

DTV Reception and Choosing an Antenna

Before you go out into the field to test the Digital Reading Service Receiver (RRS1100) and antennas, you may want to obtain a DTV area map from your broadcaster (generally available on broadcaster website). In addition, the following websites will assist in determining the broadcaster's signal power and type of antenna for a specific area/address.

1. Determine signal strength and location of towers for all broadcasters

DTV. Gov: <http://www.fcc.gov/mb/engineering/maps/>

- Enter the address, zip code, city, etc into the text box in the left hand corner, click Go!
- Local broadcasters, color coded by signal strength, will be on the left and a map of your location will be shown on the right.
- Click on a broadcaster's hyperlinked call sign, and the broadcaster's tower will show up on the map. An example is shown below.

The screenshot displays the 'DTV Reception Maps' interface. On the left, there is a search bar with '77027' entered and a 'Go!' button. Below the search bar, a table lists signal strength levels: Strong (green), Moderate (yellow), Weak (orange), and No Signal (red). A table of broadcasters is shown with columns for Callsign, Network, Virtual Channel, and Band. The table lists several stations including KTXH, KPRC, KNWS, KXLN, KTMD, KETH, KPXB, and KIAH. A map of Houston is shown on the right, with a red pin indicating the user's location. A yellow antenna icon is also visible on the map. The map includes various landmarks and highways.

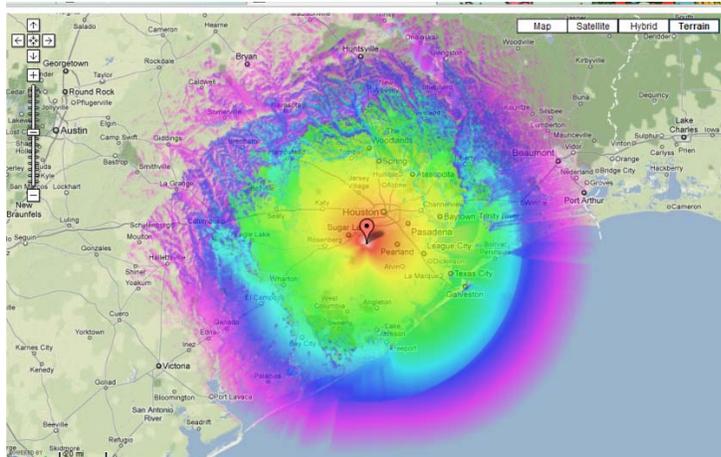
Callsign	Network	Virtual Channel	Band
KTXH	MYTV	20-1	UHF
KPRC	NBC	2-1	UHF
KNWS	IND	51-1	UHF
KXLN	UNIVISION	45-1	UHF
KTMD	TELEMUNDO	47-1	UHF
KETH	TBN	14-1	UHF
KPXB	ION	49-1	UHF
KIAH	CW	39-1	UHF

- You can use this information to determine which stations have the strongest signal strength, and which would be the best to broadcast your RRS signal. You can also see how far the tower is located from you or your listener's specific location (typically, the closer the better).
- How to orient your antenna
 - Pull-up antenna: Point towards the direction of the tower near a window if possible.
 - If your antenna has a loop, orient the loop so that the signal from the tower is going through the middle of the loop perpendicularly.

2. Determine the broadcast area and strength for a single broadcaster

TV Fool: http://www.tvfool.com/?option=com_wrapper&Itemid=80

- a. Enter a broadcaster’s callsign into the text box, select “Digital” signal type, click the Search button. An example map is shown below.



- b. You can use this information to determine the overall broadcast area of a specific station, and to better understand the varying signal strength across a geographical area.

3. Choose an appropriate antenna

- a. After identifying a broadcaster to carry the Reading Service, use the signal strength information gathered in section 1 of this document for that callsign and choose an appropriate antenna with the chart below.

Signal Strength	Strong	Pull-Up Antenna
	Moderate	Non-Amplified (GE 24734)
	Weak	Amplified (GE 24727 or 24775)
		Antenna Type