

PART CODE: XB16M93440S416

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0301- XB16M93440S416
DATE	March 01, 2023
REVISION	A0
DESCRIPITION	MHz SMD Crystal, Seam Seal, L7.0*W5.0*H1.1mm, 4 Pads, CM75 series 16.9344MHz, Tolerance +/-30ppm, Load Capacitor 16pF, Frequency stability +/-30ppm @Operating Temp. Range -40°C ~+85°C, ESR 45 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 16M9344A30-16-30-40-45TLF
PART CODE	XB16M93440S416

VENDOR APPROVE			
Issued/Checked/Approved	So mp or per solution of the s	Ruby Zhang Control	Low Parents
DATE: March 01, 2023			

DATE:

03/01/2023

CUSTOMER APPROVE

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03/01/2023

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	16M93440	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) 16M93440: Frequency range code for 16.9344MHz

3) S: SMD type, Package Tape/Reel, 1000pcs/Reel

4) 416: Specification code for original part No.: TGS CM75 16M9344A30-16-30-40-45TLF







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SMD CRYSTAL 7050 TYPE 4 PADS

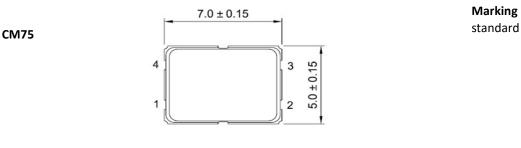


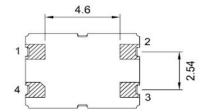
PART CODE: XB16M93440S416 SMD CRYSTAL 7050 TYPE 4 PADS

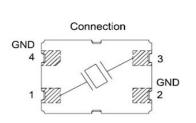
DIMENSION (Unit: mm)

Image for reference



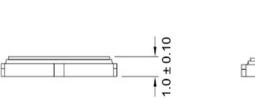


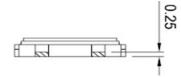




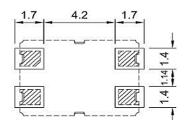
Connection

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





Recommend Pad Layout



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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	16M9344	MHz		16.9344		
Mode of	f Oscillation	А			AT Fundamenta	al	
Frequen	cy Tolerance	30	ppm	-30		+30	@25°C
Load Ca	pacitance	-16	pF		16		
Stability Operatio	over on Temperance	-30	ppm	-30		+30	
Operatio	on Temperance	-40	°C	-40		+85	
Storage	Temperance		°C	-55		+125	
Equivale Resistan	ent Series Ice (ESR)	-45	Ω			45	
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	@1 st year
Insulatio	on Resistance		MΩ	500			@100VDC ±15VDC
Package		Т	Tape/Reel				
	RoHS Status	LF	RoHS III compliant				
Others	Add Value		N/A				
Internal Control Code <mark>*</mark>			N/A				

Note: 1) Original Part Number: TGS CM75 16M9344A30-16-30-40-45TLF

2) * Internal Control Code- 2 letter or digits; Blank: N/A 03/01/2023





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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

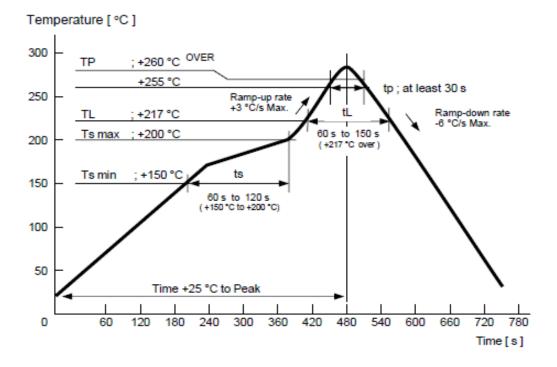
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SUGGESTED REFLOW PROFILE (For Reference Only)



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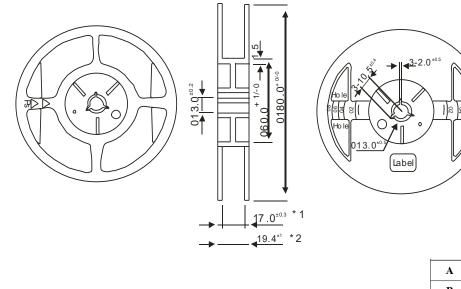
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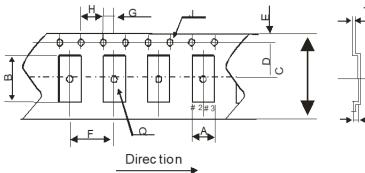


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TAPE/REEL (Unit: mm)

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





А	5.4 ^{±01}	
В	$7.4^{\pm 0.1}$	
С	16.0 ^{±0.2}	
D	7.5 ^{±0.1}	
Е	$1.75^{\pm 0.1}$	
F	8.0 ^{±0.1}	
G	$2.0^{\pm 0.1}$	
н	4.0 ^{±0.1}	
J	$1.55^{\pm 0.05}$	
К	1.4 ^{±0.1}	
Q	1.6+0.1/0	
Т	$0.3^{\pm 0.05}$	

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

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