



## Low Cost GMIC SMT Quad Hybrid



### Features

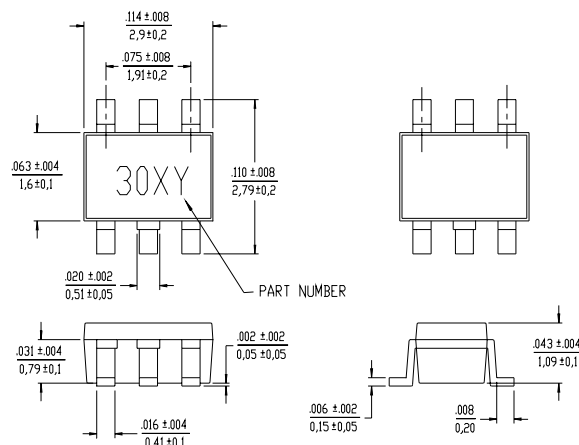
- Small Size and Low Profile
- Industry Standard SOT-26 SMT Plastic Package
- Typical Insertion Loss 0.7dB
- Typical Amplitude Balance 0.3dB
- 1 Watt Power Handling

### SOT-26

### Description

M/A-COM's QH01-0016 is an IC-based monolithic power divider using M/A-COM's GMIC technology in a low cost SOT-26 plastic package. This Quad Hybrid is ideally suited for applications where small size, low insertion loss, superior phase/amplitude tracking and low cost are required. Typical applications include base station switching networks and other cellular applications where size and PCB real estate are at a premium. Available in Tape and Reel.

The QH01-0016 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.



### Absolute Maximum Ratings<sup>1</sup>

Parameter	Absolute Maximum
Input Power <sup>2</sup>	1 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Exceeding these limits may cause permanent damage.
2. With internal load dissipation of 0.125 W Maximum.

### Ordering Information

Part Number	Package
QH01-0016	SOT-26 Lead Plastic Package
QH01-0016-TR	Forward Tape and Reel <sup>1</sup>
QH01-0016-RTR	Reverse Tape and Reel <sup>1</sup>

1. If specific reel size is required, consult factory for part number assignment.

### Typical Electrical Specifications<sup>1</sup>, T<sub>A</sub> = +25°C

Parameter	Units	Min	Typ	Max
Insertion Loss above 3.0dB	dB	—	0.7	1.2
Isolation	dB	14	17	—
VSWR Input	—	—	1.3 : 1	1.5 : 1
RF1, RF2 Outputs	—	—	1.35 : 1	1.5 : 1
Amplitude Balance	dB	—	0.3	0.9
Phase Balance	°	—	1.5	6

1. All specifications apply with a 50-Ohm source and load impedance.



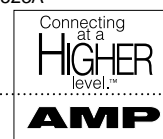
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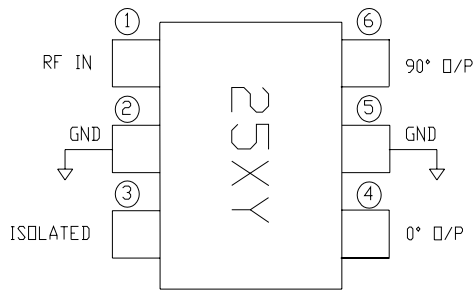
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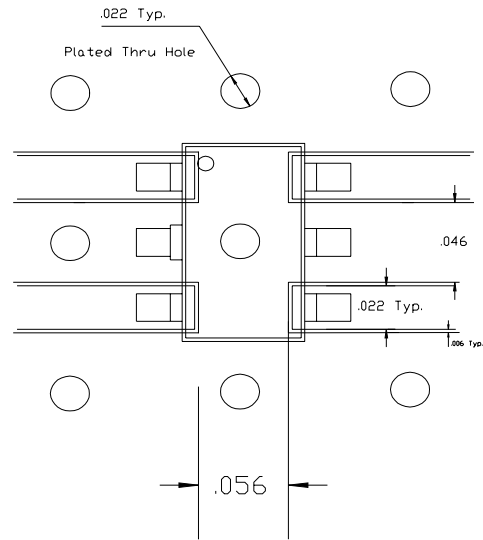
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Functional Diagram

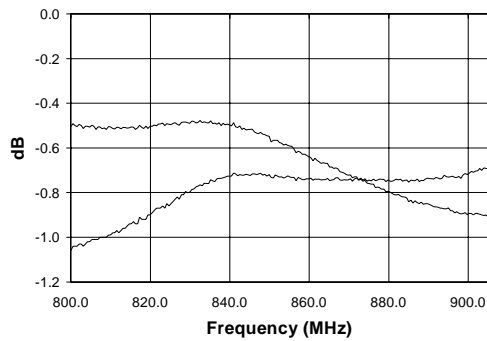


Recommended PCB Configuration

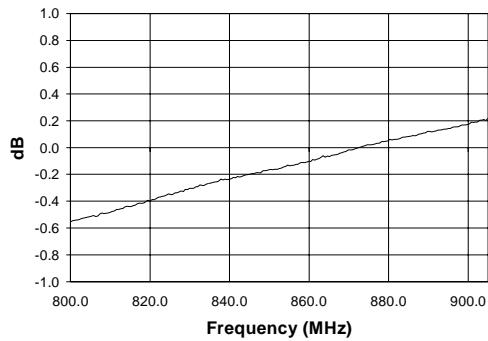


Typical Performance @ +25°C

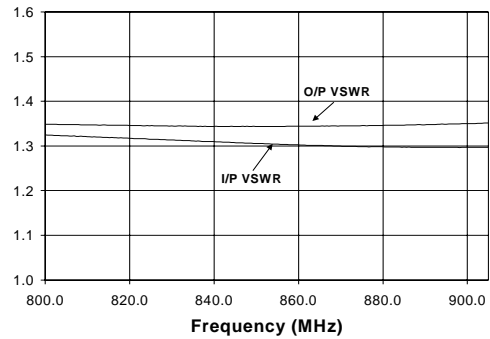
INSERTION LOSS vs FREQUENCY



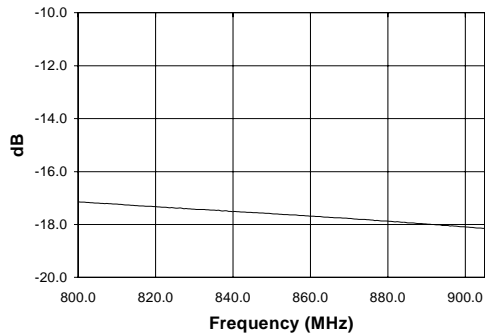
AMPLITUDE BALANCE vs FREQUENCY



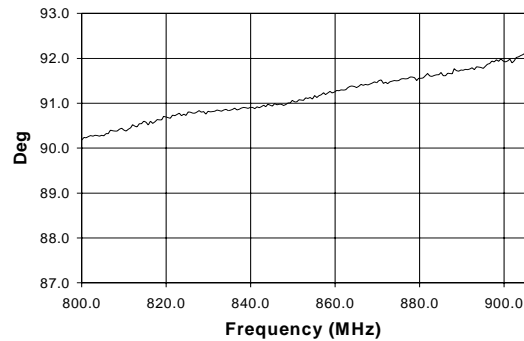
VSWR vs FREQUENCY



ISOLATION vs FREQUENCY



PHASE BALANCE vs FREQUENCY



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