



# Spectrum Sharing Committee Policy and Procedure: CBRS Air Interface and Measurement Registration

**Approved 18 April 2017**

## **Registration of a CBRS Air Interface**

It is the policy of the Wireless Innovation Forum Spectrum Sharing Committee to register and support any radio air interface for operation in the CBRS band that meets the following criteria:

1. The air interface has been certified by the FCC for operation in the CBRS band.
2. A unique string has been submitted to the SSC Steering Group to identify the air interface.
3. A contact has been identified (a person or an organization) that can provide further information on the radio air interface as required to support proper operation of the CBRS protocols defined by the SSC. The contact information shall include at least name, postal address, phone number, and email address.
4. Either a reference is provided that describes the air interface in sufficient detail that the SAS can execute its required tasks, including incumbent protection; or, a contact and alternate are indicated that can provide such information, possibly under confidentiality arrangements.

Any questions regarding this policy shall be directed to the Spectrum Sharing Committee (SSC) Steering Group.

### **The procedure for registration of an air interface is:**

1. An entity/individual submits a completed CBRS Air Interface Registration. (See Appendix 1.)
2. The Spectrum Sharing Committee Steering Group shall begin review of the requested registration within 30 calendar days.
3. The Steering Group consults, as needed, working groups, task groups, and members of the SSC to review the completeness of the information provided.
  - a. If an Air Interface is proprietary, representatives of the individual/entity requesting the registration and SAS Administrators may be requested to meet under appropriate confidentiality conditions to determine what information is required by SAS Administrators to accomplish their responsibilities per the Part 96 Rules.
  - b. The indicated Contact person shall be informed of any information needed from the originator of the registration request.

4. The Steering Group reviews the reports of working groups, task groups and members of the SSC. The Steering Group also reviews statements by SAS Administrators that they have been given sufficient information to accomplish their responsibilities.
  - a. While no time limit is placed on obtaining and reviewing such reports and certifications, this work shall be accomplished as expeditiously as possible.
  - b. If questions or issues remain, the Steering Group shall repeat step 3 to take any needed actions to resolve those issue and questions.
5. After the Steering Group has completed verification that the information provided both publicly and perhaps under confidentiality arrangements is sufficient to ensure proper operation of the CBRS band per Part 96 with the inclusion of the submitted Air Interface, the Steering Group shall:
  - a. Notify the SSC Working Groups of the newly registered Air Interface.
6. Working Groups shall determine at their first regularly scheduled meeting following notification by the Steering Group of the newly registered Air Interface what version of their specifications support the Air Interface and shall report that information to the Steering Group.
  - a. The information on specification support may be reported to the Steering Group as part of the result of the work in Step 3 above.
7. Based on the information from the Working Groups on the versions of specifications supporting the newly registered Air Interface, the Steering Group shall update document WINNF-17-SSC-0002 to include the Air Interface.
  - a. The Steering Group shall circulate the updated document to the membership for review and comment 3 weeks prior to posting the revised document.
  - b. The Steering Group shall then post the updated document WINNF-17-SSC-0002 on the official website.
  - c. The Steering Group shall officially notify the individual/entity that has submitted the request for registration of the acceptance of the registration.

## **Registration of a Measurement Type / Measurement Capability**

It is the policy of the Wireless Innovation Forum Spectrum Sharing Committee to register and support any measurement type for measurements in the CBRS band that meets the following criteria:

1. The measurement type is fully defined such that implementation can be accomplished by companies implementing CBSDs.
2. A contact has been identified (a person or an organization) that can provide further information on the radio air interface as required to support proper operation of the CBRS protocols defined by the SSC. The contact information shall include at least name, postal address, phone number, and email address.
3. A unique string has been submitted to the SSC Steering Group to identify the measurement type.
4. At least one measurement capability relevant to that measurement type is provided with semantics that identify under what conditions the SAS can configure that particular measurement capability for the CBSD.
5. A unique string has been submitted to the SSC Steering Group for each measurement capability that includes the string proposed for the measurement type. For example, WINNF-17-SSC-0002 includes the measurement type "RECEIVED\_POWER" which has associated measurement capabilities "RECEIVED\_POWER\_WITHOUT\_GRANT" and "RECEIVED\_POWER\_WITH\_GRANT".

**The procedure for registration of a measurement type is:**

1. An entity/individual submits a completed CBRS Measurement Type / Measurement Capability Registration. (See Appendix 2.)
2. The Spectrum Sharing Committee Steering Group shall begin review of the requested registration within 30 calendar days.
3. The Steering Group consults, as needed, working groups, task groups, and members of the SSC to review the completeness of the information provided.
  - a. The indicated Contact person shall be informed of any information needed from the originator of the registration request.
  - b. Working Group 3 is asked to review each new measurement type and measurement capability and, if found acceptable, to generate the measurement report object tables for each new measurement capability.
4. The Steering Group reviews the reports of working groups, task groups and members of the SSC.
  - a. While no time limit is placed on obtaining and reviewing such reports, this work shall be accomplished as expeditiously as possible.
  - b. If questions or issues remain, the Steering Group shall repeat step 3 to take any needed actions to resolve those issue and questions.
5. After the Steering Group has completed verification that the information provided is sufficient to ensure proper operation of the CBRS band per Part 96 with the inclusion of the submitted Measurement Type / Measurement Capability, the Steering Group shall:
  - a. Notify the SSC Working Groups of the newly registered Measurement Type / Measurement Capability.
6. Working Groups shall determine at their first regularly scheduled meeting following notification by the Steering Group of the newly registered Measurement Type / Measurement Capability what version of their specifications support the Measurement Type / Measurement Capability and shall report that information to the Steering Group.
  - a. The information on specification support may be reported to the Steering Group as part of the result of the work in Step 3 above.
7. Based on the information from the Working Groups on the versions of specifications supporting the newly registered Measurement Type / Measurement Capability, the Steering Group shall update document WINNF-17-SSC-0002 to include the Measurement Type / Measurement Capability.
  - a. The Steering Group shall circulate the updated document to the membership for review and comment 3 weeks prior to posting the revised document.
  - b. The Steering Group shall then post the updated document WINNF-17-SSC-0002 on the official website.
  - c. The Steering Group shall officially notify the individual/entity that has submitted the request for registration of the acceptance of the registration.

**APPENDIX 1****CBRS Air Interface Registration Request**

This form is used to request registration with the Wireless Innovation Forum for an air interface (AI) to be supported in the 3550-3700 MHz Citizens Broadband Radio Service (CBRS) band. Completion of this form requires filling out the Intellectual Property Rights Disclosure and Controlled Information Disclosure at the end of the form and a signature and date.

Air Interface Name: \_\_\_\_\_

This string shall contain only upper case alphabetic and numeric characters and the underscore and hyphen.

Air Interface Reference: \_\_\_\_\_

Please indicate one of the following:

- A technical description that provides sufficient information on the RAT so that a SAS can properly allocate spectrum and provide interference protection to CBSDs using this technology and to other CBSDs and incumbents that must be protected from CBSDs using this technology, e.g., 3GPP TS 36.300.
- "See Contact".

If a technology provider indicates "See Contact", the technology provider agrees to provide to the SAS Administrator the information needed to support functions required of the SAS. The SAS Administrator may be required to support confidentiality of the technology information so provided.

Registering entity name: \_\_\_\_\_

Contact person: \_\_\_\_\_

Contact postal address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Contact phone: \_\_\_\_\_

Contact email: \_\_\_\_\_

Alternate Contact: \_\_\_\_\_

Alternate postal address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Alternate phone: \_\_\_\_\_

Alternate email: \_\_\_\_\_

**Intellectual Property Rights Disclosure (Forum Policy 007)**

Are you personally aware of any claims under any patent applications or issued patents that are likely to be infringed by an implementation of the proposed air interface? **YES**  **NO**

**Controlled Information Disclosure (Forum Policy 009)**

By checking this box, I confirm that I have not disclosed export restricted or controlled information in completing this form

**Authorization**

I am authorized to submit this request on behalf of my organization.  
By checking this box, I am verifying authorization.   
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

**APPENDIX 2****CBRS Measurement Type Registration Request**

This form is used to request registration with the Wireless Innovation Forum for a measurement type to be supported in the 3550-3700 MHz Citizens Broadband Radio Service (CBRS) band. Completion of this form requires filling out the Intellectual Property Rights Disclosure and Controlled Information Disclosure at the end of the form and a signature and date.

Registering entity name: \_\_\_\_\_

Contact person: \_\_\_\_\_

Contact postal address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Contact phone: \_\_\_\_\_

Contact email: \_\_\_\_\_

Alternate Contact: \_\_\_\_\_

Alternate postal address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Alternate phone: \_\_\_\_\_

Alternate email: \_\_\_\_\_

A “Measurement Type” defines the measurement procedure, e.g., “measure the total received energy across a frequency range”, or “measure the energy of all OFDM symbols received across a frequency range”, etc.

A “Measurement Capability” defines the ability of a CBSD (Citizens Band Radio Service Device) to perform a measurement. Measurement Capability names are formed by appending a suffix to the name of the Measurement Type. For example, “RECEIVED\_POWER” is the name of a measurement type. “RECEIVED\_POWER\_WITHOUT\_GRANT” and “RECEIVED\_POWER\_WITH\_GRANT” are the names of measurement capabilities related to “RECEIVED\_POWER”.

Please indicate the Measurement Type to be registered and provide a definition. Already defined measurements are found in:

WINNF-17-SSC-0002 ([click to obtain the latest version](#))

Measurement Type: \_\_\_\_\_

Definition:

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Indicate the measurement capability strings to be used in the SAS-CBSD protocol to indicate the measurement capabilities related to this proposed measurement type and the semantics of each measurement capability string. See WINNF-17-SSC-0002 for examples of measurement capabilities associated with each measurement type (e.g., RECEIVED\_POWER\_WITH\_GRANT).

All measurement capability strings shall contain only upper case alphabetic and numeric characters and the underscore and hyphen.

Measurement Capability: \_\_\_\_\_

Semantics: \_\_\_\_\_

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Measurement Capability: \_\_\_\_\_

Semantics: \_\_\_\_\_

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**Intellectual Property Rights Disclosure (Forum Policy 007)**

Are you personally aware of any claims under any patent applications or issued patents that are likely to be infringed by an implementation of the proposed measurement? **YES**  **NO**

**Controlled Information Disclosure (Forum Policy 009)**

By checking this box, I confirm that I have not disclosed export restricted or controlled information in completing this form

**Authorization**

I am authorized to submit this request on behalf of my organization.

By checking this box, I am verifying authorization.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_