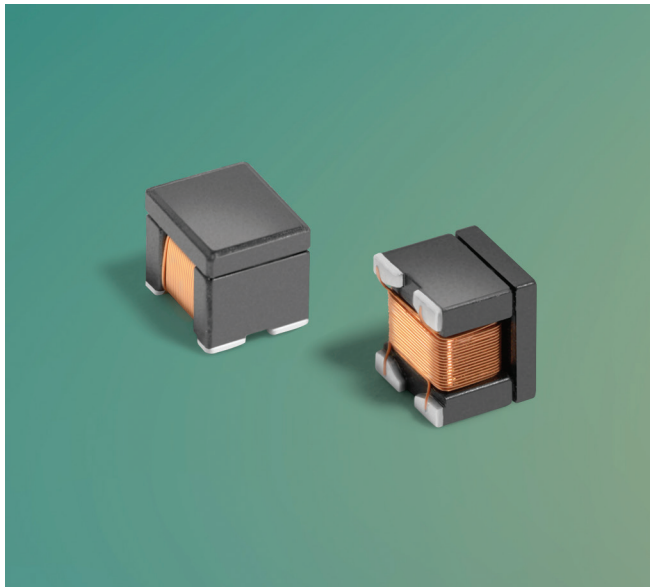


NEW!

Common Mode Chokes ST420FRC



- Designed for common mode noise suppression on CAN or CAN FD in automotive or general industrial automation applications
- Can be used for FlexRay automotive bus system
- 51 μH value meets IEC 6228-3 (CDV Annex D) requirements
- Filters a broad frequency range of common mode noise
- Low profile 1210 footprint: 3.30 × 2.67 × 3.0 mm

Core material Ferrite

Weight 100 – 120 mg

Terminations Matte tin over nickel over silver-platinum-glass frit.

Ambient temperature -40°C to $+125^{\circ}\text{C}$ with Irms current.

Maximum Part Temperature $+150^{\circ}\text{C}$

Storage temperature Component: -55°C to $+150^{\circ}\text{C}$.

Tape and reel packaging: -55°C to $+80^{\circ}\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^{\circ}\text{C}$, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}\text{C}$ / 85% relative humidity)

Packaging 750/7" reel; 3000/13" reel; Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 2.72 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² -30% +50% (μH)	DCR max ³ (Ohms)	Isolation ⁴ (Vrms)	Irms ⁵ (mA)
ST420FRC113N_Z	11	0.45	250	300
ST420FRC223N_Z	22	0.60	250	300
ST420FRC513N_Z	51	1.35	250	200
ST420FRC104N_Z	100	3.75	250	100

1. When ordering, please specify **termination** code:

ST420FRC104NRZ

Termination: **R** = Matte tin over nickel over silver-platinum glass frit

P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.

Q = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit.

2. Inductance is per winding, measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/ HP 4263B LCR meter and a Coilcraft CCF 1113 fixture.

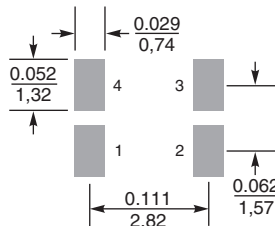
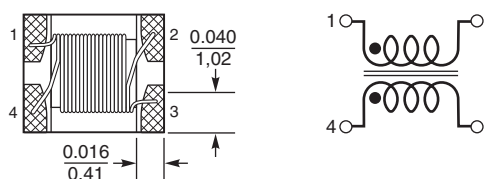
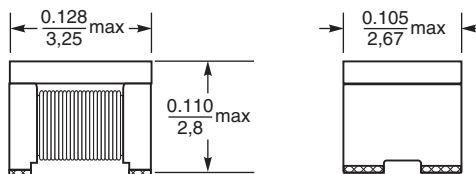
3. DCR is specified per winding, measured at on a Keithley 580 micro-ohmmeter and a Coilcraft CCF 858 fixture.

4. Winding to winding isolation (hipot) tested for one minute.

5. Current per winding that causes a 25°C rise from $+125^{\circ}\text{C}$ ambient.

6. Electrical specifications at 25°C .

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



**Suggested
Land Pattern**

Dimensions are in $\frac{\text{inches}}{\text{mm}}$

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

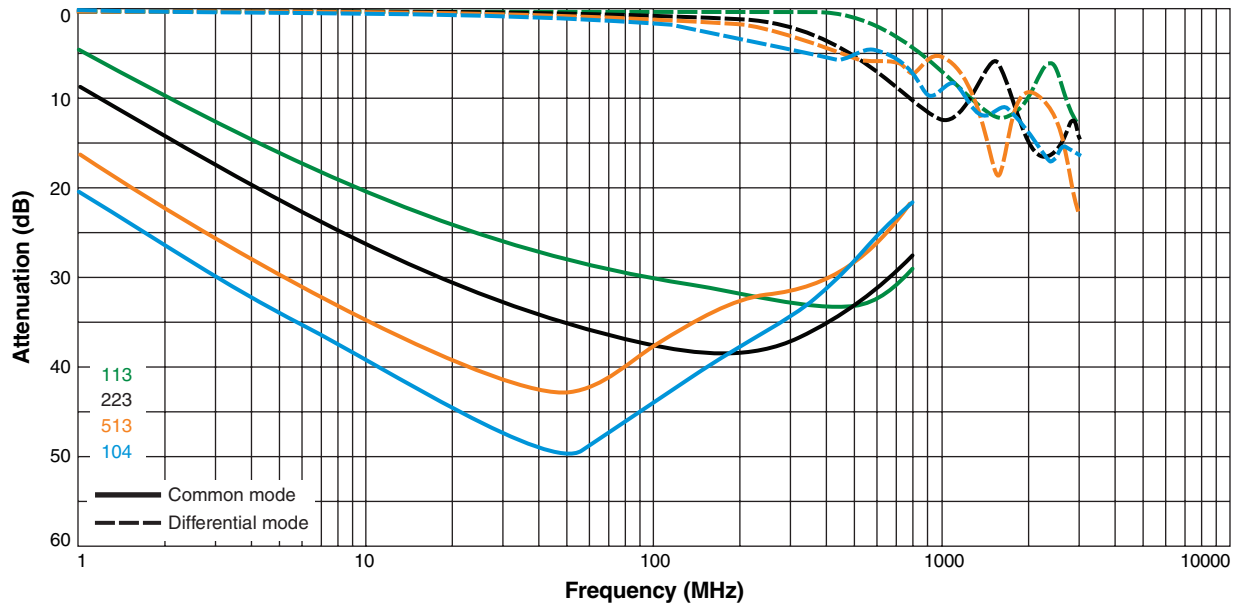
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST1524-1 Revised 02/03/25

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

Common Mode Chokes – ST420FRC

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency

