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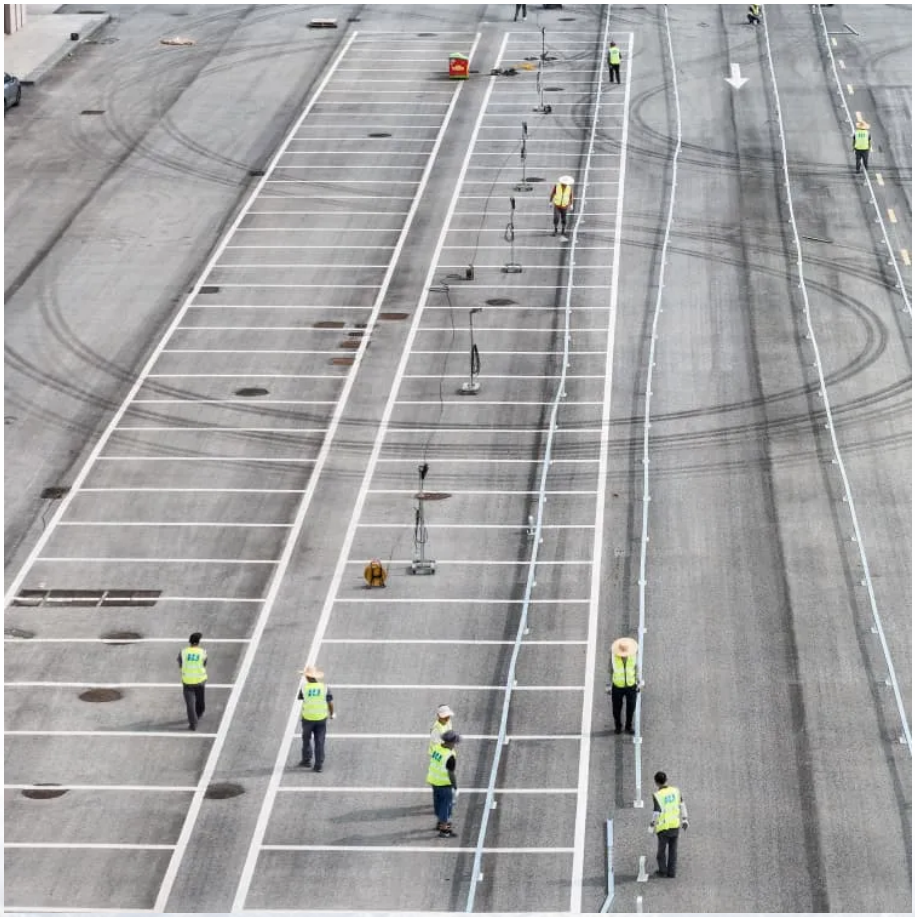
How to deal with the loud current noise of 5g base stations



Overview

How to reduce noise in 5G wireless circuits?

Conclusion In 5G wireless circuits, the inflow of high-frequency signals to the LO signal line generates spurious emissions in the frequency multiplier and mixer, which can reduce signal quality and lead to a communication error. To suppress this noise, a filter that prevents the inflow of noise to the LO signal line must be installed.

Does wireless communication affect 5G communication?

Before 5G devices fully enter communication environments, we studied the noise environments for 5G communication and examined the noise suppression measures that will be needed. The effect of existing wireless communications on 5G communication remains unclear. 5G communication environments are expected to be used alone in few actual cases.

Why is 5G receiver sensitivity reduced?

In 5G communication, the problem of reduced receiver sensitivity may occur because of the internal generation of spurious emissions due to exogenous noise. This noise is suppressed with a filter that combines a high-frequency inductor and a capacitor.Find Murata's technical articles.

Why does a large area not receive Los 5G signals?

As shown in Fig. 6, when p = 50, a large area cannot receive LOS 5G signals due to building blockages. As the number of BSs deployed in the area increases, the number of dead signal areas in the study area decreases.

Should 5G base stations be tripled?

To cover the same area as traditional cellular networks (2G, 3G, and 4G), the number of 5G base stations (BSs) could be tripled (Wang et al., 2014). Furthermore, Ge, Tu, Mao, Wang, and Han, (2016) suggested that to achieve seamless coverage services, the density of 5G BSs would reach 40-50 BSs/km

2.

How do I reduce LO signal noise?

To suppress this noise, a filter that prevents the inflow of noise to the LO signal line must be installed. The appropriate constant must be selected for this filter by taking into account the LO signal frequency and noise frequency.

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