

## Signal Seamless Capture in SSC Mode/



#### HEADQUARTER

**RIGOL** TECHNOLOGIES, INC. No.156,Cai He Village, Sha He Town, Chang Ring District, Beijing, 102206 P.R.China Tel:+86-10-80706688 Fax:+86-10-80705070 Electronic Measurement Instrument service and support email:EMD\_support@rigol.com

#### EUROPE

RIGOL TECHNOLOGIES GmbH Lindbergh str. 4 82178 Puchheim Germany Tel: 0049- 89/89418950 Email: info-europe@rigoltech.com

#### NORTH AMERICA

RIGOL TECHNOLOGIES, USA INC. 10200 SW Allen Blvd, Suite C Beaverton, OR 97005, USA Toll free: 877-4-RIGOL-1 Office: (440) 232-4488 Fax: (216)-754-8107 Email: info@rigol.com

**RIGOL** TECHNOLOGIES JAPAN G.K. Tonematsu Bldg. 5F, 2-33-8 Nihonbashi Ningyocho, Chuo-ku, Tokyo 103-0013 Japan Tel: +81-3-6264-9251 Fax: +81-3-6264-9252 Email: info-japan@rigol.com

JAPAN

RIGOL<sup>®</sup> is the registered trademark of RIGOL Technologies, Inc. Product information in this document subject to update without notice. For the latest information about **RIGOL**'s products, applications and services, please contact local **RIGOL** office or access **RIGOL** official website: www.rigol.com



**RIGOL** TECHNOLOGIES, INC.

# DSA700Series Spectrum Analyzer

#### Advantages and Characteristics

#### All-Digital IF Technology

- Frequency Range from 100 kHz up to 1 GHz
- Min. -130 dBm Displayed Average Noise Level (Typ.)
- Min. -80 dBc/Hz @ 10 kHz Offset Phase Noise
- Level Measurement Uncertainty <1.5 dB
- 100 Hz Minimum Resolution Bandwidth
- 2FSK modulation signal measurement and analysis function in SSC mode
- Optional EMI pre-compliance test function

#### **Brief Technical Parameters**

#### Frequency

Frequency						
		DSA705	DSA710			
Frequency range		100 kHz to 500 MHz	100 kHz to 1 GHz			
Frequency resolution		1 Hz				
SSB Phase No	ise					
		DSA705	DSA710			
		20 °C to 30 °C ,f <sub>c</sub> =500 MHz	20 $^\circ C$ to 30 $^\circ C$ ,f_c=1 GHz			
Carrier offset	10 kHz	<-80 dBc/Hz				
	100 kHz	<-100 dBc/Hz (typ.)				
Amplitude Mea	surement F	Range				
Danaa		f <sub>c</sub> ≥ 10 MHz				
Range		DANL to +20 dBm				
Displayed Aver	age Noise	Level (DANL)				
		DSA705	DSA710			
		RBW = VBW = 100 Hz, sample detector, trace average $\geq$ 50, 20 °C to 30 °C , input impendence = 50 $\Omega$				
PA OFF		<-110 dBm (typ.)	<-110 dBm (typ.)			
PA ON		<-130 dBm (typ.)	<-130 dBm (typ.)			
Distortion						
	1	DSA705	DSA710			
Second harmonic intercept (SHI)		$f_c \ge 50$ MHz, input signal level = -20 dBm, attenuation = 10 dB				
		+40 dBm				
Third-order inte	ercept	$f_c \ge 50$ MHz, two -20 dBm tones at input mixer spaced by 200 kHz, attenuation = 10 dB				
(TOI)		+10 dBm				
Signal Seamle	ss Capture	(SSC—Opt.)				
Measurement I	bandwidth	202 kHz				
Measurement speed		650 spectrums/s				

#### **Advantages and Characteristics**

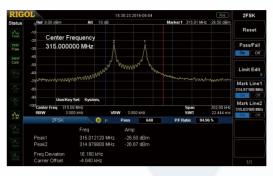
- Measurement for Remote controller, car keys and other signals based on 2FSK modulation
- The mass production requirements for testing and monitoring of the spectral signals
- EMI pre-compliance testing
- · Channel power monitoring and pass/fail verifications.
- Measurement requirements for electronics fans of spectrum analyzer
- Applicable to RF industrial region, such as R&D, lower cost manufacture industry, etc.
- · Combined with Microwave & RF education and training kit; applicable to RF education field; get to deeply understand the theories by practical operations

- EMI Filter & Quasi-Peak Detector Kit (Opt.)
- Advanced Measurement Functions (Opt.)
- Optional RF TX/RX Training Kit
- Optional RF Accessories (Cable, Adaptor, Attenuator ...) · Complete Connectivity: LAN (LXI), USB Host & Device,
- GPIB (Opt.)
- 8 Inch TFT LCD Display
- Compact Size, Light Weight Design

#### **Design Features**

Measurement for Remote controller, car keys and other signals based on 2FSK modulation ,

Not only retains the stable and integration of digital spectrum analyzer, but also the ripid capture characteristic of anolog spectrum analyzer



### **Price and Application Solutions**

Please contact the RIGOL Regional Sales Manager for further information

#### **Ordering Information**

	Description	Order Number	
Model	spectrum analyzer, 100 kHz to 500 MHz (with preamplifier)	DSA705	
viouei	spectrum analyzer, 100 kHz to 1 GHz (with preamplifier)	DSA710	
Standard	quick guide (hard copy)	-	
accessories	power cable	- \	
Ontinen	EMI filter & quasi-peak detector	EMI-DSA800	
Options	advanced measurement kit	AMK-DSA800	
	DSA PC software	Ultra Spectrum	
	signal seamless capture	SSC-DSA	
	include: N-SMA cable, BNC-BNC cable, N-BNC adaptor, N-SMA adaptor, 75 $\Omega$ to 50 $\Omega$ adaptor, 900 MHz/1.8 GHz antenna (2pcs), 2.4 GHz antenna (2pcs)	DSA Utility Kit	
	include: N(F)-N(F) adaptor (1pcs), N(M)-N(M) adaptor (1pcs), N(M)-SMA(F) adaptor (2pcs), N(M)-BNC(F) adaptor (2pcs), SMA(F)-SMA(F) adaptor (1pcs), SMA(M)-SMA(M) adaptor (1pcs), BNC T type adaptor (1pcs), 50 Ω SMA load	RF Adaptor Kit	
	(1pcs), 50 $\Omega$ BNC impedance adaptor (1pcs)		
	include: 50 $\Omega$ to 75 $\Omega$ adaptor (2pcs)	RF CATV Kit	
	include: 6dB attenuator (1pcs), 10dB attenuator (2pcs)	RF Attenuator Kit	
Optional	30dB high power attenuator, max. power 100W	ATT03301H	
accessories	N(M)-N(M) RF cable	CB-NM-NM-75-L-12G	
accessories	N(M)-SMA(M) RF cable	CB-NM-SMAM-75-L-120	
	RF demo kit (transmitter)	TX1000	
	RF demo kit (receiver)	RX1000	
	near field probe	NFP-3	
	EMI pre-compliance test software	S1210 EMI Pre- compliance Software	
	rack mount kit	RM-DSA800	
	soft carrying bag	BAG-G1	
	USB to GPIB interface converter for instrument	USB-GPIB	

It is the most cost-effective EMI pre-compatibility testing tool. The built-in testing function of the tool can help engineers to quickly locate the problems of the products being measured, enabling the products to pass the testing conducted by EMC

Resourcement B REGOL DEMO_CAG1_RD P Setup	RICOL_DEMO_E	N55011_CAC1_RC	3					
- Corrig Summary - Correction Config	- EN5501	1_CA01_Redisted	_Qpeak_10mP_L	E_20K4A				_
Contection Contig Scan Contig Segment Contig Oraph Contig Measure Recort	-00 T				Ť			
NGOL_DEWO_CAG1_CT Setup - Corrig Summary - Corridg Summary - Scale Config - Sea Config - Segment Config - Graph Config	Arplitude	<b>Nhi ku</b> ripyi	hillion in the second sec	ut y to a		v Pli Pr	<b>rdiniy</b> ik	W.
					4+08	8e+08		
- Report								
	Se+08 Peak table Mode Sub Sca	Marker lable			sncy [Hz]			94+08 Detect
				Frequ	ancy [Hz] B Margin 0.00	🗄 d9 🔹 Al	to Final Scan Enable	
	Peak Istile Mode Sub Sca	Number	7 🖀 Excu	Freque	ancy [Hz] B Margin 0.00	🗄 d9 🔹 Al		Detect
	Poak labie Mode Sub Sca Boutte	Number Frequency	7 🔡 Excu Level -55.4174	Freque rsion 0.00 🗃 d	B Margin 0.00 Delta Limit	E de 🍨 Au Delta Reference	Final Scan Enable	Detect
	Peak lable Mode Sub Sca Source Peak Cearch	Frequency 22.929.135 MHz 26.974.141 MHz	7 🔡 Excu Level -55.4174	Freque rsion 0.00 🗃 d Final Scan Level -57.4174	ency [Hz] 8 Margin 0.00 Delta Limit -0.4277	B dB • Al Delts Reference No Reference	Final Scan Enable	Detect