VISUALIZE THE FUTURE

DMP
DIGITAL MEDIA PROFESSIONALS

Fiscal Year Ended March 31, 2019

Results Briefing

Digital Media Professionals Inc.

Tuesday, May 14, 2019

1 **Explanation of Results, Fiscal Year Ended March 31, 2019**

2 **Business Forecast, Fiscal Year Ending March 31, 2020**

3 **Priority Measures and Blueprint for Future Growth**

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Operating Environment of the Company

Semiconductor Industry Trends

- The semiconductor market, which slumped in the second half of 2018 due to various temporary factors, such as US-China frictions, slumps in sales of new models of iPhone, Intel 10n line start up delays, and the backlash to excessive investment in data centers due to Trump tax cuts, is expected to bottom out in mid-2019 and recover.

- The market growth of data centers, cars, and industrial equipment along with the spread and expansion of AI, IoT, and 5G, are driving demand for semiconductors.

- Volume of data generated by manufacturing industry, etc., has rapidly increased and thus edge computing, which can efficiently process data, has accelerated. Low power consumption, short delays, and cost efficiency are the key.

- Self-development by large IT vendors and set vendors of domain specific semiconductors optimized for their apps is active. FPGAs and ASICs are used a lot.

- Demand for FPGAs for cloud and data centers is on the rise. Xilinx leads the market.

Key Points of Results

● **Sales increase in LSI business made up for decrease in royalties income**

LSI business	Sales	¥364 million	YoY change	+¥214 million

- ● Contribution of increase in shipping volume of graphics processing LSI "RS1" and commencement of shipping FPGA with on-board ZIA

IP core license business	Sales	¥230 million	YoY change	-¥96 million

- ● Decrease in running royalties from game console customers

- ● Multiple execution of new license contracts of ZIA edge AI IP "DV series"

Professional services business	Sales	¥491 million	YoY change	-¥6 million

- ● Increase in sales from AI-related projects (software, algorithms development, etc.)

- ● Stripping of previous fiscal year's additional revenue from NEDO* for accelerating power-saving AI engines project

NEDO: New Energy and Industrial Technology Development Organization

Key Points of Results

Though the initial plan was not achieved,

revenue increased due to steady shipment of LSI and growth of the AI business

Transformation of business portfolio aimed at growth has greatly progressed

(Unit: million yen)	FY 03/2018	FY 03/2019	Increase-decrease amount
Net sales	973	**1,086**	**113**
Operating income	69	**28**	**-41**
Ordinary income	66	**33**	**-33**
Net income	109	**35**	**-74**

Decrease in income due to decrease in sales from IP licensing business, which is relatively profitable

Balance Sheet

## Sound financial condition has been maintained

(Unit: million yen)	End of March 2018	End of March 2019	Increase-decrease amount
Current assets	1,774	**2,063**	**289**
Non-current assets	346	**320**	**-26**
Total assets	2,121	**2,383**	**262**
Current liabilities	228	**366**	**138**
Non-current liabilities	18	**18**	**0**
Total liabilities	247	**385**	**138**
Total net assets	1,873	**1,998**	**125**
Total liabilities and net assets	2,121	**2,383**	**262**

Topics - Expansion of ZIA Platform

Full set of ZIA software, IP, and module products

Launch of ZIA DV500 AI Processor IP sales (announced on April 25, 2018)

Launch of ZIA C2/C3 edge AI module sales (announced on September 18, 2018)
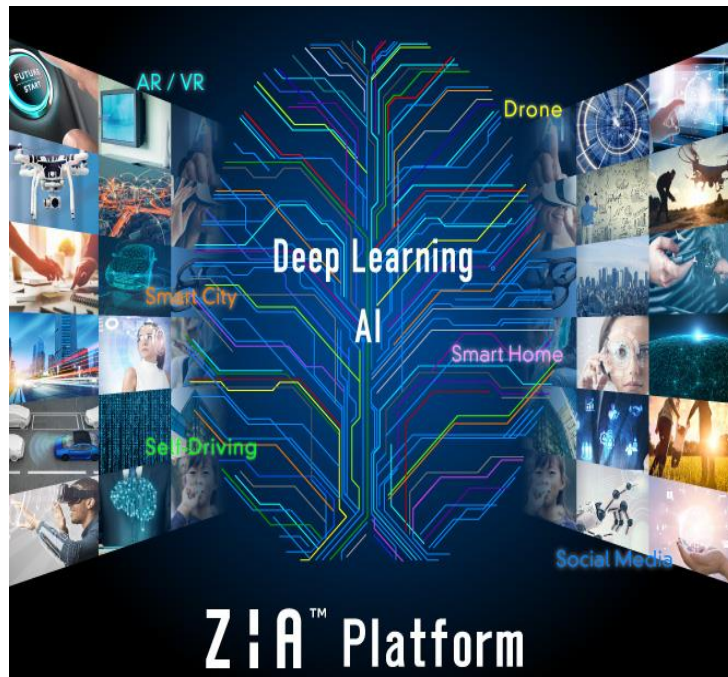
Software Product

ZIA™ Classifier — **Image classification engine**

Hardware IP Products

ZIA™ DV700 — **AI processor for edge computing**

ZIA™ DV500 — **Small size AI processor for edge computing** **NEW**

Module Products **NEW**

ZIA™ C2   ZIA™ C3

# Topics - Launch of IP New Product Sales

ZIA DV500 AI Processor IP

Ultra-small AI processor specializing in object recognition

Optimized for scene understanding and object recognition for industrial equipment and automobile driving assistance systems
→ Size reduction achieved while maintaining high processing performance

Adoption example: UKC smart mirror (CMS)

Watch out for bicycle

A car is approaching
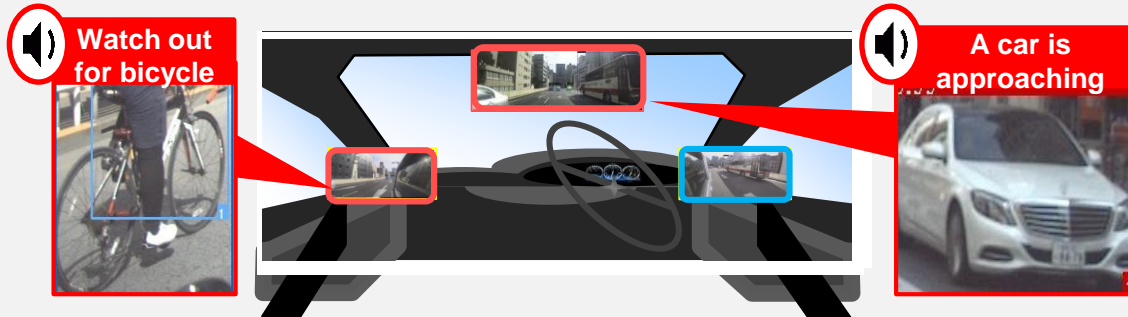
Automatic recognition and warning of humans, bicycles, cars, etc.

- **No restriction of field of vision by luggage in vehicle or vehicle body**
- **Not affected by weather and provides greater visibility than regular mirrors**

International Automotive Electronics Technology Expo
UKC Holdings Booth (January 2019)

Topics - Launch of Module Products Sales

ZIA C2/C3 edge AI module

AI processors for edge computing utilizing FPGA with on-board DV700

- Compact, low power consumption and high performance AI inference processing module, mounting DMP DV700 to FPGA

- Mount Intel FPGA and Xilinx FPGA to cover industry-leading FPGAs

- DMP DV700 AI processor IP
- FPGA: Intel Arria (C2), Xilinx Zynq (C3)
- Dual core ARM processor
- 2GB main memory / 16GB flash memory
- Dimensions: 90 mm x 90 mm

Main features

Flexibility
Hardware can be updated

Advanced AI inference processing
High performance and accuracy with "ZIA™ DV700"

High usability
Supports Caffe and Keras AI development frameworks

Power-conserving and fanless
No need for cooling fans, which tend to fail and restrict structural design

Long-term supply
Module utilizes FPGAs with sold track records of long-term supply for industrial equipment

Topics - Partner Collaboration

Collaboration with PALTEK

Collaboration on edge AI solution utilizing Xilinx FPGA (August 2018)

Distributorship agreement signed for ZIA C3 (November 2018)

- Support development of FA cameras, robots, construction machinery, agricultural machinery, inspection equipment, medical equipment, etc., with integrated ZIA C3 AI

Technical collaboration with Macnica and Cross Compass (September 2018)
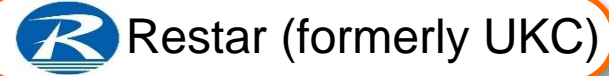
Provision of integrated solutions for manufacturing industry from AI generation to edge AI implementation

- Support "Manufacturing-IX", integrated AI environment for manufacturing industry designed by Cross Compass, with ZIA C2/C3
- Establish edge AI systems in a short period of time in a wide range of fields, such as factory automation, autonomous robots in distribution, and healthcare

Topics - Establishing AI Ecosystems

DMP AI ecosystem

DMP AI portfolio

System development partner
Restar (formerly UKC)

Module sales partners
PALTEK SOLUTION SUPPLIER
macnica

IP Core Product
ZIA™ DV500/DV700

RISC-V processor
Internal Memory
Convolution
Max/Average Pool.
Activation Func.
Output Cont.
Fully Connected
AXI interconnect
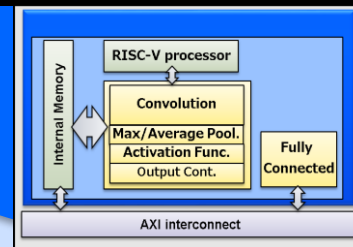
Module Product
ZIA™ C2/C3

Software Product
ZIA™ Classifier

Object Recognition / Classification
Deep learning inference engine
Learned model
Computer vision
Optimized library

AI solution partners
XC
Morpho
ACCESS™

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Business Forecast

- **Net sales will increase with increase in RS1 sales volume and expansion of AI products and services**
- **Profits will level off due to increase in personnel for strengthening development system**

(Unit: million yen)	FY 03/2019 (Actual)	FY 03/2020 (Forecast)	YoY change	
			Increase-decrease amount	Increase-decrease rate (%)
Net sales	1,086	**1,300**	**214**	**19.6**
Operating income	28	**30**	**2**	**3.6**
Ordinary income	33	**30**	**-3**	**-9.9**
Net income	35	**20**	**-15**	**-43.1**

Sales of ¥172 million from development commissioned by NEDO are included in net sales for fiscal year ended March 31, 2019

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Priority Measures

Expanding RS1 Business

- Supporting launch of customers' products shipped to pachinko parlors from this fiscal year
- Promoting multi-platform strategy, including for arcade games
- Expanding sales aimed to become industry-standard platform through collaboration with channel partners

Expanding Portfolio and Sales of AI Products

- Strengthening line-up of ZIA hardware IP and software products
- Developing high value-added module products
- Expanding ecosystem with partner companies and strengthening capacity to provide solutions

Strengthening Collaboration with Customers and Cultivating Specific Fields

- Developing autonomous driving and automation systems in the mobility field
- Developing labor-saving and automation systems in the industrial equipment and robotics fields

Now Producing in Volume and Shipping RS1
Next-Generation Graphics Processor

- **Large customers start shipping products to pachinko parlors from this fiscal year**
- ・Aiming to be the market leader by the industry's first integrated pachinko/pachislot chip
- ・Supporting multi-platform including for arcade games

Industry Trends

- The "Entertainment and Amusement Trade and the Implementation Rules for the Entertainment and Amusement Trades Rationalizing Act" took effect in February 2018, and 2019 is a transition period to new regulation (type 6) machines.

- Replacement demand to new regulation machines is expected along with the removal of previous regulation (type 5) machines by expiration of certification in January 2021. However, introduction to pachinko parlors of game machines is expected to temporarily stagnate due to the Olympics and Paralympic Games being held in summer of 2020.

Expanding AI Products Portfolio

Strengthening of ZIA AI processor IP, module, and software product

IP Core Product

ZIA™ DV500/DV700
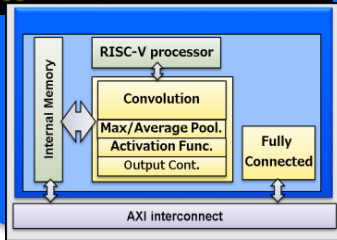
Compact and high performance **AI inference processor IP** that uses deep learning

Application
- AI-integrated camera SoC
- Autonomous driving SoC

Module Product

ZIA™ C2/C3

Flexible and low power consumption **AI inference processing module**, mounting DMP DV700 to FPGA

Application
- Industrial machinery
- Robotics
- Medical equipment

Software Product

ZIA™ Classifier

Self-developed and advanced **image recognition / classification engine** based on AI and image-processing technology

Application
- Driver monitor system
- Analysis of near misses
- Medical diagnosis

Initiatives

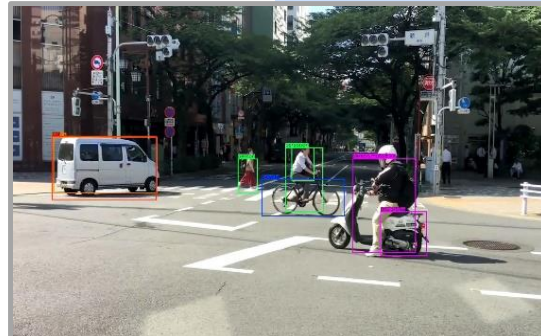Improve functions and performance, enhance line-up

Develop products with high added value, such as products with integrated cameras

Expand applications by strengthening AI functions

Software Product:
Broadening Application of ZIA Classifier

Driver Monitoring System

Smart mobility with a smile
Sumitomo Mitsui Auto Service

Outside-Car Surveillance System

Company A: Analysis of near-miss images

ZIA™ Classifier

Deep learning inference engine

Learned model

Computer vision

Optimized library
(OpenCV OpenVX Photography Vision)

Smartly recognize and classify images by making full use of deep learning and computer vision

Medical System

Company B: Anonymization of personal information

Construction Machinery / Agricultural Machinery

Automatic running and picking on trails

AI EXPO TOKYO 2019

April 3-5, 2019 at Tokyo Big Sight

7 partner companies exhibited various applications that use ZIA C3
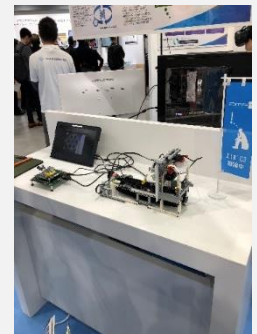
PALTEK	NTT COMWARE	Morpho	Cross Compass	Rist	Crystal-Method	Computermind

Visual inspection	Cloud-linked learning	Travel-route assessment	Predictive maintenance	Clothing inspection	Human detection	Visual inspection

Jointly exhibited

Business and Capital Tie-Up with Yamaha Motor

Collaborating in the final commercialization process from developing algorithms by applying AI technology through to mounting on products

- Development of automatic / self-controlled driving systems in low speed areas

- Development of labor-saving and automation systems in agricultural areas, etc., that use robotics technology

- Development of advanced safe driving support systems for all mobility products

Development of systems optimized for each product domain of Yamaha Motor by using DMP's AI algorithms, software, and hardware technology

Algorithms

Optimization for each product domain

Hardware   Software

Blueprint for Future Growth
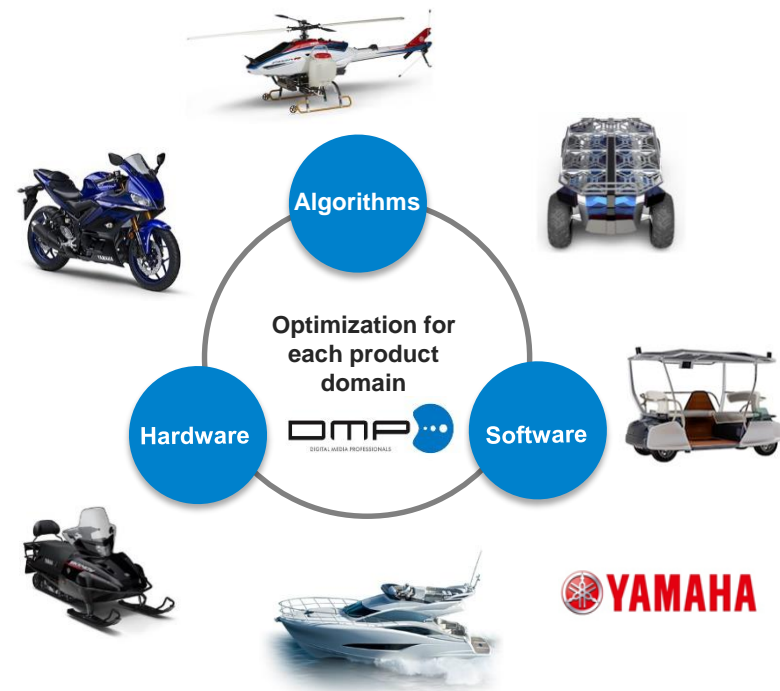
Evolve into the world's leading "AI Computing Company"
Integrated development of AI algorithms, software and hardware
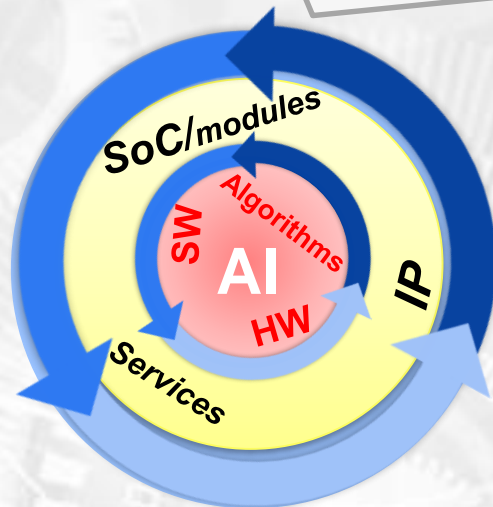
Expansion into the growing IoT/AI field

SoC/modules
Algorithms
SW
AI
HW
IP
Services

Development of ZIA platform
- Processor IP
- Software
- Modules
- Strengthening of ecosystem with partners
- Overseas expansion

AI solutions for Mobility / Industry
- Autonomous driving
- Robotics

Expansion of the SoC / Module Business
- High value-added modules
- High-volume AI products

Stable management foundation in the amusement market where we can win

Expand sales of RS1

Aiming for top share in amusement SoC

Current position

Phase 1   Phase 2   Phase 3

<Inquiries>

Digital Media Professionals Inc. Corporate Planning Department

Tel. +81-3-6454-0450

URL: https://www.dmprof.com/en/ir/

Forward-looking statements contained within this document are based on currently available information and involve risks and uncertainties, including macroeconomic conditions and trends in the industries in which we are engaged. As such, actual results may differ materially from those anticipated.