

# Plug-In High Pass Filter

50Ω 910 to 2100 MHz

## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -55°C to 100°C |
| Storage Temperature                                             | -55°C to 100°C |
| RF Power Input                                                  | 0.5W max.      |
| Permanent damage may occur if any of these limits are exceeded. |                |

## Pin Connections

|             |             |
|-------------|-------------|
| INPUT       | 1           |
| OUTPUT      | 8           |
| GROUND      | 2,3,4,5,6,7 |
| CASE GROUND | 2,3,4,5,6,7 |

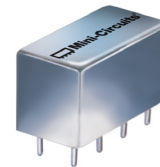
## Features

- rugged shielded case, hermetically sealed
- other standard and custom PHP models available with wide selection of fco

## Applications

- lab use
- transmitters/receivers
- military/hi-rel application

PHP-900+



CASE STYLE: A01

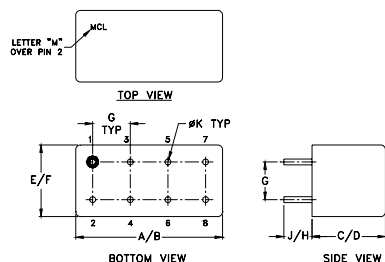
## +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## High Pass Filter Electrical Specifications

| STOPBAND (MHz) | fco (MHz) Nom. | PASSBAND (MHz) | VSWR (:1)                   |
|----------------|----------------|----------------|-----------------------------|
| (loss > 40 dB) | (loss > 20 dB) | (loss < 3 dB)  | (loss < 1 dB)               |
| DC-490         | 490-640        | 840            | 910-2100                    |
|                |                |                | Stopband Typ. Passband Typ. |
|                |                |                | 17 1.5                      |

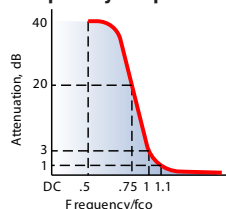
## Outline Drawing



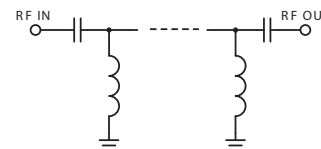
## Outline Dimensions (inch mm)

| A     | B     | C    | D     | E    | F     |
|-------|-------|------|-------|------|-------|
| .770  | .800  | .385 | .400  | .370 | .400  |
| 19.56 | 20.32 | 9.78 | 10.16 | 9.40 | 10.16 |
| G     | H     | J    | K     |      | wt    |
| .200  | .20   | .14  | .031  |      | grams |
| 5.08  | 5.08  | 3.56 | 0.79  |      | 5.2   |

## typical frequency response

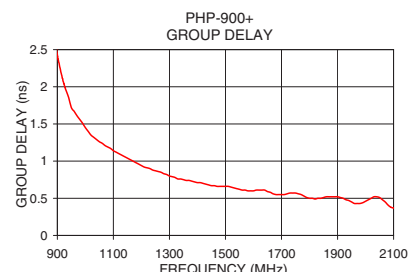
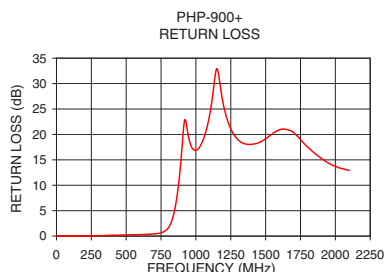
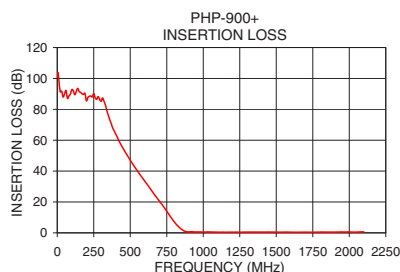


## electrical schematic



## Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|------------------|-----------------|--------------------|
| $\bar{x}$       | $\sigma$            |                  |                 |                    |
| 1.00            | 100.65              | 4.20             | 0.00            |                    |
| 50.00           | 89.99               | 4.40             | 0.00            |                    |
| 100.00          | 92.80               | 4.70             | 0.00            |                    |
| 250.00          | 90.21               | 6.73             | 0.06            |                    |
| 350.00          | 76.06               | 4.43             | 0.11            |                    |
| 450.00          | 54.82               | 1.07             | 0.18            |                    |
| 490.00          | 48.60               | 0.85             | 0.22            |                    |
| 550.00          | 40.00               | 0.72             | 0.26            |                    |
| 640.00          | 28.23               | 0.69             | 0.33            |                    |
| 750.00          | 14.03               | 0.77             | 0.64            |                    |
| 840.00          | 3.18                | 0.52             | 4.21            |                    |
| 900.00          | 0.56                | 0.05             | 17.26           |                    |
| 910.00          | 0.51                | 0.03             | 20.71           |                    |
| 1000.00         | 0.54                | 0.04             | 16.87           |                    |
| 1250.00         | 0.37                | 0.02             | 21.10           |                    |
| 1500.00         | 0.38                | 0.02             | 19.13           |                    |
| 1750.00         | 0.31                | 0.01             | 19.01           |                    |
| 2100.00         | 0.65                | 0.05             | 12.93           |                    |
|                 |                     |                  | 910.00          | 2.25               |
|                 |                     |                  | 950.00          | 1.72               |
|                 |                     |                  | 1000.00         | 1.45               |
|                 |                     |                  | 1050.00         | 1.26               |
|                 |                     |                  | 1100.00         | 1.14               |
|                 |                     |                  | 1150.00         | 1.04               |
|                 |                     |                  | 1200.00         | 0.94               |
|                 |                     |                  | 1250.00         | 0.87               |
|                 |                     |                  | 1300.00         | 0.80               |
|                 |                     |                  | 1350.00         | 0.75               |
|                 |                     |                  | 1400.00         | 0.71               |
|                 |                     |                  | 1500.00         | 0.66               |
|                 |                     |                  | 1600.00         | 0.60               |
|                 |                     |                  | 1700.00         | 0.55               |
|                 |                     |                  | 1800.00         | 0.50               |
|                 |                     |                  | 1900.00         | 0.52               |
|                 |                     |                  | 2000.00         | 0.46               |
|                 |                     |                  | 2100.00         | 0.37               |



## Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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