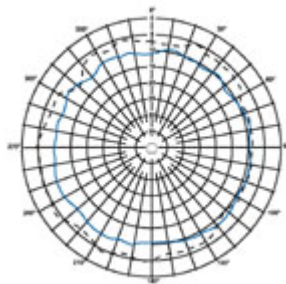


Why is the antenna important?

Put simply, the antenna is a device for transmitting and/or receiving signals - the eyes and ears of your communication system. A good antenna is designed to be "in-tune" to the signal you are seeking - your phone or radio "sees" the signal and you hear a clear conversation. Use a poor antenna and you're simply not going to get your call through.

What is the antenna pattern?

The antenna pattern is a "map" showing where an antenna focuses its energy. It's important for you so you can see that you are getting the best possible performance.



What is gain?

In order for your phone or radio to work, the antenna has to focus your signal just where you need it - in much the same way as a flashlight. The gain of an antenna, shown in decibels, describes just how tightly focused the signals will be. Some antennas can produce a "spotlight", focusing on a narrow target but covering large distances. Others produce a broad coverage area like a lantern. Generally, the higher the decibels of gain the better the range. A well-designed high gain antenna will ensure the signal is pushed out towards the horizon rather than up to the sky. That's great for rural areas but for city use where base stations are located on tall buildings, too much gain may not be the best solution.



Decibels

Antenna gain is specified in decibels. The higher the decibel figure, the higher the gain for that antenna.

Many manufacturers rate their antennas on different scales to others, similar to how different countries rate a vehicles' speed in Mph or KHz.

The most commonly used and accepted gain measures are: dB_i, dib or dBd.

Unfortunately, some manufacturers try to "pad" their numbers to impress you with high "performance" figures but don't give you any comparison i.e. dB over what?

When buying an antenna try to ensure the manufacturers claims are real and have been compared to an industry standard. If you have any doubt ask your dealer for help.

Ground plane independent

Some antennas do not require a metal surface (or ground plane) to operate effectively. The roof plays no part in the electrical circuit of the antenna. These are the antennas you should choose for alternative mounting locations such as fiberglass roofs, gutter or boot mounts.

Omni directional

This refers to the ability of an antenna to radiate in all directions. It's a critical parameter for any mobile antenna as it allows access to the base station antenna no matter what direction you are facing at any time. You want good signal when you are driving to work and the same when you turn and head for home!

