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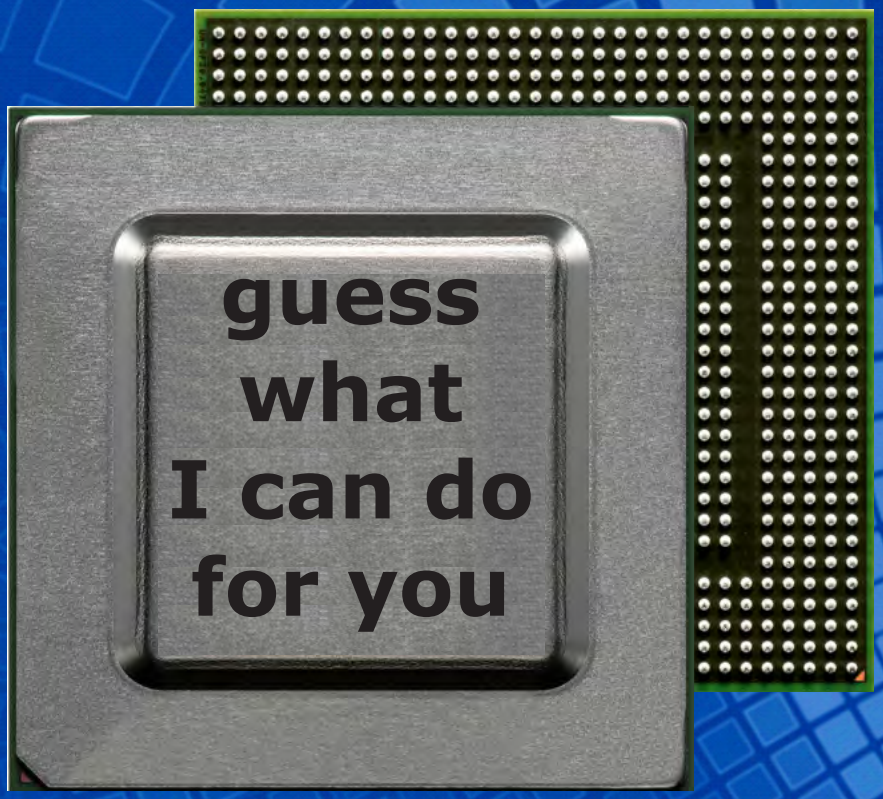

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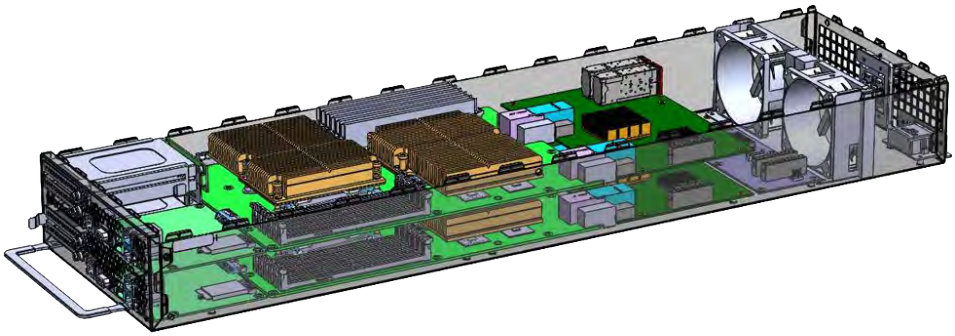

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Nokia wins its largest-ever GSM-Railway contract with Polish PKP Polskie Linie Kolejowe to modernize critical communications network

- Project will support Poland's state-owned operator in enhancing reliability and safety of nationwide railway operations
- Contract marks Nokia's largest GSM-R win to date, and another step in company's push to expand beyond its traditional communication service provider customer base
- Five-year turnkey contract covers deployment of GSM-R and mission-critical IP/MPLS and DWDM optical network alongside PKP PLK's nationwide railway infrastructure
- Full GSM-R coverage of about 14 000 km of rail tracks expected to be achieved by 2023

Press Release: 29th March 2018

Espoo, Finland - Nokia, together with its partners Herkules, Pozbud and Wasko, and Poland's state-owned railway operator PKP Polskie Linie Kolejowe S.A. (PKP PLK) have signed a five-year contract to deploy a nationwide turnkey GSM-R and mission-critical backhaul network to enhance railway security and reliability throughout the country. This project, Nokia's largest-ever GSM-R contract, will provide PKP/PLK with one of the **biggest state-of-the-art railway communications networks in Europe.**

Once completed, the new network will enable the PLK railway company to fulfil European Union requirements for ERTMS (European Rail Traffic Management System), the bloc's European-wide standard for railway signaling. The project is majority funded by the EU, and complemented by Polish State funds.

GSM-R is a mandatory part of the ERTMS, which is under deployment across Europe to help rail operators like PKP PLK seamlessly manage and control trains in combination with the European Train Control System. The solution delivered by Nokia will help PKP PLK increase train traffic reliability and safety, ultimately improving passenger satisfaction.

Nokia will provide installation, commissioning, third-party integration, first-line care and maintenance for 13,800 km of the GSM-R network, **plus more than 11 000 km of optical fiber-based backhaul network infrastructure** with IP Multiprotocol Label Switching (IP/MPLS) and dense wavelength division multiplexing (DWDM) optical network equipment. It includes an end-to-end GSM-R solution (radio and core network including NetAct, Messaging and diverse third-party products), an IP-MPLS core network, security, and DWDM technology for the fiber-optic network. Herkules, Pozbud and Wasko will be responsible for civil works, including construction work for laying fiber.

Nokia is the global market leader in GSM-R with 20 customers worldwide, more than 75 000 km railway tracks covered and 20 years' experience in turnkey projects, including numerous of EU-funded GSM-R projects. Nokia has successfully deployed four GSM-R Turnkey Projects with PKP PLK in Poland over the last six years.

Matthieu Bourguignon, Senior Vice President Europe, Global Enterprise & Public Sector at Nokia, said: "Nokia is proud and excited to be a trusted partner for Poland's digitalization, and building the railway communications network is a key part of this. Based on our expertise as market leader in GSM-R and critical communications networks, our unparalleled experience in turnkey projects and our successful long-term history in large-scale network deployments in Poland, Nokia is a natural choice for this kind of ambitious rollout."

About Nokia

We create the technology to connect the world. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises and consumers, with the industry's most complete, end-to-end portfolio of products, services and licensing.

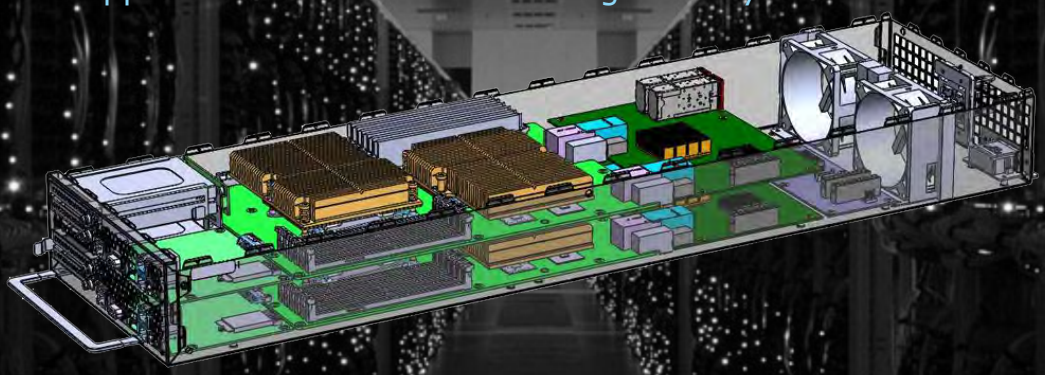
Nokia is enabling the infrastructure for 5G and the Internet of Things, and shaping the future of technology to transform the human experience. www.nokia.com

ADLINK Showcase Telecom Industry's Open Compute Project Carrier Grade Spec, Highlighting Expansion of OCP-CG Open Architectures

Representing a significant step in the evolution of OCP's CG-OpenRack-19 specification, the hands-on demonstration of OpenRack, OpenSled infrastructure was featured at the OCP Summit

ADLINK has featured the Open Compute Project (OCP) carrier grade CG-OpenRack-19 solution at the OCP Summit iin March in San Jose, CA.

The OCP-ACCEPTED™ OpenRack, OpenSled configuration marks a significant milestone in the evolution of OCP CG-OpenRack-19 as it continues the expansion of OCP-CG open architectures. The specification offers telecom data center operators the benefits of open platform standards combined with the needed carrier-grade and environmental enhancements required for Edge Computing in telecom data center environments. The open system approach drives innovation in the market and allows operators to avoid vendor lock-in that comes with propriety solutions. In addition, the multi-vendor solution offers seamless support across the sales and integration cycles.



"As the networking and communications market continues to transform itself into a virtualized network, including Edge Computing technologies, the need for operators to integrate multiple hardware and software assets is one of the most critical factors in NFV/SDN and Multi-access Edge Computing – or MEC -- deployments in the next few years," said Jeff Sharpe, director, strategic product planning at ADLINK.

The CG-OpenRack-19 specification is the result of OCP's Telecom Working Group, which develops open architecture for carrier grade, frame-level solutions. The OCP-ACCEPTED™ OpenSled spec, based on ADLINK's OCCERA (Open Compute Carrier-grade Edge Reference Architecture), enhances the original spec by providing definitions for the internal configuration options of the CG-OpenRack-19 sled, including options for key appliances to utilize additional components inside the sled. The specification is designed mainly for network deployed products for telecom specific applications, for example: DPI, security, policy, media and transcoding.

Sharpe added that ADLINK will continue its collaboration efforts, which will allow the company to provide useful specifications for full-width sleds, storage and other key technologies consistent with OCP-CG infrastructure.

ADLINK TECHNOLOGY INC.

More about OCCERA
Open Compute Carrier-grade Edge Reference Architecture

Ambarella Introduces Cv2 4K Computer Vision SoC with CVflow™ Architecture and Stereovision

Cv2 delivers up to 20 times the deep neural network processing performance of first-generation CV1 processor

SANTA CLARA, Calif., Mar 28, 2018

Ambarella, Inc. (NASDAQ: AMBA) a leading developer of low-power, HD and Ultra HD video processing semiconductors, today introduced the CV2 camera SoC combining advanced computer vision, image processing, 4Kp60 video encoding, and stereovision in a single chip. CV2 targets advanced automotive, IP security, drone, and robotic applications, delivering up to 20 times the deep neural network performance of Ambarella's first generation CV1 chip. In automotive applications, such as ADAS and self-driving systems, its ability to run multiple algorithms simultaneously delivers higher perception accuracy and reduces the total number of chips required. In IP security cameras it enables advanced computer vision in the camera rather than in the cloud, enabling faster response time, lower network utilization and more accurate classification of objects, people and vehicles. Fabricated in advanced 10nm process technology, CV2 offers extremely low power consumption.

"With CV2 we have dramatically increased our computer vision performance and combined it with full SoC functionality," said Fermi Wang, CEO of Ambarella. "As the highest performance member of our new CVflow family, CV2 delivers both the deep neural network and stereovision processing required for the most advanced automotive and security cameras."

The CV2's CVflow architecture provides computer vision processing up to 4K or 8-Megapixel resolution, to enable object recognition and perception over long distances and with high accuracy. Its stereovision processing provides the ability to detect generic objects without training in ADAS and autonomous vehicle applications. Advanced image processing with HDR (High Dynamic Range) processing delivers outstanding imaging even in low light and from high contrast scenes. Its highly efficient 4Kp60 AVC and HEVC video encoding supports the addition of video recording to automotive ADAS and self-driving systems and enables the design of both multi-stream and multi-imager IP security cameras. CV2 includes a full suite of advanced security features to prevent hacking, including secure boot, TrustZone™ and I/O virtualization.

A complete set of tools is provided to help customers easily port their own neural networks onto the CV2 SoC. This includes compiler, debugger and support for industry standard training tools including Caffe™ and TensorFlow™, with extensive guidelines for CNN (Convolutional Neural Network) performance optimizations.

CV2 Computer Vision SoC Key Features:

- CVflow processor with CNN/deep learning support
- 4Kp60/8-Megapixel AVC and HEVC encoding with multi-stream support
- Multi-sensor support for 3-channel electronic mirror and 4-channel AVM systems, multi-channel stereo sensing systems (up to 4 stereo pairs), and multi-imager IP cameras
- Quad-core 1.2-GHz ARM™ Cortex A53 with NEON DSP extensions and FPU
- Advanced security features, including OTP for secure boot, TrustZone and IO virtualization
- Real-time hardware-accelerated 360-degree de-warping and Lens Distortion Correction (LDC) engine
- Multi-channel ISP with up to 800-Megapixel/s input pixel rate
- Multi-exposure HDR and WDR processing
- LED flicker mitigation
- SmartAVC™ and SmartHEVC™ intelligent rate control for lowest bitrate in security applications
- High-speed SLVS/MIPI/LVCMOS interfaces
- Rich set of interfaces includes GigE Ethernet, CAN bus, USB 2.0 host and device, dual SD card controllers with SDXC support, HDMI v2.0, MIPI-DSI/CSI 4-lane output
- 10nm process technology
- Package: 716-pin 0.65-pitch FCCSP
- AEC-Q100 qualified version available

About Ambarella

Ambarella, Inc. (NASDAQ: AMBA), is a leading developer of low-power, high-definition (HD) and Ultra HD video compression, image processing and computer vision solutions. The company's products are used in a variety of IP security, sports, wearable, drone and automotive video cameras. Ambarella's solutions leverage over 20 years of pioneering research in computer vision to enable future generations of intelligent cameras, Advanced Driver Assistance Systems and autonomous vehicles.
For more information about Ambarella, please visit www.ambarella.com.

T-Mobile agrees to buy Sprint in $26 billion deal

April 29, 2018 -- T-Mobile and Sprint are the third- and fourth-largest wireless companies in the United States. They tried to merge in 2014, but there was resistance from the Obama administration. Under the deal, T-Mobile CEO John Legere will lead the combined company, and it will keep the name T-Mobile. The companies said they want to hire more employees after the merger, especially in rural areas, and will focus on developing faster 5G networks. This will affect 127 million customers.

The deal must be reviewed by the Department of Justice and Federal Communications Commission, and if approved, it's expected to close by the first half of 2019, The Associated Press reports. —Catherine Garcia

The five video Encoding mistakes Everyone makes [On Demand Webinar]

Encoding is the foundation of online video. It directly affects everything downstream, from bandwidth to storage to QoS. The good news is that the state of video encoding has changed significantly in the last 5 years. The bad news is that very few publishers encode video well, and doing a good job is hard.

In this webinar, come and learn from the two Mux video encoding experts, Jon Dahl and Nick Chadwick, who have done pioneering work in encoding at companies like Zencoder, OTOY, Brightcove, Twitch, and now Mux. We will deep dive into how encoding has advanced over the last 5 years, recent developments, the biggest mistakes publishers make, and how Mux Video makes things better.

Join us and learn:

- State of video encoding in 2018
- The mistakes that most publishers make
- The right approach
- How Mux Video approaches video encoding

De Vijver Media shareholders re-design partnership

Telenet becomes the full owner of commercial channels VIER, VIJF and ZES and Production House Woestijnvis. SBS Belgium and Mediahuis set up an advertising sales office for online video and cross-media campaigns.

Antwerp/Brussels/Vilvoorde, 7 March 2018 – Telenet Group Holding NV (Euronext: TNET) has today entered into an agreement with the two other shareholders of De Vijver Media NV (hereinafter De Vijver Media or "the Company") to fully acquire De Vijver Media. Shareholders Mediahuis NV and Wouter Vandenhaute and Erik Watté (Waterman & Waterman NV) will sell their respective stakes of 30 and 20 percent to Telenet, who will thereby become the sole shareholder. The acquisition price was not disclosed. As the owner of three broadcasters and a production house, Telenet will be able to respond even more and even faster to innovations in the field of viewing experience or advertising. Simultaneously with this transaction, through a 50/50 joint venture, SBS Belgium and Mediahuis are setting up a sales office that will provide commercial partners with online video solutions and cross-media options. The transactions are now being notified to the competent competition authorities for approval.

The rapidly evolving media landscape and the challenges that this entails has ensured that all the partners within De Vijver Media were aware of the need to closely review and reshape the existing partnership in recent months. The viewing behavior of the consumer is changing, and channels have to compete with global content providers such as Netflix or Amazon. These players make massive investments in new series and films, and in the technology platforms to make them available, and have set the bar for the production and provision of both international and national content very high. In addition, linear television channels are seeing a shift from television advertising to online advertising, where global players like Google and Facebook are calling the shots.

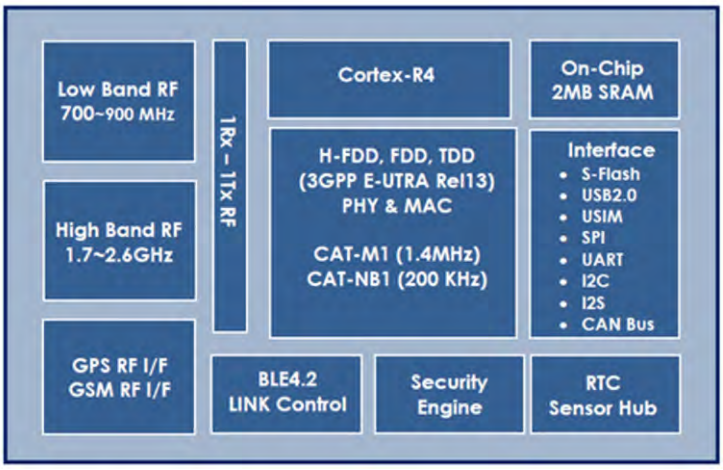
All these changes have an impact on the business model of the traditional television providers. Telenet's ambition is to further strengthen the local ecosystem, together with partners, so that the viewer can continue to enjoy strong local content and innovations in the entertainment field.
In order to be able to implement its investment strategy and to respond faster to changes in the television market, Telenet intends to acquire all the shares of De Vijver Media. Through this transaction, Telenet will be able to work seamlessly together with De Vijver Media on new ways to provide end-users with more programs on a broader range of formats, and thereby remain an important partner of advertisers.

John Porter, CEO Telenet: "We are pleased to be able to take this next step in our 'connected entertainment' strategy. As the owner of a production house with strong local roots and a number of thriving commercial channels, Telenet can speed up the realization of new viewing experiences, and respond to the new ways in which media are consumed. At the same time, this will permit us to focus even more and even faster on innovation. It is thereby still our ambition to work together with all the players in the Belgian television and entertainment sector, and to ensure that the viewer can continue to enjoy top local content. In addition, I am also pleased that Wouter Vandenhaute will continue in his role as Chairman of the Board of Directors of De Vijver Media, and use his extensive experience to help guarantee continuity." FULL PRESS RELEASE

GCT Semiconductor Licenses CEVA Bluetooth Low Energy IP for its LTE IoT SoC

GCT's Ultra-low power GDM7243i combines LTE-M, NB-IoT and BLE in a highly integrated single chip solution

MOUNTAIN VIEW, Calif., – March 07, 2018 – CEVA, Inc. (NASDAQ: CEVA), the leading licensor of signal processing platforms and artificial intelligence processors for smarter, connected devices, today announced that GCT Semiconductor, Inc., (GCT) a leading designer and supplier of advanced 4G mobile semiconductor solutions, has licensed and deployed CEVA's RivieraWaves Bluetooth low energy (BLE) IP in its new GDM7243i LTE SoC solution for the Internet of Things (IoT). GDM7243i combines BLE with GCT's advanced LTE-M and NB-IoT cellular technologies in a highly integrated single chip solution. It is targeted at a wide range of next generation IoT devices including tracking, wearables, security, agriculture, healthcare, industrial, and consumer applications.



John Schlaefer, CEO of GCT, stated: "The rapidly expanding IoT market is demanding next generation, highly integrated chip solutions to unleash its full potential. We set ultra-low power connectivity as a key objective for GDM7243i and CEVA's RivieraWaves Bluetooth IP, with its minimal processor loading architecture, was a great fit for our solution." Read More...

CEVA First to Deliver Bluetooth® 5 Dual Mode IP

Multiple licensees including ASR Micro adopt RivieraWaves Bluetooth 5 Dual Mode IP for smartphones, smart speakers, headsets and IoT Devices

MOUNTAIN VIEW, Calif., – March 07, 2018 – CEVA, Inc. (NASDAQ: CEVA), the leading licensor of signal processing platforms and artificial intelligence processors for smarter, connected devices, today reinforced its leadership in the Bluetooth IP market with delivery of its RivieraWaves Bluetooth 5 dual mode IP to multiple licensees, including ASR Microelectronics.

Bluetooth 5 dual mode is the latest version of the ubiquitous Bluetooth standard. It concurrently couples all the latest Bluetooth 5 low energy features such as LE 2Mbps, Long Range and LE Advertising Extension, together with the classic Bluetooth BR/EDR operation. Bluetooth 5 dual mode products can therefore benefit from the latest low power features while being fully interoperable with the billions of existing Bluetooth products, with full support for high quality audio, a key feature of many Bluetooth products. Read More...

About CEVA, Inc.
CEVA is the leading licensor of signal processing platforms and artificial intelligence processors for a smarter, connected world. We partner with semiconductor companies and OEMs worldwide to create power-efficient, intelligent and connected devices for a range of end markets, including mobile, consumer, automotive, industrial and IoT. Our ultra-low-power IPs for vision, audio, communications and connectivity include comprehensive DSP-based platforms for LTE/LTE-A/5G baseband processing in handsets, infrastructure and machine-to-machine devices, advanced imaging and computer vision for any camera-enabled device, audio/voice/speech and ultra-low power always-on/sensing applications for multiple IoT markets. For artificial intelligence, we offer a family of AI processors capable of handling the complete gamut of neural network workloads, on-device. For connectivity, we offer the industry's most widely adopted IPs for Bluetooth (low energy and dual mode) and Wi-Fi (802.11 a/b/g/n/ac/ax up to 4x4). Visit us at www.ceva-dsp.com and follow us on Twitter, YouTube , Facebook and LinkedIn.

With its Highest Growth Rate in 14 Years, the Global Semiconductor Industry Topped $429 Billion in 2017, IHS Markit Says

Samsung edged out Intel, to become the new semiconductor industry leader

"Alongside record industry growth, Intel, which had led the market for 25 years, was supplanted by Samsung as the leading semiconductor supplier in the world."

LONDON--(BUSINESS WIRE)--March 28, 2018--The semiconductor industry closed out 2017 in blockbuster fashion, posting the highest year-over-year growth in 14 years. Global semiconductor revenue grew 21.7 percent, reaching $429.1 billion in 2017, according to IHS Markit (Nasdaq: INFO), a world leader in critical information and analytics.

Recording year-over-year growth of 53.6 percent, and its highest semiconductor revenue ever, Samsung replaced Intel as the new market leader of the semiconductor industry in 2017. Intel was followed by SK Hynix, in 3rd position.

"2017 was quite a memorable year," said Shaun Teevens, semiconductor supply chain analyst, IHS Markit. "Alongside record industry growth, Intel, which had led the market for 25 years, was supplanted by Samsung as the leading semiconductor supplier in the world."

Among the top 20 semiconductor suppliers, SK Hynix and Micron enjoyed the largest year-over-year revenue growth, growing 81.2 percent and 79.7 percent, respectively. "A very favorable memory market with strong demand and high prices was mainly responsible for the strong growth of these companies," Teevens said.

Qualcomm remained the top fabless company in 2017, followed by nVidia, which moved into the second position, after growing 42.3 percent over the previous year. Among the top 20 fabless companies, MLS enjoyed the highest market share gain, moving from number 20 to number 15 in the IHS Markit revenue ranking.

Worldwide Ranking of the Top-10 Suppliers of Semiconductors in 2017
(Ranking by Revenue in Millions of U.S. Dollars)

2016 Rank	2017 Rank	Company Name	2016 Revenue($)	2017 Revenue($)	Revenue Percent Change	Revenue Percent of Total	Revenue Cumulative Percent
2	1	Samsung Electronics	40,389	62,031	53.6%	14.5%	14.5%
1	2	Intel	54,980	61,406	11.7%	14.3%	28.8%
5	3	SK Hynix	14,699	26,638	81.2%	6.2%	35.0%
7	4	Micron Technology	12,710	22,843	79.7%	5.3%	40.3%
4	5	Broadcom Limited	14,979	17,375	16.0%	4.0%	44.3%
3	6	Qualcomm	15,405	16,872	9.5%	3.9%	48.3%
6	7	Texas Instruments	12,836	14,525	13.2%	3.4%	51.7%
8	8	Toshiba	9,904	11,864	19.8%	2.8%	54.4%
9	9	NXP	9,306	8,864	-4.7%	2.1%	56.5%
13	10	nVidia	6,030	8,578	42.3%	2.0%	58.5%
		Top 10 Companies	**191,238**	**250,996**	**31.2%**	**58.5%**	
		All Others	**161,356**	**178,112**	**10.4%**	**41.5%**	
		Total Semiconductor	**352,594**	**429,108**	**21.7%**	**100.0%**	

Source: IHS Markit Q1 2018 Competitive Landscaping Tool

Memory was the strongest industry category

Memory integrated circuits proved to be the strongest industry category, growing 60.8 percent in 2017 compared to the previous year. Within the category, DRAM grew 76.7 percent and NAND grew 46.6 percent — the highest growth rate for both memory subcategories in 10 years. Much of the revenue increase was based on higher prices and increased demand for memory chips, relative to tight supply.

"The technology transition from planar 2D NAND to 3D NAND drove the market into an unbalanced supply-demand environment in 2017, driving prices higher throughout the year," said Craig Stice, senior director, memory and storage, IHS Markit. "Entering 2018, the 3D NAND transition is now almost three-quarters of the total bit percent of production, and it is projected to provide supply relief for the strong demand coming from the SSD and mobile markets. Prices are expected to begin to decline aggressively, but 2018 could still be a record revenue year for the NAND market."

Excluding memory, the remainder of the semiconductor industry grew 9.9 percent last year, largely due to solid unit-sales growth and strong demand across all applications, regions and technologies. Notably, semiconductors used for data processing applications expanded 33.4 percent by year-end. Intel remained the market leader in this category, with sales almost two times larger than second-ranked Samsung.

About IHS Markit (www.ihsmarkit.com)
IHS Markit (Nasdaq: INFO) is a world leader in critical information, analytics and solutions for the major industries and markets that drive economies worldwide.