

# TiVo Corporation: Portfolio Report

## Introduction

TiVo Corporation was formed when Rovi acquired the Digital Video Recorder (DVR) pioneer TiVo and strengthened its position as a global leader in media technologies and analytics. TiVo Inc. was founded in 1997 by Jim Barton and Mike Ramsay, and the company went public two years later. <sup>[1]</sup>

TiVo built a strong portfolio of digital entertainment device patents and was targeted by Apple, Google and Microsoft as a potential acquisition. Rovi beat out the competition and acquired TiVo in 2016. <sup>[2]</sup> With the merger of Rovi and TiVo, their combined portfolio of over 5000 patents became a strong defence against the larger media companies. The combined entity now has a broader product portfolio and access to a larger range of patented technologies.

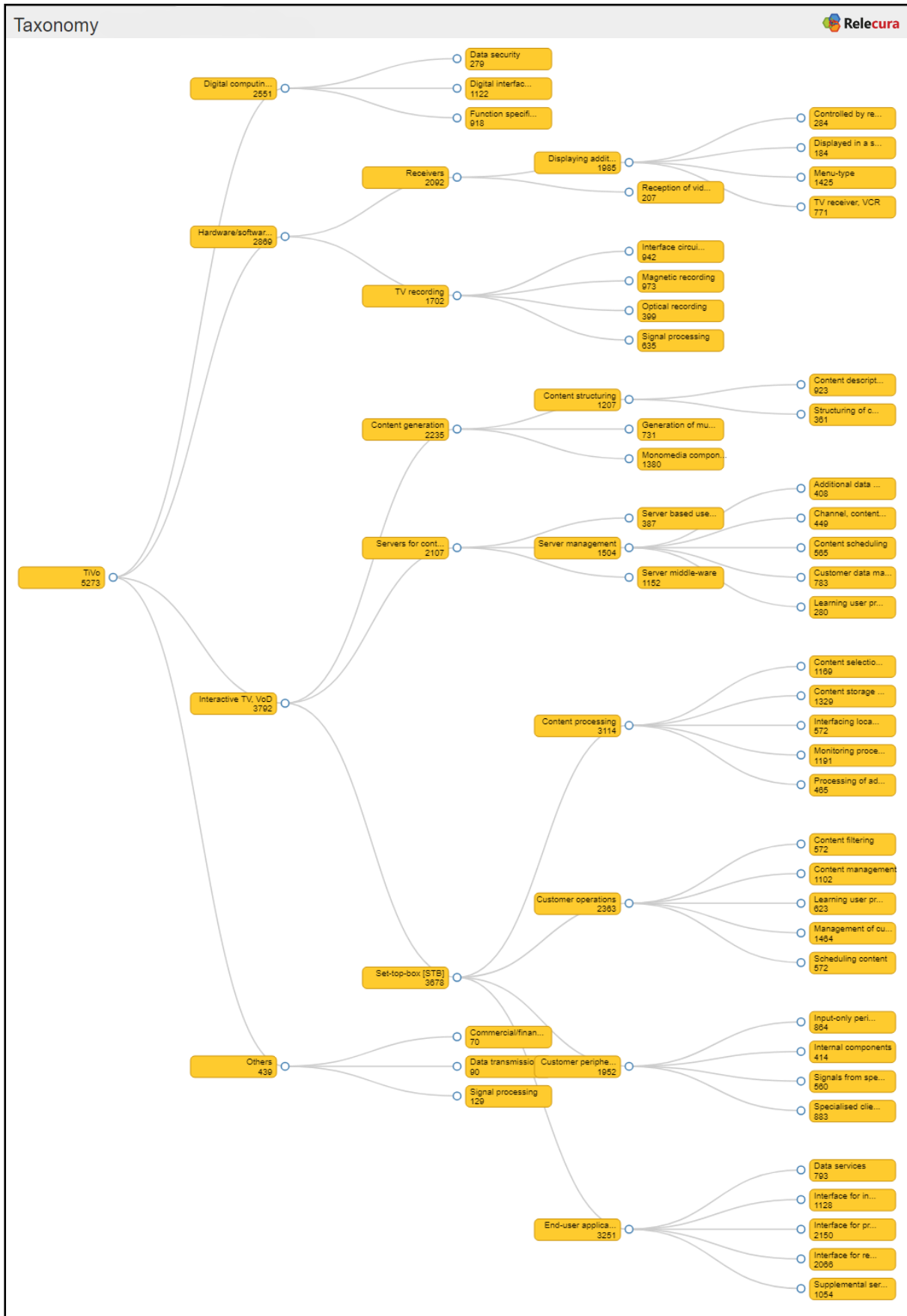
In this report, we take closer look at TiVo Corporation's patent assets and present the technology trends as well as the litigation history of the company. Unless otherwise stated, the report displays numbers for published patent applications that are currently in force. The analytics are presented in the various charts and tables that listed below.

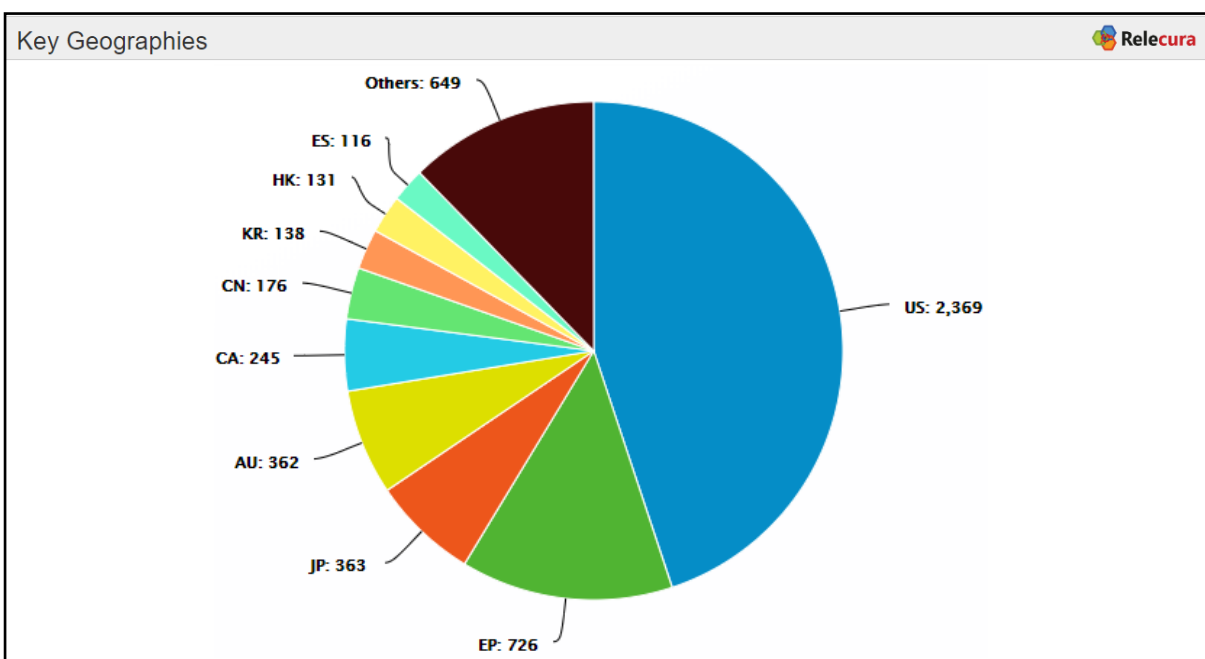
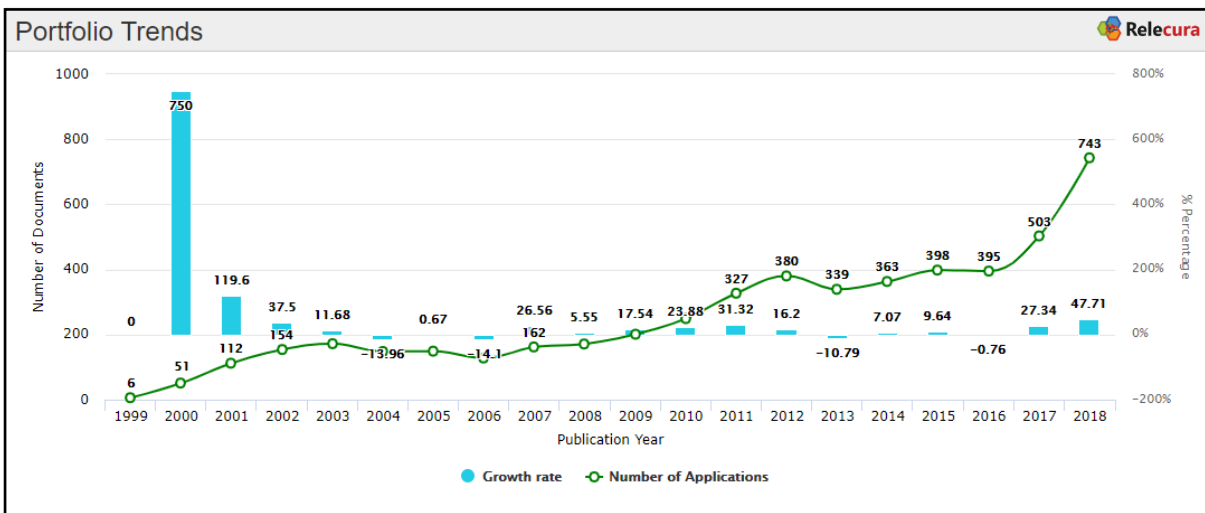
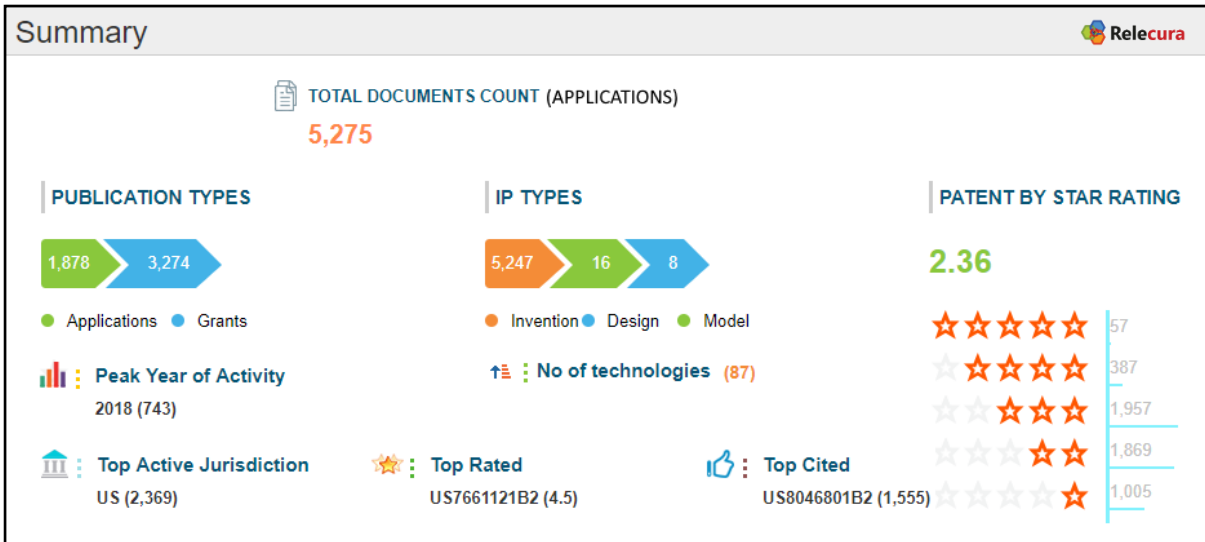
## Contents


- Taxonomy
- Summary
- Portfolio trends
- Key geographies
- Key technologies
- Key sub-technologies
- Evolution of sub-technologies
- Patent quality
- Top forward citing (FC) assignees
- Technology focus of FC assignees
- Topic Map – Concepts
- Key Patents
- Key acquisitions of the portfolio
- Litigation data – TiVo as plaintiff
- Litigation data – TiVo as defendant
- Competitor comparison


## Sources

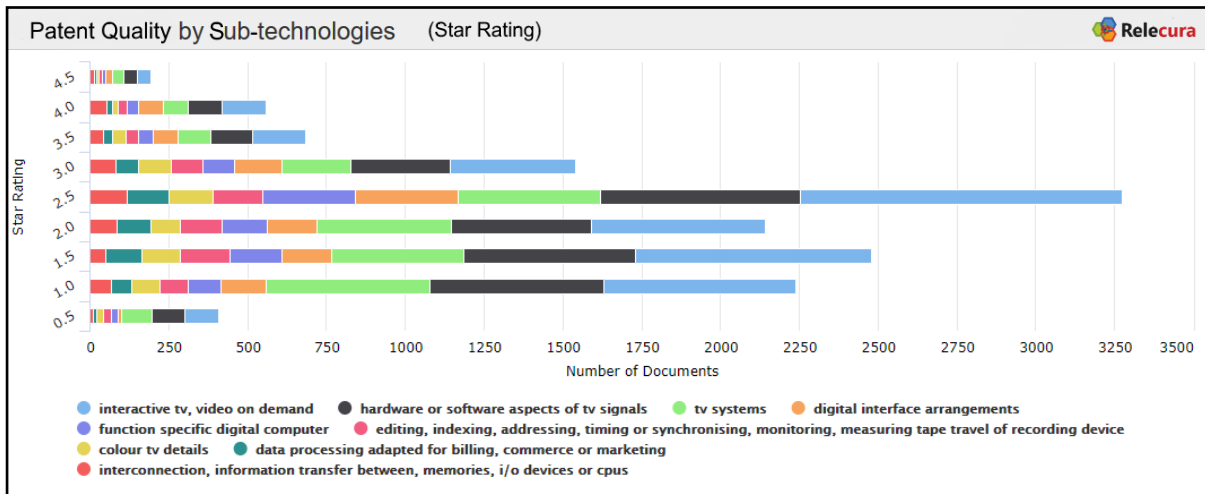
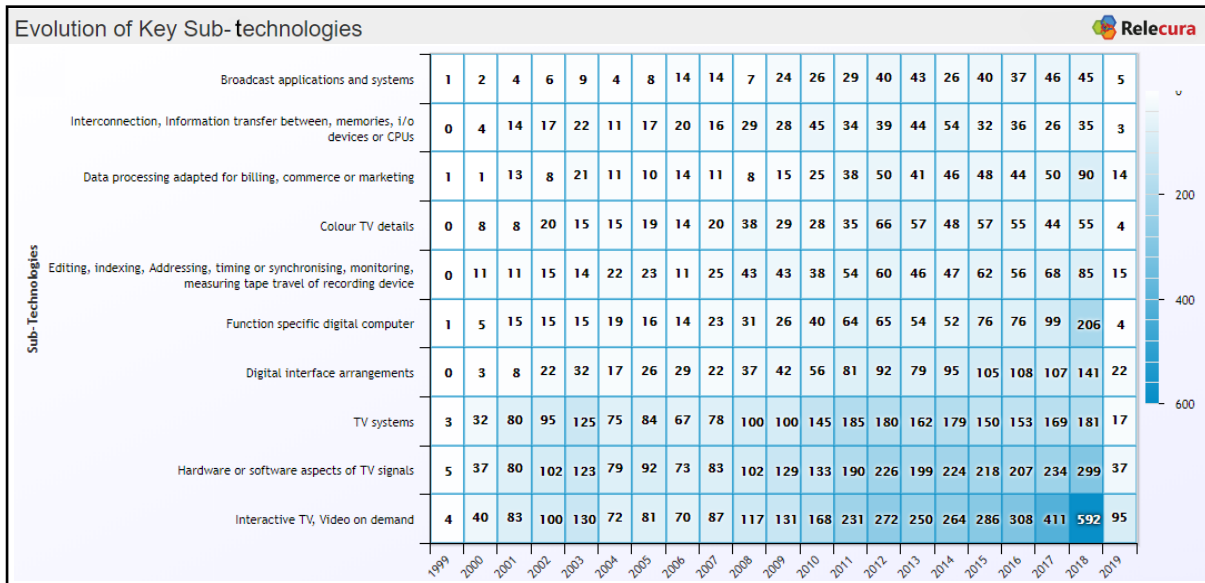
1. [TiVo Corporation](https://en.wikipedia.org/wiki/TiVo_Corporation) (Wikipedia.org)
2. [TiVo Said to Be in Merger Talks With Rovi](https://www.nytimes.com/2016/07/27/technology/tivo-merger-talks.html) (nytimes.com)





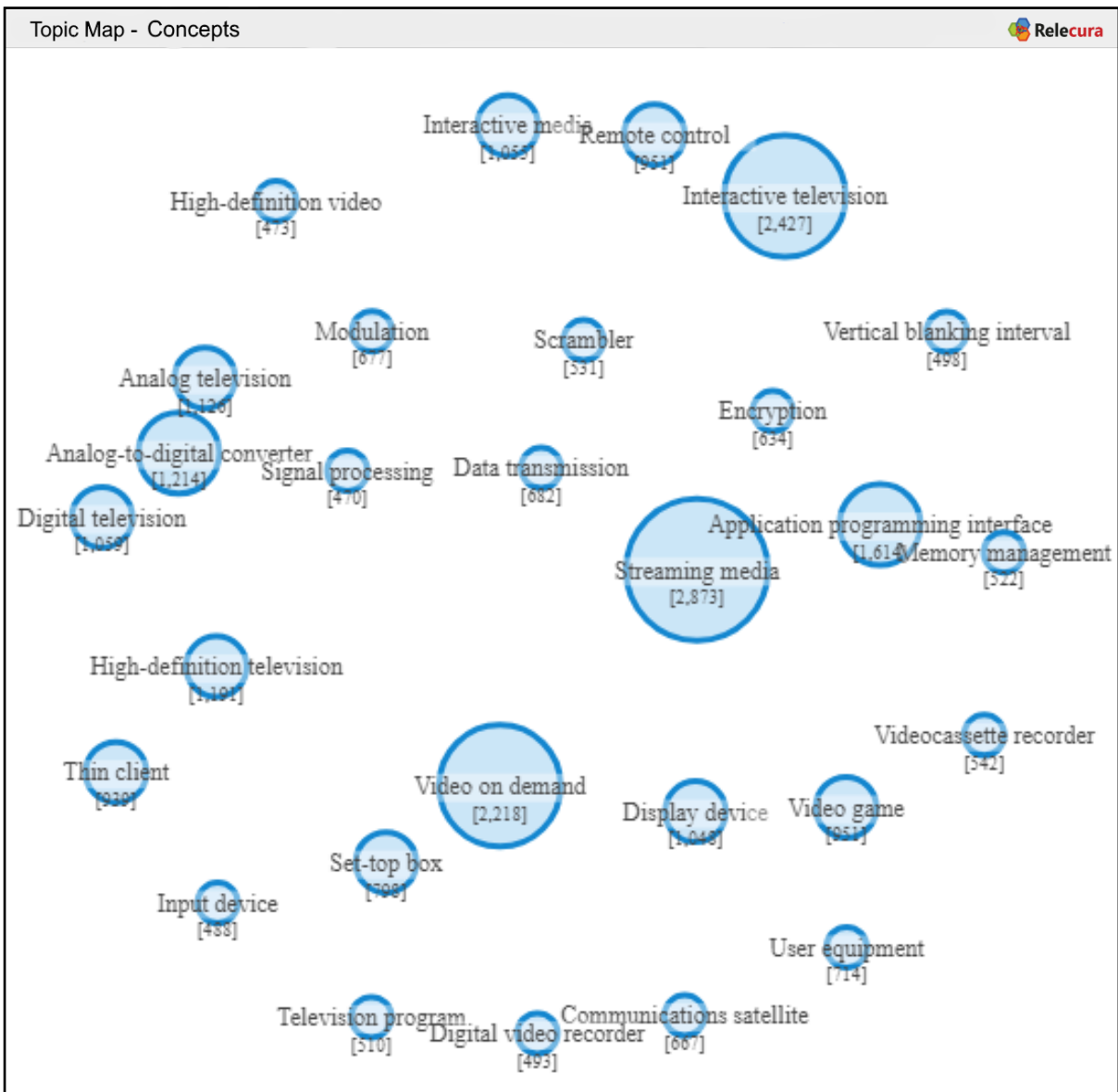
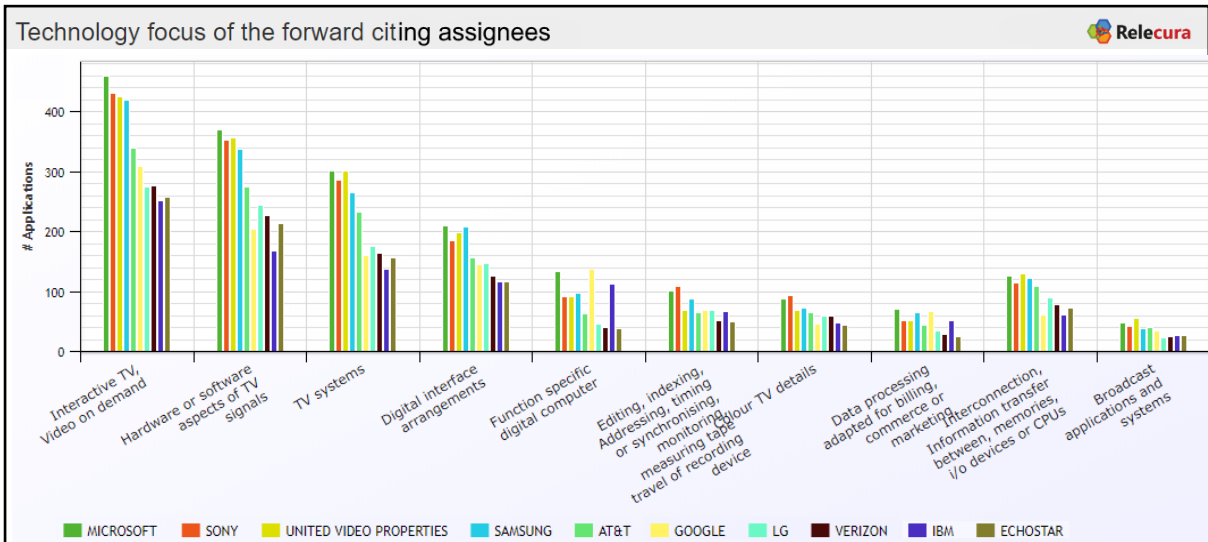
Key Technologies		
<b>Technologies</b>	<b># Applications</b>	
Pictorial Communication	4197	
Digital Data Processing	2549	
Information Storage	1032	
Data Transmission	775	
Data Processing Systems	681	
Broadcast Communication	582	
Wireless Communication Networks	155	
Speech Synthesis	134	
Data Presentation	129	


Key Sub-technologies		
<b>Sub-Technologies</b>	<b># Applications</b>	
Interactive TV, Video on demand	3793	
Hardware or software aspects of TV signals	2863	
TV systems	2358	
Digital interface arrangements	1120	
Function specific digital computer	911	
Editing, indexing, Addressing, timing or synchronising, monitoring, measuring tape travel of recording device	749	
Colour TV details	635	
Data processing adapted for billing, commerce or marketing	559	
Interconnection, Information transfer between, memories, i/o devices or CPUs	524	
Broadcast applications and systems	431	




### Top Forward Citing Assignees


Assignees	# Applications
MICROSOFT	650
SAMSUNG	587
SONY	581
UNITED VIDEO PROPERTIES	491
GOOGLE	451
AT&T	415
IBM	394
LG	350
VERIZON	308
ECHOSTAR	283



Key Patents in the Portfolio 					
Pub. No.	Title	Inventor(s)	Filing Date	Star Rating	# Fwd Citations
<b>US8745661B2</b>	Systems and methods for providing enhanced sports watching media guidance	Michael D. Ellis   Jon P. Radloff	2007-07-31	4.5	219
<b>US8311344B2</b>	Systems and methods for semantically classifying shots in video	Heather Dunlop   Matthew G. Berry	2009-02-17	4.5	100
<b>US9152300B2</b>	Methods and techniques for adaptive search	Robert F. Poniowski	2011-03-31	4.5	126
<b>US7661121B2</b>	In-band data recognition and synchronization system	Kevin P. Smith   Paul Stevens   Adam Feder   James M. Barton	2006-06-22	4.5	133
<b>US8832742B2</b>	Systems and methods for acquiring, categorizing and delivering media in interactive media guidance applications	Kirsten Rasanen   Jay S. Bryant	2006-12-18	4.5	139
<b>US8505049B2</b>	Interactive television program guide system and method with niche hubs	Michael D. Ellis   Edward B. Knudson	2008-09-18	4.5	222
<b>US8046801B2</b>	Interactive television program guide with remote access	Michael D. Ellis   William L. Thomas   Joel G. Hassell   Thomas R. Lemmons   David M. Berezowski   Robert A. Knee   Robert H. McCoy	2004-08-26	4.5	1555
<b>US7917933B2</b>	Systems and methods for relocating media	William L. Thomas   Michael D. Ellis   Kevin B. Easterbrook   M. Scott Reichardt   Robert A. Knee	2008-08-28	4.5	111
<b>US9826077B2</b>	Apparatus and method for unlocking a locking mode of portable terminal	Su Mi Shim   Su Jung Youn	2010-05-26	4.5	193
<b>US8782706B2</b>	Systems and methods for providing channel groups in an interactive media guidance application	Michael D Ellis	2005-12-29	4.5	141


Key Acquisitions of the portfolio			
<b>Seller</b>	<b>Transferred to</b>	<b># Applications</b>	
TV GUIDE	ROVI	674	
MICROSOFT	ROVI	206	
GUIDEWORKS LLC	ROVI	89	
SONIC SOLUTIONS	ROVI	43	
INTELLECTUAL VENTURES	ROVI	31	
MEDIABOLIC INC	ROVI	29	
VIXS SYSTEMS INC	ROVI	26	
GEMSTAR DEVELOPMENT	ROVI	25	
INTERACTIVE SPORTS HOLDINGS	ROVI	23	
INDEX SYSTEMS	ROVI	23	
APTIV DIGITAL	ROVI	22	
DIGITALSMITHS CORPORATION	TIVO	22	



Select U.S. Litigation - Rovi/TiVo as Plaintiff 				
Defendant	Plaintiff	Litigation Date	Court	Patent Numbers
Cisco	TiVo	04-06-12	D.C. E.D. Texas	US6233389B1, US6792195B2, US7493015B1, US7529465B2
Comcast	Rovi	07-08-13	D.C. Massachusetts	US7779011B2, US7895218B2, US7937394B2, US8433696B2
Comcast	Rovi	01-12-16	D.C. S.D. New York	US6725281B1, US6725281B1, US7895218B2, US7895218B2, US7996864B2, US7996864B2, US8010979B2, US8010979B2, US8122034B2, US8122034B2, US8433696B2, US8433696B2, US8713595B2, US8713595B2, US8755666B2, US8755666B2, US9031962B2, US9031962B2, US9172987B2, US9172987B2
Comcast	Rovi	21-12-16	D.C. S.D. New York	US8006263B2, US8006263B2, US8046801B2, US8046801B2, US8566871B2, US8566871B2, US8578413B2, US8578413B2, US8621512B2, US8621512B2, US8768147B2, US8768147B2, US9055322B2, US9055322B2, US9204184B2, US9204184B2
Comcast	Rovi	10-01-18	D.C. Massachusetts	US7779011B2, US7937394B2, US8122034B2, US8433696B2
Comcast	Rovi	31-03-16	D.C. E.D. Texas	US6725281B1, US6725281B1, US7895218B2, US7895218B2, US7996864B2, US7996864B2, US8010979B2, US8010979B2, US8122034B2, US8122034B2, US8433696B2, US8433696B2, US8713595B2, US8713595B2, US8755666B2, US8755666B2, US9031962B2, US9031962B2, US9135337B2, US9135337B2, US9172987B2, US9172987B2, US9177081B2, US9177081B2, US9204184B2, US9204184B2
Comcast	Rovi	01-04-16	D.C. E.D. Texas	US8006263B2, US8006263B2, US8046801B2, US8046801B2, US8566871B2, US8566871B2, US8578413B2, US8578413B2, US8621512B2, US8621512B2, US8768147B2, US8768147B2, US9055322B2, US9055322B2, US9204184B2, US9204184B2

Defendant	Plaintiff	Litigation Date	Court	Patent Numbers
Comcast	Rovi	10-01-18	D.C. C.D. California	US7493646B2, US7493646B2, US7650621B2, US7650621B2, US7779445B2, US7779445B2, US7827585B2, US7827585B2, US7917933B2, US7917933B2, US7971222B2, US7971222B2, US8234668B2, US8234668B2, US8584184B2, US8584184B2, US8799971B2, US8799971B2, US8806546B2, US8806546B2, US8973069B2, US8973069B2, US9055325B2, US9055325B2, US9071872B2, US9071872B2, US9160971B2, US9160971B2, US9294799B2, US9294799B2, US9369741B2, US9369741B2, US9392324B1, US9392324B1, US9578363B2, US9578363B2, US9621956B2, US9621956B2, US9668014B2, US9668014B2
Comcast	Rovi	14-01-19	D.C. C.D. California	US7735107B2, US7735107B2, US7873978B2, US7873978B2, US8272019B2, US8272019B2, US8448215B2, US8448215B2, US8973069B2, US8973069B2, US9055319B2, US9055319B2, US9118948B2, US9118948B2, US9232254B2, US9232254B2
Digital CBT	TiVo	11-01-13	D.C. C.D. California	US5241428A
Haier	Rovi	16-11-11	D.C. Delaware	US6701523B1, US6701523B1, US7047547B2, US7047547B2
Hulu LLC	Rovi	28-07-11	D.C. Delaware	US6396546B1, US6396546B1, US7103906B1, US7103906B1, US7769775B2, US7769775B2
Hulu LLC	Rovi	31-05-12	D.C. C.D. California	US6396546B1, US6396546B1, US7103906B1, US7103906B1, US7769775B2, US7769775B2
Kappos	Rovi	18-12-12	D.C. E.D. Virginia	US8214869B2, US8214869B2
Lee	Rovi	08-01-13	D.C. E.D. Virginia	US8229283B2, US8229283B2
Lenovo	Rovi	20-03-12	D.C. N.D. California	US5583936A, US5583936A, US6381747B1, US6381747B1
Lenovo	Rovi	09-08-12	D.C. N.D. California	US5583936A, US5583936A, US6381747B1, US6381747B1
LG Electronics	Rovi	01-05-12	D.C. Delaware	US6898762B2, US6898762B2, US7065709B2, US7065709B2, US7225455B2, US7225455B2,

Defendant	Plaintiff	Litigation Date	Court	Patent Numbers
				US7493643B2, US7493643B2, US8112776B2, US8112776B2
Mitsubishi	Rovi	01-05-12	D.C. Delaware	US6701523B1, US6701523B1, US7225455B2, US7225455B2, US7493643B2, US7493643B2
Roku	Rovi	01-05-12	D.C. N.D. California	US6898762B2, US6898762B2, US6898762B2, US6898762B2
Samsung	TiVo	08-09-15	D.C. E.D. Texas	US6233389B1, US6792195B2, US7558472B2, US8457476B2
Sharp	Rovi	15-08-11	D.C. E.D. Virginia	US6305016B1, US6305016B1, US7493643B2, US7493643B2
Toshiba	Rovi	29-10-10	D.C. Delaware	US6020929A, US6020929A, US6305016B1, US6305016B1, US6701523B1, US6701523B1
Verizon Services	Rovi	09-09-10	D.C. S.D. New York	US7536384B2, US7779011B2, US7788266B2
Vizio	Rovi	16-11-11	D.C. Delaware	US6701523B1, US6701523B1, US7493643B2, US7493643B2
Vizio	Rovi	01-05-12	D.C. Delaware	US6898762B2, US6898762B2, US7065709B2, US7065709B2, US7103906B1, US7103906B1, US8112776B2, US8112776B2

Select U.S. Litigation - Rovi/TiVo as Defendant 				
Plaintiff	Defendant	Litigation Date	Court	Patent Numbers
Cisco	TiVo	13-08-12	D.C. E.D. Texas	US6233389B1, US6792195B2, US7493015B1, US7529465B2
Cisco	TiVo	30-05-12	D.C. N.D. California	US6233389B1, US6792195B2, US7493015B1, US7529465B2
Comcast	Rovi	23-05-16	D.C. S.D. New York	US6418556B1, US6725281B1, US7895218B2, US7996864B2, US8006263B2, US8046801B2, US8122034B2, US8433696B2, US8566871B2, US8578413B2, US8621512B2, US8713595B2, US8755666B2, US8768147B2, US9172987B2
Hulu LLC	Rovi	23-05-17	D.C. N.D. California	US6396546B1, US7103906B1, US7769775B2
Hulu LLC	Rovi	23-05-17	D.C. N.D. California	US6396546B1, US7103906B1, US7769775B2
Microsoft	TiVo	19-01-10	D.C. N.D. California	US6008803A, US6055314A
Microsoft	TiVo	24-01-11	D.C. W.D. Washington	US5585838A, US5731844A
Microsoft	TiVo	16-06-11	D.C. N.D. California	US5585838A, US5731844A
Netflix	Rovi	21-12-11	D.C. N.D. California	US6305016B1, US6898762B2, US7100185B2, US7103906B1, US7945929B2
Tns Media Research	TiVo	15-06-11	D.C. S.D. New York	US7729940B2

Competitor Comparison				Relecura						
Technology Categories				TiVo	Roku	Apple	Amazon	Alphabet	Netflix	Comcast
Digital computing systems	Data security			279	6	1794	1319	2847	43	141
	Digital interface arrangements			1122	29	11066	1901	8504	33	181
	Function specific computing			918	16	3429	3053	12617	92	223
Hardware/software of TV	Receivers	Displaying additional information	Controlled by remote control	284	0	1	10	17	0	11
			Displayed in a separate window	184	0	3	1	43	0	44
			Menu-type	1425	0	35	5	120	6	111
			TV receiver, VCR	771	4	25	3	51	3	30
		Reception of video signal		207	0	7	11	42	0	52
	TV recording	Interface circuits for recording		942	2	128	53	174	6	36
			Magnetic recording	973	2	69	12	56	9	60
			Optical recording	399	0	27	4	22	1	6
			Signal processing	635	3	177	38	211	9	12
	Interactive TV, VoD	Content generation	Content structuring	Content descriptors	923	7	61	35	242	8
Structuring of content				361	14	159	68	318	63	167
			Generation of multimedia applications	731	8	130	61	439	23	201
			Monomedia components	1380	13	176	94	799	44	371
Servers for content distribution		Server management	Server based user applications	388	2	19	27	277	0	69
			Additional data server	408	6	50	37	274	19	138
			Channel, content management	449	3	65	64	434	49	190
			Content scheduling	565	4	82	52	286	23	172
			Customer data management	783	21	107	70	611	49	306
			Learning user preferences	280	7	2	23	281	23	65
		Server middle-ware	1153	29	278	169	1276	150	682	
Set-top-box [STB]		Content processing	Content selection, interaction	1169	3	140	45	334	16	173
			Content storage operation	1329	4	56	45	255	3	166
			Interfacing local distribution network	573	24	124	30	291	18	82
			Monitoring processes, resources	1191	23	120	76	620	93	216
			Processing of additional data	465	0	33	9	183	3	139
		Customer operations	Content filtering	572	3	2	15	78	2	39
			Content management	1102	9	74	28	406	35	181
			Learning user preferences	623	12	49	25	240	25	63
			Management of customer data	1464	12	52	41	334	30	184
	Customer peripherals	Scheduling content	572	6	36	14	112	11	70	
		Input-only peripherals	864	20	227	41	396	15	95	
		Internal components	414	7	9	3	61	0	75	
		Signals from special devices	560	17	199	30	308	22	95	
		Specialised client platforms	884	7	191	25	384	1	66	
	End-user applications	Data services	793	10	29	23	167	17	73	
		Interface for inputting data	1128	5	37	14	225	3	64	
Interface for program selection		2150	17	208	52	508	27	243		
Interface for requesting content		2066	21	226	87	713	43	348		
Supplemental services		1054	2	63	61	505	16	162		
Others	Commercial/financial data processing	70	3	789	1742	3271	22	46		
	Data transmission	90	12	4349	1415	5238	56	767		
	Signal processing	130	3	136	37	75	0	6		



[Click here](#)

## To set up your Relecura account

### Disclaimer

This document is provided for information purposes only and the contents hereof are subject to change without notice. This document, including the information and analysis and any opinion or recommendation, is neither legal advice nor intended for investment purposes. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. Relecura Inc. specifically disclaims any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document.

### About Relecura

Relecura is a full-stack cognitive cloud platform that provides custom intelligence and reports on patent portfolios, technologies and companies. It does this by capturing and organizing the knowledge from various document repositories (patents, scientific literature) and subject matter experts in a flexible and collaborative manner, into a knowledge-base.

Relecura offers IP analytics tools and a custom enterprise platform to corporations, law firms, IP services firms, R&D organizations and academic institutions. The enterprise platform integrates the discovery and analysis of public documents with internal company documents. Relecura also has an API to help create custom tools for IP and business intelligence.