

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

# DATASHEET

DAPU P/N: 054A-J445-10.00MHz

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

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2016.12.02			

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## 1. Electrical Parameters

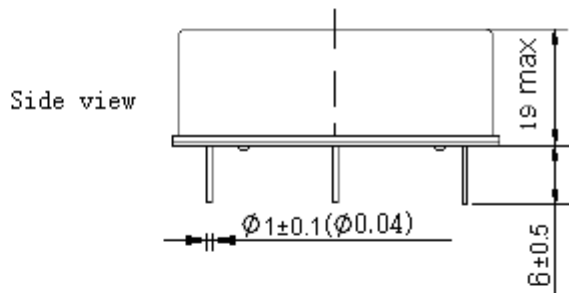
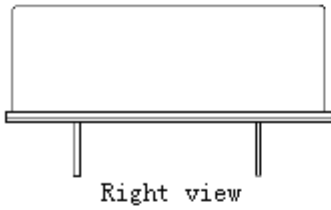
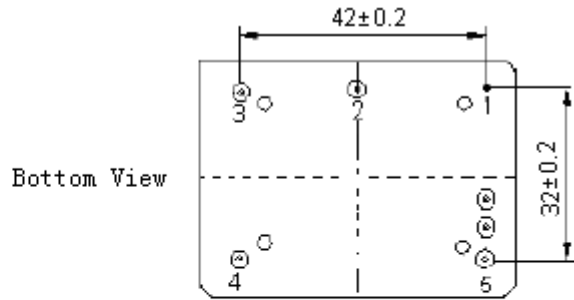
MODEL: O54A-J445-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	5			dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-80	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.2		+0.2	$\times 10^{-9}$	$T_A$ varied from $-40^{\circ}\text{C}$ to $85^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2, V_{\text{cc}}=12.0\text{V}, V_c=2.5\text{V}, O_{\text{load}}=50\Omega$ , 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 $T_A=25^{\circ}\text{C}, V_{\text{cc}}=12.0\text{V}, V_c=2.5\text{V}$ , 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	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}, V_{\text{cc}}=12.0\text{V}, V_c=2.5\text{V}$ , and $O_{\text{Load}}=50\Omega$ .
	Short-Term Stability Allan Variance			0.003	$\times 10^{-9}$	Temperature stability, no EMI/EMC or other interference, test after power for 1 hour ref. to $25^{\circ}\text{C}$ ; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.2		+0.2	$\times 10^{-9}$	$V_{\text{cc}}, T_A$ constant measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}, V_{\text{cc}}=12.0\text{V}, V_c=2.5\text{V}$ , and after 30 days of operation.
	Aging Tolerance 1 Year	-0.02		+0.02	$\times 10^{-6}$	
	Aging Tolerance 10 Year	-0.2		+0.2	$\times 10^{-6}$	
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Steady Consumption			250	mA	@ $25^{\circ}\text{C}$
	Warm up current			700	mA	
	Warm-Up Time			10	min	@ $25^{\circ}\text{C}$ within $\pm 0.01 \times 10^{-6}$ of final frequency with reference after 1 hour on.



Voltage Control Characteristics	Frequency Tuning Range	-0.5		-0.3	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$
		-0.05		+0.05	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 10.00MHz
		+0.3		+0.5	$\times 10^{-6}$	$V_c=5.0V$ . measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K $\Omega$
Phase Noise	Phase Noise		-100	-90	dBc/Hz	1Hz
			-130	-120		10Hz
			-145	-135		100Hz
			-150	-145		1KHz
			-150	-145		10KHz
			-150	-145		100KHz
			-150	-145		1MHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}C$	
	Storage Temperature	-40		+85	$^{\circ}C$	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Random Vibration	Compliant to GJB360A, method 214, A of test condition I, 50Hz-2000Hz, acceleration spectral density $2(m/s^2)^2/Hz$ , total root-mean-square acceleration magnitude $53.5m/s^2$ , test time: 5 minutes for each direction, total time 15 minutes.				
	Shock	Compliant to GJB360A, method 213, test condition B, peak value $750 m/s^2$ nominal, pulse time 6ms, 3 times each direction.				
Terminals Strength	Compliant to GJB360A, test method 211. Test condition A, load 10N.					
Full Package Storage	Relative humidity (%)	20% ~ 70%				
	Temperature ( $^{\circ}C$ )	-10~35 $^{\circ}C$				

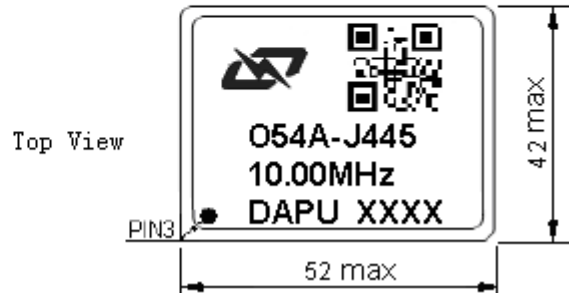


## 2. Mechanical Structure (mm)



### PIN FUNCTION

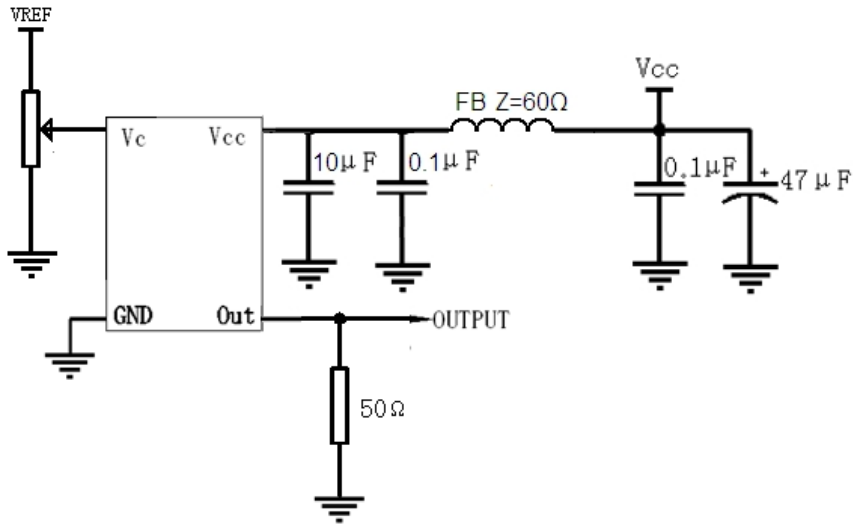
PIN	NOTATION	FUNCTION
1	GND	GND
2	VC	Control Voltage
3	VREF	Reference Voltage 5V
4	VCC	Supply Voltage
5	OUTPUT	RF Output



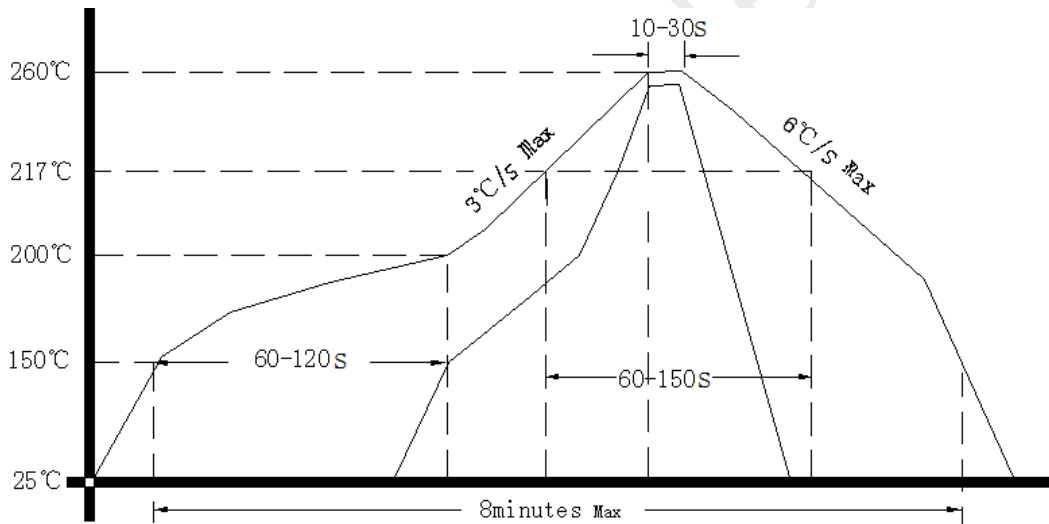
- Note1:** Tolerance  $\pm 0.20$ mm without mark
- Note2:** The first two xx representative: week  
After two xx representative: year
- Note3:** Referential weight 78g
- Note4:** NC is not connect



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package (mm)

