

DIVIDERS/COMBINERS, POWER

SERIES YF MODEL D418M

GENERAL SPECIFICATIONS

| | |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range: | 0.5 to 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. |
| Operating Temperature: | -55°C to +85°C |
| Connectors: | SMA or Type N Female |

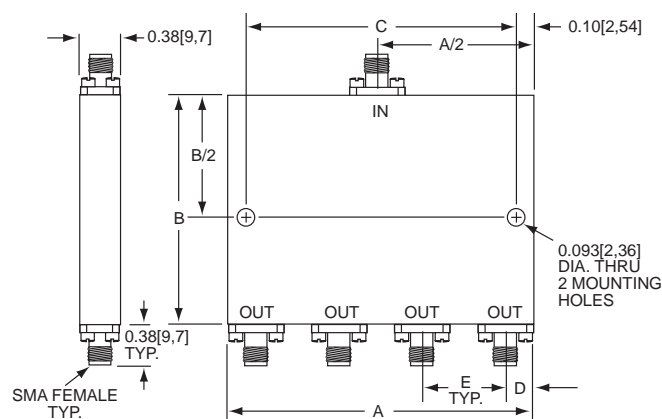


FIGURE 1 SERIES YF

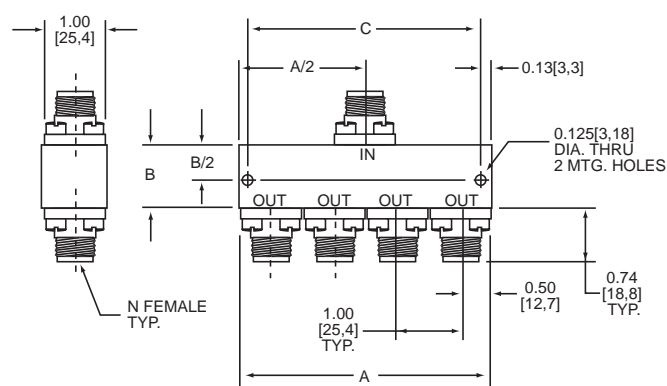


FIGURE 2 SERIES YF-N

| Out-line | A in [mm] | B in [mm] | C in [mm] | D in [mm] | E in [mm] |
|----------|--------------------|----------------|------------------|---------------|----------------|
| 1 | 2.00 [50,8] | 2.25 [57,2] | 1.800 [45,72] | 0.25 [6,4] | 0.50 [12,7] |
| 2 | 2.60 [66,0] | 2.75 [69,9] | 2.400 [60,96] | 0.25 [6,4] | 0.70 [17,8] |
| 3 | 2.00 [50,8] | 1.75 [44,5] | 1.800 [45,72] | 0.25 [6,4] | 0.50 [12,7] |
| 4 | 1.60 [40,6] | 2.00 [50,8] | 1.400 [35,56] | 0.20 [5,1] | 0.40 [10,2] |
| 5 | 3.20 [81,3] | 2.50 [63,5] | 3.000 [76,2] | 0.20 [5,1] | 0.40 [10,2] |
| 6 | 1.60 [40,6] | 1.50 [38,1] | 1.400 [35,56] | 0.20 [5,1] | 0.40 [10,2] |
| 7 | 4.00 [101,6] | 1.75 [44,5] | 3.750 [95,25] | — | — |
| 8 | 4.00 [101,6] | 2.75 [69,9] | 3.750 [95,25] | — | — |
| 9 | 4.00 [101,6] | 1.25 [31,8] | 3.750 [95,25] | — | — |
| 10 | 4.00 [101,6] | 2.00 [50,8] | 3.750 [95,25] | — | — |
| 11 | 4.00 [101,6] | 1.00 [25,4] | 3.750 [95,25] | — | — |
| 12 | Drawing on Request | | | | |

ELECTRICAL PERFORMANCE

4 WAY TYPE

| Model No. | Type * | Frequency Range | Maximum In/Out | Maximum Insertion | Minimum Isolation | Phase Balance | Amplitude Balance | Out-line | Out-line |
|-----------|--------|-----------------|----------------|-------------------|-------------------|---------------|-------------------|----------|----------|
| SMA | N | GHz | VSWR | Loss dB | dB | Degrees | dB | SMA | N |
| YF-23 | YF-23N | 0.5-1.0 | 1.25/1.20 | 0.5 | 20 | 3 | 0.3 | 1 | 7 |
| YF-25 | YF-25N | 0.75-1.5 | 1.25/1.20 | 0.5 | 20 | 3 | 0.3 | 2 | 8 |
| YF-51 | YF-51N | 0.5-2.0 | 1.40/1.30 | 1.0 | 18** | 4 | 0.4 | 2 | 8 |
| YF-28 | YF-28N | 1.0-2.0 | 1.30/1.20 | 0.5 | 20 | 3 | 0.3 | 3 | 7 |
| YF-54 | YF-54N | 1.0-4.0 | 1.45/1.35 | 1.0 | 18 | 4 | 0.4 | 4 | 9 |
| YF-30 | YF-30N | 1.5-3.0 | 1.30/1.20 | 0.6 | 20 | 3 | 0.3 | 5 | 7 |
| YF-38 | YF-38N | 2.0-4.0 | 1.30/1.20 | 0.8 | 18 | 3 | 0.3 | 6 | 7 |
| YF-55 | YF-55N | 2.0-8.0 | 1.50/1.40 | 1.2 | 16 | 5 | 0.5 | 1 | 10 |
| YF-45 | YF-45N | 4.0-8.0 | 1.40/1.30 | 1.0 | 18 | 5 | 0.5 | 6 | 11 |
| D418M | — | 1.0-1.5 | 1.80/1.35 | 0.7 | 10 | 1 | 0.2 | 12 | — |
| | | 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 4GHz multiply VSWR's by 1.05 and subtract 2 dB from isolation. Above 4GHz multiply VSWR's by 1.10 and subtract 3dB from isolation.

** Greater than 30 dB over most of the frequency band.

KEY: Inches[Millimeters] .XX ±.03 .XXX ±.010 [.X ±0.8 .XX ±0.25]



KDI INTEGRATED PRODUCTS

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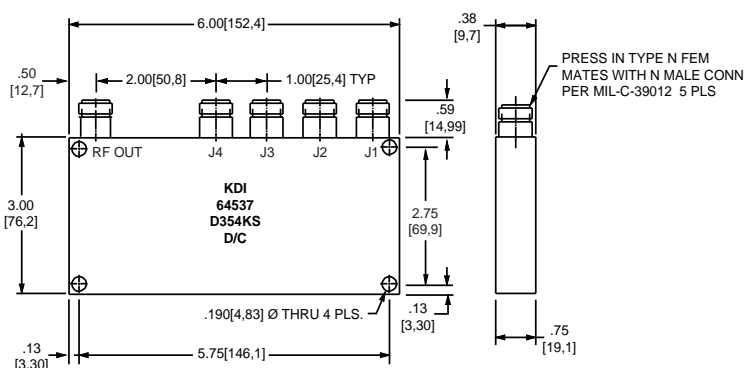
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DIVIDER/COMBINERS, POWER

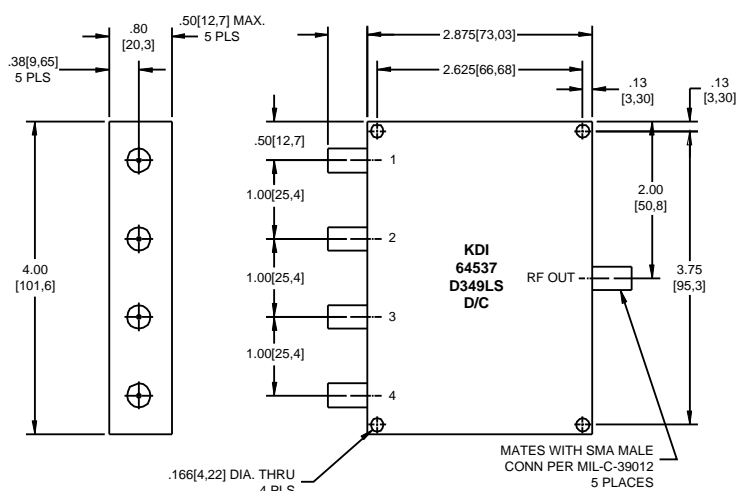
ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|-----------------------------|
| Model: | D354KS |
| Connectors: | Type N |
| Frequency Range: | 860-900 MHz |
| VSWR: | 1.30:1 Maximum |
| Isolation: | 20 dB Minimum |
| Insertion Loss: | 6.5 dB Maximum |
| RF Power: | 50mW Maximum into each port |
| Amplitude Balance: | ±0.3 dB Maximum |
| Phase Balance: | ±3.0° Maximum |
| Operating Temperature: | -30° C to +70° C |



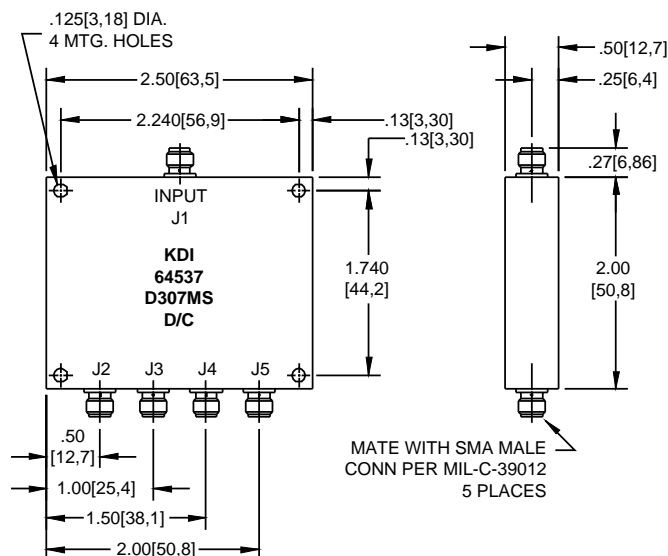
ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|-----------------------------|
| Model: | D349LS |
| Connectors: | SMA |
| Frequency Range: | 800-900 MHz |
| VSWR: | 1.3:1 Maximum |
| Isolation: | 20 dB Minimum |
| Insertion Loss: | 0.5 dB Maximum |
| RF Power: | 50mW Maximum into each port |
| Amplitude Balance: | ±1 dB Maximum |
| Phase Balance: | ±2.0° Maximum |
| Operating Temperature: | -30° C to +70° C |



ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|---------------------------------|
| Model: | D307MS |
| Connectors: | SMA |
| Frequency Range: | 824-925 MHz |
| VSWR: | 1.2:1 Maximum |
| Isolation: | 20 dB Minimum |
| Insertion Loss: | 6.3 dB Maximum (inc. div. loss) |
| Amplitude Balance: | ±0.1 dB Maximum |
| Phase Balance: | ±2° Maximum |
| RF Power: | 4.0 Watts CW Total @ Input |
| Operating Temperature: | -30° C to +70° C |



KE YInches[Millimeters] .XX ±.03 .XXX ±.010 [.X ±0.8 .XX ±0.25]



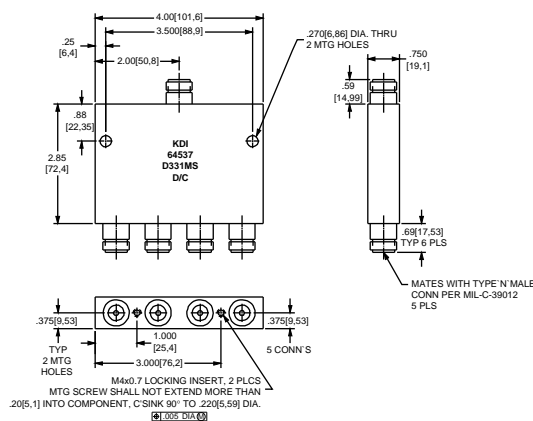
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4 WAY

DIVIDER/COMBINERS, POWER

ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|------------------------------------------------------------------------|
| Model: | D331MS |
| Connectors: | Type N |
| Frequency Range: | 800-960 MHz |
| VSWR: | Out 2.0:1 Maximum—unterminated input 1.6:1 Maximum—terminated input |
| Isolation: | 15 dB Minimum output to input 20 dB Minimum output to output |
| Insertion Loss: | -8.0 dB Maximum (incl. divide loss) |
| RF Power: | 2 Watts Maximum |
| Amplitude Balance: | ±0.5 dB Maximum |
| Phase Balance: | ±2° Maximum |
| Operating Temperature: | -30° to +70°C |

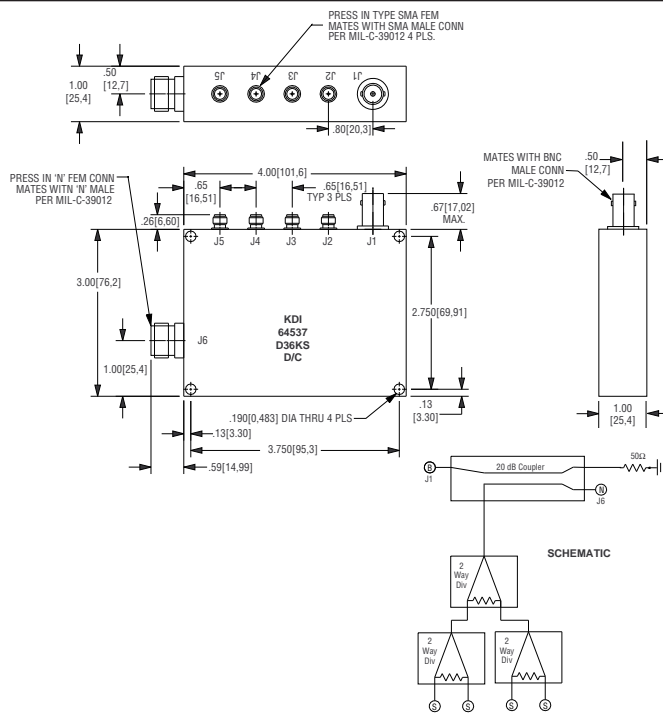


GENERAL INFORMATION

The Model D366KS includes an equal four way power divider with Type N input and 4 SMA outputs. An isolated monitor port directional coupler with a BNC output connector is provided with a closely calibrated 20dB coupling value. Stripline construction and KDI high power Beryllium Oxide resistors employed in the design can readily be adapted to new custom applications.

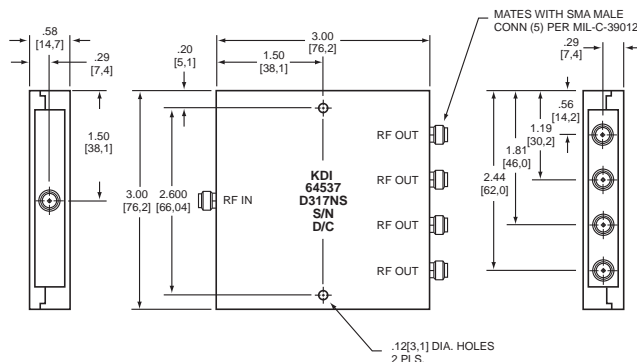
ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Model: | D366KS |
| Connectors: | See Outline |
| Frequency Range: | 800-900 MHz |
| VSWR: | 1.35:1 Maximum |
| INS Loss: | 6.6 dB Maximum |
| Isolation: | 24.0 dB Minimum J2-J3, J4-J5 -40 dB Minimum (Coupler) J1-J6 29 dB Minimum All Other Combiner Combinations |
| Coupling: | -20 ± .5 dB |
| Amplitude Balance: | ±0.5 dB Maximum |
| Phase Balance: | ±2° Maximum |
| RF Power: | 2 Watts Maximum |
| Operating Temperature: | -30° to +70°C |



ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|-------------------------------------------------|
| Model: | D317NS |
| Connectors: | SMA |
| Frequency Range: | 800-2000 MHz |
| Insertion Loss: | 1.2 Maximum above 6 dB |
| Isolation: | 30 dB typ. 23 dB Minimum |
| VSWR: | In: 1.25 Maximum typ. Out: 1.15 Maximum typ. |
| Amplitude Balance: | 0.3 dB Maximum |
| Phase Balance: | ±2° Maximum |
| RF Power: | +20 dBm Maximum |
| Operating Temperature: | -30° to +70°C |
| Housing Material: | Metalized Plastic |



KE YInches[Millimeters] .XX ±.03 .XXX ±.010 [.X ±0.8 .XX ±0.25]



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6 WAY

6 WAY

DIVIDERS/COMBINERS, POWER

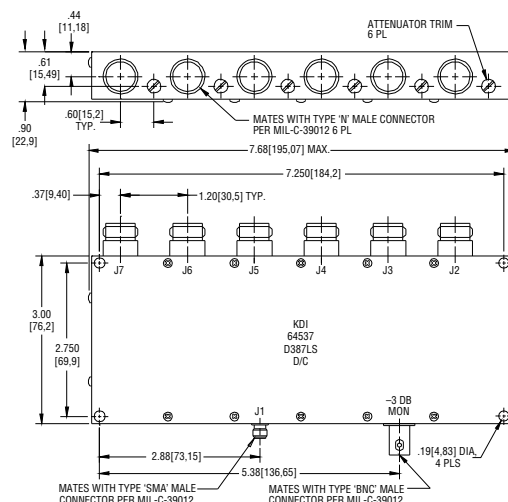
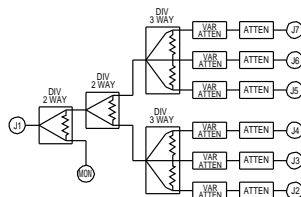
SUBASSEMBLY—WITH VARIABLE ATTENUATORS

GENERAL INFORMATION

The Model D387LS power divider subassembly incorporates unique level set adjustable attenuators, each with a minimum adjustment range of 0-12dB. Resistor isolated Wilkinson power dividers provide for high isolation between signal paths, and include a power monitor function. The stripline construction provided throughout can be readily modified for other custom applications.

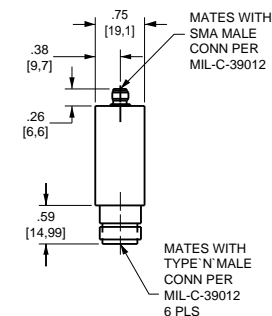
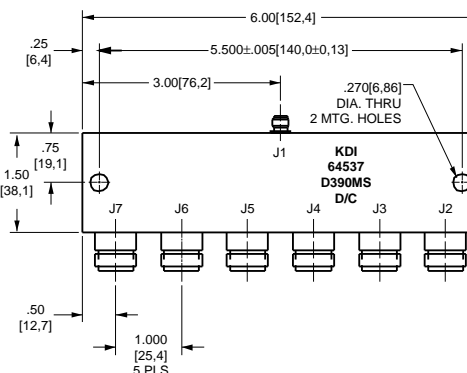
ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|---------------------------------------------|
| Model: | D387LS |
| Connectors: | Type N Output SMA Input BNC Monitor Port |
| Frequency Range: | 0.865 – 0.900 GHz |
| Insertion Loss: | 14.5 ±0.5 dB at 0 dB Trim 3.0 +.5 –0 dB |
| Attenuator Trim: | 0 to 12 dB Minimum (Screwdriver) |
| RF Power: | +17 dBm |
| Isolation: | 20 dB Minimum at 0 dB Trim |
| VSWR (All Ports): | 1.60:1 Maximum |
| Operating Temperature: | –30° to +70°C. |



ELECTRICAL SPECIFICATIONS

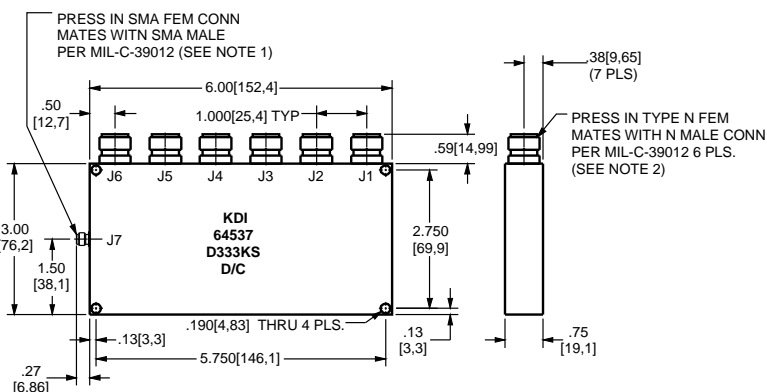
| | |
|-------------------------------|-------------------------------------------|
| Model: | D390MS |
| Connectors: | SMA/N |
| Frequency Range: | 824-894 MHz |
| VSWR: | 1.2:1 Maximum |
| Isolation: | 20.0 dB Minimum |
| Insertion Loss: | 8.5 dB Maximum (Includes divide loss) |
| RF Power: | 500 milliwatts Maximum @ Combined Port |
| Amplitude Balance: | ±0.2 dB Maximum |
| Phase Balance: | ±0.2 Maximum |
| Operating Temperature: | –30° to +70°C. |



ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|-----------------------------------------------------------------------|
| Model: | D333KS |
| Frequency: | .860-.900 GHz |
| VSWR: | 1.35:1 Maximum |
| Isolation: | >27 dB J5-J6 (J1, J2, J3, J4 & J7 Open) 20 dB Minimum all other |
| Insertion Loss: | 12.0 ± .4 dB (J7-J1, J7-J2) |
| Coupling: | 10.0 ± .5 dB (J5-J1) |
| Path Loss: | 4.5 dB Maximum (4.1 dB Typical) (J7-J6) |
| RF Power: | 50mW Maximum each input |
| Operating Temperature: | –30° to +70°C. |

Port Designations above indicate (RF OUT — RF IN)



Notes:

1. Connector SMA: Passivated Stainless Steel ASTM-A-582 (QQ-S-764) Body with Gold Plated (MIL-G-45204 Type II, Class I, Grade C)
2. Connector N: Nickel Plated (QQ-N-290) over CU. Strike (MIL-C-14550) over Brass Body 1/2 HD Comp 22 (QQ-B-626)
3. HSG: Chem Film (MIL-C-5541) Class 1A over Aluminum 6061-T6 per (QQ-A-250)

KEY: Inches[Millimeters] .XX ±.03 .XXX ±.010 [.X ±0.8 .XX ±0.25]



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