1.25 to 20GHz SMD Miniaturized Frequency Synthesizer

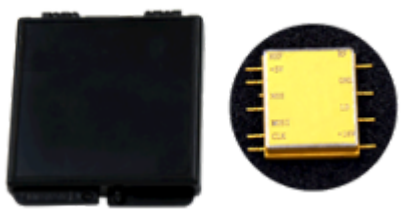
15x12x3mm or 9x9x2.2mm

Description

SMD Frequency Synthesizer: The frequency synthesizer uses HTCC process technology. The microwave layer and body are fired simult aneously in a kiln at high temperature. HTCC packaging technology offers mechanical rigidity and hermeticity, making it suitable for high-reliability and environmentally stressful applications. It also provides high temperature and corrosion resistance, long operating life, temp erature uniformity, and good thermal conductivity.

Features

- Fixed freq.: 1.25 – 20 GHz
- Miniaturization
- Low Spurious, Low Power Consumption
- External Reference 100 MHz
- Compact SMT package



Electrical Specifications

Description	Specifications						
Output Freq.	1.25 - 20GHz	0.1 - 15GHz	0.1 - 6.2GHz	0.5 - 10GHz	10 - 20GHz	0.8 - 22GHz	Fixed freq.
Freq. Steps	100KHz min.	1MHz min.	100KHz min.	100KHz min.	100MHz min.	100KHz min.	-
Output Power	10dBm	10dBm	10dBm	10dBm	5dBm	10dBm	3 -12dBm
Spurious	-50dBc	-60dBc	-50dBc	-50dBc	-70dBc	-50dBc	-60dBc
Harmonics	-10dBc	-10dBc	-10dBc	-10dBc	-10dBc	-10dBc	-10dBc
Phase Noise	-90dBc/Hz@1KHz	-93dBc/Hz@1KHz	-95dBc/Hz@1KHz	-100dBc/Hz@1KHz	-95dBc/Hz@1KHz	-109dBc/Hz@1KHz	-90dBc/Hz@1KHz
Setting Time	20 - 400us	150us	150us	8us	8us	60 - 100us	-
VCC-1	+5V	+3.3V	+3.3V	+5V	+5V	+5V	+5V
VCC-2	+5 ~ +20V	+5V	+5V	+5V	+5 ~ +18V	+5 ~ +20V	+5V
Size	9*9*2.2mm	15*12*3mm	15*12*3mm	20*15*3mm	20*15*3mm	20*15*3mm	9*9*2.2mm
Control interface	SPI three lines						
Note	Output any point frequency in the range 0.5 to 40 GHz						

Special Requirements

Output Power：5~12dBm@15*12*3mm ; 3~10dBm@9*9*2.2mm

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1.25 to 20GHz SMD Miniaturized Frequency Synthesizer

15x12x3mm or 9x9x2.2mm

Note

- Electronic Specification Note : Values at 25deg , sea level. Test indicators will deteriorate at high and low temperature ;
- Ref Phase Noise: ≤-155dBc/Hz@1KHz ;
- Relative Humidity 5 to 95% ;

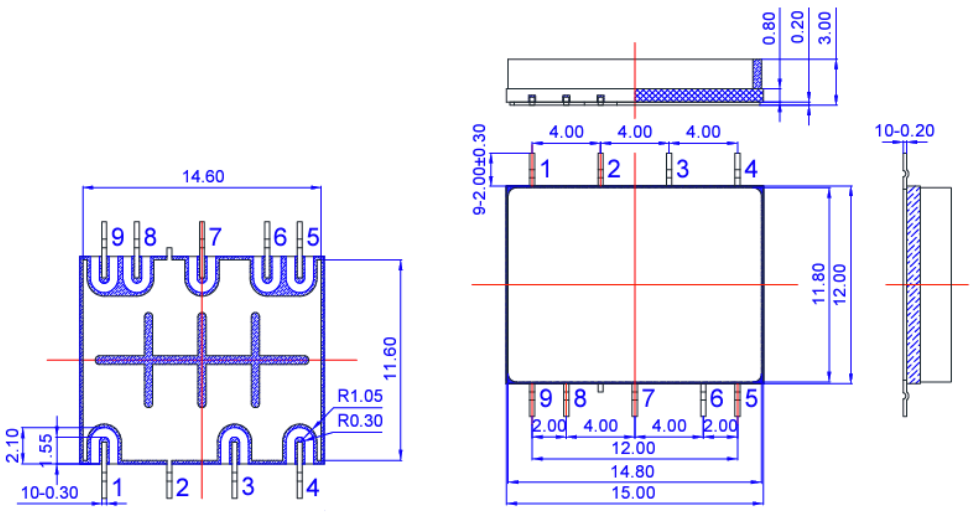
Mechanical Specifications

Dimension L*W*H	9*9*2.2mm or 15*12*3 mm
Connectors	PIN
Weight	1.5 / 2.0 g
Finishing	Gold plated

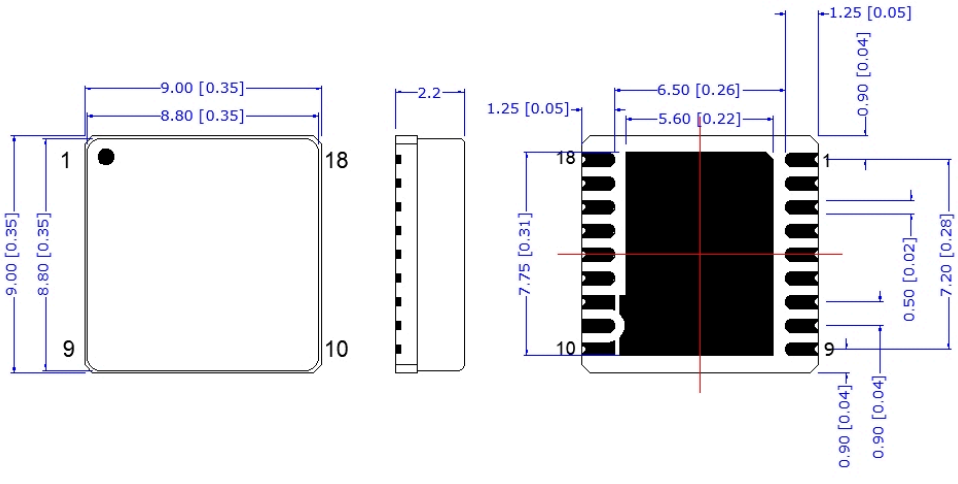
Compliance Certifications

RoHS Compliant	☑
REACH Compliant	☑

CAD Drawing



15*12*3.0mm



9*9*2.2mm

Dimensions are in mm [Inches]

Tolerances : Outline drawing: ±0.2 [0.008]

Hole: ±0.2 [0.008]

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Type Phase Noise

Freq. MHz	Power dBm	Spurious (dBc)					Phase Noise				
		Freq. offset				1/2 Harmonics	dBc/Hz @100Hz	dBc/Hz @1kHz	dBc/Hz @10kHz	dBc/Hz @100kHz	dBc/Hz @1MHz
		-50MHz	50MHz	-100MHz	100MHz						
2000	13.4	91.24	91.94	95.24	96.38	97.27	-98.65	-110.74	-115.77	-112.32	-121.61
4000	11.8	85.8	87.44	92.77	93.12	95.85	-91.18	-102.21	-111.21	-106.73	-115.51
6000	10.1	84.59	82.99	88.09	84.05	93.67	-88.93	-102.17	-107.85	-100.87	-110.55
8000	11.6	83.19	80.97	87.92	92.2	94.71	-87.83	-99.82	-105.49	-99.87	-109.36
10000	10.9	83.58	82.23	84.67	86.84	78	-85.32	-98.55	-102.97	-95.72	-109.96
12000	11.9	79	78.39	88.13	87.61	72.62	-79.74	-97.27	-101.9	-95.22	-104.78
14000	10.5	81.18	79.78	90.53	88.61	59.62	-82.25	-95.88	-99.3	-93.43	-107.59
16000	10	74.06	74.2	87.03	87.96	68.14	-80	-95.07	-99.82	-94.31	-103.92
18000	8.93	77.75	75.13	89.89	88.68	59.02	-78.89	-93.78	-98.27	-92.56	-105.28
20000	7.17	76.46	79.87	84.21	84.42	55.63	-79.9	-94.14	-98.03	-92.09	-107
10000	12.5	78.74	78.83	94.84	91.79	93.48	-82	-97.14	-101.84	-97.59	-112.89
11000	11.7	76.59	75.69	95.69	94.4	74.33	-80.18	-95.64	-101.36	-97.59	-110.06
12000	12.9	74.92	74.32	92.8	90.14	74.83	-81.83	-95.71	-100.07	-95.73	-105.97
13000	12.8	76.9	76.24	95.5	91.68	73.19	-80.28	-94.74	-100.59	-96.19	-106.87
14000	11.9	75.86	76.22	95.34	90.86	75.69	-79.33	-95.23	-99.22	-94.85	-106.82
15000	9.81	74.41	74.65	91.28	89.82	78.23	-79.32	-94.67	-99.03	-94.41	-108.07
16000	10.7	72.48	71.56	89.21	86.18	66.19	-76.86	-93.03	-99.15	-94.93	-104.82
17000	11.1	72.61	71.99	89.96	87.87	62.82	-78.56	-92.99	-97.91	-94.9	-106.29
18000	10.7	72.69	72.45	89.61	90.78	71.62	-78.17	-92.63	-98.18	-95.25	-106.89
19000	8.64	73.56	73.89	88.5	89.53	68.05	-77.48	-92.52	-98.82	-94.11	-110.57
20000	9.36	75.4	74.26	88.93	88.03	59.29	-77.09	-92.55	-98.62	-92.96	-112.37

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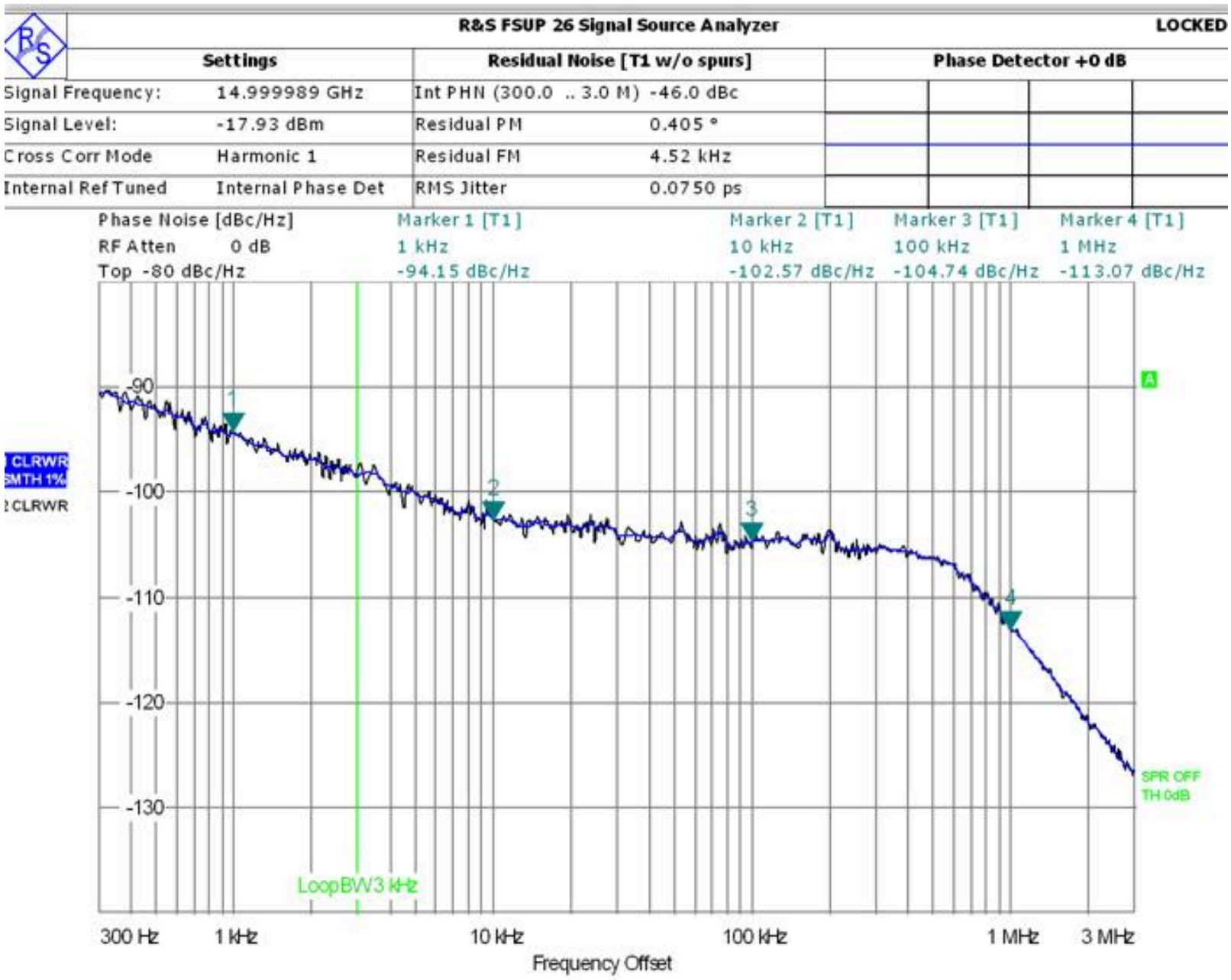

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