

## SPECIFICATION OF MONOLITHIC FILTER

|          |                             |                                                   |
|----------|-----------------------------|---------------------------------------------------|
| 1        | Nominal Frequency           | 21.400MHz                                         |
| 2        | Case type                   | UM-1                                              |
| 3        | Mode of oscillation         | Fundamental frequency                             |
| 4        | Number of poles             | 2poles                                            |
| 5        | Passband width              | $\geq \pm 3.75\text{KHz}(\text{at } 3\text{db})$  |
| 6        | Stopband width              | $\leq \pm 12.5\text{KHz}(\text{at } 18\text{dB})$ |
| 7        | Attenuation guaranteed      |                                                   |
| 8        | Ripple                      | 0.5dB max                                         |
| 9        | Insertion loss              | 1.5dB max                                         |
| 10       | Terminating Impedance       | $900\ \Omega // 2\text{pt} \pm 0.5\text{pt}$      |
| 11       | Operating temperature range | $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$    |
| Remarks: |                             |                                                   |

## Specification of Quartz Crystal

| PARAMETER             | SPEDIFICATION                    |
|-----------------------|----------------------------------|
| Nominal Freq.         | 20.9500MHz                       |
| Holder                | UM-1                             |
| Freq. Tolerance       | +/- 5ppm at 25+/- 2 degree °C    |
| Temperature Stability | Fs +/- 2.5ppm,referenced to 25°C |
| Operating Range       | -30°C to +60°C                   |
| Equivalent Res.Rs     | 25 ohms MAX                      |
| Mode of Oscillation   | fund                             |
| Shunt Capacitance Co  | 7 PF MAX                         |
| Load Capacitance CL   | 15 PF                            |
| Storage Range         | -40°C to +85°C                   |
| Drive Level DL        | 100 uW                           |
| Aging                 | +/- 3ppm per year                |
| Motional Capacitance  | ⟨1.5nF                           |



## QUARTZ CRYSTAL UNITS

### SPECIFICATIOIS

|                                |                      |
|--------------------------------|----------------------|
| RALTRO N PART NUMBER:          | CSA -309-4.194304-16 |
| HOLDER TYPE / ITEM:            | CYLINDRICAL PACKAGE  |
| NOMINAL FREQUENCY:             | 4.194304MHz          |
| FREQUENCY TOLERANCE:           | +/-30PPM             |
| TEMPEATURE CHARACTERISTICS:    | +/-50PPM             |
| OSCILLATION MODE:              | FUNDAMENTAL          |
| LOAD CAPACITANCE:              | 16PF                 |
| EQUIVALEN T SERIES RESISTANCE: | 150ohm MAX.          |
| SHUNT CAPACITANCE:             | 5PF MAX              |
| OPERATION TEMP RANGE:          | -20°C~ + 60°C        |
| DRIVE LEVEL:                   | 50 +/-5uW            |
| INSULATION RESISTANCE:         | 500M OHM/DC100V      |

### DIMENSIONS

