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The Global Semiconductor Industry Analysts

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Entering the Wi-Fi 6E Era: Samsung Launches First 6GHz Wi-Fi Phone

In a kind of coming of age, the Samsung Galaxy line turns 21 today. The S21 line-up of phones was officially announced at the Galaxy Unpacked event. Rumours and renderings have been floating around for a while with the biggest news about the colors that would be offered, number of camera lenses on the back, and that the S21 variants will ship without a charging brick in the box.

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General Motors CEO Boldly Foresees 'All-Electric Future'

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LG Leans on AI to Improve TVs, Washers, and Presenters

Like all of its rivals, LG is taking advantage of AI to add pizzazz — and ideally some differentiation — to a lineup of classic consumer electronics products, some of which haven't done anything fundamentally different in well over 50 years, if not longer.

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TALK TO US



Samsung Shows Off Vacuum Cleaner with Lidar that Babysits Pets

At CES 2021, Samsung presented its vision for AI in home electronics, including home robots that can pet-sit, load the dishwasher and keep you company. Under the heading "A Better Normal For All," president and head of Samsung Research Sebastian Seung showed off the consumer electronics giant's latest innovations

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Piezo Haptic Feedback To Improve Driving Safety

From turning the steering wheel to pressing down the accelerator pedal, the driving experience is very tactile. Haptic technologies simulate the sense of touch by triggering forces, vibrations or motions to the drivers, and are increasingly used by the automotive industry as a way to confer a safer, more informed and more intuitive user experience.

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In a kind of coming of age, the Samsung Galaxy line turns 21 today. The S21 line-up of phones was officially announced at the Galaxy Unpacked event. Rumours and renderings have been floating around for a while with the biggest news about the colors that would be offered, number of camera lenses on the back, and that the S21 variants will ship without a charging brick in the box.

What is significant is that a selection of those S21 boxes will contain the world's first Wi-Fi 6E enabled mobile phone, the Galaxy S21 Ultra. As you may recall, Wi-Fi 6E is the "extended" version of the standard that adds an additional seven 160 MHz channels in the 6 GHz band. The S21 will itself contain an important ingredient to enabling the extended Wi-Fi capability: the Broadcom BCM4389 Wi-Fi 6E and Bluetooth 5 combo chip.

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The mantra repeated throughout a keynote presentation by General Motors CEO Mary Barra Tuesday at the CES was that 2021 marks an "inflection point" not only for advances in automotive technology but for the political and environmental future of society as a whole.

As she began her address, Barra invoked terms rarely or never heard before at this iconic gathering of engineers, salespeople and technologists. They are terms that included "climate change," "zero emissions," "racial justice," and "gender equality."

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In its half-hour presentation at CES 2021, LG summarized recent product improvements, introduced some new products and features, and talked about a few advances to come later in 2021. The subtext for much of the presentation was COVID-19, just as it was for Samsung, Panasonic, and other consumer electronics companies during theirs.

LG execs never mentioned Covid directly, however. They did make frequent allusions to how our lives have changed: we're all spending far more time at home, and we're placing increased value on "health and wellness." Credit the company with not bludgeoning its audience with overt references to the pandemic when rolling out one product after another that clearly referred to the pandemic.

Samsung Shows Off Vacuum Cleaner with Lidar that Babysits Pets

At CES 2021, Samsung presented its vision for AI in home electronics, including home robots that can pet-sit, load the dishwasher and keep you company.

Under the heading "A Better Normal For All," president and head of Samsung Research Sebastian Seung showed off the consumer electronics giant's latest innovations. Noting that the world looks quite different to how it did for CES 2020, Seung pointed out that home has taken on greater significance for all of us. Samsung's strategy for home appliances therefore centers around the customizable, including bespoke fridges and an AI-powered smart recipe app that provides tailored meal plans.

Samsung's Neo QLED is a fortieth of the thickness of other LED TVs. Built-in AI capabilities can upscale any source into 4K or 8K quality (Image: Samsung)

AI is a cornerstone technology for Samsung, creeping into almost every consumer appliance the company showed — everything from food recommendations to image quality enhancements in TVs. The company's latest TV, the Neo QLED, uses as many as 16 different neural networks models to upscale input images, regardless of quality, to 4K or 8K. Seung said this TV uses a proprietary neural network processor called the Neo Quantum to process the upscaling workloads.

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At CES 2020, Boréas Technologies Inc. (Bromont, Canada) is rolling out what it claims is the first low-power high-voltage piezoelectric driver IC to enable high-definition haptic feedback in automotive human machine interfaces. The BOS1211 IC has been developed using Boréas' patented CapDrive technology, a scalable high-voltage piezoelectric driver architecture that takes advantage of the piezoelectric material. This approach compares with the more traditional haptic actuators: eccentric rotating mass (ERM) motor and linear resonant actuator (LRA).