Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

CTS Electronic Components
416F26022CKR

For any questions, you can email us directly:
sales@integrated-circuit.com
FEATURES
- Standard 1.6mm x 1.2mm Seam Weld Package
- Fundamental Crystal Design
- Frequency Range 24 – 80 MHz
- Frequency Tolerance, ±20ppm Standard
- Frequency Stability, ±20ppm Standard
- Operating Temperature to -40°C to +85°C
- Tape & Reel Packaging Standard, EIA-481
- RoHS/ Green Compliant [6/6]

APPLICATIONS
Model 416 is a low cost device used in a wide range of commercial applications including wearable and handheld electronics, notebooks, computer peripherals, Bluetooth and USB interfaces.

ORDERING INFORMATION
MODE OF OSCILLATION
F = Fundamental

FREQUENCY
Product Frequency Code
[3 digits]
Refer to document 016-1454-0, Frequency Code Tables.

FREQUENCY TOLERANCE @ 25°C
1 = ± 10 ppm
X = ± 15 ppm
2 = ± 20 ppm
Y = ± 25 ppm
3 = ± 30 ppm

STABILITY TOLERANCE
Over Operating Temperature Range (Referenced to 25°C Reading)
1 = ± 10 ppm
X = ± 15 ppm
2 = ± 20 ppm
Y = ± 25 ppm
3 = ± 30 ppm
4 = ± 50 ppm

PACKAGING OPTIONS
1 - 1k pcs./reel
R - 3k pcs./reel

LOAD CAPACITANCE
W = 5 pF
T = 6 pF
V = 7 pF
K = 8 pF
J = 9 pF
A = 10 pF
L = 12 pF
C = 16 pF
D = 18 pF
E = 20 pF
S = Series

TEMPERATURE RANGE OPTIONS
A = -10°C to +60°C
C = -20°C to +70°C
I = -40°C to +85°C

1] Check temperature range code availability with factory.

Not all performance combinations and frequencies may be available.
Contact your local CTS Representative or CTS Customer Service for availability.

PACKAGING INFORMATION [Reference]
Device quantity is 1k pieces minimum and 3k pieces maximum per 180mm reel.
### ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>PARAMETER</th>
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<tbody>
<tr>
<td>Frequency Range</td>
<td>24 MHz to 80 MHz</td>
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<td>Operating Mode</td>
<td>Fundamental</td>
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<tr>
<td>Crystal Cut</td>
<td>AT-Cut</td>
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<td>Frequency Tolerance @ +25°C</td>
<td>±20 ppm, Standard</td>
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<tr>
<td>Frequency Stability Tolerance</td>
<td>±20 ppm, Standard</td>
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<td>Operating Temperature Ranges</td>
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<tr>
<td>Equivalent Series Resistance</td>
<td>See Ordering Information</td>
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<td>Shunt Capacitance ((C_0))</td>
<td>3.0 pF Typical, 5.0 pF Maximum</td>
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<td>Drive Level</td>
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<td>Aging @ +25°C</td>
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<td>Insulation Resistance</td>
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<td>Storage Temperature Range</td>
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### MECHANICAL SPECIFICATIONS

#### PACKAGE DRAWING

![Package Drawing](image)

#### MARKING INFORMATION

1. **M416** - CTS Model Series.
2. **D** - Date code. See Table I for codes.

#### NOTES

1. Complete CTS part number, frequency value, date code and manufacturing site code information must appear on reel and carton labels.
2. Terminations #2, #4 and the metal lid are connected internally. End user may connect these pins to circuit ground.
3. Termination pads (e4); barrier plating is nickel [Ni] with gold [Au] flash plate.
4. Reflow conditions per JEDEC J-STD-020; 260°C maximum, 10 seconds.
5. MSL = 1.

#### SUGGESTED SOLDER PAD GEOMETRY

![Suggested Solder Pad Geometry](image)

#### TABLE I – DATE CODE

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