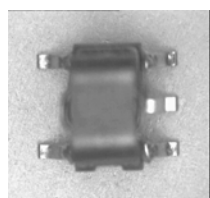


E-Series 75 Ohm Coupler 5 - 1000 MHz

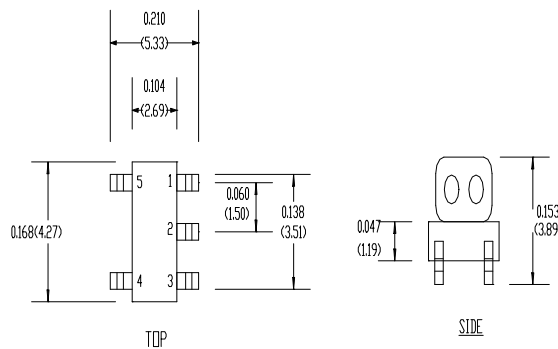


Features

- Coupling +10db Typical
- Surface Mount
- Low Profile
- Excellent Return Loss
- Tape & Reel Packaging available

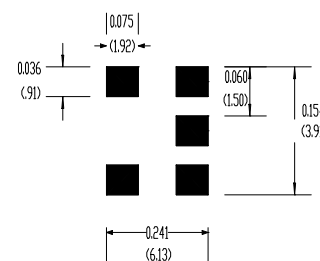
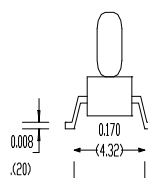


SM-138 Package



Description

M/A-COM's MACPES0034 is a high performance 75 Ohm Coupler, in a SM-138 low cost, surface mount package. The MACPES0034 is designed for use in high volume CATV applications. Typical applications include Settop Boxes, Network Interface Units, Line Amplifiers and Headend equipment.



SUGGEST SOLDER FOOTPRINT

Electrical Specifications @25°C, Z₀ = 75 Ohms

| Frequency Range | Units | Nominal | Typical | Minimum | Maximum |
|---------------------|----------------|---------|---------|---------|---------|
| Mainline Loss | 5 - 500 MHz | dB | — | 0.9 | 1.3 |
| | 500 - 870 MHz | dB | — | 1.2 | 1.5 |
| | 500 - 1000 MHz | dB | — | 1.6 | 1.8 |
| Coupling | 5 - 870 MHz | dB | 10 | — | ± 0.5 |
| | 870—1000 MHz | dB | 10 | — | ± 0.9 |
| Coupling Flatness | dB | — | — | — | 1.0 |
| Isolation | 5 - 500 MHz | dB | — | 30 | — |
| | 500 - 1000 MHz | dB | — | 23 | — |
| Input Return Loss | 5 - 1000 MHz | dB | — | 20 | — |
| Output Return Loss | 5 - 1000 MHz | dB | — | 20 | — |
| Coupled Return Loss | 5 - 1000 MHz | dB | — | 20 | — |

S 1615

V1.0

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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Absolute Maximum Ratings

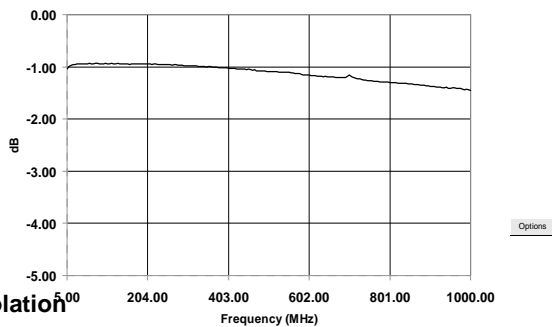
| Parameter | Absolute Maximum |
|-----------------------|------------------|
| RF Power | 250 mW |
| DC Current | 30 mA |
| Storage Temperature | -55°C to +100°C |
| Operating Temperature | -40°C to +70°C |

Pin Configuration

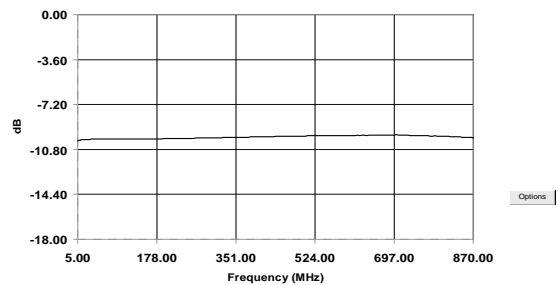
| Function | Pin No. |
|------------------|---------|
| Input | 1 |
| Output | 5 |
| Coupled | 3 |
| External 75 Ohms | 4 |
| Ground | 2 |

Typical Performance Curves @ +25°C

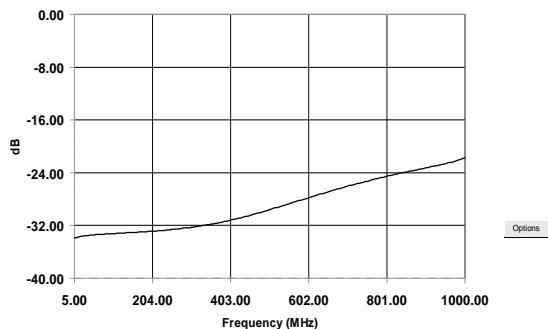
Mainline Loss



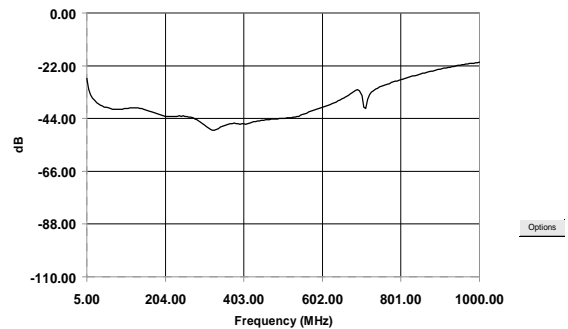
Coupling



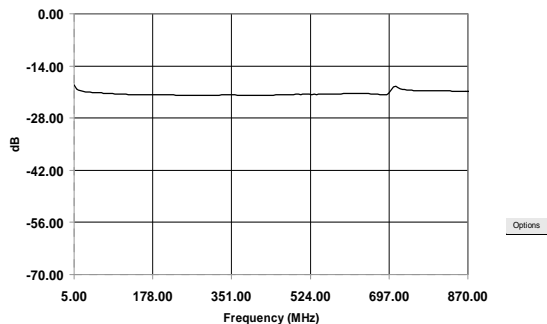
Isolation



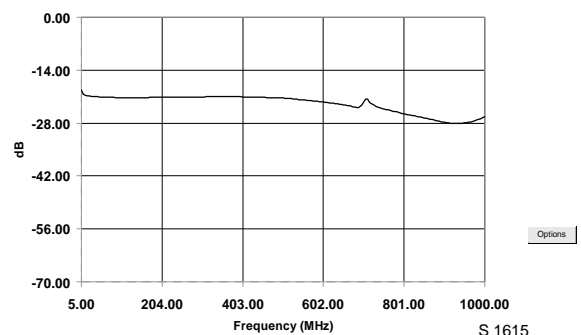
Output Return Loss



Input Return Loss



Coupled Port Return Loss



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