Product Description

MIcable SA-07-16B025036 is a high performance 16x16 butler matrix, covering the frequency of 2.57-3.6GHz. It can transfer the signal reciprocally from any of 16 ports to any of other 16 ports, with super phase accuracy, amplitude balance, very small insertion loss and high port to port isolation. The system comes housed in a compact, 2U height, 19-inche rack-mountable chassis with all RF connections (SMA connectors) easily accessable on the front pannel. 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 4° 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 0.7dB 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 16dB max insertion loss (including theoretical 12dB loss), it can help test system get higher output signal power and 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

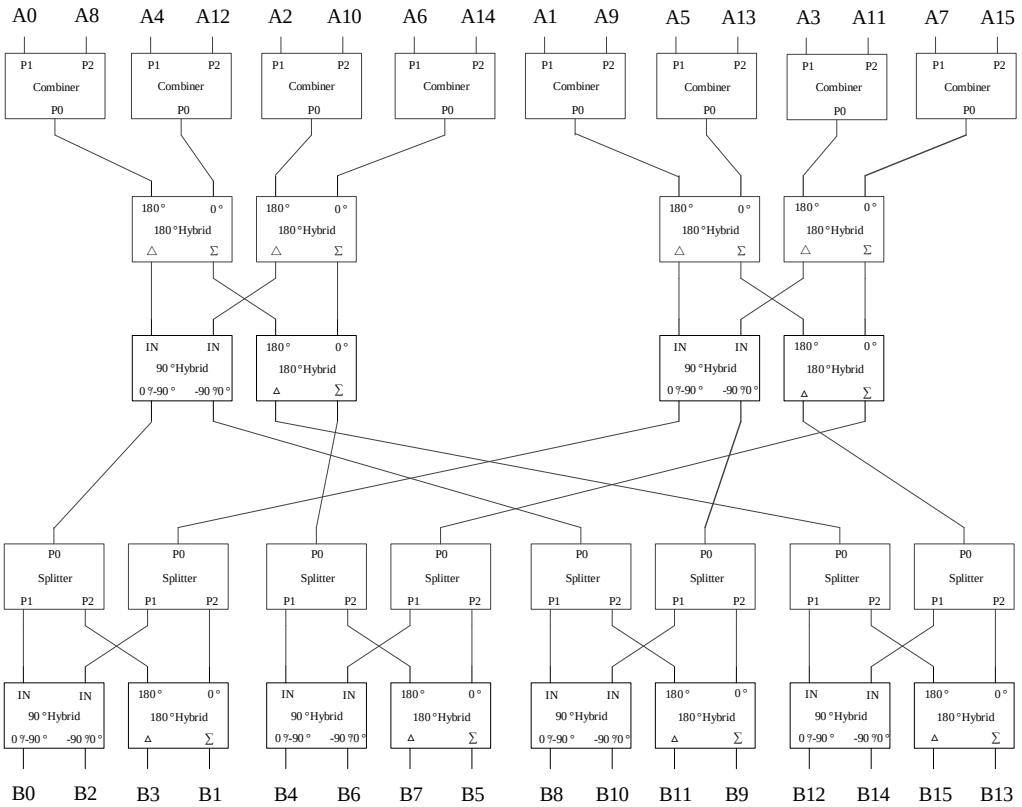
Frequency Range	GHz	2.57-3.6	2.57-2.62	3.4-3.6
VSWR for all RF ports	:1/(Max.)	1.5	1.4	1.5
Insertion Loss	dB/(Max.)	16	15.4	16
Amplitude Balance	dB/(Max.)	±0.9	±0.6	±0.7
Amplitude Flatness per path	dB/(Max.)	±1	±0.6	±0.7
Phase Accuracy	Deg./(Max.)	±6	±4	±4
Isolation	dB/(Min.)	13	14	13

- **Average Power:** 5W Max (single Input-Port);
- **Connector:** SMA[F];
- **Case Style:** 2U height, 19 inch rack-mountable chassis;
- **Weight(max.):** TBD;

Phase Table

Input / Output	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15
B0	90	0	0	-90	-90	180	180	90	90	0	0	-90	-90	180	180	90
B1	90	90	0	0	-90	-90	180	180	90	90	0	0	-90	-90	180	180
B2	0	90	-90	0	180	-90	90	180	0	90	-90	0	180	-90	90	180
B3	180	0	90	-90	0	180	-90	90	180	0	90	-90	0	180	-90	90
B4	0	-90	0	-90	0	-90	0	-90	0	-90	0	-90	0	-90	0	-90
B5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B6	-90	0	-90	0	-90	0	-90	0	-90	0	-90	0	-90	0	-90	0
B7	90	-90	90	-90	90	-90	90	-90	90	-90	90	-90	90	-90	90	-90
B8	0	-90	90	0	180	90	-90	180	0	-90	90	0	180	90	-90	180
B9	0	0	90	90	180	180	-90	-90	0	0	90	90	180	180	-90	-90
B10	-90	0	0	90	90	180	180	-90	-90	0	0	90	90	180	180	-90
B11	90	-90	180	0	-90	90	0	180	90	-90	180	0	-90	90	0	180
B12	90	0	-90	180	90	0	-90	180	90	0	-90	180	90	0	-90	180
B13	90	90	-90	-90	90	90	-90	-90	90	90	-90	-90	90	90	-90	-90
B14	0	90	180	-90	0	90	180	-90	0	90	180	-90	0	90	180	-90
B15	180	0	0	180	180	0	0	180	180	0	0	180	180	0	0	180

Schematic Diagram



Outline Drawing