

## 2 & 3-Way, 20 watts\*, SMA & N-Female: "Tee" Series

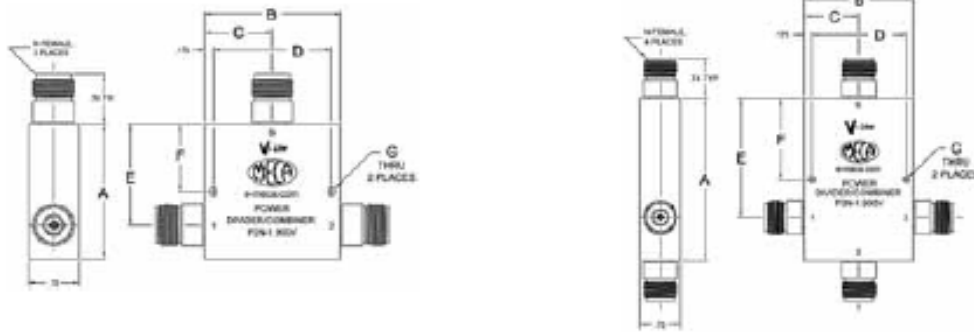
Specially designed for installation ease, these new "Tee" power divider/combiners allow unobstructed access to all connector ports with even the largest coaxial cables. Available in 2-way and 3-way "Tee" configurations with silver-plated N-Female or stainless steel SMA-Female connectors. Their rugged construction and excellent performance across all wireless bands from 0.8 - 3.0 GHz, 2.4 and 5.8 GHz make them ideal for combining and dividing signals for In-building wireless systems. Weatherproof model (IP65) available.



\* All units rated for 20 watts maximum input power as a divider or balanced combiner with load VSWR of 1.20:1 or better. To calculate unbalance combining use the following formula: (rated input power of divider \* 5%) / "N" # of input channels = max input at each port for combining.

Catalog Number	Frequency (GHz)	Connector Type	Isolation (dB)		Insertion Loss (dB) <sub>i</sub>		Amplitude Balance (dB) (Max)	Phase Balance (degrees) (Max)	VSWR				Outline Drawing
			Typ	Min	Typ	Max			Input		Output		
									Typ	Max	Typ	Max	
V-Line P2_-1.900V	0.800 - 3.000	N or SMA	25	22	0.40	0.50	0.2	3	1.20:1	1.30:1	1.10:1	1.20:1	1
	2.400 - 2.500	N or SMA	27	22	0.20	0.30	0.1	2	1.10:1	1.15:1	1.05:1	1.10:1	2
	5.000 - 6.000	N or SMA	25	20	0.20	0.30	0.1	2	1.20:1	1.25:1	1.15:1	1.20:1	2
V-Line P3_-1.900V	0.800 - 3.000	N or SMA	22	18	0.60	0.80	0.4	6	1.25:1	1.35:1	1.20:1	1.30:1	3
	2.400 - 2.500	N or SMA	22	18	0.20	0.30	0.2	3	1.15:1	1.25:1	1.20:1	1.30:1	2
	5.000 - 6.000	N or SMA	22	18	0.30	0.40	0.2	3	1.20:1	1.25:1	1.20:1	1.25:1	2

To order or specify, please insert connector style in place of underscore (\_). EXAMPLE: P2N-1.900 for N-Female, 0.800 - 3.000 GHz.



### Notes:

- 1.) Above 3.01 or 6.02 dB theoretical power split.
- 2.) 50 ohm nominal impedance standard.
- 3.) All output/combiner ports are In-phase (0° difference).
- 4.) Operating temperature from -55° C to +85° C.

Drawing	A	B	C	D	E	F	G
1	2.00	2.20	1.10	1.85	1.50	1.00	.225
2	1.68	1.68	0.84	1.43	0.42	0.94	.125
3	3.00	2.00	1.10	1.85	2.20	1.50	.225

Contact a Gap Wireless Sales Representative for customized options including:

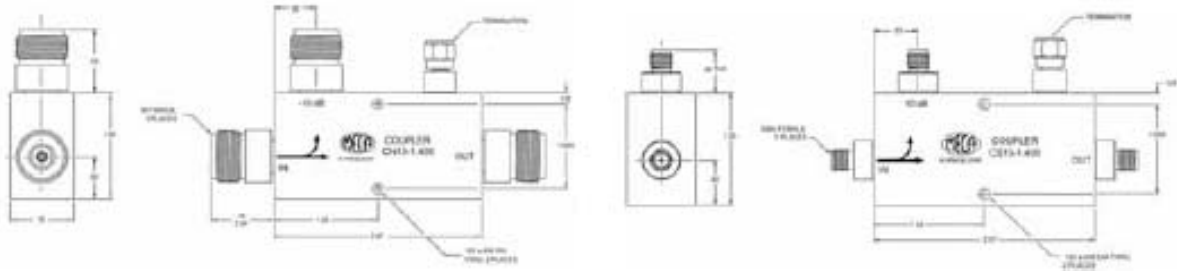
- Alternate bands
- Weather resistant

PRODUCTS MANUFACTURED BY: Meca Electronics Inc., [www.e-meca.com](http://www.e-meca.com)

# In-Building Directional Couplers



CN / CS Series



MECA Introduces 50 watt couplers offering industry-leading performance, quality and reliability. Rugged construction and excellent performance across all wireless bands from 0.6 - 2.0 GHz make them ideal for base station and in-building wireless systems. Unique microstrip design provides lowest possible insertion loss while delivering high directivity and exceptional VSWR. Available from STOCK in 10, 15 & 20 dB coupling in either Type-N or SMA-Female connector configurations.

Catalog Number	Frequency (GHz)	Nominal Coupling (dB)	Coupling Variation (Total) <sup>6</sup>	Insertion Loss (Max) <sub>1</sub>	VSWR (Max)	Directivity (Min)
C_10-1.400	0.800 - 2.000	10	+ 2.5 dB - 0.0 dB	0.3 dB	1.20:1	20 dB
C_15-1.400	0.800 - 2.000	15	± 1.25 dB	0.3 dB	1.20:1	20 dB
C_20-1.400	0.800 - 2.000	20	± 1.25 dB	0.2 dB	1.20:1	20 dB

To order or specify, please insert connector style in place of underscore (\_). EXAMPLE: **CN-10-1.400** for N-Female, 10 dB, 0.800 - 2.000 GHz.

Average Power (Watts) <sup>2</sup>			
Coupling Factor	10 dB	15 dB	20 dB
Forward	50	75	100
Reverse	5	5	5
Theoretical Insertion Loss Due to Coupling Factor (dB)			
Insertion Loss (dB)	0.456	.139	0.043

**Notes:**

- 1.) Excluding theoretical insertion loss due to coupling (see table).
- 2.) All units have a peak power rating of 3 kW.
- 3.) 50 ohm nominal impedance standard.
- 4.) Operating temperature is from -55° C to +85° C.
- 5.) Mounting holes 0.125" diameter thru in 2 places.
- 6.) Variation includes flatness/sensitivity

Contact a Gap Wireless Sales Representative for customized options including:

- Special coupling values
- Silver-plated connectors
- Alternate bands
- Weather resistant

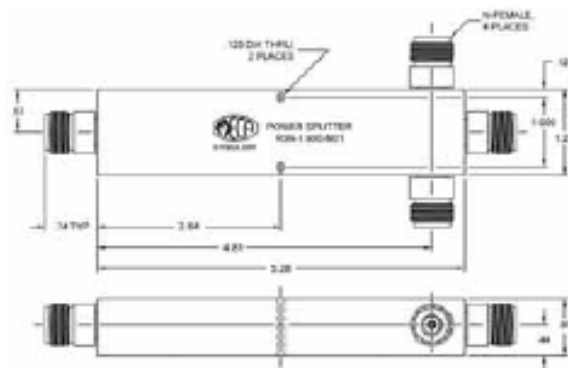
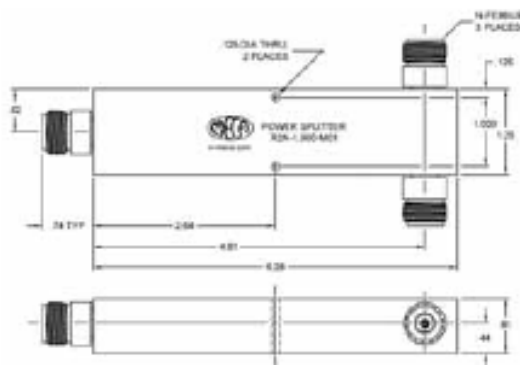
PRODUCTS MANUFACTURED BY: Meca Electronics Inc., [www.e-meca.com](http://www.e-meca.com)

# In-Building Reactive Power Splitters



Splitters, 200 watts, N-Female: R-Series

**NEW!**



MECA Introduces a new line of compact, high-power capable (200 watt) RF power splitter covering all wireless frequencies from 0.800 - 2.700 GHz. Two models are available in 2-way and 3-way configurations fitted with silver-plated N-Female or stainless steel SMA-Female connectors at all ports. This RF power splitter series provides a low loss, equal power split at all output ports while maintaining excellent amplitude and phase balance. For high power applications up to 200 watts where output port isolation is not a requirement, these units offer an economical alternative to Wilkinson power dividers. Weatherproof models (IP65) available.

Catalog Number	N-Way	Connector Syle	Frequency (GHz)	Insertion Loss (dB)		Amplitude Balance (dB) (Max)	Phase Balance (degrees) (Max)	VSWR	
				Typ	Min			Inputs	
								Typ	Max
R2N-1.900-M01	2-way	N-Female	0.800 - 2.700	0.3	0.4	0.2	2	1.10:1	1.20:1
R3N-1.900-M01	3-way	N-Female	0.800 - 2.700	0.3	0.4	0.2	3	1.20:1	1.30:1
R2S-1.900-M01	2-way	SMA-Female	0.800 - 2.700	0.3	0.4	0.2	2	1.10:1	1.20:1
R3S-1.900-M01	3-way	SMA-Female	0.800 - 2.700	0.3	0.4	0.2	3	1.20:1	1.30:1

**Notes:**

- 1.) All units rated for 200 watts maximum Input power with load VSWR of 1.20:1 or better.
- 2.) 50 ohm nominal impedance standard.
- 3.) All output/combiner ports are in-phase (0° difference).
- 4.) Operating temperature from -55° C to +85° C.

Contact a Gap Wireless Sales Representative for customized options including:

- o Alternate bands
- o Weather resistant

PRODUCTS MANUFACTURED BY: Meca Electronics Inc., [www.e-meca.com](http://www.e-meca.com)

...closing the gap

# In-Building "Un-Equal" Power Splitters



DK-x4FN series – N connectors, 800 - 2,500 MHz

Multi-Band, Unequal Power Dividers

- ◆ Splits in ratios 10:1 to 2:1
- ◆ DC continuity in branch arm for remote power feeds
- ◆ 300W Avg, 1kW peak Power
- ◆ Minimal RF Insertion Loss
- ◆ High Reliability, IP64
- ◆ RoHS compliant
- ◆ N Connectors

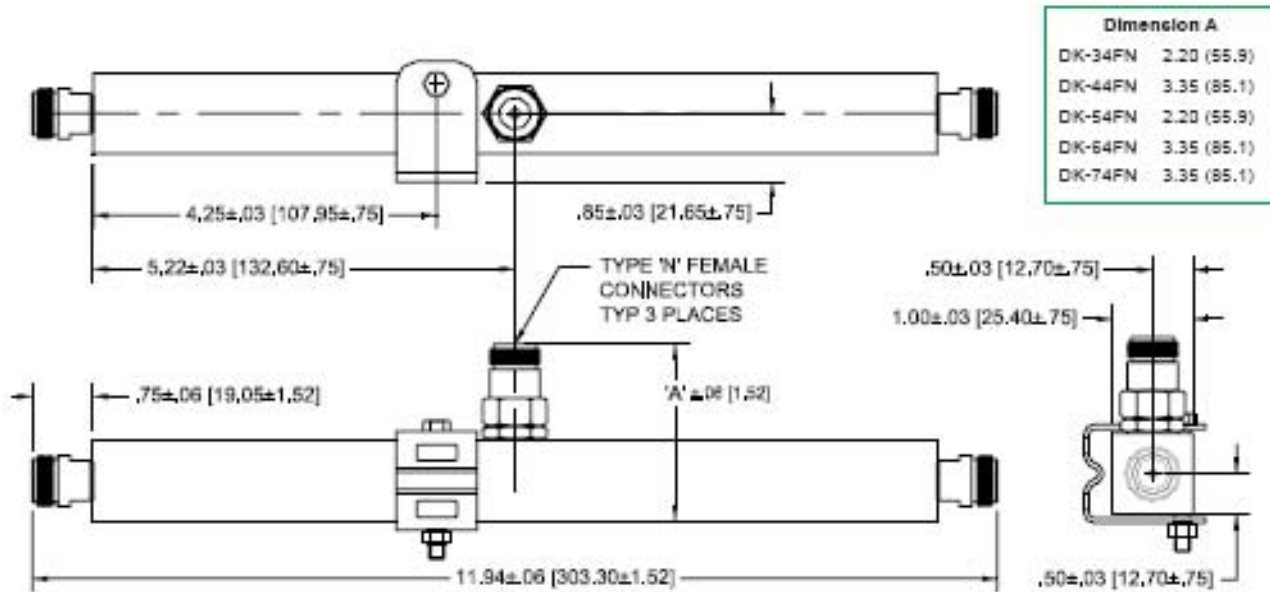


Microlab/FXR DK-x4FN series Unequal Power Splitters unevenly split high power cellular signals in ratios from 10:1 down to 2:1 with minimal reflections or loss over the whole 800 - 2,500 MHz band. The multi section transformers ensure a good input VSWR and flatness across the band for both main and branch lines. To facilitate remote signal cable powering of amplifiers and mini base stations, DC continuity is maintained to both main and branch lines on all models.

The mechanical shape allows simple attachment to a wall using the supplied bracket. Designed with only a few solder joints and an air dielectric, the loss is minimized and reliability enhanced. (4/07)

Model	Output Split Ratio, nom. (dB Inequality between Outputs)	Outputs ref. to Input Level, incl. Loss, dB Main/Branch Flatness	Input VSWR max.	DC Path to Branch
DK-34FN	2:1 (3 dB)	-1.8/-4.8 ± 0.6	1.30:1	Yes
DK-44FN	3:1 (4.7 dB)	-1.3/-6.1 ± 0.7	1.30:1	Yes
DK-54FN	4:1 (6 dB)	-1.0/-7.0 ± 0.75	1.30:1	Yes
DK-64FN	6:1 (8 dB)	-0.7/-8.6 ± 0.8	1.30:1	Yes
DK-74FN	10:1 (10 dB)	-0.4/-10.4 ± 1.0	1.30:1	Yes

Frequency Band:	800 - 2,500 MHz
Power Rating:	300W avg., 1 kW pk
Impedance:	50Ω nominal
Intermodulation (PIM):	<-150 dBc (test with two 20W tones)
Environment:	-35 to +75°C, IP64
Connectors:	N type female
Finish: Housing:	Passivated Aluminum
Connectors:	Silver or triplate
Weight:	1.2 lbs.(0.55 kg) nom.
Mounting:	Bracket supplied



PRODUCTS MANUFACTURED BY: Microlab/FXR, [www.microlab.fxr.com](http://www.microlab.fxr.com)

...closing the gap