ACCELERATING TECHNOLOGY TRENDS DRIVE OPPORTUNITIES FOR NXP

Secure Connections for a Smarter World

Everything Connected

1B+ additional consumers online, 30B+ connected devices

Connectivity

Everything Smart

40B+ devices with intelligence shipped in 2020

Processing

Everything Secure

Potential savings to economy up to half trillion dollars

Security

Source: Euromonitor; Gartner; ARM Holdings; IIBS; Center for Strategic and International Studies; McAfee, NXP analysis, International Telecommunications Union
A NEW POSITION OF STRENGTH TO BETTER SERVE OUR CUSTOMERS

✓ #1 Automotive
✓ #1 Broad-Based MCUs\(^1\)
✓ #1 Secure Identification
✓ #1 Communications Processors
✓ #1 RF Power Transistors
✓ #1 Small Signal Discretes

SECURE CONNECTIONS FOR A SMARTER WORLD

✓ 5\(^{th}\) Largest semiconductor company\(^2\)
✓ 44,000 employees
✓ 11,000 engineers
✓ 9,000 patent families
✓ 50+ year history
✓ $9.8B annual revenue\(^3\)

Sources for market data: HIS, ABI Research, Strategy Analytics, The Linley Group

\(^{1}\) MCU market excluding Automotive
\(^{2}\) Excludes memory
\(^{3}\) Pro forma revenue resulting from Dec 2015 acquisition of Freescale Semiconductor and Nov 2015 divestiture of Bipolar Power business
DEVELOPING SOLUTIONS CLOSE TO WHERE OUR CUSTOMERS AND PARTNERS OPERATE
FOCUSING NXP SOLUTIONS ON HIGH GROWTH MARKETS

Secure, Connected Vehicle
- ADAS: Radar, V2X, Vision, Fusion, network processor
- Car entertainment
- In-vehicle networking
- Secure car access
- Secure car

End-to-end Security & Privacy
- Mobile transactions
- E-Government
- Smart bank cards
- User authentication
- Embedded security
- Cloud & Infrastructure Security

Smart, Connected Solutions
Consumer
- Mobile audio
- High-speed Interfaces
- Smartphone RF
- Personal health & fitness
- Healthcare

Industrial
- Smart home & buildings
- Smart cities, smart grid
- M2M, Industry 4.0
- Intelligent logistics
- 4.5G/5G Networks
EXPLOSIVE GROWTH OF SMART CONNECTED SOLUTIONS

SMART HOME
- MCU
- MPU
- Analog
- Sensors
- RF
- NFC
- Standard Products

SMART HEALTHCARE
- MCU
- MPU
- Analog
- Sensors
- NFC
- Standard Products

SMART INDUSTRY
- MCU
- MPU
- Analog
- Sensors
- RF
- NFC
- Standard Products

WEARABLES
- MCU
- MPU
- Sensors
- Analog
- Standard Products

SMART INFRASTRUCTURE
- MPU
- Analog
- RF
- Standard Products
NXP UNIQUELY POSITIONED TO DELIVER SECURE SMART CONNECTED SOLUTIONS

Security Technology

<table>
<thead>
<tr>
<th>Application Identification</th>
<th>Device Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification</td>
<td>Compliance</td>
</tr>
<tr>
<td>Cryptography Acceleration</td>
<td>Network Security</td>
</tr>
<tr>
<td>NFC</td>
<td>RFID</td>
</tr>
<tr>
<td>Secure Boot</td>
<td>Secure Keys</td>
</tr>
<tr>
<td>Secure Memory</td>
<td>Secure Update</td>
</tr>
<tr>
<td>Trusted Execution Environments</td>
<td>Unique Chip Identity</td>
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</table>

Security Expertise

- E-Passport
- Mobile Transactions
- Banking

Smart Connected

- SMART HOME
- SMART INDUSTRY
- SMART INFRASTRUCTURE
- WEARABLES
- SMART HEALTHCARE
IOT NEEDS A SECURE AND DYNAMIC NETWORK

Secure Connections

Trust Architecture

Edge Nodes

MPUs
NFC
Sensors
Connectivity

MCUs
RFID
Analog

Gateway

MPUs
NFC
Sensors
Connectivity

MCUs
RF
Analog

Cloud

Big Data
Application/Action

Trust Architecture

Trust Architecture

Trust Architecture

Secure Connections

Secure Connections

Secure Connections

Analog

MCUs

RFID

NFC
THE ONLY SUPPLIER TO PROVIDE COMPLETE IOT SOLUTIONS

- DSPs, MCUs & CPUs
- Suite of Sensors
- Wi-Fi, BT, Thread, ZigBee Wireless Interconnects
- Power Management
- Complete HW/SW Security Suite
- IoT Module Packaging

Source: Tirias Research
TODAY: 90% OF AUTO INNOVATION FROM ELECTRONICS

Security
1. Secure Interfaces (SE)
2. Secure Gateway
3. Secure Networking
4. Secure Processing (MCU/MPU)
(+1) Secure Car Access

#1 Infotainment
Tuners
Software-defined Digital Radio
Multimedia Processors
Sound System DSPs & Amplifiers
NFC BT Pairing
Wireless Power Charging
Power Management

#1 Networking
Standard Products
Logic
Power
Discretes

#1 Vehicle Networking
CAN/LIN/FlexRay
Ethernet
Central Gateway Controller
Security

#1 Body
Microcontrollers
Position/Angle Sensors
System Basis Chips

ADAS
Radar Frontend & Microcontrollers
V2X Communication Based on Roadlink
Vision & Lidar Processing
Sensor Fusion

Powertrain & Chassis
Microcontrollers
Pressure/Motion Sensors
Battery Management
Drivers

#1 Secure Car Access
Immo/Security
Remote Keyless Entry
Passive Keyless Entry/Go
Bi-directional Keys
NFC
Ultra Wide Band

#1 Safety
Microcontrollers Airbag
Analog Airbag
Microcontrollers Braking
Analog Braking
Sensors Braking
Tire Pressure Monitoring

Leader in Auto Analog/RF
Leader in Auto Processing
Leader in Auto Sensors

Secure Connections
For a Smarter World
TOMORROW: ENABLING THE SECURE CONNECTED CAR

Secure Connected, Self-Driving Cars will Save >1,3M Road fatalities globally

NXP Offers Complete Secure ADAS System....

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Secure Network

THINK

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SENSE

Secure Network

SURROUND VIEW

Blind Spot Detection

Rear Collision Warning

Park Assistant/Surround View

Park Assist

Rear Collision Warning

Surround View

Surround View

Emergency Braking

Pedestrian Detection

Collision Avoidance

Traffic Sign Recognition

Cross Traffic Alert

Lane Departure Warning

Adaptive Cruise Control

Traffic Sign Recognition

Cross Traffic Alert

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Enable Adaptive Cruise Control

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...including Big Data Infrastructure

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SENSE

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BIG DATA
WE OFFER A BROAD ECOSYSTEM OF SUPPORT FOR OUR CUSTOMERS
WE’RE CREATING SECURE CONNECTIONS FOR A SMARTER WORLD

Enhanced security | Mesh Connectivity | Sensors | Smart LED lighting | Gateway & Cyber Security | Access

Car Entertainment | In-vehicle Networking | Car Access | Car2X and Radar

Secure Bank Cards | Mobile Transactions | Loyalty- Reward | RFID Tags/Labels | Supply Chain Monitoring | NFC Readers

Contactless | Transport card | Access Solutions | Micro-payments

Smart Watch | Activity Tracking | Smart Glass

Cloud Computing Gateways
Routers & switches
Security Appliances
Wireless Base Stations
Smartphones

Smart Parking | Smart Roads | Traffic Congestion | Smart Lighting | Waste Management

Manufacturing Automation | Temperature Monitoring | Machine Diagnosis & Control | Remote Asset Control | Fleet Tracking

e-passport | Smart eID | Health Card

Hospital & at-home Patient Monitoring | Fall Detection | Personal Health & Fitness Monitoring

Distribution | Energy Consumption & Monitoring | Water Pressure Measurement

NXP

12 EXTERNAL USE
READY NOW TO SUPPORT YOU TO ACHIEVE SUCCESS

SECURE CONNECTIONS FOR A SMARTER WORLD