

# Elen3000 Electromagnetics Home Page

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January 25, 2026

## Additional Material

Nice examples of stub matching in an Ordinary QD remote receiver, Full circuit showing from bottom right, going clockwise: Power Conditioning, 12 series PIC, EEPROM for code storage, RF Amplifier, Filter stage with stub tuning; and Stubs showing the Short circuited stubs (providing DC ground!) Note the modifications on right hand stub.

The inevitable Smith Chart in pdf form, and if you want to see it in Real Postscript, as modified by me Smith Chart Code. An excellent Smith Chart discussion at Spread Spectrum Scene.

## Ode to a Smith Chart

O, circles, circles, round and round,  
they're coming out of my ears.  
At Whence I do but hear that sound,  
it enlights my darkest fears.

A constant rho, a constant z  
and VSWR  
They come into and fill my head  
then leave like a speeding car.

One day perhaps I'll understand,  
the purpose of this dross  
but until then the chart's unmanned  
and I feel like a toss.

Michael Barker, Elen302 2000.

## Excellent S-Parameter Overview

Is at Spread Spectrum Scene, and another, dealing with amplifier design is from Agilent. Another here and another from from Anritsu.

## Example test and exam

test and exam.

## Feedback, marks

Please check that what you think your mark is is what I think your mark is :-)

Please check marks, 2019

2021: Sadly, I am barred from doing this by the Government.

## eTexts

<https://doi.org/10.21061/electromagnetics-vol-1>

### Electromagnetics Vol 1 Beta: Steven Ellingson

<https://doi.org/10.21061/electromagnetics-vol-1> contains *Electromagnetics Vol 1* by Steven Ellingson, Virginia Tech., USA.

This excellent book is one of the only ones to follow my order of Transmission Lines first. ie From Circuits I to HF, or: 1-D to 3-D (with Time :-). In addition, L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> is used in its typesetting, so it is a superb design. A pity he didn't use my Circuit Macros to do his drawings... Can't win 'em all :-)

Please use the link above to download, as then the download is correctly accredited. If the link breaks, Please tell me, I do have a local copy. The errata.

A very recent publication (1873) is A Treatise on Electricity and Magnetism by James Clerk Maxwell. (Why can't these blokes spell Clark correctly, anyhow?).

### Electromagnetism for Electronic Engineers: Richard Carter

<https://bookboon.com/en/electromagnetism-for-electronic-engineers-ebook> is an ad-filled BookBoon containing *Electromagnetism for Electronic Engineers* by Richard Carter, Lancaster University, UK.

The ads are a pain, it isn't in L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>, and it gives a traditional order. Pics need some attention, but it is a sound enough text!

### Essential Electromagnetism: Raymond John Protheroe

<https://bookboon.com/en/essential-electromagnetism-ebook> is an ad-filled BookBoon containing *Essential Electromagnetism* by Raymond John Protheroe, University of Adelaide, Australia.

Ads again, in L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>, better figs, but ends early, hence his next book!

### Essential Electrodynamics: Raymond John Protheroe

<https://bookboon.com/en/essential-electrodynamics-ebook> is an ad-filled BoonBook containing *Essential Electrodynamics* by Raymond John Protheroe, University of Adelaide, Australia.

Ads. . . . ., a good additional work, but doesn't cover what I need in detail.