

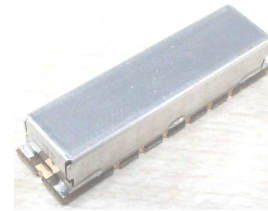
# Band Pass Filter

# BPF-EDU2054

## Surface Mount

### Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

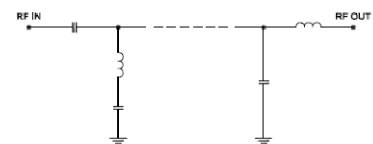


HQ1157

| ELECTRICAL SPECIFICATIONS 50Ω @ +25°C |      |      |      |       |
|---------------------------------------|------|------|------|-------|
| Parameter                             | Min. | Typ. | Max. | Units |
| Passband<br>(Loss < 2.5 dB )          | 650  |      | 1670 | MHz   |
| Centre frequency                      |      | 1160 |      | MHz   |
| Low Band (Loss > 20 dB)               | DC   | 400  |      | MHz   |
| High Band (Loss > 20 dB)              |      | 2170 | 4000 | MHz   |
| Passband VSWR                         |      | 1.7  |      | (:1)  |
| Stopband VSWR                         |      | 20   |      | (:1)  |

### Functional Schematic

| MAXIMUM RATINGS       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 3 W            |

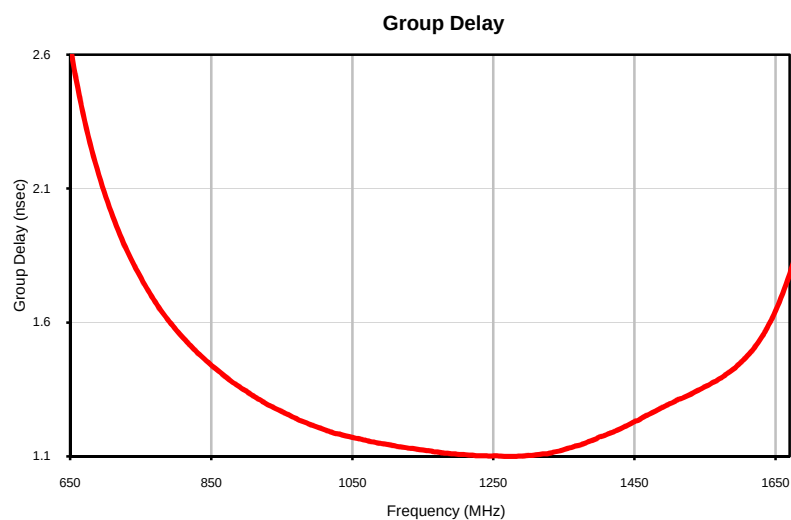
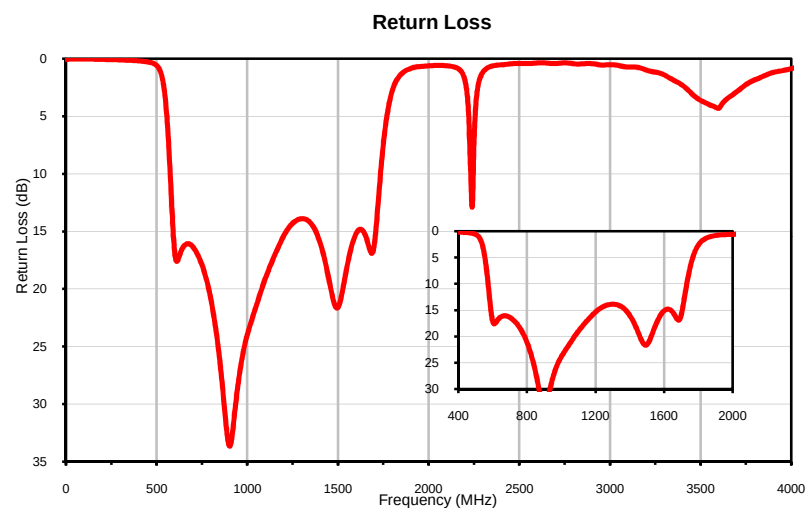
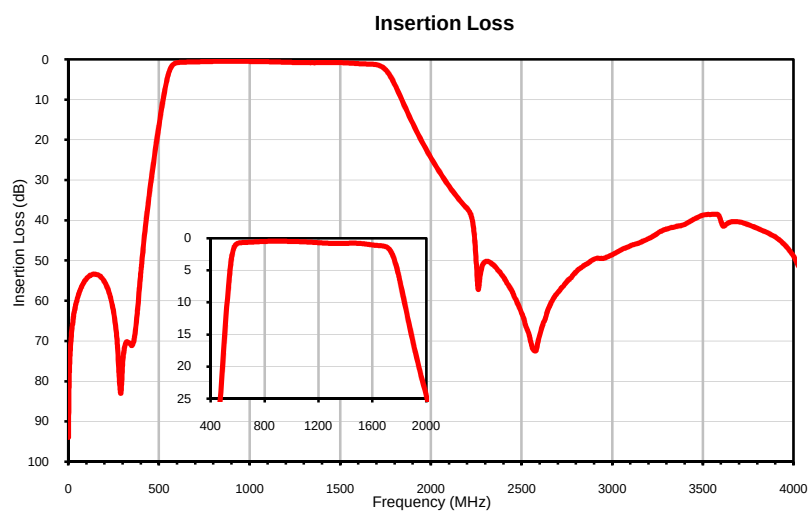


| PIN CONNECTIONS |          |
|-----------------|----------|
| Input           | 1        |
| Output          | 8        |
| Ground          | 2-7,9-14 |

## Typical Performance Data

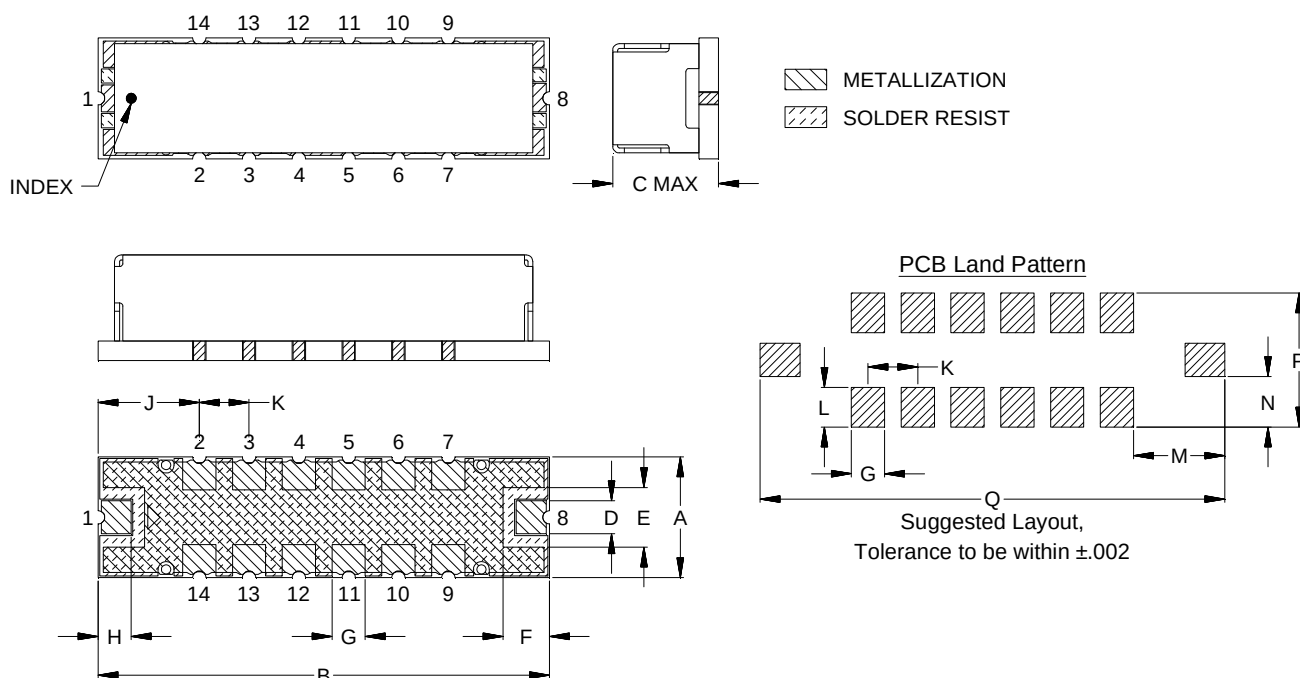
| FREQUENCY<br>(MHz) | INSERTION<br>LOSS<br>(dB) | RETURN<br>LOSS<br>(dB) | FREQUENCY<br>(MHz) | GROUP<br>DELAY<br>(nsec) |
|--------------------|---------------------------|------------------------|--------------------|--------------------------|
| 1.0                | 94.00                     | 0.05                   | 650                | 2.62                     |
| 10.0               | 72.99                     | 0.04                   | 700                | 2.07                     |
| 100.0              | 54.57                     | 0.02                   | 750                | 1.77                     |
| 250.0              | 62.93                     | 0.07                   | 800                | 1.57                     |
| 370.0              | 67.36                     | 0.15                   | 850                | 1.44                     |
| 400.0              | 52.90                     | 0.18                   | 900                | 1.34                     |
| 455.0              | 30.61                     | 0.29                   | 950                | 1.27                     |
| 485.0              | 20.91                     | 0.43                   | 1000               | 1.21                     |
| 550.0              | 3.92                      | 3.95                   | 1050               | 1.17                     |
| 560.0              | 2.55                      | 6.02                   | 1100               | 1.14                     |
| 650.0              | 0.65                      | 16.26                  | 1150               | 1.12                     |
| 1160.0             | 0.62                      | 16.73                  | 1160               | 1.12                     |
| 1670.0             | 1.16                      | 16.33                  | 1200               | 1.11                     |
| 1750.0             | 2.57                      | 7.35                   | 1250               | 1.10                     |
| 1760.0             | 3.11                      | 6.01                   | 1300               | 1.10                     |
| 1950.0             | 20.42                     | 0.68                   | 1350               | 1.13                     |
| 2090.0             | 30.89                     | 0.59                   | 1400               | 1.17                     |
| 2170.0             | 35.62                     | 0.94                   | 1450               | 1.23                     |
| 2250.0             | 50.74                     | 6.96                   | 1500               | 1.30                     |
| 2700.0             | 57.93                     | 0.41                   | 1550               | 1.36                     |
| 3190.0             | 44.79                     | 0.92                   | 1600               | 1.45                     |
| 3300.0             | 42.17                     | 1.42                   | 1650               | 1.65                     |
| 3760.0             | 41.26                     | 2.14                   | 1660               | 1.71                     |
| 4000.0             | 48.93                     | 0.85                   | 1670               | 1.78                     |

## Typical Performance Curves



## Outline Dimensions

HQ1157



| CASE#  | A              | B                | C              | D              | E              | F              | G              | H              | J              | K              | L              | M              |
|--------|----------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| HQ1157 | .365<br>(9.27) | 1.360<br>(34.54) | .350<br>(8.89) | .100<br>(2.54) | .180<br>(4.57) | .140<br>(3.56) | .100<br>(2.54) | .100<br>(2.54) | .305<br>(7.75) | .150<br>(3.81) | .120<br>(3.05) | .275<br>(6.99) |

| CASE#  | N              | P               | Q                | WT.GRAM |
|--------|----------------|-----------------|------------------|---------|
| HQ1157 | .152<br>(3.87) | .405<br>(10.29) | 1.400<br>(35.56) | 4.0     |

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

### Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:  
For RoHS Case Styles: 3-5  $\mu$  inch (.08-.13 microns) Gold over 120-240  $\mu$  inch (3.05-6.10 microns) Nickel plate.  
For RoHS-5 Case Styles: Tin-Lead plate.

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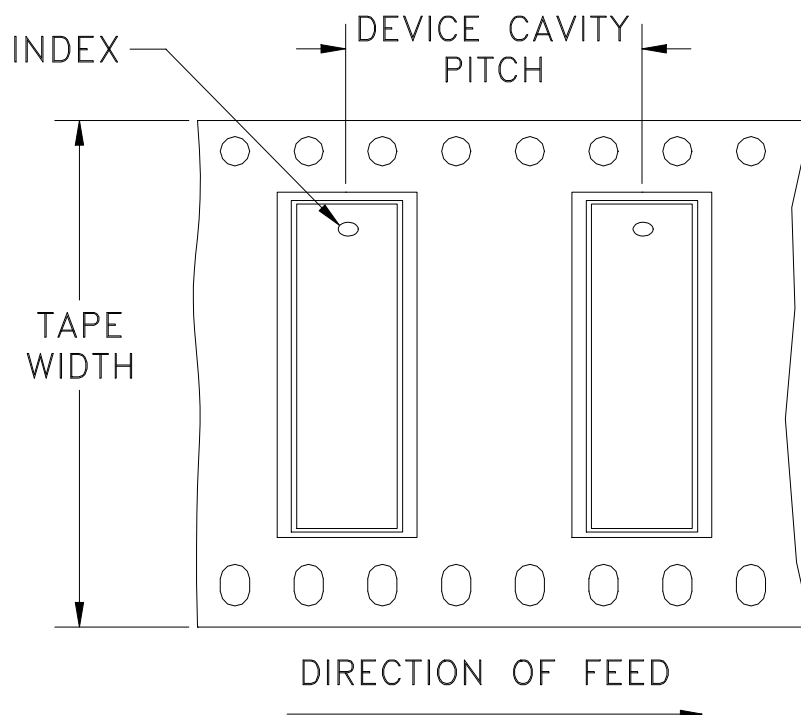


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RF/IF MICROWAVE COMPONENTS

# Tape & Reel Packaging TR-F83

## DEVICE ORIENTATION IN T&R



| Tape Width,<br>mm | Device Cavity<br>Pitch, mm | Reel Size,<br>inches | Devices per Reel |
|-------------------|----------------------------|----------------------|------------------|
| 56                | 16                         | 13                   | 100              |

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