

Customer Code:

DATASHEET

DAPU P/N: **CM55F-E129-19.20MHz**

Customer P/N:

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2020.03.18			

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1. Electrical Parameters

1 PPS Reference Input	Parameters	Min.	Typ.	Max.	Unit.	Test Condition	
	Waveform	HCMOS					
High-Level Input Voltage (V_{IH})	2.7				V	50Ω	
Low-Level Input Voltage (V_{IL})				0.4	V		
Pulse Width	10				μs		
Connector	Pin 10						
State Input	Parameters	Min.	Typ.	Max.	Unit.	Test Condition	
	Lock	2.7			V	<5mA Load	
	Holdover			0.4	V	<5mA Load	
	Connector	Pin 8					
RF Output	Parameters	Min.	Typ.	Max.	Unit.	Test Condition	
	Nominal Frequency	19.20			MHz		
	Waveform	HCMOS					
	High-level Output Voltage (V_{OH})	2.7			V	< 5mA Load	
	Low-level Output Voltage (V_{OL})			0.4	V	< 5mA Load	
	Rise/Fall Time			5	ns	< 5mA Load	
	Duty Cycle	45	50	55	%	< 5mA Load	
	Short-term Stability	-5		+5	$\times 10^{-12}$	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)			-85	-80	dBc/Hz	1Hz
				-93	-87		10Hz
				-118	-113		100Hz
			-138	-133	1KHz		
			-152	-147	10KHz		
		-152	-147	100KHz			
Connector	Pin 14						
Holdover Capability	Holdover Time	Min.	Typ.	Max.	Unit.	Test Condition	
	24 Hours	-15		+15	μs	8 hours holdover after track 1 day	
Supply Voltage	Parameters	Min.	Typ.	Max.	Unit.	Test Condition	



	Supply Voltage	4.75	5.0	5.25	V	
	Current Consumption			1600	mA	During Warm-up
				680	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.	Test Condition
	Waveform	HCMOS				
	High-Level Output Voltage(V _{OH})	2.7			V	50Ω
	Low-level Output voltage (V _{OL})			0.4	V	
	Pulse Width		100		ms	
Connector	Pin 12					
Lock State	Parameters	Min.	Typ.	Max.	Unit.	Test Condition
	Lock	2.7			V	<5mA Load
	Holdover			0.4	V	<5mA Load
	Connector	Pin 1				
Track State	Parameters	Min.	Typ.	Max.	Unit.	Test Condition
	Track	2.7			V	<5mA Load
	Not Track			0.4	V	<5mA Load
	Connector	Pin 2				
Serial Interfaces	Parameters	Min.	Typ.	Max.	Unit.	Test Condition
	Rx high-level Input Voltage (V _H)	2.7			V	
	Rx low-level Input Voltage (V _L)			0.4	V	
	Tx high-level Output Voltage (V _H)	2.7			V	
	Tx low-level Output Voltage (V _L)			0.4	V	
	Connector	Pin6 and Pin7				
Environmental Conditions	Parameter	Conditions				
	Operating Temperature	-20°C to 70°C				
	Storage Temperature	-55°C to 100°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; 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					

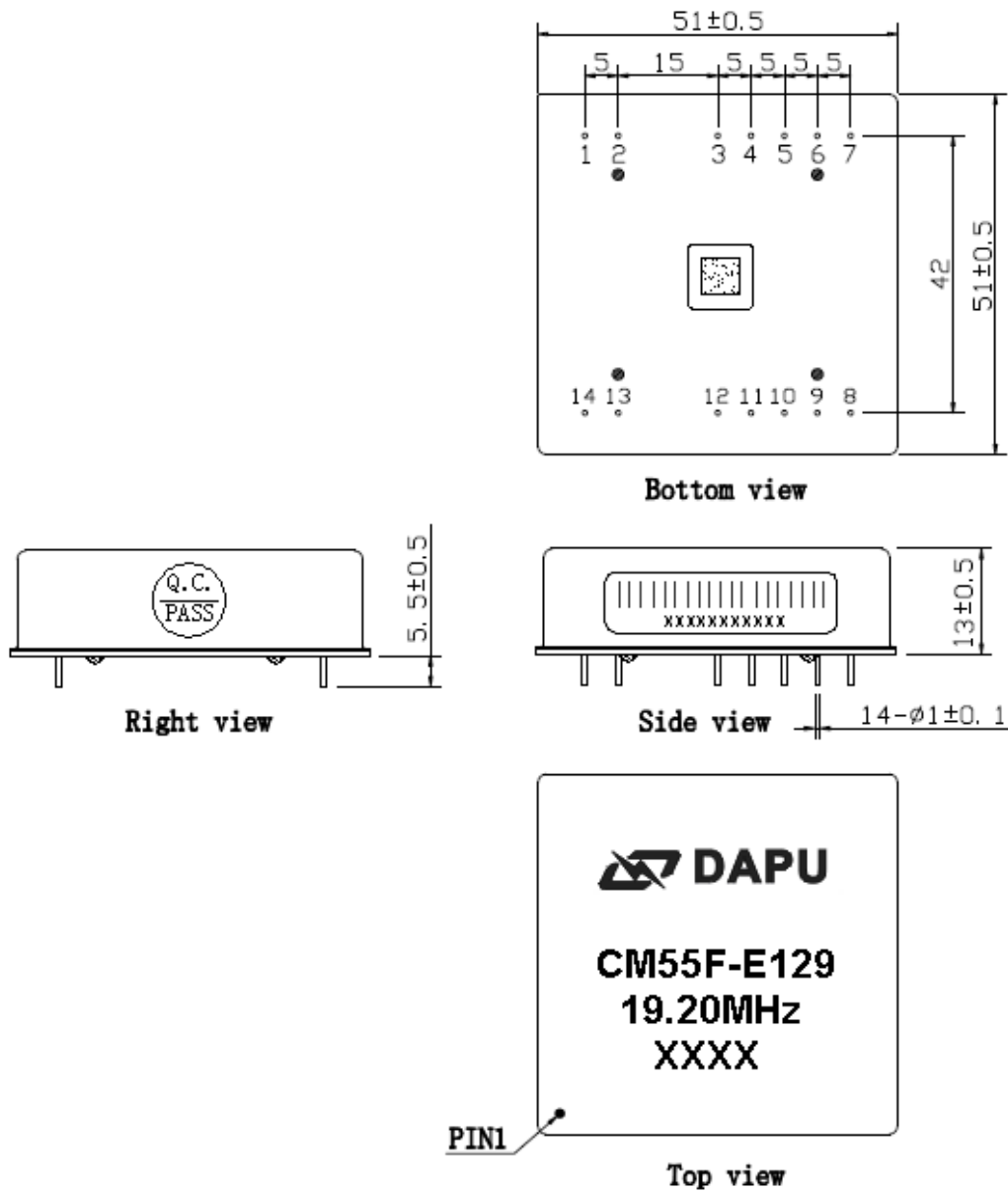


		hour. (3 times for each 3 directions X ,Y , Z), IEC 68-2-06 Test Fc.
	Shock	50g; 11ms; half sine wave (3 times for each 3 directions X ,Y , Z),IEC 68-2-27 Test Ea/Severity 50A.

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2. Mechanical Structure (mm)

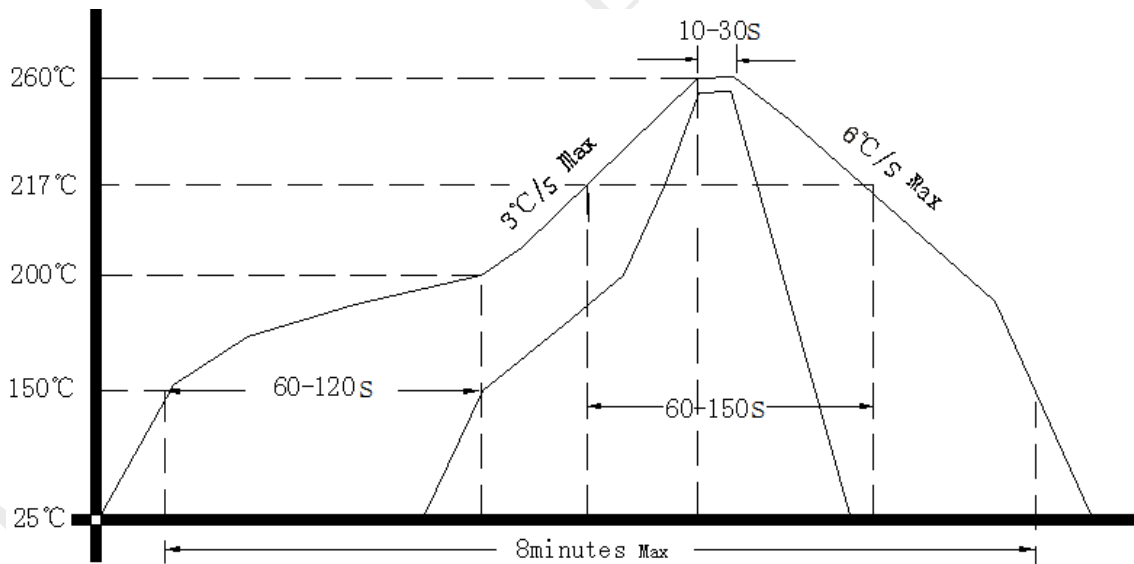


- Note1:** Tolerance ± 0.2 mm without mark
- Note2:** Referential weight 52 ± 5 g
- Note3:** The first two xx representative: week
After two xx representative: year



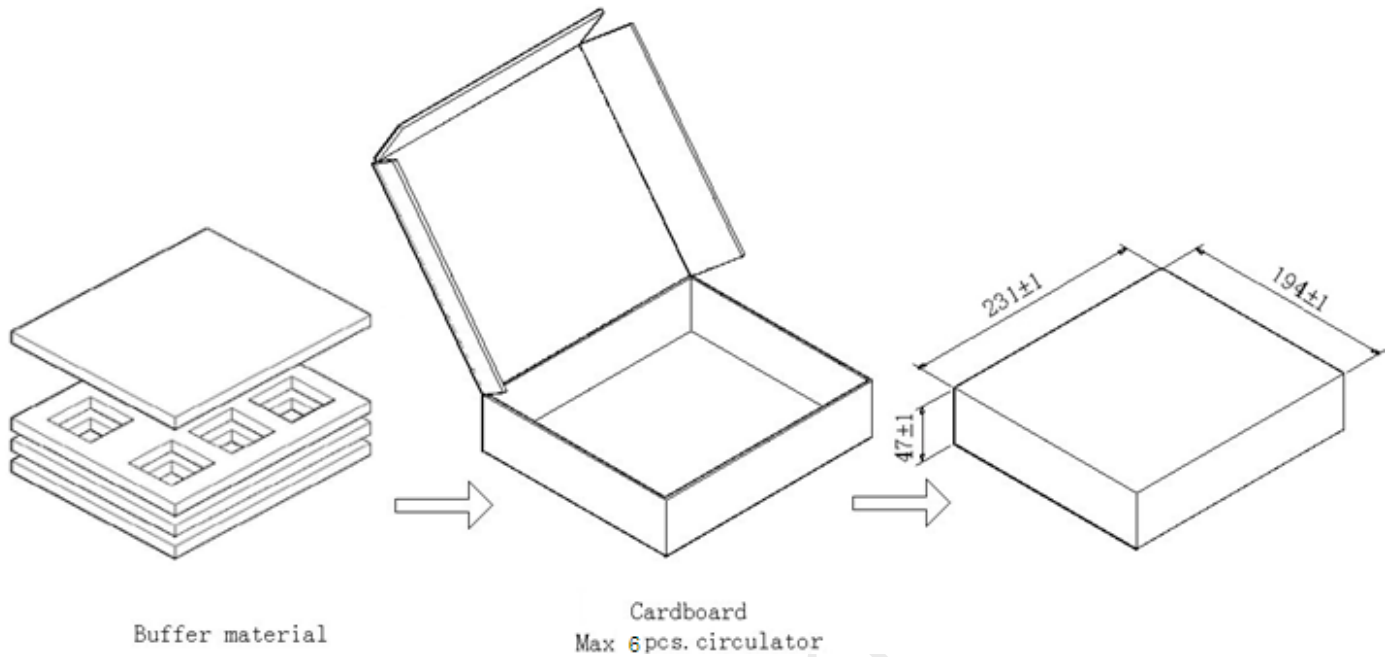
PIN DEFINITION		
PIN	NAME	DESCRIPTION
1	Lock State	Output high level when the CM is locked and the frequency accuracy $\leq 1\text{ppb}$, others low level
2	Track State	Output high level after 3mins warm-up and 1min track, or when the PIN1 is high level, others low level
3	VCC	Power supply input, 4.75V to 5.25V
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 Enable The work state is set to normal operation when the state input is high
		L: Lock Disable The CM cannot be locked when the state input is low level
10	1PPS INPUT	1PPS reference input
12	1PPS OUTPUT	The clock module 1PPS output
14	19.20MHz OUTPUT	19.20MHz OCXO frequency output
5、9	NC	Not connected
4、11、13	GND	GND

3. Wave Soldering Curve (RoHS)





4. Package (mm)



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