

50Ω Multiply-BY-2 Active Multiplier, Output 20-25 GHz

Case PN: 6UDD2W605A2

Features:

- Multiply by M: (M = 2)
- Input frequency range: 10-12.5 GHz
- Wide Input Power Drive: -4 to +6 dBm
- High Output Power: +11 dBm
- Fo, 3Fo Isolation: >20 dBc at Fout = 20 GHz
- Single Supply: +5V @ 48 mA
- Rugged, shielded case (2.92mm Connector)

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**

FM2X20G25G is a x2 active broadband frequency multiplier GaAs PHEMT SMT package. It has low input power drive requirement (-4 to +6 dBm). When driven by +0 dBm signal, the multiplier provides a +11 dBm typical output power from 20 to 25 GHz. It integrates 2 Amplifiers (one before Multiplier and one after Multiplier). The low additive SSB Phase Noise of -135 dBc/Hz at 100 kHz offset maintains good system noise performance. The FM2X20G25G 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 2.92mm Steel Connector and Output connector is 2.92mm Steel Connector.

Electrical Specifications (Vcc = 5V, T_A = +25°C, +0 dBm Drive Level)

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range, Input		10-11			11-12.5		GHz
Frequency Range, Output		20-22			22-25		GHz
Output Power Range	5	9		7.5	11		dBm
Fo Isolation (with respect to output level)		24			15		dBc
3Fo Isolation (with respect to output level)		25			25		dBc
Input Return Loss		10			7		dB
Output Return Loss		6			10		dB
SSB Phase Noise (100 kHz Offset)		-135			-135		dBc/Hz
Supply Current (Icc)		48			48		mA



Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	RF Input Power, 25 °C	+20	dBm
2	Vcc	+6.0	V
3	Storage Temperature	-65 to +150	°C
4	Operating Temperature	-40 to +85	°C

Outline Drawing (inch)

