

SiI-SK63101 and SiI-SK63102

Quick Start Guide – OEM Installation

May 2012

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Revision History

Revision	Date	Comment
0.80	05/2012	Preliminary release.

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Getting Started

Follow the procedures described in this section to setup the SiI-SK63101 and SiI-63102 module pair:

1. Unpack the module pair.
2. Place the HDMI Video source and the HDMI video display in the same room at a reasonable distance apart (2 to 10m).
3. Connect the provided HDMI cable between the Transmitter and the HDMI source output.
4. Connect the other provided HDMI cable between the Receiver and the HDMI display input.
5. Connect the AC/DC adapters to the Transmitter and Receiver.
6. You should see that the Status LED on the front of both the Transmitter and the Receiver are blinking.
7. Power up and configure the HDMI source and the HDMI Display such that they are sending and receiving video respectively.
8. Ensure that the HDMI display is tuned to the the source input where the HDMI cable from the Receiver is plugged in.
9. At this time the Display should render the video coming from the HDMI source and both Status LED on the adapters should be ON.

SiI-SK63101 SiI-SK63102 module pair description.

Figure 2 shows the SiI-SK63101 and SiI-SK63102 modules along with the supporting IO board as part of the complete evaluation kit:

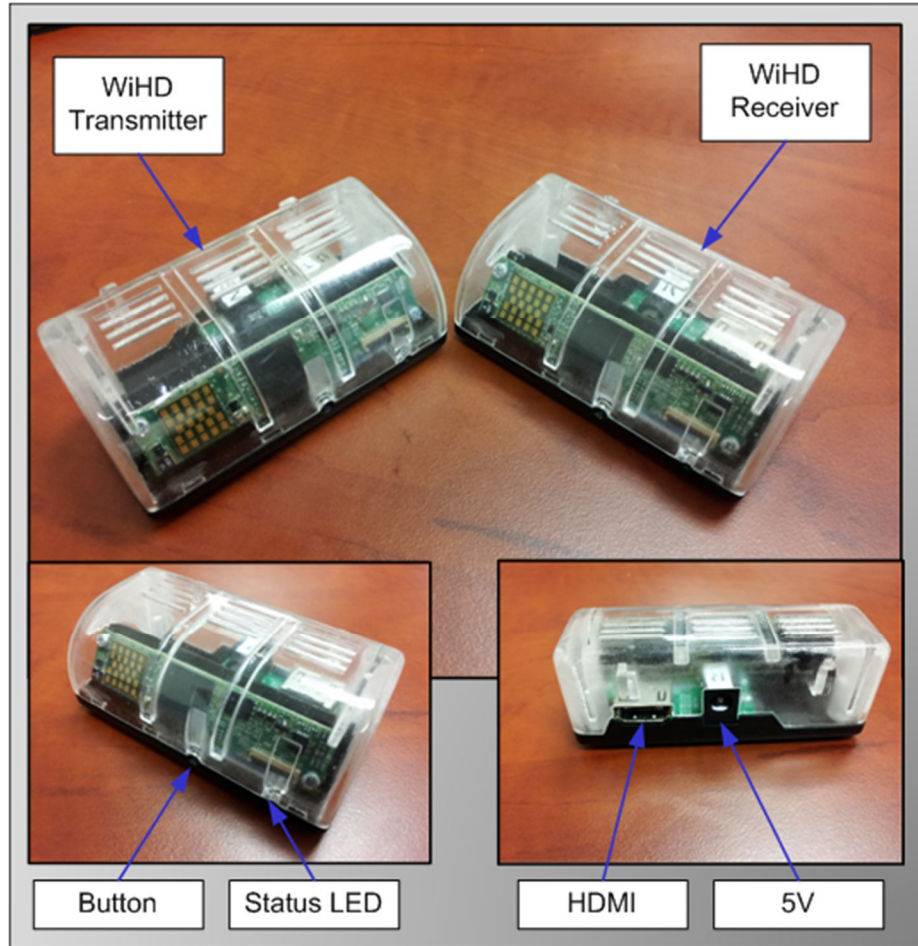


Figure 1. SiI-SK63101 SiI-SK63102 module pair with supporting IO boards for testing

WirelessHD module/Adapter Connection Diagram.

Figure 2 shows the basic setup using a WirelessHD link.

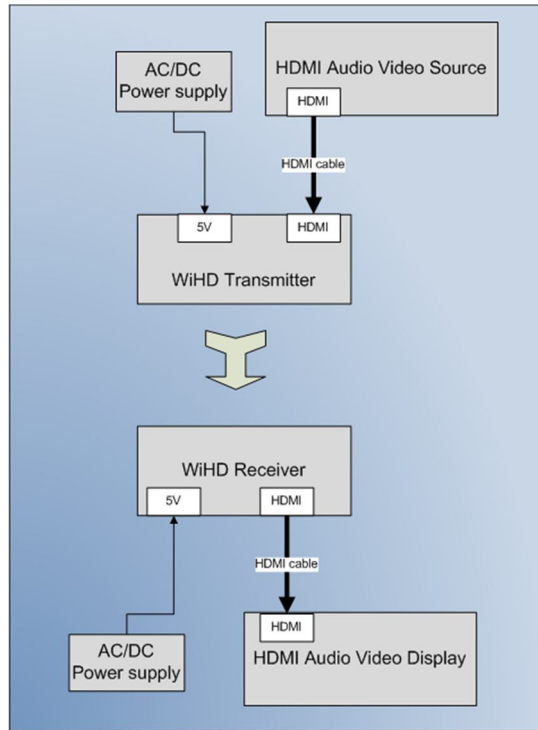


Figure 2. SiI-SK63101 SiI-SK63102 module pair test setup

SiI-SK63101 & SiI-SK63102 Specifications:

Table 1. Transmitter and Receiver specifications

Parameter	Value	Notes
Mechanical		
Dimensions (in mm)	X = 82, Y= 40, Z = 30	Each sides
Operating temperature:	0C - 40C	
HDMI Receptacle	Type A	
DC 3.3V Plug	2.5mm	
Electrical		
Power Input VIN	3.3V DC, 2A	
Max input Voltage ripple	<10% of VIN peak to peak	
Max power	2.5W (Max)	
Connected Power	2.0W (Typical)	With 1080p60Hz Video @ 10m
Sleep/Wake Power	100mW (Typical)	
Radio Frequencies		
HRP Channel Index Support	Channel 2, 3	
Frequency range HRP	59.40 Ghz – 63.56 Ghz	
HRP Bandwidth	1.76 Ghz per channel	
LRP Channel Index Support	Channel 1, 2, 3, 4, 5 per HRP channel	
LRP Bandwidth	92 MHz per channel	
Receiver Sensitivity	-72 dBm (Typical)	
Noise Figure	10 dB (Typical)	
Line of Sight (LOS) Link Margin	6 dB at 10m 1080p/60Hz 4:4:4 with SPER <0.01	
Compliance and Regulation		
WirelessHD1.1	Compliant	
HDMI 1.4a	Compliant	
CEC	Compatible	

Interference Statement

USA-Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
2. This product does not contain any user serviceable components. Any unauthorized product changes or modifications will invalidate warranty and all applicable regulatory certifications and approvals.
3. Caution: Exposure to Radio Frequency Radiation: The installer of this radio equipment must ensure that a minimum distance of **20cm** shall be maintained between the antenna and the users of the host that this module is integrated into.
4. Caution: User is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
5. The antenna(s) used for this transmitter must not be collocated or operating in conjunction with any other antenna or transmitter within a host device, except in accordance with FCC multi-transmitter product procedures. If the module is installed with other transmitting devices which can transmit simultaneously with this device and antenna-to-antenna distance is *less than 20cm*, assessing RF exposure compliance with multiple transmitters within a host device shall be performed based upon FCC requirements.

Note for system integrators

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module. **20cm** minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Label of the end product:

For SII-SK63101 module: The final end product must be labeled in a visible area with the following "Contains FCC ID: UK2-SII-SK63101 ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

For SII-SK63102 module: The final end product must be labeled in a visible area with the following "Contains FCC ID: UK2-SII-SK63102 ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.”

L' utilisation de ce dispositif est autorisée seulement aux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l' utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

Caution: Exposure to Radio Frequency Radiation.

The installer of this radio equipment must ensure that the minimum distance of **20cm** between the antenna and the user shall be maintained such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hcsc.gc.ca/rpb.

Se pour conformer aux conditions d'exposition de RF toutes les antennes devraient être localisées à une distance minimum de 20 cm du corps de toutes les personnes.

Note for System Integrators

This module is intended for OEM integrator. The OEM integrator is still responsible for the IC compliance requirement of the end product, which integrates this module. **20cm** minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the IC RSS-102 radiation exposure limits set forth for an population/uncontrolled environment can be satisfied. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.


Label of the end product:

For SII-SK63101 module: The final end product must be labeled in a visible area with the following "Contains IC: 6705A-SIISK63101".

For SII-SK63102 module: The final end product must be labeled in a visible area with the following "Contains IC: 6705A-SIISK63102".

Europe - EU Declaration of Conformity and Restrictions

This equipment complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.

This equipment is marked with the  symbol.

This indicates compliance with the R&TTE Directive 1999/5/EC and meets the relevant parts of following technical specifications:

EN 301 567 v1.1.1: Broadband Radio Access Networks (BRAN); 60 GHz Multiple-Gigabit WAS/RLAN Systems; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive.

EN 301 489-28 v1.1.1, EN 301 489-1 v 1.9.2: Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 28: Specific conditions for wireless digital video links.

EN 60950-1: Safety of Information Technology Equipment.

EN 62311: 2008: Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)

Marking by the symbol  indicates that usage restrictions apply.

CE RF Radiation Exposure Statement:

Caution This equipment complies with European RF radiation exposure limits and is meant to be used as an Indoor device. The installer of this radio equipment must ensure that the minimum distance of **20cm** shall be maintained between the antenna and the users of the host that this module is integrated into. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Following is a list of countries available for CE mark one-stop notification relating to this equipment:

Belgium, Bulgaria, Croatia, Cyprus, Germany, Hungary, Iceland, Macedonia, Montenegro, Norway, Romania, Slovakia, Spain, Switzerland and United Kingdom.



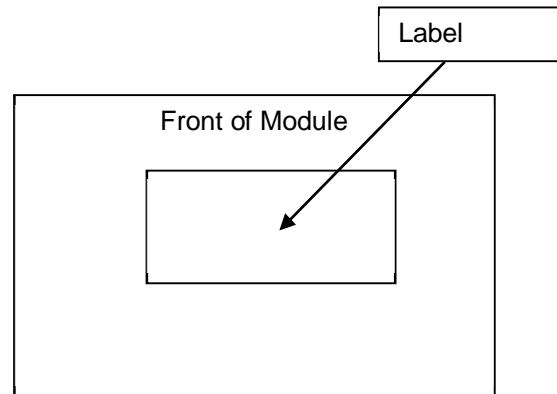
This device is restricted for use in the following countries:
Denmark, Estonia, Finland, Latvia, Malta, Serbia and Slovenia.

Note for system integrators:

- The module is tested to comply with the requirement of the R&TTE Directive. System integrators are responsible for compliance of the final device with the R&TTE Directive.
- Packaging: CE Marking must also be on the outer packaging of the product. The outer packaging must also provide an indication as to where the device is intended to be used and/or conversely, where there may be restrictions for use.

Marking/Labeling information

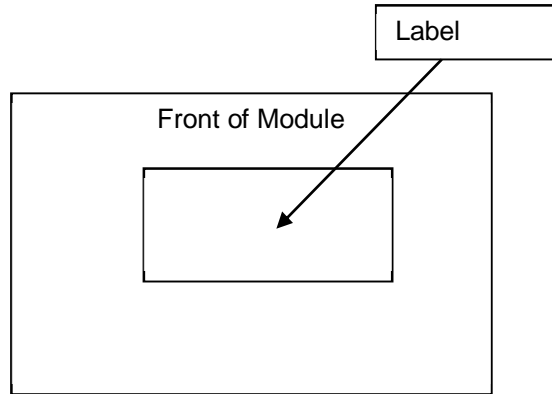
Proposed Label and Location for SiI-SK63101 Receiver module



Proposed Label and Location for Host Device installing SiI-SK63101 Receiver module



Proposed Label and Location for SiI-SK63102 Transmitter module



Proposed Label and Location for Host Device installing SiI-SK63102 Transmitter module



References:

Standards Documents

Table 2 lists the abbreviations used in this document. Contact the responsible standards groups listed in **Error! Reference source not found.** for more information on these specifications.

Table 2. Referenced Documents

Abbreviation	Standards publication, organization, and date
WiHD	<i>WirelessHD Specification</i> , Version 1.1, WirelessHD, LLC, May 2010
HDMI	<i>High Definition Multimedia Interface</i> , Revision 1.4a, HDMI Consortium, March 2010
HCTS	<i>HDMI Compliance Test Specification</i> , Revision 1.4a, HDMI Consortium, March 2010
HDCP	<i>High-bandwidth Digital Content Protection</i> , Revision 1.4, Digital Content Protection, LLC; July 2009
DVI	<i>Digital Visual Interface</i> , Revision 1.0, Digital Display Working Group, April 1999
E-EDID	<i>Enhanced Extended Display Identification Data Standard</i> , Release A Revision 1, VESA; Feb. 2000
CEA-861-D	<i>A DMONITOR Profile For Uncompressed High Speed Digital Interfaces</i> , EIA/CEA, July 2006
EDDC	<i>Enhanced Display Data Channel Standard</i> , Version 1, VESA, September 1999

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