

Manual Attenuators

- DC-400 MHz Frequency Range
- 0-20 dB Attenuation
- Infinite Resolution
- PC-Mount and Connectorized



Lorch Microwave's MA-Series, Manual Attenuators, are miniature components which may be adjusted manually by mechanical rotation to provide a useful range of smoothly variable attenuation over the frequency range DC to 400 MHz, with low VSWR and low minimum insertion loss.

These manual attenuators are ideal for applications where the gain of one or more channels must be set or equalized with precision. Styles 60 and 62 are packaged with pins for PC board mounting, the control shaft being equipped with a screw driver slot and restrained by a shaft locking device. The style 61 and 63 packages have RF connectors and are provided with a screw driver adjustment.

Package styles 60 and 62 are intended primarily for chassis mounting within equipment where an initial setting will remain untouched except for an occasional readjustment. Package styles 61 and 63 are used in applications requiring frequent manual adjustment, for example when they are front panel mounted.

These attenuators use resistive network elements and thus cause no signal distortion. They are carefully compensated for side bandwidth and are highly stable with time, humidity and temperature. They will remain at a preset attenuation value for a long period of time.

Part Number	Frequency Range (MHz)	Performance Bandwidth (MHz)	Attenuation Range (dB)	Insertion Loss (dB)	VSWR	Package Style
MA-200-60	DC-200	DC-50	0-23	0.7	1.25:1	60
MA-200-61		50-100	0-20	0.9	1.3:1	61
MA-200-62		100-200	0-15	1.0	1.4:1	62
MA-200-63						63
MA-400-60	DC-400	DC-100	0-20	1.0	1.3:1	60
MA-400-62		100-200	0-15	1.2	1.5:1	62
MA-400-63		200-400	0-10	2.2	2.0:1	63

Notes:

- 1) Operating temperature range: -55°C to +85°C
- 2) Maximum RF power (all models): 0.5 Watt

The units listed are designed to provide optimum performance over the full frequency range listed. If the band of interest is narrower than listed, it should be indicated when ordering (See "Creating a Part Number"). Performance will be optimized over the band of interest and improved performance may be offered.

LORCH
MICROWAVE

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Manual Attenuators

Creating a Part Number

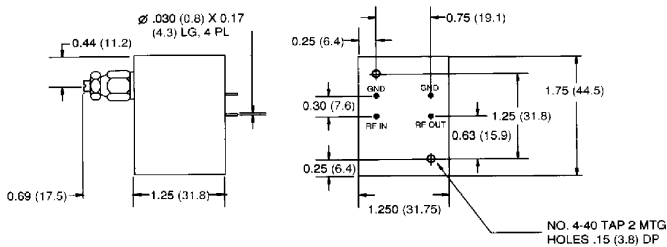
Lorch Microwave's MA-Series, Manual Attenuators, have descriptive part numbers indicating important electrical characteristics that define the unit. A list of "standard" Attenuators is given in the preceding sections. For specifications outside these operating parameters, please contact the factory.

Part Number Description

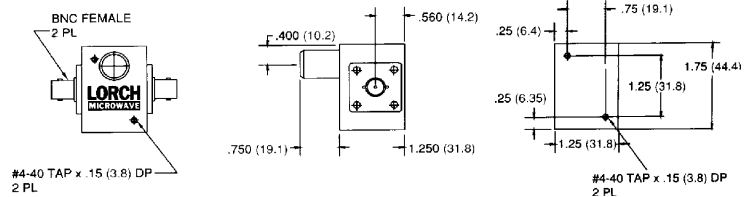
$\frac{\text{MA}}{\mathbf{1}}$ - $\frac{\mathbf{300}}{\mathbf{2}}$ - $\frac{\mathbf{60}}{\mathbf{3}}$

- 1 MA** Series, Manual Attenuator
- 2 300** Upper Frequency Limit in MHz
- 3 60** Package Style, See Below

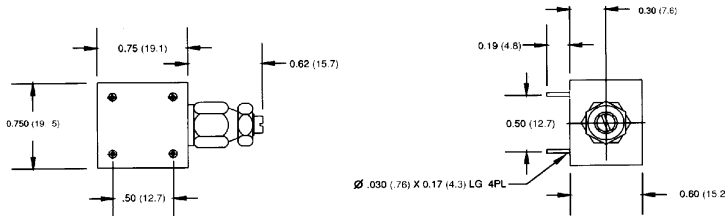
STYLE 60



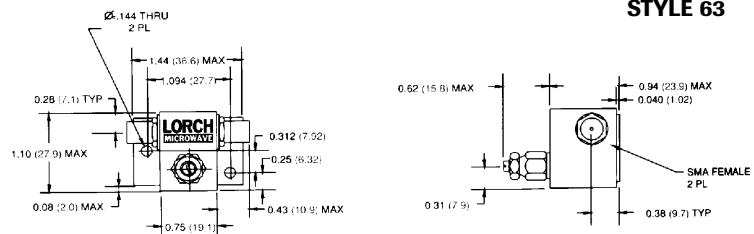
STYLE 61



STYLE 62



STYLE 63



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