

◆ Product Description

Micable SA-07-4B240430 is a high performance 4x4 butler matrix, covering the frequency of 24-43GHz. It can transfer the signal reciprocally from any of 4 ports to any of other 4 ports, with super phase accuracy, amplitude balance, very small insertion loss and high port to port isolation. The system comes housed in a compact, 144.8x101.6x16.5mm cavity. Because the high performance passive components and cables are used inside, the system has very stable, repeatable performance.

◆ Key Features

| Feature | Advantage |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Super phase accuracy | The system has typical 12° phase accuracy over optimized frequency range, it can be used as accurate phase feed network to realize ideal beamforming performance of phase array. |
| Excellent amplitude balance | The system has typical 0.9dB amplitude balance over optimized frequency range, it can help realize the ideal vector combination of the signal and beamforming. |
| Low insertion loss | The system has very low 12.4dB max insertion loss (including theoretical 6dB loss), it can help test system increase the dynamic range. |
| High port to port isolation | This can reduce the interference between the adjacent channel signals. |
| Low VSWR | Can better match the 50Ω system, reduce the reflection of the signal and energy loss. |
| High Power | Every port can accept the input signal with CW power of 5W, it is good for big signal measurement. |
| Excellent performance stability and repeatability | Maintain the consistent system performance, reduce the need of calibration. |

◆ Specifications

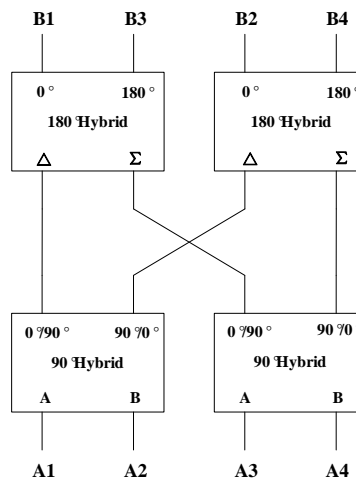
| Specifications | Unit | Limits |
|-----------------------------|-------------|--------|
| Frequency Range | GHz | 24-43 |
| VSWR for all RF ports | :1/(Max.) | 2 |
| Insertion Loss | dB/(Max.) | 12.4 |
| Amplitude Balance | dB/(Max.) | ±1.2 |
| Amplitude Flatness per path | dB/(Max.) | ±2 |
| Phase Accuracy | Deg./(Max.) | ±15 |
| Isolation | dB/(Min.) | 10 |

- **Average Power:** 5W Max (single Input-Port);
- **Connector:** 2.4mm[F];
- **Case Style:** 144.8x101.6x16.5mm;
- **Weight(max.):** 510g;
- **Finishing:** Nickel plating;
- **Temperature:** Operating: -40--+70°C; Storage: -55--+85°C

◆ Phase Table

| Input Output | A1 | A2 | A3 | A4 |
|-----------------|-----|-----|----|----|
| B1 | 0 | 90 | 0 | 90 |
| B2 | 90 | 0 | 90 | 0 |
| B3 | 180 | -90 | 0 | 90 |
| B4 | -90 | 180 | 90 | 0 |

◆ Schematic Diagram



◆ Outline Drawing

