

NEWS

8K TRAIN CAN'T BE..... STOPPED

MICHAEL GROTTICELLI, BROADCAST ENGINEERING /03.14.2014 11:36AM.

While U.S. broadcasters are wrestling with how and when to utilize 4K (aka Ultra High Definition or UHD TV) in their production workflows, or if at all, the Japanese broadcast industry is determined to move to a higher resolution level, namely 8K. That's 16 times the resolution of 1080-line HD, or 7680 × 4320 (33.1 megapixels, 12-bit processing). Uncompressed, an 8K 60fps image produces a data rate of about 24 Gbps.

Japan's national broadcaster, NHK, plans to deploy equipment that complies with the bandwidth-hungry format at the Tokyo Olympics in 2020. In January of this year, NHK's science and research laboratories said it successfully transmitted 8K television signals via a single standard UHF terrestrial broadcast channel over a distance of 27 km. The field test, conducted on Jan. 20 was performed as a follow-up to a May 2012 demonstration in which the UHD signal was sent slightly more than four km.

According to an NHK press release, this large amount of data generated was compressed and then transmitted in a 6 MHz broadcast channel using "ultra-multilevel" orthogonal frequency division multiplexing and multiple-input multiple-output dual-polarization technologies.



8KTV could confuse the buying public, to the detriment of everyone involved

During a panel discussion at the recent BVE conference in London, Andy Quested, head of technology for HD & UHD TV at the BBC, said, "NHK sees the jump to 8K from HD as the leap to make, and sees 4K as a cheap European/US standard made to sell TV sets." He might be right in his assessment, but the challenges of implementing an 8K infrastructure to move these signals around a facility and then get it into consumer's home is daunting at best.

However, the Japanese—more specifically, NHK—have never been daunted by a technical broadcast challenge. NHK was the first to introduce analog HD ("Hi-Vision") commercially in the 1980s, and also showed prototype digital HD and 4K (called "Super Hi-Vision") transmissions before many others. NHK has reportedly been doing research into 8K technologies since 1995.

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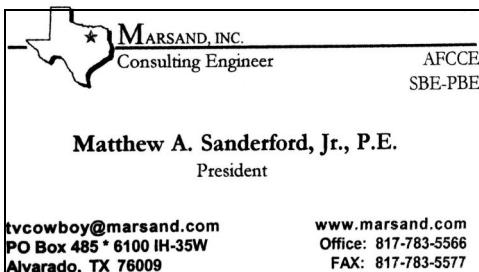
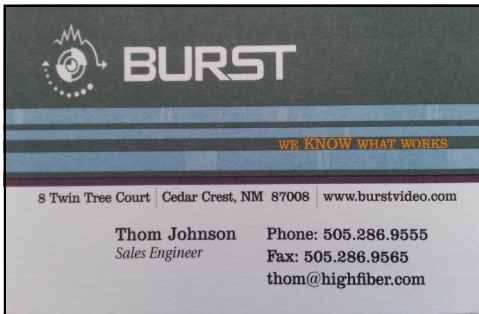
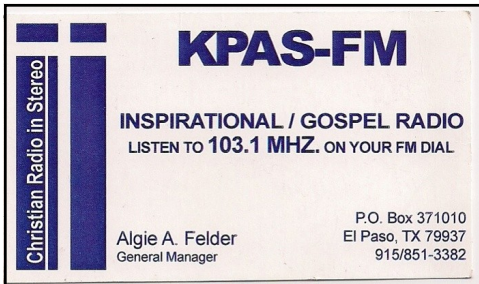
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Many industry analysts feel even discussing 8K ("UHDTV-2") at a time when 4K is still in its infancy makes 4K a mere stepping stone to something better and could confuse consumers into not buying anything.

At the CES Show last year, Sharp showed a prototype 85-inch 8K LCD screen. At 7680 x 4320 pixels, the screen can display a 33 Megapixel image without any down-scaling or cropping. The immersive image detail and brightness of the screen were astonishing to see, but many were asking, "Where's the content?"

While 4K content is limited, 8K content is virtually nonexistent. (The clips Sharp showed on the prototype were recorded by NHK.)

The 8K format is part of the ATSC's 3.0 broadcasting standard now being formalized and will be ready for initial testing in 2016. NHK demonstrated real-time, over-the-air transmission and reception of 8K at last year's NAB Show and is expected to show improvements this year as well.



NHK has significantly reduced the size of its 8K camera to make it more manageable for productions.

SBE CHAPTER 38 OFFICERS

CHAIRMAN Antonio Castro
SBE member # 11456.
KFOX/COX retired Chief Eng.
800 Arredondo dr.
El Paso, TX 79912
915-584-1220 home
915-525-8507 cell
farahjac@sbcglobal.net

VICE CHAIRMAN Carlos Sosa
SBE member # 26533
801 N Oregon St.
El Paso, TX 79902
915-496-4444 Office
csosa@ktsm.com

Treasurer Walter Hanthorn
SBE member # 18307
KSCE TV
4461 Gen. Maloney
El Paso, TX. 79924
915-269-7583 home
915-532-8588 office

Certification Committee: David Halperin.

Membership Committee:
Antonio Castro
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EAS Chairman: David Halperin

Executive Committee:
Antonio Castro
Carlos Sosa
Walter Hanthorn

Ho Tah Say, LLC
RF Engineer
WARREN T REEVES

4003 Santa Anita Drive
El Paso, TX 79902

915-351-0591
mobile 915-309-3377
wreeves707@gmail.com

 **ENTRAVISION COMMUNICATIONS CORPORATION**
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EL PASO, TX CHAPTER 38 MEETING MINUTE
DATE 03/11/2014 LOCATION: **CLEARCHANNEL STUDIO.**

MEETING CALLED TO ORDER: 18:04 PM, BY ANTONIO CASTRO,
THERE WERE 17 MEMBERS

REPORT OF THE SECRETARY: MINUTES ACCEPTED BY NORBERT
MILES, 2nd BY WARREN REEVES.

REPORT OF THE TREASURER: CURRENT BALANCE OF \$ 6,766.64
ACCEPTED BY ALFREDO DURAND, 2nd BY CARLOS SOSA.

REPORT OF THE CERTIFICATION COMMITTEE: NO REPORT.

REPORT OF THE MEMBERSHIP COMMITTEE: INVOICES FOR CHAP-
TER MEMBERS AND SUSTAINING MEMBERS WERE SENT IN THE
MAIL. SOME CHECKS RECEIVED AND DEPOSITED.

REPORT OF THE FREQUENCY COORDINATOR COMMITTEE:
NO REPORT

REPORT OF THE SCHOLARSHIP COMMITTEE: WAITING FOR APPLI-
CANTS.

REPORT OF THE WEBSITE COMMITTEE: 1567 HITS LAST REPORT,
NOW 1596 (29 MORE FROM LAST MONTH). WEB MASTER NORBERT
MILES PRESENTED THE INCLUSION OF A VIDEO PROMO. JUST
GREAT!!

REPORT OF THE EAS CHAIRMAN : MONTHLY SENT, BUT NOT RE-
CEIVED IN LAS CRUCES, NM. DUE TO A LOW POWER TRANSMITTED.

REPORT OF THE PROGRAM COMMITTEE : NORBERT MILLES PRE-
SENTED HIS "INTERNET RADIO STREAMING". DICK CLARK, EL PASO
BALLPARK PROJECT PRESENTED PLAN FOR TV ENG TRUCKS AND
CAMERA POSITIONS. WARREN REEVES AGREED TO GIVE ONE MORE
PRESENTATION.

UNFINISHED BUSINESS: ENNES WORKSHOP 2014 COMING ALONG..
EXPLAINED NEW FEES AND SPEAKERS, WELL APROVED.

NEW BUSINESS OR ANY ITEMS FOR THE CHAPTER INTERES: SBE
CH-38 ENGINEER OF THE YEAR 2014 WHEEL ROLLING.

NEXT MEETING DATE AND LOCATION: TUESDAY APRIL 15, 2014.,
AT NOON, COMO'S ITALIAN RESTAURANT (ACROSS FROM CLEAR
CHANNEL RADIO STUDIOS).

MEETING ADJOURNED: AT 19:05 PM.

Note from the Secretary: the meeting scheduled for the sec-
ond Tuesday of April 2014 will be moved to the third Tuesday
only for this time. Reason: must of the members will attend the
NAB Show at Las Vegas, NV during the second week. The need
to have our meeting obeys to a pre-election for the 2014 SBE
Chapter 38 ENGINEER OF THE YEAR, just like we did in 2013.
We need to have your votes no later than Tuesday April 15
noon time. Votes can be sent by e-mail or in the meeting. The
list of members to be voted will be E-MAILED at the end of this
first week.

APRIL PROGRAM

NORBERT MILES (KTEP)
PRESENTED INTERNET RADIO
STREAMING AND SHOWED A
GREAT PIECE OF VIDEO FOR THE
SBE CH-38 WEBSITE.

NO PRESENTATION FOR APRIL.
WILL BE GREAT THAT THOSE
WHO WILL ATTEND THE NAB
SHOW, BRING BACK WHAT YOU
SAW AT THE SHOW AND TALK TO
THOSE THAT WE STAYED HOME.

THE INVITATION IS FOR:

TUESDAY APRIL 15, 2014
@ 12:00 PM

WHERE: COMO'S
Italian restaurant, just across
from Clear Channel Radio Studios

SHOW YOU THERE !!!



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Also at the year's NAB Show, Ikegami (booth C7725) will host an 8K Technology Exhibit of its own, providing attendees with an up-close look at the latest advances in this extreme high-resolution format. The company said it will showcase several products that are compatible with 8K acquisition and transmission.

One benefit of 8K acquisition is that a perfect 4K image can be derived from it. The color fidelity and resolution of a full 8K image down-sampled to 4K appears to be phenomenal. Slow-motion replays will look more stunning than ever. As for other camera manufacturers, RED Digital Cinema has stated its cameras will record 8K in the near future. Sony reportedly down-samples its almost 8K sensor in-camera to 4K (since the resolution is reportedly 8768 x 2324, it could never record 8K in-camera).

For all those professionals trying to decide whether now is the time to buy a 4K camera, talk and testing of 8K systems is not doing anyone any favors.

- See more at: <http://www.tvtechnology.com/news/0086/k-train-cant-be-stopped/269355#sthash.Rrt5MwRm.dpuf>



PICTURES FROM OUR LAST MEETING/PRESENTATION AT THE CONFERENCE ROOM OF CLEAR CHANNEL RADIO.

