## HS2 UF/UHF/VHF

Full Mode SDR Transceiver

- Full Frequency Full Mode


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- Real-time spectrum
- Waterfall illustration
- Doppler frequency tracking
- Double frequency conversion circuit structure
- DSP digital noise reduction
- Built-in Automatic Antenna tuner
- Built-in sound card with IQ and audio output
- USB Type-C 3.1 interfaces
- Power supply reverse connection protection


HF/UHF/VHF Full Mode SDR Transceiver

## Specifications:

## Transmitter Parameter

| Transmitting Architecture | SDR |
| :---: | :---: |
| Transmitting Mode | SSB, CW, RTTY, AM, FM |
| Frequency Resolution | 1Hz |
| Transmitting Frequency Range/MHz | $\begin{aligned} & 1.800 \sim 2.000 ; 3.500 \sim 3.900 ; 5.351 .5 \sim 5.366 .5 ; 7.000 \sim 7.200 \\ & 10.100 \sim 10.150 ; \quad 14.000 \sim 14.350 ; 18.068 \sim 18.168 ; \quad 21 \sim 21.450 \text {; } \\ & 24.890 \sim 24.990 ; \quad 28 \sim 29.7 ; \quad 50 \sim 54 ; \quad 144 \sim 146 ; 430 \sim 440 \end{aligned}$ |
| Output Power | HF+6m: SSB: $1 \mathrm{~W} \sim 20 \mathrm{~W}, \mathrm{CW}: 0.1 \mathrm{~W} \sim 20 \mathrm{~W}$, FM: $0.1 \mathrm{~W} \sim 20 \mathrm{~W}$, AM: $1 \mathrm{~W} \sim 5 \mathrm{~W}$; <br> VHF: SSB/CW/FM: $0.5 \mathrm{~W} \sim 5 \mathrm{~W}$; <br> UHF:SSB/CW/FM: $0.5 \mathrm{~W} \sim 5 \mathrm{~W}$. |
| Power Consumption | TX: 13.8V*6A(20W); <br> RX: $13.8 \mathrm{~V}^{*} 0.35 \mathrm{~A}$ Typical value, 0.45 A (Maximum brightness, audio peak) |
| Carrier Suppression | $\leq 50 \mathrm{~dB}$ |
| Spurious Suppression | $\begin{aligned} & 1.8 \mathrm{MHz} \sim 54 \mathrm{MHz}: \geq 50 \mathrm{~dB} \\ & 144 \mathrm{MHz} \sim 146 \mathrm{MHz}: \geq 60 \mathrm{~dB} \text {; } \\ & 430 \mathrm{MHz} \sim 440 \mathrm{MHz}: \geq 60 \mathrm{~dB} . \end{aligned}$ |
| Number of Channels | 999 (Temporarily unavailable) |
| Receiver Parameter |  |
| Receiving Architecture | SDR |
| Receiving Mode | SSB,CW,RTTY,AM,FM |
| Receiving Frequency Range | $300 \mathrm{kHz} \sim 1.6 \mathrm{GHz}{ }^{*}$ |
| Intermediate Frequency Bandwidth | 20 kHz |
| Intermediate Frequency | ZERO IF |
| Sensitivity | SSB/CW:(BW: 2.4kHz @ 10dB S/N); <br> $0.18 \mu \mathrm{~V}(1.8 \sim 54) \mathrm{MHz} ; 0.25 \mu \mathrm{~V}(144 \sim 146) \mathrm{MHz}$; <br> $0.25 \mu \mathrm{~V}(430 \sim 440) \mathrm{MHz}$; AM:(BW: 6kHz @ 10dB S/N); <br> $15 \mu \mathrm{~V}(0.3 \sim 1.8) \mathrm{MHz} ; 2 \mu \mathrm{~V}(1.8 \sim 54) \mathrm{MHz}$; <br> $2 \mu \mathrm{~V}(144 \sim 146) \mathrm{MHz} ; 2 \mu \mathrm{~V}(430 \sim 440) \mathrm{MHz}$; <br> FM:(BW: $15 \mathrm{kHz} @ 12 \mathrm{~dB} \mathrm{~S} / \mathrm{N}) ; 0.5 \mu \mathrm{~V}(28.0 \sim 29.7) \mathrm{MHz}$; <br> $0.25 \mu \mathrm{~V}(50 \sim 54) \mathrm{MHz} ; 0.3 \mu \mathrm{~V}(144 \sim 500) \mathrm{MHz}$; <br> $0.5 \mu \mathrm{~V}(430 \sim 440) \mathrm{MHz}$ |
| Intermediate Frequency suppression | $\geq 70 \mathrm{~dB}$ |
| Image Suppression | $\geq 80 \mathrm{~dB}$ |
| Audio Output Power | 2W(10\% distortion rate, $4 \Omega$ load, 3 kHz ) |

## Antenna Tuner Parameter

| Tuning Frequency Range | $1.8 \mathrm{MHz} \sim 54 \mathrm{MHz}$ |
| :--- | :--- |
| Tuning Impedance Range | $16.7 \Omega \sim 150 \Omega$ unbalance (standing wave ratio is better than 1:3) |
| Tuning Accuracy | VSWR: $\leq 1: 1.5$ or less |
| Tuning Time | $2 \mathrm{~s} \sim 5 \mathrm{~s}$ (Full Band 10 s ) |
| Tuning Ways | Automatic/Manual |

## Structural Parameter

| Size | $190 \mathrm{~mm} \times 120 \mathrm{~mm} \times 45 \mathrm{~mm}$ (without protrusions) |
| :--- | :--- |
| Weight | $<1.5 \mathrm{~kg}$ |

Note: Ailunce HS2 constantly updates the firmware, the manual is also constantly updated. Please download the latest manual from website. https://www.ailunce.com/Support/HS2/UserManual

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