

CHIRP - New Model # 2671

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|--|--|-------------------|--------|
| Status: | Feedback | Priority: | Normal |
| Author: | James Freetage | Category: | |
| Created: | 06/25/2015 | Assignee: | |
| Updated: | 02/22/2021 | Due date: | |
| Chirp Version: | daily | | |
| Equipment Loan Offered: | Yes | | |
| Subject: | Wouxun KG-UV9D | | |
| Description | <p>Any chance of support for this new radio? I have one, am a little hesitant about shipping it from Hawaii, is there some way I can download the information and send it to you?</p> <p>Thanks,</p> <p>73</p> <p>James</p> <p>W8JVF</p> | | |
| Related issues: | | | |
| related to New Model # 2861: Wouxun KG-UV9D | Rejected | 09/18/2015 | |
| duplicated by New Model # 5069: Wouxun KG-UV9D | Closed | 08/15/2017 | |
| duplicated by New Model # 8269: wouxun kg-uv9 | Closed | 09/22/2020 | |

History

#1 - 06/26/2015 12:41 am - James Freetage

Also, I am willing to "beta test" any software for the KG-UV9D.

#2 - 10/01/2015 11:10 am - Matt Hankosky

i Have a KG-UV9D that i can loan. Would love it on CHIRP.

#3 - 01/06/2016 08:41 am - Pavel Milanes

- Chirp Version changed from 0.4.0 to daily

- Equipment Loan Offered changed from No to Yes

This is the starting thread for this radio, so all later "new models request" about this radio was rejected and make note on this thread.

Dupe Issue #2861 has a download/upload logs, so it's closed & linked to this post.

I have taken a look into the logs in post #2861 and I can do the driver, but acquiring this radio in Cuba is impossible. Remote testing is a possibility but a really hard/slow one.

I will do it but need a radio on hand.

73, CO7WT.

#4 - 01/08/2016 12:39 pm - Pavel Milanec

I'm working on define the comm properties of this radio, but the logs on the issue are #2861 are not from the portmon tool and it's hard to clean it to get a clean comm protocol picture.

Can anyone try to get a download / upload logs with portmon [[<https://technet.microsoft.com/en-us/sysinternals/portmon.aspx>]] and post it here?

Remember portmon work just under 32bit Window OS

This is to get an download/upload script as a starting point to another developer who want to follow the development with a radio.

Cheers.

#5 - 01/08/2016 01:37 pm - Pavel Milanec

- File write-clean.txt.bz2 added

- File read-clean.txt.bz2 added

Some regular expression magic do the trick.

It's good to refresh the old tools that some times get a ton of dust in the brain section "Important but rarely used"

Attached are the two logs cleaned, I will be making a download script based on this.

I don't have a radio at hand so it may contains some bugs.

Owners of the Wouxun KG-UV9D wanted here to test the script.

73

#6 - 01/08/2016 03:47 pm - James Freetage

Tell me what I need to do. I'll help, but I haven't done any of this before.

#7 - 01/11/2016 11:24 am - Pavel Milanec

Hi James,

Users can contribute to the development of new models in various ways, posting logs, testing new drivers and borrowing equipment.

At this stage the logs are fine to determine the comm details, another log will not hurt so here comes the instructions:

Go to Sysinternals at Microsoft and download the portmon tool [[<https://technet.microsoft.com/en-us/sysinternals/portmon.aspx>]] into any 32bit Windws PC.

Extract and start portmon, start capture. (magnify glass icon)

Connect interface and cable to you radio, start the default software for it.

Start a download with the default software (reading data) of the radio, you will see activity on portmon; at the end use the save utility of portmon to

save the log to a file, name it download.txt

Clear the log in portmon.

Repeat this step but uploading (writing data) the data you just downloaded, in portmon save the log to a file named upload.txt

Post the acquired logs to this thread.

If you don't have a 32 bit machine at hand (portmon only runs on 32bit) download any freeware/try-period serial monitor/sniffer software.

In the last weekend I was playing with the logs of this radios, comparing and testing... it has some similar comm procedures with the KG-UV8D, but have a few differences and the checksum, seems like using a different algorithm; also the data in the read commands has no logic using KG-UV8D paradigm or other simple communications

It seems that this radio's comm procedures will be a tough one to break.

#8 - 01/14/2016 11:23 am - Jerzy Trzeciak

- *File Read_1.LOG added*

Hi

I have an KG-UV9d and I did "read" and "write" data with default software.

#9 - 01/14/2016 11:24 am - Jerzy Trzeciak

- *File Write_1.LOG added*

#10 - 01/14/2016 08:35 pm - Pavel Milanes

- *Start date deleted (06/25/2015)*

Hi Jerzy and others,

Sorry, I forgot to mention a simple detail for portmon: you have to set a few non default options to get a full detailed logs.

Go to portmon, Options menu, be sure to tick (enable) this options

- Show Hex
- Show time column
- Show time

Then yet in the Options menu select the one named "Max Output Bytes" and set it to 256

That will make portmon record in very detail all the activity of the up/down process...

Sorry for the inconvenience, can you repeat the process whit this options and upload new logs?

73

#11 - 01/15/2016 07:31 am - Jerzy Trzeciak

- *File download.txt added*

- File upload.txt added

OK Pavel

That are my new logs. I am sorry my English.

Jurek

#12 - 01/15/2016 08:41 am - Pavel Milanec

- File deleted (Read_1.LOG)

#13 - 01/15/2016 08:50 am - Pavel Milanec

- File deleted (Write_1.LOG)

#14 - 01/15/2016 08:54 am - Pavel Milanec

- Start date set to 06/25/2015

Jerzy please check your files, both logs are the same: the upload log.

I need a download log, I see some interesting pattern in the upload log, I will look it more closely on the weekend.

Also I updated the start date, that I deleted by mistake, sorry.

#15 - 01/15/2016 11:02 am - Jerzy Trzeciak

- File download.txt added

- File upload.txt added

I am sorry my mistake.

Please delete it, with mistake.

They are my new logs, different.

Jurek

#16 - 01/15/2016 01:28 pm - Pavel Milanec

- File deleted (download.txt)

#17 - 01/15/2016 08:14 pm - Pavel Milanec

- File deleted (upload.txt)

#18 - 01/18/2016 10:11 am - Pavel Milanec

Little progress on this, but more knowledge acquired.

This weekend I build a windows & linux compatible script from the kg-uv8D driver base, and run it against the data you gently provided, but no joy.

Lessons learned:

- The comm protocol is "almost" the same. (there is no logic yet on the address bytes)
- The ident of this radio **has not the explicit name of the radio on it.**
- The ident has some variations from byte 28 until end.
- **The checksum algorithm for this radio is unknown.**

This last is the rock on the way, until we manage to know what checksum algorithm are they using we are stuck on this.

I will keep investigating this issue but any help is welcomed.

Cheers from Pavel, CO7WT.

#19 - 01/29/2016 11:11 am - Pavel Milanec

I had confirmed one of my fears: data communication in encoded/encrypted, as Ron Wellsted comment in #1489 about the Wouxun KG-UV950...

Until this issue is resolved (very unlikely without the help of Wouxun itself) this driver development is stuck.

73

#20 - 06/09/2016 10:29 am - Fred Munden

- File *KG-UV9D-Protocol.pdf* added

- File *KG-UV9D-Read.txt* added

- File *KG-UV9D-Write.txt* added

- File *KG-UV9D-0x0137-Record.txt* added

I have been looking at Wouxun KG-UV9D memory map. I started with *kguv8d.py*. It turns out there is little in common between the memory maps. Below are a few details. I have included what should be the most simplest cases, functions that are ON/OFF. Seems like that should result in single bit toggle or a single byte change. Instead there are multiple bytes in the record that are changed. I used KG-UV9D Commander version 1.02 to toggle ON/OFF functions then read the radio with a script that wrote out a binary file with record headers. I have not yet looked at VFO/Memories. Comments are welcomed.

Attachments:

comport capture of write/read of KG-UV9D Commander

table of record at offset 0x0137 that has several ON/OFF items

#21 - 12/09/2016 01:11 pm - Rafael Jaeger

Hi all,

I've been using CHIRP for a while but haven't contributed before. I got my hands on a Wouxun KV-UV9D this summer in Europe (I live in Arizona). Assuming I can use the RTDI cable I use for programming my Baofeng UV-82HPs, I'd be happy to help develop the driver. As it is, the radio is great for monitoring ATC, and is overall an excellent unit, but without the ability to program it, I default to using my Baofengs for actual communications.

I've read through the history here and have a basic idea of where things stand, but it's my first time at this. If anyone can help me understand what would be needed to move this process forward I'll do what I can.

73,

-Rafael KG7YWU

#22 - 01/10/2017 05:50 am - Carsten Schaudel

Well,

it seems the issue is to find the method with which the checksum of the communication is calculated - which is different to older wouxun models.

I figured out one thing so far:

It seems the upper nibble of the checksum is always identical to the upper nibble of the last databyte.

The lower nibble is even for messages TO the radio, and odd for messages FROM the radio.

That's as far as I got.

Maybe someone else has some ideas

#23 - 01/10/2017 05:52 am - Carsten Schaudel

update:

my statement on "even" and "odd" seems wrong, so the calculation of the lower nibble is open

#24 - 01/15/2017 04:07 pm - Rafael Jaeger

I don't run Windows – any serial sniffer tools I can use on OS X or Debian?

#25 - 01/15/2017 04:15 pm - Rafael Jaeger

I found one! <http://www.w7ay.net/site/Applications/Serial%20Tools/index.html>. Now to figure out how to get some useful data out of it.

#26 - 04/27/2020 10:14 pm - Bernhard Hailer

- Status changed from New to Feedback

- Target version set to chirp-daily

Any progress on this radio?

Files

| | | | |
|---------------------------|----------|------------|----------------|
| write-clean.txt.bz2 | 14.9 kB | 01/08/2016 | Pavel Milanes |
| read-clean.txt.bz2 | 15.4 kB | 01/08/2016 | Pavel Milanes |
| download.txt | 238.8 kB | 01/15/2016 | Jerzy Trzeciak |
| upload.txt | 189.2 kB | 01/15/2016 | Jerzy Trzeciak |
| KG-UV9D-Protocol.pdf | 25.7 kB | 06/09/2016 | Fred Munden |
| KG-UV9D-Read.txt | 348 kB | 06/09/2016 | Fred Munden |
| KG-UV9D-Write.txt | 254 kB | 06/09/2016 | Fred Munden |
| KG-UV9D-0x0137-Record.txt | 1.8 kB | 06/09/2016 | Fred Munden |