

Novariant TX100 RF Exposure Category Statement

Novariant's TX100 transmitters are specifically designed for use in open pit mines to provide positional information for equipment inside the pit. A pit may extend from few hundred yards to couple of miles across, and can exceed a thousand feet in depth. A typical pit is shown below (approximately $\frac{3}{4}$ of a mile in diameter and 500+ feet deep) in Figure 1.



Figure 1: An open pit mine with a typical deployment (orange dots) of the TX100 transmitters. The above is a scenario only illustrating transmitter positioning. Double-benching is being used, making each “step” a 100 feet tall.

Each TX100 Terralite Transmitter is positioned around the perimeter edge of the pit on a 8-10 foot tall support. The power to the transmitter is provided via a 20+ foot long power cable, connected to a solar cell controller/battery bank via a connector, as illustrated below in Figure 2. The transmitter is positioned facing the center of the pit. There's a 50 to a 100 foot drop-off, immediately in front of the transmitter, therefore access to the transmit antenna is limited.

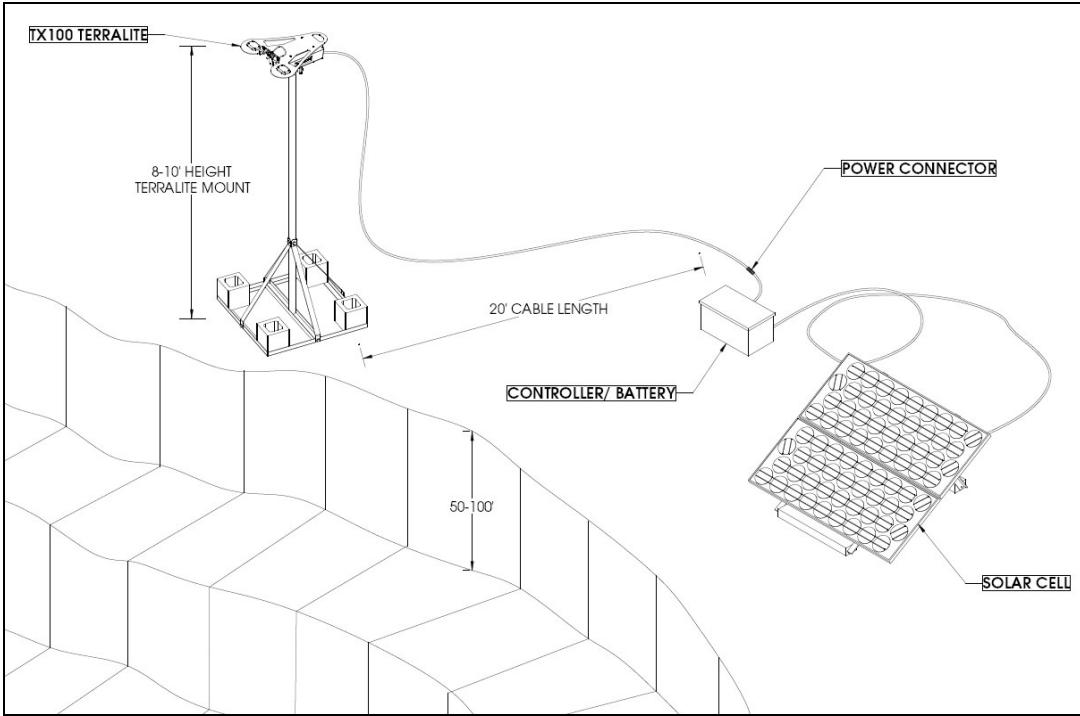


Figure 2: Typical deployment of a TX100 transmitter. The transmitter is mounted 8-10' high off the ground on the edge of a 50-100' tall cliff, known as high-wall. The main power connector is at the end of a 20 foot long cable, adjacent to the controller/battery box, which is fed by solar cells.

The TX100 transmitter can be repositioned if the need arises (pit geometry changes, etc.), a rare event in itself. For practical purposes the TX100 transmitter is considered a stationary and fixed device. Access to the transmitter is limited since it is positioned within boundaries of an active mine operation. The transmitter can be turned off by disconnecting a connector on the power line prior to any service.