

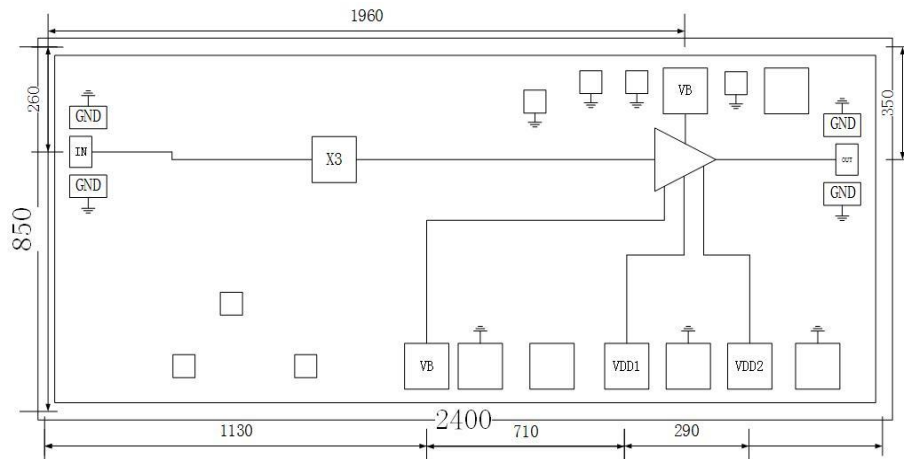
General Description

MWX003 is an active ultra wideband tripler designed and manufactured by GaAs pHEMT process. The tripler can be up-doubled to 64-84 GHz in the operating frequency band of 21-28 GHz. Driven by the input power of 16 dbm, the gain of in-band conversion is 2 dB. Because of its excellent performance, this product can be widely applied to short circuit / high capacity links.

Features

Conversion Gain: 2 dB
 Input Power: 16 dBm
 Supply Current: +4V @ 100 mA
 Chip Size: 2.40 x 0.85 x 0.05 mm

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



(Die Thickness: 50 um)

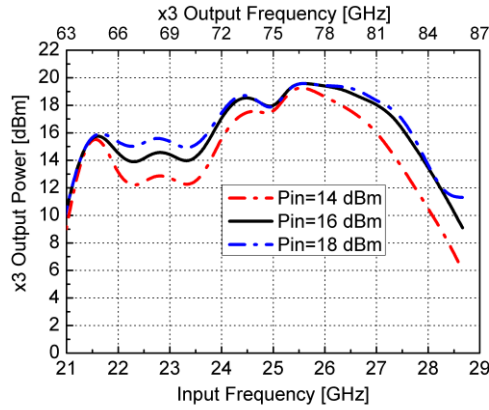
Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{dd} = +4\text{V}$, $P_{in} = +16\text{dbm}$

Parameter	Min	Typ	Max	Units
Input Bandwidth	21		28	GHz
Output Bandwidth	64		84	GHz
Pout	12	16	20	dBm
Conversion Gain	-3	2	4	dB
Supply Current (@ $V_{dd}=+4\text{V}, V_{gg}=-0.5\text{V}$)		100		mA

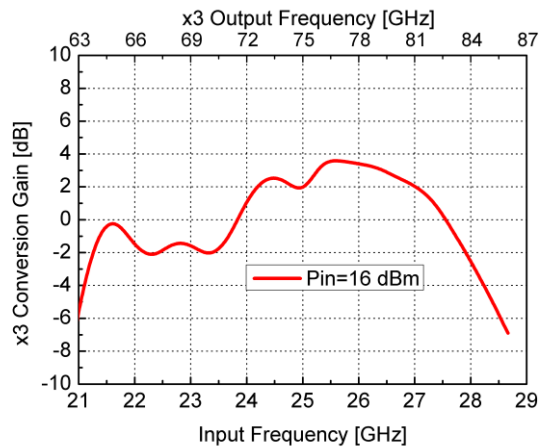


Test Results

Output Power



Conversion Gain



Absolute Maximum Ratings (TA=25°C)

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

Assembly Diagram

