




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	P1111- XB16M00000S416
DATE	Nov. 11, 2022
REVISION	A1
DESCRIPTION	SMD Crystal, Seam seal, 7050 Type, 4 pads, CM75 series 16.000MHz, +/-30ppm, CL 16pF, Stability +/-50ppm @Operating Temp. Range -40°C ~+85°C, ESR 50 ohm Max, Tape/Reel, Reflow Profile Condition 260 °C Max. RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS CM75 16M0A30-16-50-40-40TLF
PART CODE	XB16M00000S416

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: Nov. 11, 2022			

CUSTOMER APPROVE	
DATE:	

11/11/2022

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

RFQ

[Request For Quotation](#)

XB	16M00000	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) 16M00000: Frequency range code for 16.0000MHz
- 3) S: SMD type, Package Tape/Reel, 1000pcs/Reel
- 4) 416: Specification code for original part No.: **TGS CM75 16M0A30-16-50-40-40TLF**

DIMENSION (Unit: mm)

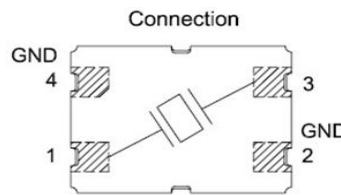
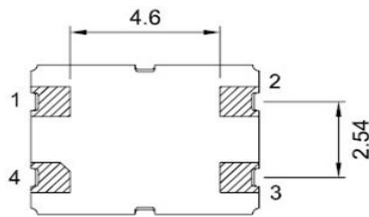
Image for reference



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
			Min.	Typical	Max.	
Original Manufacturer	TGS	TGS Crystals				
Holder Type	CM75	SMD Crystal, Seam Seal, L7.0*W5.0*H1.1mm, 4 pads				
Frequency Range	16M0	MHz	16.0000			
Mode of Oscillation	A	AT Fundamental				
Frequency Tolerance	30	ppm	-30		+30	@25°C
Load Capacitance	-16	pF	16			
Stability over Operation Temperature	-50	ppm	-50		+50	
Operation Temperature	-40	°C	-40		+85	
Storage Temperature		°C	-55		+125	
Equivalent Series Resistance (ESR)	-40	Ω			40	
Drive Level		μW			300	
Shunt Capacitance (C0)		pF	0		7.0	
Motional Capacitance (C1)		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
Insulation Resistance		MΩ	500			@100VDC ± 15VDC
Others	Package	T	Tape/Reel			
	RoHS Status	LF	RoHS III compliant			
	Add Value		N/A			
	Internal Control Code *		N/A			

 Note: 1) Original Part Number: **TGS CM75 16M0A30-16-50-40-40TLF**

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

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MECHANICAL PERFORMANCE

	Item	Condition	Standard
1.	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
2..	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
3.	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
4.	Weld characteristics	260±5°C, 3 seconds	90% exhibit tin ok
5.	Humidity characteristics	+40±2°C & 90%~95% R.H. 250 hours	Frequency change: ≤5ppm Rr as specification
6.	Low temperature characteristics	-30±2°C, 250 hours, put in room temperature, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
7.	High temperature characteristics	+85±2°C, 250 hours, put in room temperature, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
8.	Temperature cycling	-30±3°C/30±3 min~+85±2°C/30±3min, 5 cycles	Frequency change: ≤5ppm Rr as specification

SUGGESTED REFLOW PROFILE (For Reference Only)



TAPE/REEL (Unit: mm)

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



A	5.4 ^{±0.1}
B	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}
H	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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