U-NII Unlicensed Spectrum Inventory (United States, FCC Regulations)

Frequency Band	Frequency Range	Channels	Device Category	Conducted Power Output	Power Spectral Density (PSD) Limit	Antenna Rule	EIRP Power Limit	Restrictions, Notes, and Primary & Secondary Band Allocations
U-NII 1	5.150 - 5.250 GHz	5.180 (36) 5.200 (40) 5.220 (44) 5.240 (48)	Point to Multipoint or Omnidirectional APs	1 Watt	17 dBm / 1 MHz	1:1 dB reduction above 6 dBi	4 Watts; 125 mW if outdoor antenna elevation >30° above horizon	Indoor and outdoor use (indoor restriction removed April 2014). Deployments of 1,000 or more outdoor APs must report to FCC for corrective action should harmful interference occur to FSS. Aggregate power impacts noise level of FSS links. **Primary Allocation:** Aeronautical Radio-Navigation Service (ARNS) **Secondary Allocations:** Fixed Satellite Service (FSS) Earth-to-Space Uplink (Globalstar)
			Fixed Point to Point APs	1 Watt	17 dBm / 1 MHz	1:1 dB reduction above 23 dBi	200 Watts	
			Mobile and Portable Clients	250 mW	11 dBm / 1 MHz	1:1 dB reduction above 6 dBi	1 Watt	
U-NII 2A	5.250 - 5.350 GHz	5.260 (52) 5.280 (56) 5.300 (60) 5.320 (64) 5.340 (68)*	All Devices	250 mW	11 dBm / 1 MHz	1:1 dB reduction above 6 dBi	1 Watt	Indoor and outdoor use. Dynamic Frequency Selection (DFS) and Transmit Power Control (TPC) are required to avoid radar. **Primary Allocation:** Federal Radiolocation (5.250 - 5.925 GHz) **Secondary Allocations:** Active Spaceborne Sensors (5.250 - 5.570 GHz)
U-NII 2B	5.350 - 5.470 GHz	5.360 (72)* 5.380 (76)* 5.400 (80)* 5.420 (84)* 5.440 (88)* 5.460 (92)*	TBD	TBD	TBD	TBD	TBD	FCC Proposal, not yet available. No technical rules defined yet. **Primary Allocation:** Federal Radiolocation (5.250 - 5.925 GHz) **Secondary Allocations:** Active Spaceborne Sensors (5.250 - 5.570 GHz), Radionavigation (5.350 - 5.650 GHz), ARNS (5.350 - 5.460 GHz)
U-NII 2C	5.470 - 5.725 GHz	5.480 (96)* 5.500 (100) 5.520 (104) 5.540 (108) 5.560 (112) 5.580 (116) 5.600 (120) 5.620 (124) 5.640 (128) 5.660 (132) 5.680 (136) 5.700 (140) 5.720 (144)	All Devices	250 mW	11 dBm / 1 MHz	1:1 dB reduction above 6 dBi	1 Watt	Indoor and outdoor use. Dynamic Frequency Selection (DFS) and Transmit Power Control (TPC) are required to avoid radar. Ban on 5.600-5.650 GHz (including channels 120-128) due to TDWR interference removed April 2014. Channel 144 added with IEEE 802.11ac-2013 amendment. **Primary Allocation:** Federal Radiolocation (5.250 - 5.925 GHz) **Secondary Allocations:** Active Spaceborne Sensors (5.250 - 5.570 GHz), Terminal Doppler Weather Radar (TDWR) (5.600 - 5.650 GHz), Radionavigation (5.350 - 5.650 GHz), Maritime (5.470 - 5.650 GHz), Amateur Radio (5.650 - 5.925 GHz)
U-NII 3	5.725 - 5.850 GHz	5.745 (149) 5.765 (153) 5.785 (157) 5.805 (161) 5.825 (165)	Point to Multipoint or Omnidirectional APs	1 Watt	30 dBm / 500 KHz	1:1 dB reduction above 6 dBi	4 Watts	Indoor and outdoor use. 5.825 - 5.850 GHz (including channel 165) is now included in U-NII 3 regulations (47 CFR Part 15.407) instead of ISM regulations (47 CFR Part 15.207) as of April 2014. **Primary Allocation:** Federal Radiolocation (5.250 - 5.925 GHz) **Secondary Allocations:** Amateur Radio (5.650 - 5.925 GHz), Amateur Satellite (5.830 - 5.850 GHz)
			Fixed Point to Point APs	1 Watt	30 dBm / 500 KHz	No reduction above 6 dBi	No limit	
U-NII 4	5.850 - 5.925 GHz	5.845 (169)* 5.865 (173)* 5.885 (177)* 5.905 (181)*	TBD	TBD	TBD	TBD	TBD	FCC Proposal, not yet available. No technical rules defined yet. **Primary Allocation:** Federal Radiolocation (5.250 - 5.925 GHz) **Secondary Allocations:** Fixed Satellite Service (FSS) Extended C-Band, Dedicated Short-Range Communications (DSRC) / Intelligent Transportation Systems (ITS), Amateur Radio (5.650 - 5.925 GHz)

* Indicates channel is not currently available, but is included in an FCC proposal for future use.