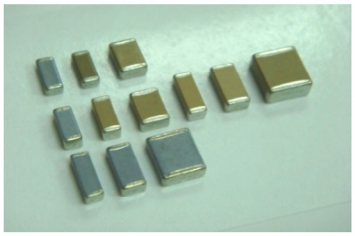
IHEC

Multilayer Ceramic Capacitors

[X2 and X1/Y2 Safety Certified Capacitors]

SCC Series Rated up to 305Vac



The SCC series X2 and X1/Y2 rated at 250Vrms and X2 rated at 305Vrms safety capacitors are designed specifically for use in modem, facsimile, telephone and other electronic equipment. These parts are compliant to IEC60384-14 , UL60950-1 and UL60384-14 standards. These capacitors are available in NP0 (C0G) and X7R dielectrics.

◆ Features

- ❑ Small size & high capacitance
- ❑ Suitable for reflow soldering
- ❑ Surface mount
- ❑ Safety standard approval by IEC60384-14 , UL 60950-1 and UL60384-14
- ❑ RoHS compliant and Lead(Pb) free option
- ❑ Certified to:
  TUV R50005234, R50103496 & UL E229738
  TUV R50162550 & UL E300818
  & UL E229738 for Lead(Pb) free

◆ Applications

- ❑ The X2 and X1/Y2 (250Vrms) and X2- (305Vrms) are specially designed for use in Modem, Facsimile, Telephone and other telecommunication equipment, electronic equipment for lighting and surge protection, EMI filtering and Isolation.

◆ Safety Details of Specifications

IEC 60384-14:2013+AMD1:2016 EN 60384-14:2013+AMD1:2016	Meets the electrical requirements and certification for equipment requiring Class X1/Y2 and X2 devices.
UL 60384-14：2014, 2nd Edition	Component certified for equipment requiring UL-60384-14 compliance
UL 60950-1：2007, 2nd Edition	TNV/SELV isolation capacitors certified To UL 60950-1

◆ How To Order

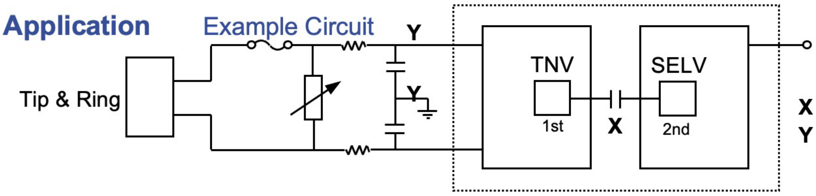
SCC	1808	X	102	K	502	T	S

Product Code	**Chip Size**	**Dielectric**	**Capacitance Unit : pF**	**Tolerance**	**Class**	**Packaging**	**Special Requirement**
SCC: Safety Certified MLCC	Ex.: 1808 1812 2208 2211 2220 2825	Ex.: N: NP0 X: X7R	Ex.: 2R0:2.0pF 100:10x10^0 471:47x10^1 182:18x10^2	Ex.: J :+/-5% K :+/-10% M :+/-20%	Ex.: 202: X2 252 :X2 (305Vrms) 502: X1/Y2 602: X1/Y2 for SCC2208N, SCC2211N, SCC2220N	Ex.: T: T&R 7” R: T&R 13” B: Bulk	Ex.: S: Arc Prevention Coating X: Polymer Termination (Super Term) Z: Arc Prevention Coating & Polymer Termination (Super Term) G: Lead (Pb) Free

◆ Summary of Specifications

Rated Voltage	AC 250Vrms and AC 305Vrms
Temperature Coefficient	NP0 : < ±30ppm/ ℃ , -55 ℃ to +125 ℃ (EIA Class I) X7R : < ±15% , -55 ℃ to +125 ℃ (EIA Class Ⅱ)
Capacitance Range	X1/Y2 : 2.0pF ~ 4700pF X2 – 250Vrms : 2pF ~ 56nF X2 – 305Vrms : 150pF ~ 33nF
Quality and Dissipation Factor	NP0 : Q≧1000 , X7R : D.F.≦2.5%
Climatic Category	55/125/21
Insulation Resistance	10GΩ
Voltage Proof	X Capacitor : Applied Voltage 1075Vdc(4.3Ur),1312Vdc(4.3Ur) Y Capacitor : Applied Voltage 1500Vac
Impulse	X2 : 2.5KV , Y2 : 5KV for three times
Aging	NP0: 0 % , X7R: 1.0 % per decade hr., typically

◆ Application



X : Across the line (Ex.: SCC1808N151K202TG)
Y : Line by pass (Ex.: SCC2211X102K502TS)

◆ Capacitance Range

250Vrms

Class	Size	Temperature Characteristic	Rated Voltage	Certificate	2R0	5R0	6R8	8R2	100	120	150	180	220	270	330	360	390	470	560	680	820	101	121	131	151	181	221	271	331	391	471	561	681	821	102	122	152	182	222	272	332	472
X2	1808	NP0	250Vrms	TUV/UL	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■							
	1808	X7R	250Vrms	TUV/UL																					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	1812	X7R	250Vrms	TUV/UL																									■	■	■	■		■	■	■	■	■	■	■	■	■
X1/Y2	1808	NP0	250Vrms	TUV/UL	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■													
	1808	X7R	250Vrms	TUV/UL																					■	■	■	■	■	■	■	■	■	■	■							
	1812	NP0	250Vrms	TUV/UL	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■									
	1812	X7R	250Vrms	TUV/UL																				■	■	■	■	■	■	■	■	■	■	■	■							
	2208	NP0	250Vrms	TUV/UL	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■													
	2208	X7R	250Vrms	TUV/UL												■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■							
	2211	NP0	250Vrms	TUV/UL	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■							
	2211	X7R	250Vrms	TUV/UL																■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	2220	NP0	250Vrms	TUV/UL	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■						
	2220	X7R	250Vrms	TUV/UL																		■	■	■	■		■	■	■	■	■ x	■ x	■ x	■ x	■ x		■ x		■ x	■ x	■ x	■ x

Class	Size	Temperature Characteristic	Rated Voltage	Certificated	101	121	131	151	181	221	271	331	391	471	561	681	821	102	122	152	182	222	272	332	472	562	682	822	103	123	153	183	223	273	333	393	473	563	683	823	104	124
X2	2220	X7R	250Vrms	TUV/UL				■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■		■		■		■	■	■	■	■			
	2825	X7R	250Vrms	UL																																	■	■				

'X' denotes values that have been tested to a rated voltage of 305Vac. TUV test report number 28208004 dated on May 27th, 2010.

305Vrms

Class	Size	Temperature Characteristic	Rated Voltage	Certificated	180	220	270	330	360	390	470	560	680	820	101	121	131	151	181	221	271	331	391	471	561	681	821	102	122	152	182	222	272	332	472	562	682	822	103	153	223	333	473	563
X2	2220	X7R	305Vrms	TUV/UL														■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		