

# TS-590SG

## HF/50MHz All-Mode TRANSCEIVER

**Update to new  
"G" version**

### Kenwood introduces new HF/50MHz All-Mode Transceiver

Four years ago we launched our best-selling TS-590S transceiver into the mid-range HF market. Technology has moved on, so now it is a pleasure to announce the updated TS-590S "G" model, which replaces the TS-590S in production.



#### PRODUCT SCHEDULE:

MODEL	TYPE	TITLE	MP	PRESS RELEASE	LAUNCH
TS-590SG	E	HF / 5-MHz Transceiver	October 2014	2 <sup>nd</sup> October 2014 (From JKC)	November 2014
ARCP-590G	W	Radio Control PGM	Freeware (Download Only)		
ARHP-590G	W	Radio Host PGM			

*Notice: New product information and advertisement should be done after Press Release on 2<sup>nd</sup> October 2014*

## PERFORMANCES:

Enhanced RX performance accomplished superb 3rd Order Dynamic Range @ practical 2 kHz separation.

## NEW FUNCTIONS:

- **CW Decoder**

CW signal is decoded and scrolls in the 13-segment section of the LCD (similar to K3).  
(Decode performance may be affected by noisy/weak signals)



- **MULTI/CH SW**

MULTI/CH encoder is changed. Now with push-switch function.  
This switch works as Programmable Function C.  
You can assign a PF function to it such as Key speed,  
Power, MIC etc. \*Click numbers 24 to 20



- **ANT OUT**

It's possible to use DRV OUT terminal as ANT OUT.  
This terminal provides divided antenna output via internal power splitter.  
So easy to connect external RX such as a Pan-adaptor.  
\*Exclusive with DRV OUT.  
\*3dB loss in divider.



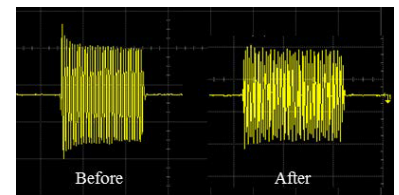
- **Split Frequency Setting**

Find DX with split operation. Push and hold SPLIT key.  
Push "2" key for example.  
Then you can work 2kHz up in Split Operation.



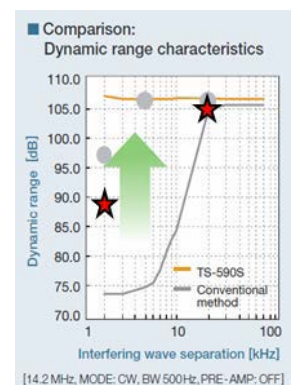
- **TX Power Spike**

TX power spike comparable to TS-990.



- **2 kHz Dynamic Range**

Revised circuitry around 1st Mixer improves  
C/N characteristic of 1st Local OSC.



## EXTERIORS:

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Enhanced RX performance accomplished superb 3rd Order Dynamic Range @ practical 2 kHz separation.



- Increased LCD backlight colour selections from two to tri-colour (AMBER | GREEN | YELLOW) in 10 steps.
- The styling of the spin textured Main Dial, colours of printed letters and chrome plating on garnish knobs now match the flagship TS-990S.
- In order to distinguish the new model it will have the model name "TS-590" printed on the front panel glass instead of "DSP".

## NOTICE:

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- It is not possible to upgrade previous TS-590S models.
- Current PC Application Software, ARCP-590 and ARHP-590, do not work with "G" models - please download the latest ARCP-590G and ARHP-590G programs.
- Both ARCP-590 and ARCP-590G may be installed on the same PC.

## OPTIONAL ACCESSORIES:

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- |             |                                 |
|-------------|---------------------------------|
| • MC-90     | Deluxe Desktop Microphone       |
| • MC-60A    | Desktop Microphone              |
| • MC-47     | Hand Microphone (4 PF Buttons)  |
| • MC-43     | Hand Microphone                 |
| • HS-6      | Headphone                       |
| • HS-5      | De-luxe Headphone               |
| • PG-20     | DC Cable (7 metres)             |
| • SO-3      | TCXO                            |
| • MB-430    | Mobile Bracket                  |
| • PS-60     | Heavy-duty Power Supply (22.5A) |
| • KES-3S    | External Speaker                |
| • SP-23     | External Speaker                |
| • VGS-1     | Voice Guide & Storage Unit      |
| • ARCP-590G | Radio Control Program           |
| • ARHP-590G | Radio Host Program              |

## SPECIFICATIONS:

(All specifications subject to change without prior notice)

General		
Frequency range (Transmitter)	160m band 80m band 60m band *1 40m band 30m band 20m band 17m band 15m band 12m band 10m band 6m band	1.81 ~ 2.0 MHz 3.5 ~ 3.8 MHz 5.25 ~ 5.45 MHz 7.0 ~ 7.2 MHz 10.1 ~ 10.15 MHz 14.0 ~ 14.35 MHz 18.068 ~ 18.168 MHz 21.0 ~ 21.45 MHz 24.89 ~ 24.99 MHz 28.0 ~ 29.7 MHz 50.0 ~ 52.0 MHz
Frequency range (Receiver)		0.13 ~ 30 MHz, 50 ~ 54 MHz VFO: Continuous 30 kHz ~ 60 MHz
Mode		A1A(CW), A3E(AM), J3E(SSB), F3E(FM), F1B(FSK)
Frequency stability		±5 ppm, -10 °C ~ +50 °C with SO-3: ±0.5 ppm, -10 °C ~ +50 °C
Antenna impedance		50 Ω
Antenna tuner load range		16.7 Ω ~ 150 Ω
Supply voltage		DC 13.8 V ±15 %
Ground		Negative ground
Current Drain	TX RX (No signal)	20.5 A or less 1.5 A or less
Operating Temperature		-10 °C ~ +50 °C
Dimensions	Without projections With projections	W270 × H96 × D291 mm W280 × H107 × D335 mm
Weight		Approx. 7.4 kg
Transmitter		
Output Power (AM)		Max 100 W / Min 5 W, (Max 25 W / Min 5 W)
Modulation		SSB: Balanced, AM: Low Power, FM: Reactance
Maximum frequency deviation (FM)		wide: ±5 kHz or less, narrow: ±2.5 kHz or less
Spurious emissions		HF: -50 dB or less 50 MHz: -63 dB or less
Carrier suppression		50 dB or more
Unwanted sideband suppression		50 dB or more
Transmit frequency response		Within -6 dB (400 ~ 2600 Hz)
Microphone impedance		600 Ω
XIT variable range		±9.999 kHz

Receiver			
Circuit type		Double Superheterodyne *2	Triple Superheterodyne *3
Intermediate frequency	1st IF	11.374 MHz	73.095 MHz
	2nd IF	24 kHz	10.695 MHz
	3rd IF	-	24 kHz (except FM) 455 kHz (FM)
Sensitivity (TYP)	SSB / CW / FSK (S/N 10 dB)	0.5 $\mu$ V (0.13 ~ 0.522 MHz) 4 $\mu$ V (0.522 ~ 1.705 MHz) 0.2 $\mu$ V (1.705 ~ 24.5 MHz) 0.13 $\mu$ V (24.5 ~ 30 MHz) 0.13 $\mu$ V (50 ~ 54 MHz)	
	AM (S/N 10 dB)	6.3 $\mu$ V (0.13 ~ 0.522 MHz) 31.6 $\mu$ V (0.522 ~ 1.705 MHz) 2 $\mu$ V (1.705 ~ 24.5 MHz) 1.3 $\mu$ V (24.5 ~ 30 MHz) 1.3 $\mu$ V (50 ~ 54 MHz)	
	FM (12 dB SINAD)	0.22 $\mu$ V (28 ~ 30 MHz) 0.22 $\mu$ V (50 ~ 54 MHz)	
	Squelch Sensitivity	SSB / CW / FSK / AM	5.6 $\mu$ V or less (0.13 ~ 0.522 MHz) 18 $\mu$ V or less (0.522 ~ 1.705 MHz) 1.8 $\mu$ V or less (1.705 ~ 30 MHz) 1.1 $\mu$ V or less (50 ~ 54 MHz)
	FM	0.2 $\mu$ V or less (28 ~ 30 MHz) 0.2 $\mu$ V or less (50 ~ 54 MHz)	
Image Rejection Ratio		70 dB or more	
IF Rejection Ratio		70 dB or more	
Selectivity	SSB	2.2 kHz or more (-6 dB) 4.4 kHz or less (-60 dB)	
	CW / FSK	500 Hz or more (-6 dB) 1.2 kHz or less (-60 dB)	
	AM	6.0 kHz or more (-6 dB) 12 kHz or less (-50 dB)	
	FM	12 kHz or more (-6 dB) 25 kHz or less (-50 dB)	
RIT variable range		$\pm$ 9.999 kHz	
Notch filter attenuation		60 dB or more (Auto), 70 dB or more (Manual)	
Beat cancel attenuation		40 dB or more	
Audio output		1.5 W or more (8 $\Omega$ )	
Audio output impedance		4 $\Omega$ ~ 8 $\Omega$	

\*1 60 m band: Refer to applicable Amateur Radio regulations to your country.

\*2 In 160 m/ 80 m/ 40 m/ 20 m/ 15 m Amateur bands, IF band width 2.7 kHz or less (SSB, CW, FSK,)

\*3 Except in above \*2

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