SCIENTECH

(3583)

2017/12/13

Safe Harbor Statement

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- This Presentation contains certain forward-looking statements that are based on current expectations and are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements.

- Except as required by law, we undertake no obligation to update any forward –looking statements, whether as a result of new information, future events or otherwise.

Scientech Corp (3583: TT)

Company Establishment	1979/10/17
IPO	2013/3/12
Capital	NT$ 811 Million
Chairman	H.L. Hsieh
President	M.T. Hus
Products	Equipment Manufacturing、Wafer Reclaim、Trading(Agent/Distributor)

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Business Overvies

Products

Future Prospect

Business Overview

Income Statement

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Units：NT $ M	2013	2014	2015	2016	3Q17	1Q~3Q17
Revenues	3,068	2,717	2,942	3,495	885	2,428
Gross Profit	983	970	903	1,178	335	864
Operating Expenses	629	673	779	835	215	611
Operating Income	354	297	124	343	120	253
Other Income and Expenses	(26)	20	(6)	21	(15)	(26)
Income Before Tax	328	317	119	363	105	227
Net Income	249	246	86	292	86	177
EPS	3.11	3.04	1.06	3.60	1.06	2.18
Gross Margin	32.04%	35.71%	30.69%	33.71%	37.91%	35.60
Operating Margin	11.53%	10.93%	4.23%	9.80%	13.62%	10.44%
Income Before Tax margin	10.69%	11.68%	4.03%	10.40%	11.86%	9.33%

Business Overview

Products Mix

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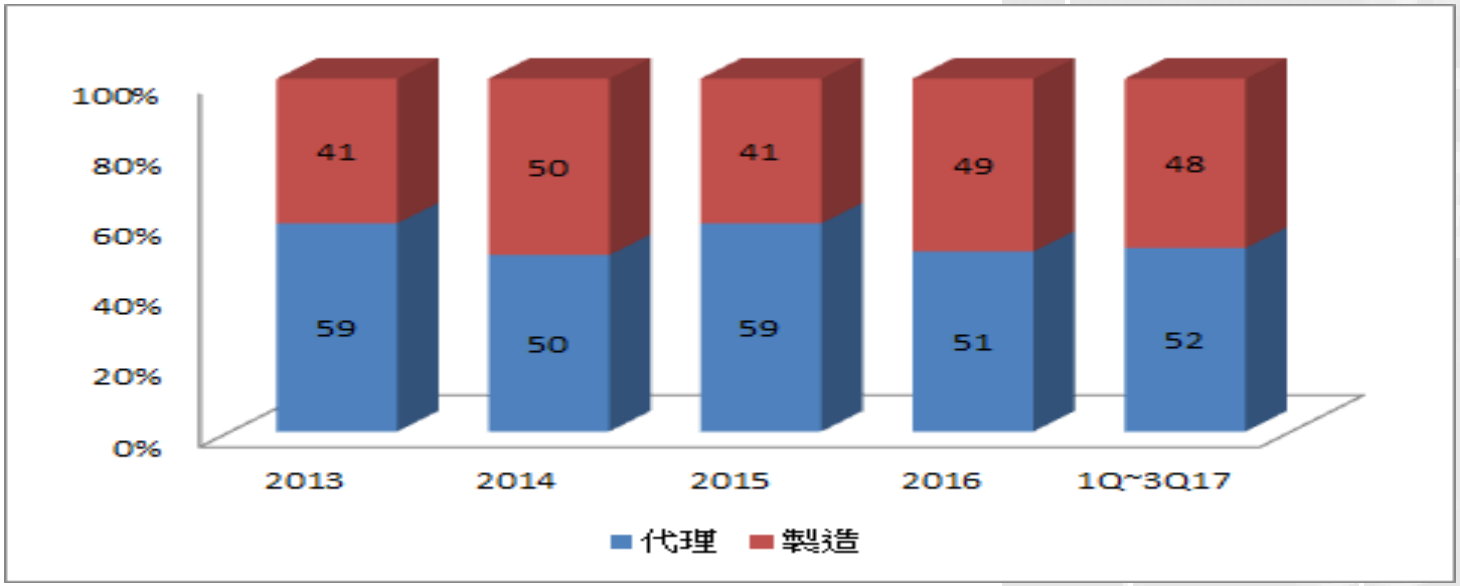
Units：%	2013	2014	2015	2016	1Q~3Q17	Gross Margin
Trading	59	50	59	51	52	Below Average
Manufacturing	41	50	41	49	48	Above Average



R&D Expenses

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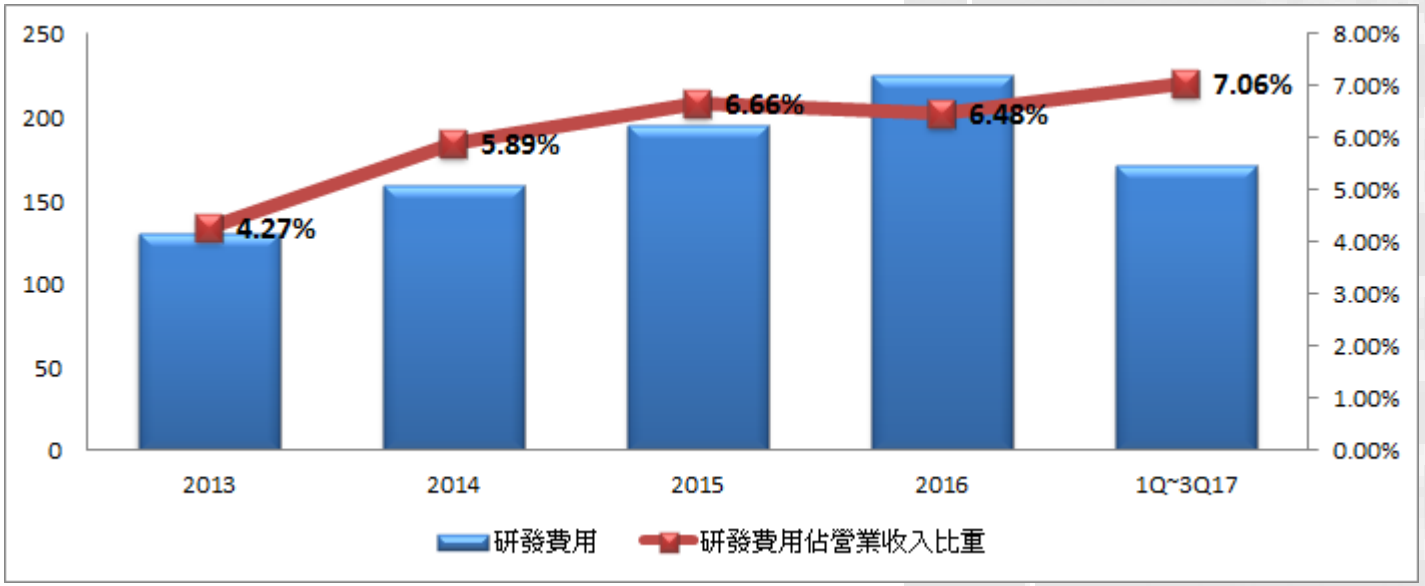
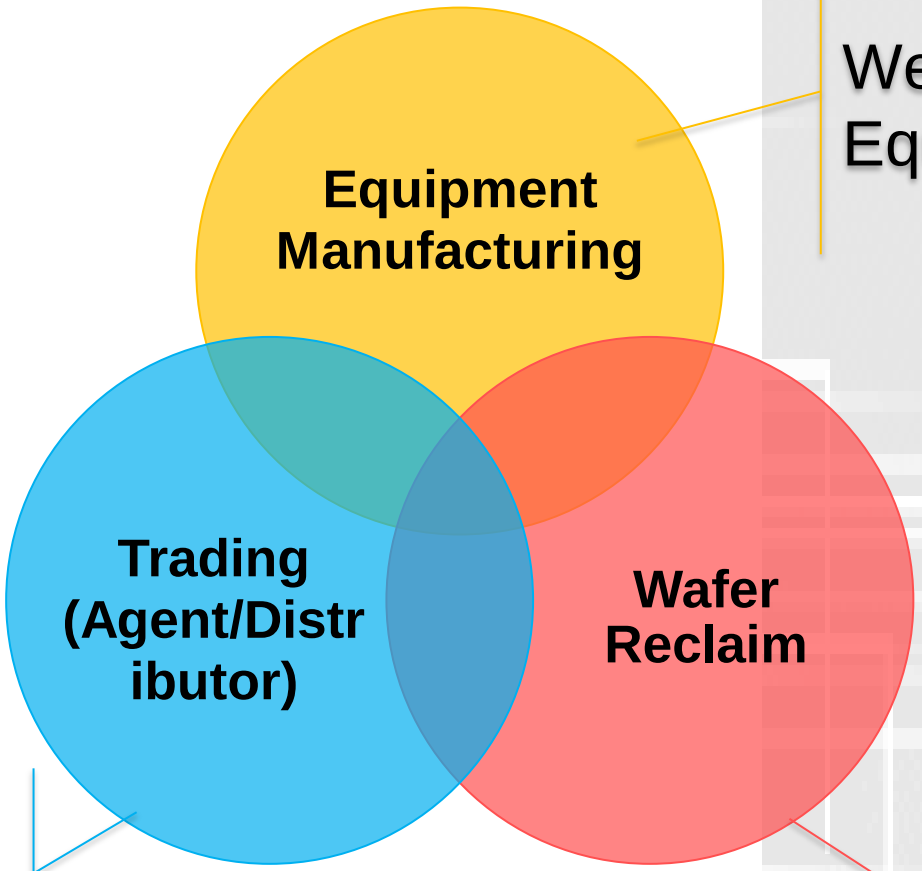
Units：NT $ M	2013	2014	2015	2016	1Q~3Q17
R&D Expenses	131	160	196	226	171
Expenses as % of Revenue	4.27%	5.89%	6.66%	6.48%	7.06%



Products



Wet Process Equipment

Semiconductor and Optoelectronics Process Equipment

12” Wafer Reclaim

Products

Equipment Manufacturing

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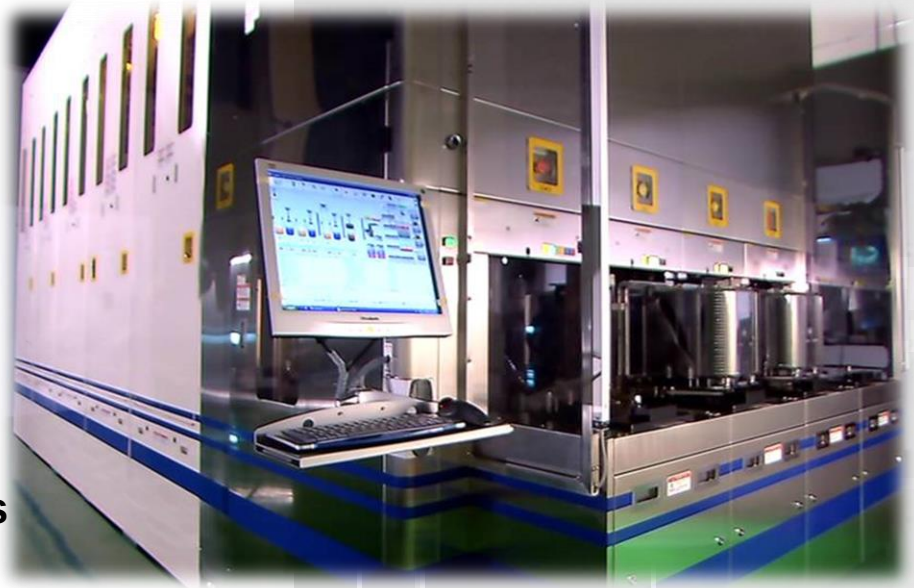
Wet process equipment

- **Single wafer/ Batch type**
  - **8”/12’ Advanced packaging** (Fan-out、 Solder Bump、 Copper Pillow 、Bumping 、 Gold Bump 、 RDL 、 TSV …ect)
  - **6”/ 8”/12” Front-end special process** (IoT Sensor 、 Power IC FP sensor、RF、CMOS、Touch Controller、 MEMS)
  - **HB LED fully-automatic process**
  - **MEMS**
  - **III-V**



Products

Si Wafer Reclaim

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- 12” Wafer Reclaim
- Capacity: 120K / month
- Separated Cu & Non Cu Line

Advanced clean technology
- **20nm/ 16nm Particle**
- **Low trace metal (<5E9)**

Complete particle inspection (SP1-DLS & SP2)

Complete polishing process
- **Single side polish**
- **Double side polish**
- **Final Haze polish**

Super flatness (GBIR<0.5μm)

Products

Trading (Agent/Distributor)

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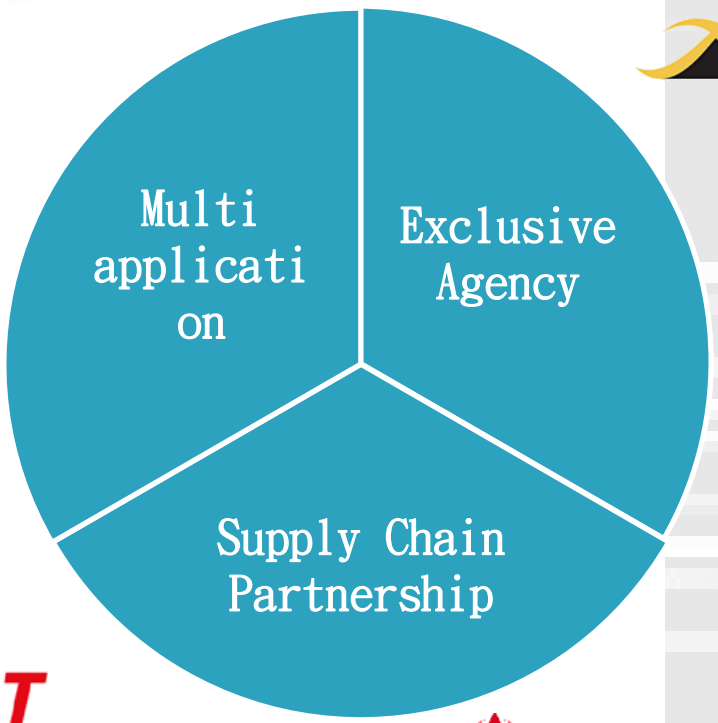

Future Prospect

Product-based Extension

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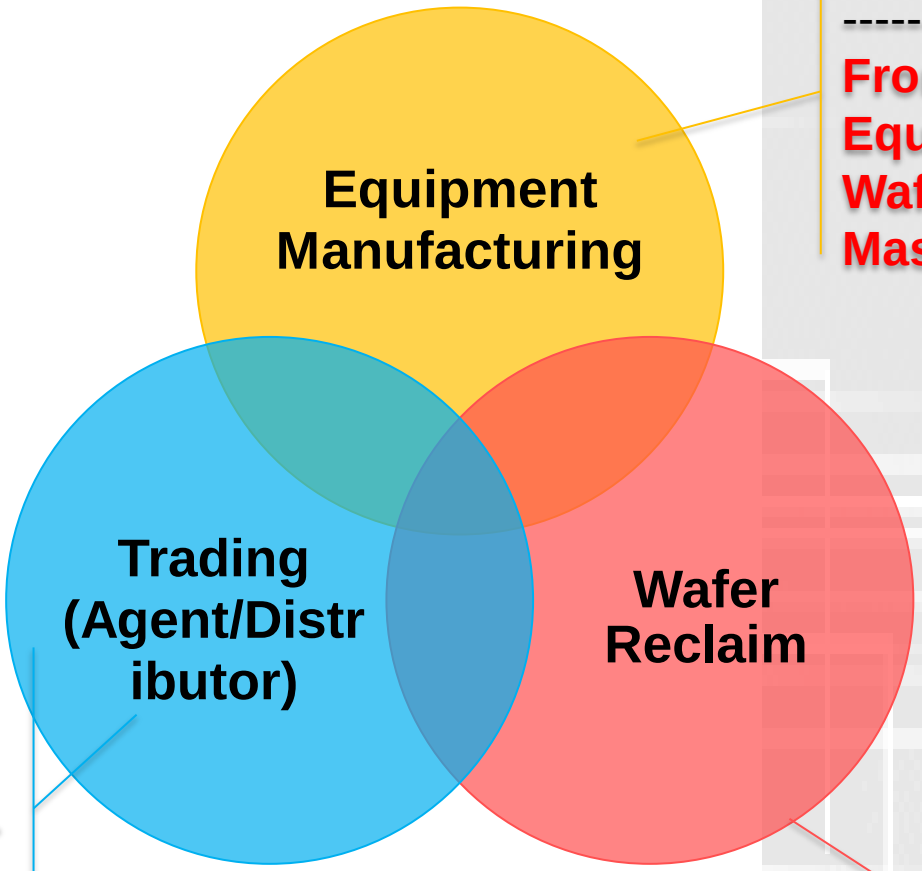

Wet Process Equipment

Front-end Wet Process Equipment
Wafer Support System
Mass Spectrometer

Semiconductor and Optoelectronics Process Equipment

AMOLED
Advanced Process
Miniaturization

12” Wafer Reclaim

SiC Wafer Reclaim

acromass

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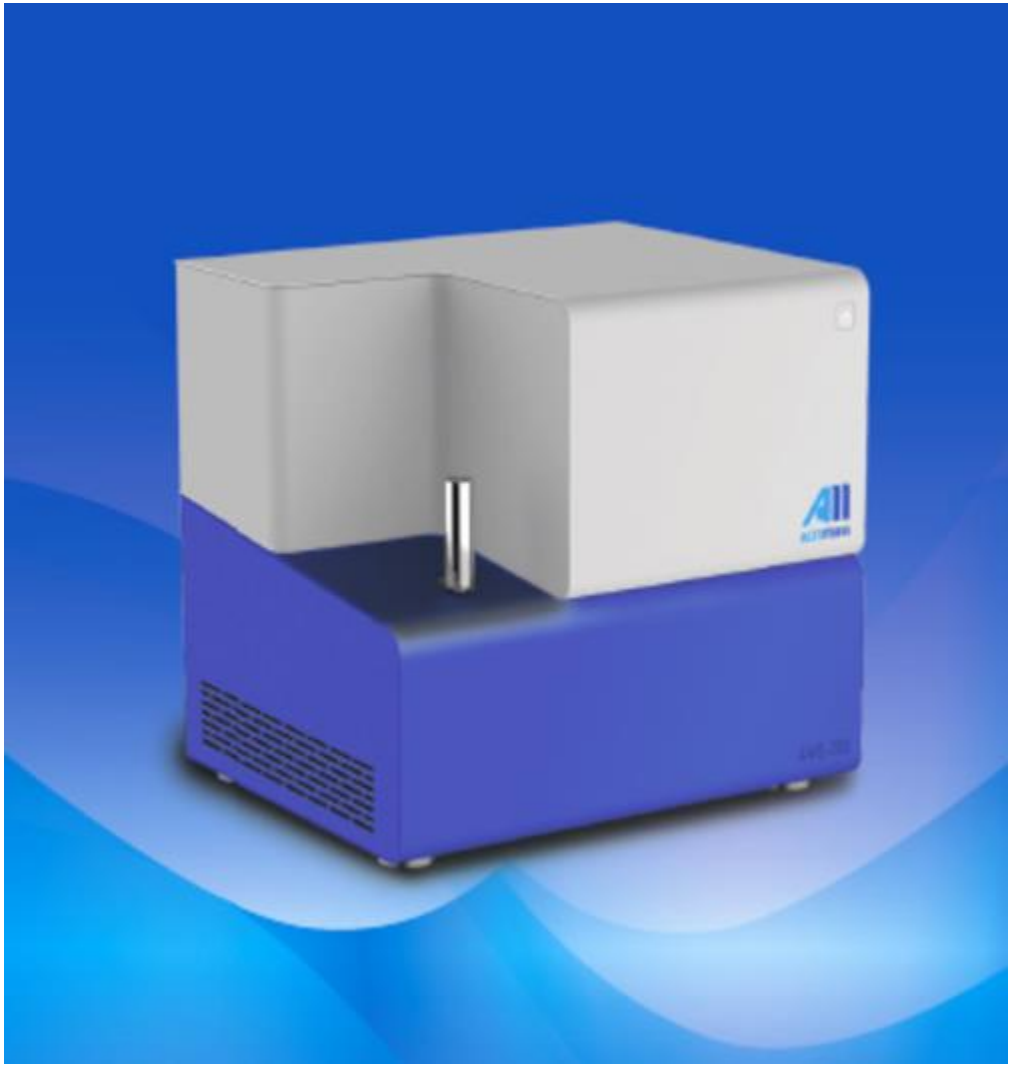


acromass

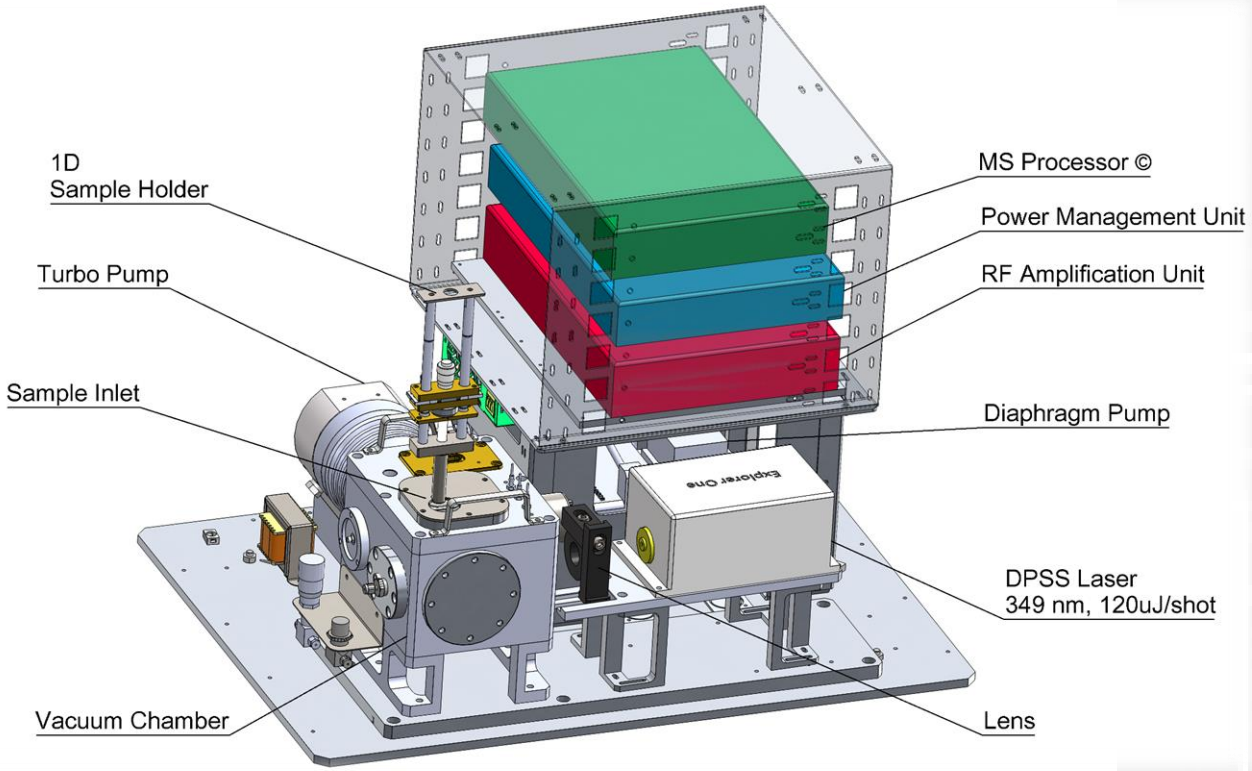
AMS-200-1
inTrap MALDI
Mass Spectrometer

Range: 500-500kDa
Resolution: 10Da@100kDa
Precision: 100Da@100kDa
(for intact protein analysis)

Highly Integrated System

AMS-200-1

Without any external pump & gas cylinder, all modules are consolidated in a desktop !

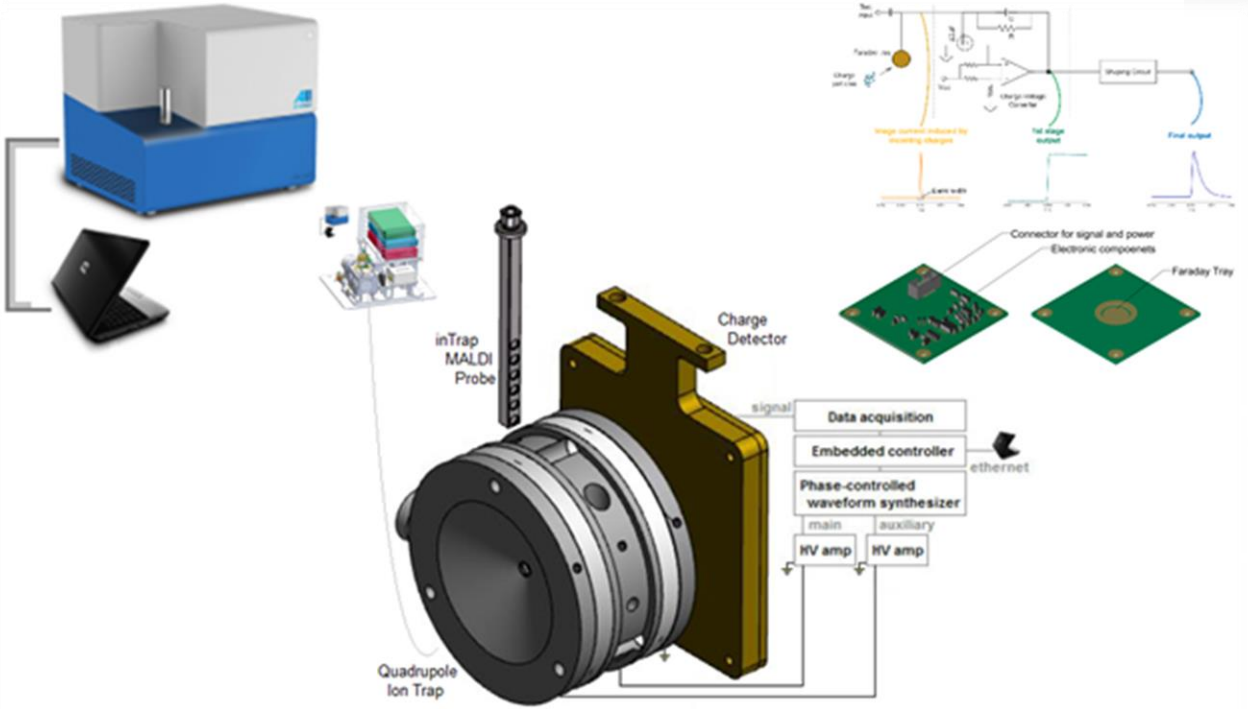


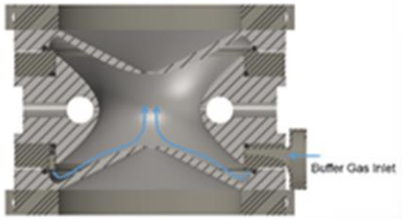
Size:
60 cm W
x 50 cm D
x 50 cm H

Weight:
< 40 Kg

Compact & Novel Design

High-precision miniature assembly of all-homemade key components ---





multiple sample inlet !

high-precision mass analyser !

3D-printed Knudsen-flow gas nozzle !

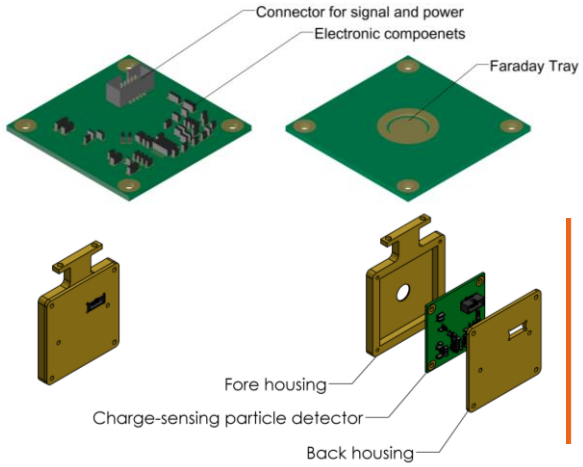
&

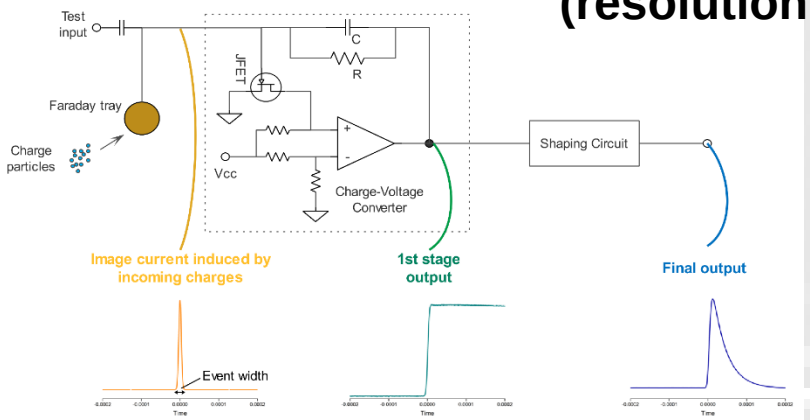
highly sensitive charge detector !!

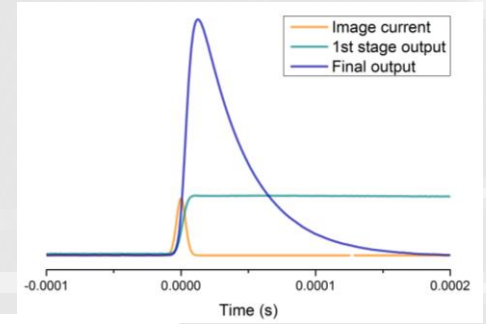
Charge Sensing Particle Detector

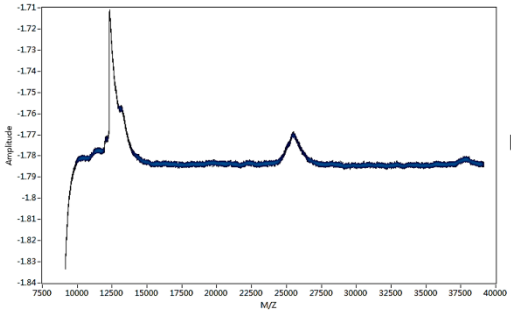
"Very-Simple" *proprietary* charge detector … no HV bias, no high vacuum required !

(resolution 10Da@100kDa)





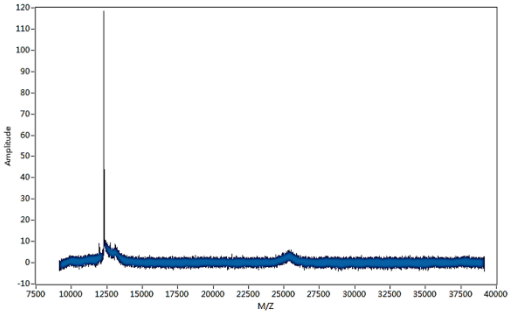




Raw 1st stage of CSPD™ signal

- Good response to ion quantity.
- It consists of ion information and circuit property as the falling of peak.

Reconstruction & filtering

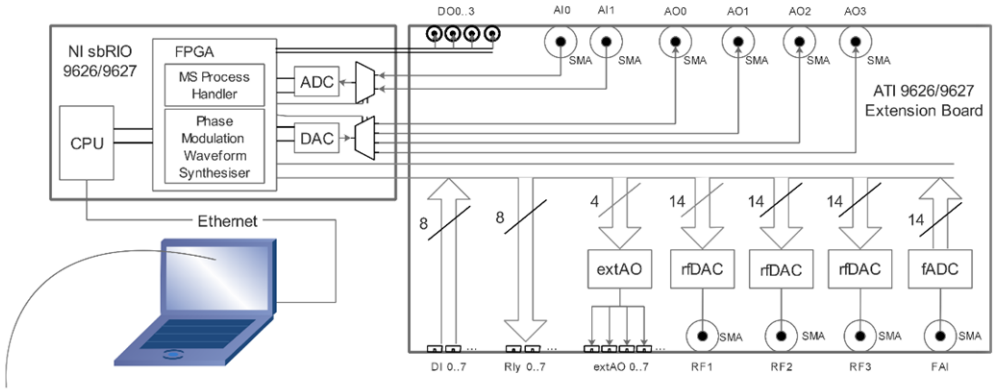


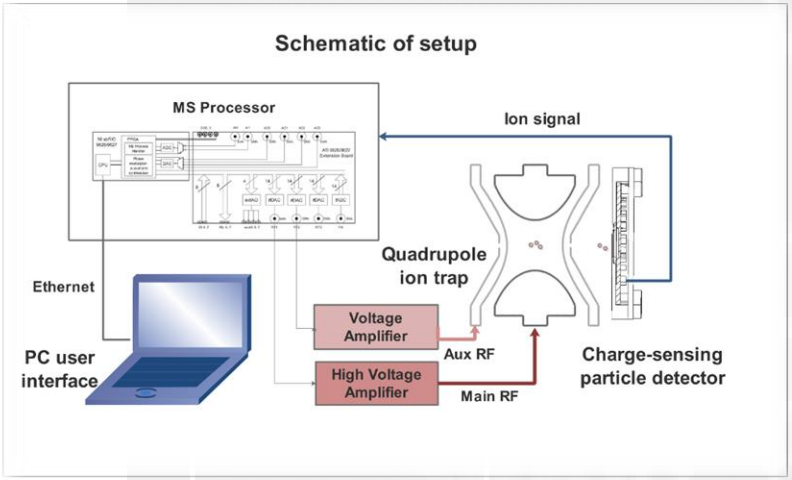
Reconstructed & filtered signal

- The circuit property has removed. The signal responding to the detecting ions.
- Bad linearity to ion number

Phase-Synthesized MS Platform

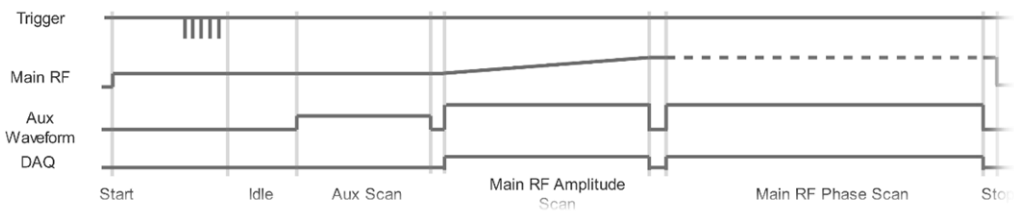
Versatile waveform via ion-trap dynamics for *proprietary* mass spectrometry ---





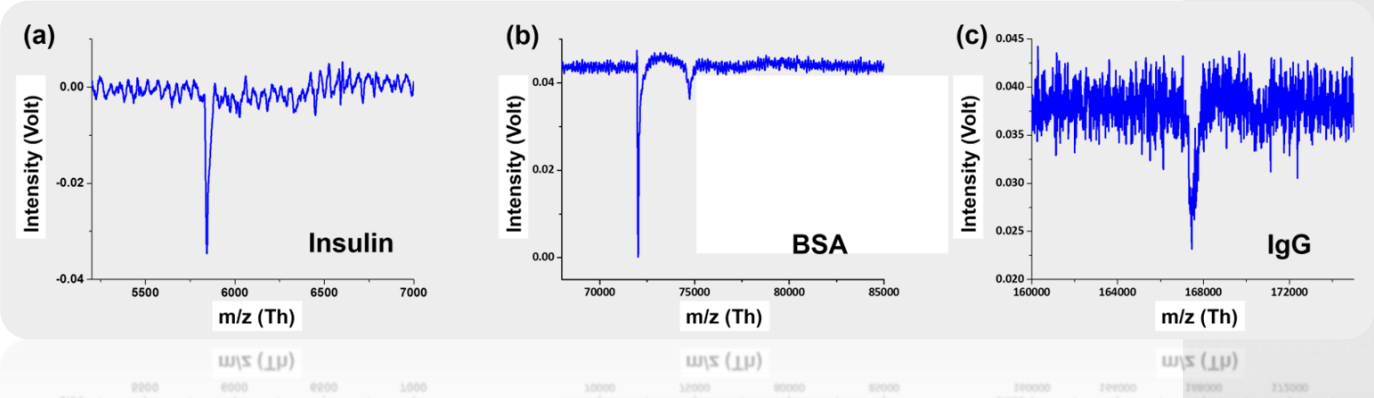
Event Script Editor

```
Start:: parameters...;
LaserTrigger:: parameters...;
Idle:: parameters...;
AuxScan:: parameters...;
MainAmpScan:: parameters...;
MainPhaseScan:: parameters... ;
Stop:: ;
```



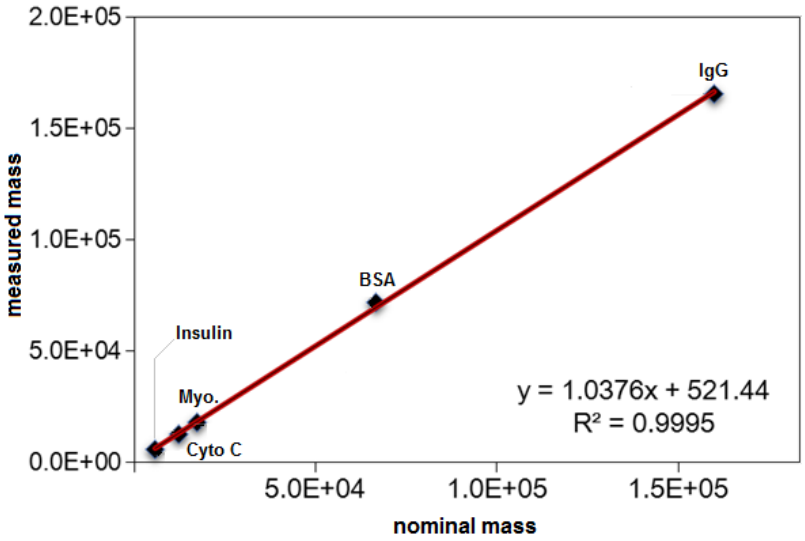
frequency jitter ~ 1e-4 !!

Wide & Linear Mass Range



	Nominal Mass	Uncalibrated Mass
Insulin	5733	5856
Cyto C	12327	12674
Myoglobin	17200	17996
BSA	66463	72077
IgG	160000	165580

Uncalibrated MALDI ion trap mass spectra of (a) insulin (5808 Da), (b) bovine serum albumin (BSA, 66.5k Da), and (c) immunoglobulin G (IgG from bovine serum, ~160k Da, Sigma-Aldrich). The mass spectra use unstable ejection with the main RF phase scan.



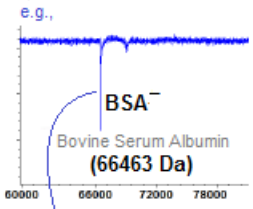
Robust extension of mass range over 3 orders of magnitude …

500-500kDa !

Bio-Medical/Nano-Material Market

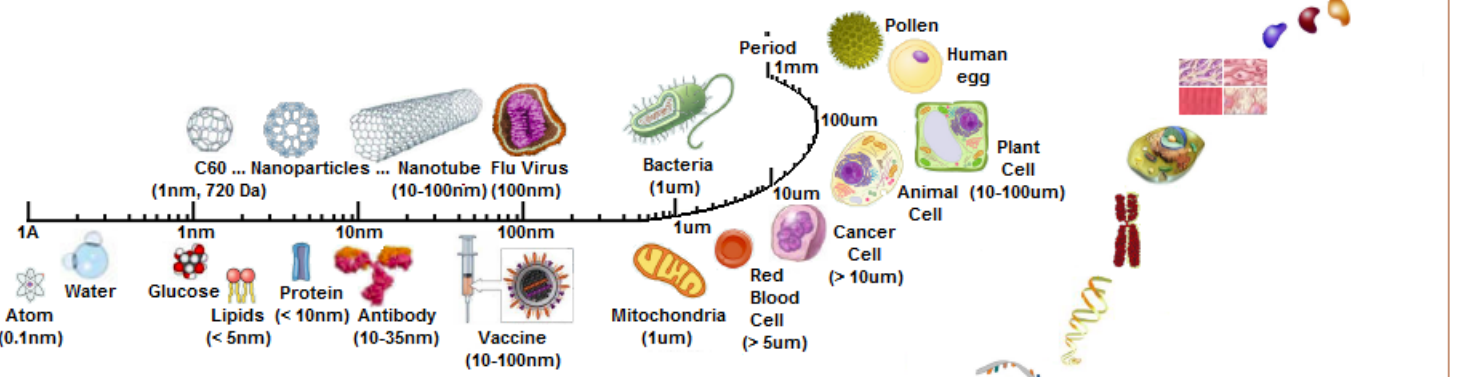
High-resolution *intact protein analysis*

500-500k Da !!
mass range



precision ~100 Da
(det. resolution ~ 10 Da)

Much-extended mass range for more applications,
directly linking "Omics" research to entire bio-science !



Bio-informatics !
... based on MS^n

indirect ...
statistically correlated ...

(> 30 nm, > 1MDa)
protein complex

Slicing, Extraction, ...

X-linking & Reduction

(~ 4-30 nm, > 3kDa)
protein mix

Targeting, Separation, ...

intact protein

top-down

extended via ion optics ...

(triple quad, ToF, FTMS, orbitrap, ...)

OnMarket MS

CID/ECD/...

MS/MS/...
fragment ladder

bottom-up

Digestion

(~ 200-4kDa)
peptide mix

Isolation, Fragmentation, ...

(~ 20-2kDa)
peptide fragments (amino acids, metabolites, ...)

... extended via LIAD

~ 500 kDa

high-resolution, sensitive detection
of *in vivo*, whole bio-molecules !!

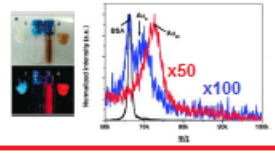
AcroMass MS

... via ESI/MALDI/...

~ 500 Da

!!

how about BSA + Au$_5$ & BSA + Au$_{25}$



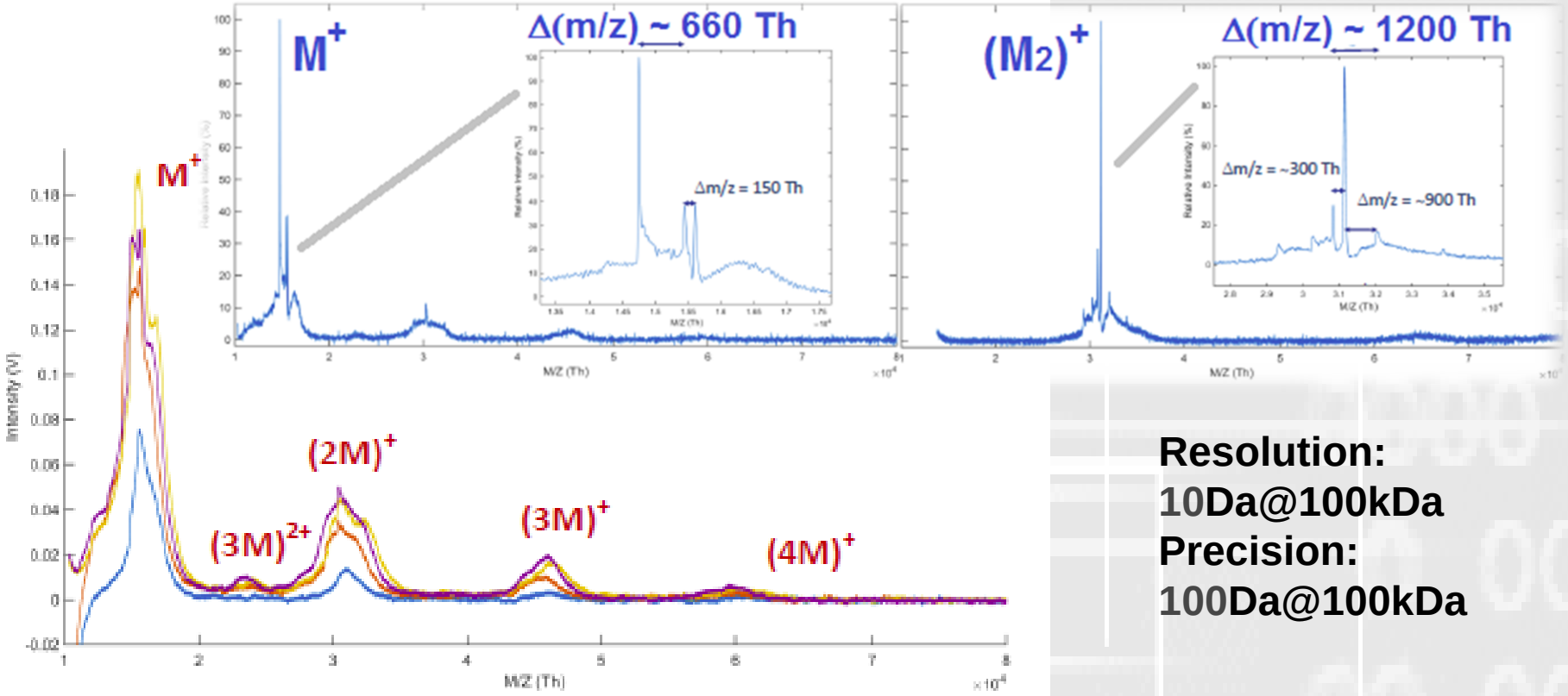
vs

Applied BioSystems 4800
Proteomics Analyzer
MALDI ToF/ToF ~ 5-10 kDa

Lysozyme (14.3kDa) + Au cluster (197Da x n)

High-resolution *intact protein analysis*

Lysozyme-stab. gold nanoclusters (Lys-AuNCs) as functional nanomaterials



Mass spectrum (uncalibrated) of lysozyme + Au cluster — fast screening of charge state (1st stage CSPD signal)

Resolution:
10Da@100kDa
Precision:
100Da@100kDa

Q & A

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Thank You!