

**Variable Gain Control, X Band Connectorised Amplifier:  
8 – 12 GHz**

**MAAMML0018  
V4**

**Features**

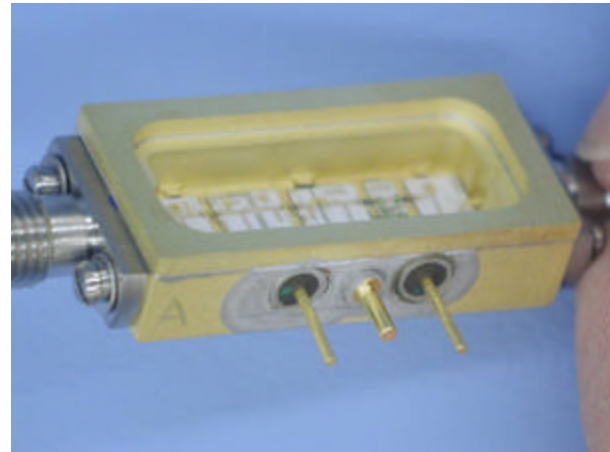
- High Reliability
- Weight and space saving design
- Field Replaceable SMA Connectors
- Monotonic Gain Control
- $\geq 28$ dB Gain control
- $< 4.5\mu s$  settled gain switching time.
- Space Qualified version available

**Description**

The MAAMML0018 is a high reliability X band variable gain amplifier. This weight and space saving design has been realised by utilising the latest advances in housing materials. A variable attenuator is followed by an X band amplifier. This allows total unit gain to be adjustable over a  $\geq 28$ dB range, from an applied control voltage.

Alternative frequency ranges, gain, output powers and supply rail configurations are available.

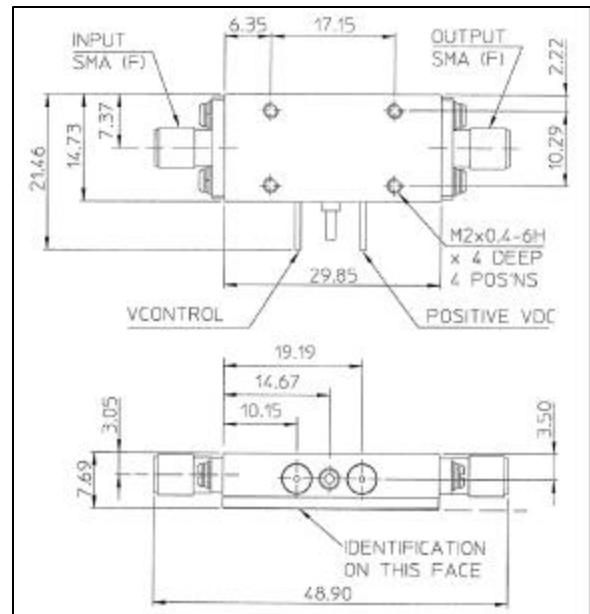
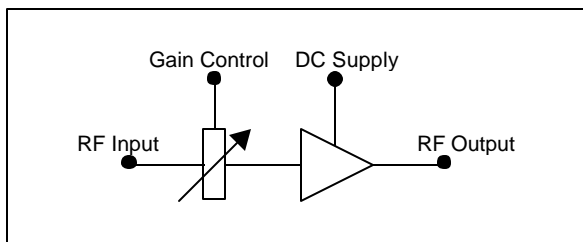
The MAAMML0018 is also available as a space qualified version. Please contact the factory for details.



**Mechanical**

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

**Functional Block Diagram**



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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
Frequency	8-12	GHz
Operating Temperature T <sub>OP</sub>	+0 ~ +60	°C
Gain Control voltage	0 - 5	V
Control Pin current	30	mA
Gain Maximum setting	>+14	dB
Gain Minimum setting	< -14	dB
Passband flatness	3	dB pk-pk
Output P1dB (Gain >=8dB)	+16	dBm
Noise figure (Maximum Gain Setting)	6	dB
Input VSWR	2:1	Ratio
Output VSWR	1.7:1	Ratio
Supply Voltage	+8	V
Current consumption	120	mA