

HW 6

Antennas in the Wilderness

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F-Inverted Antenna

- Location: My Bedroom
- Estimated Gain and Freq:
- 2 dBi Gain at 2.4 GHz
- Use: IoT devices, Sensor data collection, Router, Web Server, and General Automation.
- I used this to make digital oscilloscope with the ADC and transmitting the results to my PC over HTTP/IP.



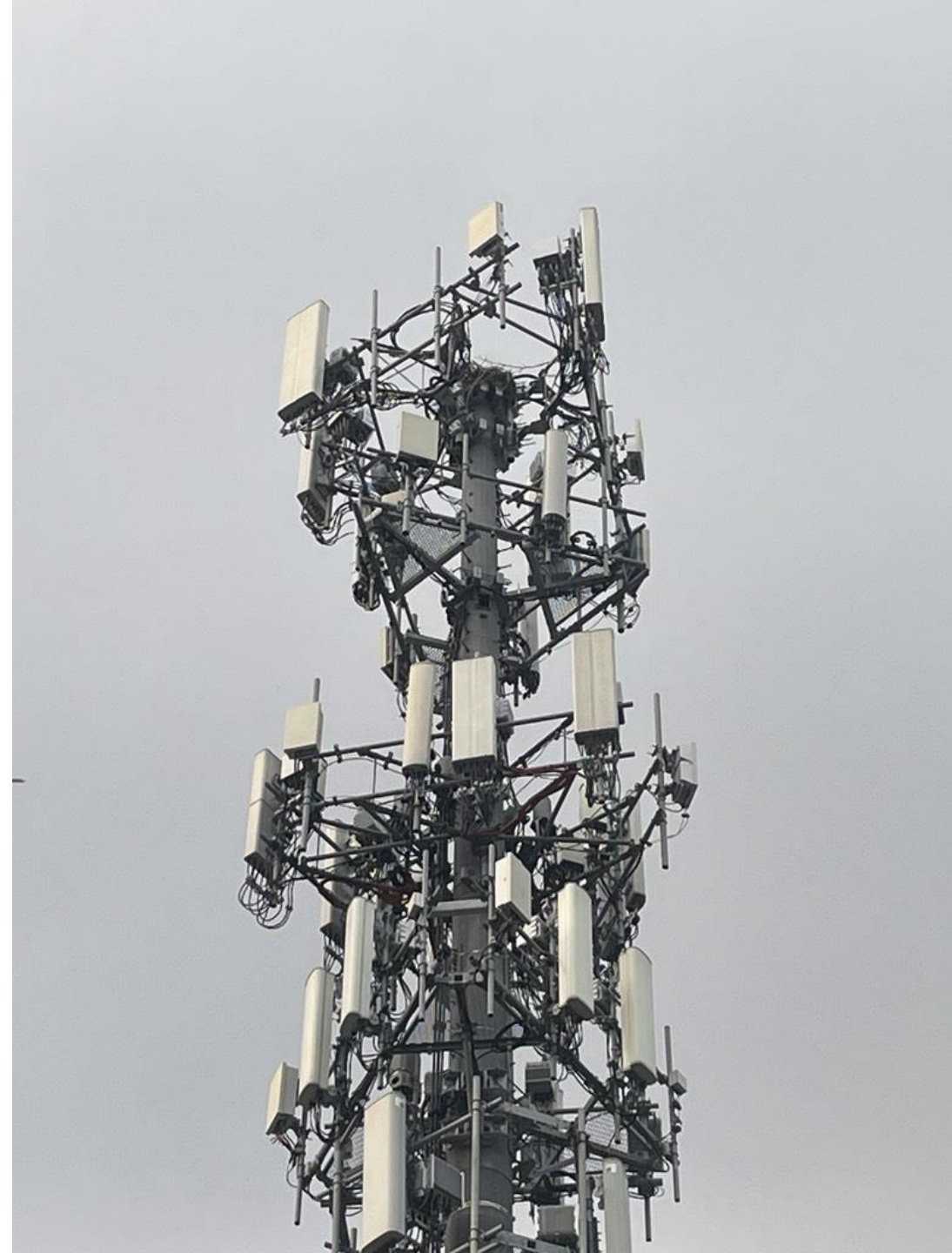
Panel Antennas

- Location: Nieborhood Park
- Estimated Gain and Freq:
- 10-13 dBi Gain between 700-1400 MHz
- Use: This is a very common Yagi antenna it is used everywhere for utilities. This is easier than routing ethernet cable to each site.



Panel Antenna

- Location: 1800 Ten Point Lane (E018) Orlando FL 32837
- Estimated Gain and Freq: 10-13 dBi @ 600 – 850 MHz
- Use: This is used for cell tower communication. There are dipole antenna array and Panel antenna array.



Monopole

- Location: UCF College of Business
- Estimated Gain and Freq:
- 2-3 dBi Gain @ 2.4-5 GHz
- Use: This antenna is used for Knight Cash for Vending Machine, it provides WI-FI connection/



Horn Antenna with Dielectric

- Location: UCF Garage C
- Estimated Gain and Freq:
- 10-25 dBi @ 5 – 42 GHz
- Use: Point to Point Communication between different cell towers.



Parabolic Dish Antenna

- Location: UCF Rosen Campus, Entrance Gate
- Estimated Gain and Freq:
- 10-25 dBi @ 1-5 GHz
- Use: Remote Control over Rosen Campus gate and transmit security camera video.

