

## Information Transfer

In present physics, nothing can be faster than light.

In our New Theory light itself can be faster than  $c$ , but only if generated at an object that has already a velocity  $v$  (relative to an observer). Then in direction  $v$  the light travels with  $c+v$  for the same observer as before. But this is only valid if this process takes place in absolute vacuum.

If there are some electrons around the object that do not travel with  $c$ , that have an average speed of 0 compared to the observer, then the light interferes with the electrons, absorbs a part of the energy and reemits the energy as light wave then with the velocity  $c$  compared to the observer.

But one thing seems to be of interest, that is the quasistatic electric or magnetic field. According to the New Theory they have no transmission speed. Their influence is immediate. Is it now possible to transfer information immediately from one point to another? The simple answer is no. These fields are known from antennas, they are the so called "near fields". These fields decrease with the 3rd power of the distance (There might be also components that decrease with 2nd power of the distance, but that still has to be evaluated. The measurement of these are extremely difficult.)

This is in contrast to the electromagnetic wave, where the single components, the E- and B-field strength, decreases with  $1/r$  (first power). Comparing the magnitude of the transmitting E-field strength with the near field E component, shows, that this near field has only a major influence at distances of less than about a quarter wavelength. So using the near field for information transfer the distance is limited to a quarter wavelength. With that, according to the Shannon Theorem, not a single bit can be transferred. The information content of a complete sin-wave is max 2. So you need for information transfer at least half a sin-wave.

The useable distance is very low, for a 144 MHz it is about 0,5 m, for a signal of 1,4 GHz accordingly only 0,05 m. For visible light with a wavelength of 600 nm the near field might be useable in a range of 150 nm.

Effective information transfer over longer distances with electromagnetic waves is also not feasible within the New Theory.

But there is a new method that could be used. The acceleration of charges to speeds larger than  $c$ .

One could use an electrogun with high acceleration voltages to generate pulses of electrons. These pulses and their timing can be modulated according any known digital modulation method to include information.

So one can say information transfer faster than with light speed is possible according the New Theory.

But is that useable on earth? No! You are generating with those e-beams strong Beta-Rays. The same as they appear from radioactive material.

Another reason is that the travel distance of electrons in the atmosphere is not very high. Depending on the energy this distance is some centimeters to some meters.

Useable would it be in space, one could aim at an earth like object and hope that there is someone who is watching passing charges. They can be detected with sensitive coils. So on the other hand we should watch too. Install in space watch stations observing passing electrons and look for modulated signals.

This would allow a communication with another civilisation, that is not dependent in the light speed.

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