

26. FREQUENCY DOUBLERS–SMD Package

(GND Pins, Case grounded internally.)

Model Name	Input Frequency (Hz)	Output Frequency (Hz)	Input Power nom(dBm)	Conversion Loss (dB)		Suprious Supression Retio(dBc)						Page
						Fundamental		3rd-Harmonics		4th-Harmonics		
				Typ	Max	Typ	Min	Typ	Min	Typ	Min	
DBL010	100k– 300M	200k– 600M	+10	10.5	14.0	35.0	20.0	35.0	25.0	16.0	12.0	
DBL020	1M– 500M	2M–1000M	+10	11.0	15.0	35.0	15.0	35.0	25.0	16.0	12.0	
DBL030	10M–1500M	20M–3000M	+10	11.0	16.0	30.0	13.0	35.0	20.0	14.0	10.0	

27. FREQUENCY DOUBLERS–8pins Package

(GND Pins, Case grounded internally.)

DBL500	100k– 250M	200k– 500M	+10	10.5	14.0	30.0	20.0	30.0	20.0	18.0	12.0	
DBL510	1M– 500M	2M–1000M	+10	12.0	15.0	25.0	18.0	30.0	25.0	14.0	12.0	
DBL520	1M–1500M	2M–3000M	+10	12.0	16.0	20.0	10.0	30.0	20.0	16.0	12.0	

28. BALUN TRANSFORMERS–SMD Package

(GND Pins, Not Case grounded internally.)

Model Name	Frequency Range (Hz)	Power Rating max(W)	Impedance RATIO nom	Insertion Loss (dB)		Amplitude Balance Max(dB)	Phase Balance Max(dB)	Impedance nom (Ω)	VSWR typ (dBm)	Page
				Typ	Max					
TBL010	100k– 500M	0.25	2:1	1.0	3.0	1.0	6.0	50.0	1.5	
TBL020	3M– 800M	0.25	4:1	1.5	3.0	1.0	6.0	50.0	1.8	
TBL030	5M–1000M	0.25	1.3:1	3.0	4.0	0.5	8.0	50.0	2.5	

29. BALUN TRANSFORMERS–8pins Package

(GND Pins, Case grounded internally.)

Model Name	Frequency Range (Hz)	Power Rating max(W)	Impedance RATIO nom(Ω)	Insertion Loss (dB)		Amplitude Balance Max(dB)	Impedance nom (Ω)	VSWR typ (dBm)	Page
				Typ	Max				
TBL500	5M– 700M	1	50– 50	1.0	1.5	0.25	50	1.2	
TBL510	100k– 500M	1	50–200	2.1	3.0	0.9	50	1.4	
TBL520	5M– 700M	1	50–200	2.0	4.0	0.9	50	1.7	

30. 180° HYBRID JUNCTIONS–SMD Package

(GND Pins, Case grounded internally.)

Model Name	Frequency Range (Hz)	Power Rating max(W)	Insertion Loss (dB)		Phase Balance Max(deg)	Amplitude Balance Max(dB)	Isolation min (dB)	Impedance nom (Ω)	VSWR typ (dBm)	Page
			Center Typ	Total Max						
HYB010	0.5M– 200M	1	0.4	2.0	±4.0	0.9	15.0	50	1.3	
HYB020	5M– 500M	1	1.0	3.0	±7.0	0.9	13.0	50	1.4	
HYB030	50M–1000M	1	2.0	4.0	±8.0	0.9	11.0	50	1.4	

31. 180° HYBRID JUNCTIONS–8pins Package

(GND Pins, Case grounded internally.)

Model Name	Frequency Range (Hz)	Power Rating max(W)	Insertion Loss (dB)		Phase Balance Max(deg)	Amplitude Balance Max(dB)	Isolation min (dB)	Impedance nom (Ω)	VSWR typ (dBm)	Page
			Typ	Max						
HYB500	100k– 150M	1	0.5	2.0	±3.0	0.9	18.0	50	1.3	
HYB510	1M– 500M	1	2.5	3.5	±5.0	0.9	18.0	50	1.3	