

PIPX Intellectual Property Sector Index Q2 2016 update

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Composition and description of the PIPX index

The PIPX index is designed to provide a measure of the market value and hence the health of the intellectual property licensing business. The index consists of 13 companies with a primary focus of licensing and enforcement of patent intellectual property. The companies included in the index are listed in Table 1. In addition to a focus on intellectual property, there are two additional criteria for inclusion in the index. The first is that they must be publically traded companies, so that a market value can be established for the company on a daily basis. For this reason a number of prominent intellectual property licensing companies are not included, such as Intellectual Ventures, Conversant, and IPNav. The second is that they must also have a market capitalization greater than \$100M in order to provide a level of stability and minimize the number of companies popping into and out of the index. This excludes some smaller companies that may be added to the index later if they grow to and maintain a market capitalization of greater than \$100 million. Many of the companies' market capitalizations have shrunk below \$100M since being added to the index

Table 1 – Intellectual Property Licensing Companies Included

Acacia Research	Interdigital	Vringo	VirnetX
Wi-LAN	Unwired Planet	Tessera	Rambus
RPX	Parkervision	Pendrell	Neonode
Marathon			

The index is a capitalization-weighted price-return measure of the change in value of this segment of publically traded companies. The effect of dividends and daily changes in the number of shares outstanding are not included. The index is initiated with a value of 100 on July 1, 2011. This date was chosen to avoid what would be several significant disruptions to the index, namely the RPX initial public offering in May 2011, the initial listing of Wi-LAN on the NASDAQ in April 2011, and the taking private of MOSAID in Oct 2011.

Q2 2016 saw some interesting changes to two of the component companies. Unwired Planet has divested its intellectual property licensing business and is merging with Full Circle Capital which will continue as Great Elm Capital. Vringo has changed its name to FORM Holdings and is diversifying its business such that most of its revenue now comes from non-IP activities. In this report both companies are still referred to by their names as of the beginning of Q2.

Figure 1 shows the performance of the PIPX index starting from July 2011 through June 30, 2016. Somewhat surprisingly, given the amount of interest and attention provided to IP licensing in recent years, the index trends down from July 2011 to about the middle of 2012 and from there has been relatively flat until summer of 2015 when it started trending down again. This performance stands in contrast to that of the broader economy and of publicly traded companies in general. Figure 1 compares the PIPX to the S&P 500 over the period of interest.

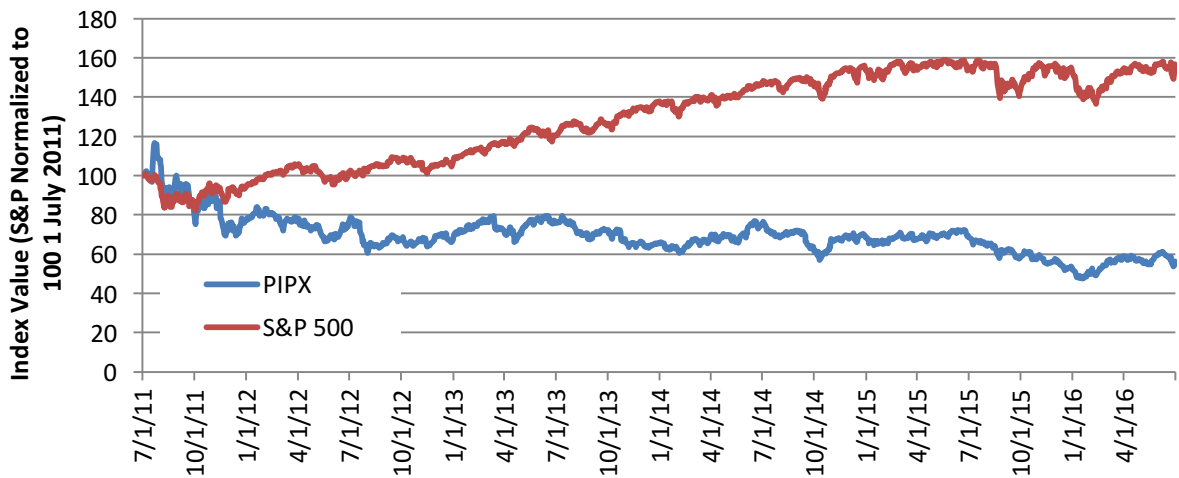


Figure 1 – Comparison of PIPX to S&P 500 (S&P 500 normalized to 100)

Q2 2016 Update

The PIPX index was down (-4.4%) as compared to an up quarter (1.9%) for the S&P 500 as shown in Figure 1. The change in value of the component companies is shown in Figure 2, ranging from +37.7% for Marathon to -32.3% for Unwired Planet.

Figure 3 compares the quarter on quarter change in value of the PIPX and the S&P 500 since the PIPX inception. After substantially outgrowing the S&P 500 in Q1, Q2 saw the PIPX decrease while the S&P 500 increased. The value of \$1 invested in the S&P 500 in Q3 2011 would now be \$1.57 while the value of the same \$1 invested in the PIPX would be \$0.56.

Figure 4 shows the contribution of each company, positive or negative, to the change in the overall weighted index for Q2. For Q2, gains in Wi-LAN, Acacia, and Marathon were more than outweighed by substantial decreases in the other component companies, especially RPX and Rambus.

Percentage Change Q2 2016

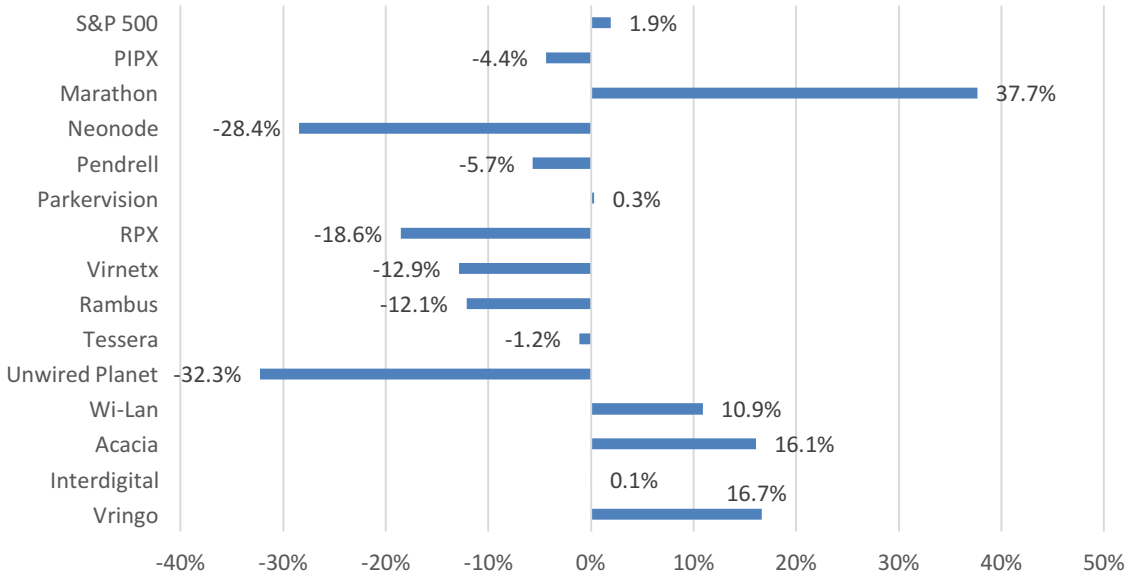


Figure 2 - Change in value of component companies and PIPX Index – Q2 2016

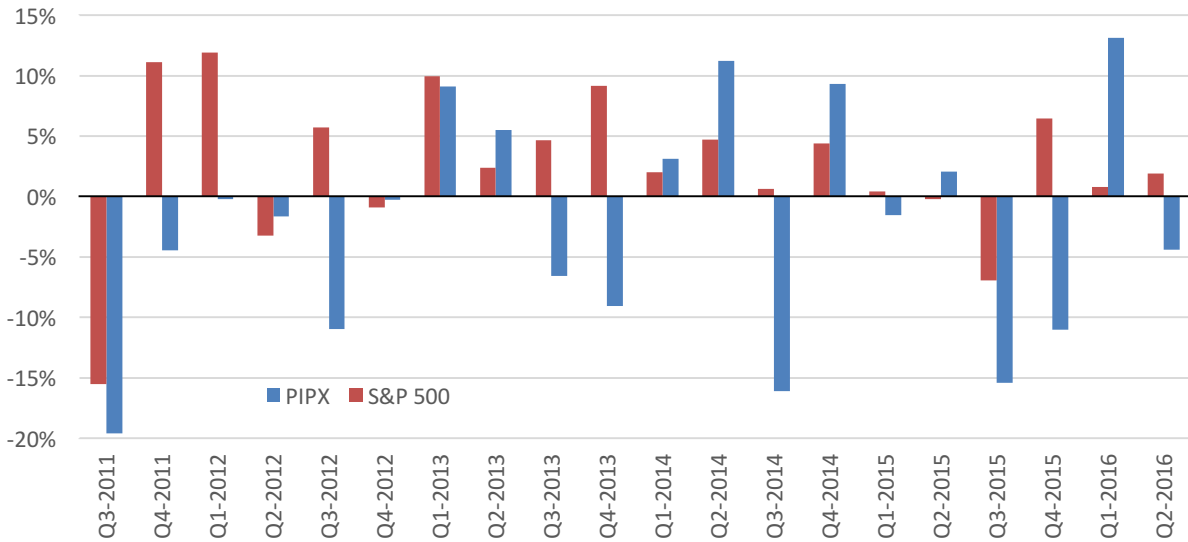


Figure 3 – Comparison of quarterly change in value of PIPX Index and S&P 500

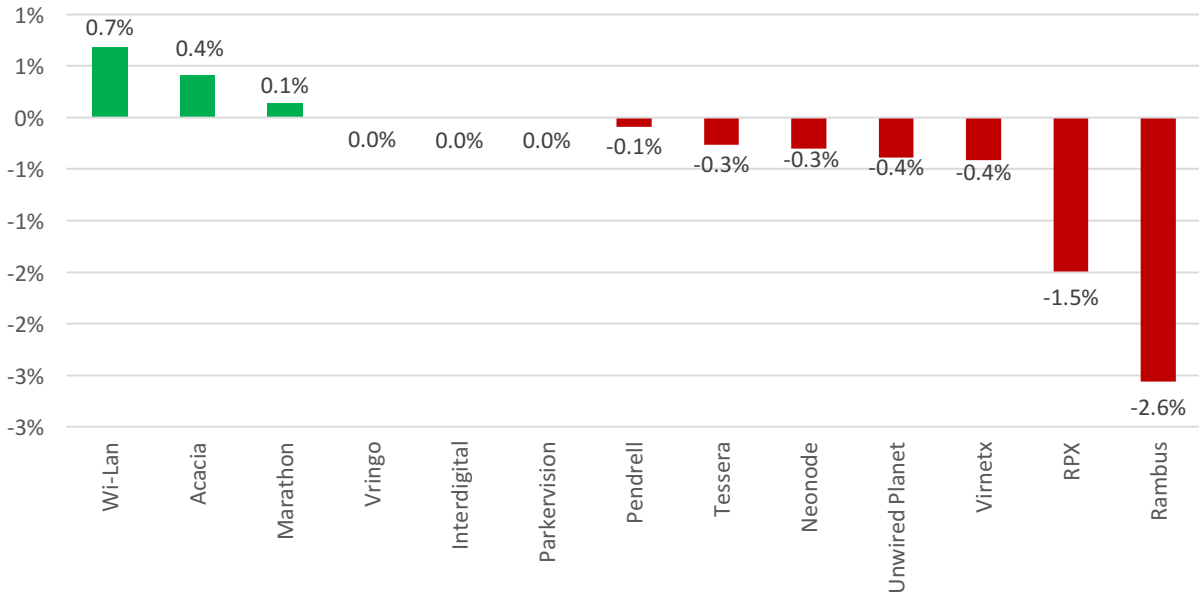


Figure 4 - How much each component company changed the PIPX Index – Q2