

SSX RF Generator



The SSX Signal Generator is used to generate RF signals with extremely low phase noise, very low spurious content and high stability.

Frequency Range

The output frequency range is 87,5 MHz to 2800 MHz for the SSX-E (economy model) and 10kHz to 2800MHz for the SSX (basic model).

Microcontroller and Interface

The configuration of the generator can be controlled via the front panel or remotely via serial RS232, IEEE488 (GPIB) or Ethernet interface.

Key Features

- RF Output signal with very low phase noise
- RF Output signal with very low spurious content
- Fine frequency resolution (1Hz)
- Adjustable output level
- Front panel operations
- Remote control via RS232
- Remote control via parallel interface IEEE488
- Remote control via Ethernet interface 10/100-Base-T
- Non-volatile setup memory

Housing options

The generator is delivered in a 19" 1HU case

Order information

The following options are available:
Option 002: SMA front panel output
Option 004: SMA rear panel output
Option 100: pulse modulation input (rear panel)

Open questions, demo units

If you need more information about the SSX Signal Generator from WORK Microwave or if you would like to have demo unit, please contact us via e-mail: sales@work-microwave.de or call us on + 49 8024 6408 0. We are glad to assist you.

Technical Data

Signal Generator Specifications			
	SSX(E)		SSX
Model number	83111.xyz.00*		83112.xyz.00*
Frequency range	87.5 MHz to 2800 MHz (option E)		10 kHz to 2800 MHz
Frequency stability	0.02 ppm		
Synthesizer frequency resolution	1 Hz		
Frequency display resolution	1 Hz		
Frequency settling time	< 40 ms		
Phase noise	1000 MHz output:	1500 MHz output:	2700 MHz output:
> 100 Hz Offset	< -87 dBc/Hz	< -80 dBc/Hz	< -80 dBc/Hz
> 1 kHz Offset	< -102 dBc/Hz	< -95 dBc/Hz	< -95 dBc/Hz
> 10 kHz Offset	< -118 dBc/Hz	< -110 dBc/Hz	< -105 dBc/Hz
> 100 kHz Offset	< -120 dBc/Hz	< -115 dBc/Hz	< -110 dBc/Hz
> 300 kHz Offset	< -120 dBc/Hz	< -115 dBc/Hz	< -110 dBc/Hz
> 1 MHz Offset	< -130 dBc/Hz	< -125 dBc/Hz	< -125 dBc/Hz
> 10 MHz Offset	< -145 dBc/Hz	< -140 dBc/Hz	< -140 dBc/Hz
Spurious	< -70 dBc		
< 1 MHz offset elsewhere	< -80 dBc		
Harmonics (Frequency \geq 100kHz, -10dBm \leq Level \leq +10dBm)	< -35 dBc		
Impedance	50 Ω		
Output level guaranteed range	-30 dBm to +16 dBm in 0.1 dB steps		
Output level adjustment range	-34 dBm to +20 dBm		
Level tolerance	\pm 1.0 dB (pulse modulation off), \pm 2.5 dB (pulse modulation on)		
External reference input	5/10 MHz (frequency tolerance < 3 ppm) 50 Ω		
External reference input level	-3 dBm to +10 dBm		
Reference output	10 MHz, -3 dBm to +3 dBm, 50 Ω		
Pulse modulation repetition rate	DC to 5 MHz		
Pulse modulation rise time	< 50 nS		
Pulse modulation fall time	< 50 nS		
Pulse modulation depth			
Frequency < 500 MHz	> 75 dB		
Frequency < 1000 MHz	> 70 dB		
Frequency < 2000 MHz	> 60 dB		
Frequency < 2800 MHz	> 55 dB		
Temperature range	+10 to +55°C		
Interfaces	IEEE488, RS232, TCP/IP (over Ethernet, 10 or 100 Mbit/s, auto sensing), pulse mod. Input (opt. 100)		
Power supply	230 V AC or 110 V AC, 47 to 63 Hz (IEC 60320-1 C14 power inlet)		
Power Consumption	max. 30 W, typ. 20 W, Standby < 20 W		
Connectors			
RF out:	50 Ω N-female (SMA female optional)		
Ref. in, Ref. out:	50 Ω BNC-female		
Pulse modulation input:	50 Ω BNC-female (option 100)		
RS232:	9-pin Sub-D female		
IEEE488:	24-pin Centronics female		
Ethernet:	RJ45 8-pin female		
Display	LCD, 1 x 20 characters		
Keypad	8 keys		
Weight	approx. 7 kg		
Enclosure	19" rackmount, 1 HU (W 482 x H 44 x D 470 mm w/o handles)		

*X=0: Standard, 1: pulse modulation option

Y=0: RF Output N (standard); 2: RF Output SMA (front), 4: RF Output Rear (SMA)

Z=5: OCXO, Ethernet (standard)