



# O-4500 Series



1. Specification		
Frequency range :	5.0 ... 100.0 MHz	
Supply voltage $V_S$ (nominal values $\pm 5\%$ ): +3.3 V: +5.0 V:	<b>A</b> <b>B</b>	
Power consumption @ 25°C: during warm-up : steady state :	$\leq 3.5$ W $\leq 1.5$ W	
Warm-up time for a typical accuracy of $< \pm 5 \times 10^{-8}$ @ +25°C referred to final frequency after 1 hour:	$\leq 5$ min	
Frequency stability vs. temperature options: $\pm 20.0$ ppb vs. 0 °C to +50 °C : $\pm 30.0$ ppb vs. -10 °C to +60 °C : $\pm 50.0$ ppb vs. -20 °C to +70 °C : $\pm 100.0$ ppb vs. -30 °C to +70 °C : $\pm 100.0$ ppb vs. -40 °C to +85 °C :	Temp code <b>0050</b> <b>1060</b> <b>2070</b> <b>3070</b> <b>4085</b>	Stability Code <b>E</b> <b>F</b> <b>G</b> <b>H</b> <b>H</b>
Frequ.Stability vs. supply voltage changes $V_S \pm 5\%$ : vs. load changes $\pm 5\%$ :	$\leq \pm 5.0$ ppb $\leq \pm 1.0$ ppb	
Aging stability options (after 30 days of operation) $\leq \pm 1.0$ ppb per day & $\leq \pm 0.1$ ppm per year $\leq \pm 2.0$ ppb per day & $\leq \pm 0.1$ ppm per year $\leq \pm 0.5$ ppb per day & $\leq \pm 0.05$ ppm per year	<b>V</b> <b>U</b> <b>X</b>	
Reference Voltage $V_{REF}$ : in case of $V_S = 3.3$ V (Option <b>A</b> ): in case of $V_S = 5.0$ V (Option <b>B</b> ):	+3.0 V $\pm 5\%$ +4.0 V $\pm 5\%$	
Frequency control by ext. voltage 0 V ... $V_{REF}$ :	$\geq \pm 1.0$ ppm	
Transfer function / linearity:	positive / 10 %	
<b>Output signal type options:</b>		
Output signal Option <b>H</b> : level: load:	(LV)HCMOS $V_{OL} \leq 10\% V_S$ ; $V_{OH} \geq 90\% V_S$ 1 kOhm // 15 pF	

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1		20.05.15	Dannenmaier	
ED	Description	Date	Name	



ROHS-Compliant Product

# O-4500 Series



## 1. Specification continued

Output signal Options <b>S</b> : level: load:	Sine wave ≥ 3 dBm 50 Ohm
Phase noise (typical for 10MHz) [dBc/Hz] at offset frequency : 10 Hz: 100 Hz: 1 kHz: 10 kHz:	-110 dBc / Hz -130 dBc / Hz -145 dBc / Hz -155 dBc / Hz
Storage temperature range:	-45 °C ... +90 °C

## 2. Environmental conditions

According to KVG Product Qualification Procedure AA-QM-200

## 3. Marking

Manufacturer's name, date code(week/year); Specification; Center frequency

## 4. Ordering Information

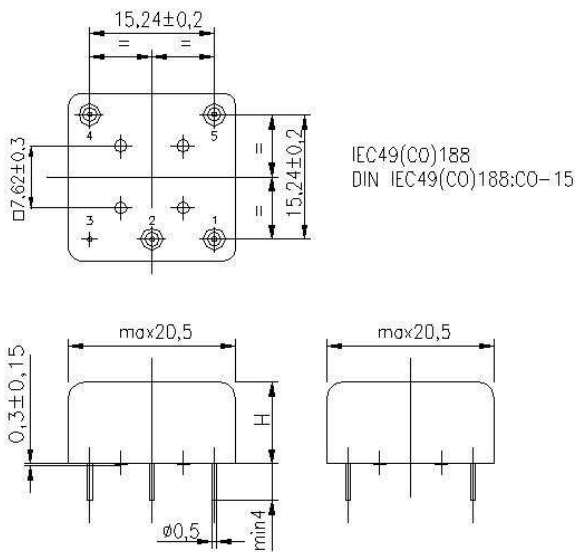
Type Code	Package Code	Supp. Volt.	Temp. Range	Freq. Stab. f(T)	Aging f(t)	Output signal	RoHS compl	Nominal Frequency
OCX O	20 x 20		LOW /HIGH	E, F, G, H	U, V, X	S; H	.	XXX.YYY MHz
<b>O-</b>	<b>45</b>	<b>A: 3.3 V B: 5.0 V</b>	<b>2070: -20 / +70 °C 4085: -40 / +85 °C</b>	<b>H</b>	<b>U</b>	<b>S</b>	<b>-LF</b>	<b>-10.000 MHz</b>

Example: O-45B4085HUS-LF-10.000 MHz

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## 5. Case

Case style: BF144-IS-10.0



Height:  $H = 10.0$  mm max

### Pin configuration

1. Control voltage  $V_c$
2. Ref. Voltage  $V_{ref}$
3. Ground, Case
4. RF Output
5. Supply Voltage  $V_s$

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