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ATTORNEYS AT LAW

December 10, 2007

Ex Parte

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Unlicensed Operation in the TV Broadcast Bands, ET Docket No. 04-186

Dear Ms. Dortch:

On December 7, 2007, Monisha Ghosh and Vasanth Gaddam of Philips Electronics North America Corp. and Edmond Thomas on behalf of Philips submitted two devices to the Office of Engineering and Technology for the next round of white space prototype testing. In addition, Ms. Ghosh and Mssrs. Gaddam and Thomas met with Rashmi Doshi, Steven Jones, and Thomas Phillips of OET to discuss operation of the Philips devices, which are functionally identical, and provide instruction on their use. Philips also provided OET with written documentation for the devices, a copy of which is attached hereto.

Pursuant to the Commission's rules, a copy of this notice is being filed electronically in the above-referenced docket. If you require any additional information please contact the undersigned.

Sincerely yours,

Edmond J. Thomas
Senior Technology Policy Advisor

cc: meeting participants

Enclosure

Philips Sensing Prototype

Presented by: Monisha Ghosh & Vasanth Gaddam
Philips Research North America
Spectrum Agile/Cognitive Radios
Dec 07, 2007

Philips Sensor Team

- Vasanth Gaddam
- Monisha Ghosh
- Gene Turkenich
- Kiran Challapali (Project Leader)

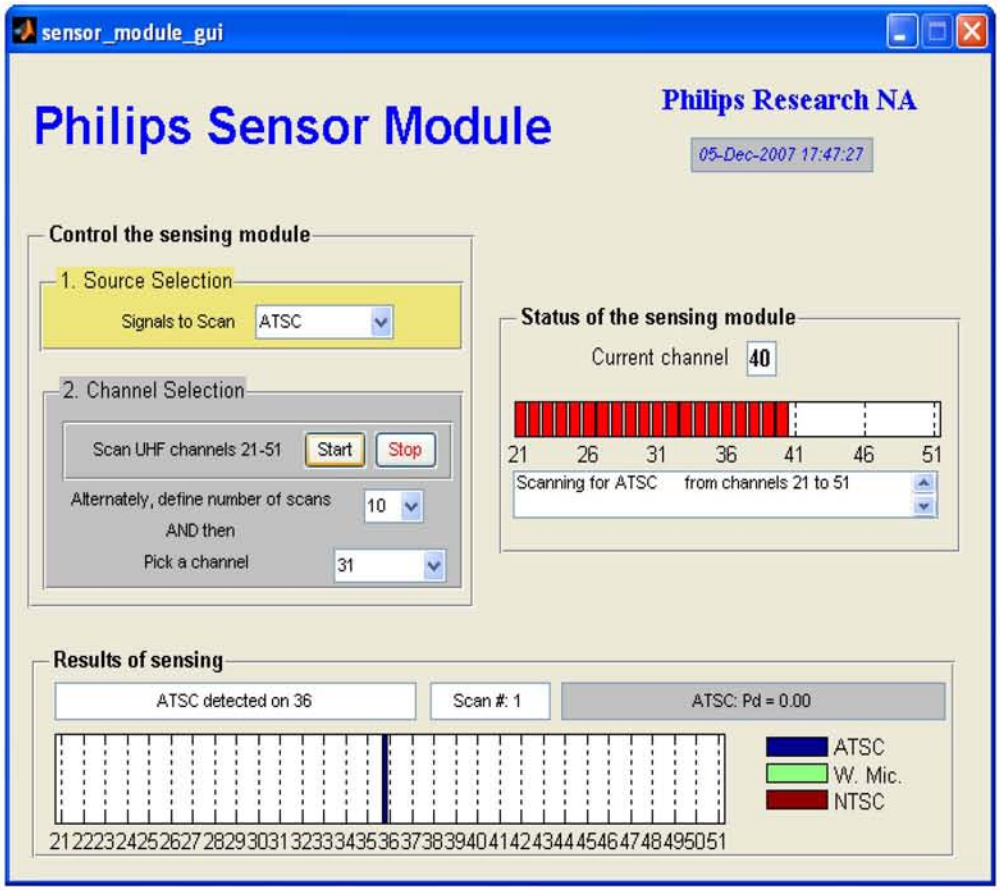
The Philips sensing prototype

- A prototype sensing device that can
  - scan UHF channels (21-51),
  - detect ATSC, NTSC, or wireless microphone, if present,
  - down to -114dBm signal strength within a 6 MHz TV channel.
  - Philips has conducted its own testing to verify the above.

- The prototype consists of
  - a Philips TV tuner
    - for tuning to a specified TV channel and translating to IF frequency,
  - a digital processing board
    - for A/D and processing, and,
  - a computer
    - for user-interface, control and processing.

Operating the prototype

The user interface has three regions:



Control the sensing module

Results from the sensing module

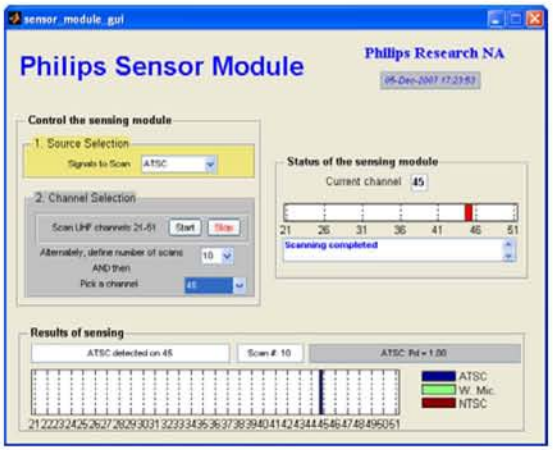
Status of the sensing module

Modifications in UI from the previous version

- Added ATSC/NTSC option to the source selection field
- Added a field in control region for number of scans
- Added two fields in results section
  - A scan number field to indicate the current scan number
  - A Pd field to indicate the cumulative probability of incumbent detection
- These changes were introduced based on the feedback received from OET engineers

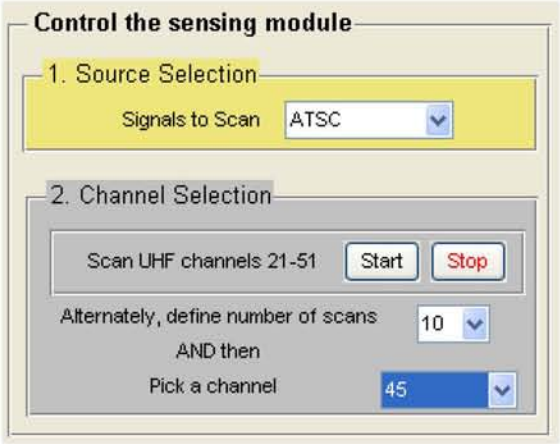
UI: Control the sensing module

- Both source and channel must be selected to detect the presence of an incumbent

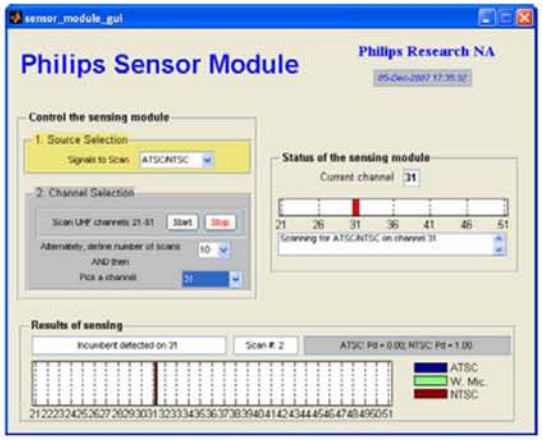


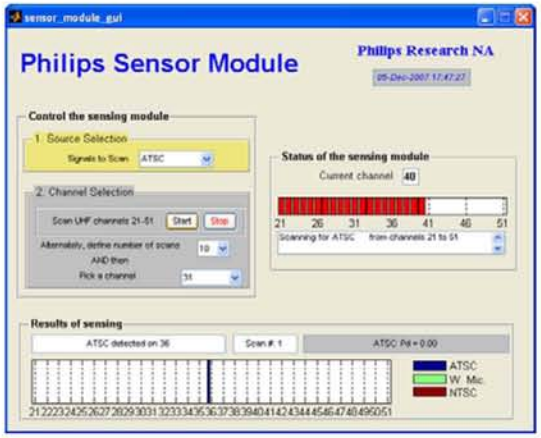
1. Source selection:
   - From the pull down menu, select ATSC, NTSC, WMIC, ATSC/NTSC or All.

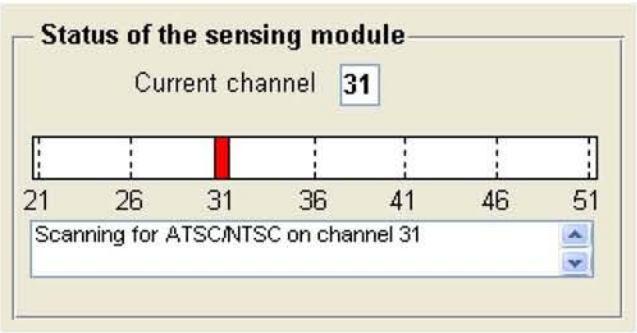
2. Channel selection: There are two options:
   - Scan all channels with start/stop pushdown buttons
   - Alternatively, define number of scans and then pick a channel to scan from pull down menu in that order



UI: Status of the sensing module

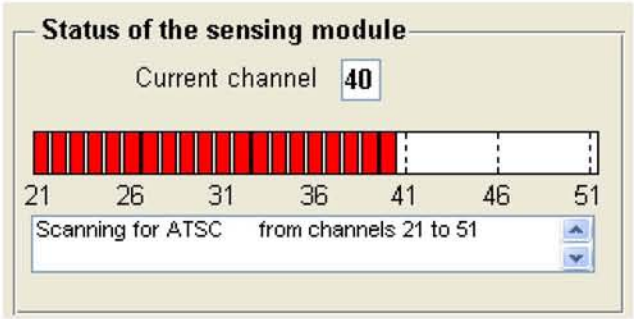






Shows tuner channel

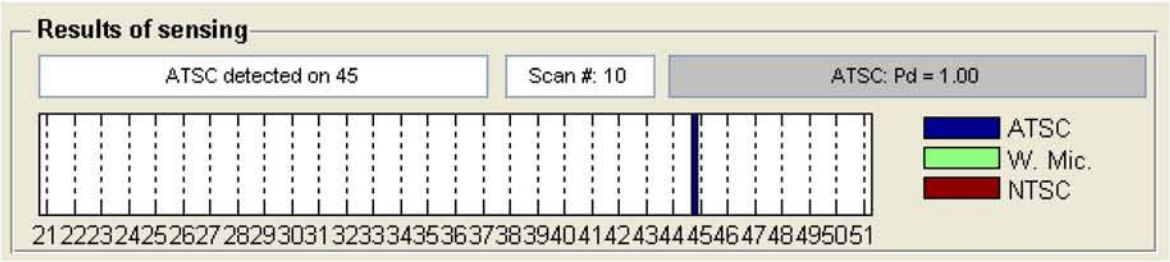
- Indicates the sensing operation being performed
- Also indicates when sensing is completed/done.

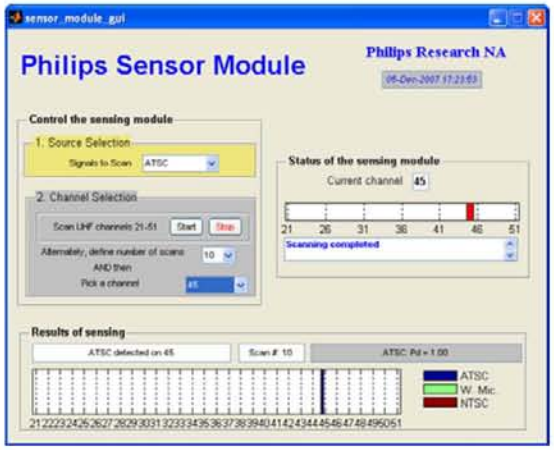


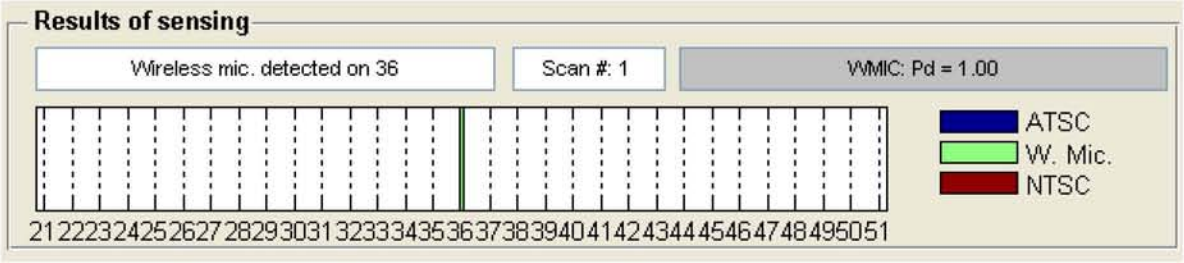
Scanning mode

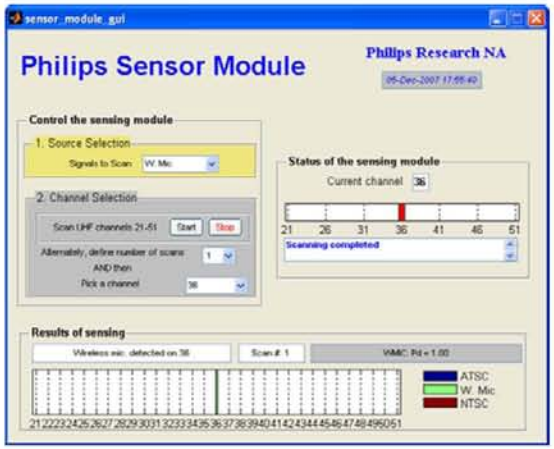
UI: Results from the sensing module

- Display results: textually and graphically.









- When ATSC/NTSC or All is selected as source then combined Pd for the incumbents is displayed in the results section

Do not hesitate to call us.

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PHILIPS