



Wireless 101

A Guide to Wireless Investing for Newbies and non-Techies

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Preface

As you anxiously scan through the latest issue of Hot Johnny's Stock Picks you come across THAT word: *wireless*. You start to salivate. Johnny is profiling a hot new company called NerdWarez Wireless, giving them a glowing recommendation based on the fact that the company is employing CDMA based technology with a specialized vocoder to overcome bandwidth bottlenecks at...the... l...o...c...a...l... zzzzzzzz. You quickly drift off as your eyes blur into a page filled with enough acronyms to tilt the earth off axis. What does all this mean? Does Hot Johnny even know what this means?

Fortunately, you don't need to know what all this tech talk means. What's important to you as an investor is not to understand the details of the technology, but to understand how the technology enables a company to compete in the market they serve. If you are looking at investing in wireless, you have two options at this point. You can jump right in and immerse yourself in technical papers, company reports, and other information giving details of individual companies and their respective technologies. Or you can take an introductory approach; learn the basics of the industry and market in order to whittle down what was once a monstrous task into manageable chunks. Welcome to Wireless 101.

Just like all those prerequisite classes you sometimes whined about taking in college, Wireless 101 is designed for someone who has little or no knowledge of the wireless industry or technology. This report will give a broad perspective of the industry and how all the pieces fit together. It will also explain various technologies in a way simple enough for anyone to understand and only to the extent necessary to gain better insight into potential investments.

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Introduction

So you have a problem. You're trying to pick out the best investments in the wireless sector for your 401k, your online account, or your "I'm retiring by 40" aggressive account. You've seen what happened to Qualcomm (up approx. 2600% in 1999) when wireless started getting attention, and now you want to be a part of the next moon shot. So which one do you pick? Let's see, the wireless sector is fragmented and morphed with about a dozen different technical industries, ranging from semiconductors to software services. Within each of those there's a few more sub-categories with a myriad of players, some well capitalized and some cash poor startups. Company A has SuperCool technology, but company B will be rolling out 3D-SuperCoolx2 technology soon. Will Company B soar while company A sucks wind?

Attempting to answer these types of questions right out of the starting gate is kind of like running into the middle of a forest; you suddenly stop and realize you've lost all sense of direction and now wish you had left that popcorn trail. Or at least had enough sense to bring your trusty Boy Scout compass. Let's try to explain a better approach with the following analogy.

Flying by Instruments

Plenty of pilots successfully navigate extremely complex aircraft to airport destinations everyday without a whiff of understanding of what's going on behind the instrument panel. They only need to know how to effectively interpret the information they are presented with on the gauges in order to understand if they are on their expected course and making good time. Similarly, as an investor, you need to be able to "read the instruments" of various companies and markets if you expect to get insight as to which companies are on track to success and which ones are wandering off course (and low on fuel to boot!). You also need to be able to survey the landscape, that is, take in the big picture. I believe this is a crucial early step that many investors overlook. The big picture gives you a constant source of reference just in case your instruments are a little off. While many pilots are qualified to fly by instruments only, I don't know of many whom would ignore a clear view out the front window if they had it.

Of course, good pilots are also able to sort out significant information from the redundant stuff. Altitude is important. Direction is important. That blinking red emergency light is important. The serial number of the panel however, has no real bearing. So if I want to invest in wireless, what is important and what information is insignificant? Great question, hopefully one that you will find an answer to in this report.

Putting the Cart before the Horse

Until you know the basics of an industry, the financials and technical jargon have little significance. The basics give the context necessary to evaluate financials and compare technologies. Is company ABC making profit? How's their gross margins? Is their technology an accepted standard? If these were the first questions you considered you would have to screen several hundreds of stocks through this criteria to pick the best one. Even then, after a ton of work, you would miss a lot of the other qualities that add value to a company. What's even better, after getting a big picture view of the wireless landscape, you may eliminate many companies or even whole sectors based upon insight you've gleaned from this view. When you look at the big picture and keep your investment goals in mind, it's amazing how much easier it gets to pick winning stocks.

OK. So we understand the focus of this paper: big picture, basic industry overview. This is the cornerstone for you to make an intelligent, well-informed decision about investments in wireless companies. So we've had the appetizers, let's get right to the main course. We'll first look at the wireless landscape and explain the various roles that different companies play in this huge industry.

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