

SH-SYD-20-33



50Ω, 30 to 3000 MHz

FEATURES

- Wideband, 30-3000 MHz
- Low mainline loss, 1.6 dB typ.
- Excellent VSWR, 1.15:1 typ; all ports
- Good flatness, ± 0.6 dB typ.

APPLICATIONS

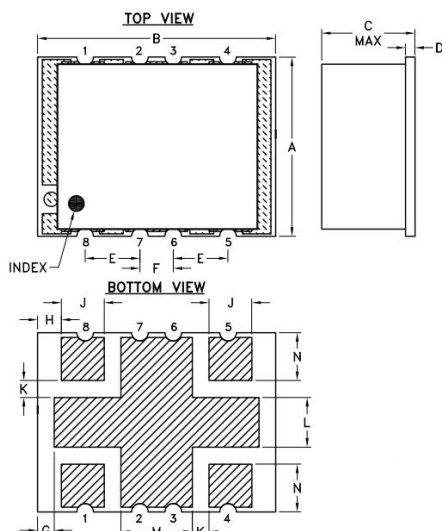
- VHF/UHF receivers/transmitters
- Cellular, PCS, PCN, UMTS

ELECTRICAL SPECIFICATIONS AT 25°C

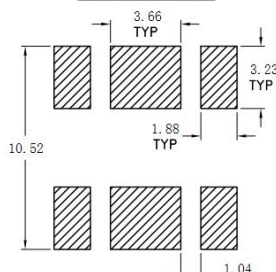
Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		30		3000	MHz
Mainline Loss ¹	30-3000	-	1.6	2.5	dB
	800-1000	-	1.1	1.5	
	1700-2000	-	1.3	1.8	
	2300-2700	-	1.5	2.1	
Coupling Nominal	30-3000	-	20.8 $\pm$ 0.8	-	dB
	800-1000	-	21.5 $\pm$ 0.5	-	
	1700-2000	-	21.1 $\pm$ 0.6	-	
	2300-2700	-	20.8 $\pm$ 0.7	-	
Coupling Flatness($\pm$)	30-3000	-	1.4	-	dB
	800-1000	-	0.3	-	
	1700-2000	-	0.5	-	
	2300-2700	-	0.5	-	
Directivity	30-3000	9	15	-	dB
	800-1000	14	17	-	
	1700-2000	15	20	-	
	2300-2700	11	16	-	
VSWR	30-3000	-	1.20	-	:1
	800-1000	-	1.10	-	
	1700-2000	-	1.15	-	
	2300-2700	-	1.20	-	
Input Power	30-3000	-	-	1	W

1. Mainline loss includes theoretical power loss at coupled port.

OUTLINE DRAWING



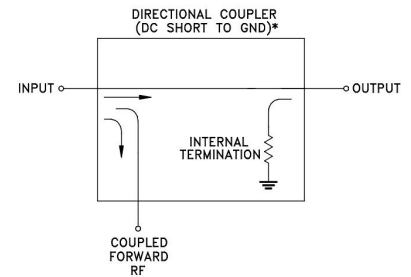
PCB Land Pattern

Suggested Layout,
Tolerance to be within ± 0.05

OUTLINE DIMENSIONS, Unit(mm)

A	9.65	H	1.27
B	12.7	L	2.29
C	6.35	K	1.02
D	0.51	L	2.67
E	2.92	M	3.56
F	1.78	N	2.41
G	0.89		
WT	0.8G		

ELECTRICAL SCHEMATIC



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

PAD CONNECTIONS

INPUT	8
OUTPUT	1
COUPLED	5
GROUND	2, 3, 4, 6, 7

MAXIMUM RATINGS

Parameter	Ratings
Operating temperature	-40°C-85°C
Storage temperature	-50°C-100°C

Permanent damage may occur if any of these limits are exceeded.

TYPICAL PERFORMANCE CURVES

