



Controlled Logic Table									
Bits	Pin-1	Pin-2	Pin-3	Pin-4	Pin-5	Pin-6	Pin-7	Pin-8	Phase Degree
--	1	1	1	1	1	1	1	1	Ref=0
1	0	1	1	1	1	1	1	1	-1.4
2	1	0	1	1	1	1	1	1	-2.8
3	1	1	0	1	1	1	1	1	-5.6
4	1	1	1	0	1	1	1	1	-11.2
5	1	1	1	1	0	1	1	1	-22.5
6	1	1	1	1	1	0	1	1	-45
7	1	1	1	1	1	1	0	1	-90
8	1	1	1	1	1	1	1	0	-180
Total Phase= 360-LSB= 360-1.4 degree									-358.6

DB15 Connector Pin Control Configuration		
Pin-1 TTL= Low Phase= -1.4	Pin-9	No Connection
Pin-2 TTL= Low Phase= -2.8	Pin-10	No Connection
Pin-3 TTL= Low Phase= -5.6	Pin-11	No Connection
Pin-4 TTL= Low Phase= -11.2	Pin-12	No Connection
Pin-5 TTL= Low Phase= -22.5	Pin-13	+5 Vdc
Pin-6 TTL= Low Phase= -45	Pin-14	-5 Vdc
Pin-7 TTL= Low Phase= -90	Pin-15	Ground
Pin-8 TTL= Low Phase= -180		

Electrical Specifications:

Frequency Center: $F_c = 50 \pm 10\%$ Mhz
 Insertion Loss: 5.0 dB Max
 Amplitude Balance: ± 1.0 dB Typ
 Phase Shift: 360-LSB degree Min
 VSWR In / Out: 1.90:1 Max
 Switching Speed: 500 nsec Typ
 Control Voltage TTL: 8 Bits Low= 0-0.8V High= 2-5V
 Supply Voltages: $+5V \pm 10\%$ | $-5V \pm 10\%$
 Input Power: +30 dBm Max
 Operating Temperature: $-45^\circ\text{C} - +85^\circ\text{C}$
 Connectors In / Out: SMA Female
 Connectors Control: DB15-Male
 Note: Phase for every bit is tuned to $\pm 2\%$ degree of bit phase at F_c .

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SFD50D10

Digital Phase Shifter

Dimensions are in inches and (mm)
 Decimal Tolerance:
 2 place ± 0.020
 3 place ± 0.010

CAGE CODE :
69UC1

Rev.

A

Notes: All dimensions are typical unless they are specified.
 Specifications are subject to change at any time without any notice.
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