



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

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Product Specifications Approval Sheet

Product Description: OCXO SMD 14.1mmx9.1mm 20MHZ

TST Part No.: TP0026A

Customer Part No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Ginger Huang *Ginger Huang*

Approved by: _____ Kelly Huang *Kelly*

Date: _____ 11/15/2011

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



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14.1x9.1 20MHz OCXO

MODEL NO.: TP0026A

REV. NO.: 1.0

Revise:

Rev.	Rev. Page	Rev. Account	Date	Ref. No.	Reviser
1	N/A	Initial release	11/15/11'	N/A	Ginger Huang



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14.1x9.1 20MHz OCXO

MODEL NO.: TP0026A

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Characteristics	Values	Unit	Note
Nominal Frequency	20	MHz	Tol ± 500 ppb max @ 25°C $\pm 2^\circ\text{C}$, warmup 30 ± 5 minutes within 90 days after shipment

Temperature Range

Characteristics	Min.	Nom.	Max.	Unit	Note
Operating G1	-20		70	$^\circ\text{C}$	
Storage	-40		85	$^\circ\text{C}$	

Power - Consumption

Characteristics	Min.	Nom.	Max.	Unit	Note
Power Supply	3.14	3.3	3.47	V	Vcc $\pm 5\%$
Max values at steady state			400	mA	1.3W at 25°C
Max values during Warm-up			900	mA	3W, heating time < 3 min

Output Signal LVC MOS

Characteristics	Min.	Nom.	Max.	Unit	Note
Level	VOH	2.4		Volt	
	VOL		0.4	Volt	
Rise/Fall time			6	ns	
Duty cycle	45		55	%	
Non-harmonics Spur			-60	dBc	
Load		15		pF	

Frequency Stability

Characteristics	Min.	Nom.	Max.	Unit	Note
VS Temperature Range G1			50	\pm ppb	Refer to freq at 25°C
VS Power Supply variation			10	\pm ppb	Vcc $\pm 5\%$ Static
VS Load variation			10	\pm ppb	Load $\pm 5\%$

Aging

Characteristics	Values			Unit	Note
	1 day	1 year	10years		
Medium/Long Term Stability	NA	2000	5000	\pm ppb	After continuous operating for 1 month at 25°C
Warm Up	2 mn		100	\pm ppb	Refer to 1H power on @ 25°C

Phase Noise

Characteristics	Values						Unit	Note
	1 Hz	10 Hz	100Hz	1 KHz	10 KHz	100KHz		
Static Conditions		-85	-110	-130	-145	-145	dBc/Hz	

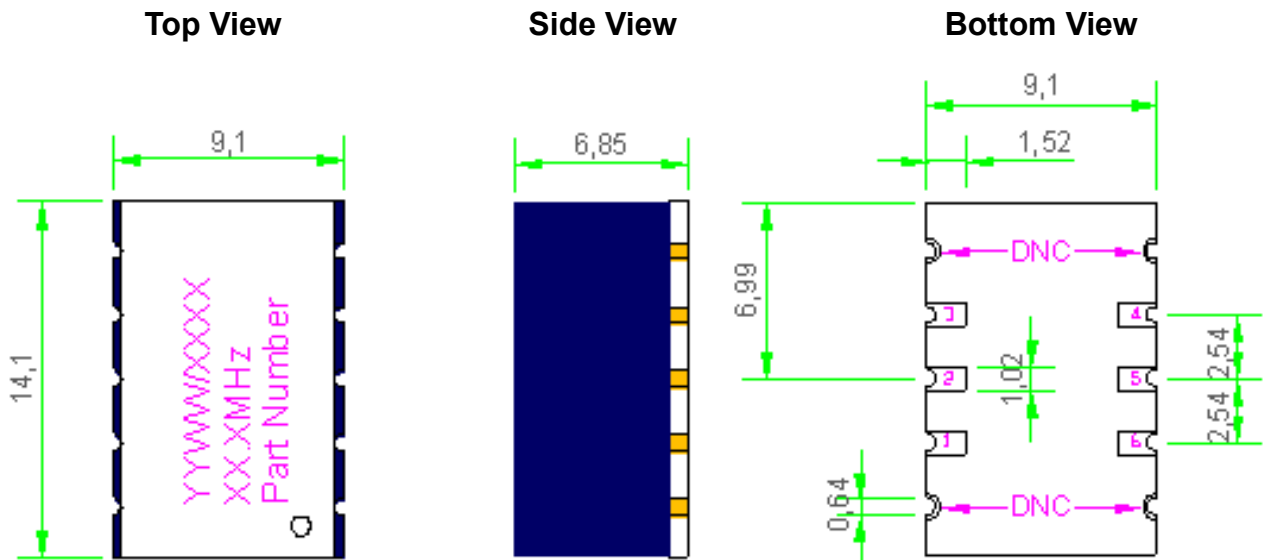
Mechanical Conditions

Characteristics	Conditions
Shocks (Non-operating)	MIL-STD-202, Method 213, Test Condition J (30 g, 11 ms half-sine)
Sine Vibrations (Non-operating)	MIL-STD-202, Method 201 (0.06" Total p-p, 10 to 55 Hz)

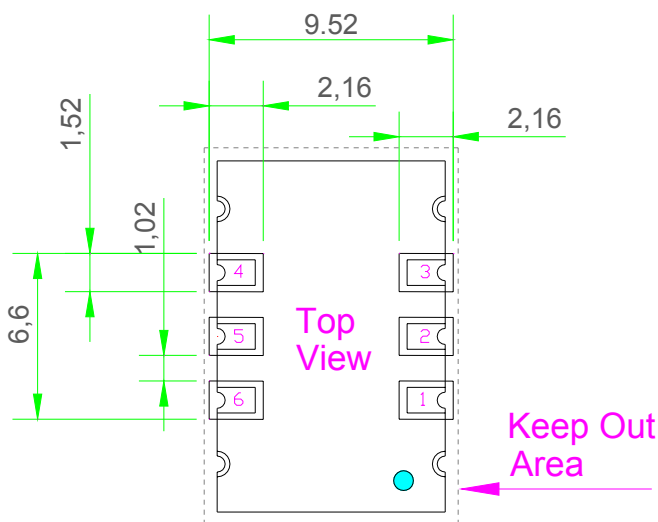
Package - Pin Out

Package Ref.	S1	drawing Unit: mm
Maximum package height	6.85mm	
Pin Out	Pad 1: N/C or Vctrl Pad 2: N/C Pad 3: Ground Pad 4: output Pad 5: N/C Pad 6: Vcc	

Mechanical drawing Package Ref. S1



Suggested Pad Layout



DNC: Do Not Connect

Dimensional Tolerance: +/-0.005 (0.127mm)

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TST DCC
Release document