Royalty Rates & License Fees For Technology

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The focus of this article is on the compensation terms in technology license agreements. Specially discussed are royalty rates and up-front license fees.

Royalty rates permeate many aspects of business beyond the completion of licensing transactions. They are also often used in technology valuation assignments where a relief-from-royalty calculation defines the value of a technology. As such, royalty rates are important for technology acquisition pricing and also for when valuation conclusions are used in financial reporting. Royalty rates are also the foundation of intellectual property infringement damage awards. U.S. law states that when a plaintiff cannot prove the amount of lost profits they suffered because of the infringer's activities, they are entitled to at least a reasonable royalty on the sales made by the infringer. So, royalty rates are used for completing license agreements, pricing the purchase and sale of technology, financial reporting and settling legal disputes. Consequently, we maintain a database of license agreements focused on the compensation terms. Recently, we embarked on a research study to expand and enhance our database. This article presents some interesting results of the study.

Royalty Rates

The information in our database has been collected from reliable sources since September 1990 through December 2007.[1] Industries covered by our research are included in Figure 1.

As you review the information contained in this article it will become apparent that the most frequently negotiated royalty rate is 5 percent of net sales. Especially interesting is that the 5 percent royalty rate is found across a diverse number of industries including automotive, chemical, communications, computers, defense, energy, electronics, food, franchises, glass, household products, mechanical, medical, photography, sports, toys and waste treatment. It's everywhere.

Examples include:

• In the sports industry, Easy Golf Corp. manufactures, and sells a proprietary golf improvement product known as "The Swing-Channel™ Golf Mat." Easy Golf pays the inventor 5 percent of sales.

• In the medical device industry, Bausch & Lomb entered into an exclusive worldwide license agreement to develop, manufacture and market a cast-molded multi-focal soft contact lens using Unilens' patented multifocal soft contact lens design. Bausch & Lomb pays Unilens a royalty ranging from 3 percent to 5 percent of the product's worldwide sales.

• In automotive, Research Frontiers Inc. licenses Glaverbel SA the rights to manufacture and sell self-dimmable automotive vehicle rear-view mirrors. Glaverbel's pays Research Frontiers 5 percent of sales.

• In communications, TechAlt, Inc. produces a secure wireless communications toolset to be used by emergency first responders for interagency interoperability, communication and collaboration. TechAlt pays a royalty of 5 percent of sales for the underlying technology.

Figure 2 summarizes royalty rates across all the industries covered in our database. The royalty range from 0.50 percent to 40 percent of sales, are grouped by rate and then graphed by the frequency of their appearance. Excluded from this chart are

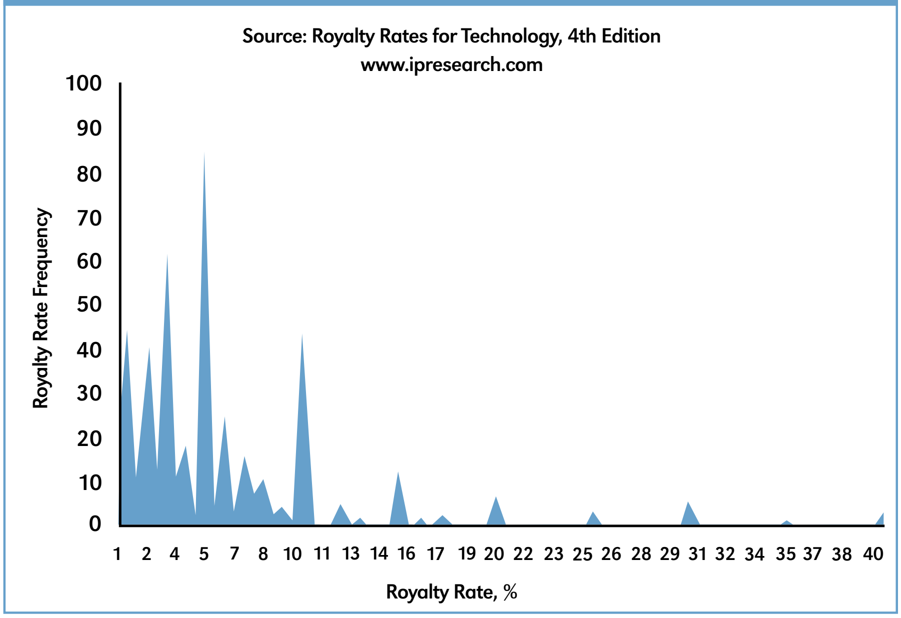
Figure 1. Industries

Aeronautics & Defense	Computer Software	Franchises	Medical
Agriculture	Construction	Glass	Photography
Automotive	Electrical & Energy	Semiconductors	Sports
Chemical	Electronics	Household Products	Toys
Communications	Entertainment	Internet	Waste Treatment
Computer Hardware	Food & Beverage	Mechanical	

1. Source: *Royalty Rates for Technology*, 4th Edition, available at *www.ipresearch.com.*

instances where royalty rates are specified on a per unit basis.

Figure 2. Royalty Rate Distribution Across All Industries



While royalty rates above 15 percent exist, they are rare and usually associated with extraordinarily profitable technologies such as those in the gaming and entertainment industry. A cumulative analysis of the charted information provides the following insight:

39% of royalty rates are 3% or less,
46% of royalty rates are 4% or less,
65% of royalty rates are 5% or less,
71% of royalty rates are 6% or less,
75% of royalty rates are 7% or less,
79% of royalty rates are 8% or less,
81% of royalty rates are 9% or less,
90% of royalty rates are 10% or less, and
95% of royalty rates are 15% or less.

Per Unit Royalties

The chart just discussed could not incorporate royalties paid on a per unit basis. The vast majority (93 percent) of the deals we discovered were based on royalty terms as a percentage of sales. In 7 percent of the deals, royalties are paid on a per unit basis. Examples of per unit royalties include trees, oil, diesel engines, fuel enhancement and recycling technology:

• Madison Avenue Capital, Inc. pays a royalty of $6 per tree for the licensing of a genetically enhanced tree.

• A-Gas Pty Ltd. of Australia licenses a proprietary enzyme-based fuel enhancing product from Virtual Technologies Pty Ltd. A-Gas pays $4.75 per kilogram for production and distribution rights.

• Whelan Environmental Services, Ltd. licenses technology that allows for the refining of used oil from Interline Resources. Whelan pays a royalty of 6 cents per gallon of oil processed.

• Hybrid Fuel Systems, Inc. is in the business of manufacturing and marketing retrofit systems for the conversion of gasoline and diesel engines, stationary or vehicular, to non-petroleum based fuels such as compressed natural gas and liquefied natural gas. They pay Harrier, Inc. a royalty of $250 to $1,000 per engine.

• Allwaste Recycling Inc. licenses an advanced operational system that utilizes recycled broken glass (known as cullet), usually only suitable for landfills, to produce an end product the company has named "Glassflour," a furnace-ready raw material for fiberglass insulation and potentially suitable for glass container manufacturers. Allwaste pays Eftek Corp. a royalty of $5 per ton.

Per unit royalties protect licensors from falling prices. In competitive industries, licensees often fight for market share using price competition. As product prices are reduced, royalties based on a percentage of sales may yield lower royalty payments for licensors. A per unit royalty provides protection but at a price because if product prices increase, a percent of revenues royalty schedule allows the licensor to enjoy a portion of increasing prices. A fixed per-unit royalty does not.

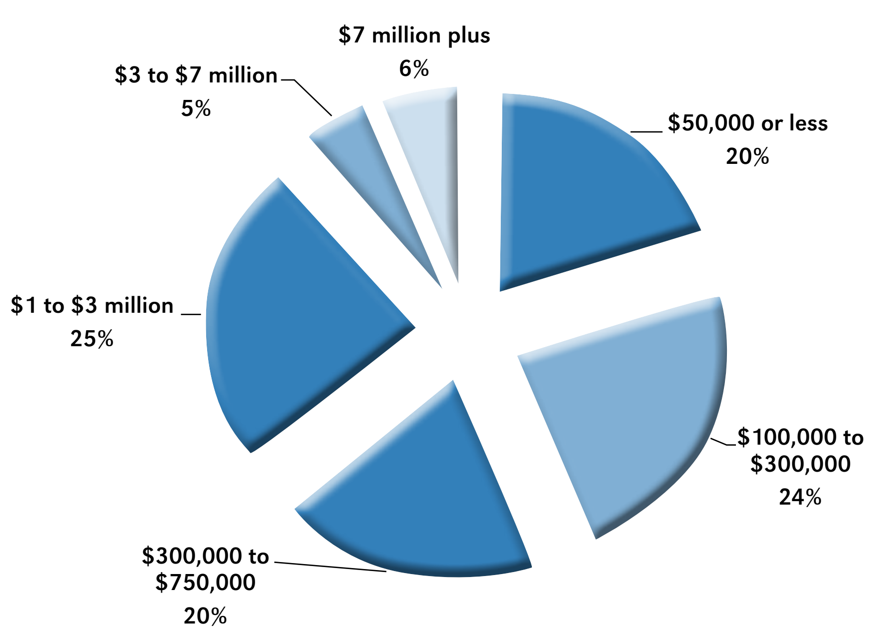
Based on the deals reported, licensors are apparently willing to have royalty payments ride up and down with product price fluctuation. This may be a reflection of the implicit partnership between licensors and licensees. A royalty based on a percentage of sales provides licensees with more flexibility in responding to competitive pricing pressures. Licensees that agree to a percent of sales royalty schedule, in a sense, are embracing the licensing partnership.

License Fees

In 20 percent of the license deals we discovered, compensation to the licensor also includes an up-front license fee. Sometimes these fees are meant to cover the licensor's costs for transferring the patents and technical know-how to the licensee. But, sometimes these fees are substantial:

- Pioneer Hi-Bred International, agreed to pay a royalty to Monsanto for the use of the Bt gene that instructs a corn plant how to make a natural insecticide that kills European corn borers. Pioneer paid Monsanto a one-time $38 million fee for the license to use the gene.
- Transplant Acquisition, Inc. licensed an artificial blood product from DNX Bio-therapeutics Inc. and paid a license fee of $18 million plus a running royalty of 3 percent of sales.
- Citrix Systems, Inc. is a leading supplier of application delivery and management software and services that enable the effective and efficient enterprise-wide deployment and management of applications. Microsoft Corp. agreed to license Citrix's software technology and agreed to a $75 million license fee plus future royalties.
- More typical is the $500,000 license fee that Energy Answers Corp. paid Polymerix, Inc. for rights to construct and operate a Trimax™ lumber manufacturing facility based on proprietary plastic technology.

Figure 3. Distribution of Up-Front License Fees



We discovered the following:

- 20 percent of all the deals discovered included running royalties and up-front license fees as part of the compensation terms to licensors. Up-front payments included: cash only, a combination of cash and stock, and stock only.
- The vast majority of up-front license fees (82 percent) were cash only.
- Approximately 9 percent of the deals that include up-front license fees had fees comprised of only stock.
- Less than 7 percent of the deals that include up-front license fees had fees comprised of a combination of cash and stock.
- The medical device industry represented 27 percent of the deals that used up-front license fees as part of licensor compensation.
- The three largest license fees discovered were $18 million, $38 million and $75 million.
- The average cash-only license fee was over $2 million when the three largest fees are included in the calculation.
- The average cash-only license fee, excluding the three largest fees, was $987,225.
- The majority of license fees (61 percent) were $500,000 or less.
- For the license fee segment that ranged between $1 million and $3 million, 44 percent were $1 million fees.
- Only three deals had license fees above seven figures.
- License fees above $1 million occurred in 22 percent of the deals having up-front licensee payments.

Conclusion

The data suggests that when negotiating a license agreement:

- An up-front licensee fee is less likely to come into play, and if it does, the fee is most likely going to be cash only.
- The royalty arrangement is almost certainly going to be based on a percentage of sales and the rate is most likely going to be 10 percent or less. ■