

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

# DATASHEET

DAPU P/N: **O55F-A445-10.00MHz-F**

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

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.05.12			

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## 1. Electrical Parameters

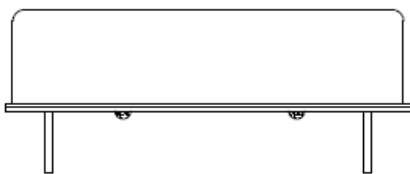
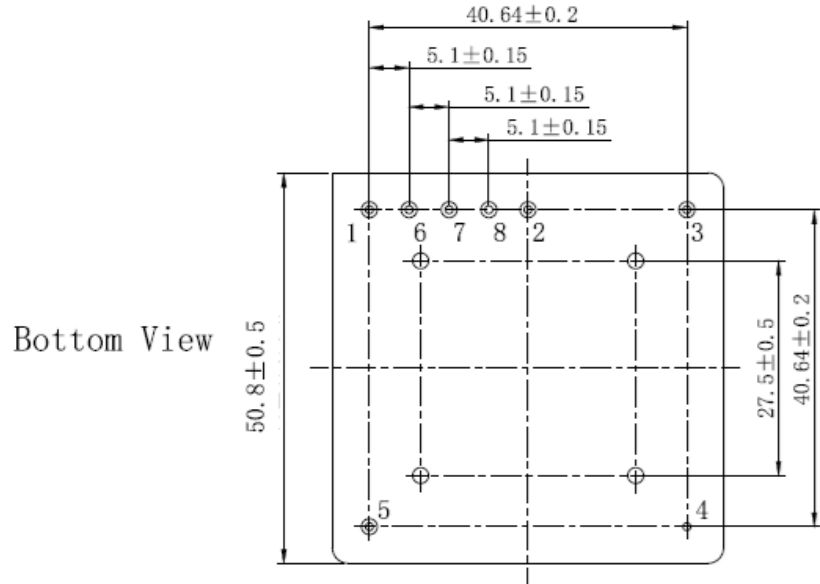
MODEL: O55F-A445-10.00MHZ-F							
Item	Description	Parameters			Unit	Test Condition	
		Min.	Typ.	Max.			
Output	Frequency	10.00			MHz		
	Output Waveform	Sine wave					
	Level	7		12	dBm		
	Load	50			$\Omega$		
	Harmonics Suppression			-45	dBc		
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-9}$	$T_A$ varied from $0^\circ\text{C}$ to $70^\circ\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=12.0\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^\circ\text{C}$ per minute.	
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	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	-0.5		+0.5	$\times 10^{-9}$	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	-0.5		+0.5	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=12.0\text{V}$ , $V_c=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ .	
	Short-Term Stability: Allan Variance				0.2	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^\circ\text{C}$ ; 1s.
					0.5	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 24hours ref. to $25^\circ\text{C}$ ; 10s.
					1	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 48hours ref. to $25^\circ\text{C}$ ; 100s.
	Aging Tolerance Per Day	-0.5		+0.5	$\times 10^{-9}$	$V_{\text{cc}}, V_c, T_A$ constant Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=12.0\text{V}$ , $V_c=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ and after 30 days of operation.	
	Aging Tolerance Per 30 Days	-5		+5	$\times 10^{-9}$		
	Aging Tolerance First Year	-0.03		+0.03	$\times 10^{-6}$		
	Aging Tolerance 15 Years	-0.5		+0.5	$\times 10^{-6}$		



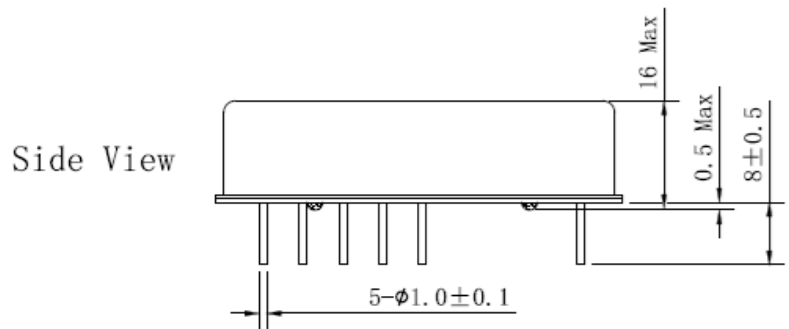
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Steady Consumption			200	mA	@25°C
	Warm up current			400	mA	
	Reference Voltage	4.925	5	5.075	V	
Voltage Control Characteristics	Frequency Tuning Range	-0.65		-0.4	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$
		-0.03		+0.03	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 10.00MHz
		+0.4		+0.65	$\times 10^{-6}$	$V_c=5.0V$ . measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	10			K $\Omega$	
Phase Noise	Phase Noise @25°C			-120	dBc/Hz	1Hz
				-143		10Hz
				-155		100Hz
				-160		1KHz
				-165		10KHz
Environmental Conditions	Operating Temperature	0		+70	°C	
	Operable Temperature	0		+80	°C	
	Storage Temperature	-55		+105	°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				



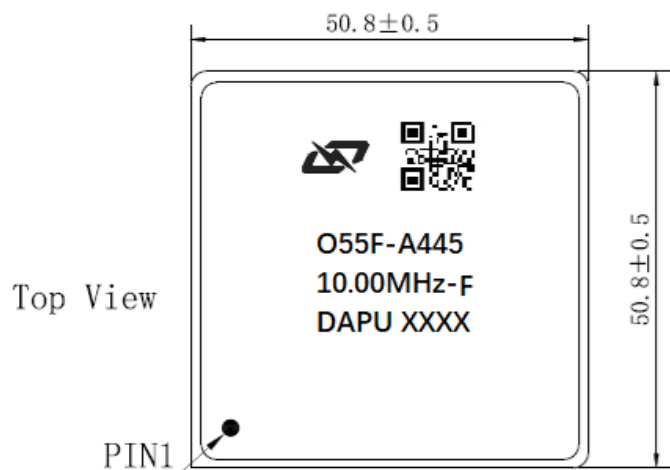
## 2. Mechanical Structure (mm)



Right View



Pin	Designation
1	Voltage Control
2	Reference Voltage Output
3	RF Output
4	Ground
5	Supply Voltage
6	No Connected
7	No Connected
8	No Connected

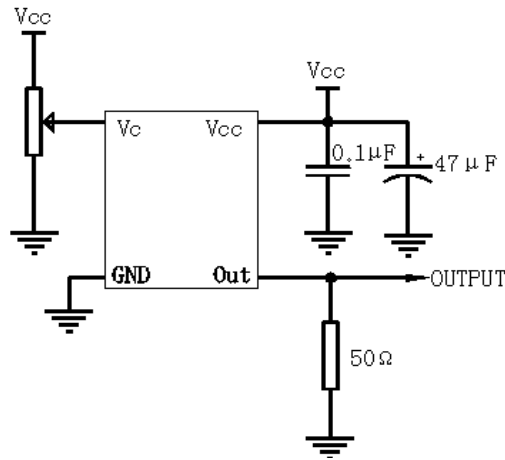


**Note1:** Tolerance  $\pm 0.20$ mm without mark.

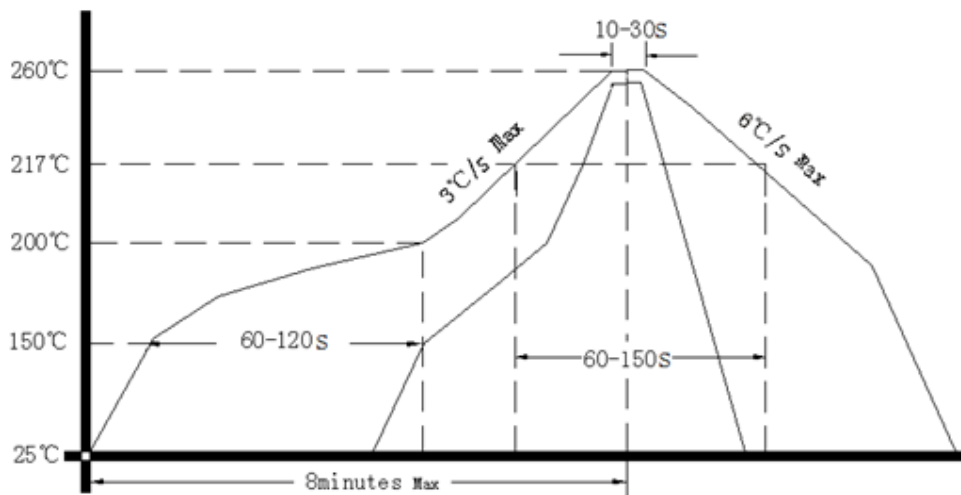
**Note2:** The first two xx representative: week.  
After two xx representative: year.



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package: Tape & Reel (mm)

