

TS-590SG

HF/ 50MHz All-Mode TRANSCEIVER

Updated 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/50MHz TRANSCEIVER	Oct. 2014	2 nd .Oct. 2014 (From JKC)	Nov. 2014
ARCP-590G	W	RADIO CONTROL PGM.	Freeware (Download Only)		
ARHP-590G	W	RADIO HOST PGM.			

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)



• MULCH/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.



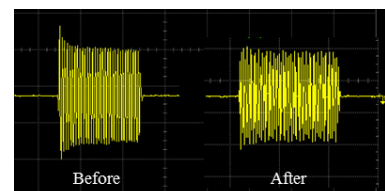
• Split Frequency Setting

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



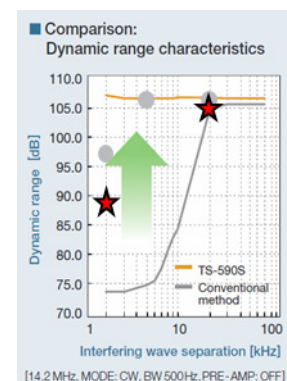
• TX Power Spike

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:



- 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:

- 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

■ 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 μ V (0.13 ~ 0.522 MHz) 4 μ V (0.522 ~ 1.705 MHz) 0.2 μ V (1.705 ~ 24.5 MHz) 0.13 μ V (24.5 ~ 30 MHz) 0.13 μ V (50 ~ 54 MHz)	
	AM (S/N 10 dB)	6.3 μ V (0.13 ~ 0.522 MHz) 31.6 μ V (0.522 ~ 1.705 MHz) 2 μ V (1.705 ~ 24.5 MHz) 1.3 μ V (24.5 ~ 30 MHz) 1.3 μ V (50 ~ 54 MHz)	
	FM (12 dB SINAD)	0.22 μ V (28 ~ 30 MHz) 0.22 μ V (50 ~ 54 MHz)	
Squelch Sensitivity	SSB / CW / FSK / AM	5.6 μ V or less (0.13 ~ 0.522 MHz) 18 μ V or less (0.522 ~ 1.705 MHz) 1.8 μ V or less (1.705 ~ 30 MHz) 1.1 μ V or less (50 ~ 54 MHz)	
	FM	0.2 μ V or less (28 ~ 30 MHz) 0.2 μ 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 Ω)	
Audio output impedance		4 Ω ~ 8 Ω	

*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