

Couplers

0.5-18 GHz

SMA and Type N Broadband Coaxial Directional Couplers

- Flat Frequency Response
- Small Size, Lightweight
- Very Low, Fine Grain Ripple
- Designed for MIL Environments



Specifications

Type N (F) and SMA (F), 1 to 12.4 GHz, 20 W

FREQUENCY RANGE (GHz)	MODEL	CONNECTOR	NOMINAL COUPLING** (dB)	DIRECTIVITY (dB)		INSERTION LOSS (dB)		VSWR		FREQUENCY SENSITIVITY* (dB)	MAXIMUM DEVIATION FROM NOMINAL (dB)	POWER		WEIGHT (max.)	
				1-8	8-12.4	EXCLUDING COUPLED POWER	TRUE (max.)	PRIMARY LINE (max.)	SECONDARY LINE (max.)			AVERAGE (W)	PEAK (kW)	oz.	gr.
1-12.4	4202B-6	SMA	6	15	12	0.70	2.35	1.35	1.50	±0.5	±1.0	20	3	2.8	80
	4202B-10	SMA	10	15	12	0.70	1.30	1.35	1.50	±0.5	±1.5	20	3	2.7	77
	4202B-20	SMA	20	15	15	0.70	0.75	1.35	1.50	±0.5	±1.5	20	3	2.7	77
	3202B-10	N	10	15	12	0.70	1.30	1.45	1.50	±0.5	±1.5	20	3	4.5	128
	3202B-20	N	20	15	15	1.00	1.05	1.45	1.50	±0.5	±1.5	20	3	4.5	128

Type N (F) and SMA (F), 2 to 18 GHz, 20 W

FREQUENCY RANGE (GHz)	MODEL	CONNECTOR	NOMINAL COUPLING** (dB)	DIRECTIVITY (dB)		INSERTION LOSS (dB)		VSWR		FREQUENCY SENSITIVITY* (dB)	MAXIMUM DEVIATION FROM NOMINAL (dB)	POWER		WEIGHT (max.)	
				2-12.4	12.4-18	EXCLUDING COUPLED POWER	TRUE (max.)	PRIMARY LINE (max.)	SECONDARY LINE (max.)			AVERAGE (W)	PEAK (kW)	oz.	gr.
2-18	4203-6	SMA	6	15	12	0.90	2.00	1.40	1.40	±0.5	±1.0	20	3	2.0	59
	4203-10	SMA	10	15	12	0.90	1.40	1.35	1.50	±0.5	±1.0	20	3	2.2	65
	4203-16	SMA	16	15	12	0.65	0.80	1.35	1.40	±0.5	±1.0	20	3	1.8	51
	3203-16	N	16	15	12	0.85	1.00	1.40	1.40	±0.5	±1.0	20	3	3.4	96

Type N (F) and SMA (F), 1 to 18 GHz, 20 W

FREQUENCY RANGE (GHz)	MODEL	CONNECTOR	NOMINAL COUPLING** (dB)	DIRECTIVITY (dB)		INSERTION LOSS (dB)		VSWR		FREQUENCY SENSITIVITY* (dB)	MAXIMUM DEVIATION FROM NOMINAL (dB)	POWER		WEIGHT (max.)	
				1-12.4	12.4-18	EXCLUDING COUPLED POWER	TRUE (max.)	PRIMARY LINE (max.)	SECONDARY LINE (max.)			AVERAGE (W)	PEAK (kW)	oz.	gr.
1-18	4222-16	SMA	16	15	12	0.80	0.90	1.40	1.50	±0.5	±1.0	20	3	2.5	74
	3222-16	N	16	15	12	1.15	1.25	1.40	1.50	±0.5	±1.0	20	3	4.3	122

* Frequency sensitivity is included in coupling variation

** Coupling is referenced to the output port



SMA (F), 0.5 to 18 GHz, 20 W

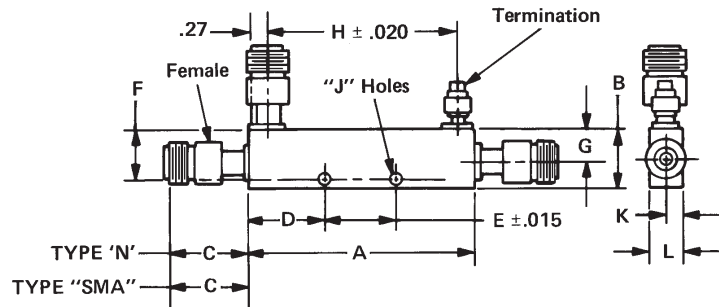
FREQUENCY RANGE (GHz)	MODEL	CONNECTOR	NOMINAL COUPLING* (dB)	DIRECTIVITY (dB)		INSERTION LOSS TRUE (dB max.)	VSWR		FREQUENCY SENSITIVITY (dB)	MAXIMUM DEVIATION FROM NOMINAL (dB)	POWER		WEIGHT (max.)	
				0.5-12.4	12.4-18		PRIMARY LINE (max.)	SECONDARY LINE (max.)			AVERAGE (W)	PEAK (kW)	oz.	gr.
0.5-18	4226-10	SMA	10	15	12	1.50	1.50	1.50	± 1.1	±1.0	20	3	3.9	110
	4226-20	SMA	20	15	12	0.90	1.50	1.50	± 1.1	±1.0	20	3	3.9	110

* 4226 Series coupling is average

$$\left(\frac{C_{max.} + C_{min.}}{2} \right)$$

and is referenced to the output port

Outline Drawing



Allow .020 max. build-up of sealant per surface.

MODEL	A	B	C	D	E	F	G	H	K	L	"J" HOLES
3202B-10	3.24	.88	1.10	1.12	1.000	.71	.48	2.717	.28	.57	.104 +.004/-.002
4202B-6, -10	3.24	.88	.38	1.12	1.000	.71	.48	2.717	.28	.57	
3202B-20	3.48	.73	1.10	.58	2.319	.62	.44	2.943	.28	.57	
4202B-20	3.48	.73	.38	.58	2.319	.62	.44	2.943	.28	.57	2-56 NC-2B Tapped Holes 1/8 DP Both Sides
3203-16	2.12	.73	1.26	.58	.958	.36	.43	1.580	.28	.56	
4203-16	2.12	.73	.38	.58	.958	.36	.43	1.580	.28	.56	4-40 NC-2B Tapped Holes 1/8 DP Both Sides
3222-16	3.53	.75	1.18	.77	2.000	.38	.44	2.969	.27	.54	
4222-16	3.53	.75	.38	.77	2.000	.38	.44	2.969	.27	.54	4-40 NC-2B Tapped Holes 1/8 DP Both Sides
4203-6, -10	2.16	.89	.38	.52	1.125	.44	.50	1.620	.28	.56	
4226-10, -20	4.40	.77	.38	.77	2.906	.39	.50	3.900	.28	.57	

Dimensions in inches, unless otherwise specified.

