

rakon Frequency Multiplier by 10

MO G01

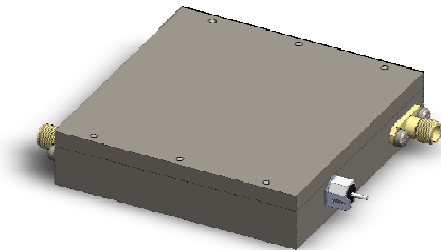
Specific request can be addressed to RAKON info@rakon.fr

Product Description

MO G01 is an ultra low noise frequency multiplier-by-10 module.

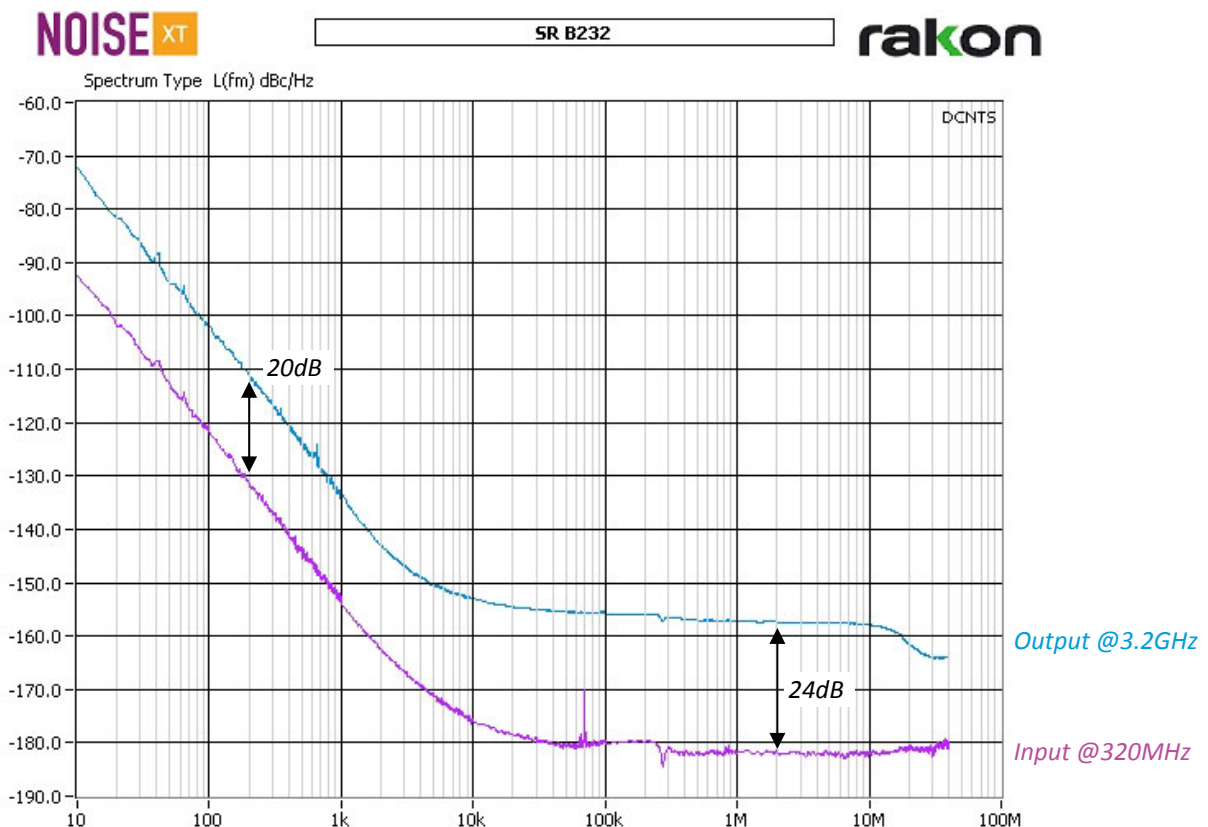
It is a narrowband system dedicated to an input frequency of 320MHz. Sub-harmonics filtering is adapted to the given input frequency.

MO G01 is proposed in a 70mm x 70mm x 16mm package as a stand-alone module for lab environment (instrumentation, ground-based military equipment).



Features

- Output level : +10 dBm typical @3.2GHz
- Typical output close-in phase noise : input phase noise + 20dB
- Typical output noise floor : input noise floor + 24dB



Applications

- Instrumentation (test equipment, simulator)
- Ground-based military equipment as per MIL-PRF-28800F, Class 3

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Specifications

1.0 Environmental conditions

Line	Parameter	Test Condition	Value	Unit
1.1	Temperature range		0 to +50	°C
1.2	Storage temperature		-40 to +85	°C
1.3	Shock	As per MIL-PRF-28800F, Class 3, test equipment		
1.4	Vibration	As per MIL-PRF-28800F, Class 3, test equipment		

2.0 Electrical Interface

Line	Parameter	Test Condition	Value	Unit
2.1	Supply voltage	Pin 2	+8 ± 0.2	V
2.2	Source impedance	Pin 1	50	Ω
2.3	Load impedance	Pin 3	50	Ω

3.0 Performances

Line	Parameter	Test Condition	Value	Unit
3.1	Input frequency		320	MHz
3.2	Multiplication factor		10	-
3.3	Input level	50 Ω source impedance	+12 ± 1	dBm
3.4	Output level	At 3.2GHz	+10 ± 1	dBm
3.5	Harmonics	NxF, N ≠ 10 & N < 20	< -40	dBc
3.6	Additional phase noise	In excess of 20 dB multiplication factor	< 5	dB
3.7	Power consumption		< 2	W

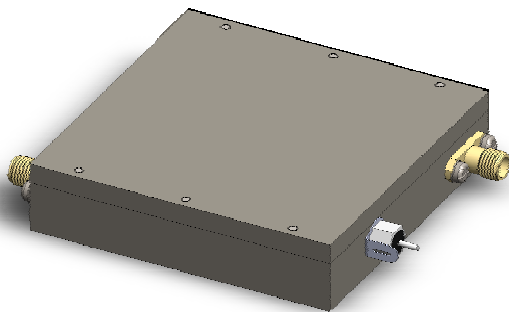
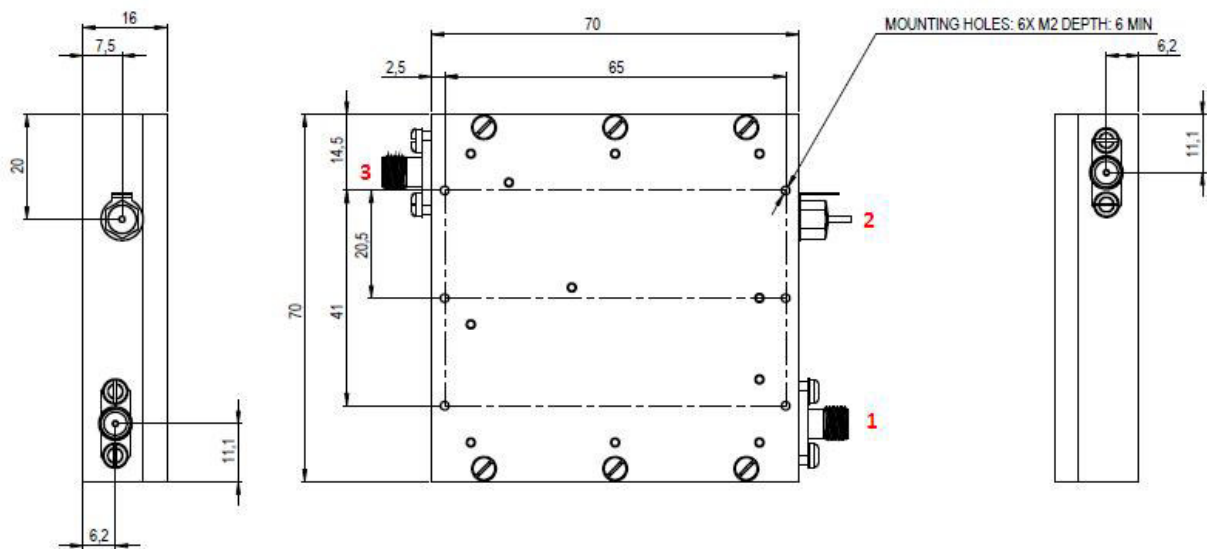
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4.0 Mechanical features

Outline in mm



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5.0 Pin description

Line	Pin number	Name	Description
5.1	1	Frequency input	Input signal at 320MHz
5.2	2 + lug	Supply voltage	Input supply (+) & ground (-)
5.3	3	Frequency output	Output signal at 3.2GHz