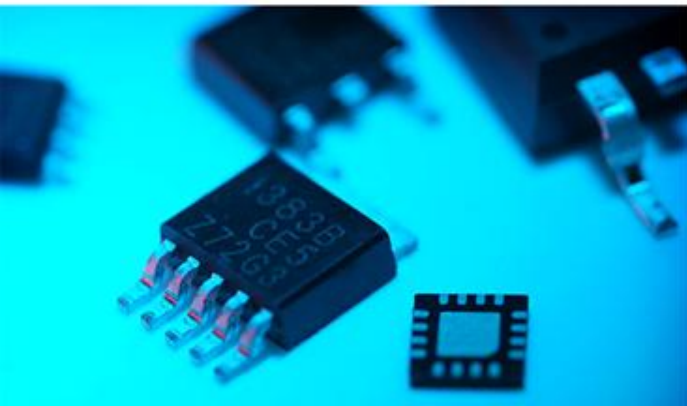




# AIC Solutions for Smart Medical



# Agenda

- Market Status & Trend
- Market Forecast
- Supply Chain (Core chip, IDH, Key player)
- New Product Feature
- Application Power Block
- Power Solutions
- Product Roadmap
- Promotion Strategy

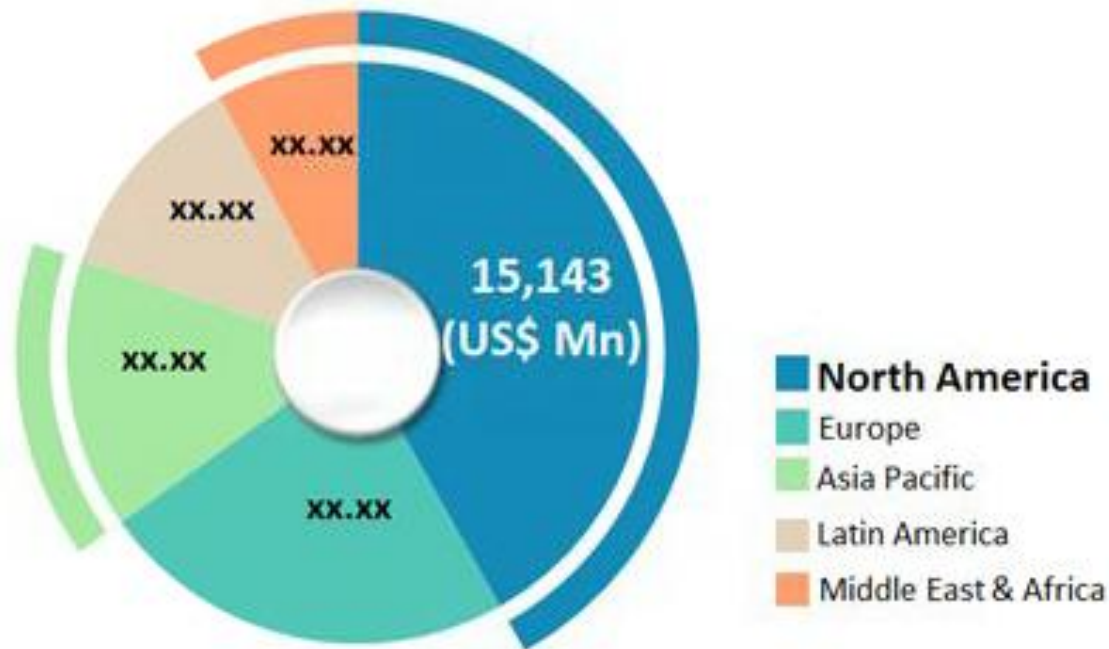
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- • **Market Status & Trend**
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# Market Status & Trend

## Global Smart Medical Devices Revenue By Region, 2016 (US\$ Mn)

2016 – 24 at a  
CAGR of 7.8%



Source: TMR Analysis, 2016

# Market Status & Trend

- Pulse Oximeter



- Blood glucose meter



- ECG



- Blood Pressure Monitors



# Market Status & Trend



# Market Status & Trend

(in \$ millions)

Company Name	Medical Technology Revenue			Market Share 2014	CAGR 2010-2014
	2010	2013	2014		
 <b>Medtronic</b>  <b>COVIDIEN</b> <small>positive results for life</small>	\$ 16,897	\$ 18,200	\$ 28,229	7.8%	13.7%
	26,611	28,490	27,522	7.6%	0.8%
	16,897	18,200	18,299	5.0%	2.0%
	16,660	17,842	15,428	4.3%	-1.9%
	8,750	10,060	11,217	3.1%	6.4%
	11,410	12,719	11,147	3.1%	-0.6%
	10,020	11,308	10,988	3.0%	2.3%
	7,203	8,695	9,972	2.8%	8.5%
	7,320	9,021	9,675	2.7%	7.2%
	10,208	8,951	9,379	2.6%	-2.1%
<b>Total Top 10</b>	<b>131,976</b>	<b>143,486</b>	<b>151,856</b>	<b>41.9%</b>	<b>3.6%</b>
<b>11-25</b>	<b>64,992</b>	<b>72,089</b>	<b>74,776</b>	<b>20.6%</b>	<b>3.6%</b>
<b>26-50</b>	<b>39,025</b>	<b>49,230</b>	<b>50,843</b>	<b>14.0%</b>	<b>6.8%</b>
<b>Remaining</b>	<b>42,137</b>	<b>71,887</b>	<b>85,041</b>	<b>23.5%</b>	<b>19.2%</b>
<b>Total Market</b>	<b>\$ 278,130</b>	<b>\$ 336,692</b>	<b>\$ 362,516</b>	<b>100.0%</b>	<b>6.8%</b>

Source: Bloomberg, Company Filings, PMCF Analysis

Photo credit: P&M Corporate

From 2010-2014, medical device revenue growth increased nearly 7 %.

# Agenda

- Market Status & Trend

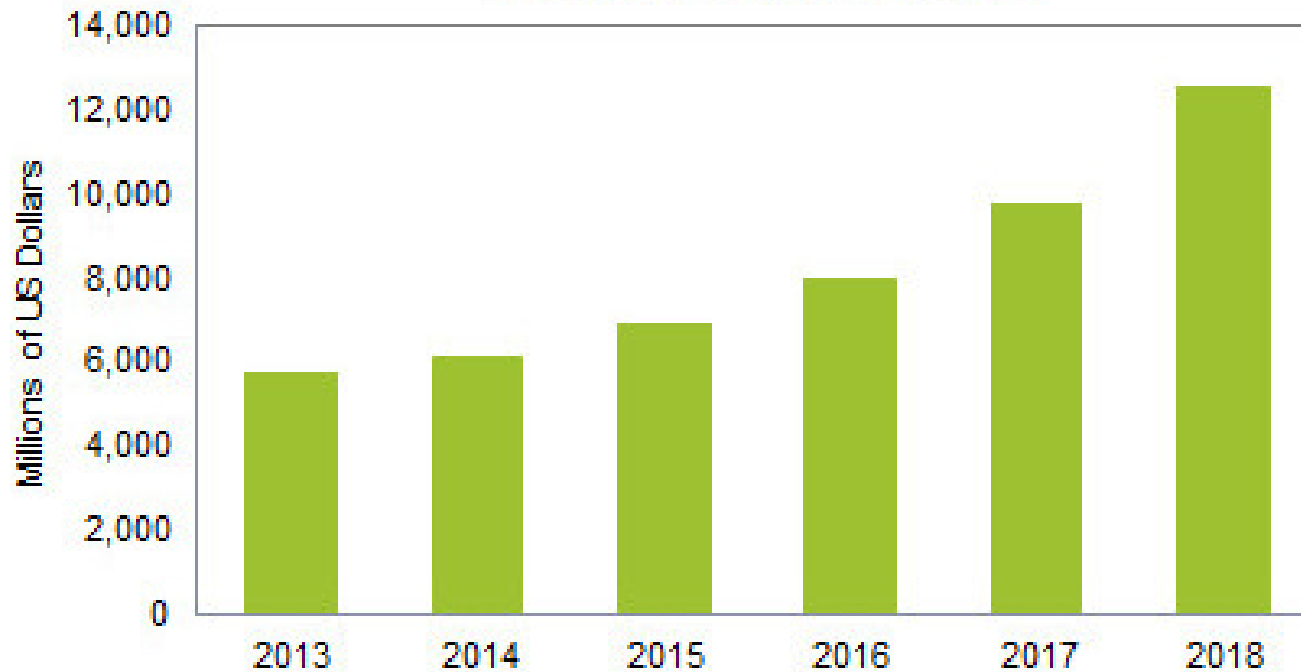
 • **Market Forecast**

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# Market Forecast













Worldwide Revenue Forecast of the Home Healthcare Device and Service Market (in Millions of US Dollars)



# Agenda

- Market Status & Trend
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- • **Supply Chain (Core chip, IDH, Key player)**
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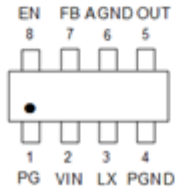
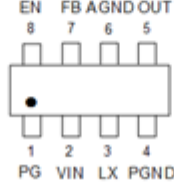
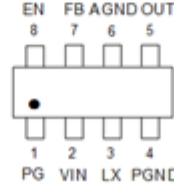
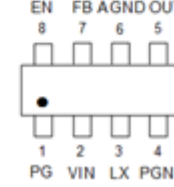
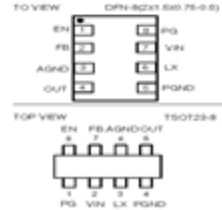
# Supply Chain

Region	Key customer	Core chip vendor
Japan	 <p><i>Sensing tomorrow™</i></p> 	  
Taiwan	  <p><i>Caring for your life.</i></p>  	  

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# New Product Feature

Part Number	AIC2253	AIC2256	AIC2259	AIC2258	AIC2262
Vin(Min)(V)	2.5	2.5	2.5	2.5	2.5
Vin(Max)(V)	6	6	6	6	6
Iout(Max)(A)	1	1	1	1	2
Switching Frequency(Min)(kHz)	1500	3000	1500	1500	1500
Switching Frequency(Max)(kHz)	1500	3000	1500	1500	1500
Iq(Typ)(uA)	8	17	17	17	17
Control Mode	AOT	AOT	AOT	AOT	AOT
Operating Temperature Range(C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Process	W/B	W/B	W/B	F/C	F/C
Package	TSOT-23-8	TSOT-23-8	TSOT-23-8	TSOT-23-8	DFN-8 TSOT-23-8
Remark	P2P MP2159 Sampling in Nov. 16'	P2P MP2159	P2P MP2159 Sampling now		参閱MP2162 Sampling now
Outline					

# New Product Feature

- **AOT**

Adpative On Time control that provides a fast transient response without external compensation component.

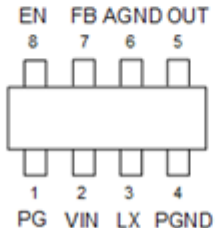
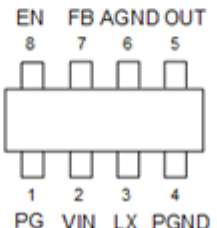
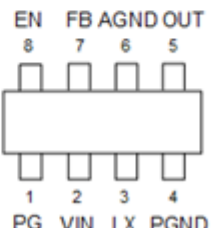
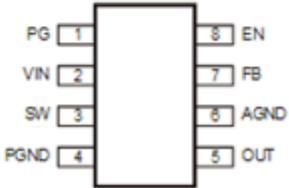
- **Sync.**

The device features an internal synchronous rectifier for high efficiency, it requires no external Schottky diode.

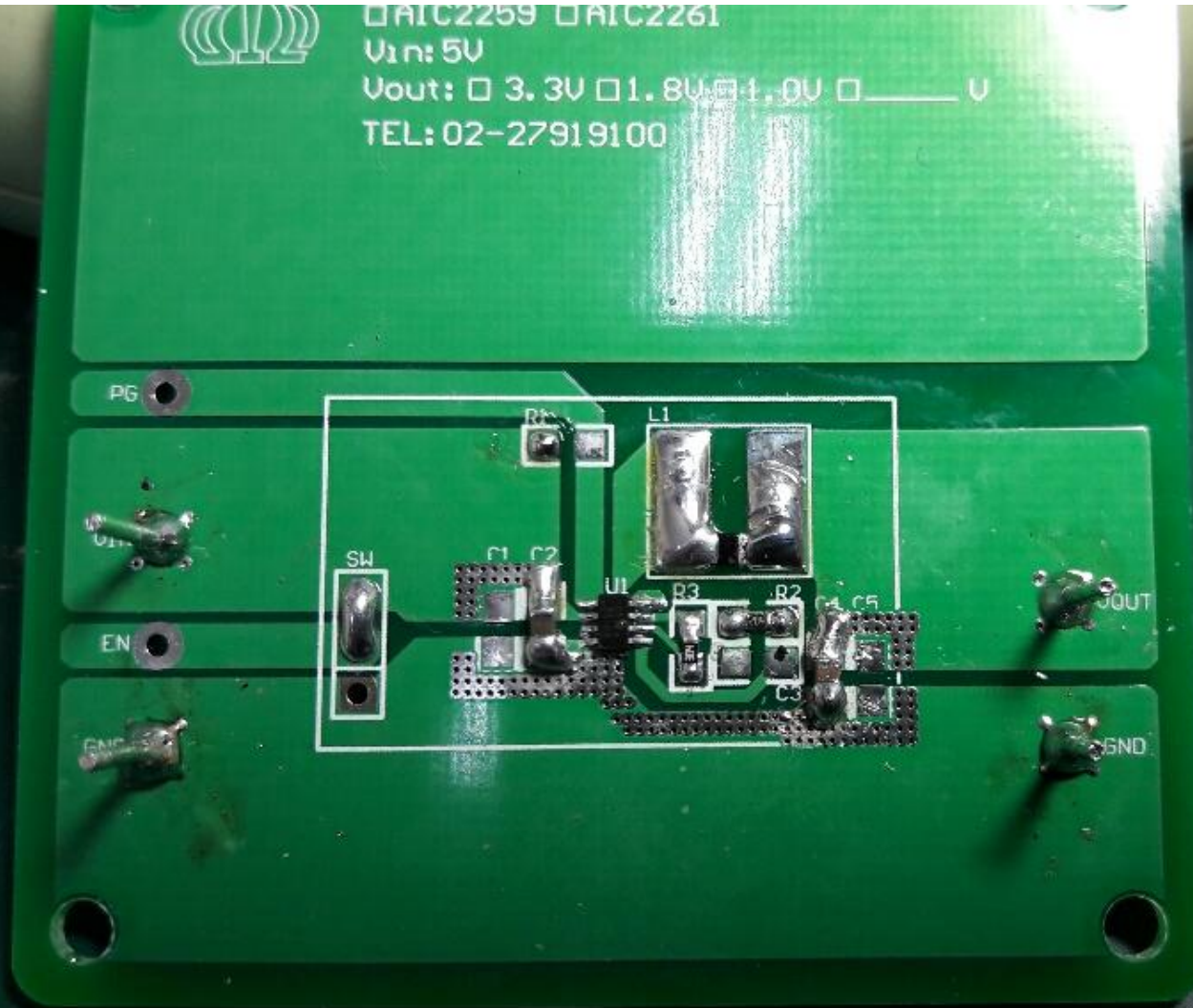
- **Small Package**

TSOT-23-8

# New Product Feature

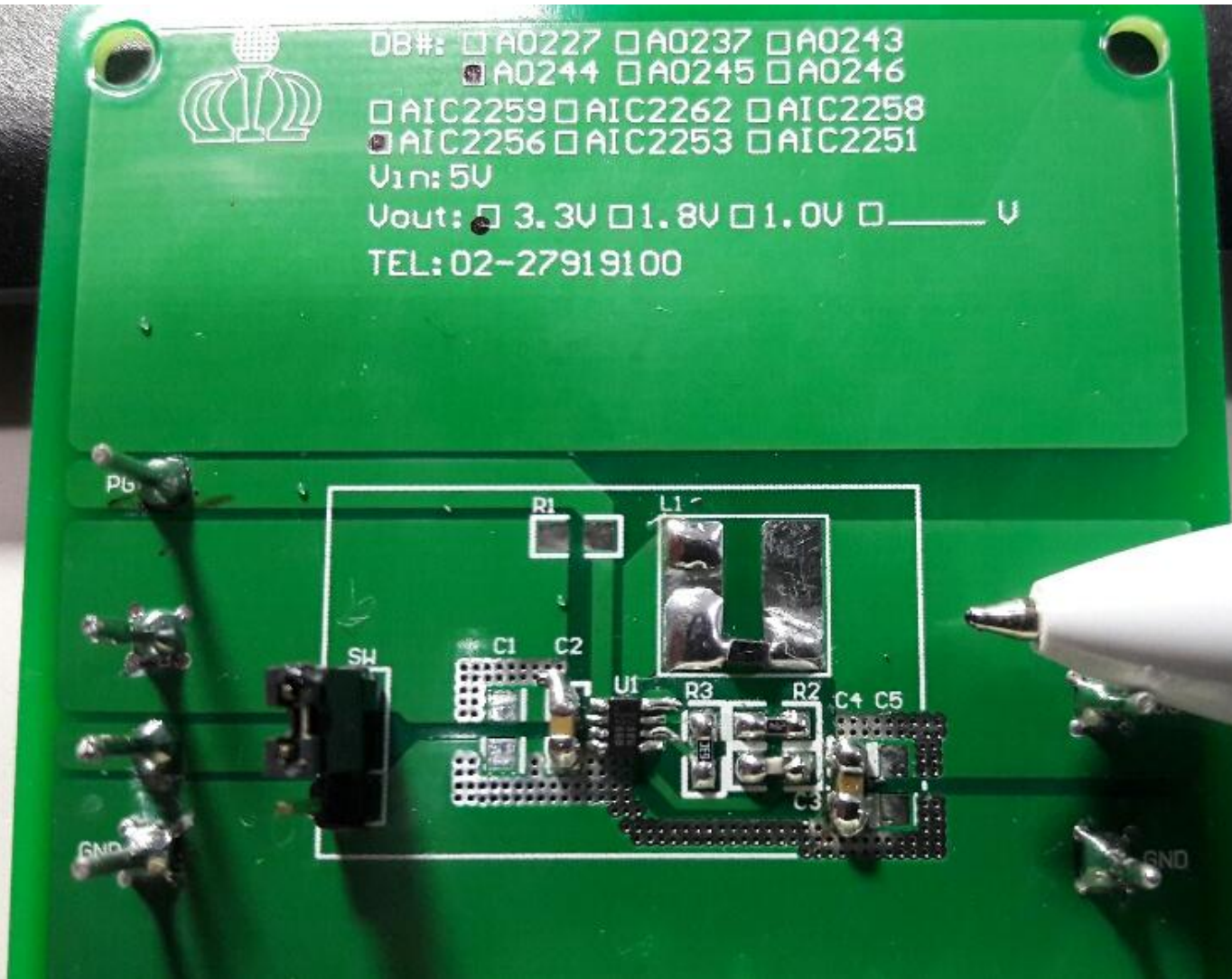
Part Number	AIC2259	AIC2256	AIC2253	MP2159
Vin(Min)(V)	2.5	2.5	2.5	2.5
Vin(Max)(V)	6	6	6	6
Iout(Max)(A)	1	1	1	1
Switching Frequency(Min)(kHz)	1500	★ 3000	1500	1500
Switching Frequency(Max)(kHz)	1500	★ 3000	1500	1500
Iq(Typ)(uA)	17	17	★ 8	17
Control Mode	AOT	AOT	AOT	COT
Operating Temperature Range(C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Package	TSOT-23-8	TSOT-23-8	TSOT-23-8	TSOT-23-8
Remark	P2P with MP2159 Sampling now	P2P with MP2159	P2P with MP2159 Sampling now	
Outline				

# New Product Feature



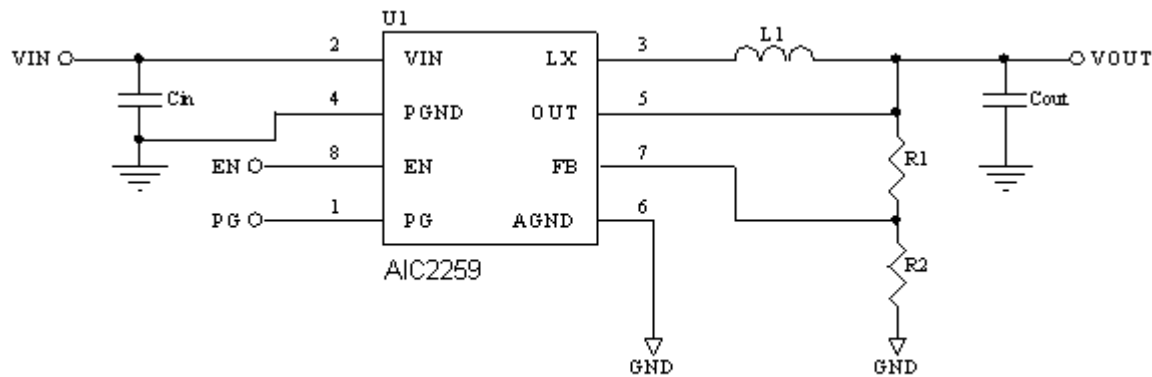


# New Product Feature

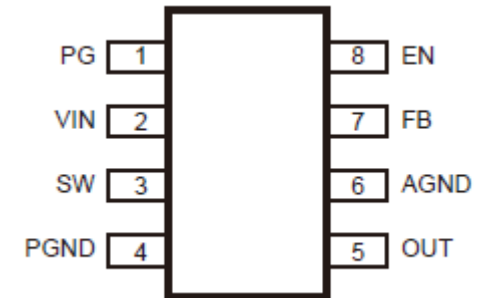


# New Product Feature

## Typical application circuit



## PIN configuration

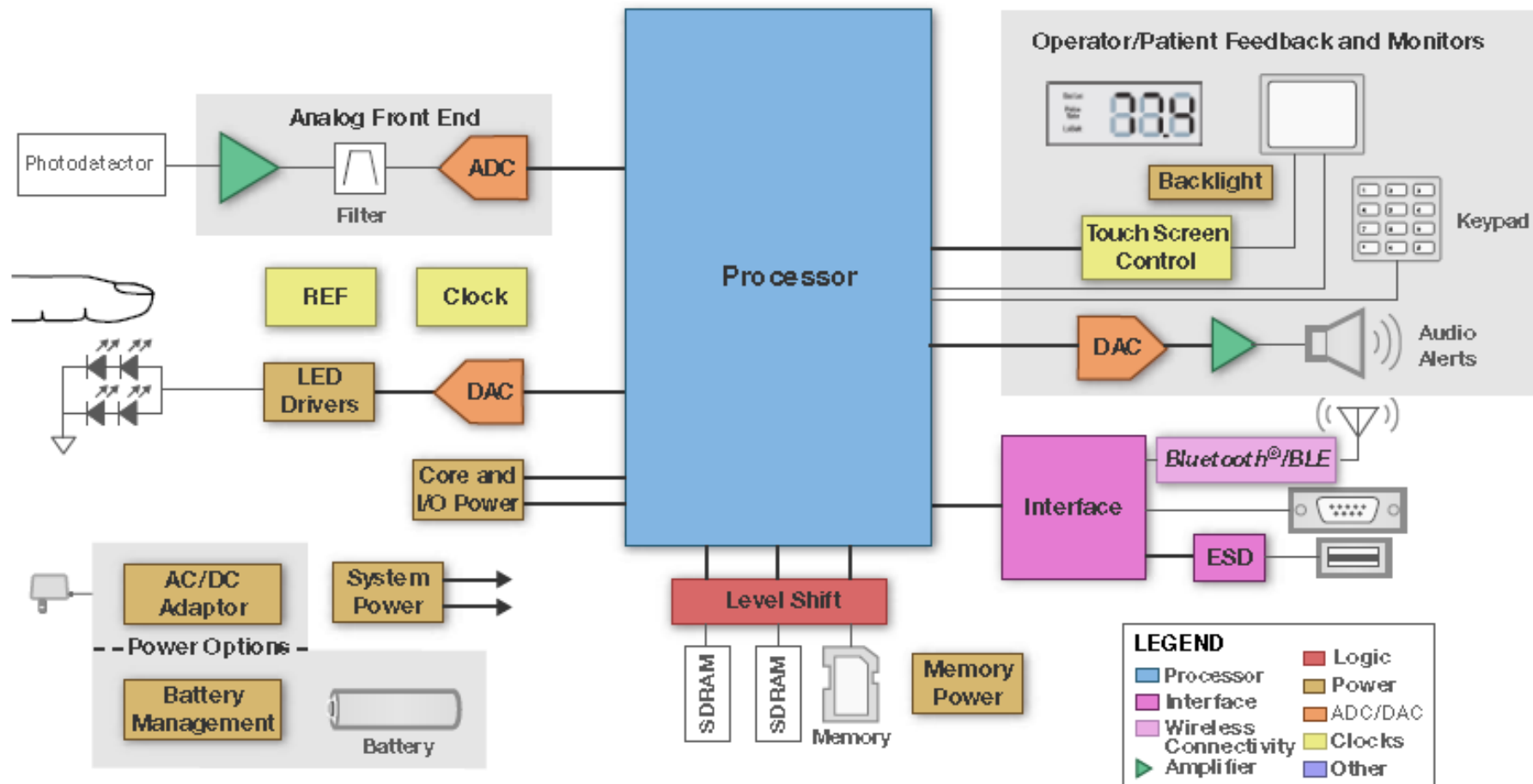


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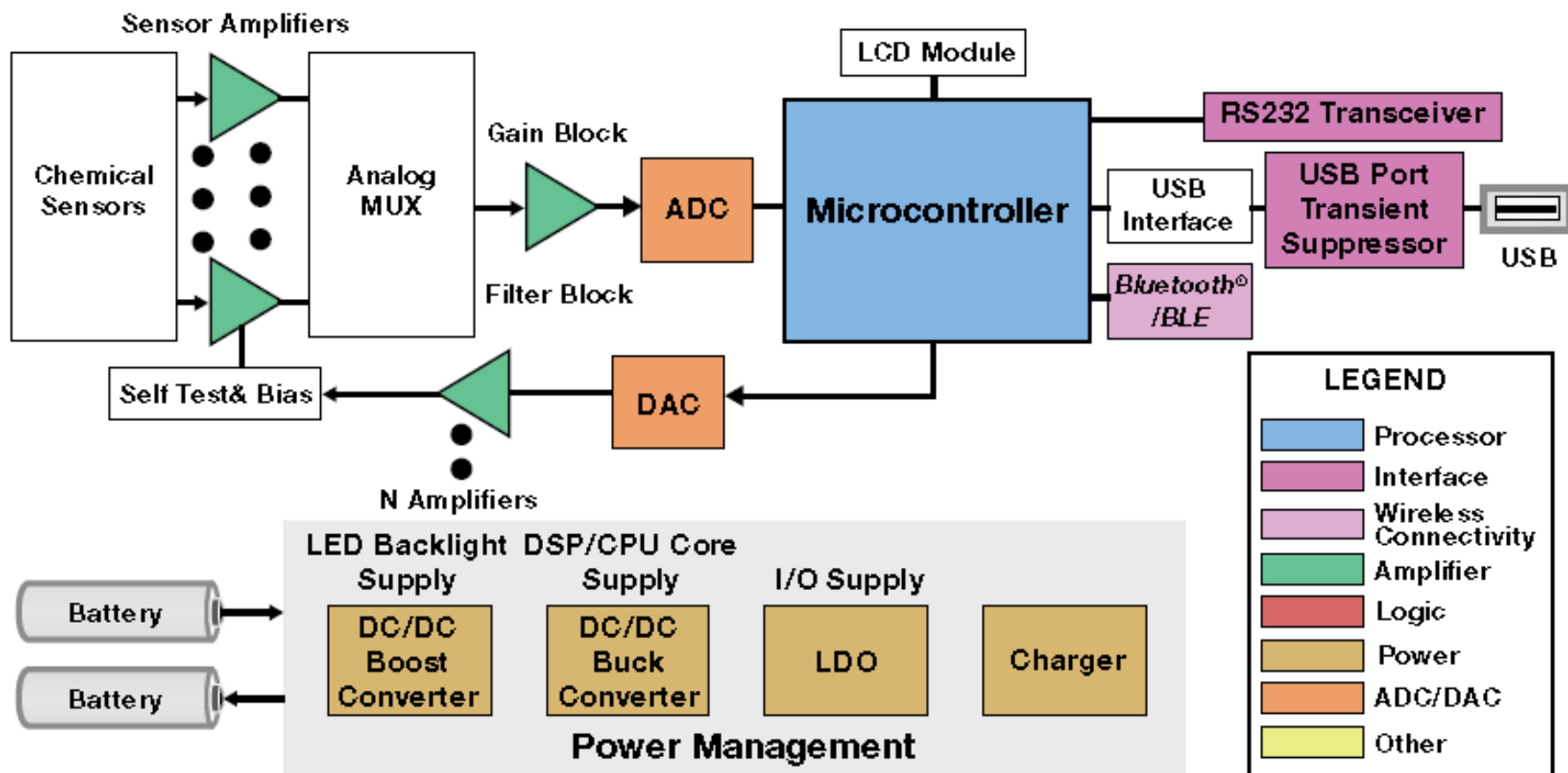
# Application Power Block

## Smart Medical Pulse Oximeter



# Application Power Block

## Smart Medical Blood glucose meter

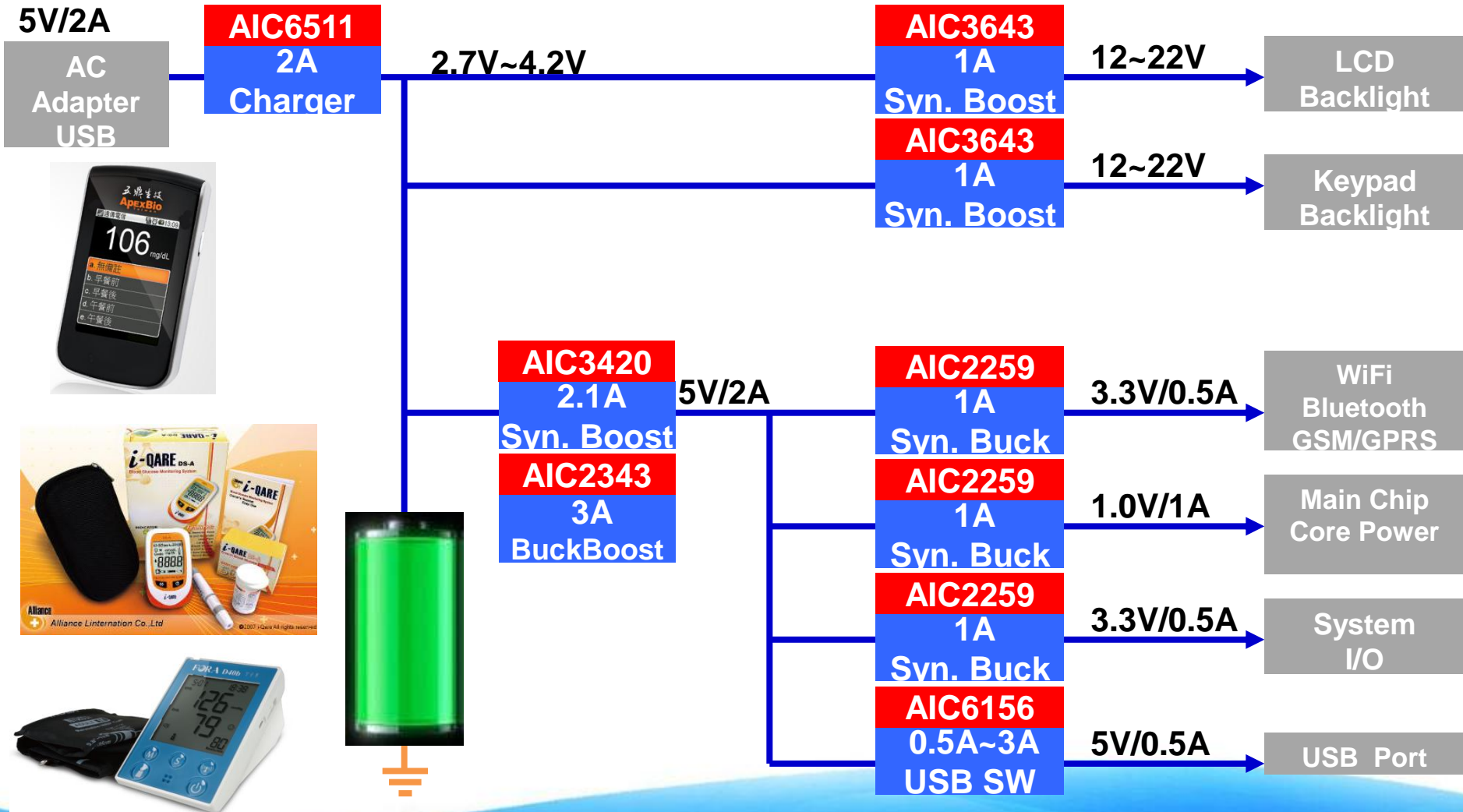


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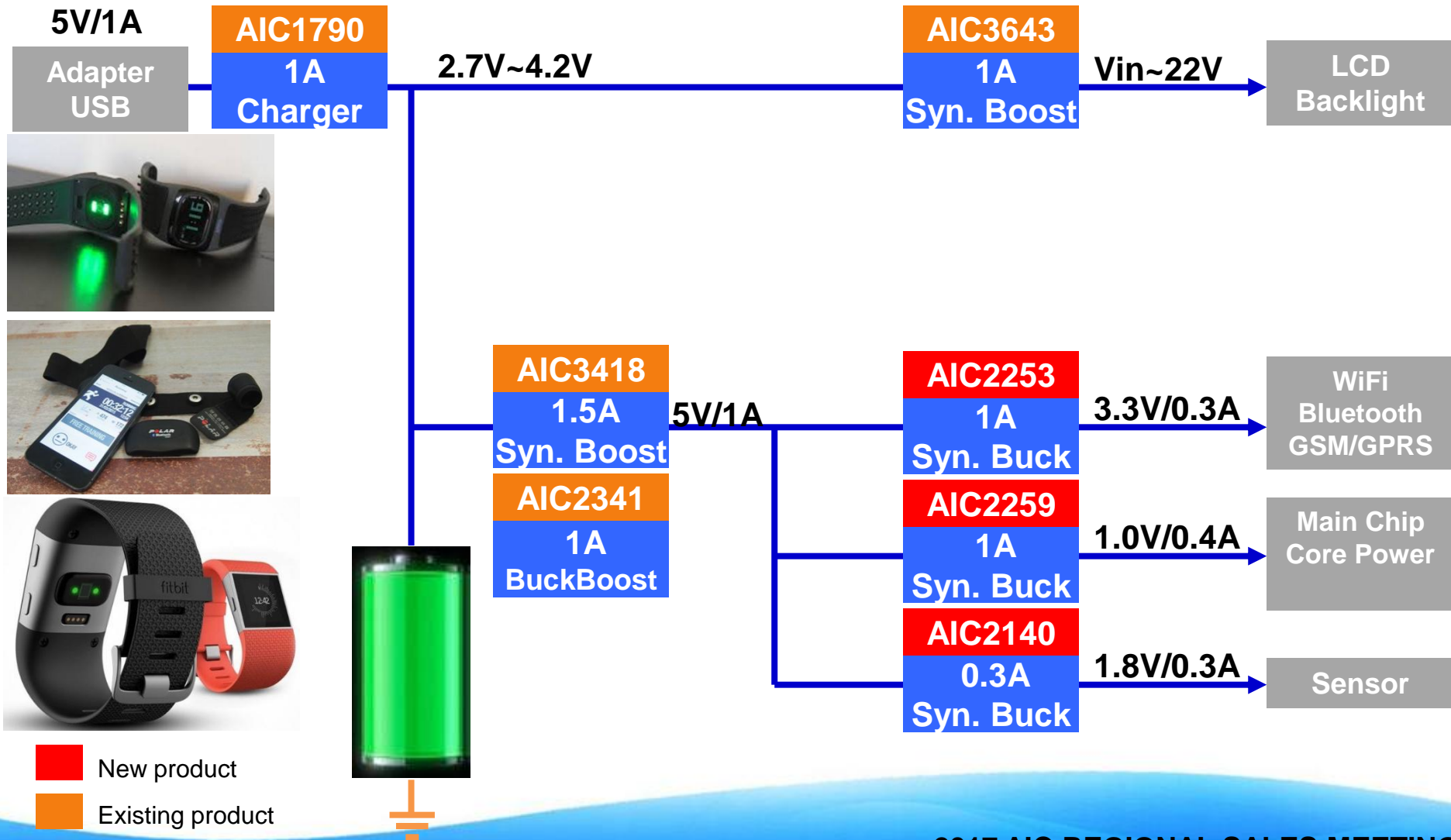
# Power Solutions

## Blood glucose meter



# Power Solutions

## Heart Rate Sensor





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- • **Promotion Strategy**

# Promotion Strategy

- **AOT**
- **Competitive Performance**
  - **High Efficiency**
  - **Low Ripple**
  - **Low Quiescent Current**
- **Competitive Pricing**
- **P2P with main stream product**

# Q & A !

