

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

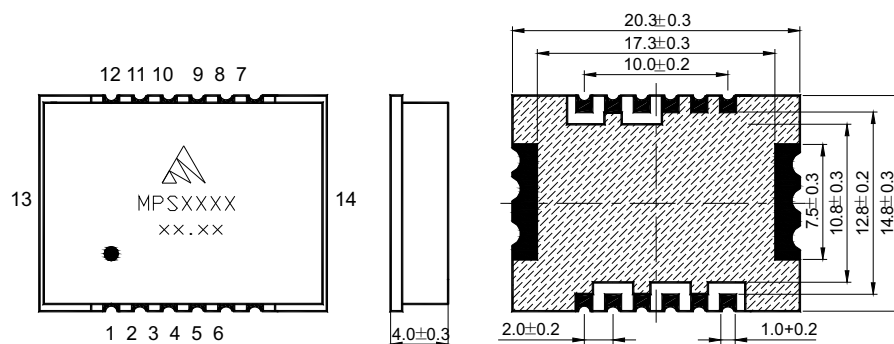
MPS 2000

- ① ②

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

Package

Outline drawing



Pin function

Pin No.	Function	Pin No.	Function
1	V _{pll}	8	GND
2	GND	9	Lock Detect
3	F _{REF}	10	GND
4	GND	11	GND
5	V _{vco}	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 _{pll} /I _{pll}	V _{vco} /I _{vco}
	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

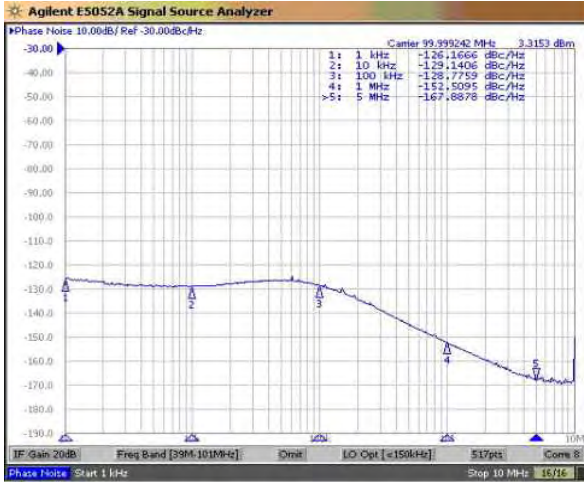
Parameter	Absolute limit
VCO Supply voltage	+6.5V
PLL Supply voltage	+6.0V
Reference Frequency Voltage	-0.3V~V _{pll} +0.3V
Storage temperature	-55~+100℃

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

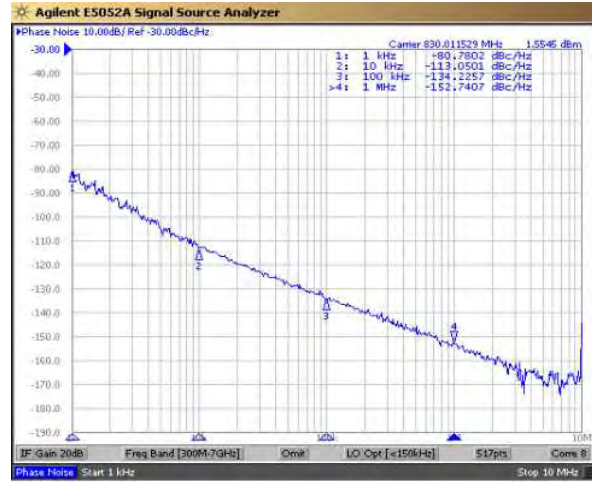
MPS series fixed PLL synthesizer



Phase noise (Measured by Agilent E5052A)



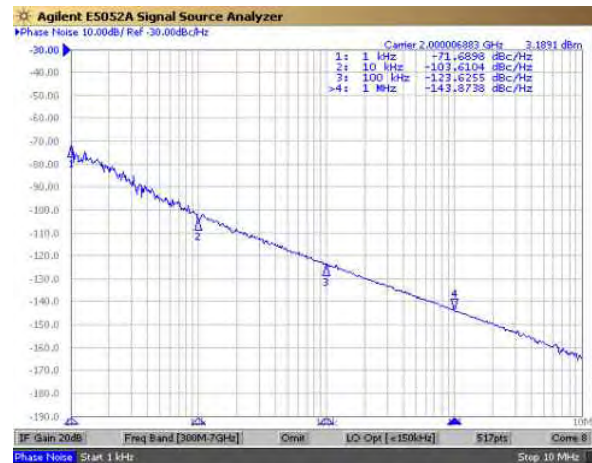
MPS100



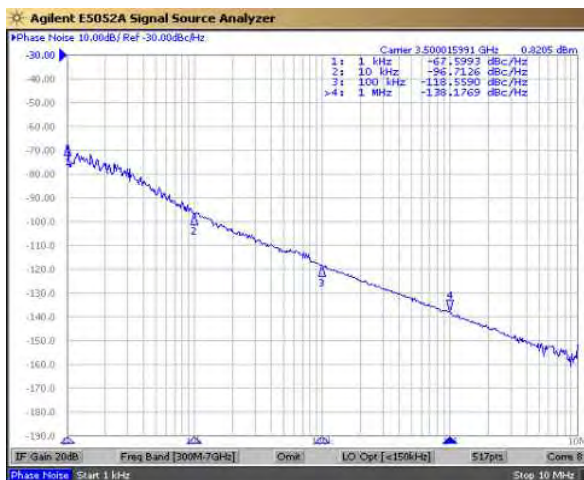
MPS830



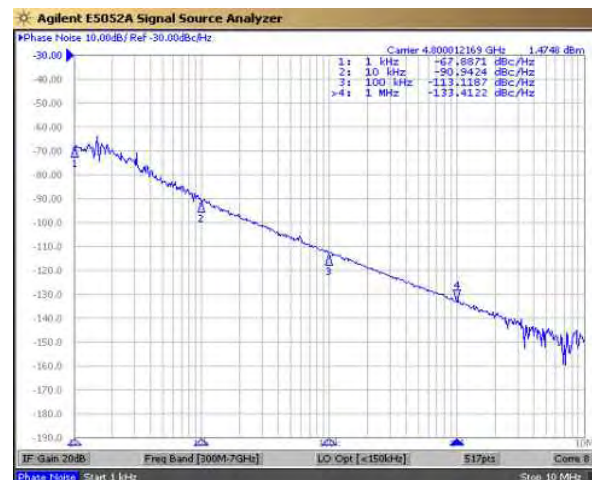
MPS1000



MPS2000



MPS3500



MPS4800