



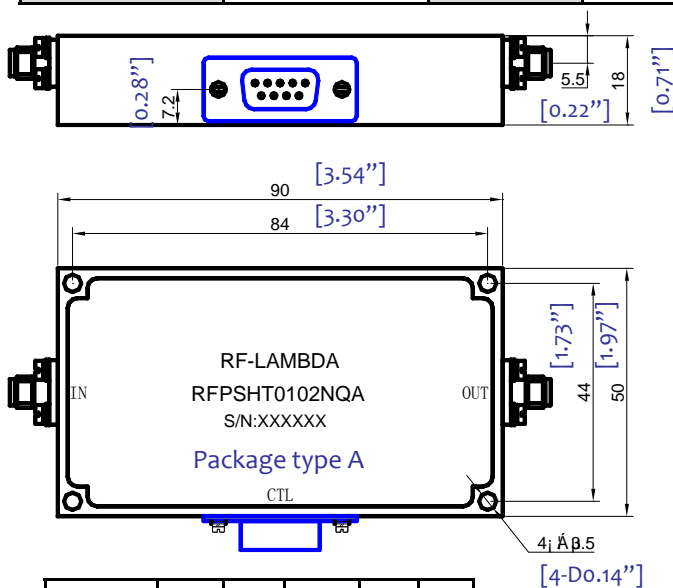
2-4GHz Digital 4/5/6 Bits 360° Step Phase Shifter



Features

- Wide Band Operation up to 15% wide bandwidth.
- High linearity up to 5W upon request.
- TTL compatible driver include
- Fast Switching Speed
- Flat phase shifting response, low phase error.
- Low Insertion Loss and High Isolation
- Temperature Range -40°C~+85°C
- Customization available upon request

360° Digital Phase Shifter 4/5/6 bits (Wide Band Absorptive)								
Part Number	Center Frequency (GHz)	Bandwidth	Insertion Loss (dB)	VSWR	Power	Step	Phase Range	Phase Slope
RFPSHT0204N4	2-4GHz	FULL	3.0dB	2.00	10dBm	22.5°	360°	±5.6°
RFPSHT0204N5	2-4GHz	FULL	3.5dB	2.00	10dBm	11.25°	360°	±5.6°
RFPSHT0204N6	2-4GHz	FULL	4.0dB	2.00	10dBm	5.625°	360°	±5.6°
360° Digital Phase Shifter 4/5/6 bits (Narrow Band Reflective)								
Part Number	Center Frequency (GHz)	Bandwidth	Insertion Loss (dB)	VSWR	Power	Step	Phase Range	Phase Slope
RFPSHT0102D4	2-4GHz	15%	2.2dB	1.40	10dBm	22.5°	360°	±2.0°
RFPSHT0102D5	2-4GHz	15%	2.8dB	1.40	10dBm	11.25°	360°	±2.0°
RFPSHT0102D6	2-4GHz	15%	3.2dB	1.40	10dBm	5.625°	360°	±2.0°



T1	T2	T3	T4	T5	Phase(°)
0	0	0	0	0	Zero
1	0	0	0	0	-11.25
0	1	0	0	0	-22.5
0	0	1	0	0	-45
0	0	0	1	0	-90
0	0	0	0	1	-180
1	1	1	1	1	-348.75

1 for High Voltage, 0 for Low Voltage

Electrical Operation

DC Biasing: +5.0V (50mA max.)
-5.0V (200mA max.)

Mechanical Specification

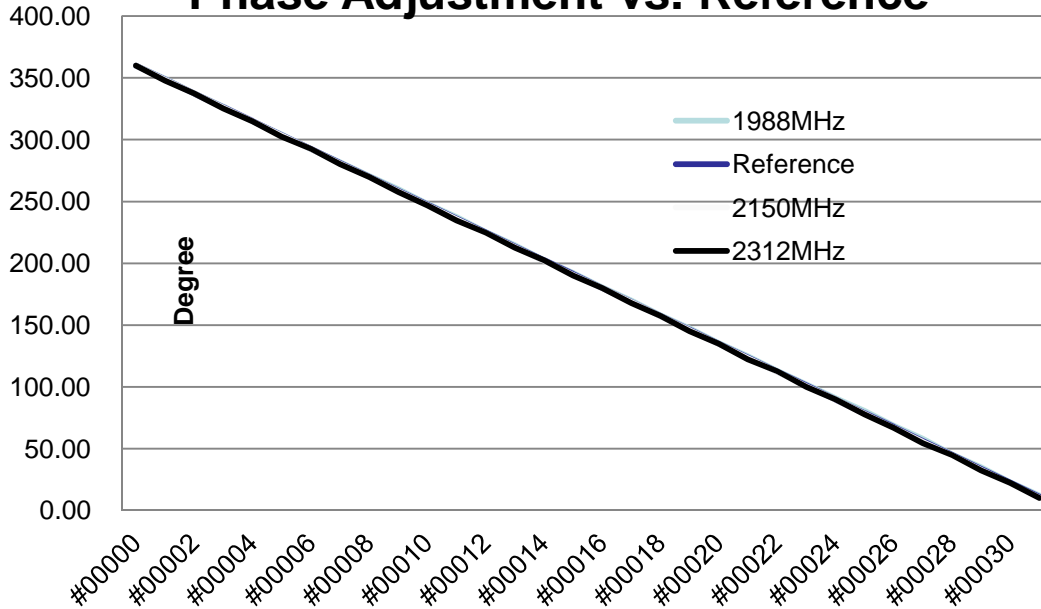
Finishing: Gold plating for brass material
Other finishing available
Connector: SMA-F Per MIL-C-39012
Control PIN: 0.02" dia x 0.15" solder pins
Weight: 155 grams max.
Mounting: (4) 0.14" dia through holes

PIN	1	2	3	4	5
Function	T1	T2	T3	T4	T5
PIN	6	7	8	9	
Function	+5V	-5V	GND	NC	



Sample performance Non-Dispersive (tuned to 1.989-2.312MHz) 0~360 degree switching data

Phase Adjustment vs. Reference



Status		VSWR \leq 1.4		Insertion Los 2.0(dB)			Phase($^{\circ}$)			Phase Slop cross entire band \pm 2 $^{\circ}$ (typ)		
		Input	output	1988MHz	2150MHz	2312MHz	1988MHz	2150MHz	2312MHz	1988MHz	2150MHz	2312MHz
#00000	360	1.21	1.24	-1.57	-1.68	-1.89	360.00	360.00	360.00			
#00001	348.75	1.29	1.25	-1.62	-1.69	-1.90	349.23	348.57	347.72	0.48	-0.18	-1.03
#00002	337.5	1.28	1.13	-1.59	-1.67	-1.89	337.47	337.34	337.45	-0.03	-0.16	-0.05
#00003	326.25	1.31	1.23	-1.64	-1.67	-1.87	326.75	325.88	325.12	0.50	-0.37	-1.13
#00004	315	1.22	1.23	-1.59	-1.64	-1.80	314.94	314.85	314.87	-0.06	-0.15	-0.13
#00005	303.75	1.32	1.21	-1.62	-1.65	-1.83	304.28	303.36	302.36	0.52	-0.39	-1.39
#00006	292.5	1.23	1.18	-1.57	-1.63	-1.77	292.37	292.27	292.60	-0.13	-0.23	0.10
#00007	281.25	1.28	1.24	-1.59	-1.64	-1.78	281.64	280.78	280.16	0.39	-0.47	-1.10
#00008	270	1.19	1.32	-1.62	-1.68	-1.80	270.68	269.69	269.93	0.68	-0.31	-0.07
#00009	258.75	1.17	1.32	-1.62	-1.69	-1.81	260.05	258.26	257.62	1.30	-0.49	-1.13
#00010	247.5	1.23	1.25	-1.61	-1.67	-1.80	248.19	246.98	246.88	0.69	-0.52	-0.62
#00011	236.25	1.21	1.31	-1.61	-1.68	-1.81	237.56	235.56	234.58	1.31	-0.69	-1.67
#00012	225	1.26	1.21	-1.59	-1.64	-1.79	225.24	224.56	224.85	0.24	-0.44	-0.15
#00013	213.75	1.26	1.17	-1.60	-1.65	-1.80	214.66	213.10	212.54	0.91	-0.65	-1.21
#00014	202.5	1.09	1.25	-1.60	-1.64	-1.73	202.63	201.97	202.42	0.13	-0.53	-0.08
#00015	191.25	1.09	1.21	-1.60	-1.65	-1.74	192.05	190.53	190.12	0.80	-0.72	-1.13
#00016	180	1.24	1.20	-1.56	-1.69	-1.86	180.62	180.04	180.07	0.62	0.04	0.07
#00017	168.75	1.27	1.22	-1.60	-1.71	-1.87	169.81	168.60	167.74	1.06	-0.15	-1.01
#00018	157.5	1.24	1.30	-1.57	-1.65	-1.84	158.05	157.25	157.34	0.55	-0.25	-0.16
#00019	146.25	1.20	1.22	-1.61	-1.67	-1.83	147.31	145.79	144.97	1.06	-0.46	-1.28
#00020	135	1.25	1.25	-1.58	-1.65	-1.80	135.40	134.72	134.89	0.40	-0.28	-0.12
#00021	123.75	1.28	1.26	-1.60	-1.67	-1.82	124.73	123.25	122.34	0.98	-0.50	-1.41
#00022	112.5	1.21	1.21	-1.57	-1.64	-1.76	112.86	112.09	112.56	0.36	-0.42	0.06
#00023	101.25	1.21	1.21	-1.58	-1.66	-1.77	102.13	100.60	100.09	0.88	-0.65	-1.16
#00024	90	1.20	1.32	-1.62	-1.69	-1.79	91.04	89.78	90.01	1.04	-0.22	0.01
#00025	78.75	1.16	1.31	-1.62	-1.70	-1.80	80.45	78.33	77.70	1.70	-0.42	-1.05
#00026	67.5	1.19	1.33	-1.61	-1.66	-1.78	68.53	66.94	66.75	1.03	-0.56	-0.75
#00027	56.25	1.16	1.28	-1.61	-1.67	-1.78	57.93	55.51	54.46	1.68	-0.74	-1.79
#00028	45	1.20	1.21	-1.60	-1.66	-1.81	45.47	44.49	44.85	0.47	-0.51	-0.15
#00029	33.75	1.20	1.18	-1.60	-1.67	-1.81	34.93	33.02	32.54	1.18	-0.73	-1.21
#00030	22.5	1.10	1.25	-1.61	-1.65	-1.74	22.90	21.84	22.36	0.40	-0.66	-0.14
#00031	11.25	1.13	1.22	-1.61	-1.66	-1.75	12.35	10.37	10.05	1.10	-0.88	-1.20

2-4GHz Digital Step 360° 4/5/6 5 Bits Phase Shifter



RF-LAMBDA

The power beyond expectations

RFPSHT0204XX

2-4GHz Digital Step 360° 4/5/6 5 Bits Phase Shifter

