

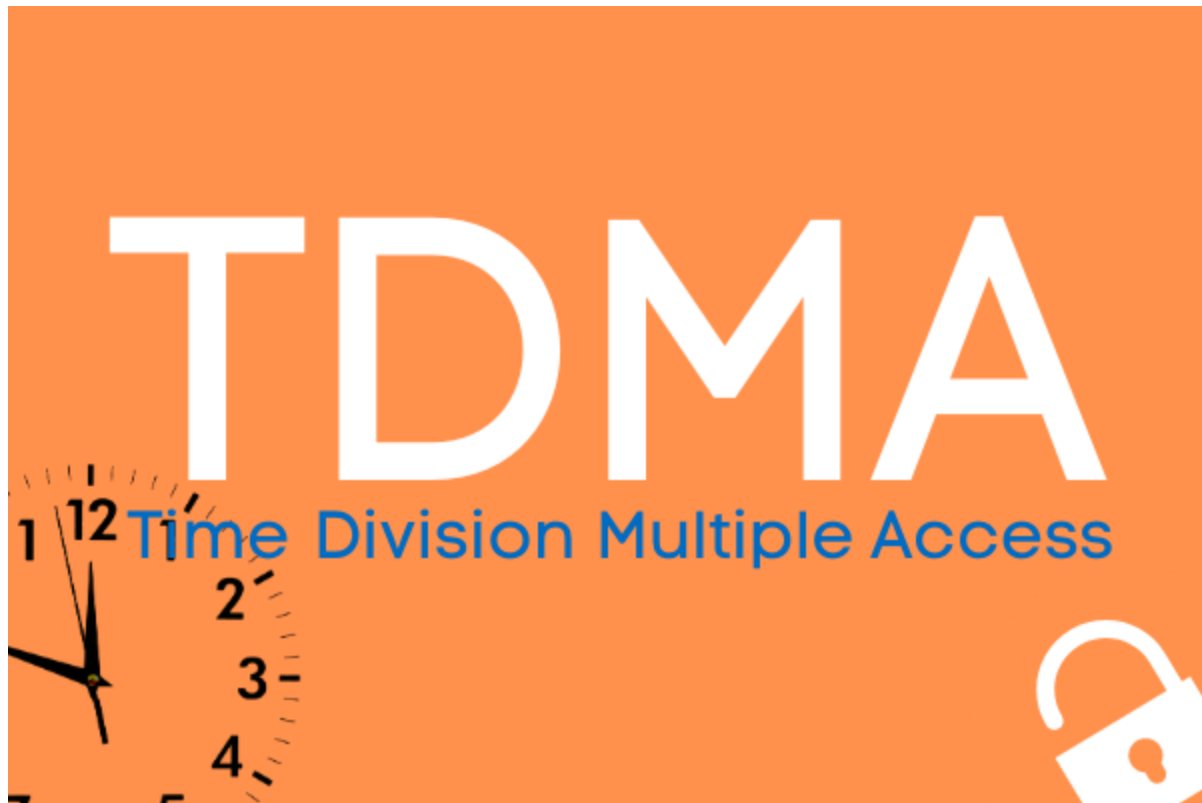


What is DMR?

When you're first getting into digital radio, you often won't understand the technology's details or how it even works. This confusion can create an uncertain feeling of whether digital radio is even the right way to go. We are going to clear up any confusion you might have about DMR.

Specifically, we'll discuss what exactly DMR is, the key terms you need to know, and specific radios we offer in the world of DMR. Firstly, let's get a general understanding of what DMR is. DMR stands for digital mobile radio. DMR was created by the European Telecommunication Standards Institute, also known as ETSI, to create an open standard.

This open standard goal was to make a digital radio system that was inexpensive and simple to operate while allowing different radio manufacturers to develop interoperable radios. This interoperability enables users like you and me to connect without being limited to one single system.



Another goal of this digital standard is to improve or replace analog. DMR has done this by improving voice quality, functionality, security, and channel efficiency. DMR has improved channel efficiency as a result of its two-slot TDMA functionality. TDMA stands for time division multiple access.

TDMA provides two logical channels on the 12.5 kilohertz channel, meaning that as opposed to the older analog communication, you have two slots for communication instead of just one. Essentially, you have the power of two repeaters.

DMR has many moving parts with essential functions that contribute to your radio working, but there are a few that are vitally important to using DMR. Firstly, before you even get your radio, you should have your DMR ID. A radio ID is a unique identification number assigned to you and your call sign. Your ID works just like any other digital ID number, such as your phone number. Your radio ID identifies you as a unique radio user on DMR networks like BrandMeister and repeater systems. We've made a video on [how you can get your very own DMR ID](#). It will show you all the steps to follow so you can get your ID without getting lost.

Another fundamental component of DMR is color codes. They're very similar to the continuous tone-coded squelch system tones being used in analog. Color codes in

DMR are just like CTCSS in that you need to get the appropriate color codes from the individual or club running the system to open the repeater. Without the proper code, you won't be able to use the repeater. To gain access to the repeater, you will need the repeater's frequency, color code, and time slot.

Now, what is a time slot? If you remember earlier, when we were talking about TDMA, we referenced how it was a two-slot functionality. This is the time slot. Time slots are two dividing signals within the fixed frequency that allow more than one user at a time to use the same frequency.



All DMR repeaters are equipped with this ability. Repeater owners will typically program different talkgroups between the slots to make the most of their system. Talkgroups, to put it simply, are a way of organizing radio traffic on your network. You can manage your talkgroup in many different ways, including countries, states, regions, or even cities.

If you want to personalize your talkgroup, you can even organize it by unique interests from hunting to technology. You can create these talkgroups via a codeplug. A codeplug is the software file that gets loaded into your radio, telling it what to do and how to operate. Basically, anything you can do on your radio.

Building your codeplug all by yourself can be an intimidating task, but it doesn't have to be. To overcome this fear, we created a [super codeplug](#). Our USA and International Hotspot Super Codeplug contains statewide talkgroups for all 50 States and Washington, D.C., countrywide talkgroups for all 78 international countries available on the BrandMeister network, and receive-only channels for all seven NOAA weather frequencies. If you want to get around doing your own programming, you can upgrade to our [Super Codeplug](#).

All of these intricate pieces of information work together for you to communicate on a network. A typical DMR network like BrandMeister consists of node controllers and several sites. Networks like BrandMeister allow DMR repeaters to connect worldwide via the internet, and link systems together by utilizing organized talkgroups.



Here at [Bridgecom Systems](#), we offer a wide array of radio equipment, including [repeaters](#), [handhelds](#), [mobiles](#), and if you don't have a repeater in your area, even [hotspots](#). Rather than offer your substandard gear, we selectively choose the best quality DMR equipment. We provide tutorials, guides, and courses, so you can quickly understand the fundamental parts of your radio.

This is all done with you in mind, so you can easily make your first DMR queue cell. If you don't have time for all that programming, order our most popular product, a [Plug and Play Package](#). All we need is your DMR ID and callsign, and we'll program a radio and hotspot perfect for you.