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QUARTZ-ONYX Presentation

5G

What We Will Cover

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- What is the QUARTZ-ONYX?
- The importance of 5G
- What are the capabilities of 5G?
- RS485 or RS232?
- QUARTZ-ONYX Overview
- Box contents
- Where and who will use a QUARTZ-ONYX?
- What collateral will be on the Siretta Website?
- Find Us on Social Media

The Importance of 5G

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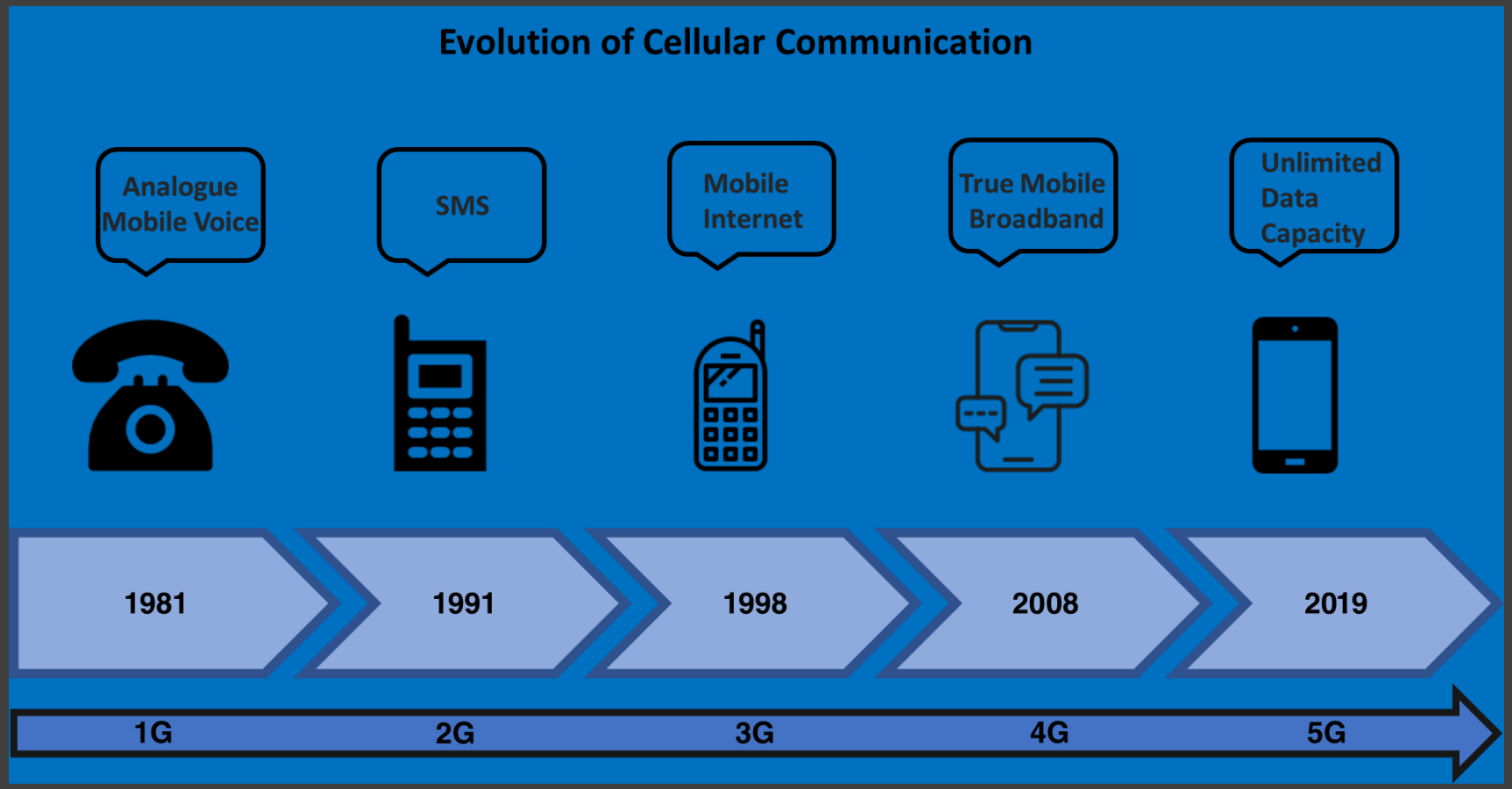
Evolution of Cellular Communication



WHY is 5G so important?

It's **BIGGER**, BETTER and FASTER!

Speed x 10 than 4G LTE

Latency 2ms – Quicker than the human central nervous system!!

Bandwidth

Capacity

What Capabilities does it have?

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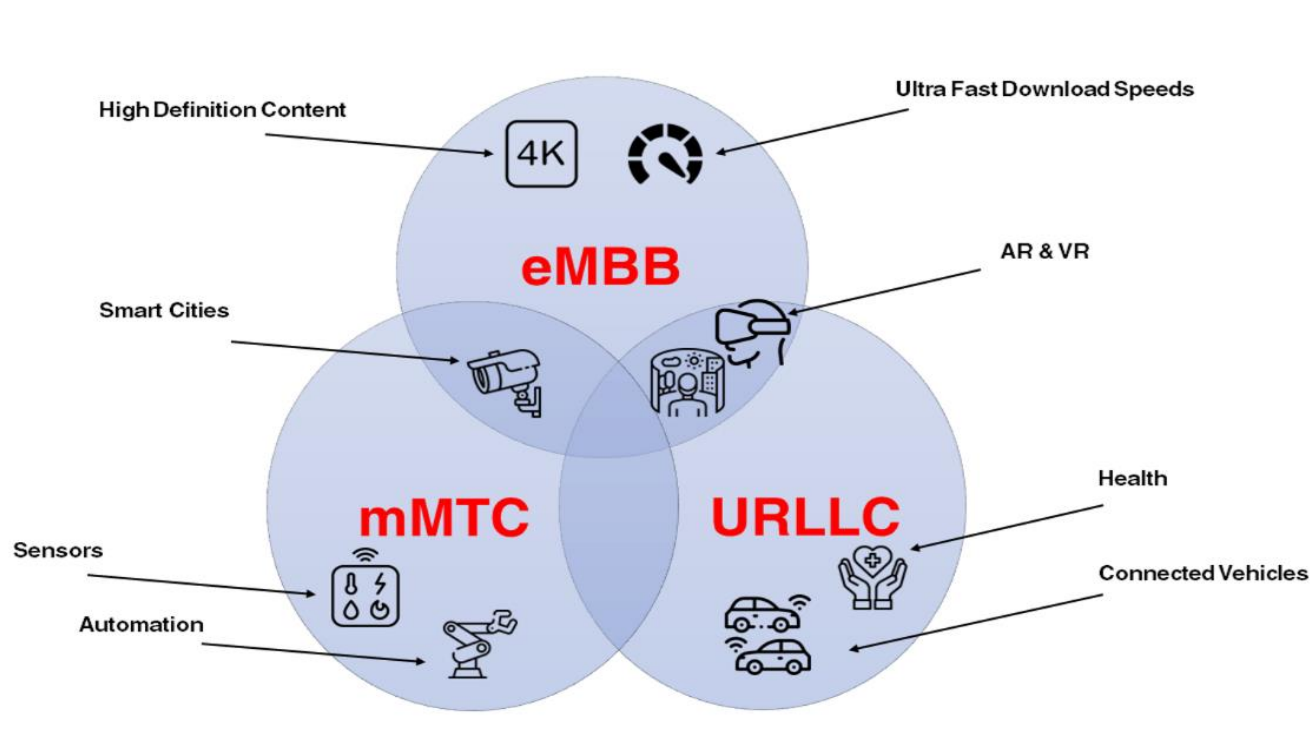

Fact! – 5G "NR" is "New Radio" which is the standard set by 3GPP in 2018 like "LTE" for 4G

5G is the most versatile and advanced network to date. 5G NR (New Radio) will also cater heavily for IoT applications and the network can be "sliced" into 3 segments

eMBB – **e**nhanced **M**obile **B**road**B**and – Designed for applications that require speed and large data transmission – Ideal for Advertising Boards, interactive interfaces etc

mMTC - **m**assive **M**achine **T**ype **C**ommunications – For applications or "things" that use small amounts of data and deployment can be on a large scale

URLCC - **U**ltra-**R**eliable **L**ow-**L**atency **C**ommunication – Lightning quick response time due to low latency. Designed for Health (Mission Critical) tasks and Autonomous vehicles.

RS485 or RS232?

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- Does the same thing… Transmits data!
- RS485 can have more devices connected (up to 32)
- RS232 – Like a walkie talkie – One is a transmitter and one is a receiver over a short distance
- Data transmission rate faster on RS485 and longer distance
- RS485 is also commonly used for building automation as the simple wiring configuration and lengthy cable length is ideal for joining remote devices. It is commonly implemented to control video surveillance systems and link security control panels to devices such as access control card readers.

If you're looking for a low data transmission speed over a short distance, the RS232 will suffice, even though it is slightly old. The RS232 will be less expensive and simpler to integrate as compared to RS485. However, if you require a higher data transfer speed over a longer distance, RS485 will work better. If you need to control multiple devices, then RS485 is the suitable choice.

QUARTZ-ONYX Overview

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- Introducing the new QUARTZ-ONYX 5G Industrial Router
- FCC Approval (TBC)
- **First** Global 5G product to join the Siretta Product Portfolio
- 4 x Gigabit Ethernet Ports (1 port can be WAN)
- Wireless 2.4GHz and 5GHz
- Dual Sim capability
- Failover & Fallback Features
- RS232 x 2 OR RS485 x 1 Port
- Digital I/O
- GPS Option available
- Onboard Memory options available 16GB, 32GB, 64GB, 128GB & 256GB – Subject to MOQ
- **Leadtime 12 weeks or less**

61818	QUARTZ-ONYX-W42-5G (GL)
61816	QUARTZ-ONYX-W42-5G (GL) + ACC
61831	QUARTZ-ONYX-GW42-5G (GL)
61870	QUARTZ-ONYX-GW42-5G (GL) + ACC

Box contents

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What's in the box?

1. QUARTZ-ONYX
2. Multi-head power adapter
3. Multi-region power adapter heads
4. DIN and wall mount bracket with screws
5. RJ-45 network cable
6. Power cable and GPIO connector
7. 4G/5G antenna x4
8. 2.4 GHz/ 5 GHz WiFi Antenna x2
9. Magnetic Cellular Antenna Extenders x4

Where & Who will use a QUARTZ-ONYX?

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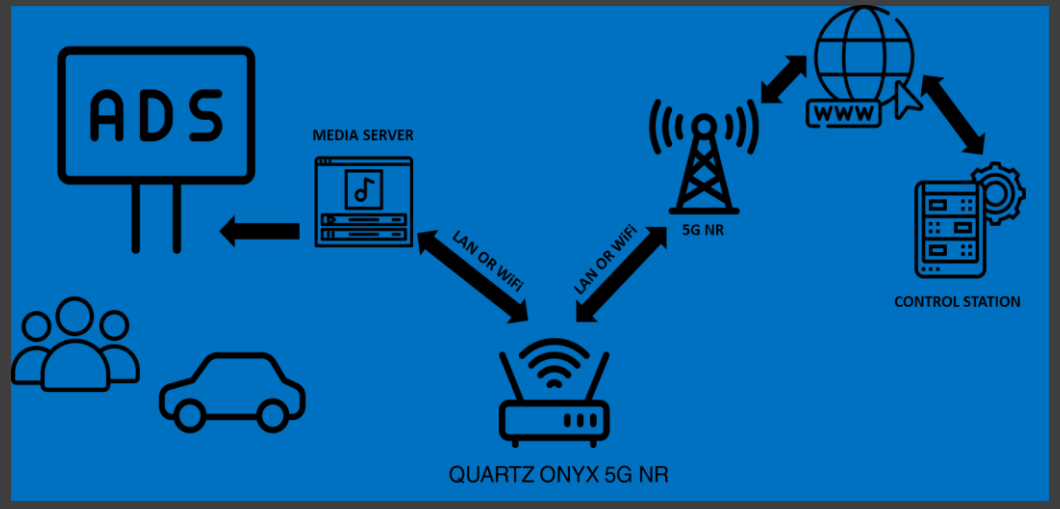
The QUARTZ-ONYX can be targeted at

- Bus/Coach Companies
- Train Companies
- Private luxury hire
- Pop Up sites



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What marketing collateral is available on the Siretta website?

- Datasheet
- Quick Start Guide
- Hardware Manual
- Software Manual
- Flyer
- Product Pack

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