

- 3rd generation version of still-popular Xinger® and Xinger®-II SMT components = high-performance option
- At 1/4 the size (as small as 0.25 x 0.20"), same power handling as previous generations – plus lower loss, higher isolation, better phase/amplitude balance, more
- Supports WiMax, 3G, 4G, LTE, among many bands
- Superior CTE characteristics relative to ceramics
- RoHS compliant; 100% RF-tested; shipped on tape & reel



3dB Hybrid



Doherty Combiner



5dB Directional



20dB Directional

3dB Hybrid Couplers

Part No	Size in Inches (mm)	Freq Band (MHz)	Power (W)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Bal or Mean Coupling (dB)	Phase Bal (degree)	Isolation (dB)
X3C06A4-03S	0.56 x 0.35 (14.22 x 8.89)	410 - 860	275	20.8	0.20	± 0.60	± 4.0	20
		430 - 450	450	23.1	0.10	± 0.40	± 3.0	20
X3C07P1-03S	0.25 x 0.20 (6.35 x 5.08)	600 - 900	130	23.1	0.20	± 0.25	± 4.0	23
		695 - 805	130	24.9	0.17	± 0.17	± 2.0	25
		731 - 881	130	23.1	0.20	± 0.25	± 4.0	25
X3C09P1-03S	0.25 x 0.20 (6.35 x 5.08)	800 - 1000	90	23.1	0.22	± 0.25	± 4.0	23
		869 - 894	110	24.9	0.14	± 0.14	± 2.0	25
		925 - 960	110	24.9	0.14	± 0.14	± 2.0	25
X3C09P2-03S	0.25 x 0.20 (6.35 x 5.08)	800 - 1000	90	23.1	0.20	± 0.22	± 4.0	23
		869 - 894	110	24.9	0.12	± 0.14	± 2.0	25
		925 - 960	110	24.9	0.12	± 0.14	± 2.0	25
X3C19P1-03S	0.25 x 0.20 (6.35 x 5.08)	1400 - 1500	90	17.7	0.15	± 0.50	± 4.0	20
		1550 - 1710	90	23.1	0.22	± 0.22	± 3.0	23
		1700 - 2000	90	23.1	0.22	± 0.22	± 4.0	23
		1805 - 1880	110	24.9	0.12	± 0.10	± 2.0	25
X3C19P2-03S	0.25 x 0.20 (6.35 x 5.08)	1700 - 2000	176	23.1	0.22	± 0.22	± 4.0	23
		1805 - 1880	176	24.9	0.12	± 0.10	± 2.0	25
		1930 - 1990	176	24.9	0.12	± 0.10	± 2.0	25
X3C21P1-03S	0.25 x 0.20 (6.35 x 5.08)	2000 - 2300	90	23.1	0.22	± 0.22	± 4.0	23
		2110 - 2170	110	24.9	0.12	± 0.10	± 2.0	25
		2300 - 2400	90	17.0	0.25	± 0.40	± 4.0	18
		1800 - 2200	90	22.1	0.17	± 0.22	± 3.0	23
X3C21P2-03S	0.25 x 0.20 (6.35 x 5.08)	2000 - 2300	172	23.1	0.22	± 0.22	± 4.0	23
		2110 - 2170	172	24.9	0.12	± 0.10	± 2.0	25
X3C26P1-03S	0.25 x 0.20 (6.35 x 5.08)	2300 - 2900	110	20.1	0.20	± 0.40	± 4.0	20
		2300 - 2500	110	23.1	0.18	± 0.20	± 4.0	26
		2500 - 2700	110	23.1	0.18	± 0.20	± 4.0	26

Doherty Combiners

Part No	Size in Inches (mm)	Freq Band (MHz)	Power (W)	Return Loss (dB)	Insertion Loss (dB)	Return Loss (dB)		Amplitude Imbalance (dB)	Phase Imbalance (degree)
						Max Power Condition	Low Power Condition		
X3DC07E2S	0.56 x 0.20 (14.22 x 5.08)	728 - 768	200	20.0	0.15	20	0.25	± 0.12	± 3.0
X3DC08E2S	0.56 x 0.20 (14.22 x 5.08)	869 - 894	200	20.0	0.15	20	0.25	± 0.12	± 3.0
X3DC09E2S	0.56 x 0.20 (14.22 x 5.08)	920 - 960	200	20.0	0.15	20	0.25	± 0.12	± 3.0
X3DC18E2S	0.56 x 0.20 (14.22 x 5.08)	1805 - 1880	200	20.0	0.15	20	0.20	± 0.12	± 3.0
X3DC19E2S	0.56 x 0.20 (14.22 x 5.08)	1930 - 1990	200	20.0	0.15	20	0.20	± 0.12	± 3.0
X3DC21E2S	0.56 x 0.20 (14.22 x 5.08)	2110 - 2170	200	20.0	0.15	20	0.20	± 0.12	± 3.0

Data current as of: March, 2012

5dB Directional Couplers

Part No	Size in Inches (mm)	Freq Band (MHz)	Power (W)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Bal or Mean Coupling (dB)	Phase Balance (degree)	Directivity (dB)	Freq Sensitivity (dB)
X3C07P1-05S	0.25 x 0.20 (6.35 x 5.08)	600 - 900	70	23.1	0.200	5.0 ± 0.30	± 4.0	23	± 0.25
		695 - 805	70	24.9	0.170	5.0 ± 0.20	± 2.0	25	± 0.05
X3C09P1-05S	0.25 x 0.20 (6.35 x 5.08)	800 - 1000	70	23.1	0.200	5.0 ± 0.30	± 4.0	23	± 0.25
		869 - 894	70	24.9	0.150	5.0 ± 0.20	± 2.0	25	± 0.05
		925 - 960	70	24.9	0.150	5.0 ± 0.20	± 2.0	25	± 0.05
X3C19P1-05S	0.25 x 0.20 (6.35 x 5.08)	1700 - 2000	70	20.1	0.150	5.0 ± 0.30	± 4.0	20	± 0.25
		1805 - 1880	70	23.1	0.130	5.0 ± 0.20	± 2.0	23	± 0.05
		1930 - 1990	70	23.1	0.140	5.0 ± 0.20	± 2.0	23	± 0.05
X3C21P1-05S	0.25 x 0.20 (6.35 x 5.08)	2000 - 2300	60	20.1	0.150	5.0 ± 0.30	± 4.0	20	± 0.25
		2110 - 2170	60	24.9	0.130	5.0 ± 0.20	± 2.0	25	± 0.05
X3C25P1-05S	0.25 x 0.20 (6.35 x 5.08)	2300 - 2700	60	20.1	0.180	5.0 ± 0.30	± 4.0	20	± 0.25
		2300 - 2400	60	23.1	0.140	5.0 ± 0.20	± 4.0	23	± 0.05
		2630 - 2655	60	23.1	0.170	5.0 ± 0.20	± 4.0	23	± 0.05

20dB Directional Couplers

Part No	Size in Inches (mm)	Freq Band (MHz)	Power (W)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Bal or Mean Coupling (dB)	Directivity (dB)	Freq Sensitivity (dB)
X3C08E2-20S	0.56 x 0.20 (14.22 x 5.08)	731 - 881	225	23.1	0.050	20.0 ± 0.50	22	± 0.25
X3C09E2-20S	0.56 x 0.20 (14.22 x 5.08)	800 - 1000	225	20.1	0.075	20.0 ± 1.00	20	± 0.35
		700 - 800	225	20.1	0.050	20.0 ± 0.75	20	± 0.30
		869 - 894	225	20.1	0.050	20.0 ± 0.60	23	± 0.05
		925 - 960	225	20.1	0.050	20.0 ± 0.60	23	± 0.05
X3C19E2-20S	0.56 x 0.20 (14.22 x 5.08)	1400 - 2700	225	20.1	0.100	20.3 ± 1.00	20	± 1.00
		1805 - 1880	225	24.9	0.050	20.2 ± 0.60	25	± 0.05
		1930 - 1990	225	24.9	0.050	20.0 ± 0.60	25	± 0.05
		2110 - 2170	225	24.9	0.050	20.0 ± 0.60	25	± 0.05

30dB Directional Couplers

Part No	Size in Inches (mm)	Freq Band (MHz)	Power (W)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Bal or Mean Coupling (dB)	Directivity (dB)	Freq Sensitivity (dB)
X3C09P2-30S	0.25 x 0.20 (6.35 x 5.08)	800 - 1000	225	23.1	0.100	30.2 ± 1.50	20	± 0.40
		869 - 894	225	24.9	0.075	30.0 ± 1.50	20	± 0.10
		925 - 960	225	24.9	0.075	30.0 ± 1.50	20	± 0.10
		700 - 800	225	20.1	0.100	30.4 ± 1.50	20	± 0.40
X3C19P2-30S	0.25 x 0.20 (6.35 x 5.08)	1400 - 2700	225	20.1	0.100	30.4 ± 1.50	20	± 2.00
		1805 - 1880	225	24.9	0.075	30.0 ± 1.50	20	± 0.05
		1930 - 1990	225	24.9	0.075	30.0 ± 1.50	20	± 0.05
		2110 - 2170	225	24.9	0.100	30.2 ± 1.50	20	± 0.30
X3C26P1-30S	0.25 x 0.20 (6.35 x 5.08)	2300 - 2900	200	23.1	0.100	30.0 ± 1.00	20	± 0.25
		2500 - 2700	200	24.9	0.050	30.0 ± 0.80	22	± 0.10

Data current as of: March, 2012

- Latest generation design and manufacturing = our lowest cost resistive family ever!
- Excellent performance in commercial wireless bands
- Higher power-handling in smaller packages – e.g.: 150W in 0.25 x 0.25 package
- Range of packages to choose from, including more high-power SMD parts ideally suited for high-volume manufacturing
- Environmentally friendly – BeO-free AlN and alumina construction; lead free tin finish



SMD



Chip



Flangeless



Flanged

SMD Terminations

Part No	Size in Inches (mm)	Power (W)	Freq Band (MHz)	Return Loss (dB)
060120A15Z50-2	0.060 x 0.120 (1.52 x 3.05)	8	DC - 6000	19
C10A50Z4	0.100 x 0.200 (2.54 x 5.08)	10	DC - 3000	19
C16A50Z4	0.100 x 0.200 (2.54 x 5.08)	16	DC - 2700	26
			DC - 4000	24
C20N50Z4	0.100 x 0.200 (2.54 x 5.08)	20	DC - 2300	20
C50A50Z4	0.250 x 0.250 (6.35 x 6.35)	50	DC - 2200	26
			DC - 2700	24
C100N50Z4A	0.250 x 0.250 (6.35 x 6.35)	100	DC - 2700	24
			DC - 4000	20
C150N50Z4	0.250 x 0.250 (6.35 x 6.35)	150	DC - 2700	24
			DC - 4000	20
C200N50Z4	0.250 x 0.375 (6.35 x 9.53)	200	DC - 2200	20

Chip Terminations

Part No	Size in Inches (mm)	Power (W)	Freq Band (MHz)	Return Loss (dB)
060120A25X50-2	0.060 x 0.120 (1.52 x 3.05)	10	DC - 6000	19
A15N50X4	0.050 x 0.100 (1.27 x 2.54)	15	DC - 4500	20
A16A50X4	0.100 x 0.200 (2.54 x 5.08)	16	DC - 2200	28
			DC - 2700	25
			DC - 4000	20
A100N50X4A	0.250 x 0.225 (6.35 x 5.72)	100	DC - 3500	20
A125N50X4	0.250 x 0.250 (6.35 x 6.35)	125	DC - 2700	26
			DC - 4000	20
A150N50X4B	0.250 x 0.375 (6.35 x 9.53)	150	DC - 2000	25
			DC - 2700	20
A150N50X4C	0.225 x 0.350 (5.72 x 8.89)	150	DC - 3000	26
A150N50X4E	0.250 x 0.250 (6.35 x 6.35)	150	DC - 2000	25
			DC - 3000	20
A200N50X4	0.250 x 0.375 (6.35 x 9.53)	200	DC - 2200	20
A250N50X4	0.375 x 0.375 (9.53 x 9.53)	250	DC - 2200	20
A500N50X4	0.500 x 0.500 (12.70 x 12.70)	500	DC - 1700	20

Flangeless Terminations

Part No	Size in Inches (mm)	Power (W)	Freq Band (MHz)	Return Loss (dB)
E150N50X4	0.250 x 0.375 (6.35 x 9.53)	150	DC - 2200	25
			DC - 2700	20
E150N50X4E	0.250 x 0.375 (6.35 x 9.53)	150	DC - 2000	25
			DC - 3000	20
E200N50X4	0.250 x 0.375 (6.35 x 9.53)	200	DC - 2200	20
E250N50X4	0.375 x 0.375 (9.53 x 9.53)	250	DC - 2200	20

Data current as of: March, 2012

Flanged Terminations

Part No	Size in Inches (mm)	Power (W)	Freq Band (MHz)	Return Loss (dB)
I100N50X4	0.250 x 0.515 (6.35 x 13.08)	100	DC - 3000	20
J100N50X4	0.250 x 0.515 (6.35 x 13.08)	100	DC - 3000	20
K100N50X4	0.250 x 0.515 (6.35 x 13.08)	100	DC - 3000	20
G100N50W4	0.230 x 0.800 (5.84 x 20.32)	100	DC - 2000	25
			DC - 3000	20
G150N50W4B	0.375 x 0.870 (9.53 x 22.10)	150	DC - 2000	25
			DC - 2700	20
G150N50W4E	0.375 x 0.870 (9.53 x 22.10)	150	DC - 2000	25
			DC - 2700	20
G200N50W4	0.375 x 0.870 (9.53 x 22.10)	200	DC - 2200	20
G250N50W4	0.375 x 0.975 (9.53 x 24.77)	250	DC - 2200	20
G450N50W4	0.500 x 1.100 (12.70 x 27.94)	450	DC - 1700	20

SMD Attenuators

Part No	Size in Inches (mm)	Power (W)	Freq Band (MHz)	Attenuation xx (dB)	Return Loss (dB)
D10AAxxZ4	0.100 x 0.200 (2.54 x 5.08)	10	DC - 3000	1 - 7, 9, 10, 20 & 30	19
D50AAxxZ4	0.250 x 0.250 (6.35 x 6.35)	50	DC - 2300	20 & 30	20

Chip Attenuators

Part No	Size in Inches (mm)	Power (W)	Freq Band (MHz)	Attenuation xx (dB)	Return Loss (dB)
1615-xx	0.250 x 0.375 (6.35 x 9.53)	100	DC - 2300	20 & 30	19
B150NAxxX4	0.250 x 0.375 (6.35 x 9.53)	150	DC - 2300	20 & 30	20

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Xinger®-III and Resistive Components sample kits are available from some authorized stocking distributors; call 800.411.6596 for details.



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