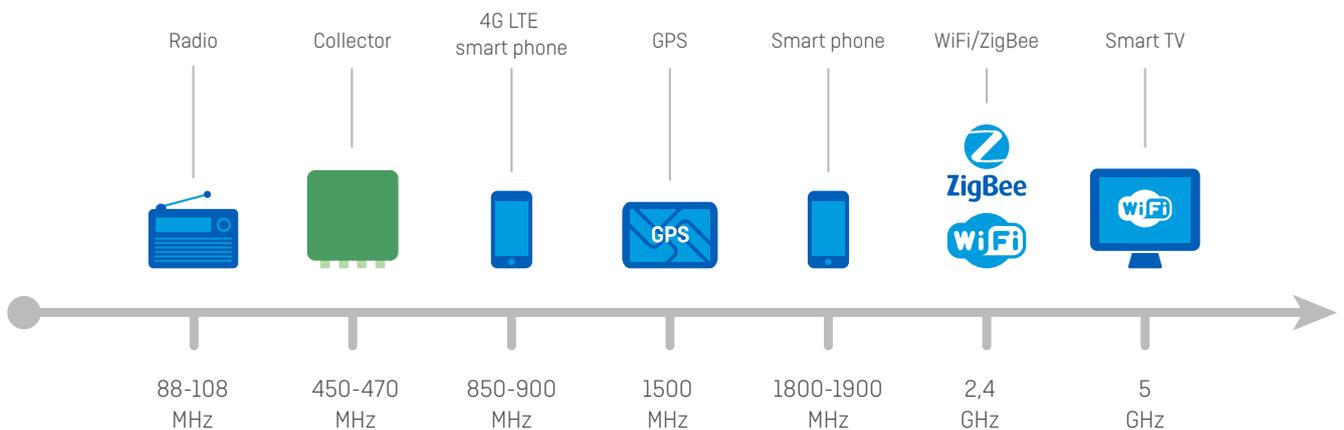


# Facts about READy Collectors and radio communication

**When your water meter is read remotely, it sends data to the collector via radio communication.**

## What is radio communication?

Radio communication is a wireless communication type using electromagnetic waves (radio waves). This type covers the frequency area from approx. 3 kHz to 300 GHz. Kamstrup's water meters typically communicate on a frequency in the 450-470 MHz band.



## Electromagnetic emissions are found in a lot of places

Energy emissions from the collector also known as electromagnetic energy, are dispersed from any active electric equipment such as radar towers, cell phone towers and powerlines.

## The collector complies with all requirements for electromagnetic emissions

The collector is FCC approved and complies with national requirements for electromagnetic emissions.

In addition, independent studies show that the emissions from the collector are below the applicable limit values, defined by the independent organization ICNIRP\*.

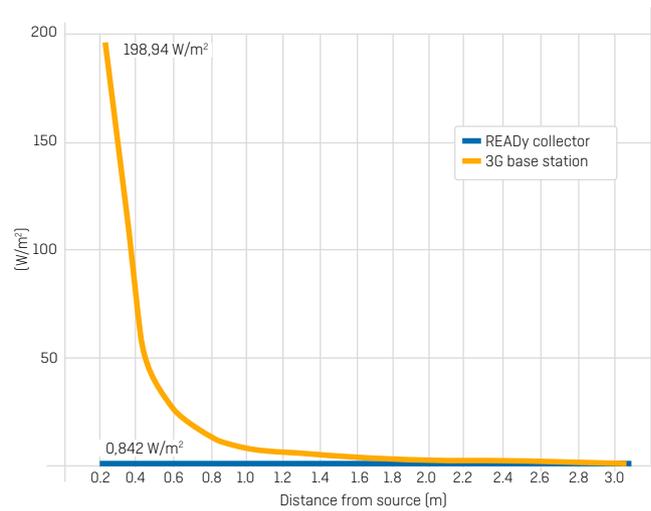
\*ICNIRP: International Commission on Non-Ionizing Radiation Protection.

## The thermal stress of radio waves measured in $W/m^2$ over 30 minutes

All appliances that use radio communication have requirements that limit how much the electromagnetic emissions may affect its surroundings and human beings.

An example is MPE (Maximum Permissible Exposure) that states how much heat an appliance is allowed to deposit on a plate at a distance of 20 cm. The MPE limit value of the meter is  $3.13 W/m^2$ . For a collector the value is  $0.842 W/m^2$  at 5000 water meters.

The thermal stress of radio waves decreases proportionally with the distance from the appliance and the duration of the communication.



### MHz

MHz is an abbreviation for megahertz.  
1 MHz = 1,000,000 oscillations per second.

### mW

mW is an abbreviation for milliwatt.  
1 mW is 1/1000 of 1 watt.

### MPE

MPE is an abbreviation for Maximum Permissible Exposure and is defined by the independent organization ICNIRP (International Commission on Non-Ionizing Radiation Protection).

# Think forward

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