

KENWOOD

TS-570D(G) : TS-570S(G)

HF Transceiver : HF+6m Transceiver

Advanced Technology
Upgrade



Advanced Digital Technology for Everyone

Affordable DSP without Compromise

Kenwood has brought the best of HF DSP technology out of the clouds and into the hands of everyone with the new TS-570D(G) and TS-570S(G) (HF+6m). The G series represents the latest advancements in HF radio design from Kenwood, and is even available as an upgrade to pre-existing TS-570 units.



EASY OPERATION

Kenwood's TS-570D/S(G) with Advanced Technology Upgrade

- 16-bit AF-stage DSP delivers superb audio quality on both transmit and receive
- Adjustable transmit sound quality and NR1 Noise Reduction System
- Digital filtering with 3 new CW DSP filters give you the edge when conditions are tough
- Compact enough for mobiling, yet large enough to build a station around
- Compatible with the Kenwood Sky Command System, offering the convenience of handheld remote control.

High-end radio technology doesn't mean a high-end budget anymore — Kenwood delivers it today with the all-new TS-570D(G) and TS-570S(G) (HF+6m). With 16-bit DSP technology, untouchable digital filtering, heavy-duty transmitter design, a Central Frequency Control System for near-perfect stability, and a large LCD display section coupled with an ergonomically-optimized human interface, the TS-570D/S(G) provides a clean and powerful operating experience. All of this wrapped up in a compact and efficient package makes the TS-570D/S(G) the perfect choice for home or mobiling in your car, RV or boat.

AF-stage Digital Signal Processing

Interference Reduction

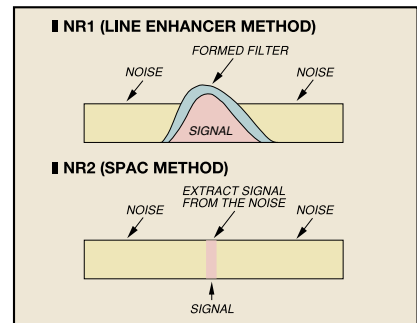
AF-stage digital signal processing provides extensive control over received signals by identifying and filtering interference using digital algorithms. This results in interference reduction capabilities simply not attainable with analog designs. In addition, the new NR1 system is operator-adjustable in 9-step increments, or it can be assigned to track input signal strength automatically. Both the NR1 and NR2 settings now track when changing mode groups (eg. SSB/AM/FM to CW/FSK). The new Dual Selectable Beat



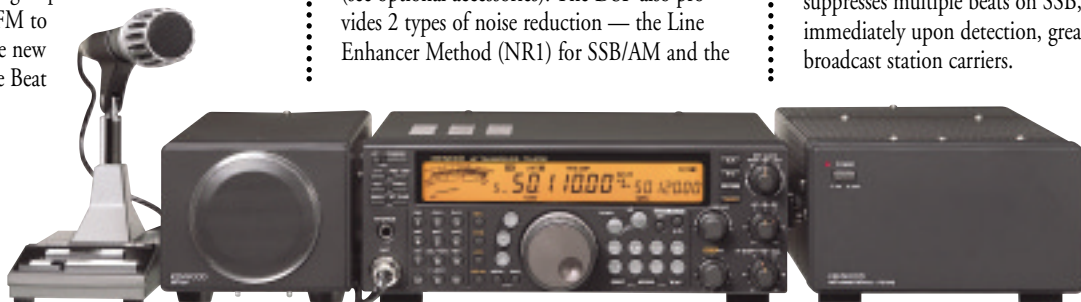
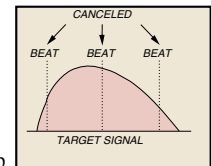
Cancel (BC) function also works against intermittent beat interference (except in CW mode).

In SSB/AM/FM modes you can select a Hi/Low cut DSP slope tune using up to 441 possible combinations. In CW and FSK, the DSP acts as a VBT (Variable Band Tuning) that alters passband width, for rejection of nearby signals. The super-narrow CW filter (50 Hz) enables effective filtering even during very crowded conditions, with its center frequency tied to the pitch frequency so they track together. The G model also incorporates 3 new CW DSP filters: 80 Hz, 150 Hz, 500 Hz, for a total of 11 user-selectable filters. You can now also use the "One-touch" DSP filter wide mode to instantly check band conditions when operating in narrow mode.

When used in conjunction with the equalizer, the CW filter reduces ringing to almost undetectable levels. There are also 3 optional filters that can be easily installed (one at a time) to acquire various IF filter bandwidth selections (see optional accessories). The DSP also provides 2 types of noise reduction — the Line Enhancer Method (NR1) for SSB/AM and the



SPAC (Speech Processing by Auto Correlation) Method (NR2) for CW. The Line Enhancer Method automatically forms a filter shape around the target signal for a custom, dynamic noise reduction capability. In conditions where weak CW signals are buried deep in the noise, the SPAC Method has the ability to pull them out with either the 20 milli-second or 7.5 milli-second correlation time settings. In addition, the DSP Beat Cancel function suppresses multiple beats on SSB, FM and AM immediately upon detection, great for 40-meter broadcast station carriers.



On 6m too!

- ✓ DSP
- ✓ 100 watts
- ✓ Preset Auto Antenna Tuner

Operator-Oriented Engineering Provides You with the Highest Levels of Performance.

TX Audio Shaping

You have 3 ways of tailoring your transmit audio with DSP: Voice Equalizer, Transmit Equalizer and Speech Processor functions, plus you can use the new 9-step TX sound quality monitor volume for precision control. On SSB and AM you can choose between 2 types of Voice Equalizer transmit frequency response settings according to your microphone and operating requirements. The Transmit Equalizer offers 4 frequency response settings on SSB, FM and AM: high boost for improved clarity, bass boost for stronger sound, formant pass to minimize extraneous sounds, and conventional mode for an 'analog' sound. The Speech Processor works across three bands (SSB, FM and AM) for high compression and minimal distortion. By combining the Speech Processor gain settings with the Transmit Equalizer, you are able to shape your voice for virtually any application, plus it is now available for RX as well, complete with its own independent settings.

CW Auto Tune — a World first

Now you no longer have to adjust the VFO while operating on CW — the CW Auto Tune function does it for you automatically by adjusting the VFO to your preset pitch at the touch of a button. In the

new G models the CW auto tune mode links only with the RIT frequency without changing the transmit frequency so incoming traffic can be tracked even if it is slightly off frequency.



Operator-Engineered Features

The TS-570D/S(G) represents the latest advancements in the human-machine interface as applied to radio transceiver design. Kenwood engineers have achieved a fine balance between size, features, display, controls and performance to deliver a transceiver that will give you outstanding results regardless of your operating style or location.

New Menu and User Features

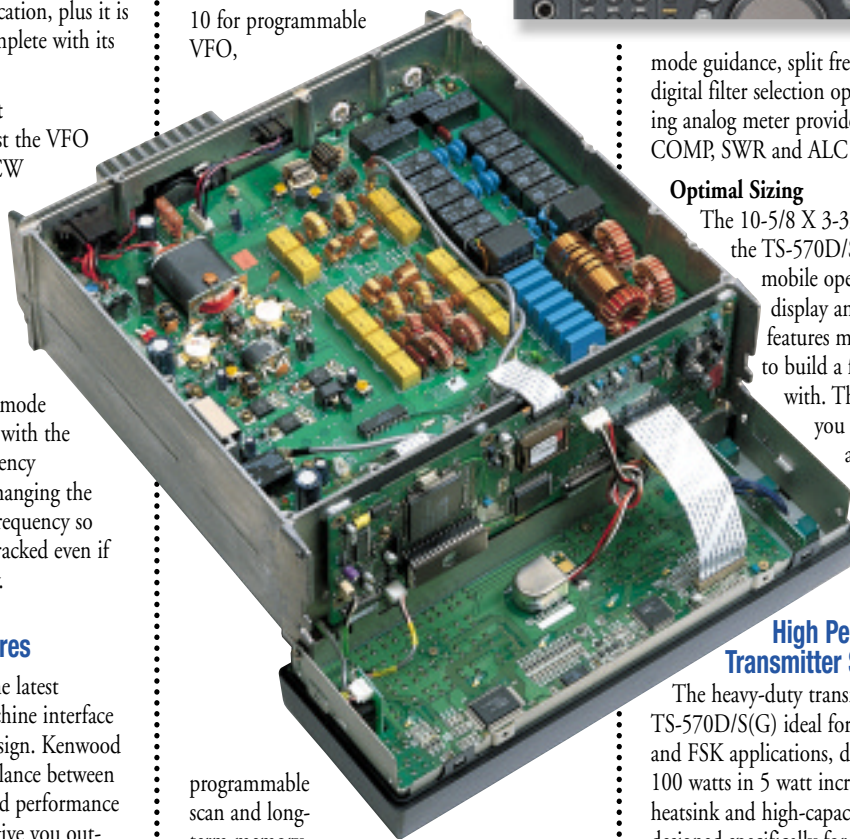
There are 46 types of menu features to assist both the novice and expert operator. The On-line Guide feature provides information on a scrolling sub-display so you won't need to refer to the manual, the click encoder and entry keys



provide a positive tactile feedback, frequencies can be directly entered on the 10-key pad, and radio controls can be customized by assigning specific menus, features, or panel switches to the Programmable Function (PF) key. And of course, Kenwood's Fine mode allows 1 Hz steps on the VFO dial for precise manual tuning.

Extensive Memory Functions

You have a bank of 100 memories available, with 90 assignable for standard memories and 10 for programmable VFO,



programmable scan and long-term memory functions. The scroll function lets you browse memory contents, memory channel copy sends the contents of one channel to another, lock-out memory changes the scan map to exclude certain channels, and memory shift alters the frequency stored in a channel. In addition, there are 5 'quick' memories to capture a current operation 'on-the-fly', available in SSB, CW, FM, AM and FSK modes — ideal for contest operation.

Scanning

The TS-570D/S(G) has a wealth of scanning capabilities including variable speed with time-based or carrier-based resume modes, channel scan, group channel scan, all except locked out channels, or it can be programmed to scan a frequency range between two channels. The scan-hold function stops the scanning for 5 seconds.

Large LCD

The amber-colored backlight LCD frequency display is large, with a 4-stage dimmer, and is laid out in a clear and informative manner. The 7-digit alphanumeric sub-display provides menu



mode guidance, split frequency display and digital filter selection options. The accompanying analog meter provides S-readings, PWR, COMP, SWR and ALC information.

Optimal Sizing

The 10-5/8 X 3-3/4 inch panel size make the TS-570D/S(G) suitable for any mobile operation, yet its large display and sophisticated user features make it a perfect candidate to build a first-class base station with. This versatility means that you only need one radio for all your home and field operations.

High Performance Transmitter Section

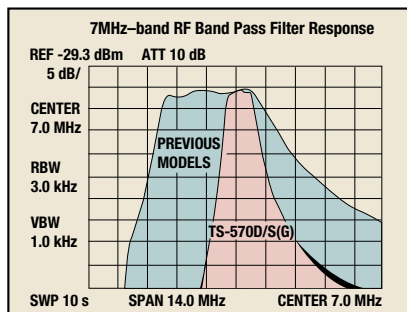
The heavy-duty transmitter makes the TS-570D/S(G) ideal for contesting, mobiling and FSK applications, delivering between 5 and 100 watts in 5 watt increments. The large heatsink and high-capacity cooling fan system designed specifically for this model enables continuous operation under a wide range of environmental conditions.

High frequency stability is achieved with a one-point frequency control system that uses a single crystal to control all internal oscillating frequencies (except in FM mode). Stability can even be raised to a pro-grade +/- 0.5 PPM (within 7 Hz on the 14 MHz band) with the optional SO-2 TCXO.

The Feature Packed TS-570D(G)/TS-570S(G) is the Perfect Choice for Any and All Requirements.

Hot Receiver Section

The wide-band receiver covers from 500 kHz through 30 MHz continuously with high selectivity and sensitivity. The two built-in pre-amps



(one each for high band and low band) allow you to select better sensitivity or higher IMD performance, and the dedicated 7 MHz and 14 MHz bandpass filters deliver improved SW intermodulation rejection.

During split-frequency operations you can receive your transmit frequency with a touch of the TF-Set button. The transmit frequency can be changed, even if the receive frequency is locked, as long as the button is held.

Other receiver section features include IF Shift, Noise Blanker to eliminate pulse type noise, AGC, All-Mode Squelch and RF Gain.

CW Features

In addition to the CW Auto Tune function, the TS-570D/S(G) has a host of CW features often found only on larger-class models. The full/semi break-in switching and delay time settings are fully adjustable. In semi break-in the delay time between key release and active receive mode can be set for between 50 milli-seconds and 1000 milli-seconds. When using VOX operation the delay time can be set for between 150 milli-seconds and 3000 milli-seconds. Other features include CW side tone monitor and volume setting, CW reverse mode and a 3 channel CW message memory.

Built-in Keyer

The full-featured electronic keyer provides solid and reliable keying at any speed with dual key inputs on the back — one for a paddle and one for a key. You can choose between the new Manual Weight feature where the relative length of dots and dashes can be altered in 16 steps between 1:2.5 and 1:4.0, or two types of Auto-Weight — one that adjusts to the keying speed automatically and one that works on a fixed weight percentage. The Weight Reverse function lessens the weight as the keying speed increases, allowing for easier switching between keying hands. And during CW message playback, the paddle input can be prioritized with the Insert Keying Settings function.

Packet & FSK

The packet filter bandwidth and AF input/output levels are fully selectable. You can adjust the ACC2 (PKD) input/output and ANO output levels.

FSK features include selectable shift frequencies between 170, 200, 425 and 850 Hz. The KEY polarity and Hi/Low tones are switchable to match your RTTY device (TU, MCP). The FSK reverse function lets you match transmission methods to the other party if necessary, for example changing the BFO frequency from LSB (normal) to USB (reverse).

FM Features (Built-in)

The TS-570D/S(G) has built-in CTCSS functionality with 38 sub-tones settings plus a 1750 Hz tone and switchable Narrow/Wide deviation modes. The sub-tone can be set for burst or continuous, depending on the input requirements of the target repeater system, and can be assigned to any of the first 90 memory channels. FM is not necessarily included in all models.

Other Features

Automatic Antenna Tuner

The built-in Automatic Antenna Tuner is preset for immediate matching at 18 points between the 1.8 and 28 MHz Amateur bands. And dual antenna connectors on the TS-570D(G) are an added convenience. (The TS-570S(G) has one connector each for HF and 6m.)

VS-3

The VS-3 option provides a synthesized voice output to aid visually-impaired operators or as an added measure of convenience and safety for mobile operators.

PC Control Option

You can integrate your TS-570 Series with a PC via a 9-pin D-SUB and RS-232C interface. The RCP-2 Radio Control Program also allows the HF operator to set-up and program multiple radios, and save the configuration data to disk.

DRU-3A

The DRU-3A Digital Recording Unit is an available option that enhances contesting or general operation.

Data Transfer

Memory settings can be transferred between radios using the copy mode.

VOX Circuit

In SSB, FM and AM modes the transmitter can be activated by voice, with a fully selectable delay time and gain.

Linear Amplifier Control

An external Linear Amplifier can be controlled via the menu and the remote jack control relay.

Advanced Technology Upgrade is available in new production models and for pre-existing TS-570D/S; contact your dealer for details.



Download free RCP-2 control software from the Internet!

INTERNET <http://www.kenwood.net>

Kenwood Sky Command System

Innovative concept allows the HF operator freedom to walk and talk with handheld remote control

The Kenwood Sky Command System (KSS) effectively puts an HF transceiver in your hand, allowing you to relax in your lounge or backyard while controlling the TS-570D/S(G) in your shack. Or you could be sitting at a baseball game while operating the HF transceiver safely installed in your car. And the new Sky Command II adds the convenience of LCD confirmation of HF frequency.

It's not just freedom you'll enjoy: KSS is simple and intuitive, yet amazingly powerful. Once the Transporter (TH-79AKSS or TH-D7A)* has been wired to your TS-570D/S(G) HF transceiver, all you need to carry is the second handheld (the Commander). The Commander transmits control signals to the Transporter, which also relays your voice to the HF radio. In return, HF signals are transmitted back to the Commander. This system allows you to transmit and receive HF signals, set frequencies, switch memory channels, and much more — all from your handheld transceiver.

* Sky Command requires two TH-79AKSS units, while Sky Command II uses a pair of TH-D7A transceivers.

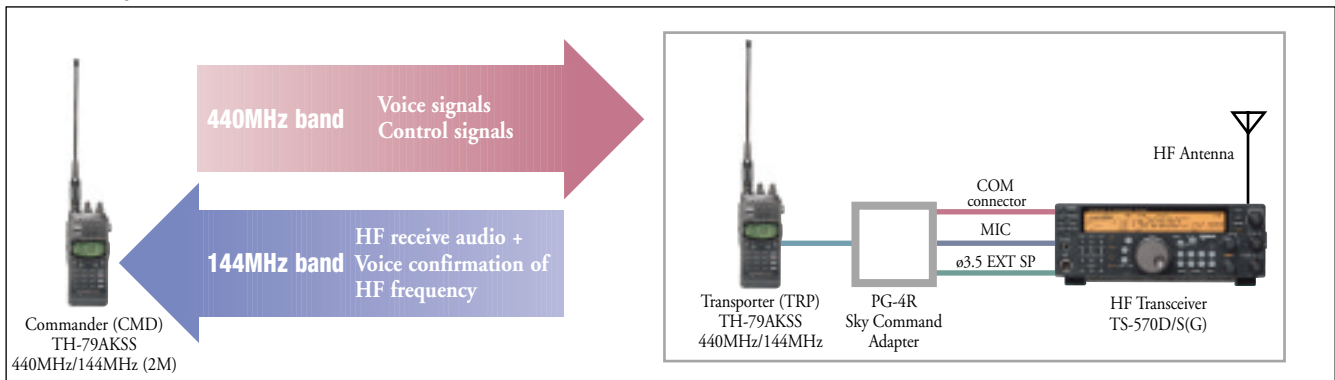
Kenwood Sky Command

Employing a pair of TH-79AKSS transceivers as Commander and Transporter, the Kenwood Sky Command system has proved extremely effective in freeing the HF operator from his shack. The DTMF keys enable simple pushbutton operation of all major parameters on the TS-570D/S(G). And if the optional VS-3 voice unit is added, you can enjoy audible confirmation of the frequency setting. You can thus hunt DX while working around the house or garden.

Kenwood Sky Command II

Sky Command II enables full-duplex operation, adding some extra features that further enhance functionality. For example, you can confirm HF frequency visually on the LCD panel of the Commander (TH-D7A). Control is effected via TNC (AX.25), and now even more HF functions are accessible: XIT, mode switching (USB, FM, etc.), split-frequency operations on/off, memory shift, and frequency step selection. In addition, once every 10 minutes, the Transporter (TH-D7A) will send out its pre-programmed call sign via CW.

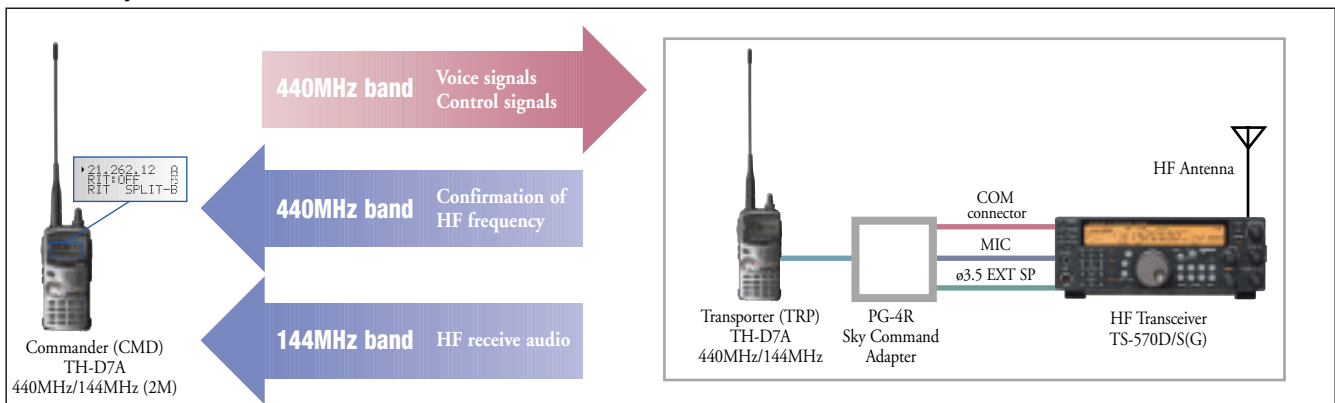
Kenwood Sky Command : TH-79AKSS



- The operator controls the TS-570D/S(G) HF transceiver from the portable Commander (CMD) TH-79AKSS.
- Voice is transmitted from the CMD unit on the 440MHz band.
- Control signals are also sent from the CMD unit on the 440MHz band.

- The received HF signal is re-transmitted by the Transporter (TRP) TH-79AKSS on the 2M band.
- With an optional voice unit (VS-3) installed in the TS-570D/S(G) HF transceiver, the operator can confirm the HF frequency.


Kenwood Sky Command II : TH-D7A




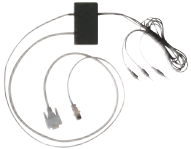



- The operator controls the TS-570D/S(G) HF transceiver from the portable Commander (CMD) TH-D7A.
- Voice is transmitted from the CMD unit on the 440MHz band.

- Control signals are sent from the CMD unit on the 440MHz band.
- The received HF signal is re-transmitted by the Transporter (TRP) TH-D7A on the 2M band.
- The operator can confirm the HF frequency on the LCD of the CMD.






OPTIONAL ACCESSORIES

				
VS-3	DRU-3A	HS-5	HS-6	LF-30A
Voice Synthesizer Unit	Digital Recording Unit	Deluxe Headphones (8 Ω)	Small Headphones (12.5 Ω)	Low-Pass Filter

				
MB-430	MC-43S	MC-90	MC-80	MC-60A
Mobile Bracket	Hand Microphone	DSP-Compatible Desktop Microphone	Desktop Microphone	Deluxe Desktop Microphone

				
PC-1A	PG-4R	PG-2Z	PS-53	PS-40
Phone Patch Controller (Available only where phone patch operation is legal)	Sky Command Adapter	DC Power Cable	Heavy-Duty Power Supply (22.5 A)	DC Switching Power Supply

				
IF-232C	SO-2	SP-23	SP-50B	SP-41
Interface Unit	TCXO (Temperature-compensated Crystal Oscillator) Unit	External Speaker	Mobile Speaker	Mobile Speaker

				
YK-88C-1*	YK-88CN-1*	YK-88SN-1*	SW-2100	MA-5
8.83 MHz CW Filter (500 Hz bandwidth)	8.83 MHz CW Narrow Filter (270 Hz bandwidth)	8.83 MHz SSB Narrow Filter (1.8 kHz bandwidth)	SWR/Power Meter (1.8-30 MHz)	5-Band Mobile Antenna

* One of 3 optional IF filters can be selected for installation.
Not all products are available in all markets.

SPECIFICATIONS

TS-570D(G)/TS-570S(G)	
GENERAL	
Transmitter Frequency Range	160, 80, 40, 30, 20, 17, 15, 12, 10, 6 [TS-570S(G) only] meter bands
Receiver Frequency Range	500 kHz ~ 30 MHz, 50 MHz ~ 54 MHz
Mode	A1A (CW), J3E (SSB), A3E (AM), F3E (FM), F1D (FSK)
Power Requirement	13.8 V DC ±15%
Current Drain (approx.)	20.5 A (transmit), 2 A (standby)
Operating Temperature	14° F ~ +122° F (-10° C ~ +50° C)
Frequency Stability	Within $\pm 10 \times 10^{-6}$ ($\pm 0.5 \times 10^{-6}$ with SO-2)
Antenna Impedance	50 Ω
Microphone Impedance	600 Ω
Dimensions, projections not included (W x H x D)	10-5/8 x 3-3/4 x 10-11/16 inch (270 x 96 x 271 mm)
Weight (approx.)	15 lbs (6.8 kg)
TRANSMITTER	
RF Output Power	SSB/CW/FM/FSK: 100 W; AM: 25 W
Modulation SSB FM AM	Balanced modulation Reactance modulation Low-power modulation
Maximum Frequency Deviation (FM)	Less than ± 5 kHz (wide) Less than ± 2.5 kHz (narrow)
Spurious Radiation	Less than -50 dB
Carrier Suppression	More than 40 dB
Unwanted Sideband Suppression	More than 40 dB
Transmit Frequency Response (SSB)	400 ~ 2600 Hz (within -6 dB)
XIT Variable Range	± 9.99 kHz
Antenna Tunable Range	16.7 Ω ~ 150 Ω

RECEIVER	
Circuitry SSB/CW/AM/FSK FM	Double Superheterodyne Triple Superheterodyne
Intermediate Frequency 1st IF 2nd IF 3rd IF	73.05 MHz 8.83 MHz 455 kHz (FM only)
Sensitivity SSB/CW/FSK (S/N 10 dB)	Less than 4 μ V (500 kHz ~ 1.705 MHz), Less than 0.2 μ V (1.705 ~ 24.5 MHz), Less than 0.13 μ V (24.5 ~ 30 MHz), Less than 0.13 μ V (50 ~ 54 MHz)
AM (S/N 10 dB)	Less than 31.6 μ V (500 kHz ~ 1.705 MHz), Less than 2 μ V (1.705 ~ 24.5 MHz), Less than 1.3 μ V (24.5 ~ 30 MHz), Less than 1.3 μ V (50 ~ 54 MHz)
FM (12 dB SINAD)	Less than 0.25 μ V (28 ~ 30 MHz), Less than 0.25 μ V (50 ~ 54 MHz)
Squelch Sensitivity SSB/CW/AM/FSK	Less than 20 μ V (500 kHz ~ 1.705 MHz), Less than 2 μ V (1.705 ~ 30 MHz), Less than 2 μ V (50 ~ 54 MHz)
FM	Less than 0.25 μ V (28 ~ 30 MHz), Less than 0.25 μ V (50 ~ 54 MHz)
Spurious Response Image Ratio IF Rejection Others	More than 70 dB More than 70 dB More than 50 dB
Selectivity SSB/CW	More than 2.2 kHz (-6 dB), Less than 4.4 kHz (-60 dB)
AM (wide mode)	More than 4.0 kHz (-6 dB), Less than 20.0 kHz (-50 dB)
FM	More than 12.0 kHz (-6 dB), Less than 25.0 kHz (-50 dB)
RIT Variable Range	± 9.99 kHz
Beat Elimination	More than 40 dB
Audio Output Power	More than 1.5 W (8 Ω , 10% distortion, with -53 dBm input)
Audio Output Impedance	8 Ω

Kenwood follows a policy of continuous advancement in development.
For this reason specifications may be changed without notice.

These specifications are guaranteed for Amateur Bands only.



ISO 9001
JQA-1205

Communications Equipment Division
Kenwood Corporation
ISO9001 certification

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