



fanfare FM



**CROWN BROADCAST**

International Radio and Electronics Corporation

Unique, inexpensive, IBOC translation using  
Fanfare's "NTP\*-enhanced" TRO front end  
+ Crown Broadcast LA series amplifier.

\*NTP – Patented technology by Omega Reception Technologies Inc.



# CROWN BROADCAST

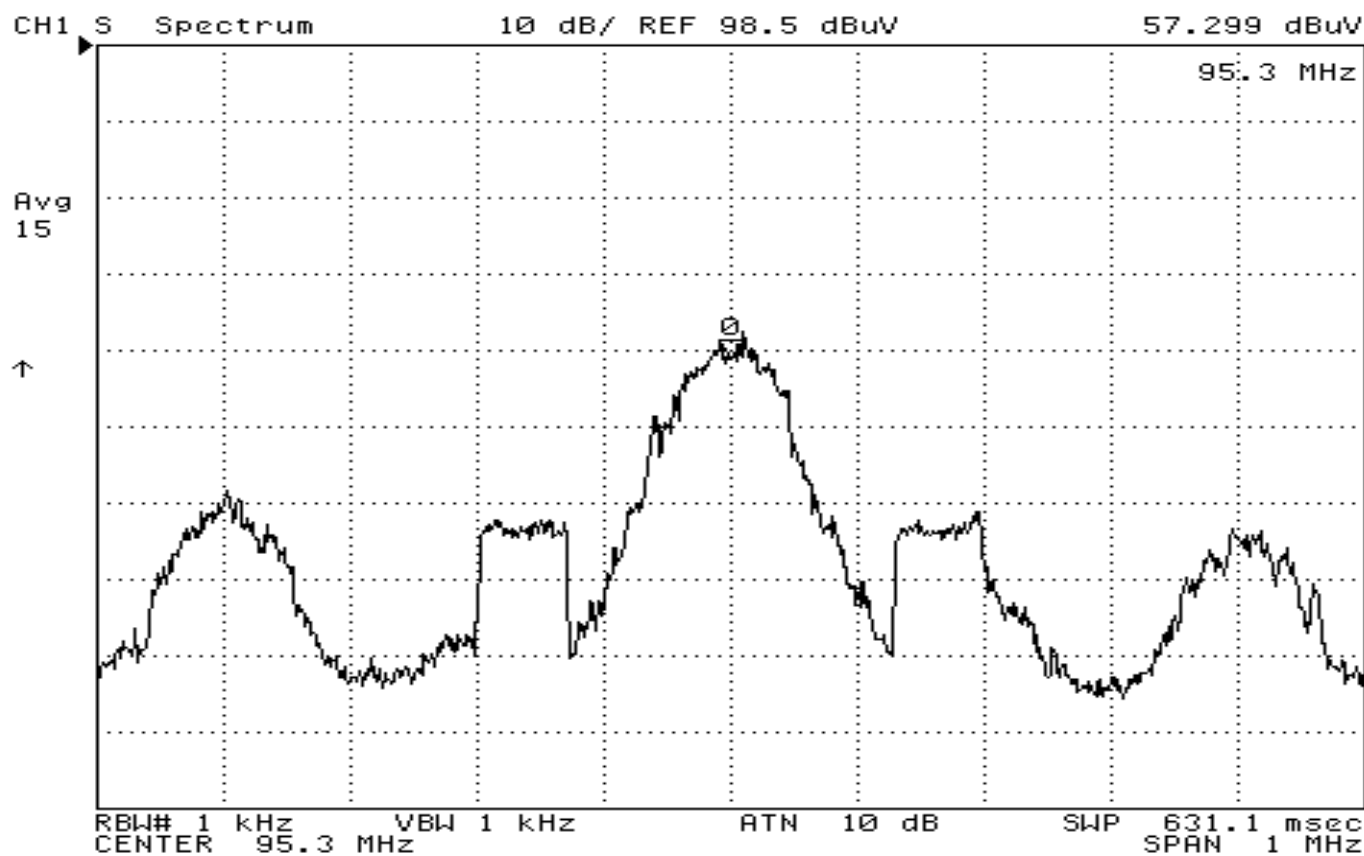
International Radio and Electronics Corporation

Typical Tuner performance



# KAR GoRx2

- Screen capture of antenna input



SELECT  
LETTER

SPACE

BACK  
SPACE

ERASE  
TITLE

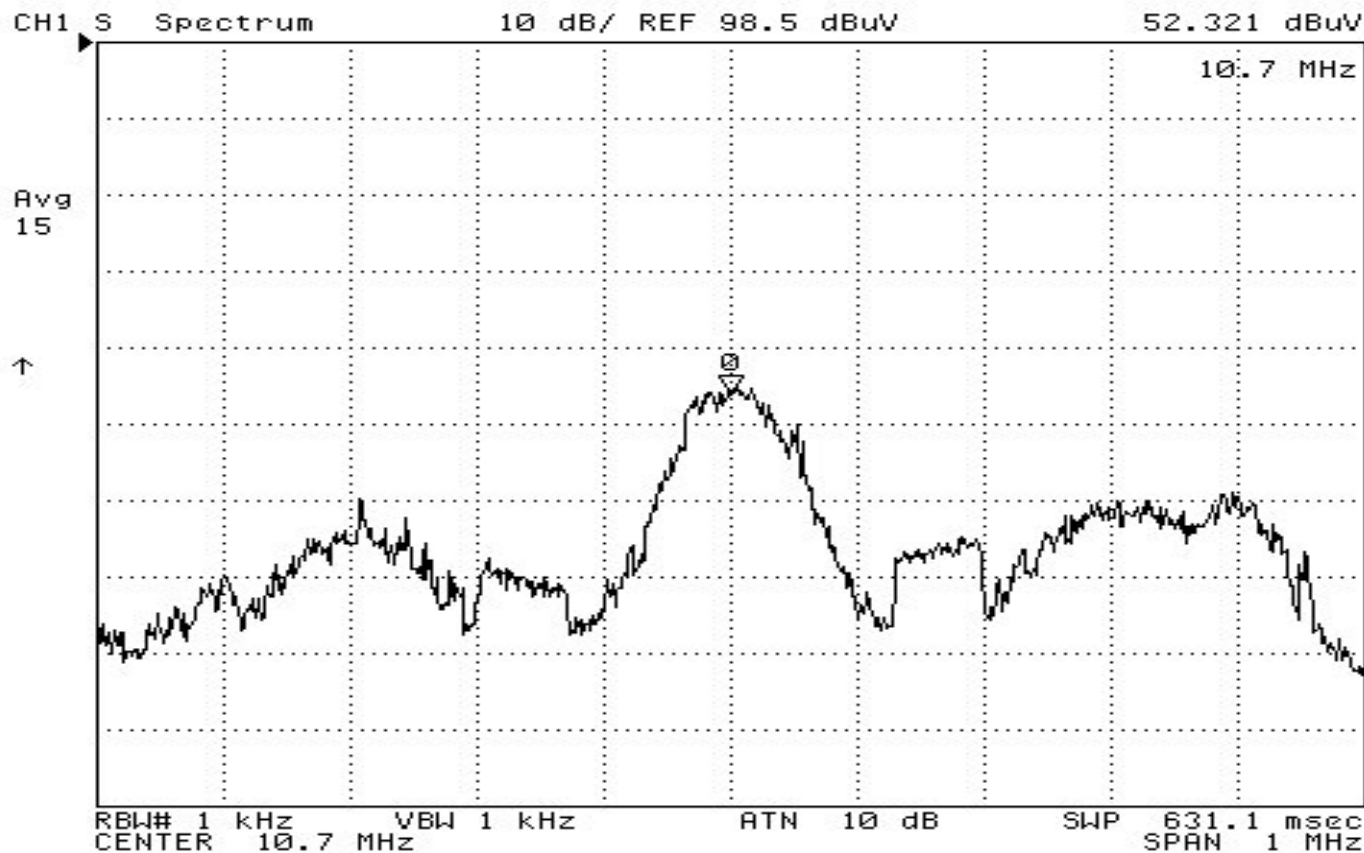
DONE

STOR DEV  
[DISK]

CANCEL

# KAR GoRx2

- Screen capture of desired signal at the input to the IF strip.



SELECT  
LETTER

SPACE

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SPACE

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TITLE

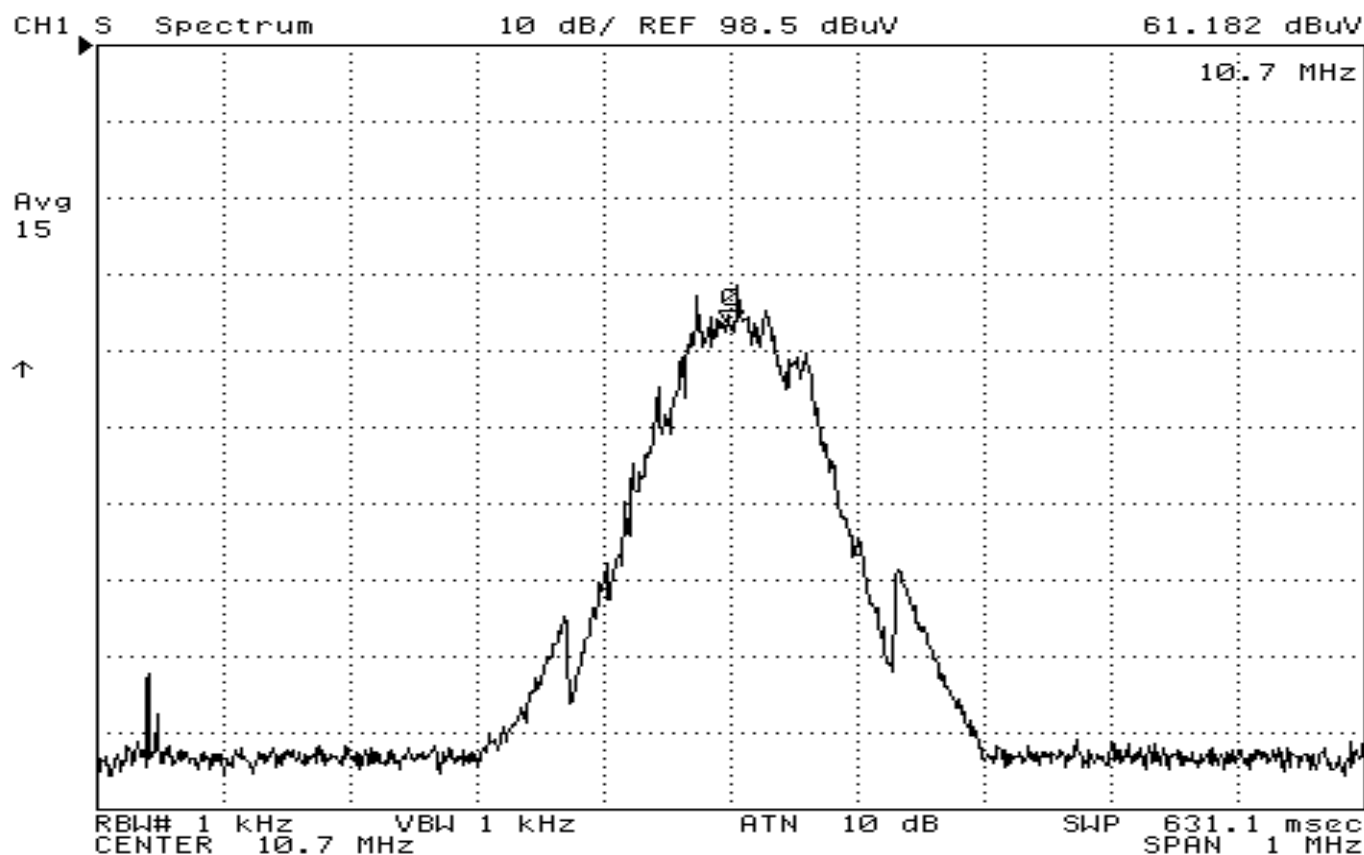
DONE

STOR DEV  
[DISK]

CANCEL

# KAR GoRx2

- Screen capture of desired signal after the IF Strip.



SELECT  
LETTER

SPACE

BACK  
SPACE

ERASE  
TITLE

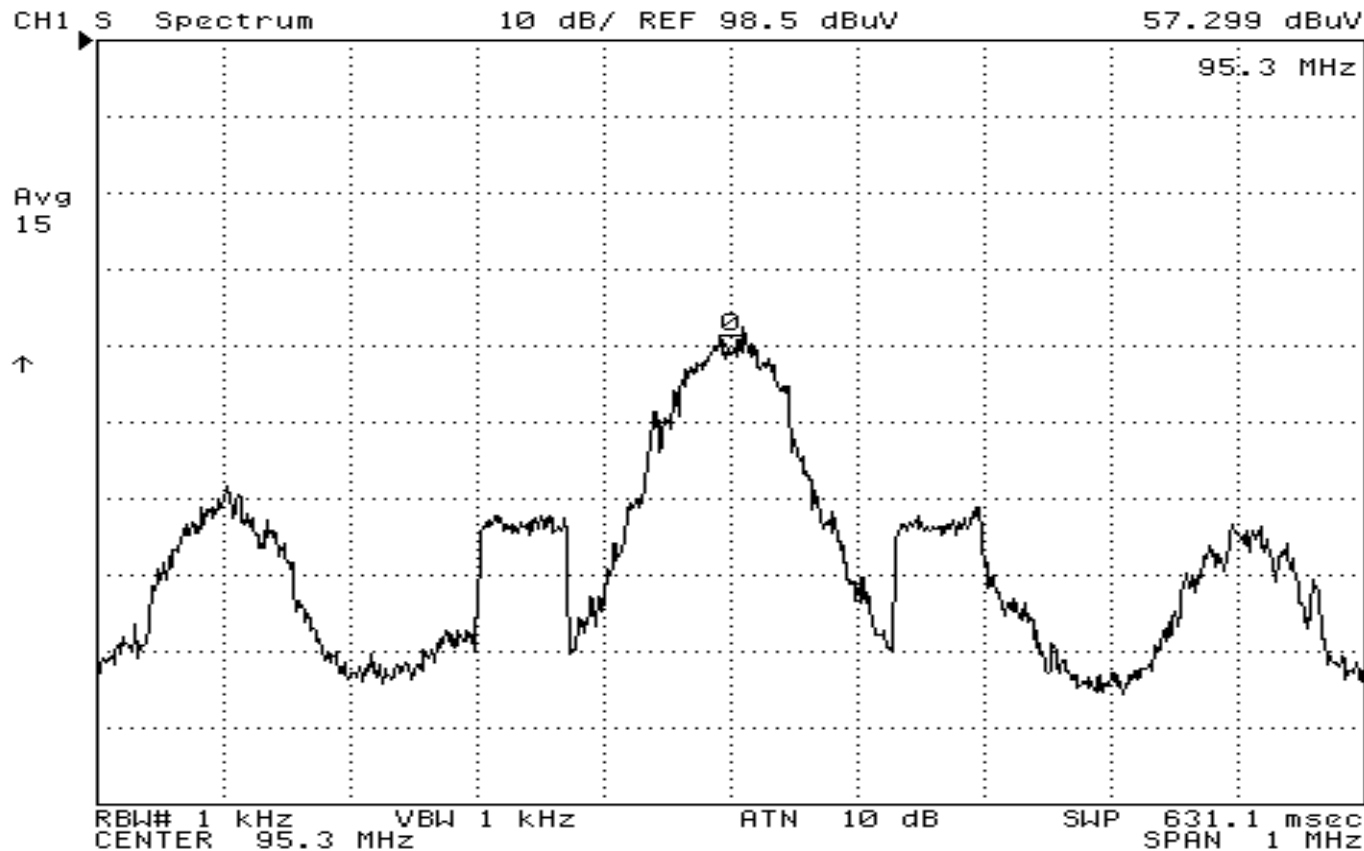
DONE

STOR DEV  
[DISK]

CANCEL

# JVC KD-SHX900

- Screen captures of antenna input – FM 95.3 is the desired signal



SELECT  
LETTER

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ERASE  
TITLE

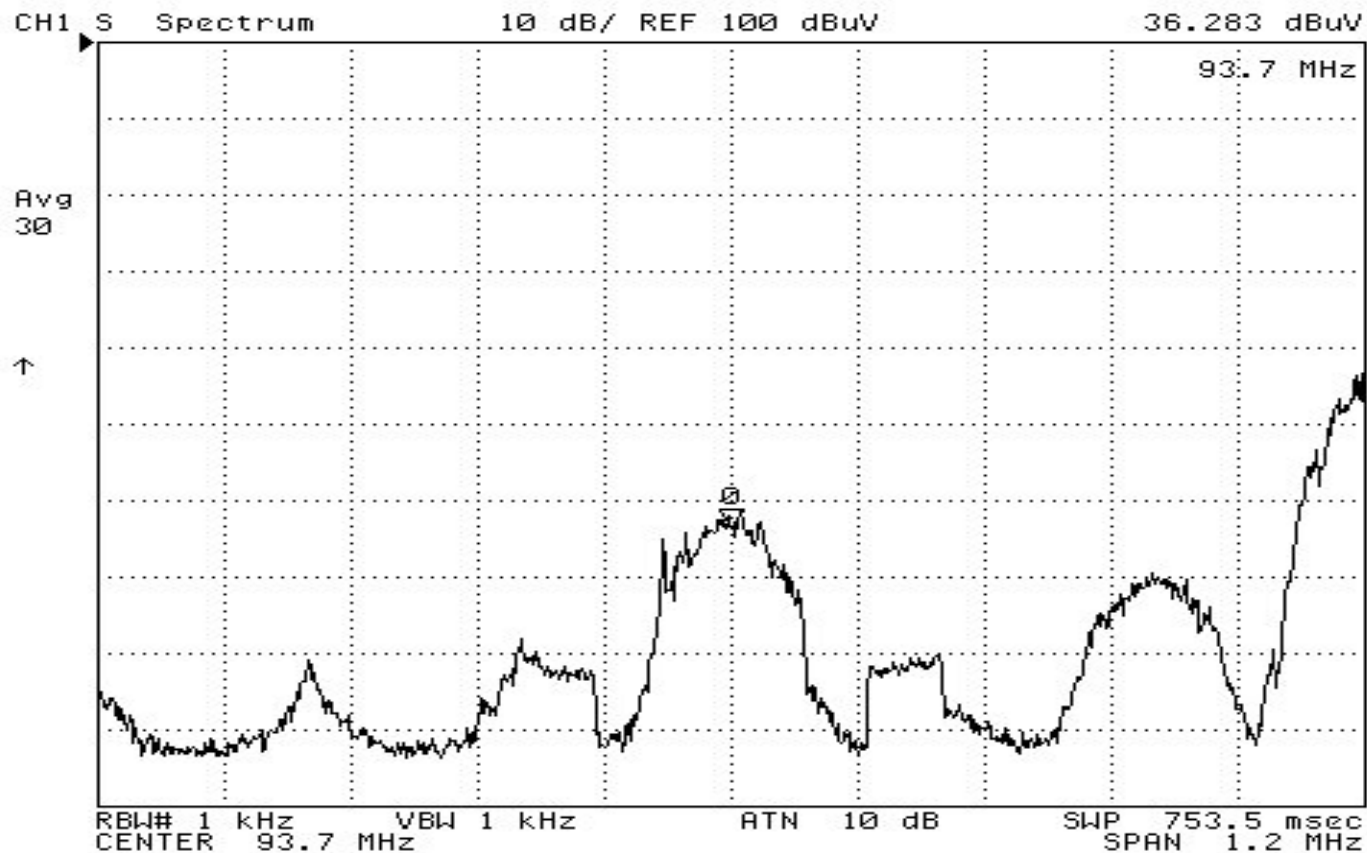
DONE

STOR DEV  
[DISK]

CANCEL

# JVC KD-SHX900

- Screen captures of antenna input – FM 93.7 is the desired signal



SELECT  
LETTER

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SPACE

ERASE  
TITLE

DONE

STOR DEV  
[DISK]

CANCEL

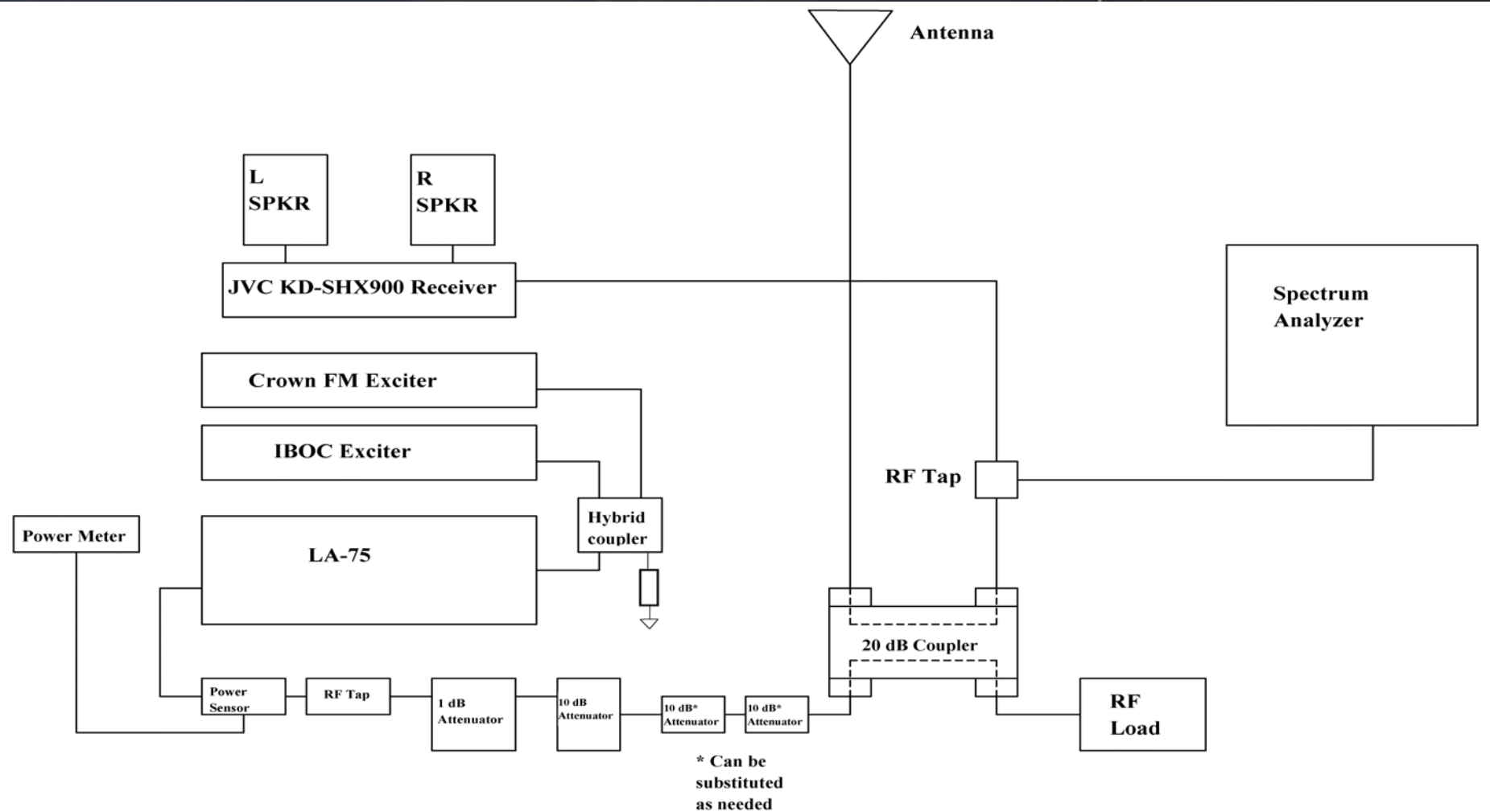
# JVC KD-SHX900

- Screen captures of antenna input – FM 104.3 is the desired signal



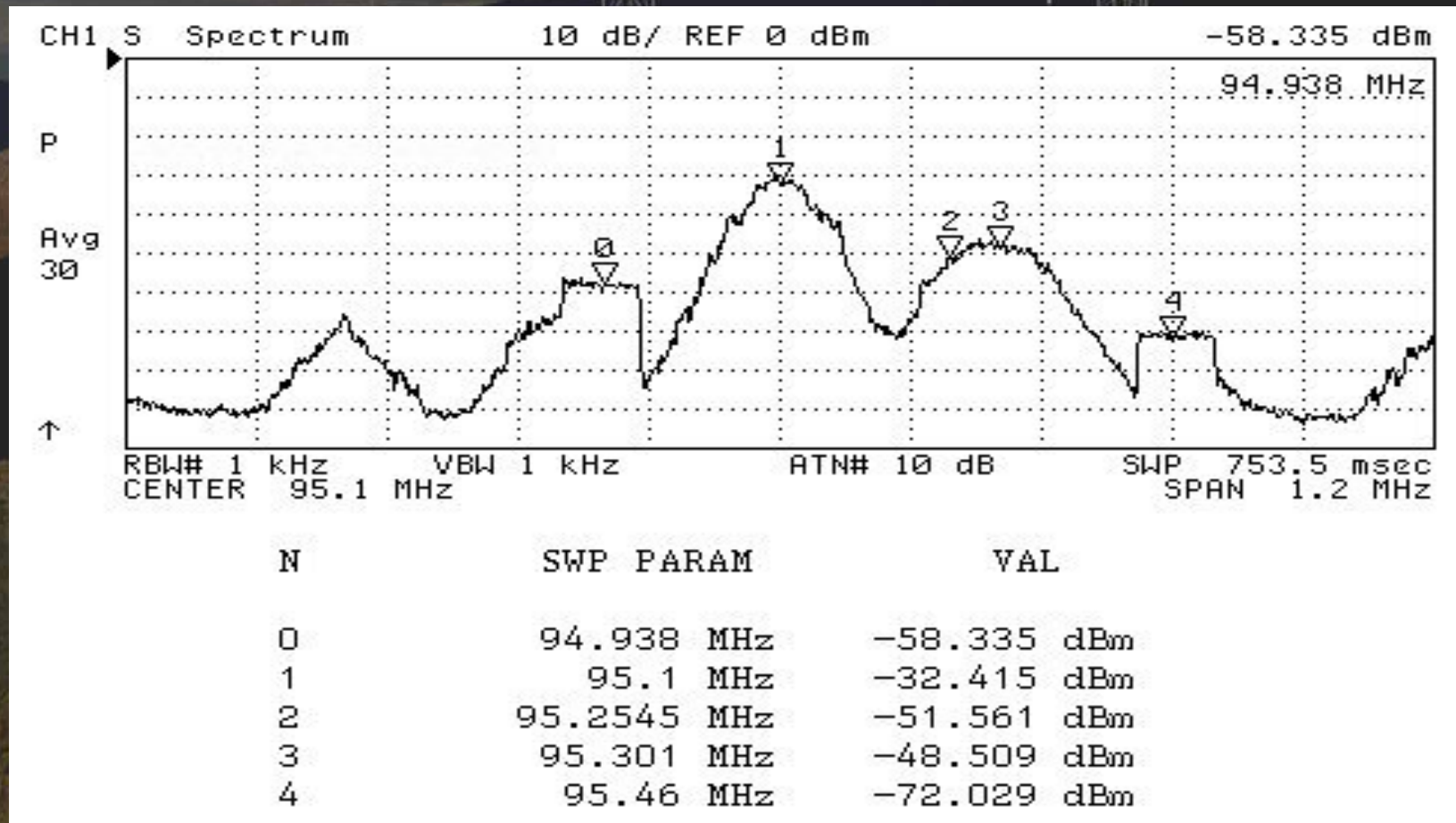
# Crown Broadcast testing

- Testing maximum level of 1<sup>st</sup> adjacent interference



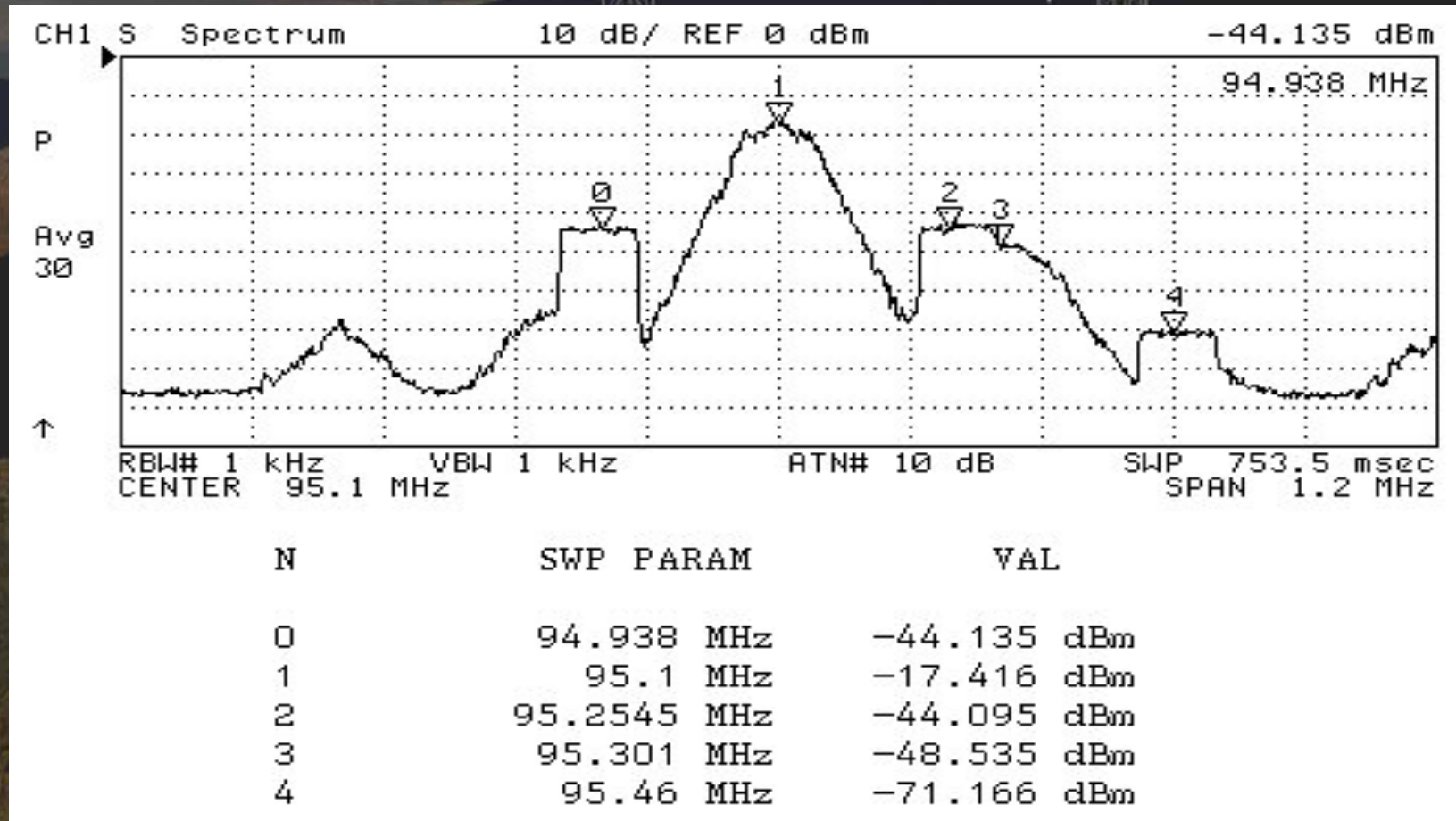
# Crown Broadcast testing

- Testing maximum level of 1<sup>st</sup> adjacent interference
- Plots showing antenna input.
- Example 1



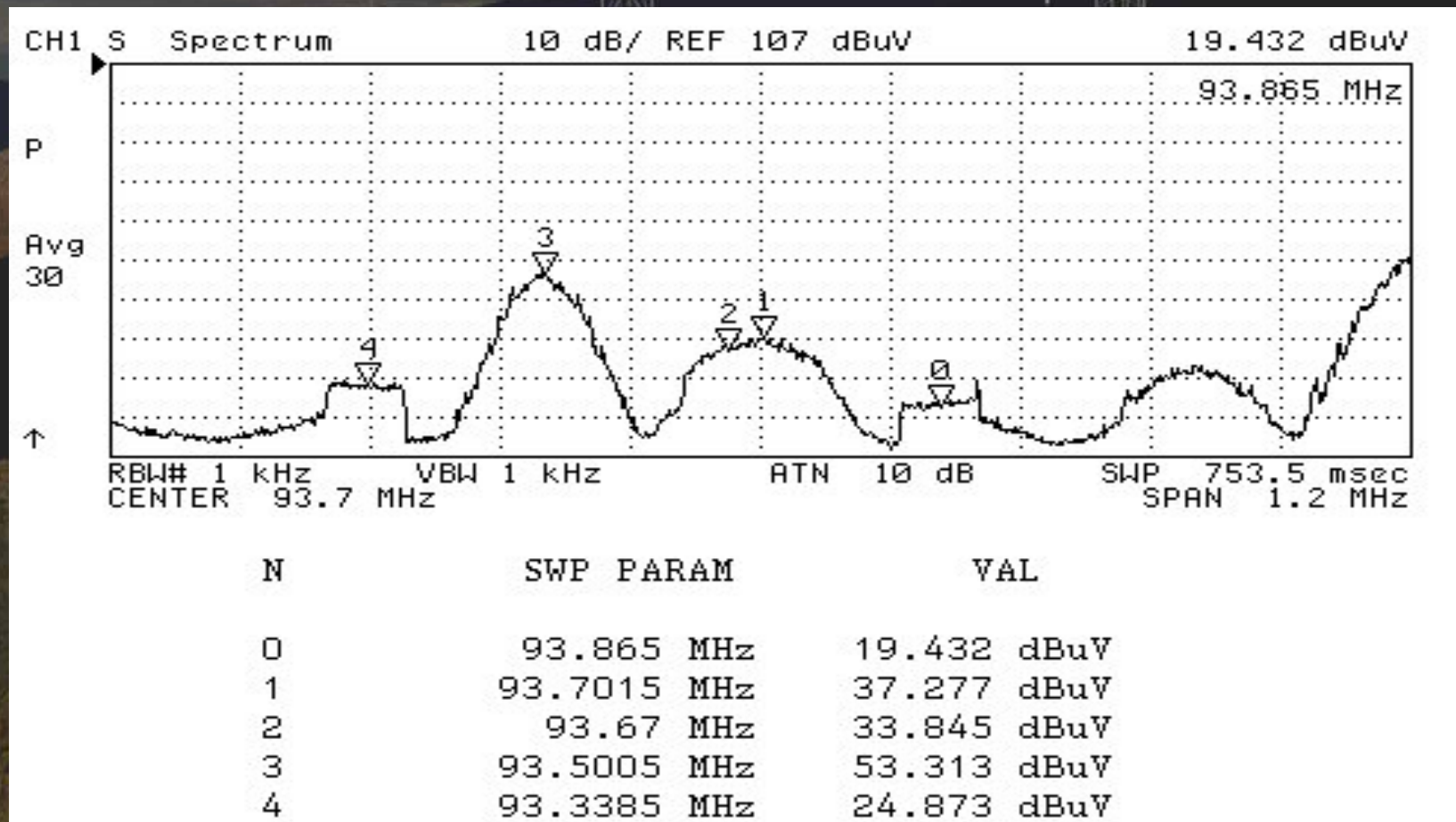
# Crown Broadcast testing

- Testing maximum level of 1<sup>st</sup> adjacent interference
- Plots showing antenna input
- Example 2



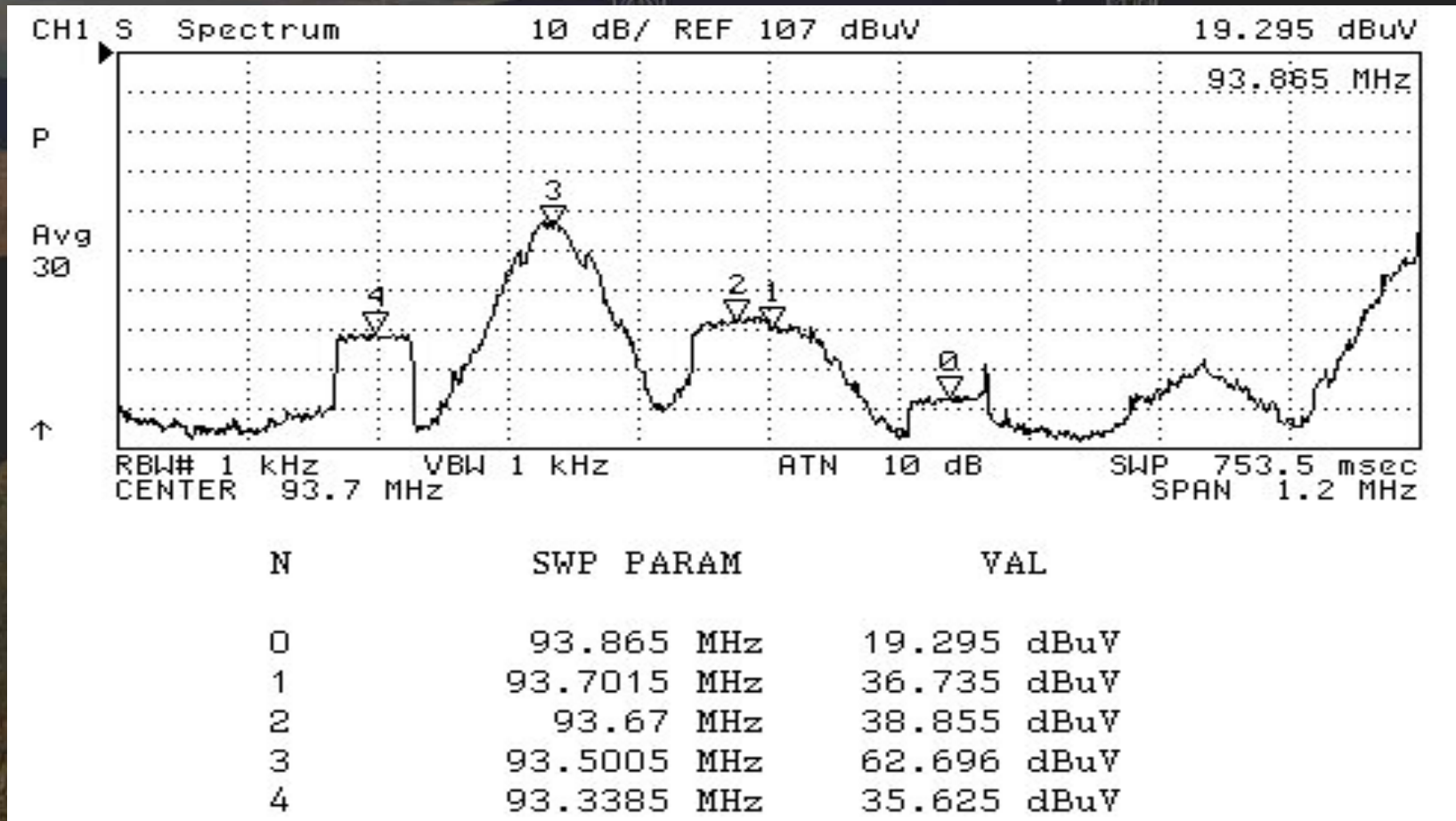
# Crown Broadcast testing

- Testing maximum level of 1<sup>st</sup> adjacent interference
- Plots showing antenna input.
- Example 3



# Crown Broadcast testing

- Testing maximum level of 1<sup>st</sup> adjacent interference
- Plots showing antenna input.
- Example 4



# Omega Reception Technologies, Inc.

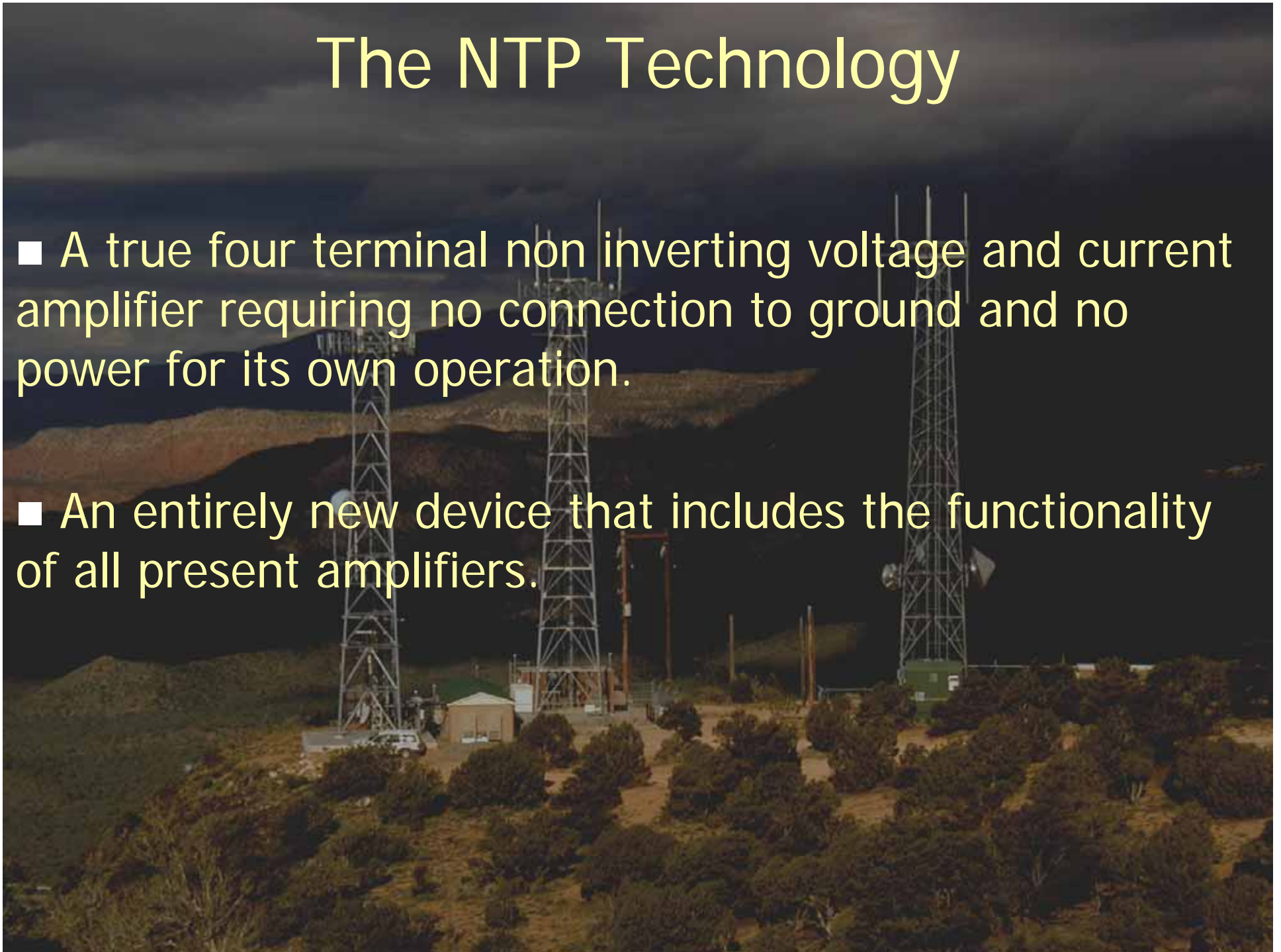
A New Way of Thinking About Electronics

“Every electronic device on the planet will be smaller, more efficient and cheaper to build with NTP circuitry”

A. Warren Brown, Inventor

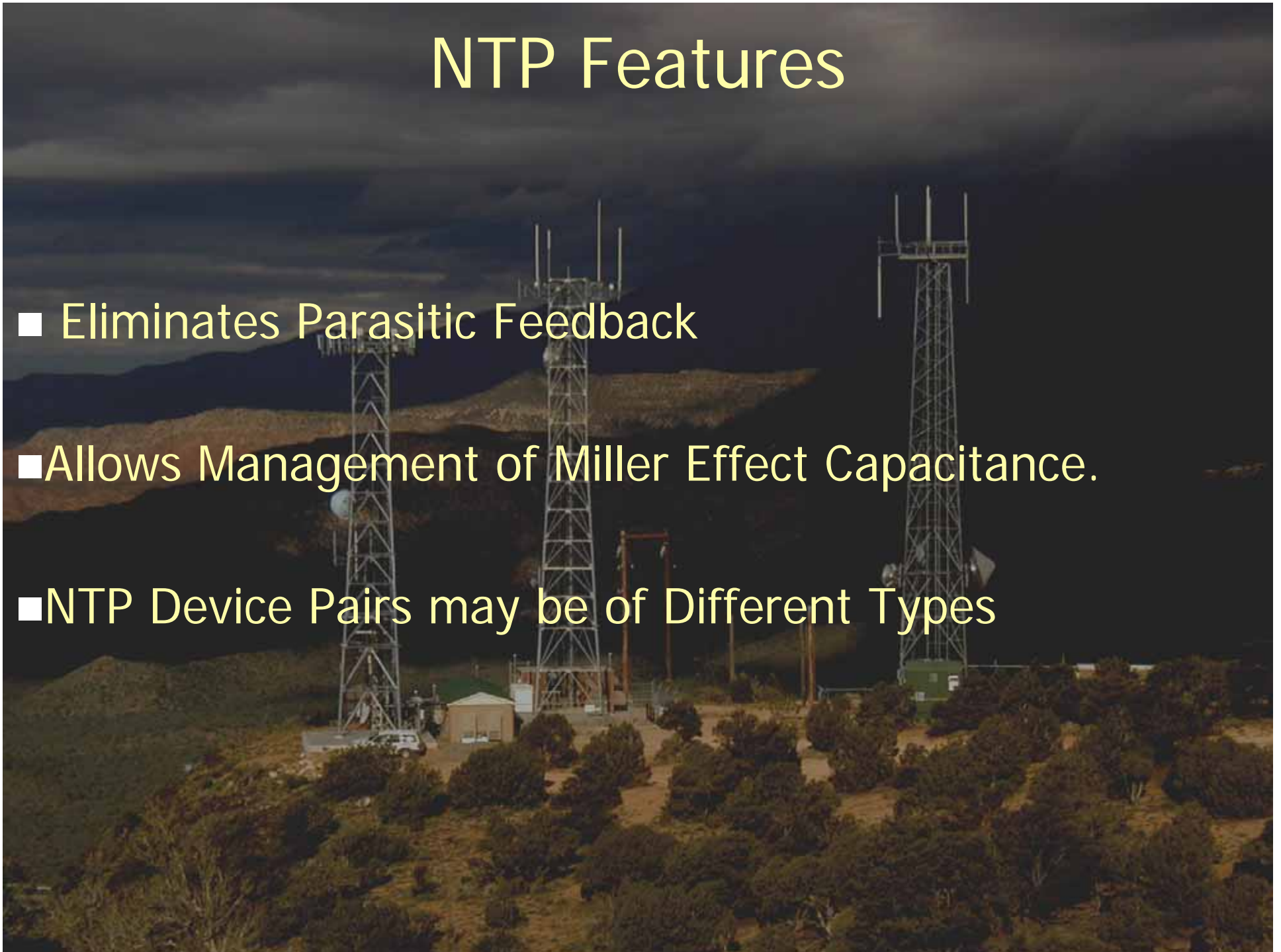
# The NTP Technology

- A true four terminal non inverting voltage and current amplifier requiring no connection to ground and no power for its own operation.
- An entirely new device that includes the functionality of all present amplifiers.



# NTP Features

- Eliminates Parasitic Feedback
- Allows Management of Miller Effect Capacitance.
- NTP Device Pairs may be of Different Types



# Interference is an artifact of the receiver

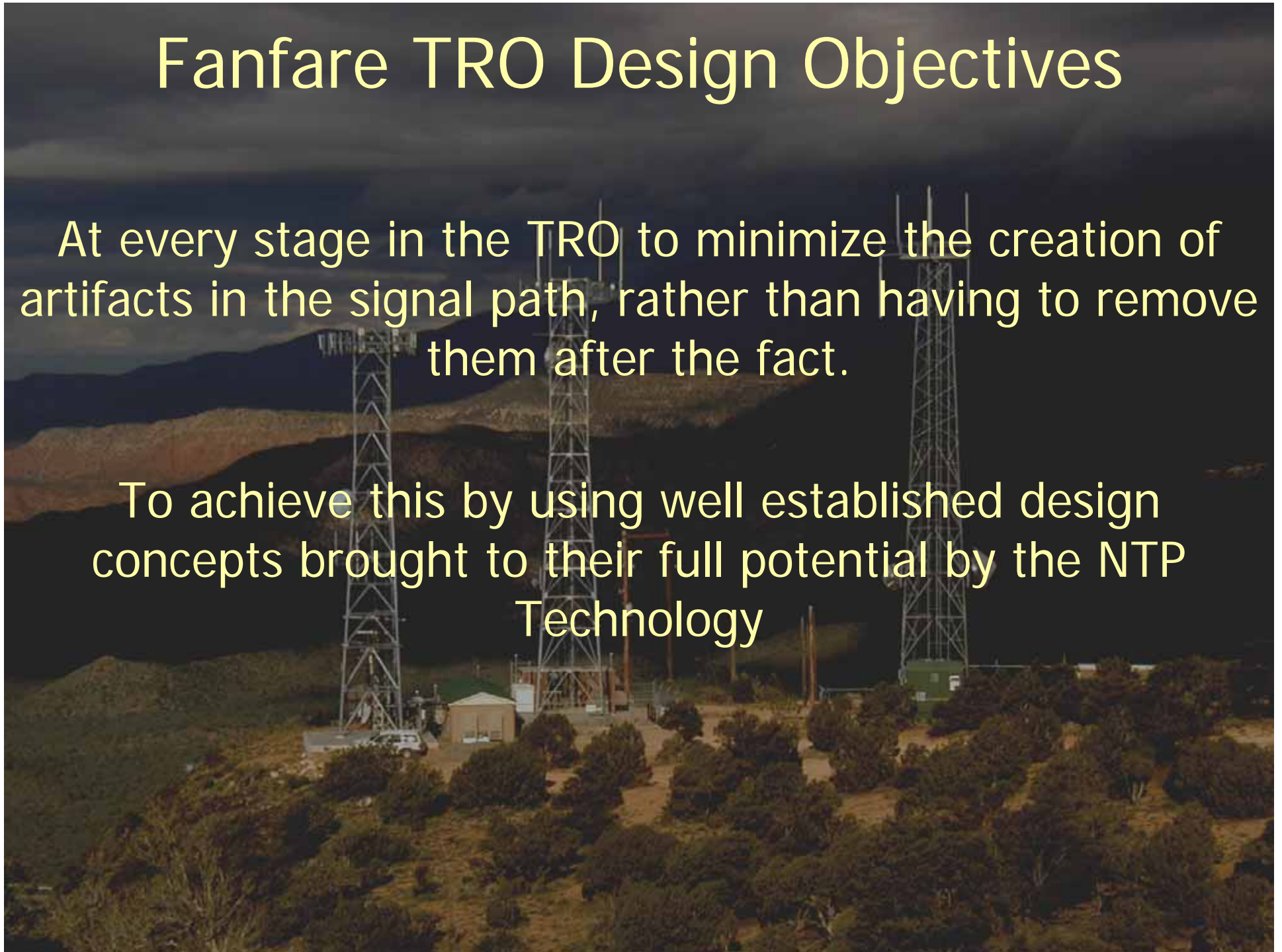
"Interference cannot be defined as a meaningful concept until a receiver tries to separate the signal. It's the processing that gets confused, and the confusion is highly specific to the particular detector"

David P. Reed,  
Adjunct Professor, MIT Media Lab

# Fanfare TRO Design Objectives

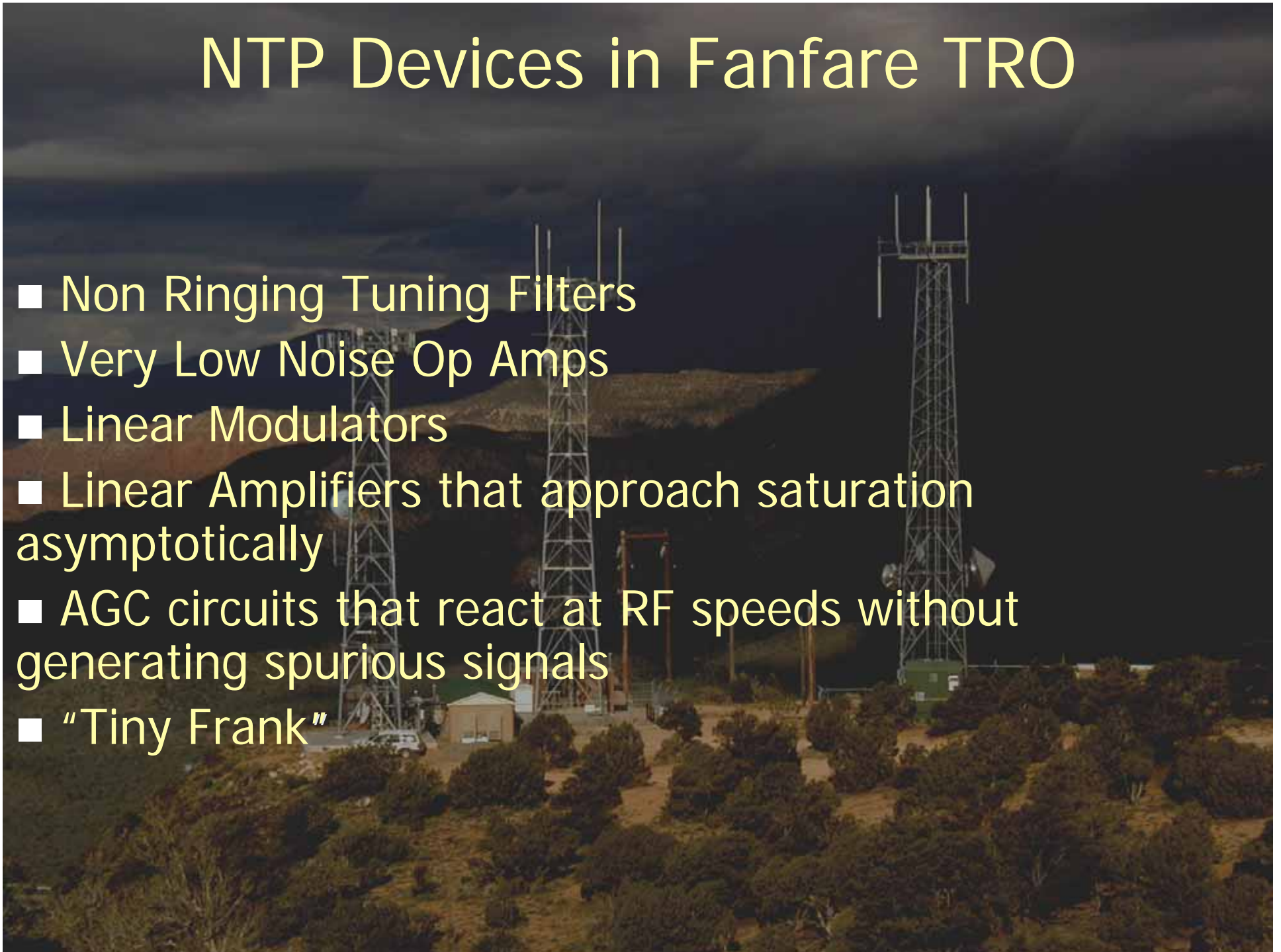
At every stage in the TRO to minimize the creation of artifacts in the signal path, rather than having to remove them after the fact.

To achieve this by using well established design concepts brought to their full potential by the NTP Technology



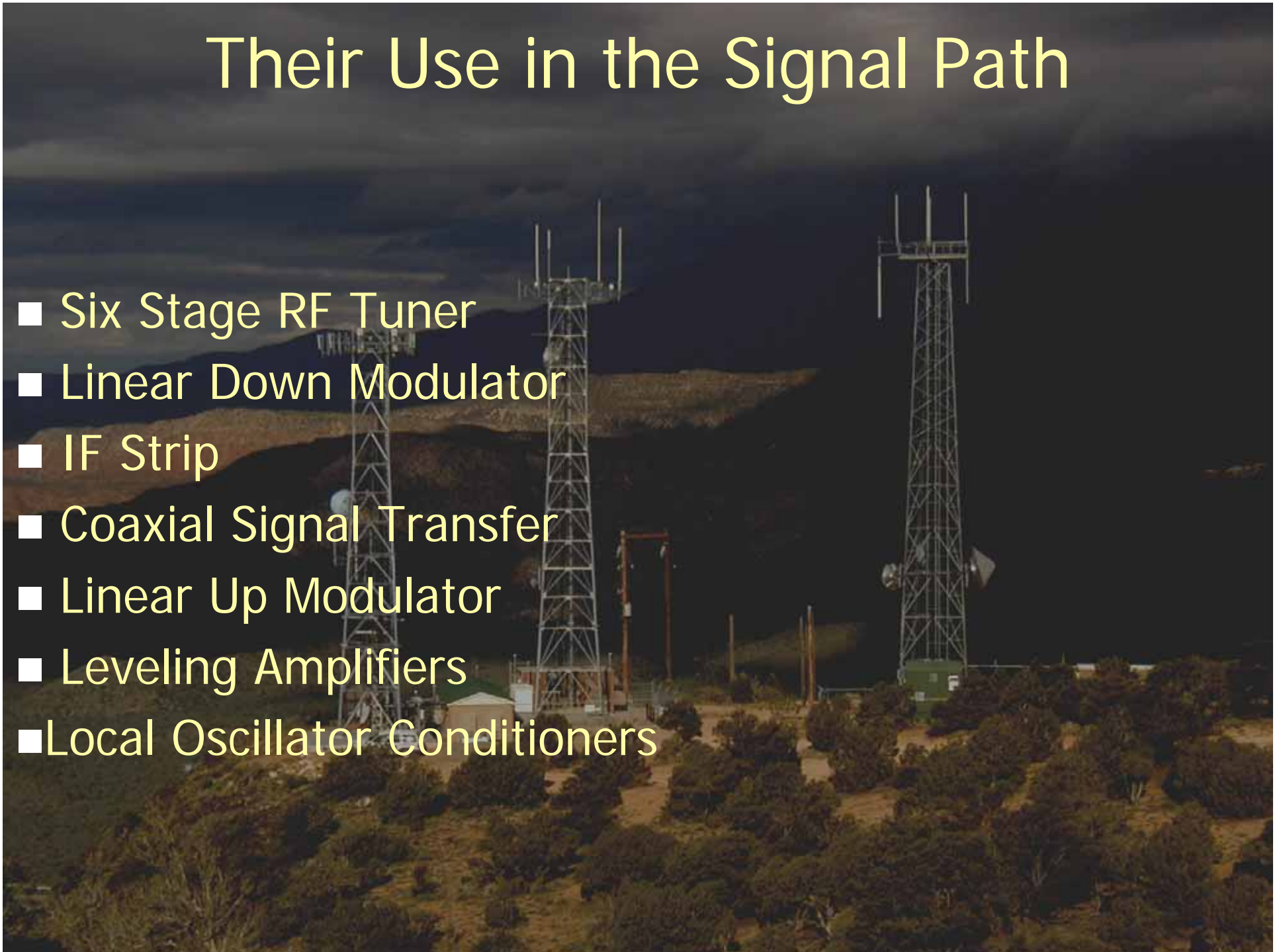
# NTP Devices in Fanfare TRO

- Non Ringing Tuning Filters
- Very Low Noise Op Amps
- Linear Modulators
- Linear Amplifiers that approach saturation asymptotically
- AGC circuits that react at RF speeds without generating spurious signals
- "Tiny Frank"



# Their Use in the Signal Path

- Six Stage RF Tuner
- Linear Down Modulator
- IF Strip
- Coaxial Signal Transfer
- Linear Up Modulator
- Leveling Amplifiers
- Local Oscillator Conditioners



# Information :

- [www.crownbroadcast.com](http://www.crownbroadcast.com)
- [www.fanfare.com](http://www.fanfare.com)
- For More Information Visit  
Crown Broadcast in Booth  
# N6906 @ NAB2007

