

With over 16 years of experience in the field we have become an expert in instrumentation and station installations. QuakeLogic engineers will define with you the best solution and provide a quality service to ensure optimum performance of your monitoring systems.

Wi-LAN LINK BETWEEN SEISMIC STATIONS

A wireless local area network (Wi-LAN) is a wireless network that links two or more stations to form a LAN.

Wi-LAN often requires line-of-sight between the base-station and each sub-station, but there are other options with no line of sight (nLOS).

In this Wi=LAN setup, only the base-station has an internet connection for instance via cell-modem. All stations are equipped with wireless network interface controllers (WNICs). Sub-stations send data to the base station to be transmitted to the world. In other words, base-station acts as a main data collection and transmission point.

The Wi-LAN hardware often use power-over-ethernet (PoE).

The image shows a product page for Ubiquiti Networks' PBE-M2-400 X2 PowerBeam antennas. The page features the Ubiquiti logo and the product name 'PBE-M2-400 X2'. Below this, it specifies 'Ubiquiti PBE-M2-400 (2 Units) PowerBeam 18dBi 2.4GHz airMAX 400mm 150+Mbps 20km+ PoE'. The page is divided into several sections: 'Overview' which describes the antenna's innovative design and performance; 'Package Contents x2' which lists various components like the dish reflector, antenna feed, rear housing, dish bracket, pole clamp, U-bolt, flange nuts, PoE adapter, power cord, and quick start guide; and 'Incredible Antenna Beam' which highlights the antenna's high gain and performance in high-noise environments. There are also images of the antenna units and a diagram illustrating the antenna beam's reach.

Figure 1. Example with Wi-LAN telemetry hardware. Station is powered by grid. (Photo source: UBIQUITI)



Figure 2. Seismic base station example with Wi-LAN telemetry hardware. Station is powered by grid. (Photo source: USGS)



Figure 2. Seismic substation example with Wi-LAN telemetry hardware. Station is powered by grid. A single sealed lead-acid battery is used as a backup power. (Photo source: USGS)

