

The logo for Ktech, featuring the word "Ktech" in a bold, white, sans-serif font on a black rectangular background.

TELECOM

PRESENTATION TO NTIA

NOV 14, 2006

KTECH TELECOMMUNICATIONS, INC.

BY

STEVE KUH

21540 Prairie Street, Unit B

Chatsworth, CA 91311 USA

Phone: 1-818-773-0333

Fax: 1-818-773-8330

sk@ktechtelecom.com

- **SINCE 1995, KTECH DESIGNED DTV RECEIVERS**
- **AN OVER-THE-AIR DTV RECEIVER DESIGN COMPANY**
- **SUPPLIES PRO-GRADE DTV TUNERS TO USA BROADCASTERS AND USA CABLE COMPANIES**
- **CUSTOMERS INCLUDE: ABC, CBS, NBC, FOX, PBS, COMCAST, TIME-WARNER, CHARTER...**

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- **DIGITAL CONVERTER BOX SHALL PROVIDE**
 - **EASE OF USE**
 - **RECEIVE ALL ATSC TERRESTRIAL OFF-AIR**

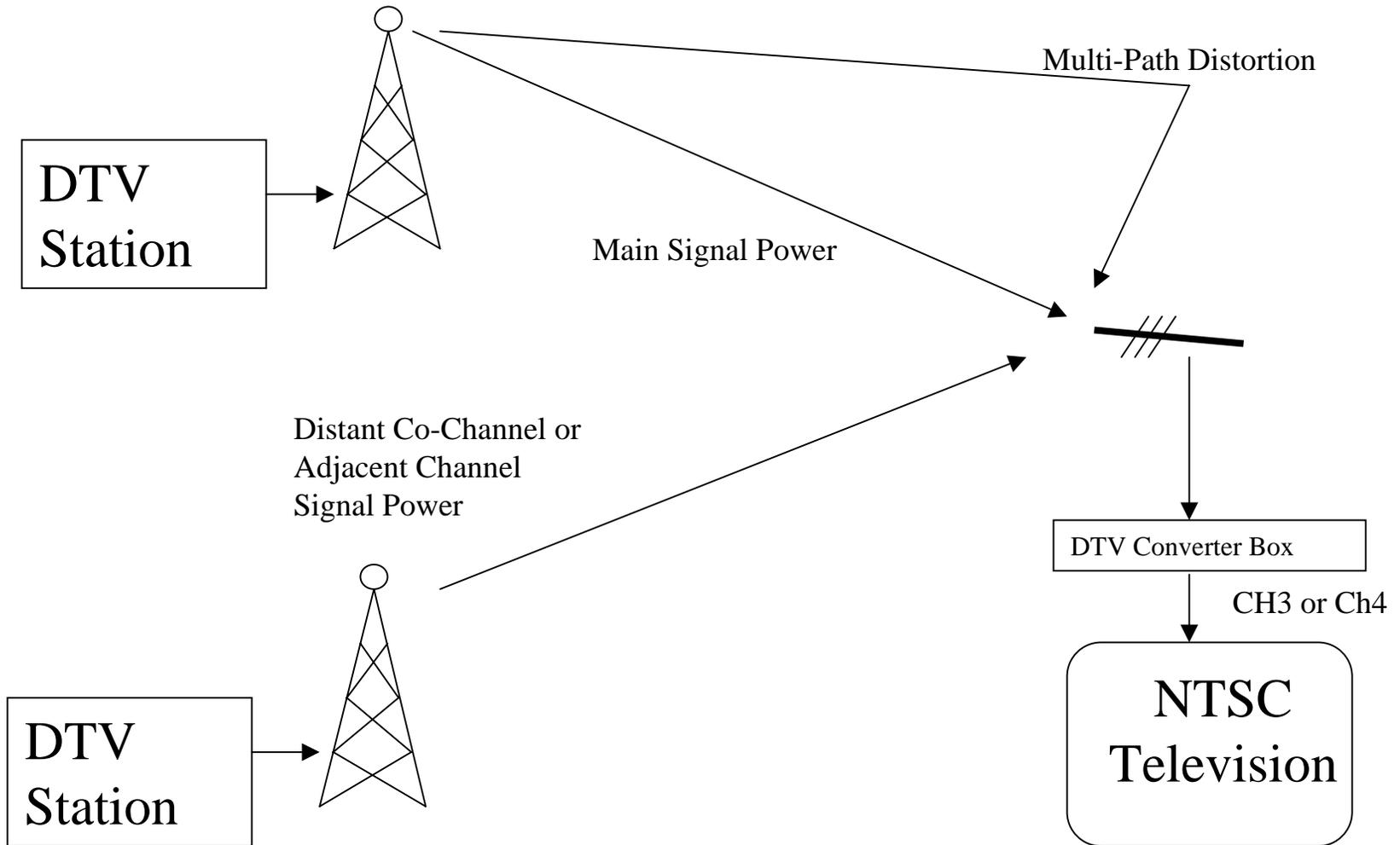
- **RECEPTION OF ATSC OFF-THE-AIR IS NOT POSSIBLE UNDER FOLLOWING CONDITIONS:**
 - **NOT ENOUGH POWER**
 - **TOO MUCH MULTI-PATH DISTORTION**
 - **TOO MUCH INTERFERENCE**
- **SIGNAL QUALITY INDICATOR HELPS CONSUMERS IDENTIFY THE PROBLEM – EASE OF USE**

- **SIGNAL INDICATION HELPS IDENTIFY PROBLEM**
 - **RECEIVED POWER**
 - **RECEIVED MULTI-PATH DISTORTION**
 - **RECEIVED INTERFERENCE**
- **SIGNAL QUALITY INDICATORS (SQI) ON RF MODULATED NTSC CH3 OR CH4 OUTPUT REQUIRED**
- **WITHOUT SQI, CONSUMER UNABLE TO MAKE CORRECTIVE ACTIONS TO RECEIVE ALL ATSC SIGNAL: NOT CONSISTENT WITH THE ACT**

ATSC DTV RECEPTION ISSUES



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ATSC DTV RECEPTION ISSUES



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NTSC
TELEVISION
SCREEN

RECEIVED SIGNAL QUALITY INFORMATION

CH: 2-1 KCBS-DT

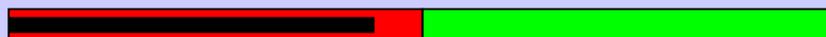
RECEIVED SIGNAL POWER: -60dBm



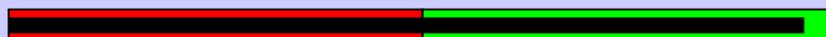
RECEIVED SIGNAL-TO-NOISE RATIO: 27 dB



MULTI-PATH DISTORTION: 15 dB



RECEIVED BIT ERROR RATE: 4.1E-8



- **SIGNAL QUALITY ON NTSC RF CH3/4 HELPS IDENTIFY PROBLEM FOR CONSUMERS**

RECOMMENDED SPEC TO INCLUDE



- **DTV CONVERTER BOX SHALL IDENTIFY**
 - **RECEIVED POWER**
 - **RECEIVED MULTI-PATH DISTORTION**
 - **RECEIVED INTERFERENCE**
- **SIGNAL QUALITY INDICATORS (SQI) ON RF MODULATED NTSC CH3 OR CH4 OUTPUT REQUIRED**
- **SHALL INDICATE MEASURED SQI NUMBER, DISPLAY IN GRAPH, AND INDICATE GOOD/BAD**