

# Cavity Bandpass Filter

# ZVBP-9500-S+

## Typical Performance Data

| FREQ. | Insertion Loss | Input Return Loss | Output Return Loss |
|-------|----------------|-------------------|--------------------|
| (MHz) | (dB)           | (dB)              | (dB)               |
| 9400  | 62.34          | 0.21              | 0.21               |
| 9402  | 61.79          | 0.21              | 0.21               |
| 9404  | 61.25          | 0.21              | 0.21               |
| 9406  | 60.69          | 0.21              | 0.21               |
| 9408  | 60.08          | 0.21              | 0.21               |
| 9410  | 59.56          | 0.21              | 0.21               |
| 9412  | 58.91          | 0.21              | 0.21               |
| 9414  | 58.32          | 0.21              | 0.22               |
| 9416  | 57.72          | 0.21              | 0.22               |
| 9418  | 57.10          | 0.21              | 0.22               |
| 9420  | 56.43          | 0.21              | 0.22               |
| 9422  | 55.79          | 0.21              | 0.22               |
| 9424  | 55.05          | 0.21              | 0.22               |
| 9426  | 54.37          | 0.21              | 0.22               |
| 9428  | 53.62          | 0.21              | 0.22               |
| 9430  | 52.93          | 0.21              | 0.22               |
| 9432  | 52.13          | 0.21              | 0.22               |
| 9434  | 51.32          | 0.21              | 0.23               |
| 9436  | 50.52          | 0.22              | 0.23               |
| 9450  | 44.01          | 0.23              | 0.24               |
| 9452  | 42.93          | 0.24              | 0.25               |
| 9454  | 41.80          | 0.24              | 0.25               |
| 9456  | 40.63          | 0.25              | 0.26               |
| 9458  | 39.41          | 0.25              | 0.26               |
| 9460  | 38.12          | 0.26              | 0.27               |
| 9462  | 36.76          | 0.27              | 0.28               |
| 9464  | 35.33          | 0.28              | 0.29               |
| 9466  | 33.81          | 0.29              | 0.30               |
| 9468  | 32.21          | 0.31              | 0.32               |
| 9470  | 30.50          | 0.32              | 0.34               |
| 9495  | 1.91           | 21.12             | 21.09              |
| 9496  | 1.82           | 19.68             | 20.17              |
| 9498  | 1.71           | 21.35             | 22.79              |
| 9499  | 1.67           | 24.23             | 27.66              |
| 9500  | 1.65           | 27.15             | 38.12              |
| 9501  | 1.64           | 25.65             | 28.41              |
| 9502  | 1.66           | 22.72             | 23.26              |
| 9503  | 1.69           | 21.16             | 21.05              |
| 9504  | 1.72           | 21.33             | 20.64              |
| 9505  | 1.76           | 24.15             | 21.85              |
| 9510  | 4.11           | 6.25              | 5.99               |
| 9512  | 7.02           | 3.05              | 2.91               |
| 9514  | 10.42          | 1.70              | 1.61               |
| 9516  | 13.73          | 1.10              | 1.04               |
| 9518  | 16.79          | 0.80              | 0.75               |
| 9520  | 19.56          | 0.63              | 0.59               |
| 9522  | 22.08          | 0.53              | 0.50               |
| 9524  | 24.38          | 0.46              | 0.43               |
| 9526  | 26.49          | 0.42              | 0.39               |
| 9528  | 28.45          | 0.38              | 0.36               |
| 9530  | 30.26          | 0.35              | 0.33               |
| 9532  | 31.96          | 0.33              | 0.31               |
| 9534  | 33.55          | 0.31              | 0.29               |
| 9536  | 35.04          | 0.30              | 0.28               |
| 9538  | 36.46          | 0.29              | 0.27               |
| 9540  | 37.79          | 0.28              | 0.27               |
| 9550  | 43.63          | 0.25              | 0.24               |
| 9560  | 48.36          | 0.24              | 0.24               |
| 9580  | 55.75          | 0.22              | 0.22               |
| 9600  | 61.62          | 0.21              | 0.21               |

| FREQ. | Group Delay |
|-------|-------------|
| (MHz) | (ns)        |
| 9470  | 3.72        |
| 9471  | 3.98        |
| 9472  | 4.30        |
| 9473  | 4.65        |
| 9474  | 5.06        |
| 9475  | 5.53        |
| 9476  | 6.06        |
| 9477  | 6.70        |
| 9478  | 7.37        |
| 9479  | 8.01        |
| 9480  | 8.61        |
| 9481  | 10.49       |
| 9482  | 11.98       |
| 9483  | 13.78       |
| 9484  | 16.08       |
| 9485  | 18.87       |
| 9486  | 22.38       |
| 9487  | 26.58       |
| 9488  | 31.45       |
| 9489  | 36.42       |
| 9490  | 40.74       |
| 9491  | 43.07       |
| 9492  | 43.15       |
| 9493  | 41.36       |
| 9494  | 38.77       |
| 9495  | 36.33       |
| 9496  | 34.52       |
| 9497  | 33.37       |
| 9498  | 32.75       |
| 9499  | 32.49       |
| 9500  | 32.38       |
| 9501  | 32.40       |
| 9502  | 32.58       |
| 9503  | 33.00       |
| 9504  | 33.90       |
| 9505  | 35.44       |
| 9506  | 37.73       |
| 9507  | 40.54       |
| 9508  | 43.15       |
| 9509  | 44.38       |
| 9510  | 43.22       |
| 9511  | 39.58       |
| 9512  | 34.53       |
| 9513  | 29.30       |
| 9514  | 24.57       |
| 9515  | 20.63       |
| 9516  | 17.38       |
| 9517  | 14.84       |
| 9518  | 12.81       |
| 9519  | 11.18       |
| 9520  | 9.29        |
| 9521  | 8.72        |
| 9522  | 8.05        |
| 9523  | 7.36        |
| 9524  | 6.65        |
| 9525  | 6.03        |
| 9526  | 5.51        |
| 9527  | 5.04        |
| 9528  | 4.65        |
| 9530  | 3.99        |

