Review of Climate Change Fake Science.

Heat is broadband electromagnetic radiation. Radio, TV, cell phone transmissions are narrow band radiation that poke above the "noise floor"—which is the same thing as the first sentence.

Spectroscopy is a method of investigating the chemical nature of substances. For example, in 1814 Fraunhofer published a map of 576 lines in the sun's spectrum. Some of these lines are due to the atmosphere of the earth. Nitrogen and oxygen scatter blue and green photons, while carbon dioxide also scatters two wavelengths on the way in.

Greenhouse gas global warming, AKA 'Climate Change' is nonsense authored by multinational media who have no interest in electromagnetics or spectroscopy. The rest of this note will deal with basic heat transfer.

Solar Constant is heat radiation in watts per square meter, at a distance of 149 million kilometers from the sun. In other words, the amount of heat the Earth receives from the sun. The observed value is 1367 w / m^2. The value can be calculated, but will be a bit high.

$$flux = \left(\frac{r_e}{r_s} \right)^2 \sigma T^4 = 1380 w / m^2$$

This is sometimes quoted, incorrectly, on the Internet; the problem is with the diameter of the sun, r_s = 696,340 kilometers. The radiation is not even; rather it tapers off toward the edge. An 'effective diameter' of 693,000 will fix the problem. The other parameters are:

r_e = distance from the sun to the earth
T = 5778 K, temperature of the sun
σ = 5.67 · 10^8 Stefan-Boltzmann constant

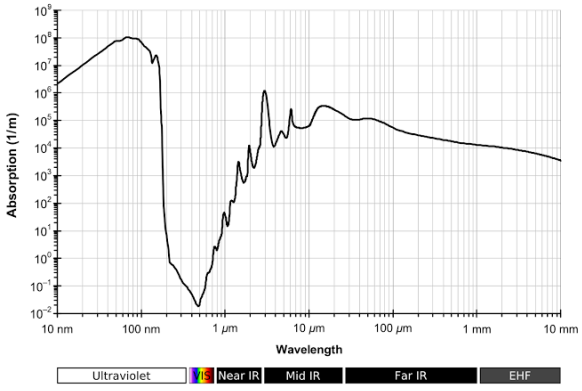
The temperature at Earth distance from the sun is easily calculated.

$$T = \left(\frac{flux}{\sigma} \right)^{1/4} = 121°C$$

Which is the temperature of the moon in direct sunlight. If the heat is distributed over the Earth, then the flux is divided by four. This gives an average temperature of 5 ℃. The average temperature is considered to be quite a bit higher—15 ℃.

Even though these calculations are rather crude, the difference of 10 degrees is probably understated.

Since the Earth is actually water let's take a closer look at this polar molecule. It transmits light, but according to the graph, and your microwave oven none of the other frequencies. Light goes in at, well, the speed of light, while the rest becomes heat and can only move slowly by conduction or convection. The entire broadcast spectrum is swallowed up.



This is what carbon dioxide is supposed to do—allow light in but trap heat coming out. The Martian atmosphere, even though it is thinner, has about 300 times more CO_2 than Earth. Similar calculations show that Mars is colder than expected. A gas does not heat up the *whole planet* while liquid water certainly does.

	Predicted	*Observed*	*Difference*
Earth	5 ℃	15 ℃	+10 ℃
Mars	-48 ℃	-60 ℃	-12 ℃