

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N: 054A-D445-10.00MHz-I

Customer P/N: \_\_\_\_\_

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.06.06			

## Guangdong Dapu Telecom Technology Co.,Ltd

Building 5, No.24, Industrial East Road, Songshanhu Park, Dongguan, Guangdong, P.R. China

TEL: 0086-0769-88010888 FAX: 0086-0769-81800098



**Table of amendment**

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2024.06.06

DAPU Confidential



## 1. Electrical Parameters

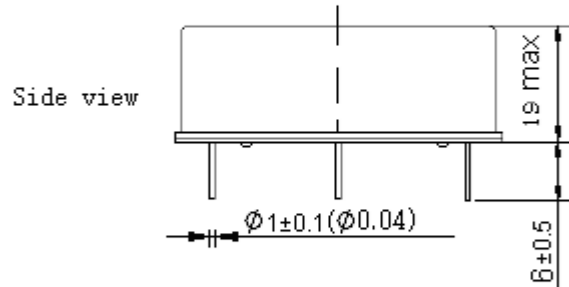
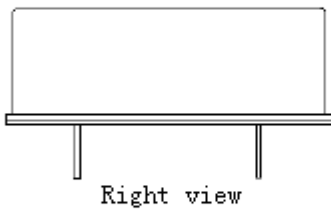
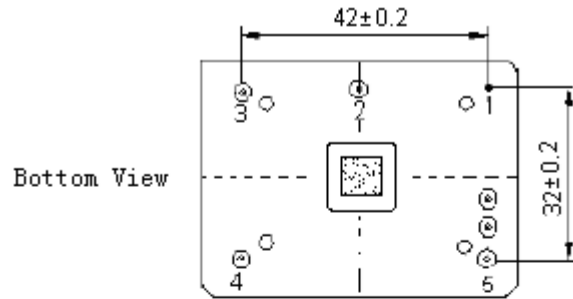
MODEL: O54A-D445-10.00MHz-I						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	5	7	9	dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-35	dBc	
	Spurious Suppression			-80	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.3		+0.3	$\times 10^{-9}$	$T_A$ varied from $-20^{\circ}\text{C}$ to $70^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=12\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^{\circ}\text{C}$ per minute.
	Initial Frequency Tolerance	-0.05		+0.05	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=12\text{V}$ , $V_c=2.5\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-0.1		+0.1	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}$ varied from 11.4V to 12.6V, $V_c=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ .
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-9}$	10% Load Change Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=12\text{V}$ , $V_c=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ .
	Short Term Stability			2	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}\text{C}$ ; 1s.
	Aging Tolerance per day	-0.2		+0.2	$\times 10^{-9}$	$V_{\text{cc}}, V_c, T_A$ constant Measurement referenced to frequency observed with
	Aging Tolerance 1 Year	-0.02		+0.02	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=12\text{V}$ , $V_c=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ and after 30 days of operation.



Power Supply	Supply Voltage	11.4	12	12.6	V	
	Reference Voltage		5		V	
	Steady Consumption			250	mA	@25°C
	Warm up current			700	mA	
	Warm-Up Time			5	minutes	@25°C within $\pm 0.01 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range			-0.3	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$ .
		-0.1		+0.1	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 10.00MHz.
		+0.3			$\times 10^{-6}$	$V_c=5.0V$ . measurement referenced to $V_c=2.5V$ .
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K $\Omega$	
Phase Noise	Phase Noise		-100	-95	dBc/Hz	1Hz
			-130	-125		10Hz
			-145	-140		100Hz
			-150	-145		1KHz
			-155	-150		10KHz
Environmental Conditions	Operable Temperature	-20		+70	°C	
	Storage Temperature	-55		+95	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z) , IEC 68-2-06 Test Fc.				
Shock	50g; 11ms; half sine wave (3 times for each 3 directions X ,Y , Z ),IEC 68-2-27 Test Ea/Severity 50A.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature (°C)	-10~35°C				

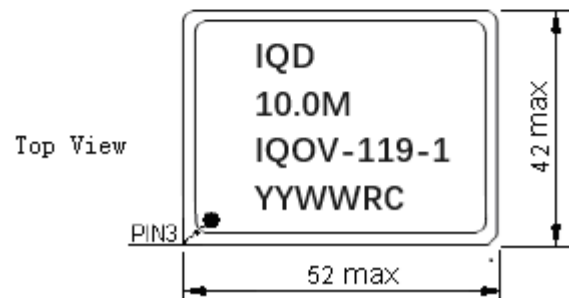


## 2. Mechanical Structure (mm)



### PIN FUNCTION

PIN	NOTATION	FUNCTION
1	GND	GND
2	VC	Control Voltage
3	VREF	Reference Voltage
4	VCC	Supply Voltage
5	OUTPUT	RF Output



**Note1:** Tolerance  $\pm 0.20\text{mm}$  without mark

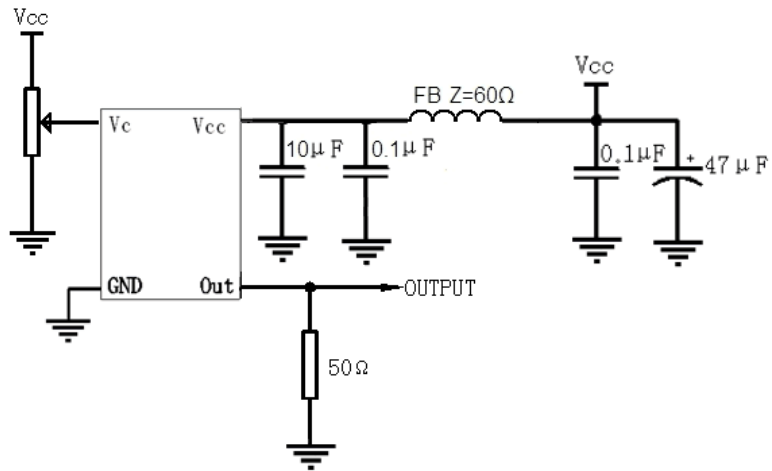
**Note2:** The first YY representative: year  
After WW representative: week

**Note3:** Referential weight 78g

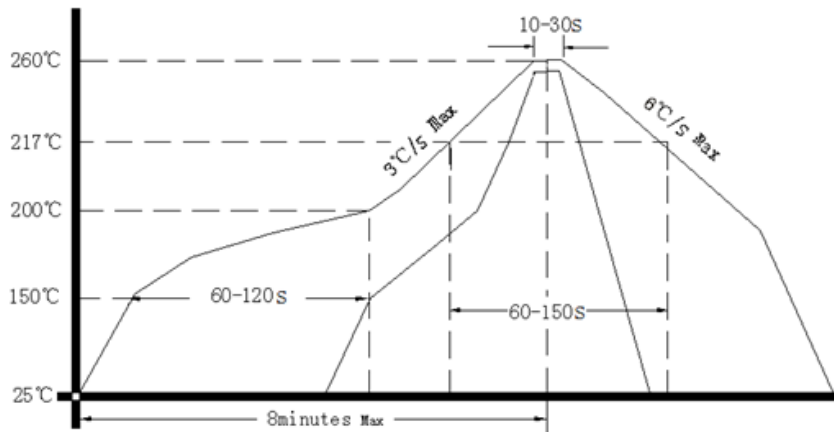
**Note4:** NC is not connect



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package(mm)

