



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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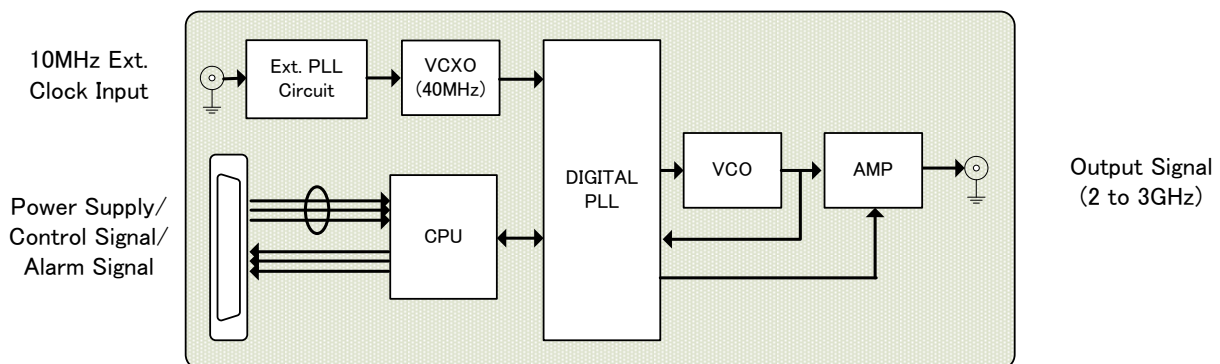
## Features;

- \* 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

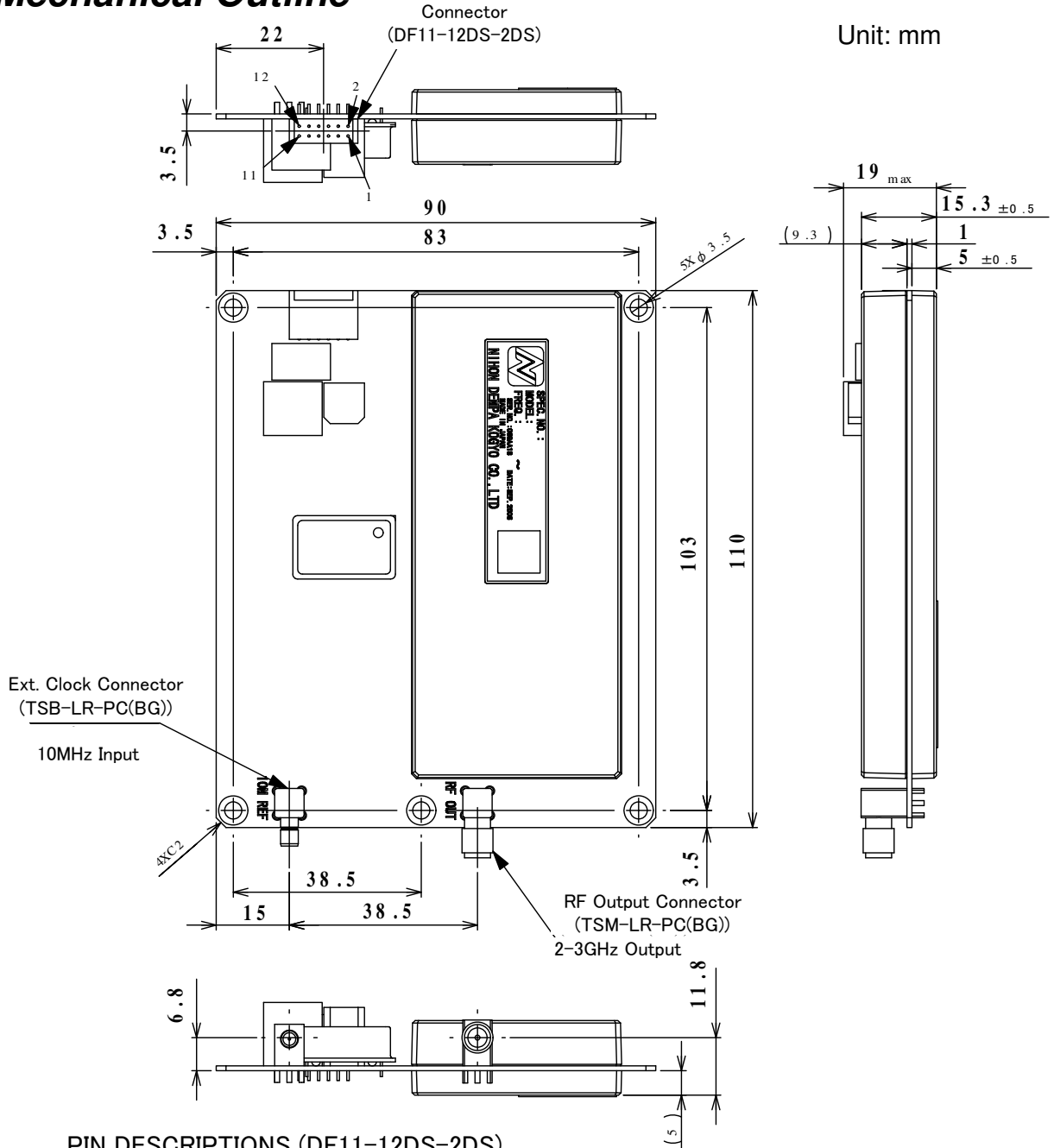
Function Block Diagram



## 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**



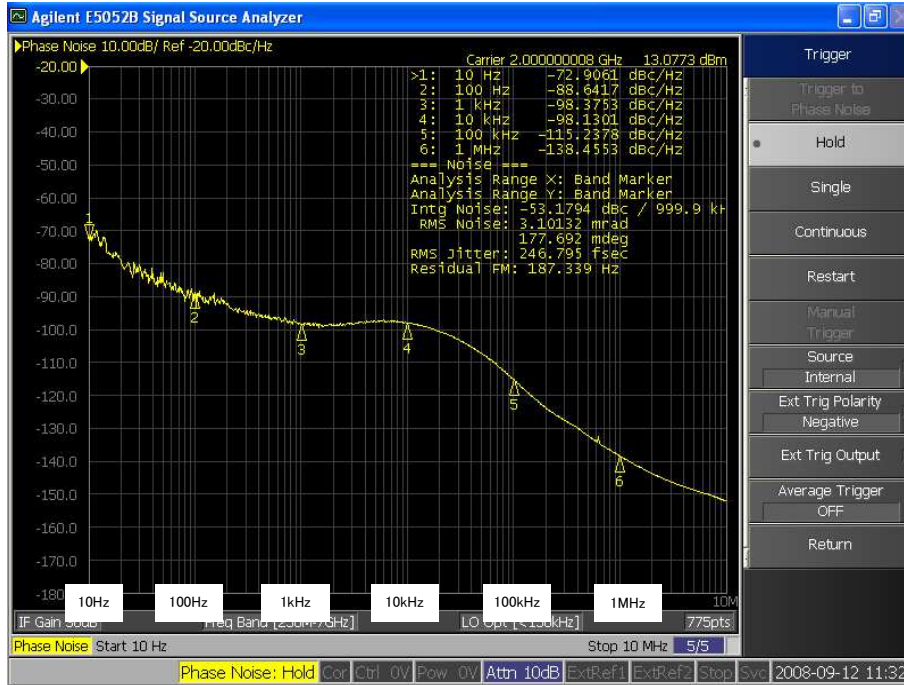
**PIN DESCRIPTIONS (DF11-12DS-2DS)**

#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

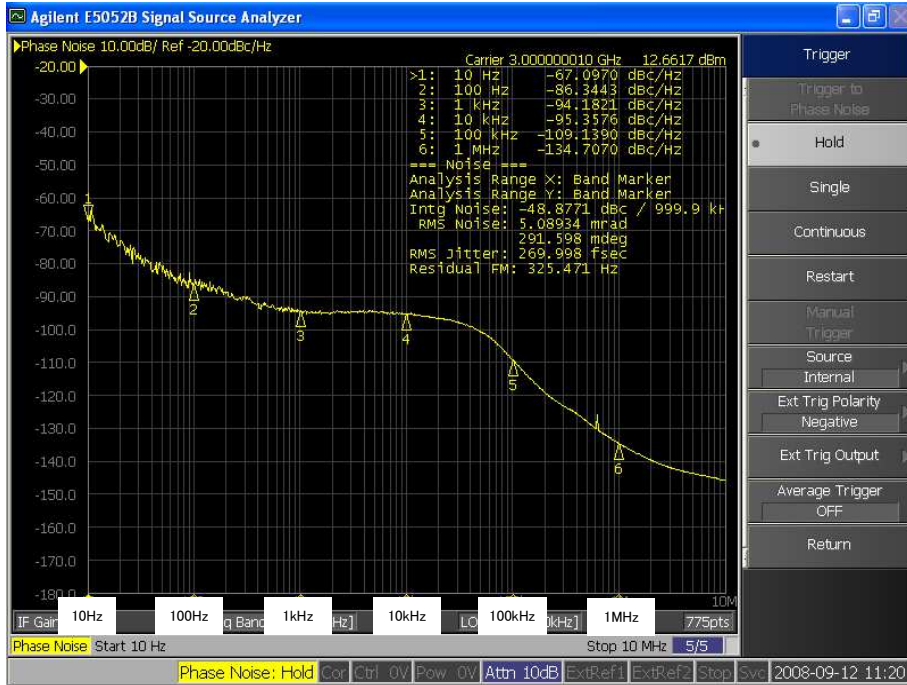


at 2GHz



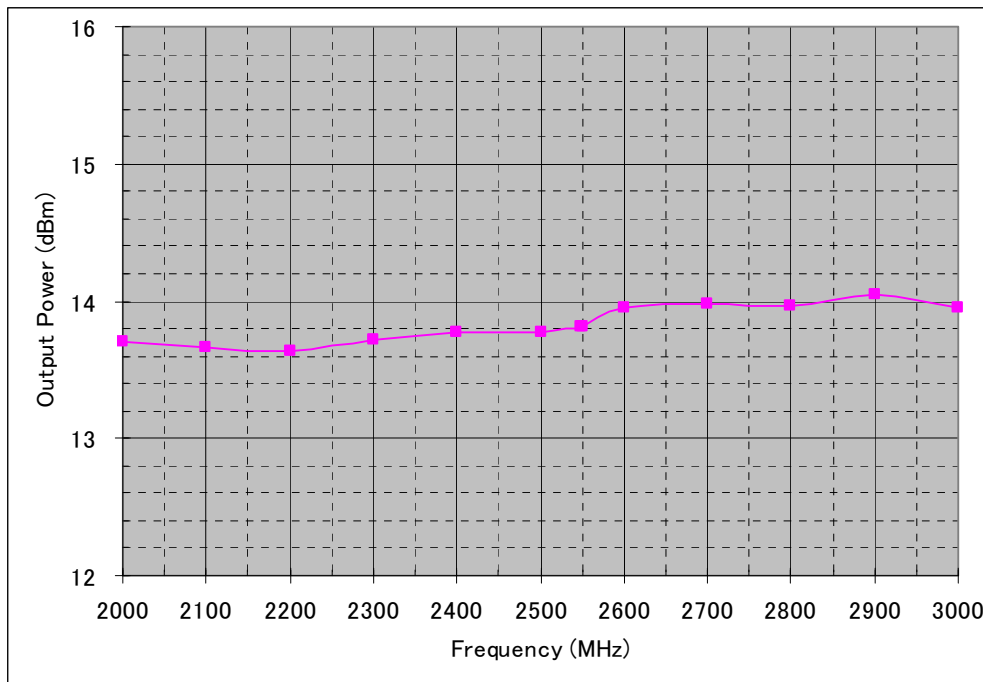
at 2.5GHz

### Typical Phase Noise Characteristics

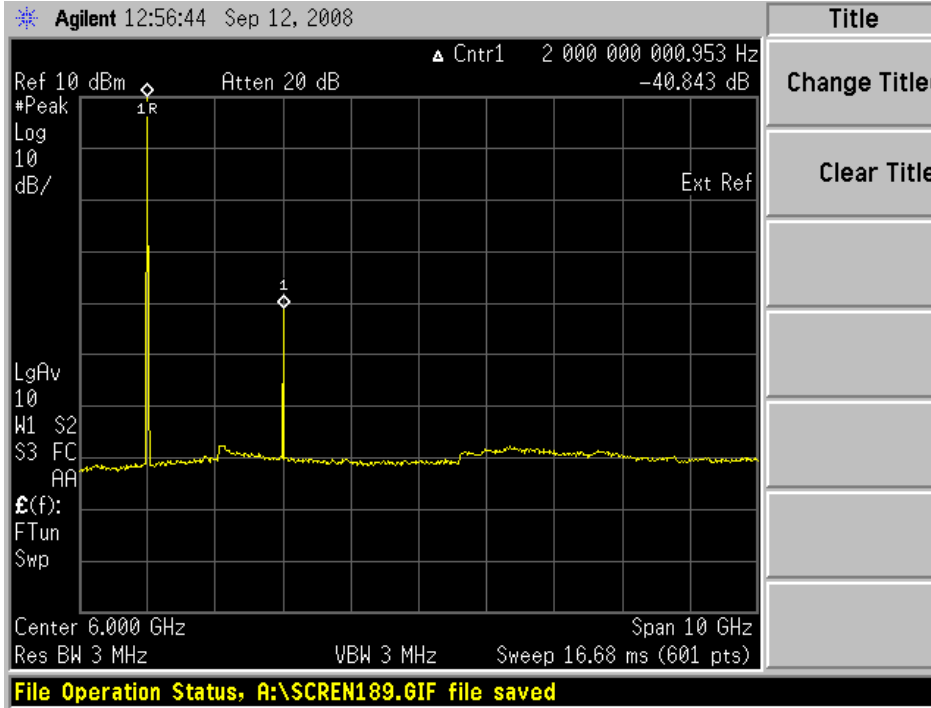


at 3GHz

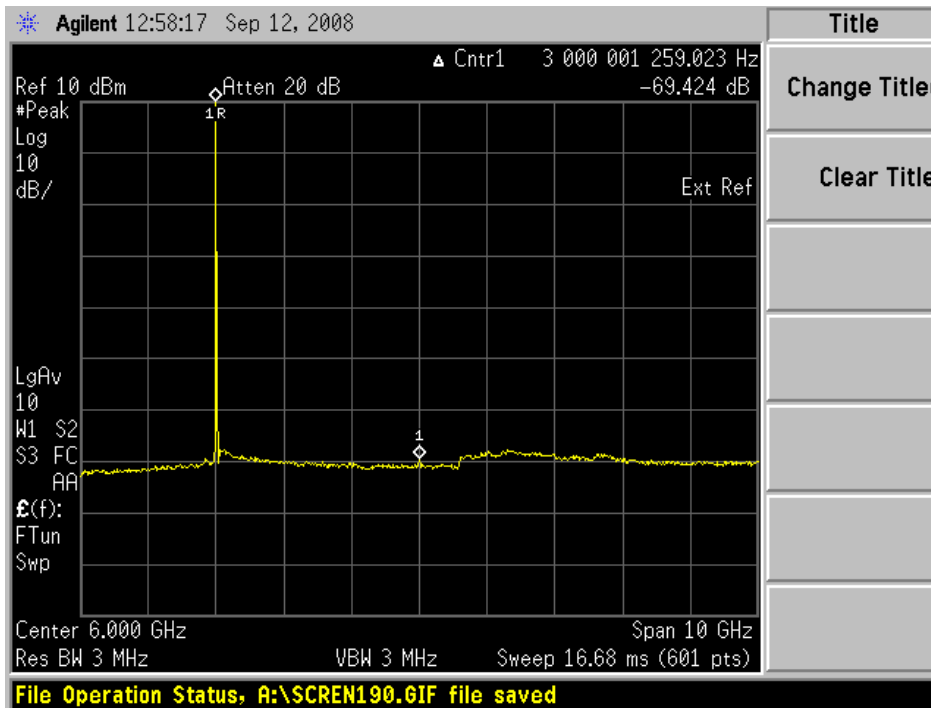
### Typical Output Power



**Typical Spurious Characteristics**



**at 2GHz**



**at 3GHz**