

IN-PHASE 4-WAY

DIVIDERS/COMBINERS, POWER

With SMA or N Connectors 0.5-18 GHz

**SERIES YF
MODEL D418M**

GENERAL INFORMATION:

KDI/Triangle Four-way Stripline in phase power dividers have excellent phase and amplitude balance. The internal resistive element is a ceramic pad and can, therefore, handle relatively high values of CW and peak power. Series YF is of Stripline construction, thereby ensuring excellent electrical and environmental performance.

GENERAL SPECIFICATIONS:

- Frequency Range:** 0.5-18.0 GHz
- RF Impedance:** 50 OHMS
- RF Power:** The power handling capability for load VSWR's less than 1.50 is 1 watt CW and 1 kW peak for frequencies up to 2.0 GHz, and 400 mW CW and 0.4 kW peak for frequencies from 2.0 GHz to 18.0 GHz.
- Temp. Information:** Operating temperature from -55°C to +85°C
- Environment:** MIL-E-5400, MIL-STD-202, MIL-E-16400, MIL-STD-883, (Special request only).
- Connectors:** SMA or N standard, others on request.

Notes:

1. If the frequency band of interest is narrower than that listed, it should be indicated when ordering. Performance will be optimized over the band of interest and improved delivery may be provided. A special part number may be assigned.
2. If type N connectors are required, add N to the model number. i.e.; YF-23, with type N connectors, is ordered as YF-23N.
3. Model YF-49, YF-56, YF-57, YF-60 and D418M are not available with type N connectors.

ELECTRICAL PERFORMANCE

OCTAVE BANDS								
Model No.	Frequency Range GHz	Max.* In/Out VSWR	Max. Insertion Loss dB	Min.* Isolation dB	Phase Balance Degrees	Amplitude Balance dB	Out-line SMA	Out-line N
YF-23	0.5-1.0	1.25/1.20	0.4	22	3	0.3	6	3
YF-25	0.75-1.5	1.25/1.20	0.4	21	3	0.3	7	4
YF-28	1.0-2.0	1.30/1.20	0.4	21	3	0.3	5	3
YF-30	1.5-3.0	1.30/1.20	0.5	20	3	0.3	8	3
YF-38	2.0-4.0	1.30/1.20	0.6	20	3	0.3	4	3
YF-45	4.0-8.0	1.40/1.30	0.8	18	5	0.5	4	1
YF-46	7.0-14.0	1.50/1.40	1.0	18	7	0.6	8	3
YF-49	9.0-18.0	1.70/1.50	1.3	15	8	0.7	8	NOTE 3
MULTI-OCTAVE BANDS								
YF-51	0.5-2.0	1.40/1.30	0.7	22	4	0.4	7	4
YF-54	1.0-4.0	1.45/1.35	0.7	20	4	0.4	10	5
YF-55	2.0-8.0	1.50/1.40	0.8	18	5	0.5	6	2
YF-56	6.0-18.0	1.70/1.50	1.5	14	10	0.7	8	NOTE 3
YF-57	2.0-18.0	1.70/1.50	2.0	14	10	0.7	9	NOTE 3
POPULAR & COMMUNICATION BANDS								
YF-33	0.95-1.3	1.25/1.20	0.4	21	3	0.1	3	2
YF-35	1.7-2.4	1.30/1.25	0.5	21	3	0.2	3	2
YF-37	3.7-4.3	1.30/1.25	0.5	21	3	0.2	2	4
YF-42	5.7-6.5	1.30/1.25	0.6	20	3	0.2	2	1
YF-48	7.1-7.7	1.35/1.30	0.6	20	4	0.2	2	1
YF-53	8.0-12.4	1.40/1.35	0.8	18	4	0.3	8	3
YF-59	12.0-18.0	1.60/1.50	1.3	17	10	0.5	8	NOTE 3
YF-60	14.0-16.0	1.45/1.40	1.2	17	6	0.4	8	NOTE 3
D418M	1.0-1.5	1.80/1.35	0.7	10	1	0.2	11	NOTE 3
	1.5-2.0	1.80/1.35	0.8	14	2	0.2		
	2.0-4.0	1.80/1.45	1.0	17	4	0.3		
	4.0-8.0	1.80/1.45	1.2	17	6	0.4		
	8.0-12.0	1.70/1.45	1.4	17	10	0.5		
	12.0-16.0	1.70/1.45	1.8	15	13	0.6		
	16.0-18.0	1.80/1.45	2.0	12	15	0.6		

*UNITS WITH TYPE N CONNECTORS: Up to 4.0 GHz multiply VSWR's by 1.05 and subtract 2.0dB from isolation. Above 4.0 GHz multiply VSWR's by 1.10, and subtract 3.0dB from isolation.

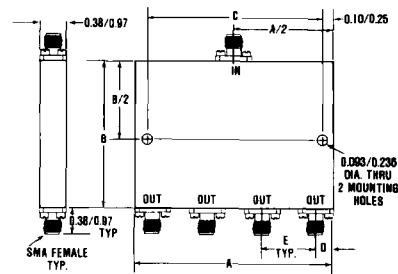


FIGURE 1
SERIES YF

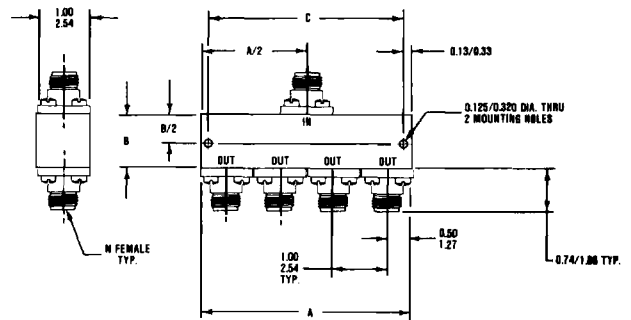


FIGURE 2
SERIES YF-N

**MECHANICAL OUTLINES—FIGURE 1
SMA CONNECTOR SERIES YF**

Outline	A Inches cm.	B Inches cm.	C Inches cm.	D Inches cm.	E Inches cm.
1	1.60	0.75	1.400	0.20	0.40
	4.06	1.92	3.556	0.51	1.02
2	1.60	1.00	1.400	0.20	0.40
	4.06	2.54	3.556	0.51	1.02
3	2.00	2.00	1.800	0.25	0.50
	5.08	5.08	4.572	0.51	1.27
4	1.60	1.50	1.400	0.20	0.40
	4.06	3.81	3.556	0.51	1.02
5	2.00	1.75	1.800	0.25	0.50
	5.08	4.45	4.572	0.64	1.27
6	2.00	2.25	1.800	0.25	0.50
	5.08	5.72	4.572	0.64	1.27
7	2.60	2.75	2.400	0.25	0.70
	6.60	6.99	6.096	0.64	1.78
8	1.60	1.75	1.400	0.20	0.40
	4.06	4.45	3.556	0.51	1.02
9	1.60	2.90	1.400	0.20	0.40
	4.06	7.37	3.556	0.51	1.02
10	1.60	2.00	1.400	0.20	0.40
	4.06	5.08	3.556	0.51	1.02
11	Drawing on Request				

Inches/Centimeters ±.03 x ±.010/ ±.08 x ±.025

**MECHANICAL OUTLINES—FIGURE 4
N CONNECTOR SERIES YF-N**

Outline	A Inches cm.	B Inches cm.	C Inches cm.
1	4.00	1.00	3.750
	10.16	2.54	9.530
2	4.00	2.00	3.750
	10.16	5.08	9.530
3	4.00	1.75	3.750
	10.16	4.45	9.530
4	4.00	2.75	3.750
	10.16	6.99	9.530
5	4.00	1.25	3.750
	10.16	3.18	9.530

Inches/Centimeters ±.03 x ±.010/ ±.08 x ±.025