# GLP2020 Progress Status

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## Agenda

- I. GLP2020 Progress Status and FY2019 Initiatives
- II. MWC 2019 Report
- III. Roadmap of 5G

## Appendix

Latest Trends in 5G and Anritsu's Test Solutions



## I - 1. GLP2020 : Revenue and Op. profit Plan Progress





**FY2019** Initiatives

Capture growth opportunities by focusing on boosting competitiveness in 5G business

- Enhance global development framework and customer support system
- Promote conformance test system business



# I - 3. GLP2020 Progress Status in PQA Business



**FY2019** Initiatives

- Strengthen sales bases in Americas and Europe
- Promote shift to platform solutions

Japan	
Americas	
EMEA	
Asia	

Beyond

2020



**Resolve social issues by realizing Beyond 2020** 

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#### **II. MWC 2019 Report**





# II -1. Overview of MWC19 MWC 2019, the largest mobile event in the world held in Barcelona, Spain, from February 25 to 28.

#### The spotlight was on 5G smartphones and foldables.

#### Many device vendors exhibited 5G smartphones.



#### Foldable smartphones were the center of attention.





# II - 2. xR a Standout Among 5G Use Cases



- The name "xR" is catching on as an umbrella term for AR, VR, MR and SR. New expressions and uses are growing.
- Industrial IoT proposals that take advantage of low latency 5G are increasing.



# II - 3. Anritsu Booth





**MS2090A** Field Master Pro 9kHz – 54GHz

First showcase of handheld spectrum analyzer for 5G









 Anritsu display covered our full lineup from 5G development to conformance tests, manufacturing and maintenance.
CATR : Compact Antenna Test Range



### II -4. All Eyes on 5G Live Demonstration Example Using MT8000

# **Anritsu Booth** 5G-NR R&D Device Testing **5G Test Solutions** R&D Qualcomm Sony Media Tek Inseego

Connectivity tests were conducted with Qualcomm, Sony, MediaTek and Inseego devices.

#### Media Tek Booth



#### Sub6GHz throughput demonstration Achieved stable over 4 Gbps



# Appendix Latest Trends in 5G and Anritsu's Test Solutions



#### Now Market New market size IoT/ Automotive Utilization of 5G in the new field **5G Development Mobile Market** Accelerated investment in 5G(NSA-NR) development • Investment in 5G(SA-NR) development : China 5G Manufacturing **Manufacturing of 3G smartphone** • 5G(Sub6GHz) manufacturing market **Development of LTE LTE-Advanced Pro** Investment towards Gigabit LTE development **LTE-Advanced IP Data traffic/Cloud Services** Wireline Market **High** speed and increasing capacity of the data center Investment in small cell **Business opportunity** 2008 2018 2019 2020 2012 2024

Appendix-1 T&M : Mobile market trends and Business opportunity

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Appendix-3. Current status and outlook for major 5G vendors and operators

2018 2019	2020 2021
★ 3GPP Release 15	★ 3GPP Release 16
Chipset	
Qualcomm(America) MediaTek (Taiwan) Samsung (Korea) Intel (America)	Next Chipset
Device	
Samsung LG (Korea) (Korea) Motorola Huawei (China) (America) Sony (Japan) Sharp (Japan)	Next Device
Operators	
Verizon (America) CMCC (China) AT&T Docomo, KDDI, SoftBank (America) (Japan) KT, SKT, LGU+ (Korea) We expect full-scale commercial service to begin in 2020 or later.	

\*Created by Anritsu, with reference to materials from "Public Meeting for Exchanging Opinions on Radio Policy (58th Meeting)," issued by the Ministry of Internal Affairs and Communications (September 21, 2018), as well as other publicly available information.



#### Appendix-4. 5G terminal development/manufacturing process and test solutions



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