

I need your help.

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This letter is at <http://www.ivorcatt.co.uk/wxyz.pdf>

I came up to Trinity College to study engineering in 1959. On graduating I went into computer design and microelectronic design, specialising in electromagnetic theory for the next 50 years.

It is important for me to enlist your help in getting written comment on fundamentals from accredited experts in electromagnetic theory.

Toward that end, a £500 prize has been available for eight years <http://www.ivorcatt.co.uk/44.htm> to the first student in the world who prevails on his accredited expert to put comment in writing on an elementary question in electromagnetic theory called "The Catt Question". <http://www.ivorcatt.co.uk/cattq.htm>

Schizoid Science. <http://www.ivorcatt.co.uk/x2ap.htm>

The Catt Question. <http://www.ivorcatt.co.uk/28anom.htm>

Traditionally, when a TEM step (i.e. logic transition from low to high) (Figures 3, 4, 5 http://www.ivorcatt.co.uk/1_2.htm from "Electromagnetism 1" <http://www.ivorcatt.co.uk/em.htm>) travels through a vacuum from left to right, guided by two conductors (the signal line and the 0v line), there are four factors which make up the wave;

- electric current in the conductors i
- magnetic field, or flux, surrounding the conductors B
- electric charge on the surface of the conductors $+q$, $-q$
- electric field, or flux, in the vacuum terminating on the charge, D

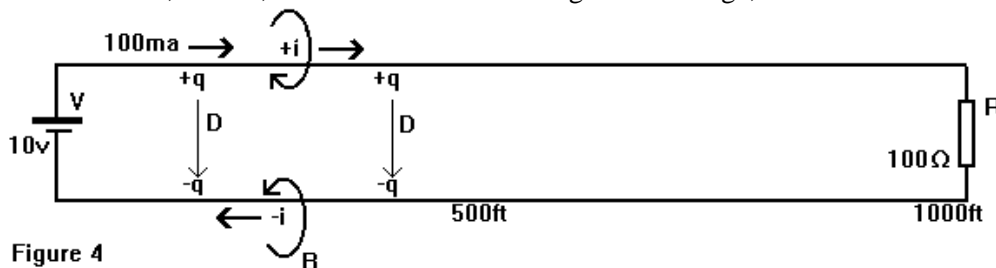


Figure 4

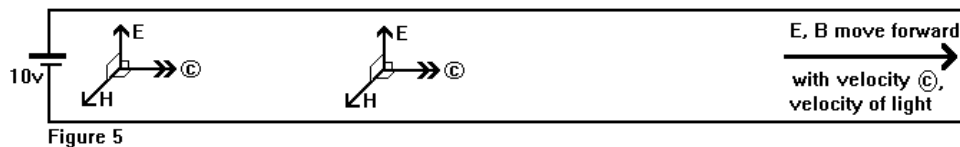


Figure 5

The key to grasping the question is to concentrate on the electric charge on the bottom conductor $-q$. During the next 1 nanosecond, the step advances one foot to the right. During this time, extra negative charge appears on the surface of the bottom conductor in the next one foot length, to terminate the lines (tubes) of electric flux which now exist between the top (signal) conductor and the bottom conductor.

Where does this new charge come from?

It is possible that your expert might also make written comment on "The Second Catt Question"

<http://www.ivorcatt.co.uk/x22j.pdf> .

Ivor Catt, 121 Westfields, St. Albans AL3 4JR. 26 October 2012

www pages relevant to the letter in "Electronics World" overleaf, at

<http://www.ivorcatt.co.uk/x256.pdf>

My 1967 paper <http://www.ivorcatt.co.uk/x0305.htm>

ProcIEEE papers <http://www.ivorcatt.co.uk/x22k1.pdf>

My books. <http://www.ivorcatt.org/digital-hardware-design.htm> ; <http://www.ivorcatt.co.uk/em.htm> ; <http://www.forrestbishop.4t.com/>

"The Catt Question" <http://www.ivorcatt.co.uk/cattq.htm>

Prize <http://www.ivorcatt.co.uk/44.htm>

Further flaws in theory. <http://www.ivorcatt.co.uk/x22j.pdf> ; <http://www.electromagnetism.demon.co.uk/images/7877.jpg> ;

<http://www.ivorcatt.org/icrwiworld78dec1.htm> ; <http://www.ivorcatt.org/icrwiworld80mar1.htm> ; <http://www.ivorcatt.co.uk/x18j184.pdf>

Talk to Cambridge University Engineering Society <http://www.electromagnetism.demon.co.uk/stoppress.htm>

Crimestop <http://www.electromagnetism.demon.co.uk/Y65BRILL.htm>

MIT on TEM. http://web.mit.edu/6.013_book/www/chapter13/13.1.html $e^{j\omega t}$ does not appear in any of my books or articles. $e^{j\omega t}$ only appeared in my 1967 IEEE paper because Dr. Jan Narud, head of Motorola R&D, said I would be fired if I did not include it.

<http://www.ivorcatt.co.uk/2808b.htm> . I was usually fired, but not from Motorola. http://www.raetowest.org/harold-hillman-biology/ps7_catt.htm

$\text{div } \nabla \cdot$ and $\text{curl } \nabla \times$ do not appear in my writings. A TEM step does not div or curl.

Catt on TEM "A lost concept", <http://www.ivorcatt.co.uk/17136.htm> ; <http://www.ivorcatt.co.uk/20136.htm> ;

<http://www.electromagnetism.demon.co.uk/20136.htm>

Einstein and em <http://www.ivorcatt.com/28anomu.htm>

A recent experiment. The field in a charged capacitor is not static. <http://www.ivorcatt.co.uk/x2ab.pdf> ; <http://www.ivorcatt.co.uk/x2b1.htm>