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SP8704

950MHz VERY LOW CURRENT MULTI-MODULUS DIVIDER

The SP8704 is a switchable divide by 128/129, 64/65 programmable divider with a maximum specified operating frequency of 950MHz.

The signal (clock) inputs are biased internally and require to be capacitor coupled.

The SP8704 will operate from any supply from 3V to 5V and features full electrostatic discharge protection.

FEATURES

- DC to 950MHz Operation
- -40°C to +85°C Temperature Range
- Operation from 3V to 5V Supply
- ESD Protection on all Pins

QUICK REFERENCE DATA

- Supply Voltage 3V to 5V
- Supply Current 10mA - Including Output Emitter Follower

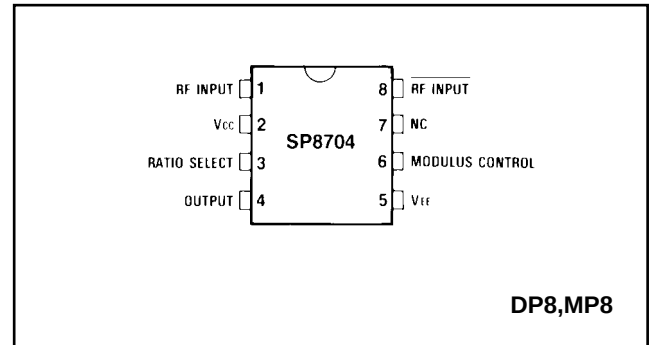


Fig. 1 Pin connections - top view

ABSOLUTE MAXIMUM RATINGS

Supply voltage	7V
Storage temperature range	-55°C to +125°C
Junction temperature	+175°C
Input voltage	2.5V p-p

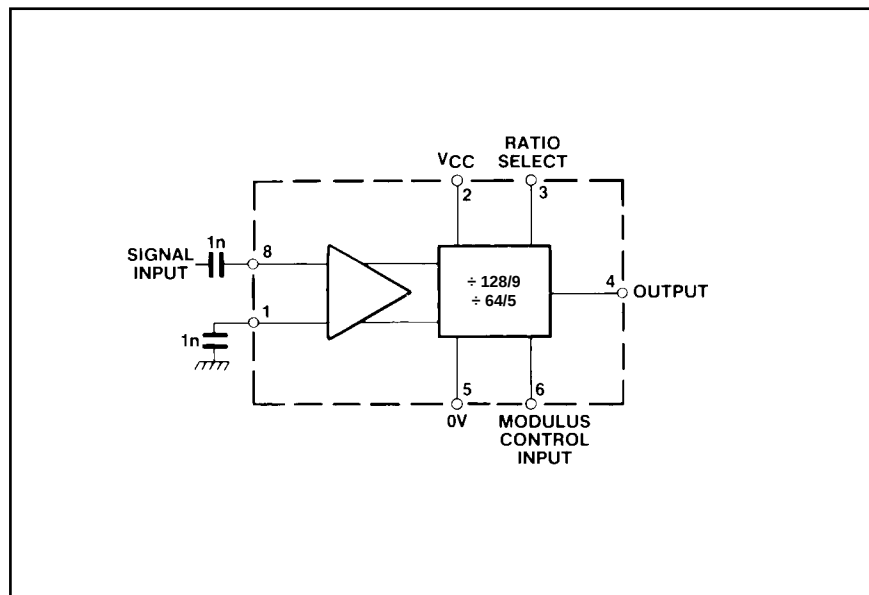


Fig. 2 Functional diagram SP8704

SP8704

ELECTRICAL CHARACTERISTICS

Test conditions (unless otherwise stated):

$T_{amb} = -40^{\circ}\text{C}$ to 85°C , $V_{CC} = +2.75\text{V}$ to $+5.5\text{V}$

Characteristic		Value			Units	Conditions
		Min.	Typ.	Max.		
Supply current			10		mA	Including output emitter follower Sinewave input into 50W
Input sensitivity	10MHz			150	mV rms	
	80MHz			25		
	150MHz			15		
	850MHz			15		
	950MHz			50		
Input impedance			50		W	Emitter follower output current source = 0.75mA 128/129 selected 64/65 selected 65 or 129 selected 64 or 128 selected
			2		pF	
Output			1		V pk-pk	
Ratio select (pin 3)	LO	V _{CC}		1	V	
	HI				V	
Modulus control (pin 6)	LO			1	V	
	HI	2			V	
Clock to output delay			8		ns	
Set up time			16		ns	
Release time			16		ns	

TRUTH TABLE

Pin 3	Pin 6	Division ratio
L	L	129
L	H	128
H	L	65
H	H	64

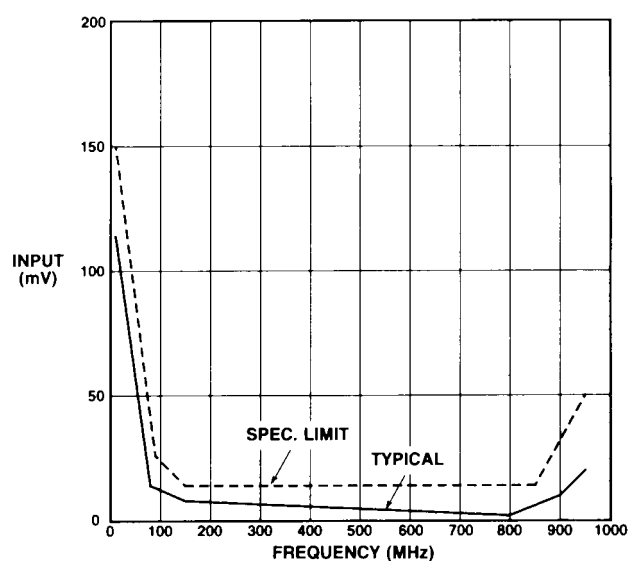


Fig. 3 Typical input sensitivity at 85°C



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HEADQUARTERS OPERATIONS

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