

**X → Ka Band, Connectorised Tripler:
10 – 12 GHz → 30 – 36 GHz**

**MAAMML0021
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

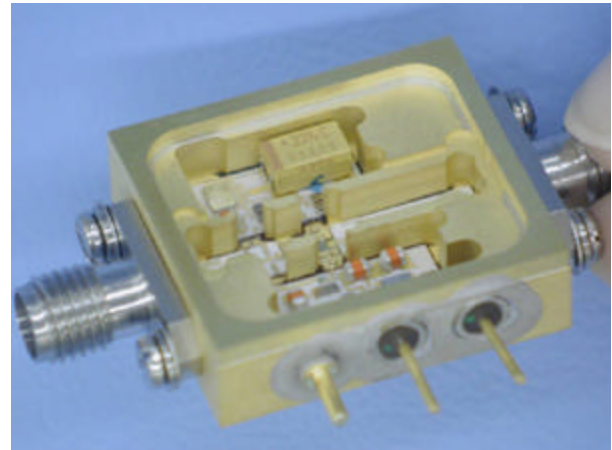
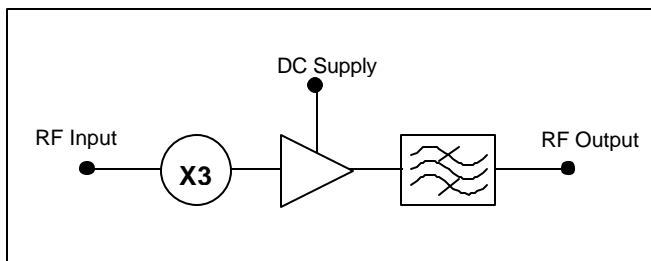
Description

The MAAMML0021 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.

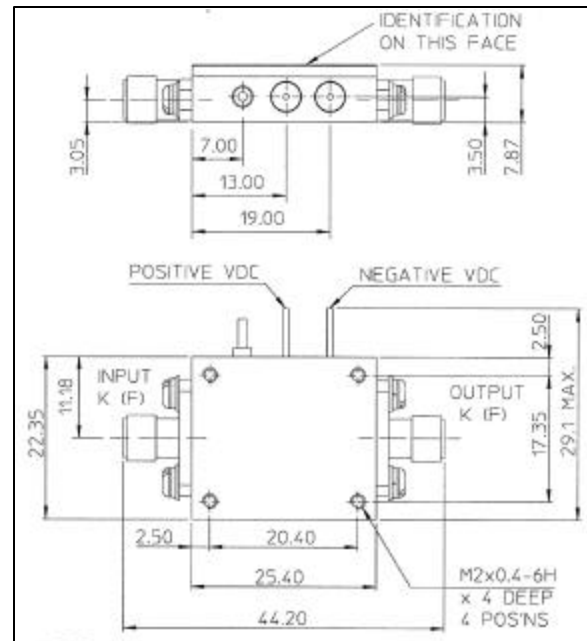
Alternative frequency ranges, gain, output powers and supply rail configurations are available. The MAAMML0021 is also available as a space qualified version. Please contact the factory for details.

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.



X→ Ka Band, Connectorised Tripler:
10 – 12 GHz→ 30 – 36 GHz

MAAMML0021
V4

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 | 10-12 | GHz |
| Output Frequency | 30-36 | 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 |