

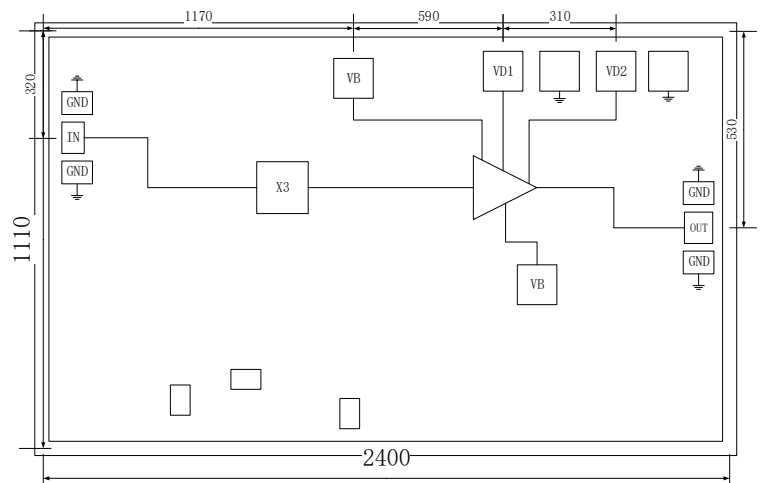
## General Description

MWX002 is an active tripler designed and manufactured by GaAs pHEMT process. The tripler can be up-doubled to 50-61 GHz in the operating frequency band of 17-21 GHz. Driven by the input power of 16 dBm, the in-band frequency loss is 2 dB. Because of its excellent performance, this product can be widely applied to short circuit / high capacity links and so on.

## Features

Conversion Loss: 2 dB  
 Input Power: 16 dBm  
 Supply Current: +4V @ 70 mA  
 Chip Size: 2.40 x 1.11 x 0.05 mm

## Functional Diagram (bond: 100x130, 60x50 unit: um)

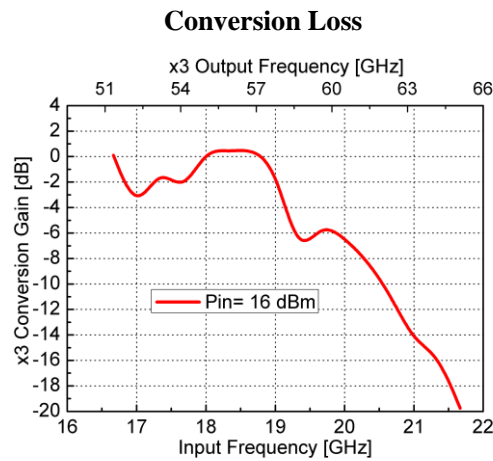
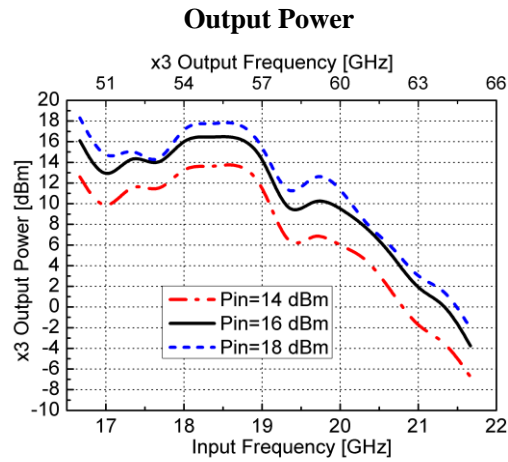


(Die Thickness: 50 um)

## Electrical Specifications, $T_A = +25^\circ\text{C}$ , $V_{dd} = +4\text{V}$ , $P_{in} = +16\text{dBm}$

Parameter	Min	Typ	Max	Units
Input Bandwidth	17		21	GHz
Output Bandwidth	50		61	GHz
P <sub>out</sub>	8	13	16	dBm
Conversion Loss	0	2	5	dB
Supply Current (@ $V_{dd}=+4\text{V}, V_{gg}=-0.5\text{V}$ )		70		mA

## Test Results



### Absolute Maximum Ratings( TA=25°C)

<b>RF Input Power</b>	21dBm
<b>Storage Temperature</b>	-55 to +150°C
<b>Operating Temperature</b>	-40 to +85°C

### Assembly Diagram

