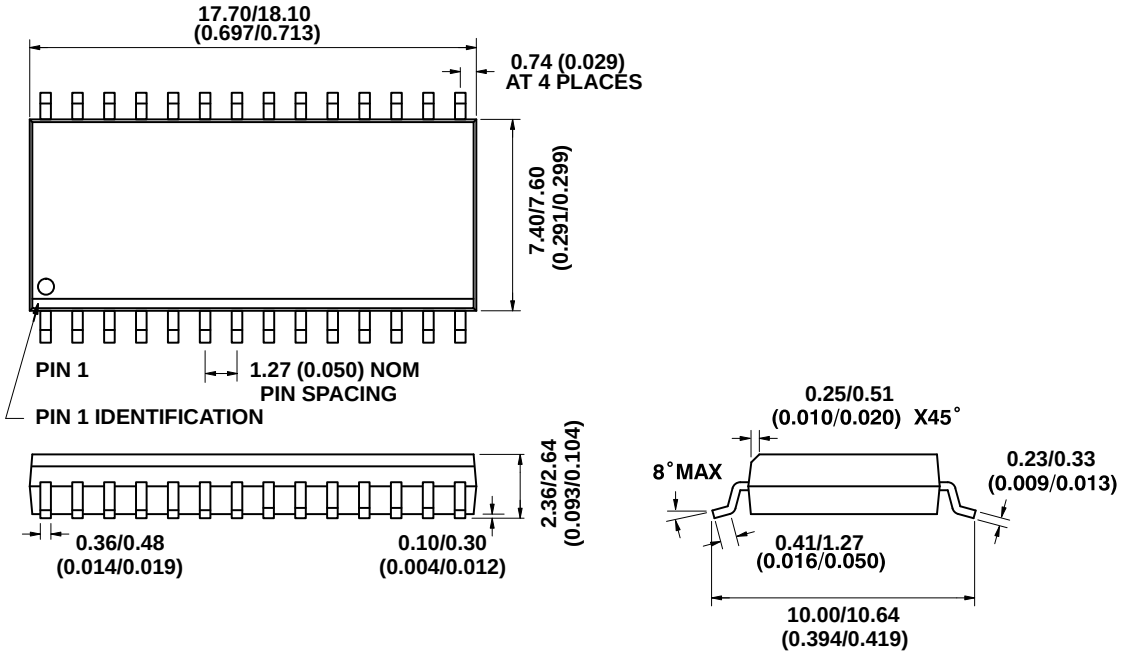
PACKAGE DETAILS

Dimensions are shown thus: mm (in). For further package information please contact your local Customer Service Centre.

28 LEAD MINIATURE PLASTIC MP28



GEC PLESSEY SEMICONDUCTORS

HEADQUARTERS OPERATIONS

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- **ITALY** Milan Tel: (02) 66040867 Fax: (02) 66040993
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These are supported by Agents and Distributors in major countries world–wide.

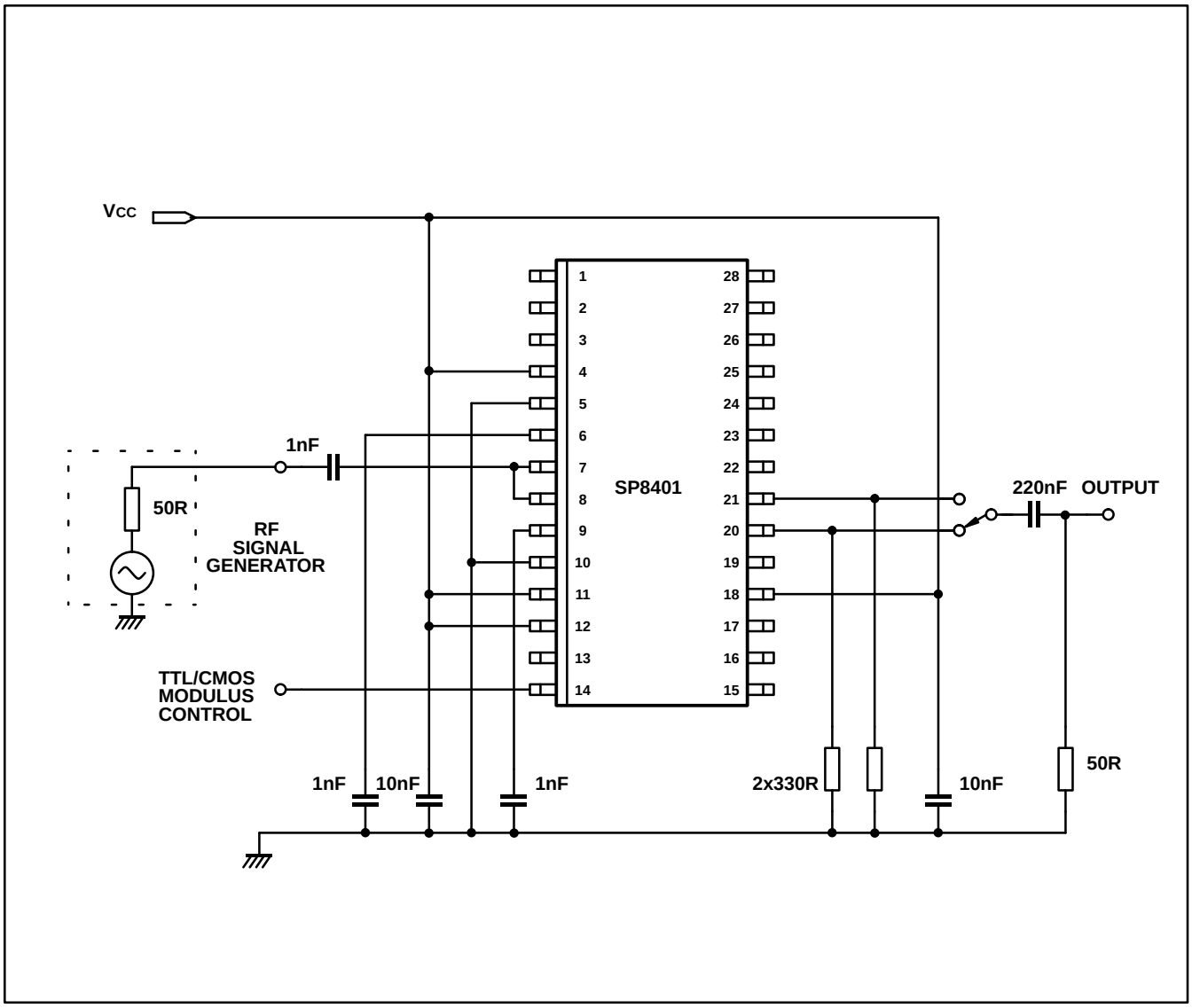

Fig. 5 Test circuit

ELECTRICAL CHARACTERISTICS

Guaranteed over; Supply Voltage V_{CC} = +4.75V to +5.25V, Temperature T_{amb} = –10°C to +75°C
Tested at +4.75V and +5.25V at T_{amb} = +25°C

Characteristics	Pin	Value			Units	Conditions
		Min	Typ	Max		
Supply current	4,11,12, 18	50	57	64	mA	Outputs loaded with 330R See Fig.5
Output voltage swing	20,21	340	440		mV	p–p @ 330MHz input ÷ 11 mode Outputs loaded with 330R
Input sensitivity 50MHz to 300MHz	7,8			140 (–4)	mV dBm	RMS Sine wave into 50Ω (dBm equivalent) See Fig. 3
MODULUS CONTROL INPUT						
Logic high voltage	14	2.2			V	÷10 mode
Logic low voltage	14			0.8		÷ 11 mode
Input current	14			180	µA	Modulus control input voltage 5V
Set up time t_s	14		4		ns	
Release time t_r	14		4		ns	

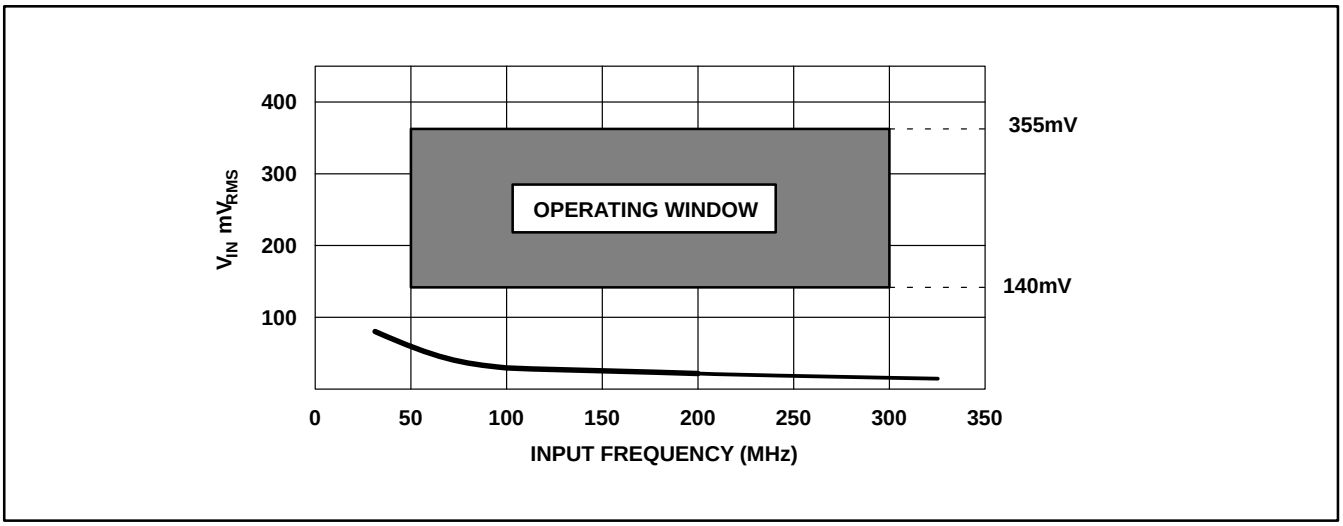

Fig.3 Typical input sensitivity

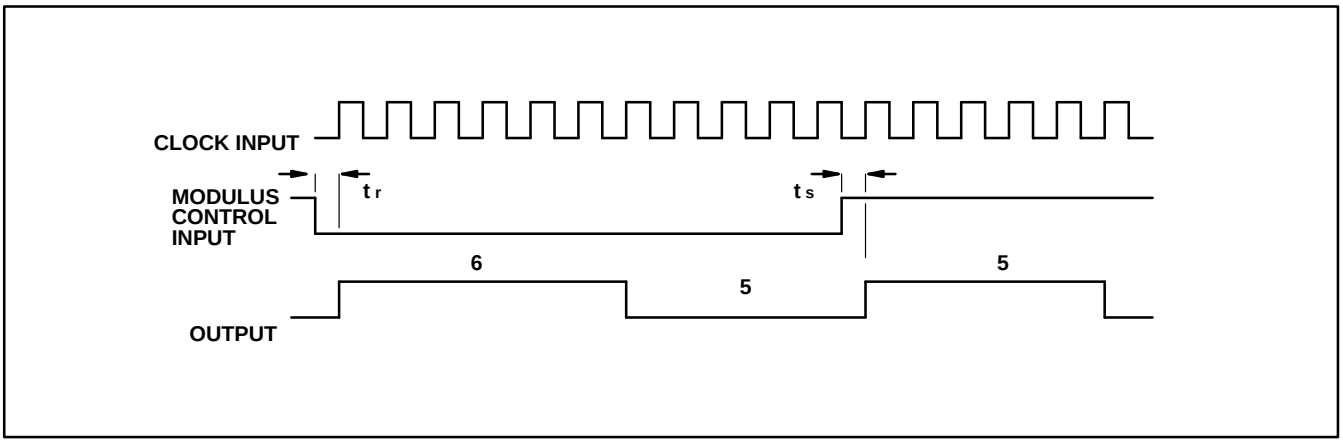

Fig.4. timing diagram

GEC PLESSEY
SEMICONDUCTORS

APRIL 1994

D.S. 3230 3.1

SP8401

(Supersedes February 1992 edition)

VERY LOW PHASE NOISE 300MHz ÷10/11

The SP8401 is a very low phase noise variable modulus divider. Special circuit techniques have been used to reduce the phase noise considerably below that produced by standard dividers. The modulus control input is CMOS or TTL compatable

The SP8401 is packaged in a 28 pin plastic SO package to be compatible with the SP8400 and SP8402 devices.

FEATURES

- Very low Phase Noise (Typically –160dBc/Hz at 1kHz offset)
- Supply Voltage 5V

ABSOLUTE MAXIMUM RATINGS

Supply Voltage	6.5V
Output Current	20mA
Storage Temperature Range	–55°C to +125°C
Maximum Clock Input Voltage	2.5V p–p

ORDERING INFORMATION

SP8401 KG MPES (Commercial Grade)

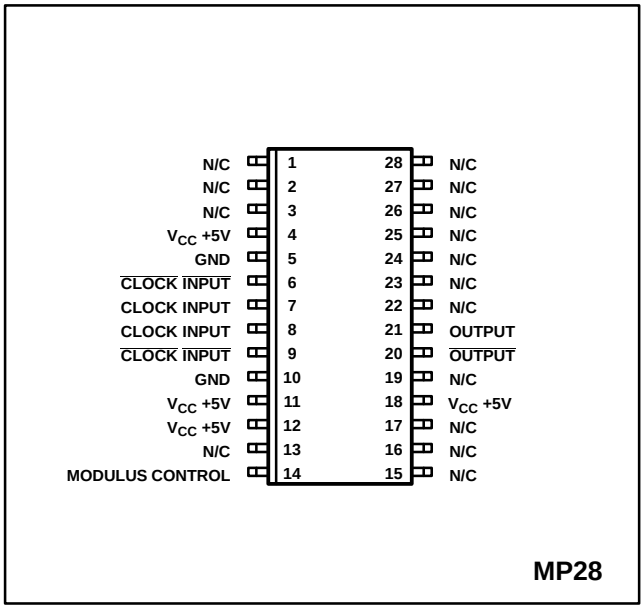

Fig. 1 Pin connections – top view

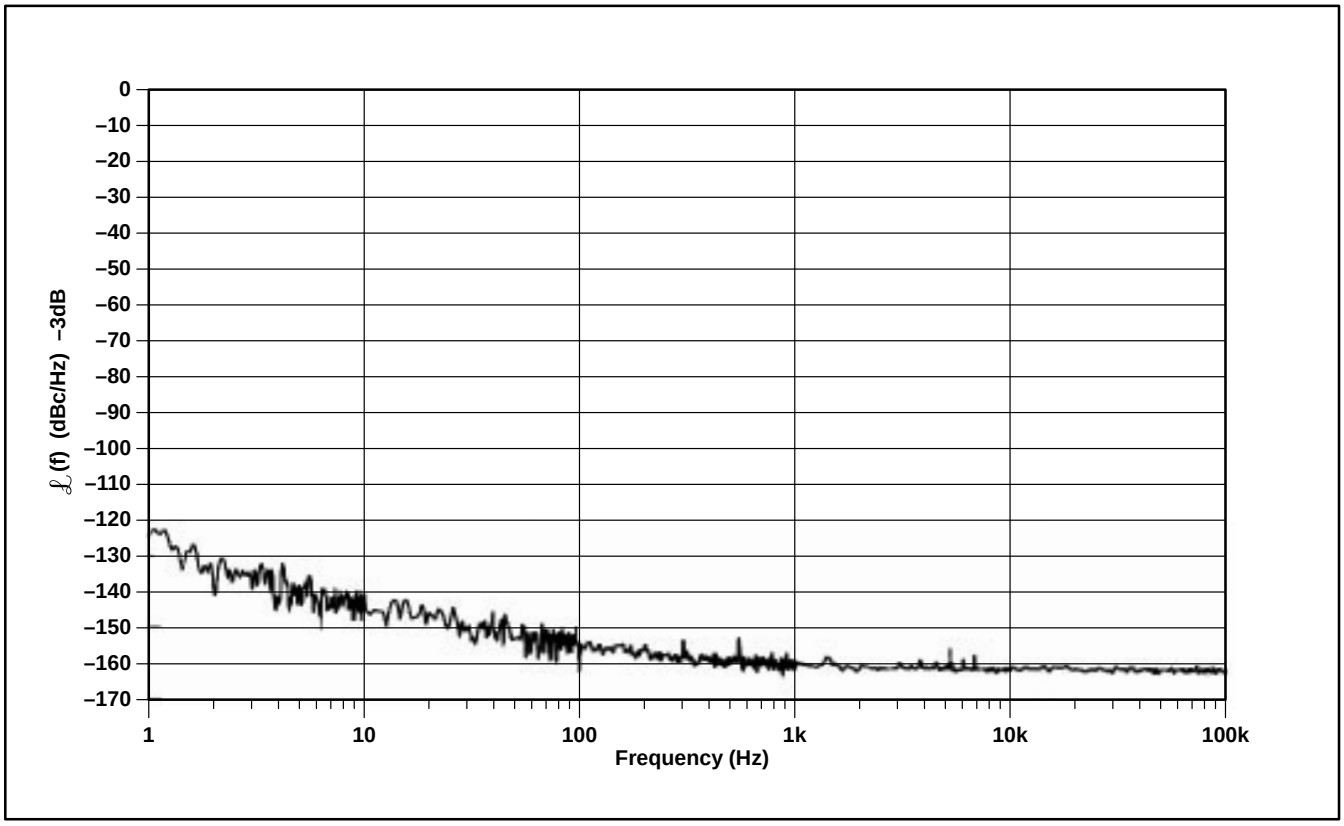

Fig. 2. Typical single sideband phase noise measured at 300MHz