

Customer Code : _____

DATASHEET

DAPU P/N: CM55F-X129-10.00MHz-A

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2016.05.06			

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1、Electrical Parameters

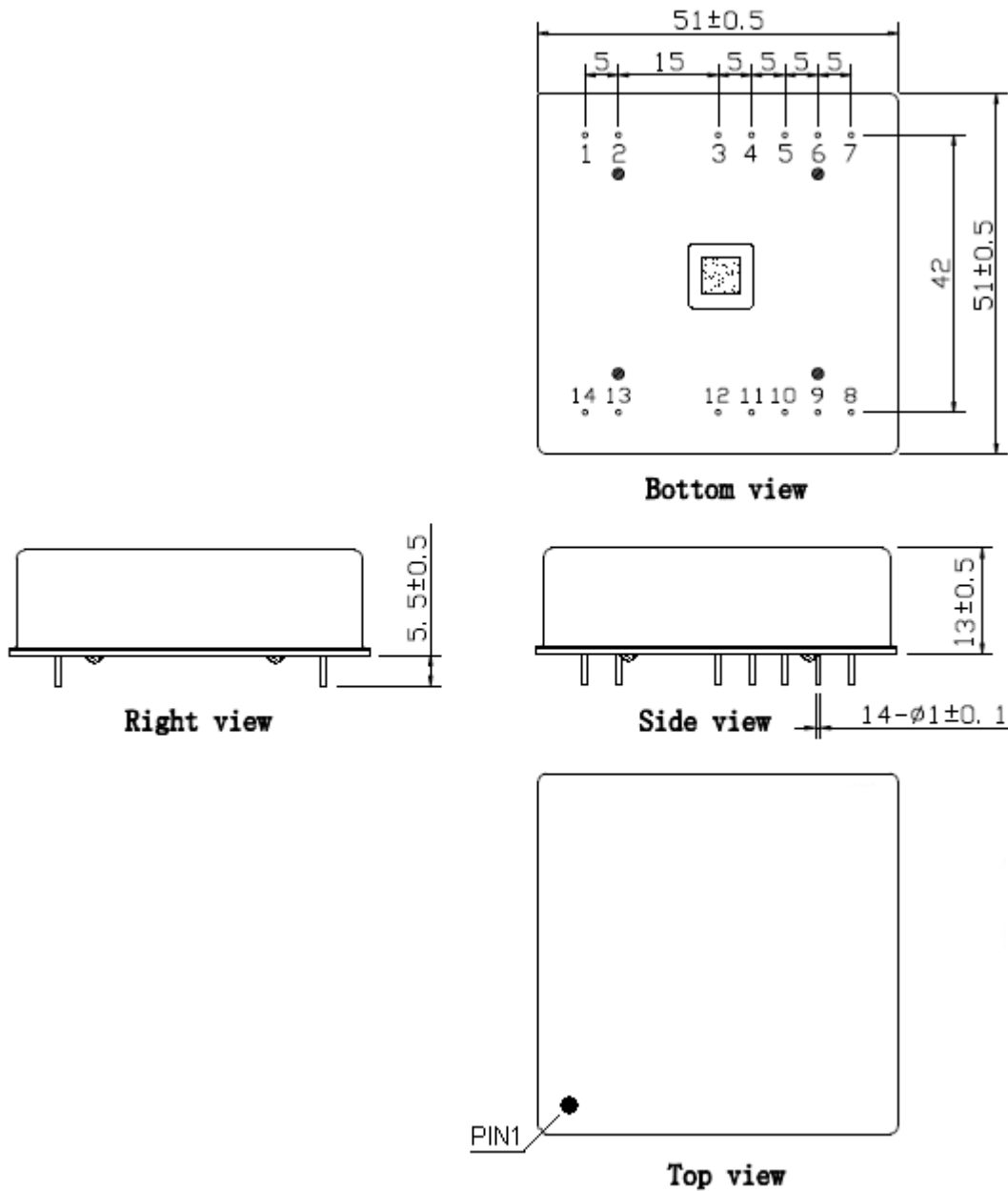
	Parameters	Min.	Typ.	Max.	Unit.	Test Condition	
1 PPS Reference Input	Waveform	HCMOS					
	High-Level Output Voltage (V_{IH})	2.7			Vdc	50 Ohms	
	Low-Level Output Voltage (V_{IL})			0.4	Vdc		
	Pulse Width	10			uSec		
	Connector	Pin 10					
State Input	Parameters	Min.	Typ.	Max.	Unit.		
	Lock Enable	2.7			Vdc	<5mA Load	
	Lock Disable			0.4	Vdc	<5mA Load	
	Connector	Pin 8					
RF Output	Parameters	Min.	Typ.	Max.	Unit.	Test Condition	
	Nominal Frequency		10		MHz		
	Waveform	HCMOS					
	High-level Output voltage (V_{OH})	2.7			Vdc	<5mA Load	
	Low-level Output voltage (V_{OL})			0.4	Vdc	<5mA Load	
	Rise/Fall Time			8	nSec	<5mA Load	
	Duty Cycle	45	50	55	%	<5mA Load	
	Accuracy	-1		1	E-12	24 hour average when locked to 1 PPS	
	Short-term stability			2	E-11	Temperature stability,no EMI\EMC or other interference,test after power for 1 hour ref. to 25°C; 1s, using PN9000 equipment.	
	Phase noise (All conditions)			-118		dBc/Hz	@ 10Hz offset
				-138		dBc/Hz	@ 100Hz offset
				-148		dBc/Hz	@ 1KHz offset
				-150		dBc/Hz	@ 10KHz offset
			-150		dBc/Hz	@ 100KHz offset	
Connector	Pin 14						
Holdover Capability	Holdover Time	Min.	Typ.	Max.	Unit.		
	24 hours	-8		8	uSec	$\Delta T = \pm 2^{\circ}C$, 24 hours holdover after turn on 7days	



Supply Voltage	Parameters	Min.	Typ.	Max.	Unit.	
	Supply voltage	4.75	5.0	5.25	Vdc	
	Current consumption			1400	mA	During Warm-up
				600	mA	During steady state operation @25 °C
	AC ripple			50	mVpk-pk	10Hz to 1MHz
Connector	Pin 3					
1 PPS Output Waveform Characteristics	Parameters	Min.	Typ.	Max.	Unit.	
	Waveform	HCMOS				
	High-Level Output Voltage(V _{OH})	2.7			Vdc	50 Ohms
	Low-level Output voltage (V _{OL})			0.4	Vdc	
	Pulse width	10			uSec	
	Connector	Pin 12				
State Output	Parameters	Min.	Typ.	Max.	Unit.	
	Lock	2.7			Vdc	<5mA Load
	Holdover			0.4	Vdc	<5mA Load
	Connector	Pin 5				
Environmental Conditions	Parameter	Conditions				
	Operating temperature	-20°C to +75°C				
	Storage Temperature	-55°C to +105°C				
	Storage humidity	30%~80%				
	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.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hours. (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)



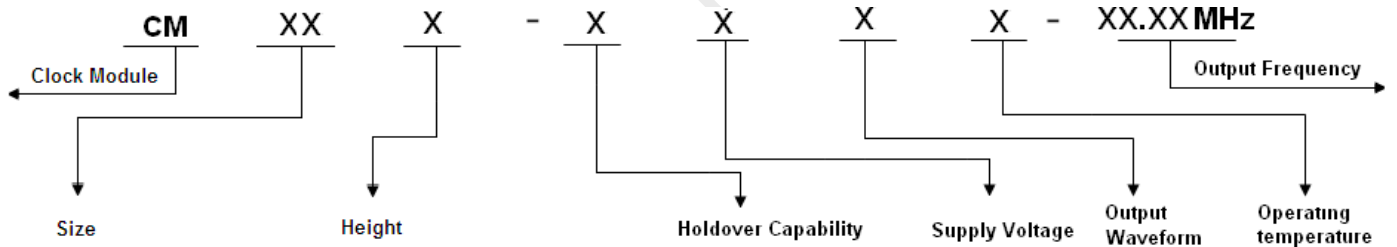
Note1: Tolerance ± 0.20 mm without mark

Note2: Referential Weight 52 ± 5 g



PIN DEFINITION			
PIN	Name	DESCRIPTION	
1	NMEA-IN	NMEA format data input.9600-N-8-1.	
2	NMEA-OUT	NMEA format data output.9600-N-8-1.	
3	Vcc +5.0Vdc	Power supply input,4.75V to 5.25V.	
5	Lock OUTPUT	State output. Output high level when the work state is Run2(See section 4),others low level.	
6	RX INPUT	Asynchronous serial data input. 9600-N-8-1.	
7	TX OUTPUT	Asynchronous serial data output. 9600-N-8-1.	
8	State INPUT	H: Lock	The work state is set to normal operation when the state input is high.
		L: Unlock	The work state is set to hold over when the state input is low.
9	NC	Not connected.	
10	PP1S INPUT	PP1S reference input.	
12	PP1S OUTPUT	The clock module PP1S output.	
14	10MHz OUTPUT	10MHz OCXO frequency output.	
4、11、13	GND	GND	

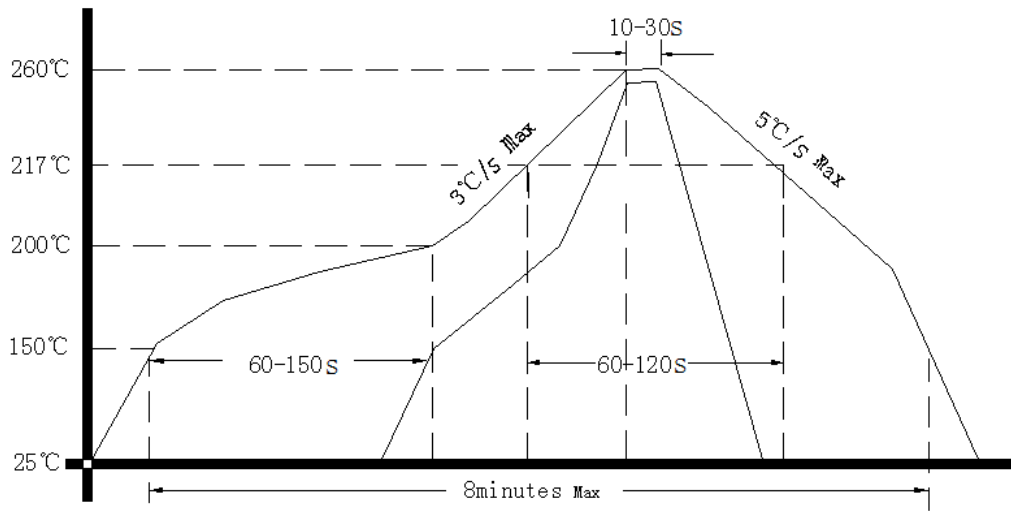
3、Coding Rules



Size	Height	Holdover Capability	Supply Voltage	Output Waveform	Operating temperature
55 50×50 (mm)	A 19mm, single Freq, external GPS receiver	A ±1.5µs 0°C~60°C 24hours	1 5.0V	1 Sine Wave 2 HCMOS	1 0°C~80°C 2 -10°C~70°C 9 -20°C~75°C
66 60×60 (mm)	B 19mm, single Freq, internal GPS receiver	B ±3.0µs 0°C~60°C 24hours			
65 65×65 (mm)	C 19mm, single Freq, internal dual-mode receiver	C ±8.0µs 0°C~60°C 24hours	1 5.0V	1 Sine Wave 2 HCMOS	1 0°C~80°C 2 -10°C~70°C 9 -20°C~75°C
	F 13mm, single Freq, external GPS receiver	D ±1.5µs ΔT=±5°C 24hours			
	G 13mm, single Freq, internal GPS receiver	E ±3.0µs ΔT=±5°C 24hours			
	H 13mm, dual-Freqs, internal GPS receiver	F ±8.0µs ΔT=±5°C 24hours			
	K 13mm, single Freq, internal dual-mode receiver	G ±1.5µs ΔT=±5°C 8hours			
	L 13mm, dual-Freqs, internal dual-mode receiver	H ±3.0µs ΔT=±5°C 8hours			
		I ±8.0µs ΔT=±5°C 8hours			
		K ±1.5µs ΔT=±2°C 24hours			
		M ±3.0µs ΔT=±2°C 24hours			
		N ±8.0µs ΔT=±2°C 24hours			
	O ±1.5µs ΔT=±2°C 8hours				
	P ±3.0µs ΔT=±2°C 8hours				
	Q ±8.0µs ΔT=±2°C 8hours				



4、 Reflow Soldering Curve (RoHS)



5、 Package (mm)

