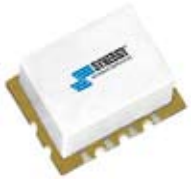
90º HYBRID
SURFACE MOUNT MODEL: SMQ-C04

OCTAVE BANDWIDTH 100 - 200 MHz

FEATURES:

- **Excellent Performance**
- **Small Size, Surface Mount**
- **Building Block For:**
  - **Power Amplifiers**
  - **Image Rejection Mixers**
  - **I & Q / SSB Modulators**
  - **Phase Shifters & More...**

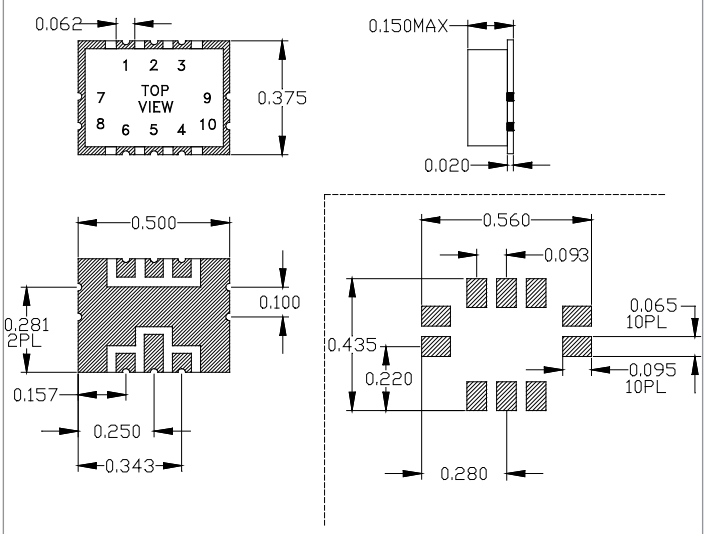


SPECIFICATIONS (Rev. B 02/25/08)

Frequency	100 - 200 MHz
Insertion Loss (dB) *	Typ. 0.6; Max. 0.9
Amplitude Unbalance	Typ. 0.5; Max. 1.0
Phase Unbalance	Typ. 1º; Max. 4º
Isolation (dB)	Typ. 28; Min. 18
Power Rating	1 Watt (Max.)
Impedance	50 Ohms (Nom.)
VSWR	1.1:1 (Typ.)
Operating Temperature Range	-40 to +85 °C
Storage Temperature Range	-55 to +100 °C

** Insertion loss in excess of the theoretical 3 dB coupling.*

Package # 129



Port Configuration					
Input	**Isolated***	**+90º Output**	**0º Output**	**GND.****	**No Conn.**
5	6	1	2	7,8,9,10	3,4

** Terminate ISOLATED port in 50 Ohms EXTERNALLY.*
*** Ground Externally*

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

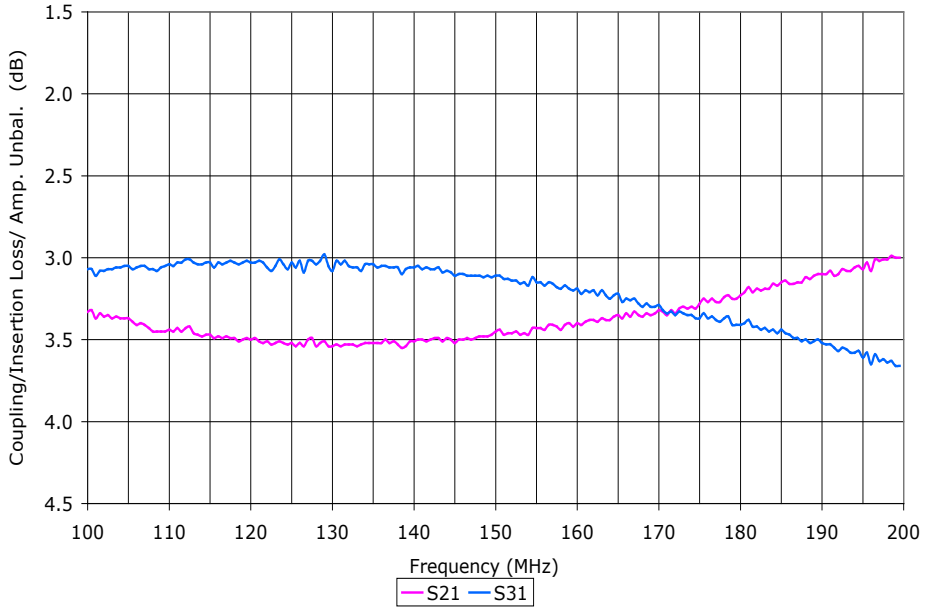
SYNERGY® MICROWAVE CORPORATION

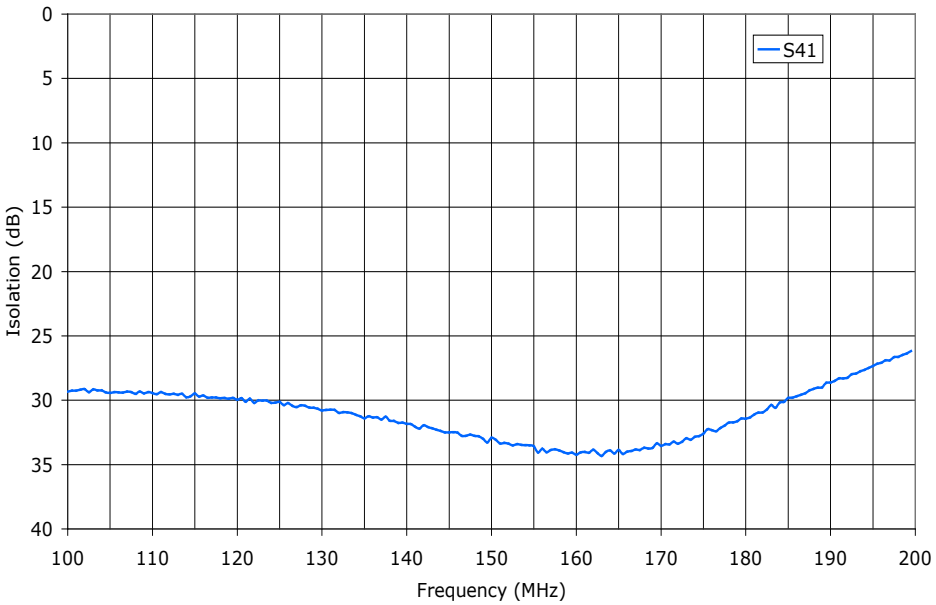
90º HYBRID
SURFACE MOUNT MODEL: SMQ-C04

OCTAVE BANDWIDTH **100 - 200 MHz**

Data @ 25ºC

PERFORMANCE PLOTS





Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

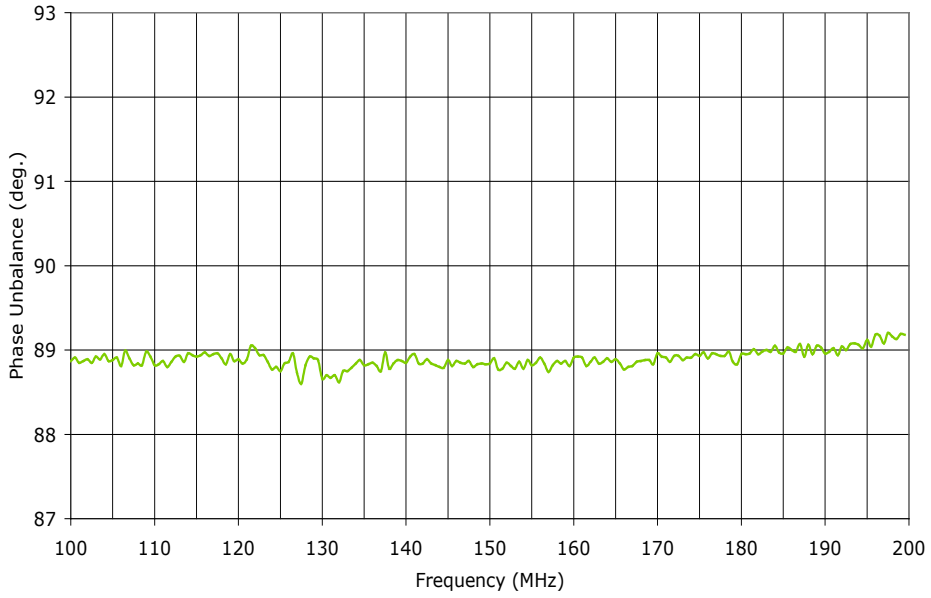
SYNERGY® MICROWAVE CORPORATION

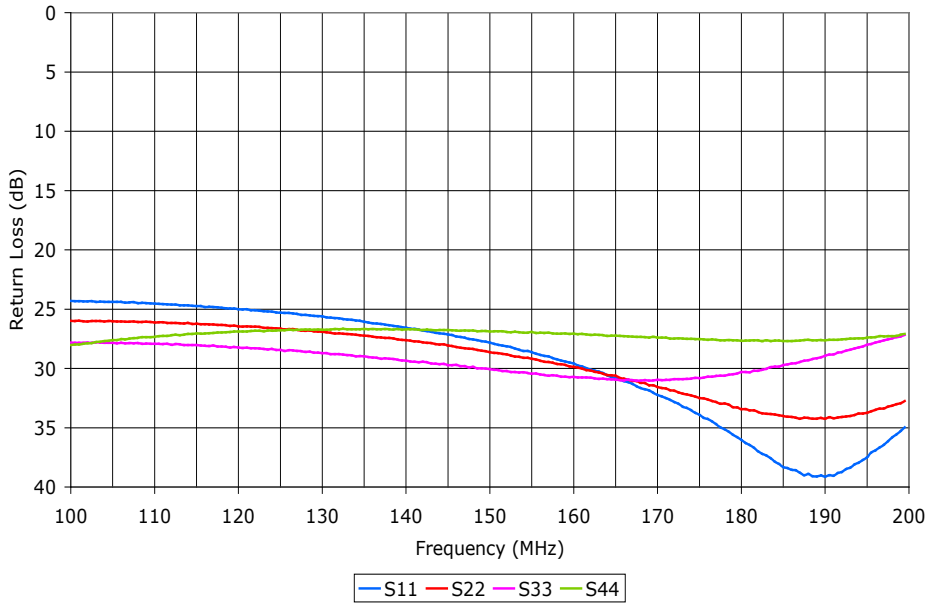
90º HYBRID
SURFACE MOUNT MODEL: SMQ-C04

OCTAVE BANDWIDTH **100 - 200 MHz**

Data @ 25ºC

PERFORMANCE PLOTS





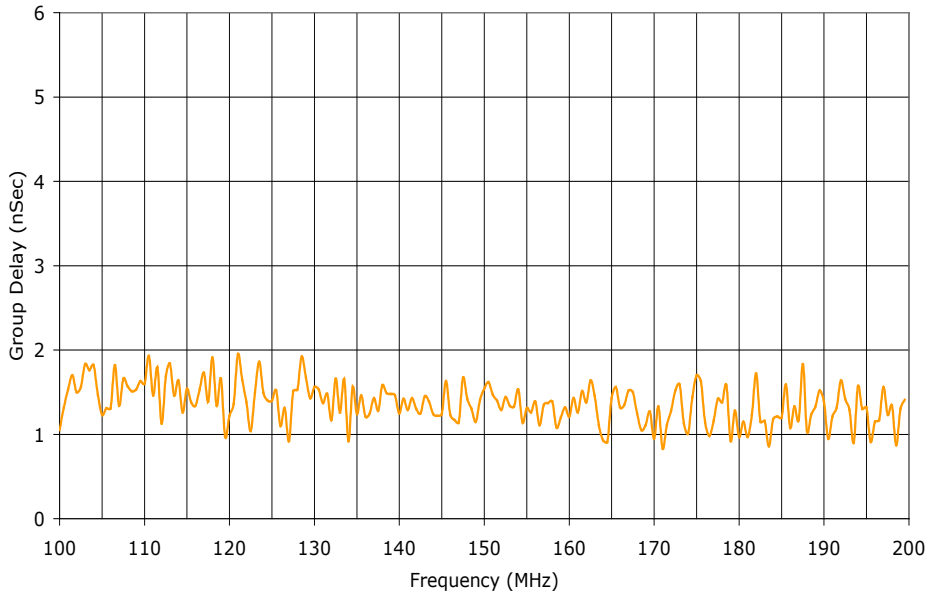
Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

SYNERGY® MICROWAVE CORPORATION

90º HYBRID
SURFACE MOUNT MODEL: SMQ-C04

OCTAVE BANDWIDTH **100 - 200 MHz**

Data @ 25ºC



PERFORMANCE PLOTS

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

SYNERGY® MICROWAVE CORPORATION