

# Power Splitter/Combiner

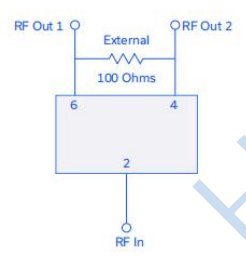
## Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- good phase unbalance, 2.0 deg. typ.
- high isolation, 24 dB typ.
- excellent power handling, 20W as splitter
- small size, 0.12"×0.06"×0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost

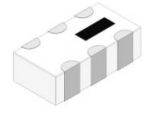
## Applications

- PCS
- DCS
- UMTS

### ELECTRICAL SCHEMATIC



## HT-SCN-2-22+



2 Way-0° 50Ω 1850 to 2200 MHz

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Frequency Range		1850		2200	MHz
Insertion Loss, above 3.0 dB	1850-2200 1900-2100		0.5 0.5	0.9 0.9	dB
Isolation	1850-2200 1900-2100	17 20	22 24		dB
Phase Unbalance	1850-2200 1900-2100		2.0 2.0	5.0 5.0	Degree
Amplitude Unbalance	1850-2200 1900-2100		0.25 0.2	0.4 0.4	dB
Return Loss (Input)	1850-2200 1900-2100		16 16		dB
Return Loss (Output)	1850-2200 1900-2100		19 19		dB

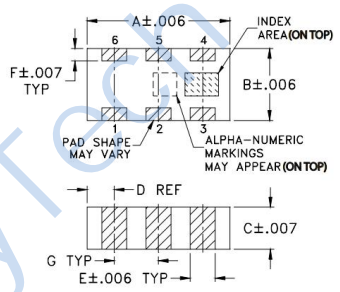
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	20W* max

\*Derate linearly to 6W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

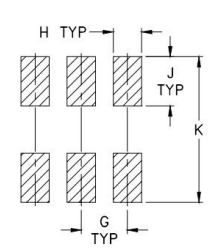
SUM PORT	2
PORT 1	6
PORT 2	4
GROUND	1,3,5
PORT 1-2	resistor external 100 OHMS

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)	
	S-1	S-2				1	2
1850.00	3.38	3.38	0.00	26.59	1.79	15.38	19.40
1880.00	3.41	3.39	0.02	28.23	1.77	15.56	19.08
1900.00	3.36	3.35	0.01	29.36	1.82	15.75	19.08
1930.00	3.40	3.37	0.03	30.97	1.80	16.13	18.78
1950.00	3.40	3.36	0.04	31.63	1.84	16.33	18.78
1980.00	3.39	3.35	0.04	31.70	1.82	16.54	18.78
2000.00	3.40	3.35	0.06	30.96	1.82	16.75	18.78
2030.00	3.37	3.32	0.05	29.22	2.01	16.98	18.49
2050.00	3.42	3.35	0.07	28.07	1.96	17.21	18.49
2080.00	3.41	3.32	0.09	26.32	1.82	17.42	18.49
2100.00	3.38	3.28	0.10	25.17	2.05	17.69	18.49
2130.00	3.47	3.37	0.09	23.83	1.97	17.95	18.49
2150.00	3.44	3.32	0.12	22.91	1.93	17.95	18.49
2180.00	3.40	3.28	0.12	21.63	2.11	18.22	18.49
2200.00	3.49	3.37	0.12	20.99	2.02	18.22	18.49

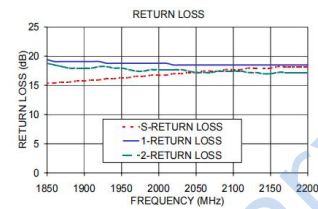
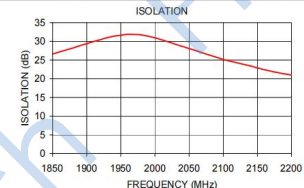
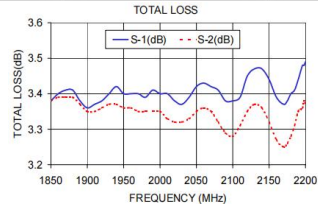
## Outline Drawing



## PCB Land Pattern



A	3.20	B	1.60	C	0.89
D	0.61	E	0.56	F	0.28
G	0.99	H	0.61	J	1.07
K	3.12	wt			0.02g



## Suggested PCB Layout

