna Structure Test Equipment (CHAS) devices from CSPs for each Communications Hub variant
- Make arrangements with a suitable test house or laboratory facility with the required RF anechoic chamber, antennae and spectrum analyser equipment as detailed in the Intimate Communications Hub Interface Specification. The test house should be capable of advising of a test pass or fail based upon the ICHIS and the levels stated in the datasheets for each Communications Hub variant
- It may simplify testing and reduce queries if the device manufacturer is present during the testing.

## 4 DCC Assistance

DCC recognises that not all SEC Parties have access to testing facilities or technical resources to effectively plan testing activities.

DCC will therefore aid any SEC Party wishing to place existing or planned devices under test conditions to ensure compliance with ICHIS and DCC Communications Hub datasheets through the following:

- Provision of guidance to aid understanding of Intimate Communications Hub Interface Specification and the relevant DCC Communications Hub datasheet
- Assistance obtaining the CHAS testing device from the relevant CSP (note, DCC will not pay for CHAS devices)
- Provision of technical resources to review developed test plans
- Assist the selection third-party test houses with suitable equipment for testing ICHIS Hosts

For support from DCC, contact the Industry Team at [contact@SmartDCC.co.uk](mailto:contact@SmartDCC.co.uk)

## 5 References

### 5.1 Glossary

Term	Detail
CHAS	Communications Hub Antenna Structure Test Equipment
CSP	Communications Services Provider
ESME	Electricity Smart Metering Equipment
HAN	Home Area Network
ICHIS	Intimate Communications Hub Interface Specification
TSIRS	Technical Specification Issue Resolution Sub Group
WAN	Wide Area Network
ICH	Intimate Communications Hub

### 5.2 Links to Published Specifications

Document	Location
Smart Energy Code – H12	<a href="https://smartenergycodecompany.co.uk/the-smart-energy-code-2/">https://smartenergycodecompany.co.uk/the-smart-energy-code-2/</a>
Intimate Communications Hub Interface Specification Version: 1.0	<a href="https://www.smartdcc.co.uk/implementation/design-and-assurance/communications-hubs/intimate-communications-hub-interface-specification/">https://www.smartdcc.co.uk/implementation/design-and-assurance/communications-hubs/intimate-communications-hub-interface-specification/</a>
CSP North EDMI Standard 420 Communications Hub datasheet V1.0. - Emission level section 1.11	<a href="https://www.smartdcc.co.uk/media/390655/edmi_standard_420_comms_hub_datasheet_2017-06-26.pdf">https://www.smartdcc.co.uk/media/390655/edmi_standard_420_comms_hub_datasheet_2017-06-26.pdf</a>
CSP Central & South Toshiba SKU1 Communications Hub datasheet V2.0 - Emission level section 1.13	<a href="https://www.smartdcc.co.uk/media/441198/toshiba_sku1_cellular_datasheet_2017-10-20.pdf">https://www.smartdcc.co.uk/media/441198/toshiba_sku1_cellular_datasheet_2017-10-20.pdf</a>
CSP Central & South Toshiba SKU2 Communications Hub datasheet V2.0 - Emission level section 1.15	<a href="https://www.smartdcc.co.uk/media/441208/toshiba_sku2_cellular_datasheet_2017-10-20.pdf">https://www.smartdcc.co.uk/media/441208/toshiba_sku2_cellular_datasheet_2017-10-20.pdf</a>
CSP Central & South Toshiba SKU3 Communications Hub datasheet V2.0 - Emission section 1.15	<a href="https://www.smartdcc.co.uk/media/441218/toshiba_sku3_cellular_datasheet_2017-10-20.pdf">https://www.smartdcc.co.uk/media/441218/toshiba_sku3_cellular_datasheet_2017-10-20.pdf</a>
CSP Central & South WNC SKU1 Communications Hub datasheet V2.0 - Emission section 1.13	<a href="https://www.smartdcc.co.uk/media/441228/wnc_sku1_cellular_datasheet_2017-10-20.pdf">https://www.smartdcc.co.uk/media/441228/wnc_sku1_cellular_datasheet_2017-10-20.pdf</a>

**Note:**

DCC also maintains historic versions of datasheets on SEC Party SharePoint.