

# **SPECIFICATION SHEET**

SPECIFICATION SHEET NO.	Q0301- XB14M74560S416
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 16pF,
	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 14M7456A30-16-30-40-50TLF
PART CODE	XB14M74560S416

#### **VENDOR APPROVE**

Issued/Checked/Approved







DATE: March 01, 2023

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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	416
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) 416: Specification code for original part No.: TGS CM75 14M7456A30-16-30-40-50TLF

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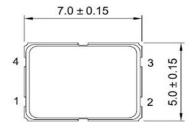
# SMD CRYSTAL 7050 TYPE 4 PADS

#### **DIMENSION (Unit: mm)**

#### Image for reference



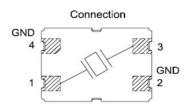
#### CM75



## Marking



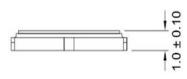
# 4.6

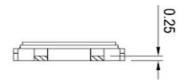


#### Connection

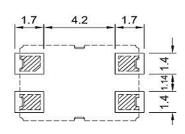
#1 Crystal #2 Ground #3 Crystal

#4 Ground





#### **Recommend Pad Layout**





# **SMD CRYSTAL 7050 TYPE 4 PADS**

#### **ELECTRICAL PARAMETERS**

Parameter		Part No. Symbol	Units	Value			Condition	
		37111501		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	pacitance	-16	pF		16			
Stability Operation	over on Temperance	-30	ppm	-30		+30		
Operation	on Temperance	-40	°C	-40		+85		
Storage	Temperance		°C	-55		+125		
Equivalent Series Resistance (ESR)		-50	Ω			50		
Drive Level			μW			300		
Shunt Ca	apacitance (CO)		pF	0 7.0		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 T 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 14M7456A30-16-30-40-50TLF

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

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# **SMD CRYSTAL 7050 TYPE 4 PADS**

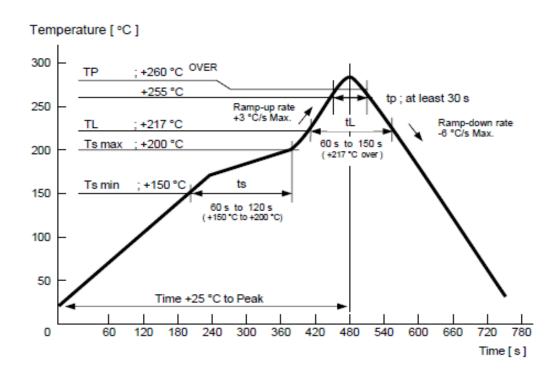
#### **MECHANICAL PERFORMANCE**

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 $-30\pm3^{\circ}\text{C}/30\pm3$ min~+85 $\pm2^{\circ}\text{C}/30\pm3$ min, 5 cycles		Frequency change: ≤5ppm Rr as specification



# **SMD CRYSTAL 7050 TYPE 4 PADS**

#### **SUGGESTED REFLOW PROFILE (For Reference Only)**

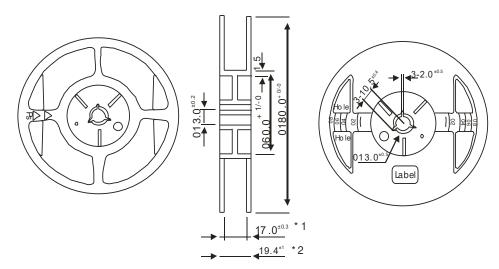


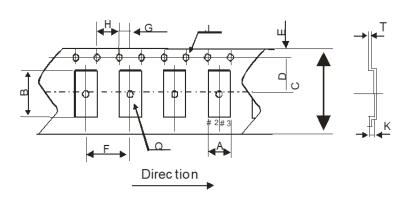
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## **SMD CRYSTAL 7050 TYPE 4 PADS**

#### TAPE/REEL (Unit: mm)

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





5.4 <sup>±01</sup>	
$7.4^{\pm0.1}$	
16.0 <sup>±0.2</sup>	
7.5 <sup>±0.1</sup>	
1.75 <sup>±0.1</sup>	
8.0 <sup>±0.1</sup>	
2.0 <sup>±0.1</sup>	
4.0 <sup>±0.1</sup>	
1.55 <sup>±0.05</sup>	
1.4 <sup>±0.1</sup>	
1.6+0.1/0	
0.3 <sup>±0.05</sup>	

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

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