

## Engineering Development Model

# RF Transformer

# ZY2PDJ-ED13833/1

Impedance Ratio : 2

### 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.

Please click "Back", and then click "Contact Us" for Applications support.



CASE STYLE : K18

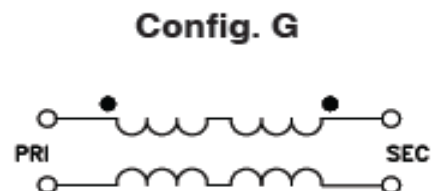
| ELECTRICAL SPECIFICATIONS 50Ω @ +25°C |                |      |          |            |
|---------------------------------------|----------------|------|----------|------------|
| Parameter                             |                | Min. | Typ.     | Max. Units |
| Frequency                             |                | 0.6  |          | 2350 MHz   |
| Insertion Loss *                      | 3 dB Bandwidth |      | 0.6-2350 |            |
|                                       | 2 dB Bandwidth |      | 1-2100   | MHz        |
|                                       | 1 dB Bandwidth |      | 3-1300   |            |
| Amplitude Unbalance                   | 3 dB Bandwidth |      | 0.6      |            |
|                                       | 1 dB Bandwidth |      | 0.1      | dB         |
| Phase Unbalance                       | 3 dB Bandwidth |      | 5.0      |            |
|                                       | 1 dB Bandwidth |      | 3.0      | Deg        |

Note:

\* Insertion Loss is referenced to mid-band loss, 1.0 dB typ.

| MAXIMUM RATINGS       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |

| COAXIAL CONNECTIONS |          |
|---------------------|----------|
| PRIMARY DOT         | 3        |
| PRIMARY             | CASE     |
| SECONDARY DOT       | 1 (0°)   |
| SECONDARY           | 2 (180°) |



# RF Transformer ZY2PDJ-ED13833/1

## Typical Performance Data

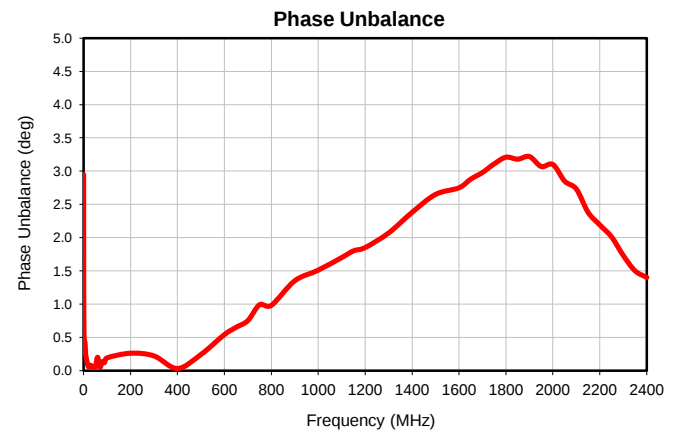
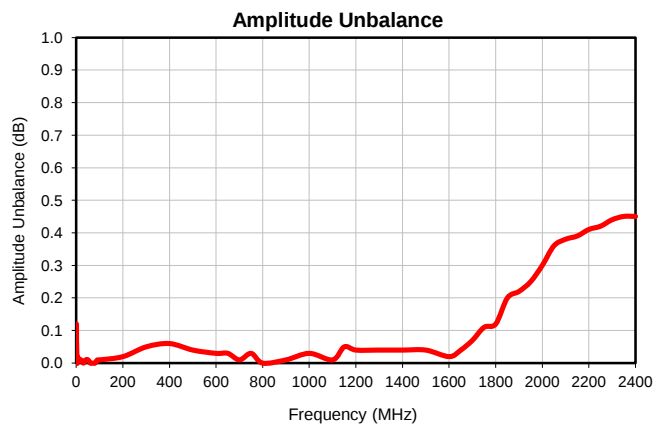
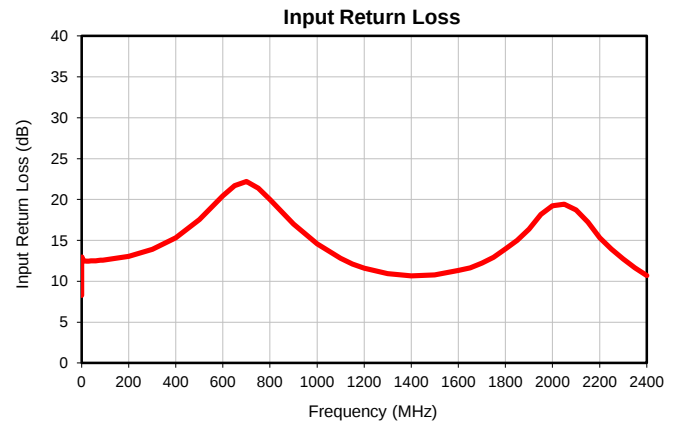
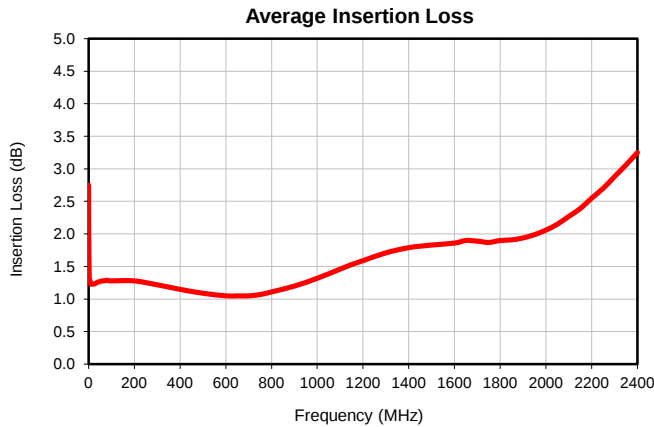
| FREQUENCY<br>(MHz) | AVERAGE<br>INSERTION<br>LOSS*<br>(dB) | INPUT<br>RETURN<br>LOSS<br>(dB) | AMPLITUDE<br>UNBALANCE<br>(dB) | PHASE<br>UNBALANCE**<br>(deg.) |
|--------------------|---------------------------------------|---------------------------------|--------------------------------|--------------------------------|
| 0.3                | 2.75                                  | 8.26                            | 0.12                           | 2.95                           |
| 0.6                | 2.24                                  | 11.72                           | 0.06                           | 1.50                           |
| 0.9                | 2.00                                  | 12.79                           | 0.06                           | 1.16                           |
| 1.0                | 1.94                                  | 12.97                           | 0.06                           | 1.04                           |
| 3.0                | 1.31                                  | 12.79                           | 0.00                           | 0.30                           |
| 5.0                | 1.30                                  | 12.67                           | 0.02                           | 0.44                           |
| 9.0                | 1.23                                  | 12.49                           | 0.01                           | 0.27                           |
| 10.0               | 1.23                                  | 12.48                           | 0.01                           | 0.22                           |
| 20.0               | 1.23                                  | 12.44                           | 0.01                           | 0.06                           |
| 30.0               | 1.24                                  | 12.47                           | 0.00                           | 0.08                           |
| 40.0               | 1.26                                  | 12.50                           | 0.01                           | 0.05                           |
| 50.0               | 1.27                                  | 12.50                           | 0.01                           | 0.05                           |
| 60.0               | 1.28                                  | 12.51                           | 0.00                           | 0.20                           |
| 70.0               | 1.28                                  | 12.54                           | 0.00                           | 0.05                           |
| 80.0               | 1.29                                  | 12.56                           | 0.00                           | 0.13                           |
| 90.0               | 1.28                                  | 12.59                           | 0.01                           | 0.12                           |
| 100.0              | 1.28                                  | 12.62                           | 0.01                           | 0.19                           |
| 200.0              | 1.28                                  | 13.05                           | 0.02                           | 0.26                           |
| 300.0              | 1.22                                  | 13.91                           | 0.05                           | 0.22                           |
| 400.0              | 1.15                                  | 15.32                           | 0.06                           | 0.03                           |
| 500.0              | 1.09                                  | 17.53                           | 0.04                           | 0.24                           |
| 600.0              | 1.05                                  | 20.43                           | 0.03                           | 0.54                           |
| 650.0              | 1.05                                  | 21.70                           | 0.03                           | 0.65                           |
| 700.0              | 1.05                                  | 22.20                           | 0.01                           | 0.75                           |
| 750.0              | 1.07                                  | 21.40                           | 0.03                           | 0.99                           |
| 800.0              | 1.11                                  | 20.00                           | 0.00                           | 0.98                           |
| 900.0              | 1.20                                  | 17.00                           | 0.01                           | 1.35                           |
| 1000.0             | 1.32                                  | 14.57                           | 0.03                           | 1.51                           |
| 1100.0             | 1.46                                  | 12.81                           | 0.01                           | 1.70                           |
| 1150.0             | 1.53                                  | 12.11                           | 0.05                           | 1.80                           |
| 1200.0             | 1.59                                  | 11.61                           | 0.04                           | 1.85                           |
| 1300.0             | 1.71                                  | 10.94                           | 0.04                           | 2.07                           |
| 1400.0             | 1.79                                  | 10.66                           | 0.04                           | 2.38                           |
| 1500.0             | 1.83                                  | 10.77                           | 0.04                           | 2.65                           |
| 1600.0             | 1.86                                  | 11.33                           | 0.02                           | 2.75                           |
| 1650.0             | 1.90                                  | 11.63                           | 0.04                           | 2.88                           |
| 1700.0             | 1.89                                  | 12.24                           | 0.07                           | 2.98                           |
| 1750.0             | 1.87                                  | 12.94                           | 0.11                           | 3.11                           |
| 1800.0             | 1.90                                  | 13.94                           | 0.12                           | 3.21                           |
| 1850.0             | 1.91                                  | 15.00                           | 0.20                           | 3.18                           |
| 1900.0             | 1.94                                  | 16.37                           | 0.22                           | 3.22                           |
| 1950.0             | 1.99                                  | 18.16                           | 0.25                           | 3.07                           |
| 2000.0             | 2.06                                  | 19.22                           | 0.30                           | 3.10                           |
| 2050.0             | 2.15                                  | 19.43                           | 0.36                           | 2.85                           |
| 2100.0             | 2.27                                  | 18.74                           | 0.38                           | 2.73                           |
| 2150.0             | 2.39                                  | 17.23                           | 0.39                           | 2.38                           |
| 2200.0             | 2.55                                  | 15.32                           | 0.41                           | 2.19                           |
| 2250.0             | 2.70                                  | 13.94                           | 0.42                           | 2.01                           |
| 2300.0             | 2.88                                  | 12.74                           | 0.44                           | 1.73                           |
| 2350.0             | 3.06                                  | 11.65                           | 0.45                           | 1.50                           |
| 2400.0             | 3.25                                  | 10.70                           | 0.45                           | 1.40                           |

\*Insertion loss is referenced to mid-band loss, 1.0 dB.

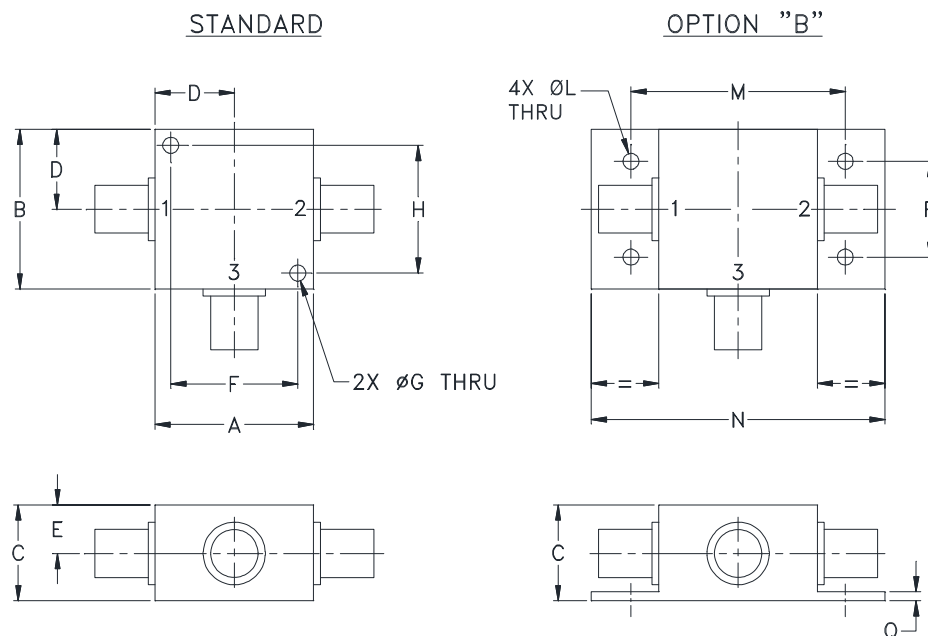
\*\*Relative to 180°



## Typical Performance Data



### Outline Dimensions



| CASE# | A               | B               | C              | D              | E             | F                | G              | H                | J        | K        | L              | M                | N               |
|-------|-----------------|-----------------|----------------|----------------|---------------|------------------|----------------|------------------|----------|----------|----------------|------------------|-----------------|
| K18   | 1.25<br>(31.75) | 1.25<br>(31.75) | .75<br>(19.05) | .63<br>(16.00) | .38<br>(9.65) | 1.000<br>(25.40) | .125<br>(3.18) | 1.000<br>(25.40) | --<br>-- | --<br>-- | .125<br>(3.18) | 1.688<br>(42.88) | 2.18<br>(55.37) |

| CASE# | P              | Q             | WT. GRAMS |
|-------|----------------|---------------|-----------|
| K18   | .75<br>(19.05) | .07<br>(1.78) | 70.0      |

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

#### Notes:

- Case material: Aluminum alloy.
- Case finish:  
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Mounting bracket available on request. Add suffix B to part number.
- For port marking 1, 2, and 3 see specifications data sheet.
- For bracket version, option B, dimension "C" changes from .75 to .94 inches when connectors are type N.
- Refer to the individual model data sheet for the type of connectors available.



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