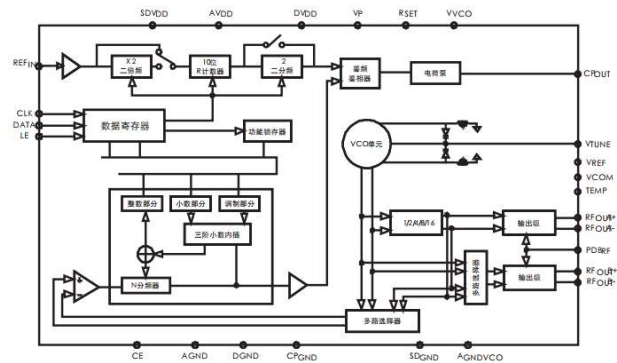


### Performance

- Output Frequency: 137.5~4400MHz
- Reference Input: 10~105MHz  
(0.7V~VDD)
- Max Phase Frequency: 32MHz
- Noise Floor: -216 dBc/Hz
- Chip size: 2.65\*2.5\*0.18mm

### Function Diagram



### Electrical Specifications (Ta=+25°C)

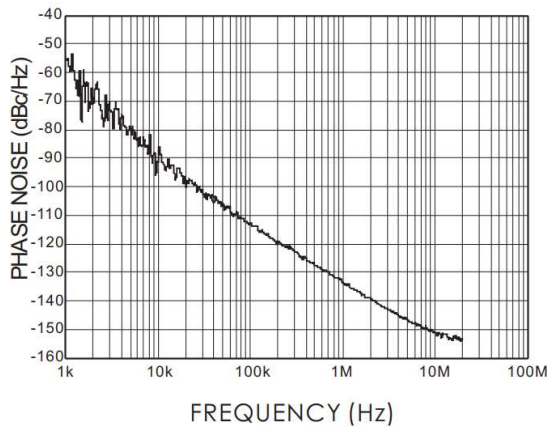
	Min	Typ.	Max	Unit	Note
Consumption					
AVDD	3.0	3.3	3.6	V	
DVDD,WCO,SDVDD,VP	-	AVDD	-	-	Voltage must be equal to AVDD
DIDD+AIDD 1	-	31	37	mA	
Output Driver	-	6	24	mA	Every channel/2 is approx.. 6mA
IVCO 1	-	78	88	mA	RF output programme
IRFOUT1	-	26	31	mA	
PFD					
Phase Frequency	-	-	32	MHz	
Charge pump					
High Current Value	-	5.2	-	mA	RSET=5.1 KΩ
Low Current Value	-	0.325	-	mA	
RSET Range	2.7	-	10	KΩ	
Ref Input					
Input Frequency	-	-	110	MHz	Bias is AVDD/2
Input Sensitivity	0.7	-	AVDD	Vp-p	
Logic Input					
High Logic level	1.5	-	-	V	
Low Logic level	-	-	0.6	V	
RF output					
VCO Max Output Freq.	-	-	4400	MHz	
VCO Min Output Freq.	2200	-	-	MHz	Fundamental VCO Mode
VCO Min Output Freq.	137.5	-	-	MHz	2200MHz Fundamental/16

MMIC Programmable Integer PLL

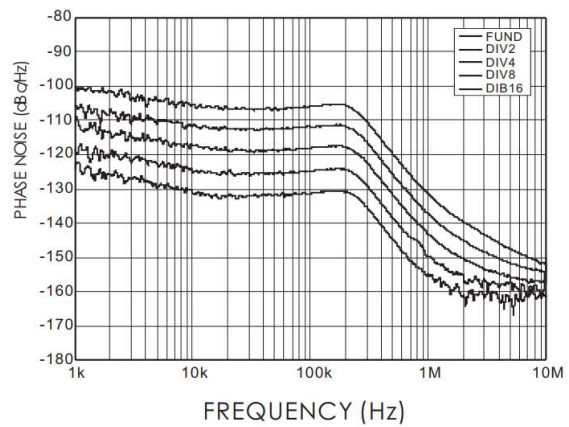
VCO Sensitivity	-	40	-	MHz/V	
RF max Output Power 2	-	5	-	dBm	
RF min Output Power 2	-	-4	-	dBm	Programme is 3dB steps
Min VCO Tuning voltage	-	0.7	-	V	
Max VCO Tuning voltage	-	2.5	-	V	
Noise Figure					
Noise Floor	-215	-	-219	dBc/Hz	
Spurious generate by PFD	-	Related to phase Freq.	-65	dBc	

Test Curves

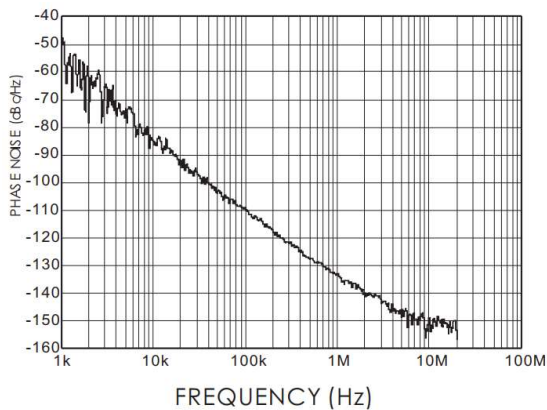
2.2GHz, Open VCO Phase Noise



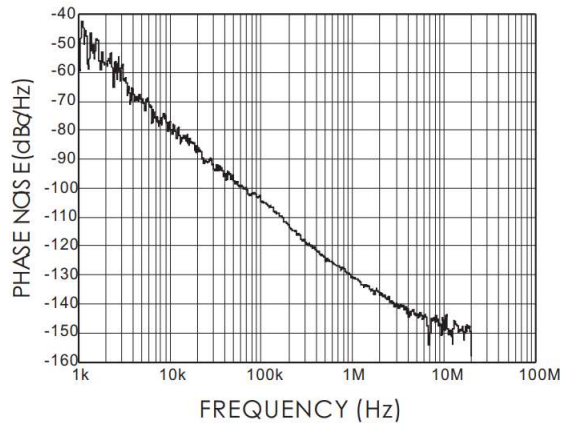
VCO=2.2GHz, PFD=20MHz, Loop Bandwidth=200KHz



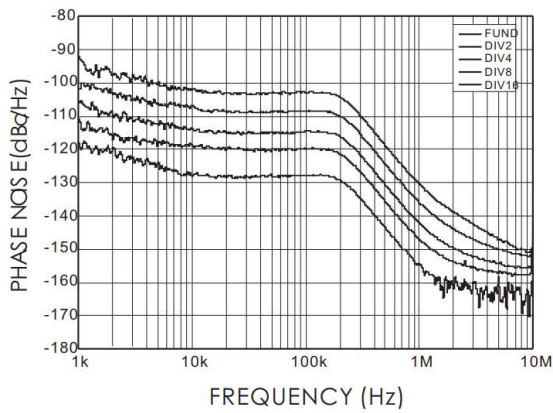
3.3GHz, Open VCO Phase Noise



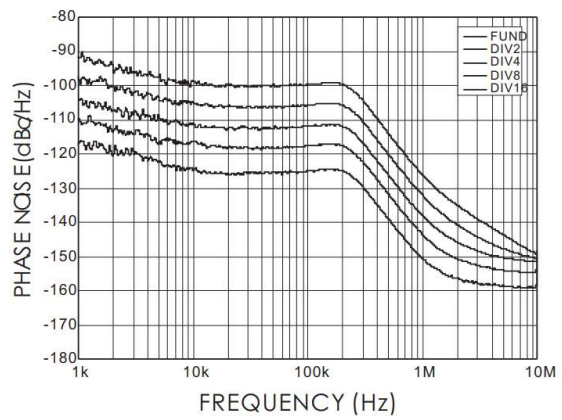
4.4GHz, Open VCO Phase Noise



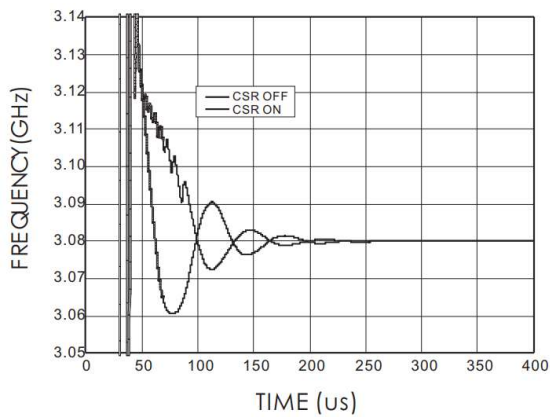
VCO=3.3GHz, PFD=20MHz, Loop Bandwidth=200KHz



VCO=4.4GHz, PFD=20MHz, Loop Bandwidth=200KHz



Tune 2980 to 3080, time curve locked when CSR open or close, PFD=20MHz, ICP=313uA, Loop Bandwidth=20KHz

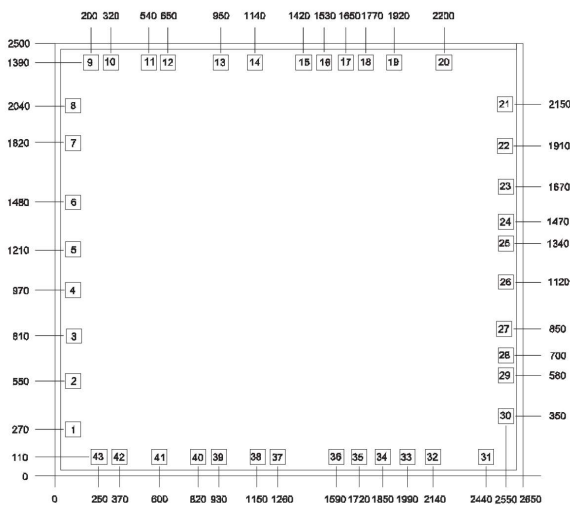


**Absolute Max Ratings**

AVDD	+3.6Vdc
Junction Temperature	+175°C
Storage Temperature	-65°C ~ +150°C
Operating Temperature	-55°C ~ +125°C
ESD (HBM)	Class 1A



**Outline Size**



Note:

1. Unit: um
2. Bonding pads is AL plated, size: 80\*90um