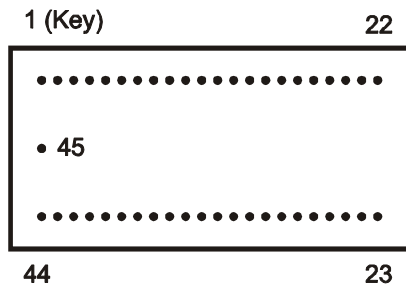


04GS022 Voltage Controlled Oscillator

General Description

Thin-film Microassembly **04GS-022** is a Voltage Controlled Oscillator used for generation of frequency synthesizer output oscillations. Main application is RF communications equipment subunit. **04GS-022** provides signal generation within a broad frequency band using four sub-bands. Main features are two outputs (auxiliary output to PLL frequency control circuit of a synthesizer); low noise; broad VHF sub-band within 30 – 120 MHz; low FM input signal level.

Pin Designation



Pin	Circuit	Pin	Circuit
2	1 st Range On	22	Package
4	2 nd Range On	23	Ω modul.
6	3 rd Range On	33	Package
8	4 th Range On	37	Package
10	Ground (Package)	39	Voltage Control
16	Output 2	44	Power - 9V DC
18	Package	45	Package
20	Output 1		

Technical Parameters

Parameter, Units (Conditions)	Value	
	Min	Max
1. Power supply voltage (U_p), V	8.1	9.9
2. Current consumption (I) at "9 V" circuit, mA ($R_{out1} = 50 \text{ Ohm}$, $R_{out2} = 100 \text{ Ohm}$, $U_c = 4.7 \text{ V}$)	9	20
3. Voltage at "Output 1" (U_{Out1}), mV ($R_{out1} = 50 \text{ Ohm}$, $U_c = 4.7 \text{ V}$, $U_p = 9 \text{ V}$)	400	1000
4. Voltage at "Output 2" (U_{Out2}), mV ($R_{out2} = 100 \text{ Ohm}$, $U_c = 4.7 \text{ V}$, $U_p = 9 \text{ V}$)	150	500
5. Mean-square spurious deviation (DF) of output frequency, Hz. (DF is measured in [300 ... 3400] Hz frequency range. $R_{out1} = 50 \text{ Ohm}$, $R_{out2} = 100 \text{ Ohm}$, $U_p = 9 \text{ V}$)	—	15
6. Sensibility of modulation input (U Ω), mV (Freq. Deviation - 6kHz, Modulation Freq. - 1000 Hz, $U_c = 4.7 \text{ V}$, $U_p = 9 \text{ V}$)	5	39
7. Frequency Ranges, kHz ($R_{out1} = 50 \text{ Ohm}$, $R_{out2} = 100 \text{ Ohm}$, $U_p = 9 \text{ V}$):		
1 st Range (F1): $U_c = 4.7 \text{ V}$	29800	30200
(F2): $U_c = 15 \text{ V}$	40000	—
2 st Range (F3): $U_c = 4.7 \text{ V}$	39600	40400
(F4): $U_c = 15 \text{ V}$	40000	—
3 rd Range (F5): $U_c = 4.7 \text{ V}$	52400	53600
(F6): $U_c = 15 \text{ V}$	70000	—
4 th Range (F7): $U_c = 4.7 \text{ V}$	69200	70800
(F8): $U_c = 15 \text{ V}$	93000	—
8. Weight, g	—	52
9. Package overall dimensions (pin length 8 mm)	59.5 × 39.5 × 14.0	

Note: Parameters 1 ... 4 are valid in (– 60 ... +85) °C ambient temperature range,
Parameters 5 ... 7 are valid in (25 ± 10) °C ambient temperature range.



RIF Corp.

Microelectronics
Thick-Film Heating
Thermoelectric Cooling

17/2, Dorozhnaya st., Voronezh 394062 Russia
+7-0732-316451 <http://www.rif.vrn.ru>
+7-0732-704734 corporation@rif.vrn.ru