

# DMR

# TKR-D710/D810

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\*1
- AIS IP console interface\*1, \*2
- 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



## Main Specifications

GENERAL		TKR-D710	TKR-D810
<b>Frequency Range</b>	Type 1 Type 2	136-174 MHz -	450-520 MHz 400-470 MHz
<b>Channel Spacing</b>	Analog Digital	25* / 12.5 kHz 12.5 kHz	
<b>Current Drain</b>	Standby Receive Transmit	0.5 A 1.0 A 11.0A	
<b>TX Power</b>	50% Duty 100% Duty	50 W 25 W	40W 25 W
<b>Frequency Stability</b>		± 1.0 ppm	
<b>Operating Voltage</b>		13.6 V DC ± 15%	
<b>Operating Temperature Range</b>		-22° F to +140° F (-30° C to +60° C)	
<b>Antenna Impedance</b>		50 Ω	
<b>Dimensions (W x H x D)</b>	Projections not included	19 x 3 1/2 x 13 1/3 in (483 x 88 x 340 mm)	
<b>Weight (net)</b>		21.4 lb (9.7 kg)	
<b>FCC ID</b>	Type 1 Type 2	K44422300 -	K44452500 K44452501
<b>IC Certification</b>	Type 1 Type 2	282F-422300 -	- 282F-452501

  

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

\*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.  
 Due to advancements in technology, specifications are subject to change without notice.

AMBE+2™ is a trademark of Digital Voice Systems Inc.  
 Windows® is a registered trademarks of Microsoft Corporation.