

## SSX RF Generator



Based on our long term synthesizer knowledge we have developed a cost effective continuous wave RF generator covering a frequency range up to 2800 MHz.

The SSX RF Signal Generator delivers essential performance and reliability at an affordable price.

Extremely low phase noise, high signal quality and uncompromising quality make the SSX RF Signal Generator the ideal solution for all general test purposes. In addition the simplistic design of the front panel shortens the operator's learning curve and increases productivity.

### Technical Highlights

Phase Noise : < -60dBc/Hz @ 10 Hz offset  
< -105dBc/Hz @ 10 kHz offset

Power Range: -30 dBm to +16 dBm in 0.1 dB steps

Spurious: <-70 dBc (<1 MHz offset)

### Key Features

- RF output with very low phase noise
- RF output with very low spurious content
- Fine frequency resolution (1Hz)
- Adjustable output level
- Accurate CW signals
- Outstanding stability
- Front panel operations or remote control via RS232, IEEE488 (GPIB) or Ethernet interface
- Non-volatile set up memory
- Cost efficient
- **3 years warranty**

### Order Information

Standard model: 10 kHz to 2800 MHz  
Economy model: 87,5 MHz to 2800 MHz

### Options

Option XPR: extended power range (-60 dBm to +16 dBm, on request)  
Option SMA: SMA front panel output  
Option SMR: SMA rear panel output  
Option PUM: pulse modulation input (rear panel, on request)

### Open questions, demo units

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

# Technical Data

Signal Generator Specifications			
	SSX(Economy)		SSX(Standard)
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		
Frequency resolution	1 Hz		
Frequency settling time	< 40 ms		
Phase noise	<b>1000 MHz output:</b>	<b>1500 MHz output:</b>	<b>2700 MHz output:</b>
> 10 Hz Offset	<-66 dBc/Hz	<-60 dBc/Hz	<-60 dBc/Hz
> 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			
< 1 MHz offset elsewhere	< -70 dBc < -80 dBc		
Harmonics (Frequency ≥ 100kHz, -10dBm ≤ Level ≤ +10dBm)	< -35 dBc		
Impedance	50 Ω		
Output level guaranteed range	-30 dBm to +16 dBm in 0.1 dB steps (Option XPR -60 dBm to +16 dBm)		
Output level adjustment range	-34 dBm to +20 dBm (Option XPR -64 dBm to +20 dBm)		
Level tolerance	±1.0 dB (pulse modulation off), ±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. PUM)		
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)		

Technical data subject to change.

\*X=0: Standard, +1: pulse modulation (option PUM), +2: extended power range (option XPR)

Y=0: RF Output N (standard); 2: RF Output SMA on front (option SMA), 4: RF Output SMA rear (option SMR)

Z=5: OCXO, Ethernet (standard)