

**PIENAAR ENERGY (PTY) LTD**

**What electromagnetic waves  
are emitted by communication  
base stations**



## Overview

---

Radio waves transfer radiofrequency (RF) electromagnetic energy (EME). Radio and television broadcasting, mobile phones and their base stations, smart meters and satellite communications all produce RF EME. Cell phone towers are still relatively new, and many people are understandably concerned about whether the RF waves they give off might possibly have health effects. The strength of the radio waves from base station antennas reduces rapidly with increasing distance and the levels at locations where the public can be exposed. The antennas contained in mobile phones, and various other electronic devices, emit radiation which consists of non-ionising radiation or radiofrequency electromagnetic fields (RF EMF) such as microwaves.

## What electromagnetic waves are emitted by communication base stations



### Sources that emit radio waves frequently asked questions

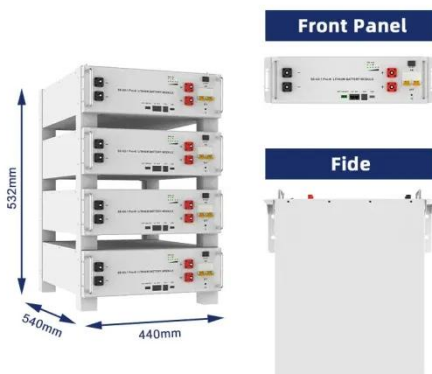
Radio waves transfer radiofrequency (RF) electromagnetic energy (EME). Radio waves are mainly used for telecommunications purposes. Radio and television broadcasting, mobile phones and their base ...

[Get Price](#)

### Wireless device radiation and health

The antennas contained in mobile phones, and various other electronic devices, emit radiation which consists of non-ionising radiation or radiofrequency electromagnetic fields (RF EMF) such as ...

[Get Price](#)



### Mobile phone base stations: radio waves and health

The radio waves transmitted by base stations are radiofrequency electromagnetic fields (EMFs), a form of non-ionising radiation, and have frequencies in the microwave region of the ...

[Get Price](#)

## Do Cell Phone Towers Cause Cancer? , American Cancer Society

Cell phones communicate with nearby cell towers mainly through RF waves, a form of energy in the electromagnetic spectrum between FM radio waves and microwaves. Like FM radio waves, ...



[Get Price](#)



## Wireless device radiation and health

Overview  
Exposure  
Effects studied  
Base stations  
Safety standards and licensing  
Lawsuits  
Precautions  
See also

The antennas contained in mobile phones, including smartphones, emit radiofrequency (RF) radiation (non-ionising radiation such as microwaves); the parts of the head or body nearest to the antenna can absorb this energy and convert it to heat or to synchronised molecular vibrations (the term 'heat', properly applies only to disordered molecular motion). Since at least the 1990s, scientists have researched whether the ...

[Get Price](#)

## Radiation and health

Mobile telephony is now commonplace around the world. This wireless technology relies upon an extensive

network of fixed antennas, or base stations, relaying information with radiofrequency (RF) ...

[Get Price](#)



## Mobile phones

The radio waves are sent to, and received from, a mast or aerial, called a mobile phone base station.

[Get Price](#)

## RF Safety FAQ

Radio and television broadcast stations transmit their signals via RF electromagnetic waves. There are thousands of radio and TV stations on the air in the United States.

[Get Price](#)



## Mobile phone and base stations radiation and its effects on human

All mobile phones emit a type of radiation known as electromagnetic field



(EMF), which consists of waves of electrical and magnetic energy travelling together through atmosphere.

[Get Price](#)

---

## How Do Cell Phone Use Electromagnetic Radiation?

A mobile phone transmits and receives electromagnetic radiation, specifically radio frequency (RF) waves. When a mobile device is turned on, it continuously releases RF energy, which

...

[Get Price](#)



---

## 5g emf radiation

5G base stations, including gNBs (Next-Generation NodeB), emit EMF radiation to establish wireless communication with user devices. Antennas on base stations are designed to ...

[Get Price](#)



---

## Contact Us

For catalog requests, pricing, or partnerships, please visit:  
<https://www.pienaarshof.co.za>

