## DESCRIPTION

NanoMount ${ }^{\mathrm{TM}}$ is a self contained surface mountable PIN diode matrix consisting of a number of our unique patented Silicon MMSM ${ }^{\text {TM }}$ PIN devices. These models offer configurations which emulate "transfer," "diversity", "transmit/receive", and single pole double throw (SPDT) switching functions.

The new NanoMount technology creates a wide-bandwidth, highpower solution with outstanding isolation, insertion loss and power handling capabilities. All on easy-to-use tape and reel packaging.

## APPLICATIONS/BENEFITS

- 0.1 to 6.0 GHz Bandwidth
- $100 \times 100 \mathrm{~mm}$ Footprint
- 10W Power Handling
- Many Wiring Options Possible
- Low Current Consumption
- Low Distortion Silicon MMSM PINs
- Superb Consistency vs. Flatpack Or Lead Frame Packages
- Superior Performance vs. GaAs MESFET Designs


## APPLICATIONS/BENEFITS

- WLAN 5 GHz to 6 GHz
- SPDT Switching
- "Transfer" Switching
- "Diversity" Switching
- User Defined Functionality
- Ideal For Wide Bandwidth Applications



## MNM4200 SERIES / SHUNT SPDT SWITCH*

| Isolation | Insertion Loss | VSWR | Power Handling |
| :---: | :---: | :--- | :---: |
| $60 \mathrm{~dB} @ 0.1 \mathrm{GHz}$ | $0.3 \mathrm{~dB} @ 0.1 \mathrm{GHz}$ | $2.0: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $45 \mathrm{~dB} @ 1.0 \mathrm{GHz}$ | $0.4 \mathrm{~dB} @ 1.0 \mathrm{GHz}$ | $2.0: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $40 \mathrm{~dB} @ 2.0 \mathrm{GHz}$ | $0.5 \mathrm{~dB} @ 2.0 \mathrm{GHz}$ | $2.0: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $30 \mathrm{~dB} @ 4.0 \mathrm{GHz}$ | $0.7 \mathrm{~dB} @ 4.0 \mathrm{GHz}$ | $2.0: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $25 \mathrm{~dB} @ 5.0 \mathrm{GHz}$ | $1.0 \mathrm{~dB} @ 5.0 \mathrm{GHz}$ | $2.0: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $25 \mathrm{~dB} @ 6.0 \mathrm{GHz}$ | $1.2 \mathrm{~dB} @ 6.0 \mathrm{GHz}$ | $2.0: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |

*Typical performance at 5 mA

MNM4200 SERIES / PACKAGE DIMENSION


## MNM4200 SERIES: SINGLE POLE DOUBLE THROW SWITCH



## MNM4210: TRANSFER/DUAL SWITCH*

| Isolation | Insertion Loss | VSWR | Power Handling |
| :---: | :---: | :---: | :---: |
| 40dB @ 0.1GHz | $0.2 \mathrm{~dB} @ 0.1 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| 30dB @1.0GHz | $0.3 \mathrm{~dB} @ 1.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $25 \mathrm{~dB} @ 2.0 \mathrm{GHz}$ | $0.3 \mathrm{~dB} @ 2.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $15 \mathrm{~dB} @ 4.0 \mathrm{GHz}$ | $0.5 \mathrm{~dB} @ 4.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $15 \mathrm{~dB} @ 5.0 \mathrm{GHz}$ | $0.5 \mathrm{~dB} @ 5.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $15 \mathrm{~dB} @ 6.0 \mathrm{GHz}$ | $1.0 \mathrm{~dB} @ 6.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |

*Typical performance at 5 mA

MNM4210 SERIES / PACKAGE DIMENSION


MNM4210 SERIES: TRANSFER/DUAL SWITCH*


## MNM4220: JUNCTION/DIVERSITY SWITCH*

| Isolation | Insertion Loss | VSWR | Power Handling |
| :---: | :---: | :---: | :---: |
| $40 \mathrm{~dB} @ 0.1 \mathrm{GHz}$ | $0.2 \mathrm{~dB} @ 0.1 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $30 \mathrm{~dB} @ 1.0 \mathrm{GHz}$ | $0.3 \mathrm{~dB} @ 1.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $25 \mathrm{~dB} @ 2.0 \mathrm{GHz}$ | $0.3 \mathrm{~dB} @ 2.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $15 \mathrm{~dB} @ 4.0 \mathrm{GHz}$ | $0.5 \mathrm{~dB} @ 4.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $15 \mathrm{~dB} @ 5.0 \mathrm{GHz}$ | $0.5 \mathrm{~dB} @ 5.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |
| $15 \mathrm{~dB} @ 6.0 \mathrm{GHz}$ | $1.0 \mathrm{~dB} @ 6.0 \mathrm{GHz}$ | $1.5: 1$ from 0.1 GHz to 6.0 GHz , all ports | 10 Watts CW incident power |

*Typical performance at 5 mA
Note: Above typical performance is for single junction configuration. Additional isolation improvement can be obtained by using a dual junction configuration


## NanoMount ${ }^{\text {TM }}$ Switches

Product Preview

## MNM4210 SERIES: JUNCTION/DIVERSITY SWITCH*



