8 BITS DIGITAL PHASE SHIFTER
MPS005020B8L

FEATURE:

- Optimized for fast switching speeds(down to 20 ns maximum)
- Optimized for lowest phase deviation over band
- RMS phase error≤3°typical
- Low insertion loss
- Power handing up to 30 dbm
- OIP3(typically 25 dbm)
- Hermetic sealing available

APPLICATION:

- Test equipment
- Radar&Warfare array system
- Communication system

ELECTRICAL SPECIFICATIONS@25˚C:

Parameter	Min	Typical	Max	Units
Frequency Range	0.5		2	GHz
Insertion Loss			13	dB
VSWR			1.7:1	Ratio
Switching Speed			500	nS
Phase accuracy			±10	°
Amplitude balance			±1	dB
Phase shift			360	°
Phase shift step size			1.4	°
Control Logic TTL Compatible		8		bits
Power handling			30	dBm
DC Power supply +5V		200		mA
DC Power supply -5V		200		mA

Note:1.Center frequency 1250MHz full frequency band: linearity. RF Input Power CW: +5dBm.
2.SMA Female Field Removable Connectors.

ENVIRONMENTAL RATINGS:

Parameter	Min	Typical	Max	Units
Operating Temperature	-45		+85	˚C
Non-operating Temperature	-45		+85	˚C
Relative humidity (non-condensing)		95		%
Altitude (MIL-STD-810F)	1000		30000	feet
Shock / Vibration (MIL-STD-810F)		Airbone		

DB15-MALE:

PIN1	PIN2	PIN3	PIN4	PIN5	PIN6	PIN7	PIN8	PIN9	PIN10	PIN11	PIN12	PIN13	PIN14	PIN15
C1	C2	C3	C4	C5	C6	C7	C8	GND	+5V	+5V	-5V	-5V	GND	GND

Meuro Microwave Corp. A#15F No.58 Shuxi Rd Jingcheng International Plaza,Chengdu, 610036 Tel: (028)8500 4482 Fax: (028)8500 4481
sales@meurorf.com www.meurorf.com

8 BITS DIGITAL PHASE SHIFTER
MPS005020B8L

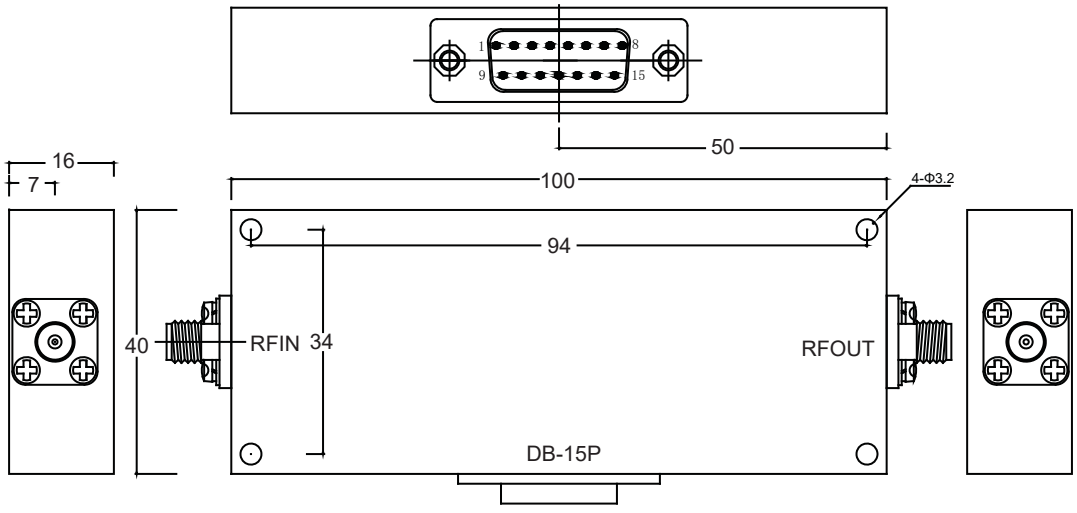
MECHANICAL SPECIFICATIONS:

Parameter	Value	Limits	Units
Dimensions	100*40*10	Max	Millimeter
Weight	160	typical	gram
RF Connectors Input	SMA-F		
RF Connectors output	SMA-F		
DC/Logic interface	DB15 female		
Impedance	50		ohms

CONTROL TRUE TABLE:

Control bits	Phase shift							
C8C7C6C5C4C3C2C1	1.4	2.8	5.625	11.25	22.5	45	90	180
00000001	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
00000010	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
00000100	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
00001000	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
00010000	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
00100000	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
01000000	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
10000000	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON

OUTLINE DRAWING(mm):



Meuro Microwave Corp. A#15F No.58 Shuxi Rd Jingcheng International Plaza,Chengdu, 610036 Tel: (028)8500 4482 Fax: (028)8500 4481
sales@meurorf.com www.meurorf.com

8 BITS DIGITAL PHASE SHIFTER
MPS005020B8L

TEST DATA:

Item / STD phase shift（°）		Input VSWR S11 (max)	Output VSWR S22 (max)	IL（-dB）			phase（°）
				0.5GHz	1.25GHz	2GHz	1.25GHz
-45 ℃	0	1.55	1.57	3.6	3.9	4.7	67.8
	-1.40625	1.57	1.57	3.7	3.9	4.8	-1.39
	-2.8125	1.55	1.55	3.6	3.8	4.8	-2.6
	-5.625	1.56	1.56	3.7	3.9	4.9	-5.8
	-11.25	1.54	1.56	3.7	3.9	4.8	-11.3
	-22.5	1.48	1.49	3.6	4.0	4.9	-22.6
	-45	1.46	1.44	3.5	4.0	5.0	-45.4
	-90	1.44	1.32	3.4	4.0	5.0	-90.4
	-180	1.48	1.65	4.1	4.1	5.0	179.9
70 ℃	0	1.62	1.62	3.9	4.1	5.1	70
	1.40625	1.63	1.64	3.9	4.1	5.3	-1.6
	-2.8125	1.63	1.60	3.9	4.1	5.3	-2.7
	-5.625	1.64	1.62	3.9	4.1	5.4	-5.8
	-11.25	1.62	1.62	3.9	4.2	5.3	-11.35
	-22.5	1.56	1.56	3.8	4.2	5.3	-22.8
	-45	1.46	1.49	3.7	4.2	5.4	45.0
	-90	1.45	1.42	3.7	4.4	5.5	90.0
	-180	1.65	1.66	4.2	4.3	5.4	-179.9
25 ℃	0	1.60	1.61	3.8	4.0	5.1	70.9
	1.40625	1.61	1.62	3.8	4.0	5.0	-1.5
	-2.8125	1.58	1.60	3.8	4.0	5.0	-2.5
	-5.625	1.59	1.61	3.8	4.9	5.1	-5.7
	-11.25	1.60	1.60	3.8	4.0	5.1	-11.3
	-22.5	1.52	1.53	3.7	4.0	5.1	-22.7
	-45	1.46	1.44	3.6	4.0	5.1	-45.0
	-90	1.35	1.44	3.6	4.2	5.2	-90.4
	-180	1.65	1.55	4.1	4.2	5.2	179.8

Meuro Microwave Corp. A#15F No.58 Shuxi Rd Jingcheng International Plaza,Chengdu, 610036 Tel: (028)8500 4482 Fax: (028)8500 4481
sales@meurorf.com www.meurorf.com