Frequency Multiplier X2 Output 23G-33G FM2X23G33G

50Ω Multiply-BY-2 Active Multiplier, Output 23-33 GHz

Case PN: 6UDD2W6O5A2

Features:

- **Multiply by M: (M = 2)**
- **Input frequency range: 11.5-16.5 GHz**
- **Wide Input Power Drive: 0 to +6 dBm**
- **High Output Power: +15 dBm**
- **Fo Isolation: >20 dBc at Fout = 28 GHz**
- **Single Supply: +5V @ 81 mA**
- **Rugged, shielded case**

Applications:

- **Synthesizers, Local Oscillators, Fiber Optic**
- **Clock Generation Applications: SONET OC-192 & SDH STM-64**
- **Cellular, Satellite Communication Systems**
- **ISM, LTE**
- **SDR & Ham Radio**

General Description

FM2X23G33G is a x2 active broadband frequency multiplier GaAs PHEMT SMT package. It has low input power drive requirement (0 to +6 dBm). When driven by +3 dBm signal, the multiplier provides a +15 dBm typical output power from 23 to 33 GHz. It integrates 2 Amplifiers (one before Multiplier and one after Multiplier). The low additive SSB Phase Noise of -129 dBc/Hz at 100 kHz offset maintains good system noise performance. The FM2X23G33G is ideal for use in LO multiplier chains for Point-to-Point & VSAT Radios and yielding reduced parts counts vs. traditional approaches. The input connector is SMA Steel Connector and Output connector is 2.92mm Steel Connector.

Electrical Specifications (Vcc = 5V, T_A = +25°C, +3 dBm Drive Level)

Parameter	Min.	Typ.	Max.	Units
Frequency Range, Input		11.5-16.5		GHz
Frequency Range, Output		23-33		GHz
Output Power Range	10	15		dBm
Fo Isolation (with respect to output level)		20		dBc
3Fo Isolation (with respect to output level)		30		dBc
Input Return Loss		10		dB
Output Return Loss		12		dB
SSB Phase Noise (100 kHz Offset)		-132		dBc/Hz
Supply Current (Icc)		81		mA

Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	RF Input Power, 25 °C	+13	dBm
2	Vcc	+6.0	V
3	Storage Temperature	-65 to +150	°C
4	Operating Temperature	-40 to +85	°C

Outline Drawing (inch)