



IEEE Consumer Electronics Society 2012 CES Download



Gary Sasaki – DIGDIA
Tom Coughlin – Coughlin Associates
Mike Demler – EE Daily News

www.ieee.org/scvce

2011 IEEE CES Officers

- Michael Wang – Chairperson
- Joseph Wei – Vice Chair/ Program Chair
- Rich Elder - Secretary
- Al A. Dorji– Treasurer
- Gary Sasaki – Web/Publicity
- Program Committee – Bill Orner, Chris Pedersen, Tom Hampton, Victor Ramamoothy, Tom Coughlin

Annual Election 2012 IEEE CES Officers

Elected Positions

- Michael Wang – Chairperson
- Rich Elder - Secretary
- Al A. Dorji– Treasurer

Appointed Positions

- Joseph Wei – Vice Chair/ Program Chair
- Gary Sasaki – Web/Publicity

Become a Member

IEEE Membership: \$165/yr (students - \$30/yr)

 \$5 discount at our events

CE Society: \$15/yr (students - \$8/yr)

 \$10 discount at our events

Forms at registration table, or go to ieee.org

Benefits of being a IEEE Member

IEEE Membership:

- Access to ebooks, digital library, research, memberships, discounts on insurance, travel, and technology, etc.

www.ieee.org/membership_services/membership/benefits/index.html

CE Society Membership:

- Quarterly CE Society Newsletter
- Vision Magazine published by Consumer Electronics Association
- Access the CE Society Members Only page
- Complementary new memberships to the IEEE and Consumers Electronics Society are available to employees of small business that are member companies of CEA

2012 Schedule

- Feb 2012 - Sankhya Technologies - Building Innovation Platforms for Consumer Electronic Product Development
- Mar 2012 - TBD

Signup at www.ieee.org/scvce to receive meeting notices

2012 Speakers/Topics Suggestions

Please email your suggestions for 2012
speakers or topics to:

Joseph.Wei@ieee.org

Local Event

- Jan 23-25 SNIA Winter Symposium 2012
(Sainte Claire Hotel, San Jose)
- Jan 31-Feb 1 2012, DesignCon
(Santa Clara Convention Center, Santa Clara)

Job Opportunities

Please raise your hand if your company is hiring and leave your contact info. with me

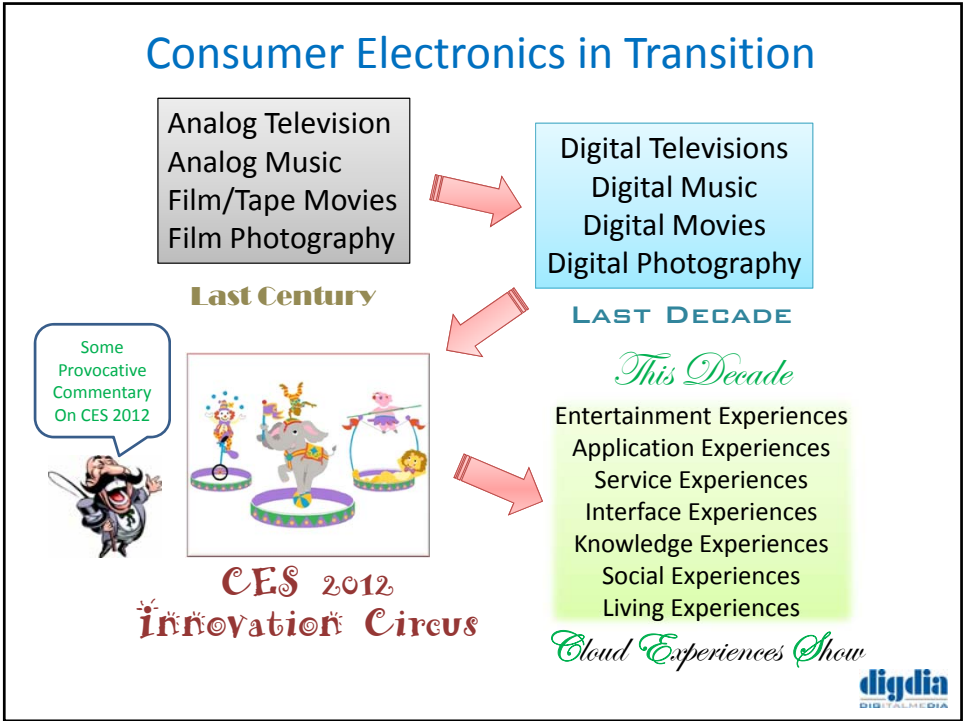


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Displays

OLEDs
Reach 55 inch
(LG & Samsung)

Sharp
Freestyle
20" TV
\$1200

Sony
"Crystal LED"

The World's First 8K LCD
Sharp 8K

3D with
Parallax
Adjustments

More Displays & Such



Sony
Personal 3D
Viewer
\$800



Sony DV-5
Recording
Binoculars
\$2000



Panasonic



Vuzix



NVIDIA/VRX
\$15-\$30,000



Lumus



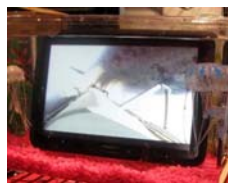
Sensics
SmartGoogle



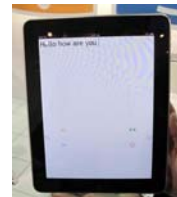
Evolving Tablet World



Samsung
Galaxy Note (5.3")



Fujitsu Arrows
(Under Water)



Snapkeys



Sony/AT&T Tablet P



iRobot
Ava



LensPen Sidekick



3D Printing



Casio \$100 - \$500

PortraitWeavers.com

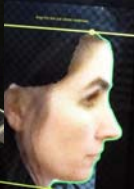


\$160 (~3'x4')



\$70 - \$300

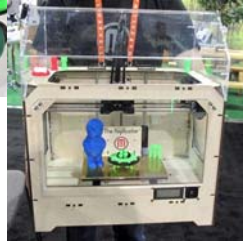
Sculpteo



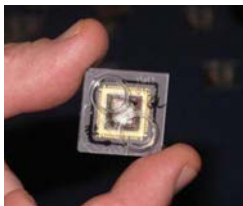
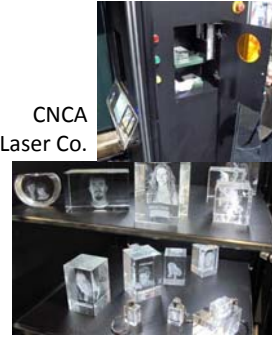
Cubify Cube \$1300



Maker Bot Industries \$1800



CNCA Laser Co.



Life Technologies ION 314 \$100/\$50K



Body Media Fit (Sprint) \$170



Zomm \$200 Concierge Service \$15/mo.

Living Large



FitBit Aria \$130

Gear4 Renew Sleep Clock \$200



Qualcomm Tricorder X-Prize \$10 Million



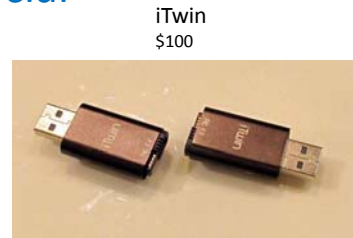
New Social



Panasonic
MySpace TV



Escort Live
\$139



iTwin
\$100



CamOne Tec
Pelicam \$1500



Smartphone Tricks



Gild Design Factory
\$100

Valor's Mybat \$40



Orbotix
Sphero
\$130



Kogeto
Dot
\$80



Aurasma
By Autonomy (HP)



Lethal Protection's
Life Phorm \$70



XYBotyx \$111.11



Tech on the Edge



Signa Chemistry
Power Trekk
\$4/cartridge

VuPoint Solutions
EZ-Secure \$30



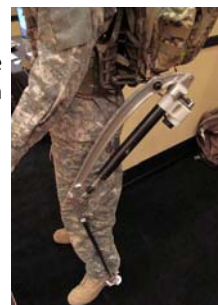
Dish Tailgater
\$350



Victorinox
1 Terabyte
\$3000



Springactive
Exoskeleton



Nagra
ID Security card

Genius
Ring Mouse/Laser
\$70



ICCE

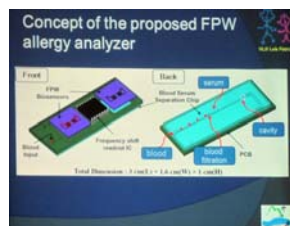
International Conf. on Consumer Electronics



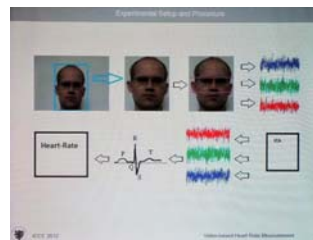
Panorama TV
Korea Inst. of Science & Tech.



Hover Touch
Samsung



Solid State Allergy Analyzer
Chia-Hao Hsu, et al



Video-based Heart Rate Reader
Univ. of Wuppertal, Germany

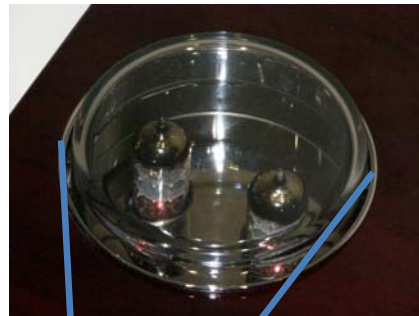
See more about CES 2012 & download Free paper,
CES 2012 - The Innovation Circus, at www.digdia.com





Tubes

- Tubes are back!?
- ioGear USB tube...
- Samsung sound systems with audio tubes





8k X 4K Sharp TV



KDDI Free View Concert

4K and 8K to the Home and Beyond

- 4K and even one 8K TV (Sharp) at 2012 CES
 - BBC to provide some 2012 Summer Olympics 8K video content
- 3D of course—with and without glasses
- KDDI Free View Concert Demonstrates Content Created by Real Time Interpolation of Multiple Camera Views (6 cameras in 2012 demonstration)

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Capture Yourself—More Capture Devices Means More Content Captured

- More ways to capture your life—Gordon Bell, move over!



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Make the Connection

- Will USB replace HDMI—USB 3.0 carrying HD video plus power
- Local Clouds
- Thunderbolts—more of these out there!
- SATA-IO USM—some growth for consumer apps



Store It!



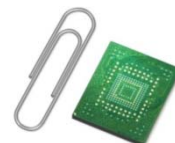
Allowing content the easy way. iCloud™ uses cloud technology to allow you connect with your favorite files from any computer or smartphone. It's easy to upgrade in the world and will have access to your photos, music, and documents. And the best part? iCloud is free!

iCloud Drive 5GB	iCloud Drive 100GB	iCloud Drive 500GB
<ul style="list-style-type: none"> 5 GB Single user account Mobile access Free syncing 	<ul style="list-style-type: none"> 100 GB Single user account Mobile access Free syncing Free backup 	<ul style="list-style-type: none"> 500 GB 3 user accounts Mobile management Free syncing Cloud backup Remote access
<p>Free - all the time</p> <p>We don't just have extra storage, all of your favorite files, photos, music, and documents are always available online.</p> <p>0.00€ per month</p> <p>Get it now</p>	<p>Low cost, high performance</p> <p>Enjoy extra storage for those who need to save any extra - unlimited space for all your content, images and more.</p> <p>9.99€ per month</p> <p>Get it now</p>	<p>Your personal network</p> <p>Ready when you are - create your own family network and get the best protection. Also, online storage means you can Back Up.</p> <p>29.99€ per month</p> <p>Get it now</p>



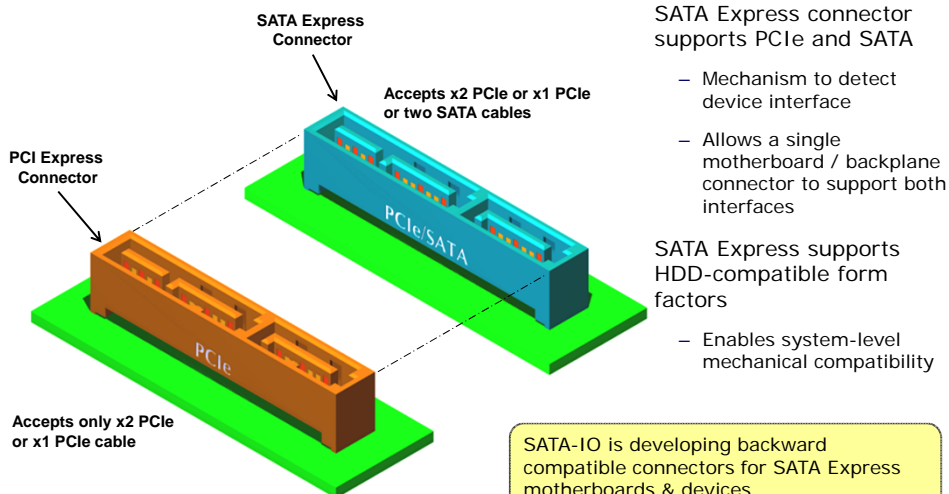
Example Application-Specific Implementations

- ◆ mSATA (mobile applications)
- ◆ SATA μ SSD (embedded applications)
- ◆ SATA Universal Storage Module (consumer electronics, PC applications)



Slide from Paul Wassenberg for SATA-IO at SV 2012

SATA Express Connectors



Slide from Paul Wassenberg for SATA-IO at SV 2012

Home & SMB “Cloud Storage” Appliances



- It is also possible to create remote storage access to a home or business small NAS device
- Although this has been possible for technically savvy users for years, recent commercial products make this easy to implement—leading to the Home Cloud

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Personal “Cloud Storage”

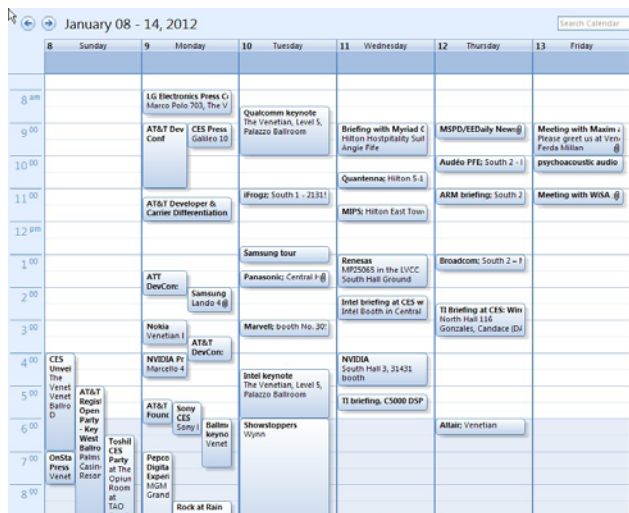
- Maybe you can't or won't store everything in the public cloud, or even a home cloud...
- Seagate introduced its GoFlex Satellite offering a battery powered WiFi access 500 GB HDD for Tablet Computers
- Kingston offered a 16 and 32 GB SSD-based product with similar functionality
- Some other products like this available



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My CES Schedule



EE DAILYNEWS

AT&T, Nokia, Microsoft Make Fast Friends



- AT&T's big push into LTE
- Announces 6 LTE phones
- Nokia "re-enters" U.S. market
- 1st Windows LTE phone:
 - Lumia 900
- HTC goes to 16Mpixels!
- Taking LTE mainstream
 - Pantech, Samsung handsets "under \$50"



EE DAILYNEWS

Samsung Note

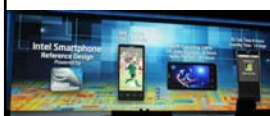


- A “cross-over” device
- 5.3” 1280 x 800 AMOLED display
- Stylus input w/ 256 pressure levels
- AT&T LTE
- 1080p HD video record & play
- “S pen” SDK for Android (2.3) developers



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Intel's 1st Atom-based Smartphone



- 1st launch by Lenovo in China
 - 3G HSPA+
- 32nm Medfield processor
- Intel ISP w/ 10fps camera
- Graphics Media Accelerator:
 - Plays & records 1080p video
 - 1280x1024 internal
 - 1920x1080 @30fps through HDMI
- Smartphone ref. platform
- Android optimizations
 - WiDi

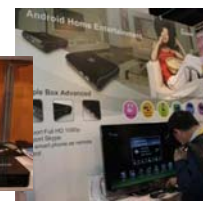


EE DAILYNEWS

Google-TV vs. Android TV



- Google-TV 2 w/new partners
 - LG, Samsung, Vizio + Sony TVs
 - Marvell, MediaTek chipsets
- Qualcomm + Lenovo
 - Snapdragon processor
 - Android 4.0 ICS
- Broadcom & Myriad + MIPS Taiwanese Mfrs w/ Android 2.3
 - Cideko
 - Sungale

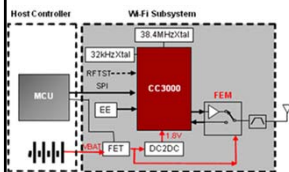


EE DAILYNEWS

WiFi: Faster and easier, or just more confusing?



- Quantenna touts 4x4 MIMO
- Broadcom dubs 802.11ac "5G"
- TI introduces SimpleLink
 - FirstTime configuration technology
 - Modules from LSR, Murata
- Maxim SoC for remote WiFi connected cameras
 - iZON iOS app



EE DAILYNEWS

Smart Connected Automobiles



- NVIDIA: Tegra-3 in automotive
 - “Changing the Driving Experience”
 - Infotainment
 - Digital instrument clusters



- GM OnStar Chevy Volt concept vehicle
 - Streaming content from the cloud with Verizon LTE connectivity.
 - Rear seat Skype video calls: vehicle to home, vehicle to mobile device, or vehicle to vehicle.



EE DAILYNEWS

CES Meetings

- Marvell: Google-TV, Smart Energy, One Laptop/Child Tablet
- Myriad Group: Android TV
- Quantenna: 802.11ac WiFi
- MIPS: MIPS-based smartphones, tablets, DTVs, gateways
- Renesas: LTE modems
- Intel: visual computing, smartphone reference platform
- NVIDIA: “Changing the Driving Experience”
- Wind River: embedded Android applications
- PicoChip/Mindspeed: femtocells, LTE basestation SoCs
- ARM: mobile applications
- Broadcom: 802.11ac WiFi, MOCA 2.0 STB
- Texas Instruments: SimpleLink WiFi, OMAP-5, Android Ice Cream Sandwich
- Maxim: multi-touch, audio w/ DSP, WiFi cameras
- Audio: iFrogz, Audeo (earphones), Thiel (speakers), Anthem (amp), Gen Audio (synthesized 5.1 surround sound), WiSA (wireless speakers)

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