



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