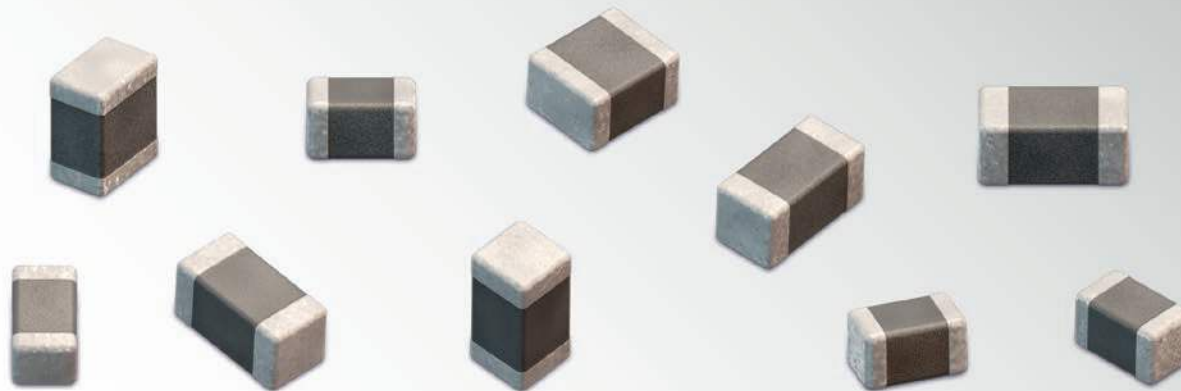


DESIGN KIT

WCAP-CSGP Multilayer Ceramic Chip Capacitors 1206 / 1210 / 1812

**SIZE:**

1206 / 1210 / 1812

TECHNICAL DATA:

Capacitance Range: 1000pF ~ 100µF
Rated Voltages: 6.3V, 10V, 16V, 25V, 50V
Dielectrics: NPO, X7R, X5R
Termination: Cu / Ni / Sn

Order Code 885 080**Version 1.0**

WCAP-CSGP

Multilayer Ceramic Chip Capacitors 1206 / 1210 / 1812

NP0 1206		X7R 1206		X5R 1206		NP0 1210		X7R 1210		X5R 1210		NP0 1812		X7R 1812				
885 012 008 010 10V	NP0120633J010DFCT10000	885 012 208 019 10V	X7R1206226K010DFCT10000	885 012 208 087 50V	X7R1206104K050DFCT10000	885 012 108 005 6.3V	X5R1206107M6R3DFCT10000	885 012 009 017 50V	NP01210102J050DFCT10000	885 012 209 006 10V	X7R121010226K010DFCT10000	885 012 109 004 6.3V	X5R1210107M6R3DFCT10000	885 012 010 009 50V	NP01812152J050DFCT10000	885 012 210 025 50V	X7R1812104K050DFCT10000	
33,000pF, ±5%, H=0.85mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		22μF, ±10%, H=1.6mm DF≤10%, IR ₂ ≥0.005G Ohm		100,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥5G Ohm		100μF, ±20%, H=1.6mm DF≤15%, IR ₂ ≥0.0005G Ohm		1,000pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		22μF, ±10%, H=2.5mm DF≤10%, IR ₂ ≥0.1G Ohm		100μF, ±20%, H=2.5mm DF≤15%, IR ₂ ≥0.001G Ohm		1,500pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		100,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥5G Ohm		
885 012 008 049 50V	NP01206102J050DFCT10000	885 012 208 069 25V	X7R1206106K025DFCT10000	885 012 208 088 50V	X7R1206154K050DFCT10000	885 012 108 012 10V	X5R1206476M010DFCT10000	885 012 009 018 50V	NP01210152J050DFCT10000	885 012 209 028 25V	X7R1210106K025DFCT10000	885 012 109 008 16V	X5R1210475M016DFCT10000	885 012 010 010 50V	NP01812332J050DFCT10000	885 012 210 026 50V	X7R1812154K050DFCT10000	
1,000pF, ±5%, H=0.8mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		10μF, ±10%, H=1.6mm DF≤10%, IR ₂ ≥0.01G Ohm		150,000pF, ±10%, H=0.95mm DF≤2.5%, IR ₂ ≥3.3G Ohm		47μF, ±20%, H=1.6mm DF≤5%, IR ₂ ≥0.02G Ohm		1,500pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		10μF, ±10%, H=2.0mm DF≤5%, IR ₂ ≥0.1G Ohm		4.7μF, ±20%, H=2.0mm DF≤5%, IR ₂ ≥0.1G Ohm		3,300pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		150,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥3.3G Ohm		
885 012 008 050 50V	NP01206152J050DFCT10000	885 012 208 081 50V	X7R1206103K050DFCT10000	885 012 208 089 50V	X7R1206224K050DFCT10000	885 012 108 015 16V	X5R1206335M016DFCT10000	885 012 009 019 50V	NP01210222J050DFCT10000	885 012 209 043 50V	X7R1210224K050DFCT10000	885 012 109 009 16V	X5R1210106M016DFCT10000	885 012 010 011 50V	NP01812472J050DFCT10000	885 012 210 027 50V	X7R1812224K050DFCT10000	
1,500pF, ±5%, H=0.8mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		10,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥10G Ohm		220,000pF, ±10%, H=0.95mm DF≤2.5%, IR ₂ ≥2.3G Ohm		3.3μF, ±20%, H=1.6mm DF≤5%, IR ₂ ≥0.2G Ohm		2,200pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		220,000pF, ±10%, H=0.95mm DF≤2.5%, IR ₂ ≥2.3G Ohm		10μF, ±20%, H=2.0mm DF≤5%, IR ₂ ≥0.05G Ohm		4,700pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		4,700pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		220,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥2.3G Ohm
885 012 008 051 50V	NP01206222J050DFCT10000	885 012 208 082 50V	X7R1206153K050DFCT10000	885 012 208 090 50V	X7R1206334K050DFCT10000	885 012 108 017 16V	X5R1206106M016DFCT10000	885 012 009 020 50V	NP01210332J050DFCT10000	885 012 209 044 50V	X7R1210334K050DFCT10000	885 012 109 010 16V	X5R1210226M016DFCT10000	885 012 010 012 50V	NP01812682J050DFCT10000	885 012 210 028 50V	X7R1812334K050DFCT10000	
2,200pF, ±5%, H=0.8mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		15,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥10G Ohm		330,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥1.5G Ohm		10μF, ±20%, H=1.6mm DF≤10%, IR ₂ ≥0.01G Ohm		3,300pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		330,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥1.5G Ohm		22μF, ±20%, H=2.50mm DF≤2.5%, IR ₂ ≥0.02G Ohm		6,800pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		6,800pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		330,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥1.5G Ohm
885 012 008 052 50V	NP01206332J050DFCT10000	885 012 208 083 50V	X7R1206223K050DFCT10000	885 012 208 091 50V	X7R1206474K050DFCT10000	885 012 108 018 16V	X5R1206226M016DFCT10000	885 012 009 021 50V	NP01210472J050DFCT10000	885 012 209 045 50V	X7R1210474K050DFCT10000	885 012 109 011 16V	X5R1210476M016DFCT10000	885 012 010 013 50V	NP01812103J050DFCT10000	885 012 210 029 50V	X7R1812474K050DFCT10000	
3,300pF, ±5%, H=0.8mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		22,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥10G Ohm		470,000pF, ±10%, H=1.6mm DF≤3%, IR ₂ ≥1.1G Ohm		22μF, ±20%, H=1.6mm DF≤10%, IR ₂ ≥0.005G Ohm		4,700pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		470,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥1.1G Ohm		47μF, ±20%, H=2.50mm DF≤10%, IR ₂ ≥0.02G Ohm		10,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		10,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		470,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥1.1G Ohm
885 012 008 053 50V	NP01206472J050DFCT10000	885 012 208 084 50V	X7R1206333K050DFCT10000	885 012 208 092 50V	X7R1206684K050DFCT10000	885 012 108 019 25V	X5R1206225M025DFCT10000	885 012 009 022 50V	NP01210682J050DFCT10000	885 012 209 046 50V	X7R1210684K050DFCT10000	885 012 109 012 25V	X5R1210475M025DFCT10000	885 012 010 014 50V	NP01812153J050DFCT10000	885 012 210 030 50V	X7R1812684K050DFCT10000	
4,700pF, ±5%, H=0.8mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		33,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥10G Ohm		680,000pF, ±10%, H=1.6mm DF≤3%, IR ₂ ≥0.7G Ohm		2.2μF, ±20%, H=1.6mm DF≤3.5%, IR ₂ ≥0.2G Ohm		6,800pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		680,000pF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥0.7G Ohm		4.7μF, ±20%, H=2.0mm DF≤5%, IR ₂ ≥0.1G Ohm		15,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		15,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		680,000pF, ±10%, H=2.0mm DF≤2.5%, IR ₂ ≥0.7G Ohm
885 012 008 054 50V	NP01206682J050DFCT10000	885 012 208 085 50V	X7R1206473K050DFCT10000	885 012 208 093 50V	X7R1206105K050DFCT10000	885 012 108 020 25V	X5R1206475M025DFCT10000	885 012 009 023 50V	NP01210103J050DFCT10000	885 012 209 047 50V	X7R1210105K050DFCT10000	885 012 109 013 25V	X5R1210106M025DFCT10000	885 012 010 015 50V	NP01812223J050DFCT10000	885 012 210 031 50V	X7R1812105K050DFCT10000	
6,800pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		47,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥10G Ohm		1μF, ±10%, H=1.6mm DF≤3%, IR ₂ ≥0.5G Ohm		4.7μF, ±20%, H=1.6mm DF≤7%, IR ₂ ≥0.1G Ohm		10,000pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		10,000pF, ±5%, H=0.95mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		1μF, ±10%, H=1.25mm DF≤2.5%, IR ₂ ≥0.5G Ohm		10μF, ±20%, H=2.0mm DF≤5%, IR ₂ ≥0.01G Ohm		22,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		1μF, ±10%, H=2.0mm DF≤2.5%, IR ₂ ≥0.5G Ohm
885 012 008 055 50V	NP01206103J050DFCT10000	885 012 208 086 50V	X7R1206683K050DFCT10000	885 012 208 094 50V	X7R1206475K050DFCT10000	885 012 108 021 25V	X5R1206106M025DFCT10000	885 012 009 024 50V	NP01210153J050DFCT10000	885 012 209 048 50V	X7R1210475K050DFCT10000	885 012 109 014 25V	X5R1210226M025DFCT10000	885 012 010 016 50V	NP01812333J050DFCT10000	885 012 210 032 50V	X7R1812225K050DFCT10000	
10,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		68,000pF, ±10%, H=0.8mm DF≤2.5%, IR ₂ ≥7.4G Ohm		4.7μF, ±10%, H=1.6mm DF≤10%, IR ₂ ≥0.02G Ohm		10μF, ±20%, H=1.6mm DF≤10%, IR ₂ ≥0.01G Ohm		15,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		4.7μF, ±10%, H=2.50mm DF≤5%, IR ₂ ≥0.02G Ohm		4.7μF, ±10%, H=2.50mm DF≤5%, IR ₂ ≥0.02G Ohm		22μF, ±20%, H=2.50mm DF≤10%, IR ₂ ≥0.005G Ohm		33,000pF, ±5%, H=1.25mm Q ₂ ≥1000, IR ₂ ≥10G Ohm		2.2μF, ±10%, H=2.50mm DF≤2.5%, IR ₂ ≥0.2G Ohm

Dielectric	Operating Temperature
NP0	-55°C to +125°C
X7R	-55°C to +125°C
X5R	-55°C to +85°C

Dielectric	Capacitance Characteristics*
NP0	± 30ppm/°C; ± 0.54%/°C
X7R	± 15%
X5R	± 15%

*within Operating Temperature Range

	6.3V
	10V
	16V
	25V
	50V



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