Standard Essential Patents: How Do They Fare?

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Introduction and High-level Findings

Standard-setting organizations promote innovation and accelerate the adoption of new technology by allowing companies, including otherwise fierce competitors, to collaborate and adopt industry-wide standards. These standards often incorporate technology that is claimed by standard essential patents ("SEPs"). A truly standard essential patent is, by definition, practiced by everyone that uses the relevant standard.

While standards and standard-setting organizations are generally believed to promote innovation, SEPs are more controversial. Companies that want to employ standards cannot work around these patents and must either pay for a license or forego selling products or services that use the standard. For this reason, a patent that is truly essential to the use of a standard can provide its owner with significant leverage in negotiations with users of the relevant standard that wish to continue to implement that standard.

It should come as no surprise then that many patent holders declare to standard-setting organizations, or allege in complaints asserting patents, that their patents are indeed standard essential.[1] To support high valuations, patent owners and brokers often tout the essentiality of patents when marketing those patents for sale. If a patent is essential to a widely adopted standard, practice of the technology claimed by the patent is also widespread. Further, once essentiality to a standard is established, proving infringement by those using the standard is straightforward. But simply declaring or alleging that a patent is standard essential does not make it so, which raises the question of how many Alleged and Declared SEPs really are essential.

To give further insight into that question, RPX looked at how Alleged and Declared SEPs fared when tested by adversarial litigation proceedings. In particular, RPX identified 380 Alleged and Declared SEPs that were asserted in United States district courts or the United States International Trade Commission (the "ITC") from January 1, 2005 to June 30, 2014, resulting, on average, in more than 80 SEP-related disputes each year. RPX then looked at how successful those assertions were by considering rulings on infringement and validity, as well as overall win/loss rates. RPX also looked at how other patents fared to provide a baseline for comparison.

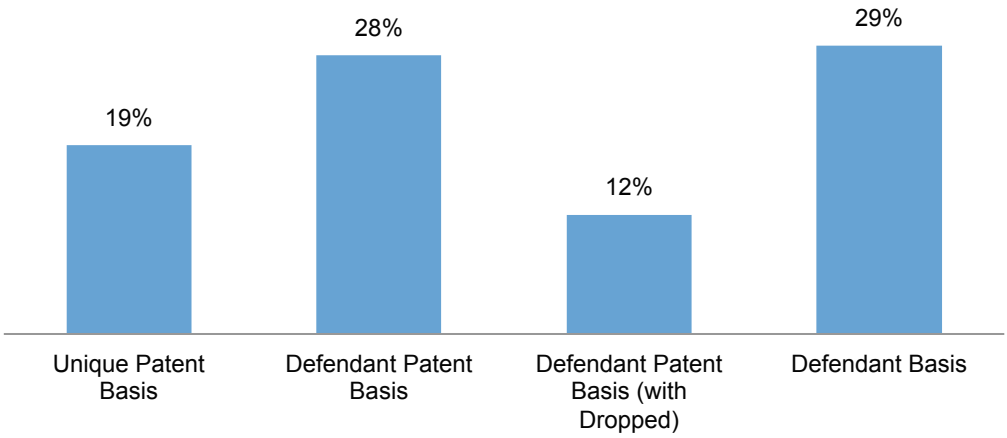
1. The data used for the underlying analysis in this report include over 11,000 US patents and patent applications that patent owners have declared to be standard essential.

RPX examined win rates in three ways: on a Unique Patent Basis (each asserted patent counted once across all cases); on a Defendant Patent Basis (each asserted patent/ defendant combination counted once); and on a Defendant Basis (each campaign against a defendant counted once). Methodologies for each of these bases are described in detail below.

Key findings include the following:

- Alleged and Declared SEPs fared poorly in district court proceedings. Plaintiffs won on only about a fifth of Alleged and Declared SEPs on a Unique Patent Basis and 28% of Alleged and Declared SEPs on a Defendant Patent Basis. Plaintiffs won on 12% of Alleged and Declared SEPs on a Defendant Patent Basis if patents that were dropped or that lost prior to a verdict are taken into account.

District Court Plaintiff Win Percent



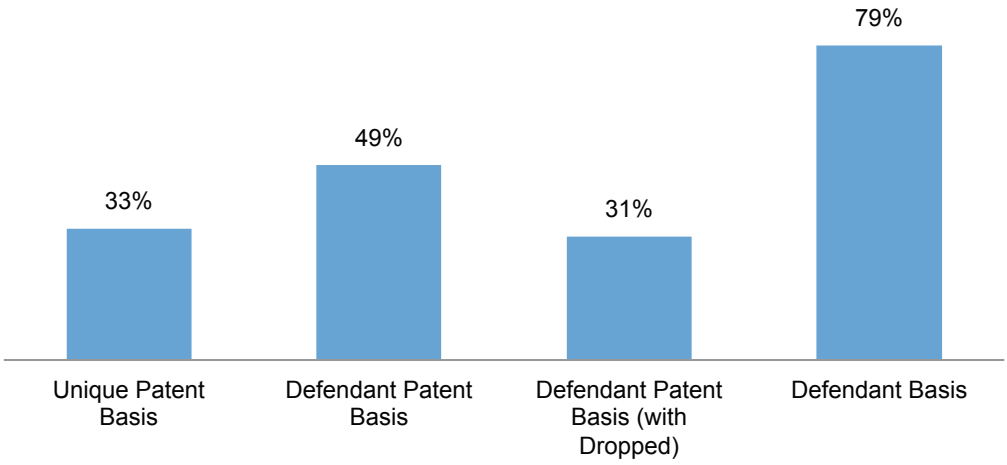
2. The party asserting a patent in the ITC is the complainant, and the accused party is the respondent. However, for purposes of simplicity in this paper, RPX treats ITC complainants as plaintiffs and respondents as defendants.

3. Notably, this study does not include an analysis of whether exclusion orders were granted in ITC investigations finding a violation. Recent ITC decisions suggest that Alleged and Declared SEPs may be less likely to result in an exclusion order than other patents. Many practitioners have suggested that the ITC may be an unfavorable venue for Alleged and Declared SEPs.

4. The Rambus investigation accounted for a substantial portion of plaintiff wins for Alleged and Declared SEPs because of the large number of respondents involved. In the investigation, Rambus received a favorable initial determination against Nvidia and 13 other companies that used Nvidia chips in their products.

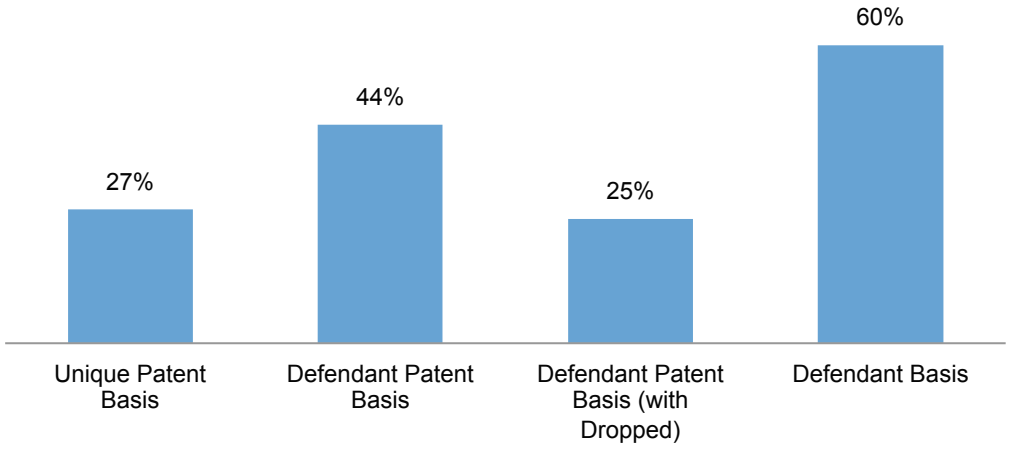
- Alleged and Declared SEPs fared better at the ITC. Plaintiffs[2] won on one third of Alleged and Declared SEPs on a Unique Patent Basis and on nearly half of Alleged and Declared SEPs on a Defendant Patent Basis.[3] (Plaintiffs won on only one third of Alleged and Declared SEPs on a Defendant Patent Basis if a single investigation, Rambus's 337-TA-661 ITC proceeding, is excluded.)[4]

ITC Plaintiff Win Percent



- Overall, Alleged and Declared SEPs were relatively unlikely to succeed. Plaintiffs won on slightly more than a quarter of Alleged and Declared SEPs on a Unique Patent Basis across district court and ITC proceedings.

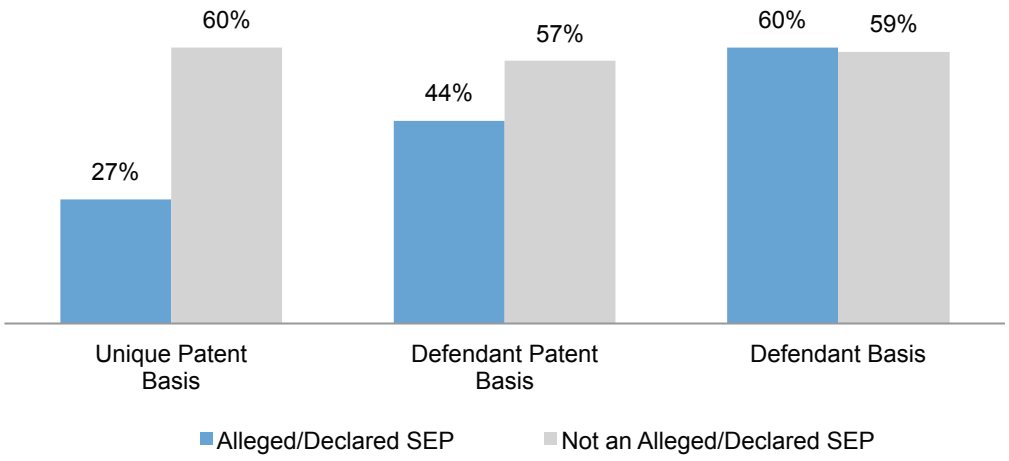
Combined Plaintiff Win Percent[5]



5. Excluding the Rambus investigation, see fn4, plaintiffs won 31% of the time on a Defendant Patent Basis and 48% of the time on a Defendant Basis in cases/investigations with a determination on an Alleged or Declared SEP.

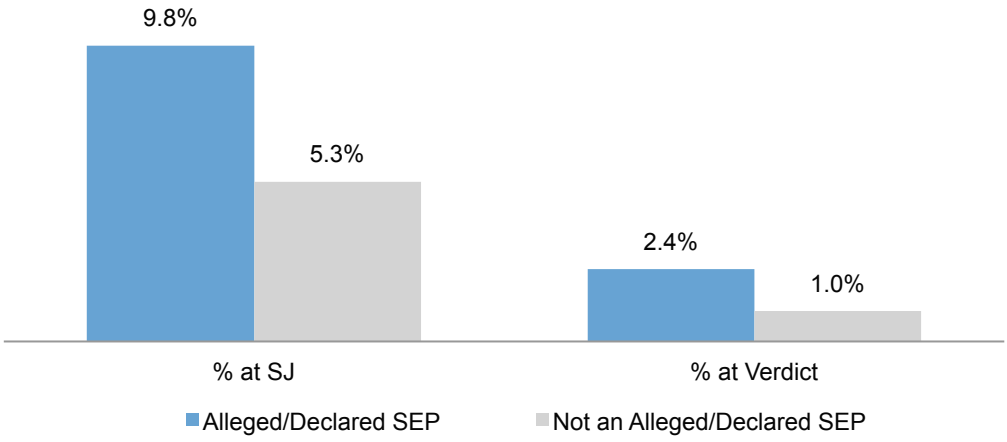
- Alleged and Declared SEPs were generally less successful than other patents. Plaintiffs won nearly twice as often on a Unique Patent Basis on other patents than Alleged and Declared SEPs.

Combined Plaintiff Win Percent



- Cases involving Alleged and Declared SEPs tended to proceed further. Defendants in cases involving Alleged and Declared SEPs were roughly twice as likely to reach a summary judgment order (9.8% vs. 5.3%) and trial (2.4% vs. 1%) than defendants in cases that did not involve Alleged and Declared SEPs.

Patent Progress Percent



Additional details of the study, including methodology and detailed results, are below.

RPX's Methodology

The results in this paper are based on RPX's proprietary patent litigation database. RPX employees designed, developed, compiled, and coded the data in the database. A high-level description of the methodology employed in this study is set forth below.

Identification of Alleged and Declared Standard Essential Patents

RPX identified Alleged and Declared SEPs as follows:

Declared Standard Essential Patents: Declared SEPs are patents that were submitted to a standard-setting organization as standard essential prior to August 1, 2014. RPX obtained this information from a third-party data provider, IPlytics, which identified more than 11,000 US patents and applications as Declared SEPs.[6]

Alleged Standard Essential Patent: Alleged SEPs are patents that a complaint alleges must be practiced in order to use a standard. RPX reviewed all district court and ITC complaints asserting patents that reached a verdict or initial determination to determine whether the asserted patents were Alleged SEPs. For purposes of this report, patents that meet both criteria (Alleged and Declared SEP) are allocated to the Declared SEP data set. Alleged SEP analyses include patents that meet the Alleged SEP criteria but are not Declared SEPs.

Identification of the Litigation Data Set

RPX included every case or investigation resulting from a district court patent litigation complaint and ITC petition requesting an investigation of patent infringement filed from January 1, 2005 to June 30 2014. The underlying data sets were compiled as follows.

District Court Patent Litigation: RPX manually reviewed all litigations with a nature-of-suit code 830 (Patent) on PACER (Public Access to Court Electronic Records). Out of those cases, RPX has included only those with complaints that allege patent infringement.

ITC Patent Litigation: RPX manually reviewed all Section 337 ITC petitions and included only those involving allegations of patent infringement.

6. While RPX believes that this data set is one of the most comprehensive compilations of Declared SEPs available, it is possible that it does not include some patents that have been declared essential to less prominent standard-setting organizations or those for which declarations are not accessible. RPX has not independently attempted to identify all Declared SEPs.

Coding Litigation Outcomes

RPX used a combination of automated text recognition and manual review by legal professionals to identify summary judgment orders, verdicts, and ITC initial / final determinations that addressed the validity or infringement of asserted patents. RPX then coded the identified documents for validity and infringement outcomes as reported in this paper. Analyses in this paper are based on the latest identified event for a patent. For example, if there was an initial determination of validity for a patent and a later final determination of invalidity, only the final determination of invalidity is reflected.[7]

Analysis Methodology

RPX tailored this analysis to be as meaningful as possible to IP professionals. In general, RPX analyzed the data in a way that best reflects whether a plaintiff substantively won or lost for the given criteria. For example, for Defendant Basis analyses, a victory on a single patent is a win (e.g. if a plaintiff asserts ten patents and wins on only one, it is counted as a win). Detailed methodology is set forth below.

Unique Patent Basis: Unique Patent Basis statistics look at how patents fare across multiple litigations. If there is a plaintiff loss for the patent in any assertion, then a patent counts as a single plaintiff loss. If there are only plaintiff wins for a patent, it counts as a single plaintiff win. For example, if the same patent is successfully litigated against three defendants but is a loss against a fourth, the patent counts as a single plaintiff loss. This statistic may be interesting because a loss in one case often impacts the prospects of a patent in subsequent cases. This effect is particularly true for cases involving Alleged or Declared standard essential patents in which a plaintiff's infringement theory often relies on the argument that everyone who practices the standard infringes the patent.[8]

- Infringement: At least one claim of the patent is infringed every time the patent is asserted, and there is a ruling on infringement.
- Validity: At least one claim of the patent is valid every time the patent is asserted, and there is a ruling on validity.
- Plaintiff Win: There is a plaintiff win every time the patent is asserted, and there is a ruling.
- Plaintiff Loss: There is a plaintiff loss at least one time that the patent is litigated, and there is a ruling.

7. Appeals were not considered for the purposes of this study unless there was a new determination on remand. While RPX is not aware of any reason why Alleged and Declared SEPs would fare differently on appeal than other patents, consideration of appellate outcomes is a potential avenue for research.

8. The Unique Patent Basis may be less relevant for patents that are not Alleged or Declared SEPs, because accused functionality may differ across defendants. Accordingly, a non-infringement ruling for one defendant may not be applicable to another defendant.

Defendant Patent Basis: Defendant Patent Basis statistics look at how each patent fared against each defendant. For example, a lawsuit asserting four patents against three different defendants counts as 12 events.

- Infringement: At least one claim of the asserted patent is infringed.
- Validity: At least one claim of the asserted patent is valid.
- Plaintiff Win: At least one claim of the asserted patent is both valid and infringed.
- Plaintiff Loss: None of the asserted claims of the patent is both valid and infringed.

Defendant Basis: Defendant Basis statistics look at how a defendant[9] fared in a particular campaign. Each campaign by a particular plaintiff against a particular defendant, which often involves the assertion of multiple patents, counts as a single event. For example, a lawsuit asserting four patents against three different defendants counts as three events.

- Infringement: At least one claim of an asserted patent is infringed.
- Validity: At least one claim of an asserted patent is valid.
- Plaintiff Win: At least one claim of an asserted patent is both valid and infringed.[10]
- Plaintiff Loss: None of the asserted claims of a patent is both valid and infringed.

9. RPX's proprietary database includes an entity tree for corporate families. This analysis counts multiple defendants in the same corporate family tree as a single defendant.

10. For purposes of plaintiff wins for each basis, RPX treated the omission of a determination on validity or infringement as a ruling of validity or infringement. For example, a ruling of infringement without any ruling on validity is a plaintiff win. The likely reason that there was not a ruling on validity was either (1) it was not contested or (2) the plaintiff prevailed earlier in the litigation.

Results

Summary Results for Win Rates

Overall win rates for each basis are set forth here.

Win rates were lower when also considering patents asserted in matters that made it to a determination but did not themselves make it to a determination.[11]

One thing to note is the much higher Defendant Patent Basis win rate for Alleged and Declared SEPs in the ITC as compared to the win rate on a Unique Patent Basis. This difference is primarily due to a single, successful Rambus ITC case asserting multiple patents against a large number of defendants that sold products containing Nvidia chips.[12]

Table 1.1 Win Rates—Patents at Verdict, Initial Determination, and/or Final Determination

		District Court	ITC	Combined
Unique Patent Basis	A/D SEP	19%	33%	27%
	Not a SEP	67%	30%	60%
Defendant Patent Basis	A/D SEP	28%	49%	44%
	Not a SEP	68%	41%	57%
Defendant Basis	A/D SEP	29%	79%	60%
	Not a SEP	68%	36%	59%

Table 1.2 Win Rates—Patents in Cases That Made It to a Verdict, Initial Determination, and/or Final Determination

		District Court	ITC	Combined
Unique Patent Basis	A/D SEP	9%	23%	16%
	Not a SEP	36%	22%	34%
Defendant Patent Basis	A/D SEP	12%	31%	25%
	Not a SEP	38%	32%	36%

11. For example, if a case started with four patents, two made it to verdict and only one was successful, that would be a 25% success rate for those patents.

12. See *Certain Semiconductor Chips Having Synchronous Dynamic Random Access Memory Controllers and Products Containing Same* (Inv. No. 337-TA-661)

Summary Results for Win Rates (cont.)

Removing that case from the sample set leads to a slightly different picture, as shown in the tables here.

Table 1.3 Win Rates—Patents at Verdict, Initial Determination, and/or Final Determination Excluding Rambus/Nvidia

		District Court	ITC	Combined
Unique Patent Basis	A/D SEP	19%	29%	24%
	Not a SEP	67%	32%	60%
Defendant Patent Basis	A/D SEP	28%	33%	31%
	Not a SEP	68%	41%	57%
Defendant Basis	A/D SEP	29%	67%	48%
	Not a SEP	68%	36%	59%

Table 1.4 Win Rates—Patents in Cases That Made It to a Verdict, Initial Determination, and/or Final Determination Excluding Rambus/Nvidia

		District Court	ITC	Combined
Unique Patent Basis	A/D SEP	9%	19%	14%
	Not a SEP	36%	24%	34%
Defendant Patent Basis	A/D SEP	12%	14%	13%
	Not a SEP	38%	32%	36%

Detailed Verdict and ITC Results

More detailed results, including rulings on infringement and validity, are here.

Combined ITC and District Court Results

Table 2.1 Unique Patent Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringement	15	8	23	539	562
Not Infringed	30	6	36	276	312
Valid	34	6	40	616	656
Not Valid	8	6	14	143	157
Plaintiff Win	11	5	16	543	559
Plaintiff Loss	34	9	43	363	406

Table 2.2 Defendant Patent Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringement	20	80	100	1,031	1,131
Not Infringed	49	11	60	583	643
Valid	52	53	105	1,200	1,305
Not Valid	12	34	46	337	383
Plaintiff Win	18	52	70	1,050	1,120
Plaintiff Loss	51	39	90	785	875

Table 2.3 Defendant Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringement	13	23	36	514	550
Not Infringed	19	7	26	220	246
Valid	28	24	52	517	569
Not Valid	1	4	5	147	152
Plaintiff Win	14	23	37	507	544
Plaintiff Loss	18	7	25	349	374

Detailed Verdict and ITC Results (cont.)

More detailed results, including rulings on infringement and validity, are here.

District Court Results

Table 2.4 Unique Patent Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringement	7	0	7	454	461
Not Infringed	13	6	19	204	223
Valid	16	1	17	523	540
Not Valid	1	3	4	107	111
Plaintiff Win	5	0	5	497	502
Plaintiff Loss	15	6	21	244	265

Table 2.5 Defendant Patent Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringed	10	0	10	682	692
Not Infringed	18	11	29	302	331
Valid	22	1	23	758	781
Not Valid	1	6	7	188	195
Plaintiff Win	11	0	11	756	767
Plaintiff Loss	17	11	28	368	396

Table 2.6 Defendant Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringed	6	0	6	390	396
Not Infringed	11	7	18	135	153
Valid	13	1	14	407	421
Not Valid	1	4	5	87	92
Plaintiff Win	7	0	7	424	431
Plaintiff Loss	10	7	17	201	218

Detailed Verdict and ITC Results (cont.)

More detailed results, including rulings on infringement and validity, are here.

ITC Results

Table 2.7 Unique Patent Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringed	8	8	16	89	105
No Infringed	17	0	17	72	89
Valid	18	5	23	95	118
Not Valid	7	3	10	37	47
Plaintiff Win	6	5	11	51	62
Plaintiff Loss	19	3	22	119	141

Table 2.8 Defendant Patent Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringed	10	80	90	349	439
Not Infringed	31	0	31	281	312
Valid	30	52	82	442	524
Not Valid	11	28	39	149	188
Plaintiff Win	7	52	59	294	353
Plaintiff Loss	34	28	62	429	491

Table 2.9 Defendant Basis

	Declared SEP	Alleged SEP	A/D SEPs	Not a SEP	All
Infringed	7	23	30	124	154
Not Infringed	8	0	8	85	93
Valid	15	23	38	110	148
Not Valid	0	0	0	60	60
Plaintiff Win	7	23	30	83	113
Plaintiff Loss	8	0	8	148	156

Summary Judgment Results

In addition to verdicts, initial determinations, and final determinations, RPX coded outcomes for summary judgment motions of non-infringement and invalidity filed by defendants.[13] Summary judgment motions often do not address all asserted claims, asserted patents, or relevant issues. Accordingly, the summary judgment analysis does not include a plaintiff win/loss metric.

Table 3.1 Defendant Patent Basis

		Declared SEP	Not a Declared SEP	All
Non-infringement	Granted	40	1,214	1,254
	Denied	32	1,820	1,852
Invalidity	Granted	6	781	787
	Denied	59	2,441	2,500

Table 3.2 Defendant Basis

		Declared SEP	Not a Declared SEP	All
Non-infringement	Granted	22	789	811
	Denied	21	913	934
Invalidity	Granted	6	450	456
	Denied	55	1,147	1,202

General Statistics

RPX also looked at how many Declared SEPs were asserted in district court litigation and how often those patents made it to a verdict. The table below shows that when Declared SEPs are asserted, they are roughly twice as likely to make it to a summary judgment order and verdict as are other patents. Similar results are seen for defendants in cases involving a Declared SEP.

Table 4.1 Defendant Patent Basis

	Declared SEP	%	Not a Declared SEP	%	All	%
Complaint	1,189	—	106,995		108,184	—
Summary Judgment	117	9.8%	5,624	5.3%	5,741	5.3%
Verdict	28	2.4%	1,111	1.0%	1,139	1.1%

Table 4.2 Defendant Basis

	Declared SEP	%	Not a Declared SEP	%	All	%
Complaint	573	—	46,655		47,228	—
Summary Judgment	70	12.2%	2,717	5.8%	2,787	5.9%
Verdict	17	3.0%	583	1.2%	600	1.3%

13. RPX did not review all complaints that led to summary judgment orders to determine if they asserted Alleged SEPs. Accordingly, the summary judgment analysis is limited to the Declared SEP data set.

About RPX

RPX Corporation (NASDAQ: RPXC) helps operating companies reduce the cost and risk associated with NPE (non-practicing entity) patent litigation. Members of the RPX client network pay an annual fee that reflects their particular NPE risk. We then use this aggregated capital to acquire potentially problematic patents and rights in the open market and out of active litigations before they can become a costly problem for our clients. Each member of our network receives a license to every patent in the RPX portfolio.

In addition to our core defensive patent acquisition service, RPX also negotiates syndicates to purchase and clear significant portfolios from the market on behalf of our clients. We offer unique NPE liability insurance, written on A-rated paper and backed by a Lloyd's syndicate, which provides comprehensive coverage against the costs of patent assertion. We also provide members of our network with in-depth industry data, market intelligence, and patent advisory services.

To date RPX has invested nearly $900 million to acquire 4,900+ US and international patents and rights, achieved more than 650 litigation dismissals, and prevented thousands of NPE litigations from occurring. In just the six years since our founding, we have saved our clients more than $2 billion in avoided NPE legal and settlement costs.

The RPX network currently numbers 195 operating companies in sectors ranging from consumer electronics, personal computing, E-commerce, software, media content/ distribution, mobile communications, networking, and semiconductors to automotive and financial services.

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