



## TKR-D710/D810

VHF/UHF Digital Repeater - Tier II

# DMR

### ► GENERAL FEATURES

- 136 - 174 MHz, 5 - 50 W
- 400 - 470 MHz, 5 - 40 W
- Repeater Operation
- Two-Digit LED Display
- 6 Lighted Programmable Function Keys
- Programmable AUX I/O's
- RF Power Down Detect
- DTMF Front Panel PF Key Control (Analogue Only)
- DTMF AUX Output Control (Analogue Only)
- DTMF AUX Input Monitoring (Analogue 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
- Colour Code Repeater Control
- Conventional IP Network \*1
- AMBE+2™ VOCODER
- AIS IP console interface \*1 \*2
- Call interruption

### ► FM MODES – GENERAL

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

### ► 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 communication protocol set by the DMR Association.



## Main Specifications

		TKR-D710E	TKR-D810E
<b>GENERAL</b>			
<b>Frequency Range</b>		136 - 174 MHz	400 - 470 MHz
<b>Channel Spacing</b>	<b>Analogue</b>		12.5 / 25 kHz
	<b>Digital</b>		12.5 kHz
<b>PLL Channel Step</b>		2.5 / 3.125 kHz	3.125 / 5 kHz
<b>Current Drain</b>	<b>Standby</b>		0.5 A
	<b>Receive</b>		1.0 A
	<b>Transmit</b>		11.0 A
<b>TX Power</b>	<b>50% Duty</b>	50W	40W
	<b>100% Duty</b>	25W	25W
<b>Frequency Stability</b>			± 1.0 ppm
<b>Operating Voltage</b>			13.2 V DC (10.8 - 15.6 V DC)
<b>Operating Temperature Range</b>			-30° C to +60° C
<b>Antenna Impedance</b>			50 Ω
<b>Dimensions (W x H x D) , Projections not included</b>			483 x 88 x 340 mm
<b>Weight (net)</b>			9.7 kg
<b>RECEIVER</b>			
<b>Sensitivity (Digital) (12.5kHz)</b>	<b>5% BER</b>		0.25 μV
	<b>1% BER</b>		-3 dBμV (0.35 μV)
<b>Sensitivity (Analogue)</b>	<b>12dB SINAD</b>		0.28 μV
	<b>20dB SINAD</b>		-3 dBμV (0.35 μV)
<b>Adjacent Channel Selectivity (Analogue) (25 kHz / 12.5kHz)</b>		83 dB / 77 dB	80 dB / 74 dB
<b>FM Hum &amp; Noise (Analogue)</b>	<b>25 kHz / 12.5 kHz</b>		55 dB / 50 dB
<b>Intermodulation</b>			72 dB
<b>Spurious Response Rejection</b>			85 dB
<b>Audio Distortion (Ext. Speaker)</b>			Less than 2.5% at 1000 Hz
<b>Audio Output (Ext. Speaker)</b>			4 W (at 4 Ω, less than 5% distortion)
<b>TRANSMITTER</b>			
<b>RF Power Output</b>		5 W to 50 W	5 W to 40 W
<b>Modulation Limiting (Analogue)</b>	<b>25 kHz / 12.5 kHz</b>		±5.0 kHz / ±2.5 kHz
<b>Spurious Emission</b>			- 36 dBm ≤ 1 GHz, -30 dBm > 1 GHz
<b>FM Noise (EIA) (Analogue)</b>	<b>25 kHz / 12.5 kHz</b>		55 dB / 50 dB
<b>Modulation Distortion</b>			Less than 1% at 1000 Hz
<b>Modulation</b>			16K0F3E, 8K50F3E, 14K0F2D, 7K50F2D, 7K60FXD, 7K60FXE

Analogue measurements made per EN 300 086 and 113.

Digital measurements made per EN 300 113 and EN301 166.

Specifications shown are typical.

Kenwood follows a policy of continuous advancement in development.

For this reason specifications may be changed without notice.

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