

U-NII Detection Bandwidth

Engineer: Alex Macon Test Date: 6/24/16

Test Requirements

The U-NII Detection Bandwidth must meet the U-NII Detection Bandwidth criterion as specified in 905462. Otherwise, the EUT does not comply with DFS requirements. In the case that the U-NII Detection Bandwidth is greater than or equal to the 99 percent power bandwidth for the measured F_H and F_L , the test can be truncated and the U-NII Detection Bandwidth can be reported as the measured F_H and F_L .

Test Procedure

The EUT was setup as a standalone device with no associated client and with no traffic. A single radar burst of types 0-4 was injected into the EUT at the center frequency of the channel and the response noted. A minimum of 10 trials was performed. The frequency of the radar signal was then decreased in 5MHz steps until the detection fell below the U-NII detection criterion. The frequency was then increased 5MHz and then decreased in 1MHz steps until the detection rate began to fall. This was noted as F_{L} . This was repeated on the other side of the center of the carrier and the frequency noted as F_{H}

The U-NII Detection Bandwidth was calculated as follows:

U-NII Detection Bandwidth = $F_H - F_L$

| Band Widths (MHz) | FH (MHz) | FL (MHz) | FH-FL (MHz) | 99% BW (MHz) | Margin (MHz) |
|-------------------------|-------------|-------------|----------------|-----------------|-----------------|
| 20 | 5510 | 5490 | 20 | 18.40 | 1.6 |
| 40 | 5528 | 5491 | 37 | 36.48 | 0.52 |