

**FHH Telecom Law**  
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**5 GHz U-NII Conundrum**  
**Resolved (Maybe)**

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The FCC expanded the 5 GHz U-NII band back in 2003, but questions still remain on when the new spectrum will become available for use.

Previously, the U-NII bands had consisted of three 100 MHz segments, each subject to different power limits and other restrictions. The 2003 expansion added 255 MHz to the highest-power segment, which is suitable for Wi-Fi-type services and broadband delivery. (The “U” stands for unlicensed; and the band can be used for any service that fits the technical rules.) This FCC action responded to forecasts that the heavily-used Wi-Fi band at 2.4 GHz will be unable to accommodate the continuing surge in demand for unlicensed devices.

The new part of the U-NII spectrum contains radars operated by the federal government. To protect those, the rules require U-NII devices in that part of the band to monitor for the radars and to choose transmission frequencies that will minimize interference. And, to make room for the greatest number of users, the rules also require that U-NII devices in this spectrum automatically adjust their output power to the minimum needed for communication. The FCC extended these rules to new devices in the original 100 MHz, as well as the new 255 MHz, and set deadlines for their compliance.

As it happened, however, the specifics of testing candidate products for compatibility with the radars proved to be much more difficult than anticipated. As a result, no products have yet been certified for sale. And the FCC has repeatedly put off the deadlines for compliance in the older U-NII spectrum

Several weeks ago the FCC, the federal government (via the National Information and Telecommunications Administration) and industry representatives were able to agree on a test procedure, and on criteria for FCC certification, which will finally permit equipment in the new band to be manufactured and operated. At this writing, the FCC is pondering whether it needs another rulemaking proceeding to implement the agreement. If so, use of the new U-NII spectrum will likely be delayed for at least another year, and parallel extensions in the deadlines for old spectrum will be necessary.