



# DLY0018A

## 1785-1850MHz RF Delay Filter

### Features

- Flat group delay response

### Applications

- Wireless Infrastructure applications

### Description

Surface mount ceramic RF delay filter.

Part Dimensions: 10.0 × 3.8 × 11.0 mm • 2.0 g  
Materials: Ag plated ceramic block

### Electrical Specifications

| Parameter           | Frequency (MHz) | Typical at 25°C | Spec. at 25°C | Spec. over -40°C to +85°C |
|---------------------|-----------------|-----------------|---------------|---------------------------|
| Nominal Impedance   | -               | 50 ohms         | -             | -                         |
| Average Input Power | -               | -               | -             | 1.0 Watt max              |
| Peak Input Power    | -               | -               | -             | 10.0 Watt max             |

#### Input-Output Response

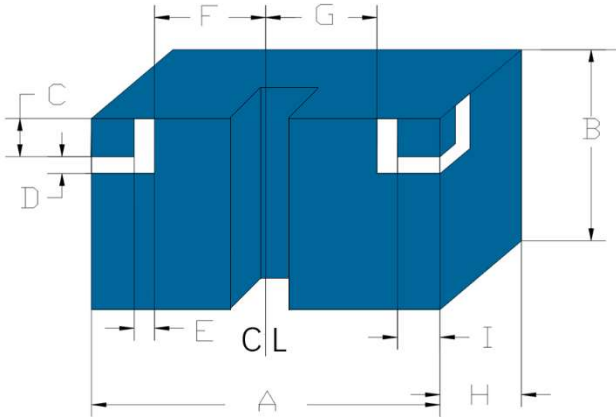
|                                        |             |        |             |             |
|----------------------------------------|-------------|--------|-------------|-------------|
| Passband Insertion Loss (5 MHz avg)    | 1785 – 1850 | 3.2 dB | 3.5 dB max  | 3.8 dB max  |
| Passband Amplitude Ripple (whole band) | 1785 – 1850 | 0.4 d  | 0.5 dB max  | 0.5 dB max  |
| Passband Return Loss                   | 1785 – 1850 | 14 dB  | 11.5 dB min | 11.5 dB min |
| Passband Group Delay                   | 1785 – 1850 | 18 ns  | 17-20 ns    | 17-20 ns    |
| Group Delay Ripple (any 20MHz)         | 1785 – 1850 | 1.8 ns | 2.0 ns max  | 2.0 ns max  |

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

#### Specification Allowance

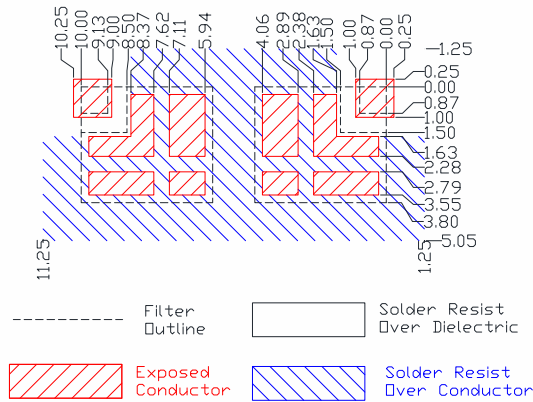
|                |        |
|----------------|--------|
| Insertion Loss | 0.1 dB |
| Return Loss    | 1.0 dB |
| Attenuation    | 1.0 dB |

## Mechanical Drawing

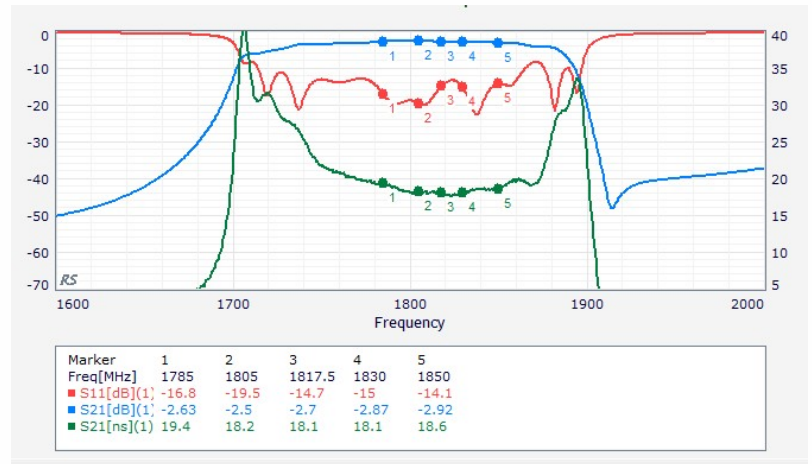


| Dim. | Nominal<br>(mm) | Tolerance<br>(±mm or Max) |
|------|-----------------|---------------------------|
| A    | 10.0            | 0.5                       |
| B    | 3.80            | max                       |
| C    | 1.00            | 0.13                      |
| D    | 0.50            | 0.13                      |
| E    | 0.50            | 0.13                      |
| F    | 3.50            | 0.13                      |
| G    | 3.50            | 0.13                      |
| H    | 11.0            | max                       |
| I    | 1.00            | 0.13                      |

## PCB Layout



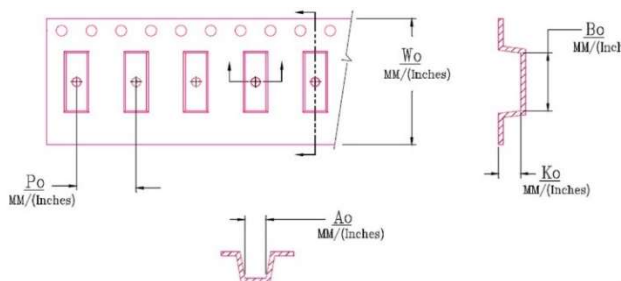
## Electrical Response



## Packaging and Marking

| Dimension     | Units | Spec. | Product Marking                                                                                                          |
|---------------|-------|-------|--------------------------------------------------------------------------------------------------------------------------|
| Reel Diameter | mm    | 330   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">           CTS<br/>018<br/>YWW         </div> |
| Reel Weight   | kg    | 2.5   |                                                                                                                          |
| Reel Quantity | ea.   | 1000  |                                                                                                                          |

Customer Feed Direction → → →



| W <sub>0</sub>      | A <sub>0</sub>      | B <sub>0</sub>       | K <sub>0</sub>      | P <sub>0</sub>      |
|---------------------|---------------------|----------------------|---------------------|---------------------|
| 0.945 in<br>24.0 mm | 0.150 in<br>3.80 mm | 0.417 in<br>10.60 mm | 0.453 in<br>11.5 mm | 0.472 in<br>12.0 mm |