NTIA Low-Power Television Digital Programs

Overview

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A. Background



Background

Low-Power Stations

Licensed 6,905

Construction Permits 1,381

TOTAL 8,286

Source: FCC March 2007

Background

- DEFICIT REDUCTION ACT OF 2005 (Public Law 109-171 enacted 2/8/2006)
- Title III Digital Television Transition and Public Safety Act of 2005
 - Allows analog Low-Power TV broadcasts after the full-power TV February 17, 2009 digital transition deadline (§ 3002)
 - -Creates two low-power digital transition programs (§§ 3008, 3009)



Background New Low-Power Digital TV Transition Programs

- Section 3008 Low-Power Television and Translator Digital-to-Analog Conversion
 - -\$10 million available starting October 1, 2007, for purchase of digital-to-analog converter devices by eligible stations

Background

New Low-Power Digital TV Transition Programs

- Section 3009 Low-Power Television and Translator Upgrade Program
- \$65 million available starting October 1,
 2008, to upgrade eligible stations from analog to digital



Background New Low-Power Digital TV Transition Programs

- The two programs have different objectives and eligibility requirements.
- NTIA urges each Low-Power TV licensee to review information about both programs when planning its station's digital conversion.



Background

NTIA's Goal:

To assist as many qualified stations as possible

B. Low-Power TVConversionProgram (§ 3008)

Purpose of the Conversion Program

- "[E]ach eligible low-power television station may receive compensation toward the purchase of a digital-to analog conversion device...
- "that enables it to convert the incoming digital signal of its corresponding full-power television station to analog format...
- "for transmission on the low-power television station's analog channel." [§ 3008(a)].

B1. "Each Eligible Low-Power Station"

Eligible Stations [§ 3008(c)]

- Low-power television broadcast station
- Class A television station
- Television translator station
- Television booster station
- [Note: both commercial and noncommercial stations are eligible]

Broadcasting exclusively in analog format [§ 3008(c)(1)]

- Must be broadcasting on date of application
 - -With FCC license, or
 - Under FCC Program/Test Authority

Broadcasting *exclusively* in analog format [§ 3008(c)(1)]

The following stations may not be eligible:

- Stations broadcasting a digital signal on a companion channel. (Such stations are not broadcasting exclusively in analog.)
- Stations that have flash cut are not broadcasting exclusively in analog.

Stations holding a Construction Permit

- Program is intended to convert operating stations receiving an analog full-power TV station.
- Bare construction permits may not be eligible unless the station completes construction and begins broadcasting by September 30, 2007.
- Stations with construction permits should plan to receive their full-power digital, not analog, station.

- A station CANNOT have purchased a Digital-to-analog conversion device (DACD) prior to enactment of the Digital Television and Public Safety Act of 2005 (February 8, 2006) [§ 3008(c)(2)]
- DACD is explained in Equipment Section.

Summary: Station Eligibility

When an application for conversion funding is filed, a low-power station:

- Must be broadcasting with a FCC license or program/test authority.
- Must be broadcasting only a analog signal, not on a companion channel.
- Cannot have purchased a digital-to-analog conversion device before 2/8/2006.

B2. Equipment

The program provides compensation toward the cost of purchasing a digital-to-analog conversion device (DACD):

"...digital-to-analog conversion device that enables [the station] to convert the incoming digital signal of its corresponding full-power television station to analog format..." [§ 3008(a)]

"...to convert the incoming digital signal of its corresponding full-power station..." [§ 3008(a)]

- Equipment must receive/convert the incoming off-air signal of a full-power digital station to analog.
- Equipment cannot be used by a station that receives an analog station in a "daisy chain."
- Equipment cannot be used by a station that receives baseband video via satellite or microwave.

- NTIA Assistant Secretary
 - "...Shall determine the maximum amount of compensation such a low-power television station may receive based on the average cost of such digital-to-analog conversion devices...But in no case shall such compensation exceed \$1,000" (Conference) Report on S. 1932, Congressional Record, 12/18/2005, p. H12692)

- NTIA realizes that many installations vary in complexity and design.
- This program is only intended to support the acquisition of a DACD to convert the off-air signal of a full service digital television station.



Commonly used systems

- Type 1 Tuner/receiver that feeds an Analog Translator
- Type 2 Tuner/receiver that feeds a
 Microwave which serves other Translators
- Type 3 Heterodyne Processor



Type 1 – Tuner/Receiver Feeds Analog Translator



Receive Antenna

Transmit Antenna

Analog off-air tuner/receiver

(Existing)

Video out

Audio Out Modulator (Existing)

RF out
On
Channel

Analog

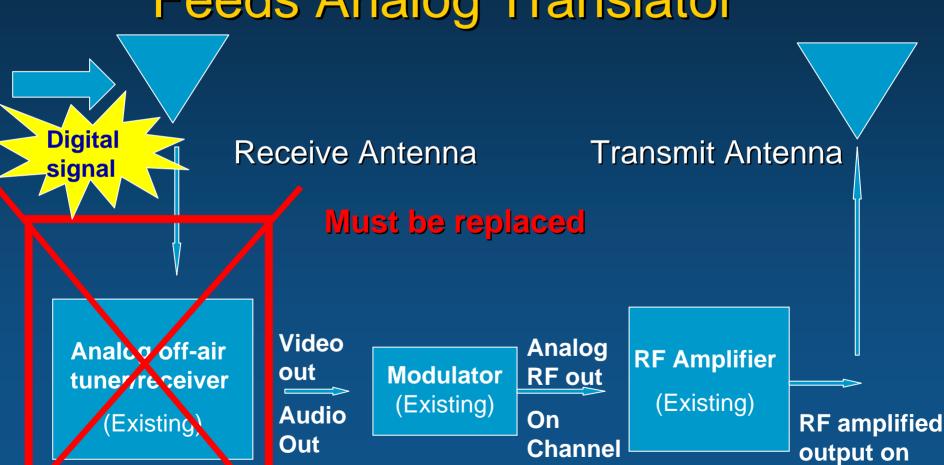
RF Amplifier

(Existing)

RF amplified output on new channel



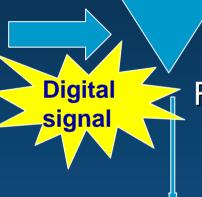
Type 1 – Tuner/Receiver Feeds Analog Translator



new channel



Type 1 – Tuner/Receiver Feeds Analog Translator



Receive Antenna

Transmit Antenna

Digital off-air tuner/receiver

(NEW)

Video
out
Audio
Out

Modulator (Existing)

Analog RF out On

Channel

RF Amplifier

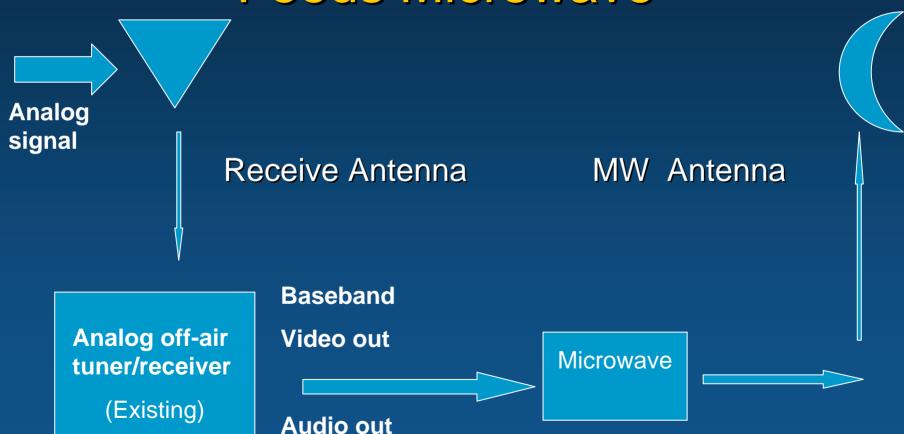
(Existing)

RF amplified output on new channel

NTIA grant

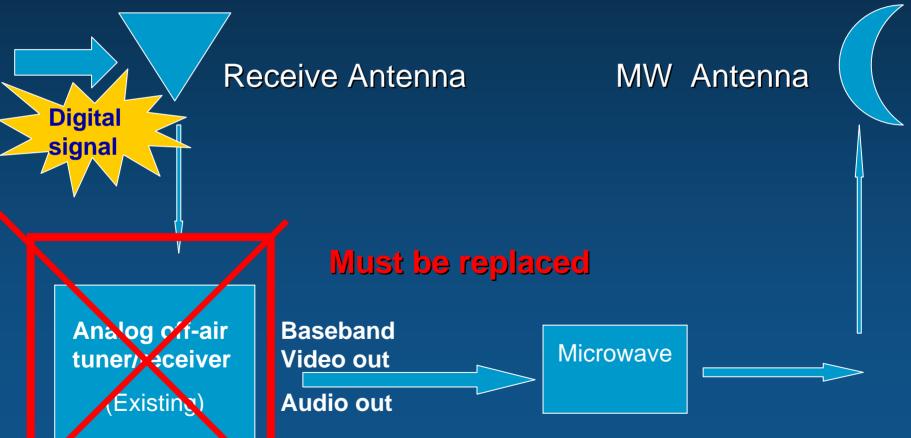


Type 2 – Tuner/Receiver Feeds Microwave



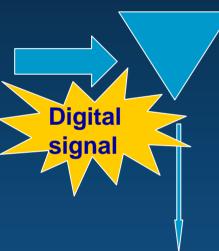


Type 2 – Tuner/Receiver Feeds Microwave





Type 2 – Tuner/Receiver Feeds Microwave



Receive Antenna

MW Antenna

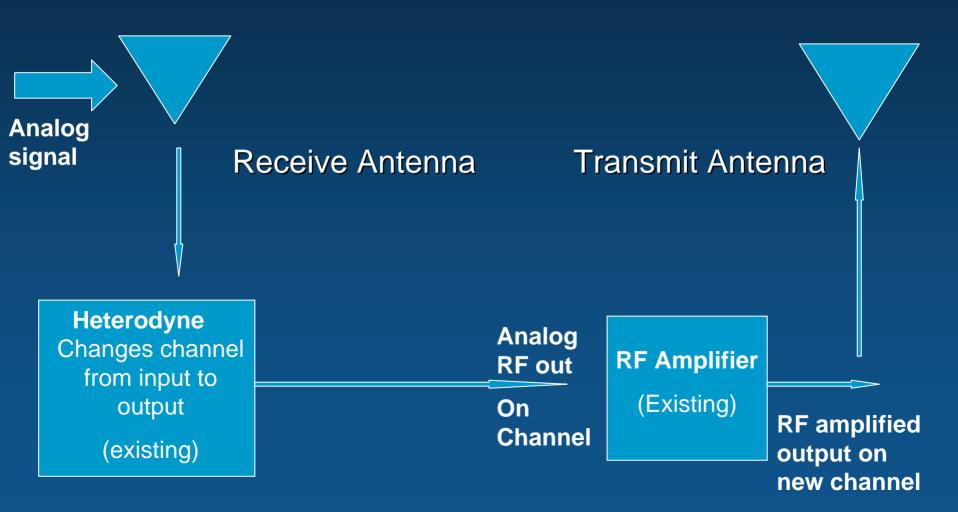
Digital off-air tuner/receiver (NEW) Baseband Video out Audio out

Microwave

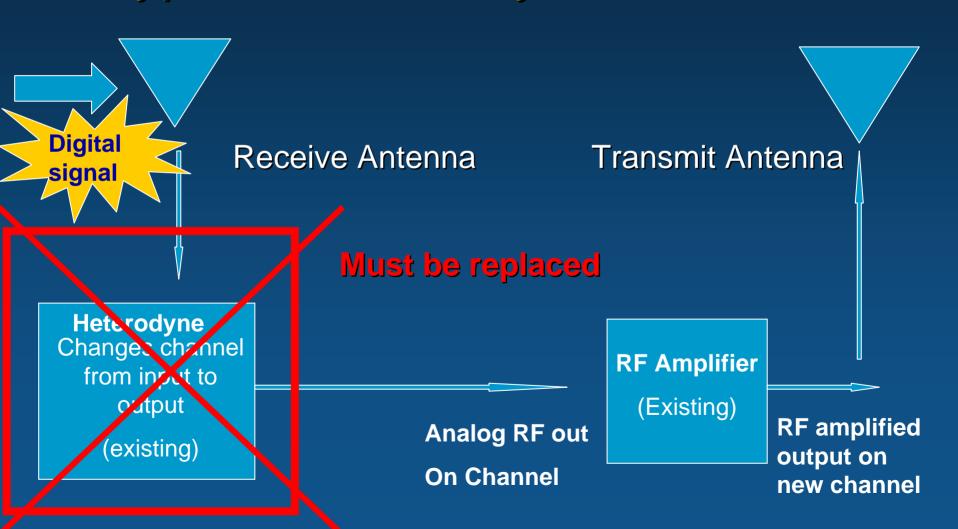
NTIA grant



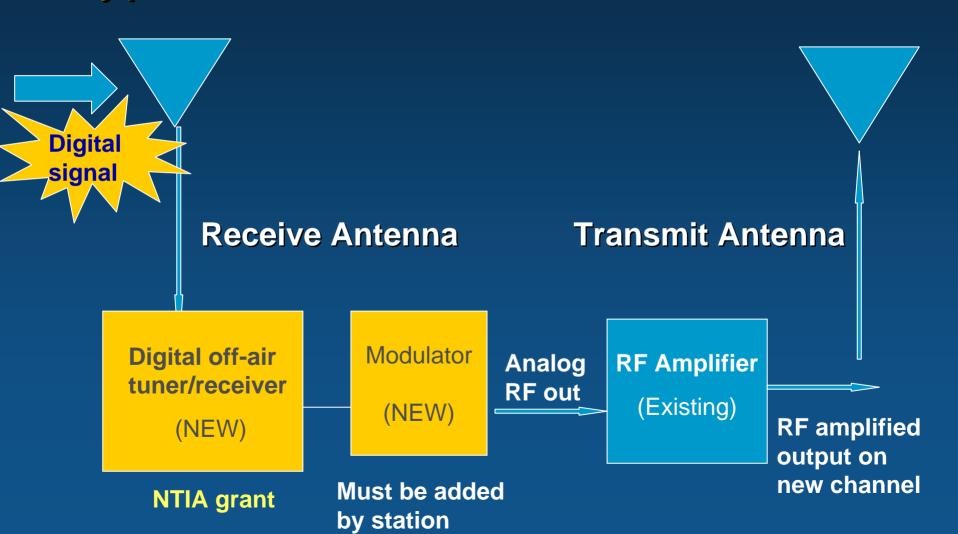
Type 3 – Heterodyne Processor



Type 3 – Heterodyne Processor



Type 3 – Becomes Tuner/Receiver



Digital-analog Conversion Device (DACD)

- Device to pick up digital full power station off-air so it can be converted to analog
- Device must auto reset to designated full power TV station virtual channel (e.g. Ch. 26-3) in event of power failure
- DACD will replace existing Tuner/Receiver or existing Heterodyne Processor
- Average Tuner/Receiver Cost: \$1,000

Other possible station expenses

- Off-air antenna (if full-power station changes from VHF channel to UHF)
- Installation (depending on local conditions)
- Heterodyne systems may require modulator (in addition to Tuner/Receiver); integrated Tuner/Receiver/Modulator may be available.

To assist as many stations as possible, NTIA may issue awards:

- Tuner/receiver average cost: \$1,000
- Uniform \$1,000 award per station
- @ 8,000 stations
- TOTAL AWARDS = \$8,000,000

B3. Priority Compensation

- Section 3008(a) requires that priority compensation be given when either:
 - A license is held by a non-profit corporation;

OR

 A station serves a rural area of fewer than 10,000 viewers.

Non profit *corporations*

- Usually organized under IRS § 501(c)
 [26 U.S.C. § 501(c) excluding § 501(c) (4)]
- Usually does not refer to governmental units unless the unit has a separate corporate charter

Stations that serve rural areas of fewer than 10,000 viewers

 NTIA may use the number of viewers in the station's protected coverage area (as calculated by the FCC's 50/50 contour) as the basis for Priority Compensation

Implementation

- Priority Period (10/1/2007-12/31/2007)
 - NTIA will only process applications that qualify for priority compensation.
- Open Period (1/1/2008-2/17/2009)
 - -NTIA will process all applications.

General methods of addressing priority compensation:

Self certification of non-profit status Self certification of population covered

 NTIA may request documentation of the non-profit status or population coverage.

B4. Administrative Procedures and Timetable

Application Process

- 1. Prepare application electronically
- 2. Print and sign application
- 3. Have bank officer sign payment enrollment form (SF-3881)
- 4. Mail application and bank form

- Applications must be prepared electronically as well as printed and signed
- Applicants must submit the following:
 - -Licensee Name (including DUNS number)
 - –Station call sign, city of license, FCC facility #
 - Identification of corresponding full-powerTV station

- Applicant must certify that the Station:
 - Is licensed by FCC (or has filed on____ (date))
 - Is broadcasting exclusively in analog, and
 - Did not purchase digital-to-analog device prior to February 8, 2006
- IF PRIORITY COMPENSATION REQUESTED:
 - Is operated by non-profit corporation, or
 - Serves a rural area of less than 10,000 viewers

- All Applications must be signed by applicant
- SF-3881 must be signed by bank official
- Application and SF-3881 must be postmarked no later than February 17, 2009
- Electronic payments will be made to applicant's bank.

- Applicant must comply with Department of Commerce Standard Terms and Conditions for grants
- NTIA reserves the right to request documentation regarding any information supplied in a application
- Applicants are requested to complete optional information form for the Digital Upgrade Program (section 3009)

Timetable

- Publish Notice of Availability of Funds
 - September 2007
- Accept applications for Priority Period
 - October 2007-December 2007
- Accept applications during Open Period
 - January 2008-February 17, 2009

D. Section 3009 Low-Power TV Upgrade Program

Overview

- Reimbursement for equipment to permit low power stations to broadcast in digital
- \$65 million available for eligible stations
- Program begins in FY 2009

Eligible Stations

- Same as § 3008 Conversion program EXCEPT:
 - Low-power stations must be in communities of less than 20,000
- Note: Priority will be given to stations in rural areas with less than 10,000 viewers (same as § 3008)

Optional information on application form

- NTIA asks that stations supply additional information
 - Applicants for Conversion Program
 - Station that may not be interested or eligible for the Conversion Program
- Help NTIA plan for Upgrade Program
- Assess potential participation in Upgrade Program

Optional information on application form

- NTIA asks that stations supply the following additional information:
 - Translator equipment model and power level
 - Transmit antenna information
 - Whether any site, power, or accessibility issues exist?

Optional information on application form

- NTIA asks that stations supply the following additional information:
 - -Community less than 20,000, less than 10,000?
 - Interest in applying for Upgrade Program



Questions?

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