

A TEL

SUBJECTIVE TESTING

OF THE

***digital* HDTV GRAND ALLIANCE**

SYSTEM

PICTURE DESCRIPTION

- S1 **Metal Tables & Chairs:** Overhead view of round tables and chairs on concrete patio stones.
- S5 **Tulips:** Purple, yellow, pink and white tulips.
- S6 **Sculptures:** Colourful dinosaurs on wall.
- S8 **Toys:** Checkers, Chinese checkers, lego, and paint trays.
- S9 **Girls with Toys:** Two girls playing with toys and books, on a rug.
- S14A **Cheshire Cat:** Graphic. Three potted plants with Christmas balls, on black and white checkered floor.
- M1 **Window:** Blowing curtains over kitchen sink.
- M2 **Fax Machine:** Sending Quarterly report.
- M4 **Mannequin:** Rotating in display window with stars background
- M5 **Living Room:** Panning/zooming of camera, from book shelves to stack of art books on table.
- M6 **Den:** Man getting book off shelf, and sitting on sofa.
- M10 **Woman & Room:** Woman in green, blue and black argyle sweater getting book, and sitting on sofa.
- M16A **Rotating Pyramids:** Graphic. Silver mobile with 4 diamonds spinning, on marble background, with text.
- M35 **Crosswalk:** Lots of people walking through busy intersection.
- M36 **Georgetown Loop:** Sightseeing train travelling along mountain track.
- M37 **Buckingham Palace:** Marching guards in red uniforms.
- M38 **Snow Tires / Trees:** Creek lined with snowy trees.
- M39 **End Zone:** Olympic procession into stadium.
- M40 **Dream Team:** Basketball game.
- M41 **Golf:** Man teeing off.
- M43 **Ducks:** Lots of ducks and swans swimming in pond.
- M44 **Mirror:** Woman putting on make-up, class reunion invitation on dresser.
- M45 **Christa:** Short haired woman walking down sidewalk.
- M46 **Fountain:** Man and woman splashing at fountain.
- M47 **Clock #1:** Graphic. Internal mechanics of a clock.
- M48 **Connections:** Flight details given by man in striped jacket.
- M49 **Picnic With Ants:** Four people at picnic table with encroaching noise.

TESTING CHRONOLOGY

NTSC INTERFERENCE	MAY 20 - JUNE 5
BASIC QUALITY	JUNE 23 - AUGUST 3
RECEIVER SCAN CONVERSION	AUGUST 14 - 16

REPORTING

INTERIM RESULTS	AS COMPLETED
QUALITY / INTERFERENCE REPORT	AUGUST 8
SCAN CONVERSION REPORT	AUGUST 29
FINAL REPORT	SEPTEMBER 18



VIEWER SELECTION

TESTED FOR CORRECT VISION

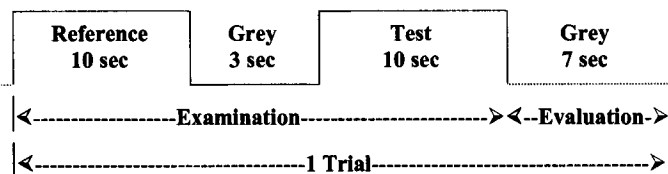
NO EXPERIENCE WITH VIDEO TECHNOLOGIES

NOT PARTICIPATED IN ATEL TESTS PREVIOUSLY

NEW VIEWERS FOR EACH TEST



NTSC INTERFERENCE TESTS



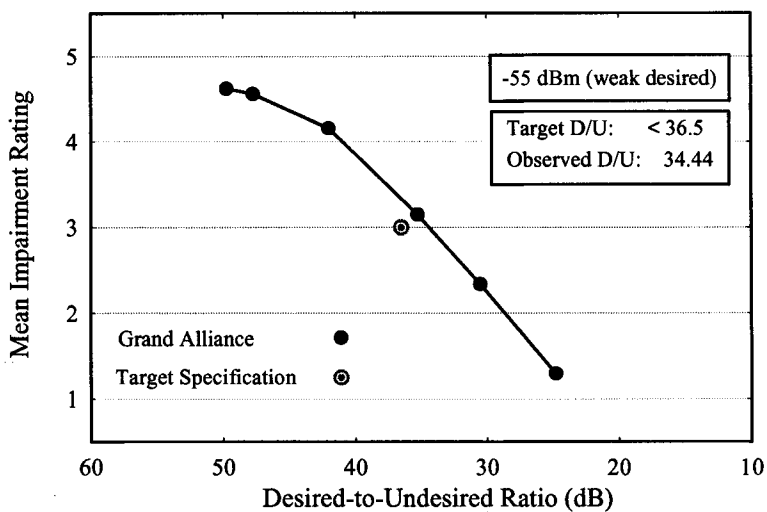
LAYOUT OF AN INTERFERENCE ASSESSMENT TRIAL

- IMPERCEPTIBLE
- PERCEPTIBLE, BUT NOT ANNOYING
- SLIGHTLY ANNOYING
- ANNOYING
- VERY ANNOYING

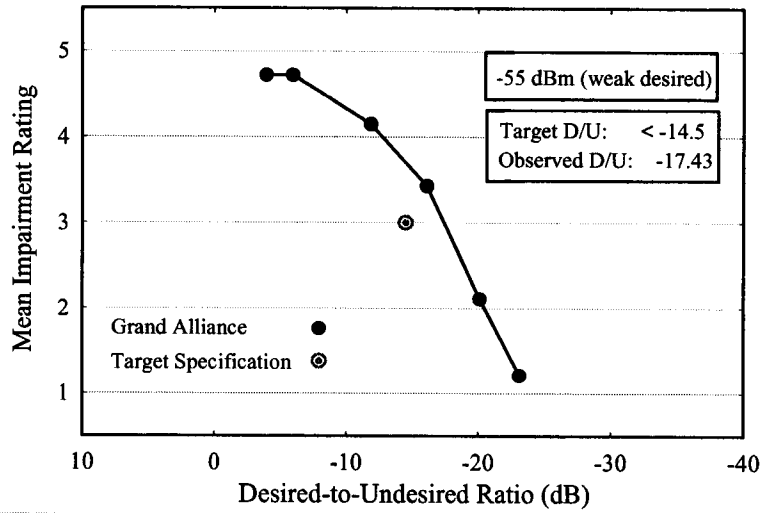
THE FIVE - GRADE IMPAIRMENT SCALE



CO-CHANNEL INTERFERENCE (ATV-into-NTSC)

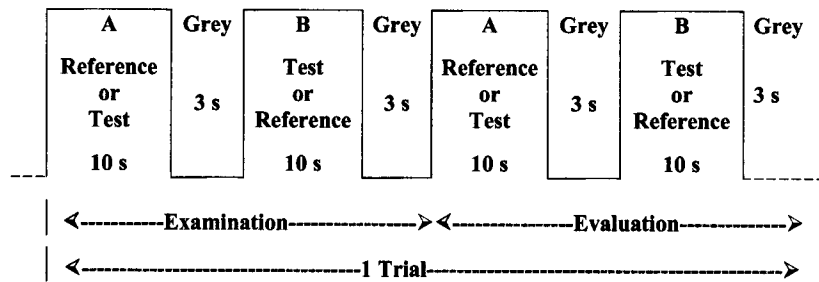


LOWER-ADJACENT CHANNEL INTERFERENCE (ATV-into-NTSC)



CRC Communications
Research Centre
Centre de recherches
sur les communications

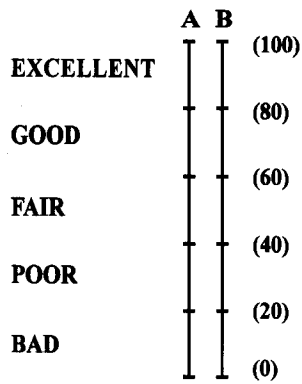
QUALITY TESTS



LAYOUT OF A QUALITY ASSESSMENT TRIAL

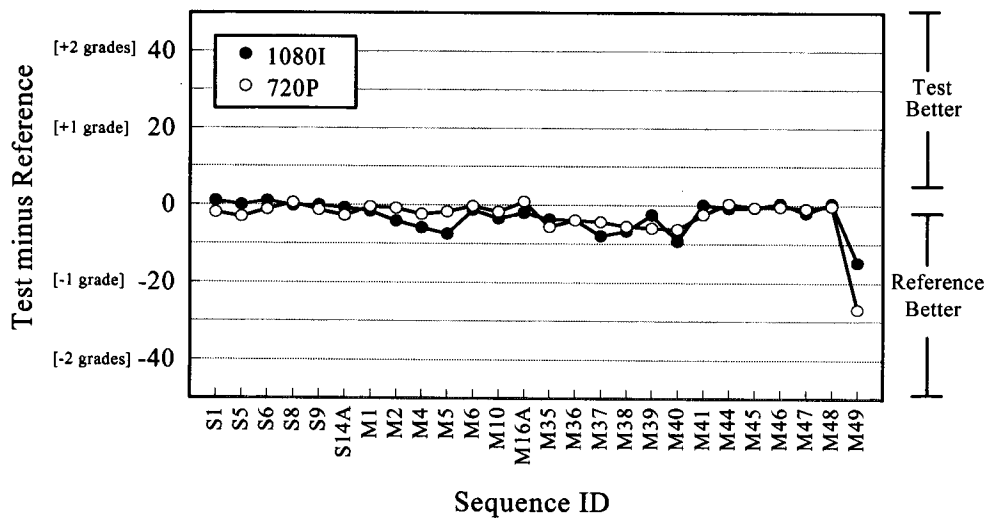
CRC Communications
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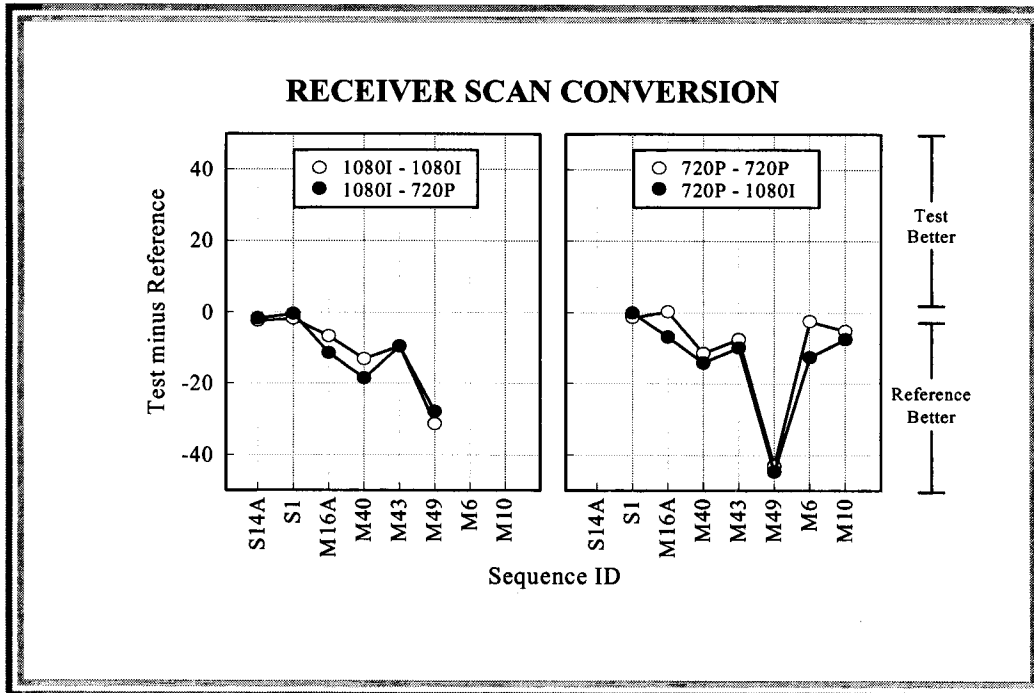
QUALITY TESTS



RATING SCALES USED IN THE QUALITY TESTS
(NOT TO SCALE)

BASIC QUALITY FOR THE 1080I AND 720P MODES





SUMMARY

ATV into NTSC INTERFERENCE

FOR SPECIFIED D/U RATIO:

- CO-CHANNEL BETTER THAN CCIR GRADE 3
- LOWER-ADJACENT CHANNEL BETTER THAN CCIR GRADE 3

QUALITY TESTS

TARGET SPECIFICATION EXCEEDED IN ALL CASES

RECEIVER SCAN CONVERSION

FOR THE MOST CHALLENGING SEQUENCES:

- 1080I to 720P EXCEEDED SPECIFICATION
- 720P to 1080I EXCEEDED SPECIFICATION