

Nominal frequency (f0)

20 MHz

Frequency stabilities

Parameter	Frequency stability	Operating temp. range
Over all (df/f0)	-4.6 to 4.6 ppm	
vs. operating temp. range (df/f@25 °C)	-10 to 10 ppb	-40 ... 85 °C
Additional information Drift 24 Hr and $\pm 2.8^{\circ}\text{C}$ temp. change < ± 1 ppb over all include: Temp Stab, supply, load stab, inital, 20 years aging S3E compliant according GR1244		
Parameter	Value	Condition
initial tolerance (df/f0)	-500 to 500 ppb	@ 25 °C
vs. supply voltage change (df/f)	-10 to 10 ppb	static; 3.3 V ± 5 %
vs. load change (df/f)	-10 to 10 ppb	static; Load ± 5 %
vs. aging / daily (df/f)	< ± 1 ppb	after 30 days ; @ 25 °C
vs. aging / month (df/f)	< ± 25 ppb	after 30 days ; @ 25 °C
vs. aging / year (df/f)	< ± 100 ppb	after 30 days ; @ 25 °C
vs. aging / 10 years (df/f)	< ± 1 ppm	after 30 days ; @ 25 °C
Holdover 24 h	± 10 ppb	incl. Drift and -40...85°C temperature stability

RF output

Parameter	Value	Condition
Signal	LVC MOS	
Load	15 pF ± 10 %	
Fan out	3	
Rise Time	< 10 ns	@ 10 to 90 %Vout
Fall Time	< 10 ns	@ 90 to 10 %Vout
Duty cycle	45 / 55 %	@ 1.65 V
V Low	x < 0.4 V	
V High	x > 2.4 V	

Supply voltage

Parameter	Value	Condition
Supply voltage (Vs)	3.3 V ± 5 %	
Current consumption steady state	< 330 mA	@ Vsnom & 25 °C
Current consumption during warm up	< 757 mA	@ Vs

Additional Parameters

Parameter	Typ.	Max.	Condition
Phase Noise	-85	-60	dBc/Hz@1Hz
	-110	-90	dBc/Hz@10Hz
	-130	-115	dBc/Hz@100Hz
	-143	-130	dBc/Hz@1kHz
	-150	-145	dBc/Hz@10kHz
MTIE	0.2 ns		1 sec
	0.9 ns		10 sec
	5.0 ns		100 sec
	12.0 ns		1000 sec
Parameter	Value		Condition
Jitter	< 1.00 psec (RMS)		@ 12 kHz to 20 Hz
TDEV	0.015 ns		1 s
TDEV	0.09 ns		10 s
TDEV	0.45 ns		100 s
TDEV	1.8 ns		1000 s
Warm-up time	< 3 min		@ 25 °C to final frequency
Additional information TDEV: Typical Wander Generation performance when locked through a 1mHz system loop bandwidth Holdover 10ppb peak-peak: incl. of 24 h aging and a 40°C temperature change			
Processing & Packing	handling&processing note		

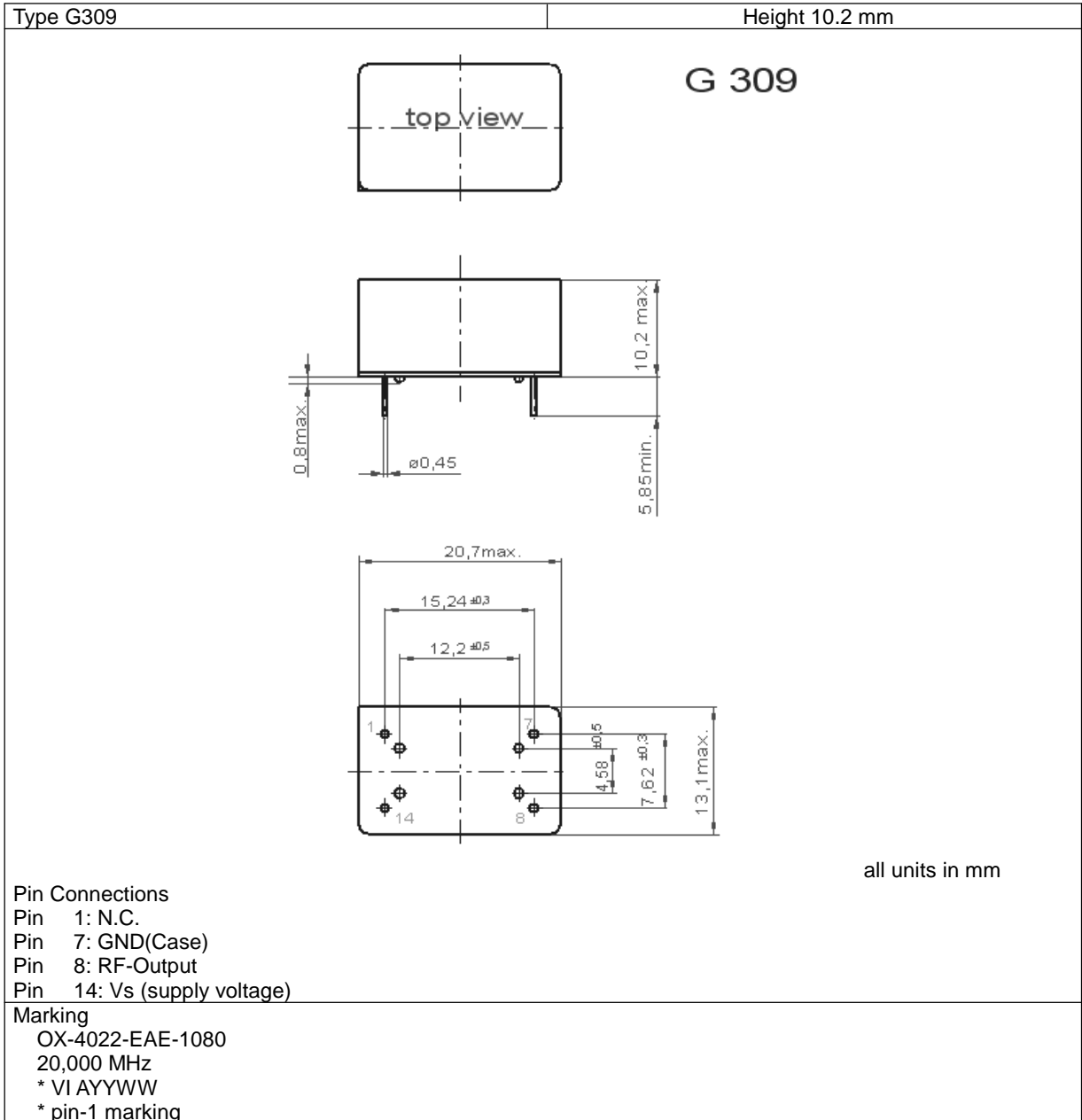
Additional environmental conditions

Tensile strength of leads DIN IEC 68-2-21 (Ua 1)
Flexibility of leads DIN IEC 68-2-21 (Ub)
Sealing test A hermetisch dicht (hermetically sealed)
Solderability DIN IEC 68-2-20, (Ta) 100% RoHS 6 compliant
Solvent resistance DIN IEC 68-2-45 (xA) washable device

Absolute Maximum Ratings

Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-40		85	°C	
Storage temperature range	-50		85	°C	

Enclosure



Standard shipping method

10 * 8 array / 80 units per tray

Notes:

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).

Preliminary version: Subject to technical modification.

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