

# AR-ONE

## Advanced Technology Communications Receiver

### SPECIFICATIONS

|                                     |  |           |           |
|-------------------------------------|--|-----------|-----------|
| Model:                              | AR-ONE   |           |           |
| Configuration:                      | Triple conversion super heterodyne   |           |           |
| Frequency coverage:                 | 10KHz ~ 3.3 GHz (no gap)   |           |           |
| Receive mode:                       | AM, NFM, WFM, USB, LSB, CW   |           |           |
| Sensitivity:                        | NFM/WFM: 12dB SINAD (IF GAIN = 255 (0 - 255))<br>AM/SSB/CW: 10dB S/N (IF GAIN = 100 (0 - 255)) |           |           |
| 20 – 40 KHz                         | CW   | 5uV       |           |
| 40- 100KHz                          | CW   | 2.5uV     |           |
|                                     | AM   | 10uV      |           |
| 100-1000KHz                         | NFM  | 4uV       |           |
|                                     | CW   | 2uV       |           |
|                                     | AM   | 5uV       |           |
| 1-25MHz                             | NFM  | 2.5uV     |           |
|                                     | CW   | 2uV       |           |
|                                     | AM   | 5uV       |           |
| 25-1000HMz                          | NFM  | 0.8uV     |           |
|                                     | WFM  | 1.3uV     |           |
|                                     | CW   | 0.8uV     |           |
|                                     | AM   | 2.3uV     |           |
| 1G-2.5GHz                           | NFM  | 0.8uV     |           |
|                                     | WFM  | 1.3uV     |           |
|                                     | AM   | 1.3uV     |           |
| 2.5G-3.3GHz                         | NFM  | 1.3uV     |           |
|                                     | WFM  | 1.5uV     |           |
|                                     | AM   | 1.5uV     |           |
| IF frequencies:                     | 1st IF : 755 MHz /265 MHz,<br>2nd IF : 10.7 MHz,<br>3rd IF : 455 KHz                           |           |           |
| Frequency steps :                   | Standard steps: 1, 10, 50, 100, 500 Hz, 1, 5, 6.25, 9, 10, 12.5, 20, 25, 30, 50, 100, 500 KHz  |           |           |
| Non standard steps:                 | Less than 1 MHz ( 1 Hz incremental)  |           |           |
| Selectivity:                        | B/W  | - 6 dB    | - 60 dB   |
|                                     | 0.5 KHz  | 0.5 KHz > | < 2 KHz   |
|                                     | 3 KHz  | 3 KHz >   | < 6 KHz   |
|                                     | 6 KHz  | 6 KHz >   | < 20 KHz  |
|                                     | 9 KHz  | 9 KHz >   | < 30 KHz  |
|                                     | 15 KHz   | 15 KHz >  | < 40 KHz  |
|                                     | 30 KHz   | 30 KHz >  | < 70 KHz  |
|                                     | 110 KHz  | 110 KHz > | < 450 KHz |
|                                     | 220 KHz  | 220 KHz > | < 600 KHz |
| 300 KHz                             | 300 KHz >  | < 900 KHz |           |
| Spurious Sensitivity:               | 60 dB >  |           |           |
| Adjacent Selectivity:               | 50 dB >  |           |           |
| Dynamic Range:                      | 90 dB >  |           |           |
| Unwanted Spurious emission:         | < -57 dBm  |           |           |
| Intermodulation:                    | 65dB   |           |           |
| Frequency stability:                | +/- 0.1 ppm (-10 ~ 50 C)   |           |           |
| THD:                                | 20 dB > (< 10 %)   |           |           |
| Audio Output:                       | 1.5 w (at 8 ohms, THD < 10 %)  |           |           |
| Power requirement :                 | 13.5 V DC, < 2 amp. ( @ 1 w audio output)  |           |           |
| Antenna impedance:                  | 50 ohm   |           |           |
| Antenna Connector :                 | N type   |           |           |
| IF output level:                    | -30 dBm (10.7 MHz/455 KHz)<br>at -50 dBm of RF input   |           |           |
| External frequency standard input : | 10 MHz (0 dBm +/- 3 dB)  |           |           |
| Control interface :                 | RS-232C  |           |           |
| Operating temperature:              | -10 ~ 50 degrees ( C ) , +14 ~ 144 degrees ( F )   |           |           |
| Dimensions:                         | 157 (w) x 58 (h) x 270 (d) (mm),<br>6.2 (w) x 2.3 (h) x 10.8 (d) (inch)                        |           |           |
| Weight:                             | Approximately 2.2 Kg (4.9 lbs)   |           |           |



AR-ONE Rear Panel

### Amazing Stability

Accuracy of 0.1 ppm from -10° ~ 50° C (14° ~ 122°)

### Unparalleled Range

Continuous tuning from 10 KHz to 3.3 GHz.

### Connectivity

Control up to 99 AR-ONE units from just one PC. Provisions for external speaker, IF outputs (10.7 MHz or 455 KHz), Frequency standard input (for coherent).

### High Intercept

Greater than +2 dBm (-1 dBm above 2.5 GHz).

### Applications

Surveillance, military, intelligence gathering, media monitoring, transmitter location, technical troubleshooting and more.

### Accessories

120 VAC adapter and instruction manual included (US model)  
230 VAC adapter and instruction manual included (European model)



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*In the USA, AR ONE is only available to authorized users, documentation required.*

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