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# HOW TO CONNECT TWO OR MORE TVS TO A DIGITAL SET-TOP BOX

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# Abstract

The RF antenna cable is connected to a splitter with two or more outputs, and then the signal goes to each receiver separately.

# **K**eywords

RF antenna, TV, modulator, signal source, Digital TV, HDMI output.

### INTRODUCTION

Ideally, one digital receiver means connecting one TV to it, so it would be optimal to buy a separate receiver for each TV, although not the cheapest option. In this case, the RF antenna cable is connected to a splitter with two or more outputs, and then the signal goes to each receiver separately [1,2]. Such a connection scheme is shown in the figure 1: International Journal of Advance Scientific Research (ISSN – 2750-1396) VOLUME 03 ISSUE 10 Pages: 109-116 SJIF IMPACT FACTOR (2021: 5.478) (2022: 5.636) (2023: 6.741) OCLC – 1368736135

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Figure 1. Connection scheme

In addition, you can connect two TVs to one digital set-top box (receiver) using free connectors. For example, HDMI belongs to one, tulips belong to another. It should be remembered that in this case both TVs receive the same decoded signal. Therefore, the image on the screen will be synchronized. Also, you need long cables to place TVs in different rooms [2-7].

Another method is to use an RF modulator, which sends a separately decoded signal to each TV through a splitter. But often the price of such a device is several times higher than the price of a traditional terrestrial tuner.



A view of the terra modulator

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Description of the problem	Possible causes and solutions
The TV does not see the set-top box.	- damaged or incorrectly connected cables; - the desired signal source is not selected in the TV settings.
Half of the channels are missing, there is picture noise.	Maybe the setting is not working. Try restarting the automatic search or performing a manual adjustment.
2-3 channels are missing from the list.	Perhaps preventive measures are being taken. You may also need to update your TV or set- top box software.
All channels are missing, resetting does not help.	- Defective digital set-top box; - there is no signal from the TV tower; - preventive works are being carried out.

### **Table 1. Frequent connection problems**

It is difficult to imagine life in our world of information technologies such as the Internet, television and telephone. They are firmly established in society and are an important attribute of comfort. However, not all users know how to connect to digital TV at home, so they often face certain difficulties in setting up the device [8-15].

### General information

Recently, the popularity of digital television has increased. Unlike traditional analog systems, this type of television has many advantages, which ensures the maximum quality of image and sound.

And when it comes to connecting the "digital" to the TV, many people think that it is a very difficult process that requires professional help. But in fact, everything is solved in a short time and does not require much effort. It should be noted that there are two types of digital television on the market:

- 1. Cable.
- 2. Important.

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### **Figure 3. Digital television**

The first type is connected through a special TV cable, and the second implies the presence of a special antenna. If your TV does not have a digital receiver, you will need to purchase one separately. In stores, these devices are sold as a special application [16-20].

If your home TV is already equipped with a digital receiver, then it is enough to install a digital TV smart card with the services of the provider for connection. Then the device automatically searches for a list of channels and stores them in memory. If you don't have a receiver, you need to buy a settop box. If your TV has an HDMI output, that's great because it transmits the best picture and sound.

Advantages of modern digital television systems

Despite the development of digital television systems, many people still use cable television... It also gives a good picture and unlimited opportunities in choosing channels. However, for such a TV you have to pay a subscription fee, which, unfortunately, is constantly increasing. As for digital equipment, then it has the following advantages:







### Figure 4. Signals in digital television systems; choosing the right recipients

To successfully launch digital television in a private home, you need to purchase a special device - a digital signal receiver. A device that works according to the DVB-T2 standard is used in its capabilities. As mentioned above, many modern TV models are already equipped with a built-in digital TV module, so the task can be greatly simplified.

The capabilities of the device are determined by its price range. Most receivers do not support additional functions, and more expensive devices have a small amount of memory and are able to work with flash drives. In addition, some models have the ability to record streaming video to removable media.

Given the variety of digital receivers, choosing the right option can be problematic. But if you follow some tips and tricks, such a task can be solved without much difficulty.



Figure 5.

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- 1. If you ignore the technical aspects and complex radio-mechanical features of digital tuner models available on the market, it remains to study their aesthetic features and set of tasks. This approach simplifies the selection of a quality device and makes it successful.
- 2. When you want to buy a digital receiver, you need to decide in advance what functions you need for the TV and what you can give up. The most important and necessary functions include:
- 3. Ability to watch TV channels in DVB-T2 format.Tyunerdan audio fayllarni ishga tushirish, tasvirlar va boshqa tarkibni ko'rish uchun media pleer sifatida foydalanish imkoniyati.
- 4. Access to the global network (some models are able to work with YouTube media services, IPTV, online cinemas, weather and news sources, etc.).

If the receiver model supports the above functions, it remains to deal with some visual features. When choosing the material of the case, it is advisable to give preference to devices made of high-quality metal or plastic. It is known that these materials provide maximum reliability and long service life.

On the front panel of the tuner there should be various control buttons indicator lights... On the back there should be USB inputs and other hightech interfaces.

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