

CES 2016

Guess I'll Never Have to Buy the White Album Again

By Logan Enright



1977 was a big year for the AV industry, with the introduction of VHS by JVC at the Consumer Electronics Show (CES) in Las Vegas. It was my first year in the biz and at the show. Since then, we've gone through dozens of tape and disc audio and video formats to now, where everything is cloud based. The line by Kay in the film *Men in Black*, when he produced a new small disc saying, "Guess I'll have to buy the White Album again," comes to mind. Now that the streaming services are carrying The Beatles, that won't be necessary...ever again. Never-ending changes and advancements: That's what CES and the whole tech field is all about.

Vegas' population was way under a million people in 1977 and there were only a dozen or so casinos on the Strip. Having now spent a career in commercial AV, mostly as a manufacturers' rep, it is good to take away commercial or non-residential applications for all the cool gadgets at CES. After all, what consumer AV gets, commercial AV gets sooner than later.

We heard numbers of 170,000 attendees at CES this year. The huge Comdex computer show of the early '90s boasted those kind of numbers, but it's always tough to determine. One way to estimate mega-show size in Las Vegas is traffic at Paradise and Convention Center Way at 9:00am on opening day. Also, cab lines are a good barometer. The show seemed pretty busy, but not the busiest we've seen.

Much of the show had little to do with home entertainment electronics. It was more an expo of *all* consumer technology. Smart homes, smart cars, smart appliances, smart watches, drones, health devices and more. Some amazing car innovations; the whole North Hall seemed to be an auto show, including Lexus' electro-magnetic hover board. IoT (Internet of Things) is a watchword of anything networkable (any device on or connected to the internet), including, but not limited to TVs, watches, portables, health devices and more.

Nonetheless, what is germane for the commercial AV market from CES 2016? Plenty!

OLED (Organic Light Emitting Diode) continues to grow as a flat screen technology, with LG stating that its entire line of flat panels will be OLED in a couple of years. OLED uses a film of organic compound that emits light, with no backlights.

LG, which has a commercial division, will have four series of eight models of OLED, all 4K, all HDR (more on HDR later) in its consumer lineup. OLED benefits include lower power usage, less costly to build, blacker blacks than TFT LCD and they are flexible (can be bent), which is perfect for digital signage. However, the downside of OLED is shorter lifespan (14,000 hours, which is 4.6 years at eight hours a day). Guess we'll have to figure that out or plan to replace sets. A video editing system on the LG V10 smartphone was on display. Called Quick Video Editor, it's a complete timeline-based pro style edit package that supports slow motion, additional soundtracks and titler.

HDR (High Dynamic Range) is a big deal this year in consumer displays, but it is questionable as to its importance in commercial. Toshiba, which is in the midst of launching a new commercial division out of Irvine CA, believes that HDR is not important to commercial in that the content will not be used in commercial applications. HDR is popular in still photography, whereby three or more shots of different exposures are merged into one, yielding more detail in dark and bright areas. In displays, HDR uses special content and processing that creates more detail between dark areas and light areas. Dolby is one of the pioneering companies in HDR, and Sony, LG and others have sets for the home market.

Samsung's concept area of its booth was jaw dropping. It featured their "TV of the future," where 14-inch (estimated) cube-sized displays with virtually no bezel moved forward, backward and sideways, allowing custom configuration for any aspect ratio. No specs were being offered by Samsung on this area. Of course, this concept is for the very few...with big walls. Samsung also displayed a 55-inch, 1.4mm, bezel-to-bezel video wall display. Daisy-chainable to allow multiple images on more than one display, the system supports Samsung's Magic Info software, which is also used on its line of transparent digital signage displays. The company also showed 55-inch, 2500NIT, direct sunlight-viewable outdoor sets. All of these products have clear commercial applications.



Samsung TVs of the Future Concept Area CES 2016

Quantum Dot technology was bandied about by various display manufacturers, including Samsung. Yielding improved color gamut through a blue-light, quantum dot display is an experimental type of display technology. Similar to OLED displays, in that light would be supplied on demand. Samsung states that its Quantum Dot sets yield 96% of DCI (Digital Cinema Initiatives, 4096x2160 pixels).

Projection mapping has been around for years, from Barco, Christie, Panasonic, Casio and others. By using special software, a projected image can precisely map virtual content onto 3D surfaces. By using multiple projectors and software systems, projection mapping can change auditoriums, building exteriors, and even sports arenas, into larger-than-life experiences that amaze audiences.

Panasonic showed 3D High Speed Projection Mapping with 1ms delay, allowing projection on fast-moving objects. Obvious commercial applications abound. An 8K 10 multi-touch interactive table was shown by Panasonic, which can be wall mounted. The resolution shown on this table at CES was 4K, but was astonishing. Also, Panasonic debuted a technology called Light ID, wherein a special light on an object can activate a website on a smartphone. Great for museums: a rich commercial market.

Wearables were abundant at the show. One notable newcomer is a wearable, cloud-connected HD camera from Clipzoo based in Irvine, California. The camera uses clever, patented technology to catch and instantly share moments that a conventional camera misses. The company will launch a crowdfunding campaign in June. Visit www.clipzoo.com to learn more.

On the commercial audio side, Klipsch (which in residential advertises, “Pissing off the neighbors for 70 years”) showed a line of outdoor speakers in both 8 ohm and 70V. Ideal for the theme park, hospitality and any public space market, Klipsch has both on-ground and below-ground subwoofers to support these outdoor speakers. Two new amps from Klipsch, the KLA1000 and KLA500, offer full matrix 4x4 switching. Klipsch also rolled out wireless speakers and Dolby Atmos-capable speakers for the theater market.



Klipsch New Line of Outdoor Speakers

Casio showed its new V2 low-cost hybrid projector, the latest in its LampFree™ (note Casio has trademarked LampFree™ as the first laser/LED hybrid in the industry) lineup of projectors using

laser and LED as light sources (no lamps to replace). Casio also showed a projector that has 18,000 hours on it as a demo of its 20,000-hour claim. It looked good (a little less light output).

GoPro continues to amaze, with two virtual reality camera systems, one co-developed with/for Google, called Jump, which uses 16 cameras to do a full 360 panorama. The other is GoPro's own system using six cameras and is fully spherical (video all around you, top and bottom). For the latest in action/extreme sports cameras, the GoPro Session camera for \$200, is a rubberized (won't slip off dashboard) 1080p/60fps camera with a single button on it, and it talks to smartphone apps. GoPro will have a drone this year, but no more details on that were available.

USB-C was seen on the show floor. This new universal (iOS, Android, Windows, Google compatible) version of USB is super-fast - at 10GB per second - Belden claims it can transfer a full length feature HD film in 30 seconds. A small but great detail - USB-C connectors are symmetrical - one can plug in either way - up or down.

And, of course, drones are everywhere now at all of these shows. DJI claims to be the industry leader in sales. With a government-oriented trade show having a drone part of its show, we were interested in the market for sales in the commercial AV world for event and corporate videography. Although DJI seems to have its fingers on the pulse of the droid market and a leg up in technology, a spokesperson said, "The dealers are on their own" in terms of making a profit selling. Sad to hear: a race to the bottom in pricing?

CES continues to tantalize and stimulate the juices of any techie. Some years yield a richer bunch of new cool items than others: 2016 seems to be a particularly rich year in new and exciting innovations!

Logan Enright has been active in the commercial AV and video industries for 38 years. After receiving his bachelors degree in Broadcast Communication Arts from San Francisco State University, he was with JVC from 1977-1985. A past two-term member of the Board of Directors for InfoComm, he founded and has run The Enright Company since 1985. The Enright Company is a full service manufacturers' rep company serving manufacturers, integrators, consultants and end users in CA, AZ, NV and HI.