

TS-480SAT/HX

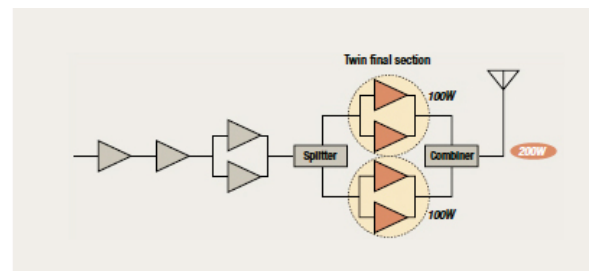


HF/50MHz Transceiver
TS-480HX/480SAT

Excellent Power and Performance

High RF Power Output

Equipped with a twin final section featuring splitter and combiner circuitry, the TS-480HX can provide up to 200 watts RF output (50MHz: 100W) with a DC 13.8V power supply. The TS-480SAT delivers up to 100 watts.



Separate Power Sources

The 200W TS-480HX features two power terminals (DC1, DC2) for separate supply to each half of the twin final section; voltage balance is optimized to ensure stable output. This arrangement allows for use of two PS-53 power supplies or a single 41A power source.

Twin Cooling Fans

When used for extended periods, the heat build-up inside a compact transceiver can be a serious concern, reducing its working life. But the components in the heavy-duty TS-480HX/SAT are designed to withstand heat. What is more, it is equipped with a die-cast aluminum chassis and twin fans for enhanced cooling efficiency. And since the control panel is separate from the main unit, the fans are able to generate a powerful airflow from front to back. As a result, you can rely on this transceiver to transmit continuously for 30 minutes* without having to power down. *This figure is supplied for reference purposes only and depends on there being an ambient temperature of 25. C, antenna SWR of 1.2 or less, and nothing to obstruct the air flow generated by the cooling fans.

*SAT model has one cooling fan



RX Dynamic

A quad-mixer provides RX dynamic range equivalent to that of the TS-950 class (at 50 kHz separation).

CW Support

There is a full range of CW features, including auto tune. When in SSB mode, a simple key-press will switch automatically to CW. Another convenient feature is the ability to record three different messages for quick transmission during contests. You can choose between full and semi-break-in; for the former the delay time between key release and active receive mode can be set for between 50ms and 1000ms in 50ms steps. Other CW features include pitch control (400-1000Hz), side tone monitor with 10-step volume setting, an electronic keyer, microphone paddle mode and CW reverse mode.

IF Filters(Optional)

Optionally available for more intense operations are 500Hz and 270Hz band CW narrow IF filters (YF-107C, YF-107CN), as well as a 1.8kHz band SSB narrow IF filter (YF-107SN). Any two of these IF filters can be installed inside the transceiver.

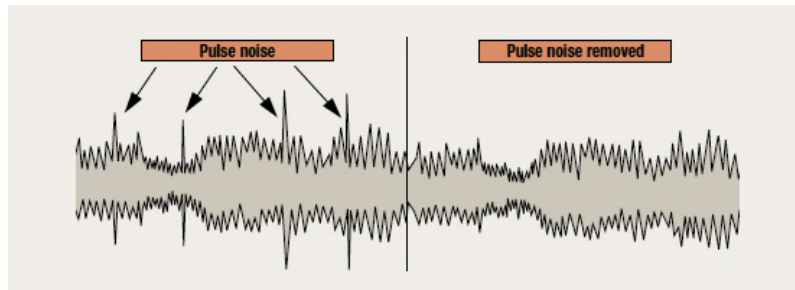
AF Digital Signal Processing(TX/RX)

Thanks to a 16-bit digital signal processor offering double-precision arithmetic operations (equivalent to 32-bit processing), a 100MHz clock and 16-bit A/D & D/A converters, the TS-480HX/SAT offers many powerful features.



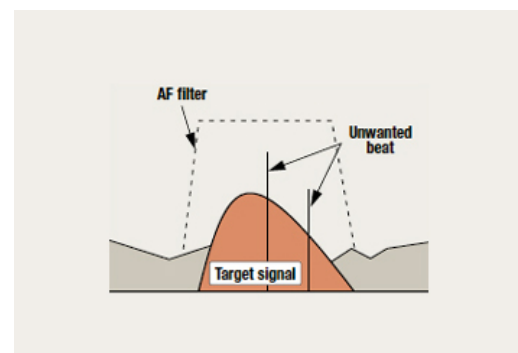
Digital Noise Limiter(DNL)

With three level settings, the DNL is highly effective in removing even the pulse noise that cannot be eliminated with conventional analog circuitry and noise blankers. For extra clarity, however, it can be used in conjunction with a noise blanker, which removes pulse noise at the IF stage.



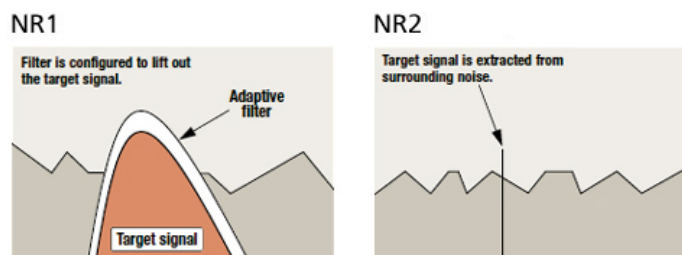
Beat Cancel(SSB/AM only)

DSP will also cancel out multiple beats falling within the AF filter range. Choose BC1 to remove weak and/or continuous beat interference, or BC2 to handle intermittent beat, like that of a CW signal.



Noise Reduction

NR1 is a line enhanced filter with 10 level settings (including auto) – great for extracting a target signal. A good choice for CW operations is NR2 (SPAC), adjustable in 2ms increments (2~20ms); it can suppress noise at the same frequency as the target signal, allowing it to pull a weak target signal out from the surrounding noise.

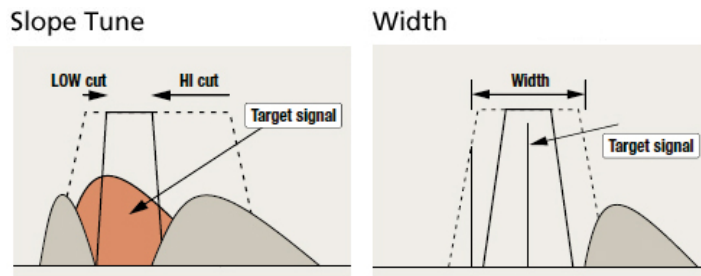


TX/RX Equalizer

The equalizer offers flat (default), high boost (2 types), formant pass, bass boost (2 types), conventional and user* settings, separately for transmit and receive. *Configurable using the ARCP-480 radio control program.

AF Filters

Slope tune can be used to move the target signal away from noise using hi-cut and low-cut filters (SSB, FM and AM), while Width allows adjustment of the pass-band to avoid adjacent noise (CW/FSK).



TX Filter

Audio quality during transmit can be adjusted to suit by switching between two passband settings (500–2500Hz and the default 300–2700Hz).

Speech Processor

Available for SSB, FM and AM transmission, the speech processor enhances the clarity of messages for the receiving station. Input/output levels can be finely adjusted (0~100).

CW Auto Tune

This feature uses DSP to automatically zero in on a target frequency during CW operations. It is also RIT compatible.

Enhanced Operating

Built-in Automatic Antenna Tuner (TS-480SAT)

The automatic antenna tuner inside the TS-480SAT – with presets for quick band changes – covers all amateur bands 1.8MHz to 54MHz.



Emphasis on Portability

Outdoor use is facilitated by DC 13.8V operation and compact dimensions: the 7.05lbs. (3.2kg) main unit measures 7-1/16" x 2-3/8" x 10-3/16" (179 X 61 X 258 mm)(W X H X D)*, while the 1.1lbs. (0.5kg) control panel is 7-1/16" x 2-15/16" x 1-7/16" (180 X 75 X 37 mm)(W X H X D)*

*Projections not included.

Separated LCD Control Panel with Speaker

The large, standalone LCD control panel – featuring its own 2-5/8" (6.6cm) speaker (2W max. output) – can be freely positioned up to 13 feet (4 meters) from the main unit. The supplied tabletop panel bracket is convenient when using the transceiver at home on a desk, while the mobile panel bracket is ideal for mounting in a car. The panel can be snapped into place or removed from a bracket instantly. It also features 34 keys, each with backlighting to enhance operating ease.



Memory Name Function

Clear identification is possible for the 100 memory channels with up to 8 alphanumeric characters each.

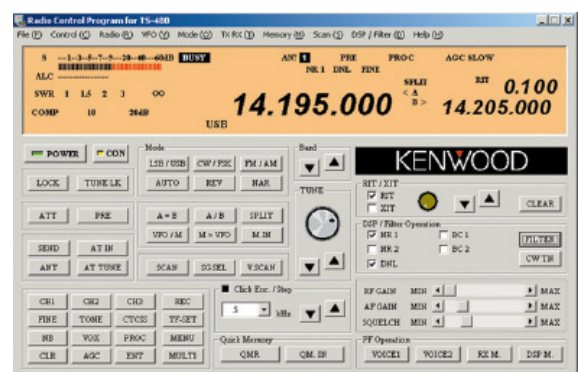
Multiple Scan Functions

Included among the many scan functions are program scan, memory scan, group scan, subtone scan and CTCSS scan.

PC-Based Control

The ARCP-480 radio control program (freely downloadable from the KENWOOD web site)* enables PC-based control of all transceiver functions, as well as the customizing of TX/RX equalizer curves.

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



PSK31 Compatible(SSB/FM)

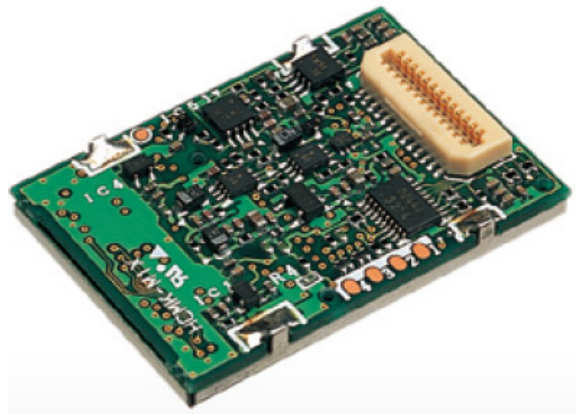
The TS-480HX/SAT can be connected directly to a computer for the increasingly popular PSK31 mode. It also offers the following convenient features:

– Separate adjustment of AF input/output levels (10 steps)

- Choice of center frequency (1000Hz or 1500Hz)
 - Adjustable AF DSP filter bandwidth (7 steps)
 - Selectable CW narrow IF filters (if installed) – TX with VOX function (no need for a PTT control line)
 - Microphone muting during PTT operation via the data terminal
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Voice Guide & Storage Unit(Optional)

The VGS-1 voice guide and storage unit can serve two important roles: vocal confirmation of frequency, key operation, etc., and recording/playback of messages received by the transceiver. A total of 90 seconds (3 x 30 seconds) can be recorded and stored in Flash ROM for playback and transmission. Additionally, a convenient constant record function means you can always play back the last 30 seconds of reception for confirmation.



Other Features

- Transverter display function (up to 999.9999 MHz)
- Wide/Narrow deviation selection (FM TX)
- Direct Frequency Entry
- CTCSS (42 subtone frequencies)
- 1750Hz Tone
- TX Monitor
- 5W Minimum RF Output for QRP Operating
- FSK Reverse
- Noise Blanker
- Packet Cluster Tune with TM-D700A/TM-D710A*
- Cross-Band-Repeater(HF, VHF) with TM-D700A
- Auto Power Off
- Time-out Timer

*Frequency data received by the TM-D700A (version G2.0 and later) can be transferred to the TS-480 via RS-232C cable (not supplied).