

# OKI electronic components

## KGL2135

### 1.7 GHz Two-Modulus Prescaler

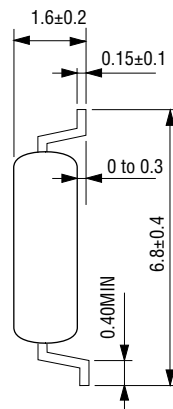
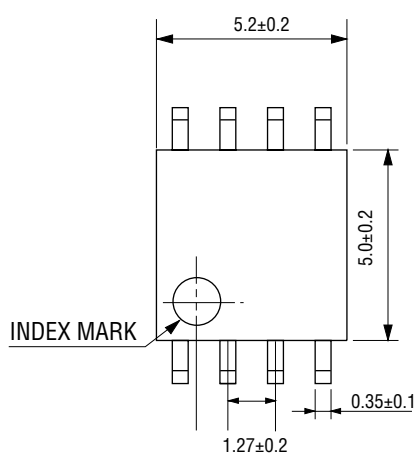
#### GENERAL DESCRIPTION

The KGL2135 is a two-modulus prescaler designed for PLL frequency synthesizers. The device divides the input frequency by 128 or 130, with mode selection.

#### FEATURES

- Toggle frequency: 1.7 GHz
- Low-power: 3 mA (typ.)
- Low supply voltage: 3 V
- Package: 8PSOP

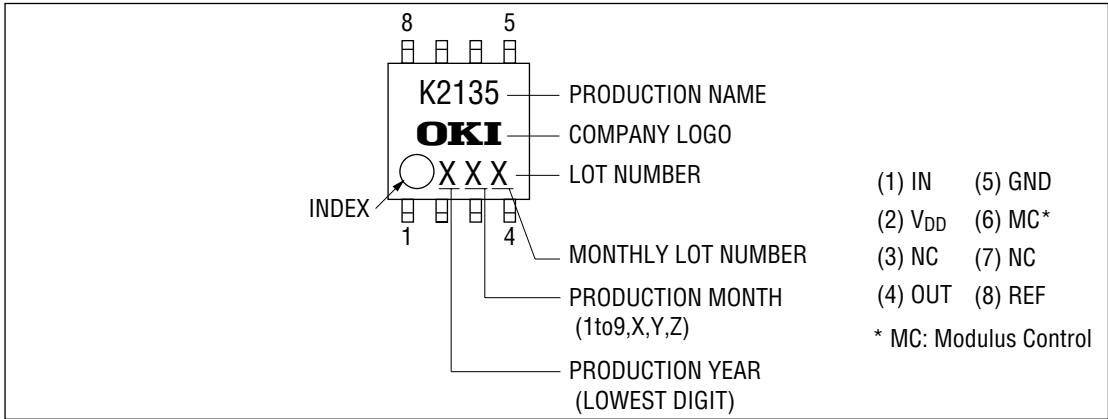
#### PACKAGE DIMENSIONS



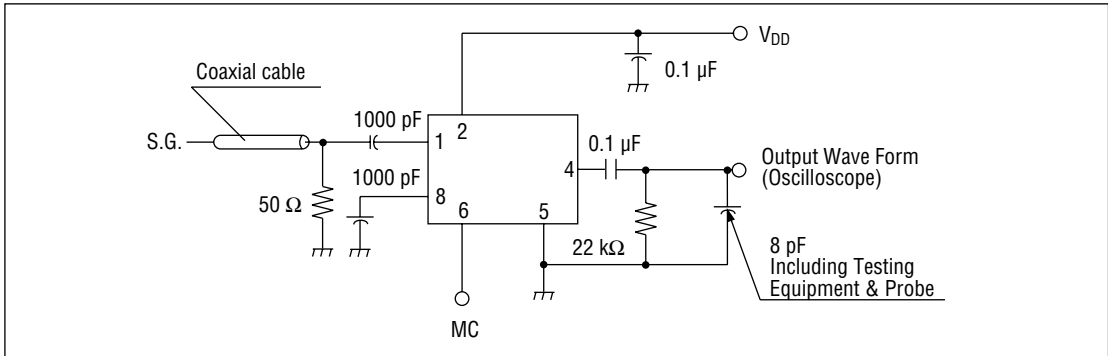
(Unit: mm)

Package material	Epoxy resin
Lead frame material	42 alloy
Pin treatment	Solder plating
Solder plate thickness	5 $\mu$ m or more

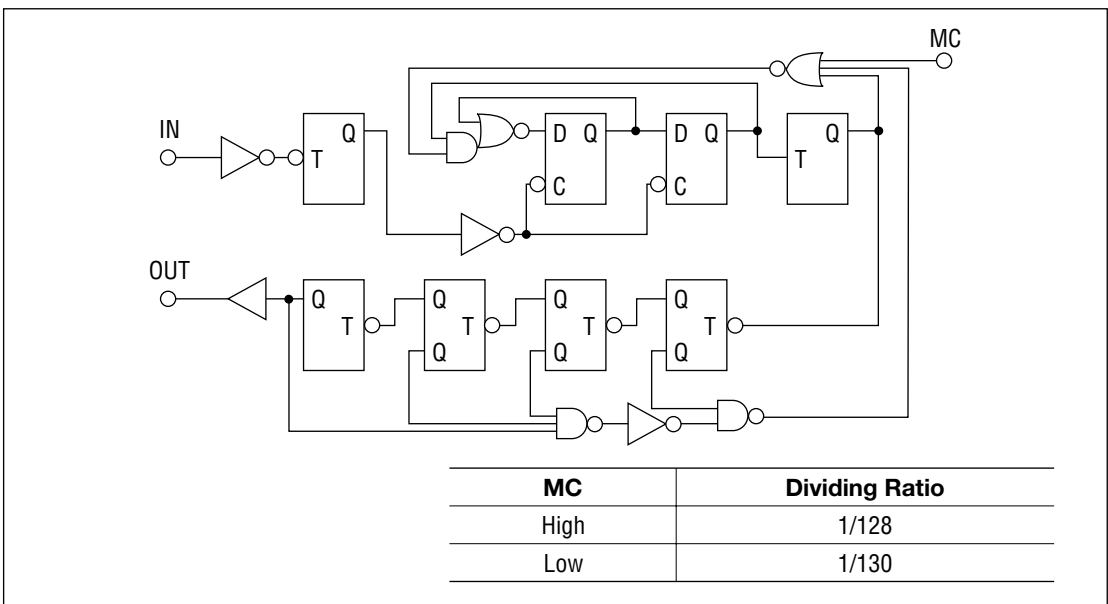
**MARKING**



**TESTING CIRCUIT**



**BLOCK DIAGRAM**



**ABSOLUTE MAXIMUM RATINGS**

Item	Symbol	Unit	Min.	Max.
Power supply voltage	$V_{DD}$	V	-0.5	4.0
MC input voltage	—	V	-0.5	4.0
IN input power	—	dBm	—	8
Storage temperature	Tstg	°C	-55	125

**RECOMMENDED OPERATING CONDITIONS**

Item	Symbol	Unit	Min.	Max.
Power supply voltage	$V_{DD}$	V	2.7	3.3
Output capacitance	$C_L$	pF	—	8
Output resistance	$R_L$	k $\Omega$	22	—
Ambient temperature	Ta	°C	-10	60

**ELECTRICAL CHARACTERISTICS** $(V_{DD} = 3 V \pm 0.3 V, T_a = -10^\circ C \text{ to } 60^\circ C)$ 

Item	Symbol	Unit	Min.	Typ.	Max.
Toggle frequency (Sine wave)	$f_t$	GHz	0.2	—	1.7
Supply current (at $T_a = 25^\circ C$ )	$I_{DD}$	mA	—	3.0	5.0
Modulus control input High	$V_{IH}$	V	2.0	—	$V_{DD}$
Modulus control input Low	$V_{IL}$	V	0	—	0.8
Modulus control input current High	$I_{IH}$	mA	—	—	0.15
Output voltage swing	$V_{OUT}$	Vp-p	0.5	1.0	—
Input voltage sensitivity	$V_{IN}$	Vp-p	0.4	—	1.0