NARRATIVE STATEMENT

Peltbeam is a 5G mmWave startup, designing and constructing repeaters for line of sight (LOS) gNodeB towers. The repeaters utilize two Movandi MVBX285-32 phased array antenna modules (PAAM), operating in the n257 band 26.5-29.5 GHz 3GPP frequency. One PAAM receives an existing broadcast from an existing gNodeB LOS tower and the other PAAM relays the same signal over a comparable distance with a comparable strength to the original tower. The Pealtbeam repeater itself does not broadcast any new signal; it only relays existing signals to boost range and strength.

Proposed Testing will take place across Orange County, CA anywhere within the range of a gNodeB tower could potentially be a test site since the Peltbeam repeater cannot broadcast; thus, testing relies on using an existing gNodeB transmission only. Testing the repeaters functionality across Orange County's wide range of topographies, weather, and network environments is absolutely necessary for the development of the Peltbeam repeater, as the goal of the device is to act as an alternative to a gNodeB tower where possible. The repeater itself is highly mobile and weighs around 10lb; thus, mobile testing is quick to set up and teardown; requiring no infrastructure and will not be elevated at or above six meters.

These tests will allow Peltbeam to ensure the product is meeting our stated goals (listed below), and to what extent--if any--the repeater's relayed signal is diminished compared to the host gNodeB tower, e.g., network capacity, speed, range, and ability to maintain performance in adverse weather conditions, as the repeater is meant to withstand all the same environments as a gNodeB tower without compromising performance.

The Purpose of the Peltbeam repeater is to reduce the number of gNodeB towers necessary to provide network coverage; thus, substantially lowering upfront infrastructure cost(s) while also enabling gNodeB coverage in areas where it would otherwise not be possible due to the Peltbeam repeater's lower cost, weight, and power consumption when compared to a traditional gNodeB tower.

Contact Information

Company Contact

Benjamin Moradi – Systems Engineer
Peltbeam
4343 Von Karman Suite 150-0
Newport Beach, CA, 92660
(714) 494-3895
ben@peltbeam.net