KENWOOD

DJ0QRO-13

1.23mm   25°C   180°   11km/h   1011hPa   55%

DG2QRA   APRS12 STATION LIST
1: DJ0QRO-13   15:14   WEATHER
2: DF0TK-9   14:55   TM-D710
3: DH2QRH   13:32   FIXED
4: DH3QRV-14   13:05   TM-D710
5: DF3QRS-7   12:47   TH-D72

DH2QRH   MESSAGE
TO: DF0TK-14
▶I will leave home soon.

DF0TK-9   +045°
143km
N 50°12.16′
E 008°44.54′

DH3QRV-14   +090°
90.0km
N 50°37.05′
E 006°48.18′

GPS for precision
APRS for fun

Communicate, navigate, enjoy. In real time

DATA GPS
X.25 PROTOCOL

KENWOOD   FM DUAL BANDER TM-D710G

B01 APRS12   12:00   BCON iGPS
▶ 2:DF0TK-9   14:55   11/30
TM-D710
N 50°12.16′
E 008°44.54′   JO40IE
BACK F MSG ← → PATH CLR   +045°
143km

Built-in
GPS & APRS
144/430MHz FM DUAL BANDER
TM-D710GE
Output:50W

Standard compatibility with GPS, APRS, and EchoLink Sysop Mode.
A new operating style for amateur band VHF/UHF transceivers.

Equipped with GPS unit. Bringing smart APRS operation closer

The GPS unit required for mobile station APRS operation is included in the control panel. Genuine APRS operation is possible with the TM-D710GE alone. GPS Logger, Mark Waypoint, Target Point, and automatic time correction functions are also included, widening horizons for operation using GPS.

GPS Satellite information

● GPS Logger Function

A maximum of 5,000 points of positional information can be stored in the internal memory. Storage timing can be set according to time interval, movement distance or beacon transmission points (e.g. roughly 14 hours' worth of records is possible when set for a 10-second time interval). GPS log information can also be converted to the Google Earth TM map service-compliant kml file format using the MCP-6A memory control program.

Log memory

● A maximum of 100 records possible with Mark Waypoint

Positional information on your current location (latitude, longitude and altitude, time, name, icon) can be recorded with one touch. Name and icon information can also be edited in the Mark Waypoint list.

Mark Waypoint

● Target Point function

The distance and direction to your target locations (maximum of 5 presets possible) are displayed in real time. Directional display can be switched between North Up and the easily understood Heading Up display with one touch.

Target Point display (North Up)

Target Point display (Heading Up)

● Grid Square Locator Display Function

The Grid Square Locator for your own station can be displayed.

● Automatic time adjustment

On-board clocks required for all operations are adjusted automatically using GPS.

Easy packet transmission with TNC

The device comes equipped with an AX.25 standard TNC (Terminal Node Controller), enabling genuine, stand-alone APRS operation. Connection to a PC also enables 1200/9600 bps packet communication and IGate terminal operation.

APRS standard. Extensive menus enable

A program compatible with the APRS system has been de the developer of APRS. By making use of this program and without a PC. Messages can also be exchanged to share p

● Station list

A maximum of 100 stations such as mobile, base, weather and object stations can be maintained, and receive stations can be limited by type using the filter function. Sorting according to call-sign, receive time, and distance from own station (stations within 1km are displayed in 10m units) is also possible.

Call-sign order display

Sort settings display

● Positional information

Latitude, longitude, altitude and speed/direction can be shared, and the distance from your station can be displayed using received station information.

Positional information display

● Message function

Messages can be sent and received between APRS-operating stations. In addition to keyboard input using the included microphone, easy mobile operation has been pursued with the inclusion of automatic reply and set-message functions.

Message display

Catch a variety of information in real time with APRS

Easy settings make IGate and EchoLink node terminal operation possible

genuine operation

...veloped with the cooperation of Bob Bruninga (WB4APR), ...d the GPS unit, various APRS operations are possible even ...ositional, direction/distance and weather information.

*An external GPS unit can also be used.

A special call function also lets you know the instant you receive a message from a dedicated station.

● Weather information

Weather information can be received to display wind direction/ speed, temperature, rainfall, humidity and atmospheric pressure. Easy operation of weather stations can also be enjoyed after connection (certain devices only) to Peet Bros. or Davis weather observation devices.

Weather information display

● Stand-alone Digipeater function

The TM-D710GE can operate as a stand-alone digipeater station. Temporary relay stations can be configured in a variety of outdoor situations, enabling support for data transmission from locations such as basins surrounded by mountains.

● QSY function

TM-D710GE voice channels can be set with one touch using information such as frequency, tone and shift buried in beacons from APRS stations, enabling speedy QSY.

● SmartBeaconing

SmartBeaconing is a function that efficiently sends a beacon concerning the positional information of your station based on speed and direction data. The transmission interval can be changed depending on your speed, and beacons are sent when direction changes are detected, so a close approximation of your actual route can be recorded with a minimum of beacon transmissions.

● APRS lock function

Prevents errors during APRS operation.

KENWOOD SKYCOMMAND SYSTEM II+

You can use the TM-D710GE for remote control of KENWOOD HF transceivers, enabling the enjoyment of HF access even while making a quick trip to the local store. The HF band frequency is displayed, making operation easy.


KENWOOD SKY COMMAND SYSTEM II uses a pair of TH-D72E/ TM-D710GE transceivers.
*The TS-2000 series doesn't require a transporter.

Operate node terminals with EchoLink Sysop mode function

You can easily set up an EchoLink node terminal by connecting the TM-D710GE to a PC with EchoLink software installed on it*1. Simultaneous operation as an IGate terminal and/or digipeater is also possible while functioning as an EchoLink node terminal*2.
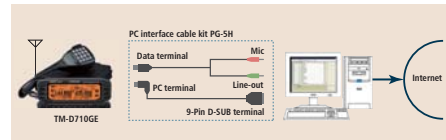
*1: Connection requires the optional PG-5H
*2: When connecting the internal TNC to a PC for packet mode, a serial transmission cable (PG-5G) is required in addition to the PG-5H used for EchoLink Sysop mode.

EchoLink memory – simple access to node terminals

A maximum of 10 EchoLink-dedicated DTMF memories can store call-signs, node numbers and control commands. EchoLink memory management is also possible with the MCP-6A.

Improved operation with large separate panel

The large separate panel has an emphasis on operability and freedom of installation, and the functions of each key are displayed on a liquid-crystal display, enabling prompt access to a variety of functions. The large frequency display uses a full dot-matrix liquid-crystal display, and the LCD backlight colour can be selected from 2 colours. Two different stands are included: one each for in-vehicle (panel-angle) and table-top (base-stand) installation.

Amber   Green

Dual wave receive on same band (VxV, UxU)

In addition to simultaneous receive on both VHF and UHF bands, the device can receive two frequencies on the very same band.

Memory control program compatible (MCP-6A)

By using the MCP-6A memory control program*1, data creation, editing and management for memory channels, APRS, all EchoLink function settings, and custom start-up screens are possible on a PC*2. ARRL TravelPlus information can also be import to the TM-D710GE. There is a PC connection port on the back of the main body and on the rear of the panel, so you can choose the one that is the fit for your operation style.

*1: The MCP-6A program is now available as a free download on the Kenwood website.
*2: Connection to a PC requires the optional PG-5G or PG-5H.

Voice guidance and storage compatibility with VGS-1 (optional)

By installing this option, key operations can be confirmed via voice announcements (APRS menus can be read out). Voice messages and 30 seconds of continuous recording are also possible.

144/430MHz FM DUAL BANDER
TM-D710GE
Output:50W

Other Features

●Wideband receive coverage:118-524MHz, 800-1300MHz ●High power output(50W) ●1,000 multifunction memory channels ●Multiple scan＆visual scan ●MC-59 16-Key hand microphone with backlighting ●Programmable memory capable of storing 5 independent operating profiles ●DCS (Digital Code Squelch) with 104 selectable codes ●Separate VOL/SQL for A＆B bands ●Packet monitor ●DX cluster ●Waypoint data output ●Clock (date/time) ●6-pin Mini-DIN socket for external TNC ●8-pin Mini-DIN socket for PC connection x2 (optional programming cable PG-5G or PG-5H required for PC connection) ●Programmable function keys ●Band mask ●Call channel ●S-meter Squelch include hang up time setting ●Monitor function ●Mute ●Auto Power Off ●MHz mode ●Selectable frequency step ●Shift function ●Repeater offset (selectable) ●Reverse ●Auto repeater offset ●Automatic simplex checker ●DTMF memory (10channels,16digits) ●Time Out Timer ●Key lock ●Power-on password ●Memory shift ●Programmable VFO ●Beep ON/OFF, volume control ●Mic. Program function ●Channel display mode ●Custom start up ●Power-on message ●LCD brightness control, auto brightness ●Switch to external speaker ●Reset (VFO, PART, PM, FULL)

Optional Accessories

MC-59
16-Key Hand Microphone

SP-50B
External Speaker

VGS-1
Voice Guide & Storage Unit

PB-3B
DC Line Noise Filter

PG-2N
DC-Power Cable

PG-5A
Data Connector Cable (mobiles)

PG-5F
Extension Cable Kit (4m)

PG-5G
Programming Interface Cable

PG-5H
PC Interface Cable
*For EchoLink node terminal operation.

MJ-88
Microphone Plug Adapter

PS-60
DC Power Supply

MCP-6A
Memory Control Program
*free software

*The MCP-6A program is now available as a free download on the Kenwood website.

[Accessories]

●Microphone ●DC power cable ●Cable with a 2.5mm (1/10") 3-conductor plug (for GPS) ●Modular plug cable (for PANEL) ●Line filter ●Microphone hanger ●Mounting bracket ●Panel holder ●Panel bracket ●Base stand ●Screw set ●Instruction manual (English / Spanish & French) ●Warranty Card

Not all accessories are available in all markets. For availability, contact your nearest dealer.

TM-D701GE Specifications

GENERAL

Frequency Range

	TX	RX	
Band A & B	Band A		Band B
144〜148MHz	118〜524MHz		136〜524MHz
430〜440MHz			800〜1300MHz

Mode	F1D,F2D,F3E
Antenna Impedance	50Ω
Power Requirement	DC13.8V±15%
Operating Temperature Range	-20℃〜+60℃
Frequency Stability	Within ±5ppm(-10℃〜+50℃)

Transmit

	VHF	UHF
HI	Less than 13.0A	Less than 13.0A
MID	Less than 5.5A	Less than 6.5A
LOW	Less than 4.0A	Less than 5.0A

Current Drain Receive

Less than 1.2A (at 2W audio output)	

Dimensions (W x H x D)

Without Protrusions	panel	155 x 70 x 38 mm
	body	140 x 43 x 142 mm
With Protrusions	panel	156 x 71 x 56 mm
	body	140 x 44 x 158 mm
Weight (approx.)		Panel 0.3 kg Body 1.2 kg

TRANSMITTER

RF Output Power

	VHF	UHF
HI	50W	50W
MID	Approx. 10W	Approx. 10W
LOW	Approx. 5W	Approx. 5W

Modulation	Reactance Modulation
Maximum Frequency Deviation	Within ±5kHz
Spurious Radiation	Less than -60dB
Modulation Distortion (300Hz〜3kHz)	Less than 3%
Microphone Impedance	600Ω

RECEIVER

Circuitry	Double Super Heterodyne

Intermediate Frequency

	1st IF	2nd IF
A Band	45.05MHz	455kHz
B Band	49.95MHz	450kHz

Sensitivity (VHF/UHF)	Less than 0.16μv
Squelch Sensitivity (VHF/UHF)	Less than 0.1μv

Selectivity

-6dB	-50dB
More than 11kHz	Less than 30kHz

Audio Output (8Ω)	More than 2W (at 5% distortion)

■ Typical Sensitivity (excluding VHF / UHF Amateur Band)

	Band A		Band B
	FM:12dB SINAD	AM:10dB S/N	FM: 12dB SINAD
118〜135.995MHz	0.32μV	0.40μV	–
136〜173.995MHz	0.32μV	0.40μV	0.32μV
174〜229.995MHz	0.40μV	0.50μV	0.40μV
230〜299.995MHz	5.6μV	5.6μV	5.6μV
300〜349.995MHz	1.0μV	1.0μV	1.0μV
350〜399.995MHz	0.56μV	0.56μV	0.56μV
400〜499.995MHz	0.28μV	0.36μV	0.28μV
500〜523.995MHz	0.56μV	0.71μV	0.56μV
800〜1239.99MHz	-	-	7.08μV
1240〜1299.99MHz	-	-	2.24μV

*Alterations may be made without notice to improve the ratings or the design of the device.

*The photographic and printing processes may cause the coloration of the device to appear different from that of the actual device.

*Google Earth is a registered trademark of Google Inc.

*APRS is a registered U.S.A. trademark of Bob Bruninga.

*EchoLink is a registered U.S.A. trademark of Synergenics, LLC.

*SmartBeaconing is supplied by Ham HUD Nichetroni.

*KENWOOD SKY COMMAND SYSTEM is a registered trademark of JVC KENWOOD Corporation in the U.S.