Hi Everyone Happy New Year 2021

Here is the latest Firmware for the Kydera CDR300UV with APRS.

C7000 DR300UV Ham Aprs 20201224.zip (425.24 KB)

NEW FIRMWARE Dec 24 2020 @ 09:58:49



Overview 3 new Features and a fix.

- 1. Basic Digital APRS.
- 2. Promiscuous Mode.
- 3. Receive Only for channels.
- 4. Fix A/B and DQT/QT that were originally reversed.

1: APRS (digital).

See the PDF document for pictures. <u>Firmware Dec24th2020 with APRS.pdf</u> (448.32 KB)

Step 1: Contact

You need to setup a Contact for APRS as follow.

Setup a Contact Name for APRS, then in Contact ID put the APRS ID for your

Country/Master. Example for Canada: 302999

Simply replace the first 3 digits 302 by your Country MCC code and don't forget Call Type need to be Private Call.

| Serial No | Contact name | Contact ID | Call Type |
|-----------|--------------|------------|--------------|
| 1 | TG3022 | 3022 | Group Call |
| 2 | TG208 | 208 | Group Call |
| 3 | TG20876 | 20876 | Group Call |
| 4 | TG9 | 9 | Group Call |
| 5 | Disc | 4000 | Private call |
| 6 | INFO | 5000 | Private call |
| 7 | Parrot | 9990 | Private call |
| 8 | ww91 | 91 | Group Call |
| 9 | TG302233 | 302233 | Group Call |
| 10 | TG99 | 99 | Group Call |
| 11 | APRS | 302999 | Private call |

Step 2: Zone/Channel

The best way is to create a new APRS Zone/Channel where you will have an entry for each repeater and Hotspots that you have access.

| Zone | Zone Name |
|------|-----------|
| 1 | BetaTest |
| 2 | VA2DGR |
| 3 | Analog |
| 4 | SJSR |
| 5 | APRS |

In that Zone 5, I have Ch1 for my Hotspot and Ch2 for the local repeater.

Later I will enter a new channel for every repeater I can use.

NOTE: that all APRS traffic on BrandMeister is taking place on TS2.

| Z-5 | CH mode | CH Name | RX Freq | TX Freq | Power | Only RX | Alarm | Prompt | PCT | RX Time | TX Time | RX CC | TX CC | Msg Type | TX | GCL | Encryptio | Scan List | Contacts |
|-----|---------|---------|----------|----------|-------|---------|-------|--------|-------|---------|---------|-------|-------|-----------|----------|-----|-----------|-----------|----------|
| 1 | Digital | H-S APR | 434.0750 | 434.0750 | Low | Off | On | On | Pates | On | Slot 2 | 1 | 1 | Unconfirm | Impolite | Off | Off | Off | APRS |
| 2 | Digital | REX-APR | 441.7500 | 446.7500 | High | Off | On | On | Pates | Slot 2 | Slot 2 | 1 | 1 | Unconfirm | Impolite | Off | Off | Off | APR\$ |

Step 3: DMR Service

Set your GPS to On, Interval to 1 Min, and the GPS Channel to your APRS Zone/channel that your want to operate.

Later is you have a PFKey assigned to GPS you can toggle it OFF or On from the Radio. In my case this is Zone 5 and Ch 1 for my Hotspot. If I go mobile then I have to set it to Ch 2 for the local Repeater.



Note: that presently you need to make this change manually with the CPS only. It cannot be changed by the Front Panel Programming.

Right now because there is no provision to freeze APRS on TS2 you cannot select "Current Channel" in the GPS Channel, as it will transmit Data on TS1 if your are on a ch. with TS1.

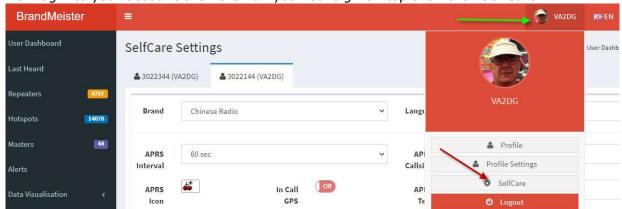
SO BE CAREFULL to DO NOT TRANSMIT APRS DATA on TS1.

This problem should be fixed in the next Firmware hopefully. We ask to have an extra menu "APRS" so we can have all the APRS stuff at the same place along with a list for APRS channel.

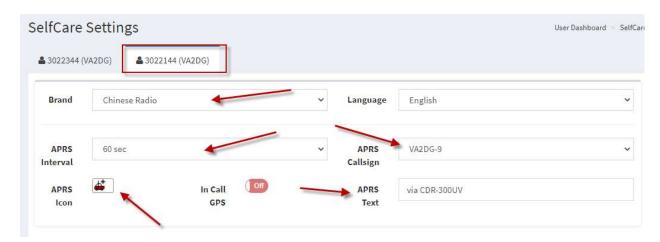
Step 4: Brandmeister Selfcare

If you do not have a self care account on Brandmeister.network, you need to create one.

Then login to your account then click on your Callsign on top then click SelfCare.



Then in SelfCare select the DMR ID that you have using, in **Brand:** select Chinese Radio, Leave **APRS Interval:** to 60sec, then for Mobile select **APRS Callsing:** with -9, then Clic **APRS Icon:** to choose your Icon and finally **APRS Text:** of your choice and Save It.



2: Promiscuous Mode.

You need to assign the Mandatory Monitor feature to one of your PFKey. I did on PFKey 1 To use you just press PFKey 1 and you will see a brief message on screen "**Promiscuous On**". This is a toggle for ON or OFF.

When Promiscuous is ON, any traffic on any TG on Both TS will be heard from that channel.



3: Receive Only for Channels.

It you are monitoring frequency outside the Ham Band like public services or WX, there was no provision to prevent transmitting on these public services frequency's. In my case I always set the TX freq to the Ham Band. Now when you set your channel to **Only RX On** this will make this channel a Receive Only channel.

| Z-1 | CH mode | CH Name | RX Freq | TX Freq | Power | Only RX | 1 |
|-----|---------|----------|----------|----------|-------|---------|---|
| 1 | Digital | TG30223 | 431.0750 | 431.0750 | Low | Off | (|
| 2 | Digital | TG3022 | 431.0750 | 431.0750 | Low | Off | (|
| 3 | Digita1 | ECHO | 431.0750 | 431.0750 | Low | Off | (|
| 4 | Digita1 | APRS | 434.0750 | 434.0750 | Low | Off | (|
| 5 | Digita1 | Simplex | 446.0750 | 446.0750 | Low | Off | (|
| 6 | Digita1 | REX | 441.7500 | 446.7500 | High | Off | (|
| 7 | Digita1 | REX | 441.7500 | 446.7500 | High | Off | (|
| 8 | Digita1 | REX-Disc | 441.7500 | 446.7500 | High | Off | (|
| 9 | Digita1 | REX-AP | 441.7500 | 441.7500 | High | Off | (|
| 10 | Analog | VE2RKL- | 444.3000 | 449.3000 | Low | Off | (|
| 11 | Analog | SQ-9J | 167.0100 | 144.0000 | Low | On | (|
| 12 | Analog | SQ-1G | 166.8000 | 144.0000 | Low | On | (|
| 13 | Analog | SQ-5M | 167.0400 | 144.0000 | Low | On | (|
| 14 | Analog | SQ-11M | 167.7000 | 144.0000 | Low | On | (|
| 15 | Analog | SQ-6K | 166.6800 | 144.0000 | Low | On | (|
| 16 | Analog | SQ-10J | 166.6500 | 144.0000 | Low | On | (|
| 17 | Analog | SQ-4K | 167.3400 | 144.0000 | Low | On | (|
| 18 | Analog | VE2RKL- | 147.3900 | 147.9900 | High | Off | (|

Bug Fix

A/B feature Fixed

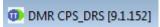
Originally to have A/B working you had to choose DQT/QT. Both features were reversed. Now it is fixed.

NOTE: for the latest CPS here are the number that will tell you if you have the right one.



File name should have this CPS_V2.12.11

Once the CPS is open you should have this on Top Left corner



A big thank you to **Savo S52SX** and **Nate ZL2NAT** for the hard work with Kydera for the past month or so to fine tune and provide sample of APRS Data from a Anytone radio.

Thanks to **Catherine (Kydera)** and her **Engineering Team** for their patience and get a FW out to us.