



A transmission system was to be developed for mobile cranes in order to transmit camera images from the trolley to the crane operator's lift cabin using a mesh-based radio solution for wireless transmission of the camera image from AZG Tech. Mesh technology offers the advantage of avoiding any transmission problems caused by buildings etc. ("radio shadows"). To realise this, three AZG nodes are installed on the crane. Node 1 is located on the lift cabin together with a monitor, zoom control and a camera installed on the outside of the cabin. Node 2 is located at the "bend point" between the tower head and jib with another camera and node 3 is installed on the trolley together with a camera and battery.

The following requirements are met:

- Separate digital network, so that there is a wireless connection in all areas of the crane
- Zoom-capable network camera on the trolley, which has almost no latency
- Power supply on the trolley via network-capable battery, which communicates its current charge level (monitor) and has a capacity of up to 8 hours
- Foot pedal in the lift cabin, which controls the trolley camera (also possible on the monitor or externally via crane master switch), additional camera under the lift cabin
- Monitor in the lift cabin, which is permanently installed
- The camera, including the battery, can be completely disconnected from the power supply when not in use. The camera, including battery, can be completely disconnected from the power supply when not in use
- Camera in the articulation point for a better overall view
- The individual components are very lightweight, which is particularly important for the trolley

The system is very robust and well protected against environmental influences thanks to protection class IP66. In addition to mobile cranes, it can also be used with other crane types.

