

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0301- XB14M74560S420
DATE	March 01, 2023
REVISION	A0
DESCRIPITION	MHz SMD Crystal, Seam Seal, L7.0*W5.0*H1.1mm, 4 Pads, CM75 series
	14.7456MHz, Tolerance +/-30ppm, Load Capacitor 20pF,
	Frequency stability +/-30ppm @Operating Temp. Range -40°C ~+85°C,
	ESR 50 ohm Max, Reflow Profile Condition 260 °C Max.
	Tape/Reel, 1000pcs/Reel
	RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS CM75 14M7456A30-20-30-40-50TLF
PART CODE	XB14M74560S420

VENDOR APPROVE

Issued/Checked/Approved







DATE: March 01, 2023

CUSTOMER APPROVE			

DATE:

03/01/2023



SMD CRYSTAL 7050 TYPE 4 PADS

MAIN FEATURE





- SMD Crystal, Seam Seal, L7.0*W5.0*H1.1mm, 4 pads
- Low cost, High precision, High frequency stability
- Reflow Profile Condition 260 °C Max.
- Cross more competitors part
- RoHS/RoHS III compliant

APPLICATION

- Bluetooth, wireless communication set
- Communication Electronics

PART CODE GUIDE



ХВ	14M74560	S	420
1	2	3	4

- 1) XB: Part family Code for SMD Crystal, Seam Seal, L7.0*W5.0*H1.1mm, 4 pads (CM75)
- 2) 14M74560: Frequency range code for 14.7456MHz
- 3) S: SMD type, Package Tape/Reel, 1000pcs/Reel
- 4) 420: Specification code for original part No.: TGS CM75 14M7456A30-20-30-40-50TLF

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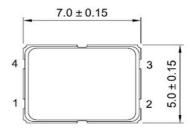
SMD CRYSTAL 7050 TYPE 4 PADS

DIMENSION (Unit: mm)

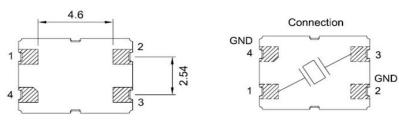
Image for reference



CM75

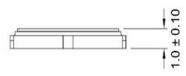


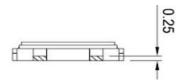
Marking standard



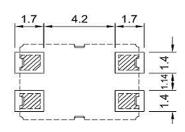
Connection

#1 Crystal #2 Ground #3 Crystal #4 Ground





Recommend Pad Layout





SMD CRYSTAL 7050 TYPE 4 PADS

ELECTRICAL PARAMETERS

Parameter		Part No. Symbol	Units	Value			Condition
		Symbol		Min.	Typical	Max.	
Original	Manufacturer	TGS		TGS	Crystals		
Holder T	уре	CM75	SMD Crysta	l, Seam Seal,	L7.0*W5.0*H1.1	mm, 4 pads	
Frequen	cy Range	14M7456	MHz		14.7456		
Mode of	Oscillation	А			AT Fundamenta	al	
Frequen	cy Tolerance	30	ppm	-30		+30	@25°C
Load Cap	oacitance	-20	pF		20		
Stability Operation	over on Temperance	-30	ppm	-30		+30	
Operation	on Temperance	-40	°C	-40		+85	
Storage '	Temperance		°C	-55		+125	
Equivale Resistan	nt Series ce (ESR)	-50	Ω			50	
Drive Le	vel		μW			300	
Shunt Ca	apacitance (CO)		pF	0		7.0	
Motiona (C1)	Il Capacitance		fF	N/A			
DLD2			Ω	N/A			
FLD2			ppm		N/A		
RDL2			Ω	N/A			
SPDB			dB	N/A			
Aging			ppm/year			±3	@1st year
Insulatio	on Resistance		ΜΩ	500			@100VDC ± 15VDC
	Package	Т	Tape/Reel				
	RoHS Status	LF	RoHS III compliant				
Others	Add Value		N/A				
Internal Control Code *			N/A				

Note: 1) Original Part Number: TGS CM75 14M7456A30-20-30-40-50TLF

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

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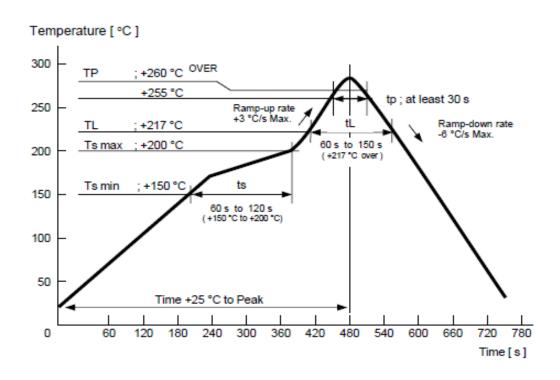
SMD CRYSTAL 7050 TYPE 4 PADS

MECHANICAL PERFORMANCE

Item	Condition	Standard
Drop characteristics Free drop from 75cm height on a hard wooden board for 3 times. (Board is thickness more than 30 mm.)		Frequency change: ≤5ppm Rr as specification
Shake characteristics	Shake frequency 10~55Hz, cyc1~2 minutes, swing 1.5mm, direction x/y/z, all 30 minutes, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
Airproof characteristics	Put crystal into the pressure cabin with alcohol, keep pressure 0.4~0.5mpa 10 minutes, then take out and blow for 5 minutes	IR≥500MΩ
Weld characteristics	260±5°C, 3 seconds	90% exhibit tin ok
Humidity characteristics	+40±2°C & 90%~95% R.H. 250 hours	Frequency change: ≤5ppm Rr as specification
Low temperature characteristics	-30 \pm 2°C, 250 hours, put in room temperature, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
High temperature characteristics	+85 \pm 2°C, 250 hours, put in room temperature, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
Temperature cycling	-30 \pm 3°C/30 \pm 3 min~+85 \pm 2°C/30 \pm 3min, 5 cycles	Frequency change: ≤5ppm Rr as specification

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SUGGESTED REFLOW PROFILE (For Reference Only)

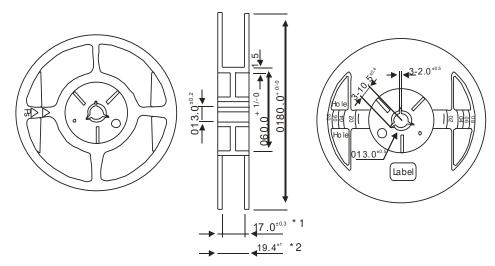


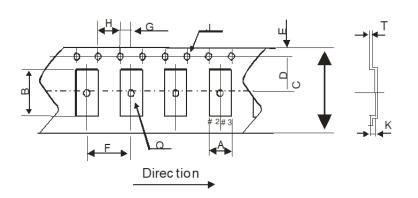
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SMD CRYSTAL 7050 TYPE 4 PADS

TAPE/REEL (Unit: mm)

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





A	5.4 ^{±01}
В	7.4 ^{±0.1}
C	16.0 ^{±0.2}
D	7.5 ^{±0.1}
E	1.75 ^{±0.1}
F	8.0 ^{±0.1}
G	2.0 ^{±0.1}
Н	4.0 ^{±0.1}
J	1.55 ^{±0.05}
K	1.4 ^{±0.1}
Q	1.6+0.1/0
T	0.3 ^{±0.05}

Item		Empty Space
Tapa Leader	Cover Tape	Min.500mm
	Empty Pockets	Min.20 pockets
Tape Trailer	Cover Tape	Min.0mm
	Empty Pockets	Min.40mm

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