

### Features

- Small size, SMT package
- Perfect performance
- Low power supply +5V
- Freq range 10~6000MHz, fixed output
- Operating temperature -40°C~+85°C



### Description

MPS series utilize hybrid process which integrate PLL IC, MUX, loop filter, VCO and other components. This series provide excellent phase noise through optimizing design. This series can output a fixed frequency only with power supply and reference frequency. Custom output frequency available.

### Applications

- GSM, WCDMA, PHS Wireless base station
- Point to point radio
- Test equipment

### To order

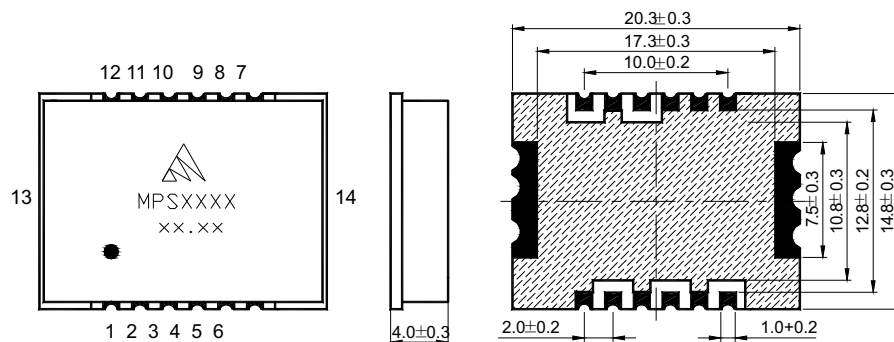
#### MPS 2000

- ① ②

- ①: Series name, Fixed PLL synthesizer  
②: centre frequency

### Package

Outline drawing



### Pin function

Pin No.	Function	Pin No.	Function
1	V <sub>pll</sub>	8	GND
2	GND	9	Lock Detect
3	F <sub>REF</sub>	10	GND
4	GND	11	GND
5	V <sub>vco</sub>	12	GND
6	GND	13	GND
7	RFout	14	GND

## Electrical specification

Part number	Frequency	Output power	Harmonic (2nd/3rd)	Spurious	Phase noise (10kHz/100kHz)	V <sub>pll</sub> /I <sub>pll</sub>	V <sub>vco</sub> /I <sub>vco</sub>
	MHz	dBm	dBc/dBc	dBc	dBc/Hz	V/mA	V/mA
MPS80	80	2±1.5	-15/-20	<-80	-120/-135	+5/10	+5/15
MPS100	100	2±1.5	-15/-20	<-80	-126/-126	+5/10	+5/15
MPS140	140	2±1.5	-15/-20	<-80	-115/-135	+5/10	+5/15
MPS150	150	2±1.5	-15/-20	<-80	-115/-135	+5/10	+5/15
MPS290	290	2±1.5	-15/-20	<-80	-113/-133	+5/15	+5/15
MPS406	406	2±1.5	-15/-20	<-80	-112/-132	+5/15	+5/20
MPS760	760	2±1.5	-15/-20	<-80	-112/-132	+5/15	+5/20
MPS830	830	2±1.5	-15/-20	<-80	-113/-133	+5/15	+5/20
MPS1000	1000	2±1.5	-20/-25	<-80	-110/-125	+5/15	+5/20
MPS1575.42	1575.42	2±1.5	-20/-25	<-80	-105/-125	+5/15	+5/28
MPS2000	2000	2±1.5	-20/-25	<-80	-103/-123	+5/15	+5/28
MPS2260	2260	2±1.5	-25/-30	<-80	-102/-122	+5/15	+5/28
MPS2246.508	2246.508	2±1.5	-25/-30	<-80	-98/-120	+5/15	+5/28
MPS2565.648	2565.648	2±1.5	-25/-30	<-80	-98/-120	+5/15	+5/28
MPS2810	2810	2±1.5	-25/-30	<-80	-95/-115	+5/20	+5/28
MPS3150	3150	2±1.5	-25/-30	<-75	-95/-115	+5/20	+5/28
MPS3330	3330	2±1.5	-25/-30	<-75	-95/-115	+5/20	+5/30
MPS3500	3500	2±1.5	-25/-30	<-75	-95/-115	+5/20	+5/30
MPS4100	4100	0±1.5	-25/-30	<-75	-92/-115	+5/20	+5/35
MPS4800	4800	0±1.5	-25/-30	<-75	-90/-112	+5/20	+5/35
MPS5220	5220	0±1.5	-25/-30	<-70	-88/-110	+5/20	+5/35
MPS5600	5600	0±1.5	-25/-30	<-70	-90/-102	+5/20	+5/35

## Absolute Maximum Ratings

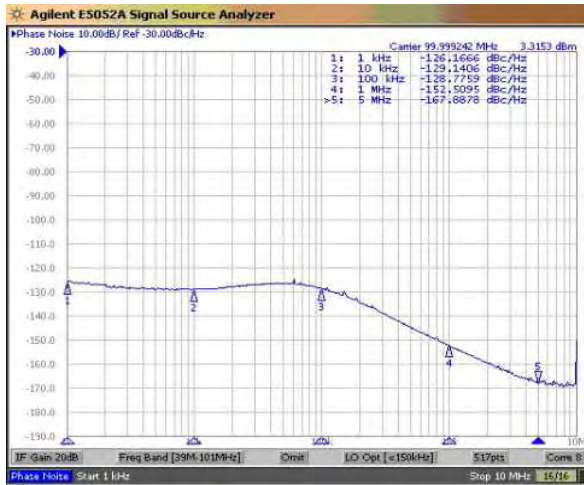
Parameter	Absolute limit
VCO Supply voltage	+6.5V
PLL Supply voltage	+6.0V
Reference Frequency Voltage	-0.3V~V <sub>pll</sub> +0.3V
Storage temperature	-55~+100℃

Note: 1. Operation of device above any one of these parameters may cause permanent damage  
 2. ESD sensitive, observe handling precautions

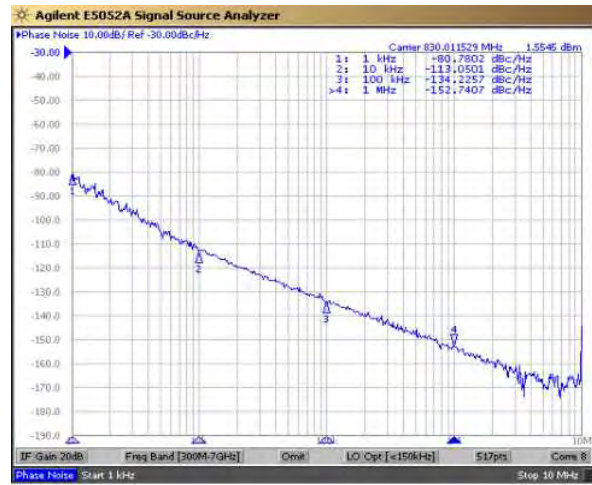
# MPS series fixed PLL synthesizer



## Phase noise ( Measured by Agilent E5052A)



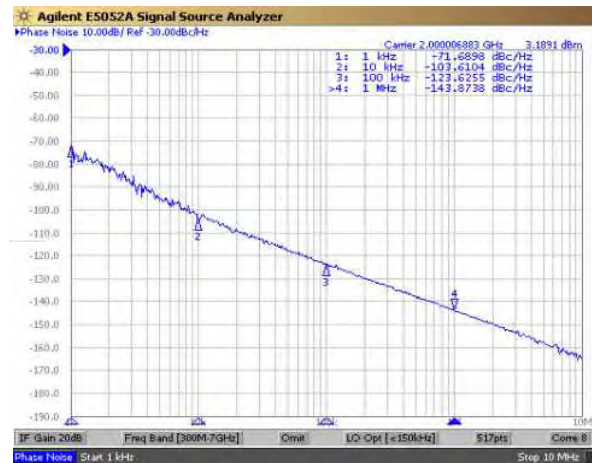
MPS100



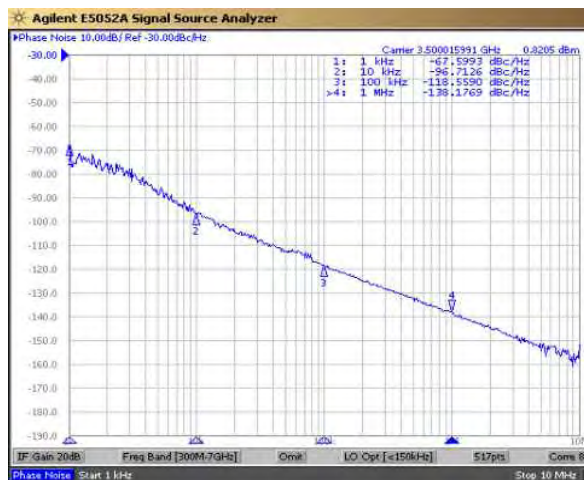
MPS830



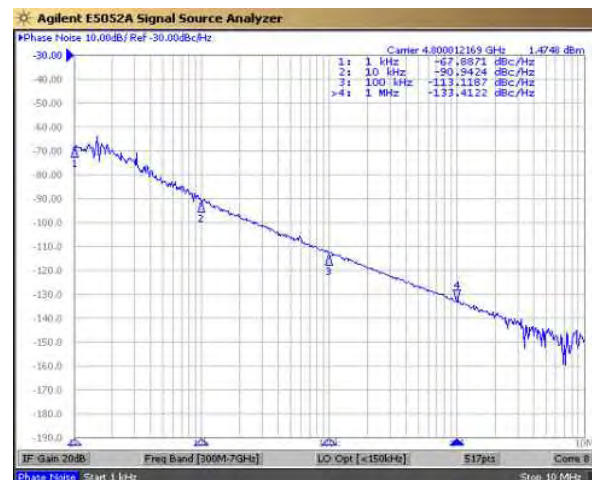
MPS1000



MPS2000



MPS3500



MPS4800