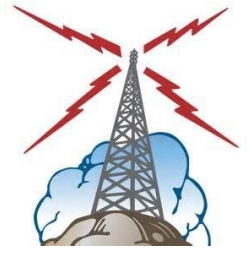




# SLATS

**St. Louis Amateur Television Society**



**SEPTEMBER 2023 | ISSUE NO. 9**

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**ON THE NEWS FRONT**



**New Transmitter Antenna Now On-the-Air!**



ON a hot and sunny day August 23rd, the Diamond TX antenna was replaced with a New-tronics "Spirit." With this additional gain and better vertical aperture initial reports show a substantial signal strength (4 to 9 dB) at the SLATS member's QTH. The 426MHz TX antenna is located just below the 440MHz RX antenna. It is 3 feet beyond the tower which minimizes pattern distortion. The antenna is also held near the top with an "anti-sway" fiberglass pole between the antenna's radome and the tower. New RG214 (double shield) jumper connects the antenna to the 7/8<sup>th</sup> hardline going to the repeater Bp filter. All galvanized ROHN steel mounting arms and clamps ensure strength and long life without rust. Thanks to Armand (KBOPXF), and Vince (KE)VYE) for help with the rope tag lines to haul up the mount and antenna. Also, thanks to, Rick and Gary of SGR Inc. for providing a professional installation on the repeater's host tower, Earle (WDOFCH). SO as the ARRL says.... GOTA and let us know who well it is working at your QTH!

Mel, KØPFX

**New TouchTone Decoder for controlling the “Overlay.”**



On 8/31/23, second DTMF recorder was added with the capability to turn on/off transmission of the two overlay screens on top of a user’s video. This is done using TouchTone commands **#11** on the FM talk-back frequency to turn on/off the overlay. For example, if you are watching a user on the repeater and the overlay is on his video (and you want it off or change it to a different overlay), just enter **#11** while transmitting on 144.34. Depending on which overlay is being transmitted, you may have to enter **#11** more than once to see the overlay you want to see or to turn them both off. If it does not work, it maybe because your FM signal has poor signal-to-noise (SNR) at the repeater’s receiver or your TTs are either under or over deviating (too low or too loud) and cannot be decoded. Try increasing your power, change the audio lever of your TT or ask someone else to the overlay for you. Commands **#22**, **#33**,and **#44** are reserved for future use and currently have no connection.

TT command **#22**, **#33**, and **#44** are reserved for future use and currently have no connection. The decoder includes its own programming keypad and 4 SPDT relays isolated from ground. A modified HiDes remote is used to output a one second IR (green) code and send to the receiver’s IR sensor. For maintenance testing, a front panel toggle switch activates the decoder and a push button switch over-rides the input tones.

For more info on transmitting the best level for your Touchtones to the decoder, refer to this article found here: <http://genave.com/dtmf-audio-adjustments/>

The 144.34 FM receiver has the “lowest” antenna on the side of the repeater tower but I believe all current SLATS user’s signal will be strong enough for the TT decoder to work. Please let me know how it works from your station.

**EDITORS NOTE:** *I have helped out Earle and Mel with the initial testing of the overlay control and it worked just fine from my location.*

GOTA!

Mel, KOPFX

## HDMI to Ip streaming link back on the net!



Thanks to Armand, KBOFX and Earle, WDOFCH the repeater transmitter output is available again on the net. The IP address had changed making the LAN no longer connecting to the WAN. Armand and Earle believe this happened after the last big thunderstorm and high winds that took out the AC power to the repeater for 4 days. When power was restored, Spectrum assigned the router a new address. It is not "normal" for the address to change on a power outage, but this one was an exception because the power was out for so long. So, we'll keep an eye on it now with a "MY IP" command and verify the IP address when another outage occurs. Plans are to add a UPS for the Spectrum router and the FM User to keep them up 24/7 during short duration power losses.

Mel, KØPFX

**RADIO SHACK BACK TO A TOWN NEAR YOU? MAYBE....**



“In a surprising turn of events, a beloved retailer from the 1980s is making a triumphant return to the retail scene in the US.

This once-prominent brand, which faced bankruptcy not once but twice, is set to regain its former glory under new ownership.

The revival of this iconic retailer promises to stir nostalgia among long-time fans and capture the attention of a new generation of shoppers.

The biggest franchise operator of the brand, El Salvador-based Unicomer Group, has now acquired the company. It has big plans to not only revamp its website but also to **build back its brick-and-mortar presence in the U.S.**

Radio Shack's new owner plans to add more merchandise for its current franchisees to be able to stock and it plans an Amazon storefront as well as new physical locations for the once ubiquitous chain. At its peak, Radio Shack was pretty much everywhere, operating 7,000 stores globally with most of those in the U.S.”

*(credit to: Daneil Klune of thesreet.com and others)*

Maybe we'll see some video/camera and other media products we'll find for the “ham” shack!

Mel, KOPFX



**To ALL SLATS Members:  
FYI from Darko Banko, OE7DBH**

<https://www.oe7forum.at/viewtopic.php?t=628> ..... is already closed for new entries !!!  
<https://www.oe7forum.at/viewforum.php?f=7>

Forum operator has announced that **OE7forum** will be removed on January 1st, 2024, so all of my entries **will no longer be accessible**.

If you think that one or the other information published there will be of interest to you in the future ( e.g. **BU500 UPconverter** , **3LNC70**, **DVB-T** topic and other my projects ) , please download it immediately and save it on your computer.

Best regards

Vy 73 de OE7DBH Darko

**FOR SALE FROM DARKO BANKO**

Device Price + Shipping 30 Euro + 4% paypal commission = Total price.

Device will be sent as ( custom declaration ) : from private to private , gift , HamRadio parts , value 10% from total price ( so you pay little custom duty or nothing at all , you can also pay twice 10% and 90% - if custom need bill )

**10 GHz Band Pass Filter**

For range: 9,75 GHz..... 10,6 GHz  
Loss: 3,46dB & 10,207 GHz

BW -3dB: ~850 MHz  
BW -1dB: ~650 MHz

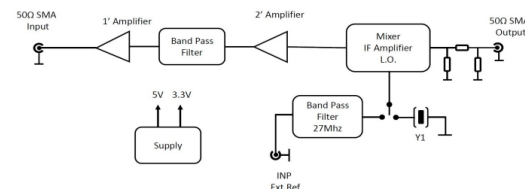


**3LNC70**

**10 GHz Low noise down converter**

**RF Input: 9,8 Ghz.....10,7 GHz**      **Conversion gain: ~29dB**  
**IF Output: 300 Mhz.....2000 MHz**      **LO freq.: 10,0575GHz** default !!  
**Ext. LO input: 25,400.....29,800MHz** for LO freq. 9,1722.....10,7611 GHz  
**Vcc: 8....14 Volt**      **Icc: 150mA**

Test report: <https://www.oe7forum.at/viewtopic.php?f=7&t=284&start=210#p2632>



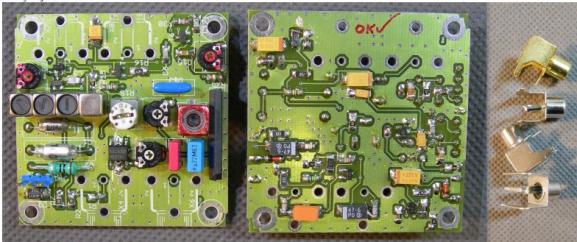
Price: 165,00 Euro

Email: [9a6rzn@gmail.com](mailto:9a6rzn@gmail.com) or [calvin@hides.com.tw](mailto:calvin@hides.com.tw)

**FOR SALE FROM DARKO BANKO**

**Basisband processing for your FM ATV transmitter**

**General:** Vcc 11...14 V Icc 80...100 mA Description: <https://www.oer7forum.at/viewtopic.php?f=7&t=284&start=75&p=93>  
**Video:** Impedance 75 Ohm Audio: Type Mono Level 0.8...1.2 Vpp \* Impedance 600 Ohm Bandwidth 0...5.5MHz Level 0.7Vpp \*  
 \* internally adjustable on the trimer resistance



**Basisband Output data:** Price: 65,00 Euro  
 Type two separate output 75 Ohm , BB Level adjustable up to 1.5 Vpp  
 Audio carrier 6.5 MHz ( Level internally adjustable on the trimer resistance )  
 Modulation +- 130 kHz  
 Size: 53,2 x 53,2mm total 14mm high , suitable for installation in tinplate housings.  
 Contact: [9a6rzn@gmail.com](mailto:9a6rzn@gmail.com)

**Compact 10....11GHz FM ATV transmitter with 1,6W Output**

Description: <https://www.oer7forum.at/viewtopic.php?f=7&t=284&start=180&p=2187>

Ready for use !!!

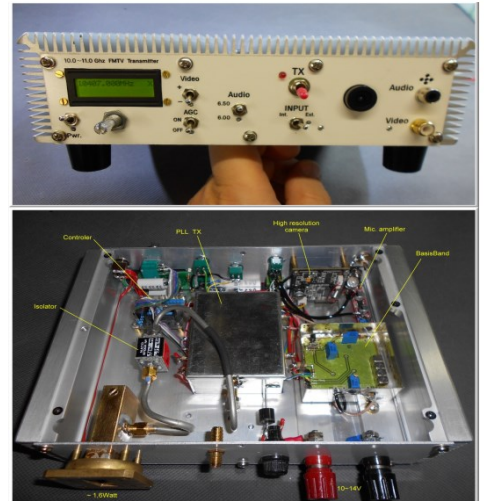
10....11GHz PLL FM ATV transmitter with integrated high-resolution camera and high output power for portable operation.

**General:** Vcc 11...14V Icc 2Amper

Freq. Range: 10.0.....11.0 GHz  
 Audio: 6,0MHz or 6,5MHz mono  
 RF Output: wave guide or coaxial  
 RF Output: 1,6 Watt  
 Video: positiv or negativ  
 External Audio-Video input available  
 Antenne bad VSWR protection on board

Price: 400,00 Euro

Contact: [9a6rzn@gmail.com](mailto:9a6rzn@gmail.com)



**Compact DVB-T transmitter HV100EH ( by HiDes )**

Description and Testreport: [Hom largest DVB-T forum world wide - Seite 6 - Oer7 Amateurfunkforum \(oer7forum.at\)](http://www.oer7forum.at/viewtopic.php?f=7&t=284&start=180&p=2187)

Freq. Range: 150MHz.....1300MHz Mode: DVB-T Output power: 0,05mW.....5mW SMAfemale \*

Panel control: already installed for manual data entry ( computer is not absolutely necessary )

Video-Audio input: HDMI or CVBS

LAN connection available for streaming !!

**Price:** 250,00 Euro **Contact:** [9a6rzn@gmail.com](mailto:9a6rzn@gmail.com)



**FOR SALE FROM DARKO BANKO**

**DVB-T transmitter for 70cm Band**

Frequency: 436,200 MHz ( in this moment - freely programmable via terminal program )  
 Output pwr: 200 mW SMA Mode: DVB-T  
 Input: Audio – Video Chinch or Y/C  
 Encoder and modulator made by SR-Systems , power amplifier made by OE7DBH , Power supply in  
 Price: 400 Euro



**Octagon Twin LNB for QO-100 reception**  
 for: SSB , Pactor and ATV

Nr. 1



with two separately PLL Local Oscillator inside

**Input Freq. Range: 10400.....13000 MHz H and V polarisation , for Offset dish**

Output Freq. Range: 410.....2200 MHz

**Output Port 1.** for DATV use ( gets tension from receiver – recommended Octagon SF8008 )  
 IF frequency range, Rec range: 950,8..... 958,8 MHz Vcc 16.....19V  
 Local Oscillator freq. 9540,2 MHz & 20°C TK 8ppm ( Quarz PLL )

**Output Port 2.** for SSB use ( gets tension from BiasT - Vcc 11.....13V )  
 IF frequency range, Receiver range: 70cm Band 431,800.....432,600 MHz  
 Local Oscillator freq. 10057,5.. MHz & 20°C TK 2ppm ( Quarz PLL )

Bracket diameter: 40mm  
 Very limited quantity still available !  
 Price: 88,00 Euro  
 Contact: [9afgrzn@gmail.com](mailto:9afgrzn@gmail.com)

**Compact DVB-S DVB-T Transmitter** by SR-Systems

Ready for use !!!

Vcc: 11.....14V Icc: 0,6 A  
 Size: 7 x 10 x 17cm

Freq. Range: 380MHz.....565MHz and  
 760MHz.....1130MHz

Output power: 0,05mW.....3mW adjustable , \*

Mode: DVB-S and DVB-T  
 Modulation: QPSK , QAM16 , QAM64  
 FEC: 1/2 2/3 3/4 5/6 7/8  
 GI: 1/4 1/8 1/16 1/32  
 DVB-T Bandwidth: 1 2 3 4 5 6 7 8MHz  
 DVB-S 1 kSym.....49 kSym

Video input: FBAS or Y/C (SVHS)

Box content SR-Systems module:  
 1. Front panel with user keyboard  
 2. MPEG Encoder  
 3. MiniMod Modulator  
 4. both software inside DVB-T + S  
 + User Manual

Price: 450,00 Euro

Contact: [9afgrzn@gmail.com](mailto:9afgrzn@gmail.com)

\* high power amplifiers are available upon demand !!!  
 UPconverter for 2.4GHz digital is also available !!!



**SLATS**

**ITEMS FOR SALE OR GIVE AWAY**

**MILLEN ANTENNA BRIDGE**

Sell an item

Name

**Earle Young**

Call Sign

**WD0FCH**

Email

[erywd0fch@gmail.com](mailto:erywd0fch@gmail.com)

Brief Description of item

**Vintage James Millen Antenna Bridge**

**No. 90672 Antenna Bridge, with documentation manual and including 3 original coils.**

**For Sale \$75.00 + shipping**

**Very clean**



ANTENNA BRIDGE



ANTENNA BRIDGE



ANTENNA BRIDGE

**TEKTRONIX 1710J NTSC WAVEFORM MONITOR**

**I want to:**

SELL IT

**Name**

Gary Leu

**Call Sign**

NØGL

**Email**

[n0gl@charter.net](mailto:n0gl@charter.net)

**Tektronix 1710 J. NTSC Waveform Monitor**

**\$25 plus \$15 shipping or pick up locally. In good working condition. Currently mounted in a 19" rack tray with the companion Vectorscope (see below)**



Tektronix 1710J Waveform Monitor

**TEKTRONIX 1420 NTSC VECTORSCOPE**

**I want to:**

SELL IT

**Name**

Gary Leu

**Call Sign**

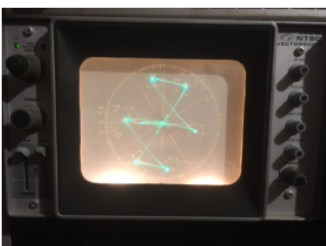
NØGL

**Email**

[n0gl@charter.net](mailto:n0gl@charter.net)

**Tektronix 1420 NTSC Vectorscope**

**\$25 plus \$15 shipping or pick up locally. In good working condition. It's currently mounted in a 19" rack with a Tektronix 1710 J Waveform monitor (see above)**

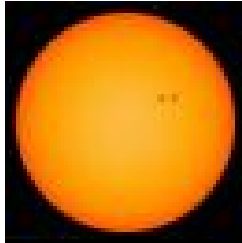


Tektronix 1420 Vectorscope



**LINKS:**

**SOLAR UPDATE**



[The K7RA Solar Update \(arrl.org\)](http://arrl.org)



**Devastating Hawaii Wildfires Prompt Response from Amateur Radio Emergency Service**

[Devastating Hawaii Wildfires Prompt Response from Ama-](#)



**Ham Radio Quick Links:**

[Amateur Television Network](https://www.atn-tv.com/)

<https://www.atn-tv.com/>

[ATN Repeater video streaming](https://www.atn-tv.com/events/streaming)

<https://www.atn-tv.com/events/streaming>

[ATN on YouTube](https://www.youtube.com/)

<https://www.youtube.com/>

[AmateurTelevisionNetwork](https://www.youtube.com/)

[ATN on Whereby.com](https://whereby.com/atn1)

<https://whereby.com/atn1>

[TAPR - Tomorrow's Ham Radio](https://tapr.org)

<https://tapr.org>

[DIGITAL ATV](#)

**Digital Amateur Television D-ATV**

[https://www.dxzone.com/catalog/  
Operating Modes/Digital ATV/](https://www.dxzone.com/catalog/Operating%20Modes/Digital%20ATV/)

[YouTube Videos](#)

**[Dave Casler KEØOG - YouTube](#)**

**Videos** [https://www.youtube.com/  
channel/UCaBtYooQdmNzq63eID8RaLQ](https://www.youtube.com/channel/UCaBtYooQdmNzq63eID8RaLQ)

**[Solar Index & Propagation Made Easy](#)**

**[The SmokinApe](#)**

[https://www.youtube.com/user/  
TheSmokinApe](https://www.youtube.com/user/TheSmokinApe)