



# 4Q20 Investor Conference

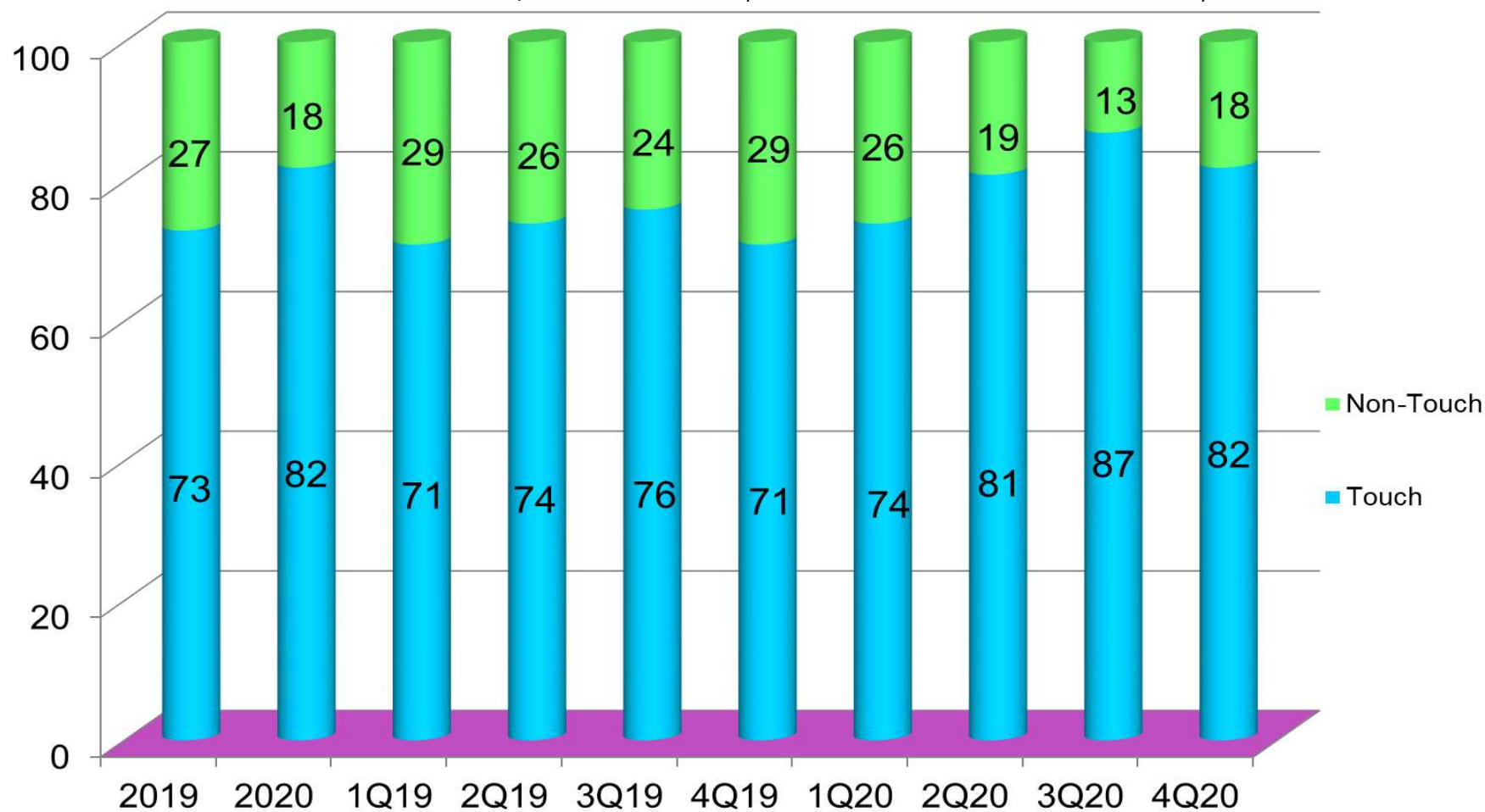
2021/02/23



ELAN Microelectronics Corporation

## Sales Breakdown by Product Line (Consolidated)

Sales: NT\$M 9,488 15,100 1,881 2,181 2,713 2,713 2,206 3,539 4,708 4,647



- Touch: Touchscreen Controller, Touchpad, Biometrics
- Non-Touch: MCU, Pointing Stick, Affiliated Co. Products

# 4Q20 Income Statement

## YoY Comparison (Consolidated)

	NT\$M				
	4Q20	%	4Q19	%	YoY(%)
Sales	4,647	100.0	2,713	100.0	71.3
Gross profit	2,184	47.0	1,270	46.8	72.0
Sales expense	170	3.7	122	4.5	
G&A expense	138	2.9	94	3.5	
R&D expense	515	11.1	427	15.7	
OPEX	823	17.7	643	23.7	28.0
Operating profit	1,361	29.3	627	23.1	117.1
Non-operating income & exp.	37	0.8	339	12.5	
Profit before tax	1,398	30.1	966	35.6	44.7
Net profit	1,189	25.6	980	36.1	21.3
Belong					
Parent company	1,194		982		
Non-Controlling Interests	(5)		(2)		
* EPS (NT\$)	4.10		3.37		21.7

\* 304 million shares issued; 291.4 million shares outstanding as of the end of reporting period.

\* Consolidated Statement of Financial Position (Unaudited).

# 4Q20 Income Statement

## QoQ Comparison (Consolidated)

NT\$M

	4Q20	%	3Q20	%	QoQ(%)
Sales	4,647	100.0	4,708	100.0	(1.3)
Gross profit	2,184	47.0	2,143	45.5	1.9
Sales expense	170	3.7	138	2.9	
G&A expense	138	2.9	128	2.7	
R&D expense	515	11.1	507	10.8	
OPEX	823	17.7	773	16.4	6.5
Operating profit	1,361	29.3	1,370	29.1	(0.7)
Non-operating income & exp.	37	0.8	(28)	(0.6)	
Profit before tax	1,398	30.1	1,342	28.5	4.2
Net profit	1,189	25.6	1,067	22.7	11.4
Belong					
Parent company	1,194		1,080		
Non-Controlling Interests	(5)		(13)		
* EPS (NT\$)	4.10		3.71		10.5

\* 304 million shares issued; 291.4 million shares outstanding as of the end of reporting period.

\* Consolidated Statement of Financial Position (Unaudited).



# 2020 Income Statement

## YoY Comparison (Consolidated)

NT\$M

	2020	%	2019	%	YoY(%)
Sales	15,100	100.0	9,488	100.0	59.1
Gross profit	7,054	46.7	4,417	46.6	59.7
Sales expense	542	3.6	391	4.1	
G&A expense	437	2.9	348	3.7	
R&D expense	1,858	12.3	1,596	16.9	
OPEX	2,837	18.8	2,335	24.7	21.5
Operating profit	4,217	27.9	2,082	21.9	102.5
Non-operating income & exp.	(323)	(2.1)	728	7.7	
Profit before tax	3,894	25.8	2,810	29.6	38.6
Net profit	3,193	21.1	2,465	26.0	29.5
Belong					
Parent company	3,246		2,497		
Non-Controlling Interests	(53)		(32)		
* EPS (NT\$)	11.14		8.57		30.0

\* 304 million shares issued; 291.4 million shares outstanding as of the end of reporting period.

\* Consolidated Statement of Financial Position (Unaudited).



# Balance Sheets

December 31, 2020 (Consolidated)

	NT\$M
Current assets	11,186
Cash and cash equivalents	2,030
Current financial assets	970
A/R&A/N	3,637
Inventory	1,783
Other current assets	23
Other current financial assets	2,743
Non-current financial assets	1,648
Fixed assets	873
Other non-current assets	745
<b>Total Assets</b>	<b>14,452</b>
Current liabilities	4,562
Non-current liabilities	617
<b>Total Liabilities</b>	<b>5,179</b>
Capital stock	3,039
Capital surplus	520
Retained earnings	5,518
Other equity interest	3
Treasury stock	(29)
Non-controlling interests	222
<b>Total Stockholders' Equity</b>	<b>9,273</b>

(Unaudited)

# Cash Flow Statement

December 31, 2020 (Consolidated)

	NT\$M
Income before tax	3,894
Dep & Amort.	191
Inc. of A/R & N/R	(927)
Inc. of inventory	(460)
Net loss (gain) on financial assets at fair value through loss	309
Inc. of A/P & N/P	626
Others	(330)
<b>Operating cashflow</b>	<b>3,303</b>
Inc. F/A	(150)
Dec. F/A	1
Dividend received	47
Inc. of investments	(285)
Dec. Time deposit with maturity over three-month	(453)
Acquisition of intangible assets	(235)
Cash Flows from Consolidation	123
Others	(36)
<b>Investment cashflow</b>	<b>(988)</b>
Inc. in short-term loans payable	101
Dec. in short-term loans payable	(299)
Inc. in guarantee deposits	13
Distribution of cash dividends	(1,894)
Payment of lease liabilities	(27)
Inc. in non-controlling interests	319
<b>Financing cashflow</b>	<b>(1,787)</b>
<b>Change in cash</b>	<b>528</b>
Beg. Cash	1,502
End Cash	2,030

(Unaudited)



## 1Q21 Guidance

Based on Current Assumptions of Future Prospects, ELAN Expects:

- Consolidate Revenue to be Approximately between NT\$ 4 Billion and NT\$ 4.3Billion
  - Gross Margin to be about 46.5% to 48.5%
  - Operating Margin to be about 27% to 30%
- 
- ELAN's forward-looking statements are subject to significant risks and uncertainties that could cause actual results to differ materially from the forward-looking statements made in this presentation.
  - Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.



# Payout Ratio

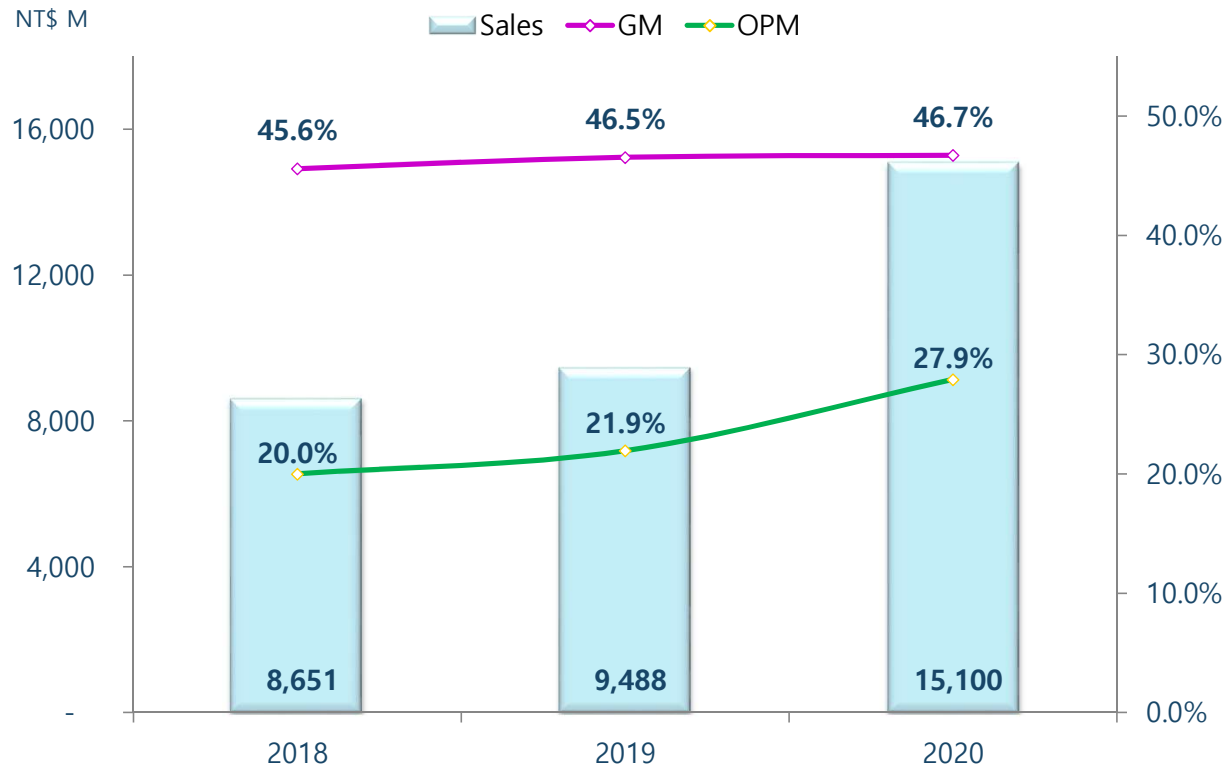
Unit: NT\$

Year	EPS	Dividend			Payout Ratio (%)
		Total	Cash	Stock	
2020	11.14	9.00	9.00	0.00	80.8
2019	8.57	6.50	6.50	0.00	75.8
2018	5.35	5.00	5.00	0.00	93.5
2017	2.58	2.58	2.58	0.00	100
2016	1.57	1.57	1.57	0.00	100
2015	1.98	2.03	2.03	0.00	102.6
2014	3.61	3.66	3.66	0.00	101.3
2013	3.8	3.53	3.53	0.00	92.9
2012	3.02	3.00	3.00	0.00	99.5

- Dividend yield: 5.17% (Stock Price: NT\$174 on 2021/2/22)
- 2020 based on the weighted average number of shares outstanding

# ELAN's Sales & Profitability Outperforms Market Growth

2018~2020 CAGR=32%



	2018	2019	2020
ELAN Rev YoY	15%	10%	59%
Global NB Shipment YoY	-1%	-2%	29%



## 2021 Growth Driver

### Growth Areas for Current Product Lines

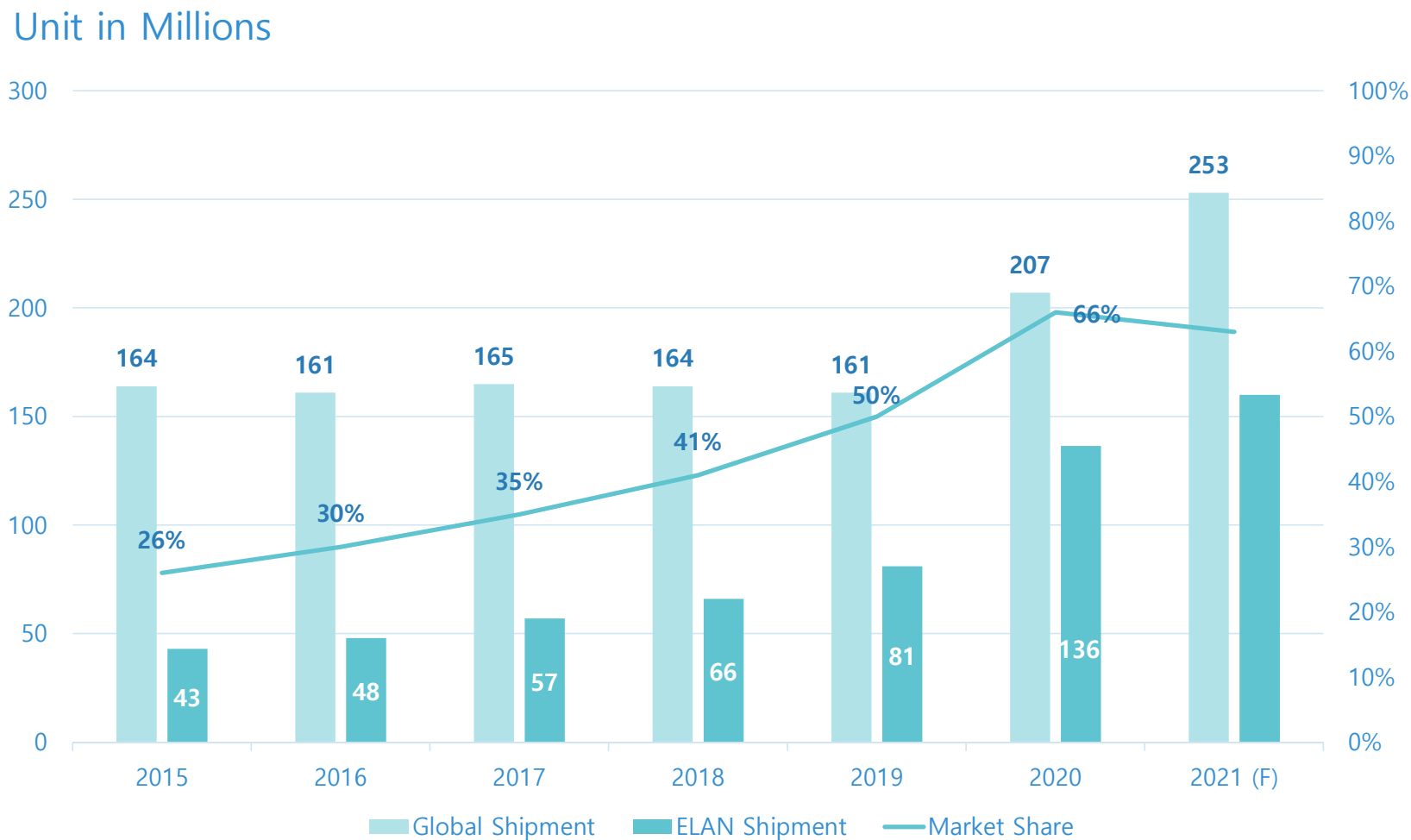
1. Touchpad : Commercial Market Share Increase / Haptic & Lighting -> +ASP
2. Touchscreen : Penetration Rate Up / Pen Solution -> +ASP
3. Fingerprint Reader : Penetration Rate Up & Market Share Increase / Keycap Solution -> +ASP
4. Pointstick : Market Share Increase / New Feature -> +ASP

### 6 Growth Areas for the Future

1. Flex/Foldable AMOLED Touchscreen Controller (with Pen)
2. Touch Display Driver Integrate for Smartphone (TDDI)
3. Large Touch Display Driver Integrate for NB (LTDI)
4. Mini-LED Local Dimming Controller
5. Smartphone Finger Printer Reader
6. Smart Card Finger Printer Reader

# World-Wide NB Shipments

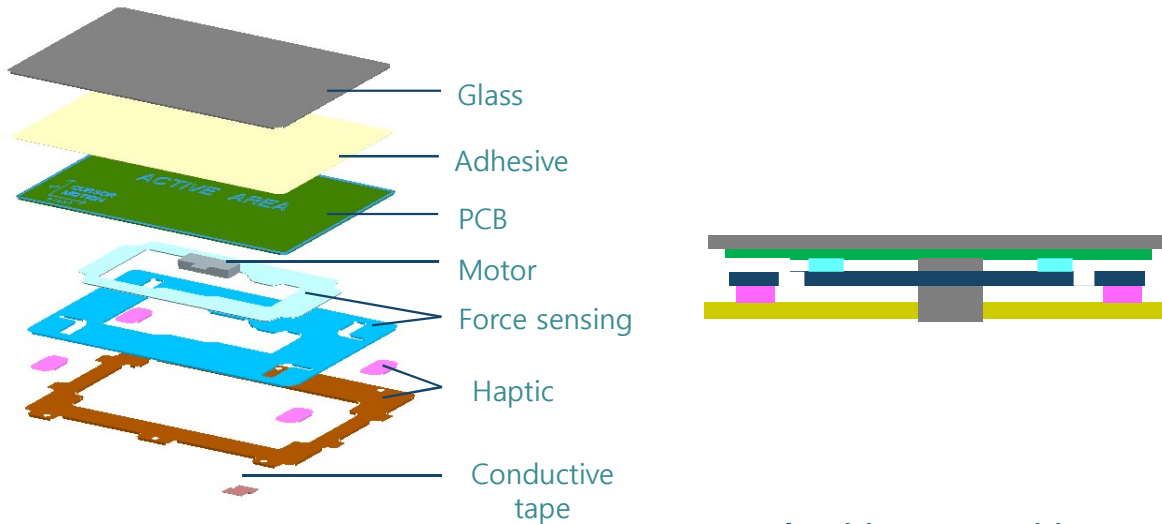
## ELAN Touchpad Shipment Data



Source: TrendForce, TRI, Omdia, NB Players, ELAN



# Pen on TouchPad & HapticPad Application



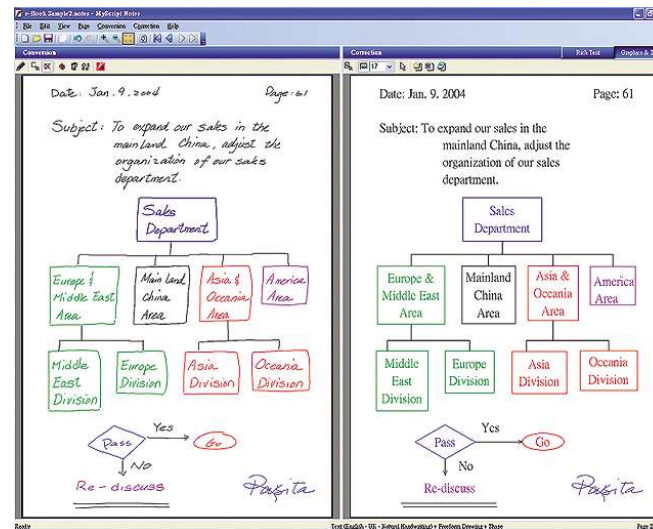
**A. Credit card signature**



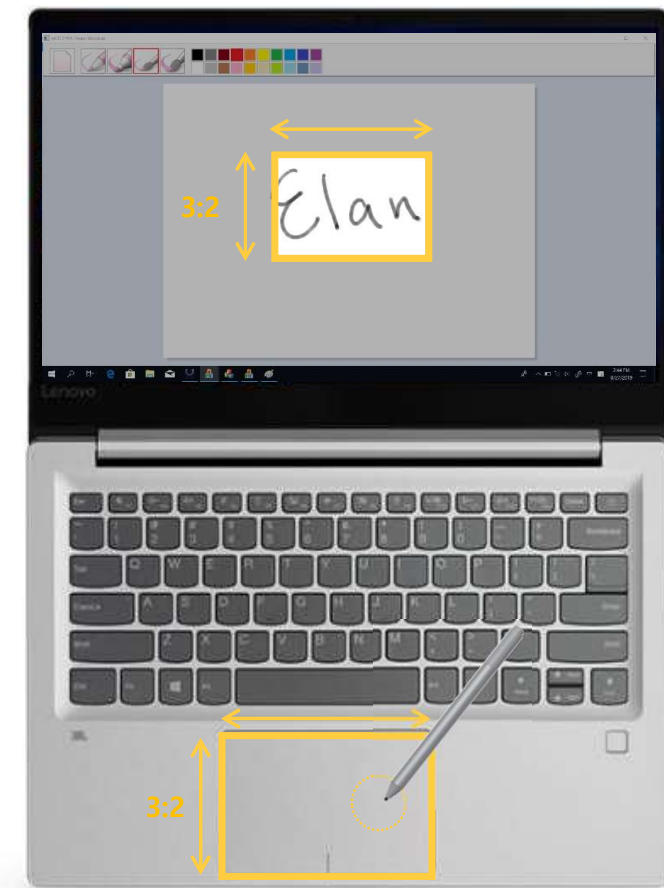
**B. Equation calculation**

The screenshot shows a Microsoft Calculator window with the calculation  $\frac{20+3}{16} = 1.437...$  displayed on the screen.

**C. Hand writing recognition**



**D. Indirect mapping via APP**

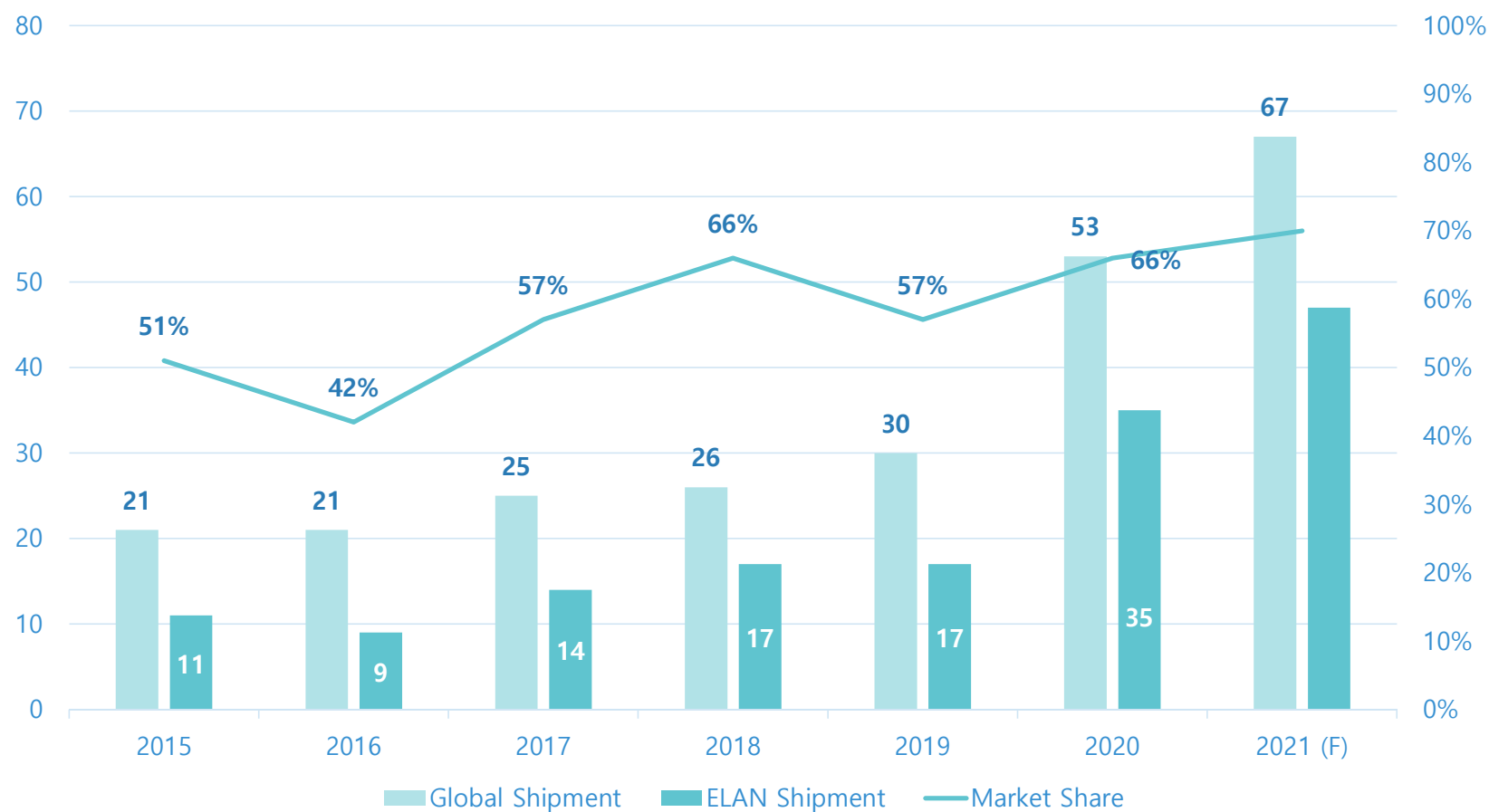


# World-Wide NB Shipments

## ELAN Touchscreen Shipment Data



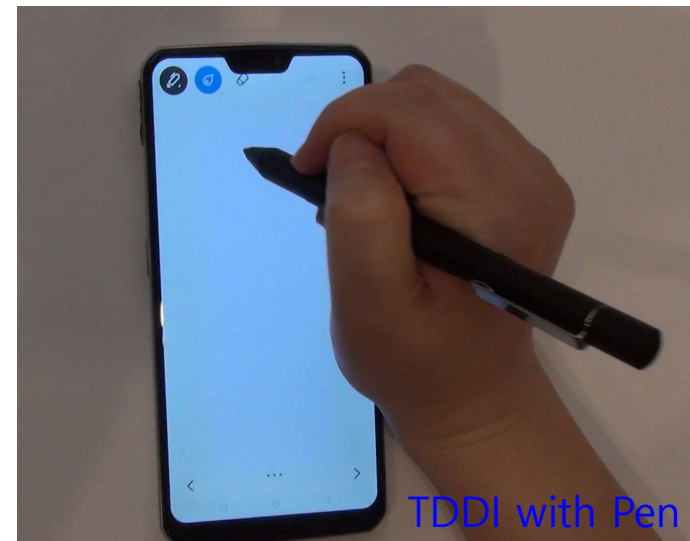
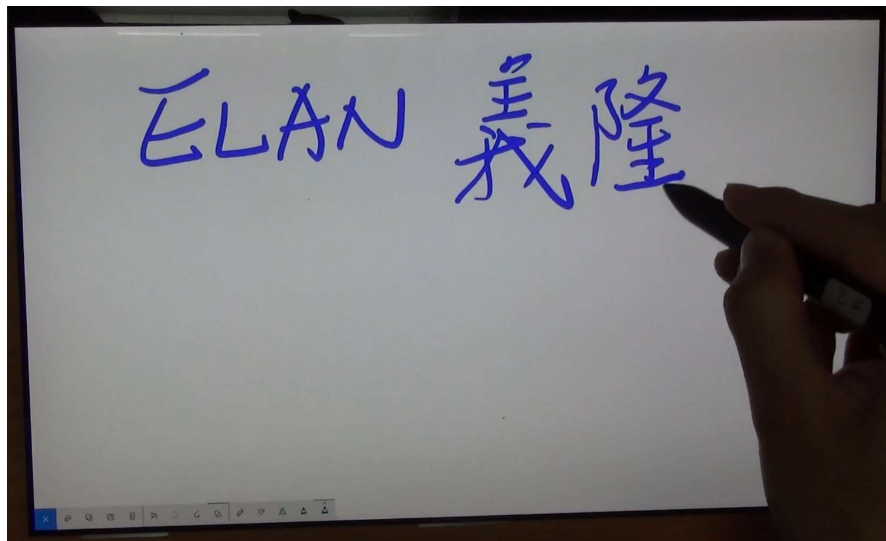
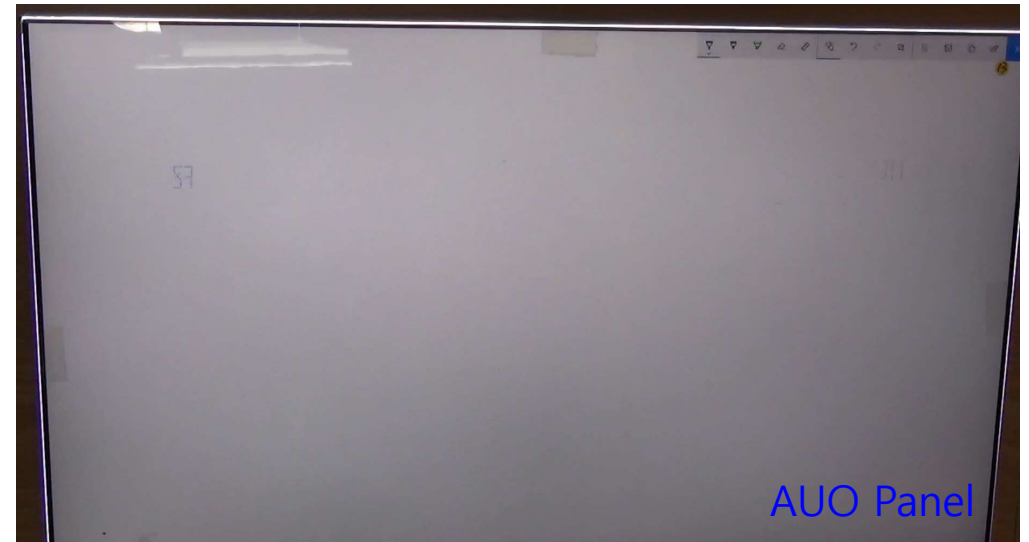
Unit in Millions



Source: TrendForce, TRI, Omdia, NB Players, ELAN



# ELAN Smart-TouchScreen™ Roadmap - TDDI/LTDI Solutions



# ELAN LTDI is the first certified by the Windows

Windows HLK certificate (Touch)



Private product ID: 13826257025240778  
Shared product ID: 400465583  
Submission ID: 1152921505692701389  
Submission date: 2020/12/14  
Completion date: 2020/12/14  
Company: ELAN Microelectronics Corporation  
Product name: 13.3" - Elan\_LTDI T - eKTD7000 - Elan  
Category: Device  
Product type: **Touch**  
Qualification level: Certified for Microsoft Windows 10 Client family version 2004, x64  
Marketing name: N/A

Windows PHCK certificate (Pen)



Private product ID: 14575790178295615  
Shared product ID: 400465782  
Submission ID: 1152921505692701115  
Submission date: 2020/12/14  
Completion date: 2020/12/14  
Company: ELAN Microelectronics Corporation  
Product name: 13.3" - Elan\_LTDI P - eKTD7000 - Elan  
Category: Device  
Product type: **Pen Digitizer**  
Qualification level: Certified for Microsoft Windows 10 Client family version 2004, x64  
Marketing name: N/A

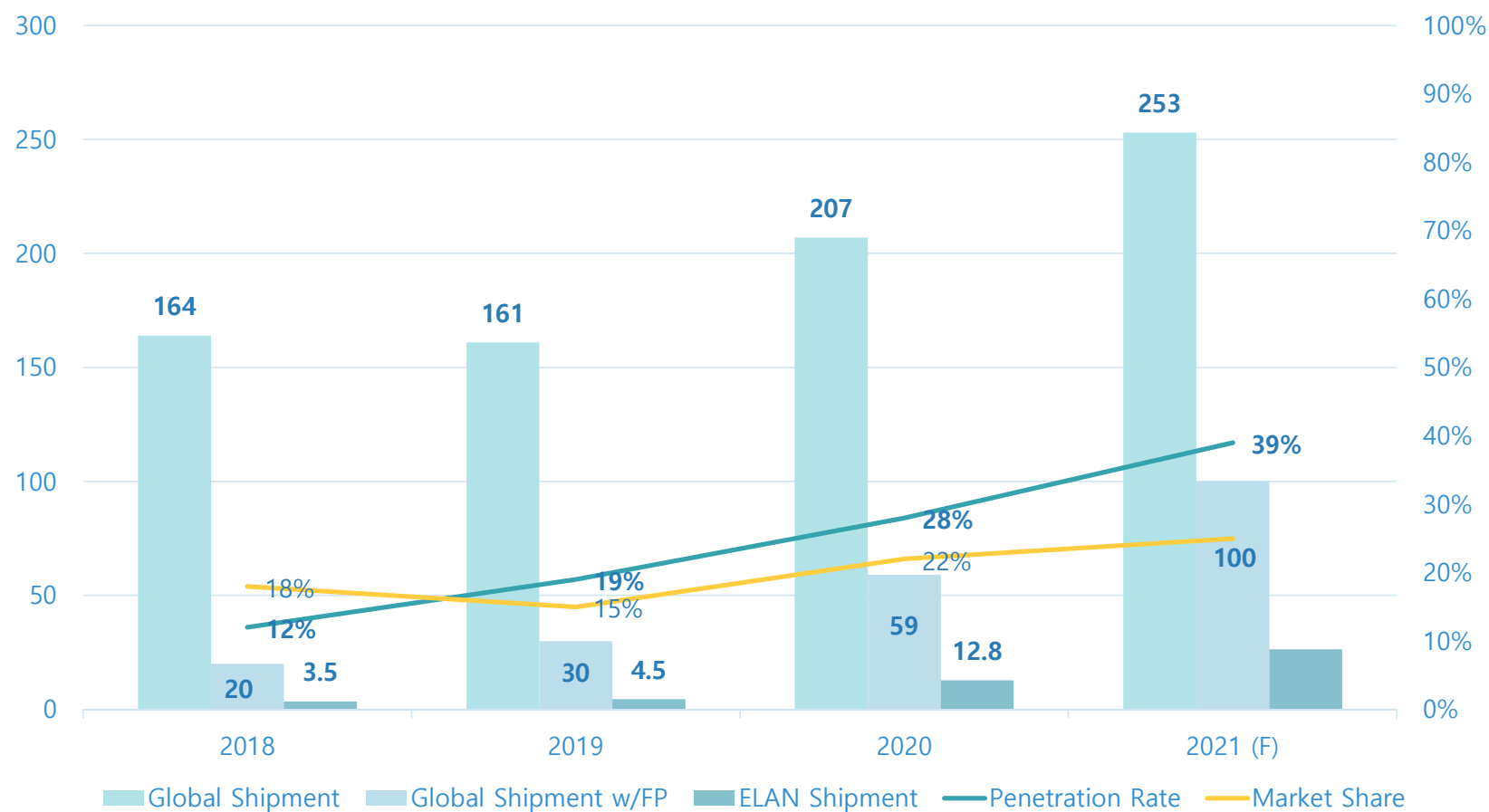


# World-Wide NB Shipments

## ELAN FP Shipment Data



Unit in Millions



Source: TrendForce, TRI, Omdia, NB Players, ELAN



# Fingerprint Solution on NB Trends



## Fingerprint on C cover

- ❌ Supply Chain Overhead
- ❌ Double Tooling Charge



## Smart-ID™ Button



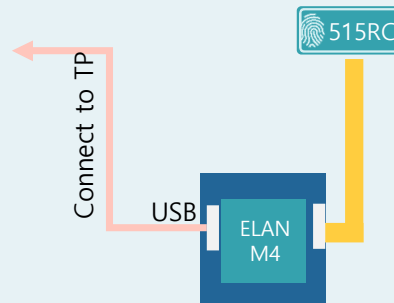
## Smart-ID™ KeyCap



## Smart-ID™ Pad

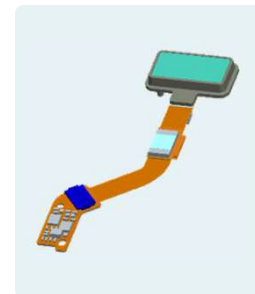
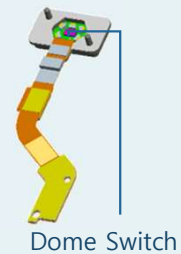
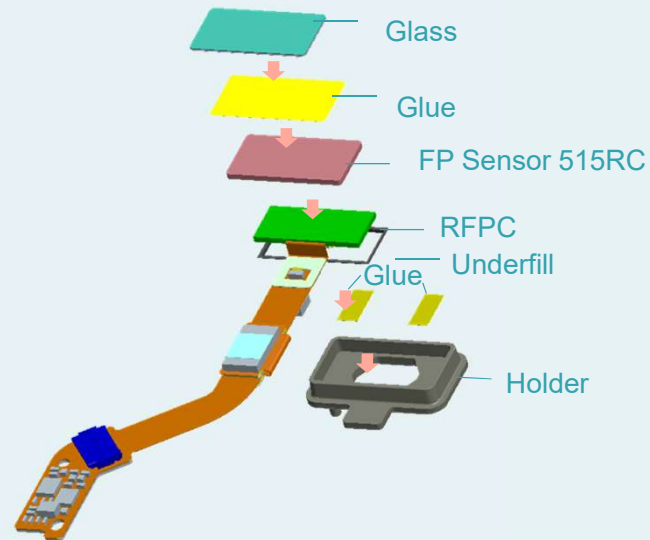
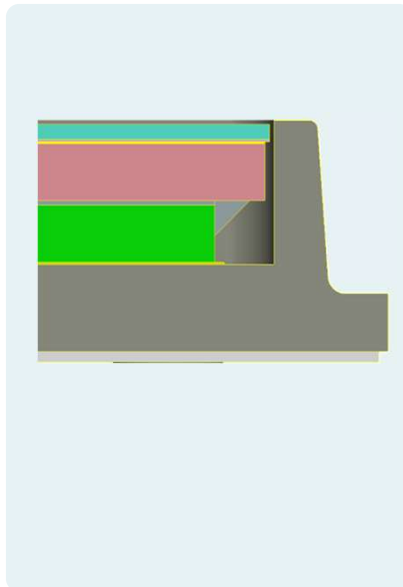
# ELAN Solution Functional Block for Surface Laptop

## Fingerprint Module



### Fingerprint Features:

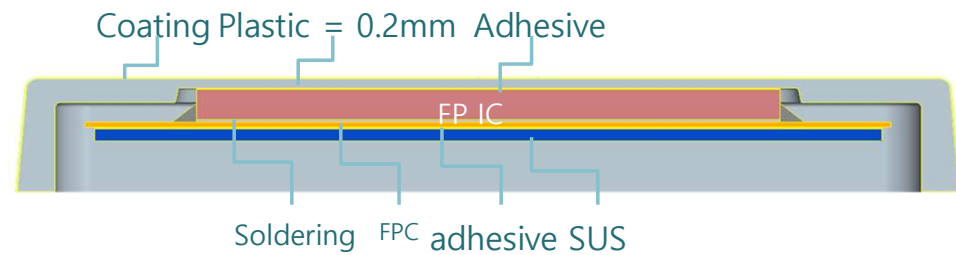
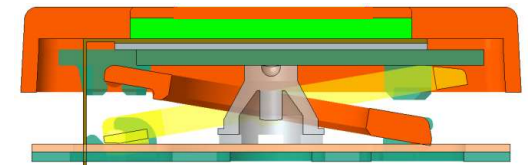
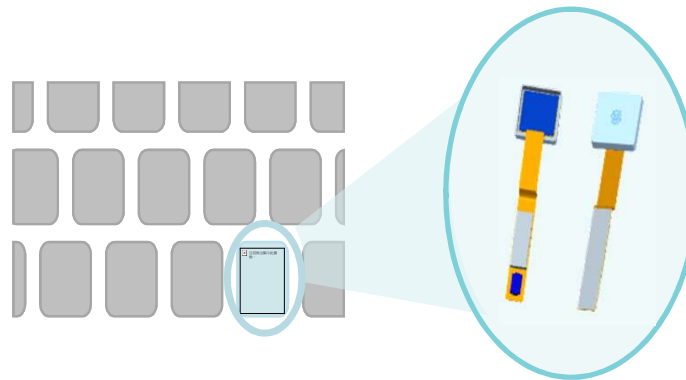
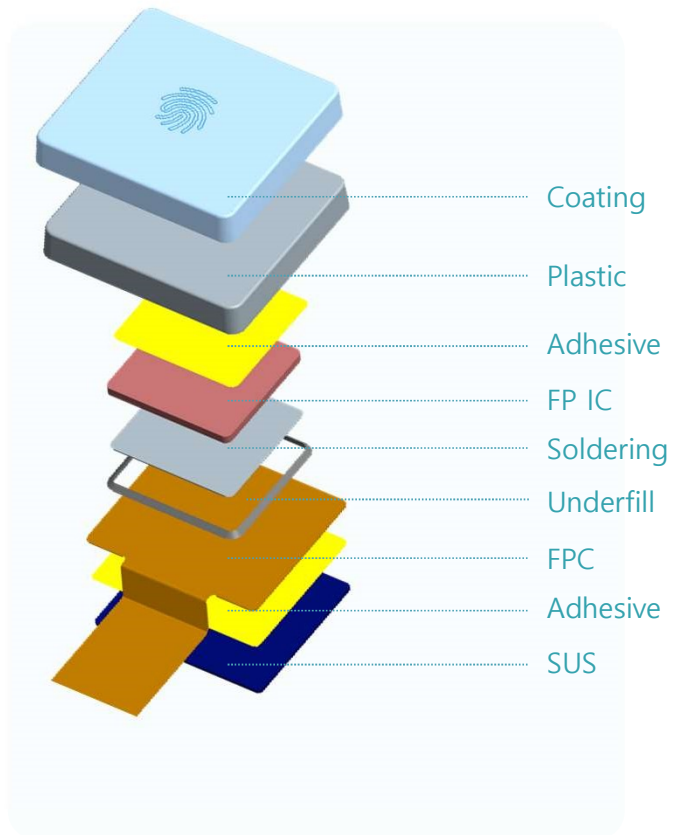
- 2.5D Anti-Spoof \*
- Cover Glass
- Single-Sign-On
- LED Ring Indicator
- Match-On-Chip
- Customized Power Button Icon
- Accidental Trigger Control



\* Mandatory

# ELAN Keycap Solution Update

Live Demo will be available in Upcoming Q4 20'



# The First one passed 2.5D Anti-spoofing FIDO Certification

## FIDO Certification

### 8.2 Presentation Attack Detection Testing

#### 8.2.1 Test crew distribution Batch A (T20STN00-522 A001)

Presentation Attack Detection	
Number of individuals tested	17
Distribution of Age	18~30 : 24% 31-50 : 76%
Distribution of Gender	Male: 53 % Female : 47%

TYPE	DESCRIPTION
Number of enrollment transactions	17
Number of genuine verification transactions	5
Number of impostor verification transactions	680
Failure to Enroll Rate	0
Failure to Acquire Rate	0
Number and description of presentation attack instruments, PAI species, and PAI series used in the evaluation	Level A / Specie 1: N/R Level A / Specie 2: N/R Level A / Specie 3: N/R Level A / Specie 4: N/R Level A / Specie 5: N/R Level A / Specie 6: N/R Level B / Specie 1: 17 Level B / Specie 2: 17 Level B / Specie 3: 17 Level B / Specie 4: 17 Level B / Specie 5: N/T Level B / Specie 6: N/T
number of test subjects involved in the testing	17
number of artefacts created per test subject for each material tested	1
number of sources from which artefact characteristics were derived	1
number of tested materials	4

FIDO Biometric Component Certification Debug Report  
Vendor: ELAN MICROELECTRONICS CORPORATION  
Product name: Smartcard Sensor Module version Batch B received on 2020/10/12  
Report reference and version: T20REP00-522- V1.0



### 2.2 Summary

TEST	VERDICT
Pre-Testing (For PAD only)	PASS
Performance Part1 : Online Testing	N/R
Performance Part 2 : Offline Testing	N/R
Presentation Attack Detection (limited to 4 PAIs)	PASS

TYPE	DESCRIPTION
Impostor attack presentation accept rate (IAPAR)	Level A / Specie 1 IAPAR: N/R
	Level A / Specie 2 IAPAR: N/R
	Level A / Specie 3 IAPAR: N/R
	Level A / Specie 4 IAPAR: N/R
	Level A / Specie 5 IAPAR: N/R
	Level A / Specie 6 IAPAR: N/R
	Level B / Specie 1 IAPAR: 0%
	Level B / Specie 2 IAPAR: 0%
	Level B / Specie 3 IAPAR: 0%
	Level B / Specie 4 IAPAR: 0%
Number of impostor attack presentation transactions	Level B / Specie 5 IAPAR: N/R
	Level B / Specie 6 IAPAR: N/R
Number of impostor attack presentation transactions	680

# ELAN Sensor has Passed Ant Security Phecda Lab Biometrics Test



Dear Partner,

Congratulations! Thanks for your trust and patience, Elan eFSA688RA fingerprint sensor has passed Ant Security Phecda Lab biometric test. Its security level passed the highest requirement test of Google Android biometric security, **Class 3(Strong)**. This result has also been recognized / approved by Google Android team.

Your device shows outstanding biometric security quality in our test, so congratulations!

The BCR tracker number is **178469169**, and you could submit a separate supplier BCR request to add your product into Android approved list with this tracker number. Any problem please let me know.

BRs,  
Clive Zheng / 郑建旭(言谨)  
Ant Financial

## 7.2 Test Result

PAI	L	Attempts		SAR (%)	SAR (%) by Test Subject									
		Successful attempts	Total attempts	SAR (%)	A	B	C	D	E	F	G	H	I	J
1	A	0	0	0.0										
2	A	0	0	0.0										
3	A	0	0	0.0										
4	A	0	0	0.0										
5	A	0	0	0.0										
6	B	0	800	0.0	0.0		0.0			0.0		0.0		
7	B	0	800	0.0	0.0			0.0		0.0			0.0	
8	B	0	800	0.0		0.0		0.0			0.0		0.0	
9	B	0	800	0.0		0.0			0.0		0.0			0.0

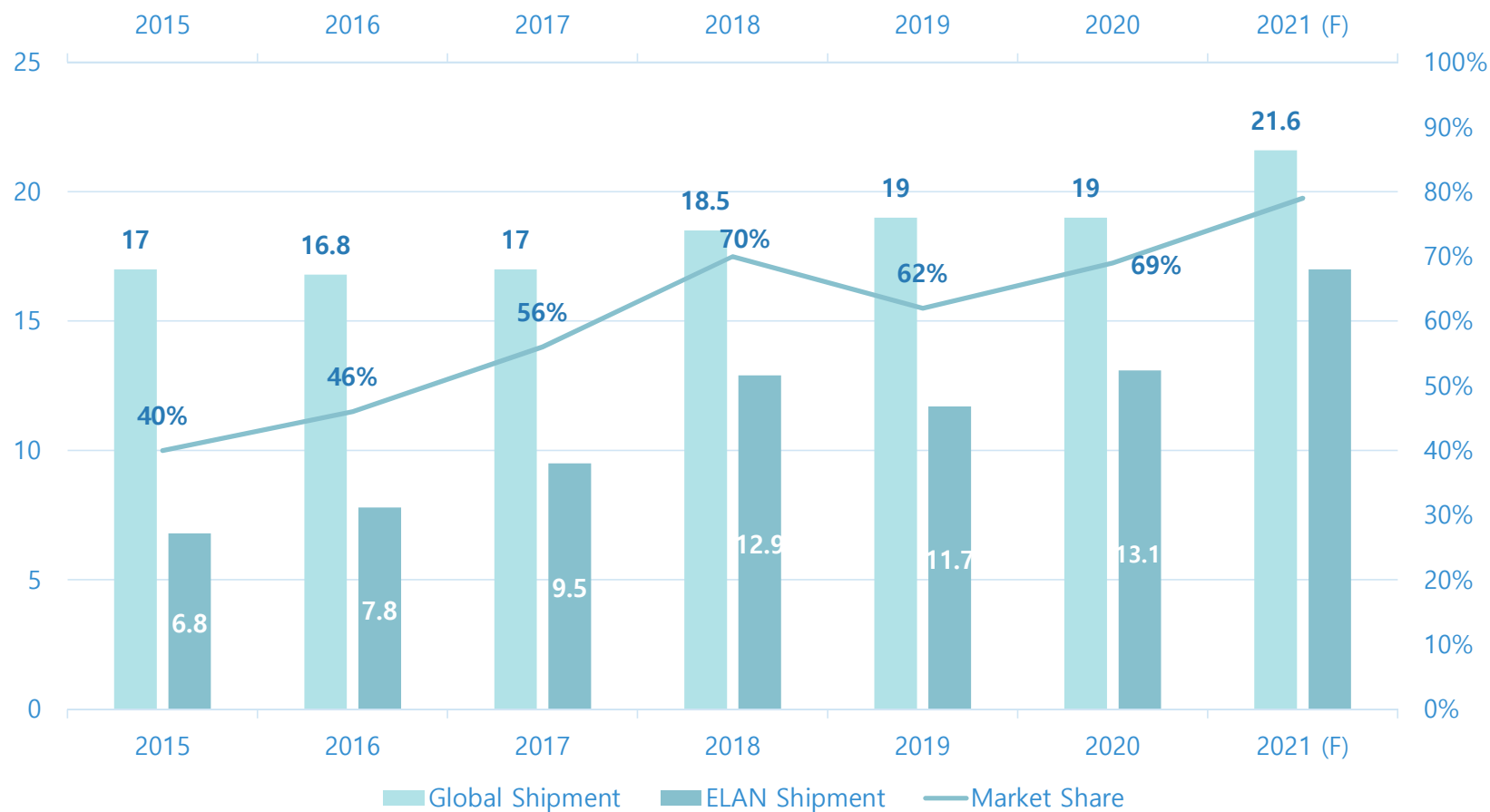


# World-Wide NB Shipments

## ELAN PST Shipment Data



Unit in Millions

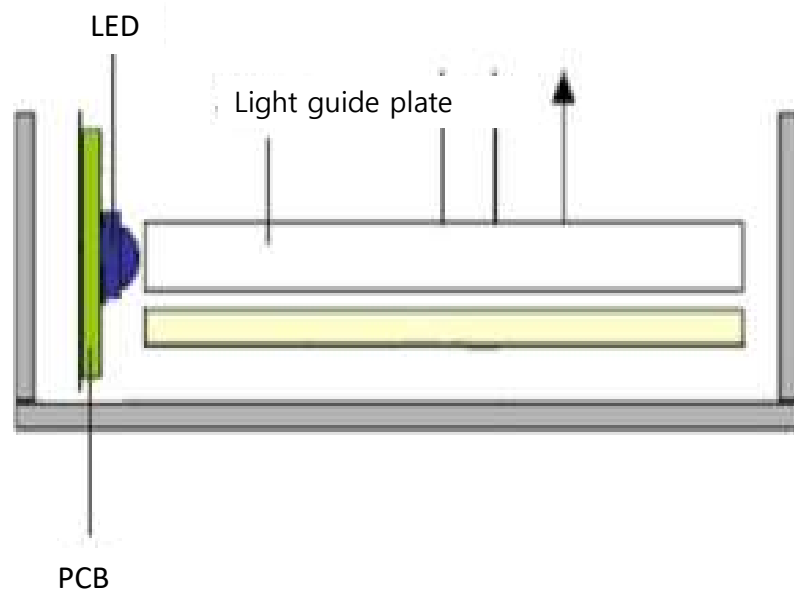


Source: TrendForce, TRI, NB Players, ELAN

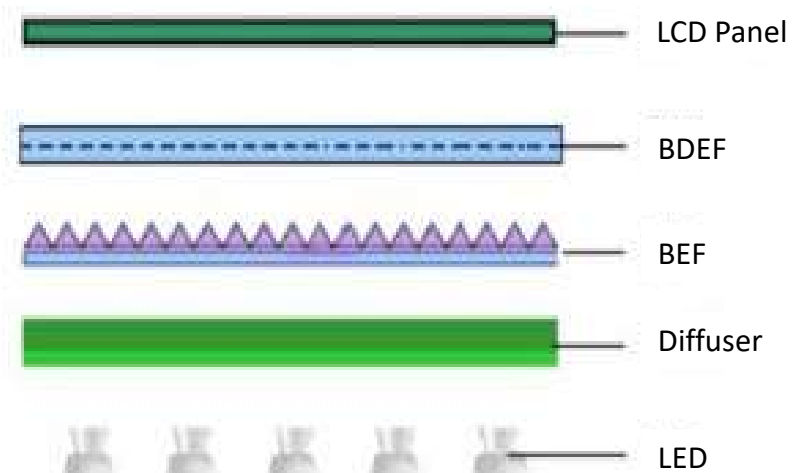


# Traditional LCD vs Mini-LED Backlight

## Traditional Edge-lit LED Backlight Structure



## Direct-down Mini LED Backlight Structure







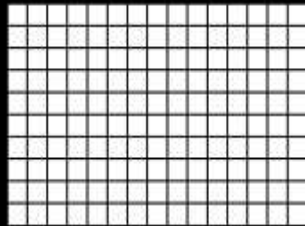
# Traditional LCD vs Mini-LED Local Dimming

Side-emitting architecture backlight

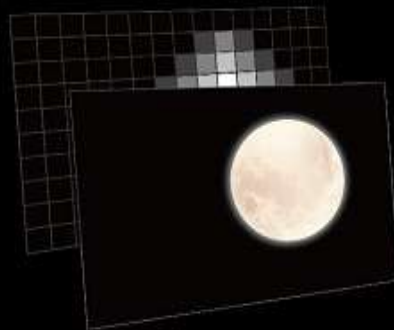


Always On

Direct backlight architecture



Local Dimming



Local Dimming Types

	OK / Good	Good	Better	Best
LCD Panel				
LED Backlight				
	No Local Dimming All LEDs always on Only pixels open/close -Tens standard LEDs	Edge-Lit Local Dimming Vertical strips of LEDs on/off -10 zones -Tens standard LEDs	Standard Local Dimming Zones of LEDs on/off -100 zones -Hundreds standard LEDs	Mini-LED Local Dimming Zone of LEDs on/off -1000 zones -Tens of thousands of mini-LEDs



# Thank You



ELAN Microelectronics Corporation