



HERLEY
GENERAL MICROWAVE

**FAST SYNTHESIZER
MODEL: S2676**



MAIN FEATURES

- ◆ Wide Frequency Range: 2-19 GHz.
- ◆ Fast Switching Speed: 1 micro sec.
- ◆ Small Size.
- ◆ Low Power Consumption.
- ◆ Very low Phase Noise.

DESCRIPTION

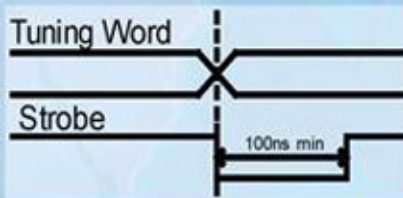
The S2676 is a state of the art Fast Indirect Synthesizer (FIS) designed to meet most demanding applications including Airborne, ground and Naval.

It's fast switching speed, very low Phase Noise and wide band coverage are based on proprietary design which utilizes high performance VCOs and DDS.

The S2676 introduces a new standard of Performance-to-Cost value for FIS.

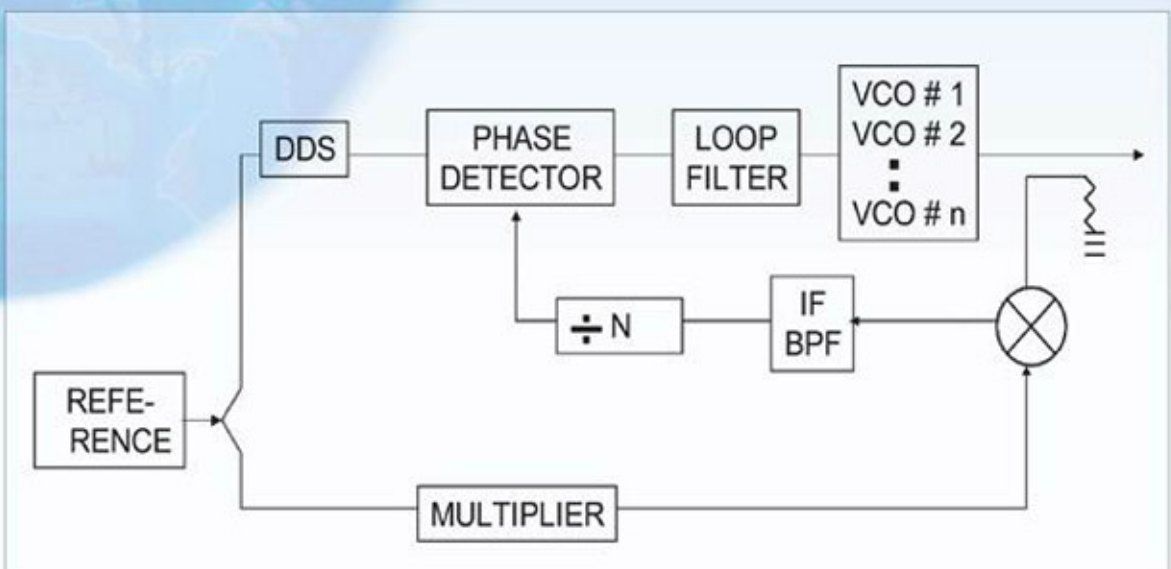
Control Command

The frequency control command consists of a parallel word of 21 bits. To activate this frequency command a strobe latch should be applied. The tuning word is sampled on the rising edge of the Strobe pulse. The Strobe pulse is a negative TTL pulse with a minimum pulse width of 100 ns.



Lock Indicator

A high TTL level output indicates that the synthesizer is locked.



Specifications of Basic Configuration

No.	Parameter	Specifications
1	FREQUENCY RANGE	2-19 GHz
2	FREQUENCY STEP SIZE, nominal LSB	10 KHz (other resolutions available)
3	FREQUENCY ACCURACY	<ul style="list-style-type: none"> With External reference: As per reference crystal oscillator With Internal reference: Internal: +/- 1 ppm
4	FREQUENCY AGING	<ul style="list-style-type: none"> With External reference: As per reference crystal oscillator With Internal reference: Internal: ±2 ppm/year
5	OUTPUT POWER (dBm, min)	10 Standard 14,18 Optional
6	OUTPUT POWER VARIATION OVER TEMPERATURE (MAX, dB)	±2.5
7	SETTLING TIME (µsec, max)	1
8	SSB PHASE NOISE, max (dBc/Hz)	2 - 19GHz
	@100 Hz offset ⁽¹⁾	-60
	@1 KHz offset ⁽¹⁾	-82
	@ 10 kHz offset ⁽¹⁾	-103
	@ 100 kHz offset	-108
	@ 1 MHz offset	-108
9	HARMONICS up to 26 GHz, max (dBc)	-20
10	SUB HARMONICS, max (dBc)	-60
11	SPURIOUS, max (dBc)	-50
12	PULLING @ VSWR 2:1 max (MHz)	<1KHz
13	PUSHING, max (kHz/V)	±1 KHz/V
14	INTERNAL REFERENCE	Optional
15	EXTERNAL REFERENCE INPUT FREQUENCY (MHz)	100
16	EXTERNAL REFERENCE INPUT POWER, dBm	0 ± 2
17	POWER SUPPLY REQUIREMENT	+12 to +15V , 1.8A max -12 to -15V, 0.3A max 4.8 to 5.2V, 1.5A max
18	POWER CONSUMPTION, max [W]	30
19	DIMENSIONS	6 x 6 x 1.1" /152.4x152.4x27.94 mm, max
20	ENVIRONMENTAL REQUIREMENTS	Airborne Application

Notes:

(1): Can be improved with external reference.

