

X → Ka Band, Connectorised Tripler: 8 – 10 GHz → 24 – 30 GHz

MAAMML0019
V4

Features

- High Reliability
- Weight and space saving design
- Field Replaceable K Connectors
- Built-in Band Pass Filter
- Built-in output amplifier
- Built-in power supply protection
- Space Qualified version available

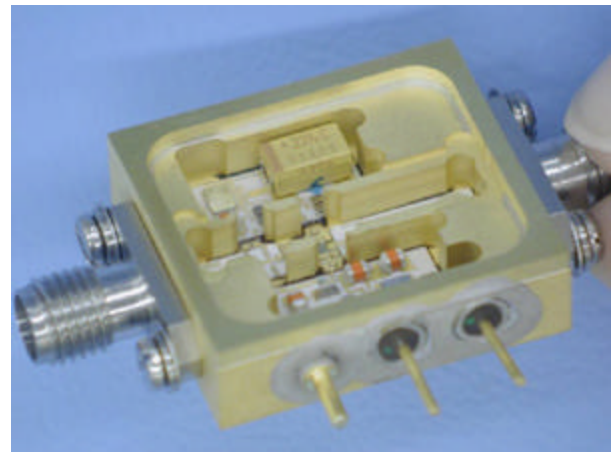
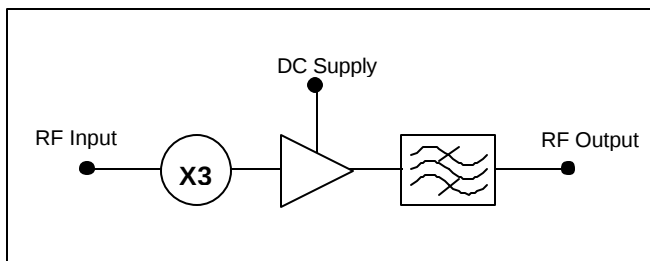
Description

The MAAMML0019 is a high reliability X → Ka band tripler. This weight and space saving design has been realised by utilising the latest advances in housing materials. The unit consists of a tripler followed by a Ka band amplifier and band pass filter (BPF.) The amplifier restores output signal strength. The BPF reduces out of band products.

Additionally, built-in circuitry ensures that power supply sequencing can be any order, for both power-up and power-down.

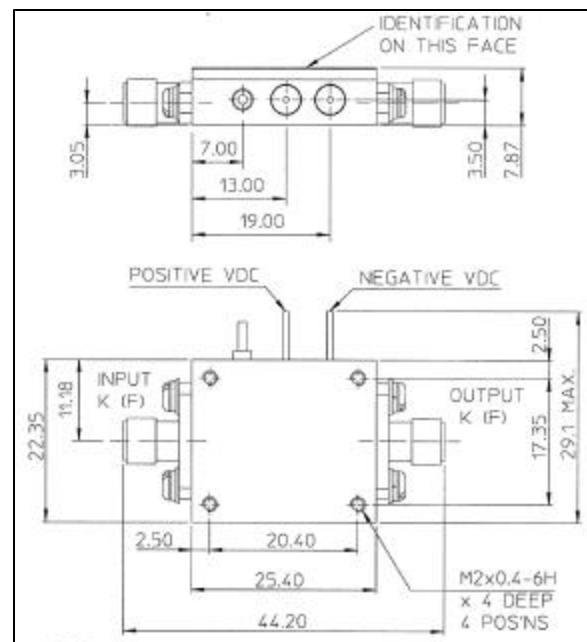
Alternative frequency ranges, gain, output powers and supply rail configurations are available. The MAAMML0019 is also available as a space qualified version. Please contact the factory for details.

Functional Block Diagram



Mechanical

This device is supplied with field replaceable 'K' connectors. It is hermetically sealed, with a gold-plated finish to MIL-G-45204.



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Specification at +25 °C

(Applies over the frequency range @ +25 °C, output and input load impedance of 50 ohms.
 Unless otherwise stated limits & conditions are indicated values.)

Parameter	Value	Units
Input Frequency	8-10	GHz
Output Frequency	24-30	GHz
Operating Temperature T _{OP}	+0 ~ +50	°C
Input power range	+13 ~ +18	dBm
Conversion gain (nominal)	+3	dB
Passband flatness	6	dB pk-pk
Spurious	-65	dBc
Harmonics	-20	dBc
Input VSWR	2.5:1	Ratio
Output VSWR	2:1	Ratio
<i>DC Supply Positive Rail</i>		
Supply Voltage	+7	V
Current consumption	350	mA
<i>DC Supply Negative Rail</i>		
Supply Voltage	-6.5	V
Current consumption	10	mA