

# PASSIVE FREQUENCY DOUBLERS

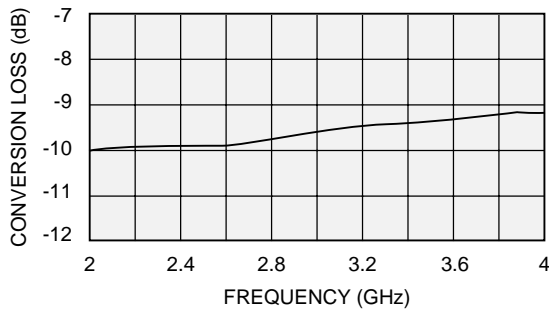
## MODEL: MX2M020040

### ELECTRICAL SPECIFICATIONS

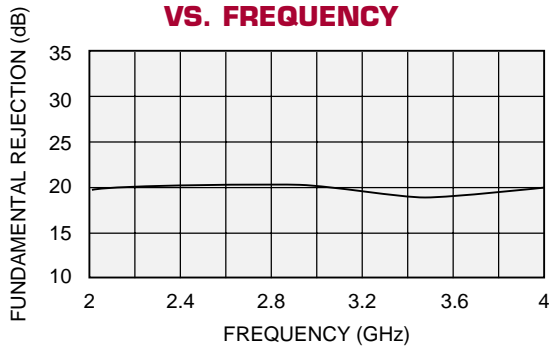
Input frequency range	1 – 2 GHz minimum
Output frequency range	2 – 4 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	9.5 dB typical 13 dB maximum
Harmonic rejection	
Fundamental	20 dB typical
Odd harmonic	20 dB typical



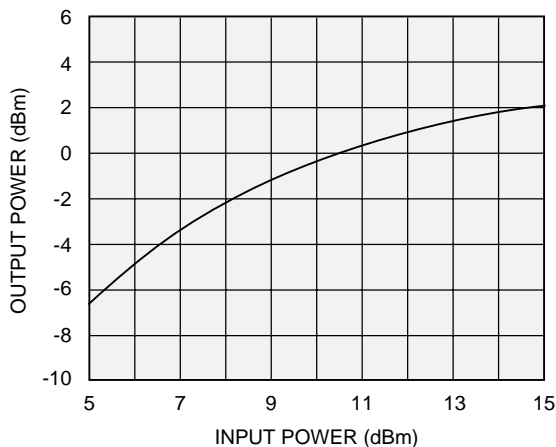
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

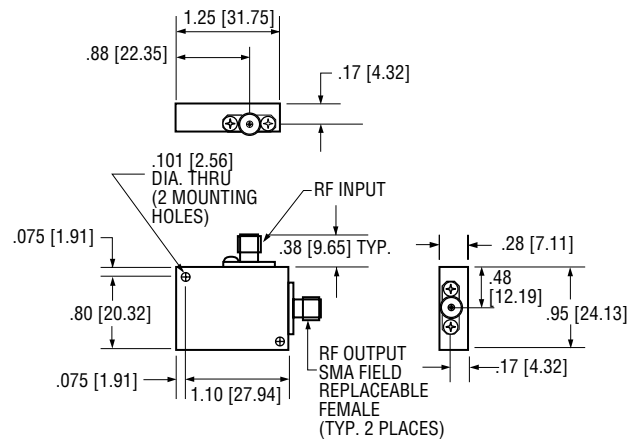


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2A



#### Notes:

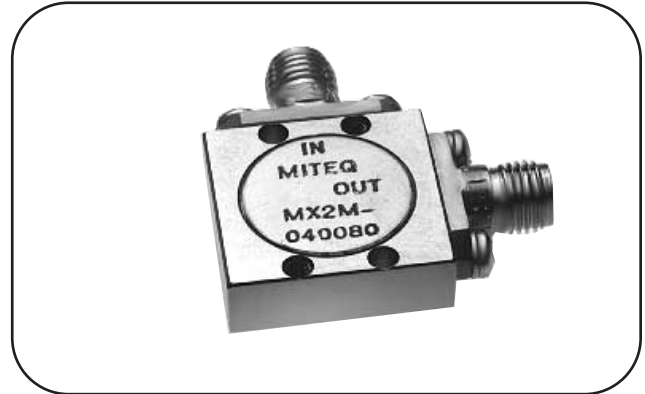
- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx = ±0.01 [.xx = ±0.25]  
.xxx = ±0.005 [.xxx = ±0.13]
- Optional SMA, K or V type male connectors in either input, output or both.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

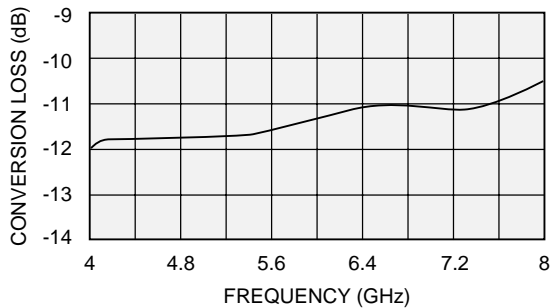
## MODEL: MX2M040080

### ELECTRICAL SPECIFICATIONS

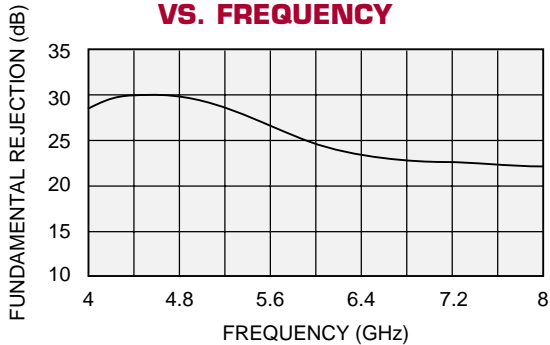
Input frequency range	2 – 4 GHz minimum
Output frequency range	4 – 8 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	11 dB typical 13 dB maximum
Harmonic rejection	
Fundamental	20 dB typical
Odd harmonic	20 dB typical



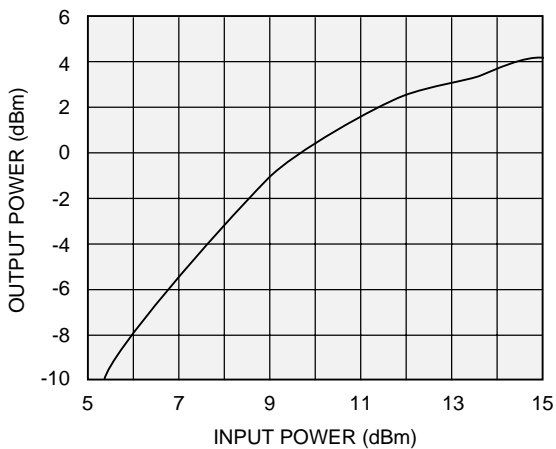
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

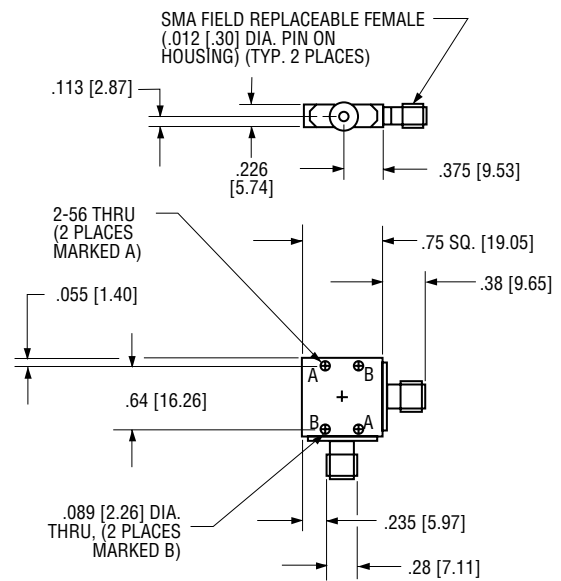


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2B



#### Notes:

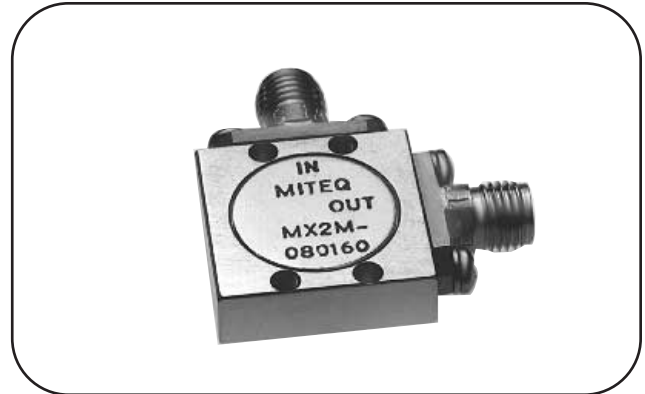
- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx =  $\pm 0.01$  [.xx =  $\pm 0.25$ ]  
.xxx =  $\pm 0.005$  [.xxx =  $\pm 0.13$ ]
- Optional SMA, K or V type male connectors in either input, output or both.
- Optional MX2C package available, see outline section.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

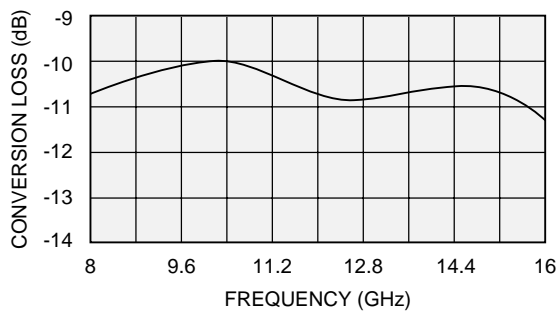
## MODEL: MX2M080160

### ELECTRICAL SPECIFICATIONS

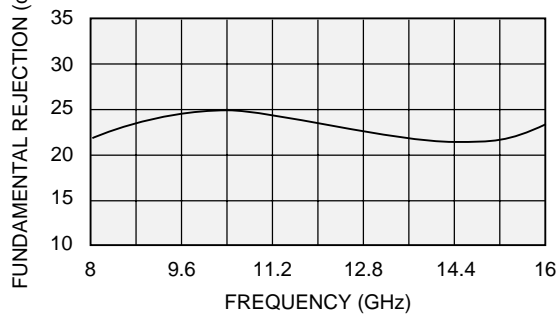
Input frequency range	4 – 8 GHz minimum
Output frequency range	8 – 16 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	11 dB typical 13 dB maximum
Harmonic rejection	
Fundamental	20 dB typical
Odd harmonic	20 dB typical



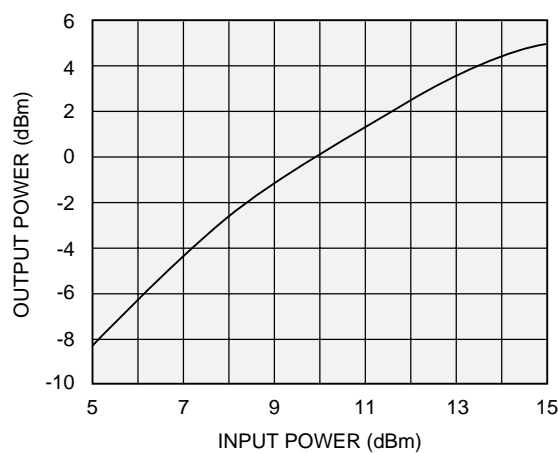
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

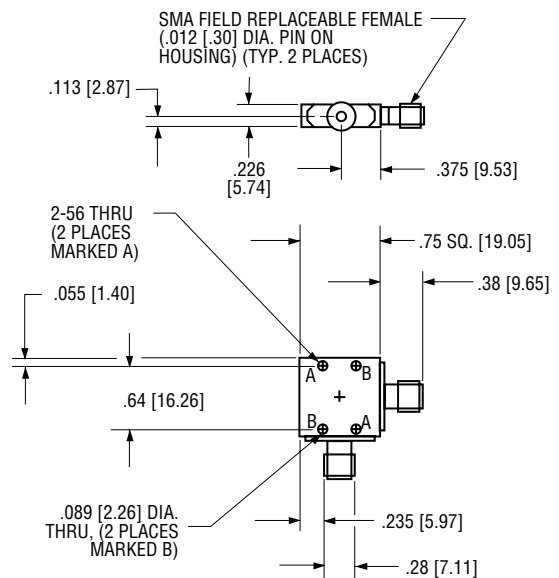


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10 \text{ dBm}$ )

### MX2B



#### Notes:

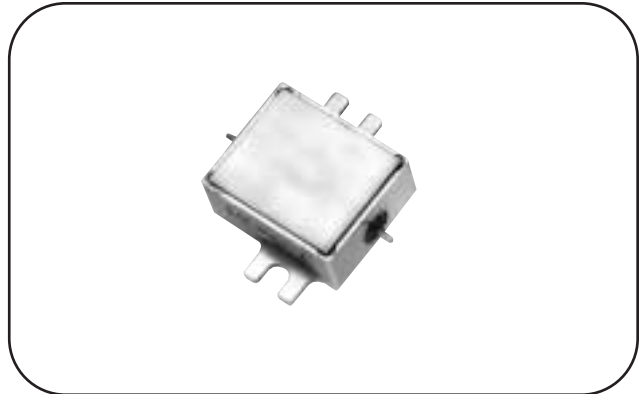
- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx =  $\pm 0.01$  [.xx =  $\pm 0.25$ ]  
.xxx =  $\pm 0.005$  [.xxx =  $\pm 0.13$ ]
- Optional SMA, K or V type male connectors in either input, output or both.
- Optional MX2C package available, see outline section.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

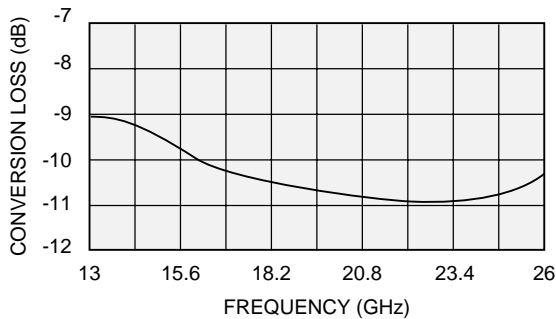
## MODEL: MX2M130260

### ELECTRICAL SPECIFICATIONS

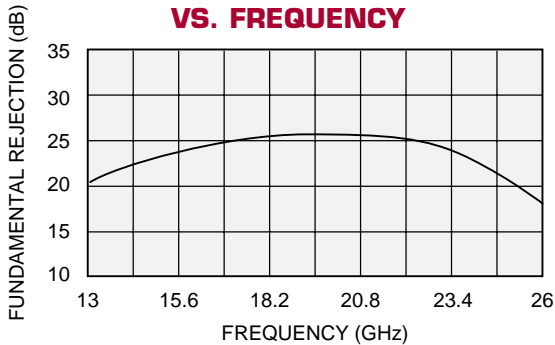
Input frequency range	6.5 – 13 GHz minimum
Output frequency range	13 – 26 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	11 dB typical 13 dB maximum
Harmonic rejection	
Fundamental	20 dB typical
Odd harmonic	20 dB typical



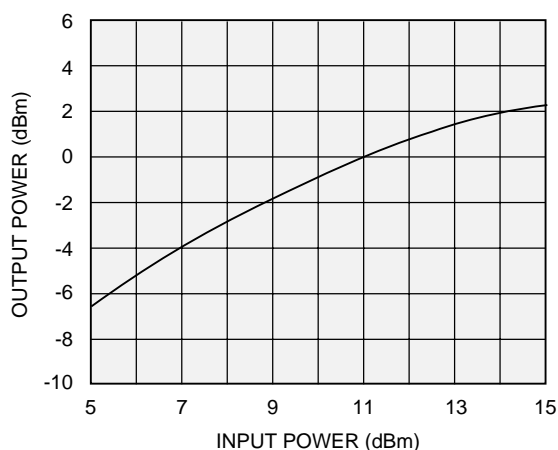
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

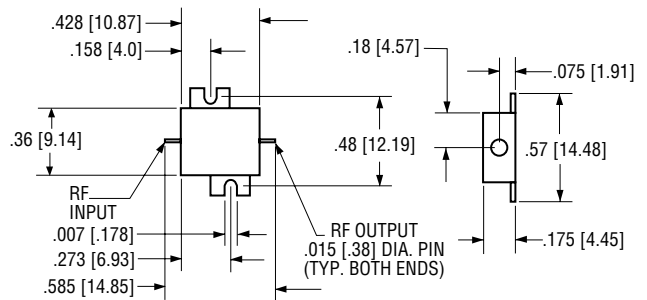
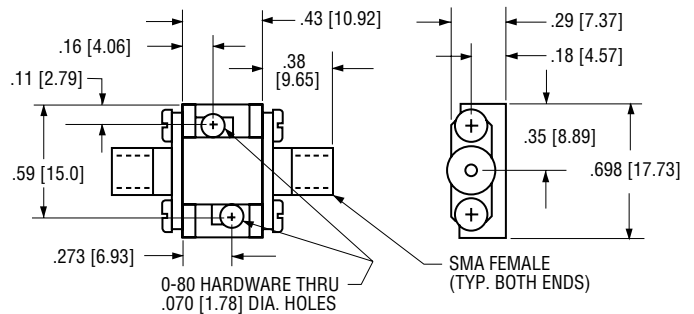


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2D



#### Notes:

- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx = ±0.01 [.xx = ±0.25]  
.xxx = ±0.005 [.xxx = ±0.13]
- Optional SMA, K or V type male connectors in either input, output or both.
- Doubler may be readily used as is, or as a drop-in by removing the SMA connectors and mounting hardware as shown.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

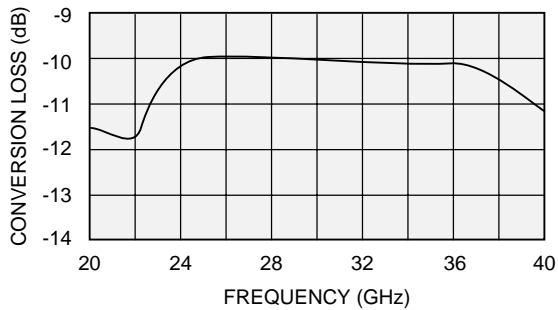
## MODEL: MX2M260400

### ELECTRICAL SPECIFICATIONS

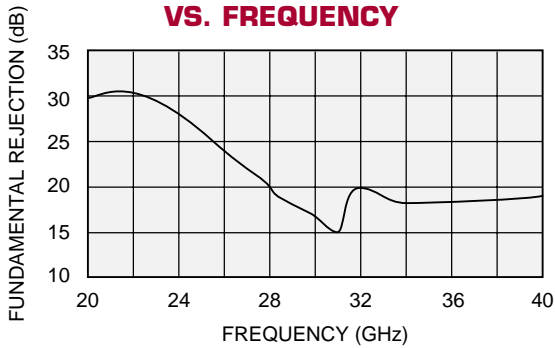
Input frequency range	13 – 20 GHz minimum
Output frequency range	26 – 40 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	10 dB typical 13 dB maximum
Harmonic rejection	
Fundamental	15 dB typical
Odd harmonic	15 dB typical



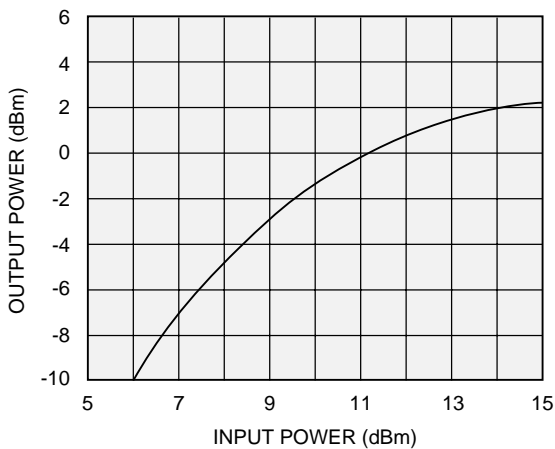
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

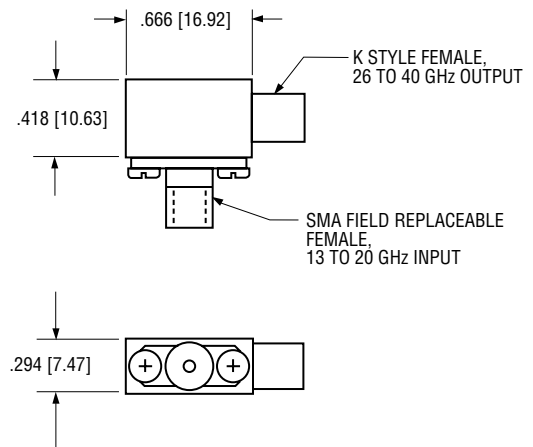


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2E



#### Notes:

- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx =  $\pm 0.01$  [.xx =  $\pm 0.25$ ]  
.xxx =  $\pm 0.005$  [.xxx =  $\pm 0.13$ ]
- Optional SMA, K or V type male connectors in either input, output or both.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

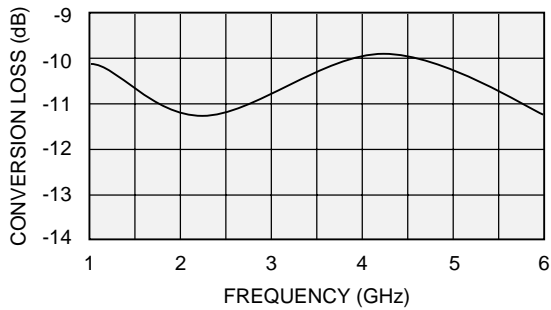
## MODEL: MX2M010060

### ELECTRICAL SPECIFICATIONS

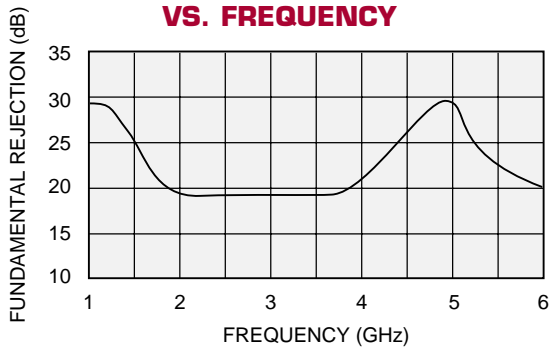
Input frequency range	0.5 – 3 GHz minimum
Output frequency range	1 – 6 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	10.5 dB typical 15 dB maximum
Harmonic rejection	
Fundamental	15 dB typical
Odd harmonic	20 dB typical



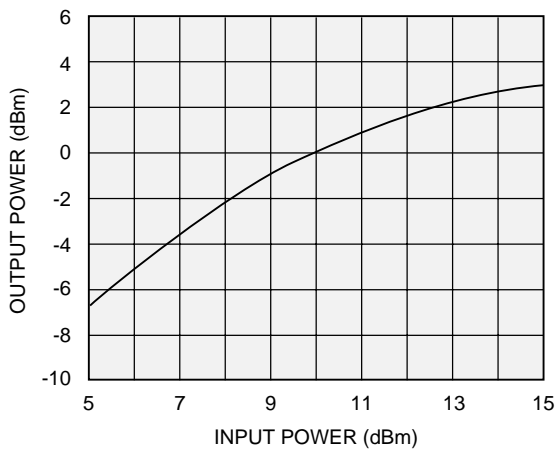
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

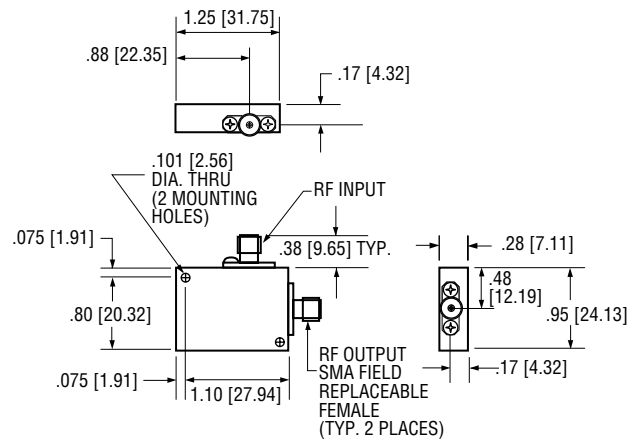


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2A



#### Notes:

1. Dimensions are in inches [millimeters]

Tolerance as follows:

.xx =  $\pm 0.01$  [.xx =  $\pm 0.25$ ]

.xxx =  $\pm 0.005$  [.xxx =  $\pm 0.13$ ]

2. Optional SMA, K or V type male connectors in either input, output or both.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

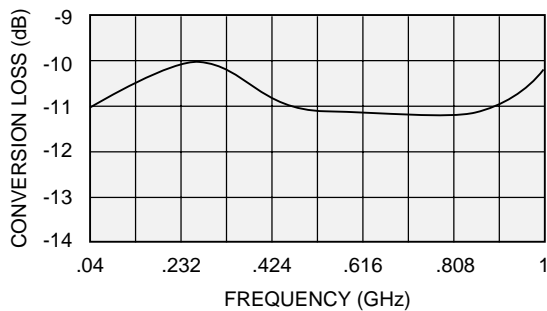
## MODEL: MX2M004010

### ELECTRICAL SPECIFICATIONS

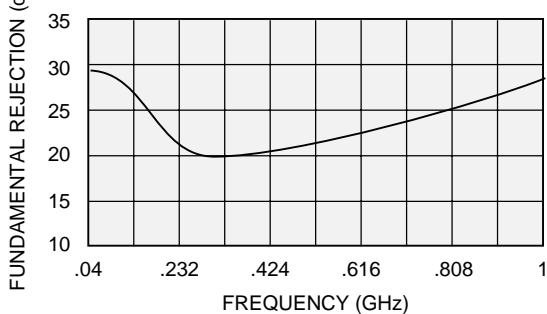
Input frequency range	0.02 – 0.5 GHz minimum
Output frequency range	0.04 – 1 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	10.5 dB typical 13 dB maximum
Harmonic rejection	
Fundamental	25 dB typical
Odd harmonic	25 dB typical



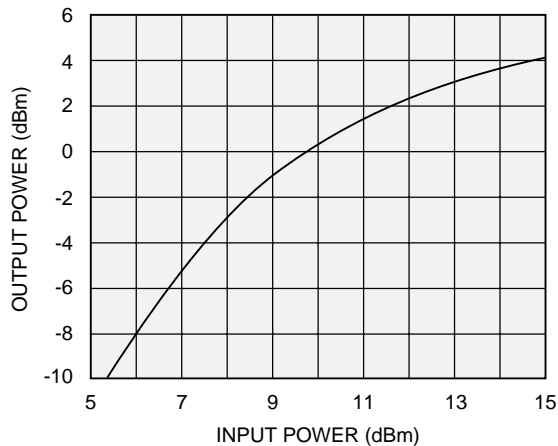
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

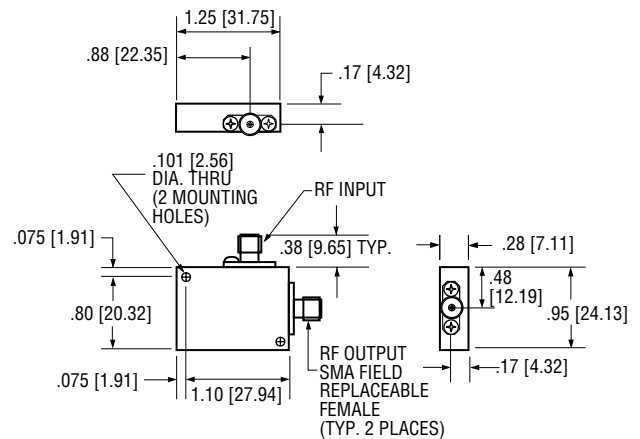


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2A



#### Notes:

1. Dimensions are in inches [millimeters]

Tolerance as follows:

.xx =  $\pm 0.01$  [.xx =  $\pm 0.25$ ]

.xxx =  $\pm 0.005$  [.xxx =  $\pm 0.13$ ]

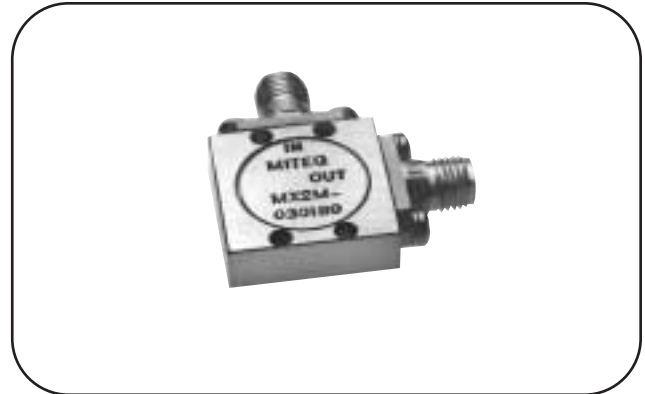
2. Optional SMA, K or V type male connectors in either input, output or both.

# PASSIVE FREQUENCY DOUBLERS (CONT.)

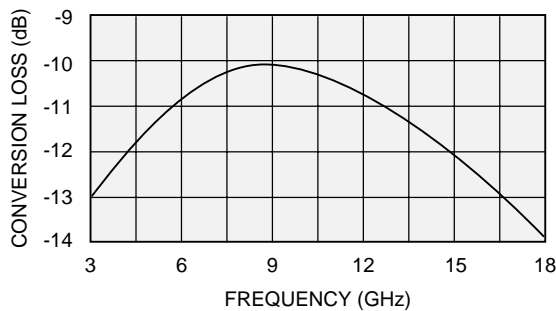
## MODEL: MX2M030180

### ELECTRICAL SPECIFICATIONS

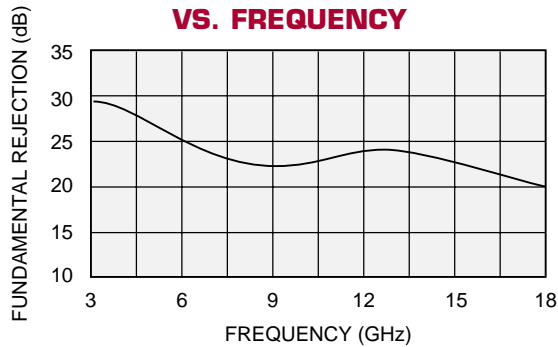
Input frequency range	1.5 – 9 GHz minimum
Output frequency range	3 – 18 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	12 dB typical 15 dB maximum
Harmonic rejection	
Fundamental	15 dB typical
Odd harmonic	20 dB typical



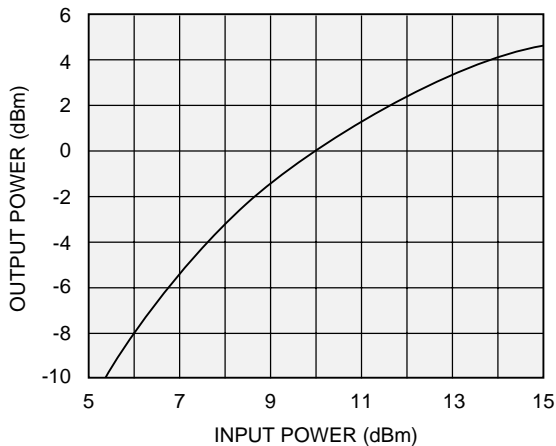
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

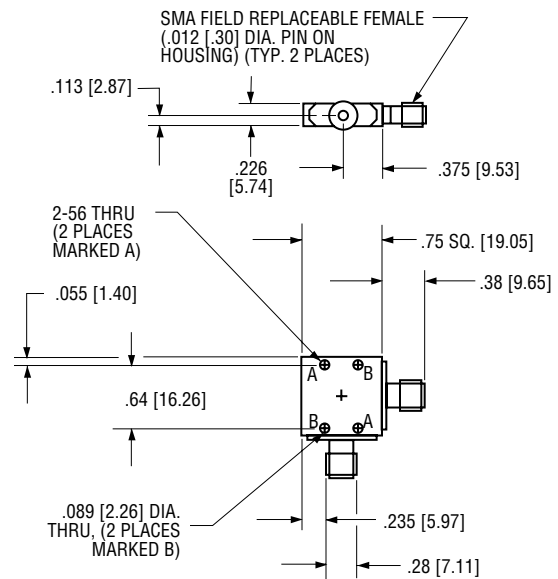


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10$  dBm)

### MX2B



#### Notes:

- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx =  $\pm 0.01$  [.xx =  $\pm 0.25$ ]  
.xxx =  $\pm 0.005$  [.xxx =  $\pm 0.13$ ]
- Optional SMA, K or V type male connectors in either input, output or both.
- Optional MX2C package available, see outline section.

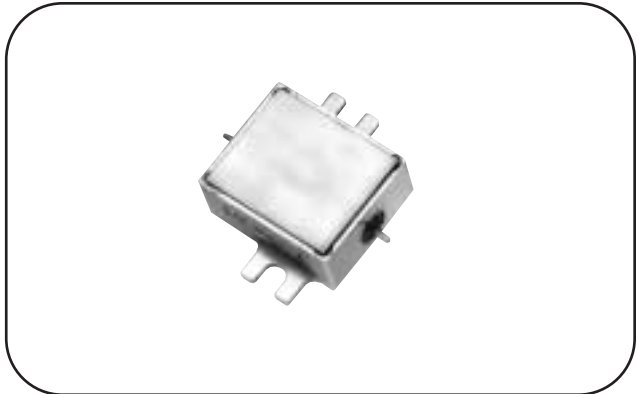


# PASSIVE FREQUENCY DOUBLERS (CONT.)

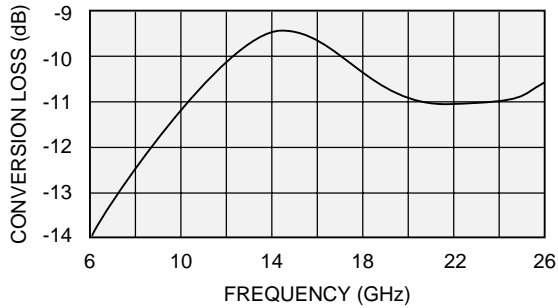
## MODEL: MX2M060260

### ELECTRICAL SPECIFICATIONS

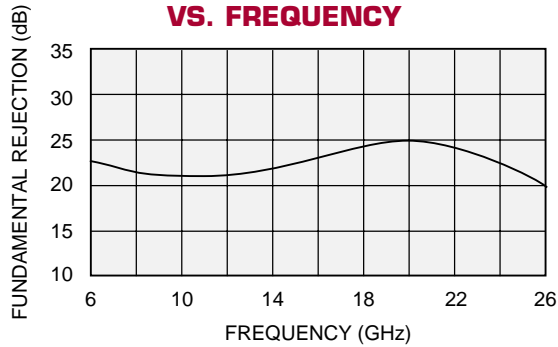
Input frequency range	3 – 13 GHz minimum
Output frequency range	6 – 26 GHz minimum
Input power range	8 – 12 dBm nominal
Conversion loss	12 dB typical 15 dB maximum
Harmonic rejection	
Fundamental	15 dB typical
Odd harmonic	20 dB typical



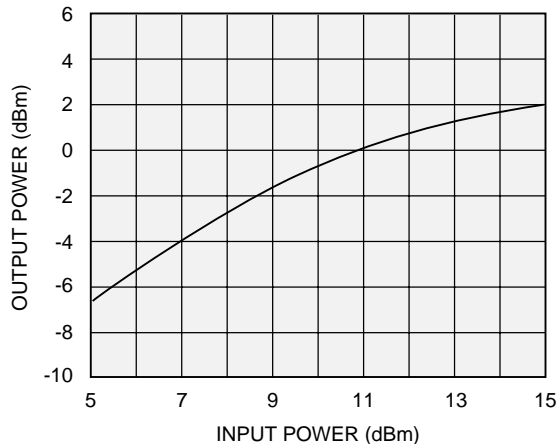
### CONVERSION LOSS VS. FREQUENCY



### FUNDAMENTAL REJECTION VS. FREQUENCY

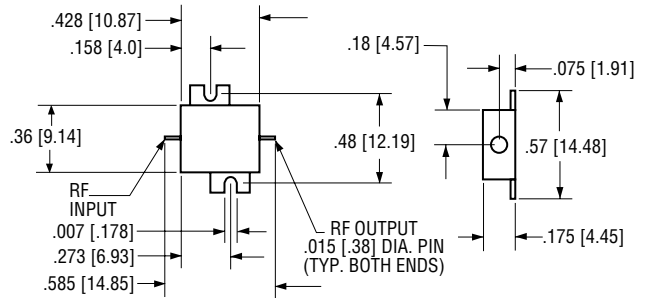
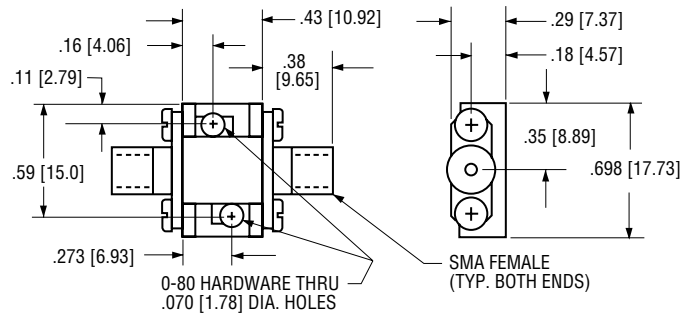


### OUTPUT POWER VS. INPUT POWER



( $P_{IN} = +10 \text{ dBm}$ )

### MX2D



#### Notes:

- Dimensions are in inches [millimeters]  
Tolerance as follows:  
.xx = ±0.01 [.xx = ±0.25]  
.xxx = ±0.005 [.xxx = ±0.13]
- Optional SMA, K or V type male connectors in either input, output or both.
- Doubler may be readily used as is, or as a drop-in by removing the SMA connectors and mounting hardware as shown.