



Brief overview R928+ FW 2.11.87m1s

Standard Menu:

Default Settings:

| | |
|-------------------------|------------|
| LSB/USB Auto Select | OFF |
| Digital Modes | ON |
| CW Mode | ON |
| AM Mode | ON |
| Sync AM Mode | ON |
| SAM PLL locking range | 500 |
| SAM PLL step response | 65 |
| SAM PLL bandwidth in Hz | 250 |
| SAM Fade leveler | ON |
| FM Mode | ON |
| FM Sub Tone Gen | OFF |
| FM Sub Tone Det | OFF |
| FM Tone Burst | 1750Hz |
| FM Deviation | +5K (Wide) |
| FreeDV Mode | 1600 |
| FreeDV Squelch thresh | -2 |
| AGC WDSP mode | SLOW |
| AGC WDSP slope | 4dB |
| AGC WDSP decay | 200ms |

| | |
|-------------------------|-----------|
| AGC WDSP Threshold | 118dB |
| AGC WDSP Hang enable | OFF |
| AGC WDSP Hang time | 500ms |
| AGC WDSP Hang Threshold | 45dB |
| AGC WDSP Hang decay | 600ms |
| RX Codec Gain | Auto |
| RX/TX Freq Xlate | RX -12kHz |

Configuration Menu:

| | |
|----------------------------|-------------|
| Backup Config | press DEFLT |
| Restore Config | press DEFLT |
| Rst Conf EEPROM | press DEFLT |
| Rst EEPROM&Keep Conf | press DEFLT |
| Band Definition | R1+2+3 |
| Save Out-Of-Band Freq. | ON |
| TX on Out-Of-Band Freq. | ON |
| Menu SW on TX disable | OFF |
| TX Mute Line Out | OFF |
| TX Initial Muting Time | 0ms |
| Max Volume | 20 |
| Line Out Gain | 73 |
| KeyBeep Frequeny | 1000Hz |
| KeyBeep Volume | 14 |
| CAT Running in Sandbox | OFF |
| CAT-DIQ-FREQ-XLAT | OFF |
| PTT via virtual RTS | OFF |
| XVTR-Offs/Mult | OFF |
| XVTR Offset RX | 0Hz |
| XVTR Offs. TX | Save as RX |
| Step Button Swap | OFF |
| Band +/- Button Swap | OFF |
| Band +/- BndCh/Jump Swap | OFF |
| Encoder 1-3 Reverse | OFF |
| Encoder 4 Reverse | OFF |
| Voltmeter Cal. | 100 |
| Low Voltage Threshold | 9.0 V |
| Low Voltage Shutdown | ON |
| Freq. Calibrate | 0.0 ppm |
| Pwr. Det. Null | 100 |
| SWR/PWR Meter FWD/REV Swap | ON |
| I2C1 Bus Speed | 100kHz |
| I2c2 Bus Speed | 100kHz |
| RX IQ Auto Correction | ON |
| RX NB Setting | 10 |
| DSP Notch ConvRate | 10 |
| DSP Notch BufLen | 128 |
| DSP Notch FirNumTap | 64 |
| NR Show gains | OFF |
| DSP NR Strenght | 100 |
| NR beta | 960 |
| NR asnr | 30 |
| NR smooth wd. | 4 |
| NR smooth thr. | 10 |

Display Menu:

| | |
|---------------------------|-----|
| 320X240 Def Wide Spectrum | ON |
| LCD Auto Blank | OFF |

| | |
|------------------------|---------|
| Show Tune Helper | ON |
| Step Size Marker | ON |
| Don't Show BndMem | OFF |
| Clear Panoram on TX | OFF |
| Filter BW Display | Red1 |
| Spectrum Size | Normal |
| Spectrum Filter | 5 |
| Spec Freq Scale Colour | Yelw |
| TX Carrier Colour | Red1 |
| Scope Light | OFF |
| Scope 1/Speed | 5 |
| Scope AGC Adj. | 25 |
| Scope Trace Colour | Gren |
| Scope BW Trace Colour | Gren |
| Scope BW BCKgr Colour | 20% |
| Scope Grid Colour | Grey |
| Scope Div. | 10dB |
| Wfall 1/Speed | 15 |
| Wfall Colours | Rainbow |
| Wfall Step Size | 2 |
| Wfall Contrast | 120 |
| Upper Meter Colour | Whit |
| Lower Meter Colour | Whit |
| Boxes Colour | Blue |
| dBm Display | dBm |
| dBm Calibrate | -2dB |
| Smeter Attack | 50 |
| Smeter Decay | 3 |
| Peak Ind , Timer , sec | 0.75 |
| S-Meter NotLO in AM | OFF |
| TCXO Off/On/Stop | ON |
| TCXO Temp (C/F) | C |
| RTC Start | DO it! |
| RTC Hour | 12 |
| RTC Min | 58 |
| RTC Seconds | 24 |
| RTC Reset | DO it! |
| RTC Calibration | 0ppm |
| Freq display font | Modern |
| Menu Invers Scrolling | OFF |

CW Mode Settings:

| | |
|------------------------|-------|
| CW keyer Mode | STR K |
| CW keyer Speed | 20 |
| CW keyer Weight | 1.00 |
| CW Sidetone Gain | 5 |
| CW Side/Offset Freq | 750Hz |
| CW Paddle Reverse | OFF |
| CW TX -> RX Delay | 150ms |
| CW Freq. Offset | SHIFT |
| CW LSB/USB Select | AUTO |
| CW decoder enable | ON |
| Signal threshold | 32000 |
| Blocksize for Goertzel | 88 |
| Noise cancel | OFF |
| Spike cancel | OFF |
| AGC for decoder | OFF |
| Show CW LED | ON |

| | |
|-----------------------------|-----|
| CW Macro Cycled Interv. sec | 3 |
| CW Beacon Interval , min | 3 |
| CW Fast Macro 1,2 | OFF |

Filter Selection:

| | |
|-----------------------|--------------|
| SSB Filter 1 | 1.4k/BPF |
| SSB Filter 2 | 1.6k/BPF |
| SSB Filter 3 | 2.5k/BPF |
| SSB Filter 4 | 2.9k/BPF |
| CW Filter 1 | 300Hz/500Hz |
| CW Filter 2 | 300Hz/650Hz |
| CW Filter 3 | 300Hz/750Hz |
| CW Filter 4 | 300Hz/800Hz |
| AM/SAM Filter 1 | 1.4k/AM/SAM |
| AM/SAM Filter 2 | 3.8k/AM/SAM |
| AM/SAM Filter 3 | 6.0k/AM/SAM |
| AM/SAM Filter 4 | 10.0k/AM/SAM |
| AM TX Audio Filter | ON |
| SSB TX Audio Filter 2 | eSSB 6K |

PA Configuration:

| | |
|----------------------------|----------|
| Transmit Disable | OFF |
| VSWR Protect.Threshold | 2 |
| Mic Type | Electret |
| Mic Input Gain | 50 |
| Line Input Gain | 3 |
| TX Audio Compress | OFF |
| TX ALC Release Time | 10 |
| TX ALC Input Gain | 4 |
| Tune Power Level | 5W |
| Tune Tone (SSB) | Single |
| CW PA Bias (IF > 0) | 0 |
| Reduce Power on Low Bands | OFF |
| Reduce Power on High Bands | OFF |
| PA Bias | 115 |
| 160m 5w Pwr Adjust | 18 |
| 80m 5w Pwr Adjust | 7 |
| 60m 5w Pwr Adjust | 7 |
| 40m 5w Pwr Adjust | 8 |
| 30m 5w Pwr Adjust | 4 |
| 20m 5w Pwr Adjust | 11 |
| 17m 5w Pwr Adjust | 8 |
| 15m 5w Pwr Adjust | 14 |
| 12m 5w Pwr Adjust | 35 |
| 10m 5w Pwr Adjust | 20 |
| 6m 5w Pwr Adjust | 0 |
| 4m 5w Pwr Adjust | 0 |
| 160m Full Pwr Adjust | 25 |
| 80m Full Pwr Adjust | 5 |
| 60m Full Pwr Adjust | 15 |
| 40m Full Pwr Adjust | 40 |
| 30m Full Pwr Adjust | 30 |
| 20m Full Pwr Adjust | 36 |
| 17m Full Pwr Adjust | 22 |
| 15m Full Pwr Adjust | 19 |
| 12m Full Pwr Adjust | 55 |
| 10m Full Pwr Adjust | 36 |

| | |
|--------------------------|-----|
| 6m Full Pwr Adjust | 0 |
| 4m Full Pwr Adjust | 0 |
| 160m Coupling Adj. | 100 |
| 80m Coupling Adj. | 100 |
| 40m Coupling Adj. | 100 |
| 20m Coupling Adj. | 100 |
| 15m Coupling Adj. | 100 |
| 10m Coupling Adj. | 100 |
| 6m Coupling Adj. | 100 |
| TX IQ Balance (80m) | 3 |
| TX IQ Phase (80m) | -1 |
| TX IQ Balance (20m) | OFF |
| TX IQ Phase (20m) | 40 |
| TX IQ Balance (15m) | OFF |
| TX IQ Phase (15m) | OFF |
| TX IQ Balance (10m) | 10 |
| TX IQ Phase (10m) | 13 |
| TX IQ Balance (10mUp) | OFF |
| TX IQ Phase (10mUp) | OFF |
| TX IQ Balance (6m) | OFF |
| TX IQ Phase (6m) | OFF |
| TX IQ Balance (80m,CW) | 3 |
| TX IQ Phase (80m,CW) | 13 |
| TX IQ Balance (20m,CW) | OFF |
| TX IQ Phase (20m,CW) | OFF |
| TX IQ Balance (15m,CW) | OFF |
| TX IQ Phase (15m,CW) | OFF |
| TX IQ Balance (10m,CW) | 12 |
| TX IQ Phase (10m,CW) | 29 |
| TX IQ Balance (10mUp,CW) | OFF |
| TX IQ Phase (10mUp,CW) | OFF |
| TX IQ Balance (6m,CW) | OFF |
| TX IQ Phase (6m,CW) | OFF |

Touchscreen via Menu:

| | |
|-------------------|--------|
| Dynamic Tune | ON |
| Mic / Line Select | Mic |
| Spectrum Type | SCOPE |
| Spectrum Magnify | x2 |
| Restart Codec | Do it! |
| Digital Mode | FreeDV |

System Info:

| | |
|-----------------|---------------------------|
| Display | HY28B SPI |
| Disp Controller | IL19325 |
| Oscillator | Si5351a |
| SI570 | Not applicable |
| EEPROM | 24xx1026/CM01/128k [used] |
| Touchscreen | XPT2046 |
| CPU | 413h:1007h |
| Flash Size (kB) | 1024 |
| Ram Size (kB) | 192 |
| Firmware | 2.11.87m1s |
| Build | Jun 11 2020 : 07:00:27 |
| Bootloader | 5.0.4 |
| RF BOARD | OV140 RF Board |

| | |
|------------------------|-----------------|
| V/UHF Mod | n/a |
| Audio Codec Presence | Yes |
| Audio Codec Twinpeaks | Done |
| Backup Ram Battery | Yes |
| Real Time Clock | Yes |
| LO_TX Suppression DACs | N/A |
| FW licensed under | GNU GPL v3 |
| HW license | CC BY-NC-SA 3.0 |

Debug/Exper Settings:

| | |
|----------------------------|------------|
| Enable Debug Info Display | OFF |
| Pwr.F/R Display (mW) | OFF |
| CW Shift Keeps Signal | OFF |
| TX Audio via USB | OFF |
| FT817 Clone Transmit | Do it! |
| FT817 Clone Receive | Do it! |
| SI5351A PLL Reset | IQ Divider |
| Trigger Twinpeaks Co | Do it! |
| Smooth dynamic tune | ON |
| CB 27Mc TX Enabled (max4w) | ON |
| CB 26Mc TX Enabled (max4w) | ON |
| CB 12W SSB TX Enabled | ON |
| Cal. LO_TX Suppression C0 | N/A |
| Cal. LO_TX Suppression C1 | N/A |

Hall of Fame:

M0NKA (Chris) mcHF founder
KA7OET (clint) 1st great FW
DF8OE (Andreas)
DL4SAT (Harald)
DB4PLE (Danilo)
DD4WH (Frank)
DL2FW (Michael)
HB9OCQ (Stephan)
(Asbjorn)
YL3AKE (Eriks)
PA7N (Erwin)
UA9OLB (Dmitri)
S53DZ (Bojan)
SP9BSL (Slawek)
HB9GND (Dimce)
MM0MZW (Mike)
UB8JDC (Yuri)
RV9YW (Max)
M0LNG (Martin)
KB3CS (Chris)