# **NUOVO TS590-SG**

### **CARATTERISTICHE PRINCIPALI**



## \*II TS590-SG sostituisce il precedente modello TS590-S

Selezioni IF digitali estese

Nuovo decoder codice morse

Funzione "ANT Out" come il TS-990

DRV Unità terminale di uscita basso livello Jack RCA - 1 uscita mW copre la banda 135.80-137.70 kHz LF oltre la banda 1.8 a 50 MHz

TX / RX Equalizzatore DSP ora selezionabile nella modalità opportuna

Adesso sino a 20 step di regolazione per TX Monitor e CW side-tone

Funzioni avanzate VGS-1 "Guida vocale"

Nuova funzione operazione a frequenza split rapida come il TS-990

Nuovo Display LCD Tri-Colore (giallo, verde o giallo)

De-luxe new design della manopola VFO

De-luxe new VFO knob design

#### TS-590SG Incremental changes help performance and function to evolve

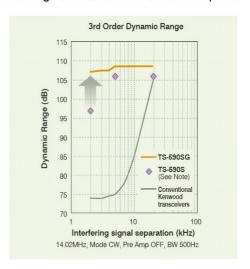
#### 1. Equipped with 500 Hz/ 2.7 kHz Roofing Filter as standard

1st IF frequency (11.374 MHz) down conversion<sup>2</sup> is employed when receiving on 15, 20, 40, 80 or 160 meter bands. Included as standard directly after the 1st Mixer and Post Amp that compensates for conversion loss is a BW 500 Hz and 2.7 kHz 6-pole MCF, which determines adjacent receptivity realizing superb dynamic range performance that was not possible using up conversion. Even when an interfering signal approaches the reception frequency, a virtually flat dynamic range is maintained. You can capture

a clear signal even in reception conditions where strong adjacent interfering signals become problematic.

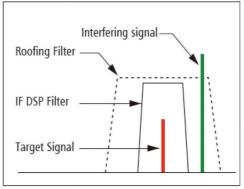
\*2: Down conversion is selected automatically when receiving in CW/ FSK/ SSB modes if the final passband is 2.7 kHz or less.

This graph shows what happens when the frequencies of two interference signals for measuring the dynamic range are converted from +2kHz to +20kHz from the reception frequency. For example, at the point where separation is 10kHz, the interference signals are 14.03MHz and 14.04MHz. It can be seen that the TS-590SG achieves virtually flat characteristics even in the 3rd Order Dynamic Range measurement method implemented by ARRL \*3. Note: TS-590S measurement values from QST® May 2011 PRODUCT REVIEW Kenwood TS-590S HF and 6 Meter Transceiver published by ARRL (reprinted with permission of ARRL) \*3: The American Radio Relay League (ARRL) is the national association for amateur radio.



#### 2. Advanced AGC control through digital signal processing from the IF stage onward

It would be no exaggeration to say that Kenwood's receive audio, which enjoys a reputation for being non-tiring even in long contests, is determined by IF AGC control based on unique DSP algorithms. This series features all of the IF DSP AGC technology developed with the TS-990S. A remodeling of the AGC circuitry has realized superb AGC performance covering from small to large inputs. Even if interference signals slip between the Roofing Filter and the IF DSP filter that determines the final selection, level optimized AGC control enables operation without the need for awareness of Roofing Filter bandwidth.



**OUT BAND AGC CONTROL** 

#### \*any other information web-site: JVCKENWOODCORPORATION

\*\*Test Comparation TS590-S and TS590-SG: http://www.sherweng.com

Test Report by  Sherwood Engineering Inc.  www.sherweng.com	Noise Floor (dBm)	AGC Thrshld (uV)	dB	100kHz Blocking (dB)	Sensitivity (uV)	LO Noise Spacing (dBc/Hz)	kHz	Front End Selectivity	Filter Ultimate (dB)	Dynamic Range Wide Spaced (dB)	kHz	Dynamic Range Narrow Spaced (dB)	kHz
Added 12/09/14 Kenwood TS-590SG Down Conversion Mode	-127 -135 <sup>b</sup>	2.2 0.65 <sup>b</sup>	3	137	0.42 0.17 <sup>b</sup>	139 141	10 50	B Bandpass	100 <sup>f</sup>	104	20	92 <sup>f</sup>	2
Added 12/30/10 Kenwood TS-590S on 20 meters Down-conversion Mode for Up-Converson see Narrow Spaced at 76 dB	-128 -137 <sup>b</sup>	1.8 0.5 <sup>b</sup>	3	144 <sup>s</sup>	0.43 0.15 <sup>b</sup>	140	10	B Band Pass	92 <sup>f</sup>	104	20	88 <sup>f</sup>	2