WT0B's thoughts about the Baofeng DM-1701 DMR Handheld radio
(July 2020)

Thanks to KI5PG, I was able to get my hands on the Baofeng DM-1701, a FM Analog and DMR, Dual-Band (2-meter and 70cm), handheld radio. The following is more information of the radio and my comments about its programming and usage. The opinions are strictly my own.

The radio:
The radio is slightly larger than the BTech DMR-6X2 and has a solid feel to it. Battery fits snug into its base battery charger and the battery charged as expected. Once fully charged, the radio was turned on and all went as expected. It pleasantly "booted up" in half the time of the BTech DMR-6X2. All the knobs and buttons had solid click or touch feeling. The female SMA based antenna screwed into the radio as expected. The radio is almost set to be used and tested!

The software:
But before getting on the air, the radio needed a firmware upgrade and our local radio frequencies programmed into the DM-1701.

The software is a free download and has a similar look and feel to the BTECH DMR-6X2 software, BUT it is different, and the code plugs are not interchangeable. CHIRP software does not currently support any DMR radios, so you must download a separate program for DMR radios. However, if you are familiar with CHIRP, you will have a head start in using this program, at least with the analog channels.

The radio is packaged with the needed programming cable, which worked correctly, without exception, from its very first use. These USB programming cables look remarkably similar, so I recommend tagging and labeling each programming cable when they are unpacked.

The firmware upgrade went as expected by following the instructions downloaded with the firmware and have not seen any issues caused by the upgrade.

A "Code Plug" is term used by a commercial manufacturer, to define the combined set of spreadsheet-like tables, of information about the radio, channels, scanning groups, and other features of DMR. There are several different philosophies about building code plugs which is outside the scope of this radio review. If you are experienced building code plugs, use whatever methodology you like. If you are new to DMR and code plugs, you may want to get started by using an existing code plug or ask for help. The only quirk that I found with this software, was not with the software, but with the default setting of the radio to NOT look up contact ID information from the digital contact list. Once understood, this was an easy fix using the radio's menu commands (Menu, Utilities, Radio Settings, Contact CSV, ON). It has enough memory to hold all of the North America continent database with lots of room to spare.

Radio Operation:
Once programmed, the radio ran flawlessly on both Analog and DMR. You can "Dual Watch" with this radio. Some of same accessories such as the external microphone, of other Baofeng radios can used with this radio. The supplied rubber duck antenna does not appear to be as good as the BTech DMR-6X2, as was indicated by comparing it with the BTech on receive. But that is the only negative comment. As the DM-1701 is about half the price of the BTech, the DM-1701 radio is worth considering.

<u>**From the manufacturer (Baofeng) about their about Baofeng DM-1701**</u>

The DM-1701 is the most cost-effective DMR HT on the market, with solid hardware construction and easy to use programming software. The greatest appeal of Baofeng's DM-1701 lies in its ability to deliver great DMR compatibility, crystal clear audio & great cost-effective. The light-weight portability, high capacity battery, and user-customizable design all make it the perfect radio for both experienced and new HAM users.

Users can apply the [.rdt] template file that saves all the custom settings to the radio through CPS. The DM-1701 template can be used with the MD-380/MD-2017/MD-9600

✧ SMA-Female Antenna (Backward Compatible with SMA-Female Antennas)
✧ 2-Pin K-plug port for most radio accessories, compatible original Baofeng accessories and Radioddity antenna, PTT speaker Mic, etc.
✧ USB Programming Cable Included - Windows PC Required
✧ Firmware Upgradeable

Multiple communication efficiency
The DM-1701 offers large storage with 3,000 Channels, 10,000 Talk Groups and 120,000 Contacts. Channel selection can be switched by top rotate knob or input channel number by keypad. CPS supports mass editing on channels and contact IDs, importing and exporting them with CSV format, which makes it easier to write code-plugs and more complex application requirements.

Strong digital function
The DM-1701 is DMO True2-slot DMR, it not only supports DMR protocol, including single call, group call and all call; it also supports two-way radio detection, call alert, remote monitoring, remote inhibit/kill and SMS Data transmission function. Digital alarm function and encryption are also available, encryption only supports calling between the DM-1701 devices. In digital mode, you can monitor the color code, time slot, frequency and contact ID.

Multiple customizable keys
The DM-1701 provides five user-defined keys based on user habits. Three side keys are designed as the default setting, P1&P2 are blank setting, users can change their setting by PC programming.

SMS Function
This product supports DMR data function, and allows sending and receiving messages; the maximum length of each message is 144 characters and less than 50 lines.

Miltary Quality DMR
Design for both commercial and amateur usage, the DM-1701 has high-quality housing, strong spring belt clip makes it more portable. The 2200mAh Li-ion battery has the endurance for 48 hours. Equipped with original Baofeng or Radioddity SMA-F antenna, its talking range can be up to 3-10 km (1.8-6.2 miles) under most circumstances.

Specifications:
1. Frequency: 136-174MHz & 400-470 MHz
2. Output Power: 1W/2W/5W
3. Zones: 250 (allow 64 channels per zone)
4. Scan List: 250
5. Digital emergency alarm: 32
6. SMS function
7. High fidelity quality
8. Manual Programmable
9. High and low power selection
10. CTCSS / CDCSS and tail cancellation
11. Digital mode supports repeater
12. Channel Spacing: 25KHz(Wide Band), 20KHz, 12.5KHz(Narrow Band)
13. Phase-locked Step: 2.5K/5K/6.25K~50K

Note: About volume control level, currently user can only disable all tone via PC programming or turn it off by keypad: MENU- Utilities-Radio Settings-Tones/Alerts-keypad Tones-Turn On/Turn Off

Package Content:
1x Baofeng DM-1701 DMR
1x 2200mAh Li-ion Battery
1x Belt Clip
1x Dual Band SMA-F Antenna
1x Desktop Charger
1x User Manual
1x PTT Earpiece
1x Wrist Strip
1 x USB Programming Cable