



TKR-D710/810

VHF/UHF DIGITAL REPEATER

DMR Tier 2

Kenwood Launches DMR Tier 2 Repeater



DMR Tier 2 compatible repeater, which combines conventional FM analogue and conventional DMR, also supporting mixed mode operation.

Notice:

- TKR-D710/D810 currently supports repeater operation only
- IP remote protocol (KTI-3/KAS-10) - Future enhancement

Model	Type	Frequency	RF PWR	MAX Ch	MP	Launch	Main Market
TKR-D710	E	136-174	5-50 W	30 Ch	May 2014	May 2014	EU, UK EXP, (Russia, S. Africa, Turkey)
TKR-D810	E	400-470	5-40 W				
KPG-174D	M	N/A					

GENERAL FEATURES

- 136 - 174 MHz, 5 - 50 W
- 400 - 470 MHz, 5 - 40 W
- Repeater Operation
- Two-Digit LED Display
- 6 Backlit 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 Tier 2 Digital Air Interface Compatible
- 12.5 kHz Channels
- Mixed FM / Digital Operation
- Repeater Control Built-in
- Colour Code Repeater Control
- Conventional IP Network (Future Update)
- Console Interface (Future Update)
- AMBE+2™ VOCODER (Future Update)

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

All Specifications May Vary When Available

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)	5% BER		0.25 µV
(12.5kHz)	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)		83 dB / 77 dB	80 dB / 74 dB
(25 kHz / 12.5kHz)			
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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