

OKI electronic components

KGL2135

1.7 GHz Two-Modulus Prescaler

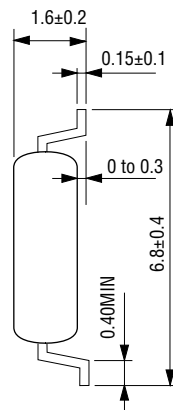
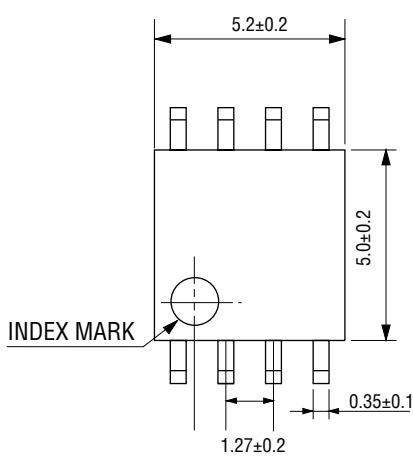
GENERAL DESCRIPTION

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

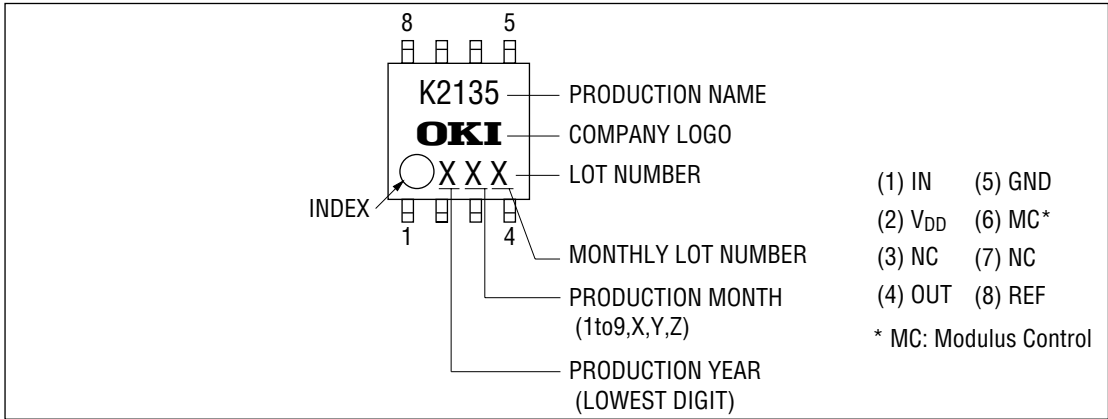
PACKAGE DIMENSIONS



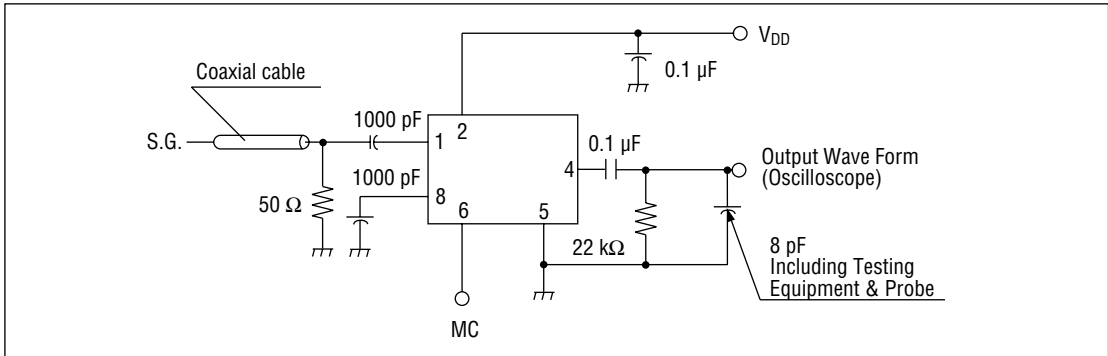
Package material	Epoxy resin
Lead frame material	42 alloy
Pin treatment	Solder plating
Solder plate thickness	5 μ m or more

(Unit: mm)

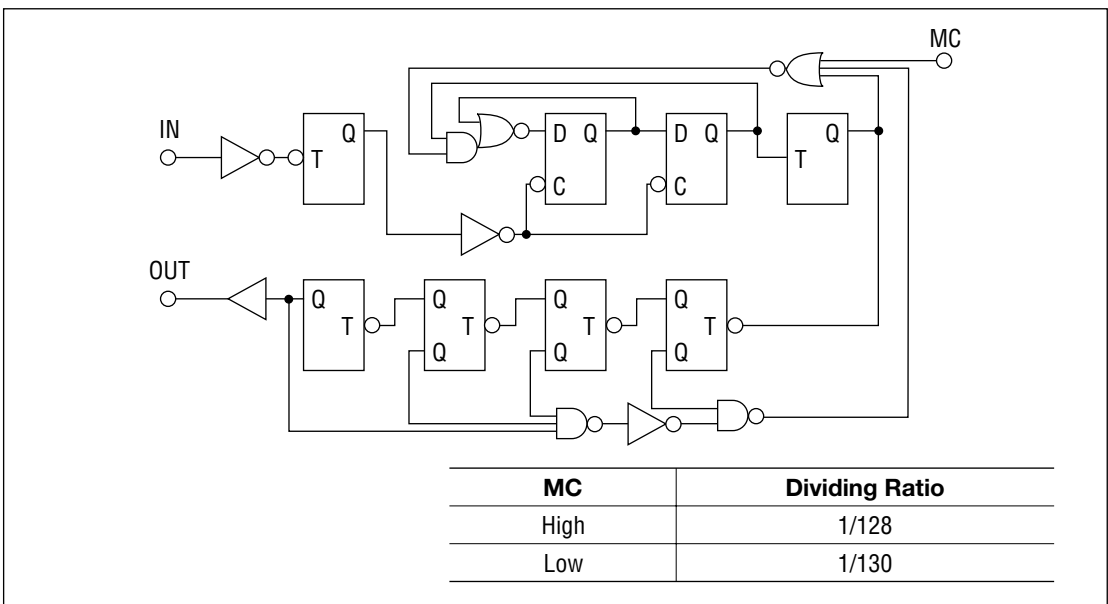
MARKING



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 Ω	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