

OX-221-0035-10M00

**Nominal frequency (f0)**
**10 MHz**

### Performance Specifications

Frequency stabilities					
Parameter	Min	Typical	Max	Units	Condition
vs. operating temp. range (df/f@25°C)	-50		+50	ppb	-20...70°C
initial tolerance (df/f0)	-100		+100	ppb	@Vc = 2.5 V; 25 °C
vs. supply voltage change (df/f)	-5		+5	ppb	static; 12 V ±0.83 %
vs. supply voltage change (df/f)	-5		+5	ppm	dynamic; Vs ±1 %
vs. load change (df/f)	-5		+5	ppb	static; Load +5 % -5 %
vs. aging / daily (df/f)	-1		+1	ppb	after 10 days ; @ 25 °C
vs. aging / month (df/f)	-20		+20	ppb	after 10 days ; @ 25 °C
vs. aging / year (df/f)	-100		+100	ppb	after 10 days ; @ 25 °C
vs. aging / 15 years (df/f)	-1		+1	ppm	after 10 days ; @ 25 °C
Additional information	freq. stability vs. orientation <±10ppb, initial tolerance @ 1/2 V_ref				

Frequency Tuning					
Parameter	Min	Typical	Max	Units	Condition
Electrical frequency control (EFC) (df/f0)	-2.5		-0.75	ppm	ext. tuning voltage@0 V
	0.75		2.5	ppm	ext. tuning voltage@5 V
Linearity			10	%	
slope	0.3		1	ppm/V	
Frequency control input impedance	100			kOhm	
Additional information	Retrace <±20ppb (24h on - 2h off - 1h on)				
Modulation bandwidth			5	Hz	@ -3 dB

RF output					
Parameter	Min	Typical	Max	Units	Condition
Signal	sinewave				
Load	47.5	50	52.5	Ohm	
Output power	5	7.5	10	dBm	@nominal load
Harmonics			-20	dBc	
Enable	Enable Function Pin6			Output Pin1	
	high			data	
	open			data	
	low			no data	
Additional information	Enable Pin-6: >=2.4V and <=12.6V ; input imp. >100kOhm				

Supply voltage					
Parameter	Min	Typical	Max	Units	Condition
Supply voltage (Vs)	10.5	12	12.6	V	
Current consumption steady state			340	mA	@ Vsnom & 25 °C
			400	mA	@ Vsnom & -20 °C
Current consumption during warm up			400	mA	@ Vs
Additional information	drift of ref. voltage <±0.2% vs. temp. and life time, Ri<100 Ohm				

Reference Voltage output					
Parameter	Min	Typical	Max	Units	Condition
Reference Voltage	4.93	5	5.08	V	

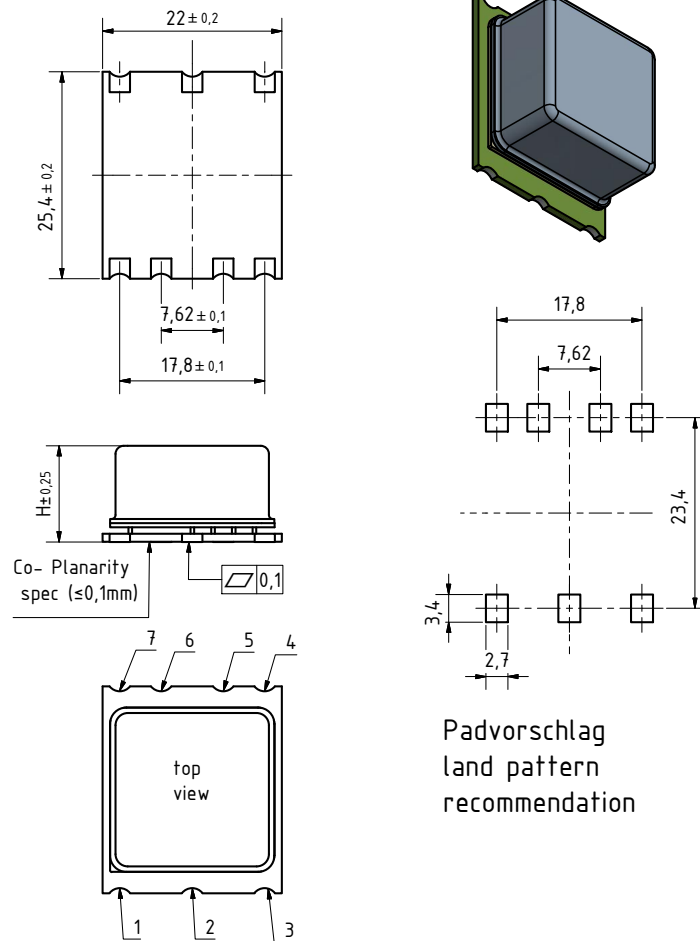
Oven Alarm Level					
Parameter	Min	Typical	Max	Units	Condition
Alarm level during warm up	0		0.4	V	
Alarm level after warm up	2.4		3.6	V	
Maximum Output current, [sourcing and sinking]			0.1	mA	

Additional Parameters					
Parameter	Min	Typical	Max	Units	Condition
Warm up time			10	min	@ 25 °C to final frequency
Phase Noise			-80	dBc/Hz	@1Hz
			-110	dBc/Hz	@10Hz
			-135	dBc/Hz	@100Hz
			-145	dBc/Hz	@1kHz
			-150	dBc/Hz	@10kHz
			-150	dBc/Hz	@100kHz
ADEV			500	E-12	1.0 sec
			100	E-12	10.0 sec
			1000	E-12	100.0 sec
Additional information	Spurious at 9-11 MHz <-90dBc				
Weight			40	g	
Processing & Packing	handling&processing note				

Additional Environmental Conditions	
Parameter	Description
Temperature cycling	Humidity heat: +25°C/+40°C rel humid. cycl DIN IEC 68-2-3; ..68-2-30
Vibration	Operable sinus: 5-150Hz / DIN IEC 68-2-6 Operable noise: 10-300Hz / DIN IEC 68-2-36
Shock	Non operating: 40g spektrum / DIN IEC 68-2-27
Damp heat	Operating: 90%, non condensing
Sealing test A	hermetisch dicht (hermetically sealed)
Sealing test B	Air pessure operating: 54kPa (equiv. 5000m); non operating 26kPa (equiv. 10000m)
Solderability	DIN IEC 68-2-20, Test Ta 100% RoHS 6 compliant
Solvent resistance	DIN IEC 68-2-45, Test xA washable device

Absolute Maximum Ratings					
Parameter	Min	Typical	Max	Units	Condition
Operable temperature range	-30		+80	°C	
Storage temperature range	-40		+80	°C	

## G275



all units in mm

Enclosure Info	
Parameter	Description
Type	G275D
Height	12.1 mm
Weight	9 g
Pin Connections	1: RF_Output (<-90dBc if disabled) 2: Oven_alarm 3: GND 4: Vref (ref. voltage) 5: Vc (control voltage) 6: Enable 7: Vs (supply voltage)
Marking	OX-221-0035 10,000 MHz Ser.No. AYYWW * * pin-1 marking

Enclosure Info	
Parameter	Description
Package cover material	Metal
Package base material	Metal

Solder profile

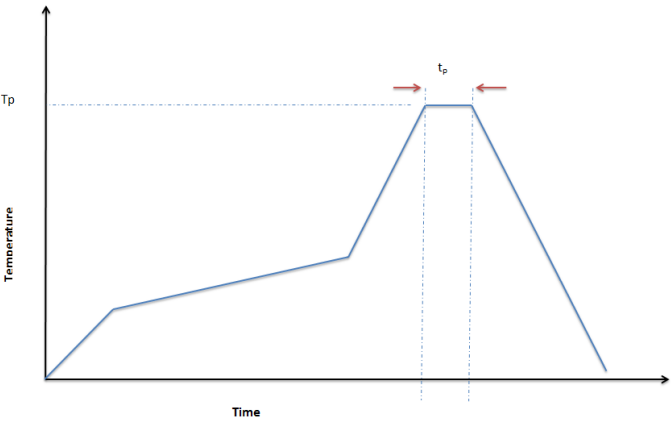
TP: max 260°C (@ solder joint, customer board level)

T<sub>p</sub>: max: 10...30 sec

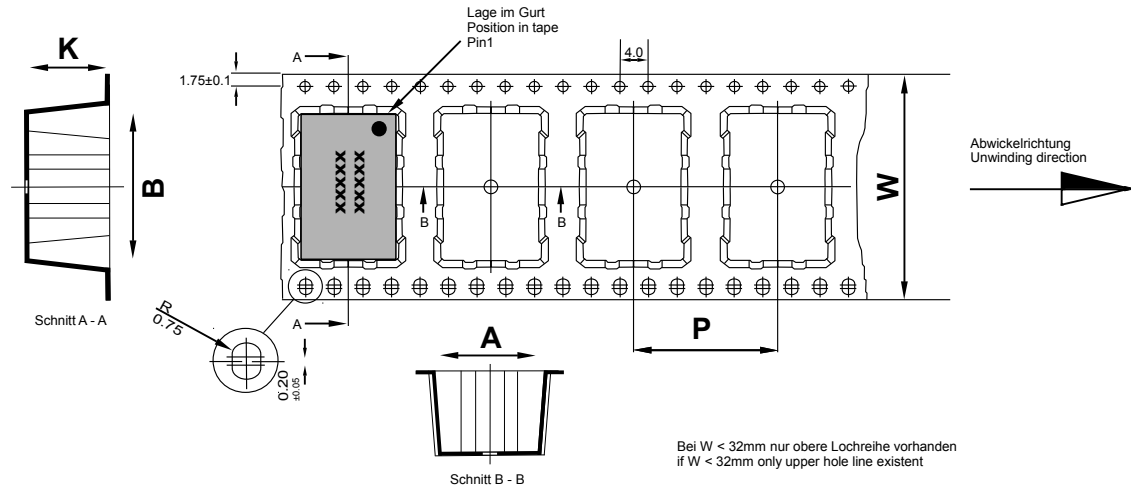
Additional Information:

This SMD oscillator has been designed for pick and place reflow soldering

SMD oscillators must be on the top side of the PCB during the reflow process.



## Standard shipping method



Maßangaben in mm:

A, B und K Maße von Bauelement abhängig

Fertigungstoleranzen entsprechen der DIN IEC 286-3

Dimension in mm:

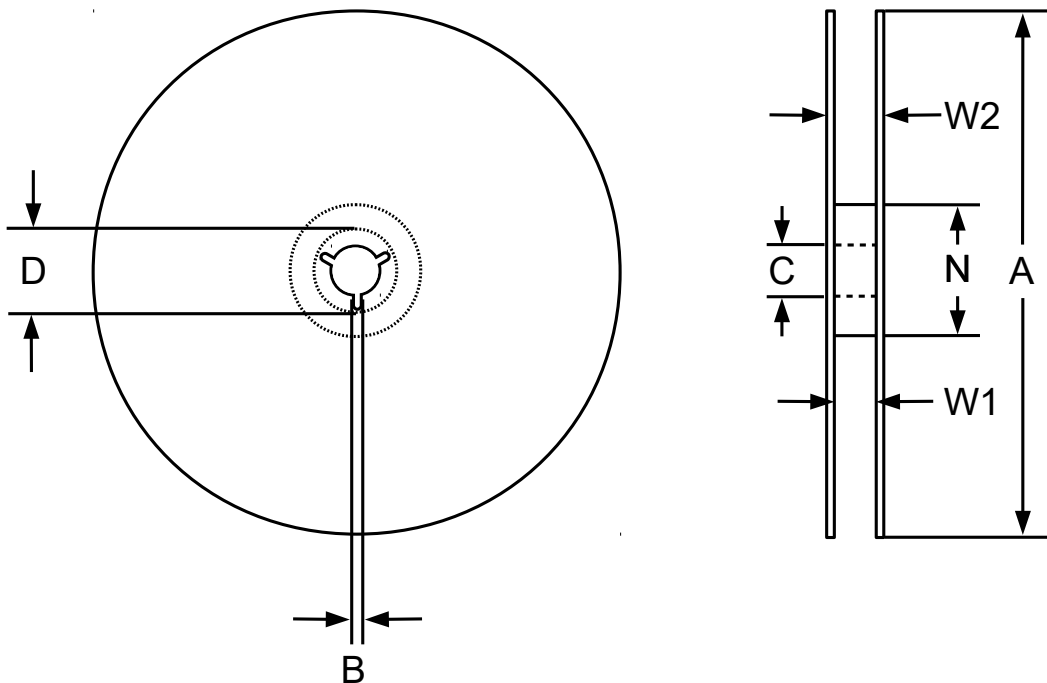
A, B und K are dependent upon component dimensions

production tolerance complying DIN IEC 286-3

All dimensions in millimeters unless otherwise stated

### Tape Info

Tape width W [mm]	Quantity per meter	Quantity per reel	P [mm]	A [mm]	B [mm]	K [mm]
44	35.7	175	28	22.5	25.9	12.8



### Reel Info

A [mm]	B [mm]	Size C [mm]	D [mm]	N [mm]	W1 [mm]	W2 [mm]
330	1.5	13	20.2	100	45.5	49.1

**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).  
Subject to technical modification.

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