

NW Digital Radio

The Continuing Saga of the UDRX
and a lot more ...

Bryan Hoyer - K7UDR

UDR~~X~~-440

Universal Digital Radio

- 25W 70cm SDR
 - 4800 to over 100kbps
 - AX25 and D-STAR
- Open Source Linux Server
- Network Interface via Web Browser
- 4 USB Accessory Ports



DCC Chicago 2015

Ham Radio Now

Thanks to Gary Pearce

Self Immolation



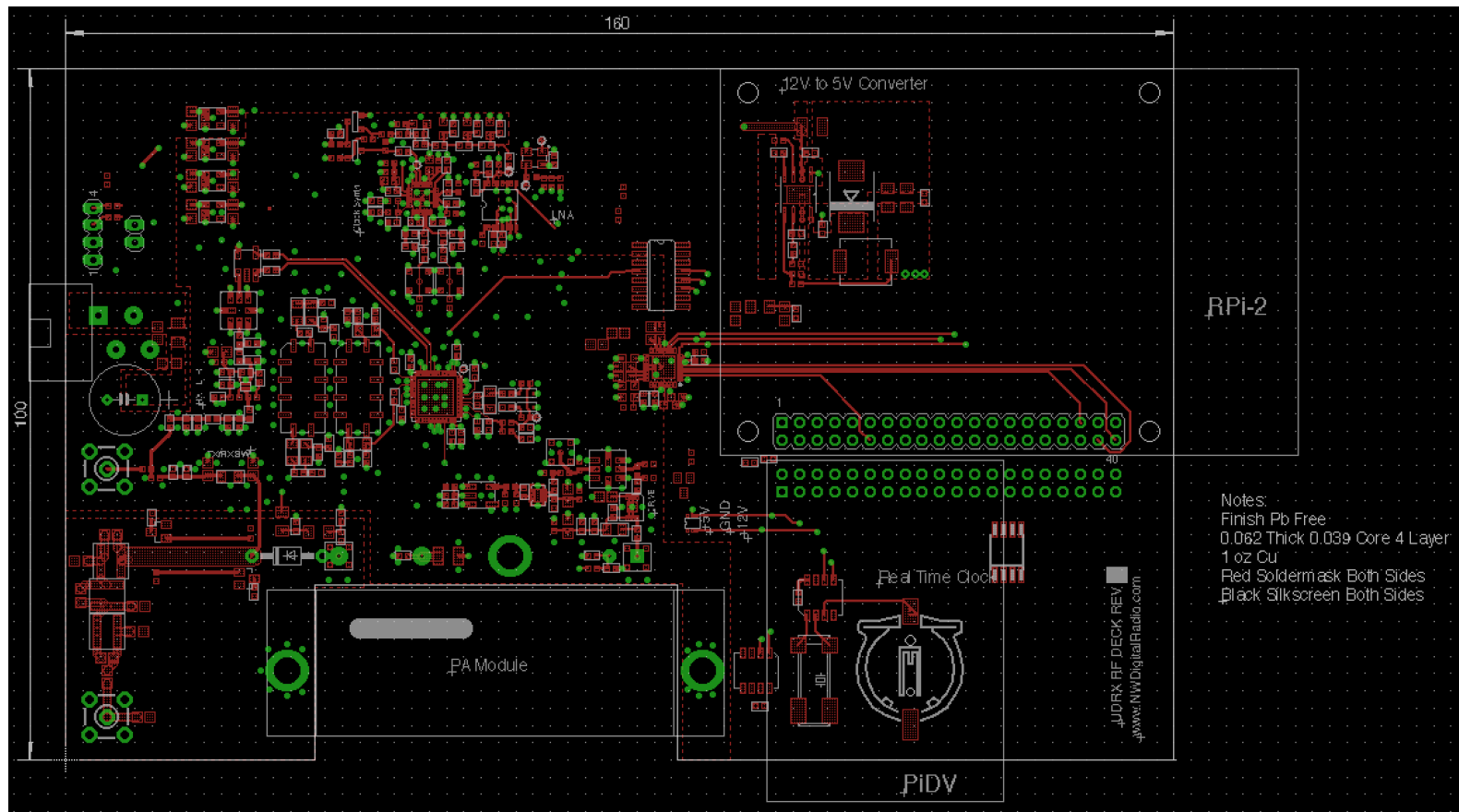
Really?

§
**MISUSE OF
“LITERALLY”
MAKES ME
FIGURATIVELY
INSANE**
★ ★ ★ ★ ★ ★

Where Are We Now

- 25 kHz IF Working 100kHz IF Testing
- GNU Radio Ported
 - Not a supported deliverable
- Pilot Units in Layout
 - Raspberry Pi Integrated
 - Contract Manufacturer Engaged

UDRX-4 Pilot



UDRX and the R-Pi 3?

- Disable Blue Tooth & Wifi
 - Eliminate Potential Interference
 - Maintain Serial Port for PiDV
- CPU
 - Faster
 - Better Floating Point

NWDR Demos

- In the hall
- 9600 APRS
- 4800 D-STAR
- UDRC

UDRC - Universal Digital Radio Controller

- Controller for Yaesu DRX-1
- Raspberry Pi 40 pin Hat
- Adds D-STAR & 1200/9600 Packet Support
 - Controller
 - Audio CODEC
 - 12V to 5V 3amp Buck Regulator

DRI-X Modes

- Old Firmware 1.00m- 1.00t
 - Pick 2
- New Firmware 1.10D (12/2015)
 - Return to Yaesu for Update
 - All modes

Packet?

- Dire Wolf brings 9600 Packet to UDRC
 - DRI-X as Repeater
 - FM Mobile via Mini-DIN 6

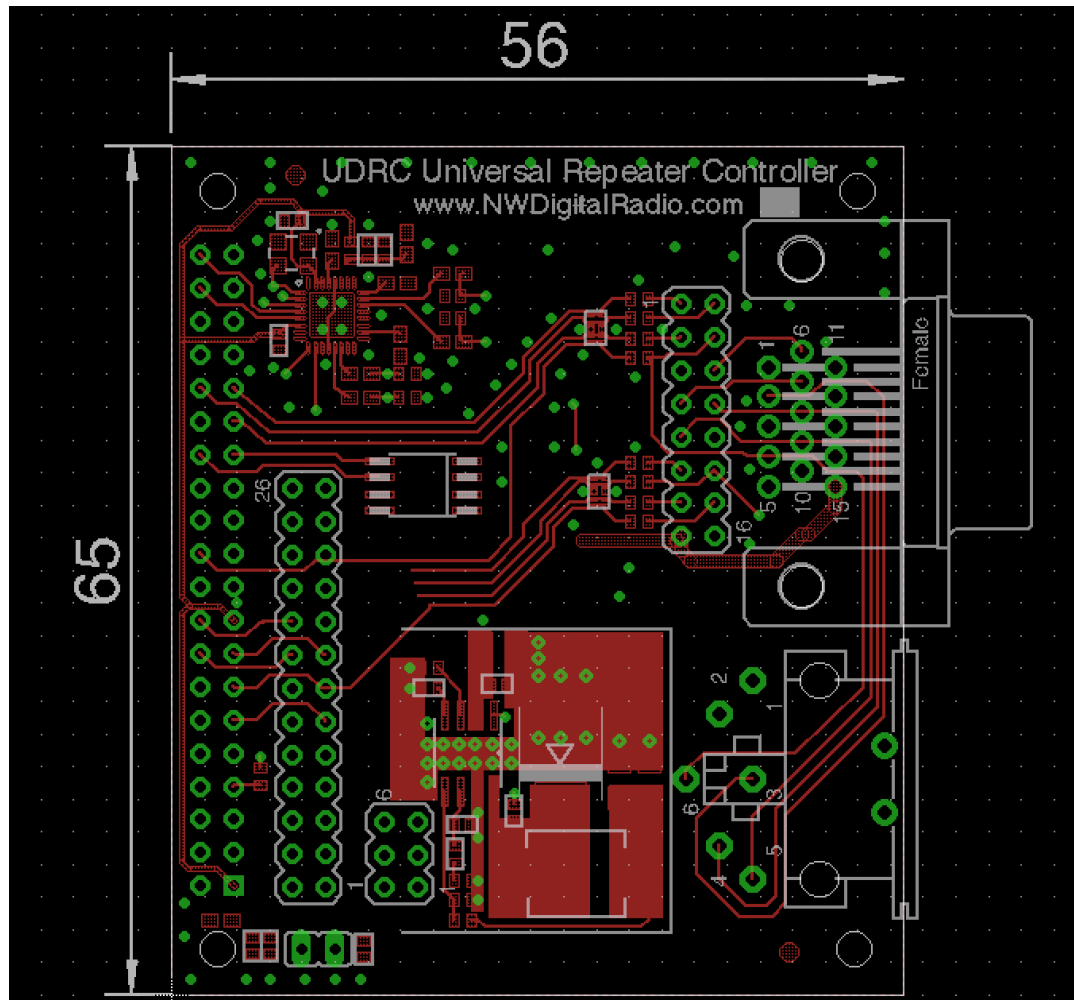
UDRC Price and Delivery

- In pilot now, General Availability by Dayton
- \$89.95 Including Cables
 - HDI5 Male/Male for DRI-X
 - Mini-DIN 6 for Transceiver Data Port
- Pi NOT included- Image/SDCARD available

UDRC Options (Supplied by Others)

- Integrated and Tested in Compass Kernel
 - RTC (Real Time Clock)
 - Touch Display
- Rack Mount Box

UDRC Pilot



Buster

D-STAR on the Mac

PTT Status: Linked to REF001 C

| Time | My | Your | RPT1 | RPT2 | Duration | Message |
|---------------------|-------------|--------|----------|----------|----------|---|
| Mar 19 12:41:43 PDT | K7UDR/THDV | CQCQCQ | K7UDR••D | REF001•C | 0.8s | Bryan MicroHAMS DCC |
| Mar 19 10:01:45 PDT | AD4LC/DON | CQCQCQ | AD4LC••C | REF001•C | 9581.0s | Louisville KY |
| Mar 19 10:01:42 PDT | AD4LC/DON | CQCQCQ | AD4LC••C | REF001•C | 0.2s | Louisville KY |
| Mar 19 10:01:41 PDT | AD4LC/DON | CQCQCQ | AD4LC••C | REF001•C | 1.3s | Louisville KY |
| Mar 19 10:01:31 PDT | VE3DRV/ID51 | CQCQCQ | VA3YC | REF001•C | 5.1s | Dan/Toronto |
| Mar 19 10:00:59 PDT | IU4AAA | CQCQCQ | REF001•C | IR4M0••G | 3.2s | |
| Mar 19 10:00:19 PDT | AD4LC/DON | CQCQCQ | AD4LC••C | REF001•C | 71.0s | Louisville KY |
| Mar 19 09:59:48 PDT | VE3DRV/ID51 | CQCQCQ | VA3YC | REF001•C | 26.4s | Dan/Toronto |
| Mar 19 09:58:33 PDT | AD4LC/DON | CQCQCQ | AD4LC••C | REF001•C | 72.0s | D4ULC |
| Mar 19 09:58:24 PDT | VE3DRV/ID51 | CQCQCQ | VA3YC | REF001•C | 4.1s | |
| Mar 19 09:30:10 PDT | K7UDR/THDV | CQCQCQ | K7UDR••D | REF030•C | 0.7s | Bryan MicroHAMS DCC |
| Mar 19 09:27:07 PDT | KM4SEW/ID51 | CQCQCQ | KK4QXJ•C | REF030•C | 16.3s | RCAay Fayette, AL, United States |
| Mar 19 09:27:02 PDT | KK4GGJ | W2JKD | REF030•C | WA4TCD•G | 1.9s | Jan-ID51 Vero Beach Vero Beach, FL, United States |
| Mar 19 09:26:48 PDT | KM4SEW/ID51 | CQCQCQ | KK4QXJ•C | REF030•C | 9.5s | RCAay Fayette, AL, United States |
| Mar 19 09:26:39 PDT | SV1KWC/5100 | CQCQCQ | SW1I•••B | REF030•C | 1.1s | member club id 014 Chaidari, Athens, Greece |
| Mar 19 09:25:48 PDT | K4MFD/JEFF | KM4JXA | REF030•C | KM4JXA•G | 0.9s | |
| Mar 19 09:25:37 PDT | K4MFD/JEFF | KM4JXA | REF030•C | KM4JXA•G | 0.4s | |
| Mar 19 09:25:24 PDT | KK4VF0 | CQCQCQ | KM4LNN•C | REF030•C | 0.0s | |
| Mar 19 09:25:22 PDT | KK4VF0 | CQCQCQ | REF030•C | K1ATJD•C | 0.0s | |