

# TKR-D710/D810

## DMR

## VHF/UHF DIGITAL REPEATER

### GENERAL FEATURES

- 136 - 174 MHz, 50 - 5 W
- 450 - 520 MHz, 40 - 5 W
- 400 - 470 MHz, 40 - 5 W
- Repeater Operation
- Two-Digit LED Display
- 6 Illuminated Programmable Function Keys
- Programmable AUX I/O's
- RF Power Down Detect
- DTMF Front Panel PF Key Control (Analog Only)
- DTMF AUX Output Control (Analog Only)
- DTMF AUX Input Monitoring (Analog Only)
- Windows® PC Programming
- Flash Firmware Upgrading

### DIGITAL – CONVENTIONAL MODE

- DMR Digital Air Interface
- 12.5 kHz Channels
- Mixed FM / Digital Operation
- Repeater Control Built-in
- 1 Color Code Repeater Control Built-in
- Conventional IP Network\*<sup>1</sup>
- AIS IP console interface\*<sup>1</sup>, \*<sup>2</sup>
- AMBE+2™ VOCODER
- Call Interruption

### FM MODES – GENERAL

- VHF: 25 & 12.5 kHz Channels
- UHF: 25 & 12.5 kHz Channels
- CW ID

### FM CONVENTIONAL MODE

- 16 QT / DQT Repeater Control Built-in
- Hang Timer

\*1: Requires Interface Box KTI-5 installed with the IP Network Software.

\*2: AIS stands for Application Interface Standard, which is a voice/data communications protocol set by the DMR Association.

**KTI-5**  
INTERFACE BOX



## SPECIFICATIONS

|                             |                                | TKR-D710                 | TKR-D810                   |
|-----------------------------|--------------------------------|--------------------------|----------------------------|
| <b>GENERAL</b>              |                                |                          |                            |
| Frequency Range             | Type 1<br>Type 2               | 136-174 MHz<br>-         | 450-520 MHz<br>400-470 MHz |
| Channel Spacing             | Analog<br>Digital              | 25*/12.5 kHz<br>12.5 kHz |                            |
| Current Drain               | Standby<br>Receive<br>Transmit | 0.5 A<br>1.0 A<br>11.0 A |                            |
| TX Power                    | 50 % Duty<br>100 % Duty        | 50 W<br>25 W             | 40 W<br>25 W               |
| Frequency Stability         |                                | ± 1.0 ppm                |                            |
| Operating Voltage           |                                | 13.6 V DC ± 15 %         |                            |
| Operating Temperature Range |                                | -30° C to +60° C         |                            |
| Antenna Impedance           |                                | 50 Ω                     |                            |
| Dimensions<br>(W x H x D)   | Projections not<br>included    | 483 x 88 x 340 mm        |                            |
| Weight (net)                |                                | 9.7 kg                   |                            |

\*25 kHz is not included in the models sold in the USA or US territories.  
Measurements made per CAI measurement procedures (digital) and TIA-603 (analog); specifications are typical.  
Kenwood follows a policy of continuous advancement in development.  
For this reason specifications may be changed without notice.

AMBE+2<sup>®</sup> is a trademark of Digital Voice Systems Inc.  
Windows is a registered trademarks of Microsoft Corporation.

|  |                            | TKR-D710                               | TKR-D810      |
|--|----------------------------|--|---------------|
| <b>RECEIVER</b>  |                            |  |               |
| Sensitivity (Digital)<br>(12.5kHz)                           | 3% BER<br>1% BER           | 0.28 μV<br>-4 dB μV (0.32 μV)          |               |
| Sensitivity<br>(Analog)                                      | 12 dB SINAD<br>20 dB SINAD | 0.28 μV<br>3dB dB μV (0.35 μV)         |               |
| Adjacent Channel Selectivity (Analog)<br>(25 kHz / 12.5 kHz) | **                         | 83 dB / 77 dB                          | 80 dB / 74 dB |
| FM Hum & Noise<br>(Analog)                                   | 25 kHz / 12.5 kHz          | 55 dB / 50 dB                          |               |
| Intermodulation  |                            | 80 dB                                  |               |
| Spurious Response Rejection                                  |                            | 90 dB                                  |               |
| Audio Distortion (Ext. Speaker)                              |                            | Less than 2.5 % at 1000 Hz             |               |
| Audio Output (Ext. Speaker)                                  |                            | 4 W (at 4 Ω, less than 5 % distortion) |               |
| <b>TRANSMITTER</b>   |                            |  |               |
| RF Power Output  |                            | 50-5 W                                 | 40-5 W        |
| Modulation Limiting<br>(Analog)                              | 25 kHz / 12.5 kHz          | ± 5.0 kHz / ± 2.5 kHz                  |               |
| Spurious Emission  |                            | 80 dB                                  |               |
| FM Noise (EIA)<br>(Analog)                                   | 25 kHz / 12.5 kHz          | 55 dB / 50 dB                          |               |
| Modulation Distortion  |                            | Less than 1 % at 1000 Hz               |               |
| Modulation   |                            | 16K0F3E, 11K0F3E, 7K60FXD, 7K60FXE     |               |