

NEW!

Common Mode Choke 1210ETH



- Common mode chokes designed for automotive Ethernet applications and compliant with:
 - 100BASE-T1 as per IEEE802.3bw and Open Alliance TC12 (1210ETH-204) and compatible with A2B applications
 - 10BASE-T1S as per 802.6cg and Open Alliance TC14 (1210ETH-244)
- Miniature 1210 size with measurement of only 3.2 x 2.54 x 2.4 mm
- AEC-Q200 qualified

Core material Ferrite

Environmental RoHS compliant, halogen free

Weight 38 mg

Terminations RoHS compliant matte tin over nickel over silver-palladium-glass frit. Other terminations available at additional cost.

Ambient temperature -40°C to +125°C with Irms current.

Maximum Part Temperature +140°C (-204)/+125°C (-244) (ambient + temp rise)

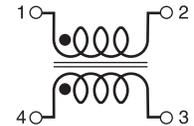
Storage temperature Component: -40°C to +140°C (-204)/+125°C (-244); Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

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% (µH)	DCR max ³ (Ohms)	Isolation ⁴ (Vrms)	Irms (mA)	
				25°C rise ⁵	125°C rise ⁶
1210ETH-204NR_	200	4.25	250	80	70
1210ETH-244NR_	240	4.50	250	80	70



1. When ordering, please specify **termination** and **packaging** codes:

1210ETH-244NRC

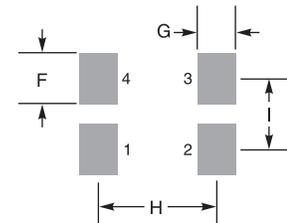
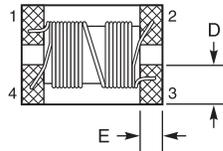
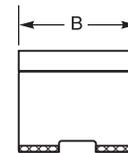
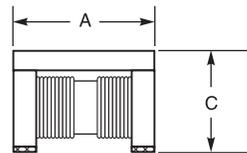
Termination: **R** = RoHS compliant matte tin over nickel over silver-palladium-glass frit.
Special order:
Q = RoHS tin-silver-copper (95.5/4.0/0.5)
P = non-RoHS tin-lead (63/37).

Packaging: **C** = 7 machine-ready reel. EIA-481 embossed plastic tape (750 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13 machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3000 parts per full reel).

- Inductance is per winding, measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/ HP 4263B LCR meter and a Coilcraft CCF 1190 fixture.
- DCR is specified per winding, measured on a Keithley 580 micro-ohmmeter and a Coilcraft CCF 888 fixture.
- Winding to winding isolation (hipot) tested for one minute.
- Equal current when applied to each winding simultaneously that causes a 15°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
- Equal current when applied to each winding simultaneously that causes a 15°C temperature rise from 125°C ambient. This information is for reference only and does not represent absolute maximum ratings.
- Electrical specifications at 25°C.

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



Recommended Land Pattern

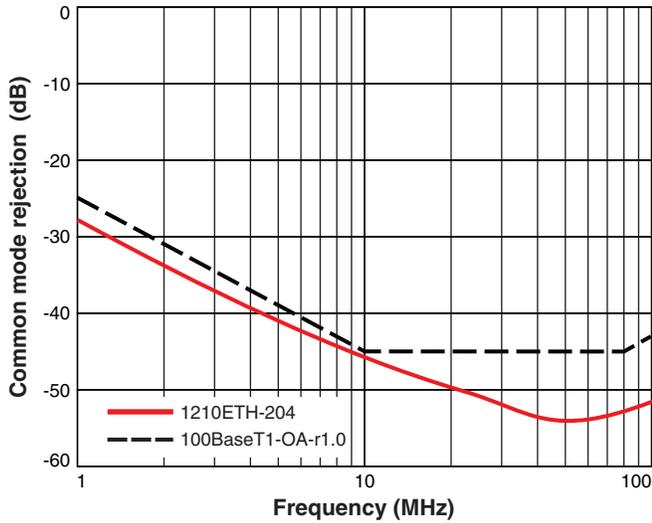
A max	B max	C max	D	E	F	G	H	I	
0.133	0.106	0.098	0.042	0.021	0.058	0.041	0.112	0.068	inches
3,38	2,7	2,5	1,07	0,53	1,473	1,041	2,845	1,727	mm

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

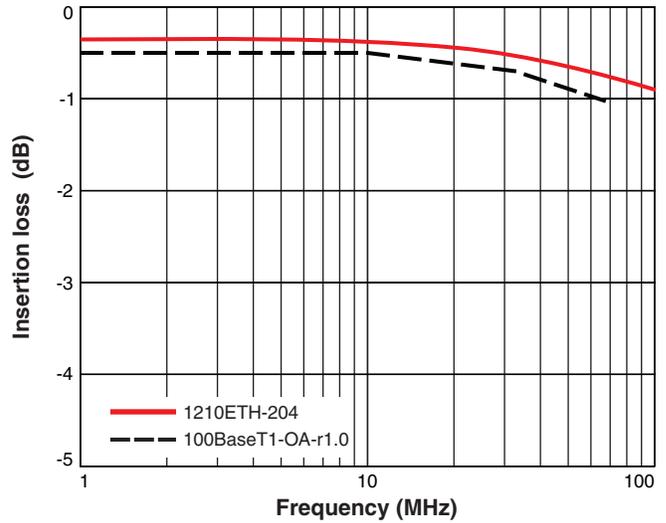


Common Mode Choke – 1210ETH-204

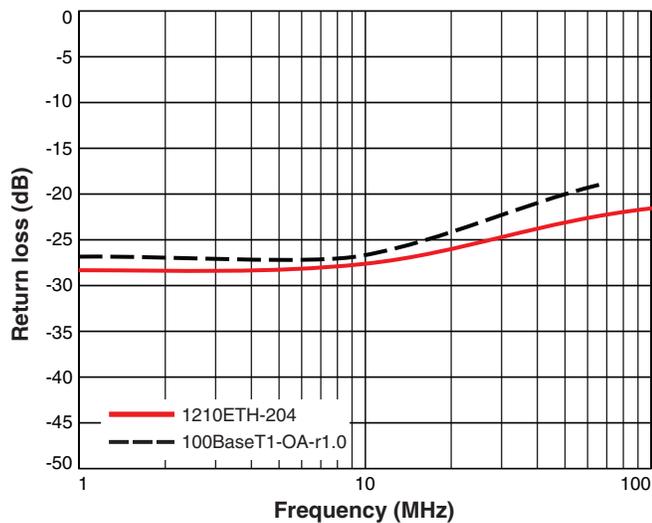
Common mode rejection (Scc21)



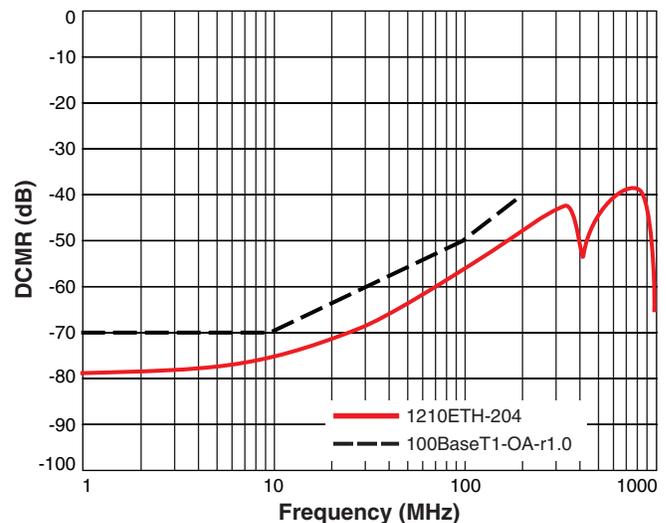
Insertion loss (Sdd21)



Return loss (Sdd11)



Differential to Common Mode Rejection (Ssd21)



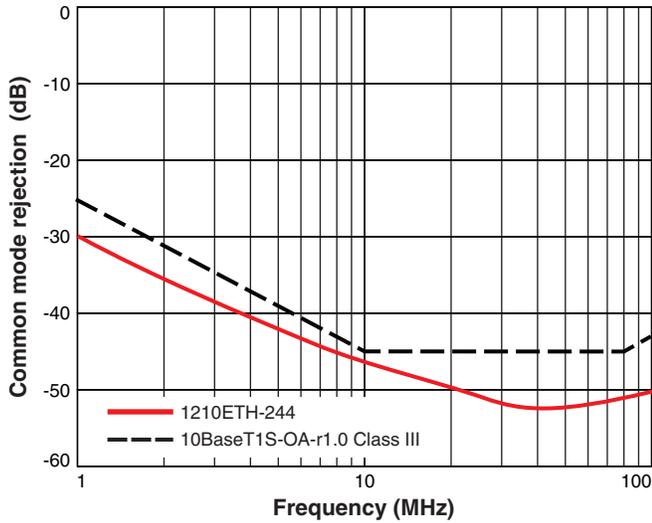
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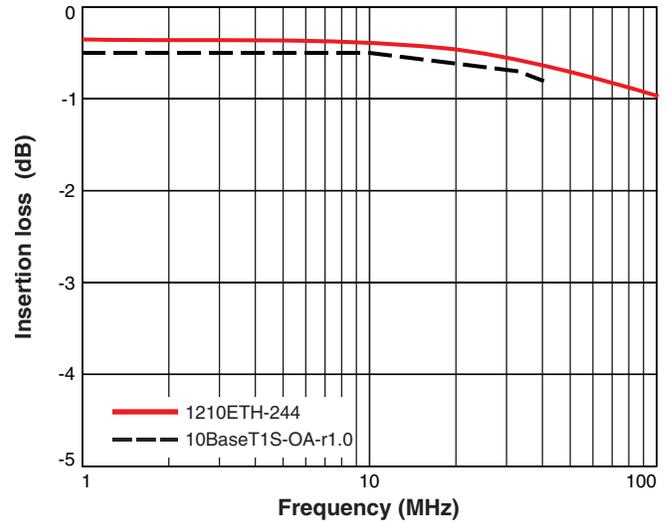


Common Mode Choke – 1210ETH-244

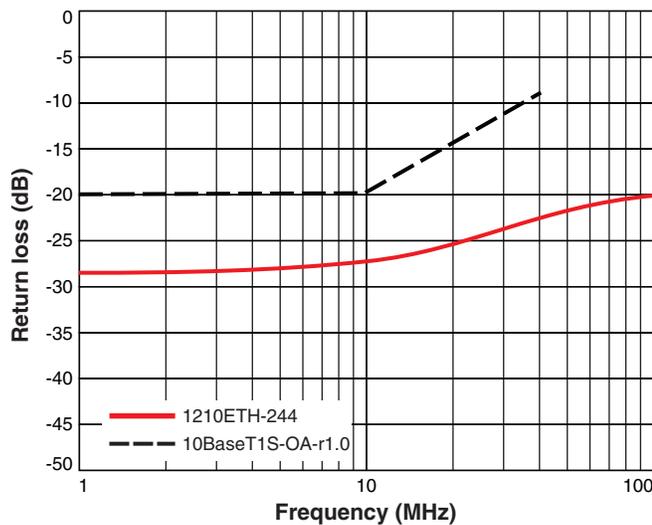
Common mode rejection (Scc21)



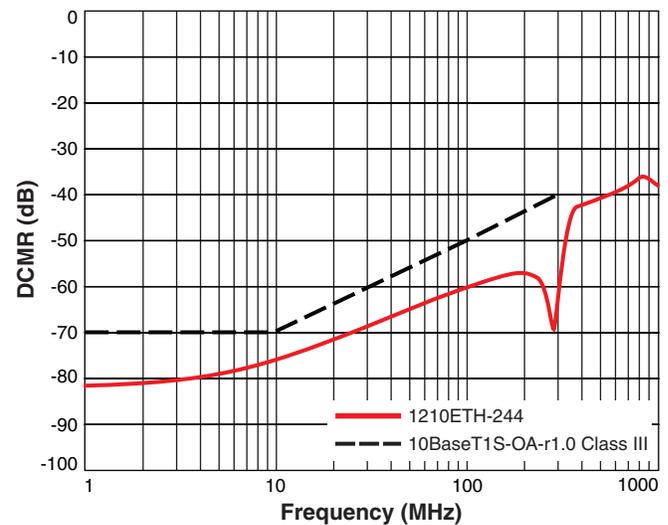
Insertion loss (Sdd21)



Return loss (Sdd11)



Differential to Common Mode Rejection (Ssd21)



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