

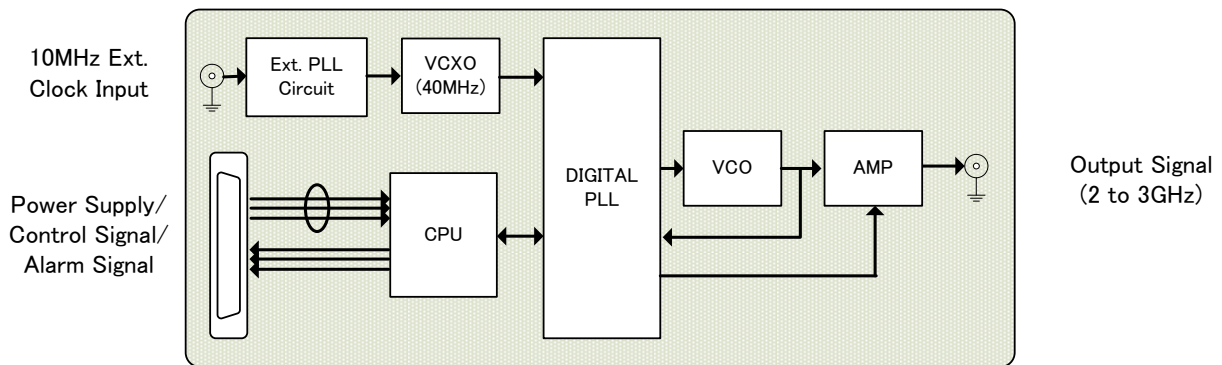
**Features;**

- \* Wide Frequency Bandwidth (1GHz)
- \* Ultra Low Phase Noise (less than -90dBc/Hz @1kHz)
- \* 1Hz Step Resolution
- \* High Purity & Low Spurious Signal Source
- \* Frequency Setting Using 3-Wire Serial Interface
- \* Built-In PLL Circuit Synchronized with 10MHz External Clock



RoHS Compliant  
 Directive 2011/65/EU

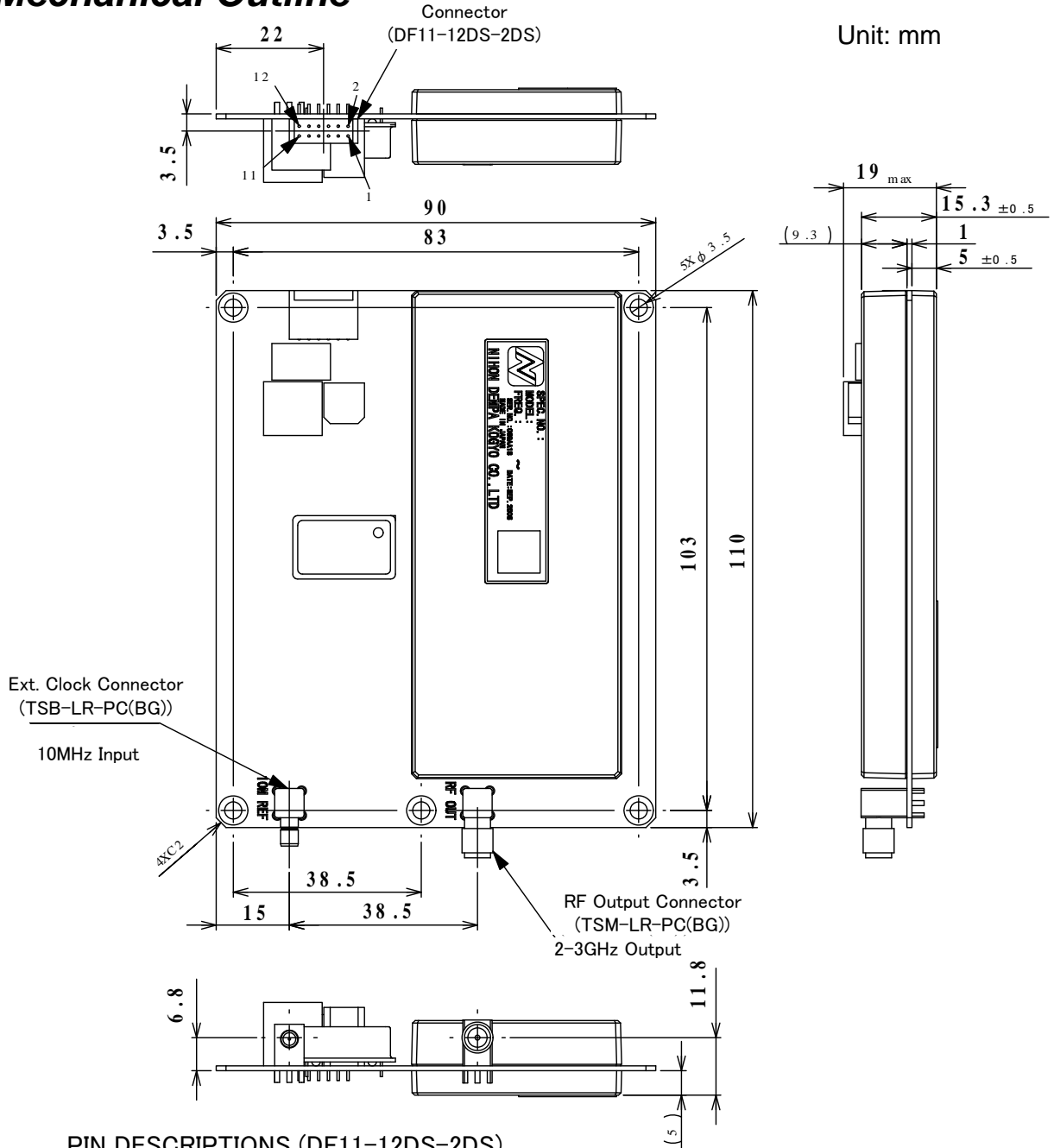
Function Block Diagram



**Specifications;**

Frequency Range:	2GHz to 3GHz
Bandwidth:	1GHz
Frequency Resolution:	1Hz (3-Wire Serial Interface)
Frequency Stability:	Depends on Ext. Clock
Ext. Clock Input Frequency Range:	10MHz +/- 50Hz
Phase Noise:	< -90dBc/Hz @1kHz
RF Output Power:	14dBm +/- 2dB
Lock-Up Time:	< 150msec
Spurious (Harmonics):	< -30dBc
Spurious (Others):	< -60dBc
Interface:	
RF Output Connector:	SMA-F
Ext. Clock Input Connector:	SMB-F
Power & Control Connector:	DF11-12DP-2DS (HIROSE ELECTRIC CO., LTD.)
Power Supply Voltage(Current Consumption);	Vcc = +12V (< 0.5A )
Operating Temperature Range:	-10 to +60 deg.C
Dimensions: Width(90mm) x Height(19mm) x Depth(110mm)	

### Mechanical Outline

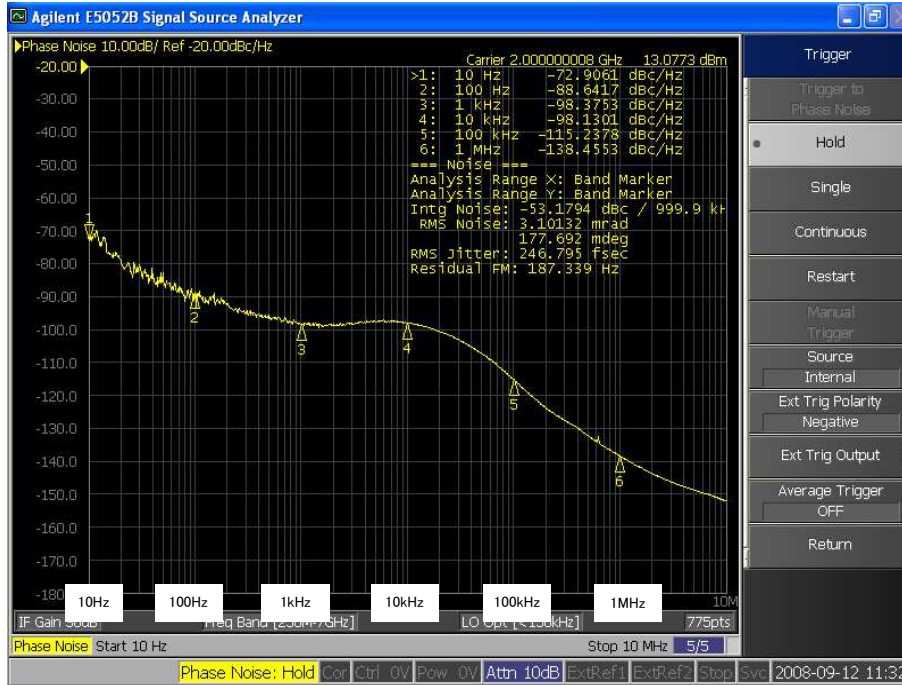


**PIN DESCRIPTIONS (DF11-12DS-2DS)**

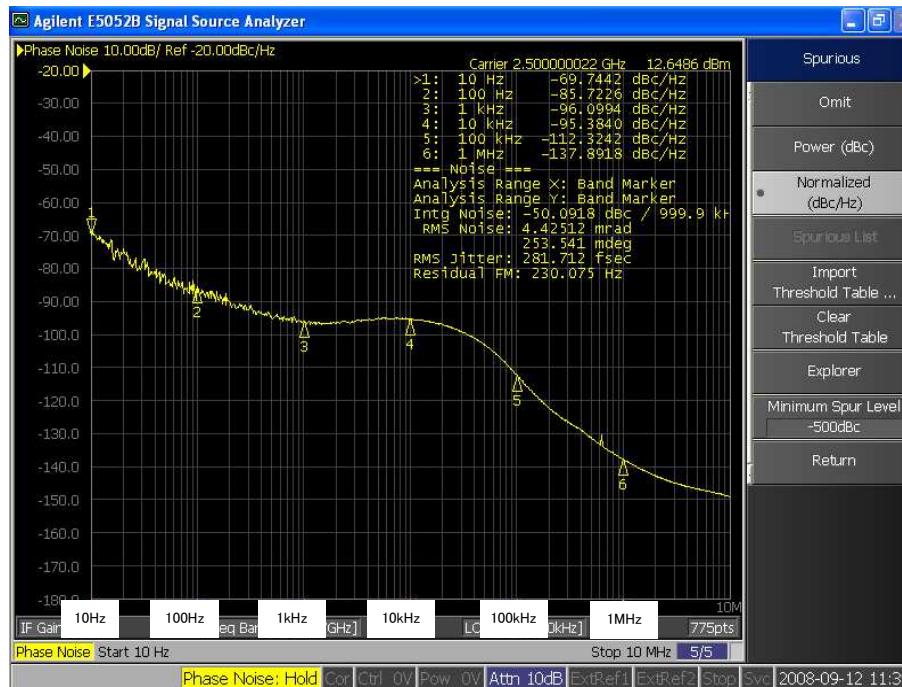
#1	GND		#7	NC	
#2	SDI (SERIAL DATA)	INPUT	#8	RF PLL ALARM	OUTPUT
#3	NC		#9	RF OUTPUT LEVEL ALARM	OUTPUT
#4	10MHz EXT. PLL ALARM	OUTPUT	#10	NC	
#5	/SCS (SERIAL CHIP SELECT)	INPUT	#11	+12V (POWER SUPPLY)	INPUT
#6	SCLK (SERIAL CLOCK)	INPUT	#12	GND	

Notes) Never Connect with NC pins.

### Typical Phase Noise Characteristics

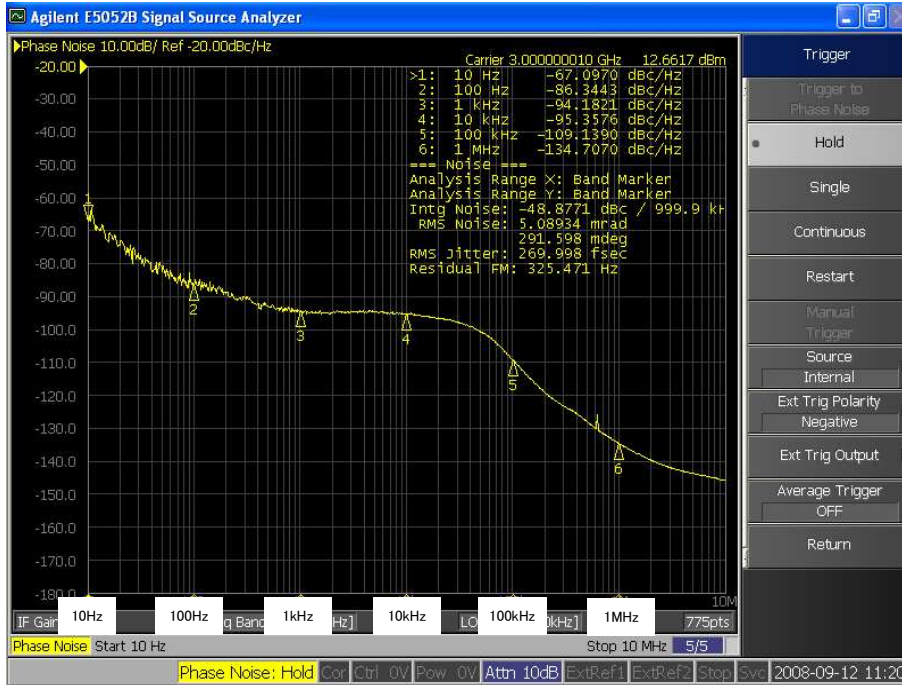


at 2GHz



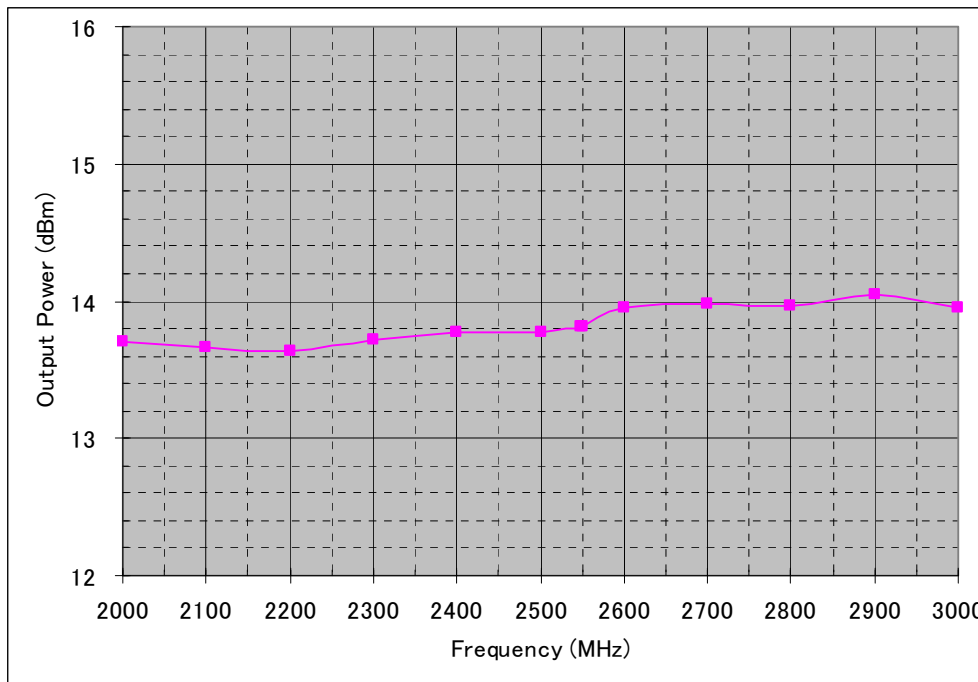
at 2.5GHz

### Typical Phase Noise Characteristics

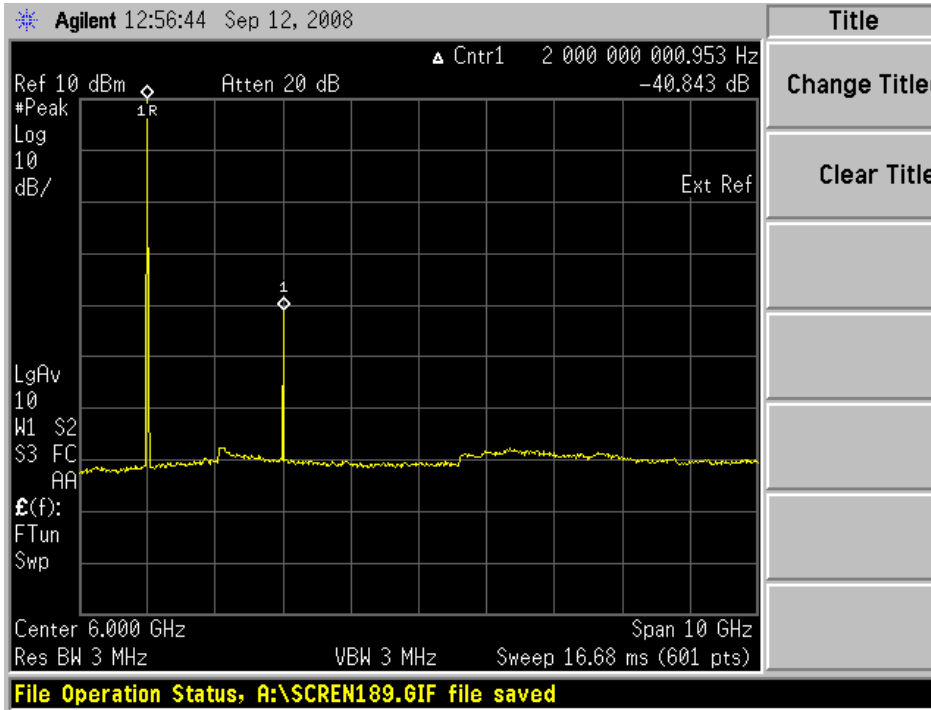


at 3GHz

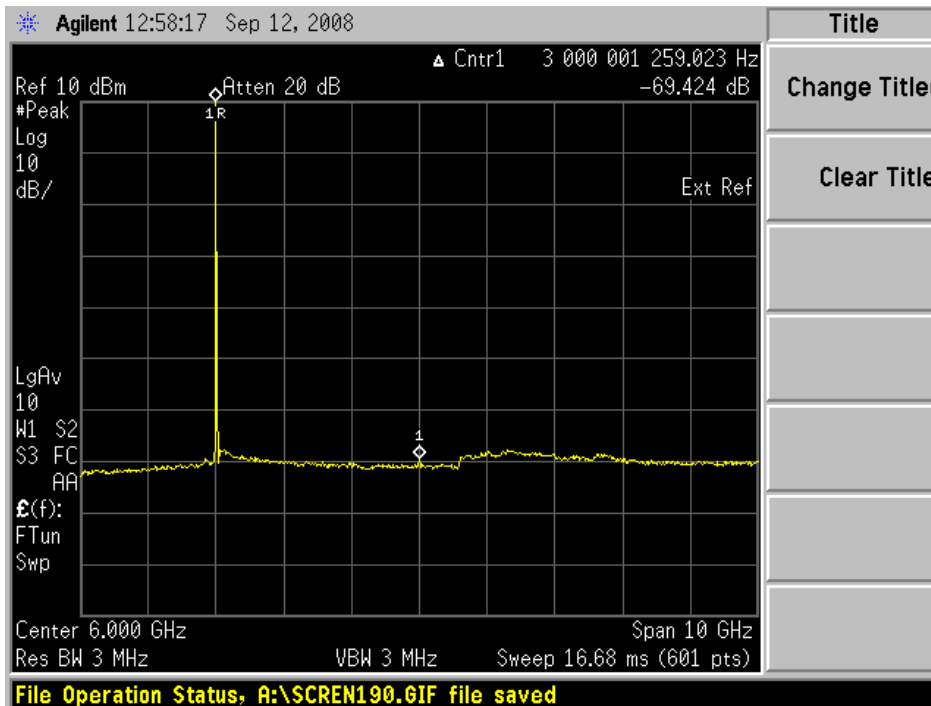
### Typical Output Power



### Typical Spurious Characteristics



**at 2GHz**



**at 3GHz**