

# **First Half Results for Fiscal Year 2018 (Ended March 31, 2018)**

**Nihon Dempa Kogyo Co., Ltd.**

**November 10, 2017**

**【Note】**

Statements made in this presentation with respect to our current plans, estimates, strategies and beliefs and other statements that are not historical facts are forward-looking statements about our future performance. These statements are based on management's assumptions and beliefs in light of information currently available to it. We caution that a number of important risks and uncertainties could cause actual results to differ materially from those discussed in the forward-looking statements, and therefore you should not place undue reliance on them. You also should not rely on the belief that it is our obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Risks and uncertainties that might affect us include, but are not limited to, fluctuation of currency exchange rates, overall supply and customer demand in the industry, product development and production capacities, performance of affiliated companies, and other risks and uncertainties.

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**Presented by Hiromi Kato,  
Director and Executive Vice President**

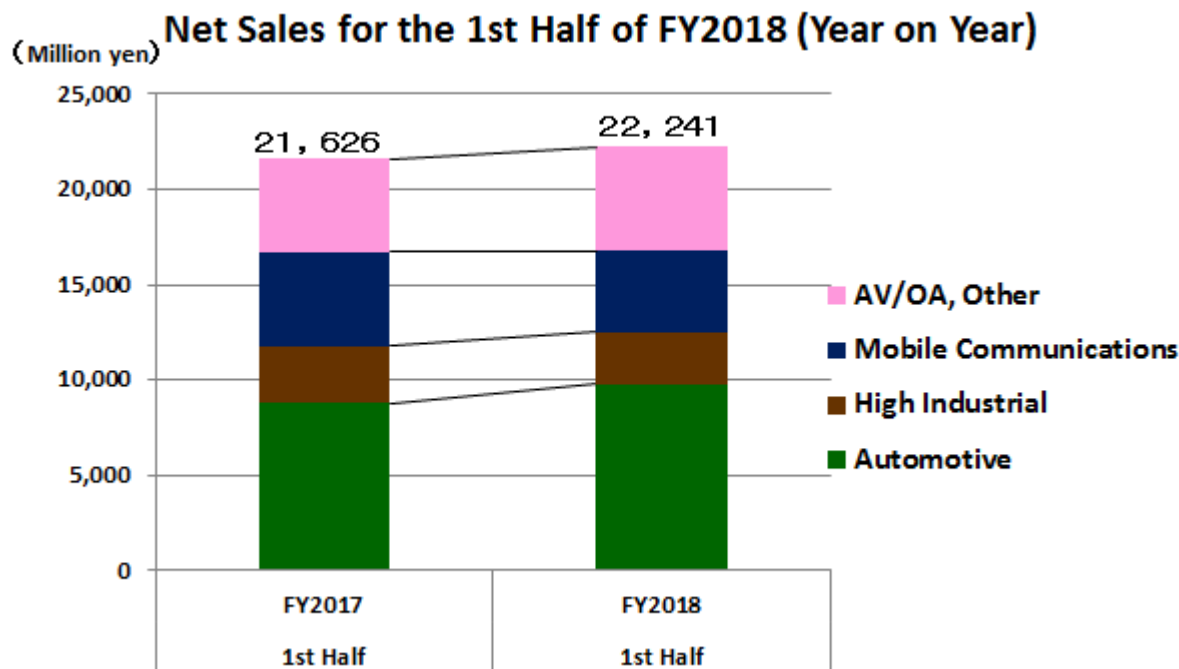
# Summary of Performance in FY2018







(Million yen)

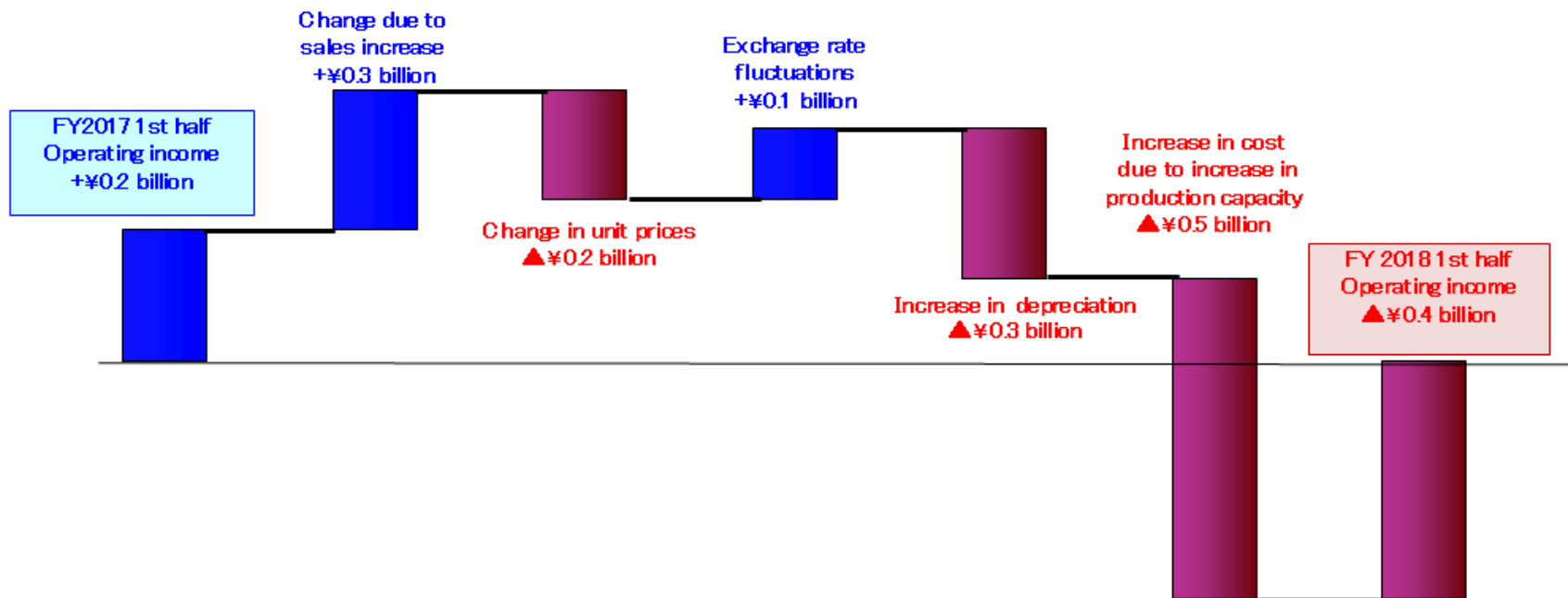
	①	②	③	③ - ①	③ - ②
	FY2017 1st Half Results	FY2018 1st Half Outlook as of May 12	FY2018 1st Half Results	Change YoY	Change from Outlook as of May 12
Net Sales	21,626	24,200	22,241	615	▲ 1,959
Operating Income	229	300	▲ 396	▲ 625	▲ 696
Income before Tax	113	250	▲ 408	▲ 521	▲ 658
Net Income	72	200	▲ 546	▲ 618	▲ 746
Total Comprehensive Income	▲ 1,612	-	▲ 85	1,527	-
Exchange Rate (against U.S. dollar)	¥106.43	¥108.00	¥111.42	¥4.99	¥3.42

# FY2018: Net Sales for the First Half-year



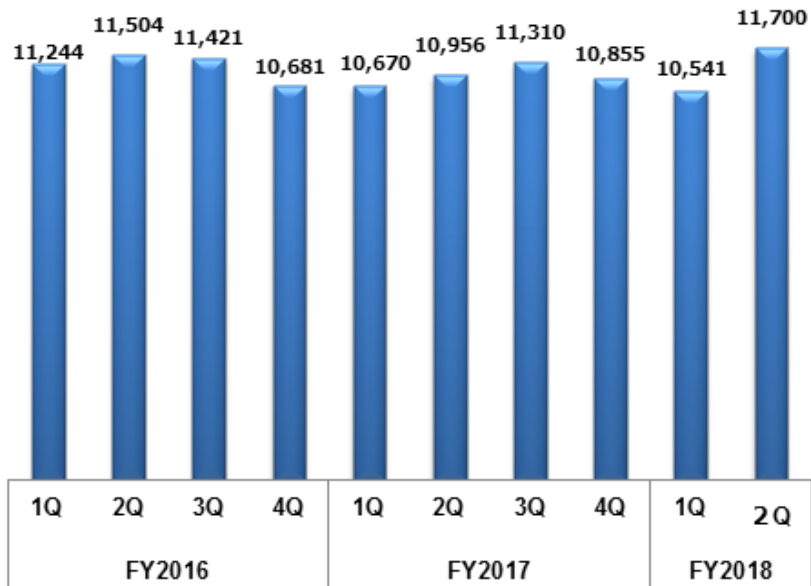
Automotive		Sales to ABS/ESC, air bag, in addition to devices related with ADAS such as automotive camera, increased year on year.
High Industrial		Sales decreased year on year because demand for crystal products for mobile communications base stations was weak, owing to the upcoming shift to 5G mobile communications systems.
Mobile Communications		Sales decreased year on year because sales to Chinese smartphone manufacturer were below than expected, despite sales to 1612-size TCXOs & crystal units incorporating thermistors for the cutting edge smartphones increased year on year.
AV/OA, Other		Sales to PCs, games and short range wireless increased year on year.

# Profit Variation Analysis (FY2017→FY2018)

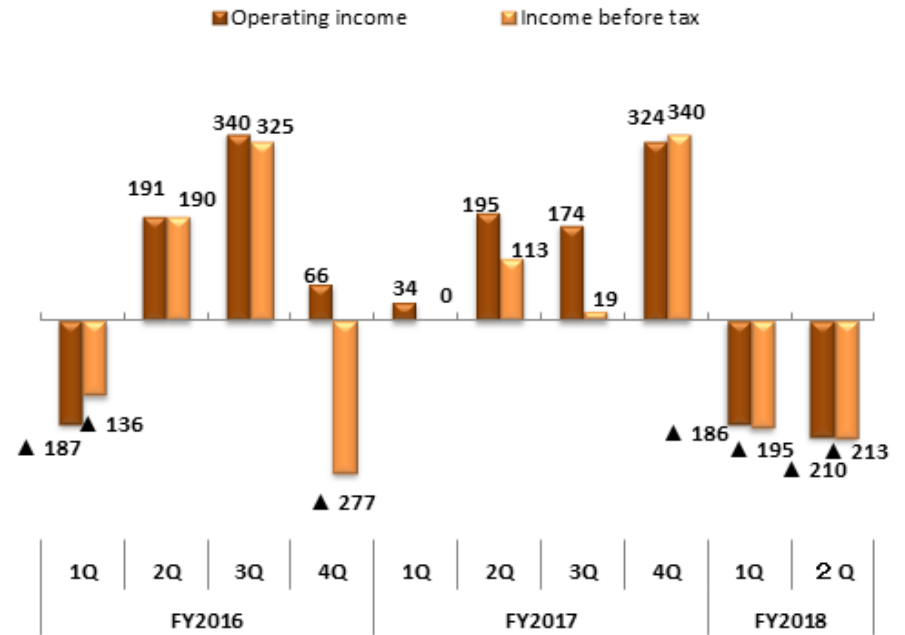


# Quarterly Results

### Net Sales (Million yen)

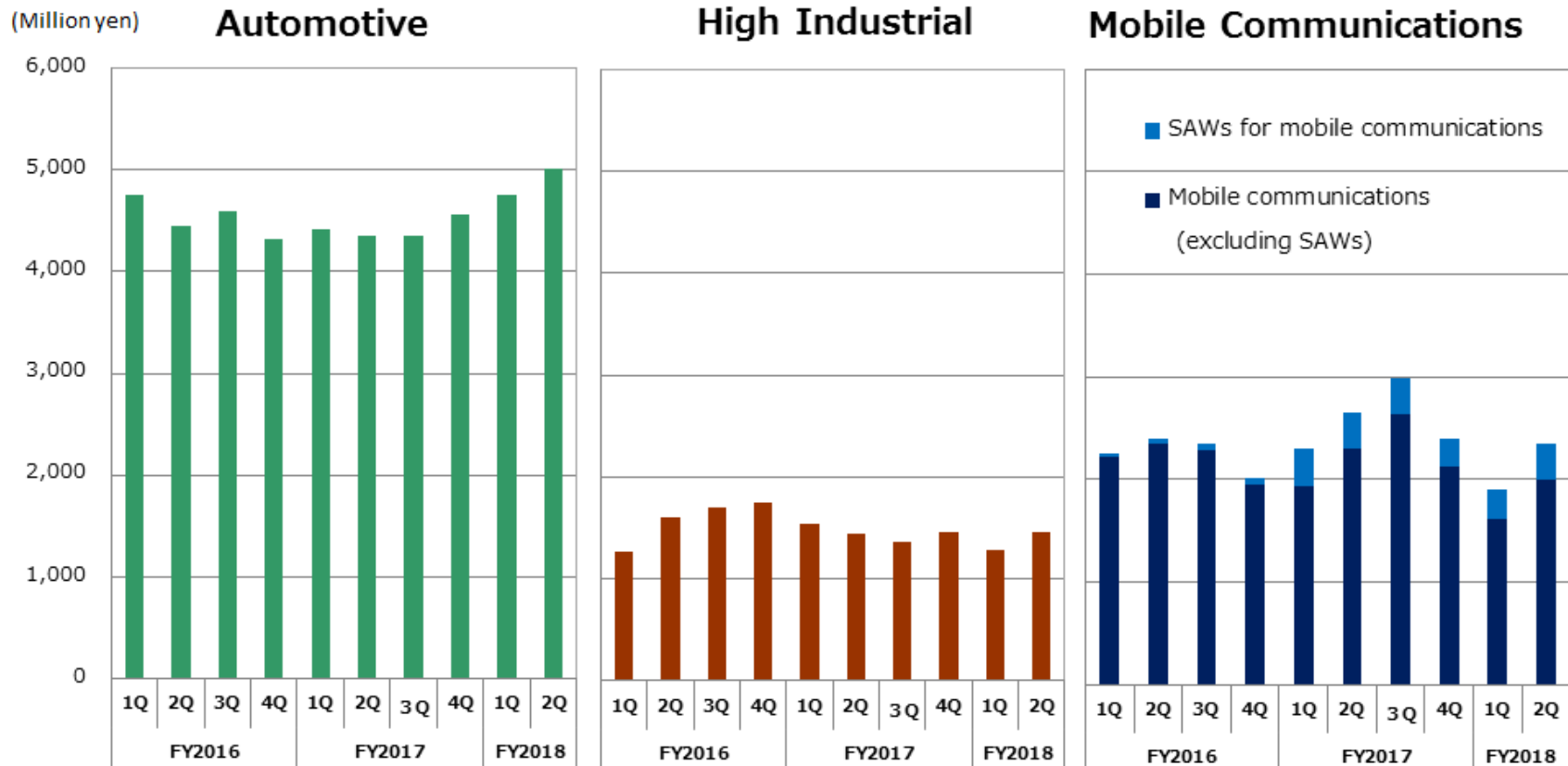


### Profit (Million yen)



# Sales Trends in Main Applications

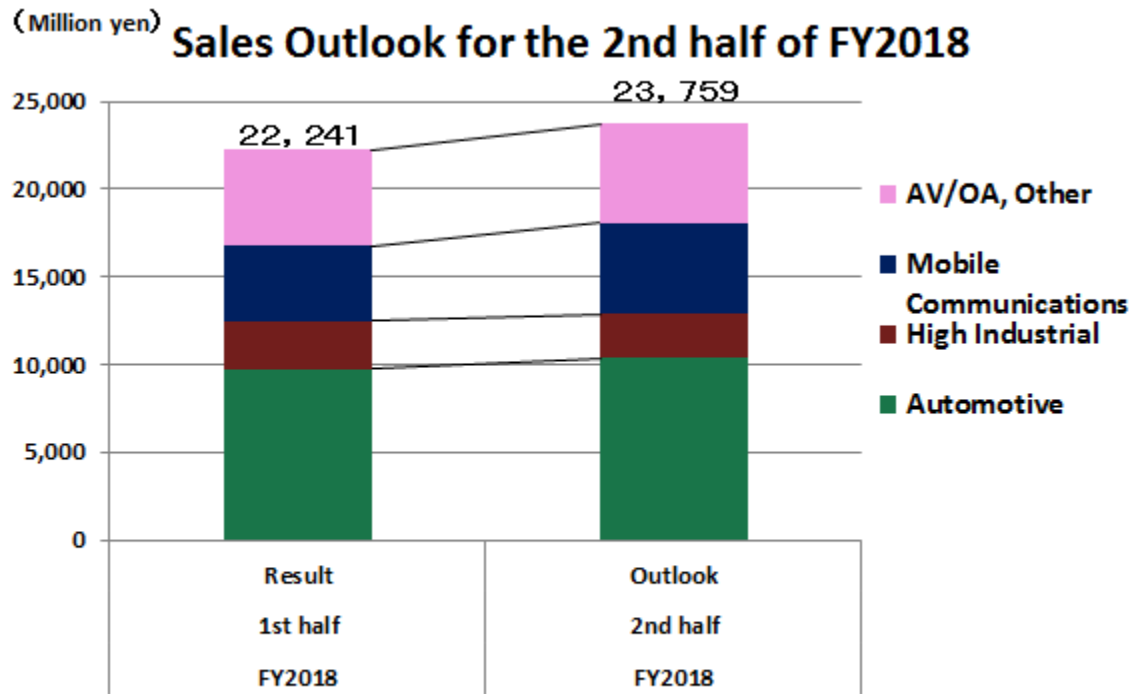
- Automotive : Sales expanded in the second quarter of FY2018, because of a rise in ADAS sales.
- High industrial : Sales expanded in the second quarter of FY2018 along with a rise in sales of products for high-value-added aerospace and special equipment.
- Mobile Communications : Sales expanded in the second quarter of FY2018, because of a rise in cutting-edge smartphones sales.



1. FY2018 First Half Results
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# FY2018 Full Year Outlook



(Million yen)

	FY2018	FY2018	FY2018
	1st Half Results	2nd Half Outlook	Full Year Outlook
<b>Net Sales</b>	22,241	23,759	46,000
<b>Operating Income</b>	▲396	1,046	650

# FY2018 Full Year Outlook

	(Million yen)		
	FY2017 Full Year Results	FY2018 Full Year Outlook as of May 12	FY2018 Full Year Outlook as of October 31
Net Sales	43,791	50,000	46,000
Operating Income	727	1,500	650
Income before Tax	472	1,400	600
Net Income	611	1,100	400
Income before Tax Ratio	1.1%	2.8%	1.3%
Capital Investment	6,731	7,000	6,500
Exchange Rate (against the U.S. dollar)	¥109.03	¥108.00	¥110.00

## <Reference>

Influence on net sales (annual): ¥1 fluctuation ⇒ approx. ¥200 million

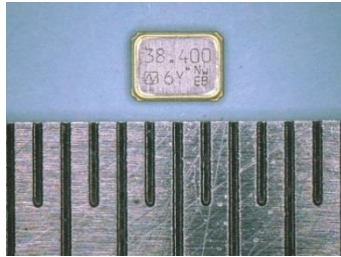
Influence on operating income (annual): ¥1 fluctuation ⇒ approx. ¥50 million

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# Mobile Communications Market

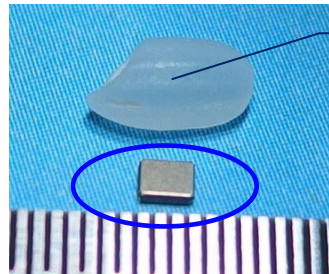
**Take Advantage of Ultra-miniature Processing Technology to Realize a High Level of Precision and Reliability**

1612-size crystal units  
incorporating thermistors



Scale of 0.5mm

1612-size TCXOs



Grain of rice

Scale of 0.5mm

1210-size crystal units



**The world's smallest**

1210-size crystal units  
Incorporating thermistors



Scale of 0.5mm

**The world's smallest**

1210-size TCXOs



1008-size crystal units



Mass production  
beginning in FY2019

Mass production  
beginning in FY2019

Mass production  
beginning in FY2019

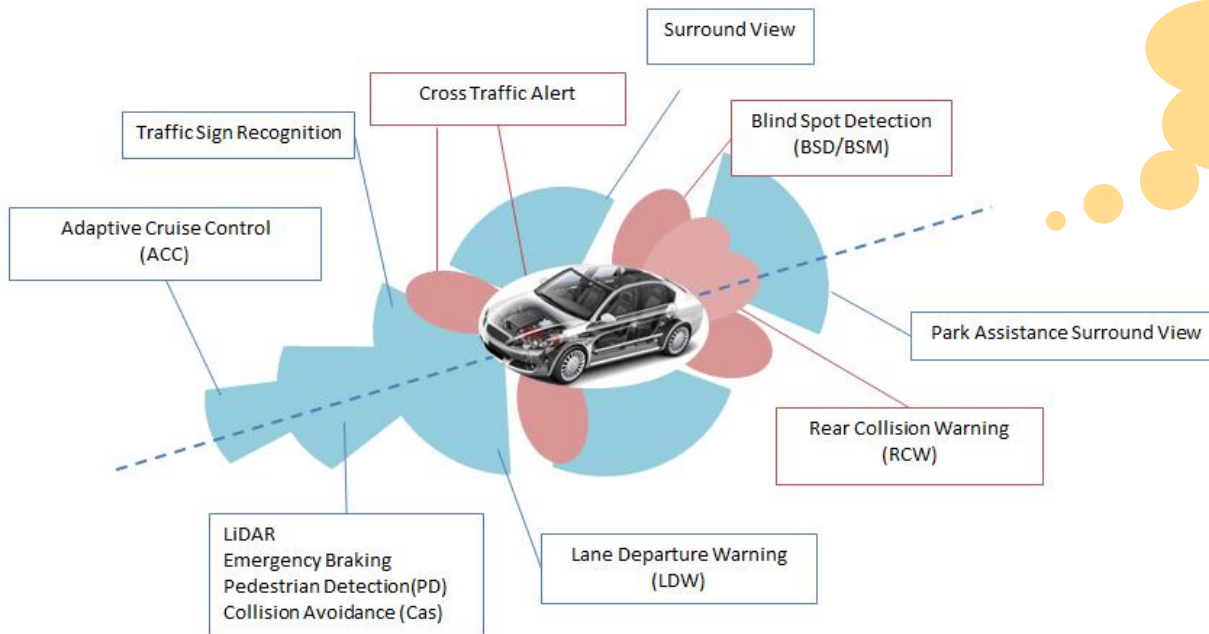
# Automotive Market

## NDK will focus on Car Electric Components and ADAS that will Steadily Increase

Electric components : TPMS installation is expected to become mandatory in China

Equipment of ADAS into low-end cars will accelerate (now equipped mainly into high-end cars)

The number of cameras and radars equipped with ADAS will increase significantly



**High frequency  
Clock Oscillators for  
millimeter-wave radars**



**Under development**

# High Industrial Market

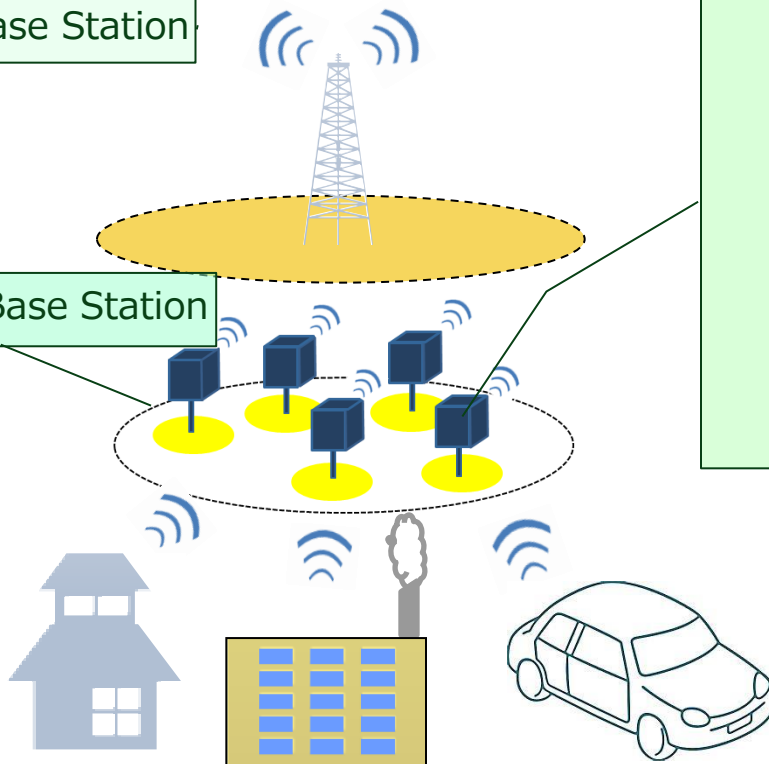
## Promote Development of New Products for 5G

Demand for 5G base station will increase from FY2019

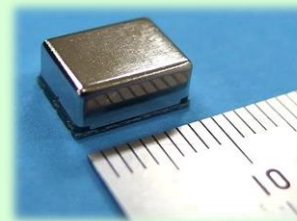
Small Cell Base Station for 5G will be developed

Macro Base Station

Small Sell Base Station



Respond to needs for  
small OCXOs  
high quality TCXOs



【9\*7mm OCXOs】  
Ultra-compact and  
activation feature



【High quality TCXOs】  
Wide-range  
temperature

**We look forward to your continuing support in the years ahead.**

**Thank you**

**For investor relations related inquiries,  
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