Amateur Television Journal

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BATVC web site: www.kh6htv.com
ATN web site: www.atn-tv.com

Jim Andrews, KH6HTV, editor - kh6htv@arrl.net www.kh6htv.com

Repeater Map Locator – web site

Hi Jim --- Since more and more ATV repeaters now have digital inputs and outputs, it's necessary to provide more information than just the transmit/receive frequency. Therefore, I've created a new website. At ***https://www.atv-repeatermap.com*** , you can select repeaters and view their operating data and a map showing their location.

A contact page (***https://atv-repeatermap.com/kontakt/***) allows you to get in touch with me to report new repeaters, modify or delete their location, or simply send a message. When submitting a new entry, it's important to provide the correct geographical location (with five decimal places).

The BATC has posted a description on their wiki page: ***https://wiki.batc.org.uk/ATV_Repeater_Map***
73 de Thomas, DL5BCA

(*editor's note: I encourage all ATV repeater owners/trustees to register your repeater with Thomas. I just did it for W0BTV, Boulder, Colorado and it was quite easy.*)

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USA ATV Repeater Directory

Thomas' efforts to create a world-wide ATV repeater map has encouraged me to update our own USA ATV repeater directory. I first published it in Jan. 2019 as my application note. AN-47. The incentive at that time was the fact that the ARRL had discontinued listing ATV repeaters in their repeater directory. I have thus sent out inquiries to all of the possible USA ATV repeaters I have been able to discover, including those listed in 2019. The on-line "Repeater Book" (www.repeaterbook.com) does have a section devoted to ATV repeaters. It lists 22 ATV repeaters. However, a lot of the data listed there is woefully out of date.

If any of our readers out there find that your local repeater is not listed, and / or, I listed incorrect data then I encourage you to send me the relevant data about your repeater. I also encourage our readers to submit articles about your repeater and group to be published in this ATV Journal.

In 2019, I found a total of 40 ATV repeaters in the USA. The break-down then was as follows: AZ(4), CA(10), CO(3), DE(1), FL(1), ID(1), KY(1), LA(1), MD(2), MI(3), MN(1), MO(1), NE(1), NV(1), NJ(1), OH(3), OR(2), PA(1), PR(1) & WA(1).

Unfortuately, today here in 2026, I am sorry to report our numbers are down significantly from 2019. We have lost almost ½ of the remaining repeaters. Todate, I have only been able to identify (22) active, on-the-air, ATV repeaters. The break-down by states now is; AZ(3), CA(8), CO(3), DE(1), MD(1), MO(1), NV(2), OH(2), WA(1) Almost all of the USA ATV repeaters are now either all digital or dual mode of both analog and digital. Only one is left doing strictly analog TV.

I am publishing the results of my findings once again as an application note, AN-74. A copy of it is included in this issue of our newsletter. As revisions and additional info comes in from our readers, I will update this directory on my web site: www.kh6htv.com
73 de Jim, KH6HTV, Boulder, Colorado

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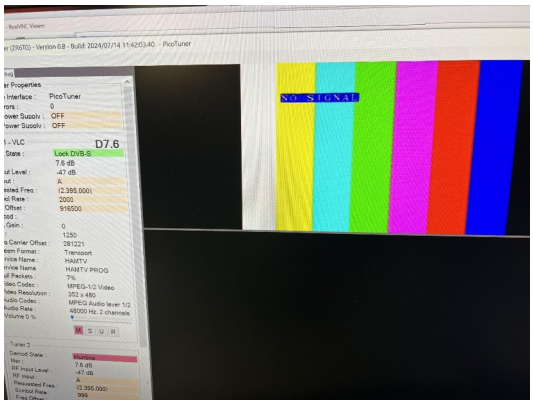
Wind Storms & ATV: --- Excellent newsletter! That same windstorm that sandblasted the BCARES first responder's car, took out my DATV repeater's antenna here in the Reno area...I was up there a day or two and found the radome broken and the vertical antenna was bent over horizontal and was showing high SWR... I pulled the repeater and it is now down at my house here in Sparks with a low level antenna (mag mount antenna on my a/c housing... The site is now snowbound, so it will be late spring until we can get back up there and fix the antenna…
73, Jim Shepherd, W6US, Sparks, Nevada

ISS DATV Down Link Video



The Cowtown Amateur Radio Club, K5COW, (www.cowtownarc.org/) has been struggling to receive the HamTV (DATV) downlink from the ISS. It is transmitted at 2.395Ghz and we suspected our LNA was being overloaded from WiFi. I am not sure how many folks at the NTMS helped us on this but yesterday Jim McMasters delivered and helped install a filter between our feed and LNA! This morning we had a good ISS pass and received the down-linked test signal! See photo at right.

All thanks to the NTMS! Mike, KF5DEY, Ft. Worth, Texas

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RADIOCONDA + OBS:

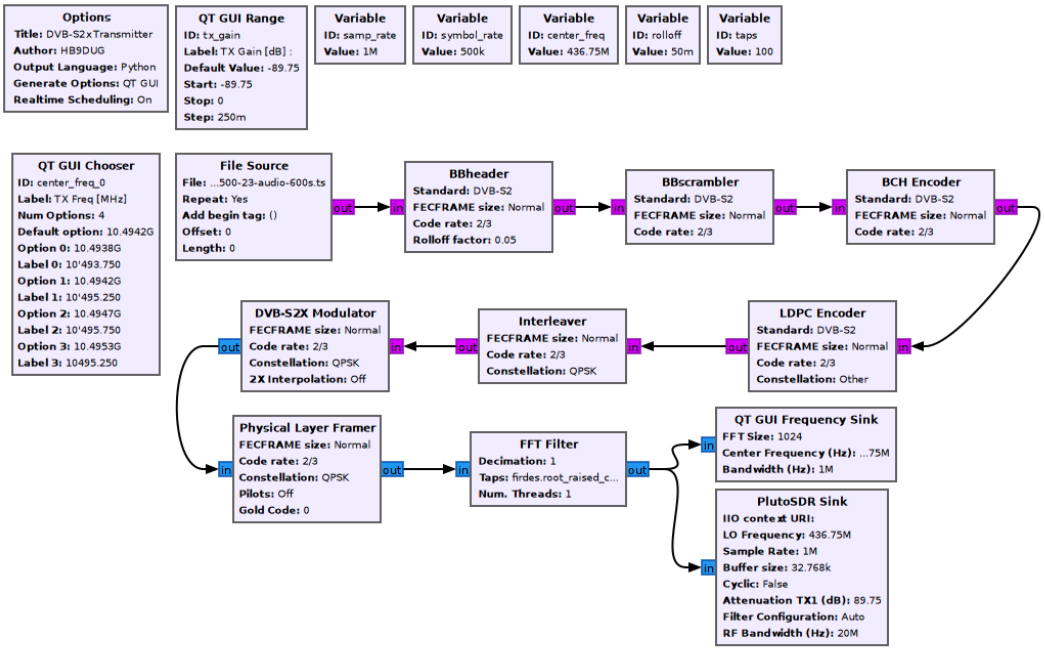
An Open Source Solution for a DVB-S2x Transmitter

Michel, Burnand , HB9DUG

This article explores the use of GNU Radio, the free and open-source software development toolkit designed to provide signal processing blocks for implementing software radios, focusing on our field of interest: Digital Amateur Television (DATV). Until now, one of the main obstacles for our community in experimenting with GNU Radio has been the complexity of installing it on Windows systems. Fortunately, that's no longer a problem. Keep reading to learn how!

What is Radioconda? **The solution comes from Conda, a cross-platform package manager that** simplifies installing software, including GNU Radio and its dependencies, within a self-contained environment. Conda works on Linux, macOS, and Windows. To make things even easier, Ryan Volz has created a complete Conda distribution that includes GNU Radio named Radioconda. It is a comprehensive bundle of open-source software radio packages packaged with Conda. It not only includes GNU Radio but also supports a variety of SDR devices and libraries, such as:
ADALM-PLUTO, Airspy R2/Mini/HF+, BladeRF, Ettus USRPs, Funcube Dongle Pro/Pro+, HackRF, LimeSDR, Red Pitaya, RFSpace/NetSDR/CloudSDR, & RTL-SDR

Easy Installation on Windows: Installing Radioconda on Windows is straightforward. The software installs as a standard GNU Radio and DVB-S2x Transmitter: Thanks to Ron W6RZ, who developed the DVB-S2 blocks now integrated into GNU Radio, setting up a DVB-S2x transmitter with a user-friendly interface has never been easier. To get started, launch GNU Radio Companion from the Windows Start menu (located in the "radioconda" directory). For those new to the platform, a basic flow-graph is available for download: dvbs2x-qpsk-500-pluto-basic.grc



This flow-graph implements a DVB-S2x QPSK transmitter for QO-100 with the following parameters: Symbol Rate (SR): 500 kS/s & Forward Error Correction (FEC): 2/3 The modulator automatically transmits a Transport Stream (hb9tv1-sr500-23-audio-600s.ts). The flowgraph is configured for use with a 432 MHz/2,400 MHz transverter and an ADALM-Pluto SDR connected via USB. The included GUI shows the emission spectrum, frequency selection, and emission level.Windows application (.exe), and uninstalling it won't affect your system. You can download the radioconda-Windows-x86_64.exe installer and find the full documentation on GitHub: https://github.com/radioconda/radioconda-installer

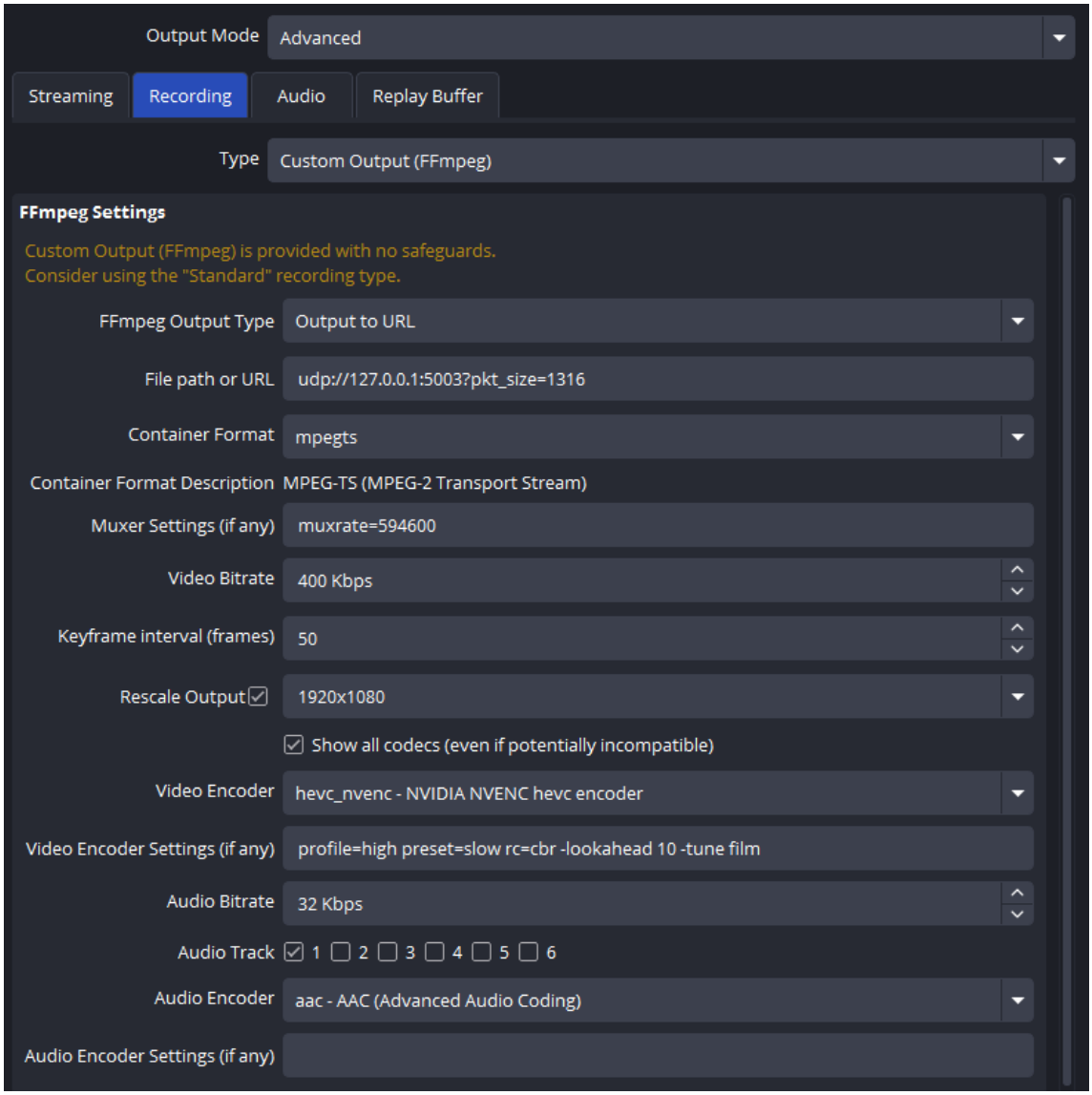
A second, more advanced flow-graph is also available for download: dvbs2x-qpsk-500-pluto.grc In addition to the DVB-S2x QPSK transmitter, this flow-graph implements: Transport Stream input via an Ethernet UDP connection & TS throughput display using a Python block

After running a flow-graph in GNU Radio Companion, a Python (.py) file is generated. You can execute this Python file directly without opening GNU Radio Companion. Only the GUI will be displayed. To run the Python file, follow these steps:

1. Launch Conda Prompt from the Windows Start menu (under the "radioconda" directory).
2. Navigate to the directory containing your .grc files.
3. You'll see the generated .py files. Run them with the following commands:

    python dvbs2x_tx_qpsk_500_pluto_basic.py
    python dvbs2x_tx_qpsk_500_pluto.py

OBS Configuration: To complete the setup, OBS Studio is used to generate the Transport Stream (TS). In OBS Studio, use the Recording feature with the following settings: Mode: Advanced & Type: Custom Output (Ffmpeg) For the details, refer to the OBS Setting screenshot below.



swissATV.ch You can download the flow-graphs and the Transport Stream file on: home.swissatv.ch/2025/12/radioconda-obs/

73 de Michel Burnand, KB9DUG, Vich, Switzerland

Application Note
AN-74

March, 2026

web = www.kh6htv.com email = kh6htv@arrl.net

USA ATV REPEATER DIRECTORY

NOTES:
1. All analog repeaters are NTSC, VUSB-TV, 6 MHz channel, unless otherwise noted. The frequency listed is the video carrier frequency.
2. Digital TV lists the center frequency and band-width.
3. All repeaters are "open" unless otherwise noted.
4. For full details, go to the listed web site, or send an e-mail to the contact person

Location	Call Sign	Output(s) (MHz)	Input(s) (MHz)	Sponsor	Web Site & Contact for info
ARIZONA					
Phoenix	W7ATN	1253.25 VSB 5910 FM	434 AM 434 DVB-T 2441.5 FM	Amateur TV Network - AZ	White Tanks mtn linked to Tucson WB9KMO wb9kmo@gmail.com
Mesa	W7ATN	421.25 VSB 1289.25 VSB	434 AM 434 DVB-T 2441.5 FM	Amateur TV Network - AZ	WB9KMO wb9kmo@gmail.com
Tucson	W7ATN	1277.25 VSB	434 AM 434 DVB-T 2441.5 FM	Amateur TV Network - AZ	Mt. Lemmon linked to Phoenix WB9KMO wb9kmo@gmail.com
CALIFORNIA					
Clayton	W6CX	1244.5 DVB-S	915, 1273, & 1289 DVB-S 1273 DVB-S2	Mt. Diablo Amateur Radio Club	Www.mdarc.org technical@mdarc.org
San Jose	W6SVA	427.25 AM	1255 FM	Silicon Valley Amateur TV	Www.w6sva.com W2NYC w2nyc@pacbell.net
Southern Calif.	Note: ATN is a microwave linked network of ATV repeaters covering the Los Angeles area of southern California and Las Vegas, NV ATN web site is: www.atn-tv.com contact is: WA6SVT wa6svt@gmail.com				
North Los Angeles	W6ATN	1242/4 DVB-T 3380 FM	434 AM 434/2 DVB-T 2441.5 FM	Amateur Television Network	Oat Mtn.
Central Los Angeles	W6ATN	1267/6 DVB-T	434 AM 434/2 DVB-T 2441.5 FM	Amateur Television Network	Mt. Wilson
Orange	W6ATN	1253.25 VSB 5910 FM	434 AM 434/2 DVB-T 2441.5 FM	Amateur Television Network	Santiago Peak
Palm Springs	W6ATN	1242/4 DVB-T	434 AM 434/2 DVB-T 2441.5 FM	Amateur Television Network	Snow Peak

Location	Call Sign	Output(s) (MHz)	Input(s) (MHz)	Sponsor	Web Site & Contact for info
CALIFORNIA					
High Desert	W6ATN	1253.25 VSB	434 AM 434/2 DVB-T 2441.5 FM	Amateur Television Network	Jobs Peak
Santa Barbara	WB9KMO	1289.25 VSB	434 AM 434/2 DVB-T 2441.5 FM	Amateur Television Network	Microwave linked to ATN-CA
COLORADO					
Boulder	W0BTV	423 DVB-T 5905 FM (24/7)	441 DVB-T 1243 DVB-T 10380 DVB-T	Boulder Amateur TV Club	Www.kh6htv.com KH6HTV kh6htv@arrl.net ARES primary
Boulder County	W0BCR	423 DVB-T	441 DVB-T	Boulder County ARES	Www.bouldercountyares.org K0ARK abishop1150@comcast.net
Boulder	WA0TQG	441 DVB-T 1255 DVB-T	1255 DVB-T 423 DVB-T	Private closed rptr	Directional 2 way yagi link from home qth to W0BTV rptr
DELAWARE					
Wilmington	KC3AM	423/2 DVB-T	430/2 DVB-T	KC3AM	KC3AM kc3am@verizon.net N3BFZ vvitullo@verizon.net
MARYLAND					
Towson	W3BAB	421.25 VSB 1291 FM	434 VSB 439.25/2 DVB-T	Chesapeake Amateur TV Society	Www.qsl.net/w3bab/ w3babatv@gmail.com
MISSOURI					
Maryland Heights	W0ATN	426 DVB-T	440 DVB-T	St. Louis Amateur TV Society	Www.slatsatn.net K0PFX slats@melwhitten.com
NEVADA					
Las Vegas	N7ZEV	912 FM 1253.25 AM	434 VSB 434/2 DVB-T 2441.5 FM	Los Vegas Repeater Assoc WA7HXO	Mt. Potosi – microwave linked to ATN southern Calif. Repeater network N 7ZEV fkostelac@hotmail.com
Reno	W7TA	423/6 DVB-T	1243/6 DVB-T	Sierra Nevada Amateur Radio Society	Www.snars.org/repeaters/datv/ W6US w6us@snars.org
OHIO					
Dayton	W8BI	421.25 AM 428/2 DVB-T 1258 FM	439.25 AM 439/2 DVB-T 1280/2 DVB-T	Dayton Amateur Radio Assoc.	Www.w8bi.org AH2AR ah2ar@arrl.net
Columbus	WR8ATV	423/2 DVB-T 427.25 VSB 1258 FM 1268 DVB-S 2397 MESH 10350 FM	439/2 DVB-T 439.25 VSB 1288 FM 1288 DVB-S 10450 FM	Amateur TV in Central Ohio	Www.atco.tv WA8RMC art.towslee@gmail.com
WASHINGTON					
Seattle	WW7ATS	1255/6 DVB-T	435.25/2 & 437.75/2 DVB-T	Western Washington Amateur TV Society	Www.qsl.net/ww7ats/ W7ITL w7itl.usa@gmail.com

W0BTV Details:

Inputs: 23 cm Primary (CCARC co-ordinated) + 70 cm & 3 cm secondary all digital using European Broadcast TV standard, DVB-T with standard 6 MHz wide TV channels. Frequencies listed are the center frequency of the TV channel.
23 cm = 1243 MHz (primary), 70 cm = 441 MHz & 3 cm = 10.380 GHz
Outputs: 70 cm Primary (CCARC co-ordinated), Channel 57 -- 423 MHz with 6 MHz BW, DVB-T
Also, secondary analog, NTSC, FM-TV output on 5.905 GHz (24/7 microwave beacon).
Operational details in AN-51d Technical details in AN-53d. Available at: *https://kh6htv.com/application-notes/*

W0BTV ATV Net:

We hold a social ATV net on Thursday afternoon at 3 pm local Mountain time (22:00 UTC). The net typically runs for 1 to 1 1/2 hours. ATV nets are streamed live using the British Amateur TV Club's server, via: ***https://batc.org.uk/live/*** Select ***ab0my or n0ye***. We use the Boulder ARES (BCARES) 2 meter FM voice repeater for intercom. 146.760 MHz *(-600 kHz, 100 Hz PL tone required to access*).

Newsletter Details:

This newsletter was started in 2018 and originally published under the title "*Boulder Amateur Television Club - TV Repeater's REPEATER*" Starting with issue #166, July, 2024, we have changed the title to "*Amateur Television Journal.*" This reflects the fact that it has grown from being simply a local club's newsletter to become the "de-facto" ATV newsletter for the USA and overseas hams. This is a free ATV newsletter distributed electronically via e-mail to ATV hams. The distribution list has now grown to over 800+, both in the USA and overseas. News and articles from other ATV groups are welcomed. Permission is granted to re-distribute it and also to re-print articles, as long as you acknowledge the source. All past issues are archived at: https://kh6htv.com/newsletter/

ATV HAM ADS -- *Free advertising space is offered here to ATV hams, ham clubs or ARES groups. List here amateur radio & TV gear*

For Sale - or - Want to Buy