




SPECIFICATION SHEET NO.	N1020- RC20M48000S001
DATE	Oct. 20, 2021
REVISION	A0
DESCRIPTION	SMD Oscillator, 0705 Type, L7.0*W5.0*H1.50mm, 4 Pads, COM75 series 20.480MHz, 3.3V, +/-50ppm, Symmetry 40/60, Operating Temp. Range -40°C ~+85°C, Reflow Profile Condition 260 °C Max. 1-10TTL//15pF, Tristate- N/A, Tape/Reel, RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS COM7530BGH01 TLF-20M480
PART CODE	RC20M48000S001

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: Oct. 20, 2021			

CUSTOMER APPROVE	
DATE:	

MHZ SMD OSCILLATOR 0705 TYPE 4 PADS

MAIN FEATURE

- SMD Package, Seam Sealed, 0705 Type, L7.0*W5.0*H1.50mm, 4 Pads,
- Low noise and Low current
- Industry standard
- Reflow Profile Condition 260 °C Max.
- Cross more competitors part
- RoHS/RoHS III compliant

APPLICATION

- PDA, PND, DSC, Smart phone, WiLAN, Bluetooth and more
- Communication Electronics

PART CODE GUIDE

RFQ
[Request For Quotation](#)

RC	20M48000	S	001
1	2	3	4

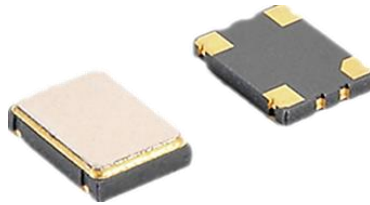
- 1) RC: Part family Code for SMD Oscillator, 0705 Type, L7.0*W5.0*H1.50mm, 4 Pads, COM75 series
- 2) 20M48000: Frequency range code for 20.48000MHz
- 3) S: SMD type, Package Tape/Reel, 1000pcs/Reel
- 4) 001: Specification code for original part No.: **TGS COM7530BGH01 TLF-20M480**

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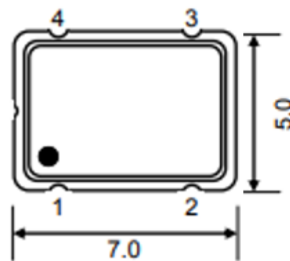
DIMENSION (Unit: mm, Tol. +/-0.15mm)



Image for reference



COM75

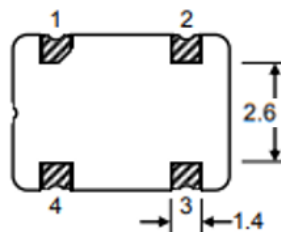


Marking 1

Line 1: Company Code + Supply Voltage
Line 2: Freq. Range + QC Code (A~Z)

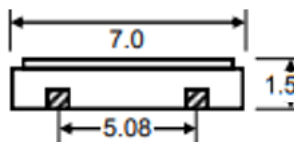
Marking 2

Line 1: Frequency Range

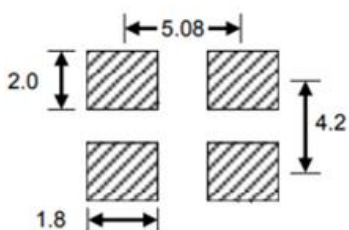


Pin Function

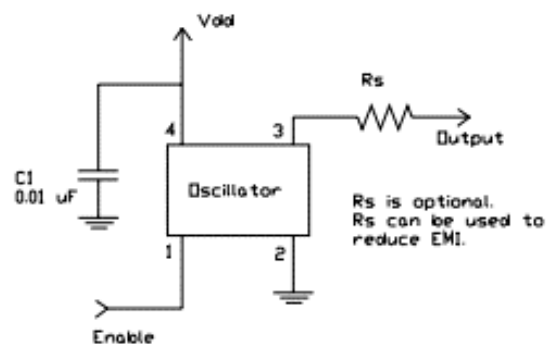
- #1 Tri-State: N/A
- #2 Ground
- #3 Output
- #4 VDD



Recommend Pad Layout



Circuit Principle



MHZ SMD OSCILLATOR 0705 TYPE 4 PADS
ELECTRICAL PARAMETERS

Parameter		Part No. Symbol	Units	Value			Condition
				Min.	Typical	Max.	
Original Manufacturer		TGS	TGS Crystals				
Holder Type		COM75	SMD Oscillator, 0705 Type, L7.0*W5.0*H1.50mm, 4 Pads				
Supply Voltage		3	V	3.3		+/-10%	
Enable/Disable Function		0		Tri-State: N/A		@ Control via pin 1	
Overall Freq. Tolerance		B	ppm	-50		+50	@25°C
Operating Temp. Range		G	°C	-40		+85	
Storage Temp. Range			°C	-55		+125	
Symmetry		H	%	40		60	
Output	V OH		V	90%			High (Logic "1")
	V OL		V			10%	Low (Logic "0")
	Load		pF	15			
Output Waveform		1		1-10TTL			@OutputLoad 15pF
Startup Time			ms			10	
Supply Current			mA			10	
Rise/ Fall time			ns			10	
Aging			ppm/year			±3	@1 st year
Others	Package	T	Tape/Reel				
	RoHS Status	LF	RoHS III compliant				
	Add Value		N/A				
	Code *		Internal Control Code				
Frequency Range		- 20M480	20.480MHz				

Note: 1) Original Part Number: **TGS COM7530BGH01 TLF-20M480**

2) * Internal Control Code- 2 letter or digits; Blank: N/A

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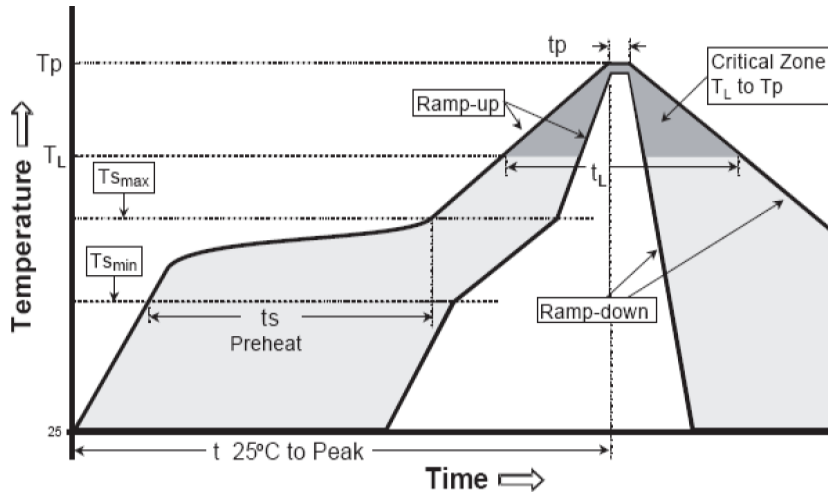
RELIABILITY

Test Items	Test Method And Conditions	Reference Documents
High Temperature High Humidity Storage	Temperature: 85°C±3°C Relative Humidity:85%RH Time: 96 Hours	JIS C5023
High Temperature Storage	Temperature: 125°C±3°C Time: 96 Hours.	MIL-STD-883E Method 1005.8
Low Temperature Storage	Temperature: -40°C±3°C Time: 96 Hours.	MIL-STD-883E Method 1013
Thermal Shock	Temperature 1: -55°C±5°C Temperature 2: 85°C±5 °C Temperature change between T1 and T2 5 min 10cycles maintain T1 and T2 for 30 minutes each cycle	MIL-STD-202F Method 107 Condition A
Resistance to Solder Heat	Solder Temperature: 260°C±5°C Time: 10±1 Seconds	MIL-STD-202F Method 210E
Solderability	The solder pot temperature is 245±5°C , dwell time 5±0.5sec	J-STD-002B
Drop Test	3 Times Free Fall from 50cm height table to 3cm thickness hard wood board	J-STD-002B
Mechanical Shock	Half sine wave,1000 G 3 Times for all 3 directions(X,Y Z)	MIL STD 202F Method 213B
Vibration	Frequency Range: 10Hz ~ 55Hz Amplitude: 0.75mm 2 Hours in each direction, total 6 Hours	MIL-STD-883E Method 2007.3
Leakage Test	Take measurements with a helium Leakage detector Leakage Rate≤1×10 ⁻³ Pa cm ³ /s	MIL-STD-883E

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SUGGESTED REFLOW PROFILE (For Reference Only)

Total time: 200 Sec. Max. Solder melting point: 220°C

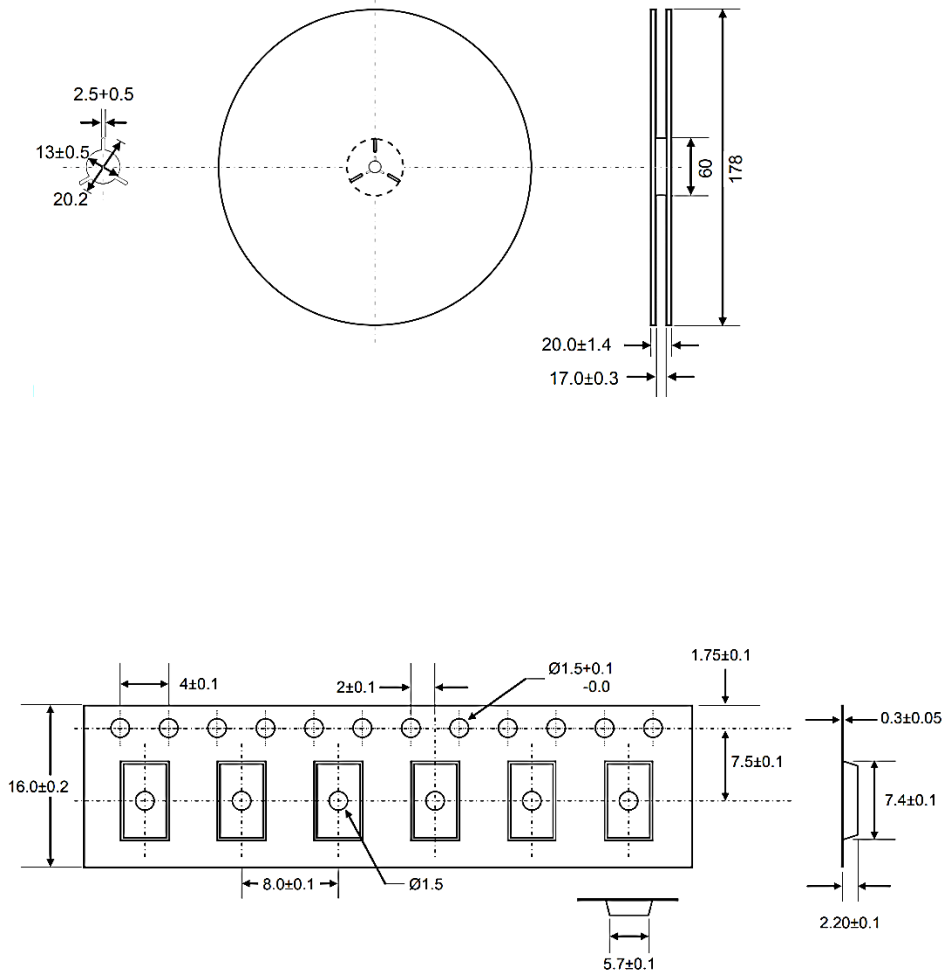


Profile Feature		Pb-Free Assembly
Average Ramp-up Rate (Ts Max to Tp)		3°C/second Max
Preheat	Temperature Min (Ts Min.)	125°C
	Temperature Max (Ts Max.)	200°C
	Time (ts Min. to ts Max.)	60 ~ 180 seconds
Time maintained above	Temperature (Tl)	217°C
	Time (tl)	60 ~ 150 seconds
Peak/Classification Temperature (Tp)		260 °C
Time within 5°C of actual Peak Temperature (tp)		20 ~ 40 seconds
Ramp-down rate		6 °C /Second Max.
Time 25 °C to Peak Temperature		8 minutes Max.
Suggest reflow times		3 Times Max.

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TAPE/REEL (Unit: mm)

All Devices are packed in accordance with EIA standard RS-481-2 and specifications, 1000pcs/Reel



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