

昇達科技

Universal Microwave Technology, Inc.

Taipei Exchange : 3491

4/27/2017

Safe Harbor Notice

- ◆ UMT's statements of its current expectations are forward-looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.
- ◆ 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.

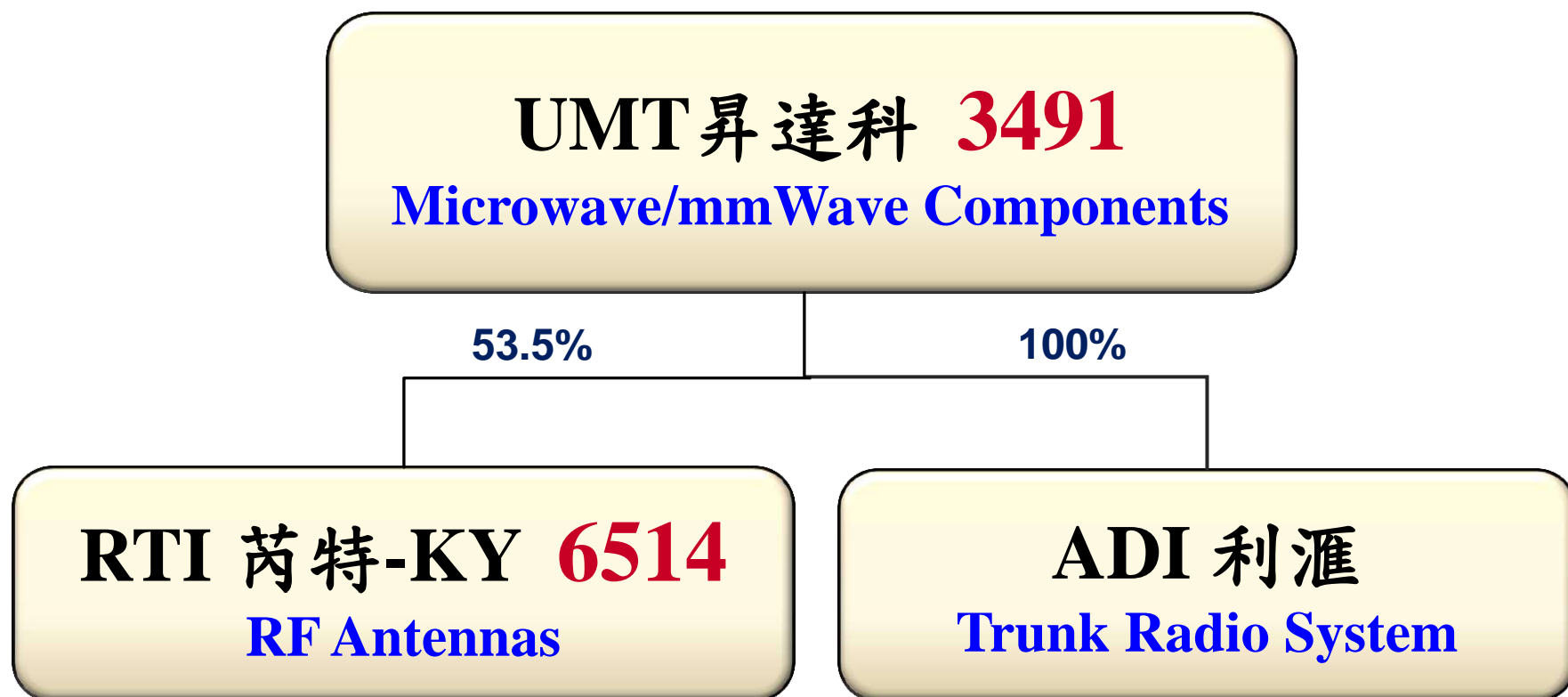
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Company Overview

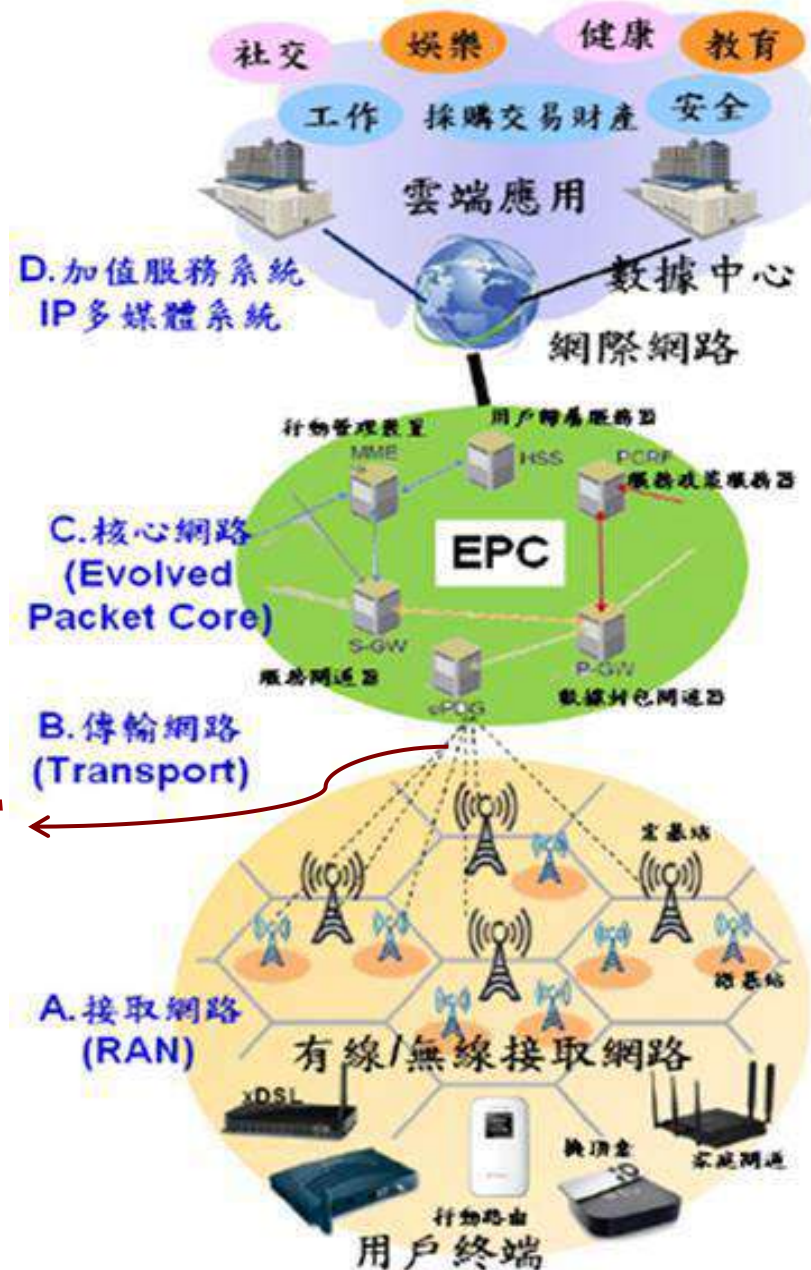
- ◆ **Founded: September 1999**
- ◆ **Capital: NT\$ 516M (~ US\$ 17M)**
- ◆ **Industry: Wireless / Telecom**
- ◆ **Location: Keelung, Taiwan & Kunshan, China**
- ◆ **Product: Microwave/mmWave Components (62.8%)
RF Antennas (27.6%)
Trunk Radio (9.6%)**

Company Structure



Market Analysis

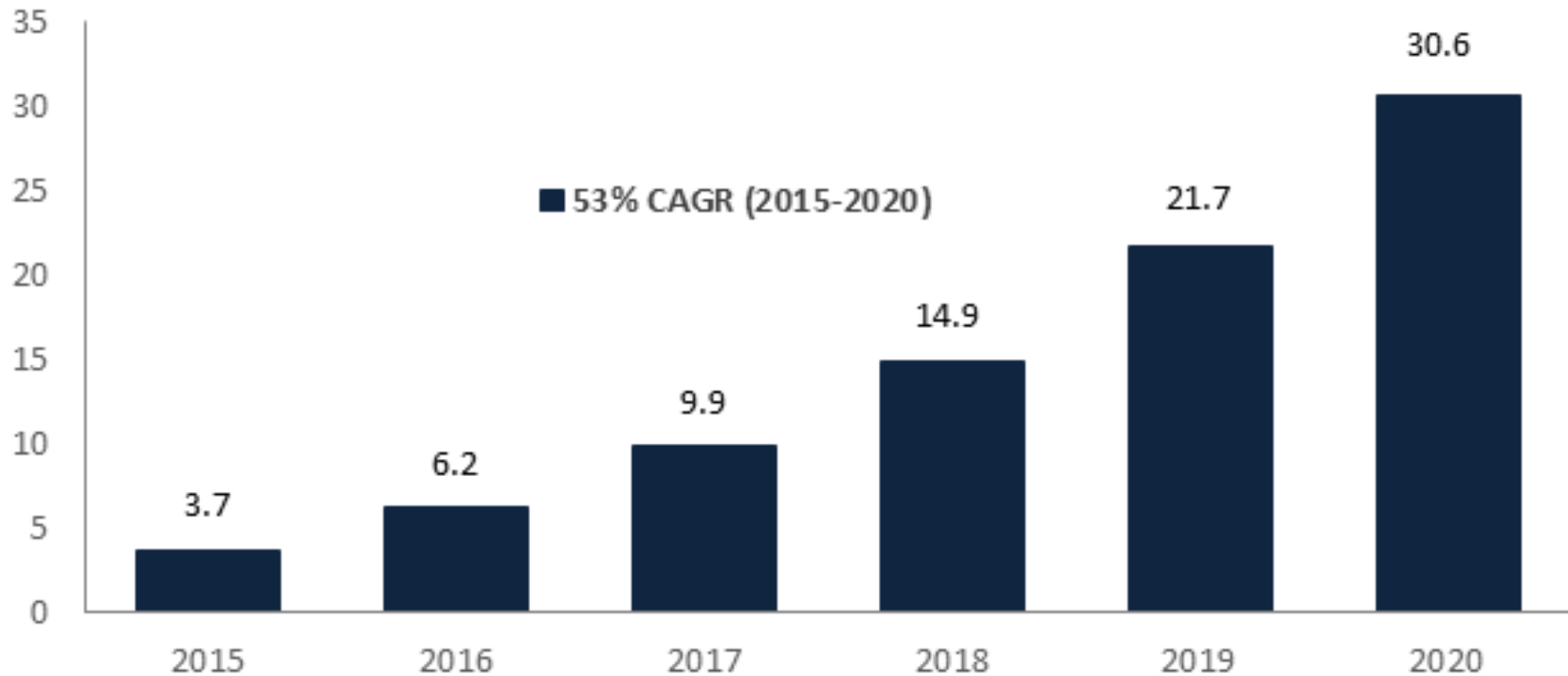
雲端產業結構圖



昇達UMT

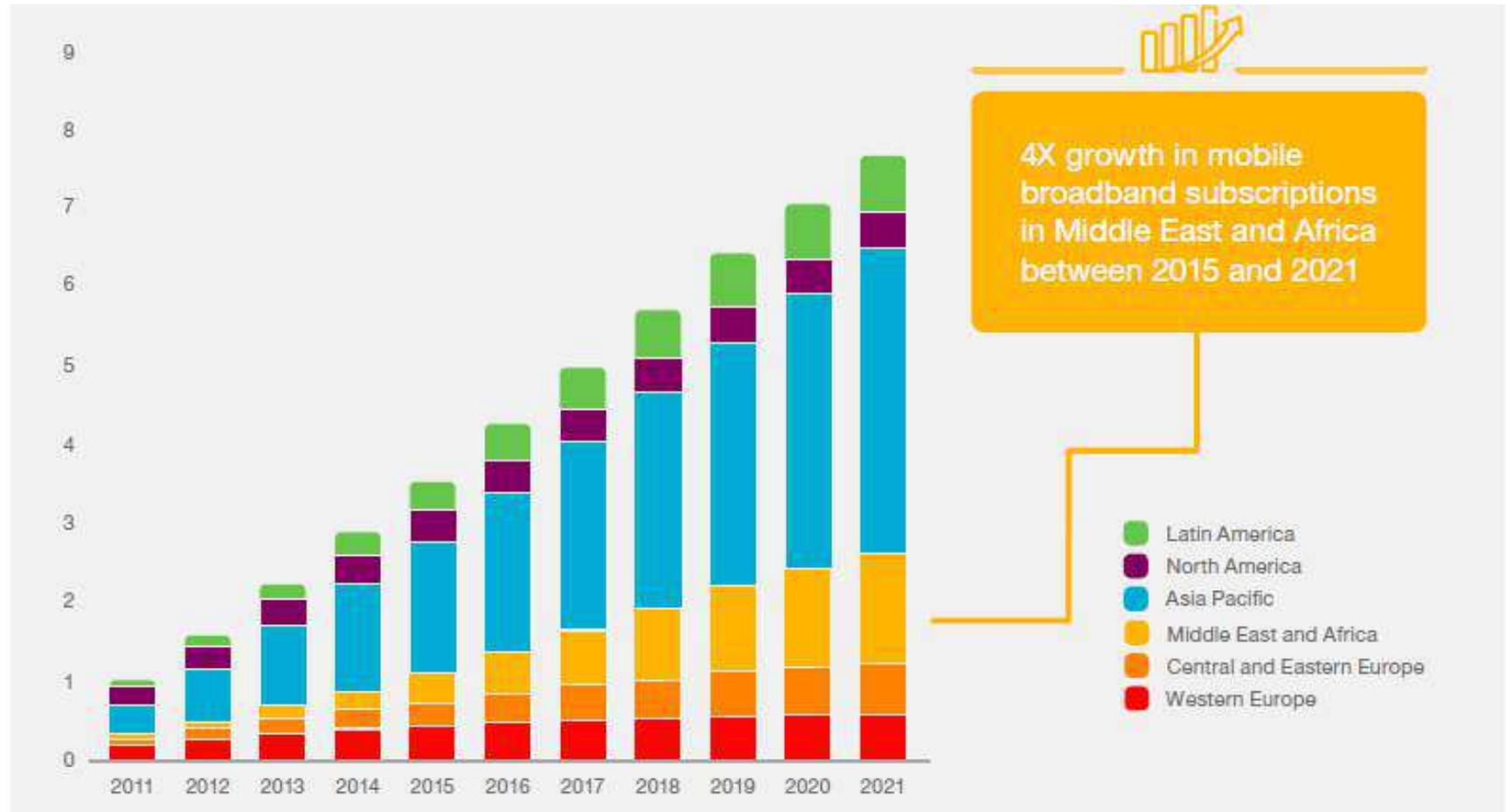
Mobile Data Traffic

Exabytes per month



SOURCE: CISCO VISUAL NETWORK INDEX

Mobile Subscriber (in Billion)



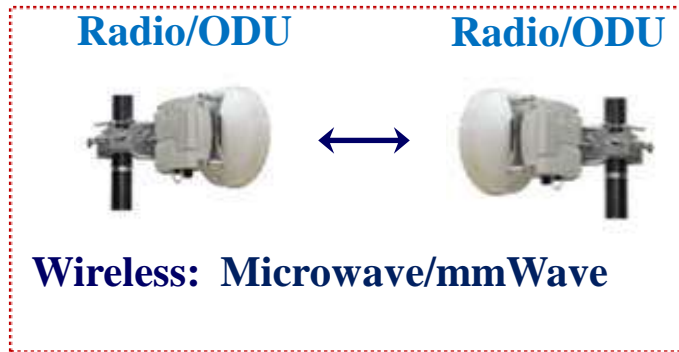
SOURCE: ERICSSON MOBILITY REPORT, JUNE 2016

Transport (傳輸網路)

UE 終端用戶



BS 基站



Transmission between BS
and EPC (Backhaul):

Wire: Fiber



核心網路
(Evolved Packet Core)

EPC

MME (Mobility Management Entity)
行動管理裝置
S-GW (Serving Gateway)
服務閘道器
P-GW (Packet Gateway)
數據封包閘道器
HSS (Home Subscriber Server)
用戶歸屬服務器
PCRF (Policy & Charging Rule
Function)
服務政策服務器

Mobile Backhaul: Solutions

- Wireless** {
 - traditional microwave (6-42 GHz)
 - Sub-6 GHz
 - mmWave, E-band (70-80 GHz)
 - mmWave, V-band (60 GHz)
 - Free space optics
- Wire** {
 - Copper wire
 - Fiber optics
 - Cable

Advantages of Microwave/mmWave

1. **Microwave/mmWave is the dominant backhaul technology.**
2. **Quick deployment, low TCO (total cost of ownership).**
3. **mmWave can support “fiber-like” capacity (>10 Gbps).**
4. **Fiber is expected to continue, but at a slower pace.**
5. **> 65% of all the cell sites will be connected by Microwave.**
6. **Microwave/mmWave is well prepared for 5G.**

Source: Ericsson Microwave Outlook, Oct. 2016

Wireless/Mobile Backhaul Markets

Application:



Public Safety



Mobile



Oil & Gas



Wireless ISP's



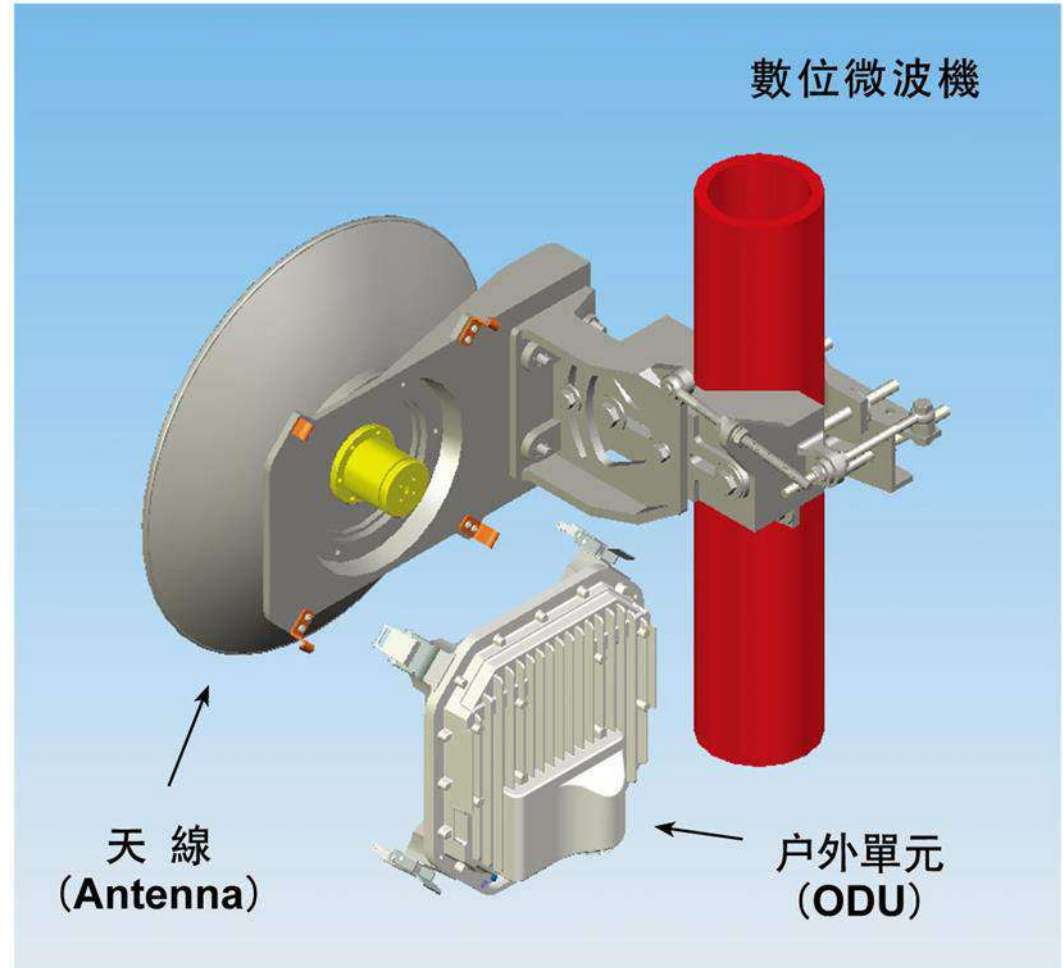
Utilities

Market:

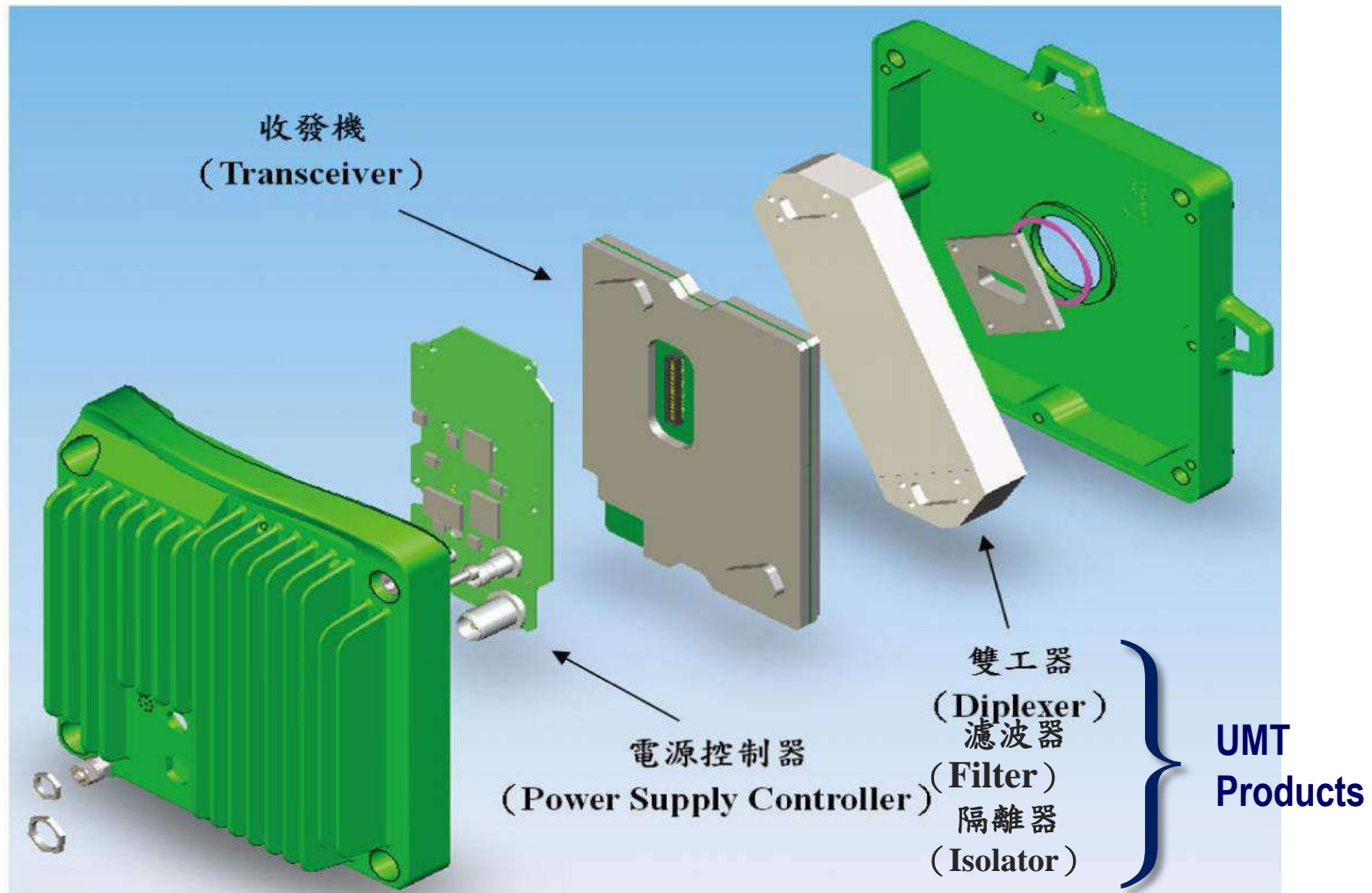
The global mobile and wireless backhaul market is estimated to reach \$42.24 billion by 2022 and is expected to grow at CAGR of 13.57% during 2016-2022.

(Research & Markets, 2016)

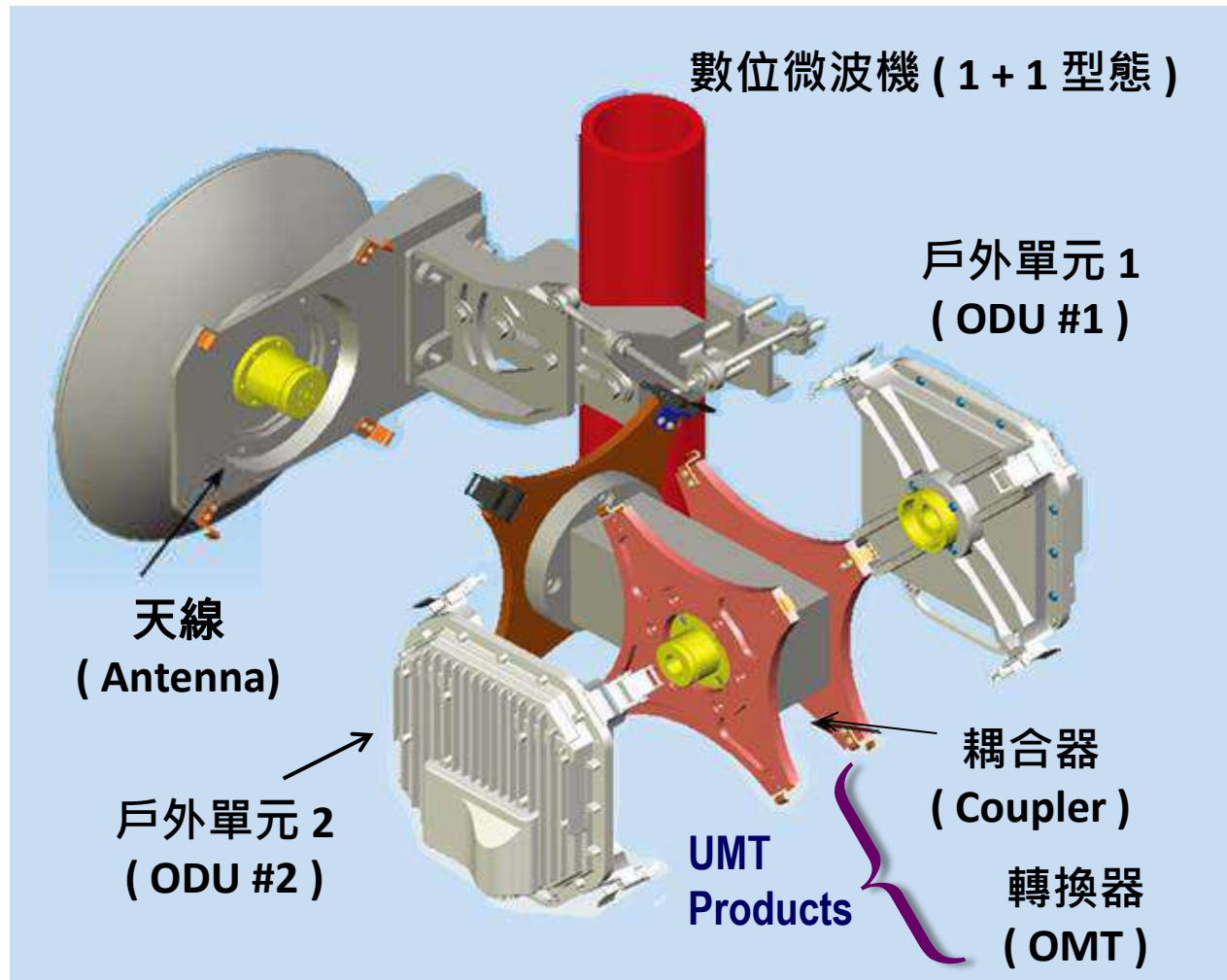
Microwave/mmWave ODU



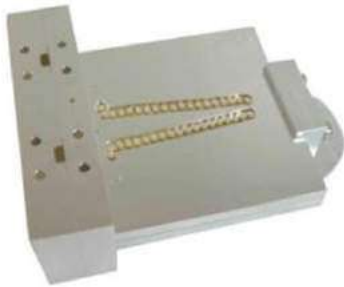
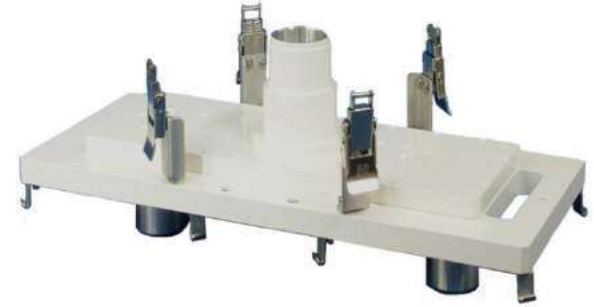
Microwave/mmWave ODU Components



Microwave/mmWave ODU, 1+1 Type



UMT Main Products



**Diplexer/Filter
(40%)**

**Isolator/Circulator
(20%)**

**Coupler/OMT
(25%)**

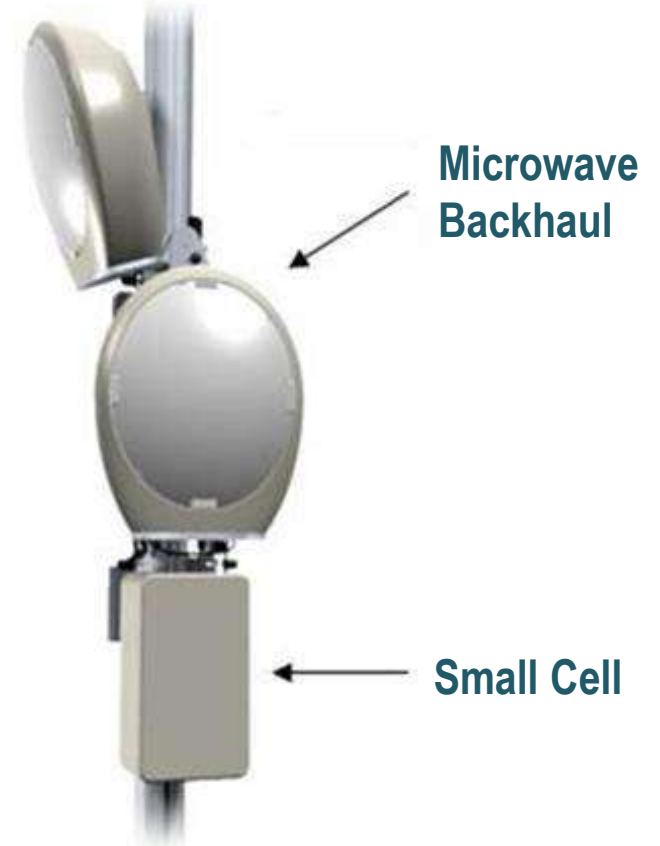
Installation #1 – Tower/ Rooftop



Installation #2 – Light Pole/ Bus Stop



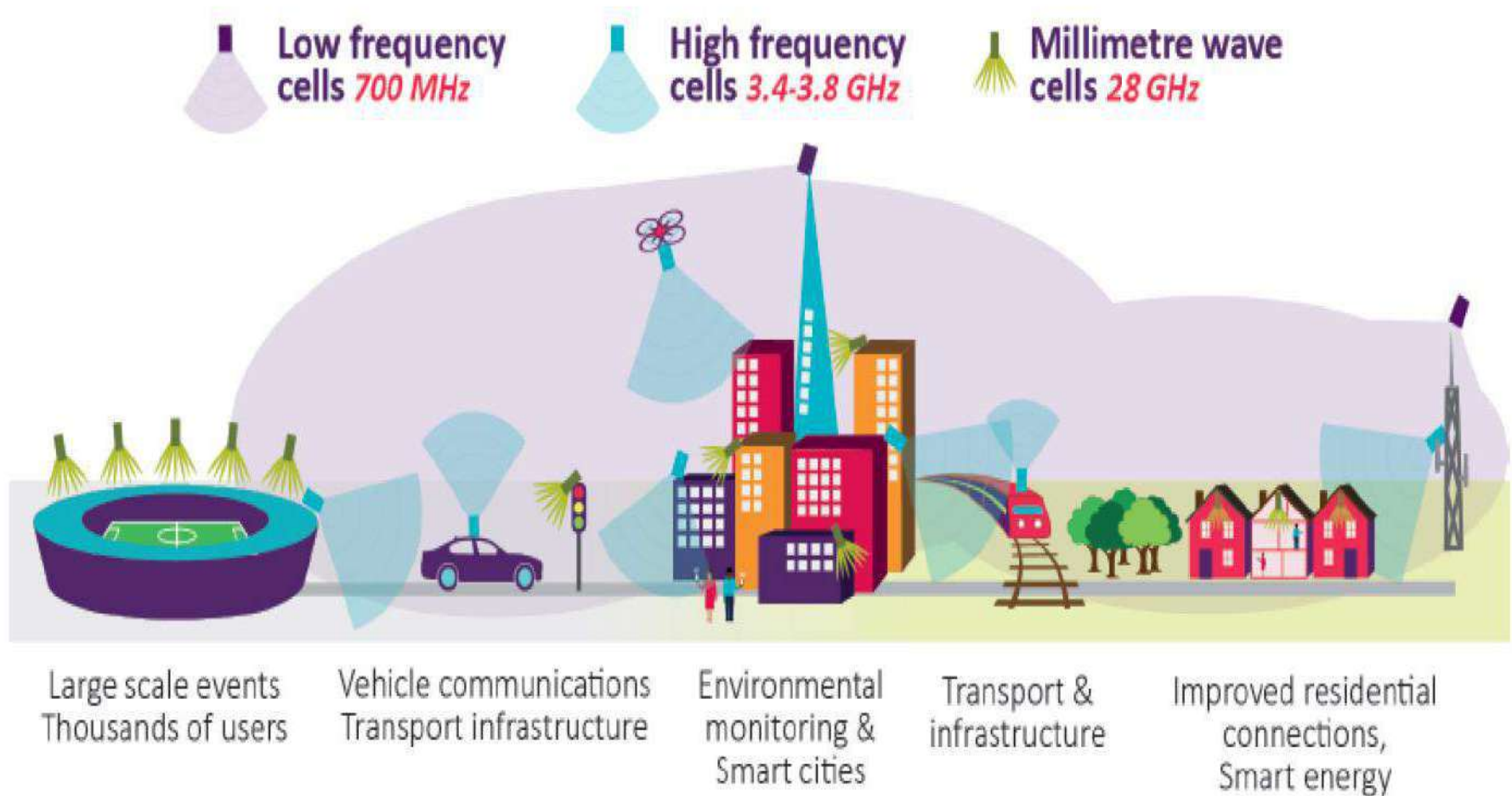
Installation #3 – Microwave + Small Cell



UMT Core Competencies

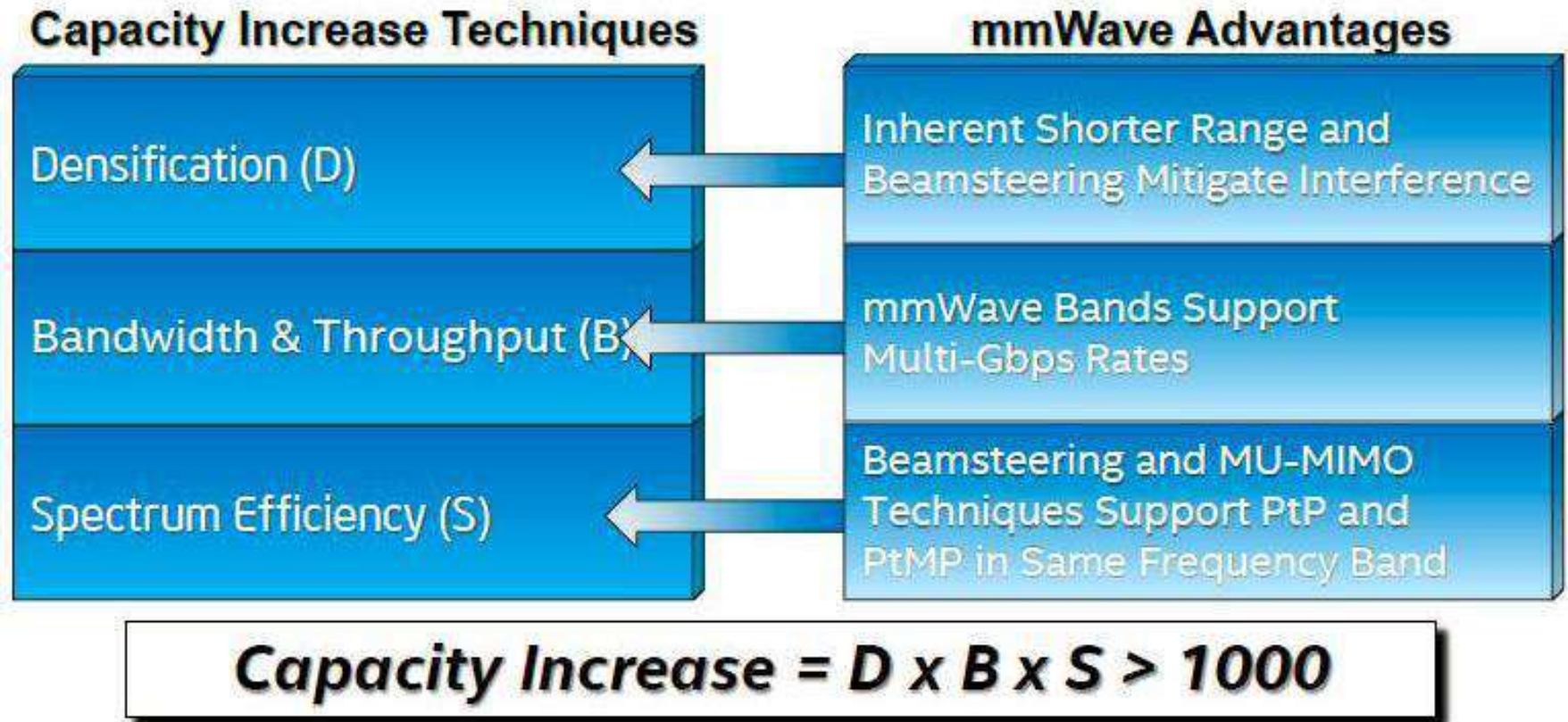
- 1. High design entry barrier: electrical & mechanical design.**
- 2. Manufacturing know-how: stability & yield.**
- 3. Long-term relationship with tier 1 customers.**
- 4. 5G pre-design with customers.**

5G Application

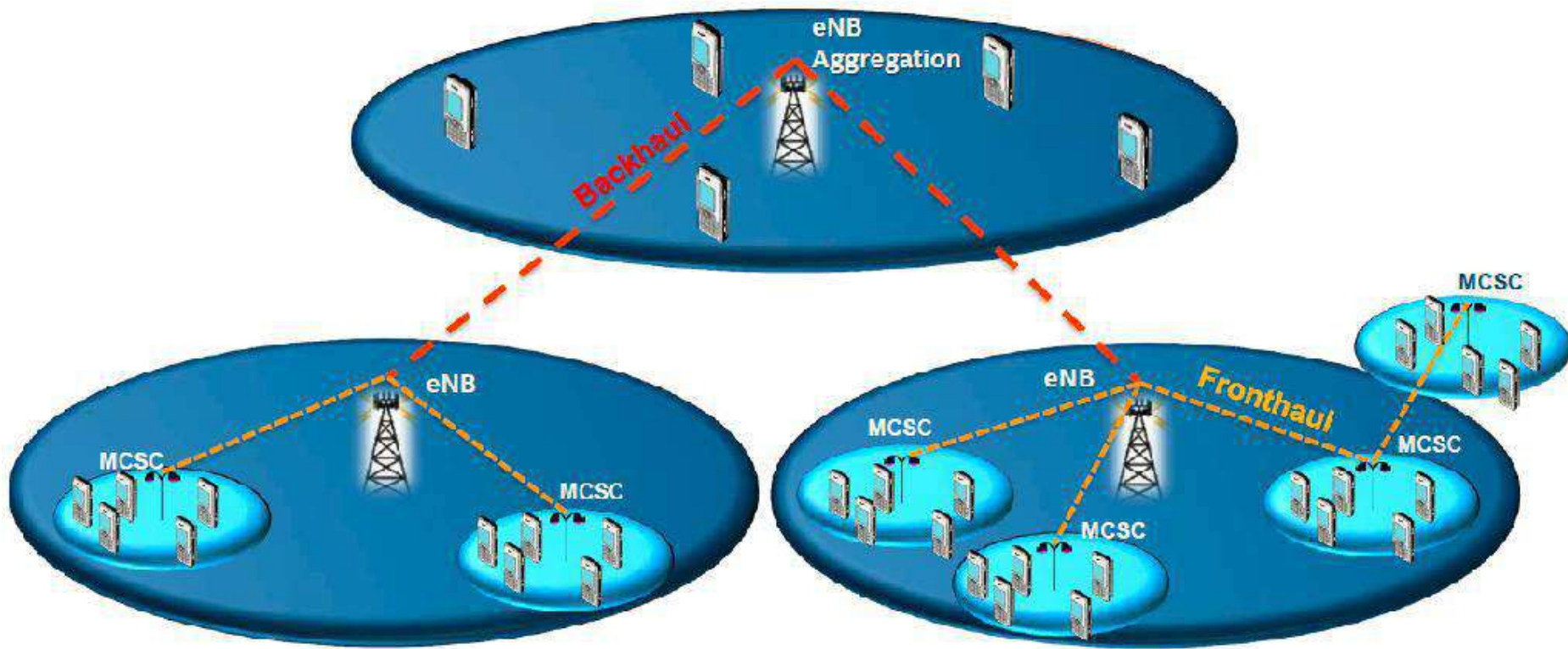


5G Capacity Increase & mmWave Advantages

(Shannon-Hartley Theorem)



HetNet with mmWave Capable Small Cells (MCSC)



5G Products: mmWave antenna & multiplexer



28 GHz Antenna



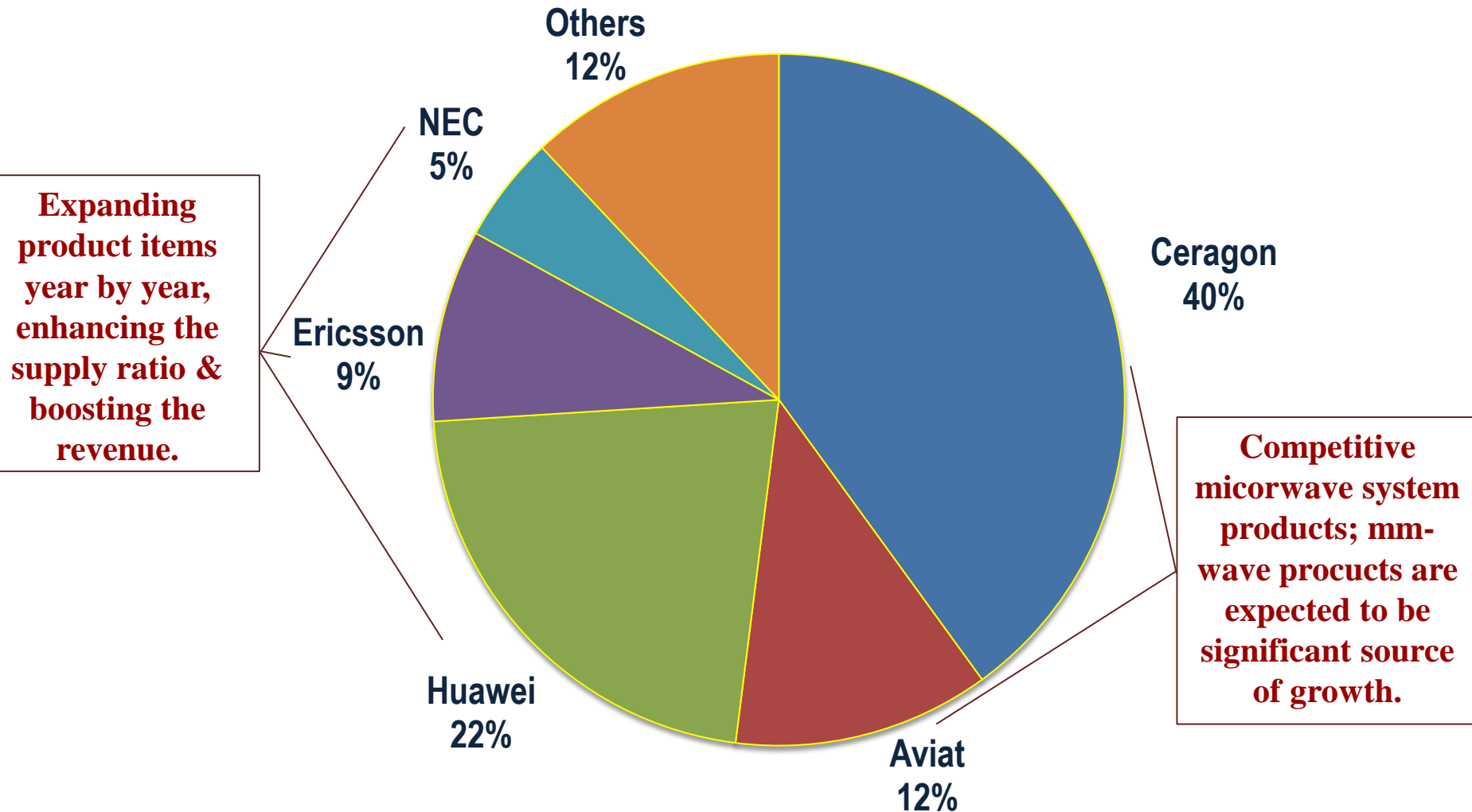
**28 GHz
16-Channel Filters**



38 GHz Antenna

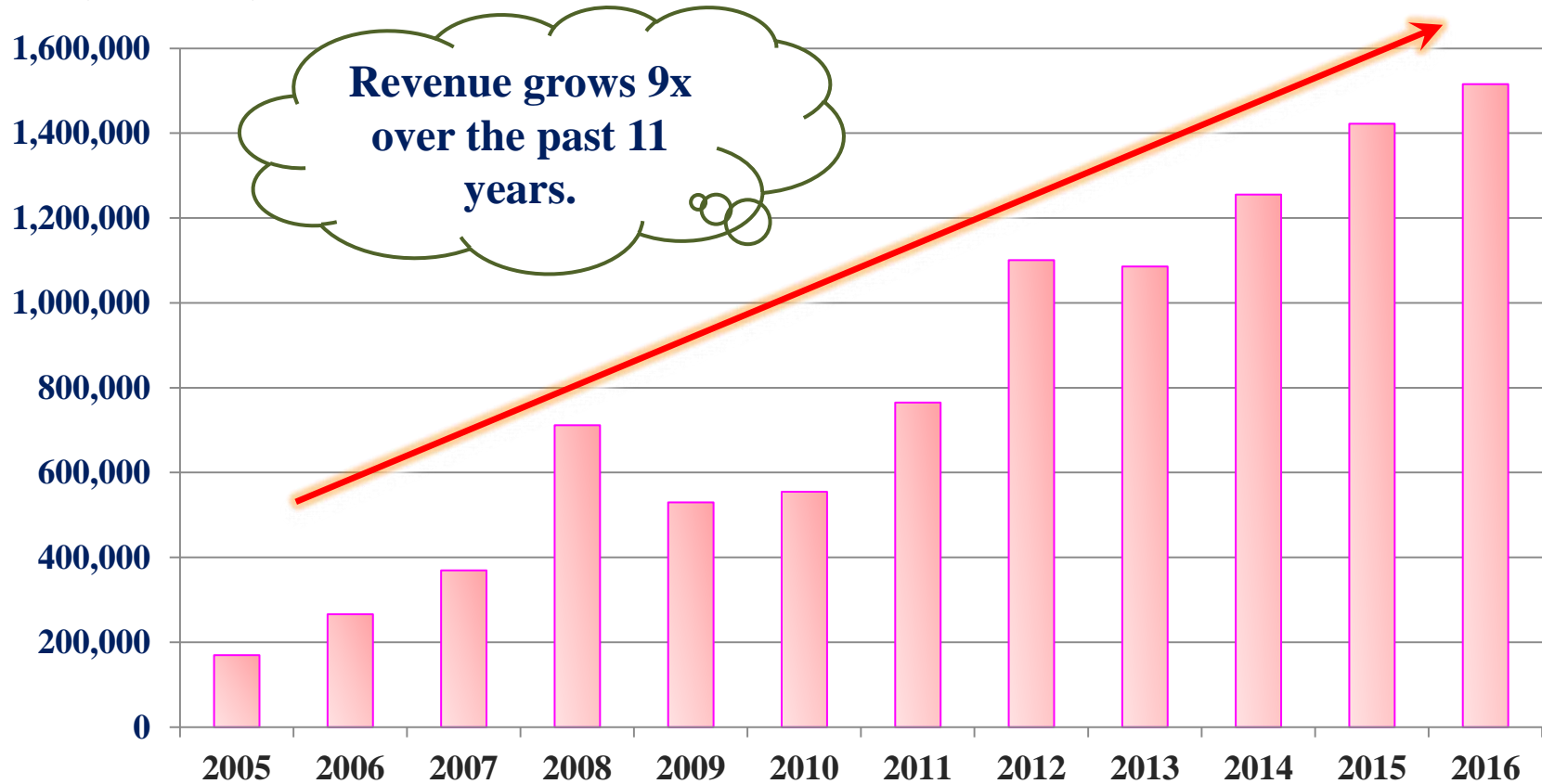
Financial Figures

Revenue Ratio by Clients (2016)



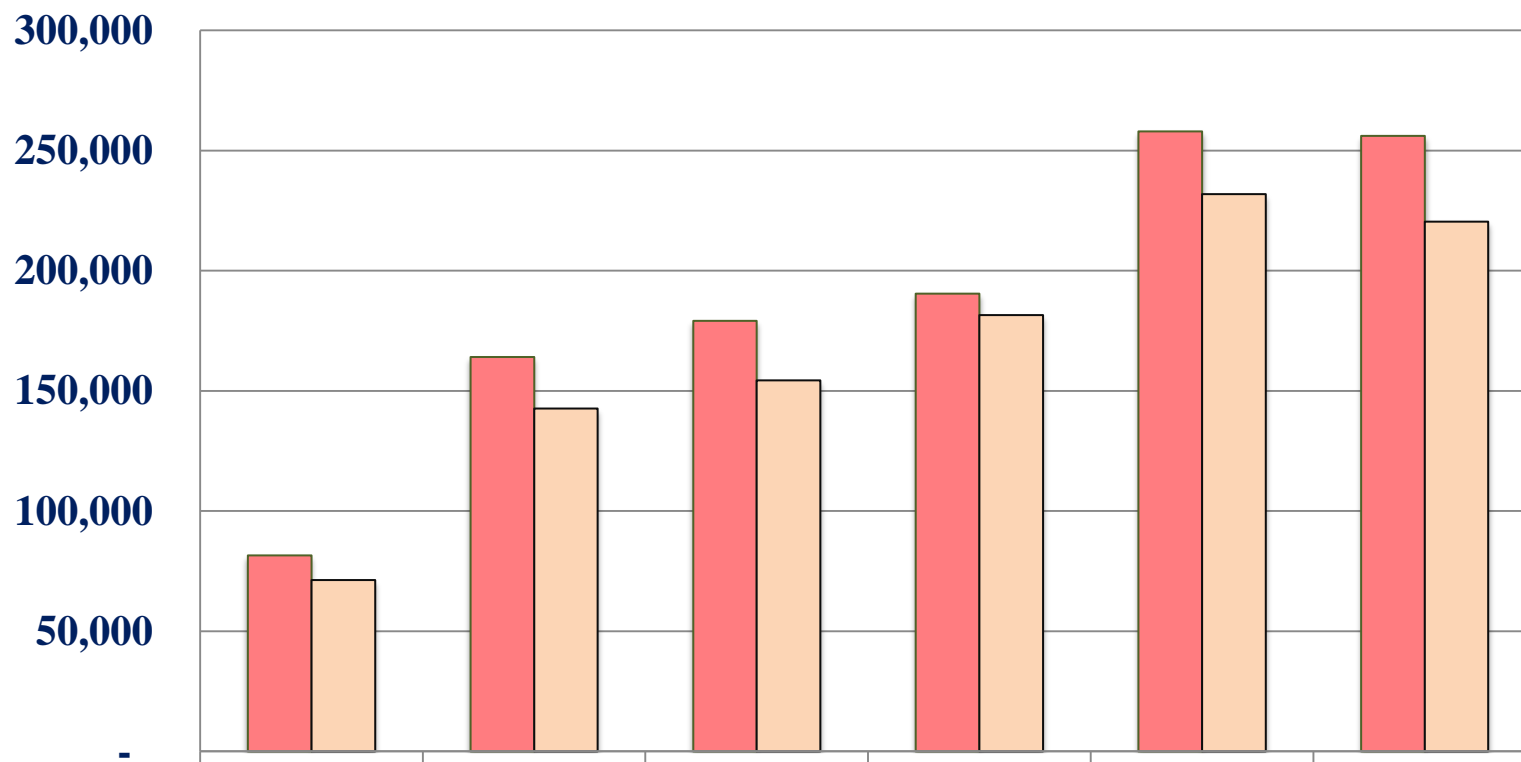
Revenues

NTD (Thousands)



Operating Performance

NTD (Thousands)



Operating Profit

81,520

164,157

179,175

190,473

257,956

256,039

Net Income

71,322

142,606

154,406

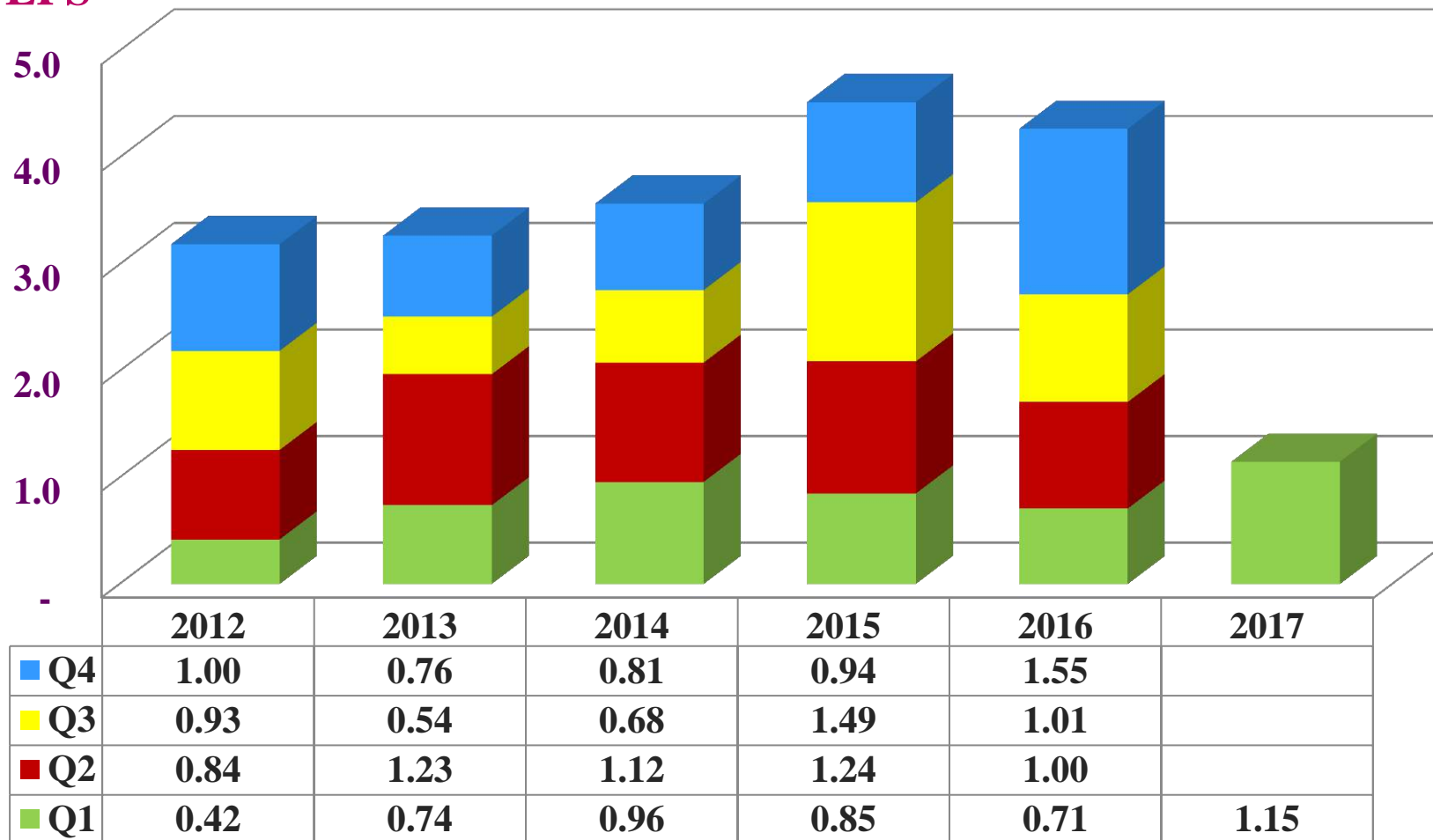
181,492

231,851

220,396

Quarterly EPS

EPS



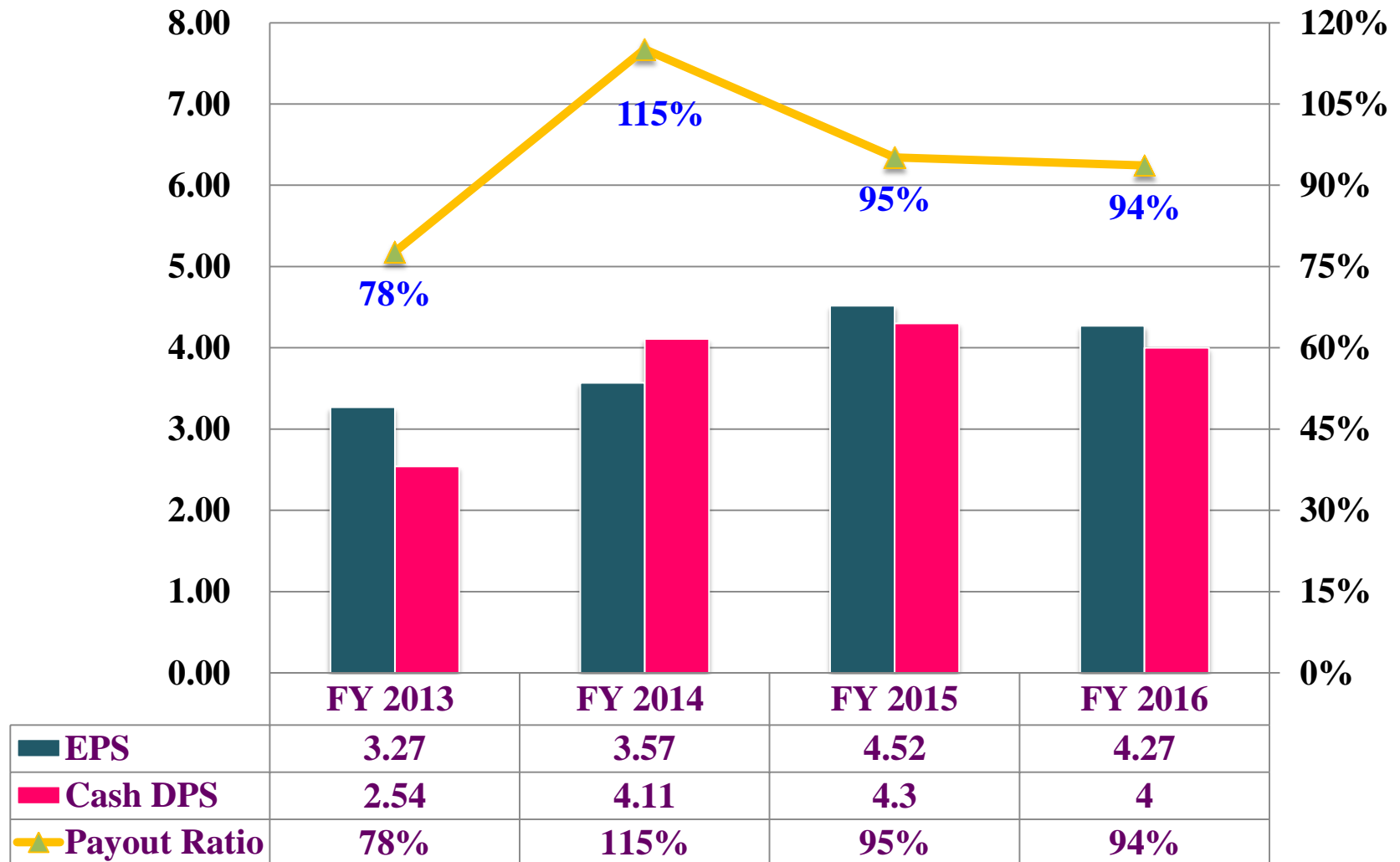
Condensed Income Statements

NTD (thousands)	2017Q1 (Unaudited)	YoY	2016Q1	2016Q2	2016Q3	2016Q4
Revenue	396,694	↑ 13%	352,401	385,651	368,917	409,383
Gross Profit	166,766	↑ 41%	118,581	124,667	138,039	166,275
GP Ratio	42.0%		33.6%	32.3%	37.4%	40.6%
Operating Expenses	71,871	↑ 8%	66,390	72,791	67,712	84,630
Operating Income	94,895	↑ 82%	52,191	51,876	70,327	81,645
Non-operating Rev. (Exp.)	(16,009)		(8,400)	13,485	(7,848)	24,122
Income Before Tax	78,886	↑ 80%	43,791	65,361	62,479	105,767
Net Income (Minority included)	61,523	↑ 69%	36,342	55,517	56,030	88,892

Overview: 2017 Q1 Operating Results

- ✓ Quarterly revenue hits a new high, March of Q1 achieves a monthly record high in history.
- ✓ **42% Gross profit ratio**, continuous new high and exceeds Q4 2016 further.
- ✓ Significantly increase in YoY figures of Operating income, Income before Tax and Net income; growth by **82%, 80%, 69%**, respectively.
- ✓ Operating income in Q1(off peak) exceeds Q4 (peak season) 2016 and grows by **16%**.
- ✓ Operating income have grown by **36%, 16%, 16%** in three latest quarters.

EPS/Dividend Policy



Vision & Plan

Vision & Plan

- ◆ **Customer/Market demands in 4G/4.5G deployment continue**
- ◆ **Core competency enables successful business development and acquisition opportunities**
- ◆ **Leading technology in 5G/mmWave components**

Q & A



穩健踏實 專注聚焦 精益求精

UMT 昇達科 (3491)