



Sustainable Wireless Empowering Connectivity

Q4. 2025

Kangxi Communication Technologies
Company Profile



About KXcomtech

Kangxi Communication Technologies
www.kxcomtech.com



KXcomtech Products Catalog



Wi-Fi FEM



IoT FEM



Cellular



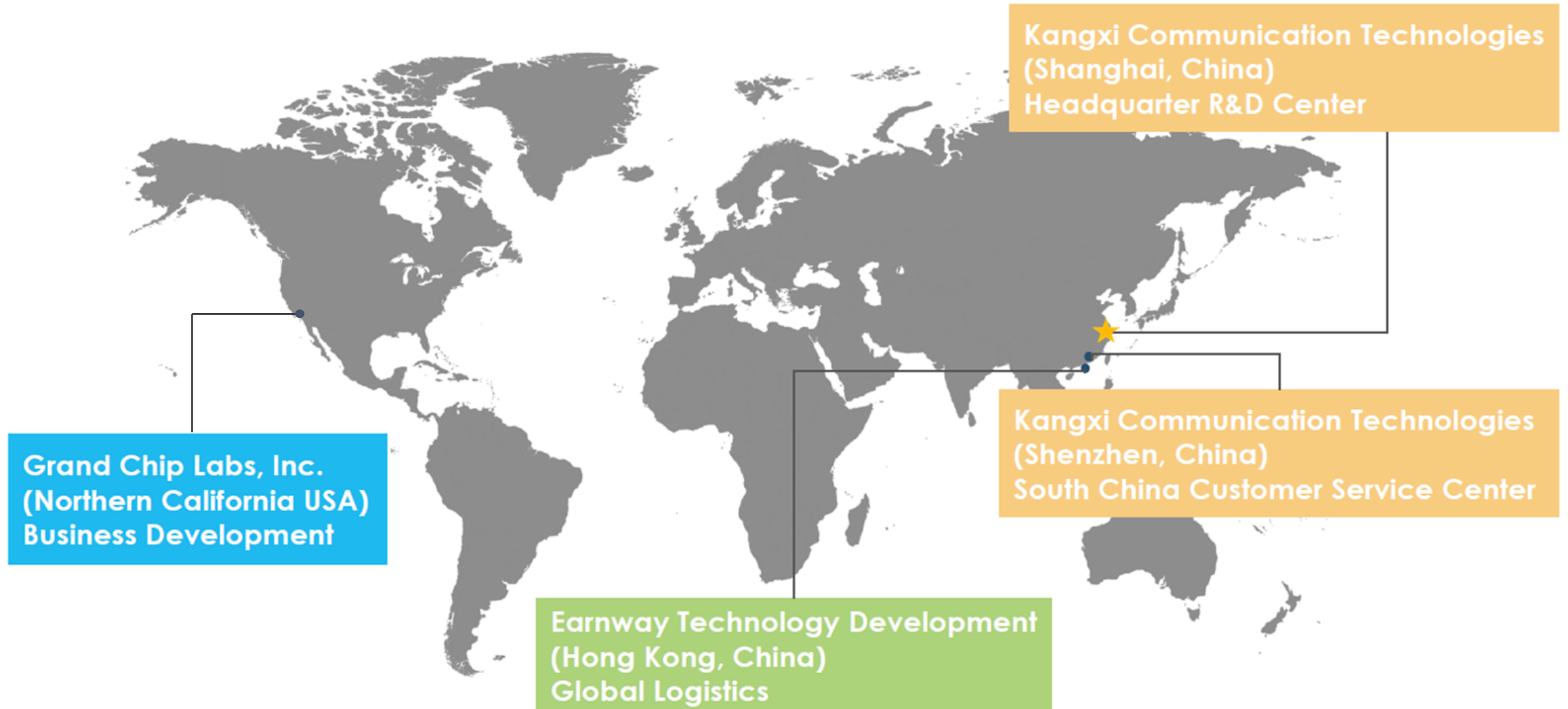
Automotive
V2X FEM



UWB SoC

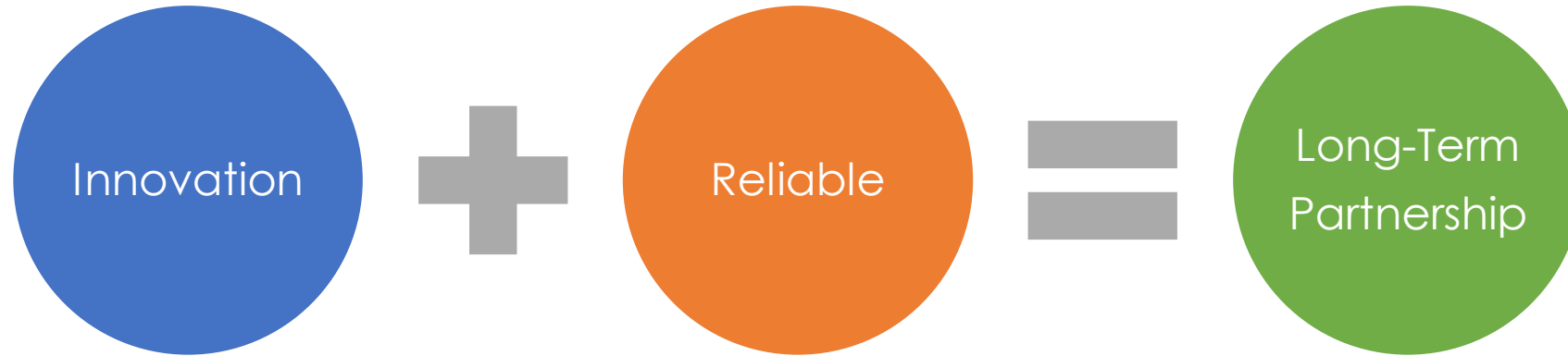


KXcomtech Global Strategy





KXcomtech Philosophy



Fast Evolution:

- 2 years for New Standards (2017 WiFi5 / 2019 WiFi6 / 2021 WiFi6E / 2022 WiFi7)

Unique Features:

- Best-in-class RX NF
- Unique Bulk-CMOS RF Switch
- Comparable High Efficiency
- Comparable High Power
- High Power with Small Package
- > 50 Intellectual Properties

- Professional: Focusing & Dedicated in Wi-Fi RFEE
- 1Bpcs+ shipment in total
- Quality: <50ppm/200M
- Delivery: 1 Month for Urgent / 3months for Regular
- IP/Regulation Compliance
- Effective Global Support Team
- Voice of Customers
- Active Improvement

- 130 Mass Production Products
- Over 150 Customers Shipment
- Volume Shipments for Most Top-Tier Customers in China
- Strategic Partnership with Key Customers
- Reference Design/AVL with Most SoC Partners



KXcomtech Milestones

CONFIDENTIAL

Sep 2014 Company founded

Jan 2016 Released High performance CMOS Wi-Fi FEM samples

Aug 2016 Invested by Intel Capital



May 2019 KCT officially won the Wi-Fi reference design of UniSoC



Nov 2019 KCT officially won the reference design for Realtek Wi-Fi 5 platform



REALTEK

Mar 2020 KCT became official supplier of ASUS[®] and D-Link[®] for Wi-Fi 5 and Wi-Fi 6 FEM



May 2020 KCT became preferred Wi-Fi 6 FEM vendor for Telefonica



Oct 2020 Stepping in mass production of tp-link and Tenda for Wi-Fi 5 and Wi-Fi 6 FEM



Nov 2020 KCT became official supplier of FASTWEB and GRUPO MASMOVIL for Wi-Fi 5 and Wi-Fi 6 FEM



Apr 2021 Stepped in mass production of ZTE中兴 for Wi-Fi 6 FEM

May 2021 KCT officially became the AVL company of QUALCOMM QCN90XX platform



July 2022 KCT officially became the AVL company of QUALCOMM NonLinear Wi-Fi 7 platform



Sep 2023 KCT officially became the DRL company of MEDIATEK NonLinear Wi-Fi 7 platform



Oct 2023 KCT became official supplier of freebox and MI XIAOMI for Wi-Fi 7 FEM



Nov 2023 KCT has successfully listed on the China Stock MARKET

July 2024 KCT officially became the AVL company of BROADCOM NonLinear Wi-Fi 7 platform



Dec 2024 Overall FEM production over 1 billion pieces

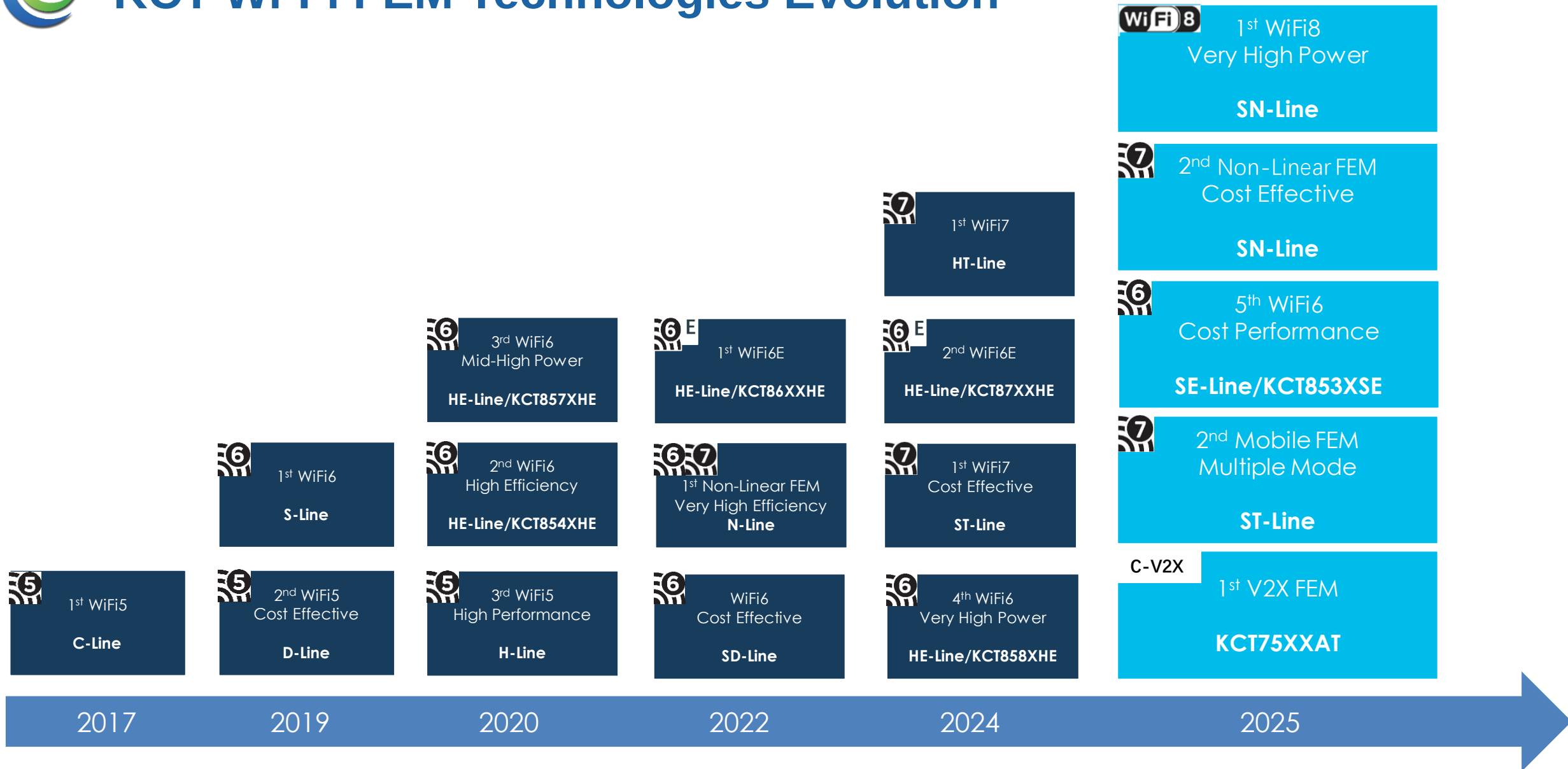




Product Roadmap



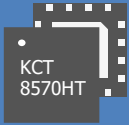
KCT Wi-Fi FEM Technologies Evolution



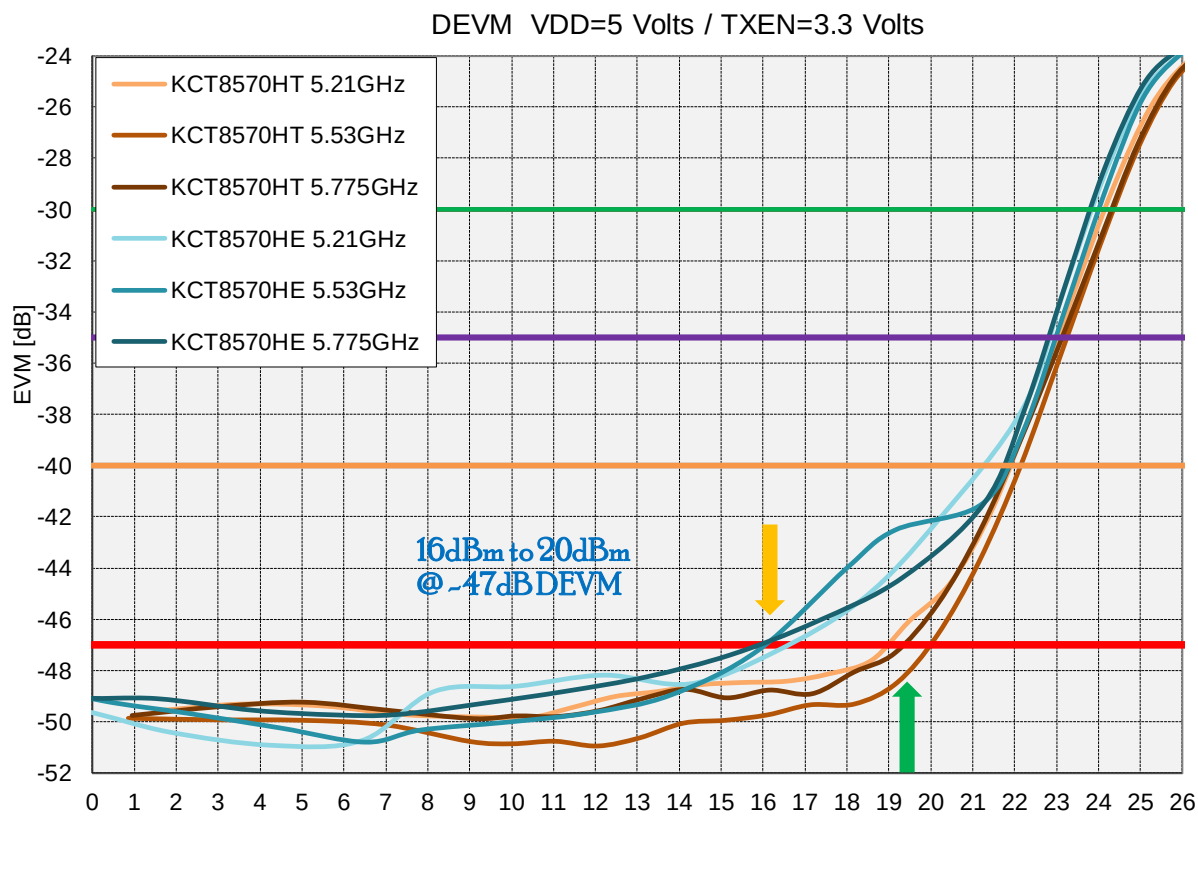
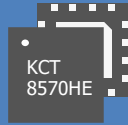


Improvement on Wi-Fi 7 FEM

Linear RF Power

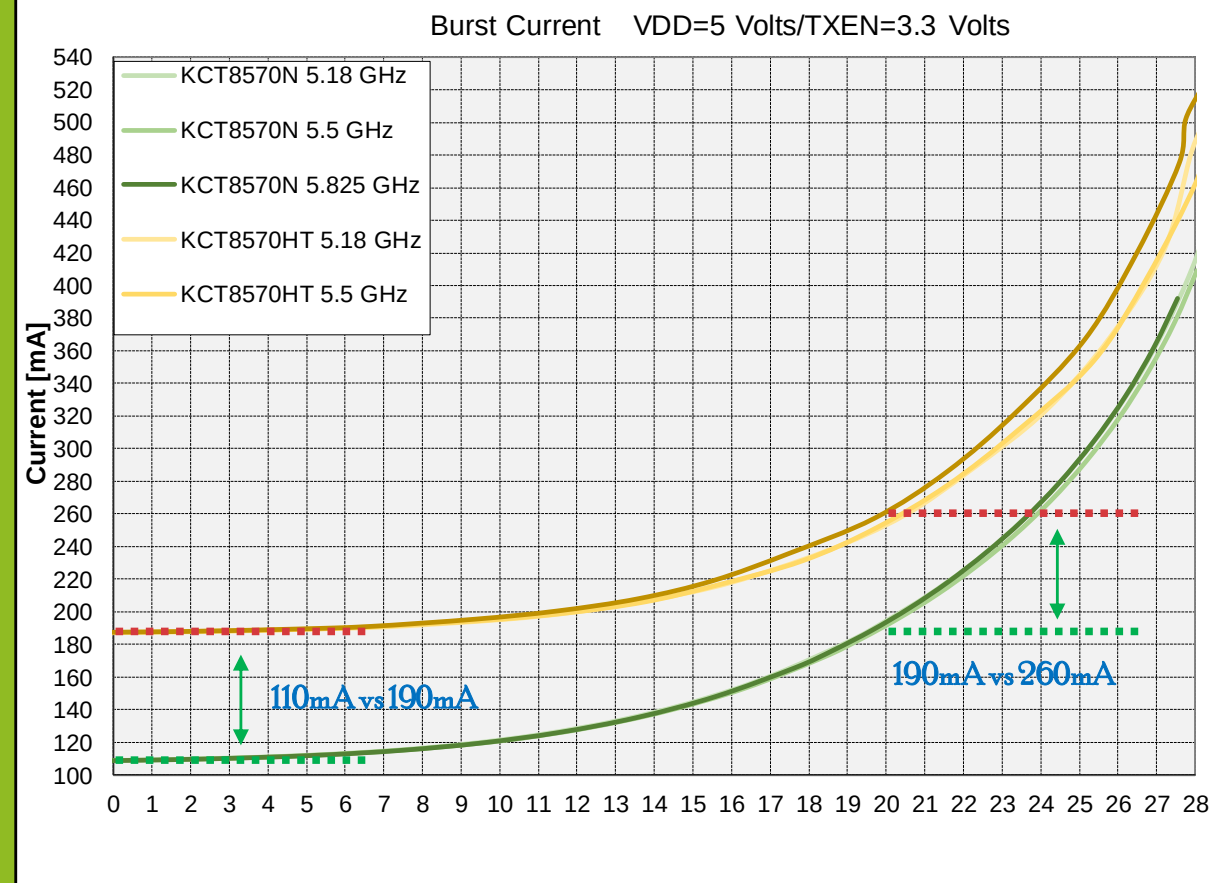
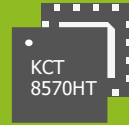
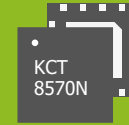


Wi-Fi 7 FEM vs Wi-Fi 6 FEM



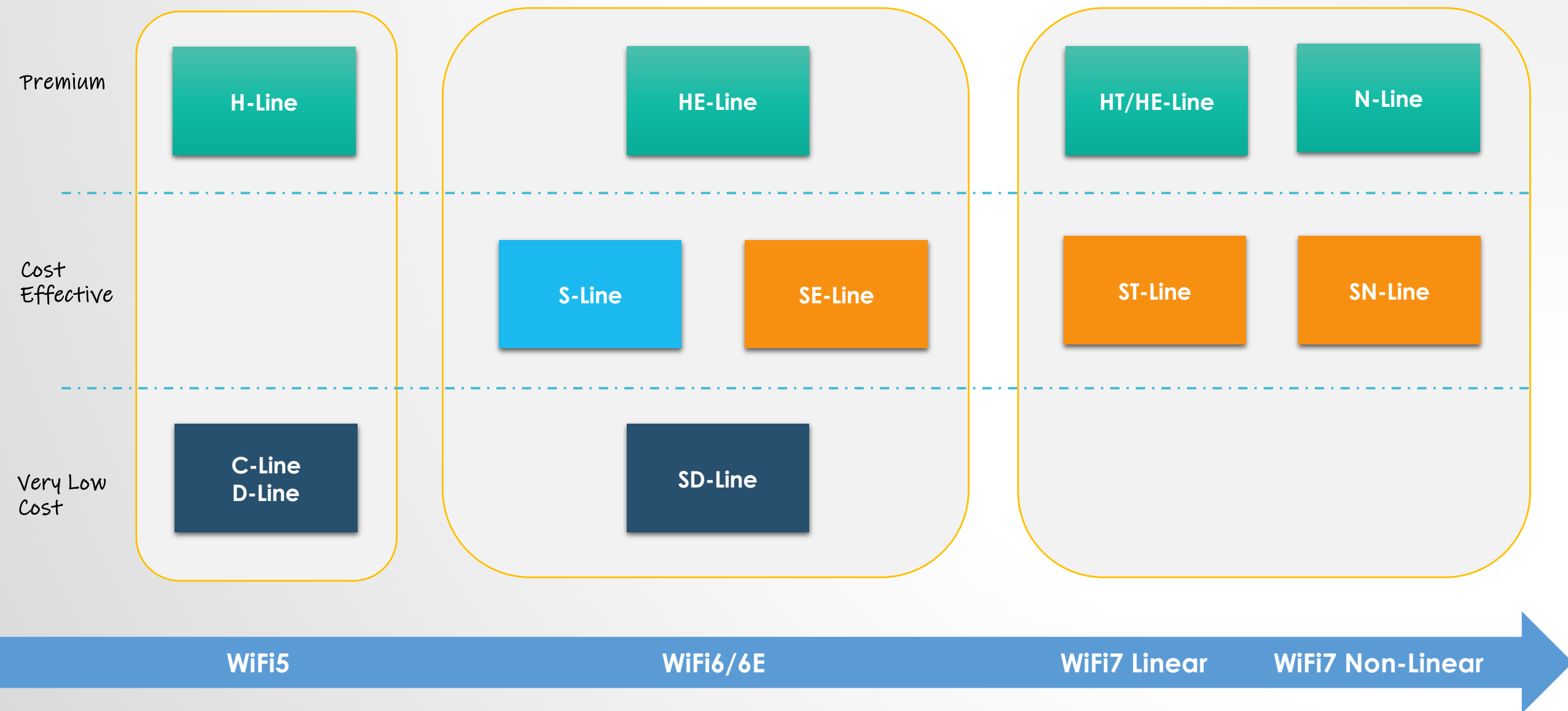
Power Consumption

Nonlinear vs Linear





Comprehensive Wi-Fi Product Portfolio



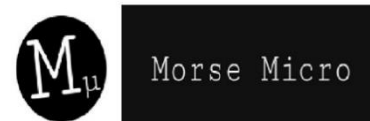


Reference Design and Applications



Main SOC Partners

Qualcomm





Partners and Design-win Cases



Major Clients – ODM / OEM

ASUS®

NOKIA

 **xiaomi**

ZTE中兴

Tenda

MitraStar

WNC
Wistron NeWeb Corp.

SERCOM

COMTREND

FOXCONN

T&W

ZYXEL

COMMSCOPE®

vantiva
Pushing the edge 


ASKEY

Ruijie锐捷
Networks

Skyworth
创维

CIGTech

arcadyan

adb

PEGATRON

mimosa™

SONY


天邑
TIANYI


HARMAN

freebox



Major Clients – Carriers

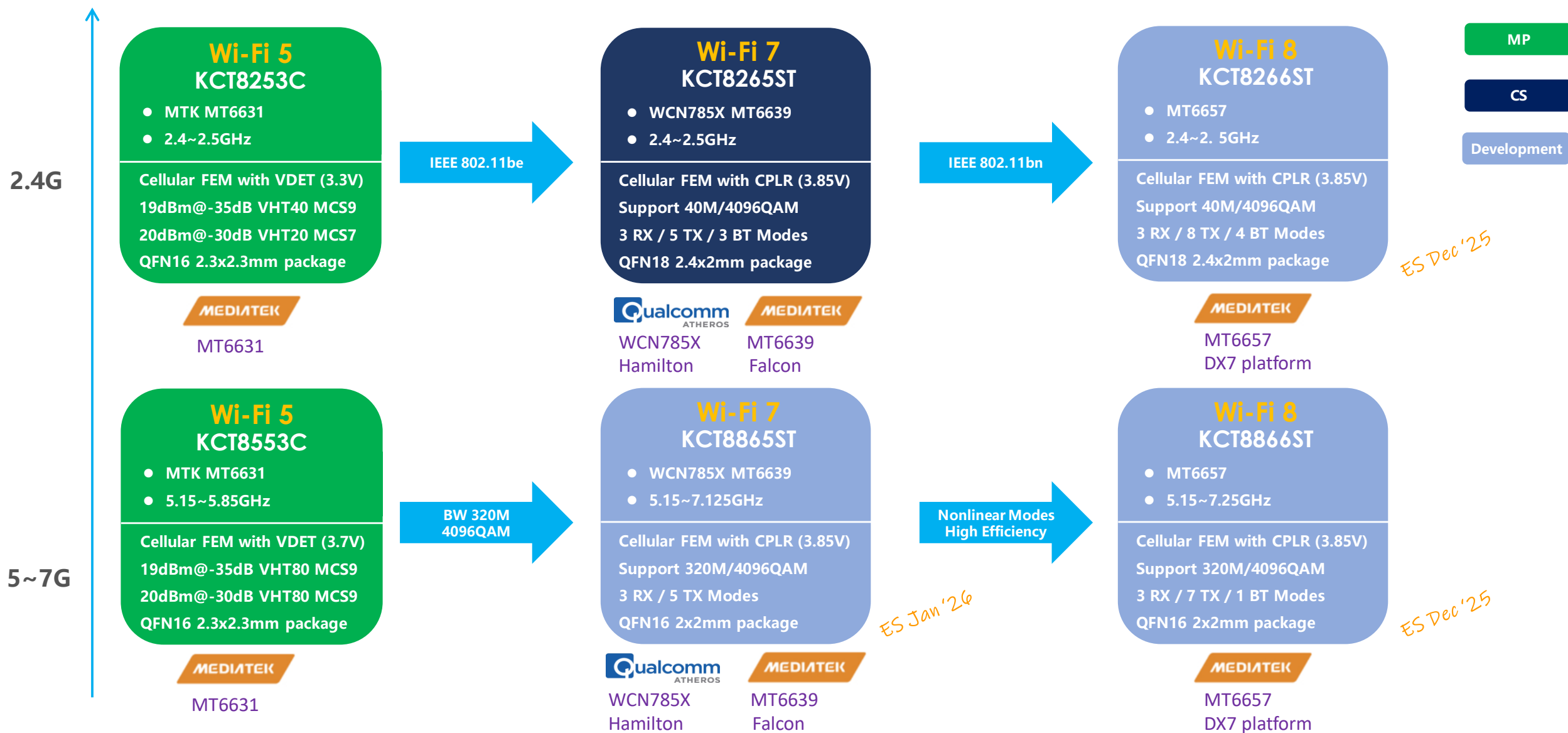




Cellular Wi-Fi FEM Product Roadmap



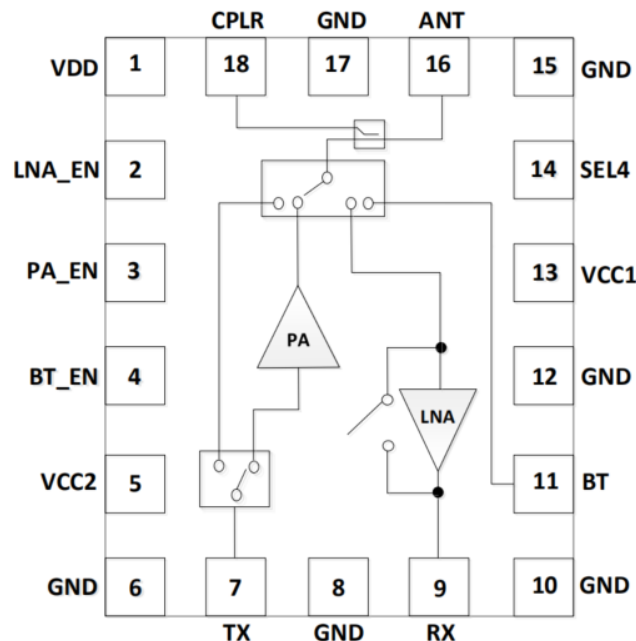
Product Roadmap – Wi-Fi FEM for Cellular





KCT8265ST — 2.4GHz WLAN 11be FEM for Mobile

KCT8265ST Diagram



Applications

- IEEE 802.11b/g/n/ac/ax/be WLAN Applications
- Chip-on-board (COB) Applications
- System in Package (SIP) Applications
- Portable Battery-Powered Equipment

Description

KCT8265ST is a highly integrated WLAN 802.11be 2.4GHz RF front-end IC consisting of multi-modes PA die with coupler and LNA + Switch die. KCT8265ST operates at a nominal voltage of 3.85V and supports five RF transmit modes, TXH / TXH DPD / TXM / TXM DPD / TXL, and RXH / RXL / RX Bypass / BTH / BTH DPD / BTL modes as well. This architecture is optimized for portable devices such as cell phones and tablets.

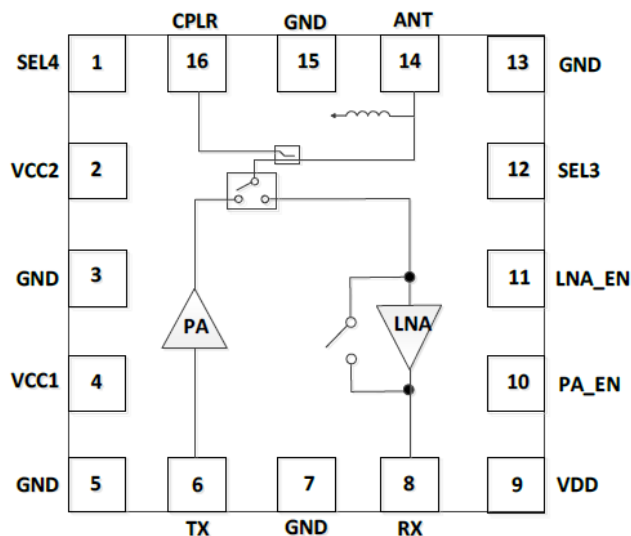
Main features

- Full Integrated high performance 2.4GHz 802.11be Front-end module
- Integrated RF Power Coupler
- Nominal voltage at 3.85V
- Transmit gain: 31.5dB at high-power mode
- High-power mode output power: +19.5dBm @ DEVM= -45dB, EHT40/MCS13
+21.0dBm @ DEVM= -42dB, EHT40/MCS13
+22.0dBm @ DEVM= -38dB, VHT40/MCS9
+23.0dBm @ DEVM= -33dB, HT20/MCS7
- Receive gain: 16.0dB at RXH mode
- Noise Figure: 1.8dB at RXH mode
- ESD protection circuitry on all PINs
- Small package: LGA 18-pin, 2.0×2.4×0.72 mm
- ROHS and REACH Compliant



KCT8865ST — 5~7GHz WLAN 11ax FEM for Mobile

KCT8865ST Diagram



Applications

- IEEE 802.11a/n/ac/ax/be WLAN Applications
- Chip-on-board (COB) Applications
- System in Package (SIP) Applications
- Portable Battery-Powered Equipment

Description

KCT8865ST is a highly integrated WLAN 802.11be 5~7GHz RF front-end IC consisting of multi-mode PA die with coupler and LNA + Switch die. KCT8865ST operates at a nominal voltage of 3.85V and supports five RF transmit modes, TXH / TXH DPD / TXM / TXM DPD / TXL, and RXH / RXL / RX Bypass modes as well. This architecture is optimized for portable devices such as cell phones and tablets.

Main features

- Fully Integrated, high performance 802.11be front-end module with 320MHz bandwidth and 4096-QAM.
- Integrated RF Power Coupler
- Nominal voltage at 3.85V
- Transmit gain: 31dB at high-power mode
- High-power mode output power: +13.5dBm @ DEVM=-43dB, EHT320/MCS13
+17.5dBm @ DEVM=-40dB, HE160/MCS11
+19.0dBm @ DEVM=-36dB, VHT80/MCS9
+20.0dBm @ DEVM=-31dB, HT20/MCS7
- Receive gain: 15.0dB at RXH mode
- Noise Figure: 2.3dB at RXH mode
- ESD protection circuitry on all PINs
- Small package: LGA 16-pin, 2.0×2.0×0.73 mm
- ROHS and REACH Compliant



Cellular PA Products



Main Path Product Series



Production



Development



Planning



ES Ready



CS Ready

Sub6G TRX Module

KCT58351

N77/78 L-PAMiF
1T2R
5mm x 3mm
Pin V*7537/F*6880



KCT58352

N77/78 L-PAMiF
1T2R, **3.4V PC2**
5mm x 3mm
Pin V*-82/F*6880B

KCT58353

N77/78/79
L-PAMiF
1T2R, **3.4V PC2**
5mm x 3mm

Sub3G TRX Module

KCT56813

Cat.1/4/M
MMMB PA
3.0mm x 3.0mm



KCT56816

Cat.1/4/M MMMB
PA w/i PAE impv.
3.0mm x 3.0mm

KCT56815

4G(Phase2N)
MMMB PA
3.0mm x 3.0mm

KCT56818

PH5N MMMB PA
3.4V PC2
3.0mm x 3.0mm

已量产

2025Q1

2025Q2

2025Q3

2025Q4

2026Q1

2026Q2



Diversity Module Product Series



Production



Development



Planning



ES Ready



CS Ready

Sub6G DRX
W/ LNA &
SRS SW

KCT54352

N77/78 2R
2.8mm x 2.6mm
Pin M*9126U/
F*6730A

KCT54353

N77/78 2R,
Cost down
2.8mm x 2.6mm
Pin M*9126U/
F*6730A

Sub3G DRX
w/ LNA

KCT54821

Sub3G LFEM
3.5mm x 3.6mm
Pin M*98M3B

KCT54823

3.5mm x 3.6mm
Pin Q*5303/
Q*6303/M*98M9

Sub3G DRX
w/o LNA

KCT54860

3.7mm x 3.2mm
Pin M*98E3D/
Q*2310

KCT54866

3.2mm x 3.0mm
Pin Q*2316/
M*9863A

KCT54865

3.2mm x 3.0mm
Pin Q*2315/
M*98B2V+
1 more AUXLB

KCT54862

2.4mm x 2.2mm
Pin Q*3315

KCT54863

2.4mm x 2.2mm
Pin Q*3316

已量产

2025Q1

2025Q2

2025Q3

2025Q4

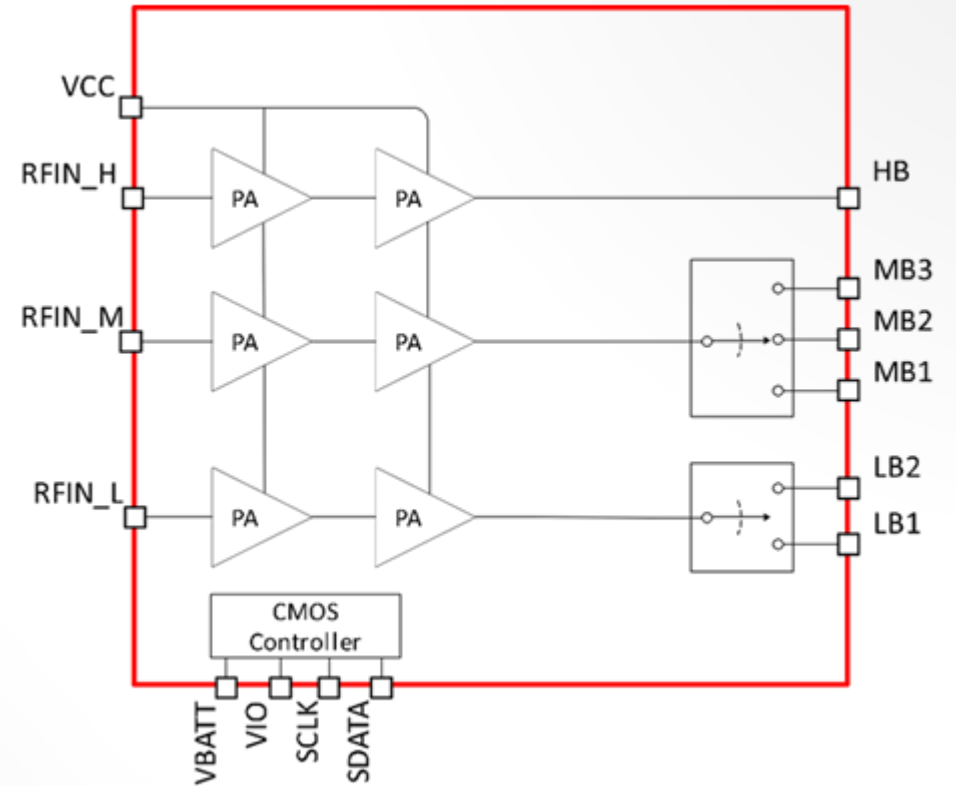
2026Q1

2026Q2



KCT56813 Feature

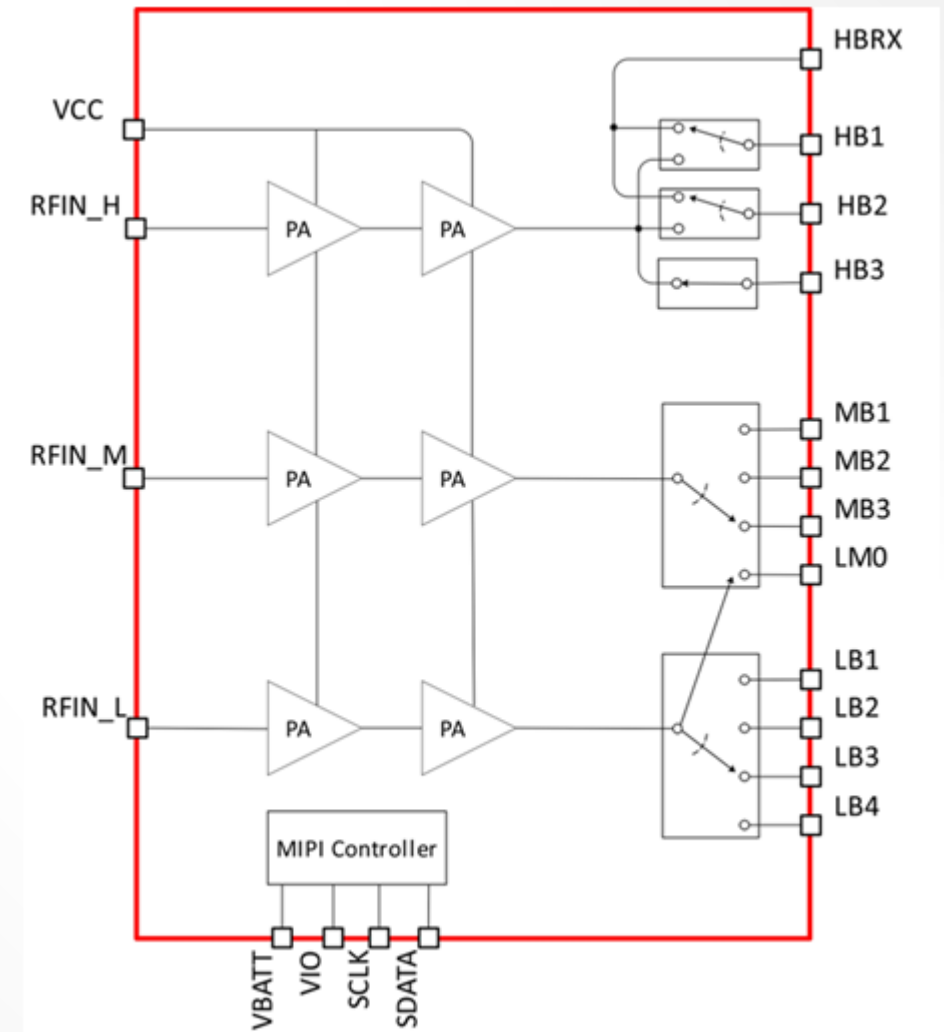
Features	• High linearity and efficiency Performance PA • Multiband Cat.1/4/M PC3 • HB 1 Tx RF Port • MB 3 Tx RF Ports • LB 2 Tx RF Ports • RFFE MIPI 2.1
Dimension	• 3.0mm*3.0mm LGA • Pin Compatible to X*5733-11/12/17/18/31





KCT56815 Feature

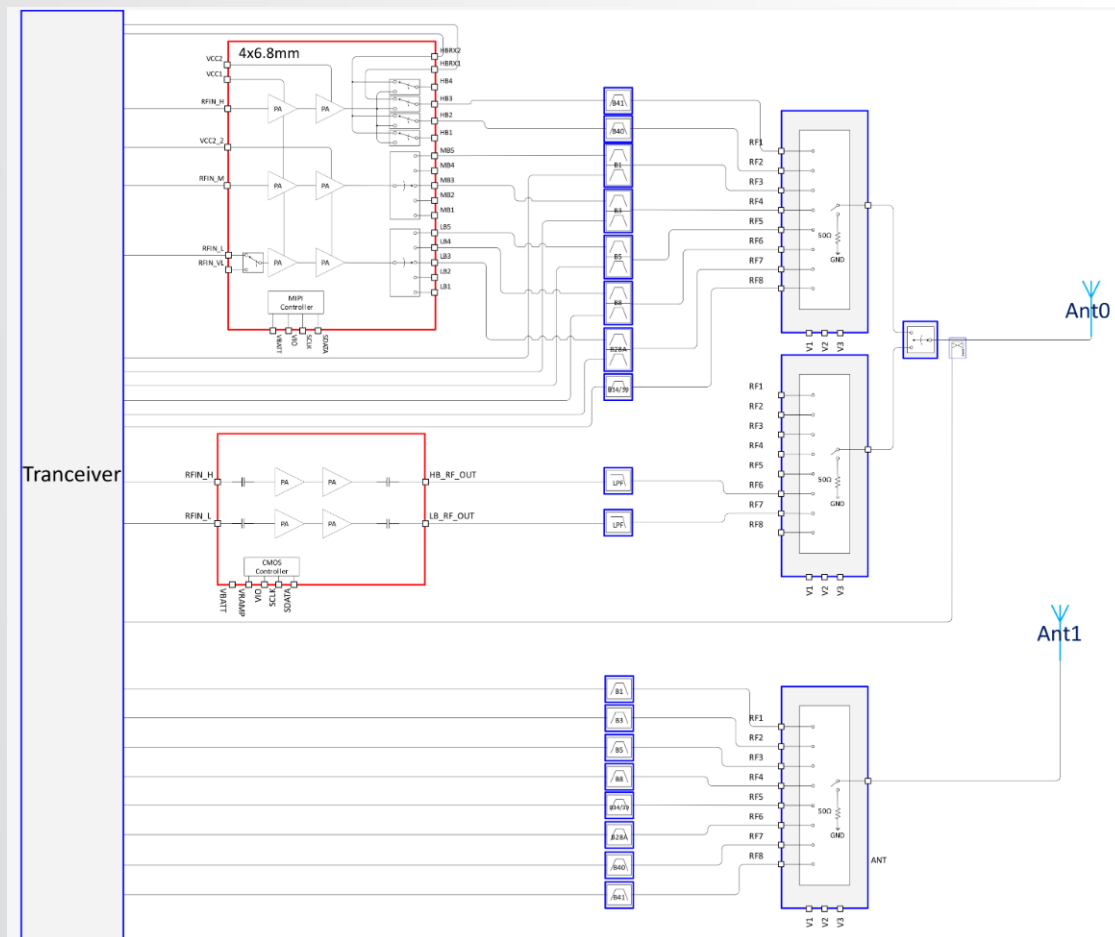
Features	• High linearity and efficiency Performance PA • Multiband LTE PC3 • 3*HB Tx RF Port • 3*MB Tx RF Ports • 4*LB Tx RF Ports • 1*LM Tx RF Ports • RFFE MIPI 2.1
Dimension	• 3.0mm*3.0mm LGA • Pin Compatible to X*5733-41/41T



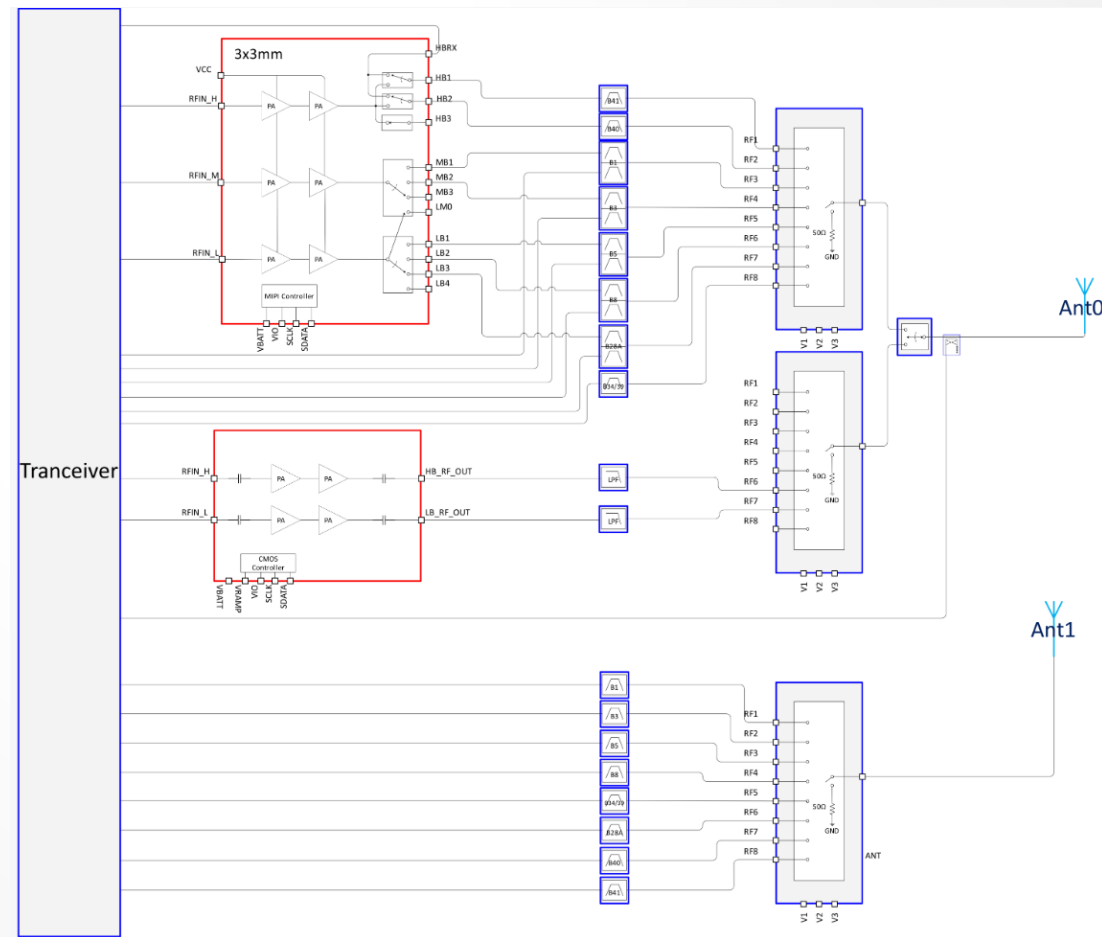


KCT56815推广_Sub3G 4G Tx方案

可推广客户类型：4G手机和模块，5G手机和模块中的4G部分



- 1颗4mm*6.8mm 4G MMMB PA + 1颗GSM PA
- 4*6.8 4G MMMB PA成本(除滤波器)占比 ~ 60%

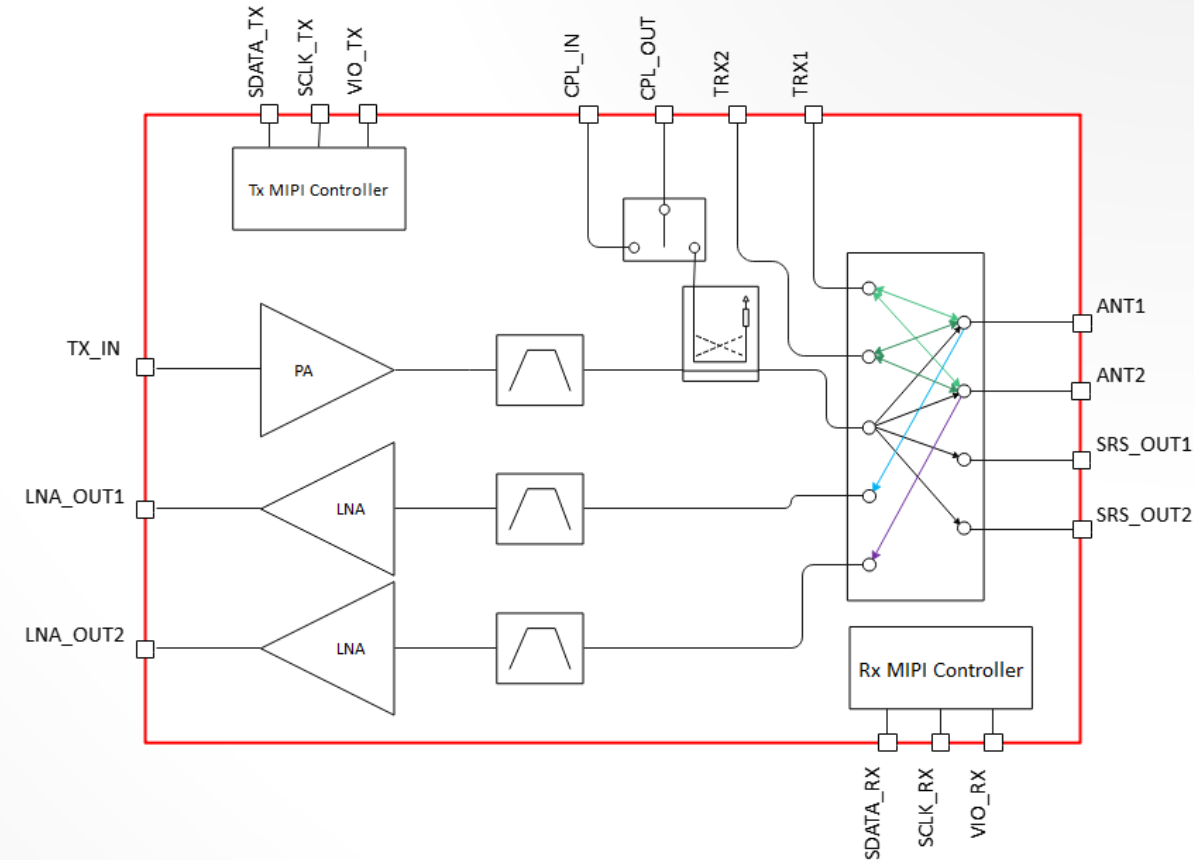


- 1颗3mm*3mm 4G MMMB PA + 1颗GSM PA
- 3*3 4G MMMB PA相比4*6.8 PA Cost Down>10%



KCT58352 Feature

Features	• High Performance APT PA • Support Bands: n77/78,B42/43/48 • Tx Modulation BW up to 100MHz • Support n77 full band 3.4V(VCC) PC2 • Integrated 2*n77(78) RX filters and LNAs • Integrated SRS and AUX TRX switch • Integrated forward and reverse coupler, support daisy chain • SRS switching time <2us • RFFE MIPI 2.1 for TX • RFFE MIPI 3.0 for RX
Dimension	• 5.0mm*3.0mm LGA • Pin Compatible to V*7537-82/F*6880V/S55217-31





Pan - IoT FEM Product Roadmap



KXcomtech Pan-IoT FEM Application

MP

Develop

Drone & remote control

KCT8576N

RT201

KCT8247HE-1

KCT8576N

KCT8525D-1

KCT8207L

Wireless Microphone System**Smart e-Meter**

KCT8102L

KCT8103L

Smart Speaker

RT201

KCT8206L

KCT8207L

Smart Security Cam

KCT8522D

KCT8526HP

KCT8227D

KCT8227D-1

KCT8227H

C-V2X Module

KCT7526AT

KCT7528AT

KCT7502AT





KXcomtech IoT FEM Selection Guidance



Low data Rate
Long Range
Sub GHz
High data Rate



KXcomtech
Part No.

KCT8102L *New*

KCT8103L *New*

KCT6103L *New*

KCT8102L/8103L is evaluated by



Morse Micro

RENESAS
瑞 萨



VC7300

Sub-GHz Wireless MCU for Ultra Low Power IoT Applications

VC7300 series provides a variety of power saving modes which is a perfect fit to ultra-low power IoT radio applications with powerful computing.

Short Range
2.4GHz
High data Rate



Kxcomtech
Part No.

RT201

RT202

KCT8204L

KCT8206L

KCT8207L *Developing*





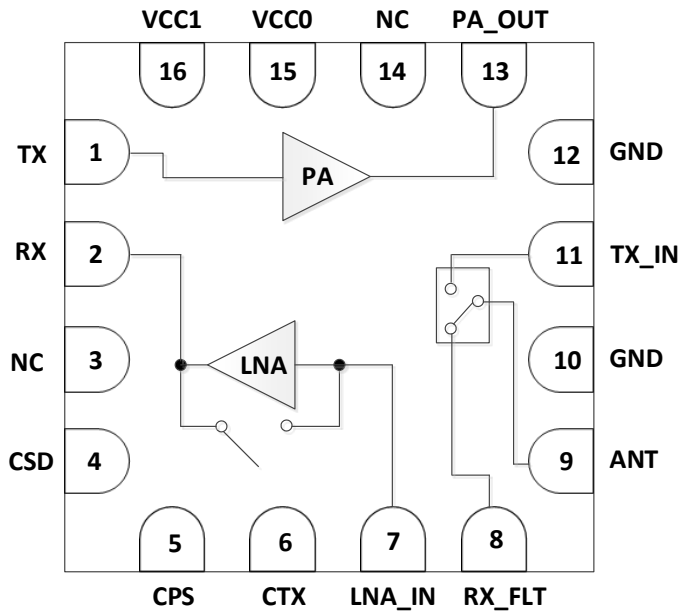
Product Roadmap – RX FEM for IoT





KCT8102L — LPWAN / WiSUN FEM

KCT8102L Diagram & Pin Definition



Description

KCT8102L is the ideal RF front-end solution for implementing sub-GHz from 860M~930MHz supporting multiple standards including LP-WAN (LoRa, Sigfox, WiSUN, etc.)

Main features

- Saturated Output Power:
 - 5V: +32.5dBm HP matching, +31dBm, HE matching,
 - 3.3V: +29.0dBm, HP matching, +27.5dBm, HE matching,
- High Gain, 32.5~33dB TX Gain, 22.5dB RX Gain, 5.0V
- Integrated LNA with noise figure of 1.7 dB, typical
- RX bypass path with low loss: 2 dB
- Support external Receive filter
- Wide operation supply voltage: 3.3 to 5.0 V
- Sleep mode current: < 1.5 uA @5V, 0.5 uA @3.3V
- MCM (16-pin, 3.0 x 3.0 x 0.76 mm) package

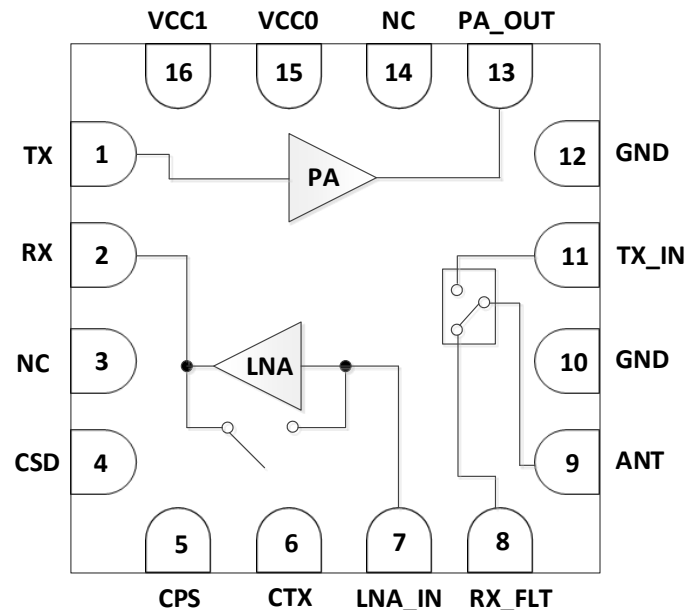
Applications

- LP-WAN devices
- Internet of Things
- Smart meters
- Wi-SUN device
- Smart Grid/AMR/AMI
- 800/900MHz ISM band applications



KCT8103L — LPWAN / WiFi HaLow FEM

KCT8103L Diagram & Pin Definition



Description

KCT8103L is the ideal RF front-end solution for implementing sub-GHz from 860M~930MHz supporting multiple standards including IEEE 802.11ah, Wi-SUN, and other IoT applications.

Main features

- Output power: +23.0dBm @ -35dB, 5.0V
+24.0dBm @ -30dB, 5.0V
+25.5dBm @ -25dB, 5.0V
+27.0dBm @ -20dB, 5.0V
- Integrated LNA with noise figure of 1.8 dB, typical
- High Gain, 32dB TX Gain, 23.0dB RX Gain, 5.0V
- RX bypass path with low loss: 2 dB
- Support external Receive filter
- Wide operation supply voltage: 3.3 to 5.0 V
- Sleep mode current: < 2 uA @5V, 0.3 uA @3.3V
- MCM (16-pin, 3.0 x 3.0 x 0.76 mm) package

Applications

- LP-WAN devices
- Internet of Things
- Smart meters
- Wi-Fi HaLow (IEEE 802.11ah)
- Wi-SUN device
- 800/900MHz ISM band applications



KXcomtech Main IoT Clients

CONFIDENTIAL MATERIAL, FOR KCT NDA CUSTOMER ONLY



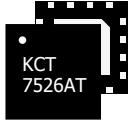


KXcomtech C-V2X FEM Roadmap

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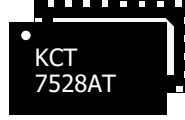
ALPS
Design Win

ALPSALPINE
Perfecting the Art of Electronics



QFN 3*3mm, Vdet
TX Gain 31dB RX Gain 15.5dB
Pout 27dBm 10MHz Modulated (TC1)
Pout 26dBm 10MHz Modulated (TC2)
PAE 22.5% at Pout 27dBm
Noise Figure = 1.7dB

Pin2Pin
SKYA21043

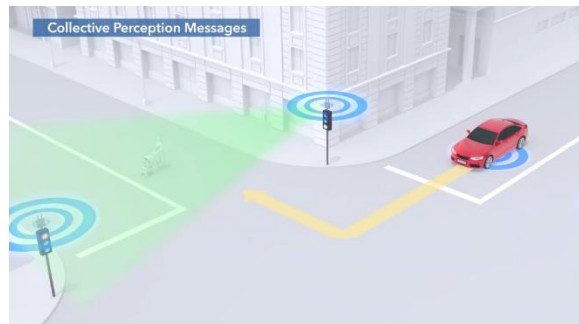
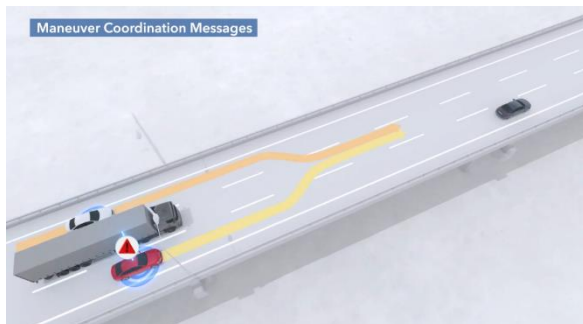
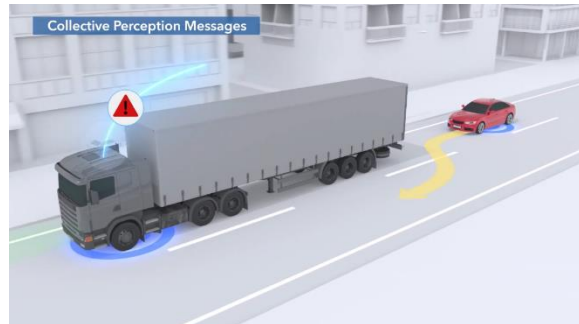
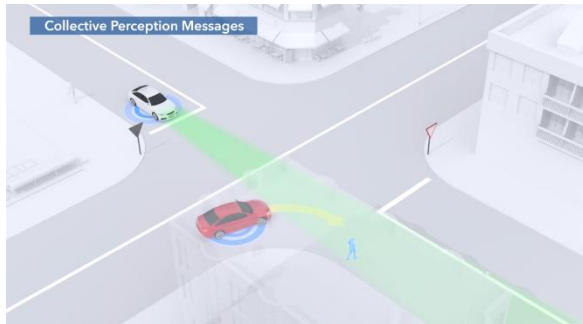
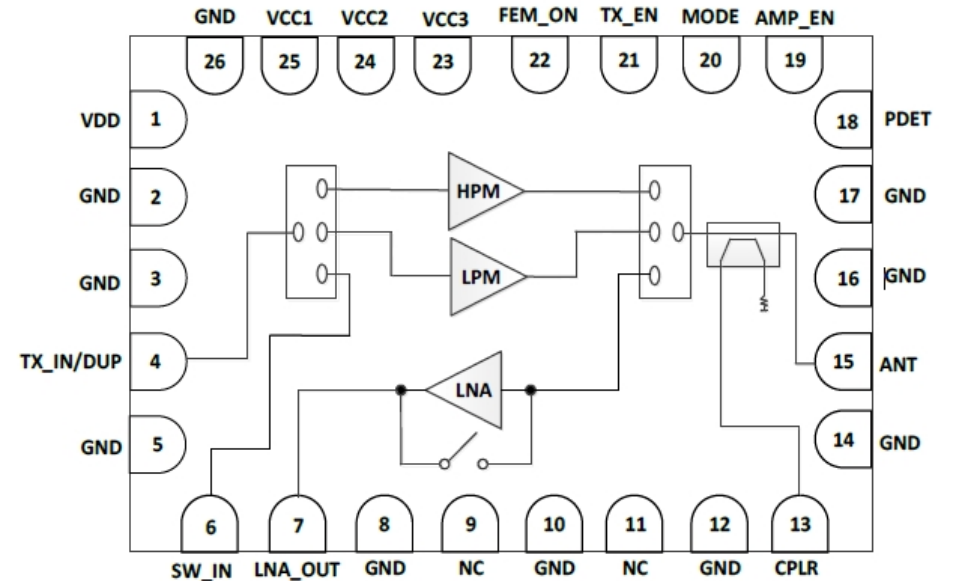


QFN 3*5mm, Vdet
TX Gain 30dB RX Gain 17dB
Pout 28dBm 10MHz Modulated (TC1)
Pout 27dBm 10MHz Modulated (TC2)
PAE 20% at Pout 27dBm
Noise Figure = 1.7dB

MORNINGCORE
辰芯科技



Pin2Pin
QPF1002Q
CS sample



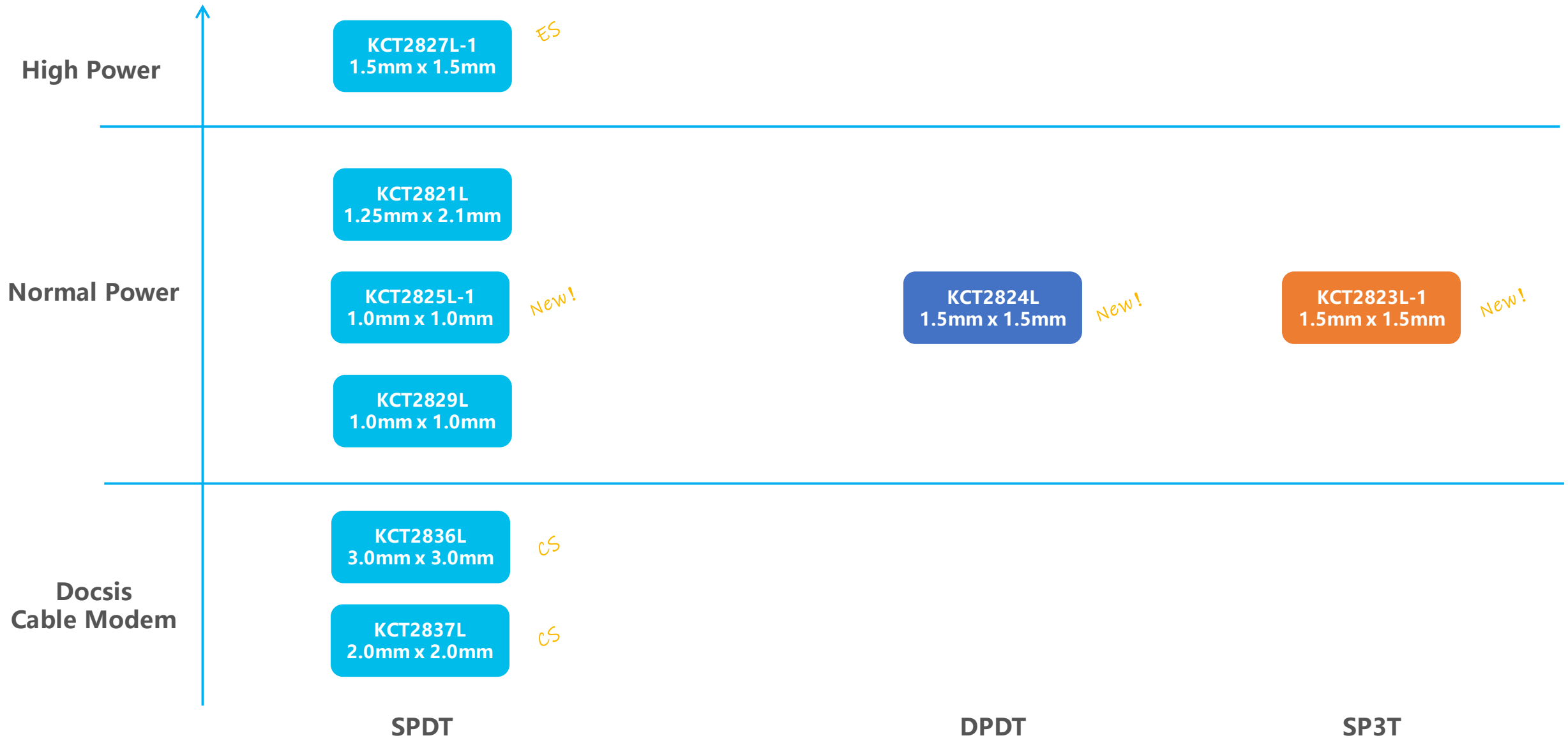
Main features

- AEC-Q100 Grade 2
- Integrated power detector
- Transmit gain: 31dB at 5V
- Output power: 29dBm, 10MHz linear power
- Receive gain: 16dB at 5V
- Bypass LNA loss: 4.5dB at 5V
- Noise Figure: 2.3dB at 5V
- ESD protection circuitry on all PINs
- Minimal external components required
- Small package: LGA26L, 5.0mm x 4.0mm x 0.845mm
- RoHS and REACH compliant



Product Roadmap – Switch

CONFIDENTIAL MATERIAL, FOR KCT NDA CUSTOMER ONLY





UWB 产品简介



UWB SoC 产品应用

超宽带(UWB)射频
SoC芯片

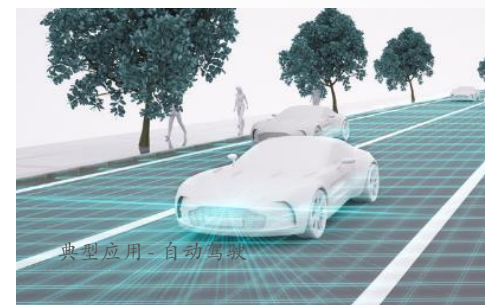


典型应用 - AirTag



全套系统解决方案

77GHz汽车毫米波
雷达SoC芯片



典型应用 - 自动驾驶

典型应用 - 自动驾驶



精确定位



智能感知

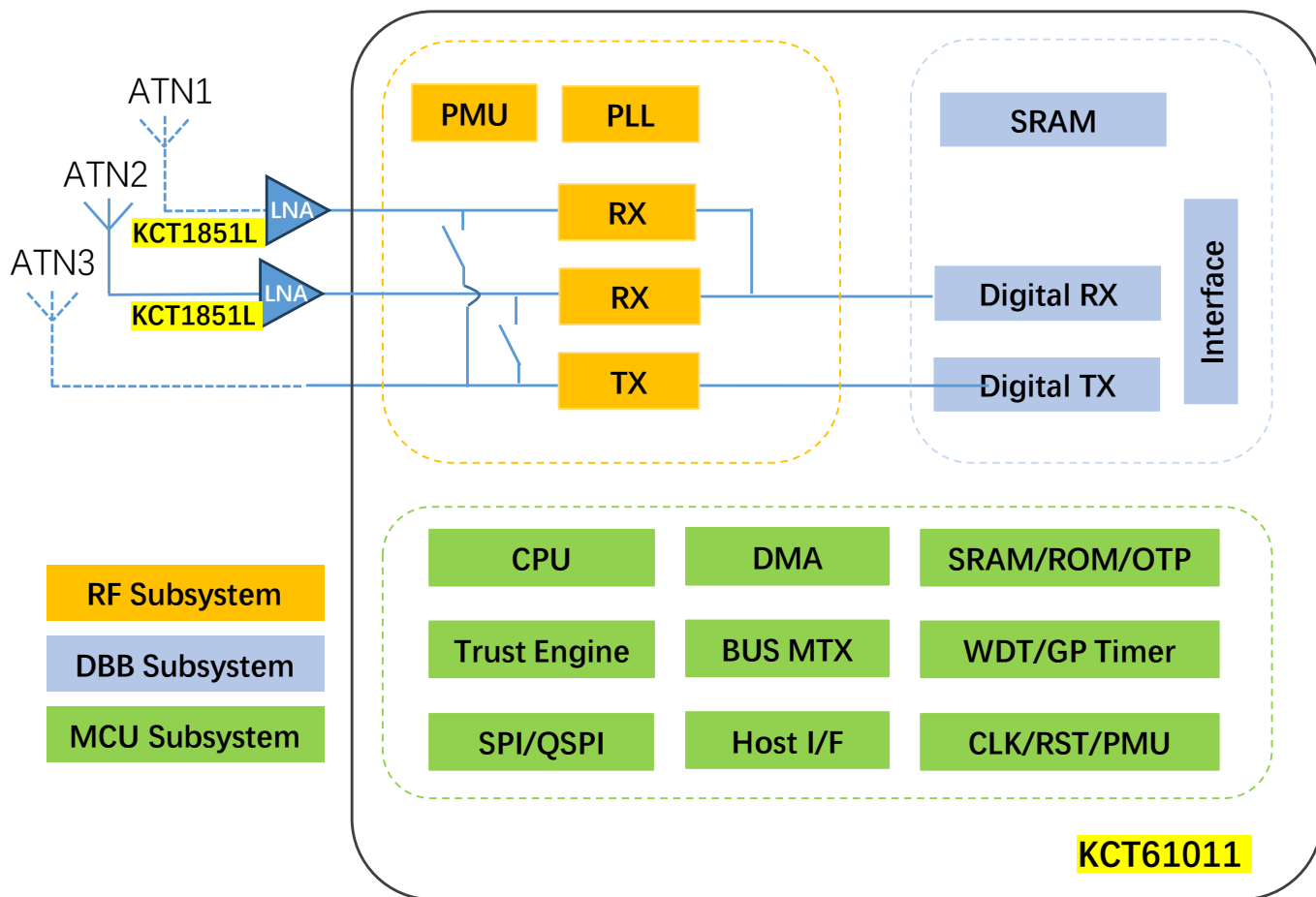


高速连接



KCT UWB SoC芯片架构，可实现 超低功耗超低成本

KCT61011 UWB SoC芯片架构



- 支持1T2R, 覆盖IoT/手机/汽车
- MCU/DSP 复用，单核
- 测距精度：±5cm
- AOA角度偏差：±5°
- 传输速度：64Mbps
- 雷达功能：呼吸检测；测距精度± 20cm

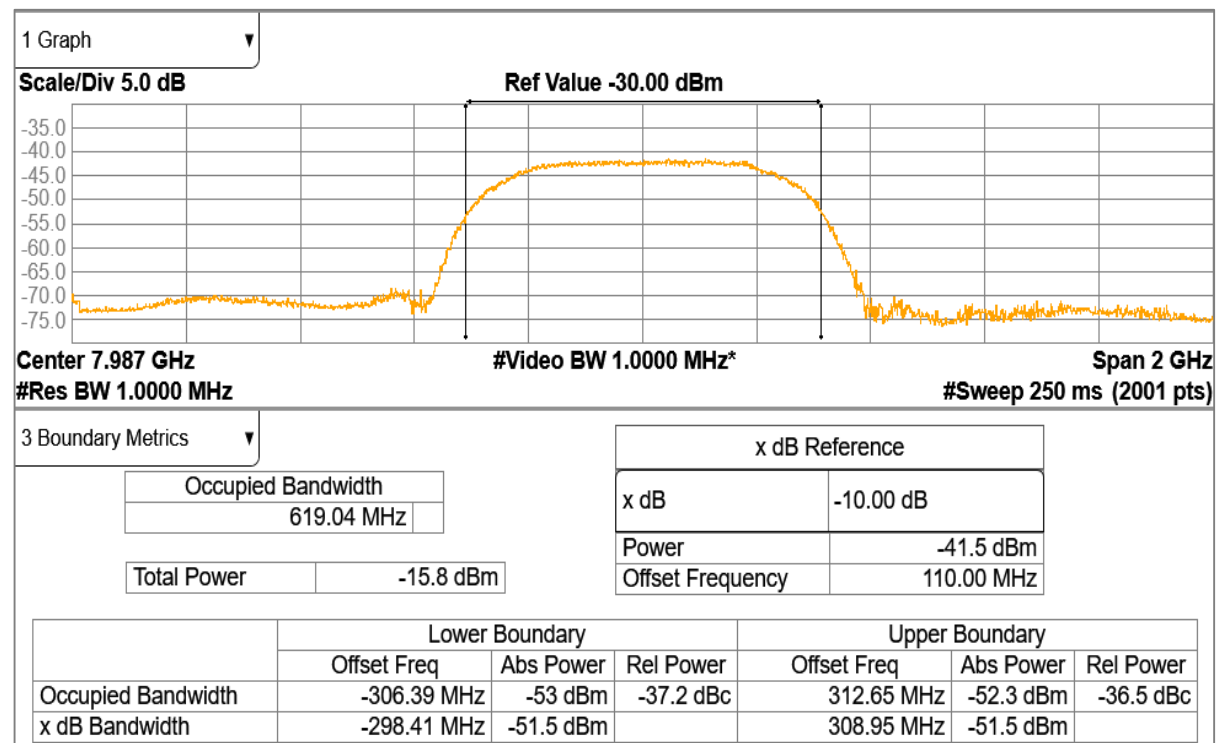
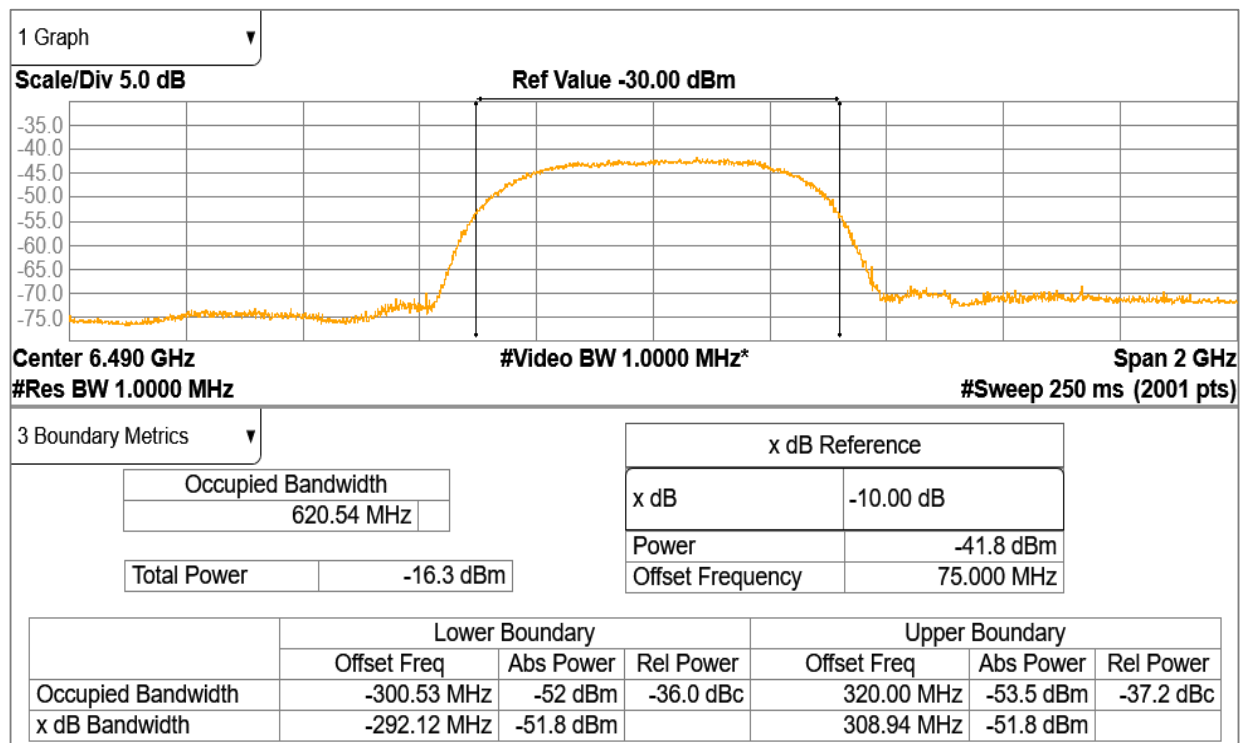
高精度定位

高速通信

智能雷达



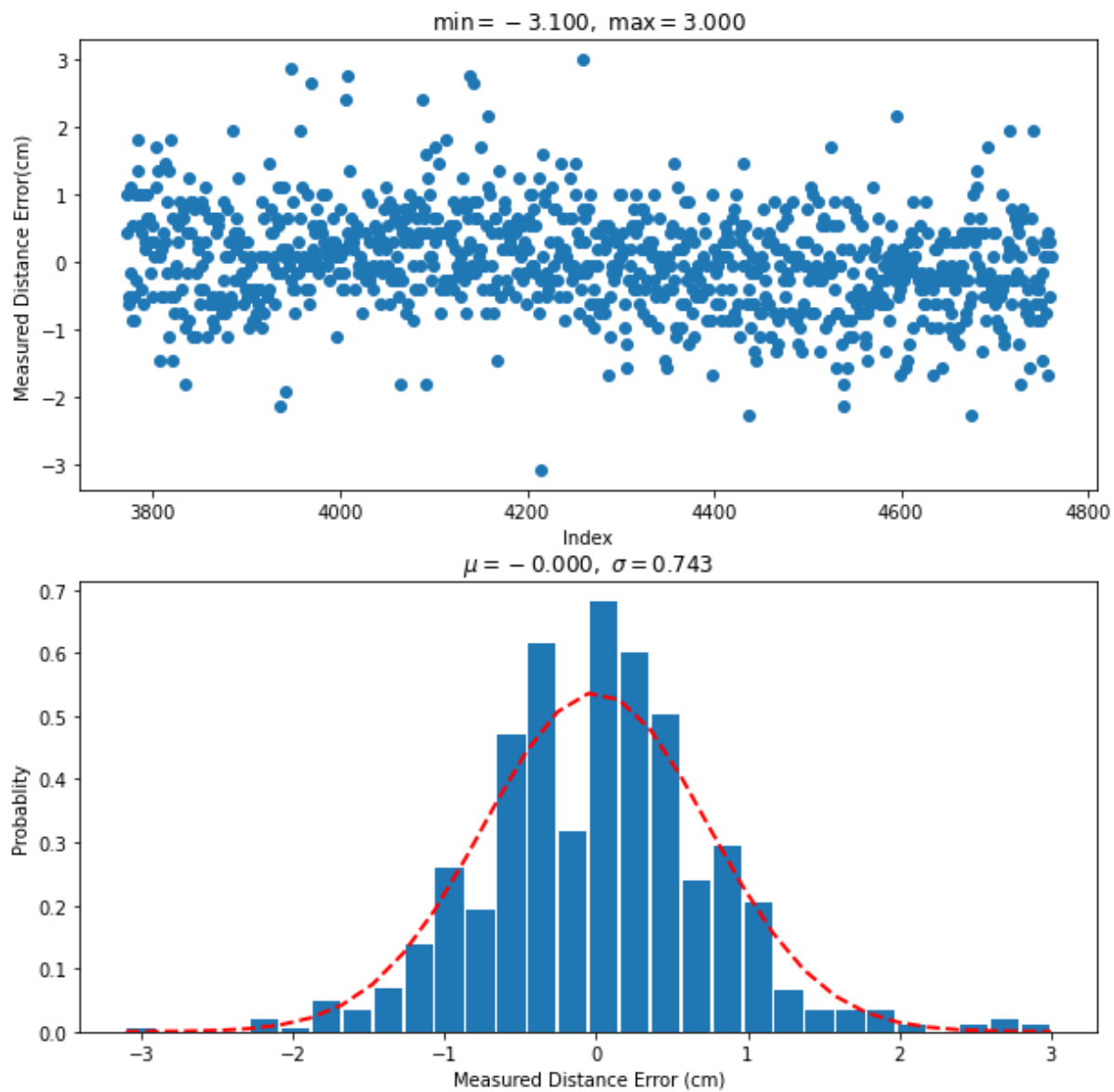
KCT UWB SoC TX 性能



- IOT应用无需SAW滤波器
- 500M带宽内平坦度<2dB，安规内达到最大RMS发射功率



测距精度



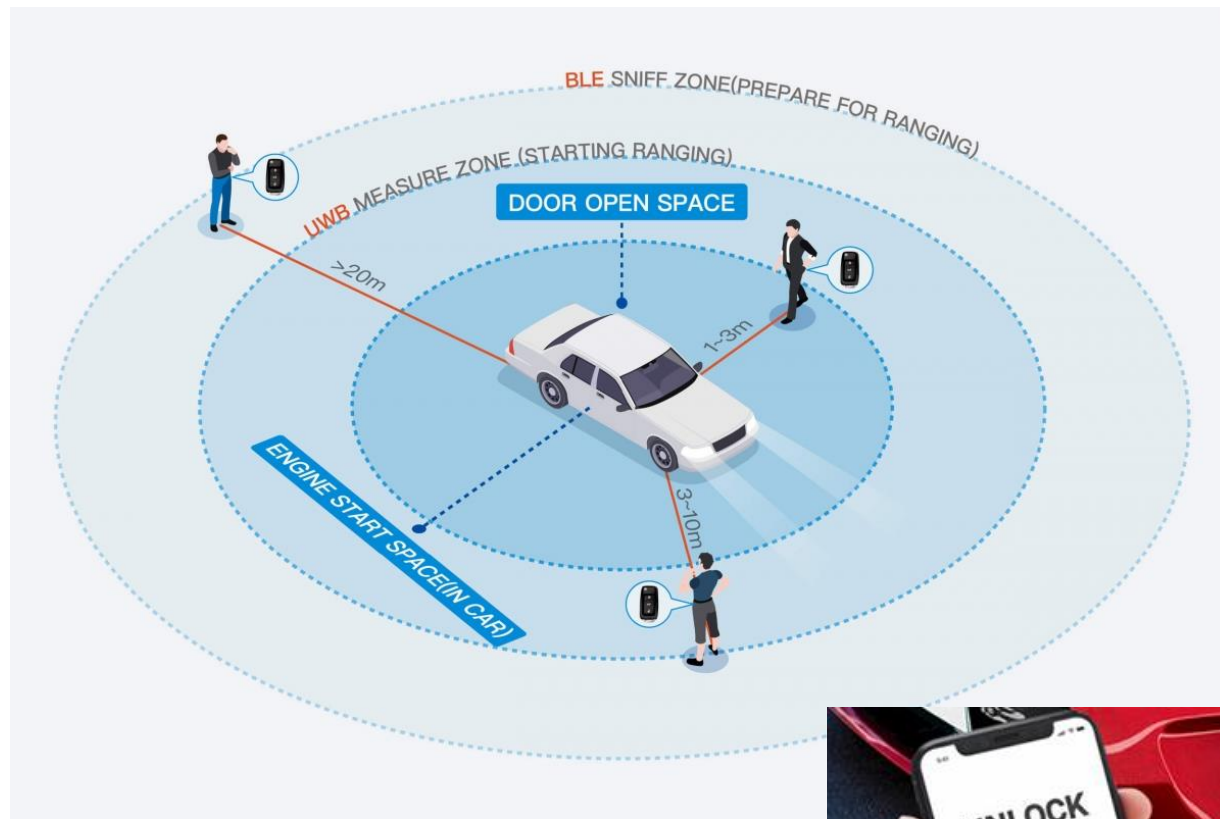


KCT UWB SoC 汽车应用—数字钥匙

- 芯片通过 AEC-Q100 Grade-2 车规认证
- 提供完整软件栈 (PHY → API → 工具链)
- 兼容 FiRa 2.0 / 3.0 与 CCC 数字钥匙标准
- 参考设计已验证 数字钥匙 + 雷达一芯复用
- 配套测试与校准工具链，支持客户快速导入
- 支持Flash双重备份
- SRAM 384KB，Fira/CCC/Radar共存模式下客户可用SRAM **>200kB**

拉距性能

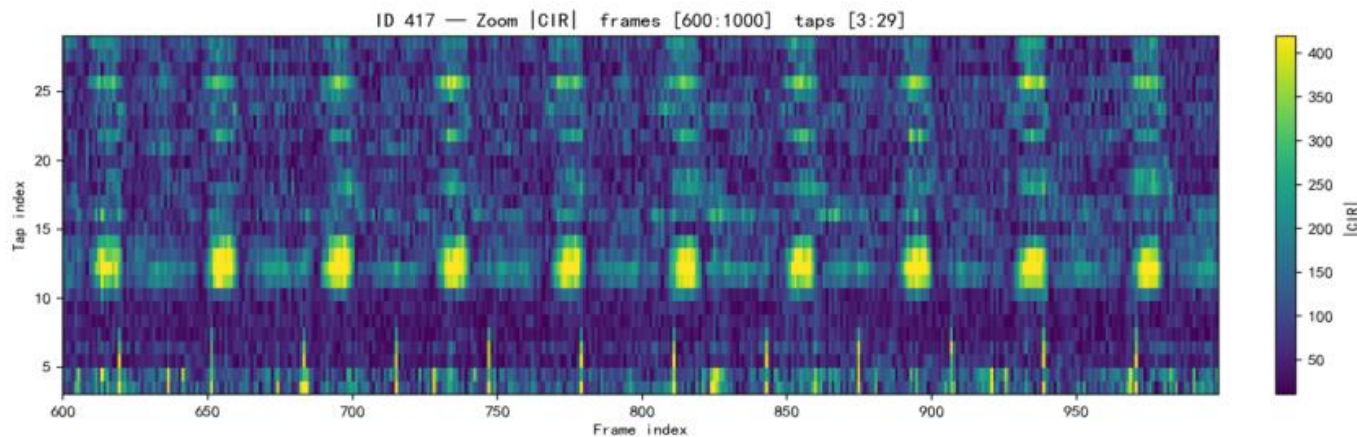
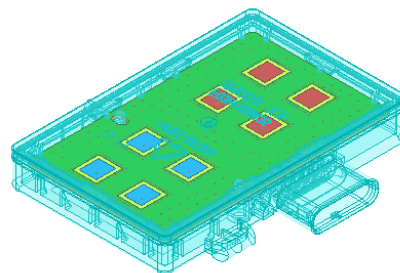
- ✓ 无断点情况下，最大测距距离接近50米；
- ✓ 允许断点的情况下，最大测距距离可达100米





UWB CPD雷达实车验证

- CPD 实车验证（三排座，单个UWB雷达）：在 20 个车内位置、5 种姿态（正向坐姿、背向坐姿、躺姿、趴姿、盖厚毛毯躺姿）下完成婴儿呼吸检测测试，系统在所有场景均能稳定识别目标呼吸动作。



UWB 雷达检测到胸腔在周期性前后移动（呼吸引起的相位与幅度变化），形成亮度周期变化的热纹带。



Leading RF Technologies, Bridging Wireless Communication

Thank You



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Note: This document is subject to the latest released version, the previous data is invalid