TQDILTC

TCXO

Typical Applications

PCS Base Stations
Land Mobile Radio
Cellular Telephony
Radio in the Local Loop
Digital Switching

Features

Mechanical Control (internal Trimmer)
EFC Optional
Standard 4-Pin DIP Package
Optional: Surface Mount Package
High Stability

Frequency Range **10 MHz – 33 MHz**

Standard Frequencies 10; 13; 16.384; 19.44; 20; 25.92 MHz

Frequency stabilities

Parameter	Code I	Frequency stability	Operating temp range
vs. Operating temperature range	**07**	± 2.0 ppm	-40....+85°
	08	± 1.0 ppm	
	03	± 2.0 ppm	-20....+70°C
	04	± 1.0 ppm	
	05	± 1.0 ppm	0....50°C
	06	± 0.5 ppm	

Parameter	Value	Condition
vs. Supply voltage change	< ± 0.2 ppm	V_s ± 5%
vs. Load change	< ± 0.2 ppm	Load ± 10%
vs. Aging / year	< ± 1.0 ppm	

Frequency tuning

Parameter	Option I	Value	Condition
Mechanical (No EFC)	**Blank**	> ± 3.0 ppm	(internal trimmer)
Electrical freq. control (EFC)	**U**	> ± 5.0 ppm	Note 1
Voltage range (Vc)		0.5 to 4.5 V	@ V_S=5.0 V
		0.3 to 3.0 V	@ V_S= 3.3 V
Pulling slope		positive	
Freq. control input impedance		>10 k Ω	

RF output

Parameter	Code III	Value	Condition
Signal	**06**	HCMOS	
Load		25pF ± 10%	< 20MHz
		15pF ± 10%	≥ 20MHz
Duty cycle		40/60%	@ V_S/2
Signal	**07**	Clipped sinewave	
Load		10kΩ±10%||10pF±10%	
Output power		> 1 V_{PP}	@ 5.0 V ; 10kΩ ||10pF
		> 0.7 V_{PP}	@ 3.3 V ; 10kΩ ||10pF

Supply voltage

Parameter	Code II	Value	Condition
Supply voltage (V_S)	**05**	5V ± 5%	
Current consumption		< 3 mA	Clipped Sinewave
		< 12mA	HCMOS
Supply voltage (V_S)	**33**	3.3 V ± 5%	
Current consumption		< 3 mA	Clipped Sinewave
		< 6mA	HCMOS

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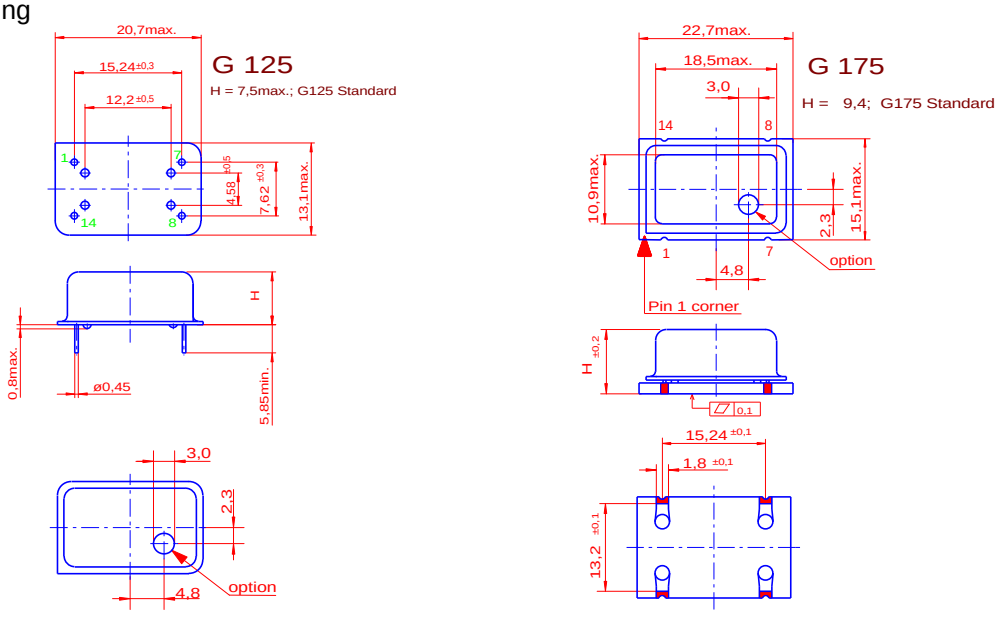
Additional parameters

Parameter	Value	Condition	
Phase Noise	<- 95 dBc/Hz	10 Hz	Note 2
	<-130 dBc/Hz	100 Hz	
	<-140 dBc/Hz	1 kHz	
	<-150 dBc/Hz	10 kHz	
	<-150 dBc/Hz	100 kHz	
Weight	< 6 g		
Operable temperature range	-40 ...+90°C		
Storage temperature range	-55 ...+105°C		
Processing & Packing	handling&processing note		

Enclosure

Type	Option I	Case	Condition
	Blank	G125	
	A	G175	

Drawing



all units in mm

Pin Connections

Pin 1	N.C.		Mechanical freq. Control
Pin 1	Voltage Control (Vc)	**Option U**	Electrical and mech. freq. Control
Pin 2	GND, case		
Pin 3	RF output		
Pin 4	Supply Voltage (V_S)		

	Ordering Code	Option I	Option II	Code I	Code II	Code III	
	Model	**Frequency tuning**	**Enclosure**	**Frequency Stability**	**Supply Voltage**	**RF Output**	**Frequency**
Example:	TQDILTC	U		04.	05.	07.	10M00000
Order:	TQDILTC						

Notes

1 Others available; Option "U" includes the mechanical frequ. control

2 Typical values @ 10 MHz
Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C)
Subject to technical modification; Not all options are available at all Frequencies

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