HAMAMATSU

Hamamatsu financial reporting

Fiscal Year ended September 30, 2016

November 2016
Hamamatsu Photonics K.K.
Tokyo Stock Exchange: 6965
www.hamamatsu.com



Notes

- This material is not intended to be a solicitation to buy or sell any securities of Hamamatsu Photonics K.K.
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Annual Consolidated Performance

in million yen

FY: October 1-September 30

	FY2015		FY2016	FY2017		
	Year	Revised Forecast 2016/5/9	Year	compared with prev. year	Year Plan	compared with prev. year
Net Sales	120,691	121,900	121,852	+1.0%	122,500	+0.5%
Gross Profit (%)	63,109 (52.3%)		·	-3.3%	60,300 (49.2 %)	-1.2%
Operating Income	23,596	20,400	20,544	-12.9%	19,000	-7.5%
Ordinary Income	24,658	20,700	20,050	-18.7%	19,600	-2.2%
Net Income	16,598	14,900	14,419	-13.1%	14,400	-0.1%
* Net Income per share (yen)	103.23	92.67	90.23	-12.6%	90.54	1.5%
ROE	9.5%	8.1%	8.3%		8.3%	-
Dividends (yen)	*30+19(38)	-	34	-	34	-
Exchange rate	actual rates		actual rates	assumption rates		
1 US dollar(yen)	119.32		111.77	100.00		
1 euro(yen)	136.78		124.02		110	.00

^{*} Net Income per share reflects a two-for-one stock split effected on April 1, 2015.



Consolidated Income Statements

in million yen

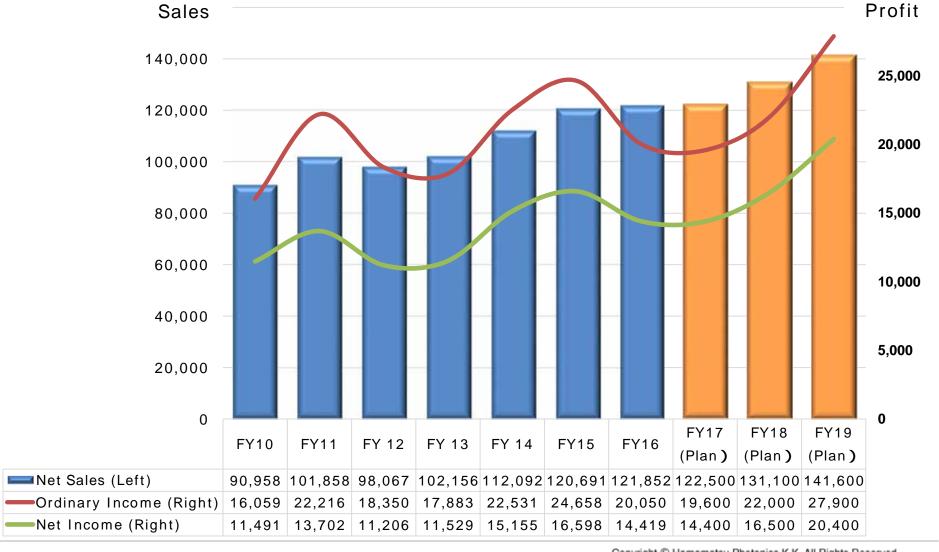
	FY2015		FY2016			FY2017(Plan)				FY2018(Plan)	FY2019(Plan)		
	Year	%	1st Half	2nd Half	Year	%	1st Half	2nd Half	Year	%	Year	%	Year	%
Net Sales	120,691	100.0	62,843	59,009	121,852	100.0	60,500	62,000	122,500	100.0	131,100	100.0	141,600	100.0
Cost of Sales	57,582	47.7	30,967	29,839	60,807	49.9	30,600	31,600	62,200	50.8	65,700	50.1	69,500	49.1
Gross Profit	63,109	52.3	31,875	29,169	61,044	50.1	29,900	30,400	60,300	49.2	65,400	49.9	72,100	50.9
Selling, G & A Expenses	27,897	23.1	14,911	13,715	28,627	23.5	14,200	14,100	28,300	23.1	31,000	23.6	31,900	22.5
R & D Expense	11,615	9.6	5,862	6,010	11,873	9.7	6,600	6,400	13,000	10.6	12,900	9.8	12,800	9.0
Operating Income	23,596	19.6	11,101	9,442	20,544	16.9	9,100	9,900	19,000	15.5	21,500	16.4	27,400	19.4
Non-Operating Income	1 / 8 / 1	1.1	430	391	821	0.7	350	350	700	0.6	600	0.5	600	0.4
Non-Operating Expense	//4	0.2	341	973	1,314	1.1	50	50	100	0.1	100	0.1	100	0.1
Ordinary Income	24,658	20.4	11,189	8,861	20,050	16.5	9,400	10,200	19,600	16.0	22,000	16.8	27,900	19.7
Extraordinary Income	706	0.6	153	659	813	0.7	0	0	0	0.0	0	0.0	0	0.0
Extraordinary Expense	691	0.6	89	693	783	0.6	0	400	400	0.3	0	0.0	100	0.1
Pre-Tax Income	24,672	20.4	11,252	8,827	20,080	16.5	9,400	9,800	19,200	15.7	22,000	16.8	27,800	19.6
Income taxes etc.	8,074	6.7	3,770	2,290	5,660	4.6	2,400	2,350	4,800	3.9	5,500	4.2	7,400	5.2
Net Income	16,598	13.8	7,882	6,537	14,419	11.8	7,000	7,450	14,400	11.8	16,500	12.6	20,400	14.4

^{*}numbers are rounded off to million yen



Sales & Profit

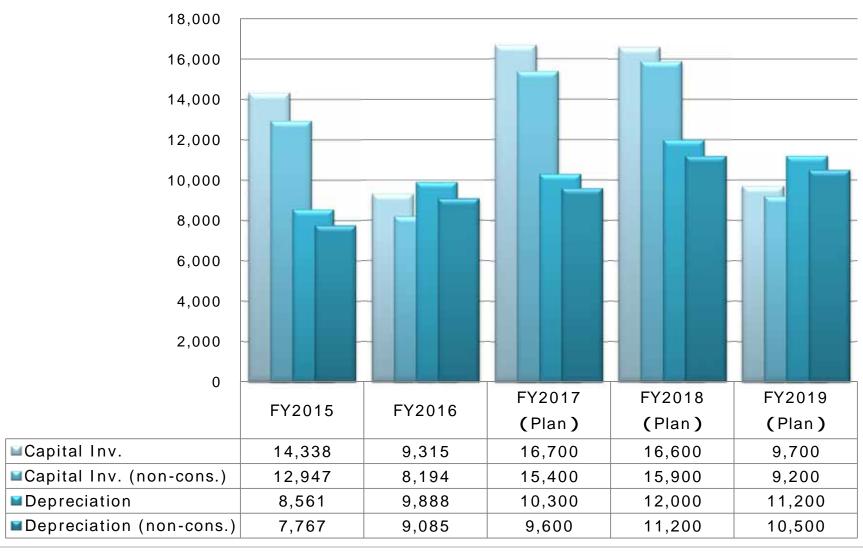
(Consolidated) in million yen





Capital Investment (payment based) & Depreciation

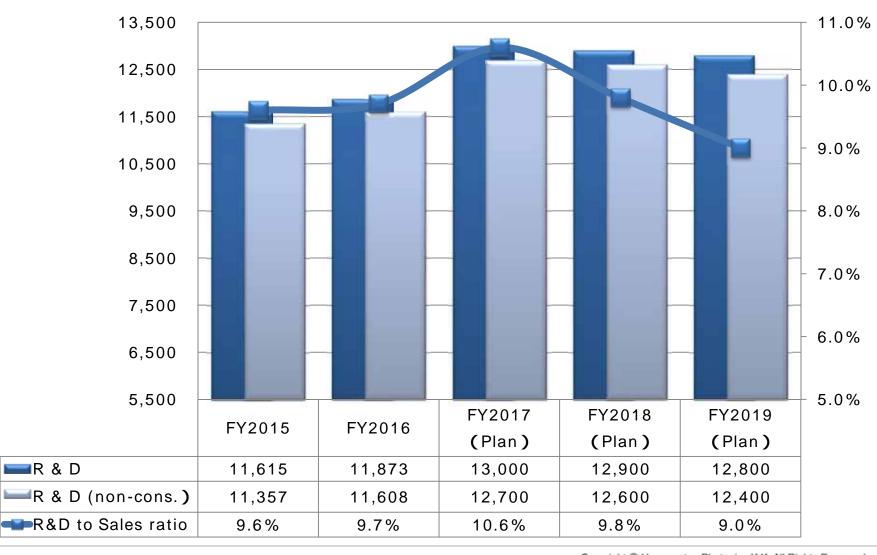
in million yen





R & D Expense

in million yen

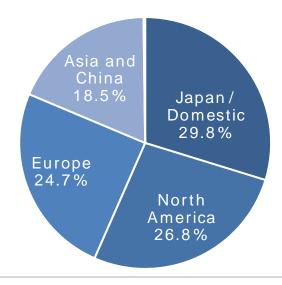




Sales by Region

(Consolidated) in million yen

Domina	FY2013	FY2014				FY2015		FY2016			
Region	Year	Year	Y/Y	Share	Year	Y/Y	Share	Year	Y/Y	Share	
Japan/Domestic	32,393	36,823	113.7%	32.9%	37,238	101.1%	30.9%	36,258	-2.6%	29.8%	
North America	28,624	31,101	108.7%	27.7%	35,135	113.0%	29.1%	32,704	-6.9%	26.8%	
Europe	26,045	27,682	106.3%	24.7%	29,603	106.9%	24.5%	30,138	+1.8%	24.7%	
Asia and China	14,842	16,248	109.5%	14.5%	18,381	113.1%	15.2%	22,489	+22.3%	18.5%	
Other	249	235	94.4%	0.2%	333	141.2%	0.3%	261	-21.6%	0.2%	
Total	102,156	112,092	109.7%	100.0%	120,691	107.7%	100.0%	121,852	+1.0%	100.0%	



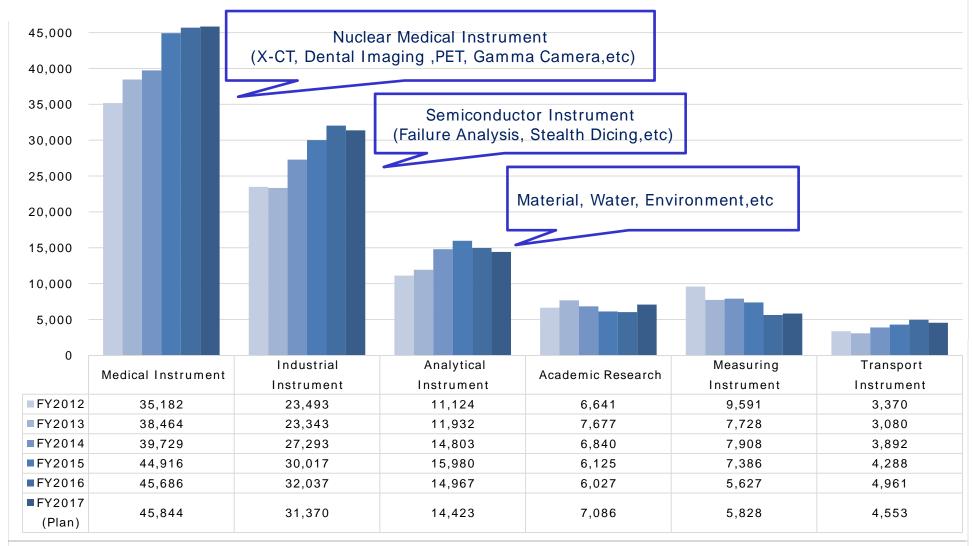
Major countries on each region

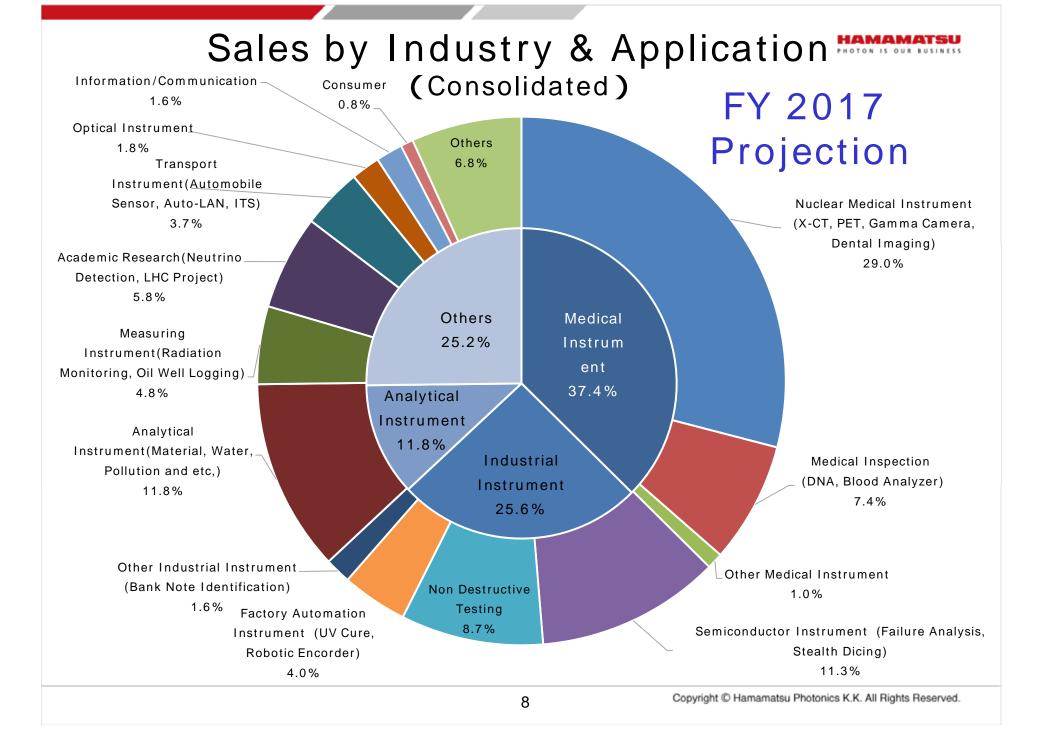
- North America: United States of America
- Europe: Germany, France, U.K.
- Asia and China: China, South Korea, Taiwan Israel, India,
- Other: Australia



Sales by Industry & Application (Consolidated)

in million yen







Sales by Industry & Application 1/2

(Consolidated) in million yen

		FY20	15			FY20	016			FY2017(Plan)	
Application	March	S	eptembe	r	March	S	eptembe	r	March	Se	ptember	
	1st Half	2nd Half	Year	%	1st Half	2nd Half	Year	%	1st Half	2nd Half	Year	%
Medical Instrument	23,452	21,464	44,916	37.2	23,272	22,414	45,686	37.5	22,611	23,233	45,844	37.4
Nuclear Medical Instrument (X- CT, PET, Gamma Camera, Dental Imaging)	17,687	16,184	33,871	28.1	18,094	17,561	35,656	29.3	17,589	17,995	35,584	29.0
Medical Inspection (DNA, Blood Analyzer)	4,924	4,470	9,394	7.8	4,400	4,185	8,585	7.0	4,425	4,624	9,049	7.4
Other Medical Instrument	841	810	1,651	1.4	776	668	1,445	1.2	596	614	1,211	1.0
Industrial Instrument	14,969	15,048	30,017	24.9	15,824	16,213	32,037	26.3	15,008	16,362	31,370	25.6
Semiconductor Instrument (Failure Analysis, Stealth Dicing)	7,365	7,079	14,444	12.0	7,724	7,745	15,470	12.7	6,736	7,069	13,805	11.3
Non Destructive Testing	4,377	4,456	8,833	7.3	4,923	5,115	10,038	8.2	4,966	5,721	10,687	8.7
Factory Automation Instrument (UV Cure, Robotic Encorder)	2,371	2,643	5,014	4.2	2,104	2,433	4,537	3.7	2,339	2,591	4,930	4.0
Other Industrial Instrument (Bank Note Identification)	856	870	1,726	1.4	1,072	920	1,992	1.6	967	981	1,948	1.6
Analytical Instrument : Material, Water, Environment	8,021	7,959	15,980	13.2	8,168	6,799	14,967	12.3	7,047	7,377	14,423	11.8
Academic Research: Neutrino/Dark Matter Detection	3,840	2,285	6,125	5.1	3,576	2,451	6,027	4.9	3,864	3,221	7,086	5.8
Exchange Rates	actual		actual		actual		actual			assump	tion	
1 US dollar (yen) 1 euro (yen)	116.73 138.47	-	119.32 136.78		118.39 130.05	-	111.77				100.00	



Sales by Industry & Application 2/2

(Consolidated) in million yen

		FY201	5			FY201	6			FY2017(P	lan)	
Application	March	Se	ptember		March	Se	ptember		March	Sep	tember	
	1st Half	2nd Half	Year	%	1st Half	2nd Half	Year	%	1st Half	2nd Half	Year	%
Measuring Instrument: Radiation Monitoring, Oil Well Logging	3,989	3,397	7,386	6.1	3,025	2,602	5,627	4.6	2,885	2,943	5,828	4.8
Transport Instrument: Automobile Sensor,Auto-LAN, ITS	2,167	2,121	4,288	3.6	2,513	2,448	4,961	4.1	2,356	2,197	4,553	3.7
Information/Communication: Optical Communication, Computer Storage,Communication Equipment	873	750	1,623	1.3	829	955	1,784	1.5	936	1,069	2,006	1.6
Optical/Photographic Instrument: Laser Microscope	1,162		·									
Consumer Instrument: Audio Link,Auto-dimming	293	245	538	0.4	264	328	593	0.5	539	405	944	0.8
Others/Not Classified	3,464	4,163	7,627	6.3	4,247	3,683	7,931	6.5	4,148	4,140	8,288	6.8
Total	62,229		120,691	100.0	62,843	59,009	121,852	100.0	60,500	62,000	122,500	100.0
Exchange Rates	actual		actu	ıal	actual		actu	ıal	assumption			
1 US dollar (yen)	116.73	-	119.32		118.39	-	111.77				100.00	
1 euro (yen)	138.47	-	136.78		130.05	ı	124.02				110.00	



High-Energy Physics Experiments using Photomultiplier Tubes

	Project Name	Purpose	Place	Expected year of first delivery	number
	Hyper-Kamiokande	Neutrino,Proton Decay	Japan	2018	82,000 14,000
Underground	LZ7(7t)/SURF	Dark Matter	USA	2016	460 240
	JUNO(Daya Bay II)	Neutrino	China	2016	5,000
Door oo	KM3NeT	Neutrino	Europe	2014	175,000
Deep-sea	Baikal-GVD	Neutrino	Russia	2015	10,000
Ice	IceCube-PINGU	Neutrino	Antarctica	2017	75,000
experiment	IceCube-HEX	Neutrino	Antarctica	2018	240,000
Ground- surface	СТА	Gamma-Ray Space Telescope	Southern and Northern Hemisphere	2015	96,000
Space	K-EUSO	Extreme energy cosmic ray particle	ISS	2017	2,000
Accelerator	RICH/LHC-B/CERN	Collision experiments (Higgs)	Europe	2016	3,550
experiment	RICH/CBM/GSI	Fixed target experiment	Europe	2015	1,100





Established in 1953





appearance

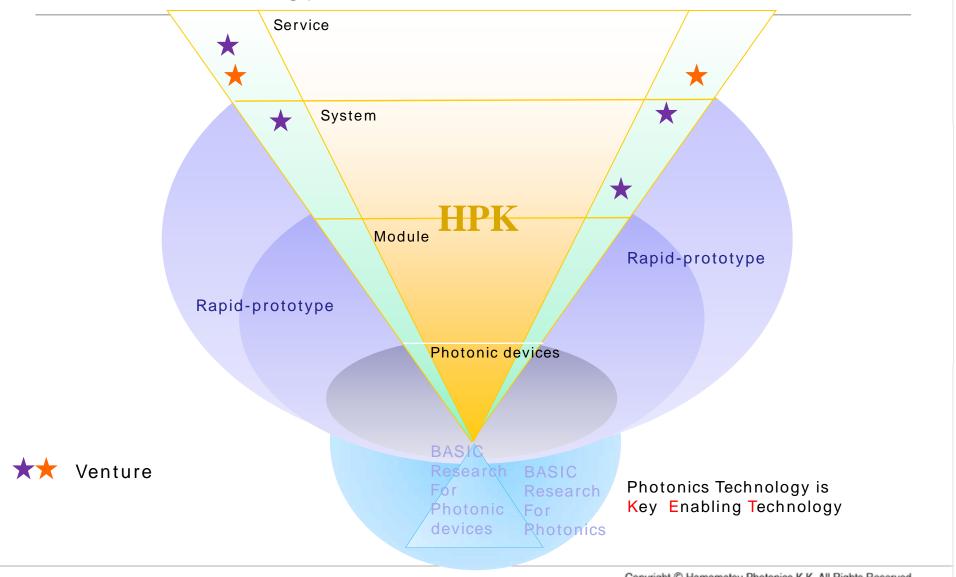


G5E early product

production

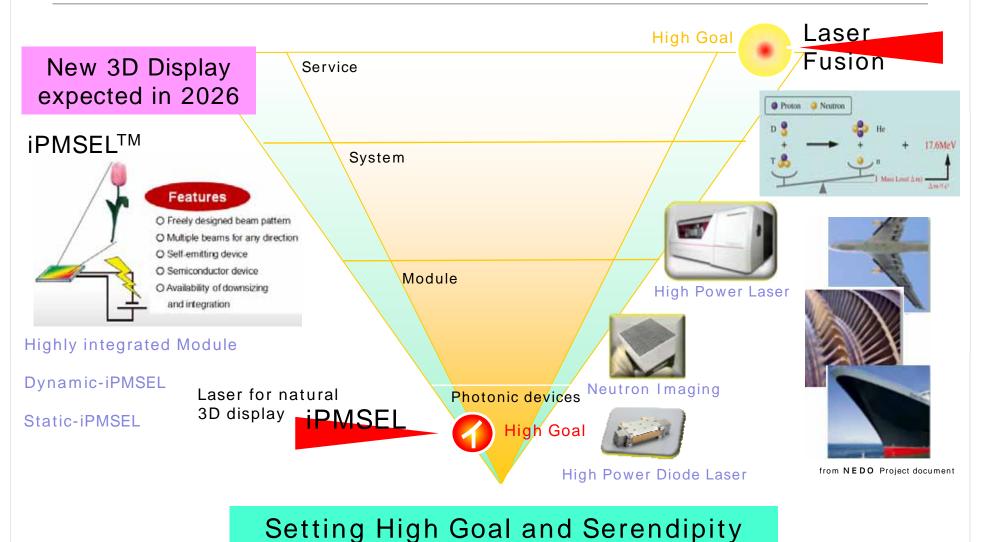


Structure of Industry using Photonics Technology & Strategy of Hamamatsu Photonics





Pursuit of Photonics Technology





Compact high power laser applications

Automotive

- CFRP processing Lightweight materials
- High capacity EV battery
- · Laser induced ignition
- Laser surface texturing

Aerospace

- Laser shot peening
- Space guard
- Laser propulsion

Architecture

- Non destructive inspection
- Building demolition



Semiconductor

- High definition LCD
- Wafer dicing
- Power semiconductor device

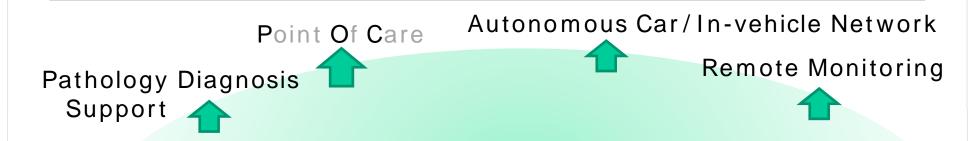




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Internet of Things: IoT



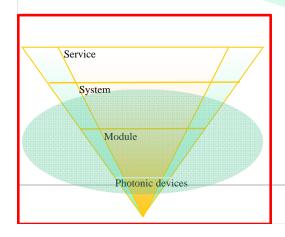
Sensor Network

Machine Learning/Deep Learning

Smart Measurement Device

Wearable

SmartPhone









Topics in Divisions







High-Energy Physics Experiments using Photomultiplier Tubes

	Project Name	Purpose	Place	Expected year of first delivery	number
	Hyper-Kamiokande	Neutrino,Proton Decay	Japan	2018	82,000 14,000
Underground	LZ7(7t)/SURF	Dark Matter	USA	2016	460 240
	JUNO(Daya B	使是第三百万 。		2016	5,000
Doop ooo	KM3NeT			2014	175,000
Deep-sea	Baikal-GV			2015	10,000
Ice	IceCube-PII			2017	75,000
experiment	IceCube-H			2018	240,000
Ground- surface	СТА			2015	96,000
Space	K-EUSO	Extreme energy cosmic ray particle	ISS	2017	2,000
Accelerator	RICH/LHC-B/CERN	Collision experiments (Higgs)	Europe	2016	3,550
experiment	RICH/CBM/GSI	Fixed target experiment	Europe	2015	1,100



Development of Image Pickup Tube

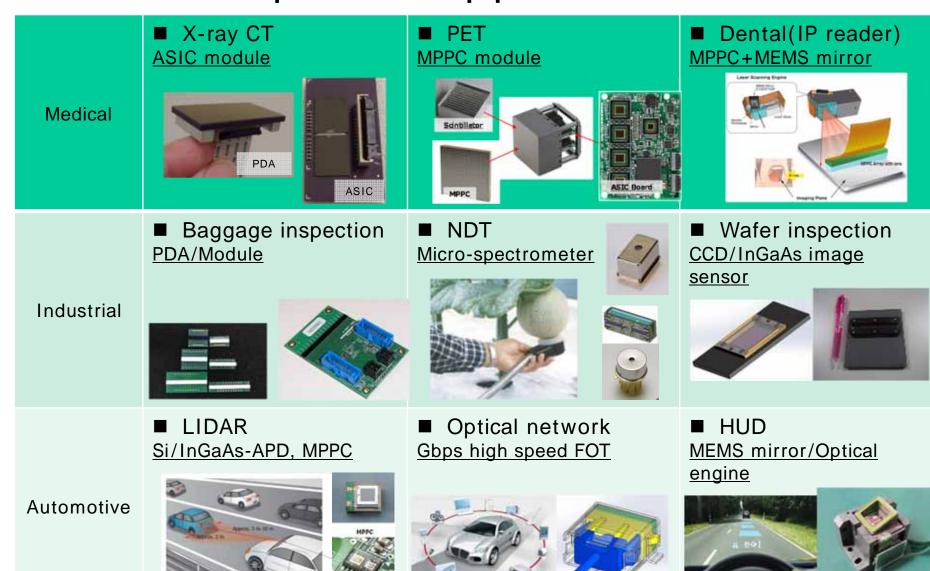
"Image Pickup Tube" is the only solution to satisfy the required specifications for Nuclear Decommissioning Camera



Image Pickup Tube







Future of Optical Semiconductors



Optical Device Technology

Si, III-V compound PD, APD, Image sensor, LED High speed, High sensitivity, High output

Assembly Technology

Flip Chip Bonding Passive Alignment Package

Integrated Circuit

PIC, ASIC, ADC FPGA, USB

MEMS Technology

TSV, Si-bench, Waveguide Actuator

Design Technology

Optical device, Lens, Filter Circuit, Package



Scientific Grade Digital Cameras

Develop the ultra low noise CMOS image sensors and cameras



Hamamatsu scientific grade digital cameras have a large market share in the microscopic imaging market.

Hamamatsu continues to develop the CMOS images sensors superior to competitors in performance and expand the market share further.



Towards Automated Pathology Diagnosis

Develop the ultra high speed scanners for clinical applications seeking to acquire the FDA approval









NanoZoomer SQ

S60

S210

XR

Digitizing the pathology workflow is rapidly advancing and the automated diagnosis by means of image analysis or machine learning are expected to grow.

Hamamatsu establishes the top vendor position for the pathology digital scanners.



From Memory IC to Logic IC

Develop the dynamic failure analysis system using ultra high speed time-resolved measurement for logic IC market



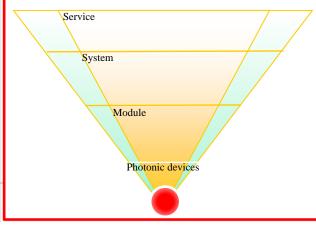
The Phemos semiconductor failure analysis systems have a large market share in Asia for the static analysis of the memory IC at the final production processes.

Hamamatsu develops the dynamic failure analysis, necessary for designing and debugging, and expand the market share by providing the systems adapted to the front-end to back-end processes for IC production.



Investment for Sustainable Growth





Compound Semiconductor Devices Fab. at Miyakoda Factory to be completed in Autumn 2017



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