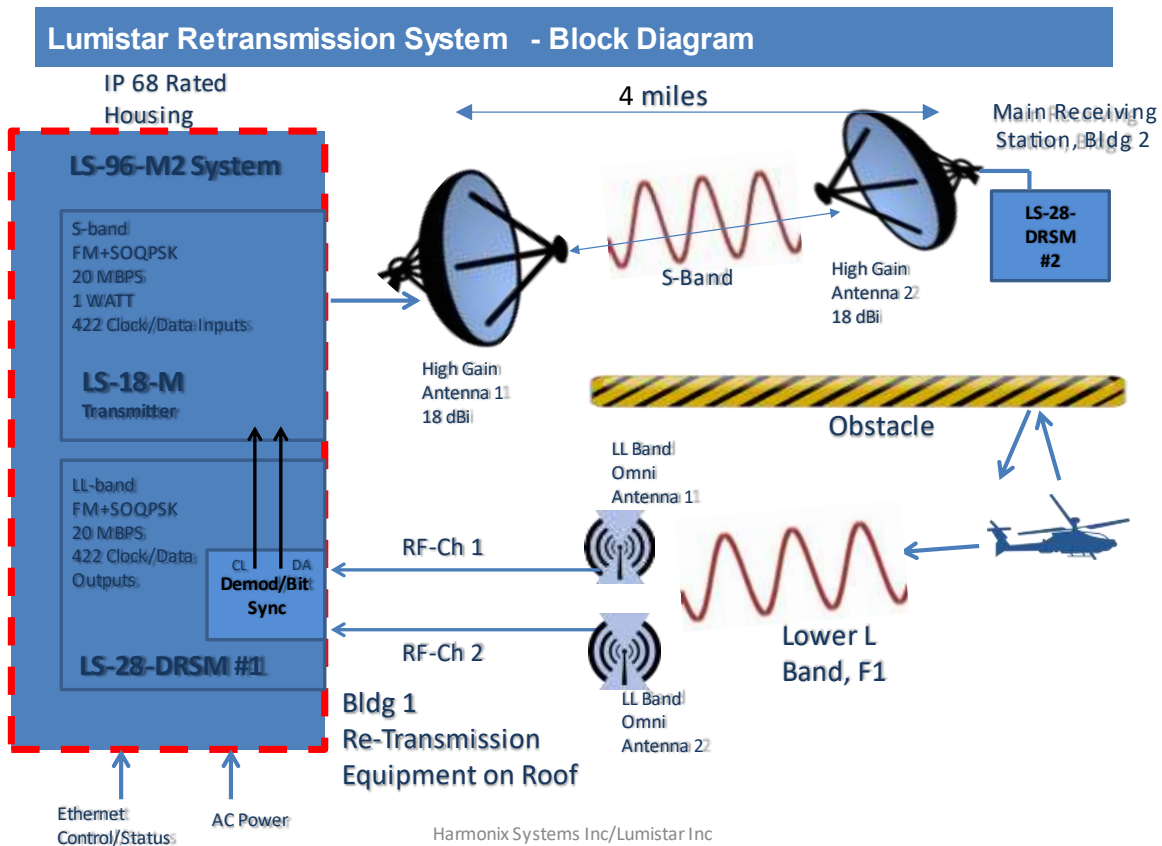




Lumistar Data Retransmission Systems

Lumistar has recently developed and installed a customized Data Retransmission System to help bridge “line of sight” gaps in RF coverage at the customer’s Range site. Collaborating closely with the customer’s technical staff, Lumistar designed the retransmission system as a site-specific solution. This system was designed to capture lower L band RF from a “nearby” aeronautical telemetry source whose location is obscured from the main Range telemetry receiving station. The system uses spatially diverse Omni directional antennas to capture the best source from the target and provides the demodulated clock/data to a second module with a one-watt S-band transmitter feeding a high gain Directional antenna. The retransmitted RF is sent 4 miles “point to point” and received by an identical high gain S-band Directional antenna on the roof at the main Range receiving location. The retransmitted S-band telemetry is demodulated using Lumistar receiver(s) and the customer can switch between Main and Retransmitted telemetry sources as location of the RF TM source requires.

If you have a similar “line of sight” gap in telemetry on your Range, consider partnering with Lumistar’s technical staff to develop a site-specific solution to bridge the gap in your telemetry requirements.





Photograph at the rooftop site where the LL band telemetry data is captured with Omnis (dual at top of mast), then demodulated and fed to a one-watt transmitter. The black high gain directional antenna, located below the Omnis, is pointing directly at the main receiving station over 4 miles away. An identical high gain antenna receives the retransmitted RF and feeds it to a Lumistar receiver for demodulation and capture in the customer's data processing and real time display system. The grey mast mount box located about 5 feet above the roof top provides IP68 rated protection from the elements and contains the necessary receiver/transmitter functions as well as ethernet capable control / status /on-off power waking control and environmental cooling as required. System installation time is under four hours.

